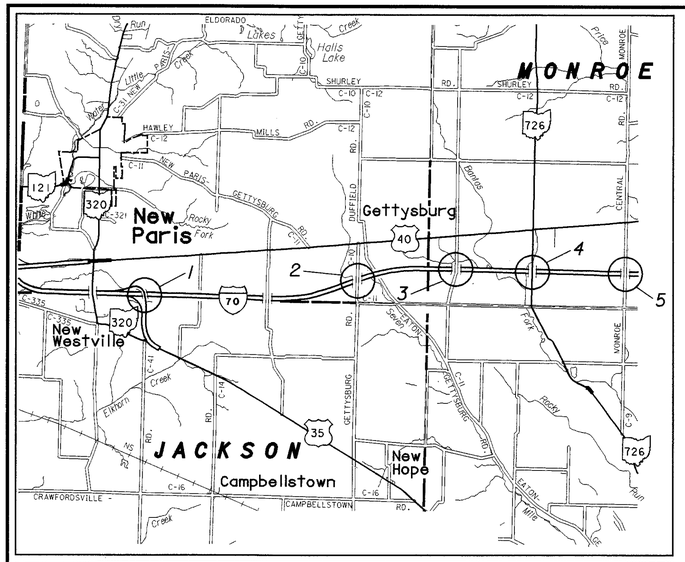

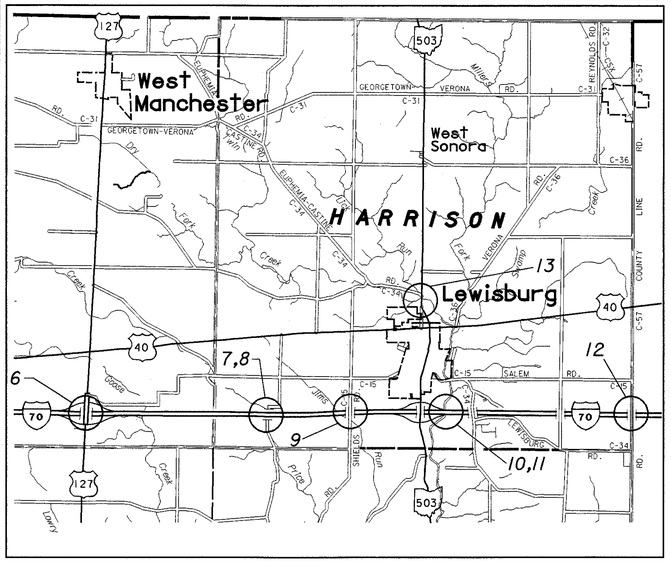

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SCALE OF KILOMETERS

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STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

PRE-IR70-02.946

PREBLE COUNTY

PART	COUNTY	BRIDGE NO.	INTERSECTED FEATURE
1	PRE	PRE-35-2.832L	I-70
2	PRE	PRE-70-7.870	OXFORD-GETTYSBURG RD
3	PRE	PRE-70-10.171	PENCE-SHEWMAN RD
4	PRE	PRE-726-6.888	I-70
5	PRE	PRE-70-14.033	MONROE CENTRAL RD
6	PRE	PRE-127-30.755	I-70
7	PRE	PRE-70-20.101L	PRICE RD/PRICE CREEK
8	PRE	PRE-70-20.101R	PRICE RD/PRICE CREEK
9	PRE	PRE-70-21.984	SHIELDS RD
10	PRE	PRE-70-24.140L	TWIN CREEK
11	PRE	PRE-70-24.140R	TWIN CREEK
12	PRE	PRE-70-28.421	COUNTY LINE RD
13	PRE	PRE-503-34.134	TWIN CREEK

metric units

PROJECT DESCRIPTION

BRIDGE PAINTING AND OTHER VARIOUS MAINTENANCE WORK INCLUDING SCUPPER EXTENSIONS, CONCRETE SEALING, RESETTING BEARINGS AND SEALING WEARING SURFACES. ALSO, REPLACEMENT OF RIGHT REAR APPROACH SLAB ON BRIDGE NO. PRE-70-20.101.

1997 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 NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

FEDERAL PROJECT NO. TZ21-G990(223)

P.I.D. NO. 18899

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

PRE-IR70-02.946

1 / 18

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

PLAN PREPARED BY:

OHIO DEPARTMENT OF TRANSPORTATION
DIST. 8 BRIDGE PRODUCTION

ENGINEERS SEAL:

STATE OF OHIO SCOTT D. CAMPBELL E-55888 REGISTERED PROFESSIONAL ENGINEER

SIGNED: Scott D. Campbell
DATE: 12-29-98

STANDARD CONSTRUCTION DRAWINGS

AS-1-81M	10-25-94
MT-35.10M	1-30-95
MT-35.11M	1-30-95
MT-95.30M	4-25-94
MT-95.40M	4-25-94
MT-97.10M	4-25-94
MT-98.14M	6-24-93
MT-98.15M	6-24-93
MT-105.10M	4-25-94
MT-105.11M	4-25-94
TC-41.20M	7-1-94

SUPPLEMENTAL SPECIFICATIONS

806	9-9-97
815	5-30-96
910	7-28-98

SPECIAL PROVISIONS

APPROVED Michael C. Flynn
DATE 12/29/98 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE 1-6-99 DIRECTOR, DEPARTMENT OF TRANSPORTATION

PRE-IR 70-2.946
990212
DIST 08

PID# 18899
04-14-99

29-DEC-1998 07:59 etucker
e:\eht\bridge\pre35var\dgn's\title.dgn

Reference shall be made to Standard Drawings:

AS-1-81M	10-25-94	MT-98.15M	6-24-93
MT-95.30M	4-25-94	MT-105.10M	4-25-94
MT-95.40M	4-25-94	MT-105.11M	4-25-94
MT-97.10M	4-25-94	TC-41.20M	7-1-94
MT-98.14M	6-24-93		

and Supplemental Specifications:

806	9-9-97
815	5-30-96
910	7-28-98

PROPOSED WORK:

Proposed work shall be as follows for Parts 2, 3, 4, 5, 6, 7:

1) Reset abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

Proposed work shall be as follows for Part 1:

1) Extend scuppers so that outlet is 200mm below bottom flange.
2) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
3) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).
4) Seal concrete deck with Gravity-fed Resin.

Proposed work shall be as follows for Part 8:

1) Reset abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
2) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
3) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).
4) Replace rear approach slab.

Proposed work shall be as follows for Parts 9 and 12:

1) Extend scuppers so that outlet is 200mm below bottom flange.
2) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
3) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

Proposed work shall be as follows for Parts 10 and 11:

1) Refurbish abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

Proposed work shall be as follows for Part 13:

1) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).

Note for all Parts: Paint color shall not be changed without written authorization from the District Structure Maintenance Engineer.

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structures have been obtained from plans of the existing structure and from field observations and measurements. Consequently, they are indicative of the existing structures and the proposed work but they shall be considered tentative and approximate. The Contractor is referred to CMS sections 102.05, 105.02, and 513.02.

Contract bid prices shall be based upon a recognition of the uncertainties described above and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field. Plans of the existing bridges are available for reference at the ODOT District 8 Headquarters in Lebanon, Ohio or at the Bureau of Bridges and Structural Design in Columbus, Ohio.

ITEM 614 - MAINTAINING TRAFFIC

It is the intention to perform the required work with the least inconvenience to and the maximum safety of the Contractor and the traveling public. Any variances from these maintenance of traffic notes must be approved in advance by the Director except as modified below or as shown in the maintenance of traffic plans. The requirements for maintaining traffic as indicated in the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, current edition with latest revisions, and pertinent items of the specifications and proposal shall apply.

The Contractor shall arrange his operations so as to prevent any interference to the continuous flow of traffic. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement. Vehicles and equipment shall not park or stop except within designated work areas, and shall enter and leave work areas in a manner which will not be hazardous to, or interfere with the normal traffic flow. Personal vehicles will not be permitted to park within the Right-of-Way except in specific areas designated by the Engineer.

The use of berms to maintain traffic is prohibited unless otherwise approved by the Engineer or as shown in the plans. Should any existing berm areas become damaged or destroyed due to the Contractor's negligence or failure to provide adequate signs, barricades, flagger, or other traffic control devices, the restoration of the berms will be at the Contractor's expense. A "Road Construction Ahead" sign (OW-128) shall be placed on all ramps approaching the work area for any affected parts. There shall be available on the job, at all times, eight (8) special black and orange "Watch for Stopped Traffic" signs (OW-166 1220x1220) with Type A flashing warning lights on top. There shall be two for each direction of traffic and four spares. These signs shall be mounted on a portable barricade and are to be used in the event that traffic backs up. They shall be located approximately 400 meters in advance of the backup and will be moved back as the backup increases.

For Parts 7 and 8, the contractor shall maintain a minimum of one lane on Price Road while painting the bridge over the roadway. The contractor shall use the traffic control shown on Std. Construction Drawing MT97.10M. The use of a temporary traffic signal will not be permitted. The contractor shall repair the shoulder using Item 410, Traffic Compacted Surface, As Per Plan per the direction of the Project Engineer. An estimated quantity of 20 Cu. M. has been carried to the General Summary to be used as directed by the Engineer.

For Parts 10 and 11, the contractor shall use an outside shoulder closure on I-70 for the work per Plate C-12 of the OMUTCD. In addition an estimated quantity of 100 meters Portable Concrete Barrier has been provided in the plans for protection of the workers and equipment.

The Contractor will be required to provide, erect, maintain (in proper position, keep clean and legible, and good working condition) and remove lights, signs, barricades, cones and all other traffic control devices necessary for the maintenance of traffic, including regulatory signs and pavement markings. All signs that are to convey their messages during the hours of darkness shall be reflectorized or illuminated. All signs shall be post mounted, unless otherwise directed by the Engineer. Placement of all traffic control devices shall start and proceed in the direction of the flow of traffic. Removal of traffic control devices shall start at the end of the construction area and proceed toward oncoming traffic. The Contractor shall provide for the installation of all necessary traffic control devices before beginning work and then immediate removal as soon as work is suspended or completed. One 3300 lane of traffic per direction shall be maintained at all times. (See Holiday note below).

In any instance where either the acceleration lane or the deceleration lane is shortened or obstructed due to work and/or standard lane closures, such work shall be completed "as soon as possible" so as to permit the lane closures to be moved to a location where said acceleration or deceleration lanes are no longer shortened.

No lane restrictions will be permitted during the following periods: When a holiday (Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas, New Year and the Indianapolis 500 race and time trials) is on:
A) Monday or Tuesday: from 12 noon on Friday before until 12 noon the following day.
B) Wednesday: from 12 noon on the day before until 12 noon on the following day.
C) Thursday and Friday: from 12 noon on the day before until 12 noon on the Monday following.
D) Saturday and Sunday: From 12 noon on Friday to 12 noon on Monday.

No extensions of time shall be granted for delays in material deliveries, unless such delays are industry-wide, or for labor strikes, unless such strikes are area-wide.

Should the contractor fail to meet any of these requirements, the contractor shall be assessed liquidated damages in the amount of $3000 per day.

A quantity of Item 614 Temporary Edge Line, Class 1, 740.06 Type 1 is added to the summary for lane closure tapers.

COOPERATION BETWEEN CONTRACTORS

The bidders will be expected to review and comply with the provisions of 105.07 of the Construction and Materials Specifications. In addition to the requirements of the Contractors working within a project to coordinate work, the specification is expanded to include that the Contractor coordinate work and/or traffic control with adjacent ODOT projects.

PAINT MANUFACTURER'S REPRESENTATIVE

The contractor shall arrange to have a technical representative of the coating manufacturer on site during the initial application of each coat. The representative shall provide advice on mixing, equipment suitability, and application, to the Contractor and Engineer. The representative shall remain at the job site until such time as he and the Engineer agree that the contractor is qualified in all aspects of the application of the coatings. All cost associated with providing the technical representative, as specified above, shall be included in the bid price per square foot for each of the three Item 815 coating applications, Prime Coat, Intermediate Coat, and Finish Coat.

FINISH COAT INSPECTION AND CORRECTION

In addition to the requirements of Supplemental Specification 815, the following time limitation shall govern the inspection and correction of the finish coat. Upon completion of QCP #9 (Finish Coat Application), final mil readings shall be taken, and all defects shall be repaired in any work area within ten (10) days of the application of the finish coat. A work area shall be as agreed to by the Contractor and the Engineer. Failure to comply with this note shall be justification for suspension of work at other areas until such work is completed. This review does not constitute final acceptance of the area. Final review (QCP #10) and acceptance will not be made until work is completed on the entire structure.

ITEM 518 - SCUPPER MODIFICATION

This item of work shall consist of modifying the scuppers in accordance with details shown in these plans. Downspout extensions shall be 10 mm thick galvanized steel pipe. The actual length of each extension depends on the deterioration of the existing downspout as determined by the Engineer. The Contractor shall remove the deteriorated section by flame cutting and grinding the surface smooth to accomodate the new section. Joint connections shall be welded as required by 513.17. Any damaged areas resulting from this welding are to be coated with zinc rich paint. Galvanizing is to be in accordance with 711.02. Scuppers shall be cleared of all debris. All work associated with scupper modification shall be completed prior to painting the structure. Payment for the above work shall be included in the contract bid price for Item 518 - Scupper Lengthening which shall include all materials, labor, tools, and incidentals necessary to complete the item.

ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN

This item of work shall include removal of the existing backwall down to the approach slab seat. Care shall be taken during removal not to damage reinforcing steel that is to remain or existing end finishes including end dam cheese plates. Reinforcing steel or end dam finishes damaged by the Contractor during removal operations shall be replaced at no additional cost to the State. Payment for this work shall be included in the contract bid price for Item 202 Approach Slab Removed, As Per Plan.

ITEM 304 - AGGREGATE BASE, AS PER PLAN

This item of work shall include the excavation of existing base material and any other work necessary to place the proposed 150mm of 304 Aggregate Base.

CALCULATED | CHECKED

GENERAL NOTES

PRE-IR70-02.946

ITEM 516 - RESET BEARING DEVICES

This item shall include all work necessary to properly align bridge bearings. Included shall be replacement of any damaged sheet lead (711.19), installation of any necessary steel shims of the same size as the bearings to provide a snug fit, realignment of the upper bearing plate by removing existing welds and rewelding so that the bearings are vertically aligned at 60 degrees F and lubricating sliding surfaces, and reassembly of the bearings. Note realignment of the bearing by moving the cover plate as opposed to the upper bearing plate is unacceptable. The Contractor shall be sure that all bearings are shimmed adequately and that no beams and/or bearing devices are "floating". All work shall be to the satisfaction of the Engineer. All work shall be completed prior to painting the structure. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 - Reset Bearing Devices.

ITEM 516 - REFURBISH BEARING DEVICES, AS PER PLAN

This item shall include all work necessary to properly align bridge bearings as well as their cleaning and painting. Included shall be the disassembly of the bearings, hand tool cleaning (grinding if necessary), replacement of any damaged sheet lead (711.19), installation of any necessary steel shims of the same size as the bearings to provide a snug fit, realignment of the upper bearing plate by removing existing welds and rewelding so that the bearings are vertically aligned at 60 degrees F, lubricating sliding surfaces, and reassembly of the bearings. Note realignment of the bearing by moving the cover plate as opposed to the upper bearing plate is unacceptable. The Contractor shall be sure that all bearings are shimmed adequately and that no beams and/or bearing devices are "floating". At the option of the Contractor and at no additional cost to the State, new bearings of the same type as the existing may be installed in lieu of refurbishing the bearings. All work shall be to the satisfaction of the Engineer. All work shall be completed prior to painting the structure. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 - Refurbish Bearing Devices, As Per Plan.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:

This item shall consist of furnishing all necessary labor, materials, and equipment to raise or reposition any existing structures as necessary to complete the proposed work.

The Contractor shall be responsible for the design, installation and operation of an adequate jacking system, including any temporary or permanent supports necessary to perform the work described in the project plans. Three (3) sets of jacking plans, which include the information described in this note, shall be submitted to the director for approval at least thirty (30) days before actual work is to begin. The plans shall be prepared and stamped by a registered Professional Engineer.

The entire system including jacks shall have 20% more capacity than required based on calculated loads.

Jacks shall have a swivel load cap, a domed piston head or some other device to protect against the effects of side load on the jack.

Jacks alone shall not be used to support loads except during the actual jacking operation. Temporary supports, blocking or other methods approved by the Director shall be used.

Single acting rams with no over-travel protection system shall not be used.

Spare equipment shall be available on site for the required structure raising to proceed in the event of a breakdown. A list of spare equipment shall be provided to the engineer.

At a minimum, a jacking operation shall lift all beams at any one abutment or pier simultaneously. The only exception is the situation where the work involves replacing or rehabilitating individual bearings; no permanent shimming is required and the height of the lift shall not exceed 6mm.

Maximum differential jacking height between any adjacent substructures shall be 25mm or less.

If during the jacking operations, cracking of the concrete superstructure, separation of the concrete deck from the steel stringers, or other damage to the structure is visually observed, the jacking operation shall immediately cease and approved supports shall be installed. The Contractor shall then analyze the damage and submit a method of correction to the Engineer for approval. Any beams that separate from the deck shall be epoxy injected for the distance of the separation in accordance with the proposal note "Concrete Repair by Epoxy Injection". Cost of this epoxy injection or other required repairs shall be borne by the Contractor.

The jacking operation shall be directed by a Professional Engineer employed by the Contractor. Failure to have a Professional Engineer present shall be cause for ceasing jacking operations.

Payment shall be made at the lump sum bid price for Item 516, Jacking and Temporary Support of Superstructure, As Per Plan and shall include all necessary tools, labor, equipment and materials necessary to complete this item of work.

CALCULATED | CHECKED

GENERAL NOTES

PRE-IR70-02.946

ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
				(1) PRE-35-2.832L
SPECIAL	5126751O	771	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
SPECIAL	51273500	740	SQ METER	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
518	12900	22	EACH	SCUPPER, LENGTHENING
815	00050	1440	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1440	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1440	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1440	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	113	METER	GRINDING FLANGE EDGES
				(2) PRE-70-7.870
SPECIAL	5126751O	790	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	46700	3	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	8	EACH	SCUPPER, LENGTHENING
815	00050	1289	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1289	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1289	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1289	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	109	METER	GRINDING FLANGE EDGES
				(3) PRE-70-10.171
SPECIAL	5126751O	741	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	46700	1	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
815	00050	1110	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1110	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1110	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1110	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	103	METER	GRINDING FLANGE EDGES
				(4) PRE-726-6.888
SPECIAL	5126751O	760	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	46700	1	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
815	00050	1206	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1206	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1206	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1206	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	102	METER	GRINDING FLANGE EDGES

ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
				(5) PRE-70-14.033
SPECIAL	5126751O	737	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	46700	2	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
815	00050	1114	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1114	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1114	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1114	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	102	METER	GRINDING FLANGE EDGES
				(6) PRE-127-30.755
SPECIAL	5126751O	1012	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	45305	11	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	46700	5	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
815	00050	3033	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	3033	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	3033	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	3033	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	103	METER	GRINDING FLANGE EDGES
				(7) PRE-70-20.101L
SPECIAL	5126751O	81	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	46700	2	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	18	EACH	SCUPPER, LENGTHENING
815	00050	1352	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1352	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1352	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1352	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
				(8) PRE-70-20.101R
202	22901	59	SQ METER	APPROACH SLAB REMOVED, AS PER PLAN
301	46010	1.4	CU METER	BITUMINOUS AGGREGATE BASE, PG64-28
304	20001	8.4	CU METER	AGGREGATE BASE, AS PER PLAN
410	14001	20	CU METER	TRAFFIC COMPACTED SURFACE, AS PER PLAN
448	47020	0.4	CU METER	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22
511	51100	1.0	CU METER	CLASS C CONCRETE, MISC.: BACKWALL
SPECIAL	5126751O	96	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	46700	2	EACH	RESET BEARING
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	18	EACH	SCUPPER, LENGTHENING
611	25000	56	SQ METER	REINFORCED CONCRETE APPROACH SLAB (T=380MM)
815	00050	1352	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1352	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1352	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1352	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS

CALCULATED BJF
CHECKED

GENERAL SUMMARY

PRE-IR70-02.946

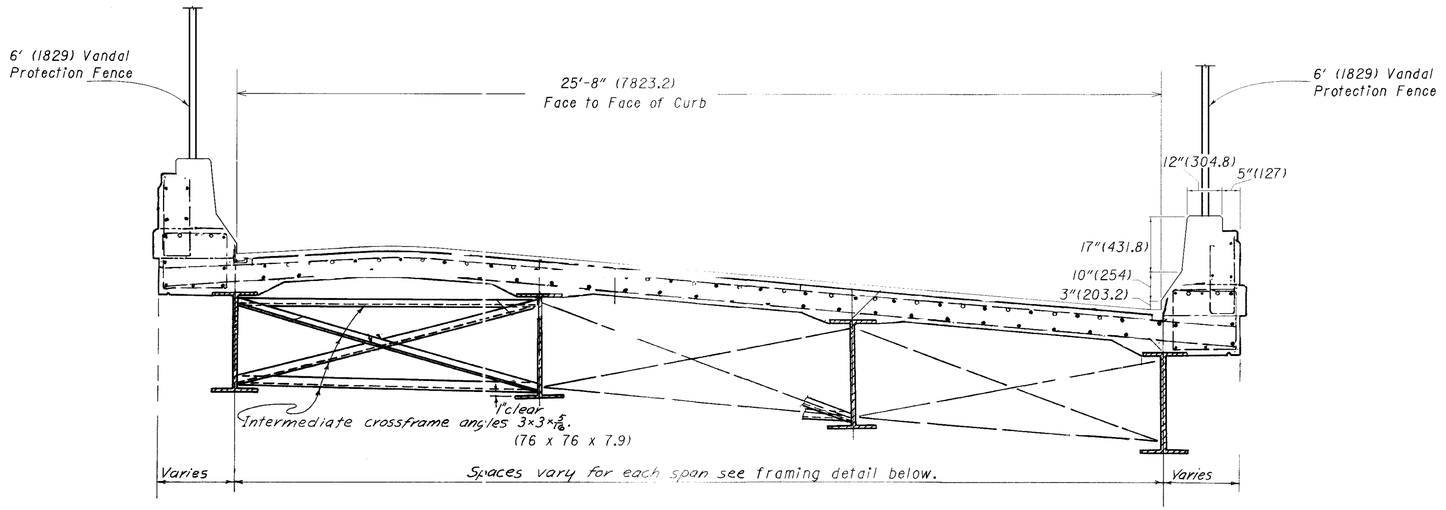
ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
				(9) PRE-70-21.984
SPECIAL	5126751O	762	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
518	12900	12	EACH	SCUPPER, LENGTHENING
815	00050	1208	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1208	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1208	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1208	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	103	METER	GRINDING FLANGE EDGES
				(10) PRE-70-24.140L
SPECIAL	5126751O	81	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	45304	5	EACH	REFURBISH BEARING DEVICE 1445
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	26	EACH	SCUPPER, LENGTHENING
815	00050	1511	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1511	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1511	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1511	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
				(11) PRE-70-24.140R
SPECIAL	5126751O	96	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) 1450
516	45304	5	EACH	REFURBISH BEARING DEVICE
516	47001	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	12900	26	EACH	SCUPPER, LENGTHENING
815	00050	1804	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1804	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1804	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1804	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
				(12) PRE-70-28.421
SPECIAL	5126751O	722	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
518	12900	12	EACH	SCUPPER, LENGTHENING 1455
815	00050	1122	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	1122	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	1122	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	1122	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
815	00508	102	METER	GRINDING FLANGE EDGES
				1460
				(13) PRE-503-34.134
815	00050	520	SQ METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
815	00056	520	SQ METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	520	SQ METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
815	00066	520	SQ METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HOUR	GRINDING FINS, TEARS, SLIVERS

ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
				MAINTAINING TRAFFIC
614	11000	LUMP	LUMP	MAINTAINING TRAFFIC
614	13300	415	EACH	BARRIER REFLECTORS, TYPE B
614	13350	400	EACH	OBJECT MARKERS
614	22200	10	KILOMETER	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I
622	40020	5800	METER	PORTABLE CONCRETE BARRIER, 813MM
624	10000	LUMP	LUMP	MOBILIZATION
806	16000	6	MNTH	FIELD OFFICE, TYPE A

CALCULATED BJF CHECKED

GENERAL SUMMARY

PRE-IR70-02.946



EXISTING TRANSVERSE DECK SECTION

Note: All horizontal dimensions are radial.

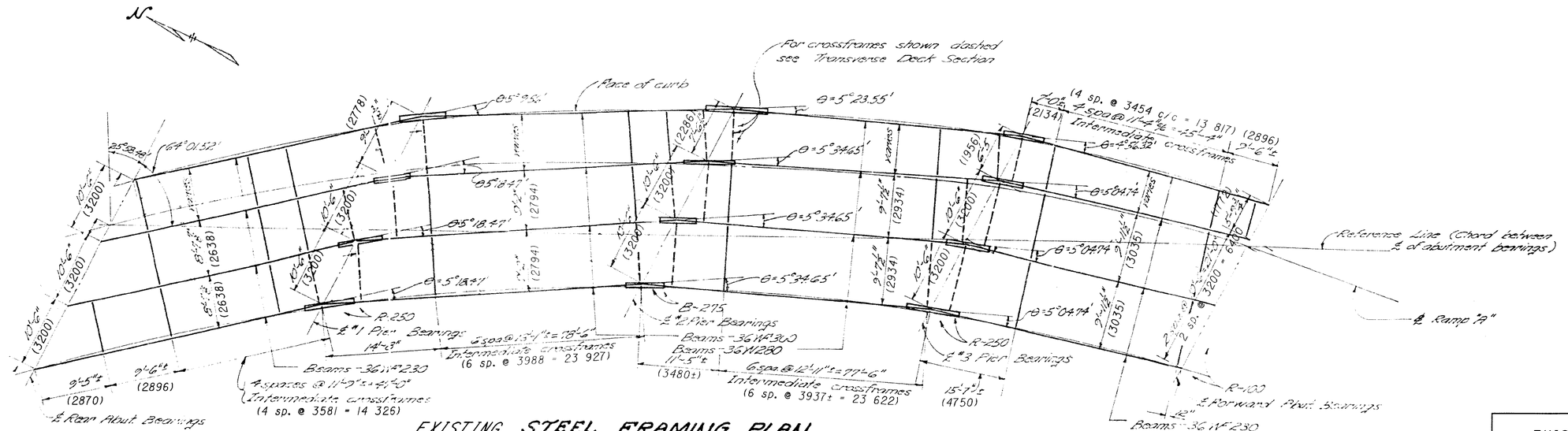
Bridge No. PRE-35-2.832L - PART 1

Proposed work shall be as follows:

1) Extend scuppers so that outlet is 200mm below bottom flange.
2) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
3) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).
4) Seal concrete deck with gravity-fed resin.

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.



EXISTING STEEL FRAMING PLAN

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 19 812, 28 285, 26 975, 18 898 c/c brgs.
ROADWAY: 7823 f/f curbs
LOAD FREQUENCY: CF=2000(57)
SKEW: 25°45'29" L.F.
ALIGNMENT: 6° R.C.

DESIGN AGENCY: DISTRICT 8 — BRIDGE PRODUCTION
DESIGNED BJF | DRAWN BJF | REVIEWED MLM | DATE
CHECKED MLM | REVISED | STRUCTURE FILE NUMBER 6800033

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-35-02832L (0176L)
(U.S. 35 RAMP OVER I.R. 70)

PRE-IR70-02.946

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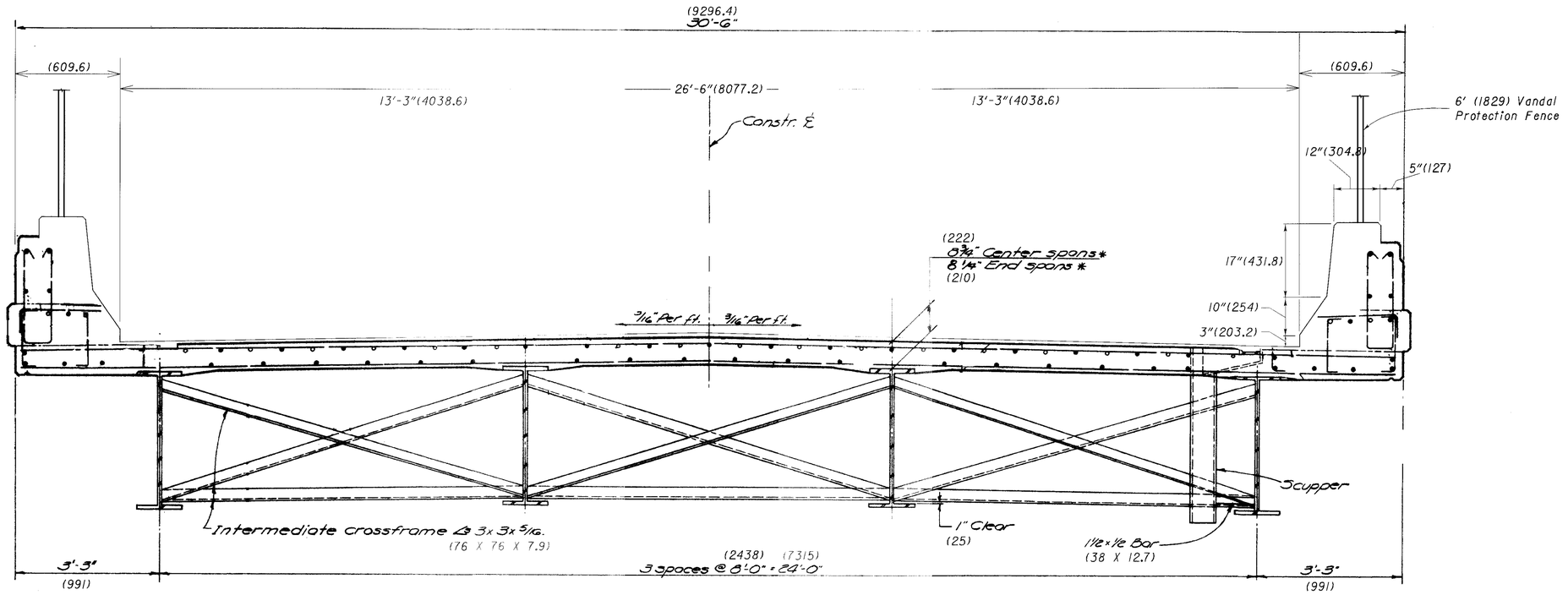
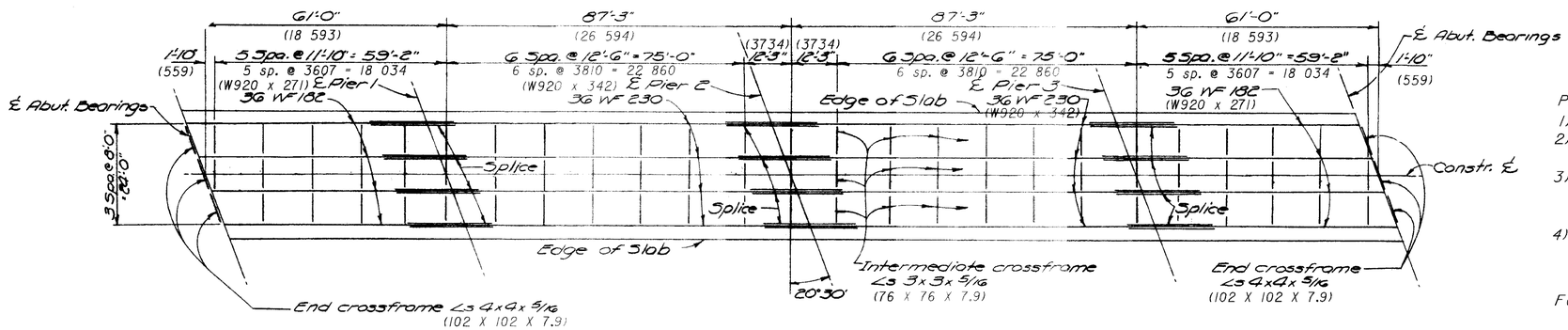


EXISTING **TYPICAL TRANSVERSE DECK SECTION**



EXISTING **OUTLINE OF STEEL FRAMING**

Proposed work shall be as follows for PART 2:

1) *Reset abutment rocker bearings.*
2) *Extend scuppers so that outlet is 200mm below bottom flange.*
3) *Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).*
4) *Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).*

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 18 593, 26 594, 26 594, 18 593 c/c brgs.
ROADWAY: 8077 f/f
LOAD FREQUENCY: CF=130(57)
SKEW: 20°30' R.F.
ALIGNMENT: Tangent

DESIGN AGENCY
DISTRICT 8
BRIDGE PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
BJF	BJF	MLM	

CHECKED	REVISED	STRUCTURE FILE NUMBER
MLM		6800874

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-0780 (0489)
(OXFORD-GETTYSBURG ROAD)

PRE-IR70-02.946

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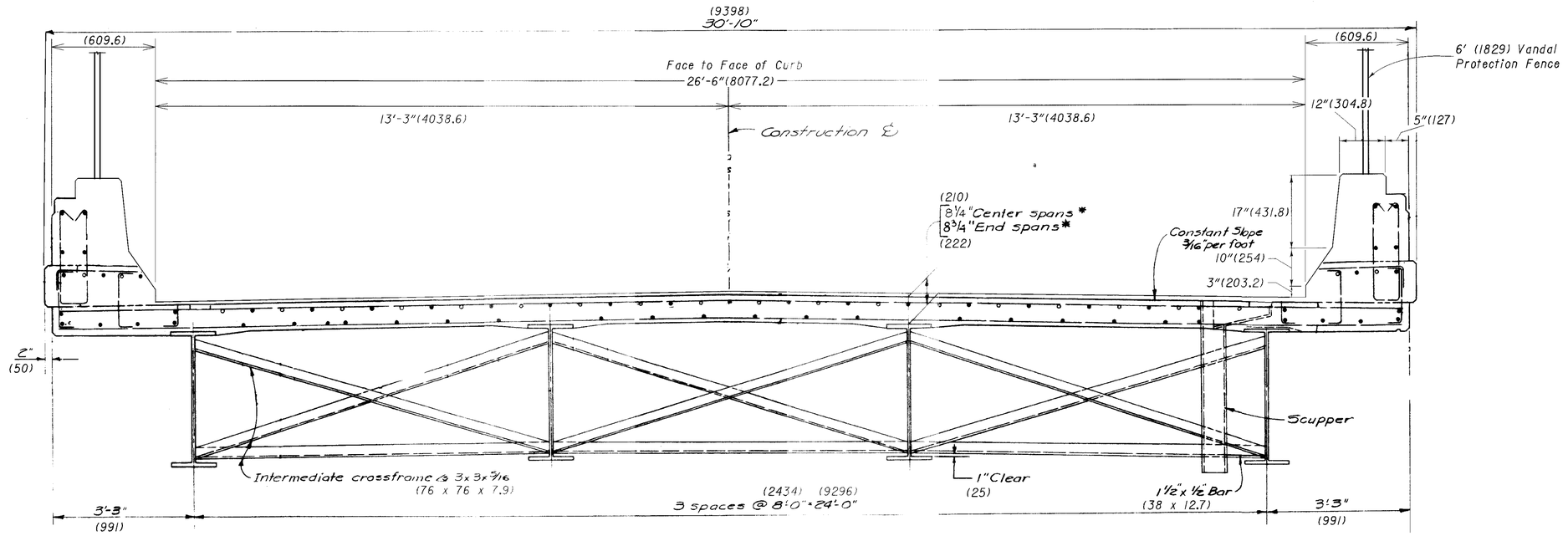
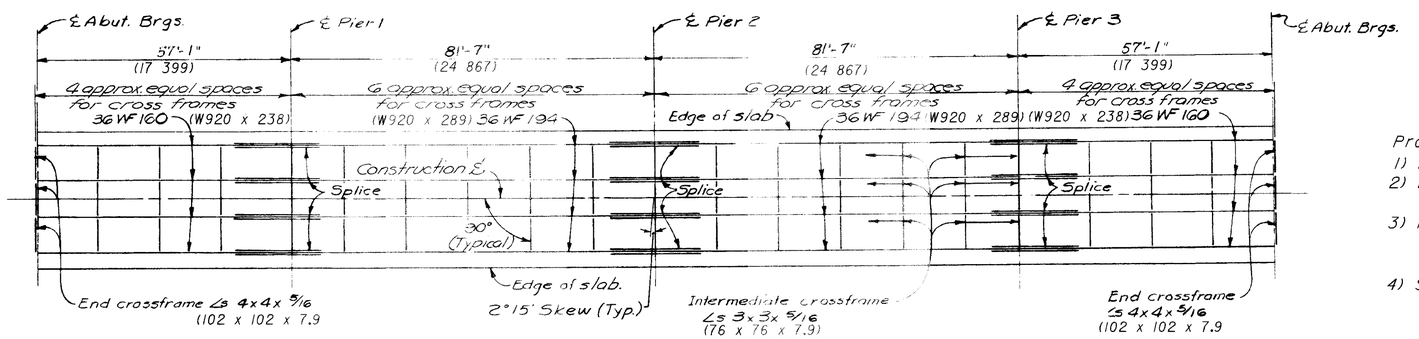


EXISTING TYPICAL TRANSVERSE DECK SECTION



EXISTING OUTLINE OF STEEL FRAMING

Proposed work shall be as follows for PART 3:

1) *Reset abutment rocker bearings.*
2) *Extend scuppers so that outlet is 200mm below bottom flange.*
3) *Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).*
4) *Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).*

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 17 399, 24 867, 24 867, 17 399 c/c brgs.
ROADWAY: 8077 f/f curb
LOAD FREQUENCY: CF=130(57)
SKEW: 2°15' R.F.
ALIGNMENT: Tangent

DESIGN AGENCY
DISTRICT 8
BRIDGE PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
BJF	BJF	MLM	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLM		680096Z	

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-10171 (0632)
(PENCE-SHEWMAN ROAD)

PRE-IR70-02.946

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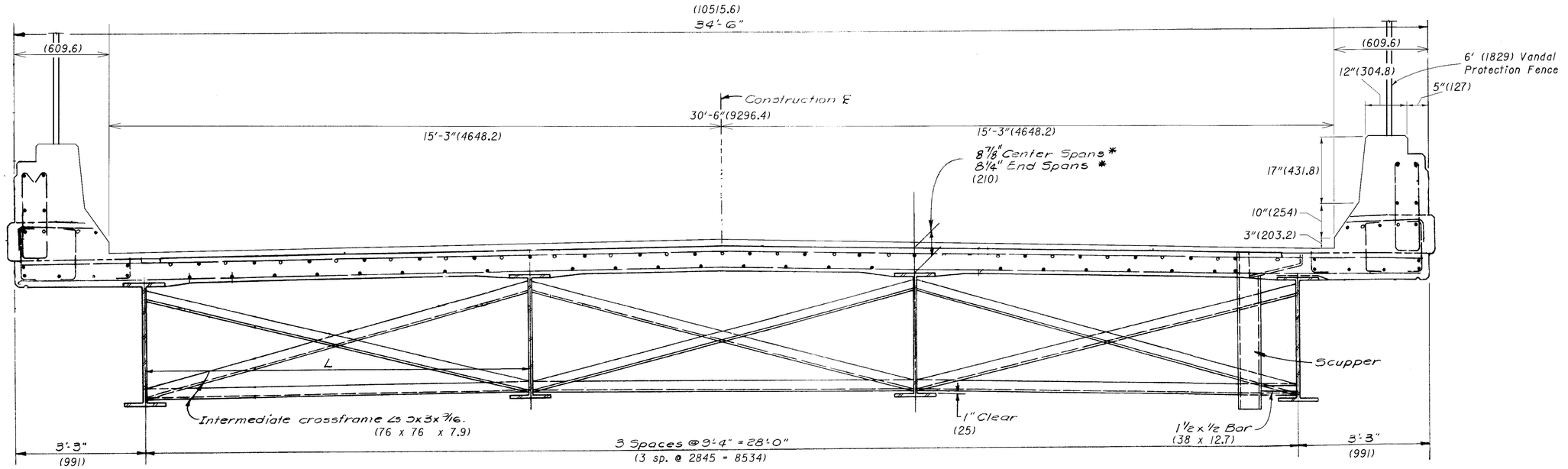
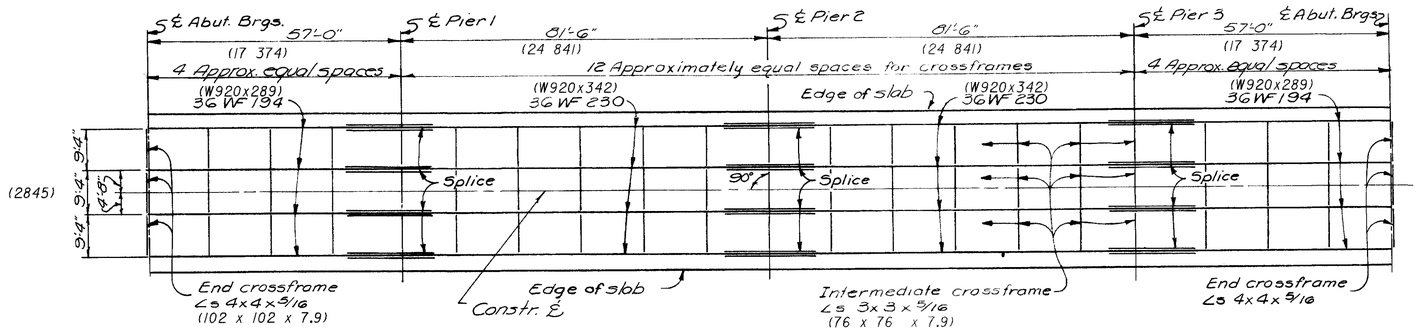


EXISTING TYPICAL TRANSVERSE DECK SECTION



EXISTING OUTLINE OF STEEL FRAMING

Proposed work shall be as follows for PART 4:

1) Reset abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 17 374, 24 841, 24 841, 17 374 c/c brgs.
ROADWAY: 9296 toe/toe parapets
LOAD FREQUENCY: CF=130(57)
SKEW: 0°
ALIGNMENT: Tangent

DESIGN AGENCY: DISTRICT 8 — BRIDGE PRODUCTION
DESIGNED: BJF | DRAWN: BJF | CHECKED: MLM | REVISED: | REVIEWED: MLM | DATE:
STRUCTURE FILE NUMBER: 6804659

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-726-06888 (0428)
(S.R. 726 OVER I.R. 70)

PRE-IR70-02.946

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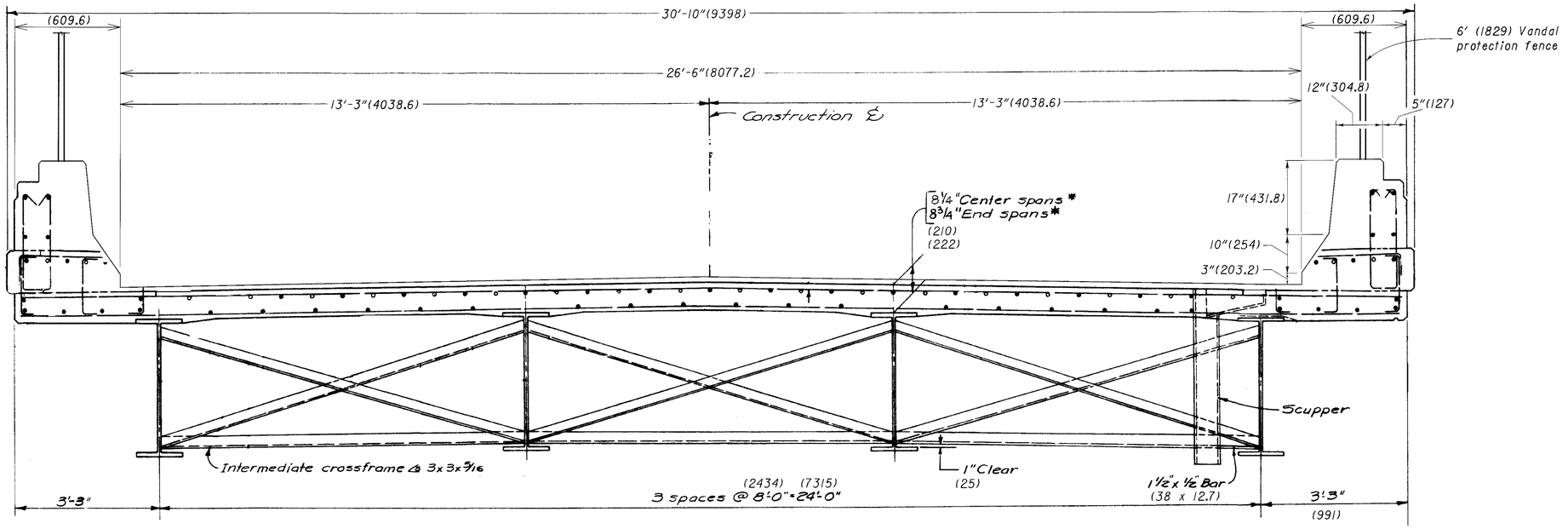
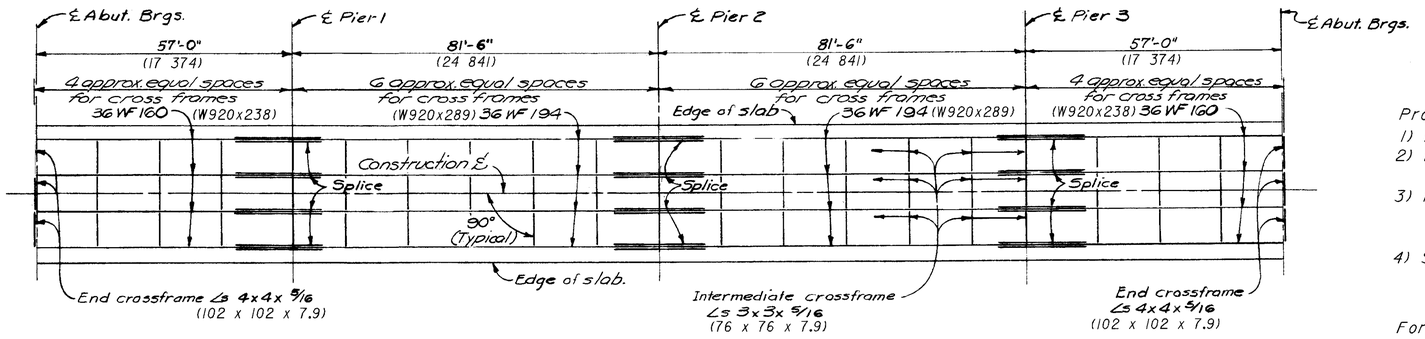


EXISTING TYPICAL TRANSVERSE DECK SECTION



EXISTING OUTLINE OF STEEL FRAMING

Proposed work shall be as follows for PART 5:

1) Reset abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 17 374, 24 841, 24 841, 17 374 c/c brgs.
ROADWAY: 8077 f/f curb
LOAD FREQUENCY: CF-130(57)
SKEW: 0°
ALIGNMENT: Tangent

DESIGN AGENCY: DISTRICT 8
BRIDGE PRODUCTION

DESIGNED BJF | DRAWN BJF | REVIEWED MLM | DATE
CHECKED MLM | REVISED | STRUCTURE FILE NUMBER 680080

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-14033 (0872)
(MONROE-CENTRAL ROAD)

PRE-IR70-02.946

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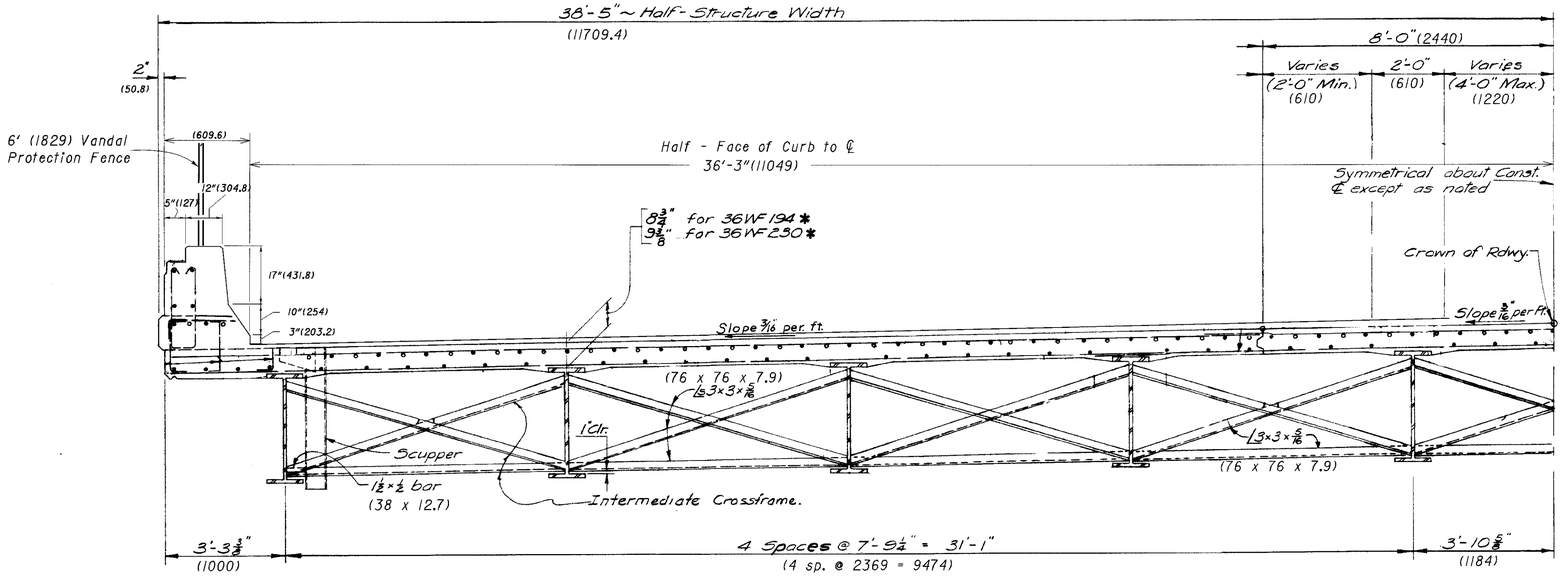
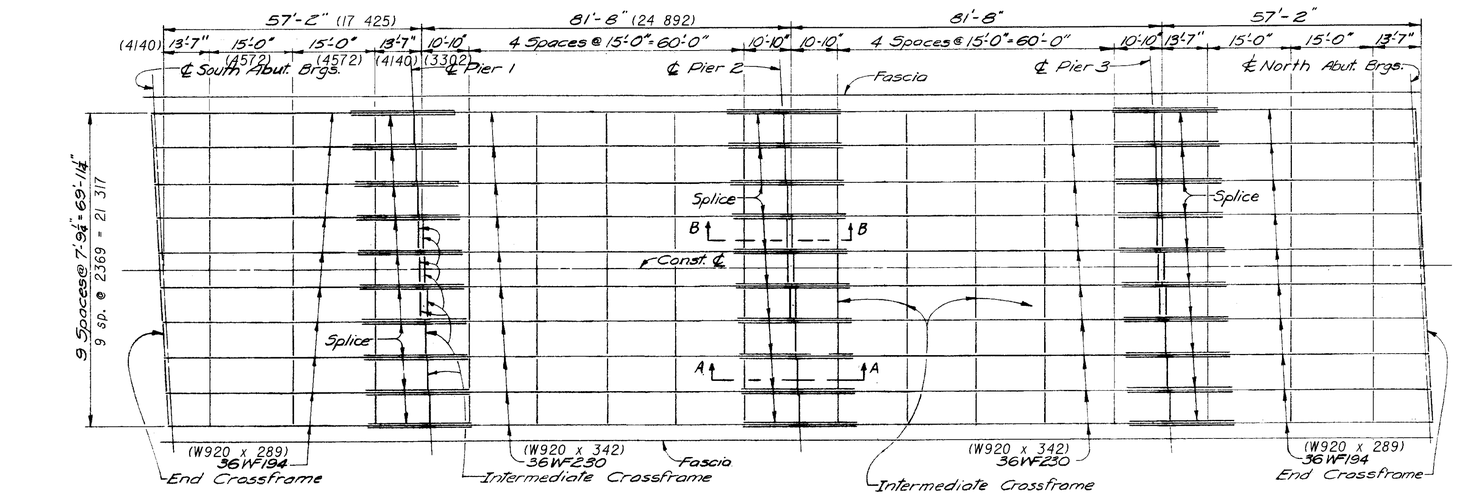


EXISTING TYPICAL TRANSVERSE DECK HALF-SECTION



EXISTING OUTLINE OF STEEL FRAMING

N

Proposed work shall be as follows for PART 6:

1) *Reset abutment rocker bearings.*
2) *Extend scuppers so that outlet is 200mm below bottom flange.*
3) *Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).*
4) *Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).*

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 17 426, 24 893, 24 893, 17 426 c/c brgs.
ROADWAY: 22 098 f/f curb
LOAD FREQUENCY: CF=400
SKEW: 2°58' R.F.
ALIGNMENT: Tangent

DESIGN AGENCY: DISTRICT 8 — BRIDGE PRODUCTION
DRAWN: BJF | REVIEWED: MLM | DATE | STRUCTURE FILE NUMBER: 6802702
DESIGNED: BJF | CHECKED: MLM | REVISED

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-I27-30755 (1911)
(U.S. 127 OVER I.R. 70)

PRE-IR70-02.946

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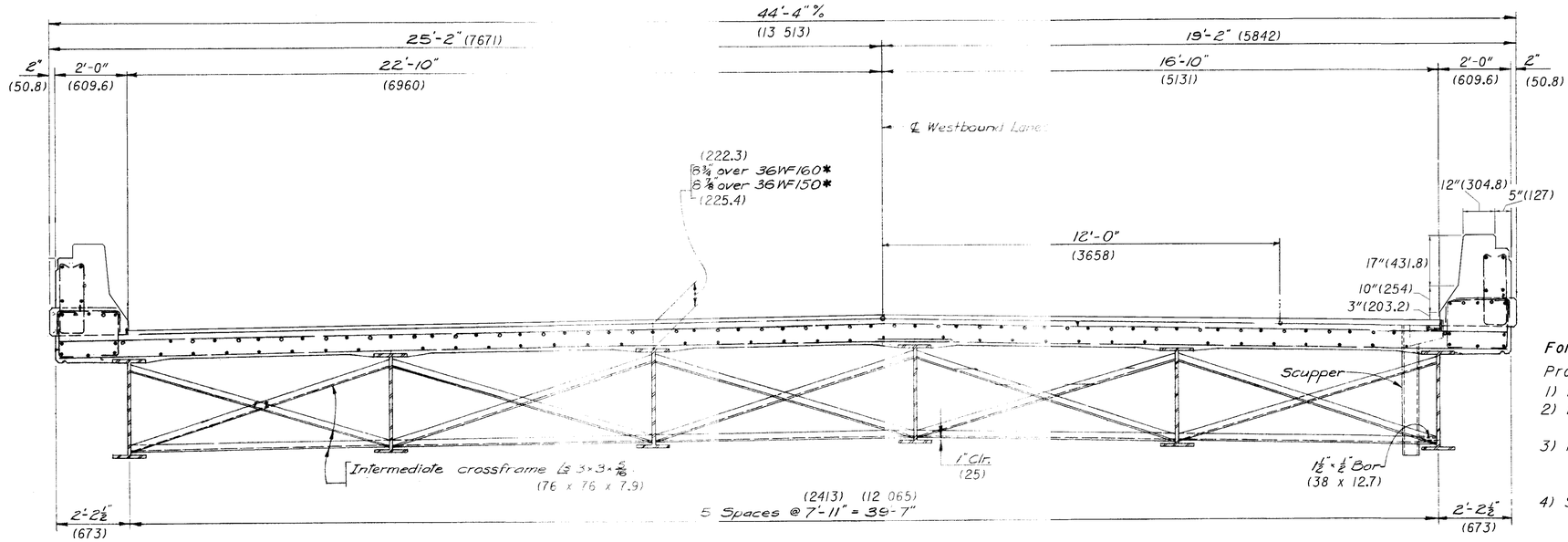


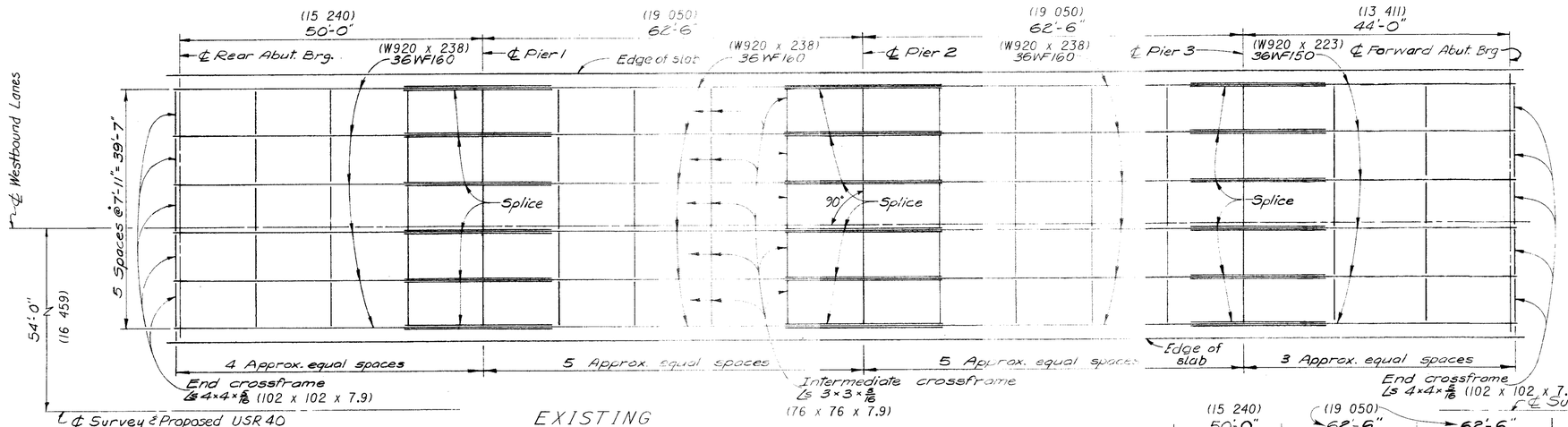
EXISTING TYPICAL TRANSVERSE DECK SECTION
Looking East at PRE-40-1250L

For Bridge no. PRE-70-20.101L - PART 7:

Proposed work shall be as follows:

1) Reset abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

For standard details, see sheet 18/18.



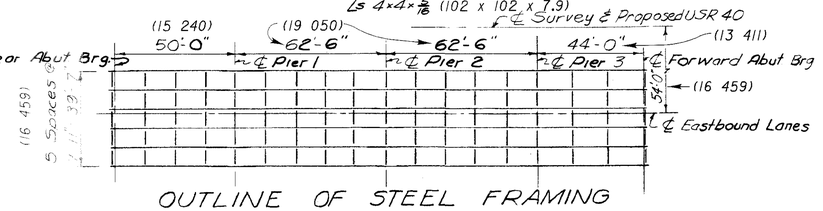
EXISTING OUTLINE OF STEEL FRAMING
(Bridge PRE-40-1250L shown)

For Bridge no. PRE-70-20.101R - PART 8:

Proposed work shall be as follows:

1) Reset abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).
5) Replace rear approach slab.

For standard details, see sheet 18/18.



OUTLINE OF STEEL FRAMING
(Bridge PRE-40-1250R shown)

EXISTING STRUCTURES DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 15 240, 19 050, 19 050, 13 411 c/c brgs.
ROADWAY: 12 090 f/f curb
LOAD FREQUENCY: CF=2000(57)
SKEW: 0°
ALIGNMENT: Tangent

DESIGN AGENCY: DISTRICT 8 BRIDGE PRODUCTION
DESIGNED: BJF
DRAWN: BJF
CHECKED: MLM
REVISED:
REVIEWED: MLM
DATE:
STRUCTURE FILE NUMBER: 680269, 680293

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-20.101 L/R (1249 L/R)
(I.R. 70 OVER PRICE CREEK AND PRICE CREEK RD.)

PRE-IR70-02.946

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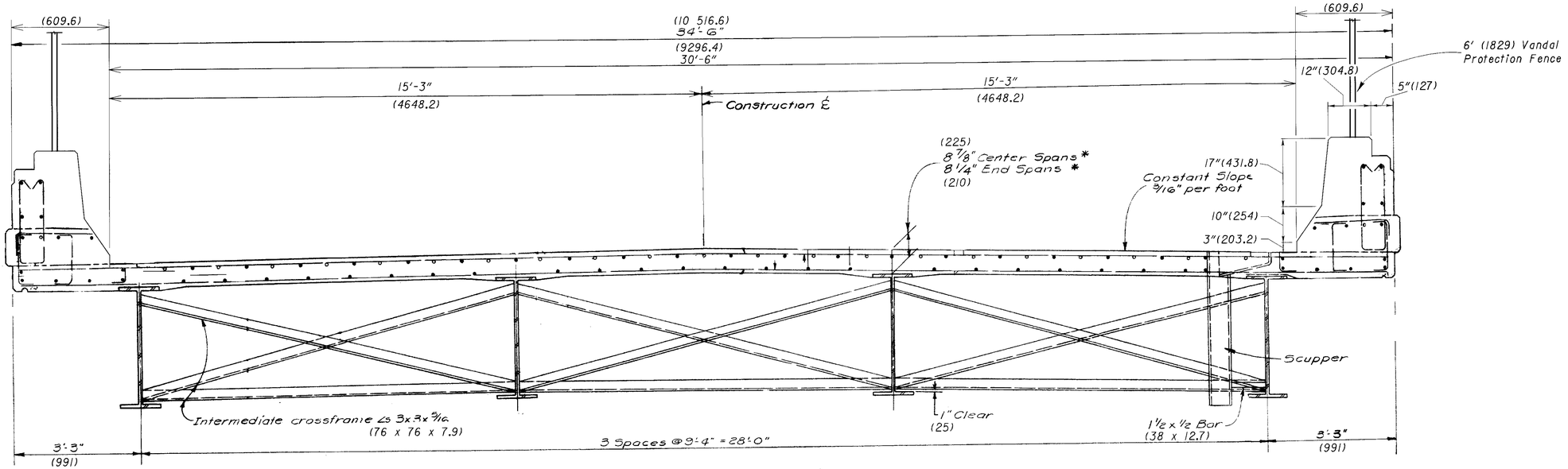
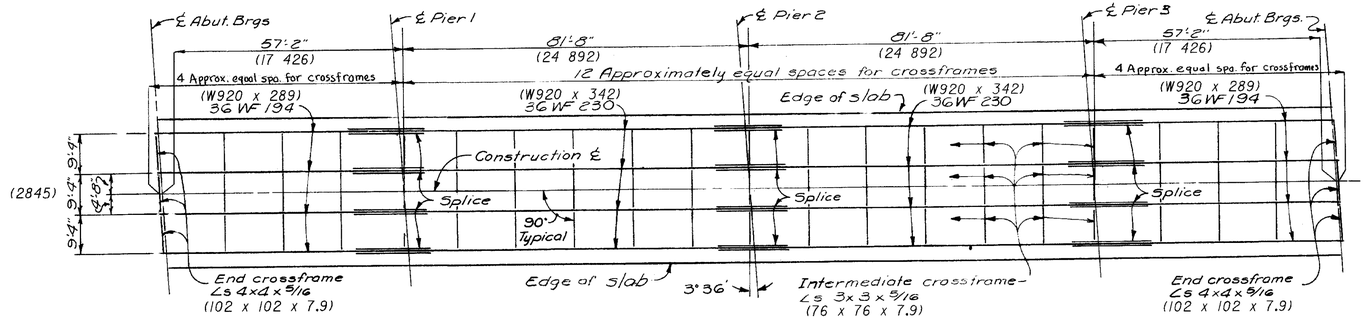


EXISTING **TYPICAL TRANSVERSE DECK SECTION**



EXISTING **OUTLINE OF STEEL FRAMING**

Proposed work shall be as follows - PART 9:

1) Extend scuppers so that outlet is 200mm below bottom flange.

2) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).

3) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 17 425, 24 892, 24 892, 17 425 c/c brgs.
ROADWAY: 9245 toe/toe parapets
LOAD FREQUENCY: CF=130(57)
SKEW: 3°36'
ALIGNMENT: Tangent

DESIGN AGENCY: DISTRICT 8 BRIDGE PRODUCTION
DESIGNED BJF | DRAWN BJF | CHECKED MLM | REVIEWED MLM | DATE | REVISED
STRUCTURE FILE NUMBER 680/382

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-2/984 (1366)
(SHIELDS ROAD)

PRE-IR70-02.946

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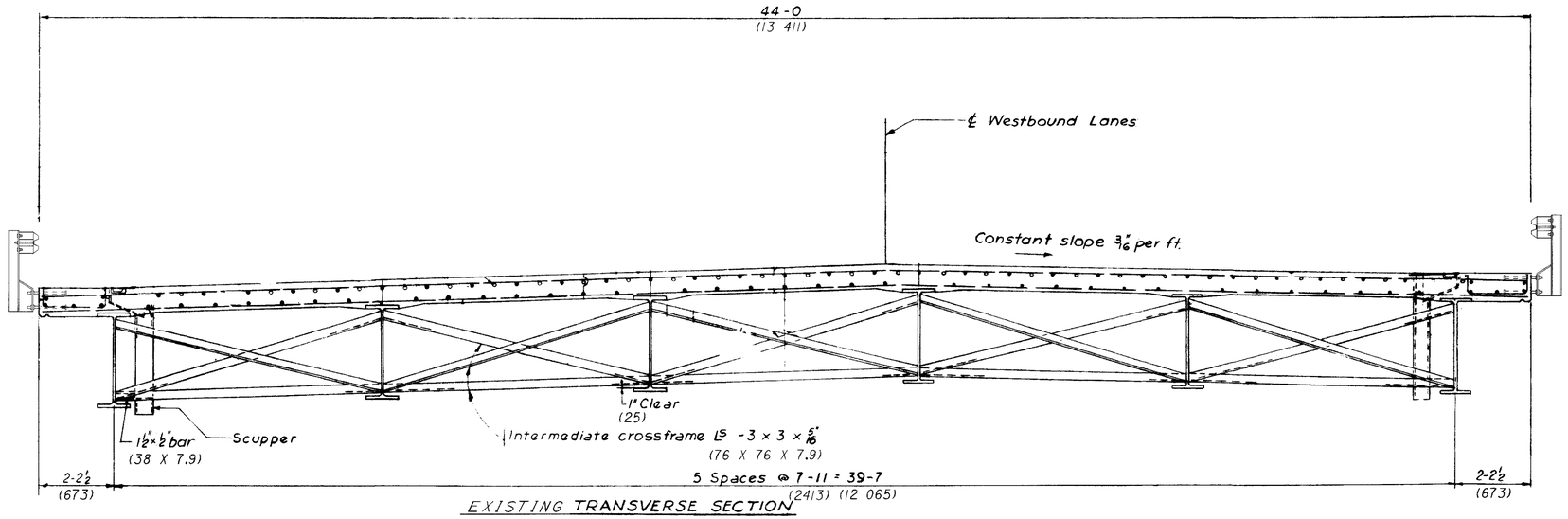
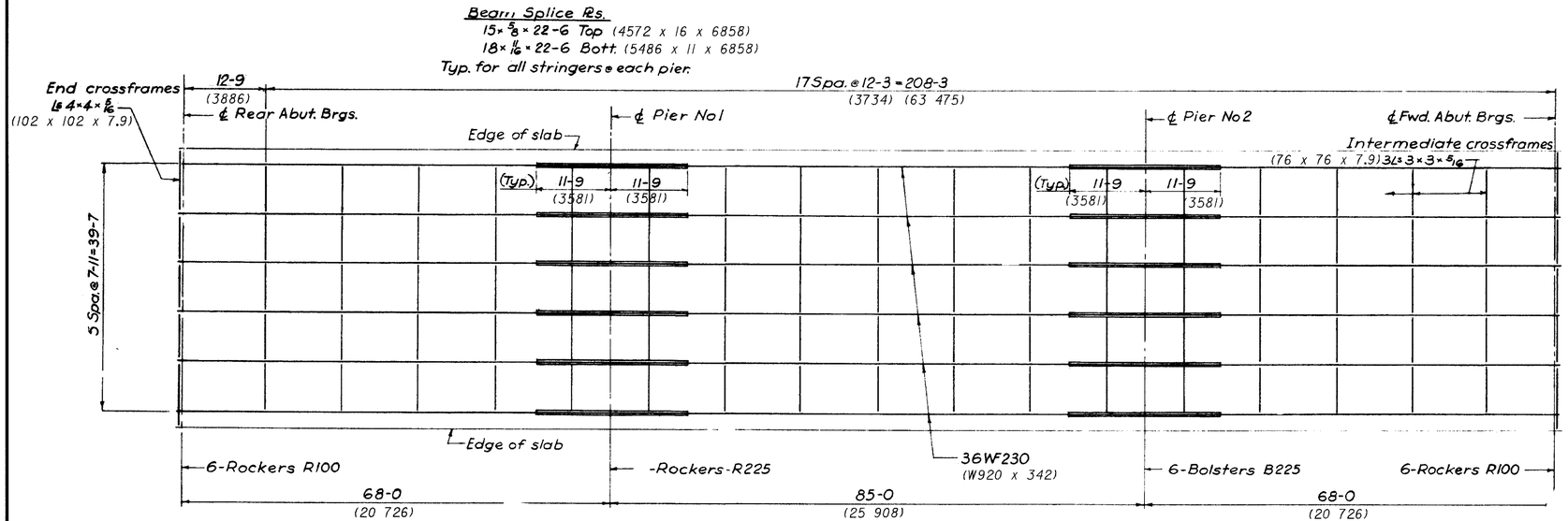


EXISTING TRANSVERSE SECTION

NOTE:
Details not shown are same as opposite side.



EXISTING STEEL FRAMING PLAN

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

Proposed work shall be as follows for PART 10:

1) Refurbish abutment rocker bearings.
2) Extend scuppers so that outlet is 200mm below bottom flange.
3) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
4) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).

For standard details, see sheet 18/18.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 20 726, 25 908, 20 726 c/c brgs.
ROADWAY: 13 411 f/f railing
LOAD FREQUENCY: CF=2000(57)
SKEW: 0°
ALIGNMENT: Tangent

DESIGN AGENCY
DISTRICT 8
BRIDGE PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
BJF	BJF	MLM	

CHECKED MLM
REVISED
STRUCTURE FILE NUMBER 680147

EXISTING STRUCTURE DETAILS

BRIDGE NO. PRE-70-24140 L (1500 L)
(I.R. 70 OVER TWIN CREEK)

PRE-IR70-02.946

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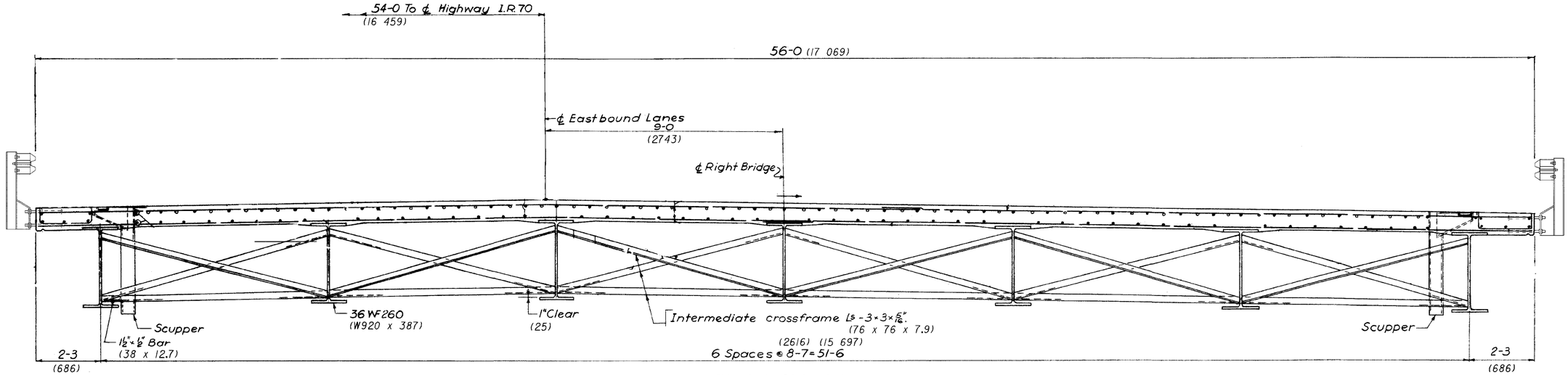
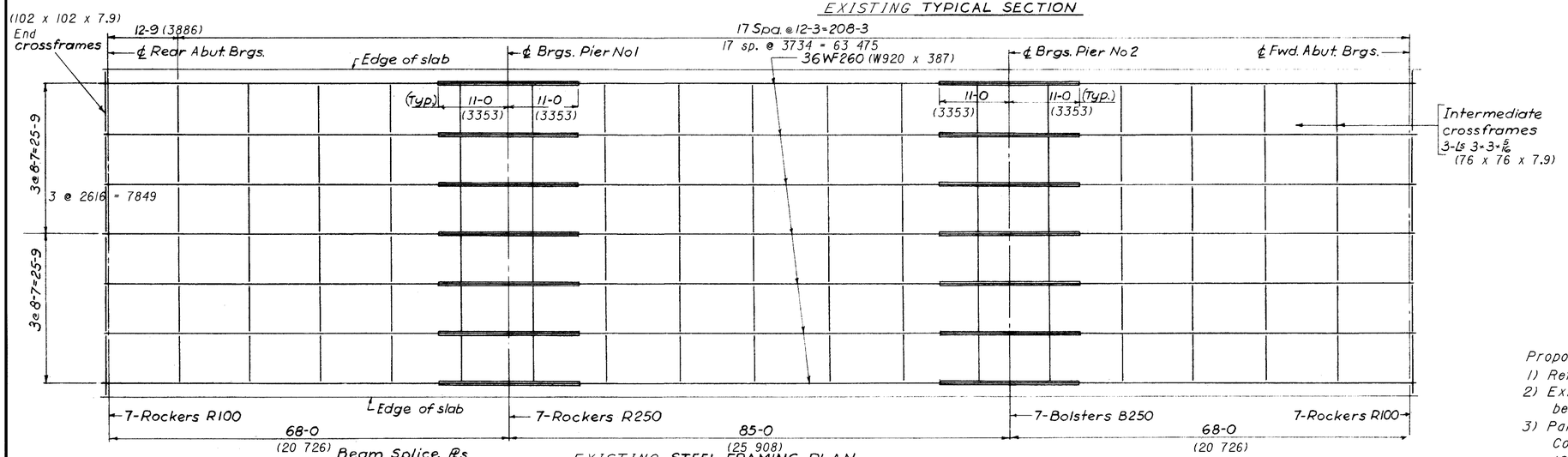


EXISTING TYPICAL SECTION



Beam Splice Pls.
15×5/8×22-0 Top
18×11/16×22-0 Bott.
Typ. for all stringers @ each pier.

EXISTING STEEL FRAMING PLAN

Proposed work shall be as follows for PART II:

1) *Refurbish abutment rocker bearings.*
2) *Extend scuppers so that outlet is 200mm below bottom flange.*
3) *Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).*
4) *Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).*

For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 20 726, 25 908, 20 726 c/c brgs.
ROADWAY: 17 069 f/f railing
LOAD FREQUENCY: CF-2000(57)
SKEW: 0°
ALIGNMENT: Tangent

DESIGN AGENCY
DISTRICT 8
BRIDGE PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
BJF	BJF	MLM	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLM		680150I	

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-24.40 R (1500 R)
(I.R. 70 OVER TWIN CREEK)

PRE-IR70-02.946

15
18

12-JAN-1999 16:35 eTucker
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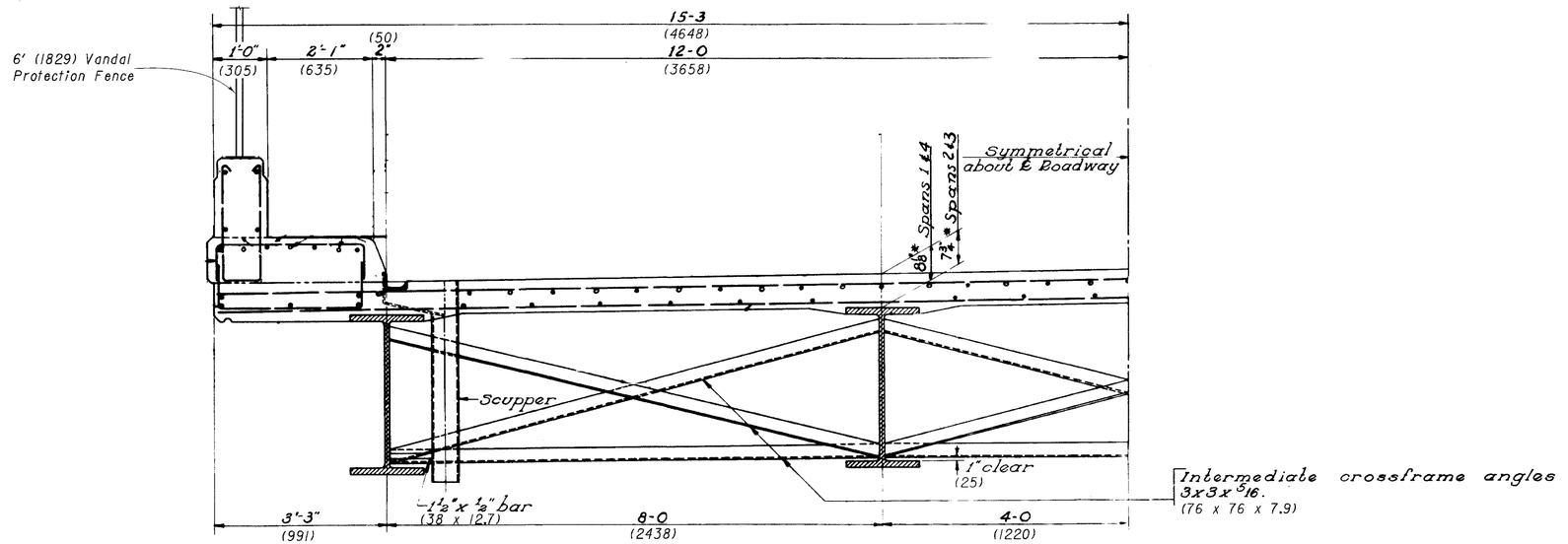
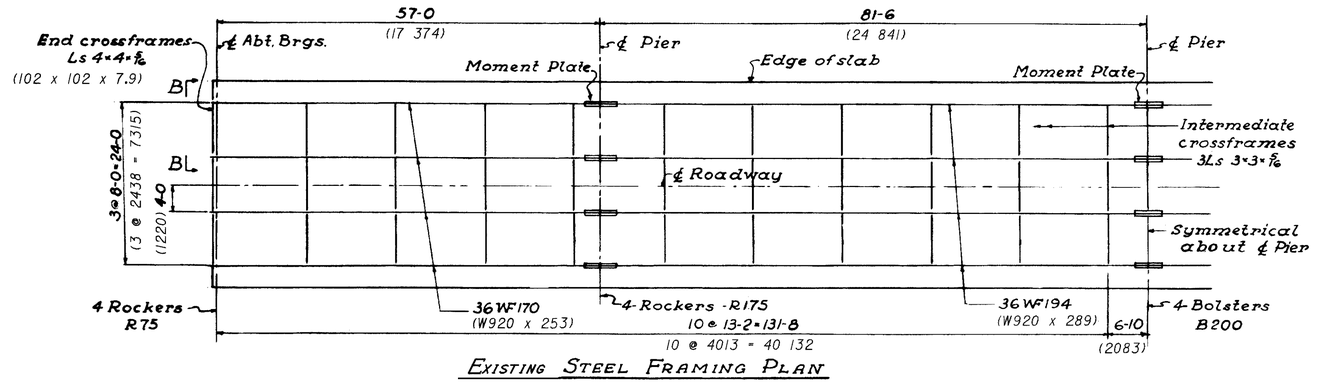
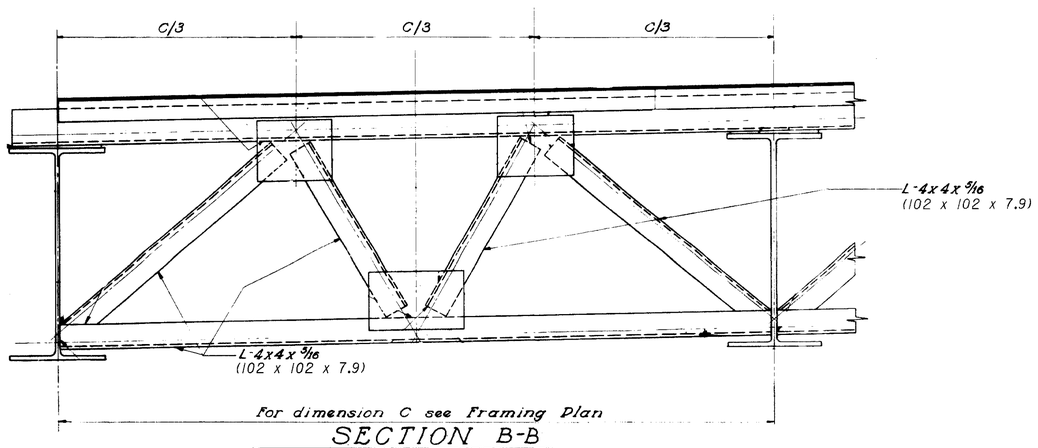


EXISTING HALF TRANSVERSE SECTION



EXISTING STEEL FRAMING PLAN



SECTION B-B

Proposed work shall be as follows for PART 12:
1) Extend scuppers so that outlet is 200mm below bottom flange.
2) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).
3) Seal concrete surfaces with epoxy-urethane. Color shall be Federal Color Standard 37722 (Buff).
For standard details, see sheet 18/18.

Note: Drawings of existing structure are scanned from the original drawing. Dimensions shown are from original construction plans and have not been field verified. Contractor is responsible for field verification of dimensions. Dimension shown in parentheses are metric conversions (millimeters) from the english dimensions.

EXISTING STRUCTURE DATA

TYPE: Continuous steel beams with reinforced conc. deck and substructure
SPANS: 17 374, 24 841, 24 841, 17 374 c/c brgs.
ROADWAY: 8026 toe/toe parapet
LOAD FREQUENCY: CF=130(57)
SKEW: 0°
ALIGNMENT: Tangent

DESIGN AGENCY: DISTRICT 8 BRIDGE PRODUCTION
DESIGNED: BJF | DRAWN: BJF | CHECKED: MLM | REVISED:
REVIEWED: MLM | DATE:
STRUCTURE FILE NUMBER: 680625

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-70-2842I (1766)
(COUNTY LINE ROAD)

PRE-IR70-02.946

16/18

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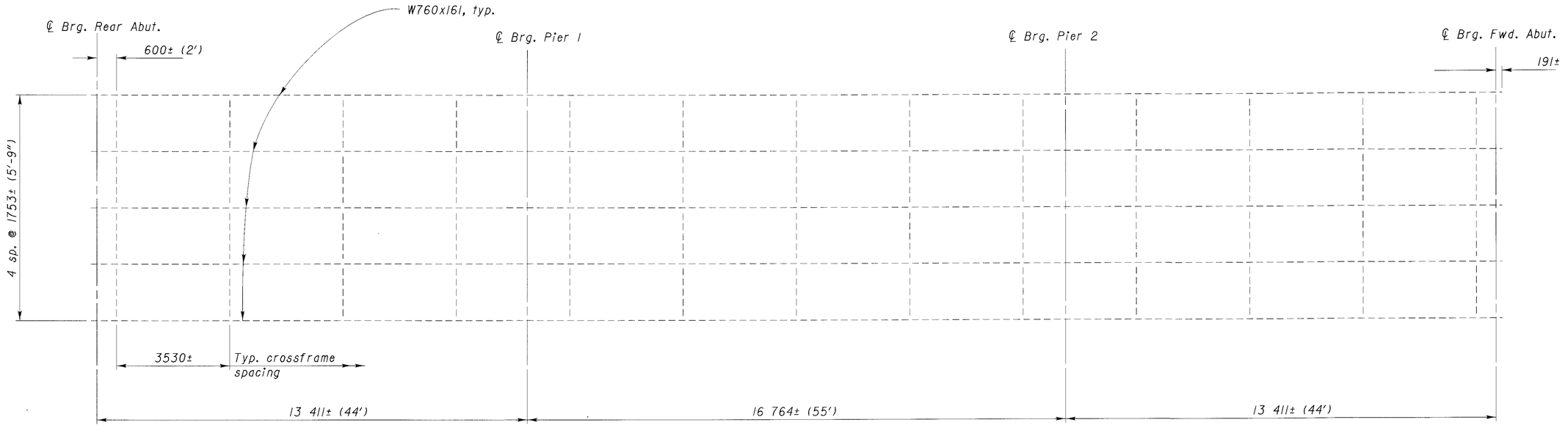
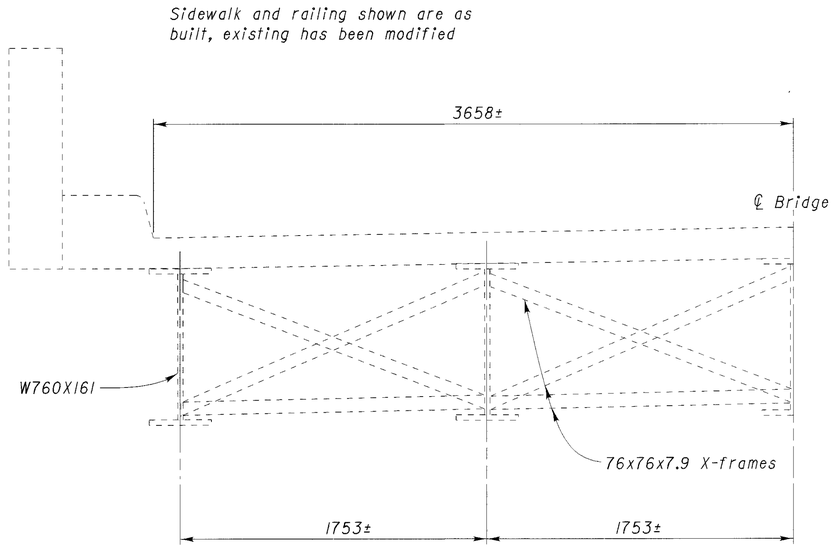


EXISTING FRAMING PLAN
PRE-503-34134 (2121)



EXISTING TRANSVERSE SECTION

Bridge No. PRE-503-34.134 - PART 13:

Proposed work shall be as follows:

1) Paint structural steel with System OZEU. Color shall be Federal Color Standard 14260 (Green).

Note: Paint color shall not be changed without written authorization from the District Structure Maintenance Engineer.

EXISTING STRUCTURE DATA
TYPE: Continuous steel beams with reinforced conc. deck and substructure SPANS: 13 411, 16 764, 13 411 c/c brgs. ROADWAY: 7315 f/f curb (as built) SKEW: None ALIGNMENT: Tangent

DESIGN AGENCY
DISTRICT 8
BRIDGE PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
BJF	BJF	MLM	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLM		6803903	

EXISTING STRUCTURE DETAILS
BRIDGE NO. PRE-503-34134 (2121)
(S.R. 503 OVER TWIN CREEK)

PRE-IR70-02.946

17
18

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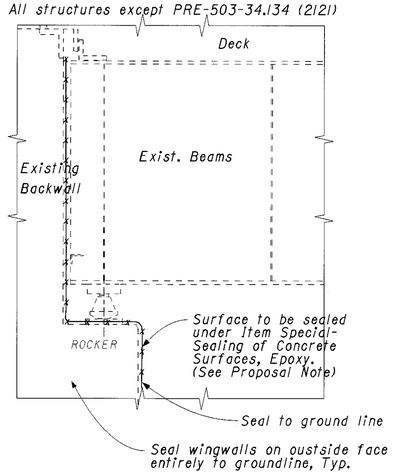
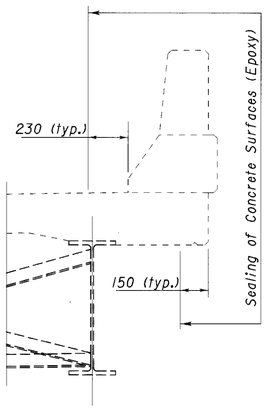
DETAIL FOR SEALING

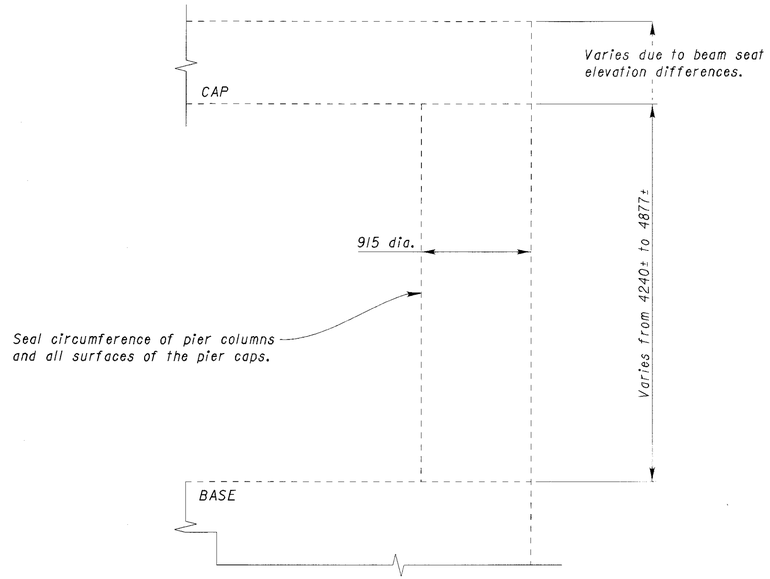
All structures except PRE-503-34.134 (2121)



DECK EDGE SEALING DETAIL

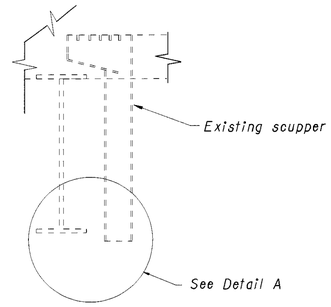
All structures except PRE-70-24.140 L/R (1500 L/R)



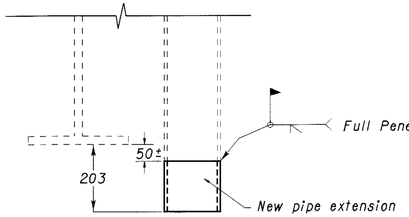


SEAL PIERS 1 AND 3 (PIER CAP AND COLUMNS)

For all structures except:
PRE-70-20.101 L/R (1249 L/R),
PRE-70-24.140 L/R (1500 L/R) and
PRE-503-34.134 (2121)



SCUPPER EXTENSION DETAIL



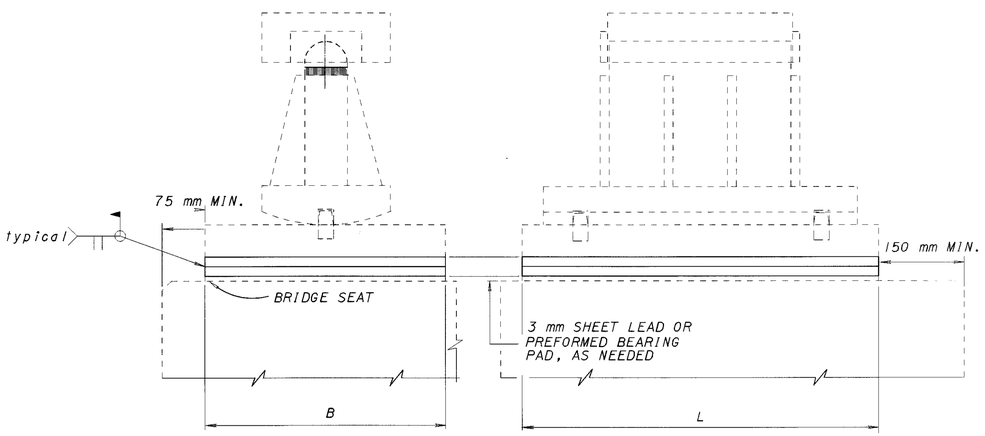
Cost of all work shall be included in the price bid per each, Item 518, Scupper Lengthening

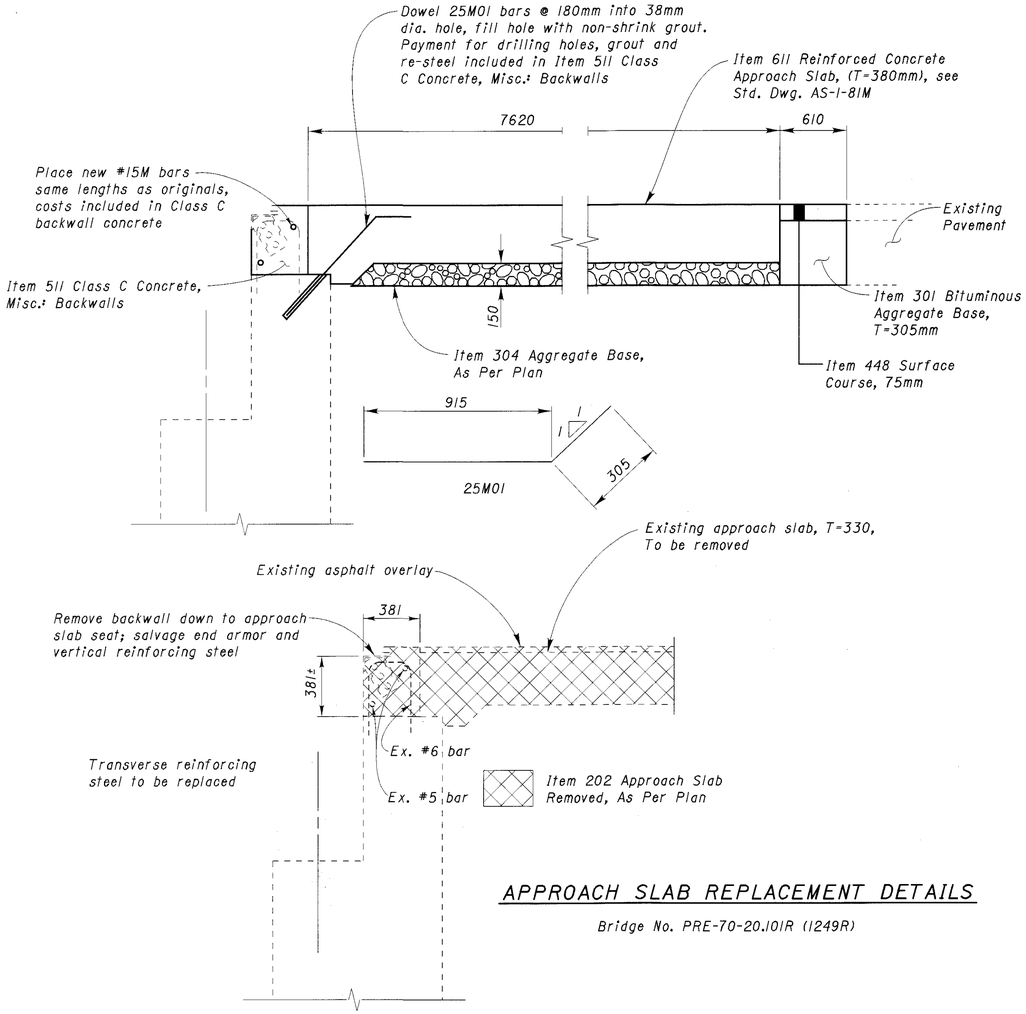
DETAIL A

SCUPPER LENGTHENING DETAILS

STRUCTURAL STEEL SHIM DETAILS

Shims are to be welded around their perimeter, dimensions B and L, shown below. These dimensions shall be determined by field observation and measurements of the existing structure. Payment included under Item 516 - Refurbish Bearing Device, as per plan.





APPROACH SLAB REPLACEMENT DETAILS

Bridge No. PRE-70-20.101R (1249R)

DESIGN AGENCY: DISTRICT 8 PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
BJF	BJF	MLM	STRUCTURE FILE NUMBER
CHECKED	REVISED		
MLM			

MISCELLANEOUS REPAIR DETAILS

PRE-1R70-02.946

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18

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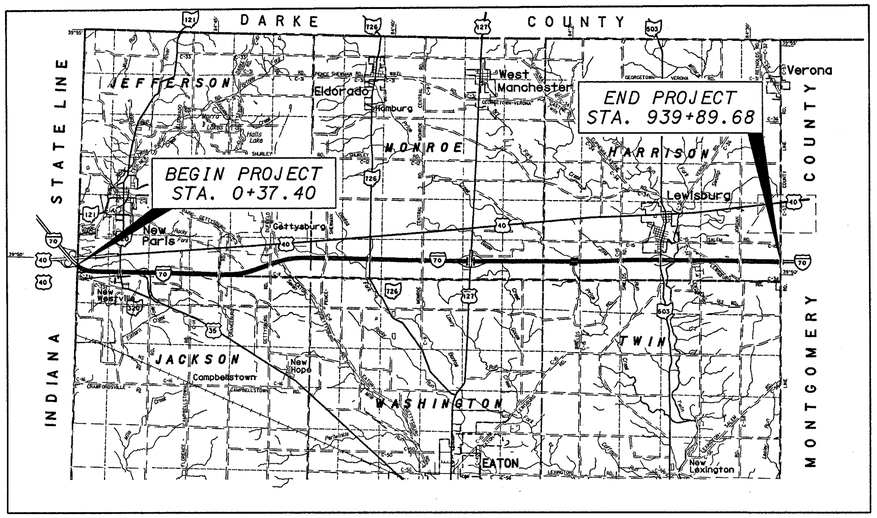


LOCATION MAP

LATITUDE: N 40°49'35" - LONGITUDE: W 83°53'20"

0 1 2 3 4 5 6 — SCALE OF MILES

0 2 4 6 8 10 — SCALE OF KILOMETERS

N

PORTION TO BE IMPROVED .....

STATE & FEDERAL ROUTES .....

OTHER ROADS .....

DESIGN DESIGNATION

CURRENT ADT (2001)	35860
DESIGN YEAR ADT (2021)	50800
DESIGN HOURLY VOLUME (2021)	5080
DIRECTIONAL DISTRIBUTION	55 %
TRUCKS (24 HOUR B&C)	39 %
DESIGN SPEED	65 MPH
LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION - RURAL INTERSTATE

DESIGN EXCEPTIONS

NONE REQUIRED

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

PLAN PREPARED BY:

KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 655 Eden Park Drive Cincinnati, OH 45202-6000
TEL 513.621.6211 FAX 513.621.36530 WEB www.kzf.com

ENGINEERS SEAL

STATE OF OHIO
WILLIAM B. SCHRUDDE
E-053066
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: W.B. Schrudde

DATE: 8/05/2002

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

PRE-70-0.00

JEFFERSON, JACKSON, MONROE, AND HARRISON TOWNSHIPS PREBLE COUNTY

INDEX OF SHEETS:

"AS BUILT" PLANS

PROJECT DESCRIPTION

PLANING, FILLING, AND OVERLAY OF PAVEMENT, REPAIRPAVEMENT, REPLACE GUARDRAILS, REHAB STRUCTURES, MAINTAIN TRAFFIC, REPLACE SIGNS, REPLACE LIGHTING SYSTEM AT WEIGH STATION, AND WIDEN MAINLINE STRUCTURES WITHIN PROJECT LIMITS. PROJECT LIMITS ARE ROUTE I-70 FROM THE INDIANA STATE LINE TO THE MONTGOMERY COUNTY LINE.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

1997 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 DID NOT REQUIRE THE CLOSING TO TRAFFIC OF THE THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WERE SET FORTH IN THE PLANS AND ESTIMATES.

APPROVED _____

DATE _____ DISTRICT PROJECT ENGINEER

APPROVED _____

DATE _____ DISTRICT CONSTRUCTION ENGINEER

STANDARD CONSTRUCTION DRAWINGS

										SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	07/28/00	GR-1.1M	10/21/97	AS-1-81	09/15/94	HL-10.11M	05/01/95	TC-41.50M	07/01/94	815	05/30/96
BP-9.1	07/28/00	GR-1.2M	01/03/96	BR-1	01/06/99	HL-10.12M	05/01/95	TC-42.10M	07/01/94	816	04/21/97
BP-5.1	07/28/00	GR-1.3M	11/30/94	CS-1-93	05/11/93	HL-10.13M	05/01/95	TC-42.20M	03/31/94	842	01/06/99
		GR-2.1M	04/14/98	CPP-2-94	12/19/94	HL-20.11M	03/31/95	TC-51.11M	09/30/94	844	01/06/99
CB-3.1M	07/12/95	GR-3.1M	10/21/97	GSD-1-96M	02/12/97	HL-30.11M	03/31/95	TC-51.12M	03/31/94	846	09/09/97
CB-3.3M	07/12/95	GR-3.2M	10/21/97	RB-1-55	02/02/59	HL-30.21M	05/01/95	TC-52.10M	07/29/94	863	09/09/97
		GR-4.2M	10/21/97	SICD-1-96M	02/12/97	HL-30.22M	03/31/95	TC-52.20M	07/29/94	899	10/21/98
DM-1.1M	10/21/97	GR-4.3M	10/21/97	BS-1-93	12/12/94	HL-40.10M	03/31/95	TC-61.10M	03/31/94	954	09/09/97
DM-1.2M	10/21/97	GR-5.2M	10/30/94			HL-60.11M	05/01/95	TC-65.10M	07/29/94	910	07/28/98
DM-2.1M	06/30/95	GR-5.3M	11/30/94			HL-60.12M	03/31/95	TC-65.11M	11/01/95	911	07/10/97
DM-4.1M	06/30/95	GR-6.1M	01/03/96			HL-60.31M	03/31/95	TC-65.12M	11/01/95	954	09/09/97
DM-4.3	04/29/99	GR-6.2M	01/03/96					TC-65.13M	11/03/93		
DM-4.4	04/29/99							TC-72.20M	09/01/93		
						TC-31.21M	03/31/94				
RM-4.3M	10/21/97					TC-32.10M	03/31/94			SPECIAL PROVISION	
RM-4.2M	10/21/97					TC-41.10M	03/31/94			NWP # 14	
RM-4.5M	10/21/97					TC-41.20M	07/01/94			CORPS OF ENGINEERS	

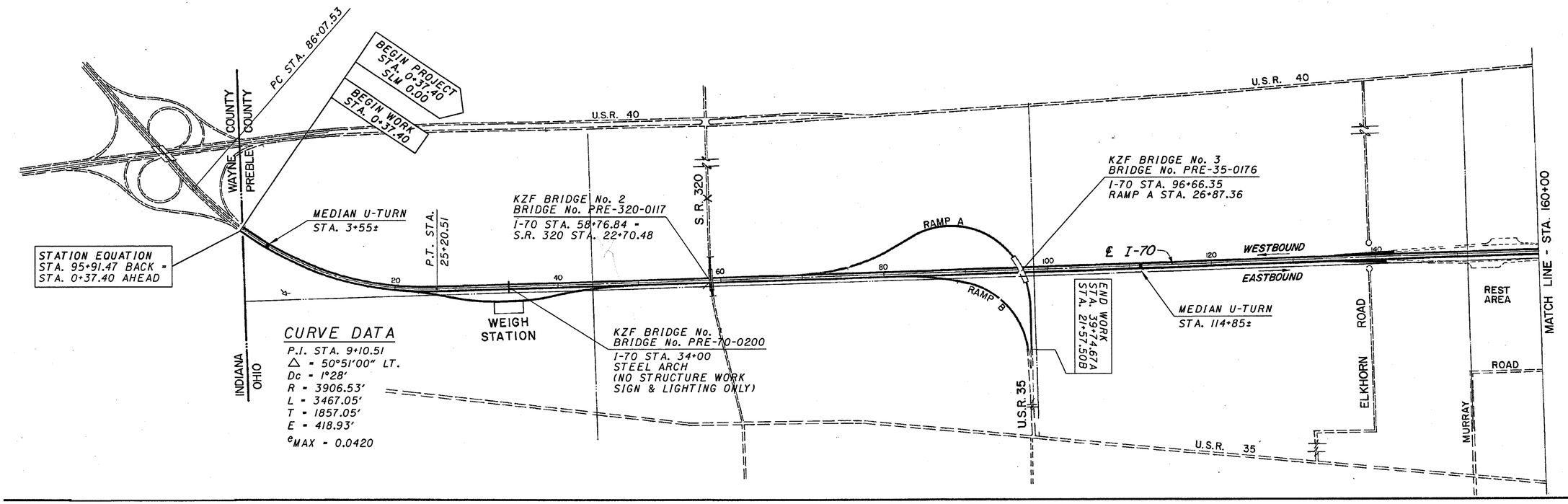
STATE JOB NO. 480730

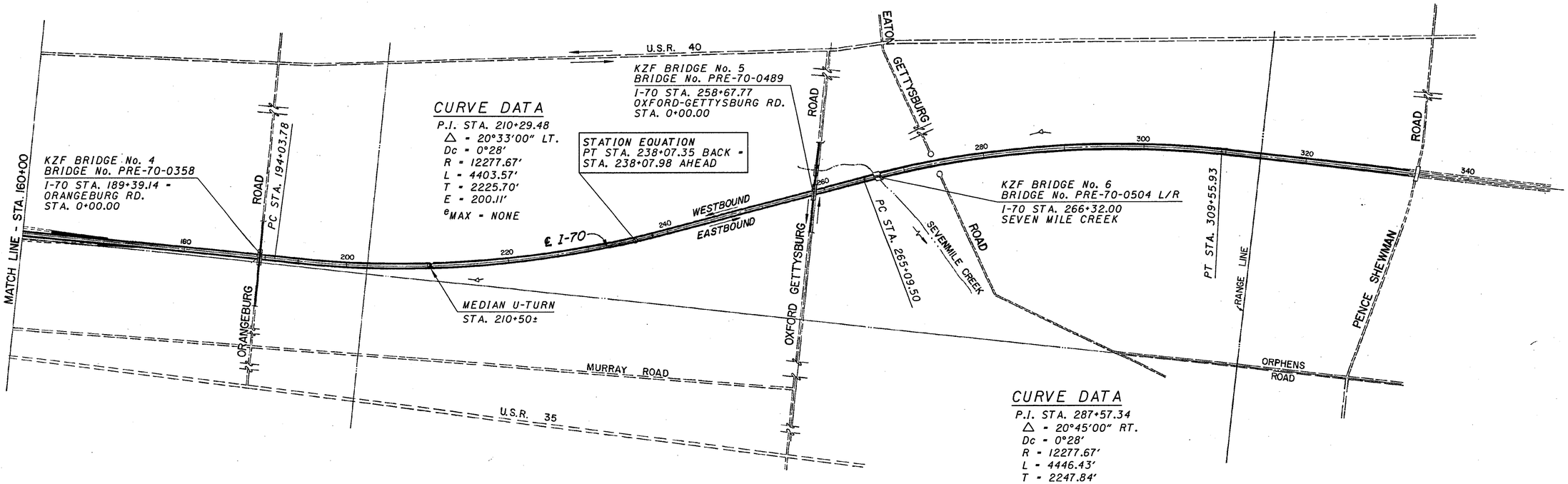
PID NO. 18899

CONSTRUCTION PROJECT NO. 3003

RAILROAD INVOLVEMENT NONE

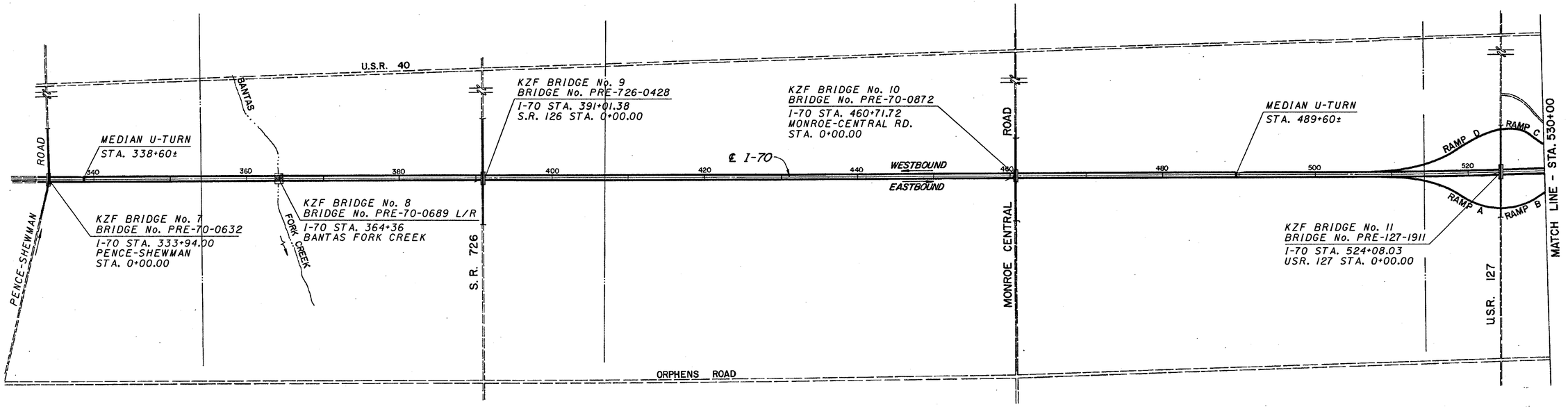
PRE-70-0.00

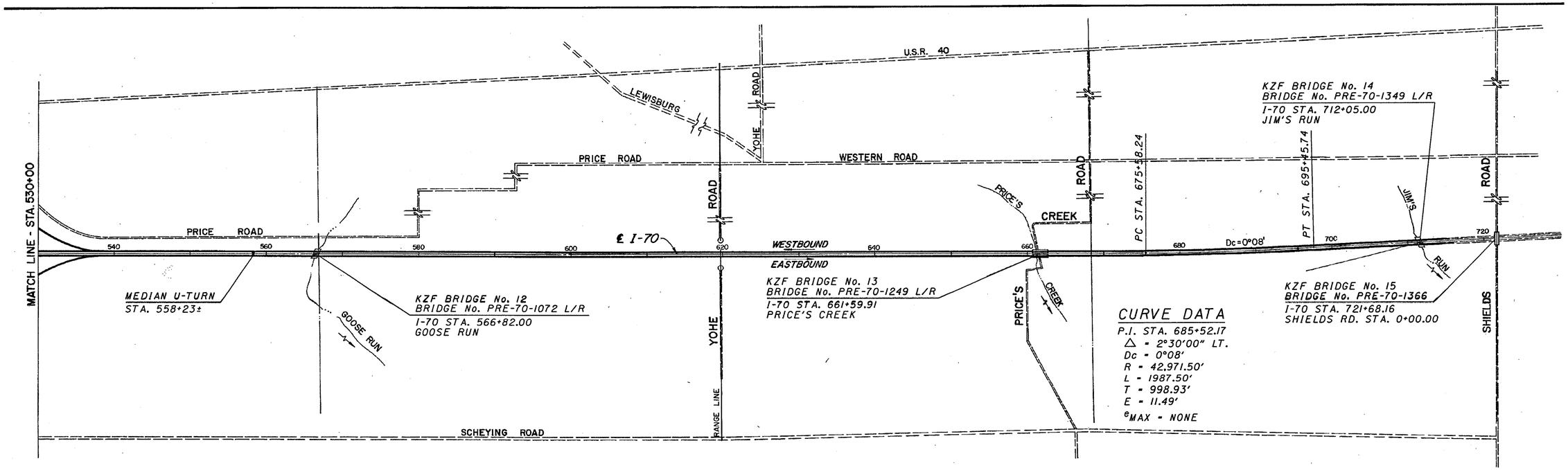




SCHEMATIC PLAN

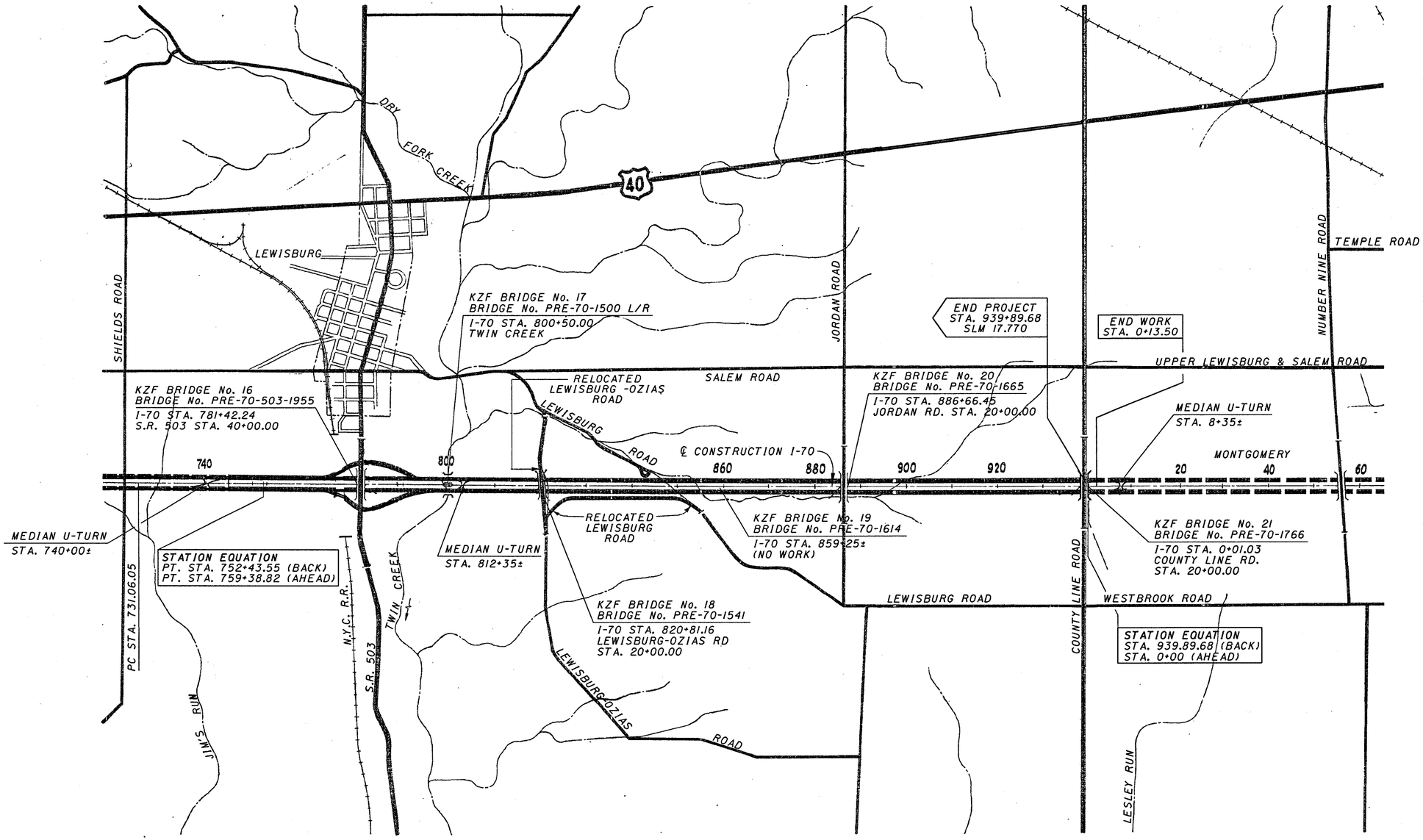
PRE-70-0.00





SCHEMATIC PLAN

PRE-70-0.00



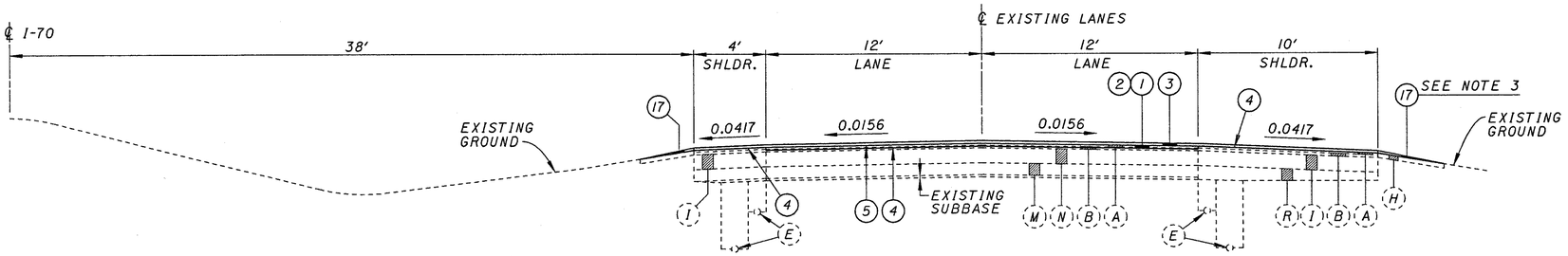
CURVE DATA

P.I. STA. 741+75.02
△ = 2°51'00" RT.
Dc = 0°08'
R = 42971.85'
L = 237.50'
T = 1068.97'
E = 13.30'
^{e}MAX = NONE

N

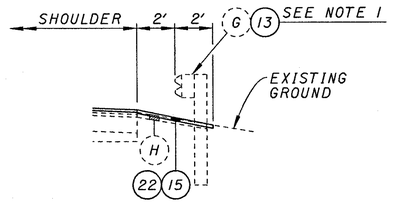
SCHEMATIC PLAN

PRE-70-0.00



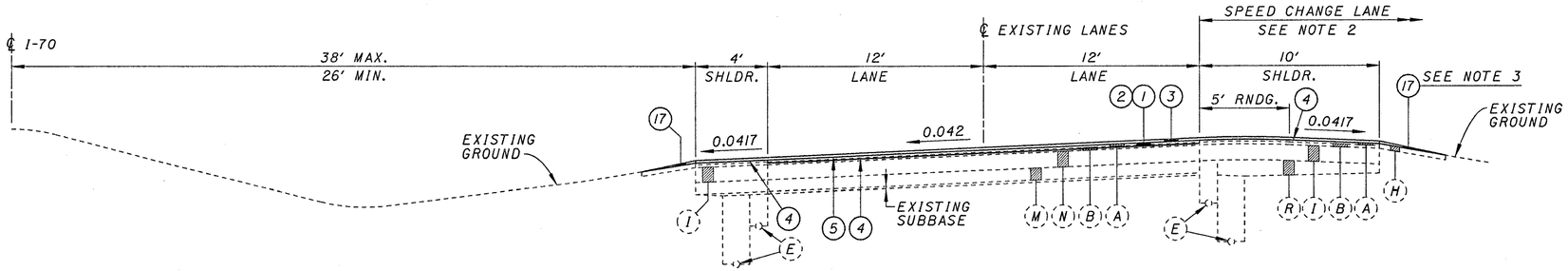
NORMAL SECTION - MAINLINE RESURFACING

	WESTBOUND (OPP. HAND)			EASTBOUND			
	STA. 262+67.32	TO	STA. 265+42.58	STA. 263+17.33	TO	STA. 265+92.46	BRIDGE No. PRE-70-0504 R/L (SEVEN MILE CREEK)
	STA. 266+71.80	TO	STA. 269+46.62	STA. 267+22.49	TO	STA. 269+97.34	
	STA. 360+56.00	TO	STA. 363+80.95	STA. 360+56.00	TO	STA. 363+80.79	BRIDGE No. PRE-70-0689 R/L (BANTAS FORK CREEK)
	STA. 364+90.99	TO	STA. 368+16.00	STA. 364+90.92	TO	STA. 368+41.00	
	STA. 563+23.50	TO	STA. 566+48.47	STA. 562+61.00	TO	STA. 565+86.03	BRIDGE No. PRE-70-1072 R/L (GOOSE RUN)
	STA. 567+77.89	TO	STA. 571+04.00	STA. 567+15.62	TO	STA. 570+40.00	
	STA. 656+39.00	TO	STA. 659+64.29	STA. 656+39.00	TO	STA. 659+64.29	BRIDGE No. PRE-70-1249 R/L (PRICE'S CREEK)
	STA. 662+37.79	TO	STA. 665+62.00	STA. 662+37.79	TO	STA. 665+62.00	
	STA. 708+14.00	TO	STA. 711+36.46	STA. 708+74.00	TO	STA. 711+98.91	BRIDGE No. PRE-70-1349 R/L (JIM'S RUN CREEK)
	STA. 712+10.84	TO	STA. 715+35.94	STA. 712+73.29	TO	STA. 715+98.29	
SEE NOTE 4	STA. 795+86.93	TO	STA. 799+11.93	STA. 795+86.93	TO	STA. 799+11.93	BRIDGE No. PRE-70-1500 R/L (TWIN CREEK)
	STA. 801+87.43	TO	STA. 805+12.43	STA. 801+87.43	TO	STA. 805+12.43	



TYPICAL GUARDRAIL SECTION

THIS APPLYS TO THE FOLLOWING LOCATIONS:
I-70, U.S. 35 (RAMP A), S.R. 503, & S.R. 726.



SUPERELEVATED SECTION - MAINLINE RESURFACING

WESTBOUND (OPP. HAND)			EASTBOUND		
STA. 0+37.40	TO	STA. 1+87.40	STA. 0+37.40	TO	STA. 1+87.40

NOTES

1) FOR LIMITS OF GUARDRAIL SEE PLAN SHEETS.
2) FOR SPEED CHANGE LANE LIMITS, SEE SHEET 9.
3) ITEM 617 - COMPACTED AGGREGATE SHALL BE PLACED IF THE DROP-OFF AT THE SHOULDER EDGE IS 2" OR GREATER.
4) PREVIOUS REMOVAL OF THE CONCRETE PAVEMENT AND ASPHALT REPLACEMENT AS SHOWN HAS NOT BEEN CONFIRMED.

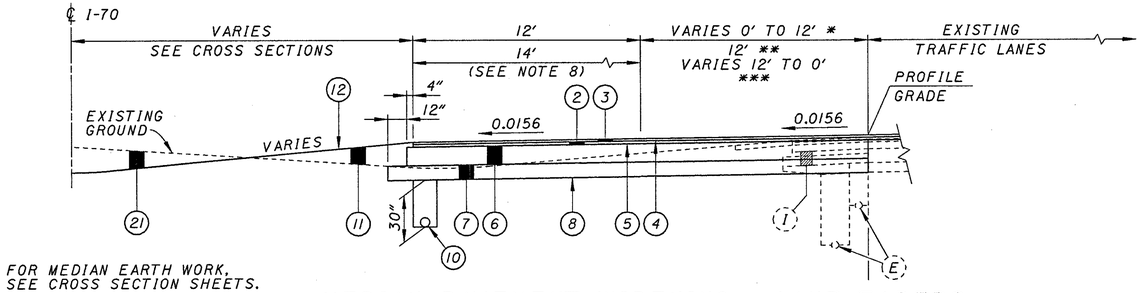
ITEM LEGEND

(1) ITEM 254 - PAVEMENT PLANING, BITUMINOUS
(2) ITEM 446 - 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(3) ITEM 446 - 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(4) ITEM 407 - TACK COAT, 702.13 (0.075 GAL/SQ.YD.)
(5) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SQ.YD.)
(6) ITEM 302 - 12" BITUMINOUS AGGREGATE BASE
(7) ITEM 304 - 9" AGGREGATE BASE
(8) ITEM 203 - SUBGRADE COMPACTION
(9) NOT USED
(10) ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN (30" DEPTH TYP.)
(11) ITEM 203 - EMBANKMENT
(12) ITEM 870 - SEEDING AND MULCHING
(13) ITEM 606 - GUARDRAIL, TYPE 5
(14) NOT USED
(15) ITEM 203 - LINEAR GRADING
(16) ITEM 617 - SHOULDER PREPARATION
(17) ITEM 617 - COMPACTED AGGREGATE, TYPE B
(18) ITEM 830 - CURB, TYPE 4A
(19) ITEM 611 - REINFORCED CONCRETE APPROACH SLAB (T=15")
(20) ITEM 304 - 6" AGGREGATE BASE
(21) ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(22) ITEM 448 - 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22
(23) ITEM 830 - CURB, TYPE 6, AS PER PLAN

(A) EXISTING 1¼" ASPHALT OVERLAY
(B) EXISTING 1¾" ASPHALT OVERLAY
(C) EXISTING 4½" BITUMINOUS AGGREGATE BASE
(D) EXISTING 9" BREAK AND SEAT CONCRETE PAVEMENT
(E) EXISTING SHALLOW UNDERDRAIN
(F) EXISTING 6" AGGREGATE BASE
(G) EXISTING GUARDRAIL
(H) EXISTING COMPACTED AGGREGATE
(I) EXISTING 8" BITUMINOUS AGGREGATE BASE
(K) EXISTING 12" CONCRETE PAVEMENT
(L) EXISTING 9" CONCRETE PAVEMENT
(M) EXISTING 8" AGGREGATE BASE
(N) EXISTING 10" BITUMINOUS AGGREGATE BASE
(P) EXISTING 3" BITUMINOUS AGGREGATE BASE
(Q) EXISTING 3" AGGREGATE BASE
(R) EXISTING AGGREGATE BASE, VARIABLE DEPTH
(S) EXISTING 5" CRUSHED AGGREGATE
(T) EXISTING 5½" BITUMINOUS AGGREGATE BASE

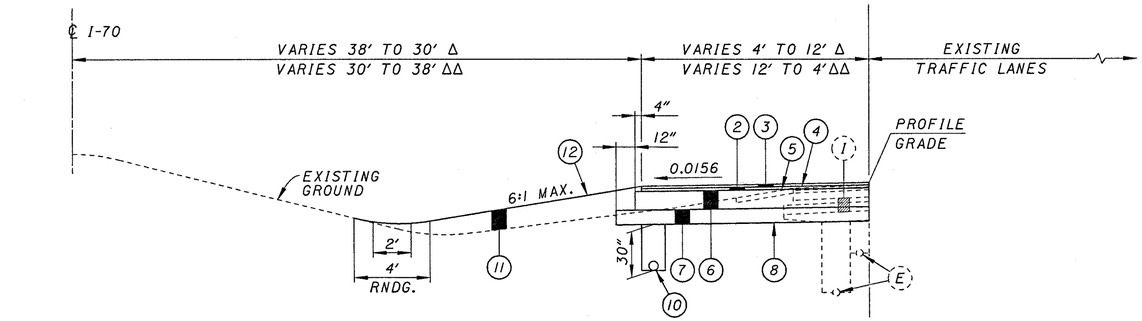
TYPICAL SECTIONS - MAINLINE RESURFACING

PRE-70-0.00

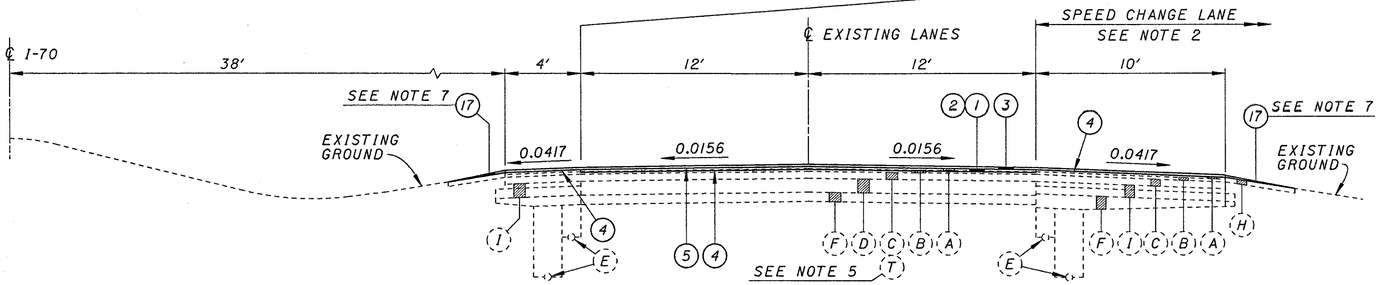


FOR MEDIAN EARTH WORK,
SEE CROSS SECTION SHEETS.

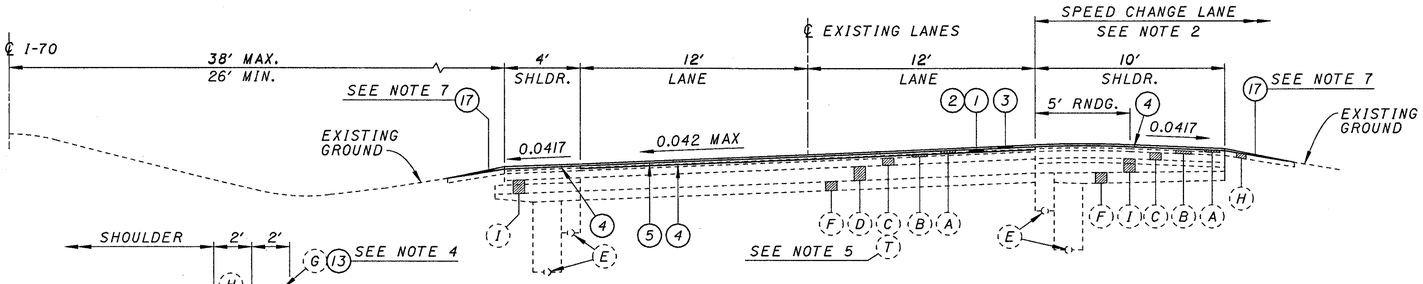
MEDIAN PAVEMENT WIDENING - LANE TAPERS



MEDIAN PAVEMENT WIDENING - SHOULDER TAPERS



NORMAL SECTION
MAINLINE RESURFACING



SUPERELEVATED SECTION
MAINLINE RESURFACING

TYPICAL GUARDRAIL SECTION

MEDIAN PAVEMENT WIDENING - LANE TAPERS

WESTBOUND (OPP. HAND)			EASTBOUND		
BRIDGE No. PRE-70-0504 R/L (SEVEN MILE CREEK)					
* STA. 257+69.42	TO	STA. 265+49.19	* STA. 257+95.66	TO	STA. 265+75.30
** STA. 265+49.19	TO	STA. 265+59.19	** STA. 267+05.37	TO	STA. 267+15.37
*** STA. 266+88.85	TO	STA. 274+68.77	*** STA. 267+15.37	TO	STA. 274+95.22
BRIDGE No. PRE-70-0689 R/L (BANTAS FORK CREEK)					
* STA. 355+91.00	TO	STA. 363+71.00	* STA. 356+01.00	TO	STA. 363+71.00
** STA. 363+71.00	TO	STA. 363+81.00	** STA. 364+91.00	TO	STA. 365+01.00
*** STA. 364+91.00	TO	STA. 372+71.00	*** STA. 365+01.00	TO	STA. 372+81.00
BRIDGE No. PRE-70-1072 R/L (GOOSE RUN)					
* STA. 558+37.51	TO	STA. 566+17.51	* STA. 558+26.74	TO	STA. 566+06.74
** STA. 566+17.51	TO	STA. 566+27.51	** STA. 567+36.48	TO	STA. 567+46.48
*** STA. 567+57.27	TO	STA. 575+37.27	*** STA. 567+46.48	TO	STA. 575+26.48
BRIDGE No. PRE-70-1249 R/L (PRICE'S CREEK)					
* STA. 651+74.29	TO	STA. 659+54.29	* STA. 651+84.29	TO	STA. 659+64.29
** STA. 659+54.29	TO	STA. 659+64.29	** STA. 662+37.79	TO	STA. 662+47.79
*** STA. 662+37.79	TO	STA. 670+17.79	*** STA. 662+47.79	TO	STA. 670+27.79
BRIDGE No. PRE-70-1349 R/L (JIM'S RUN)					
* STA. 703+46.46	TO	STA. 711+26.46	* STA. 703+98.19	TO	STA. 711+78.19
** STA. 711+26.46	TO	STA. 711+36.46	** STA. 712+73.29	TO	STA. 712+83.29
*** STA. 712+31.33	TO	STA. 720+11.33	*** STA. 712+83.29	TO	STA. 720+63.29
BRIDGE No. PRE-70-1500 R/L (TWIN CREEK)					
* STA. 791+21.93	TO	STA. 799+01.93	* STA. 791+31.93	TO	STA. 799+11.93
** STA. 799+01.93	TO	STA. 799+11.93	** STA. 801+87.43	TO	STA. 801+97.43
*** STA. 801+87.43	TO	STA. 809+67.43	*** STA. 801+97.43	TO	STA. 809+77.43

MEDIAN PAVEMENT WIDENING - SHOULDER TAPERS

WESTBOUND (OPP. HAND)			EASTBOUND		
BRIDGE No. PRE-70-0504 R/L (SEVEN MILE CREEK)					
Δ STA. 252+49.41	TO	STA. 257+69.42	Δ STA. 252+75.57	TO	STA. 257+95.66
ΔΔ STA. 274+68.77	TO	STA. 279+88.60	ΔΔ STA. 274+95.22	TO	STA. 280+15.40
BRIDGE No. PRE-70-0689 R/L (BANTAS FORK CREEK)					
Δ STA. 350+71.00	TO	STA. 355+91.00	Δ STA. 350+81.00	TO	STA. 356+01.00
ΔΔ STA. 372+71.00	TO	STA. 377+91.00	ΔΔ STA. 372+81.00	TO	STA. 378+01.00
BRIDGE No. PRE-70-1072 R/L (GOOSE RUN)					
Δ STA. 553+17.51	TO	STA. 558+37.51	Δ STA. 553+06.74	TO	STA. 558+26.74
ΔΔ STA. 575+37.27	TO	STA. 580+57.27	ΔΔ STA. 575+26.48	TO	STA. 580+46.48
BRIDGE No. PRE-70-1249 R/L (PRICE'S CREEK)					
Δ STA. 646+54.29	TO	STA. 651+74.29	Δ STA. 646+64.29	TO	STA. 651+84.29
ΔΔ STA. 670+17.79	TO	STA. 675+37.79	ΔΔ STA. 670+27.79	TO	STA. 675+47.79
BRIDGE No. PRE-70-1349 R/L (JIM'S RUN)					
Δ STA. 698+26.46	TO	STA. 703+46.46	Δ STA. 698+78.19	TO	STA. 703+98.19
ΔΔ STA. 720+11.33	TO	STA. 725+31.33	ΔΔ STA. 720+63.29	TO	STA. 725+83.29
BRIDGE No. PRE-70-1500 R/L (TWIN CREEK)					
Δ STA. 786+01.93	TO	STA. 791+21.93	Δ STA. 786+11.93	TO	STA. 791+31.93
ΔΔ STA. 809+67.43	TO	STA. 814+87.43	ΔΔ STA. 809+77.43	TO	STA. 814+97.43

NORMAL SECTION - MAINLINE RESURFACING

WESTBOUND (OPP. HAND)			EASTBOUND		
STA. 24+46.32	TO	STA. 262+67.32	STA. 25+96.98	TO	STA. 263+17.33
STA. 269+46.62	TO	STA. 360+56.00	STA. 269+97.34	TO	STA. 360+56.00
STA. 368+16.00	TO	STA. 563+23.50	STA. 368+41.00	TO	STA. 562+61.00
STA. 571+04.00	TO	STA. 656+39.00	STA. 570+40.00	TO	STA. 656+39.00
STA. 665+62.00	TO	STA. 708+14.00	STA. 665+62.00	TO	STA. 708+74.00
STA. 715+35.94	TO	STA. 795+86.93	STA. 715+98.29	TO	STA. 795+86.93
STA. 805+12.43	TO	STA. 939+89.68	STA. 805+12.43	TO	STA. 939+89.68

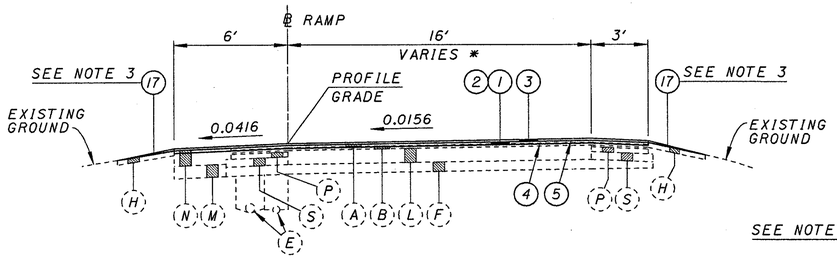
SUPERELEVATED SECTION - MAINLINE RESURFACING

WESTBOUND (OPP. HAND)			EASTBOUND		
STA. 1+87.40	TO	STA. 24+46.32	STA. 1+87.40	TO	STA. 25+96.98

NOTES

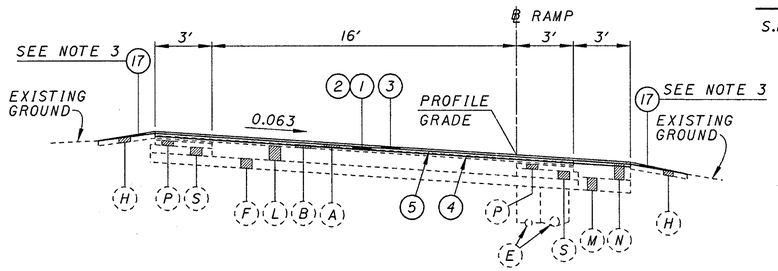
1) FOR ITEM LEGEND, SEE SHEET 5.
2) FOR FURTHER INFORMATION ABOUT THE MEDIAN LANE TAPERS, SEE THE PLAN SHEETS.
3) SEE THE CROSS SECTIONS FOR PROPOSED GRADING AND SEEDING AND MULCHING LIMITS.
4) FOR LIMITS OF GUARDRAIL, SEE PLAN SHEETS.
5) BALLOON "T" APPLYS FROM STA. 333+14 TO STA. 708+74 EB.
6) FOR SPEED CHANGE LANE LIMITS, SEE SHEET 9.
7) ITEM 617 - COMPACTED AGGREGATE SHALL BE PLACED IF THE DROP-OFF AT THE SHOULDER EDGE IS 2" OR GREATER.
8) FOR CURB DETAIL AT APPROACH SLABS, SEE SHEET 123. FOR LOCATIONS SEE ROADWAY PLANS AND BRIDGE SITE PLANS

TYPICAL SECTIONS
MEDIAN PAVEMENT WIDENING & MAINLINE RESURFACING
PRE-70-0.00



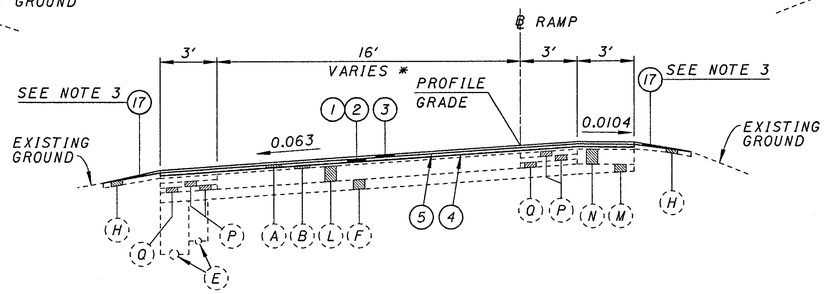
NORMAL SECTION

U.S.R. 35	RAMP A	STA. 70+56.06	TO	STA. 0+76.93 (*14' TO 16')
		STA. 8+97.76	TO	STA. 9+25.94
		STA. 33+17.50	TO	STA. 37+68.00
	RAMP B	STA. 4+53.07	TO	STA. 5.53.07 (OPP. HAND) (*18' TO 16')



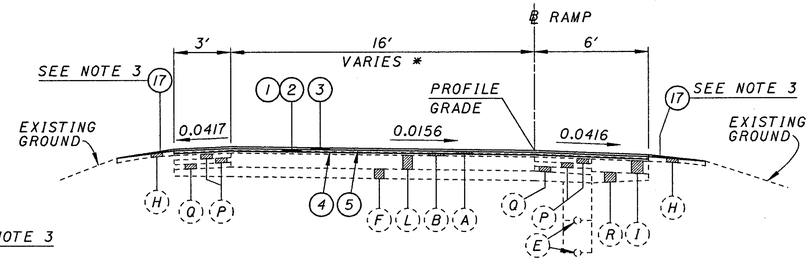
SUPERELEVATED SECTION

U.S.R. 35	RAMP B	STA. 5+53.07	TO	STA. 19+50.00



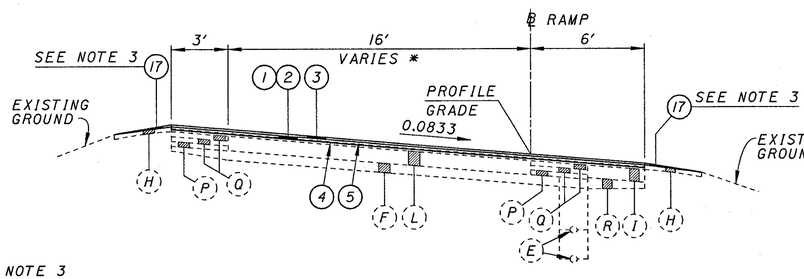
SUPERELEVATED SECTION

S.R. 127	RAMP C	STA. 10+93.40	TO	STA. 20+16.19
		STA. 20+16.19	TO	STA. 21+16.19 (*16' to 18')
	RAMP D	STA. 4+89.00	TO	STA. 5+30.90
		STA. 5+30.90	TO	STA. 6+30.90 (*16' to 18')
		STA. 6+30.90	TO	STA. 11+71.11
		STA. 12+14.02	TO	STA. 14+09.00
		STA. 14+09.00	TO	STA. 15+09.00 (*16' TO 123')



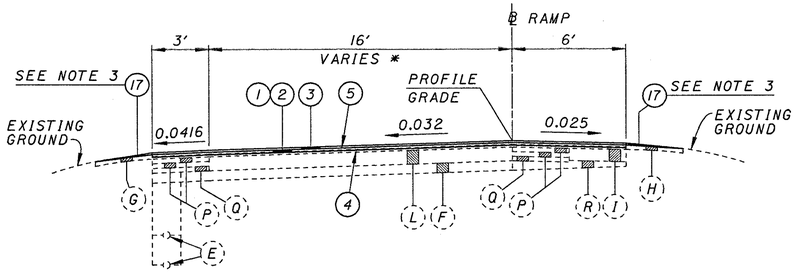
NORMAL SECTION

S.R. 503	RAMP A	STA. 8+19.79	TO	STA. 11+19.79 (*16' TO 14')
	RAMP B	STA. 8+01.36	TO	STA. 9+01.36 (*18' TO 16')
		STA. 9+01.36	TO	STA. 11+79.08
	RAMP C	STA. 7+99.06	TO	STA. 8+99.06 (*18' TO 16')
		STA. 8+99.06	TO	STA. 8+99.06 (*18' TO 16')
		STA. 14+15.04	TO	STA. 15+47.18
	RAMP D	STA. 3+46.06	TO	STA. 4+79.66
		STA. 11+70.24	TO	STA. 14+70.25 (*16' TO 14')
S.R. 127	RAMP A	STA. 4+37.67	TO	STA. 5+37.67 (*18' TO 16')
	RAMP B	STA. 18+39.00	TO	STA. 20+27.00 (*16' TO 18')
	RAMP C	STA. 10+32.00	TO	STA. 10+93.89 (*16.4' TO 16')
	RAMP D	STA. 11+71.11	TO	STA. 12+14.02



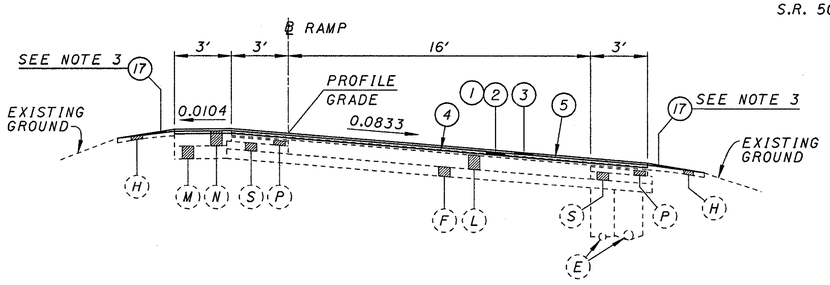
SUPERELEVATED SECTION

S.R. 503	RAMP A	STA. 2+80.56	TO	STA. 8+19.79
	RAMP B	STA. 11+79.08	TO	STA. 16+94.66
	RAMP C	STA. 8+99.06	TO	STA. 14+15.04
	RAMP D	STA. 4+79.66	TO	STA. 11+70.24
S.R. 127	RAMP A	STA. 5+37.67	TO	STA. 14+46.18
		STA. 14+46.18	TO	STA. 15+08.07 (*16' TO 116.4')
	RAMP B	STA. 10+33.19	TO	STA. 11+36.70 (*123.5' TO 16')
		STA. 11+36.70	TO	STA. 18+39.00



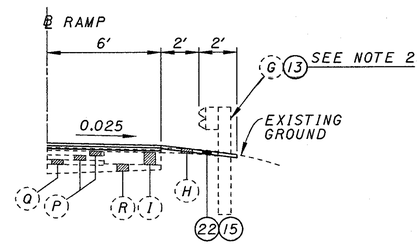
SUPERELEVATED SECTION

S.R. 503	RAMP A	STA. 0+12.77	TO	STA. 1+28.72 (*134' TO 16')
		STA. 1+28.72	TO	STA. 2+80.56
	RAMP B	STA. 16+94.66	TO	STA. 18+95.05
		STA. 18+95.05	TO	STA. 19+68.03 (*16' TO 124')
	RAMP C	STA. 15+47.18	TO	STA. 17+99.26
		STA. 17+99.26	TO	STA. 18+61.15 (*16' TO 160.2')
	RAMP D	STA. 0+12.00	TO	STA. 1+09.42 (*118' TO 16')
		STA. 1+09.42	TO	STA. 3+46.06



SUPERELEVATED SECTION

U.S.R. 35	RAMP A	STA. 0+76.93	TO	STA. 8+97.76
		STA. 9+25.94	TO	STA. 25+06.75
		STA. 25+06.75	TO	STA. 28+65.35
		(BRIDGE & APPROACH SLABS)		
		STA. 28+65.35	TO	STA. 33+17.50



TYPICAL GUARDRAIL SECTION

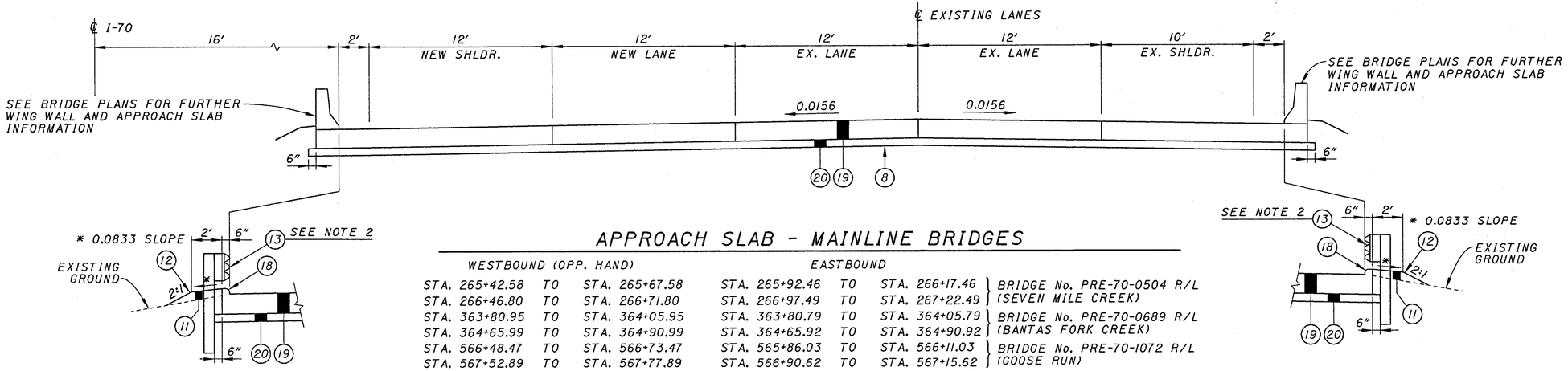
NOTES

1) FOR ITEM LEGEND, SEE SHEET 5.
2) FOR LIMITS OF GUARDRAIL, SEE PLAN SHEETS.
3) ITEM 617 - COMPACTED AGGREGATE SHALL BE PLACED IF THE DROP-OFF AT THE SHOULDER EDGE IS 2" OR GREATER.

TYPICAL SECTIONS - U.S.R. 35, U.S. 127 AND U.S. 503

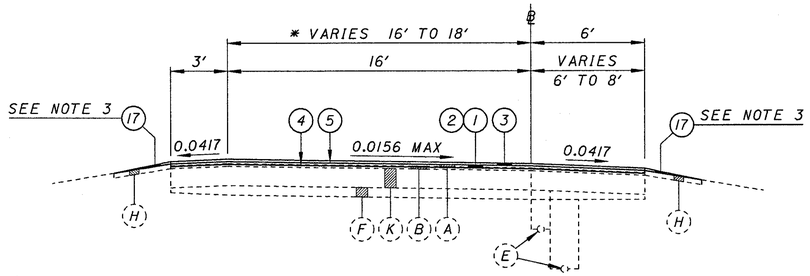
RAMPS - U

PRE-70-0.00



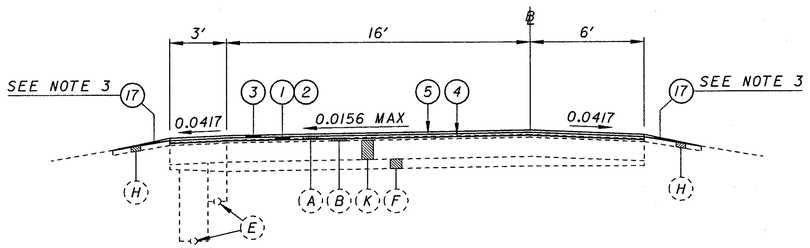
APPROACH SLAB - MAINLINE BRIDGES

WESTBOUND (OPP. HAND)			EASTBOUND			
STA. 265+42.58	TO	STA. 265+67.58	STA. 265+92.46	TO	STA. 266+17.46	BRIDGE No. PRE-70-0504 R/L (SEVEN MILE CREEK)
STA. 266+46.80	TO	STA. 266+71.80	STA. 266+97.49	TO	STA. 267+22.49	
STA. 363+80.95	TO	STA. 364+05.95	STA. 363+80.79	TO	STA. 364+05.79	BRIDGE No. PRE-70-0689 R/L (BANTAS FORK CREEK)
STA. 364+65.99	TO	STA. 364+90.99	STA. 364+65.92	TO	STA. 364+90.92	
STA. 566+48.47	TO	STA. 566+73.47	STA. 565+86.03	TO	STA. 566+11.03	BRIDGE No. PRE-70-1072 R/L (GOOSE RUN)
STA. 567+52.89	TO	STA. 567+77.89	STA. 566+90.62	TO	STA. 567+15.62	
STA. 659+64.29	TO	STA. 659+89.29	STA. 659+64.29	TO	STA. 659+89.29	BRIDGE No. PRE-70-1249 R/L (PRICE'S CREEK)
STA. 662+12.79	TO	STA. 662+37.79	STA. 662+12.79	TO	STA. 662+37.79	
STA. 711+36.46	TO	STA. 711+61.46	STA. 711+98.91	TO	STA. 712+23.91	BRIDGE No. PRE-70-1349 R/L (JIM'S RUN CREEK)
STA. 711+85.84	TO	STA. 712+10.84	STA. 712+48.29	TO	STA. 712+73.29	
STA. 799+11.93	TO	STA. 799+36.93	STA. 799+11.93	TO	STA. 799+36.93	BRIDGE No. PRE-70-1500 R/L (TWIN CREEK)
STA. 801+62.43	TO	STA. 801+87.43	STA. 801+62.43	TO	STA. 801+87.43	



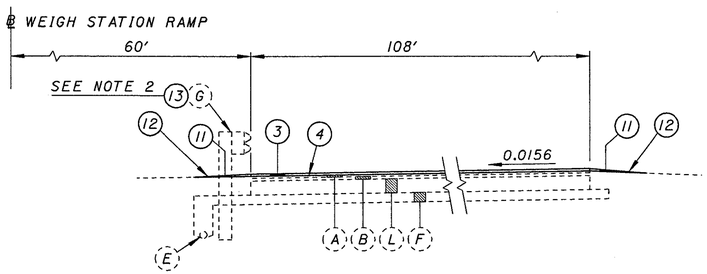
WEIGH STATION - RAMP

* STA. 4+67.77 TO STA. 8+50.00
STA. 16+50.00 TO STA. 24+79.61



WEIGH STATION - RAMP

STA. 8+50.00 TO STA. 16+50.00



WEIGH STATION - TRUCK PARKING LOT

STA. 9+50± TO STA. 12+98±

NOTES

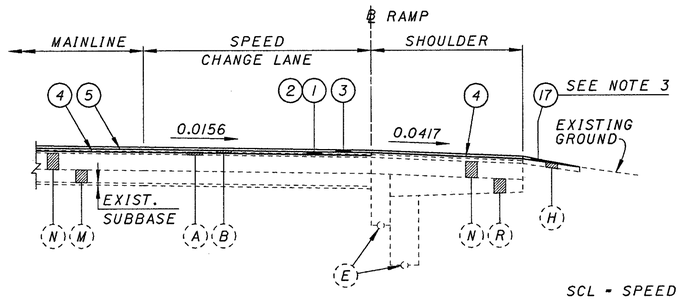
1) FOR ITEM LEGEND, SEE SHEET 5.
2) FOR LIMITS OF GUARDRAIL, SEE PLAN SHEETS.
3) ITEM 617 - COMPACTED AGGREGATE SHALL BE PLACED IF THE DROP-OFF AT THE SHOULDER EDGE IS 2″ OR GREATER.

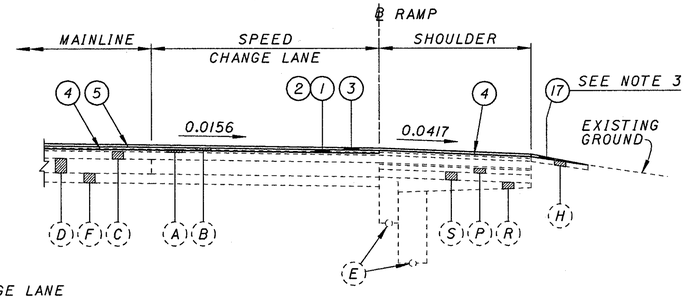
TYPICAL SECTIONS
APPROACH SLAB AND WEIGH SECTION

PRE-70-0.00

8
283

$$$$$SYTM$$$$$$
USER: $USERNAME$
DES: FILENAME=$FILENAME$
PRF NAME: $PROFNAME$
ACTIVE LEVELS ON: $$LEV$$
REFON: **REFON**
REF02: **REF02**
REF03: **REF03**
REF04: **REF04**
REF05: **REF05**



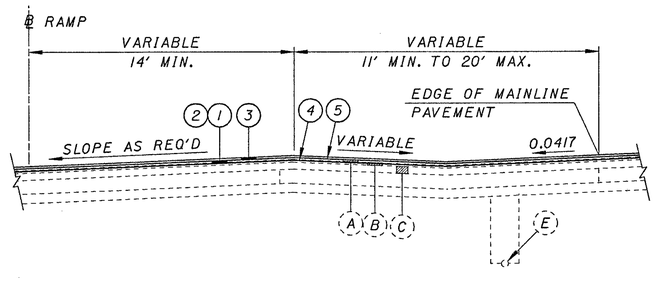


SCL - SPEED CHANGE LANE

SPEED CHANGE LANE

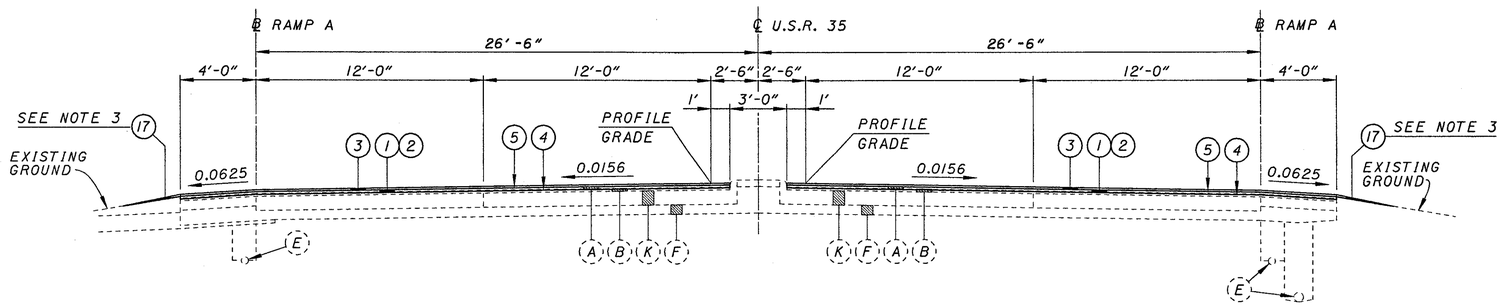
BEGIN PROJECT			SCL	SHLD
EB STA. 0+37.40	TO	STA. 1+87.40	12′	8′
WB STA. 0+37.40	TO	STA. 1+87.40	12′	8′

* SHOULDER ALONG THE MAINLNE PAVEMENT
** WITHIN THE LAST 96′ THE SHOULDER WIDTH VARIES FROM 8′ TO 10′.
*** WITHIN THE FIRST 96′ THE SHOULDER WIDTH VARIES FROM 10′ TO 8′.



PAVED BERM BETWEEN RAMP AND MAINLINE

WEIGH STATION - ENT. RAMP	EB	STA. 42+72.80	TO	STA. 47+62.24
U.S.R. 35 - RAMP A	WB	STA. 70+56.06	TO	STA. 75+22.00
NORTH REST AREA - RAMP C	WB	STA. 142+59.30	TO	STA. 147+67.00
SOUTH REST AREA - RAMP B	EB	STA. 159+50.00	TO	STA. 164+58.70
U.S.R. 127 - RAMP B	EB	STA. 533+09.50	TO	STA. 537+77.74
U.S.R. 127 - RAMP D	WB	STA. 510+12.40	TO	STA. 514+82.00
S.R. 503 - RAMP A	WB	STA. 771+76.76	TO	STA. 775+90.90
S.R. 503 - RAMP D	EB	STA. 790+43.00	TO	STA. 795+00.00



NORMAL SECTION - U.S.R. 35

STA. 37+68.00A TO STA. 39+74.67A
STA. 19+50.00B TO STA. 21+57.50B

SPEED CHANGE LANE

BEGIN PROJECT			SCL	SHLD
EB STA. 1+87.40	TO	STA. 5+02.84	12′	8′
STA. 5+02.84	TO	STA. 8+52.84	12′to 0′	8′to10′
WB STA. 1+87.40	TO	STA. 5+24.94	12′	8′
STA. 5+24.94	TO	STA. 6+24.94	12′to 0′	8′to10′
WEIGH STATION				
EB STA. 22+14.66	TO	STA. 23+14.66	0′to 12′	10′to 8′
STA. 23+14.66	TO	STA. 27+63.30	12′to 39′	8′
STA. 27+63.30	TO	STA. 28+01.30	-	18′to 22.5′*
STA. 47+62.24	TO	STA. 59+62.24	25′to 0′	8′**
U.S.R. 35 INTERCHANGE				
WB STA. 58+56.23	TO	STA. 70+56.06	0′to 12′	8′***
EB STA. 79+51.27	TO	STA. 80+51.27	0′to 12′	10′to 8′
STA. 80+51.27	TO	STA. 82+98.54	12′	8′
STA. 82+98.54	TO	STA. 87+53.27	12′to 39′	8′
STA. 87+53.27	TO	STA. 87+91.27	-	18′to 22.5′*
SOUTH REST AREA				
EB STA. 135+99.38	TO	STA. 136+99.38	0′to 12′	10′to 8′
STA. 136+99.38	TO	STA. 139+49.38	12′	8′
STA. 139+49.38	TO	STA. 144+04.32	12′to 39′	8′
STA. 144+04.32	TO	STA. 144+44.32	-	18′to 22.5′*
STA. 164+58.70	TO	STA. 176+58.70	25′to 0′	8′**
NORTH REST AREA				
WB STA. 130+59.30	TO	STA. 142+59.30	0′to 25′	8′***
STA. 162+74.65	TO	STA. 163+14.65	-	22.5′to 18′*
STA. 163+14.65	TO	STA. 167+79.28	39′to 12′	8′
STA. 167+79.28	TO	STA. 170+29.28	12′	8′
STA. 170+29.28	TO	STA. 171+29.28	12′to 0′	8′to 10′
U.S.R. 127 INTERCHANGE				
EB STA. 505+94.67	TO	STA. 506+94.67	0′to 12′	10′to 8′
STA. 506+94.67	TO	STA. 509+44.67	12′	8′
STA. 509+44.67	TO	STA. 513+83.24	12′to 39′	8′
STA. 513+83.24	TO	STA. 514+23.24	-	18′to 22.5′*
STA. 537+77.74	TO	STA. 549+77.90	25′to 0′	8′**
WB STA. 534+04.14	TO	STA. 534+44.14	-	22.5′to 18′*
STA. 534+44.14	TO	STA. 538+98.87	39′to 12′	8′
STA. 538+98.87	TO	STA. 541+48.87	12′	8′
STA. 541+48.87	TO	STA. 542+48.87	12′to 0′	8′to 10′
STA. 498+10.19	TO	STA. 510+12.40	0′to 25′	8′***
S.R. 503 INTERCHANGE				
WB STA. 759+76.76	TO	STA. 771+76.76	0′to 25′	8′***
EB STA. 763+35.00	TO	STA. 764+35.00	0′to 12′	VARIES
STA. 764+35.00	TO	STA. 771+35.00	12′to 39′	VARIES
STA. 771+35.00	TO	STA. 772+35.00	-	18′to 20′*
WB STA. 790+64.70	TO	STA. 791+09.84	-	22.5′to 18′*
STA. 791+09.84	TO	STA. 795+64.56	39′to 12′	8′
STA. 795+64.56	TO	STA. 798+09.83	12′	8′
STA. 798+09.83	TO	STA. 799+09.83	12′to 0′	8′to 10′
EB STA. 795+00.00	TO	STA. 807+00.00	25′to 0′	8′**
(STA. 799+11.25	TO	STA. 801+86.75		
TWIN CREEK BRIDGE INCLUDING APPROACH SLABS)				

NOTES

1) FOR ITEM LEGEND, SEE SHEET 5.
2) FOR LIMITS OF GUARDRAIL, SEE PLAN SHEETS.
3) ITEM 617 - COMPACTED AGGRAGATE SHALL BE PLACED IF THE DROP-OFF AT THE SHOULDER EDGE IS 2″ OR GREATER.

TYPICAL SECTIONS
- SPEED CHANGE LANE - PAVED BERM
U.S.R. 35 -

PRE-70-0.00

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

POWER: DAYTON POWER & LIGHT CO. - ELECTRIC
P.O. BOX 1247
COURTHOUSE PLAZA, SW
DAYTON, OHIO 45401
(937) 331-4011

GAS: DAYTON POWER & LIGHT CO. - GAS
P.O. BOX 1247
COURTHOUSE PLAZA, SW
DAYTON, OHIO 45401
(937) 331-4011

TELEPHONE: G.T.E. NORTH INC.
6464 WESTBROOK RD.
CLAYTON, OHIO 45315
(937) 833-0456 OR (937) 833-0467

SPRINT
125 N. MAIN ST.
SIDNEY, OHIO 45365
(937) 498-5204

CABLE T.V.: TIME WARNER CABLE
4195 N. BARRON ST.
FAIRFIELD, OHIO 45320
(937) 456-1183

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQURIED BY SECTION 153.64 O.R.C..

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

EXISTING GROUNDLINE

EXISTING GROUNDLINES AND ELEVATIONS SHOWN ON THE PROFILE AND CROSS SECTION SHEETS ARE ALONG CENTERLINE CONSTRUCTION.

PROTECTION OF WETLANDS

WETLANDS HAVE BEEN IDENTIFIED WITHIN AND OUTSIDE OF THE PROPOSED RIGHT-OF-WAY LINES.

FOR ADDTIONAL ENVIRONMEMNTAL COMMITMENTS AND RESOURCES TO BE AVOIDED SEE THE BRIDGE GENERAL NOTES AND AND STORM WATER POLLUTION PROTECTION PLANS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI METRIC TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 870 - SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE EDGES OF THE NEW PAVEMENT AND THE LIMITS OF THE PROPOSED WIDENING AS SHOWN IN THE PLANS.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44200 (TELEPHONE: 330-545-4373).

   THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

   DWG.#: SS425M, DRAWING NAME: SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5', 9 POST), DWG./REV. DATE: 6/21/97, ODOT APPROVAL DATE: 3/6/98.

2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEM, INC., 7631 NEW CASTLE DR., FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

   THE LENGTH OF THE FLEAT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

   DWG.#: FLT-M, DRAWING NAME: FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY, DWG./REV. DATE: 4/16/98, ODOT APPROVAL DATE: 7/31/98.

GRADING SHALL BE IN ACCORDANCE WITH STANDARD DRAWING GR-4.3M (10/21/97).

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36"Wx12"H FOR THE SRT-350 AND 14"Wx20"H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44200 (TELEPHONE: 330-545-4373).

   THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

   DWG.#: SS265M, DRAWING NAME: ET-2000 (1997) PLAN, ELEVATION & SECTIONS, DWG./REV. DATE: 6/20/97, ODOT APPROVAL DATE: 3/6/98.

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEM, INC., 7631 NEW CASTLE DR., FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

   THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

   DWG.#: SKT-4M, DRAWING NAME: SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES, DWG./REV. DATE: 12/11/97, ODOT APPROVAL DATE: 3/6/98.

A TYPE C DELINEATOR SHALL BE INSTALLED AT THE HEAD OF ALL TYPE E-98 UNITS LOCATED ON THE RIGHT SIDE OF THE THROUGH ROADWAY. A TYPE D DELINEATOR SHALL BE INSTALLED AT THE HEAD OF ALL TYPE E-98 UNITS LOCATED ON THE LEFT SIDE OF THE THROUGH ROADWAY. DELINEATORS SHALL BE MOUNTED ON FLEXIBLE POST AND COMPLY WITH STANDARD TRAFFIC DRAWING TC-61.10M (3/31/94).

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, DELINEATORS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 621 - RAISED PAVEMENT MARKERS

THE REMOVAL AND REPLACEMENT OF RAISED PAVEMENT MARKERS IS REQUIRED. THE CONTRACTOR SHALL INSTALL ODOT SUPPLIED RECYCLED RAISED PAVEMENT MARKER CASTINGS INCLUDING PRISMATIC REFLECTORS. SEE SUPPLEMENTAL SPECIFICATION 1082 - RECYCLED RAISED PAVEMENT MARKERS (RPM'S) AUTHORIZATION AND TRANSFER SLIP FOR DIRECTION ON OBTAINING CASTINGS.

RAISED PAVEMENT MARKERS SHALL BE INSTALLED AS SPECIFIED IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS AND ACCORDING TO ODOT STANDARD DRAWINGS TC-65.10M, TC-65.11M, AND TC-65.12M.

SIGN LIGHTING

CONTRACTOR SHALL PROVIDE NEW LIGHTING FOR THE TWO SIGNS TO BE INSTALLED ON THE EXISTING STEEL ARCH AS INDICATED IN THE PLANS. THIS INCLUDES (10) 250 WATT MERCURY VAPOR LUMINAIRES WITH BALLASTS (5 PER SIGN), GLARE SHIELDS, GROUND ROD, SIGN SERVICE, SIGNS WIRED, AND DISCONNECT SWITCH.

ALL REQUIRED ITEMS SHALL BE INSTALLED ACCORDING TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND STANDARD DRAWINGS. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE FURNISHED AND CONSIDERED PAID FOR AS PART OF THE ITEM.

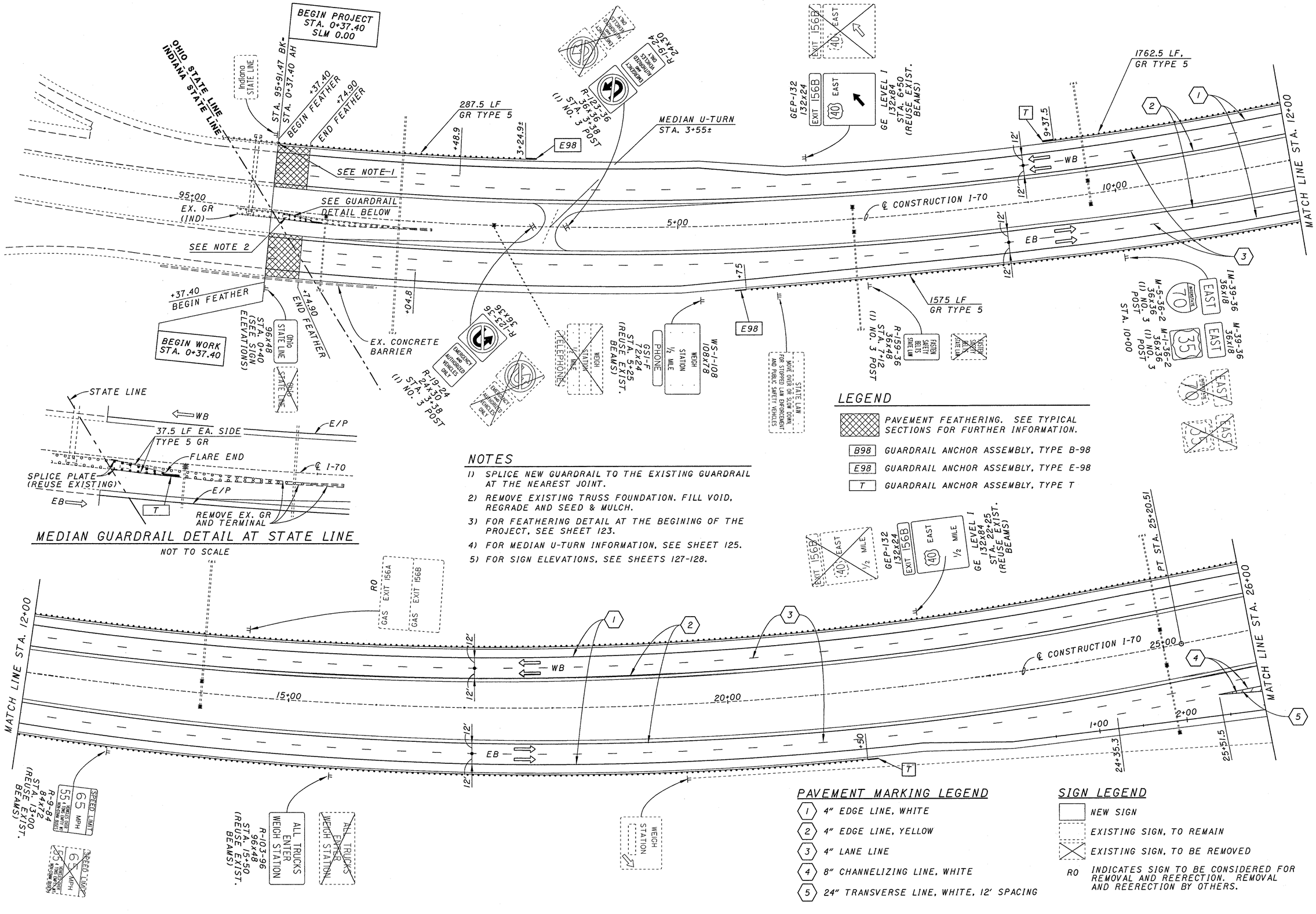
ITEM 626 - BARRIER REFLECTORS

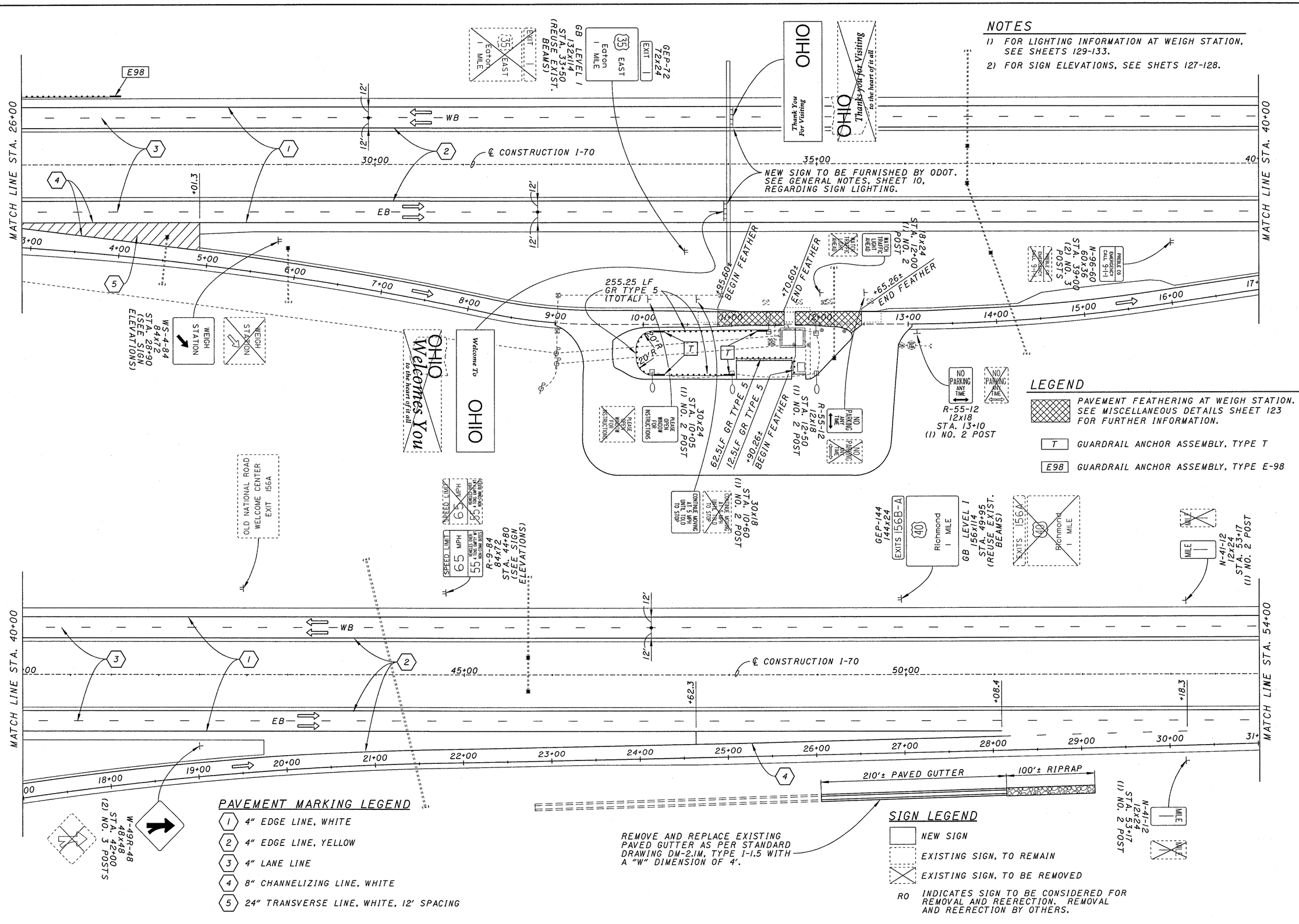
BARRIER REFLECTORS SHALL BE INSTALLED AS SPECIFIED IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.

CALCULATED DLB CHECKED HJZ

GENERAL NOTES

PRE-70-0.00

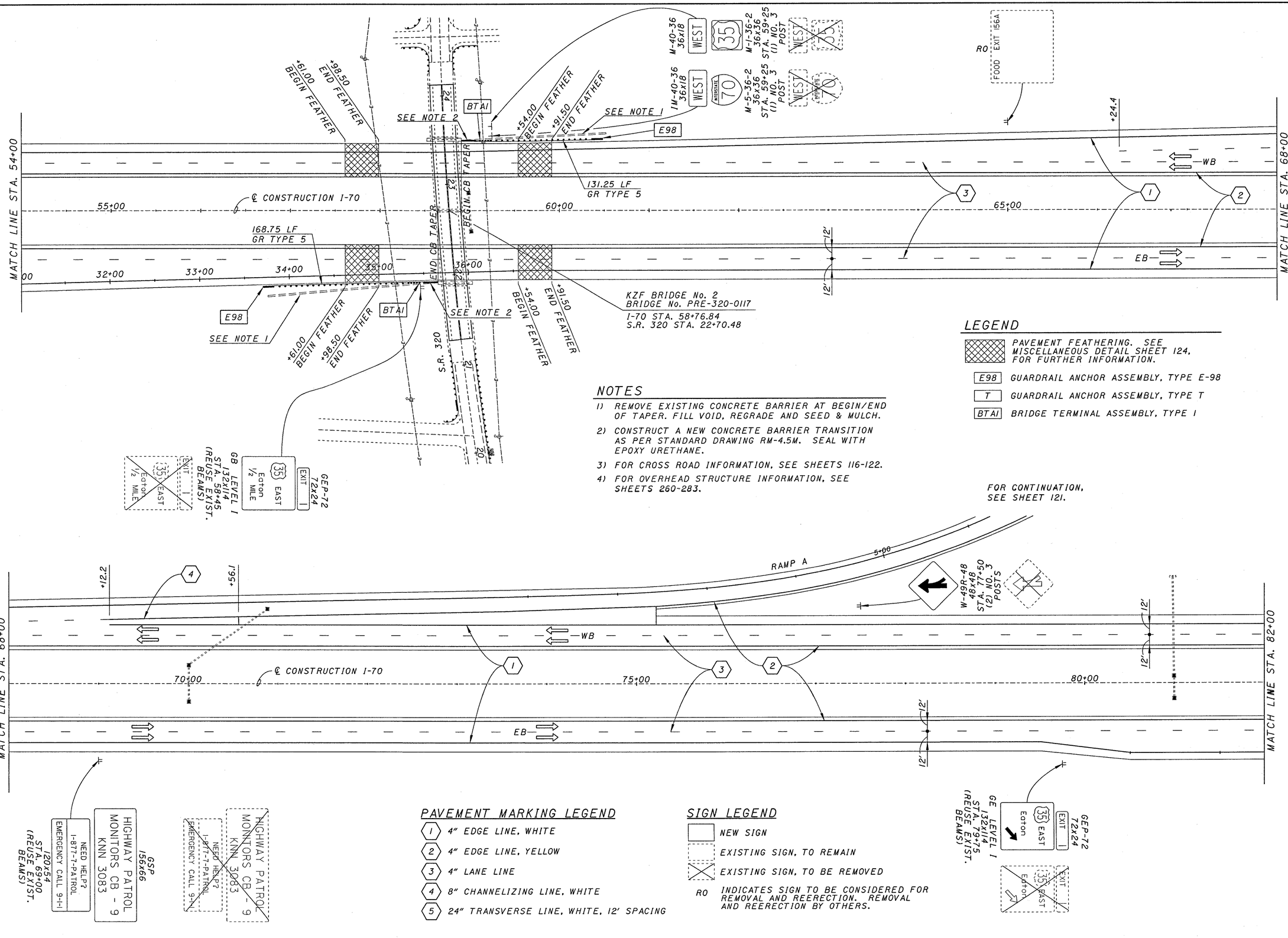

BEGIN PROJECT
STA. 0+37.40
SLM 0.00
OHIO STATE LINE
INDIANA STATE LINE
Indiana STATE LINE
STA. 95+91.47 BK
STA. 0+37.40 AH
+37.40 BEGIN FEATHER
+74.90 END FEATHER
287.5 LF GR TYPE 5
+48.9
3+24.9±
E98
R-123-36 36x36
STA. 3+38
(1) NO. 3 POST
R-10-24 24x30
MEDIAN U-TURN
STA. 3+55±
GEP-132 132x24
EXIT 156B
EAST
40
GE LEVEL 1 132x84
STA. 6+50
(REUSE EXIST. BEAMS)
EXIT 156B
1762.5 LF,
GR TYPE 5
T
9+37.5
WB
12'
10+00
MATCH LINE STA. 12+00
SEE NOTE-1
95+00
EX. GR (IND)
SEE GUARDRAIL DETAIL BELOW
℄ CONSTRUCTION I-70
5+00
SEE NOTE 2
EB
+37.40 BEGIN FEATHER
+74.90 END FEATHER
BEGIN WORK
STA. 0+37.40
EX. CONCRETE BARRIER
+04.8
Ohio STATE LINE
STA. 0+40
(SEE SIGN ELEVATIONS)
R-123-36 36x36
R-19-24 24x30
STA. 3+38
(1) NO. 3 POST
EMERGENCY AUTHORIZED VEHICLES ONLY
TELEPHONE
WEIGH STATION ½ MILE
PHONE
WS-I-108 108x78
GSI-F 72x24
STA. 5+25
(REUSE EXIST. BEAMS)
+75
E98
STATE LAW MOVE OVER OR SLOW DOWN FOR STOPPED LAW ENFORCEMENT AND PUBLIC SAFETY VEHICLES
1575 LF GR TYPE 5
R-156-96 36x48
STA. 7+12
(1) NO. 3 POST
FASTEN SAFETY BELTS STATE LAW
FASTEN SAFETY BELTS SAVE LIVES
IM-39-36 36x18
M-5-36-2 36x36
(1) NO. 3 POST
STA. 10+00
M-39-36 36x18
M-I-36-2 36x36
(1) NO. 3 POST
EAST
AUGUSTA
70
35
STATE LINE
WB
37.5 LF EA. SIDE TYPE 5 GR
FLARE END
E/P
℄ I-70
SPLICE PLATE (REUSE EXISTING)
EB
T
REMOVE EX. GR AND TERMINAL
MEDIAN GUARDRAIL DETAIL AT STATE LINE
NOT TO SCALE
NOTES
1) SPLICE NEW GUARDRAIL TO THE EXISTING GUARDRAIL AT THE NEAREST JOINT.
2) REMOVE EXISTING TRUSS FOUNDATION. FILL VOID, REGRADE AND SEED & MULCH.
3) FOR FEATHERING DETAIL AT THE BEGINING OF THE PROJECT, SEE SHEET 123.
4) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.
5) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.
LEGEND
PAVEMENT FEATHERING. SEE TYPICAL SECTIONS FOR FURTHER INFORMATION.
B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
T GUARDRAIL ANCHOR ASSEMBLY, TYPE T
RO
GAS EXIT 156A
GAS EXIT 156B
EXIT 156B EAST 40 ½ MILE
GEP-132 132x24
EXIT 156B
EAST
40
½ MILE
GE LEVEL 1 132x84
STA. 22+25
(REUSE EXIST. BEAMS)
PT STA. 25+20.51
MATCH LINE STA. 12+00
MATCH LINE STA. 26+00
℄ CONSTRUCTION I-70
15+00
20+00
25+00
1+00
2+00
+50
24+35.3
25+51.5
WB
EB
12'
R-9-84 84x72
STA. 13+00
(REUSE EXIST. BEAMS)
SPEED LIMIT 65 MPH
ALL TRUCKS ENTER WEIGH STATION
R-103-96 96x48
STA. 15+50
(REUSE EXIST. BEAMS)
ALL TRUCKS EXIT WEIGH STATION
WEIGH STATION
PAVEMENT MARKING LEGEND
1 4" EDGE LINE, WHITE
2 4" EDGE LINE, YELLOW
3 4" LANE LINE
4 8" CHANNELIZING LINE, WHITE
5 24" TRANSVERSE LINE, WHITE, 12' SPACING
SIGN LEGEND
NEW SIGN
EXISTING SIGN, TO REMAIN
EXISTING SIGN, TO BE REMOVED
RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.
TOP
BOTTOM
HORIZONTAL SCALE IN FEET
0 25 50 100
PLAN
STA. 0+37.40 TO STA. 26+00
PRE-70-0.00
11
283



PLAN
STA. 26+00 TO STA. 54+00

PRE-70-0.00

12
283



LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T GUARDRAIL ANCHOR ASSEMBLY, TYPE T
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 54+00 TO STA. 82+00

PRE-70-0.00

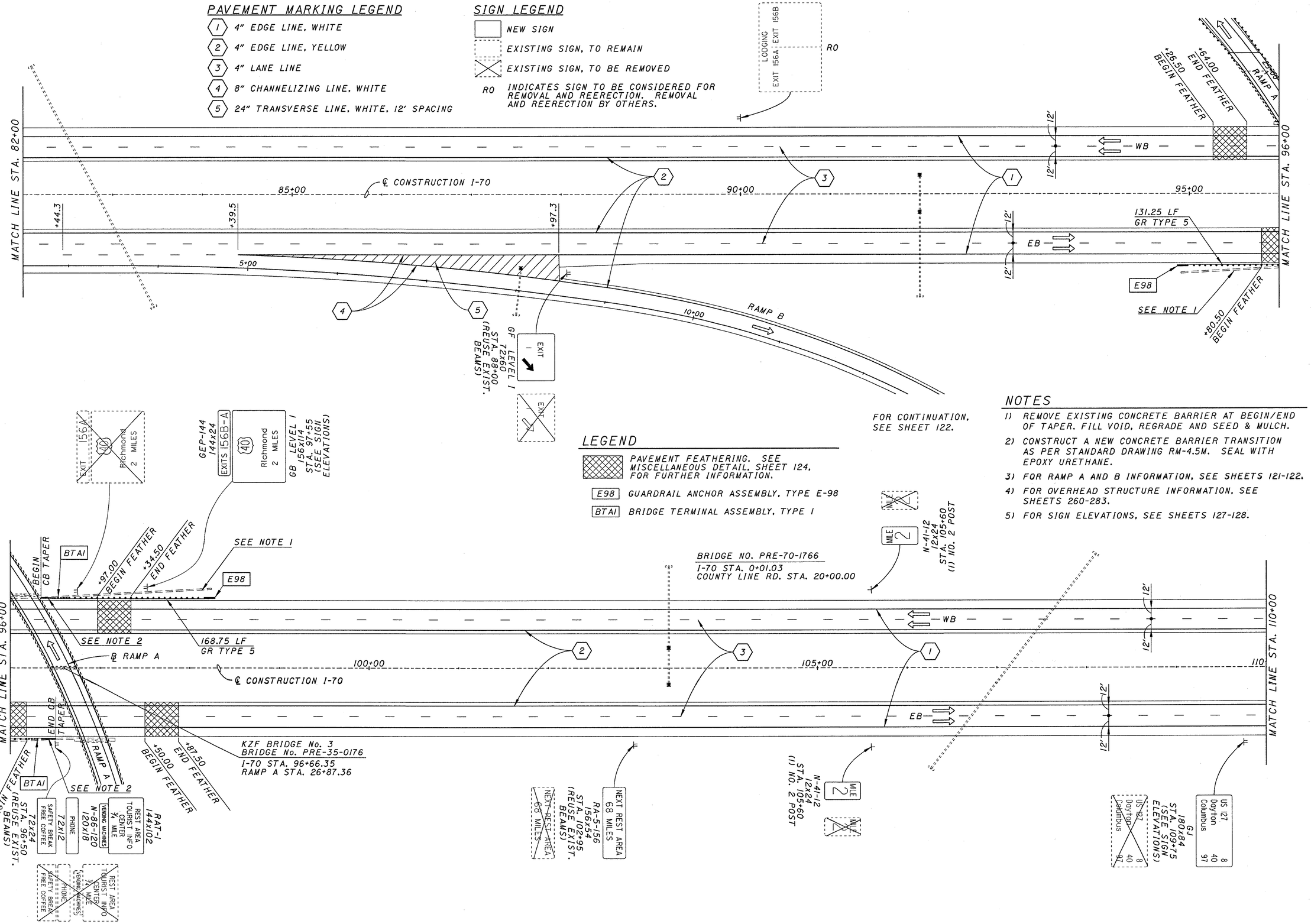
13
283

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL, SHEET 124, FOR FURTHER INFORMATION.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTA1 BRIDGE TERMINAL ASSEMBLY, TYPE 1

FOR CONTINUATION, SEE SHEET 122.

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR RAMP A AND B INFORMATION, SEE SHEETS 121-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
5) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

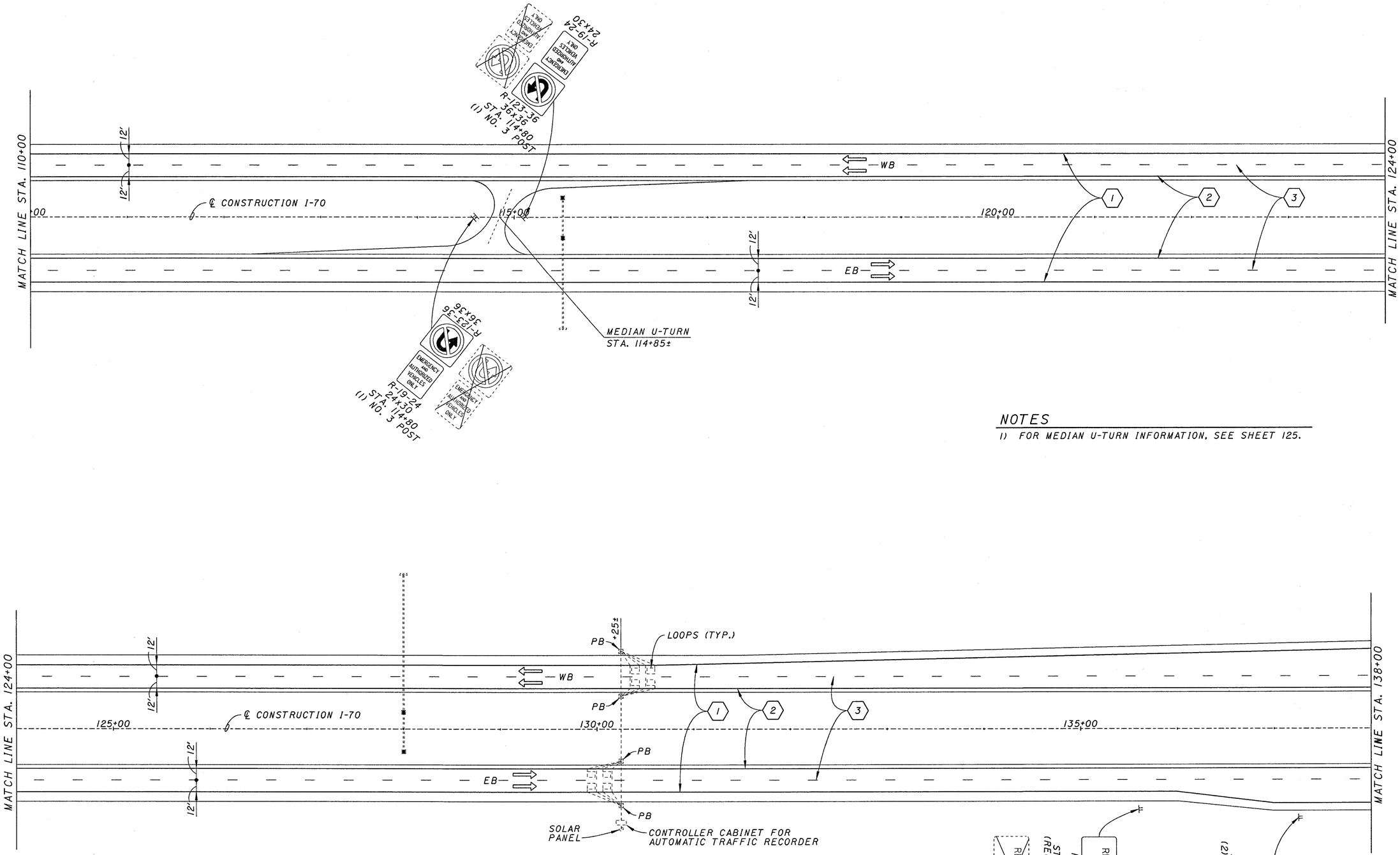
TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 82+00 TO STA. 110+00

PRE-70-0.00



NOTES

1) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

TOP

BOTTOM

0 25 50 100 HORIZONTAL SCALE IN FEET

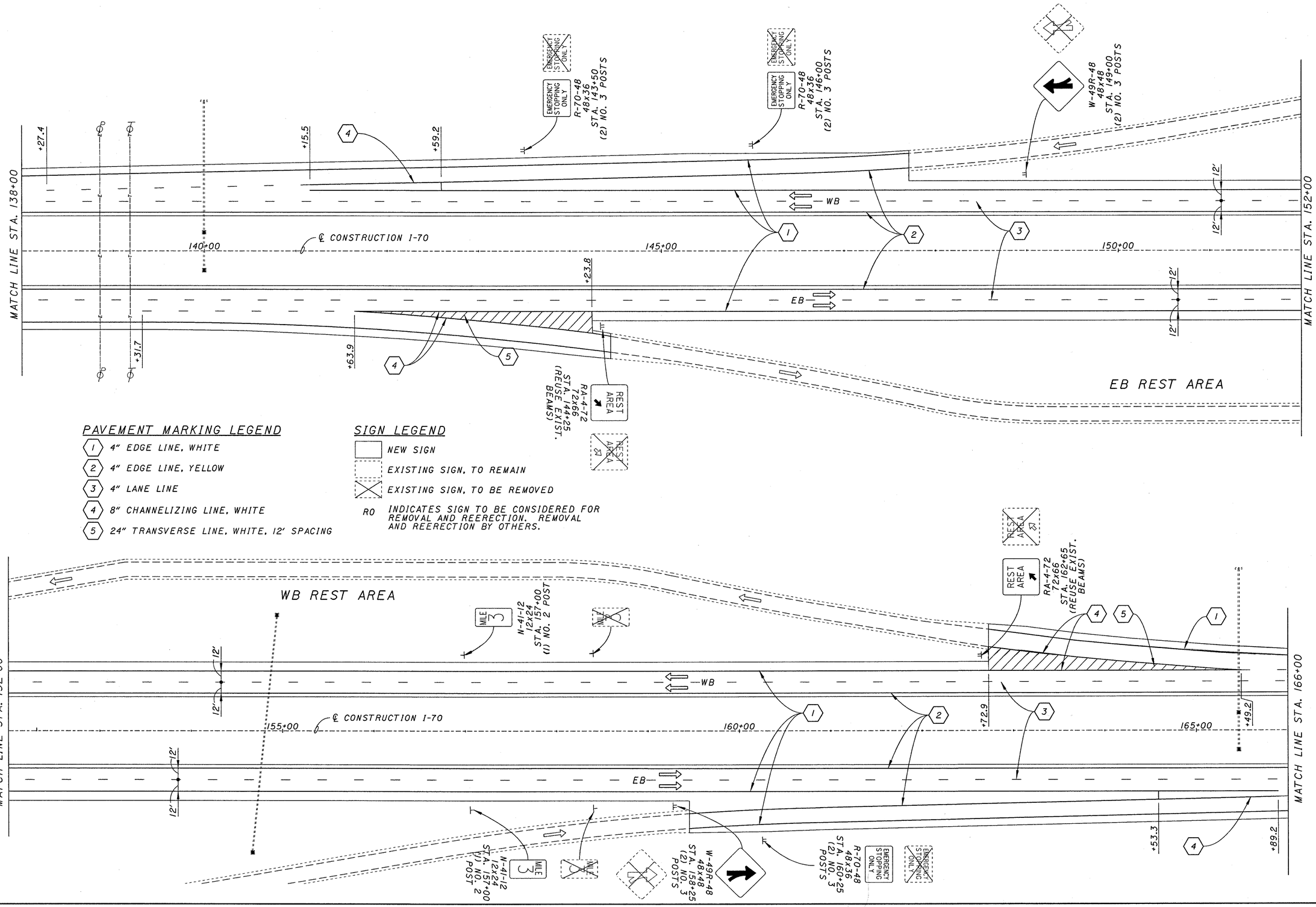
PLAN
STA. 110+00 TO STA. 138+00

PRE-70-0.00

15
283

REF01=**REF01**
REF02=**REF02**
REF03=**REF03**
REF04=**REF04**
REF05=**REF05**

$$$$SYTIME$$$$$$
USER1=$$USERNAME$$
PREF_FILE_DSP=$$PREFIX$$APPLICATION$$$$$$
PREF_FILE_NAME=$$PREFIX$$FILE$$
ACTIVE LEVELS ON: $$LEV$$



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 138+00 TO STA. 166+00

PRE-70-0.00

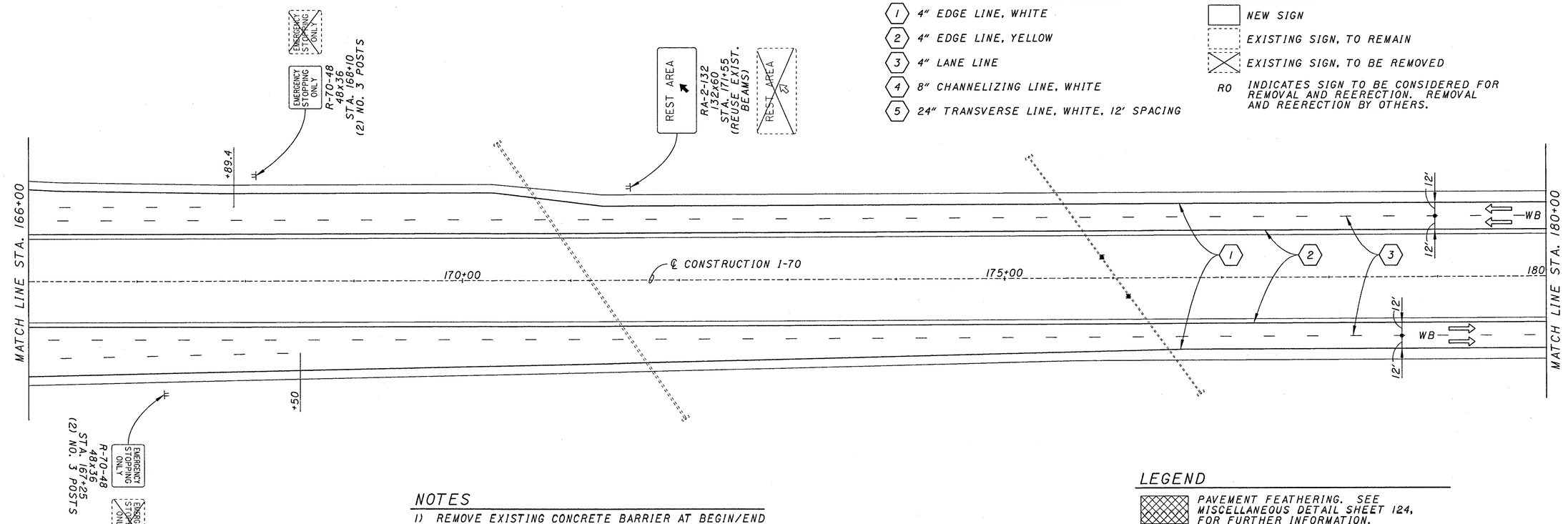
16
283

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

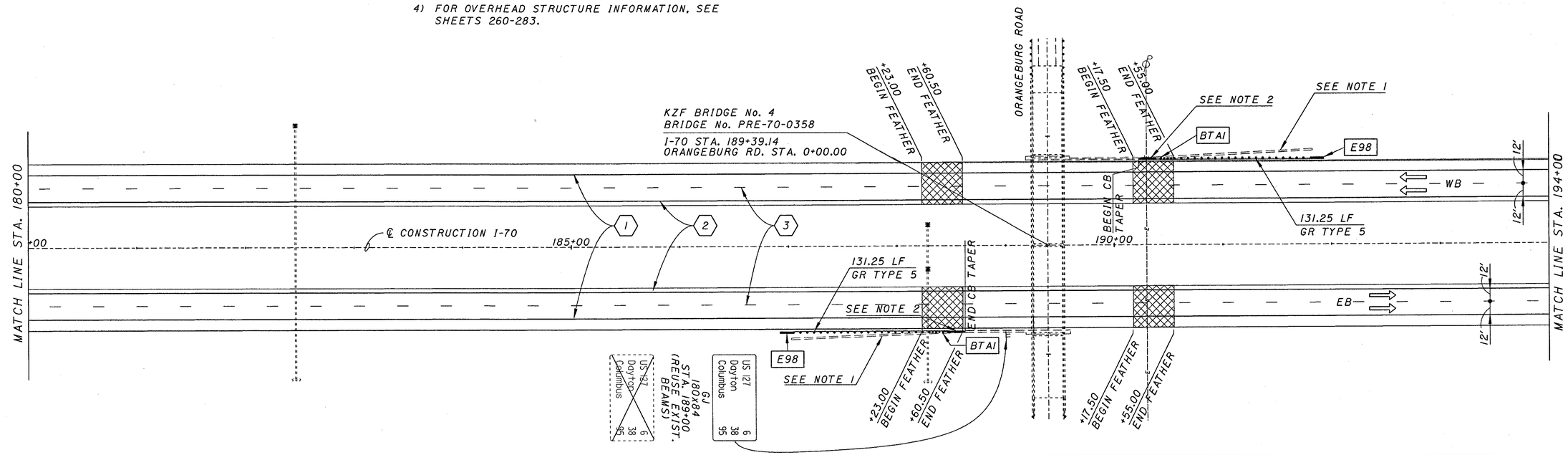


NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.

LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- E98 — GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTA1 — BRIDGE TERMINAL ASSEMBLY, TYPE 1



PLAN
STA. 166+00 TO STA. 194+00

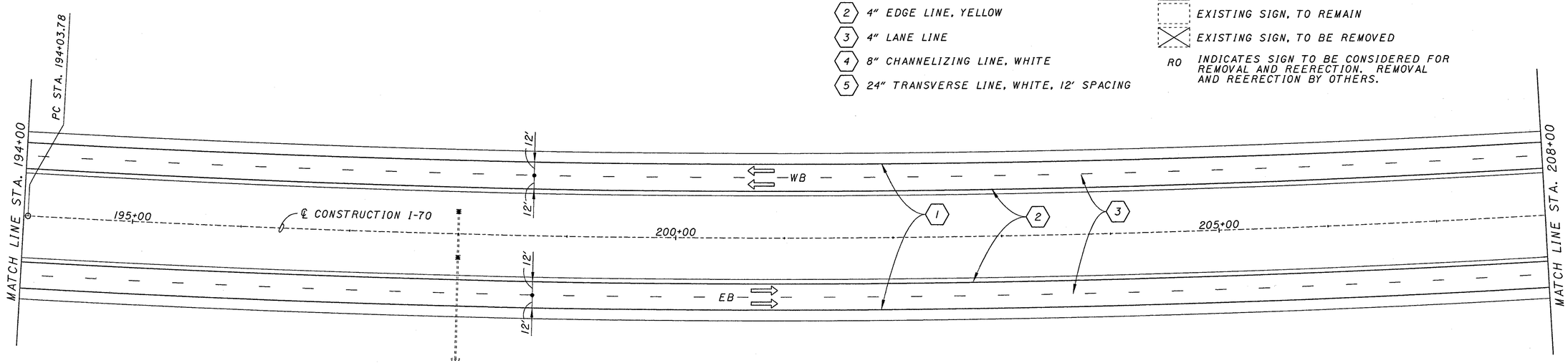
PRE-70-0.00

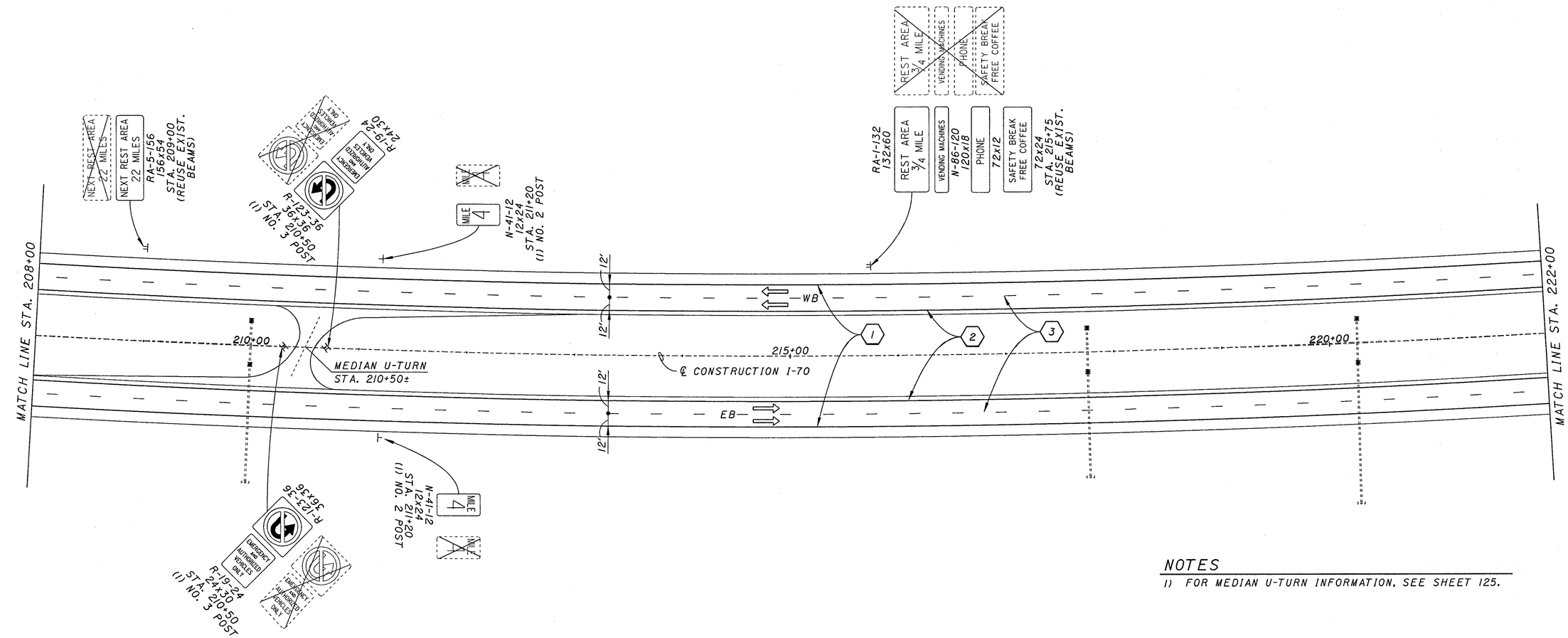
PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.





NOTES

1) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.

TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

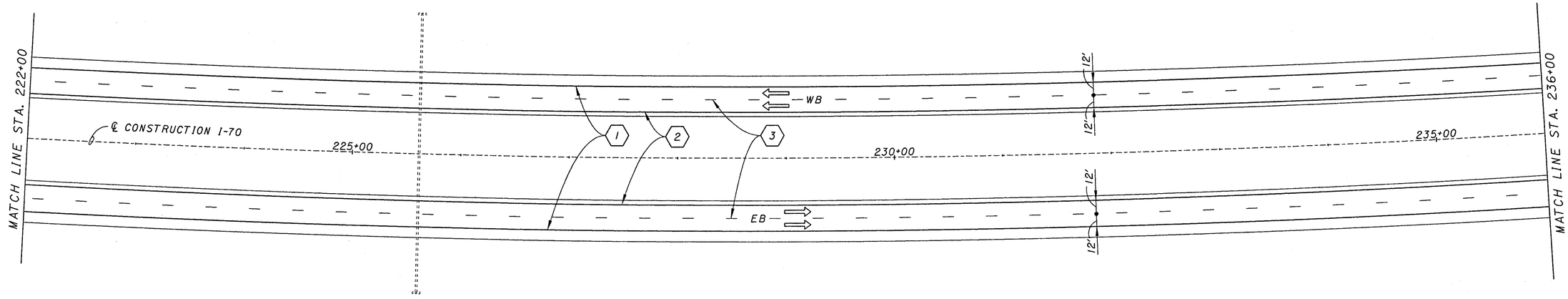
PLAN
STA. 194+00 TO STA. 222+00

PRE-70-0.00

18
283

REF01=**REF01**
REF02=**REF02**
REF03=**REF03**
REF04=**REF04**
REF05=**REF05**

**$$$$SYTIME$$$$$$
USER: $$USERNAME$$
FILE: C:\MYFILE\APPLICATION**********
PRE NAME: $$PREFNAME$$
ACTIVE LEVELS ON: $$LEV$$



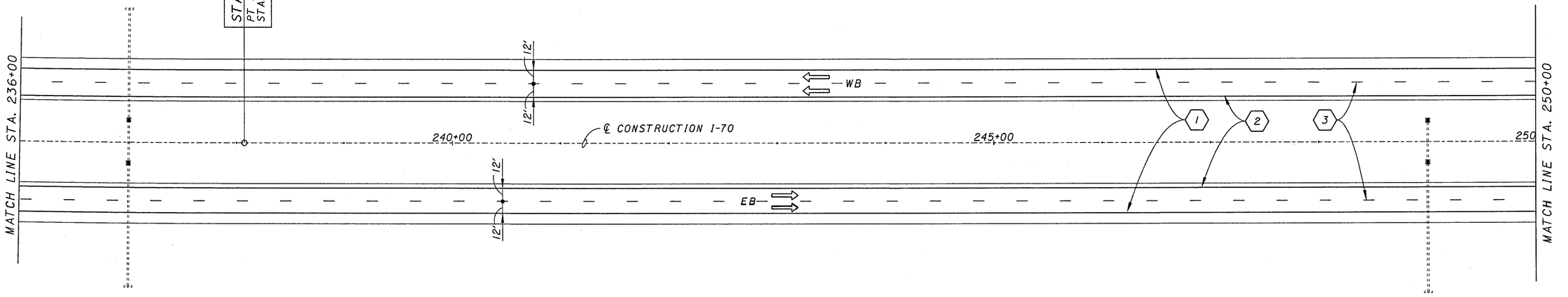
PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

STATION EQUATION
PT STA. 238+07.35 (BACK)
STA. 238+07.98 (AHEAD)



TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 222+00 TO STA. 250+00

PRE-70-0.00

$$$$$SYTIME$$$$$$
USER: $$USERNAME$$
FILE: $$DGNFILE$$ $$STATION$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$

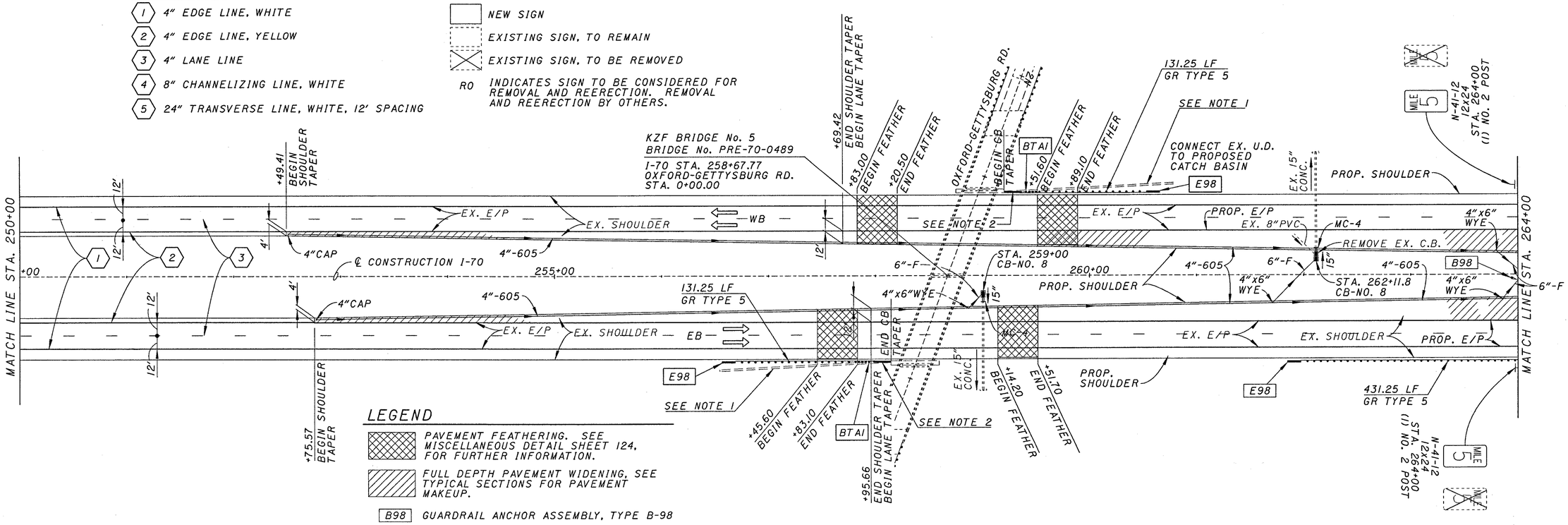
REF04: **REF04**
REF05: **REF05**

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

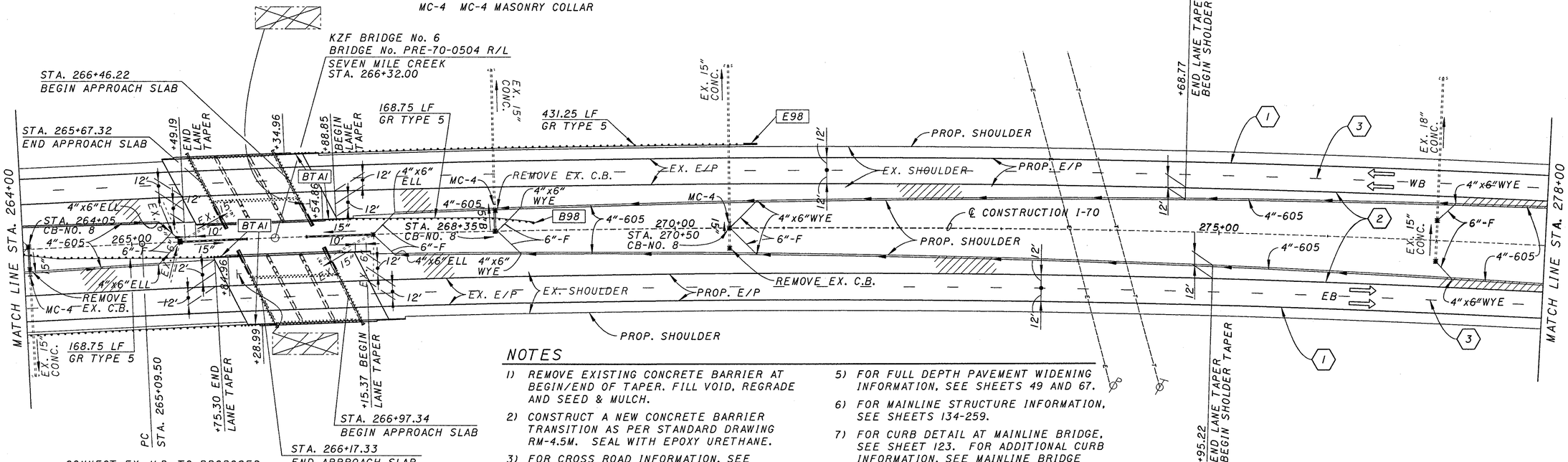
SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- MC-4 MC-4 MASONRY COLLAR



NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
5) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 49 AND 67.
6) FOR MAINLINE STRUCTURE INFORMATION, SEE SHEETS 134-259.
7) FOR CURB DETAIL AT MAINLINE BRIDGE, SEE SHEET 123. FOR ADDITIONAL CURB INFORMATION, SEE MAINLINE BRIDGE SITE PLAN, SHEET 134.

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 250+00 TO STA. 278+00

PRE-70-0.00

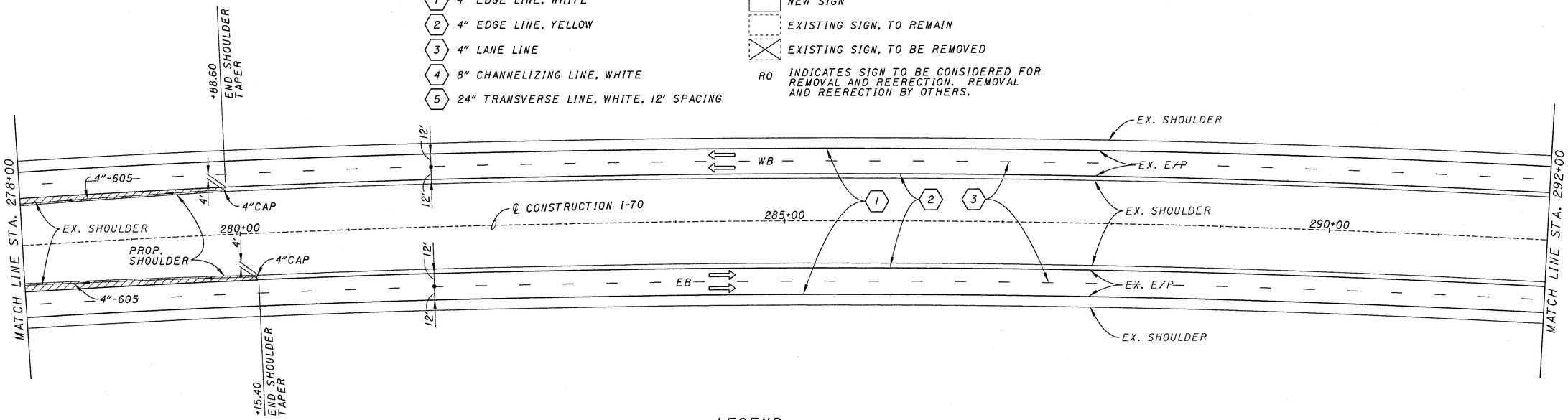
$$$$SYTM$$$$
USER: $$USERNAME$$
FILE: $$DGNFILE$$
REF: $$REFDGNS$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$
$$REFDN: $$REFDN$$
REF02: $$REF02$$
REF03: $$REF03$$
REF04: $$REF04$$
REF05: $$REF05$$

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

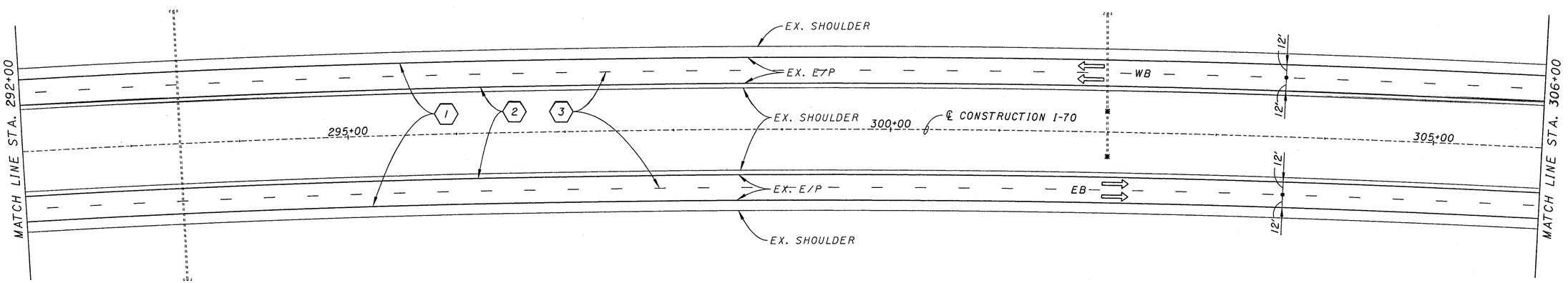
SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



LEGEND

- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.



HORIZONTAL SCALE IN FEET
0 25 50 100

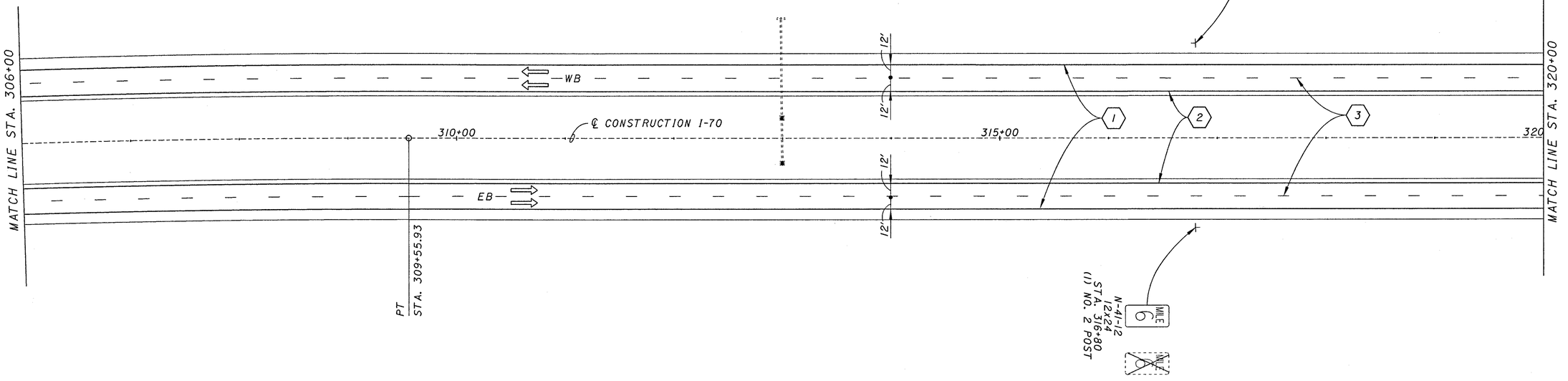
PLAN
STA. 278+00 TO STA. 306+00

PRE-70-0.00

21
283

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.



LEGEND

PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAILS SHEET 124, FOR FURTHER INFORMATION.

E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98

BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

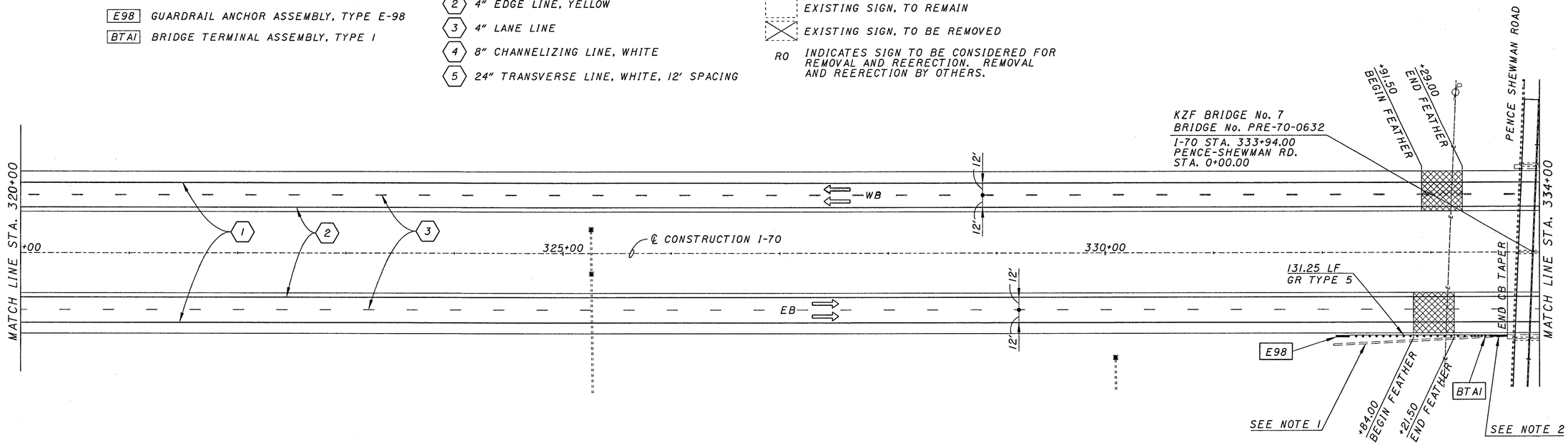
SIGN LEGEND

NEW SIGN

EXISTING SIGN, TO REMAIN

EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



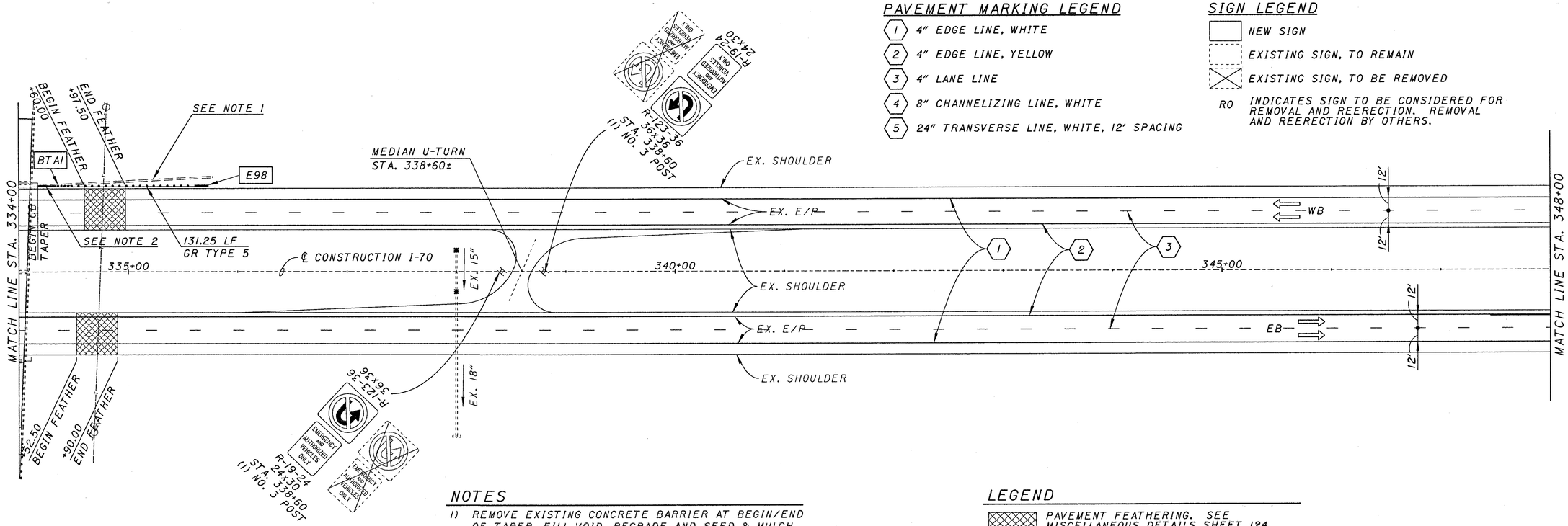
TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 306+00 TO STA. 334+00

PRE-70-0.00



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

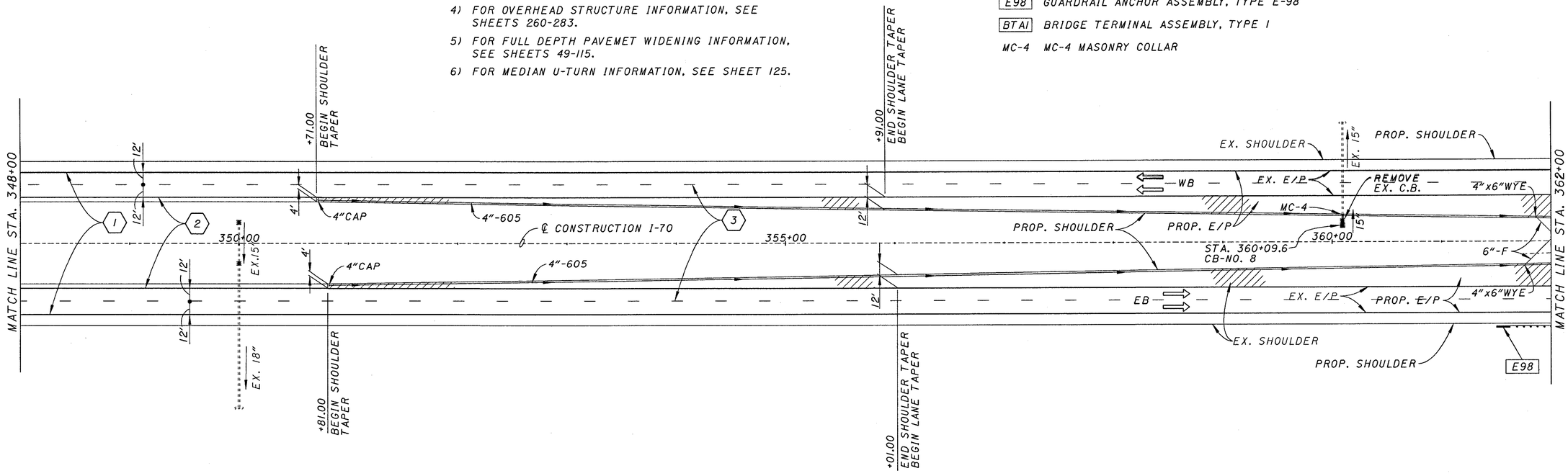
- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
5) FOR FULL DEPTH PAVEMET WIDENING INFORMATION, SEE SHEETS 49-115.
6) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.

LEGEND

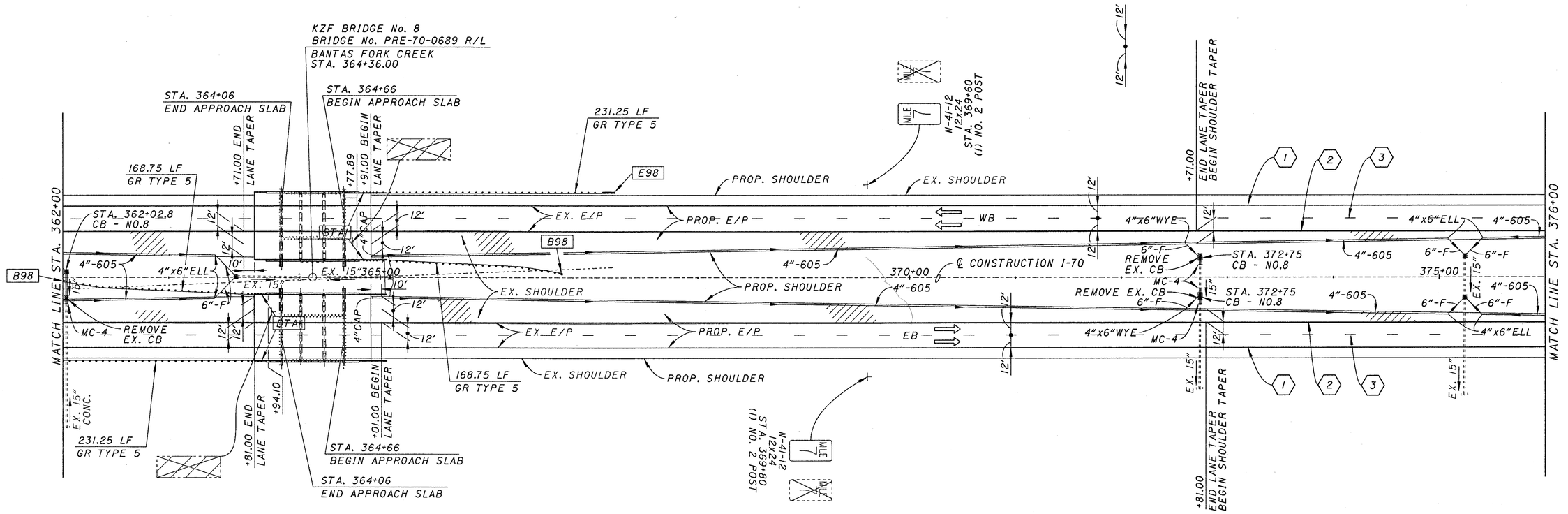
- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAILS SHEET 124, FOR FURTHER INFORMATION.
- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- MC-4 MC-4 MASONRY COLLAR



HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 334+00 TO STA. 362+00

PRE-70-0.00



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

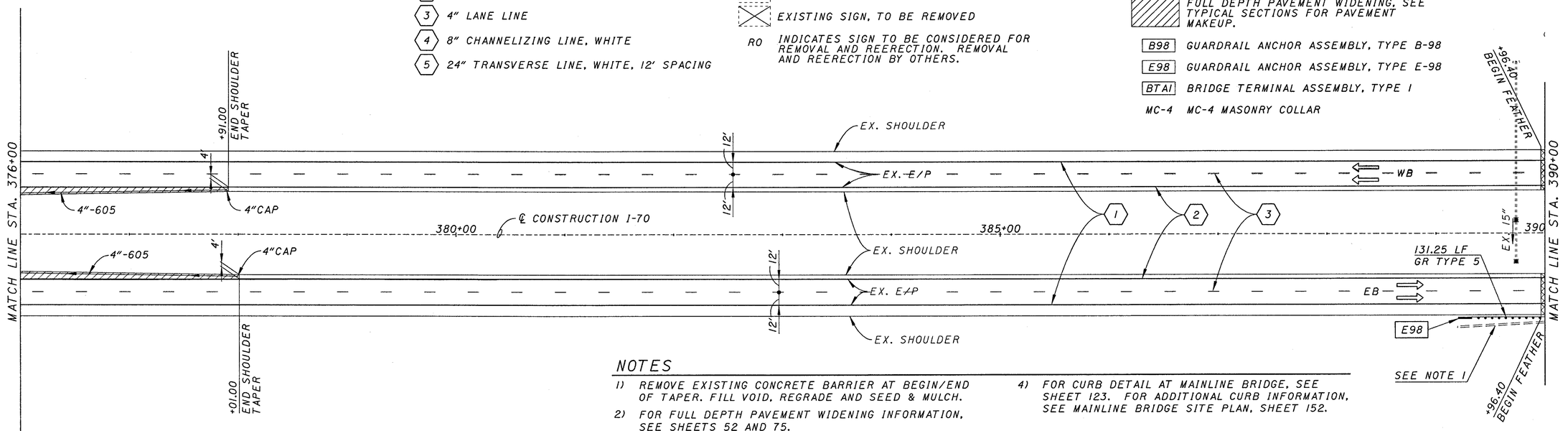
SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTA1 BRIDGE TERMINAL ASSEMBLY, TYPE 1
- MC-4 MC-4 MASONRY COLLAR



NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 52 AND 75.
3) FOR MAINLINE STRUCTURE INFORMATION, SEE SHEETS 134-259.
4) FOR CURB DETAIL AT MAINLINE BRIDGE, SEE SHEET 123. FOR ADDITIONAL CURB INFORMATION, SEE MAINLINE BRIDGE SITE PLAN, SHEET 152.

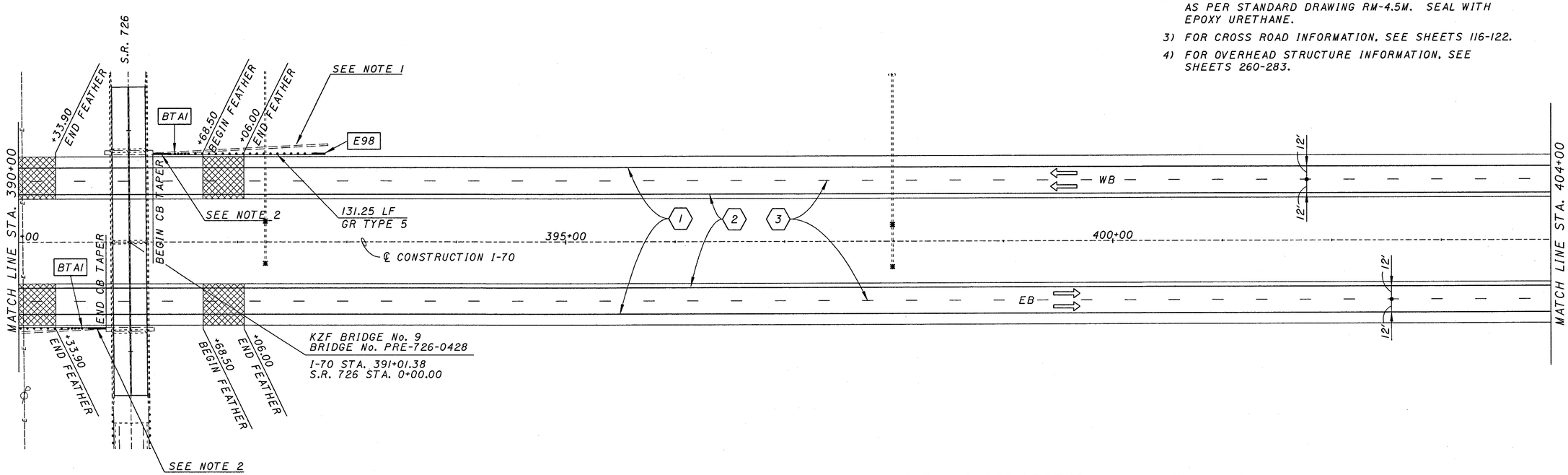
HORIZONTAL SCALE IN FEET
0 25 50 100

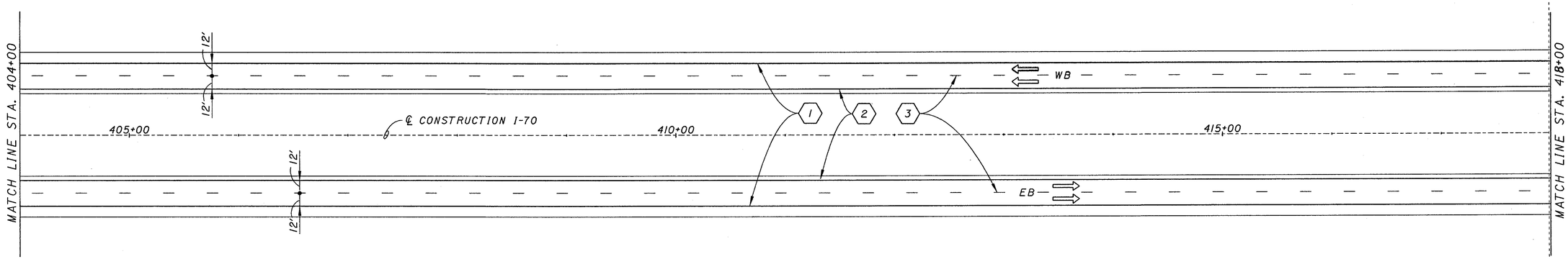
PLAN
STA. 362+00 TO STA. 390+00

PRE-70-0.00

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.





LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BT A1 BRIDGE TERMINAL ASSEMBLY, TYPE 1

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

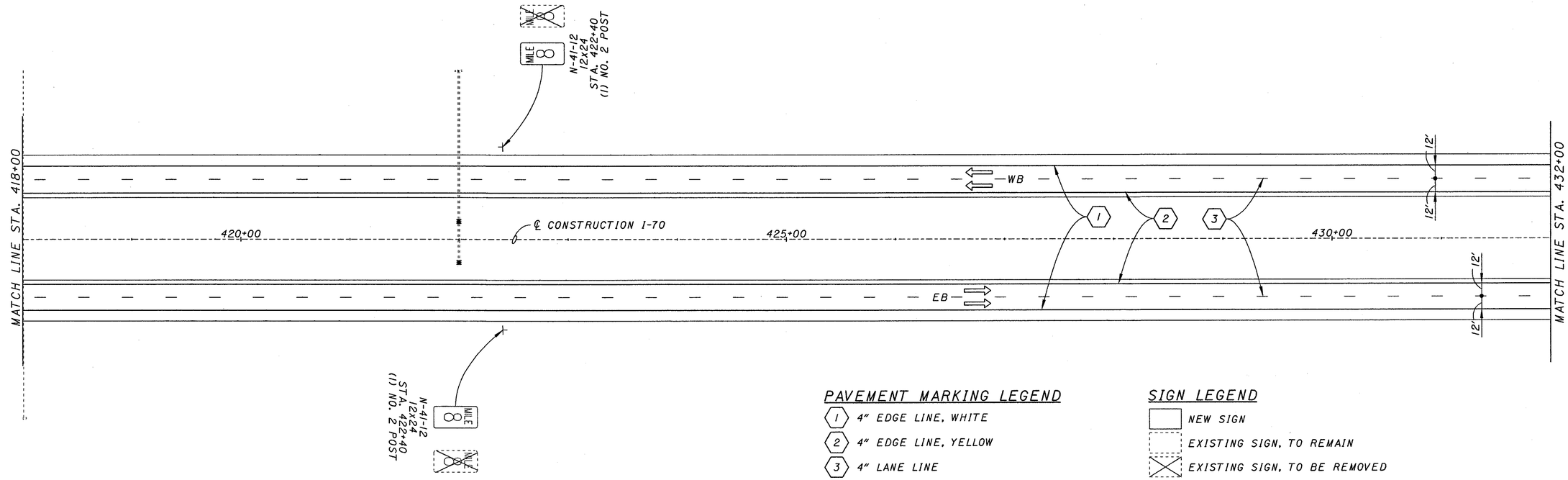
- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

TOP N
BOTTOM N
0 25 50 100 HORIZONTAL SCALE IN FEET

PLAN
STA. 390+00 TO STA. 418+00

PRE-70-0.00

25
283



PAVEMENT MARKING LEGEND

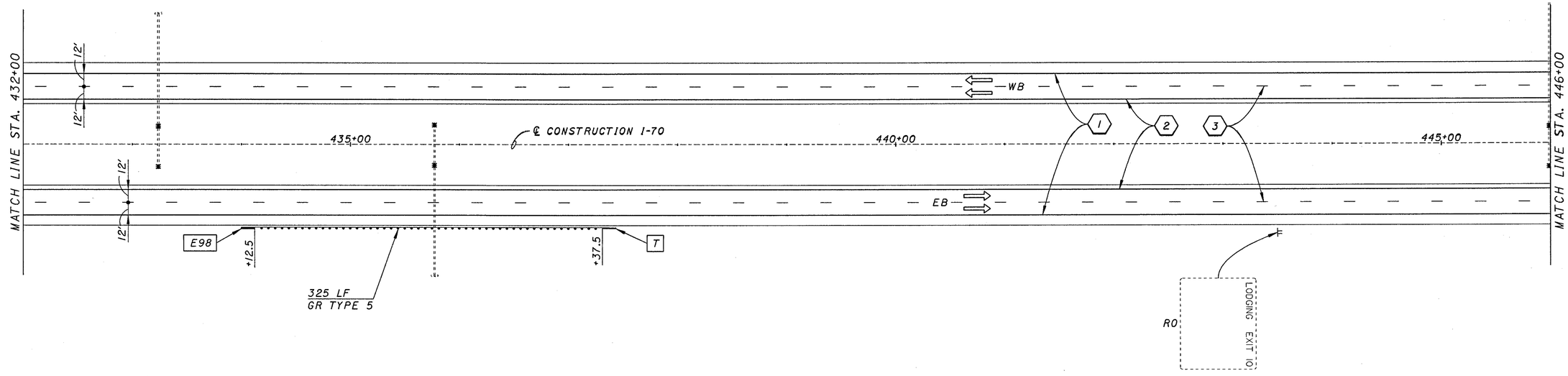
1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

LEGEND

- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T GUARDRAIL ANCHOR ASSEMBLY, TYPE T



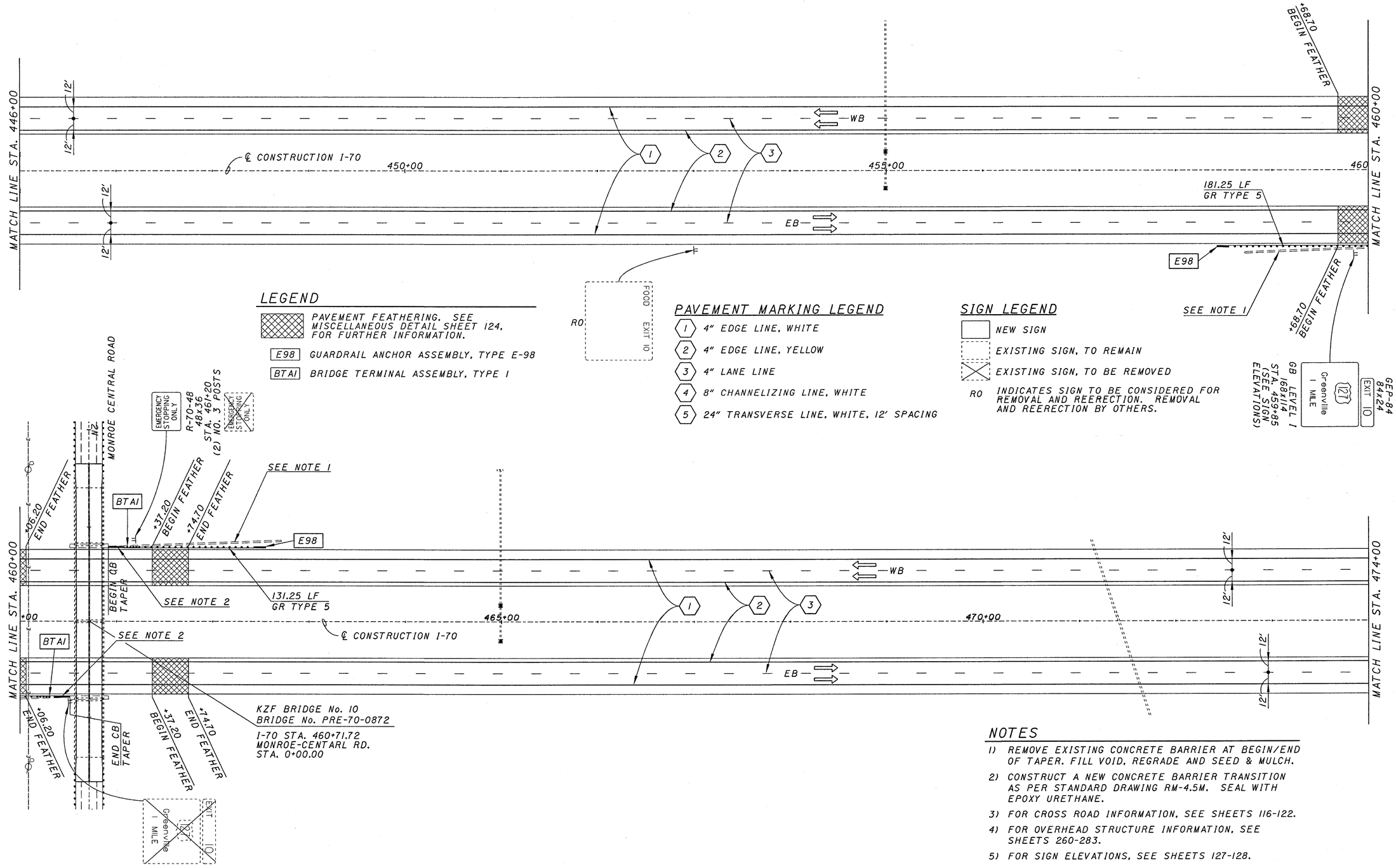
TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 418+00 TO STA. 446+00

PRE-70-0.00



LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
4) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
5) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

TOP N

BOTTOM N

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 446+00 TO STA. 474+00

PRE-70-0.00

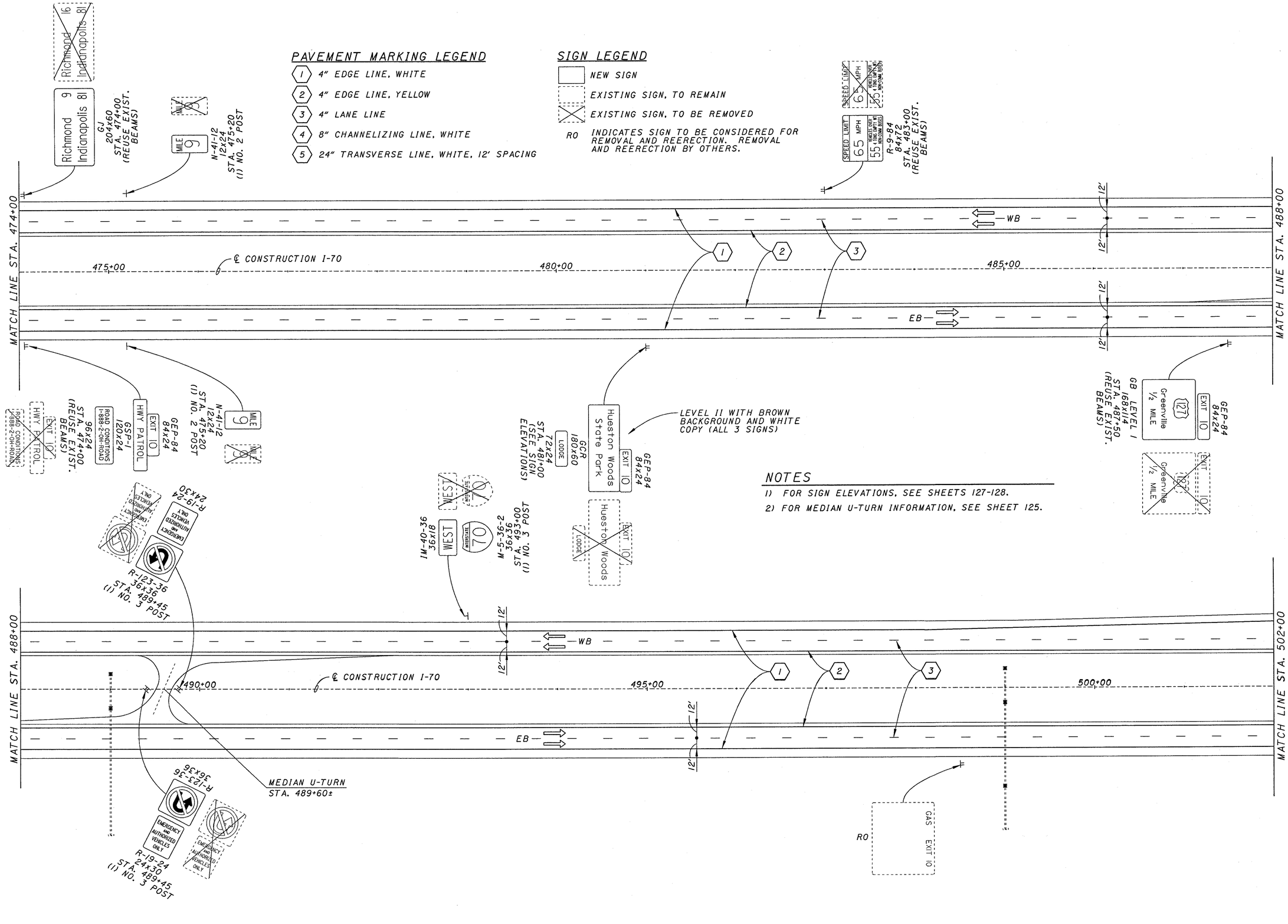
PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



NOTES

1) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.
2) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.

TOP
BOTTOM
HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 474+00 TO STA. 502+00

PRE-70-0.00

28
283

LEGEND

PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.

E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98

T GUARDRAIL ANCHOR ASSEMBLY, TYPE T

BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING
6. CENTER LINE, SOLID DOUBLE

SIGN LEGEND

NEW SIGN

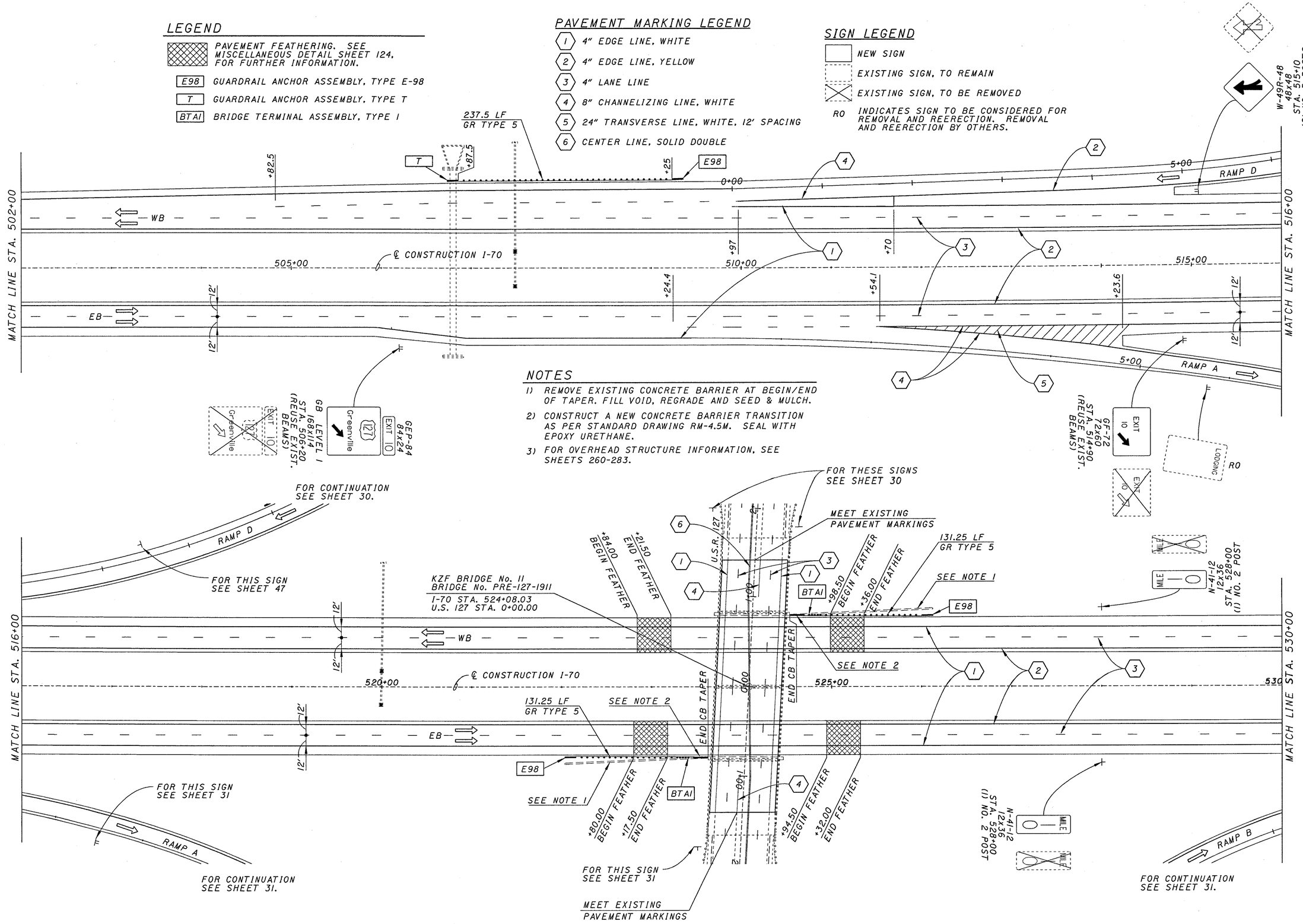
EXISTING SIGN, TO REMAIN

EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

NOTES

1) REMOVE EXISTING CONCRETE BARRIER AT BEGIN/END OF TAPER. FILL VOID, REGRADE AND SEED & MULCH.
2) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE.
3) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.



TOP

BOTTOM

HORIZONTAL SCALE IN FEET

PLAN
STA. 502+00 TO STA. 530+00
PRE-70-0.00

JREF0= *REF0=*
REF02=*REF03=*
REF04=*REF05=*
REF06=*REF07=*
REF08=*REF09=*
$$$$$SYTIME$$$$$$
USER: $$USERNAME$$
DESIGN FILE: $$DESIGNFILE$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEVS$$

SIGN LEGEND

NEW SIGN

EXISTING SIGN, TO REMAIN

EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

M-5-24-2 24x24 STA. 21+39N (NOT SHOWN) (1) NO. 3 POST

IM-17-24 24x12

M-52A-108 108x30 STA. 12+52N (NOT SHOWN) (SEE SIGN ELEVATIONS)

D-4B 144x48 STA. 7+94N (NOT SHOWN) (REUSE EXIST. BEAMS)

R-150-30 120x30 STA. 5+12N (1) NO. 5 POST

HIGHWAY PATROL N-28-72 72x12 STA. 5+33N (2) NO. 3 POSTS

SEE NOTE 1

IM-40-24 24x12

M-5-24-2 24x24

IM-24L-24 24x18

D-4A 120x24 STA. 5+50N (2) NO. 4 POSTS

R-41B-36 36x36

R-1-48 48x48 STA. 10+60 (2) NO. 3 POSTS

D-4B LEVEL III - BROWN BACKGROUND WITH WHITE COPY 132x24 STA. 13+20 (REUSE EXIST. BEAMS)

R-41A-36 36x24

M-1-24-3 30x24

M-25-21 21x15

D-4B LEVEL III 132x48 STA. 14+00 (REUSE EXIST. BEAMS)

R-43R-48 48x18

R-1-48 48x48 STA. 10+85 (2) NO. 3 POSTS

R-43L-48 48x18

R-41A-36 (1) NO. 3 POST STA. 26+24N

512.5 LF GR TYPE 5

650 LF GR TYPE 5

RAMP C

RAMP D

RAMP A

RAMP B

M-10-36 36x48 STA. 3+00N (1) NO. 4 POST

M-1-24-3 30x24 STA. 2+00N (1) NO. 3 POST

M-38-24 24x12

R-70-48 48x36 STA. 7+50N (2) NO. 3 POSTS

W-85-48 48x48 STA. 1+81.25N (2) NO. 3 POSTS

EX. GUARDRAIL TO REMAIN

E98

T

FOR THIS SIGN SEE SHEET 31

FOR THIS SIGN SEE SHEET 29

FOR PAVEMENT MARKINGS ON U.S.R. 127, SEE SHEET 29.

KZF BRIDGE No. 11
BRIDGE No. PRE-127-1911
I-70 STA. 524+08.03
U.S. 127 STA. 0+00.00

FOR CONTINUATION SEE SHEET 31.

MATCH LINE STA. 516+00

MATCH LINE STA. 530+00

WB

EB

℄ CONSTRUCTION I-70

520+00

525+00

530

5+00

10+00

15+00

1+00

2+00

3+00

4+00

7+00

6+00

U.S.R. 127

LEGEND

PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.

E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98

T GUARDRAIL ANCHOR ASSEMBLY, TYPE T

NOTES

1) SPLICE NEW GUARDRAIL AT THE NEAREST GUARDRAIL JOINT.

2) FOR SIGNING ELEVATIONS, SEE 127-128.

TOP

BOTTOM

HORIZONTAL SCALE IN FEET

PLAN
STA. 502+00 TO STA. 530+00

PRE-70-0.00

30
283

DGN: **REFDG**
REFDG: **REFDG**
REFDG: **REFDG**
REFDG: **REFDG**
REFDG: **REFDG**
REFDG: **REFDG**
REFDG: **REFDG**
REFDG: **REFDG**
**$$$$$SYSTIME$$$$$$
**$$$$$SYSDATE$$$$$$
DESFILE: DGNSPECIFICATION$$$$$$$$
PRF NAME: &PRFNAME&
ACTIVE LEVELS ON MODEL**

FOR CONTINUATION SEE SHEET 30.

FOR THIS SIGN SEE SHEET 30

RAMP D

MATCH LINE STA. 516+00

12'

12'

520+00

℄ CONSTRUCTION I-70

12'

12'

FOR THIS SIGN SEE SHEET 30

KZF BRIDGE No. 11
BRIDGE No. PRE-127-1911
I-70 STA. 524+08.03
U.S. 127 STA. 0+00.00

0+00

1+00

FOR THIS SIGN SEE SHEET 30

WB

FOR THIS SIGN SEE SHEET 45

525+00

530

MATCH LINE STA. 530+00

EB

FOR PAVEMENT MARKINGS ON U.S.R. 127, SEE SHEET 29.

FOR THIS SIGN SEE SHEET 29

W-85-48
48x48
STA. 1+81.25S
(2) NO. 3 POSTS

2+00

EX. GUARDRAIL TO REMAIN

3+00

4+00

U.S.R. 127

5+00

6+00

7+00

LEGEND

PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.

T GUARDRAIL ANCHOR ASSEMBLY, TYPE T

HORIZONTAL SCALE IN FEET
0 25 50 100

TOP

BOTTOM

1

2

RO

(REUSE EXIST. BEAM)
STA. 9+50
W-94-48
48x30

E98

10+00

RAMP A

650 LF
GR TYPE 5

RO

GAS

(REUSE EXIST. BEAMS)
STA. 11+50
D-48 LEVEL III
48x24

(SEE SIGN ELEVATION)
LEVEL III BROWN BACKGROUND WITH WHITE COPY
STA. 13+24
48x24

M-25-21
21x15

M-I-24-3
30x24

WRONG WAY
R-41A-36
36x24

WRONG WAY
R-41A-36
36x24
STA. 11+50
(1) NO. 3 POST

ONE WAY
R-43L-48
48x18

STOP
DO NOT ENTER
R-41B-36
36x36

ONE WAY
R-43R-48
48x18

STOP
R1-48
48x48

STOP
DO NOT ENTER
R-41B-36
36x36
STA. 14+50
(2) NO. 3 POSTS

D-4A
120x24
STA. 5+50S
(2) NO. 4 POSTS

Columbus 88

IM-24L-24
24x18

M-5-24-2
24x24

EAST

IM-39-24
24x12

WEST INTERSTATE 70 EAST

M-52A-108
108x30
STA. 4+34S
(SEE SIGN ELEVATION FOR STA. 12+52N)

400 LF
GR TYPE 5

RAMP B

15+00

T

PROHIBITED FOR PEDESTRIANS BICYCLES MOTOR VEHICLES LIMITED ACCESS HIGHWAY

R-15D-30
30x30
STA. 14+00
(1) NO. 3 POST

HIGHWAY PATROL

N-28-72
72x12
STA. 5+00S
(2) NO. 3 POSTS

SEE NOTE 1

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

NOTES

1) SPLICE NEW GUARDRAIL AT THE NEAREST GUARDRAIL JOINT.
2) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

Indianapolis 82
Columbus 88
D-4B
144x48
STA. 7+83S (NOT SHOWN)
(REUSE EXIST. BEAMS)

WEST INTERSTATE 70 EAST
M-52A-108
108x30
STA. 11+93S (NOT SHOWN)
(SEE SIGN ELEVATION FOR STA. 12+52N)

IM-17-24
24x12
JCT INTERSTATE 70
M-5-24-2
24x24
STA. 14+66S (NOT SHOWN)
(1) NO. 3 POST

PLAN
STA. 502+00 TO STA. 530+00

PRE-70-0.00

31
283

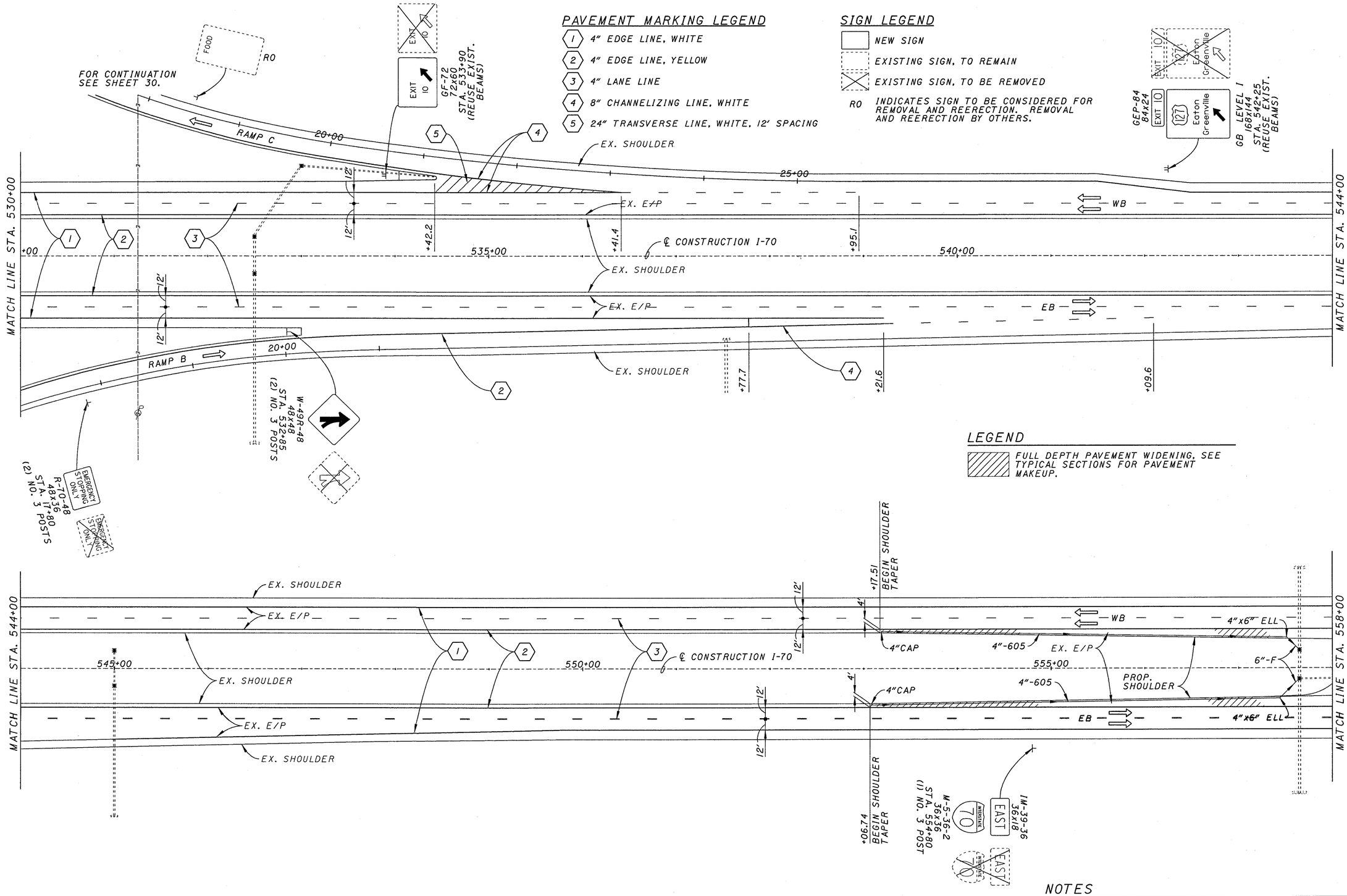
REFDS: *REFDS*
REFDS: *REFDS*
REFDS: *REFDS*
REFDS: *REFDS*
REFDS: *REFDS*
REFDS: *REFDS*
$$$$$SYTIME$$$$$
$$$$$SYDATE$$$$$
DGN: *DGNSPECIFICATION*
DESIGNFILE: *DGNSPECIFICATION*
PRF NAME: &PRFNAME&
ACTIVE LEVELS: ONA *LEVS*

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



LEGEND

- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.

NOTES

1) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 49-115.

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 530+00 TO STA. 558+00

PRE-70-0.00

PLAN
STA. 558+00 TO STA. 586+00

PRE-70-0.00

HORIZONTAL SCALE IN FEET
0 25 50 100

N

MEDIAN U-TURN
STA. 558+23±

MATCH LINE STA. 558+00

+37.51 END SHOULDER TAPER BEGIN LANE TAPER

+26.74 END SHOULDER TAPER BEGIN LANE TAPER

R-123-36 36x36 (1) NO. 3 POST STA. 558+20

R-19-24 24x30 (1) NO. 3 POST STA. 558+20

R-123-36 36x36 (2) NO. 3 POSTS STA. 559+50

R-70-48 48x36 STA. 559+50

EMERGENCY STOPPING ONLY

EMERGENCY VEHICLES ONLY

EMERGENCY AUTHORIZED VEHICLES ONLY

GEP-84 84x24 EXIT 10 Eaton Greenville 1/2 MILE

GB LEVEL I 168x144 STA. 559+00 (REUSE EXIST. BEAMS)

LEVEL II WITH BROWN BACKGROUND AND WHITE COPY (ALL 3 SIGNS)

GEP-84 84x24 EXIT 10 Hueston Woods LODGE

Hueston Woods State Park

GCR 180x60 LODGE 72x24 STA. 566+00 (SEE SIGN ELEVATIONS)

KZF BRIDGE No. 12
BRIDGE No. PRE-70-1072 R/L
GOOSE RUN
STA. 566+82.00

STA. 566+73.31
END APPROACH SLAB

168.75 LF GR TYPE 5

+17.51 END LANE TAPER

+57.27 BEGIN LANE TAPER

+78.66

STA. 567+53.05
BEGIN APPROACH SLAB

318.75 LF GR TYPE 5

E98

BTAI

EX. 15" CONC.

MC-4

REMOVE EX. CB

STA. 569+45
CB - No. 8

570+00

B98

168.75 LF GR TYPE 5

MATCH LINE STA. 572+00

PROP. SHOULDER

PROP. E/P

EX. E/P

EX. SHOULDER

WB

EB

12'

10'

4"CAP

4"x6"ELL

6"-F

4"-605

4"x6"WYE

4"x6" ELL

EX. 12"

560+00

565+00

℄ CONSTRUCTION I-70

243.75 LF GR TYPE 5

STA. 565+50 (REUSE EXIST. BEAMS)

SPEED LIMIT 55 MPH

R-9-84 84x12

STA. 566+10.95
END APPROACH SLAB

+85.41

+06.74 END LANE TAPER

+46.48 BEGIN LANE TAPER

STA. 566+90.69
BEGIN APPROACH SLAB

SLOWER TRAFFIC KEEP RIGHT

+42.86

LEGEND

- FULL DEPTH PAVEMENT WIDENING. SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- MC-4 MC-4 MASONRY COLLAR

GEP-84 84x24 EXIT 10 HWY PATROL

GSP-1 120x24 ROAD CONDITIONS 1-888-2-OH-ROAD

96x24 STA. 573+00 (REUSE EXIST. BEAMS)

EX. 15"

REMOVE EX. CB

STA. 572+00
CB - No. 8

MC-4

575+00

4"-605

580+00

585+00

+37.27 END LANE TAPER BEGIN SHOULDER TAPER

RO FOOD EXIT 10

+57.27 END SHOULDER TAPER

N-41-12 12x36 STA. 580+80 (1) NO. 2 POST

+46.48 END SHOULDER TAPER

N-41-12 12x36 STA. 580+80 (1) NO. 2 POST

+26.48 END LANE TAPER BEGIN SHOULDER TAPER

GJ 180x60 STA. 575+25 (REUSE EXIST. BEAMS)

Dayton Columbus 31 88

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

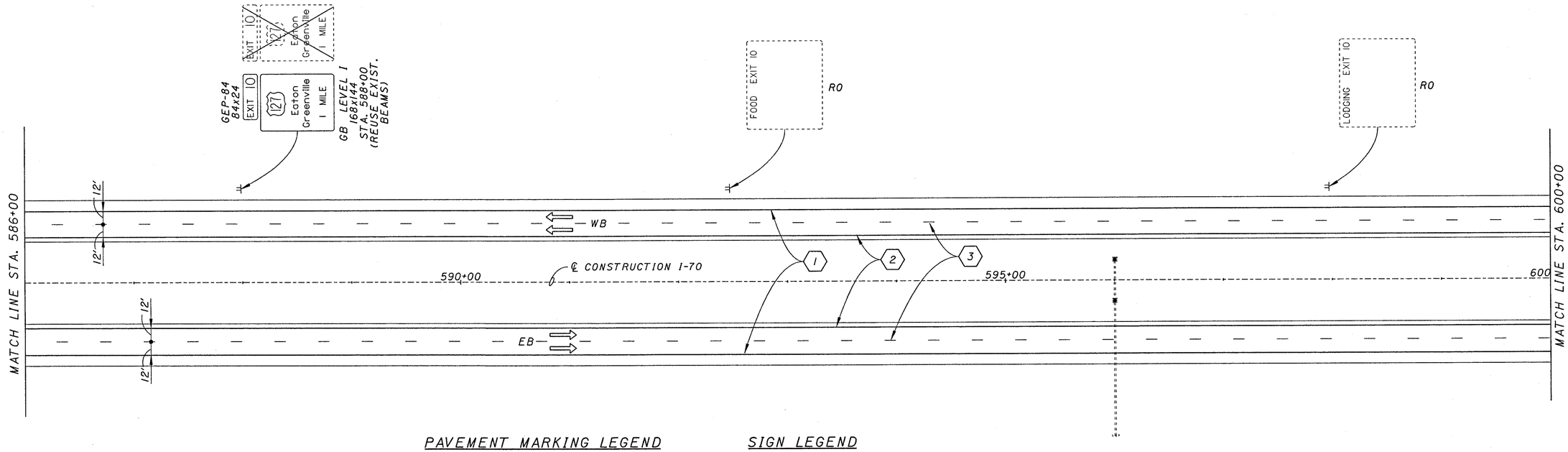
- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

NOTES

1) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 55 AND 83.
2) FOR MAINLINE STRUCTURE INFORMATION, SEE SHEETS 134-259.
3) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.
4) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.
5) FOR CURB DETAIL AT MAINLINE BRIDGE, SEE SHEET 123. FOR ADDITIONAL CURB INFORMATION, SEE MAINLINE BRIDGE SITE PLAN, SHEET 168.

$$$$$SYTIME=$$$$$
$$$$$SYDATE=$$$$$
DESFILE DGN=SPECIFICATION$$$$$$$$
PRF NAME=$PRFNAME$
ACTIVE LEVELS ON ***LEVS**

REF01 **REF01**
REF02 **REF02**
REF03 **REF03**
REF04 **REF04**
REF05 **REF05**

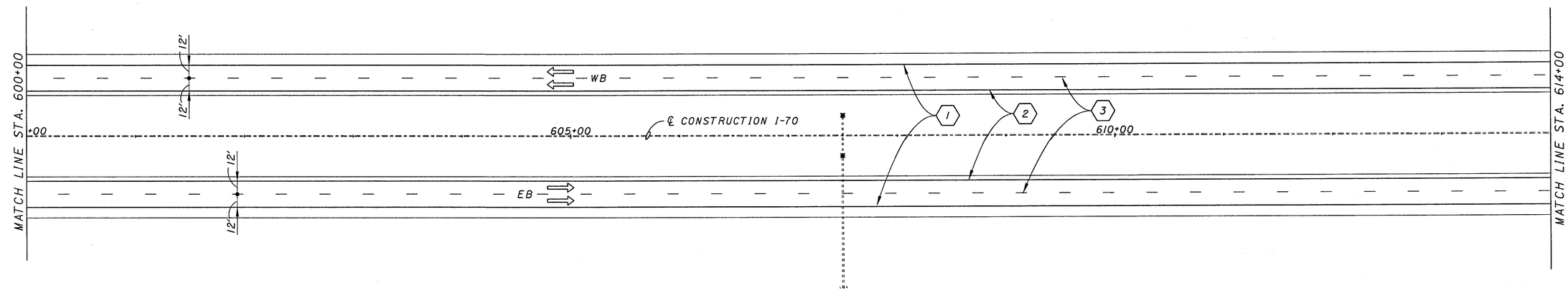


PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



TOP

BOTTOM

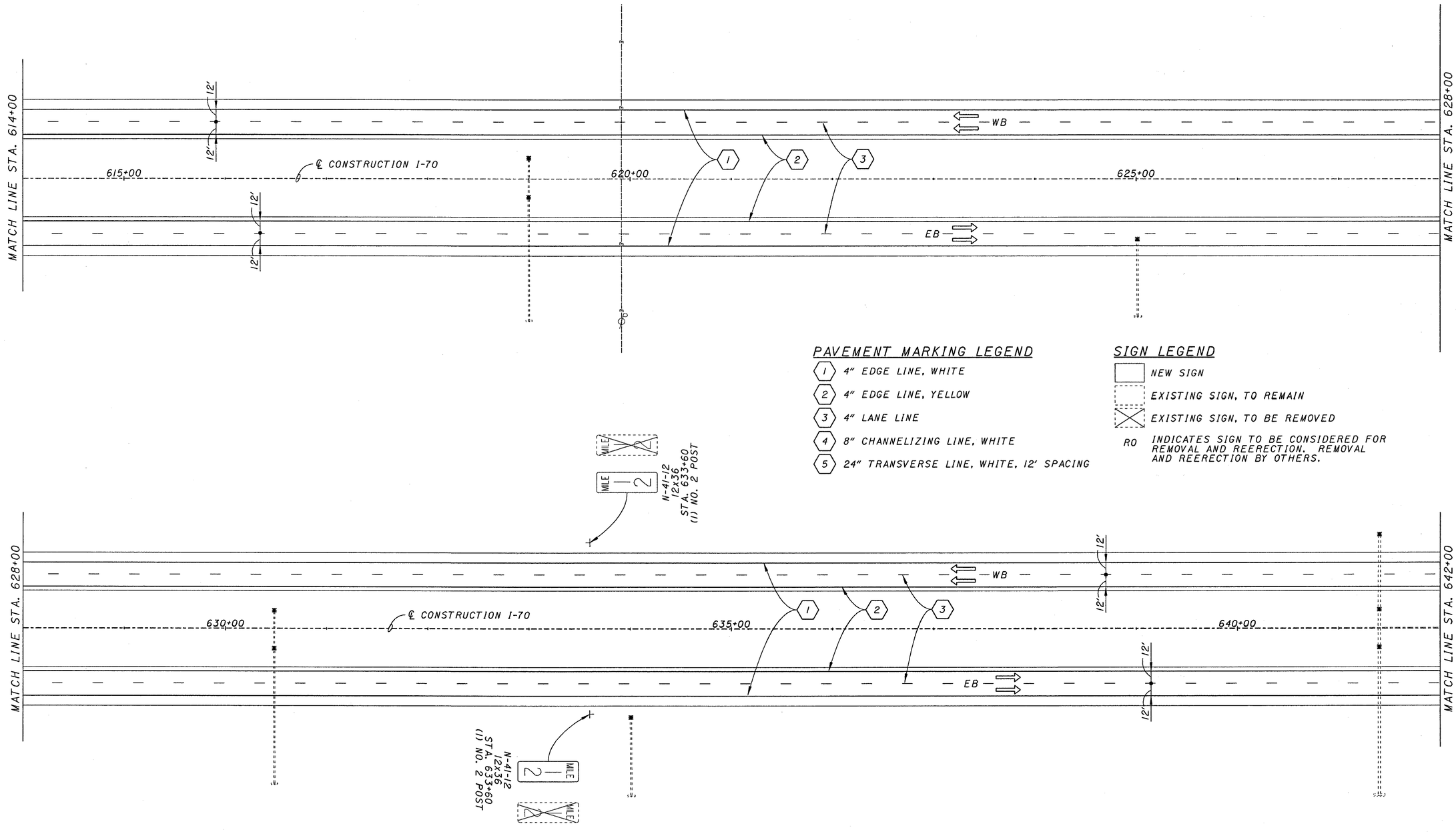
0 25 50 100
HORIZONTAL SCALE IN FEET

PLAN
STA. 586+00 TO STA. 614+00

PRE-70-0.00

$$$$$SYTIME$$$$$$
USER: $USERNAME$
DGN: $$DGNPATH$$\$$DGNFILE$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$

REF01: **REF01**
REF02: **REF02**
REF03: **REF03**
REF04: **REF04**
REF05: **REF05**



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

TOP N

BOTTOM N

0 25 50 100
HORIZONTAL SCALE IN FEET

PLAN
STA. 614+00 TO STA. 642+00

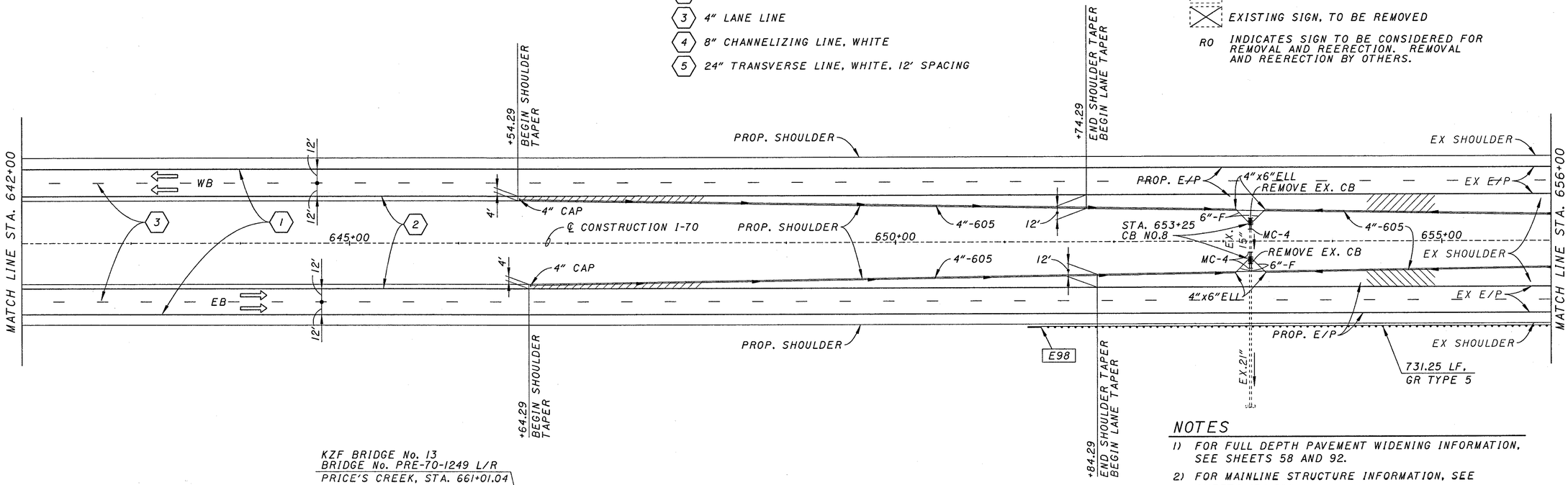
PRE-70-0.00

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



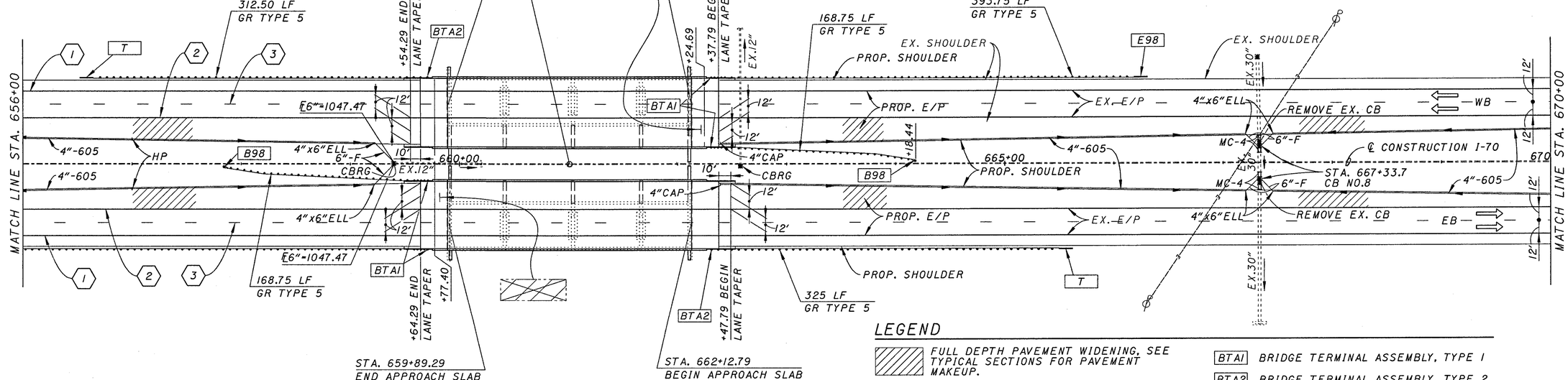
NOTES

1) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 58 AND 92.
2) FOR MAINLINE STRUCTURE INFORMATION, SEE SHEETS 134-259.
3) FOR CURB DETAIL AT MAINLINE BRIDGE, SEE SHEET 123. FOR ADDITIONAL CURB INFORMATION, SEE MAINLINE BRIDGE SITE PLAN, SHEET 185.

KZF BRIDGE No. 13
BRIDGE No. PRE-70-1249 L/R
PRICE'S CREEK, STA. 661+01.04

STA. 659+89.29
END APPROACH SLAB

STA. 662+12.79
BEGIN APPROACH SLAB

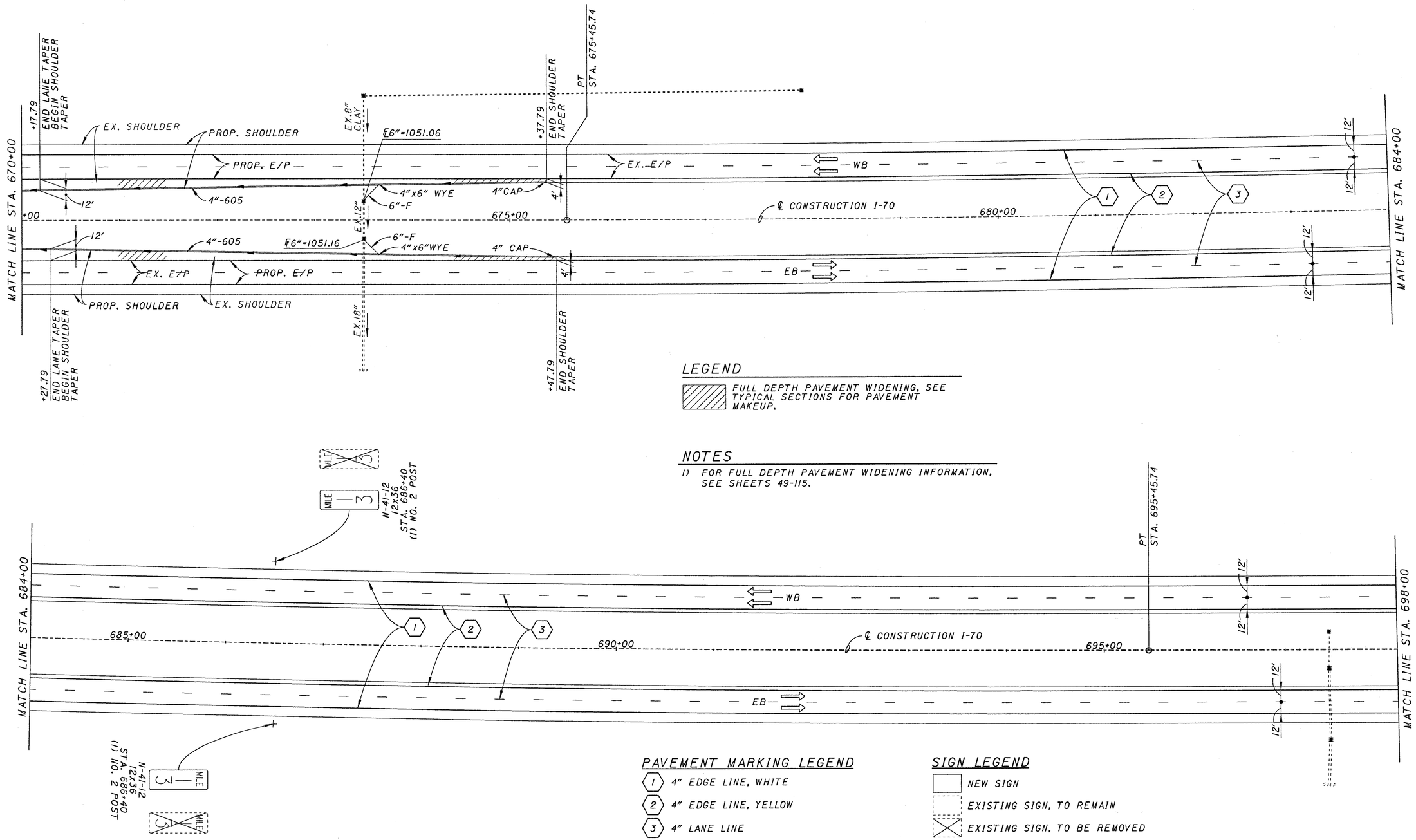


LEGEND

- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- BTA1 — BRIDGE TERMINAL ASSEMBLY, TYPE 1
- BTA2 — BRIDGE TERMINAL ASSEMBLY, TYPE 2
- B98 — GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 — GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T — GUARDRAIL ANCHOR ASSEMBLY, TYPE T
- MC-4 — MC-4 MASONRY COLLAR
- HP — HIGH POINT (UNDERDRAIN)
- CBRG — CATCH BASIN RECONSTRUCTED TO GRADE

TOP N
BOTTOM N
0 25 50 100 HORIZONTAL SCALE IN FEET

PLAN
STA. 642+00 TO STA. 670+00
PRE-70-0.00



LEGEND

FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.

NOTES

1) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 49-115.

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

TOP

BOTTOM

0 25 50 100 HORIZONTAL SCALE IN FEET

PLAN
STA. 670+00 TO STA. 698+00

PRE-70-0.00

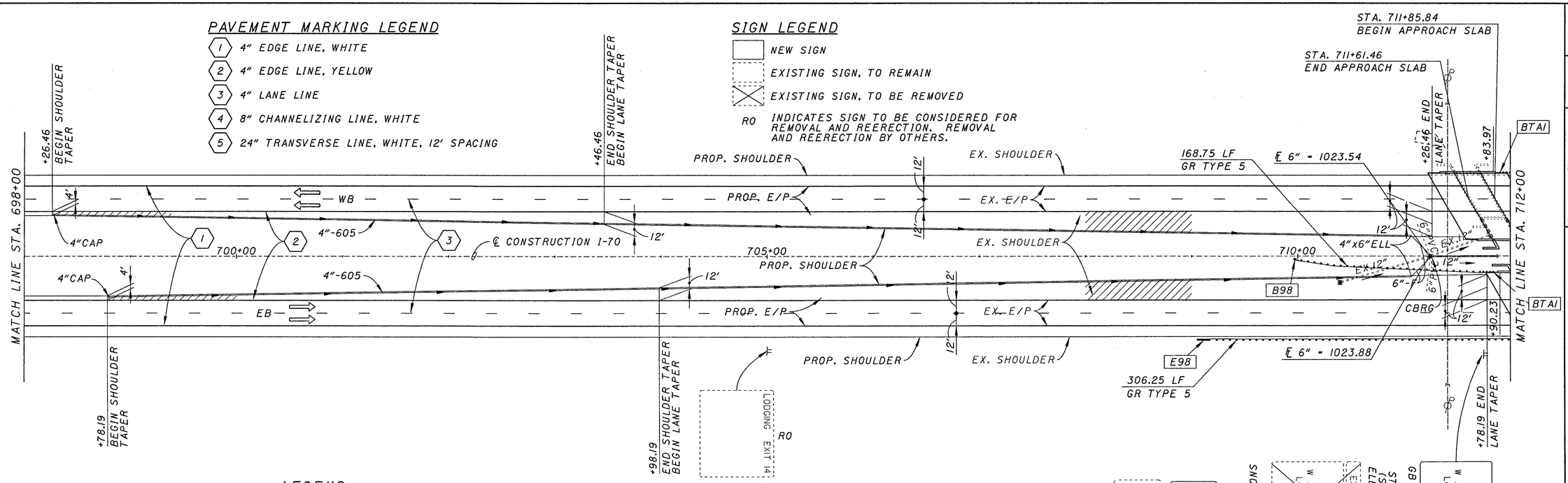
PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

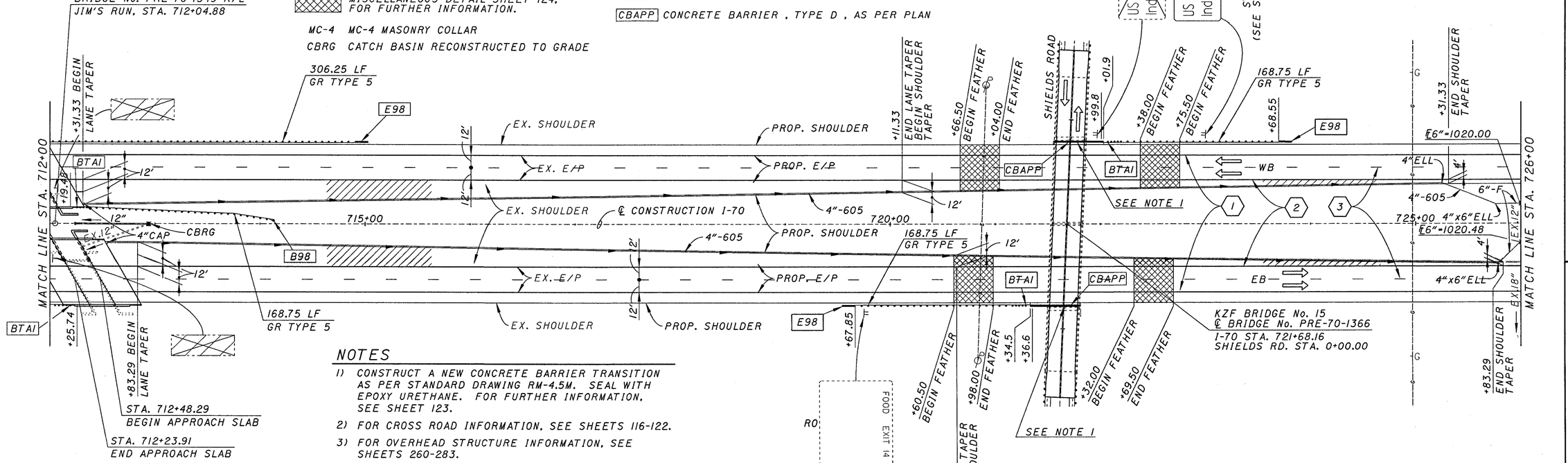
RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



LEGEND

- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- MC-4 MC-4 MASONRY COLLAR
- CBRG CATCH BASIN RECONSTRUCTED TO GRADE
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- CBAPP CONCRETE BARRIER , TYPE D , AS PER PLAN

KZF BRIDGE No. 14
BRIDGE No. PRE-70-1349 R/L
JIM'S RUN, STA. 712+04.88



NOTES

1) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE. FOR FURTHER INFORMATION, SEE SHEET 123.
2) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
3) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
4) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 61 AND 100.
5) FOR MAINLINE STRUCTURE INFORMATION, SEE SHEETS 134-259.
6) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

TOP N
BOTTOM N
HORIZONTAL SCALE IN FEET 0 25 50 100

PLAN
STA. 698+00 TO STA. 726+00
PRE-70-0.00

REF01=**REF01**
REF02=**REF02**
REF03=**REF03**
REF04=**REF04**
REF05=**REF05**

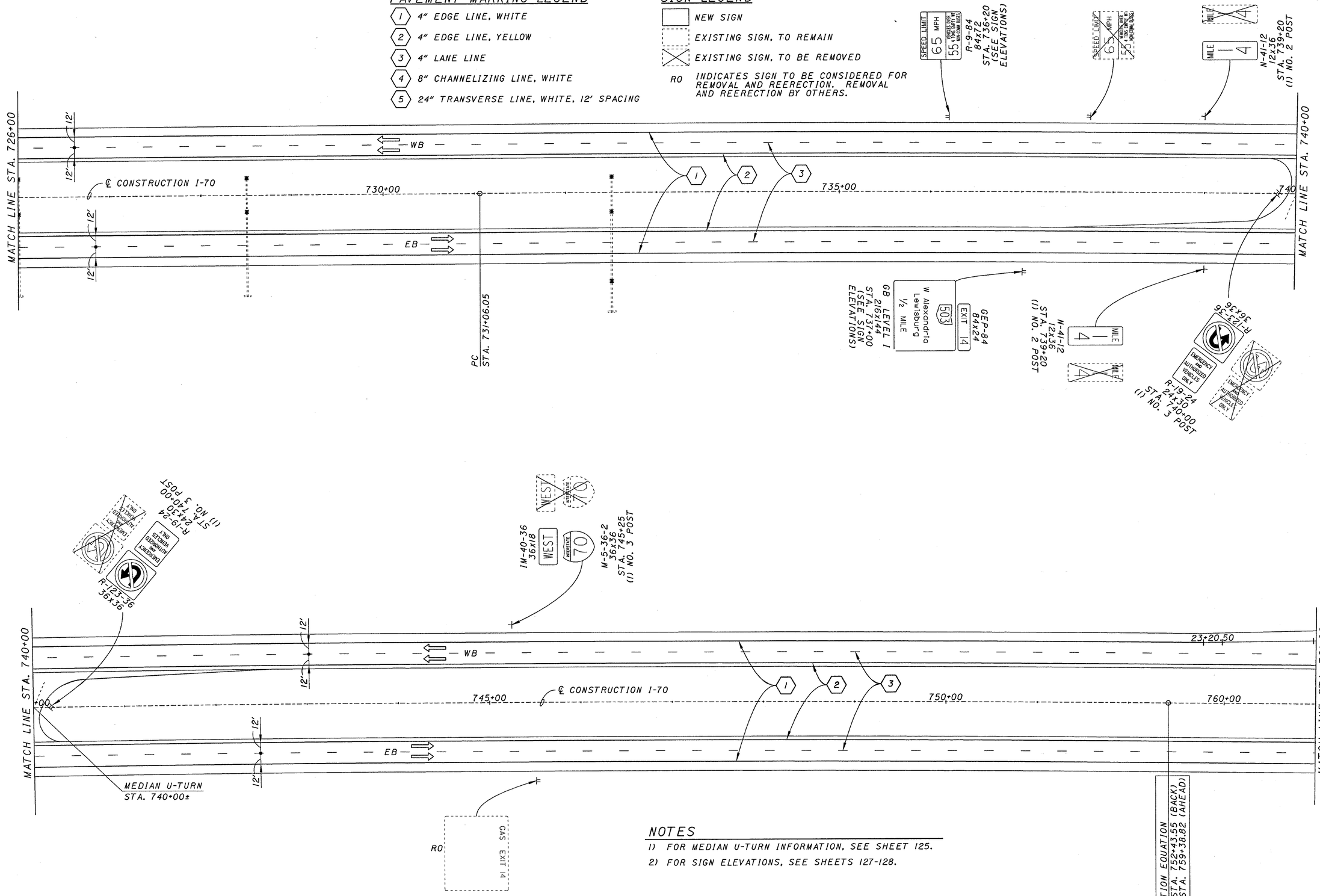
$$$$SYTIME$$$$$$
USER: $$USERNAME$$
DESIGN CONSTRUCTION$$$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$

PAVEMENT MARKING LEGEND

- ⟨1⟩ 4" EDGE LINE, WHITE
- ⟨2⟩ 4" EDGE LINE, YELLOW
- ⟨3⟩ 4" LANE LINE
- ⟨4⟩ 8" CHANNELIZING LINE, WHITE
- ⟨5⟩ 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

▭	NEW SIGN
⬚	EXISTING SIGN, TO REMAIN
☒	EXISTING SIGN, TO BE REMOVED
RO	INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



NOTES

1) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.
2) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

STATION EQUATION
PT STA. 752+43.55 (BACK)
PT STA. 759+38.82 (AHEAD)

TOP
BOTTOM
0 25 50 100
HORIZONTAL SCALE IN FEET

PLAN
STA. 726+00 TO STA. 761+00

PRE-70-0.00

$$$$$SYTIME$$$$$$
USER: $$USERNAME$$
DES.FILE: DGN$SPECIFICATION$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$

REF01: **REF01**
REF02: **REF02**
REF03: **REF03**
REF04: **REF04**
REF05: **REF05**

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING
6. 4" DOUBLE YELLOW LINE

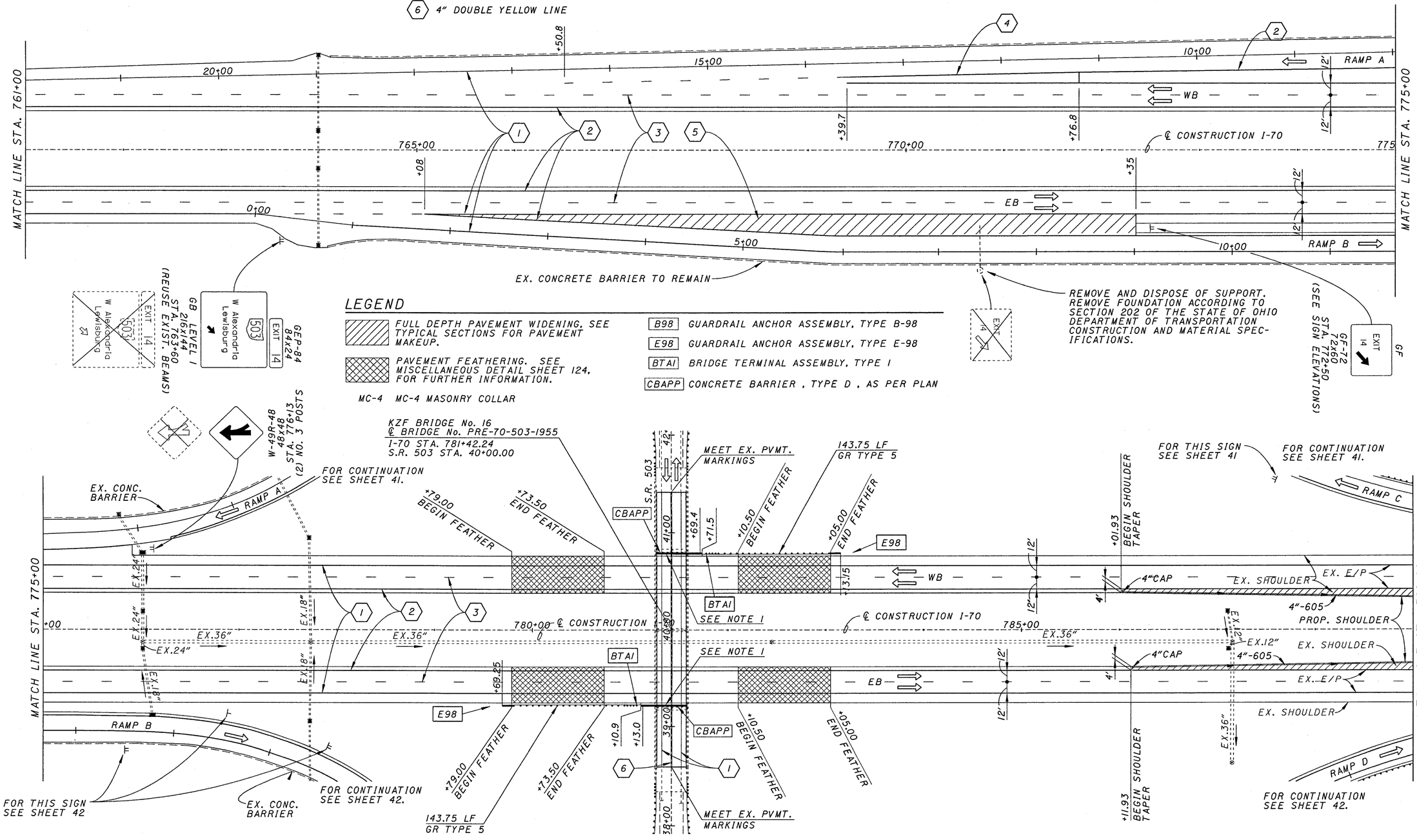
SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

NOTES

1) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE. FOR FURTHER INFORMATION, SEE SHEET 123.
2) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
3) FOR FULL DEPTH PAVEMENT WIDENING INFORMATION, SEE SHEETS 49-115.
4) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.



LEGEND

- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- MC-4 MC-4 MASONRY COLLAR
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- CBAPP CONCRETE BARRIER , TYPE D , AS PER PLAN

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 761+00 TO STA. 789+00

PRE-70-0.00

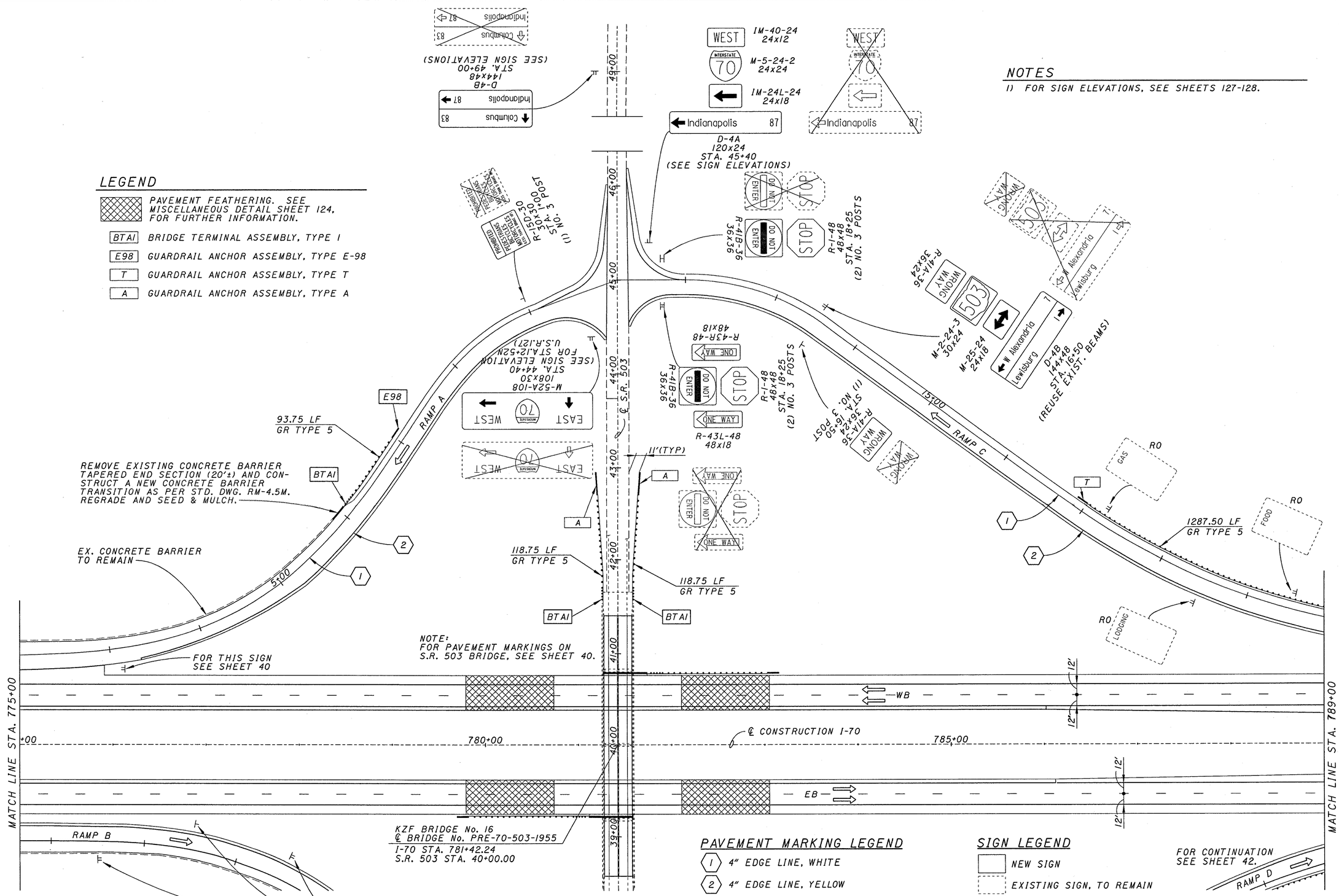
40
283

NOTES

1) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

LEGEND

- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- BT A1 — BRIDGE TERMINAL ASSEMBLY, TYPE I
- E98 — GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T — GUARDRAIL ANCHOR ASSEMBLY, TYPE T
- A — GUARDRAIL ANCHOR ASSEMBLY, TYPE A



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 761+00 TO STA. 789+00

PRE-70-0.00

41
283

REF04 ••REF04••
REF05 ••REF05••
REF03 ••REF03••
REF02 ••REF02••
REF01 ••REF01••
REF04 ••REF04••
REF05 ••REF05••

$$USER$SETTINGS$$
$$DATE/TIME$$
$$DESIGN SPECIFICATION$$
$$REFERENCE FILES$$
$$ACTIVE LEVELS ON: $$LEV$$

LEGEND

PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.

BTA1 BRIDGE TERMINAL ASSEMBLY, TYPE 1

E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98

A GUARDRAIL ANCHOR ASSEMBLY, TYPE A

FOR CONTINUATION SEE SHEET 41.

RAMP A

FOR THIS SIGN SEE SHEET 40

KZF BRIDGE No. 16
℄ BRIDGE No. PRE-70-503-1955
I-70 STA. 781+42.24
S.R. 503 STA. 40+00.00

MATCH LINE STA. 775+00

+00

780+00

785+00

MATCH LINE STA. 789+00

41+00

40+00

39+00

38+00

37+00

36+00

35+00

34+00

32+00

25+00

℄ S.R. 503

℄ CONSTRUCTION I-70

WB

EB

12'

FOR CONTINUATION SEE SHEET 41.

RAMP C

NOTE:
FOR PAVEMENT MARKINGS ON S.R. 503 BRIDGE, SEE SHEET 40.

RAMP B

EX. CONC. BARRIER TO REMAIN

15+00

RO

LOADING

GAS

W-4-5-48
48x48
STA. 12+50
(2) NO. 3 POSTS

STOP AHEAD

W-22-96
96x48
STA. 13+50
(SEE SIGN ELEVATIONS)

WRONG WAY
R-41A-36
36x24
STA. 17+25
(1) NO. 3 POST

D-48
144x48
STA. 17+25
(REUSE EXIST. BEAMS)

M-25-24
24x18

M-2-24-3
30x24

503

WRONG WAY
R-41A-36
36x24

BTA1

ONE WAY
R-43L-48
48x18

STOP
R-1-48
48x48
STA. 19+25
(2) NO. 3 POSTS

DO NOT ENTER
R-41B-36
36x36

ONE WAY
R-43R-48
48x18

STOP
DO NOT ENTER
R-1-48
48x48
STA. 19+25
(2) NO. 3 POSTS

R-41B-36
36x36

118.75 LF
GR TYPE 5

118.75 LF
GR TYPE 5

A

11'(TYP)

WEST 70 EAST

M-52A-108
108x30
STA. 35+50
(REUSE EXIST. BEAMS)

1475 LF
GR TYPE 5

RAMP D 5+00

E98

R-15D-30
30x30
STA. 1+00
(1) NO. 3 POST

PROHIBITION
PEDESTRIANS BICYCLES MOTORCYCLES

ROADWORKS
FINES DOUBLE

Indianapolis 87
Columbus 83

D-4B
144x48
STA. 32+02
(REUSE EXIST. BEAMS)

IM-17-24
24x12

JCT
INTERSTATE 70

M-5-24-2
24x24
STA. 25+17
(1) NO. 3 POST

Columbus 83
D-4A
120x24
STA. 34+65
(SEE SIGN ELEVATION FOR STA. 45+40)

IM-24L-24
24x18

M-5-24-2
24x24

EAST
IM-39-24
24x12

Columbus 83
EAST
INTERSTATE 70

W Alexandria
Lewisburg
D-48
144x48
STA. 17+25
(REUSE EXIST. BEAMS)

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

NOTES

1) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 761+00 TO STA. 789+00

PRE-70-0.00

42
283

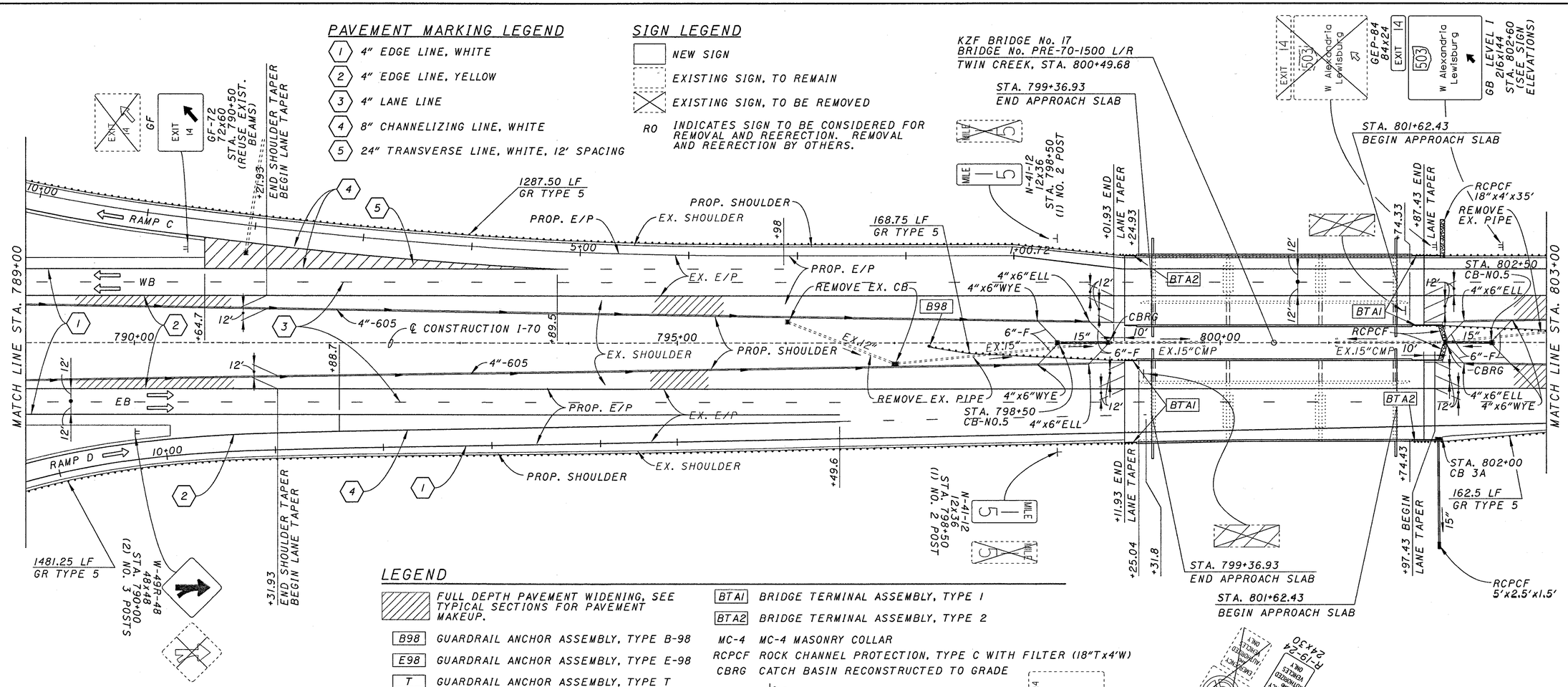
$$$$$SYLVIE$$$$$$$
$$$$$$$$$$$$$$$$$$
DES-FILE\DGN\SPECIFICATION$$$$$$$$
REF01=**REF01**
REF02=**REF02**
REF03=**REF03**
REF04=**REF04**
REF05=**REF05**
ACTIVE LEVELS ON: $$LEV$$

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



LEGEND

- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T GUARDRAIL ANCHOR ASSEMBLY, TYPE T
- BTA1 BRIDGE TERMINAL ASSEMBLY, TYPE 1
- BTA2 BRIDGE TERMINAL ASSEMBLY, TYPE 2
- MC-4 MC-4 MASONRY COLLAR
- RCPCF ROCK CHANNEL PROTECTION, TYPE C WITH FILTER (18"T x 4'W)
- CBRG CATCH BASIN RECONSTRUCTED TO GRADE

NOTES

1) FOR FULL DEPTH PAVEMENT WIDENING, SEE SHEETS 64 AND 108.
2) FOR MAINLINE STRUCTURE INFORMATION, SEE SHEETS 134-259.
3) FOR DRAINAGE DETAIL @ STA. 802+00 RT, SEE SHEET 126.
4) FOR MEDIAN U-TURN INFORMATION, SEE SHEET 125.
5) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.
6) FOR CURB DEATIL AT MAINLINE BRIDGE, SEE SHEET 123. FOR ADDITIONAL CURB INFORMATION SEE MAINLINE BRIDGE SITE PLAN, SHEET 228.

TOP

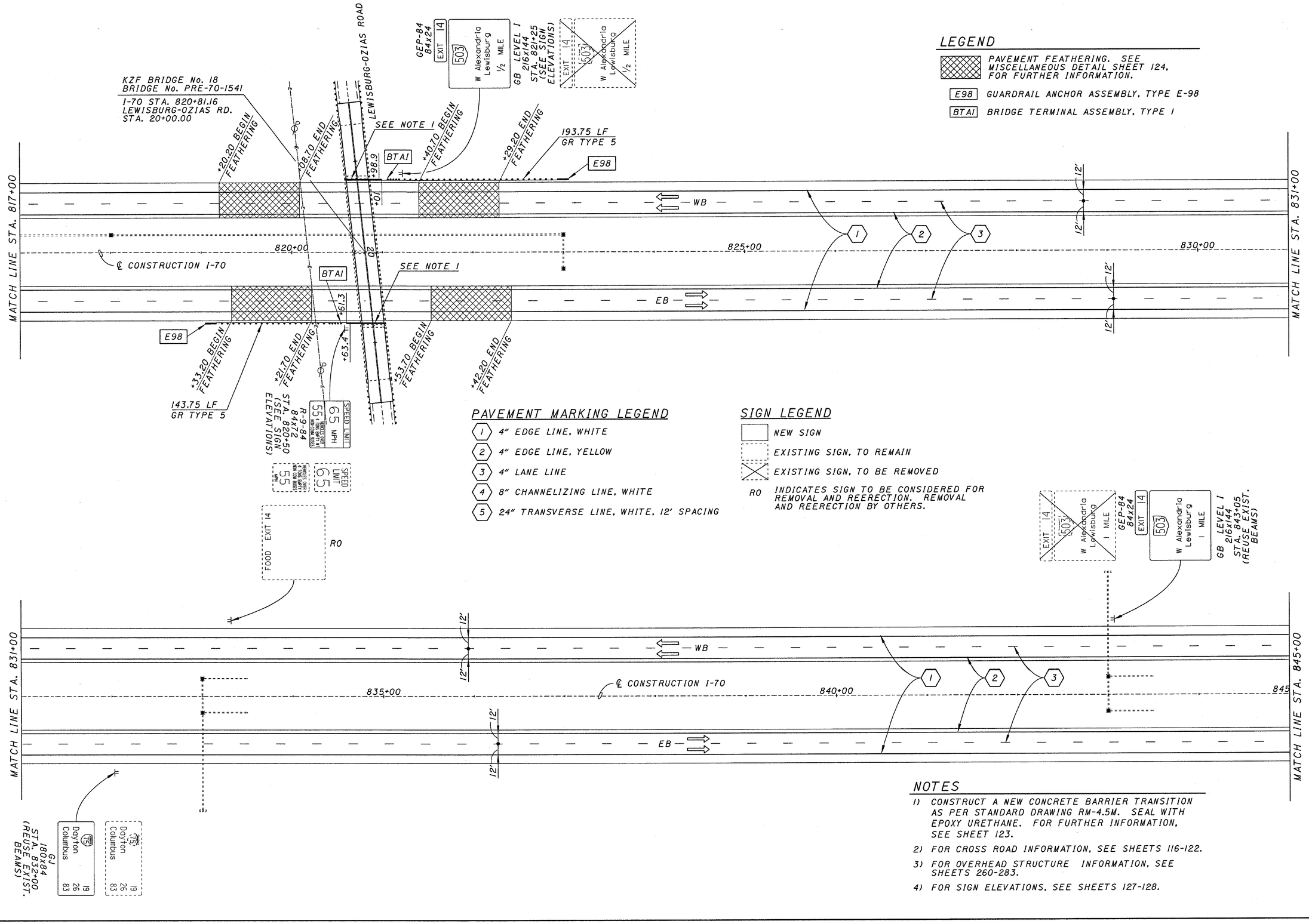
BOTTOM

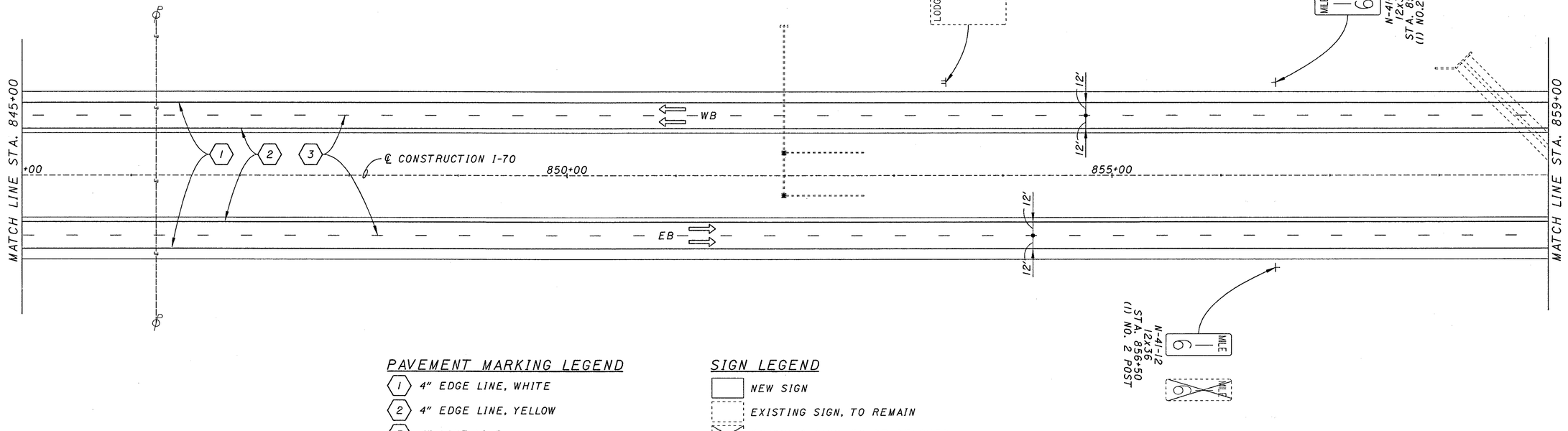
HORIZONTAL SCALE IN FEET

PLAN
STA. 789+00 TO STA. 817+00

PRE-70-0.00

43
283


KZF BRIDGE No. 18
BRIDGE No. PRE-70-1541
I-70 STA. 820+81.16
LEWISBURG-OZIAS RD.
STA. 20+00.00
LEWISBURG-OZIAS ROAD
GEP-84
84x24
EXIT 14
503
W Alexandria
Lewisburg
½ MILE
6B LEVEL 1
216x144
STA. 821+25
(SEE SIGN
ELEVATIONS)
EXIT 14
503
W Alexandria
Lewisburg
½ MILE
MATCH LINE STA. 817+00
MATCH LINE STA. 831+00
MATCH LINE STA. 831+00
MATCH LINE STA. 845+00
820+00
825+00
830+00
835+00
840+00
845
℄ CONSTRUCTION I-70
WB
EB
+20.20 BEGIN FEATHERING
+08.70 END FEATHERING
SEE NOTE 1
+98.9
BTA1
+40.70 BEGIN FEATHERING
+29.20 END FEATHERING
193.75 LF
GR TYPE 5
E98
+01.2
+61.3
+63.4
+33.20 BEGIN FEATHERING
+21.70 END FEATHERING
+53.70 BEGIN FEATHERING
+42.20 END FEATHERING
143.75 LF
GR TYPE 5
R-9-84
84x72
STA. 820+50
(SEE SIGN
ELEVATIONS)
SPEED LIMIT
65 MPH
55 MIN
SPEED LIMIT
65
FOOD EXIT 14
RO
12'
1
2
3
PAVEMENT MARKING LEGEND
1 4" EDGE LINE, WHITE
2 4" EDGE LINE, YELLOW
3 4" LANE LINE
4 8" CHANNELIZING LINE, WHITE
5 24" TRANSVERSE LINE, WHITE, 12' SPACING
SIGN LEGEND
NEW SIGN
EXISTING SIGN, TO REMAIN
EXISTING SIGN, TO BE REMOVED
RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.
LEGEND
PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
BTA1 BRIDGE TERMINAL ASSEMBLY, TYPE 1
6J 180x84
STA. 832+00
(REUSE EXIST.
BEAMS)
75
Dayton
Columbus
19
26
83
6B LEVEL 1
216x144
STA. 843+05
(REUSE EXIST.
BEAMS)
GEP-84
84x24
W Alexandria
Lewisburg
1 MILE
NOTES
1) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE. FOR FURTHER INFORMATION, SEE SHEET 123.
2) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
3) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
4) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.
TOP
BOTTOM
HORIZONTAL SCALE IN FEET
0 25 50 100
PLAN
STA. 817+00 TO STA. 845+00
PRE-70-0.00
44
283



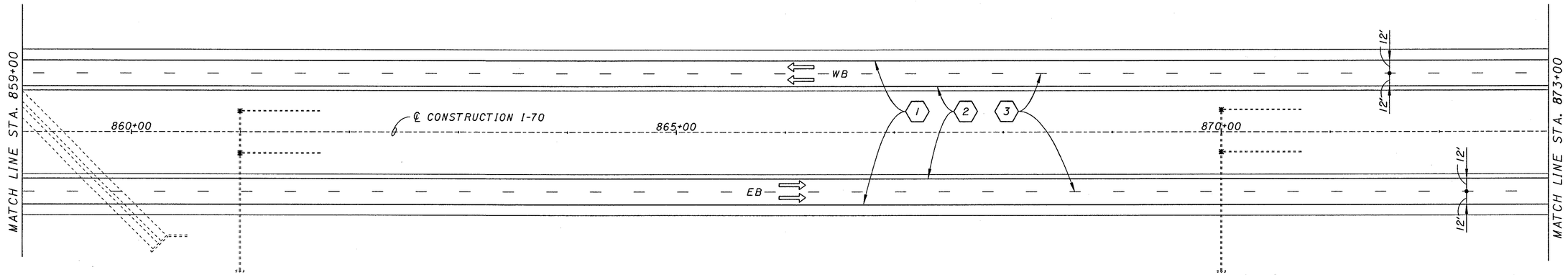
PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



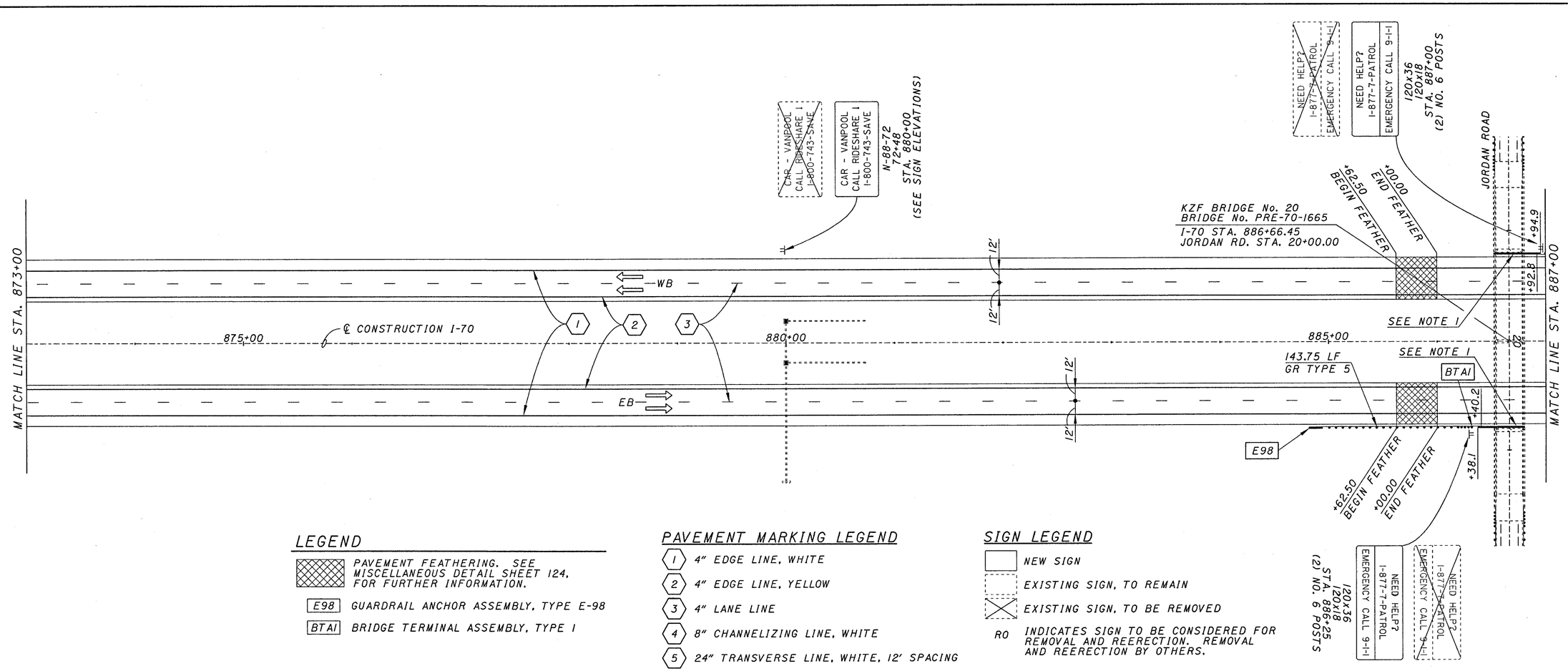
TOP N

BOTTOM N

0 25 50 100
HORIZONTAL SCALE IN FEET

PLAN
STA. 845+00 TO STA. 873+00

PRE-70-0.00



LEGEND

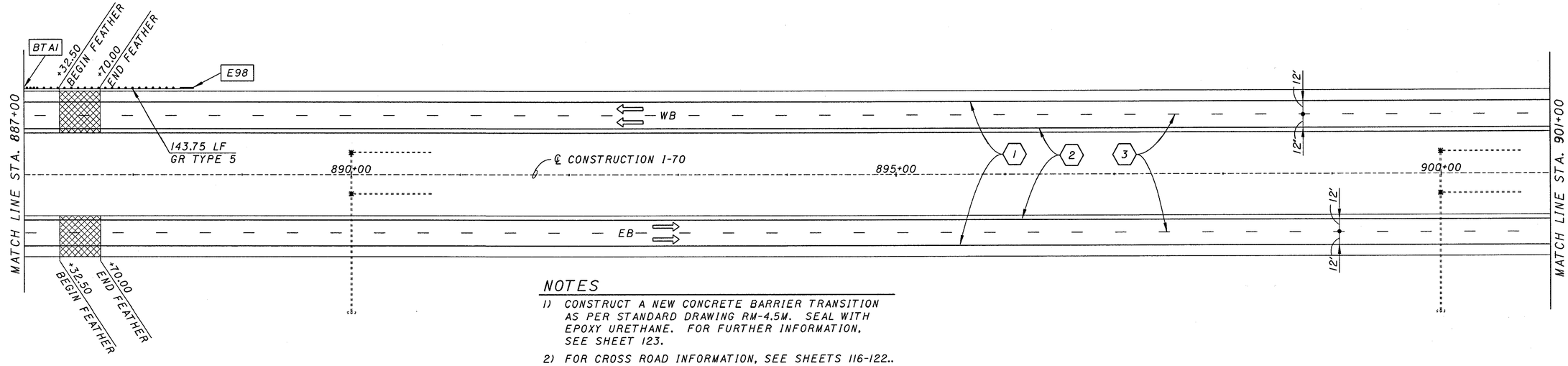
- PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 124, FOR FURTHER INFORMATION.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTA1 BRIDGE TERMINAL ASSEMBLY, TYPE 1

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



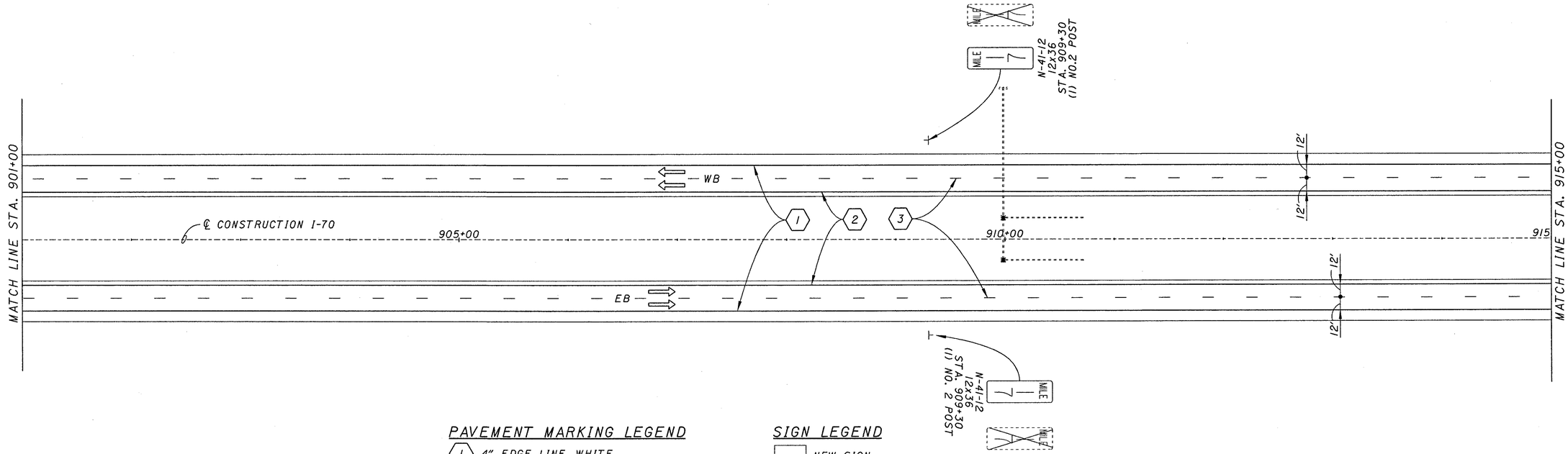
NOTES

1) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE. FOR FURTHER INFORMATION, SEE SHEET 123.
2) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122..
3) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.
4) FOR SIGN ELEVATIONS, SEE SHEETS 127-128.

TOP
BOTTOM
HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 873+00 TO STA. 901+00

PRE-70-0.00



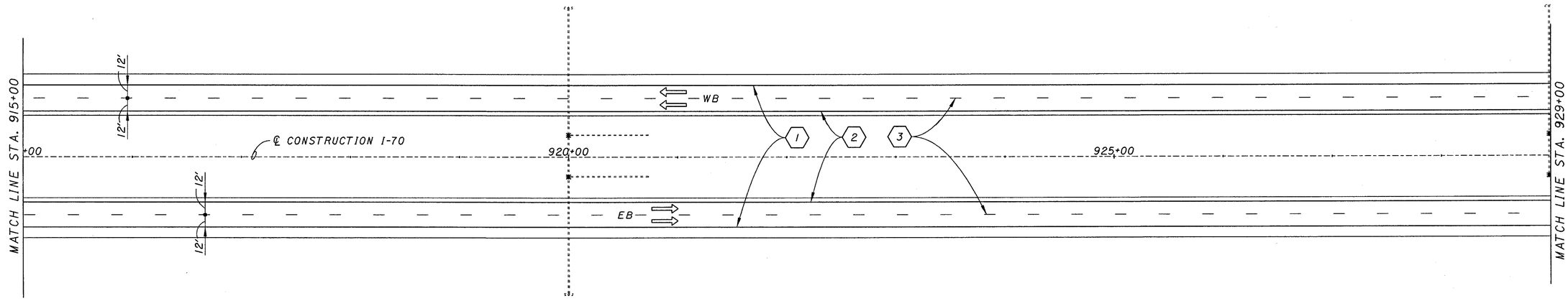
PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.



TOP

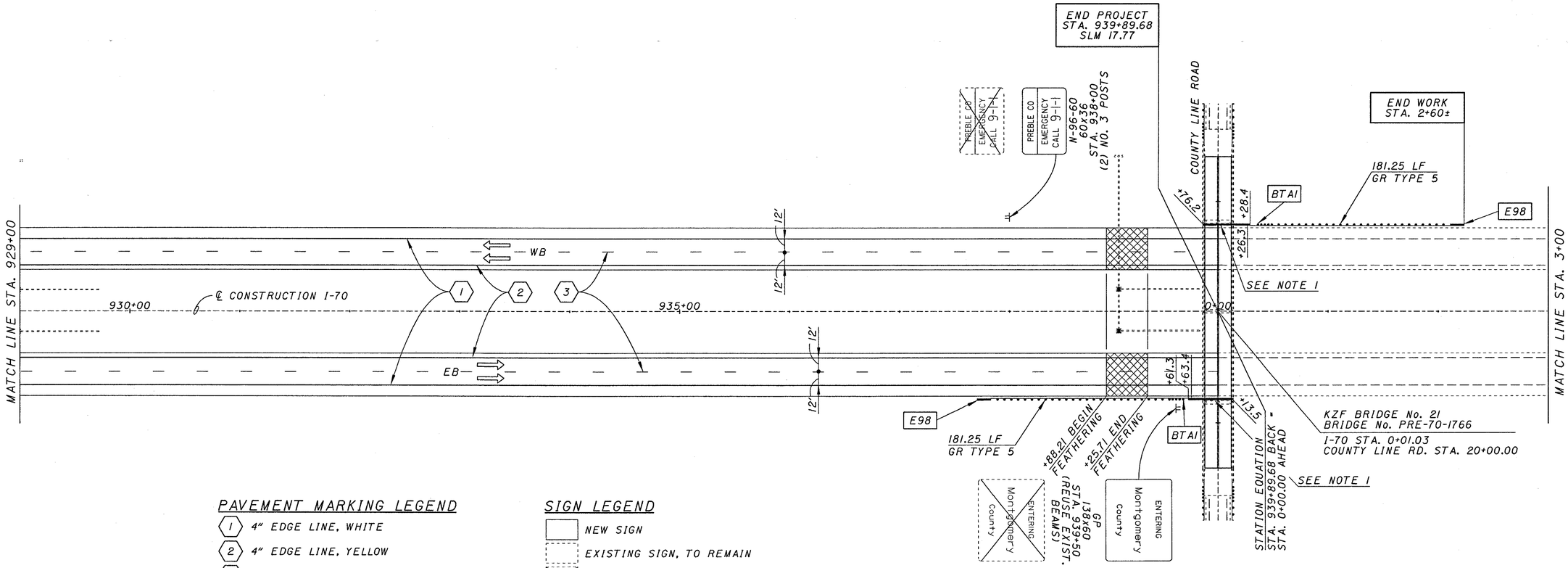
BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 901+00 TO STA. 929+00

PRE-70-0.00

$$$$SYTIME$$$$
USER:$$USERNAME$$
DGN-FILE:DGN$SPECIFICATION$$$$$$
REF01:••REF01••
REF02:••REF02••
REF03:••REF03••
REF04:••REF04••
REF05:••REF05••
ACTIVE LEVELS "ON" $$ELEV$$



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

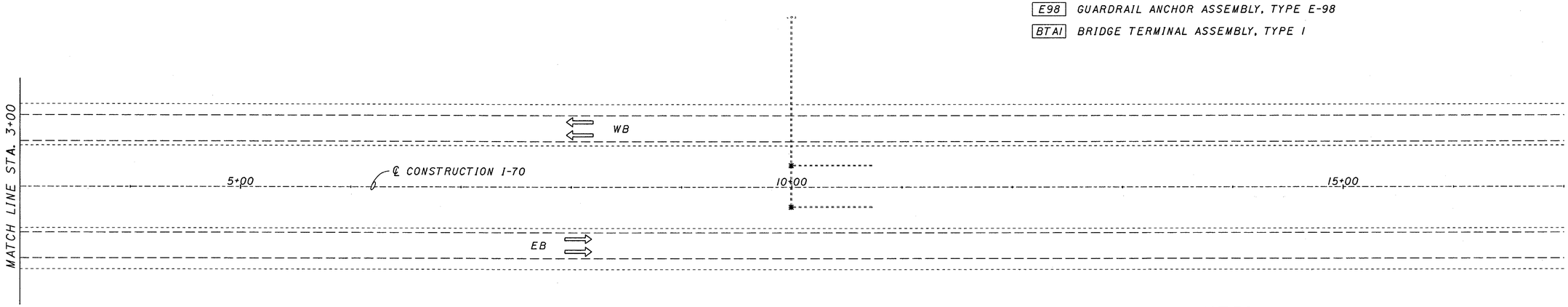
RO INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

LEGEND

PAVEMENT FEATHERING. SEE MISCELLANEOUS DETAIL SHEET 123, FOR FURTHER INFORMATION.

E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98

BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I



NOTES

1) CONSTRUCT A NEW CONCRETE BARRIER TRANSITION AS PER STANDARD DRAWING RM-4.5M. SEAL WITH EPOXY URETHANE. FOR FURTHER INFORMATION, SEE SHEET 123.
2) FOR CROSS ROAD INFORMATION, SEE SHEETS 116-122.
3) FOR OVERHEAD STRUCTURE INFORMATION, SEE SHEETS 260-283.

TOP N

BOTTOM N

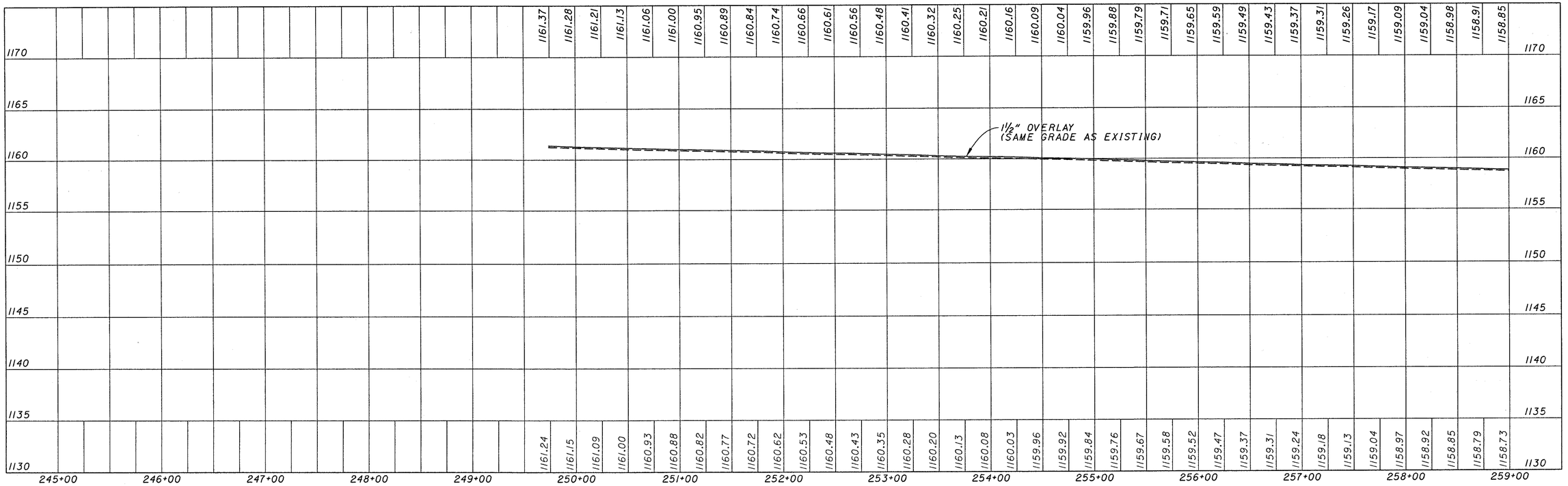
HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 929+00 TO STA. 17+00

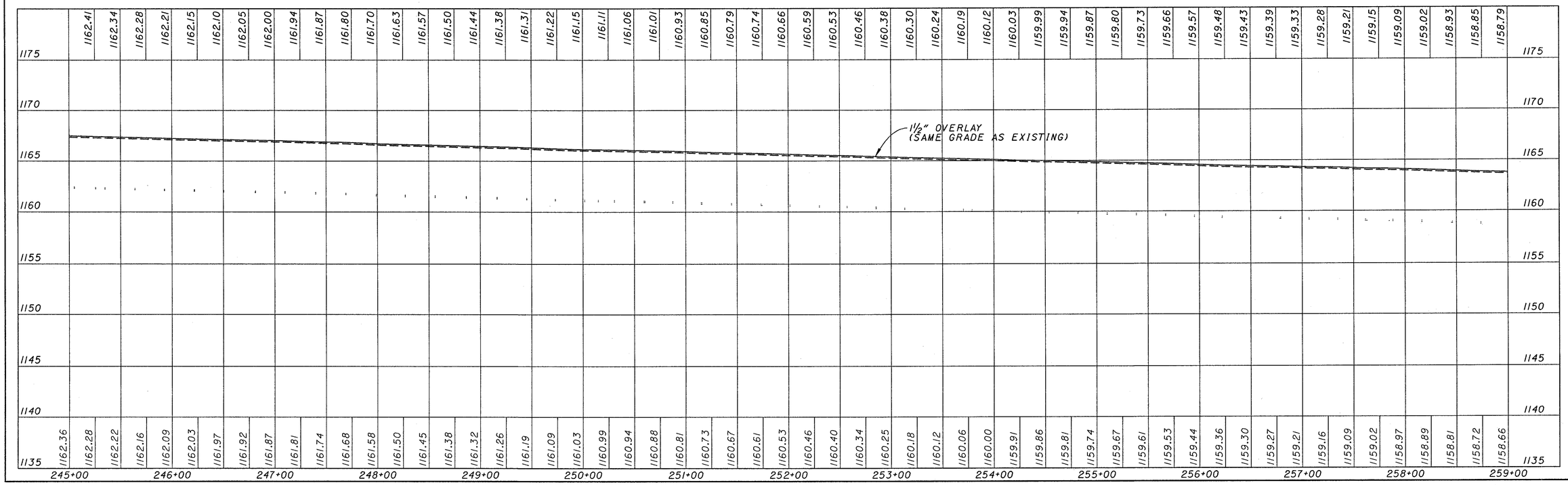
PRE-70-0.00

$$$$$SYTM$$$$$$
$$$$$FILE$$$$$$$$
DESIGN SPECIFICATION$$$$$$$
PRF NAME: $PRFNAME$
ACTIVE LEVELS ON $$LEVS$$
REF04=<REF04>
REF03=<REF03>
REF04=<REF04>
REF03=<REF03>
REF04=<REF04>
REF05=<REF05>

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

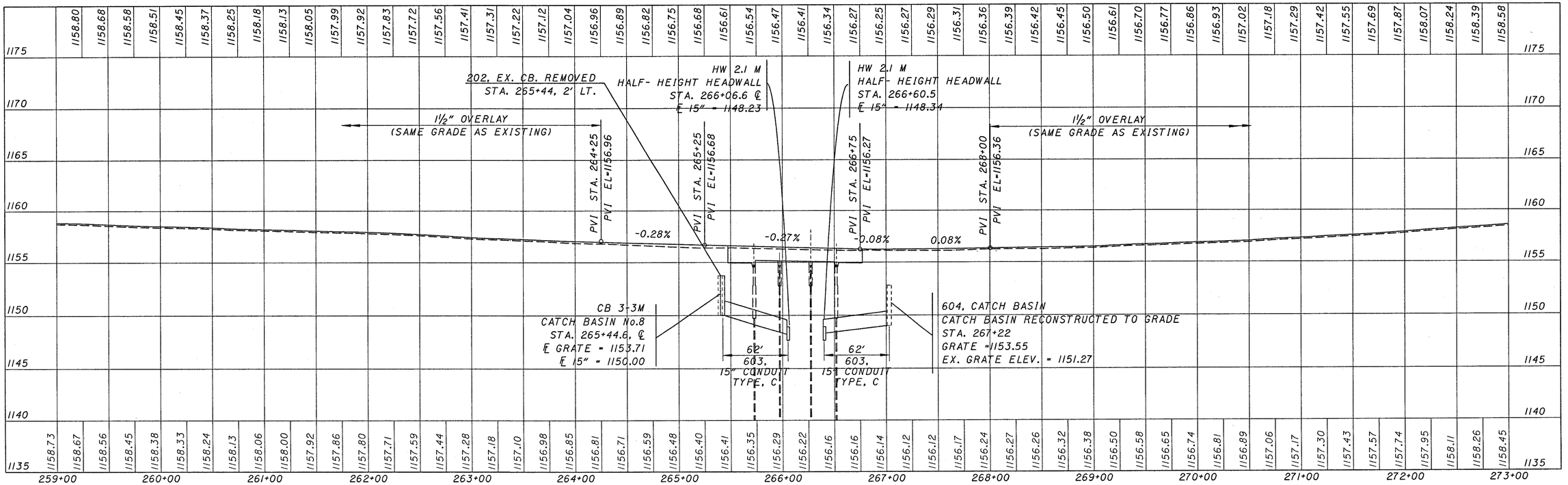
CALCULATED

CHECKED

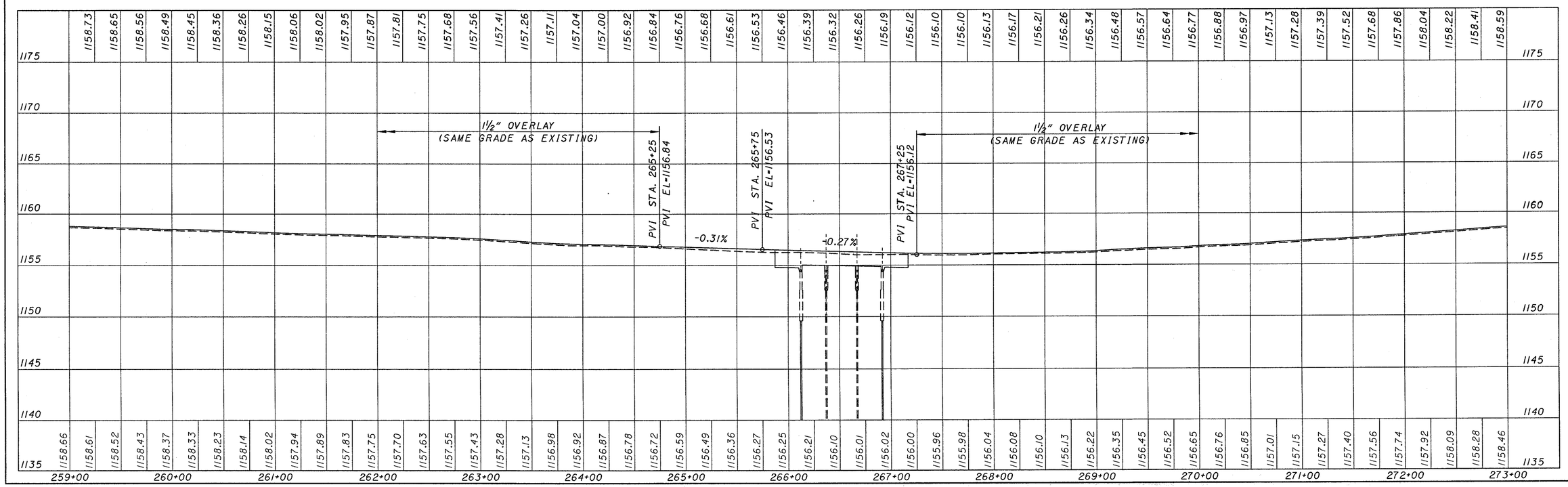
PROFILE GRADES
STA 245+00 TO STA 259+00

PRE-70-0.00

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

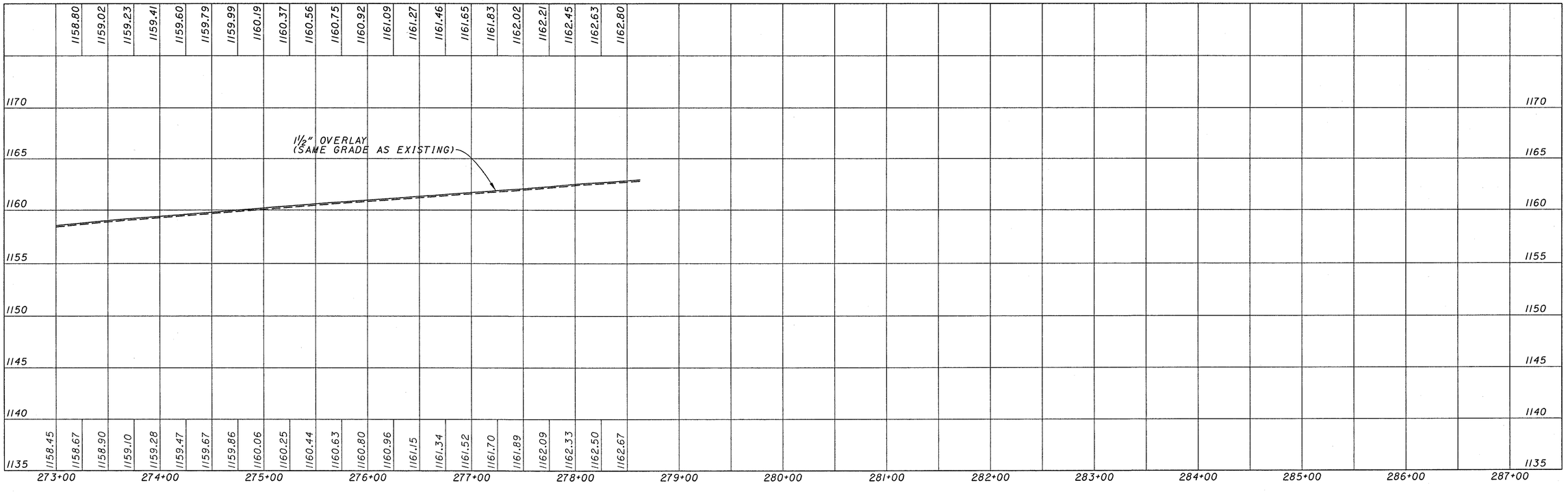
CALCULATED

CHECKED

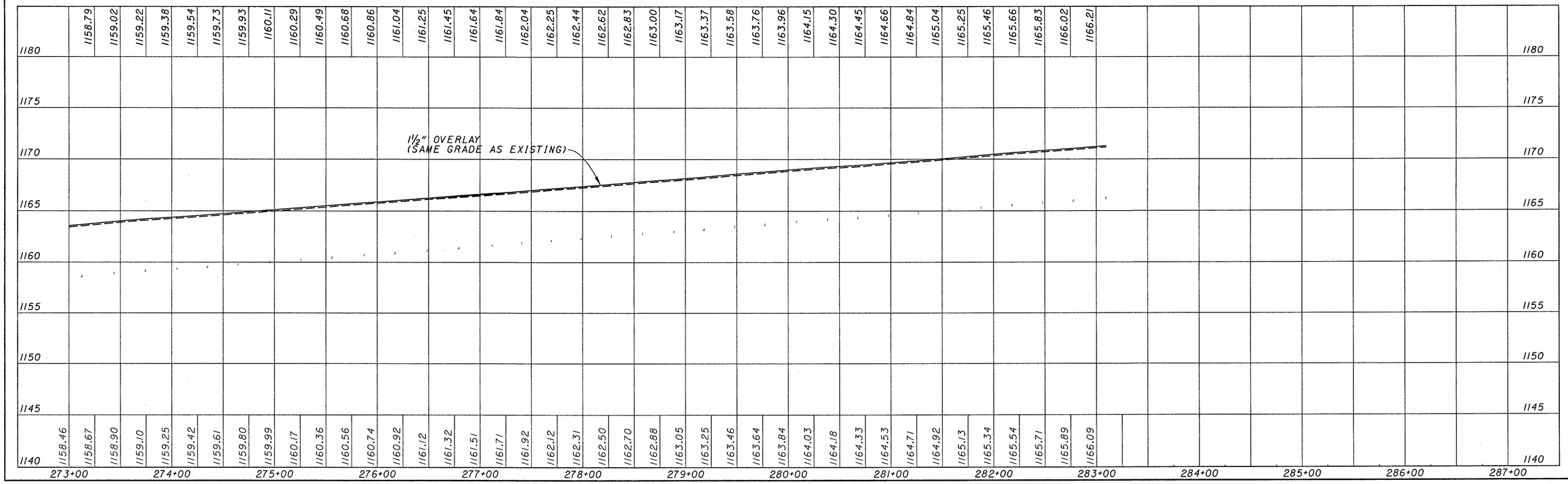
PROFILE GRADES
STA 259+00 TO STA 273+00

PRE-70-0.00

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED

CHECKED

PROFILE GRADES
STA 273+00 TO STA 287+00

PRE-70-0.00

$$$$SYSTIME$$$$$$
$$$$USERNAME$$$$$$
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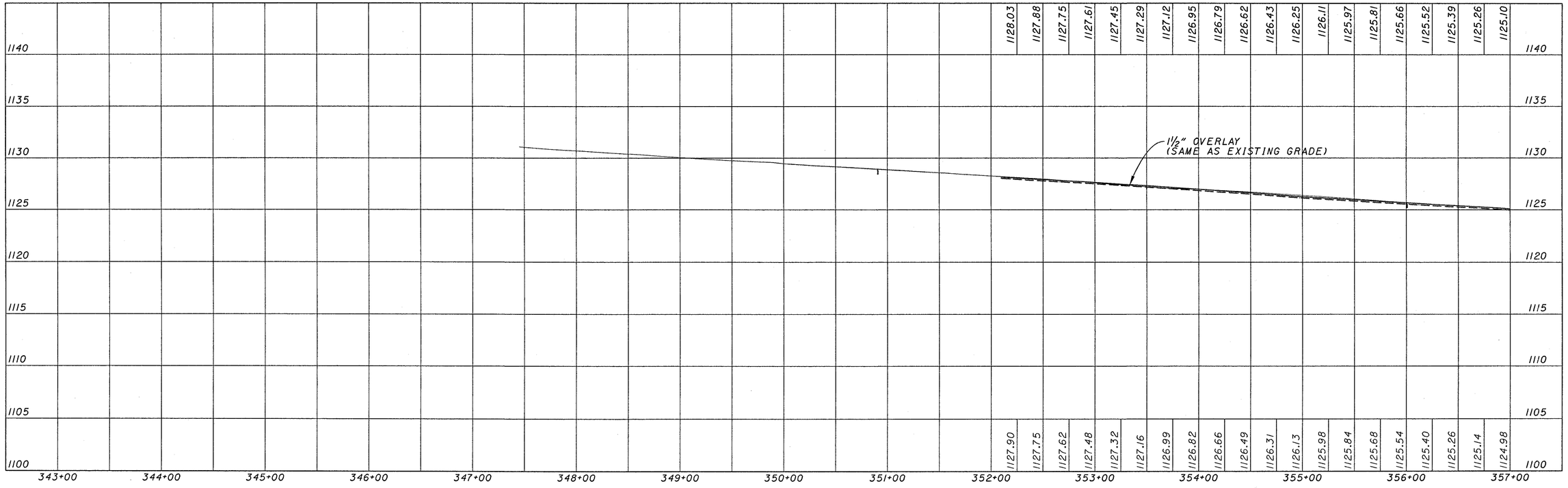
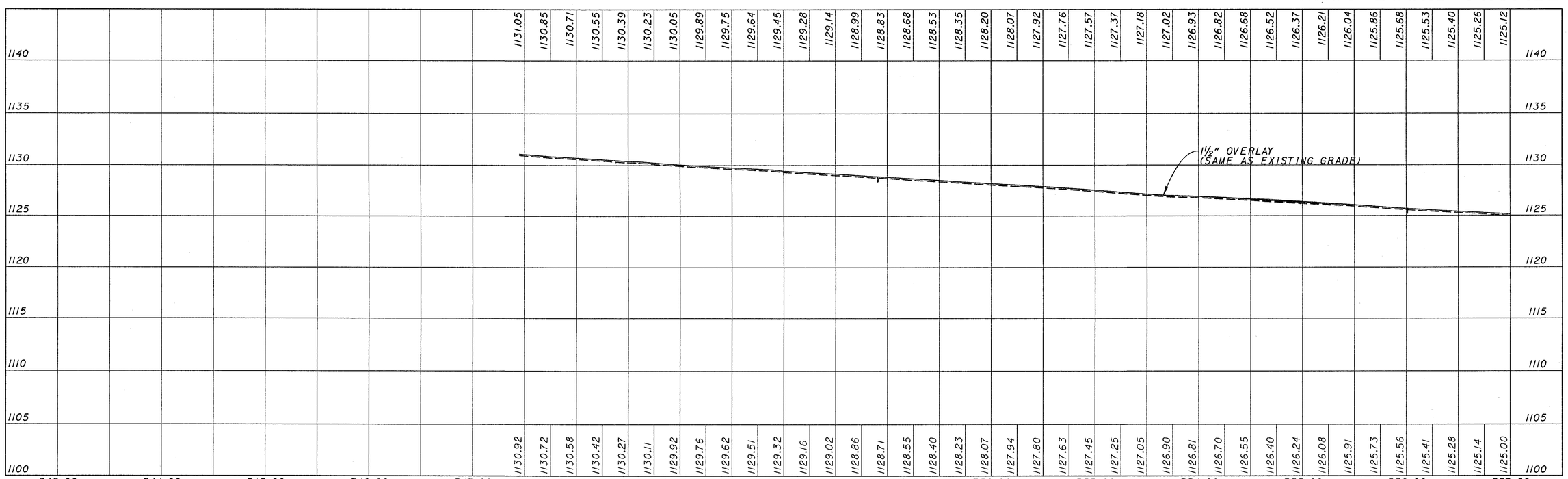
DGN:$$$$DGNNAME$$$$
PRF NAME:$$PROFNAME$$
ACTIVE LEVELS ON: $$ALEV$$

REF05:**REF05**
REF04:**REF04**
REF03:**REF03**
REF02:**REF02**
REF01:**REF01**
REF00:**REF00**

WEST BOUND PROFILE



EAST BOUND PROFILE

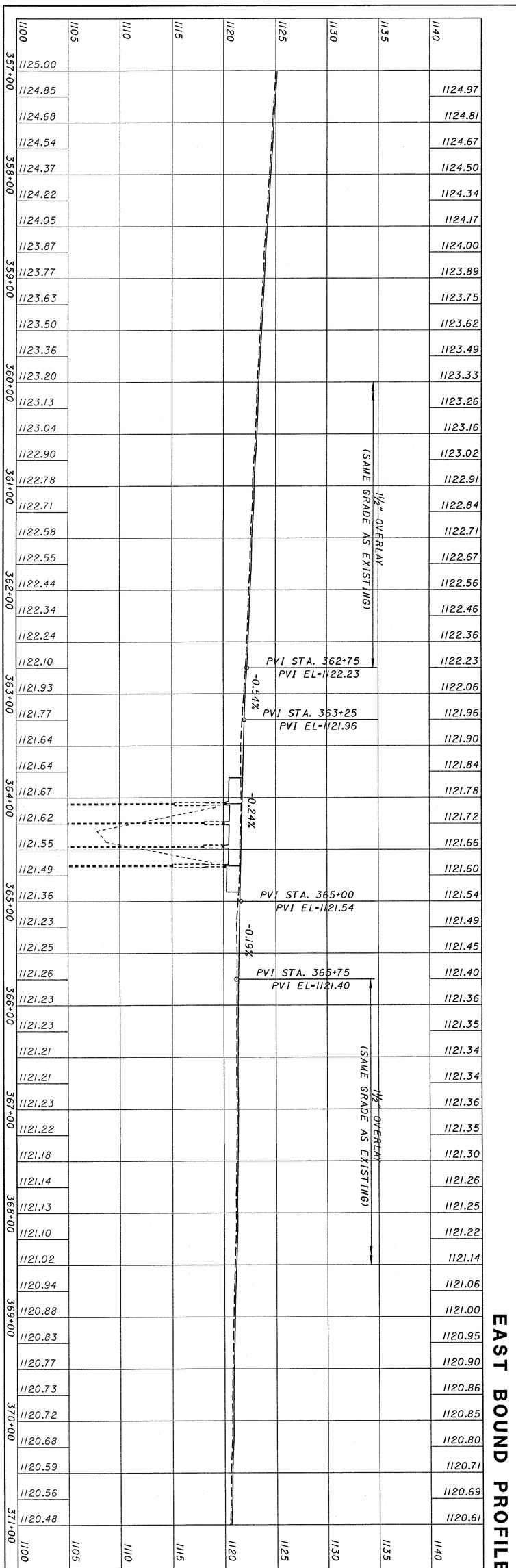


0 25 50 100
HORIZONTAL
SCALE IN FEET

CALCULATED
CHECKED

PROFILE GRADES
STA 347+00 TO STA 357+00

PRE-70-0.00



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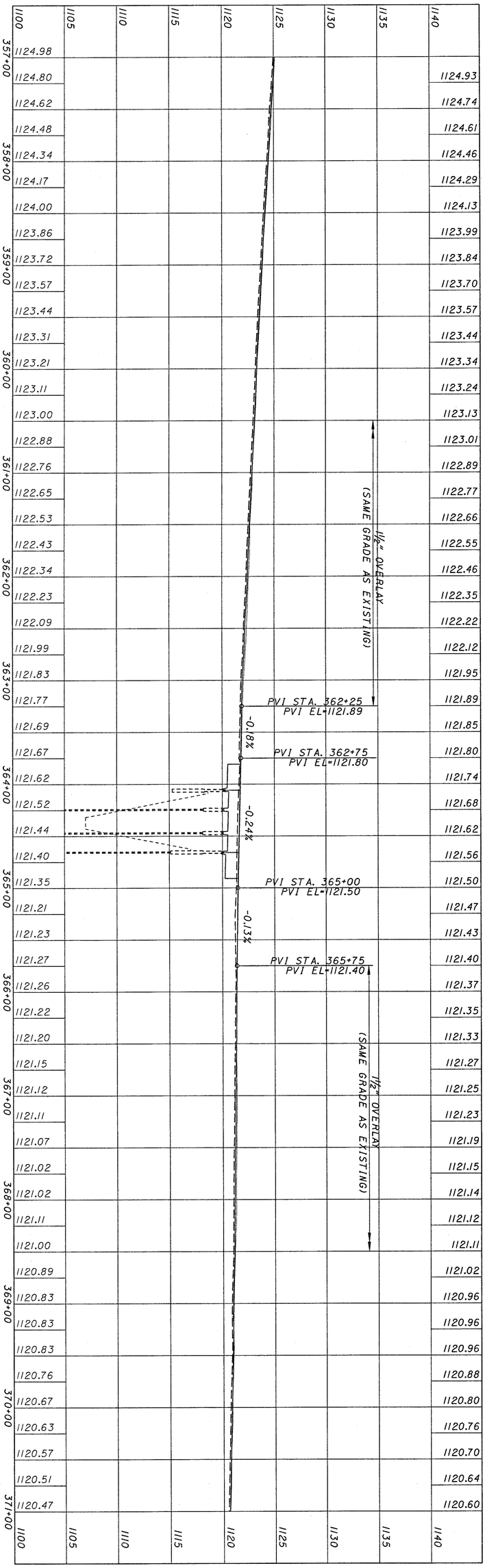


WEST BOUND PROFILE

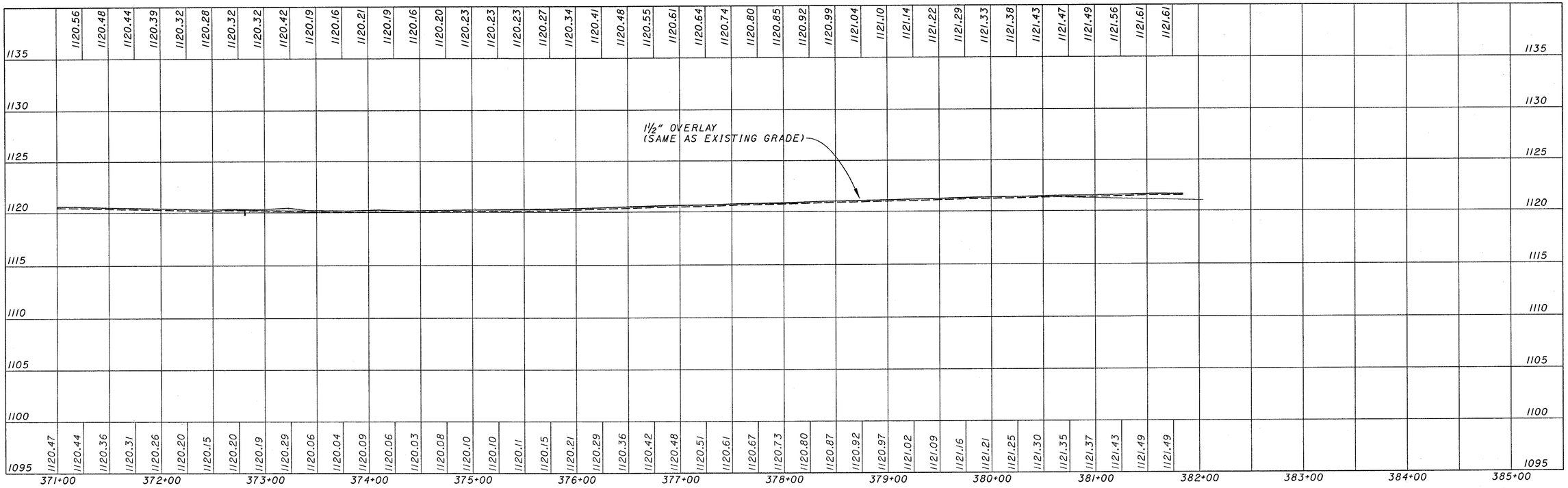
PRE-70-0.00

PROFILE GRADES
STA 357+00 TO STA 371+00

CALCULATED
CHECKED

0 50 25 100
HORIZONTAL SCALE IN FEET

WEST BOUND PROFILE



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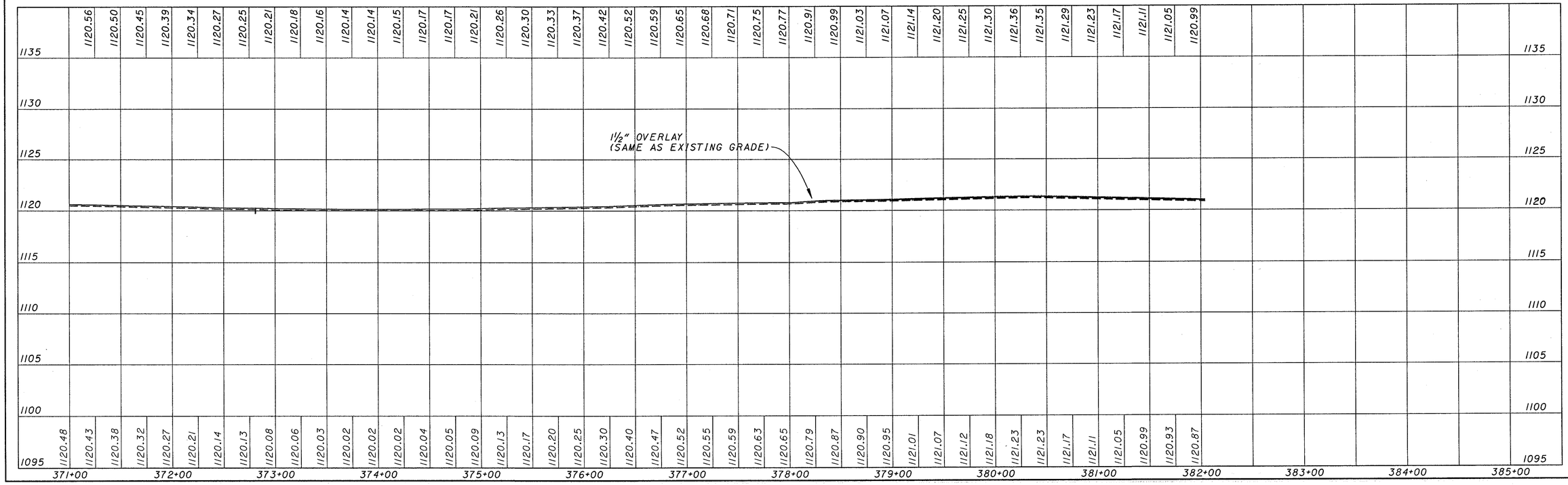

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED
CHECKED

PROFILE GRADES
STA 371+00 TO STA 382+00

PRE-70-0.00

54
283

$$$$$SYTIME$$$$$$
USER:$$USERNAME$$
DESCRIPTION:$$DESCRIPTION$$$$$$$$
PRF NAME:##PRFNAME##
ACTIVE LEVELS ON: $$LEV$$

REF01:**REF01**
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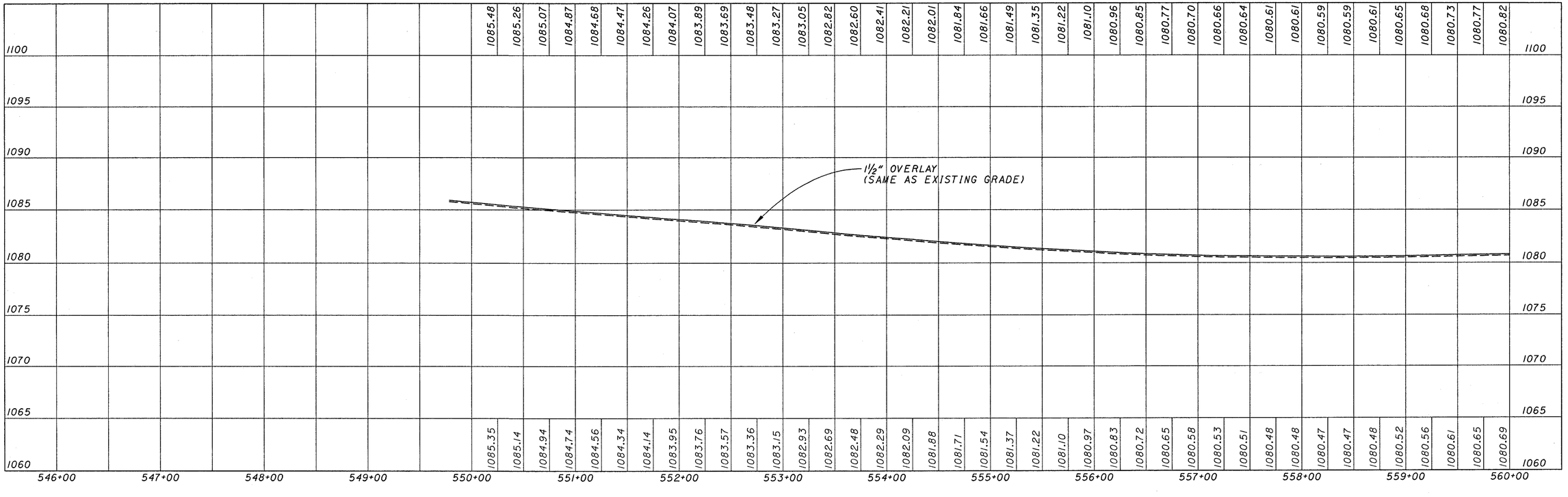
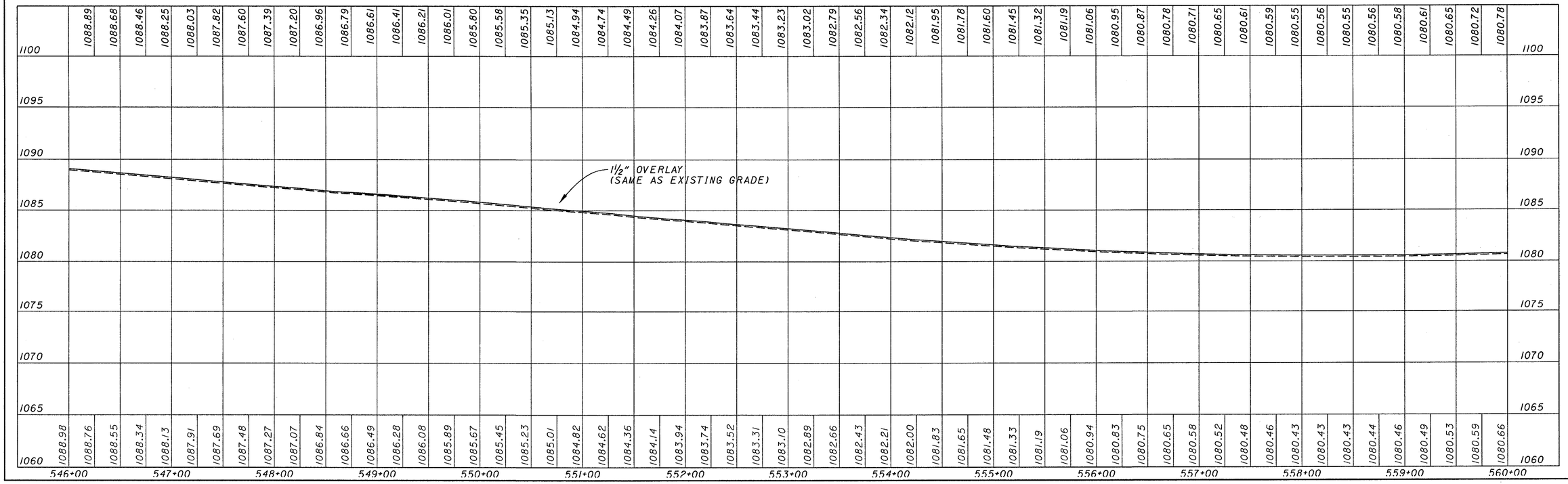
REF03:**REF03**
REF04:**REF04**
REF05:**REF05**

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED

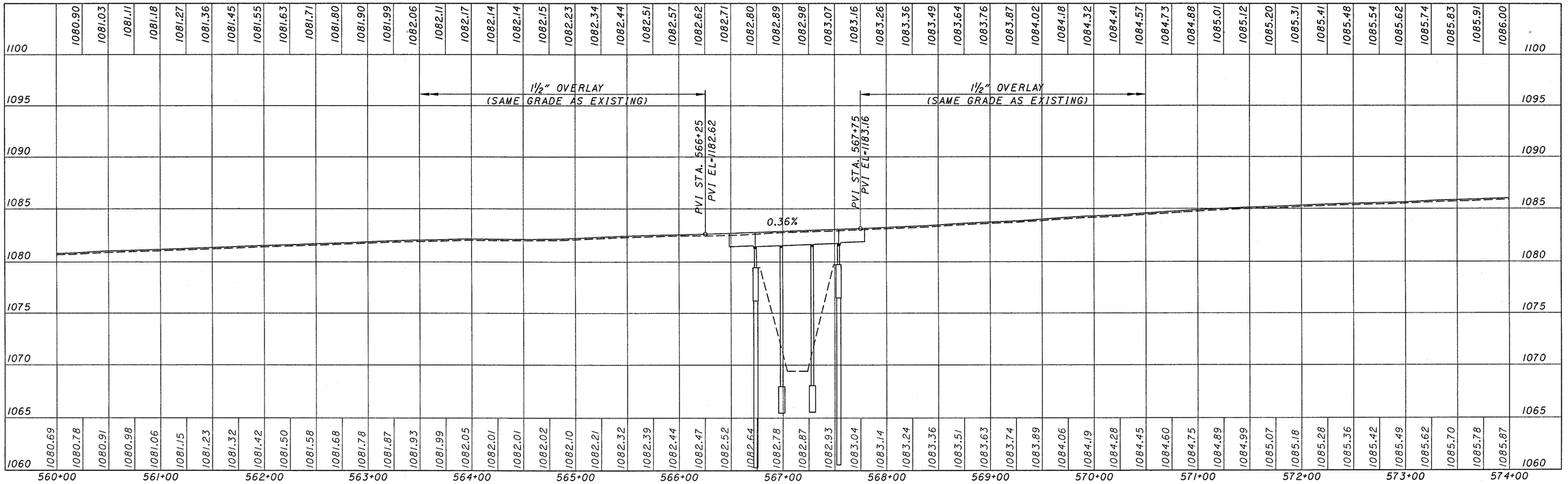
CHECKED

PROFILE GRADES
STA 546+00 TO STA 560+00

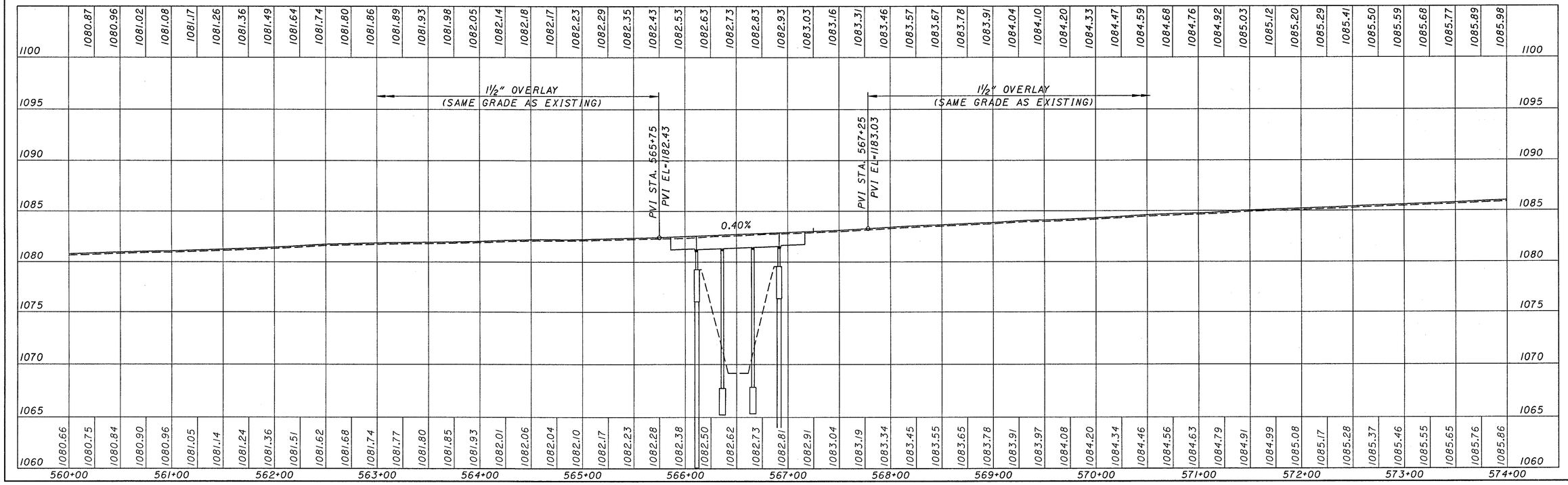
PRE-70-0.00

55
283

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED
CHECKED

PROFILE GRADES
STA 560+00 TO STA 574+00

PRE-70-0.00

56
283

&REFON=*REFON*
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$$$$$SYSTIME$$$$$$
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PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEVON$$

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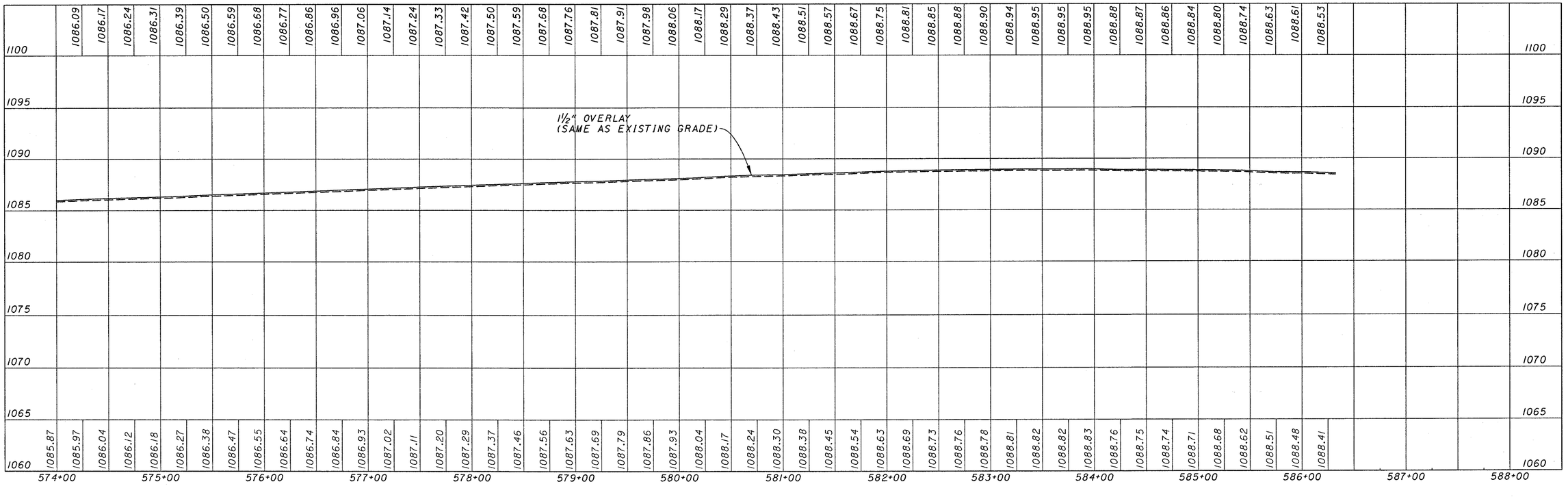
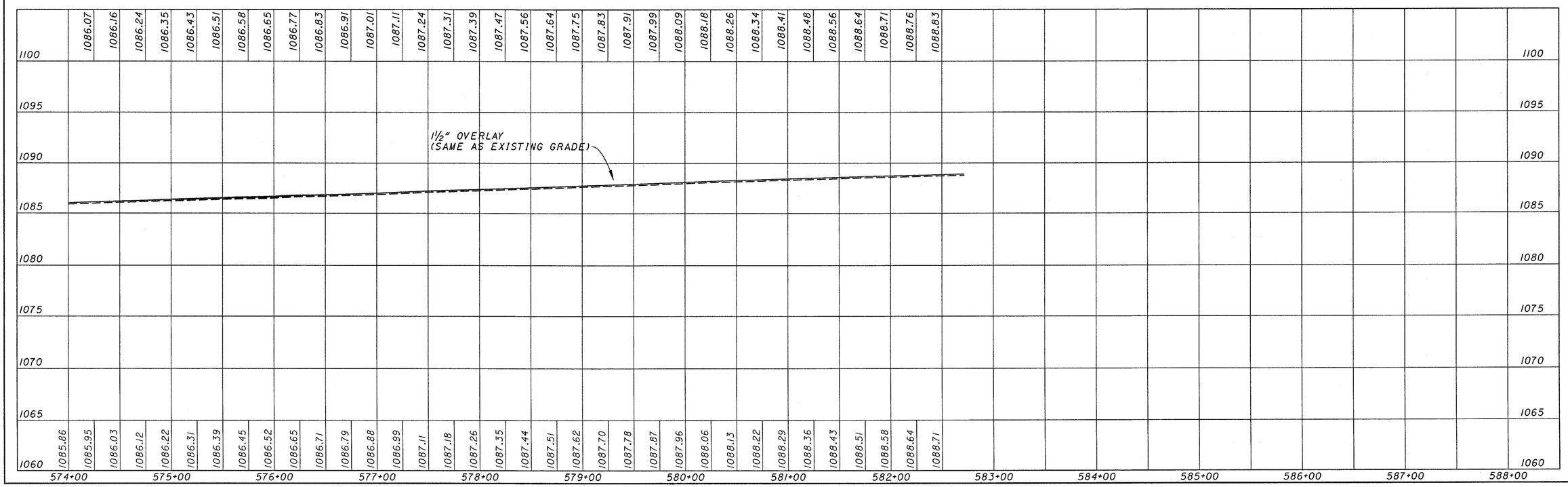


EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED

CHECKED

PROFILE GRADES
STA 574+00 TO STA 588+00

PRE-70-0.00

$$$$$SYTIME$$$$$$
USER: $USERNAME$
DESIGN: $$DESIGNATION$$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$

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REF03:=REF03**
REF04:=REF04**
REF04:=REF04**

EAST BOUND PROFILE

1035	1040	1045	1050	1055	1060	1065	1070	1075
640+00 1063.56								1063.44
1063.32								1063.20
1063.08								1062.99
1062.86								1062.73
641+00 1062.60								1062.45
1062.32								1062.20
1062.07								1061.97
1061.84								1061.73
642+00 1061.60								1061.48
1061.35								1061.21
1061.08								1060.96
1060.83								1060.72
643+00 1060.59								1060.46
1060.34								1060.22
1060.09								1059.98
1059.85								1059.74
644+00 1059.61								1059.48
1059.35								1059.24
1059.11								1059.00
1058.88								1058.76
645+00 1058.63								1058.50
1058.38								1058.25
1058.12								1057.99
1057.86								1057.72
646+00 1057.59								1057.46
1057.33								1057.19
1057.07								1056.93
1056.80								1056.69
647+00 1056.56								1056.43
1056.31								1056.17
1056.05								1055.92
1055.80								1055.67
648+00 1055.55								1055.41
1055.29								1055.15
1055.03								1054.91
1054.79								1054.67
649+00 1054.54								1054.42
1054.30								1054.17
1054.05								1053.95
1053.82								1053.75
650+00 1053.62								1053.55
1053.43								1053.33
1053.20								1053.16
1053.03								1053.00
651+00 1052.88								1052.85
1052.73								1052.72
1052.60								1052.59
1052.47								1052.48
652+00 1052.36								1052.40
1052.27								1052.33
1052.20								1052.26
1052.14								1052.22
653+00 1052.10								1052.21
1052.08								1052.21
1052.09								1052.22
1052.10								1052.25
654+00 1052.12								
1035	1040	1045	1050	1055	1060	1065	1070	1075

1½" OVERLAY (SAME GRADE AS EXISTING)

WEST BOUND PROFILE

1035	1040	1045	1050	1055	1060	1065	1070	1075
640+00								
641+00								
642+00								
643+00								
644+00								
1059.35								1059.47
1059.11								1059.23
1058.86								1058.99
645+00 1058.59								1058.72
1058.36								1058.48
1058.13								1058.26
1057.90								1058.02
646+00 1057.68								1057.81
1057.42								1057.55
1057.08								1057.20
1056.82								1056.94
647+00 1056.56								1056.69
1056.31								1056.43
1056.04								1056.17
1055.79								1055.92
648+00 1055.54								1055.67
1055.29								1055.41
1055.05								1055.17
1054.80								1054.92
649+00 1054.54								1054.67
1054.29								1054.42
1054.06								1054.18
1053.84								1053.96
650+00 1053.60								1053.73
1053.38								1053.51
1053.18								1053.30
1052.99								1053.11
651+00 1052.81								1052.94
1052.67								1052.80
1052.57								1052.69
1052.45								1052.57
652+00 1052.34								1052.46
1052.24								1052.36
1052.15								1052.28
1052.09								1052.22
653+00 1052.06								1052.19
1052.04								1052.17
1052.02								1052.14
1052.02								1052.15
654+00 1052.03								1052.15
1035	1040	1045	1050	1055	1060	1065	1070	1075

1½" OVERLAY (SAME GRADE AS EXISTING)

58/283

PRE-70-0.00

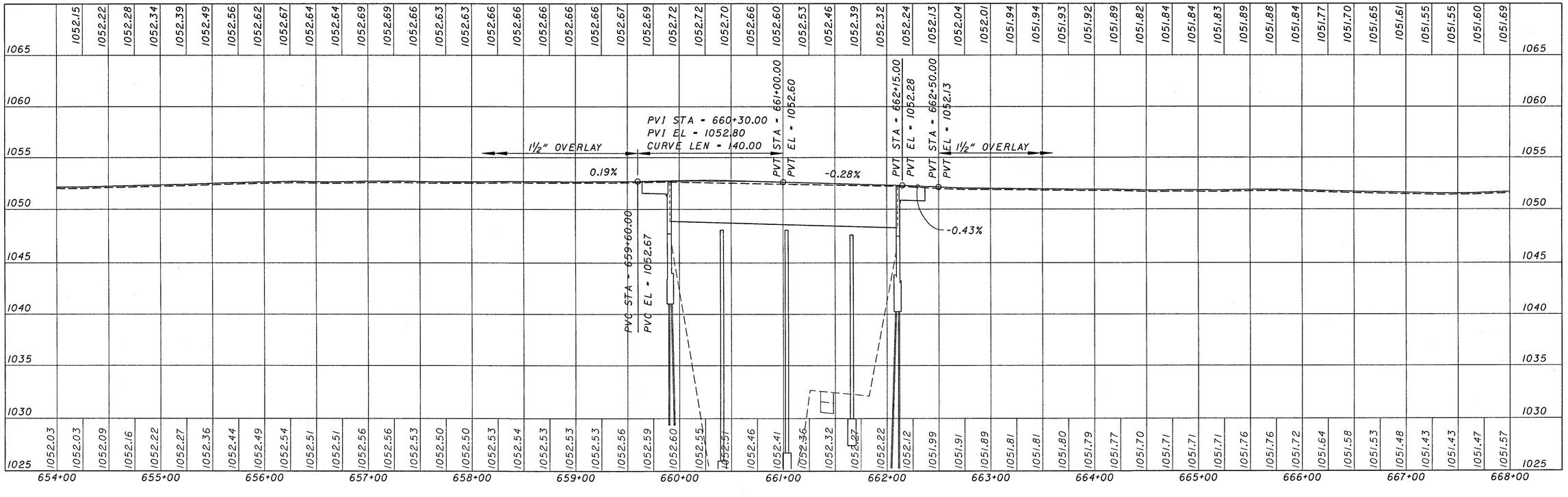
PROFILE GRADES
STA 640+00 TO STA 654+00

CALCULATED

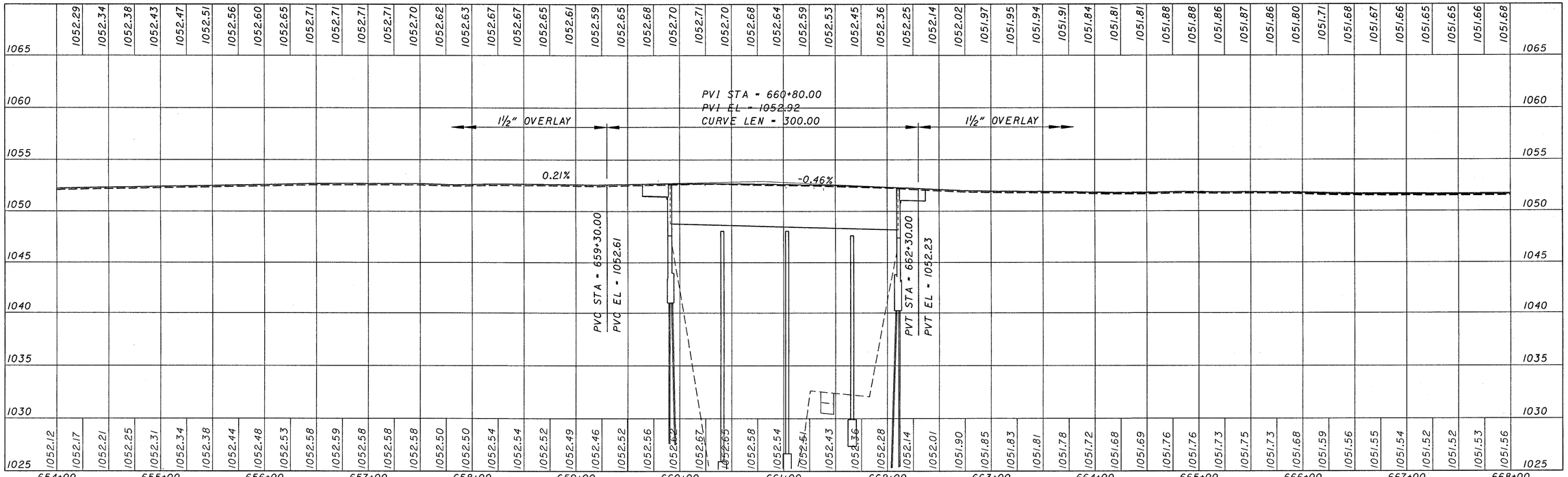
CHECKED

0 50
25 100
HORIZONTAL SCALE IN FEET

WEST BOUND PROFILE



EAST BOUND PROFILE



CALCULATED
CHECKED

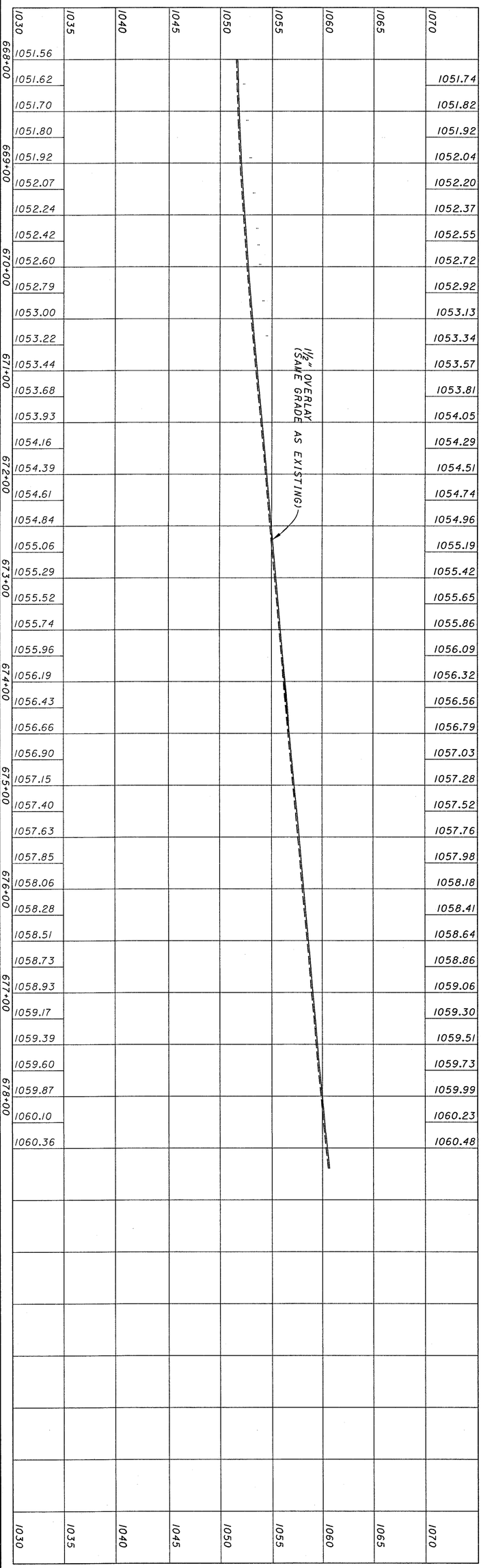
0 25 50 100
HORIZONTAL SCALE IN FEET

PROFILE GRADES
STA 654+00 TO STA 668+00

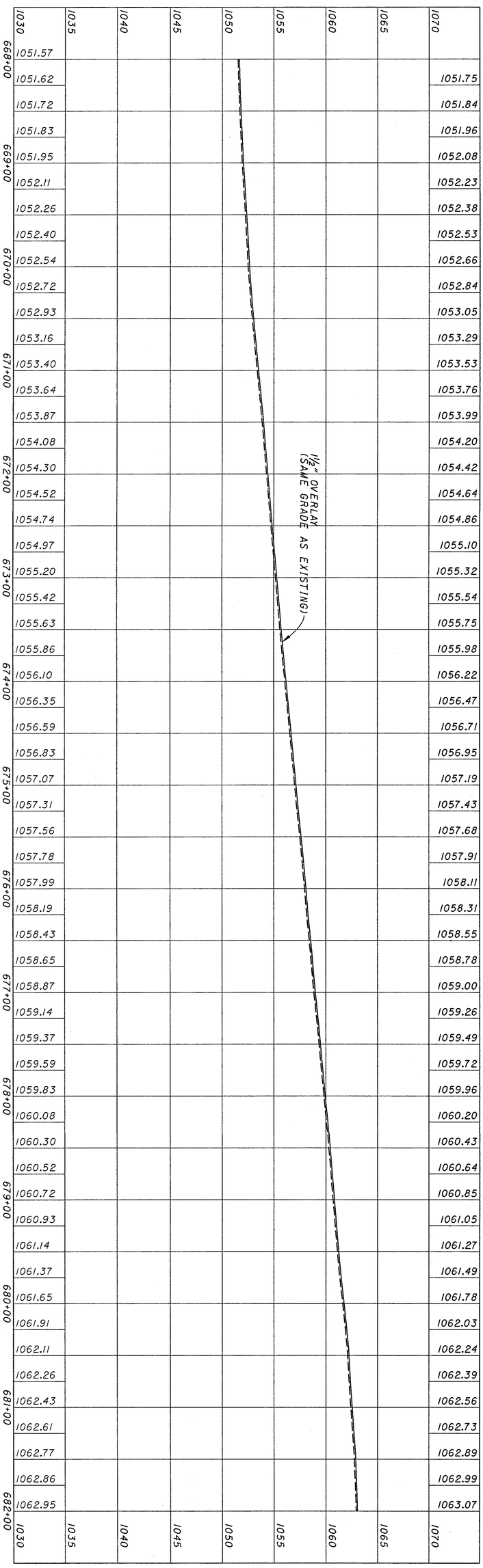
PRE-70-0.00

REFDN: **REFDN**
REFDN: **REFDN**
REFDN: **REFDN**
REFDN: **REFDN**
REFDN: **REFDN**
REFDN: **REFDN**

**********SYSTEM**********
USER: BLOOMINGFIELD
**********APPLICATION**********
PRF NAME: &PRFNAME&
ACTIVE LEVELS ON: &ALEV&



EAST BOUND PROFILE



WEST BOUND PROFILE

PRE-70-0.00

PROFILE GRADES
STA 668+00 TO STA 682+00

CALCULATED
CHECKED

0 50 25 100
HORIZONTAL SCALE IN FEET

EAST BOUND PROFILE

1020	1025	1030	1035	1040	1045	1050	1055	1060	
1057.38									691+00
1057.00								1057.12	
1056.62								1056.75	
1056.25								1056.37	
1055.87								1055.99	692+00
1055.50								1055.63	
1055.14								1055.26	
1054.78								1054.91	
1054.45								1054.58	693+00
1054.08								1054.21	
1053.74								1053.87	
1053.39								1053.52	
1053.01								1053.14	694+00
1052.64								1052.77	
1052.27								1052.40	
1051.89								1052.01	
1051.49								1051.62	695+00
1051.12								1051.25	
1050.77								1050.89	
1050.41								1050.54	
1050.05								1050.18	696+00
1049.70								1049.82	
1049.32								1049.44	
1048.92								1049.05	
1048.55								1048.67	697+00
1048.20								1048.33	
1047.83								1047.96	
1047.47								1047.59	
1047.10								1047.22	698+00
1046.74								1046.86	
1046.36								1046.49	
1045.99								1046.12	
1045.61								1045.74	699+00
1045.22								1045.35	
1044.85								1044.97	
1044.48								1044.60	
1044.11								1044.24	700+00
1043.74								1043.87	
1043.37								1043.50	
1043.01								1043.14	
1042.63								1042.75	701+00
1042.25								1042.37	
1041.88								1042.00	
1041.51								1041.63	
1041.15								1041.28	702+00
1040.80								1040.92	
1040.43								1040.56	
1040.05								1040.18	
1039.67								1039.79	703+00
1039.28								1039.40	
1038.91								1039.03	
1038.54								1038.66	
1038.18								1038.30	704+00
1037.80								1037.93	
1037.42								1037.55	
1037.05								1037.18	
1036.69								1036.81	705+00
1020	1025	1030	1035	1040	1045	1050	1055	1060	

1½" OVERLAY (SAME GRADE AS EXISTING)

WEST BOUND PROFILE

1020	1025	1030	1035	1040	1045	1050	1055	1060	
									691+00
									692+00
									693+00
									694+00
									695+00
1049.95								1050.07	696+00
1049.60								1049.73	
1049.23								1049.36	
1048.84								1048.97	
1048.47								1048.59	697+00
1048.12								1048.24	
1047.74								1047.86	
1047.37								1047.49	
1047.00								1047.13	698+00
1046.64								1046.77	
1046.27								1046.40	
1045.91								1046.03	
1045.55								1045.67	699+00
1045.18								1045.30	
1044.80								1044.93	
1044.44								1044.56	
1044.08								1044.21	700+00
1043.72								1043.84	
1043.33								1043.46	
1042.96								1043.09	
1042.57								1042.69	701+00
1042.18								1042.30	
1041.80								1041.92	
1041.44								1041.56	
1041.07								1041.19	702+00
1040.70								1040.82	
1040.32								1040.45	
1039.95								1040.07	
1039.58								1039.70	703+00
1039.23								1039.36	
1038.88								1039.01	
1038.50								1038.62	
1038.10								1038.23	704+00
1037.72								1037.84	
1037.34								1037.47	
1036.97								1037.10	
1036.61								1036.73	705+00
1020	1025	1030	1035	1040	1045	1050	1055	1060	

1½" OVERLAY (SAME GRADE AS EXISTING)

61
283

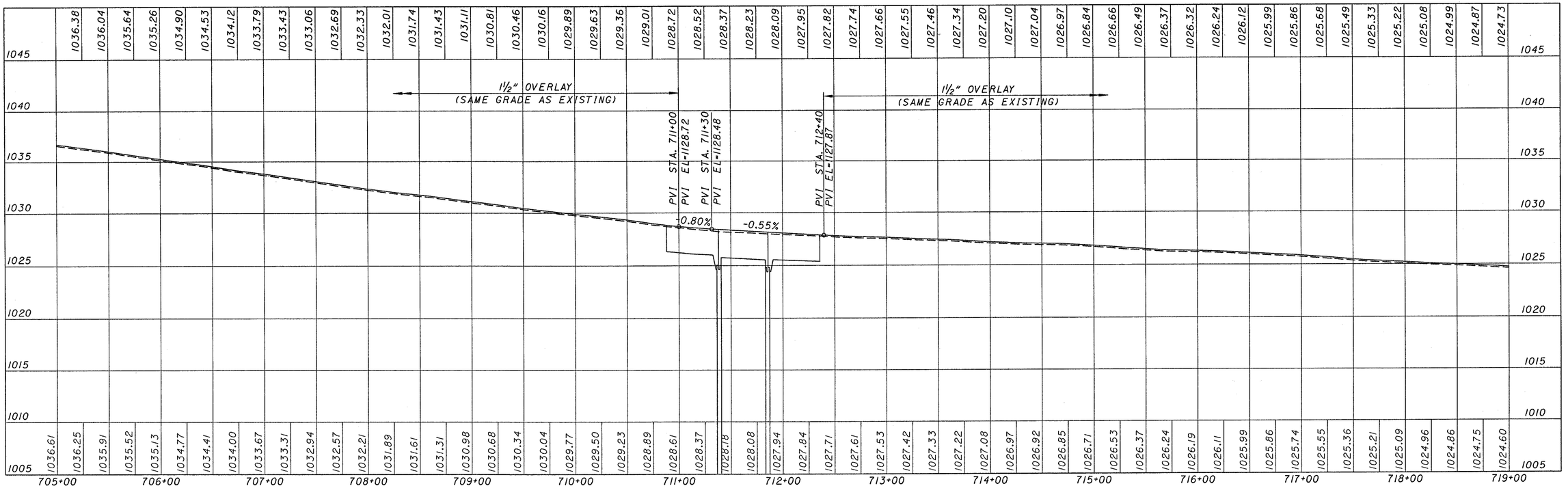
PRE-70-0.00

PROFILE GRADES
STA 691+00 TO STA 705+00

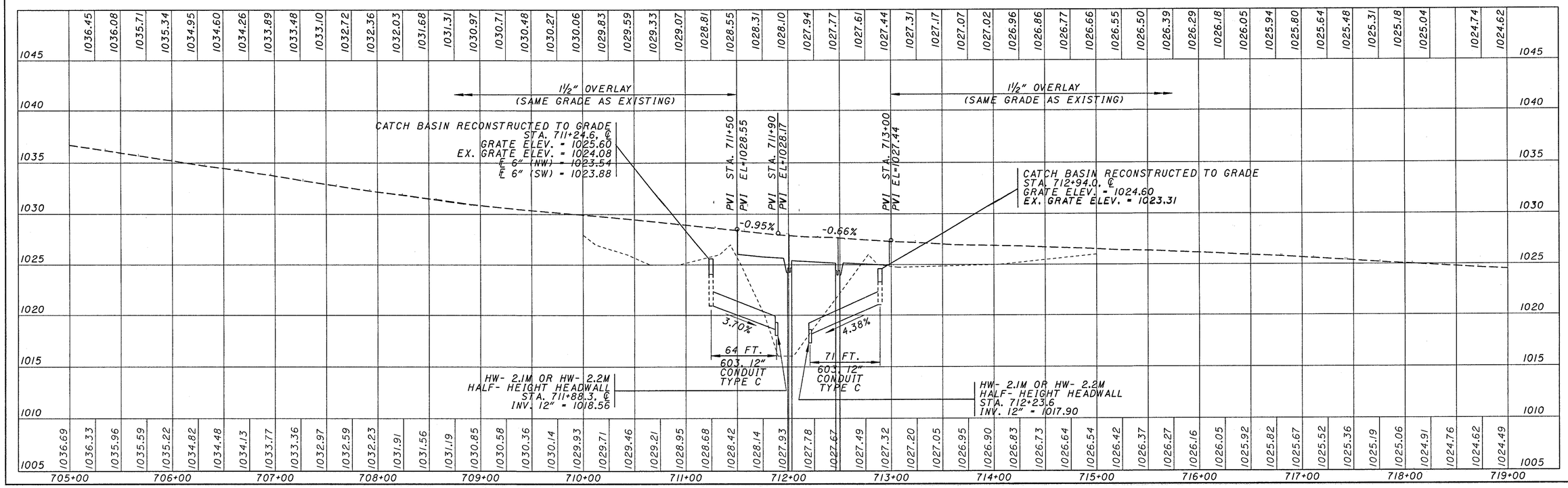
CALCULATED
CHECKED

0 50
25 100
HORIZONTAL SCALE IN FEET

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED

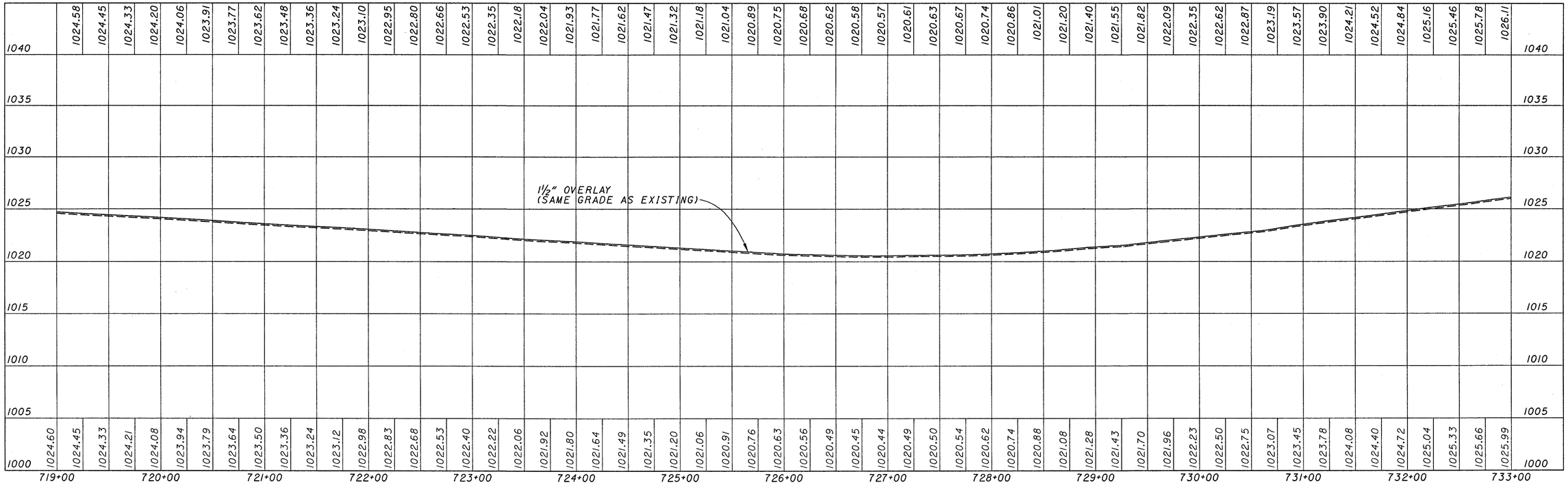
CHECKED

PROFILE GRADES
STA 705+00 TO STA 719+00

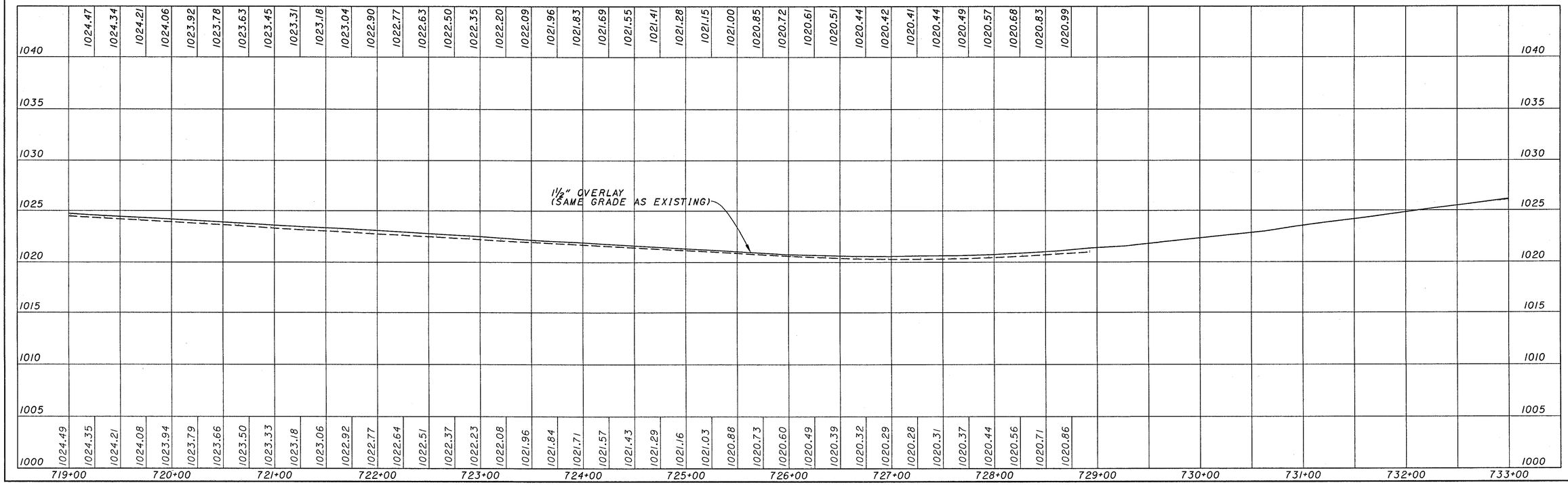
PRE-70-0.00

62
283

WEST BOUND PROFILE



EAST BOUND PROFILE



CALCULATED
CHECKED

0 25 50 100
HORIZONTAL SCALE IN FEET

PROFILE GRADES
STA 719+00 TO STA 733+00

PRE-70-0.00

63
283

REF01 **REF01**
REF02 **REF02**
REF03 **REF03**
REF04 **REF04**
REF05 **REF05**

**********SETTINGS**********
USER: $USERNAME$
DESIGN VARIABLE APPLICATION**********
PRF NAME: $PRFNAME$
ACTIVE LEVELS ON: LEV

WEST BOUND PROFILE

EAST BOUND PROFILE

CALCULATED

CHECKED

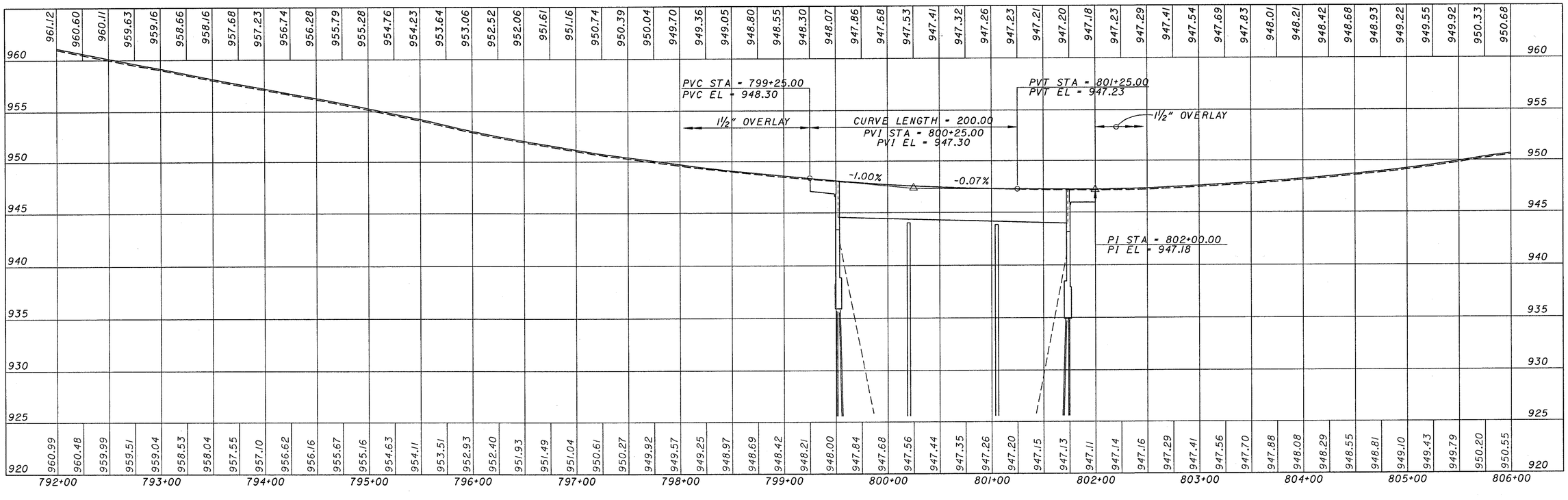
PROFILE GRADES
STA 778+00 TO STA 792+00

PRE-70-0.00

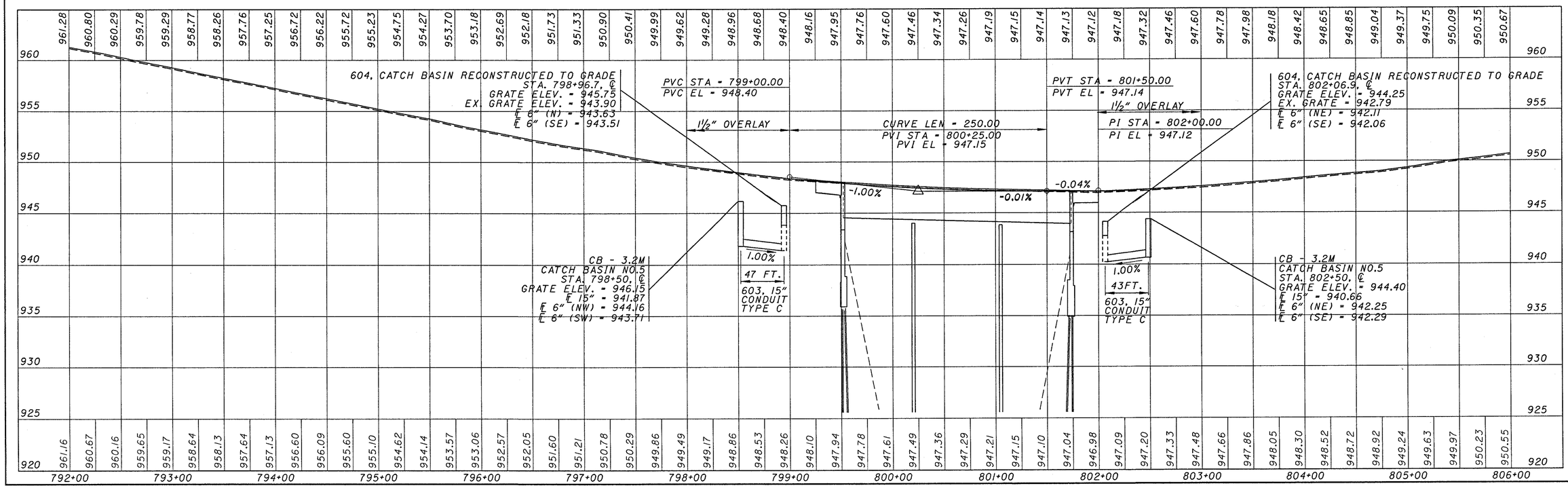
$$$$$SYTM$$$$$$
$$$$$SYTM$$$$$$
DES-FILE DGN#SPECIFICATION$$$$$$$
PRF NAME1:&PRFNAME1&
PRF NAME2:&PRFNAME2&
ACTIVE LEVELS ON: *ALEV*

REFON: **REFON**
REFON: **REFON**
REFOS: **REFOS**
REFOS: **REFOS**
REFON: **REFON**
REFON: **REFON**
REFOS: **REFOS**

WEST BOUND PROFILE



EAST BOUND PROFILE



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED | CHECKED

PROFILE GRADES
STA 792+00 TO STA 806+00

PRE-70-0.00

65
283

$$$$SYTIME$$$$
$$$$SYDATE$$$$
DESIGNFILE=DONOTSPECIFICATION$$$$$$$$
PRF NAME=$$PRFNAME$$
ACTIVE LEVELS ON: $$LEVs$$
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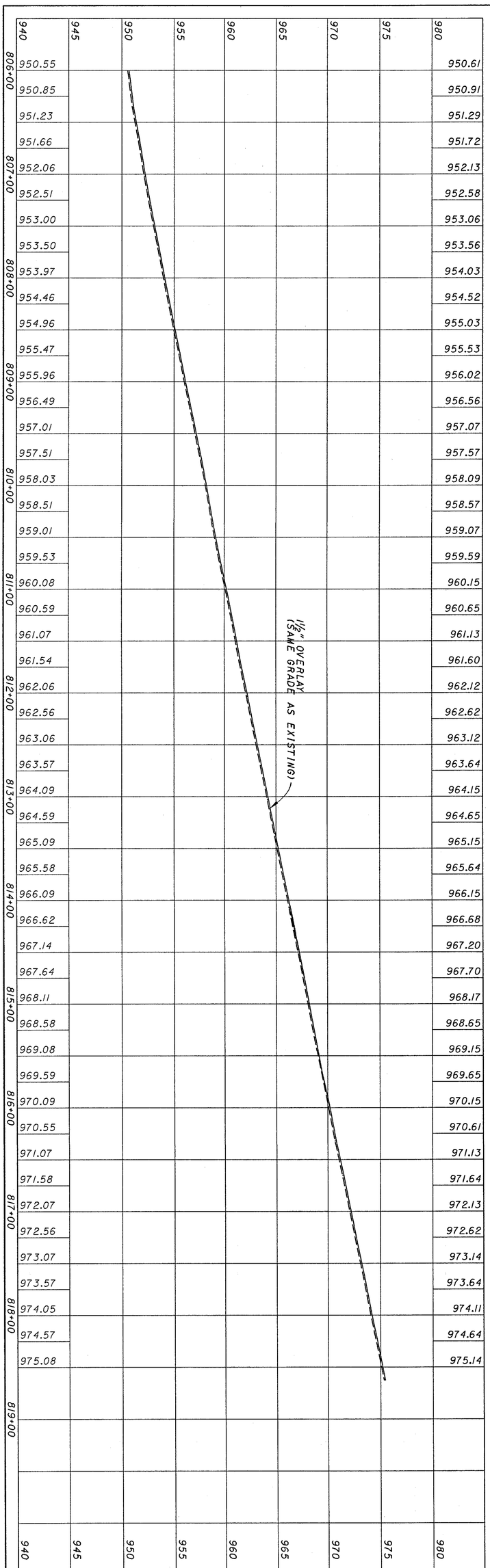
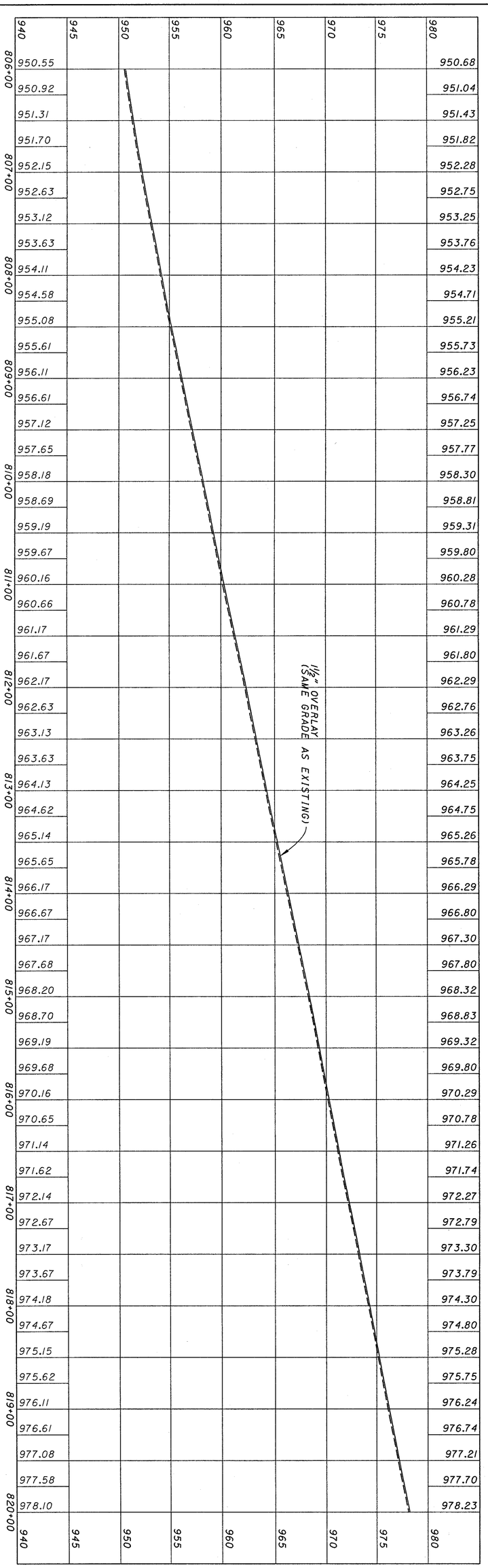
REF02=$$REF02$$
REF03=$$REF03$$
REF04=$$REF04$$
REF05=$$REF05$$



EAST BOUND PROFILE



WEST BOUND PROFILE

PRE-70-0.00

PROFILE GRADES
STA 806+00 TO STA 820+00

CALCULATED

CHECKED

0 50 100
25
HORIZONTAL SCALE IN FEET

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65

1165 1160 1155

6:1 6:1

℄-1157.67

PROP 1159.96
EXIST 1159.84

PROP 1159.87
EXIST 1159.74

STA 255+00

PROP 1160.21
EXIST 1160.08

PROP 1160.12
EXIST 1160.00

STA 254+00

PROP 1160.48
EXIST 1160.35

PROP 1160.38
EXIST 1160.25

STA 253+00

PROP 1160.56
EXIST 1160.43

PROP 1160.45
EXIST 1160.33

STA 252+75.57

PROP 1160.61
EXIST 1160.48

PROP 1160.57
EXIST 1160.44

STA 252+49.41

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 252+49.41 TO STA. 255+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

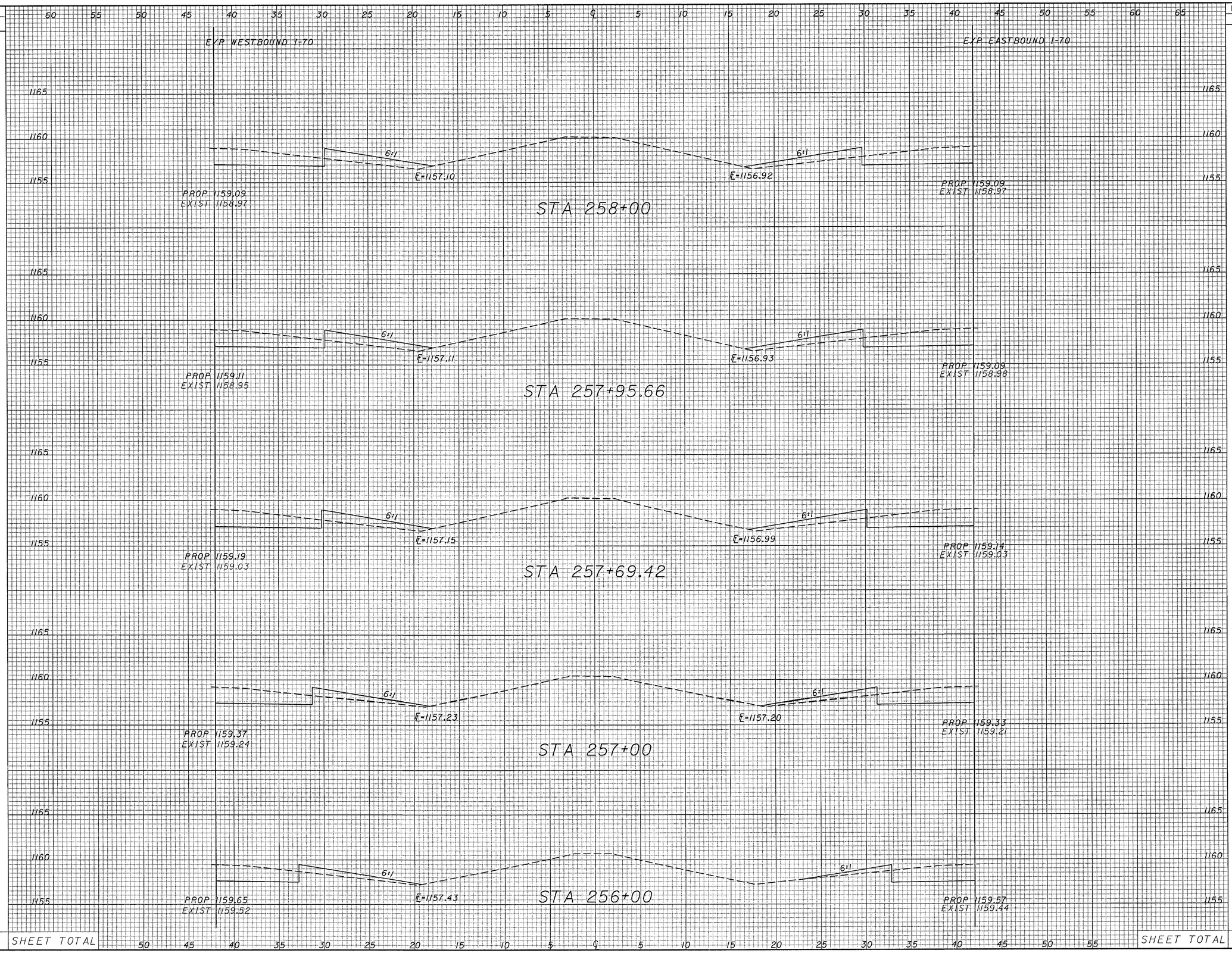
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS
STA. 256+00 TO STA. 258+00

PRE-70-0.00



SEEDING	
END WIDTH	SQ. YDS.

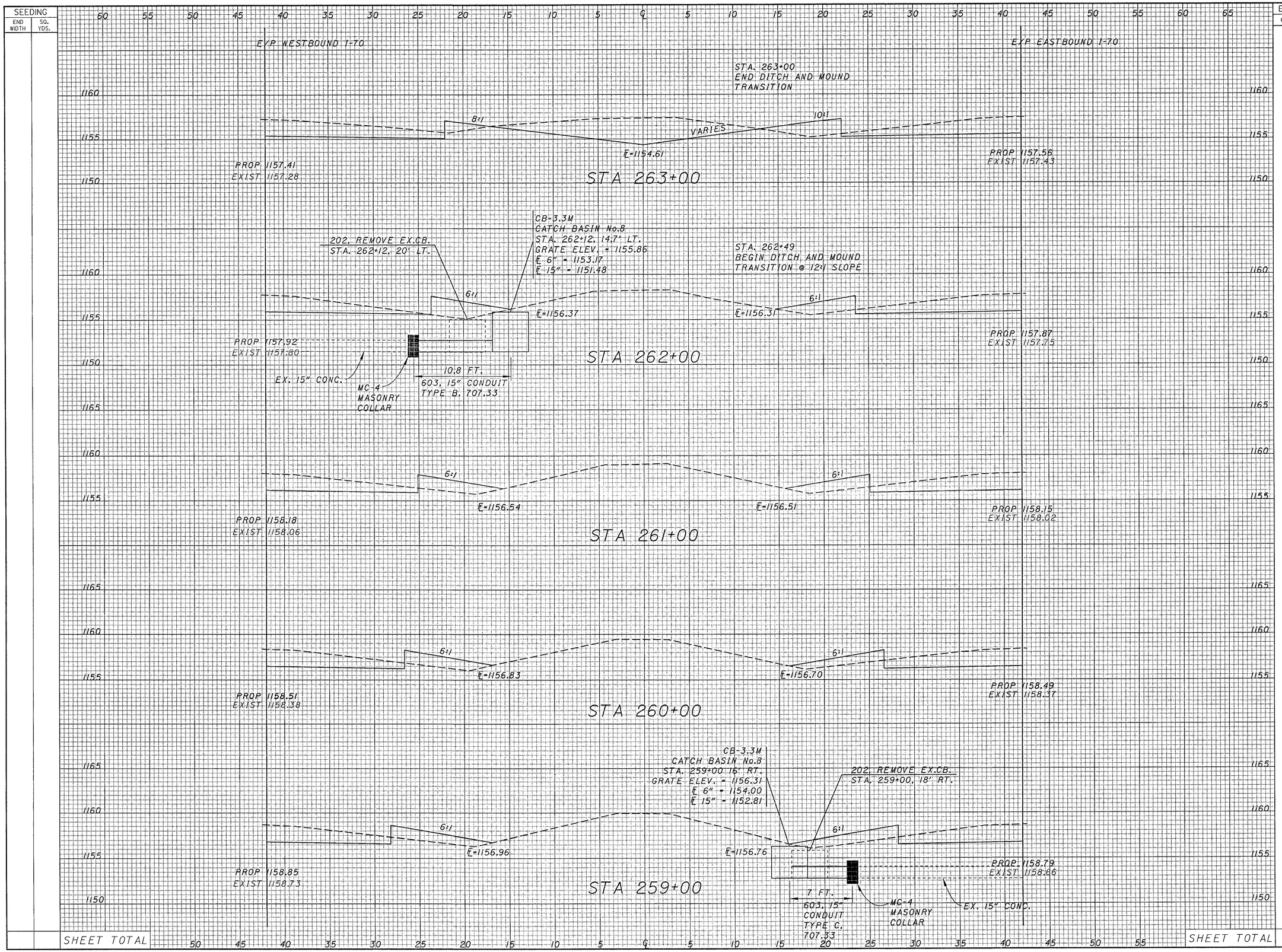
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS STA. 259+00 TO STA. 263+00

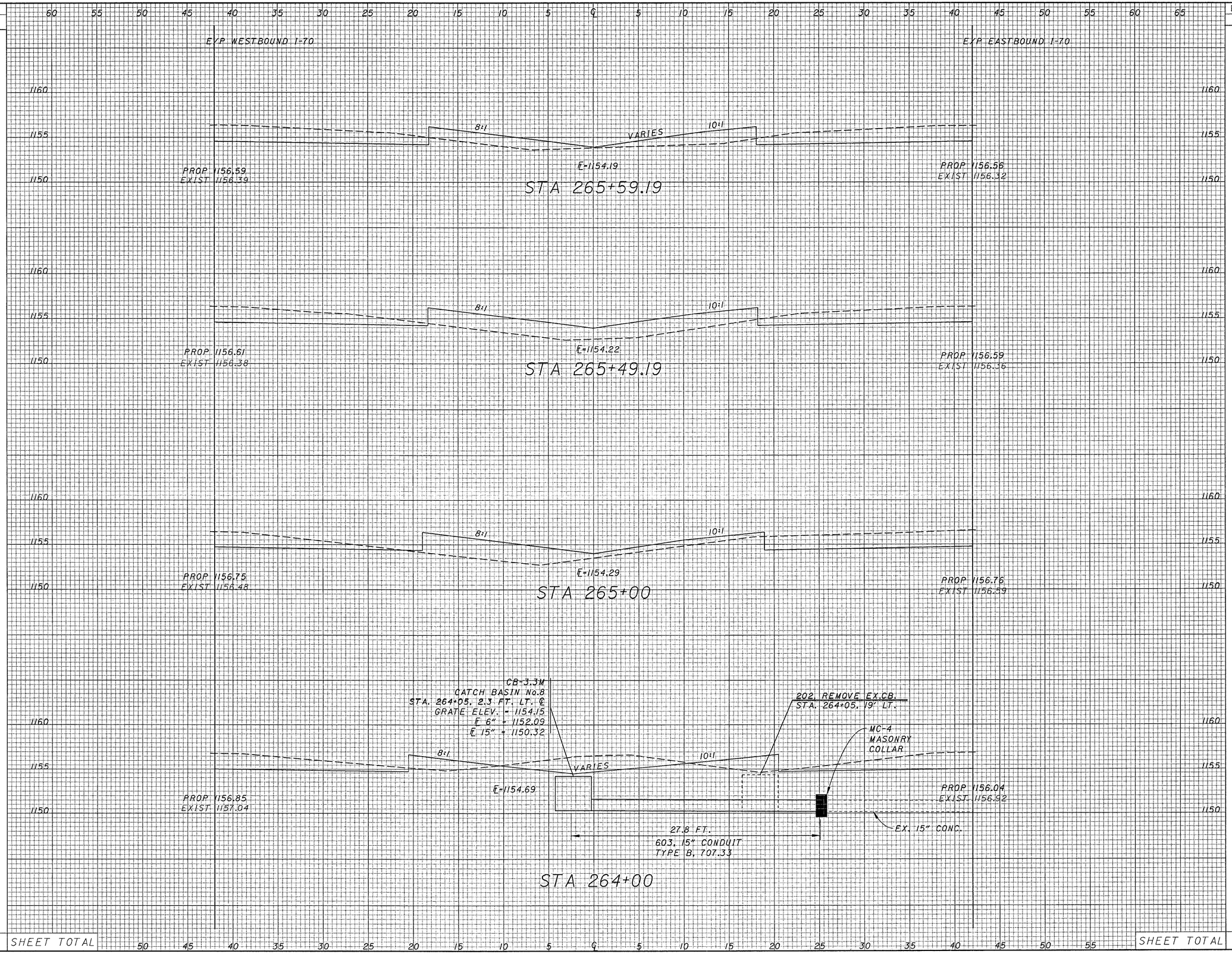
PRE-70-0.00



SHEET TOTAL

SHEET TOTAL

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	CALCULATED / CHECKED



ROADWAY CROSS SECTIONS
STA. 264+00 TO STA. 265+59.19

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

202, REMOVE CATCH BASIN, STA. 268+35.

CB-3.3M
CATCH BASIN No.8
STA. 268+35, ℄
GRATE ELEV. = 1153.15
℄ 15" = 1149.08

10:1

VARIES

8:1

℄= 1153.66

PROP 1156.36
EXIST 1156.24

PROP 1156.13
EXIST 1156.04

22 FT.

603, 15" CONDUIT, TYPE B, 707.33

EX. 15" CONC.

MC-4 MASONRY COLLAR

STA 268+00

10:1

VARIES

8:1

℄= 1153.81

PROP 1156.26
EXIST 1156.09

PROP 1156.18
EXIST 1156.02

STA 267+15.37

8:1

VARIES

8:1

℄= 1153.85

PROP 1156.25
EXIST 1156.14

PROP 1156.19
EXIST 1156.02

STA 267+00

8:1

8:1

PROP 1156.26
EXIST 1156.12

PROP 1156.27
EXIST 1156.01

STA 266+88.85

8:1

8:1

PROP 1156.61
EXIST 1156.35

PROP 1156.53
EXIST 1156.27

STA 265+75.3

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 265+75.3 TO STA. 268+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

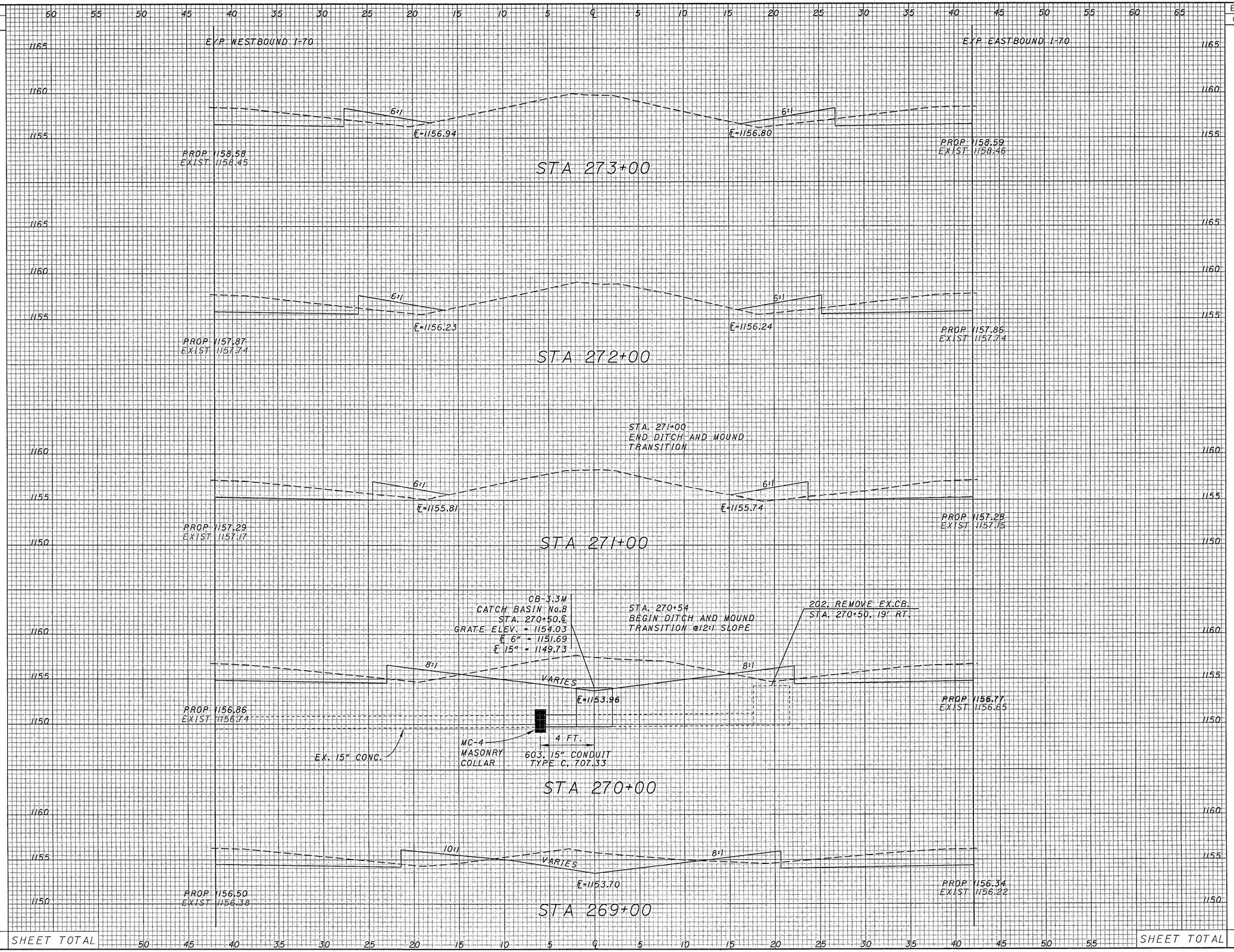
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS
STA. 269+00 TO STA. 273+00

PRE-70-0.00



SHEET TOTAL

SHEET TOTAL

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

1165 1160 1155

6:1 6:1

PROP 1160.92
EXIST 1160.80

PROP 1160.86
EXIST 1160.74

STA 276+00

6:1 6:1

℄=1158.37 ℄=1158.18

PROP 1160.19
EXIST 1160.06

PROP 1160.11
EXIST 1159.99

STA 275+00

6:1 6:1

℄=1158.34 ℄=1158.16

PROP 1160.15
EXIST 1160.01

PROP 1160.06
EXIST 1159.98

STA 274+95.22

6:1 6:1

℄=1158.18 ℄=1158.02

PROP 1159.94
EXIST 1159.80

PROP 1159.86
EXIST 1159.78

STA 274+68.77

6:1 6:1

℄=1157.73 ℄=1157.57

PROP 1159.41
EXIST 1159.28

PROP 1159.38
EXIST 1159.25

STA 274+00

SHEET TOTAL

50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 274+00 TO STA. 276+00

PRE-70-0.00

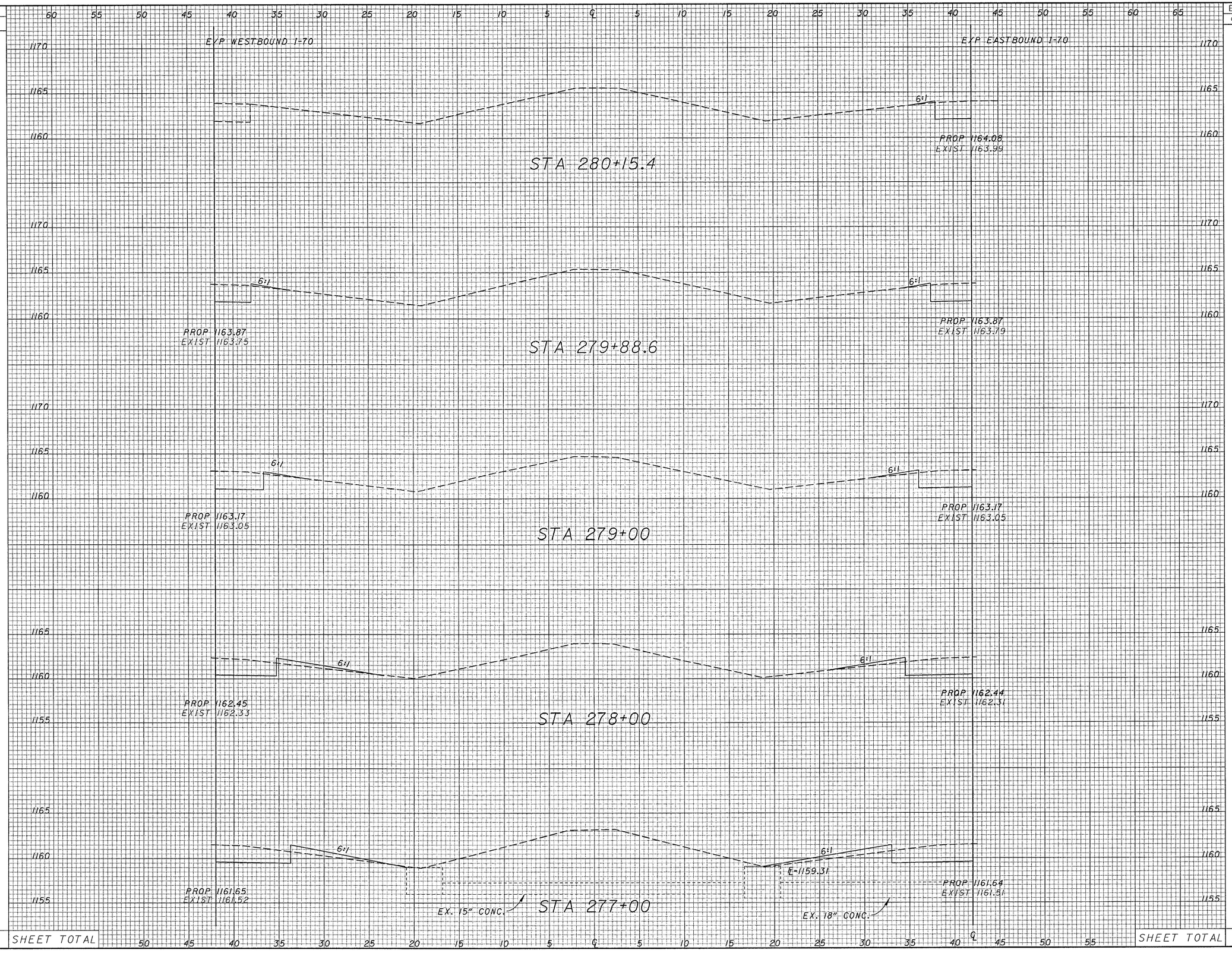
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS
STA. 277+00 TO STA. 280+15.4



PRE-70-0.00

SHEET TOTAL

SHEET TOTAL

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EVP WESTBOUND I-70

EVP EASTBOUND I-70

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65

1135 1130 1125

6:1

PROP 1127.61
EXIST 1127.48

STA 353+00

PROP 1127.57
EXIST 1127.45

PROP 1128.19
EXIST 1128.03

STA 352+00

PROP 1128.20
EXIST 1128.07

PROP 1128.84
EXIST 1128.67

STA 351+00

PROP 1128.83
EXIST 1128.71

PROP 1128.96
EXIST 1128.77

STA 350+81

PROP 1126.95
EXIST 1128.86

PROP 1129.03
EXIST 1128.83

STA 350+71

PROP 1128.96
EXIST 1128.89

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 350+71 TO STA. 353+00

PRE-70-0.00

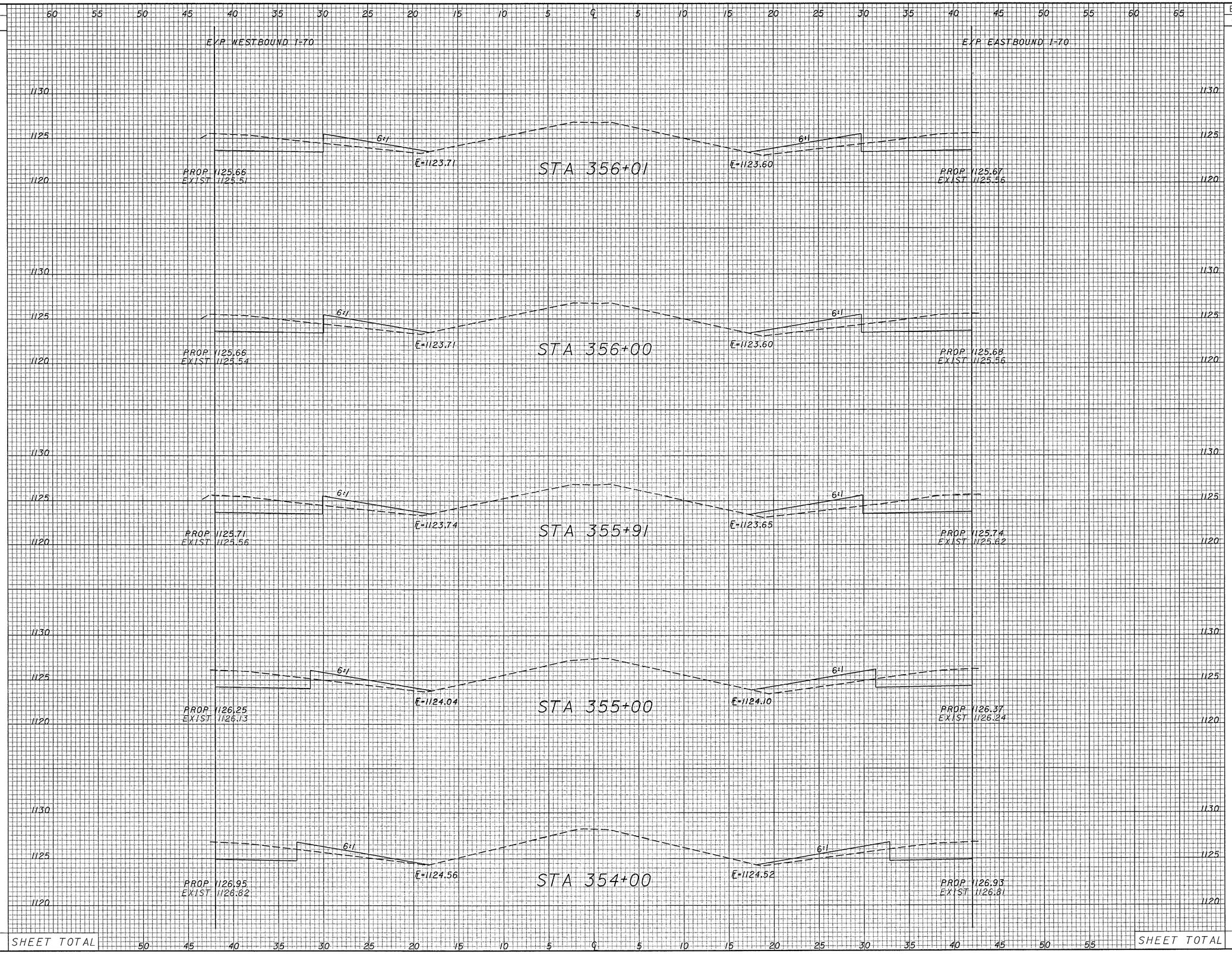
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS STA. 354+00 TO STA. 356+01



SHEET TOTAL

SHEET TOTAL

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

STA. 361+00
END DITCH AND MOUND
TRANSITION

8:1

10:1

VARIES

E=1120.06

PROP 1122.89
EXIST 1122.76

PROP 1122.91
EXIST 1122.78

STA 361+00

CB-3.3M
CATCH BASIN No.8
STA. 360+09.6, 15.1' LT.
GRATE ELEV. = 1121.12
E 15" = 1118.40

STA. 360+09.6, 19' LT.
202. REMOVE EX. CB.

STA. 360+50
BEGIN DITCH AND MOUND
TRANSITION @ 12:1 SLOPE

6:1

6:1

E=1121.72

E=1121.66

MC-4 MASONRY COLLAR

EX. 15" CONC.

2.84 %

10.1 FT.

603. 15" CONDUIT
TYPE B. 707.33

PROP 1123.34
EXIST 1123.21

PROP 1123.33
EXIST 1123.20

STA 360+00

6:1

6:1

E=1122.15

E=1122.10

PROP 1123.84
EXIST 1123.72

PROP 1123.89
EXIST 1123.77

STA 359+00

6:1

6:1

E=1122.80

E=1122.69

PROP 1124.46
EXIST 1124.34

PROP 1124.50
EXIST 1124.37

STA 358+00

6:1

6:1

E=1123.19

E=1123.16

PROP 1125.10
EXIST 1124.98

PROP 1125.12
EXIST 1125.00

STA 357+00

1125 1120 1115 1130

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 357+00 TO STA. 361+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME		
CUT	FILL	CUT	FILL	CALCULATED / CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

8:1

8:1

PROP 1121.74
EXIST 1121.62

STA 364+00

PROP 1121.78
EXIST 1121.67

8:1

VARIES

10:1

℄=1119.43

PROP 1121.79
EXIST 1121.64

PROP 1121.82
EXIST 1121.63

STA 363+81

6:1

VARIES

10:1

℄=1118.70

PROP 1121.81
EXIST 1121.64

STA 363+71

PROP 1121.85
EXIST 1121.62

6:1

VARIES

10:1

℄=1118.66

PROP 1121.95
EXIST 1121.83

STA 363+00

PROP 1122.06
EXIST 1121.93

CB-3.3m
CATCH BASIN No.8
STA. 362+02.8, 5' LT.
GRATE ELEV. = 1119.27
℄ 6" = 1117.45
℄ 15" = 1115.45

STA. 360+02.8, 18.9' RT.
202, REMOVE EX. CB.

6:1

VARIES

10:1

℄=1119.78

MC-4 MASONRY COLLAR

PROP 1122.46
EXIST 1122.34

29 FT.
603, 15" CONDUIT
TYPE B, 707.33

EX. 15" SPP

PROP 1122.56
EXIST 1122.44

STA 362+00

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 362+00 TO STA. 364+00

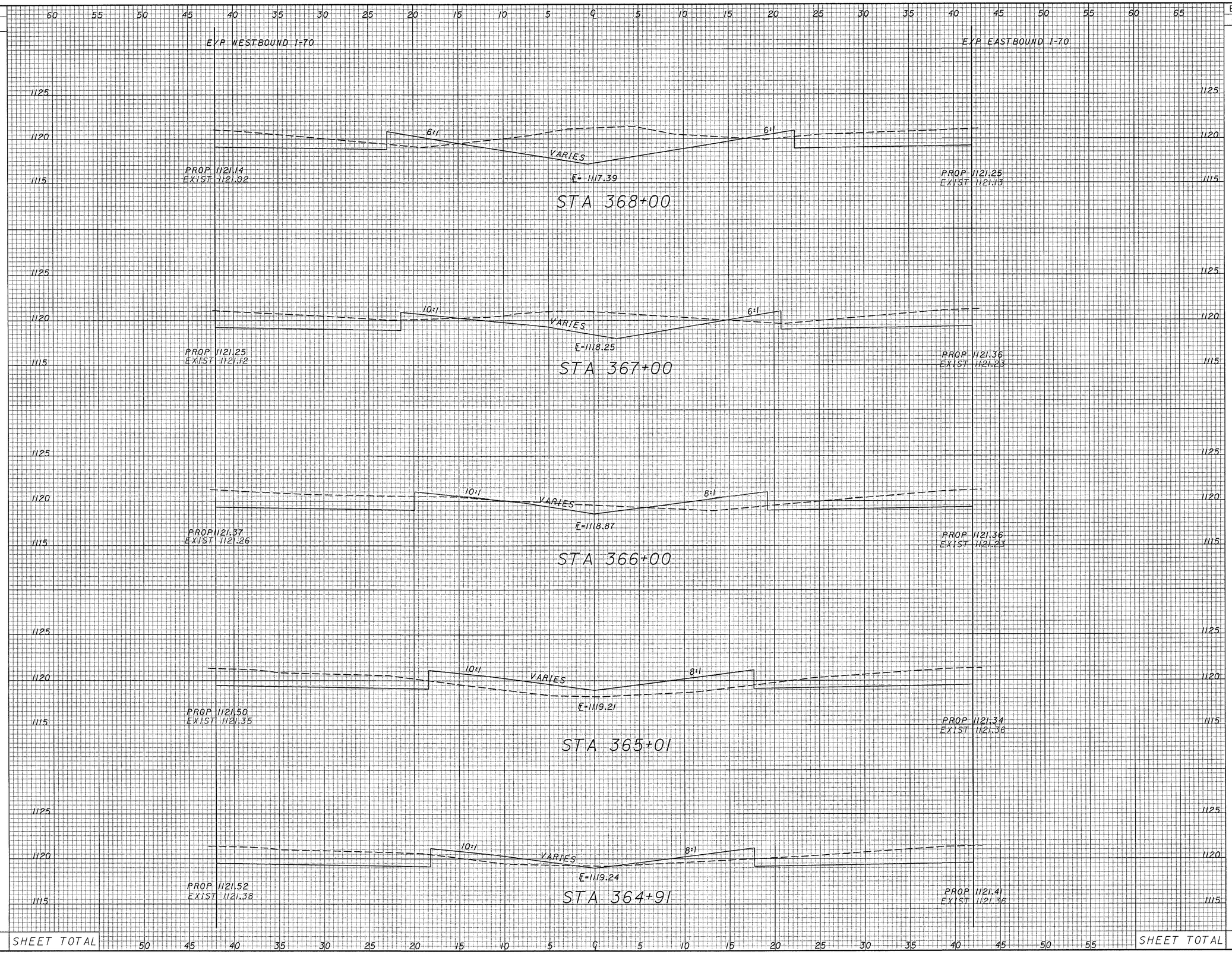
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS STA. 364+91 TO STA. 368+00

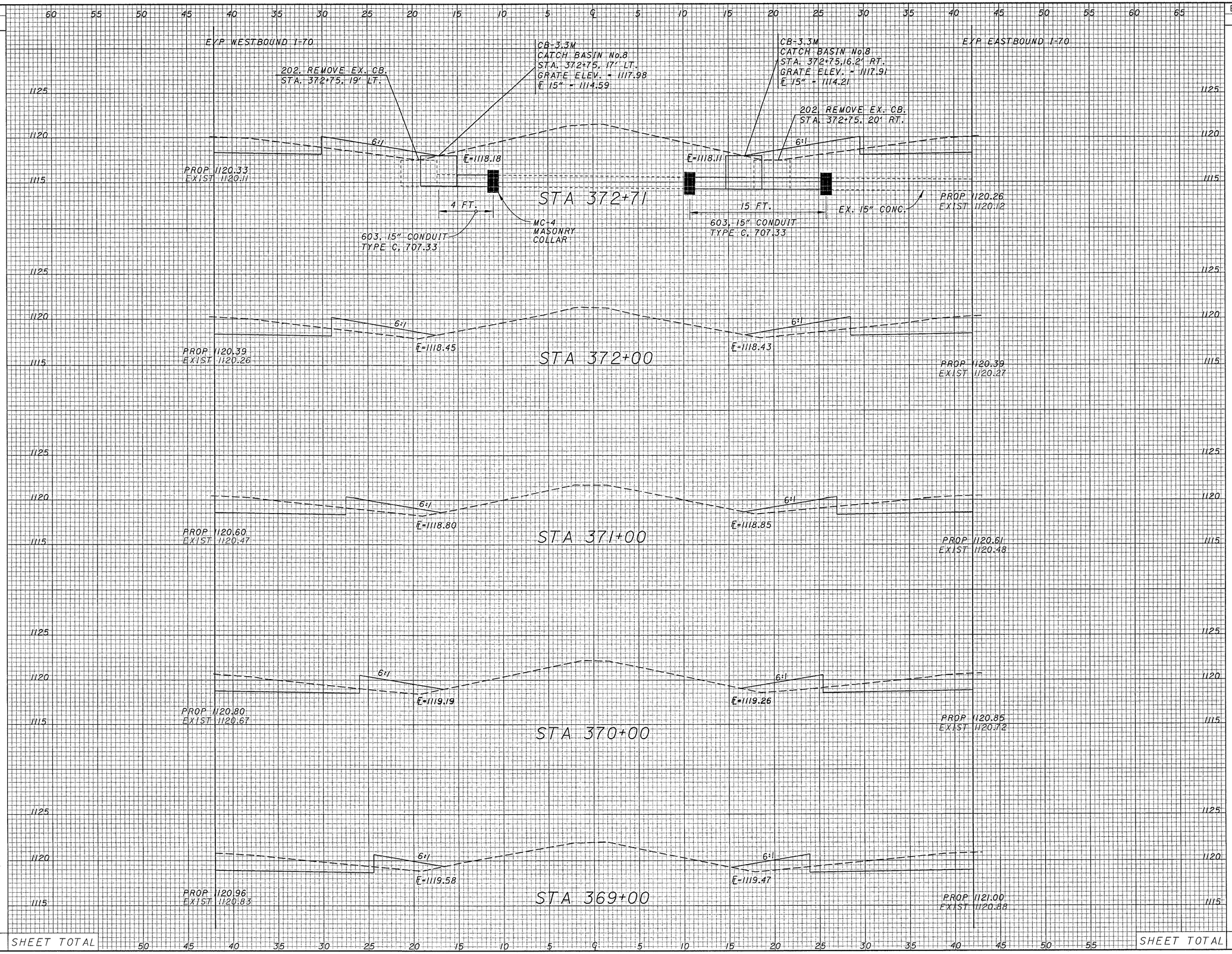
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 369+00 TO STA. 372+71

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EXP WESTBOUND I-70

EXP EASTBOUND I-70

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65

1125 1120 1115

6:1

PROP 1120.34
EXIST 1120.21

STA 376+00

PROP 1120.37
EXIST 1120.25

PROP 1120.23
EXIST 1120.10

STA 375+00

PROP 1120.21
EXIST 1120.09

STA 374+00

PROP 1120.14
EXIST 1120.02

PROP 1120.32
EXIST 1120.19

℄-1118.31

℄-1118.27

STA 373+00

PROP 1120.21
EXIST 1120.08

PROP 1120.31
EXIST 1120.20

℄-1118.23

STA 372+81

℄-1118.20

PROP 1120.22
EXIST 1120.13

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 372+81 TO STA. 376+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

1125

1120

1115

6:1

EXIST 1120.72

STA 378+01

PROP 1120.75
EXIST 1120.65

PROP 1120.83
EXIST 1120.70

STA 377+91

PROP 1120.76
EXIST 1120.64

PROP 1120.61
EXIST 1120.48

STA 377+00

PROP 1120.65
EXIST 1120.52

60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 377+00 TO STA. 378+01

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

1085 1080 1075

6:1

PROP 1081.10
EXIST 1080.97

STA 556+00

E-1078.66

6:1

PROP 1081.06
EXIST 1080.94

1085 1080 1075

6:1

PROP 1081.66
EXIST 1081.54

STA 555+00

E-1079.26

6:1

PROP 1081.60
EXIST 1081.48

1085 1080 1075

6:1

PROP 1082.41
EXIST 1082.29

STA 554+00

6:1

PROP 1082.34
EXIST 1082.21

1085 1080 1075 1090 1085 1080

6:1

PROP 1083.12
EXIST 1082.98

STA 553+17.51

6:1

PROP 1083.06
EXIST 1082.93

1090 1085 1080

6:1

PROP 1083.22
EXIST 1082.20

STA 553+06.74

6:1

PROP 1083.02
EXIST 1083.02

1085 1080

SHEET TOTAL 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 553+06.74 TO STA. 556+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

STA 559+00

EXP WESTBOUND I-70

EXP EASTBOUND I-70

6:1

6:1

E-1079.09

PROP 1080.65
EXIST 1080.52

PROP 1080.58
EXIST 1080.46

STA 558+37.51

6:1

PROP 1080.58
EXIST 1080.46

PROP 1080.57
EXIST 1080.44

STA 558+26.74

PROP 1080.59
EXIST 1080.46

PROP 1080.56
EXIST 1080.43

STA 558+00

6:1

6:1

PROP 1080.61
EXIST 1080.48

PROP 1080.55
EXIST 1080.43

STA 557+00

6:1

6:1

E-1078.44

E-1077.95

PROP 1080.70
EXIST 1080.58

PROP 1080.71
EXIST 1080.58

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 557+00 TO STA. 559+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EXP WESTBOUND I-70

EXP EASTBOUND I-70

STA. 563+64
BEGIN DITCH AND MOUND
TRANSITION AT 12:1 SLOPE

6:1
E=1080.61
PROP 1081.90
EXIST 1081.78
6:1
E=1080.14
PROP 1081.86
EXIST 1081.74

STA 563+00

6:1
E=1079.87
PROP 1081.55
EXIST 1081.42
6:1
E=1079.97
PROP 1081.49
EXIST 1081.36

STA 562+00

6:1
E=1079.91
PROP 1081.18
EXIST 1081.06
6:1
E=1080.54
PROP 1081.08
EXIST 1080.96

STA 561+00

6:1
E=1078.97
PROP 1080.82
EXIST 1080.69
6:1
E=1079.46
PROP 1080.78
EXIST 1080.66

STA 560+00

1085
1080
1075

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 560+00 TO STA. 563+00

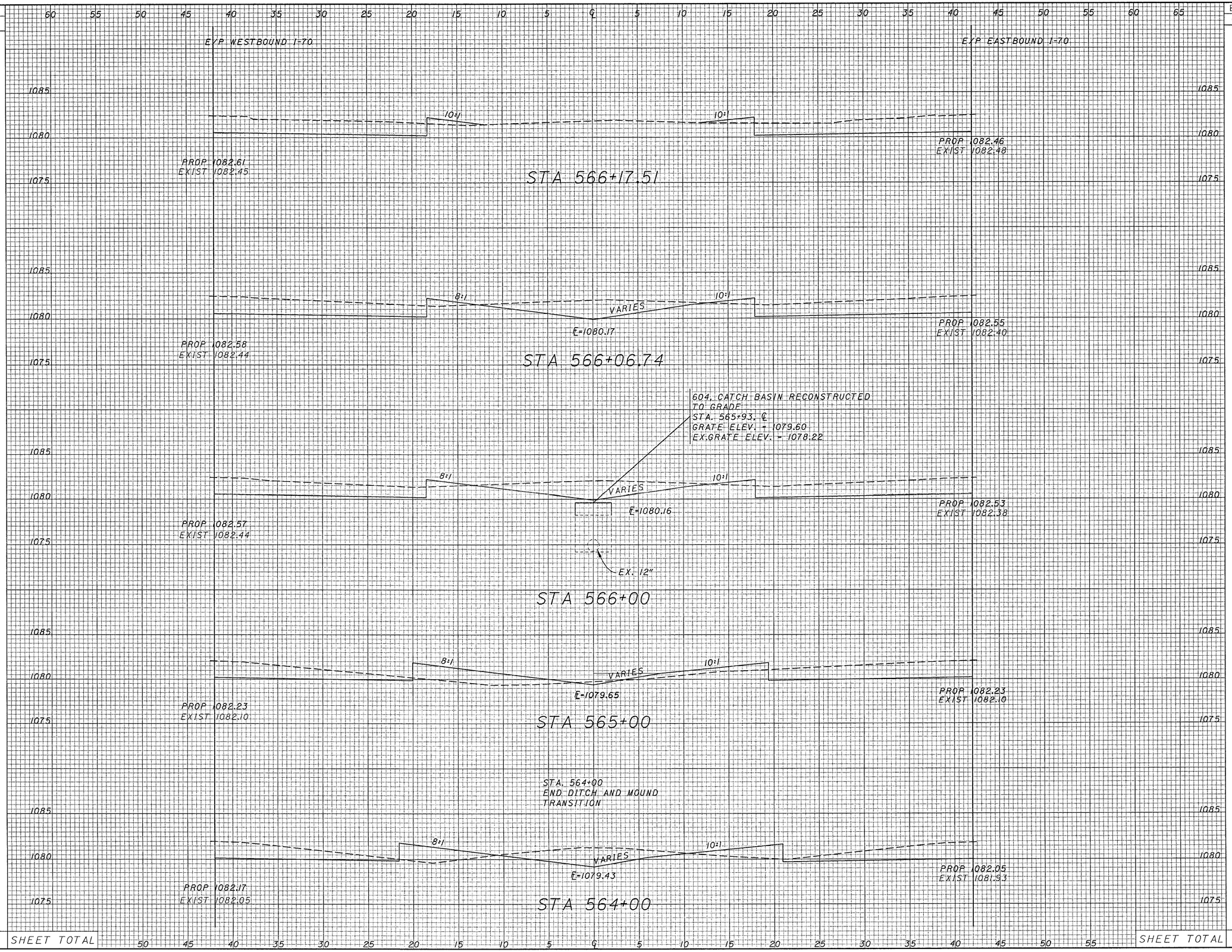
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS
STA. 564+00 TO STA. 566+17.51

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EVP WESTBOUND I-70

604, CATCH BASIN RECONSTRUCTED TO GRADE
STA. 567+93, ℄
GRATE ELEV. = 1079.69
EX.GRATE ELEV. = 1078.18

EVP EASTBOUND I-70

10:1 VARIES 6:1

E=1080.27

PROP 1083.26
EXIST 1083.14

PROP 1083.46
EXIST 1083.34

STA 568+00

EX. 12"

10:1 VARIES 8:1

E=1080.88

PROP 1083.10
EXIST 1082.95

PROP 1083.18
EXIST 1083.06

STA 567+57.27

10:1 VARIES 8:1

E=1080.81

PROP 1083.06
EXIST 1082.91

PROP 1083.00
EXIST 1082.23

STA 567+46.48

10:1 10:1

PROP 1083.02
EXIST 1082.89

PROP 1082.94
EXIST 1082.80

STA 567+36.48

10:1 10:1

PROP 1082.63
EXIST 1082.46

PROP 1082.65
EXIST 1082.52

STA 566+27.51

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 566+27.51 TO STA. 568+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

CB-3.3M
CATCH BASIN No.8
STA. 572+00.15' LT.
GRATE ELEV. = 1083.13
INV. 15" = 1080.62

CB-3.3M
CATCH BASIN No.8
STA. 572+00.15' RT.
GRATE ELEV. = 1083.03
INV. 15" = 1079.40

STA. 572+00
202, REMOVE EX. CB

STA. 572+00
202, REMOVE EX. CB

STA. 572+00
END DITCH AND MOUND
TRANSITION

6:1

6:1

EX. 15" CONC.

PROP 1085.31
EXIST 1085.18

E=1083.60

4 FT.

STA 572+00

E=1083.48

PROP 1085.20
EXIST 1085.08

EX. 15" CONC.

603. 15" CONDUIT
TYPE C, 707.33

MC-4
MASONRY
COLLAR

15 FT.

603. 15" CONDUIT
TYPE C, 707.33

MC-4
MASONRY
COLLAR

STA. 571+16
BEGIN DITCH AND MOUND
TRANSITION @ 12:1 SLOPE

6:1

6:1

PROP 1084.88
EXIST 1084.75

E=1080.87

STA 571+00

PROP 1084.76
EXIST 1084.63

STA. 569+45, 18" LT.
202, REMOVE EX.CB

CB-3.3M
CATCH BASIN No.8
STA. 569+45.℄
GRATE ELEV. = 1081.3
INV. 15" = 1078.60

10:1

VARIES

8:1

EX. 15" CONC.

E=1081.57

PROP 1084.33
EXIST 1084.20

PROP 1084.32
EXIST 1084.19

STA 570+00

23.7 FT.

603. 15" CONDUIT
TYPE B, 707.33

MC-4
MASONRY
COLLAR

10:1

VARIES

8:1

E=1081.32

PROP 1083.91
EXIST 1083.78

PROP 1083.76
EXIST 1083.63

STA 569+00

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 569+00 TO STA. 572+00

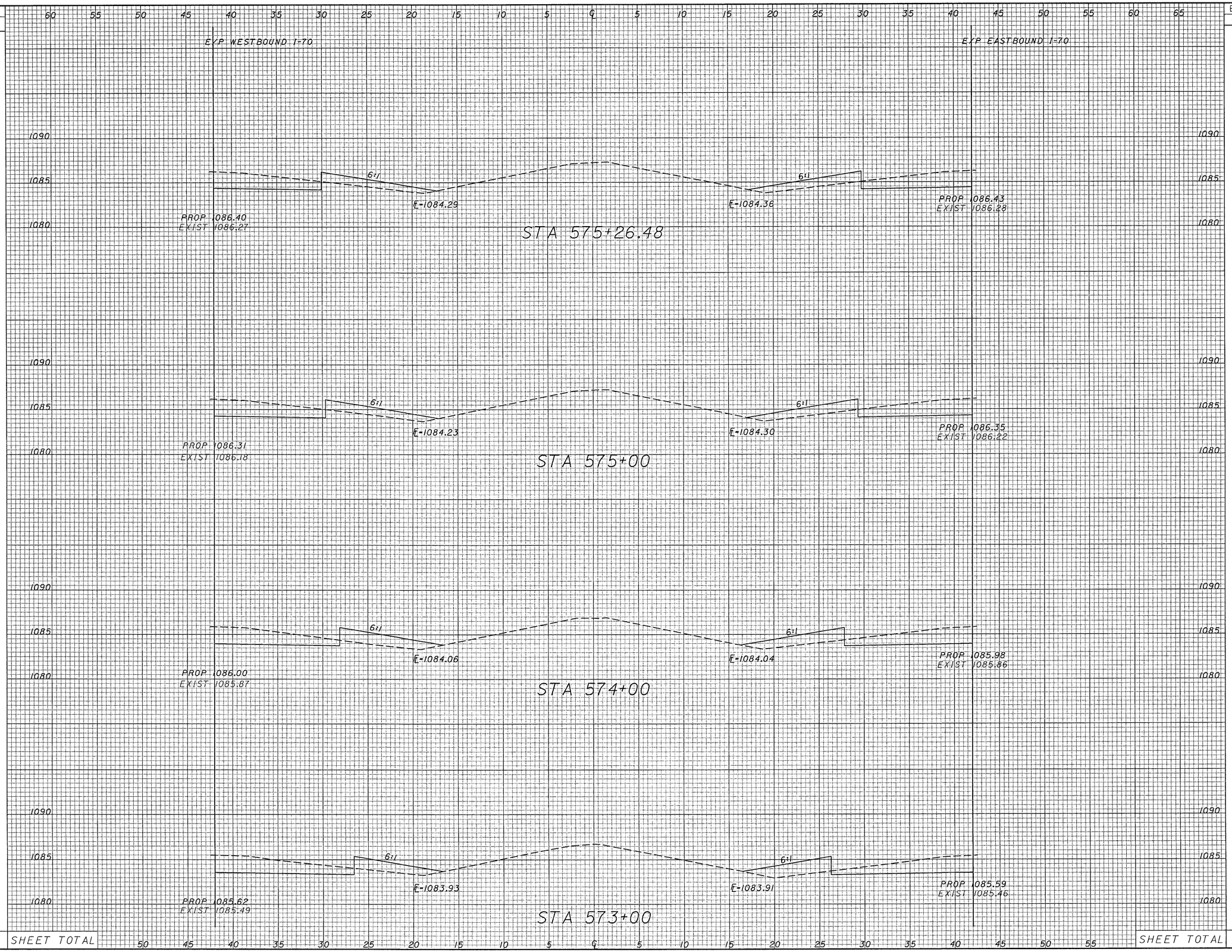
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS
STA. 573+00 TO STA. 575+26.48

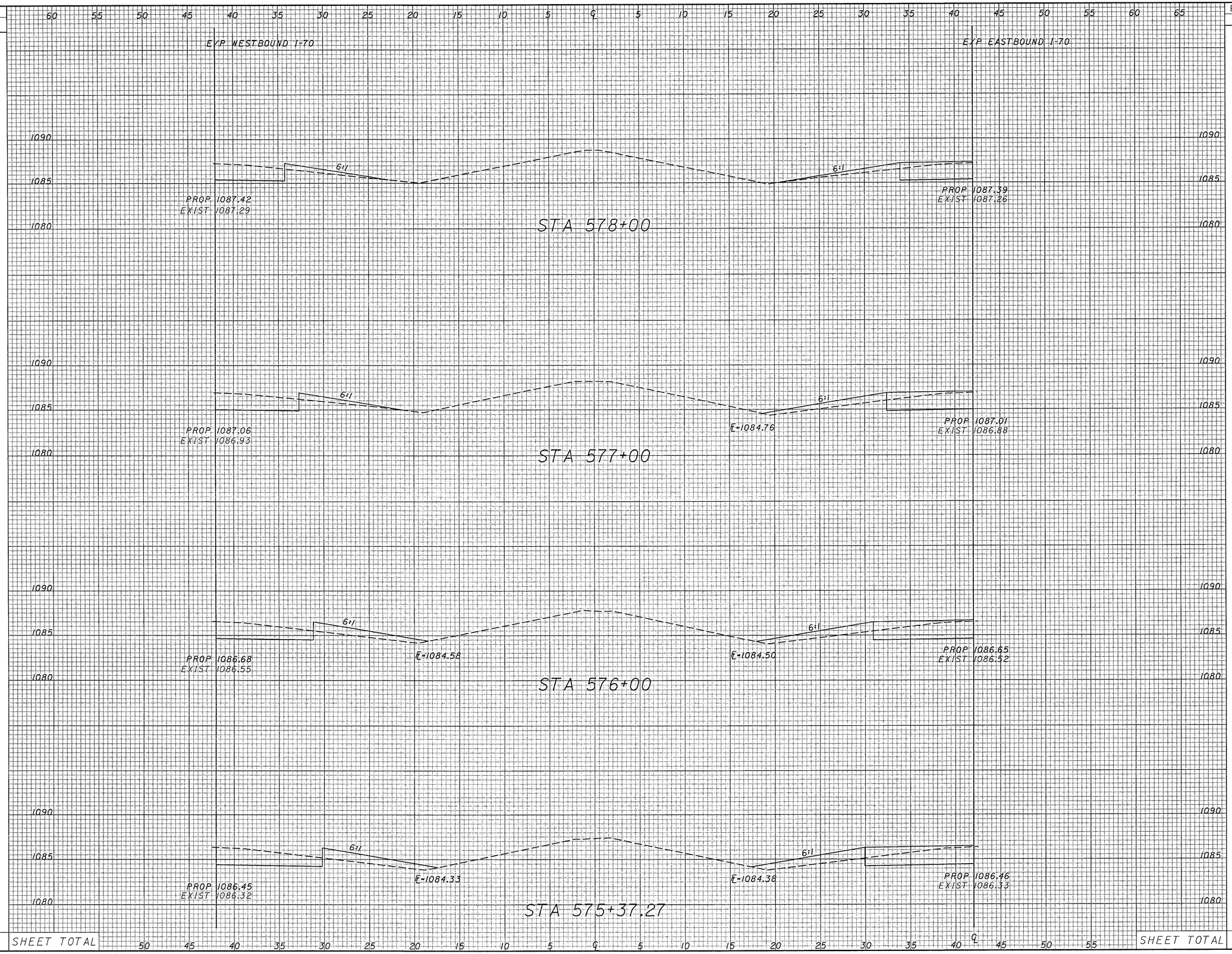
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS
STA. 575+37.27 TO STA. 578+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65

EXP WESTBOUND I-70

EXP EASTBOUND I-70

1095 1090 1085

6:1

PROP 1088.20
EXIST 1088.23

PROP 1088.30
EXIST 1088.20

STA 580+57.27

1095 1090 1085

6:1 6:1

PROP 1088.16
EXIST 1088.19

PROP 1088.23
EXIST 1088.10

STA 580+46.48

1095 1090 1085

6:1 6:1

PROP 1088.06
EXIST 1087.93

PROP 1088.09
EXIST 1087.96

STA 580+00

1090 1085 1080

6:1 6:1

PROP 1087.76
EXIST 1087.63

PROP 1087.75
EXIST 1087.62

STA 579+00

SHEET TOTAL

50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 579+00 TO STA. 580+57.27

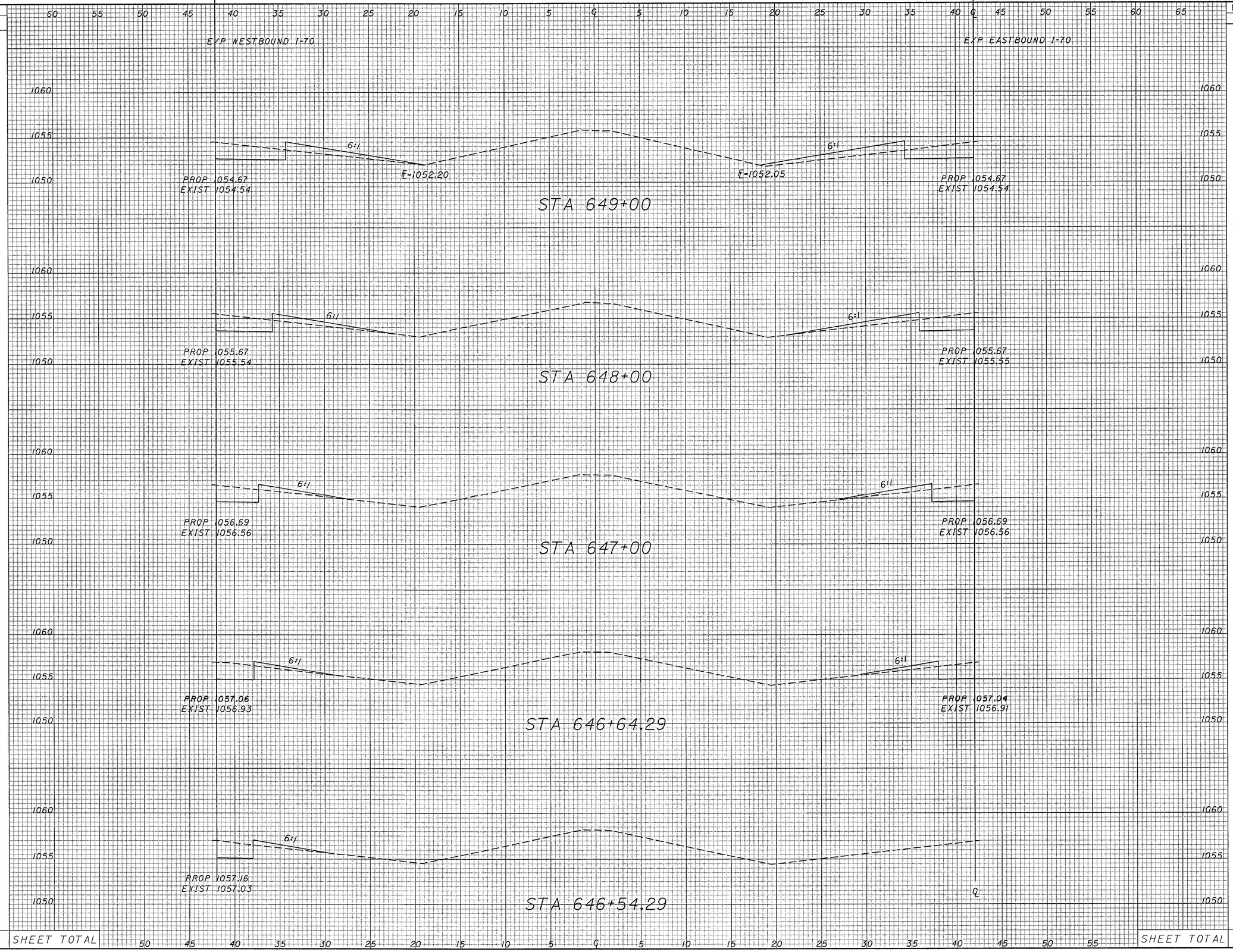
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 646+54.29 TO STA. 649+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

STA 652+00

PROP 1052.46
EXIST 1052.34

E=1050.40

6:1

E=1050.40

6:1

PROP 1052.48
EXIST 1052.36

STA 651+84.29

PROP 1052.53
EXIST 1052.40

E=1050.45

6:1

E=1050.40

6:1

PROP 1052.54
EXIST 1052.40

STA 651+74.29

PROP 1052.57
EXIST 1052.45

E=1050.45

6:1

E=1050.45

6:1

PROP 1052.60
EXIST 1052.47

STA 651+00

PROP 1052.94
EXIST 1052.81

E=1050.85

6:1

E=1050.75

6:1

PROP 1053.00
EXIST 1052.88

STA 650+00

PROP 1053.73
EXIST 1053.60

E=1051.45

6:1

E=1051.35

6:1

PROP 1053.75
EXIST 1053.62

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 650+00 TO STA. 652+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

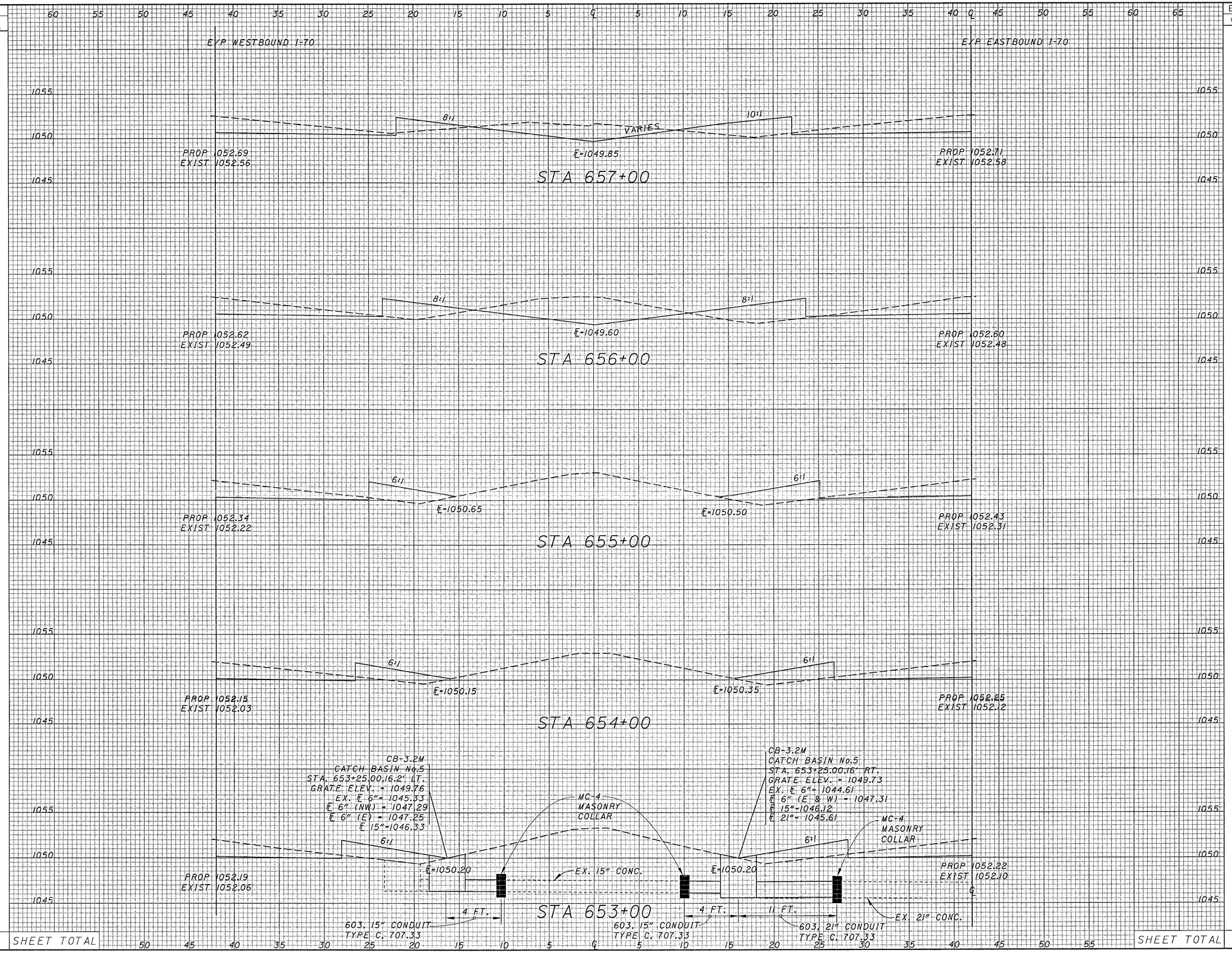
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS STA.653+00 TO STA.675+00

PRE-70-0.00



SHEET TOTAL

SHEET TOTAL

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

1055

1050

1045

10:1

10:1

E=1050.70

PROP 1052.70
EXIST 1052.57

PROP 1052.67
EXIST 1052.56

STA 659+64.29

8:1

VARIES

10:1

E=1050.26

PROP 1052.69
EXIST 1052.56

PROP 1052.65
EXIST 1052.62

STA 659+54.29

8:1

VARIES

10:1

E=1050.14

PROP 1052.66
EXIST 1052.53

PROP 1052.61
EXIST 1052.49

STA 659+00

8:1

VARIES

10:1

E=1049.94

PROP 1052.63
EXIST 1052.50

PROP 1052.63
EXIST 1052.50

STA 658+00

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 658+00 TO STA. 659+64.29

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

10:1 VARIES 8:1

PROP 1051.84
EXIST 1051.71

℄-1049.05

PROP 1051.88
EXIST 1051.76

STA 665+00

10:1 VARIES 8:1

PROP 1051.92
EXIST 1051.79

℄-1049.15

PROP 1051.84
EXIST 1051.72

STA 664+00

10:1 VARIES 8:1

PROP 1052.01
EXIST 1051.89

℄-1049.45

PROP 1051.97
EXIST 1051.85

STA 663+00

EX. CB
RECONSTRUCT TO GRADE
STA. 662+57.16' ℄
EX. GRATE = 1047.55
GRATE ELEV. = 1049.21

10:1 VARIES 8:1

PROP 1052.12
EXIST 1052.01

℄-1049.70

PROP 1052.15
EXIST 1052.01

EX. 12" CONC.

STA 662+47.79

10:1 VARIES 8:1

PROP 1052.18
EXIST 1052.10

℄-1050.20

PROP 1052.19
EXIST 1052.05

STA 662+37.79

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA.662.37.79 TO STA.665+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

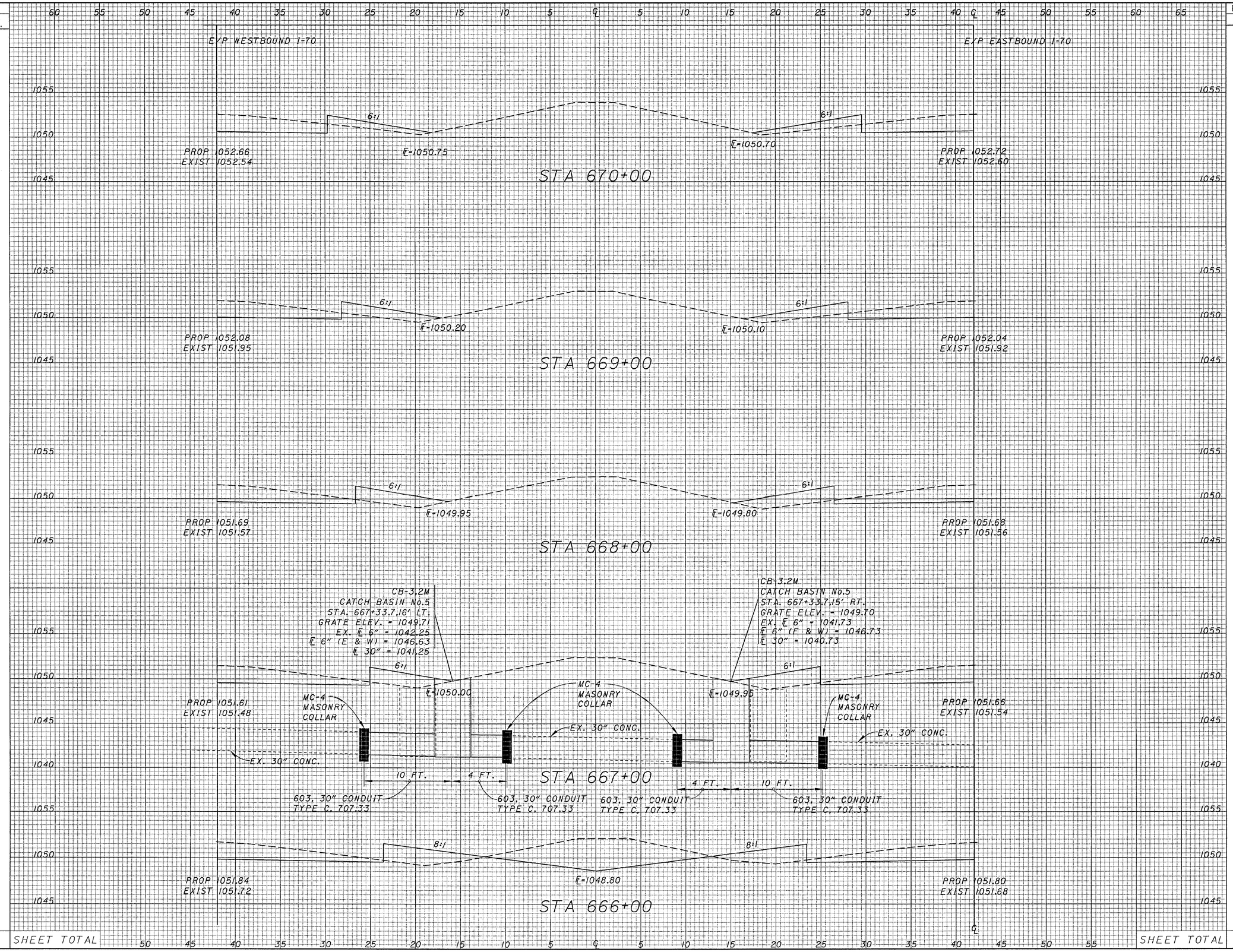
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS STA.666+00 TO STA.670+00

PRE-70-0.00

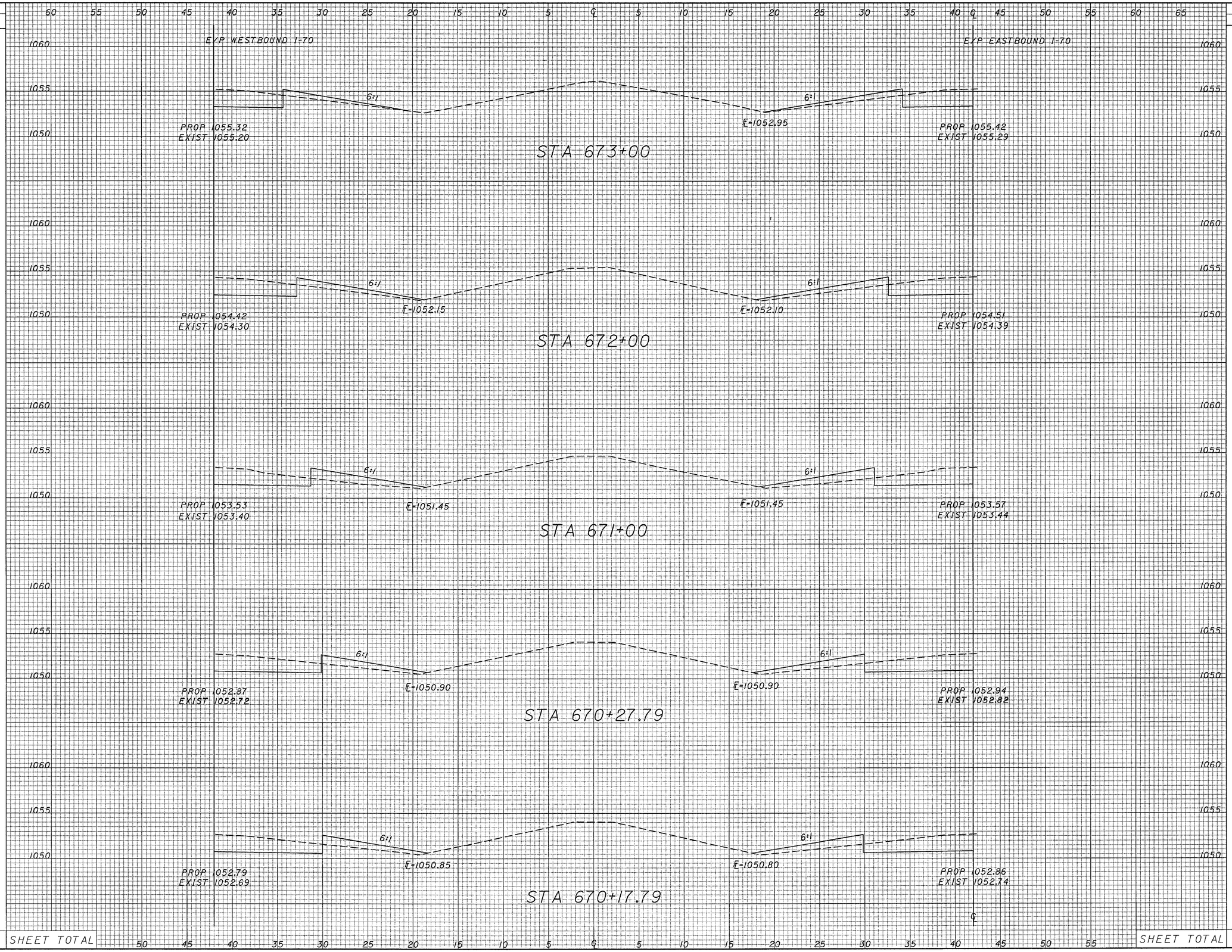


SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 670+17.79 TO STA. 673+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

1060

1055

1050

6:1

PROP 1057.74
EXIST 1057.51

STA 675+47.79

PROP 1057.56
EXIST 1057.42

PROP 1057.65
EXIST 1057.42

STA 675+37.79

PROP 1057.19
EXIST 1057.07

PROP 1057.28
EXIST 1057.15

STA 675+00

PROP 1056.22
EXIST 1056.10

PROP 1056.32
EXIST 1056.19

STA 674+00

℄

SHEET TOTAL

50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 674+00 TO STA. 675+47.79

PRE-70-0.00

99
283

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EXP WESTBOUND I-70

EXP EASTBOUND I-70

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

1045 1040 1035 1050

6:1

PROP 1042.69
EXIST 1042.57

℄-1040.20

℄-1040.40

PROP 1042.75
EXIST 1042.63

STA 701+00

PROP 1044.21
EXIST 1044.08

PROP 1044.24
EXIST 1044.11

STA 700+00

PROP 1045.67
EXIST 1045.55

PROP 1045.74
EXIST 1045.61

STA 699+00

PROP 1045.99
EXIST 1045.87

PROP 1046.07
EXIST 1045.97

STA 698+78.19

PROP 1046.75
EXIST 1046.63

EXIST 1046.74

STA 698+26.46

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 698+26.46 TO STA. 701+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

ROADWAY CROSS SECTIONS STA. 702+00 TO STA. 704+00

PRE-70-0.00

101
283

STA 704+00

E/P WESTBOUND I-70

PROP 1038.23
EXIST 1038.10

6:1

℄-1036.10

℄-1036.10

6:1

E/P EASTBOUND I-70

PROP 1038.30
EXIST 1038.18

STA 703+98.19

PROP 1038.25
EXIST 1038.12

6:1

℄-1036.15

℄-1036.10

6:1

PROP 1038.33
EXIST 1038.20

STA 703+46.46

PROP 1039.06
EXIST 1038.94

6:1

℄-1036.85

℄-1036.80

6:1

PROP 1039.09
EXIST 1038.89

STA 703+00

PROP 1039.70
EXIST 1039.58

6:1

℄-1037.45

℄-1037.50

6:1

PROP 1039.79
EXIST 1039.67

STA 702+00

PROP 1041.19
EXIST 1041.07

6:1

℄-1038.85

℄-1038.95

6:1

PROP 1041.28
EXIST 1041.15

SHEET TOTAL

SHEET TOTAL

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EXP WESTBOUND I-70

EXP EASTBOUND I-70

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

1035 1030 1025 1040

8:1 VARIES 10:1

E=1028.30

PROP 1031.11
EXIST 1030.98

PROP 1030.97
EXIST 1030.85

STA 709+00

8:1 8:1

E=1029.35

PROP 1032.33
EXIST 1032.21

PROP 1032.36
EXIST 1032.23

STA 708+00

6:1 6:1

E=1032.20 E=1032.20

PROP 1033.79
EXIST 1033.67

PROP 1033.89
EXIST 1033.77

STA 707+00

6:1 6:1

E=1033.45 E=1033.55

PROP 1035.26
EXIST 1035.13

PROP 1035.34
EXIST 1035.22

STA 706+00

6:1 6:1

E=1034.75 E=1034.80

PROP 1036.73
EXIST 1036.61

PROP 1036.81
EXIST 1036.69

STA 705+00

℄

SHEET TOTAL

50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 705+00 TO STA. 709+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65

1030
1025
1020

10:1

PROP 1028.23
EXIST 1028.10

STA 711+78.19

1030
1025
1020

8:1 VARIES 10:1

E-1026.05

PROP 1028.56
EXIST 1028.34

PROP 1028.75
EXIST 1028.62

STA 711+26.46

1030
1025
1020

8:1 VARIES 10:1

E-1026.25

PROP 1028.72
EXIST 1028.61

PROP 1029.07
EXIST 1028.95

STA 711+00

1035
1030
1025

10:1 VARIES 10:1

E-1027.75

PROP 1029.89
EXIST 1029.77

PROP 1030.06
EXIST 1029.93

STA 710+00

SHEET TOTAL

50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 710+00 TO STA. 711+78.19

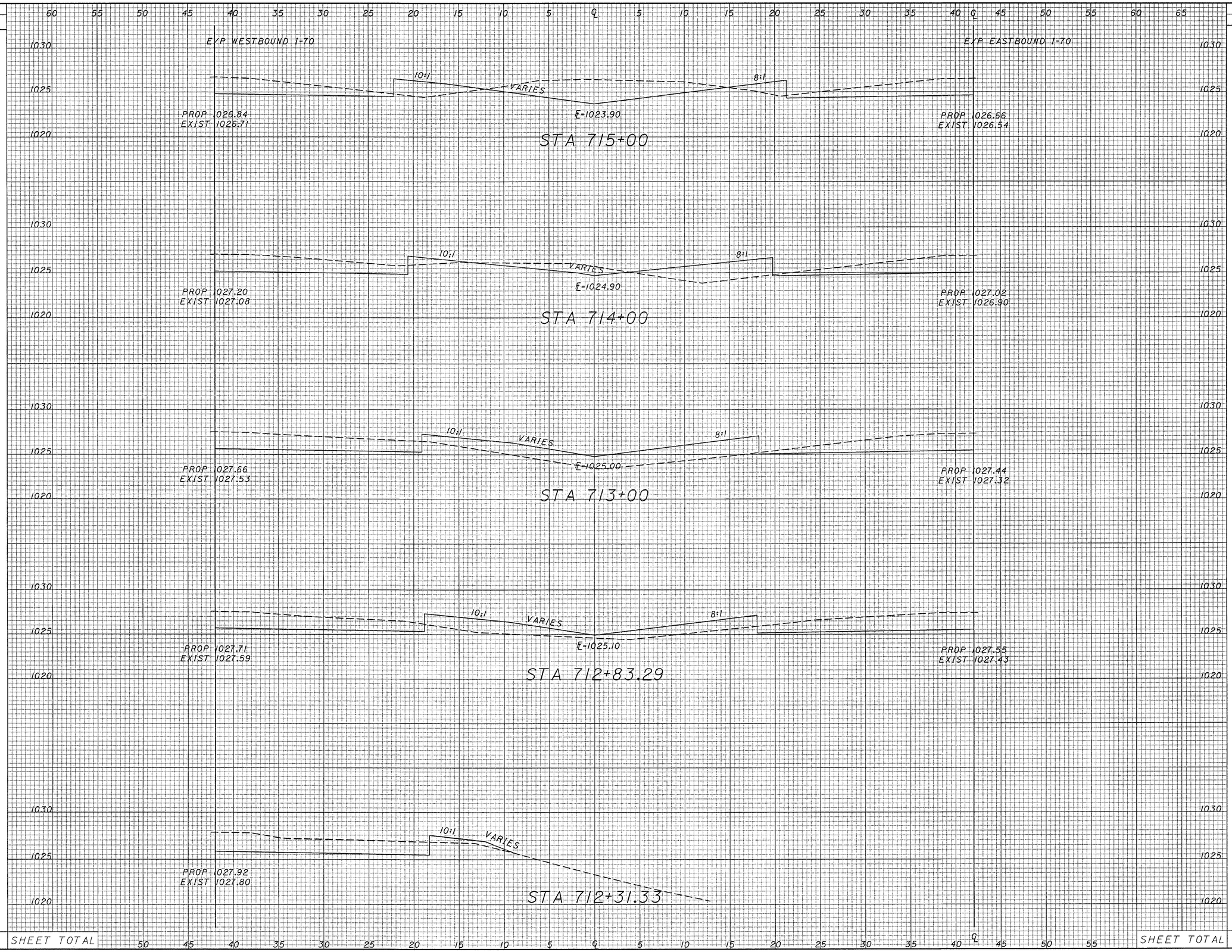
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS STA. 712+31.33 TO STA. 715+00

PRE-70-0.00

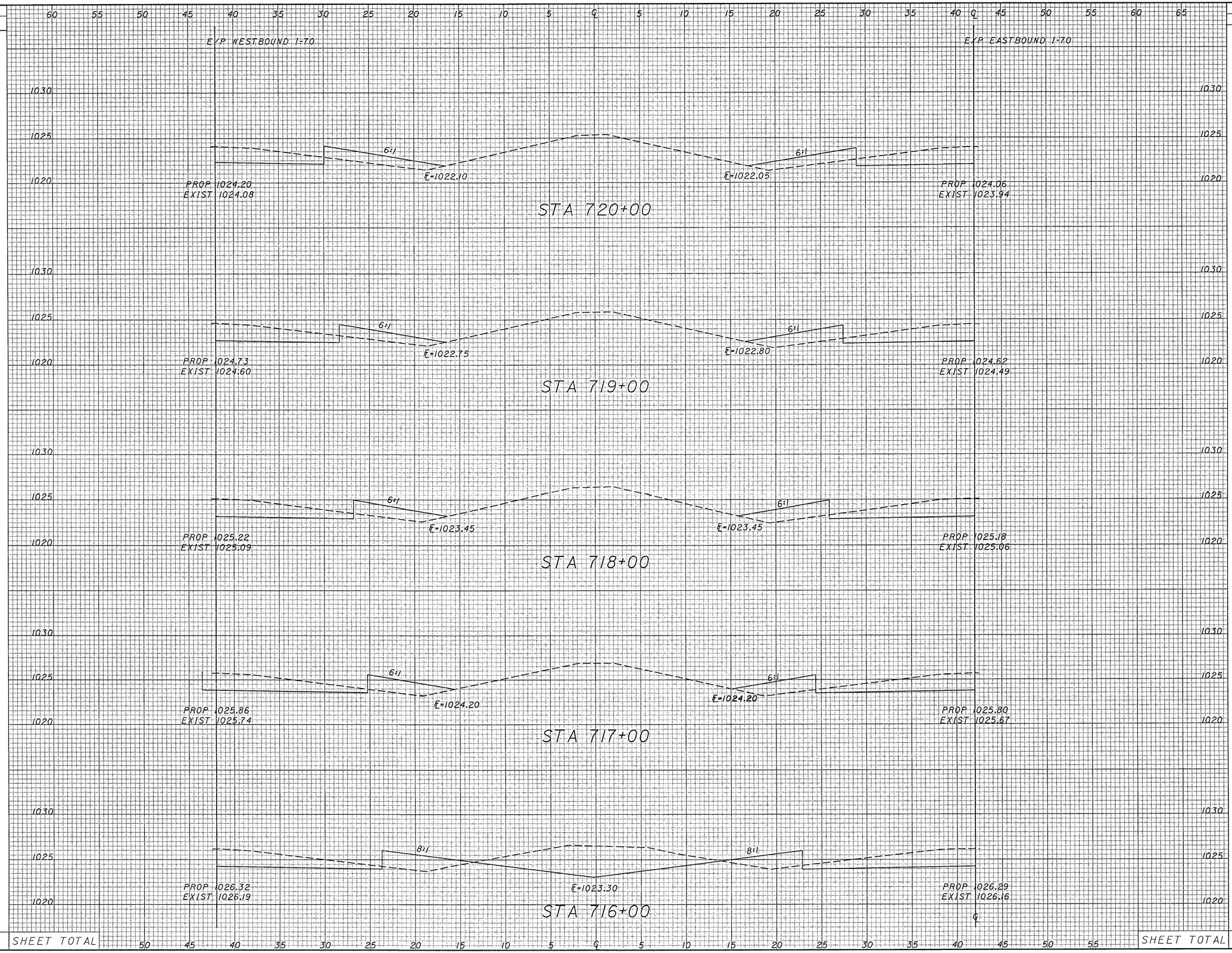
104
283

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS STA. 716+00 TO STA. 720+00

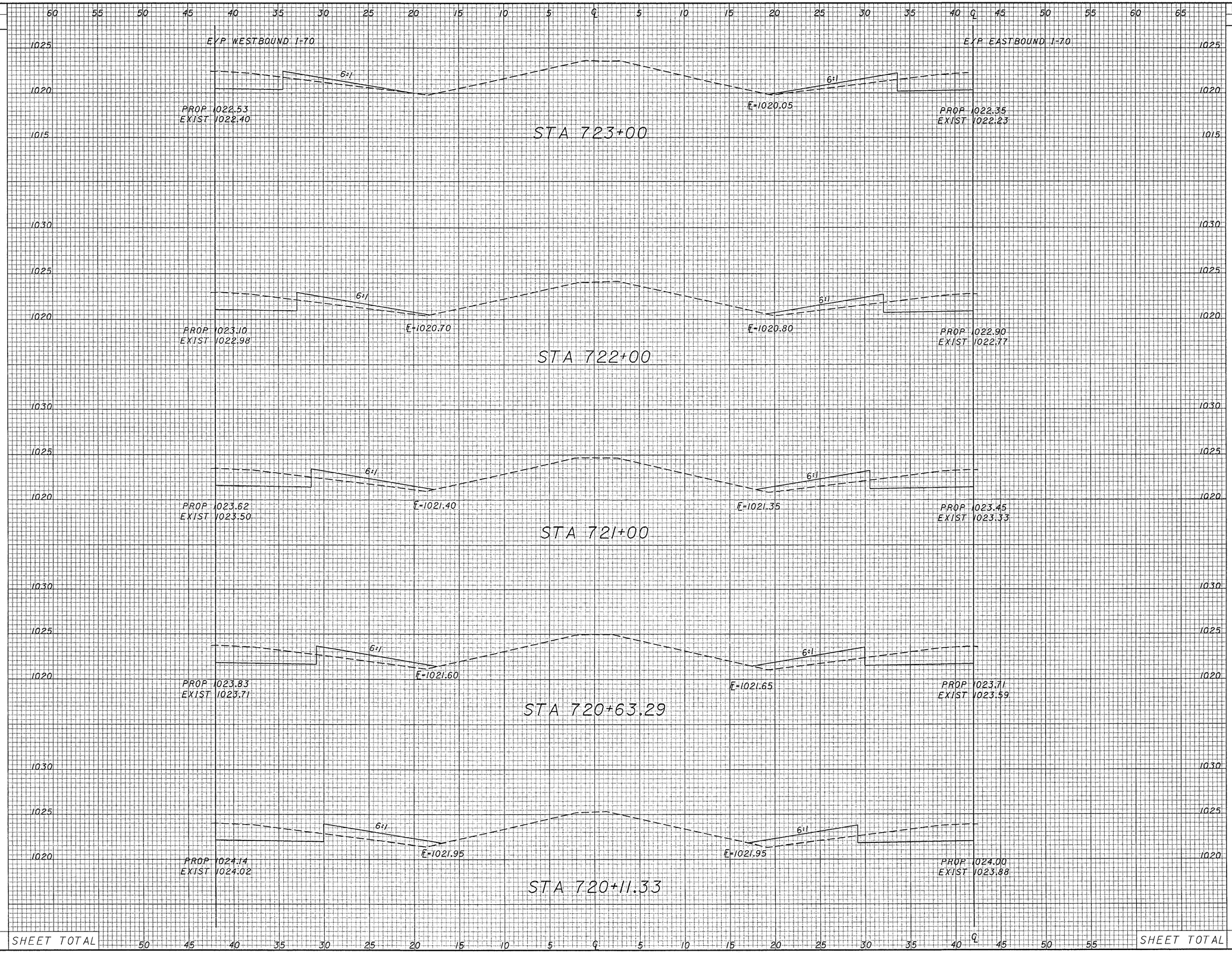
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



ROADWAY CROSS SECTIONS STA. 720+11.33 TO STA. 723+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

1025 1020 1015

6:1

PROP 1020.84
EXIST 1020.72

STA 725+83.29

6:1 6:1

PROP 1021.15
EXIST 1021.02

PROP 1021.11
EXIST 1020.99

STA 725+31.33

6:1 6:1

PROP 1021.32
EXIST 1021.20

PROP 1021.28
EXIST 1021.16

STA 725+00

6:1 6:1

PROP 1021.93
EXIST 1021.80

PROP 1021.83
EXIST 1021.71

STA 724+00

SHEET TOTAL

50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 724+00 TO STA. 725+83.29

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

PROP 967.17
EXIST 967.04

℄-964.70

6:1

6:1

PROP 967.26
EXIST 967.13

STA 789+00

PROP 969.34
EXIST 969.21

℄-966.70

6:1

6:1

PROP 969.33
EXIST 969.20

STA 788+00

PROP 971.41
EXIST 971.29

6:1

6:1

PROP 971.30
EXIST 971.17

STA 787+00

PROP 973.27
EXIST 973.15

6:1

6:1

PROP 973.21
EXIST 973.09

STA 786+11.93

PROP 973.46
EXIST 973.34

6:1

STA 786+01.93

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 786+01.93 TO STA. 789+00

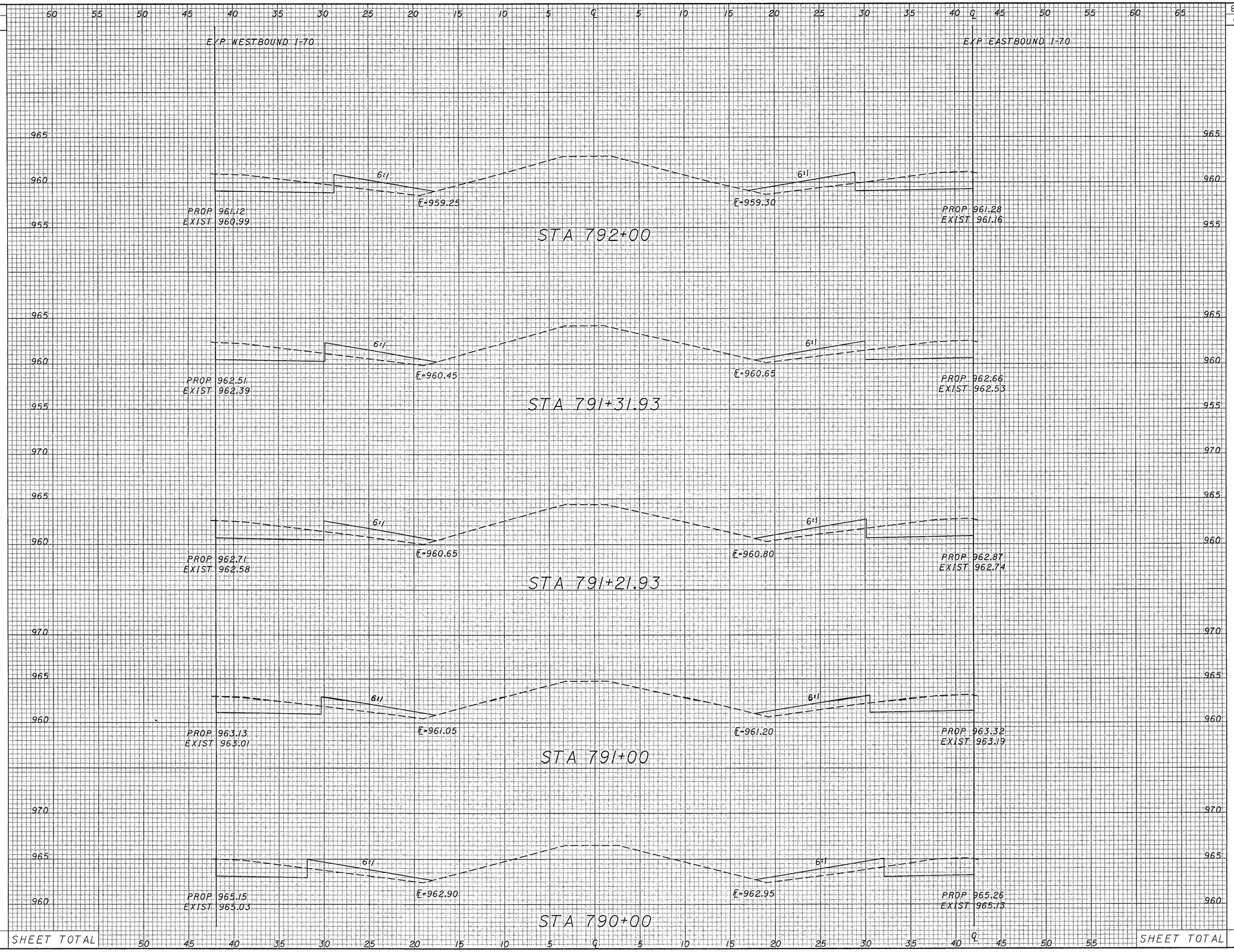
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 790+00 TO STA. 792+00

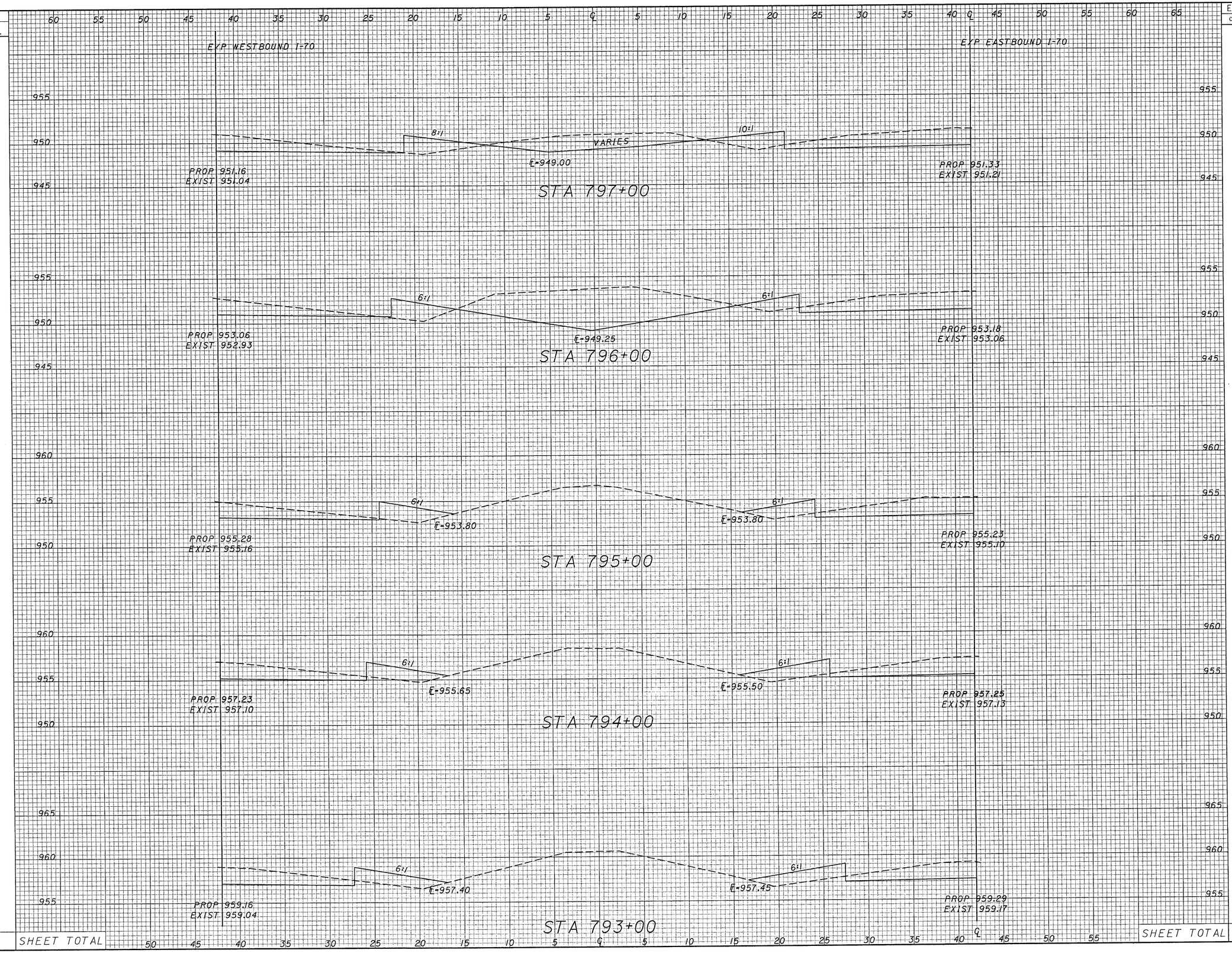
PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS STA. 793+00 TO STA. 797+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

E/P WESTBOUND I-70

E/P EASTBOUND I-70

PROP 947.19
EXIST 947.07

10:1

8:1

PROP 947.14
EXIST 947.01

STA 801+87.43

PROP 948.43
EXIST 948.31

8:1

10:1

PROP 948.31
EXIST 948.18

STA 799+11.93

PROP 948.53
EXIST 948.41

8:1

VARIES

10:1

E-946.10

PROP 948.37
EXIST 948.25

STA 799+01.93

PROP 948.55
EXIST 948.42

8:1

VARIES

10:1

E-946.10

PROP 948.38
EXIST 948.26

STA 799+00

PROP 949.70
EXIST 949.57

8:1

VARIES

10:1

E-947.10

PROP 949.62
EXIST 949.49

STA 798+00

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 798+00 TO STA. 801+87.43

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

955 950 945 940

EVP WESTBOUND I-70

EVP EASTBOUND I-70

6:1

6:1

PROP 949.22
EXIST 949.10

E=945.40

PROP 949.37
EXIST 949.24

STA 805+00

10:1 VARIES 8:1

E=945.65

PROP 948.21
EXIST 948.08

PROP 948.42
EXIST 948.30

STA 804+00

10:1 VARIES 8:1

E=945.00

PROP 947.54
EXIST 947.41

PROP 947.60
EXIST 947.48

STA 803+00

10:1 VARIES 8:1

E=944.70

PROP 947.18
EXIST 947.11

PROP 947.12
EXIST 946.98

STA 802+00

10:1 VARIES 8:1

E=944.70

PROP 947.19
EXIST 947.06

PROP 947.11
EXIST 946.99

STA 801+97.43

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 801+97.43 TO STA. 805+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

EXP WESTBOUND I-70

EXP EASTBOUND I-70

STA 809+67.43

PROP 957.61
EXIST 957.48

℄-955.45

6:1

6:1

℄-955.35

PROP 957.48
EXIST 957.36

STA 809+00

PROP 956.23
EXIST 956.11

℄-954.15

6:1

6:1

℄-954.05

PROP 956.02
EXIST 955.96

STA 808+00

PROP 954.23
EXIST 954.11

℄-952.40

6:1

6:1

℄-952.40

PROP 954.03
EXIST 953.97

STA 807+00

PROP 952.28
EXIST 952.15

℄-950.80

6:1

6:1

℄-950.65

PROP 952.13
EXIST 952.06

STA 806+00

PROP 950.68
EXIST 950.55

℄-949.40

6:1

6:1

℄-949.35

PROP 950.67
EXIST 950.55

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 806+00 TO STA. 809+67.43

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 ℄ 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

970 965 960 955

EXP WESTBOUND I-70

EXP EASTBOUND I-70

6:1

PROP 964.25
EXIST 964.13

PROP 964.15
EXIST 964.09

STA 813+00

PROP 962.29
EXIST 962.17

PROP 962.12
EXIST 962.06

STA 812+00

PROP 960.28
EXIST 960.16

E= 958.05

PROP 960.15
EXIST 960.08

STA 811+00

PROP 958.30
EXIST 958.18

E= 956.10

E= 956.00

PROP 958.09
EXIST 958.03

STA 810+00

PROP 957.82
EXIST 957.70

E= 955.65

E= 955.55

EXIST 957.56

STA 809+77.43

950

SHEET TOTAL

SHEET TOTAL

ROADWAY CROSS SECTIONS
STA. 809+77.43 TO STA. 813+00

PRE-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

60 55 50 45 ℄ 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55 60 65

E/P WESTBOUND I-70

E/P EASTBOUND I-70

975

970

965

6:1

6:1

PROP 968.19
EXIST 968.06

STA 814+97.43

975

970

965

6:1

6:1

PROP 968.06
EXIST 967.93

PROP 968.00
EXIST 967.87

STA 814+87.43

970

965

960

6:1

6:1

PROP 966.29
EXIST 966.17

PROP 966.15
EXIST 966.09

STA 814+00

SHEET TOTAL

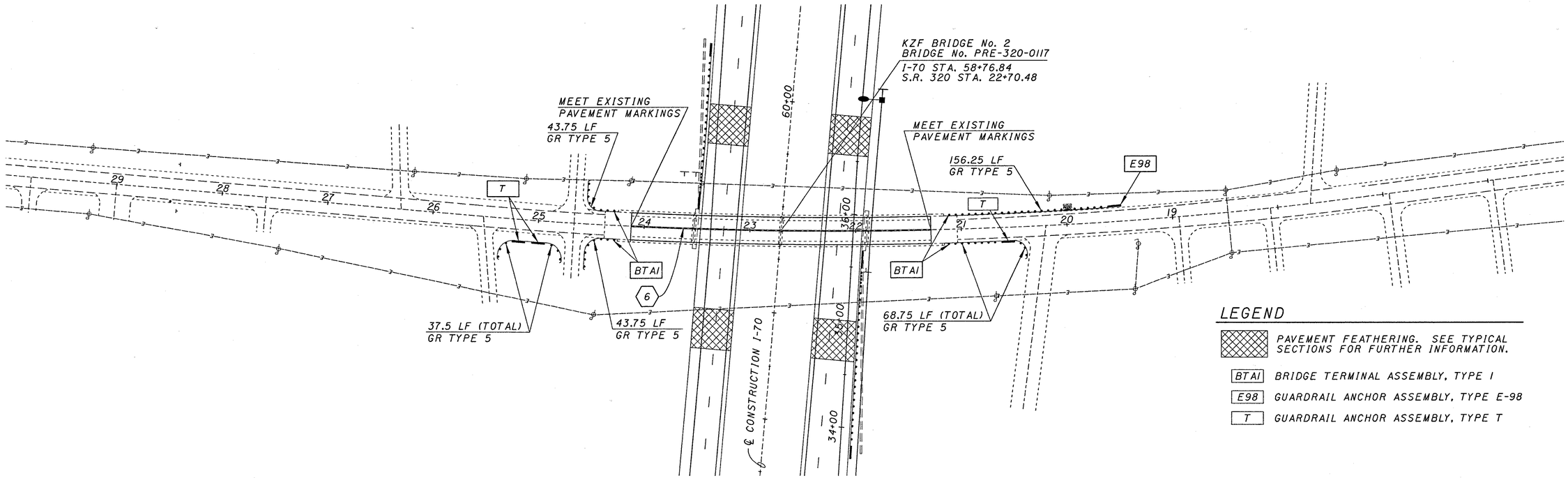
50 45 ℄ 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 ℄ 45 50 55

SHEET TOTAL

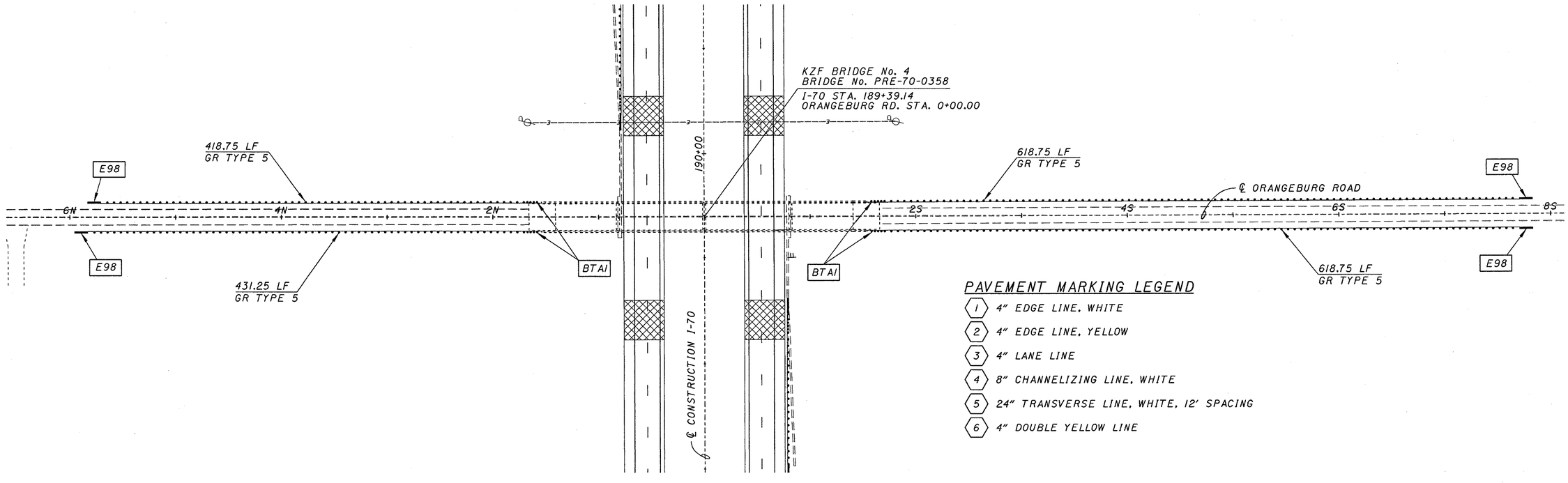
ROADWAY CROSS SECTIONS
STA. 814+00 TO STA. 814+97.43

PRE-70-0.00

115
283



S.R. 320



ORANGEBURG ROAD

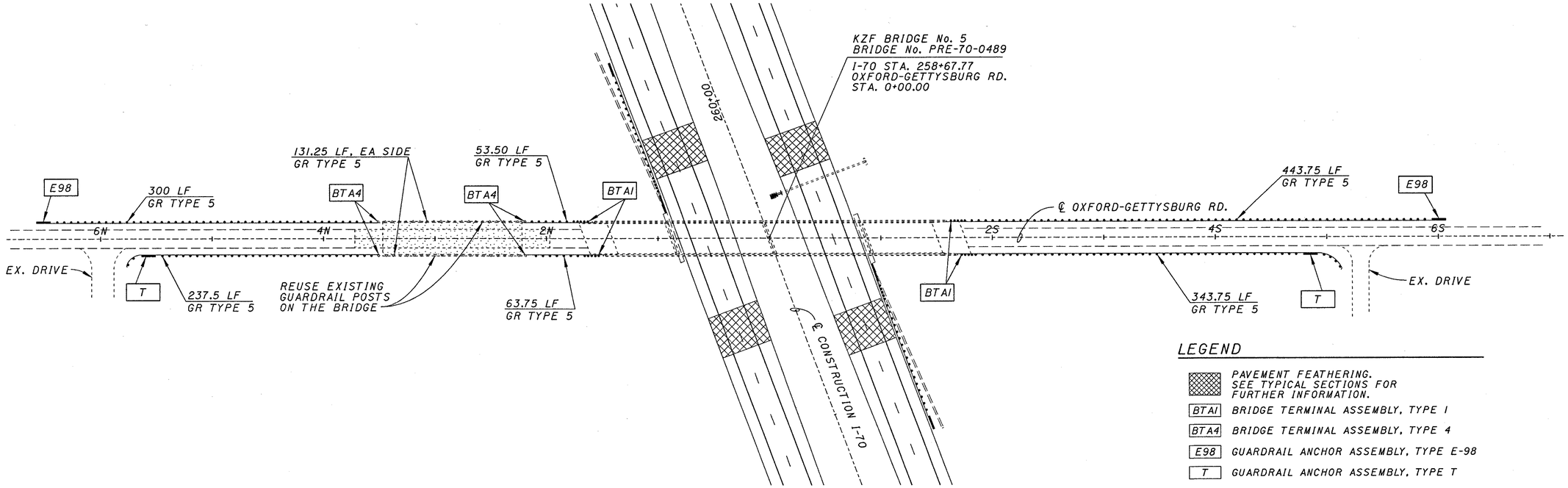
TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

OVERHEAD BRIDGE PLAN
S.R. 320 & ORANGEBURG RD.

PRE-70-0.00



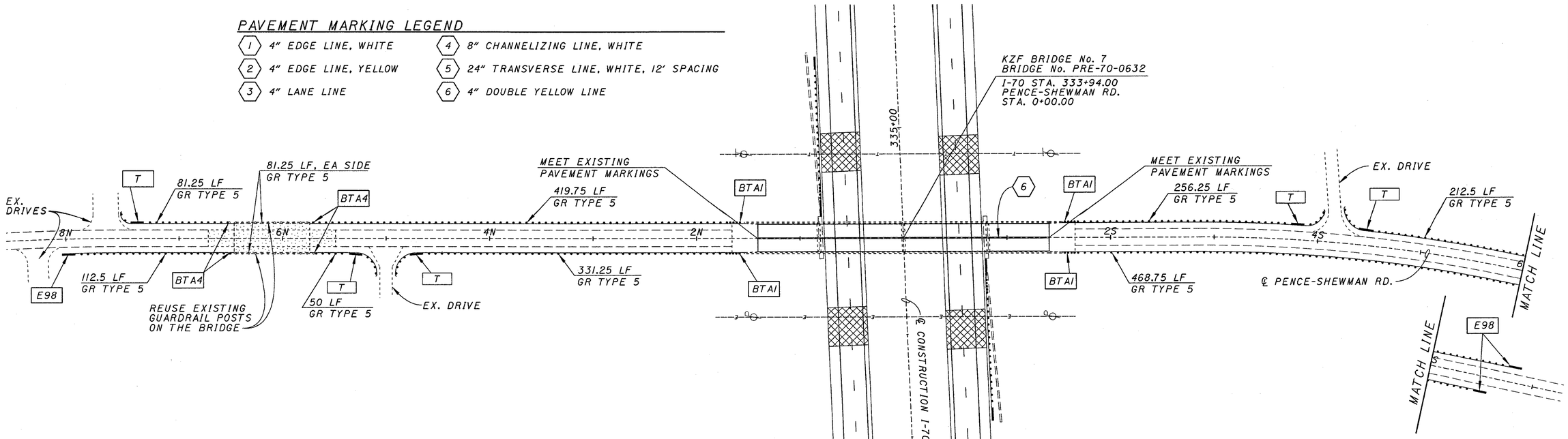
LEGEND

- PAVEMENT FEATHERING. SEE TYPICAL SECTIONS FOR FURTHER INFORMATION.
- BTA1 — BRIDGE TERMINAL ASSEMBLY, TYPE 1
- BTA4 — BRIDGE TERMINAL ASSEMBLY, TYPE 4
- E98 — GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T — GUARDRAIL ANCHOR ASSEMBLY, TYPE T

OXFORD-GETTYSBURG ROAD

PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING
6. 4" DOUBLE YELLOW LINE



PENCE-SHEWMAN ROAD

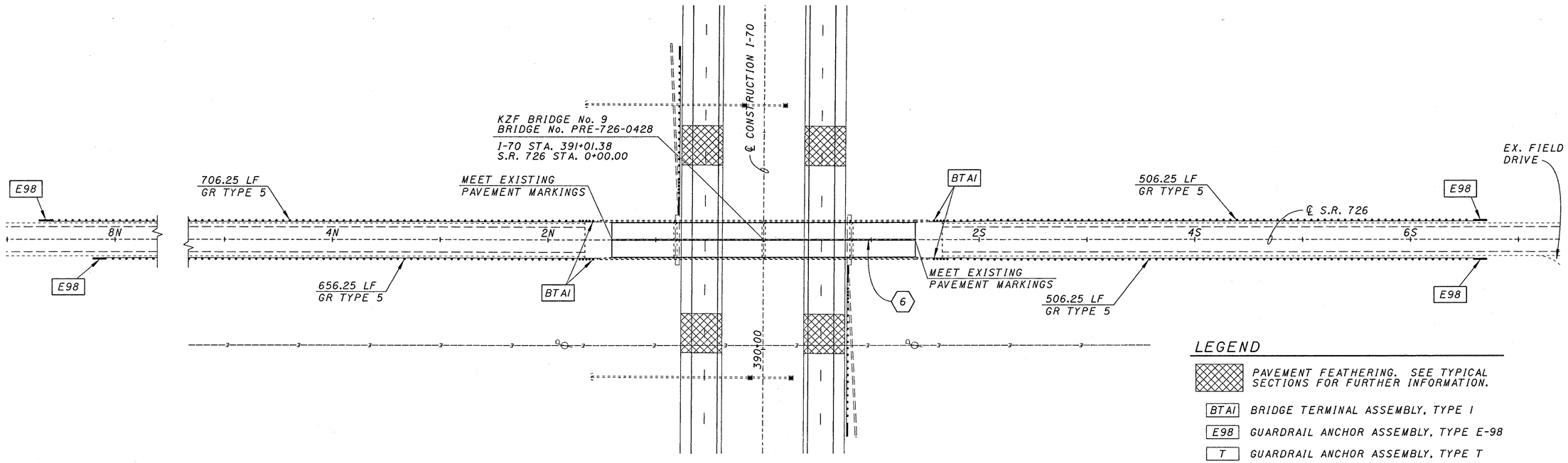
TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

OVERHEAD BRIDGE PLAN
OXFORD-GETTYSBURG RD/PENCE-SHEWMAN RD

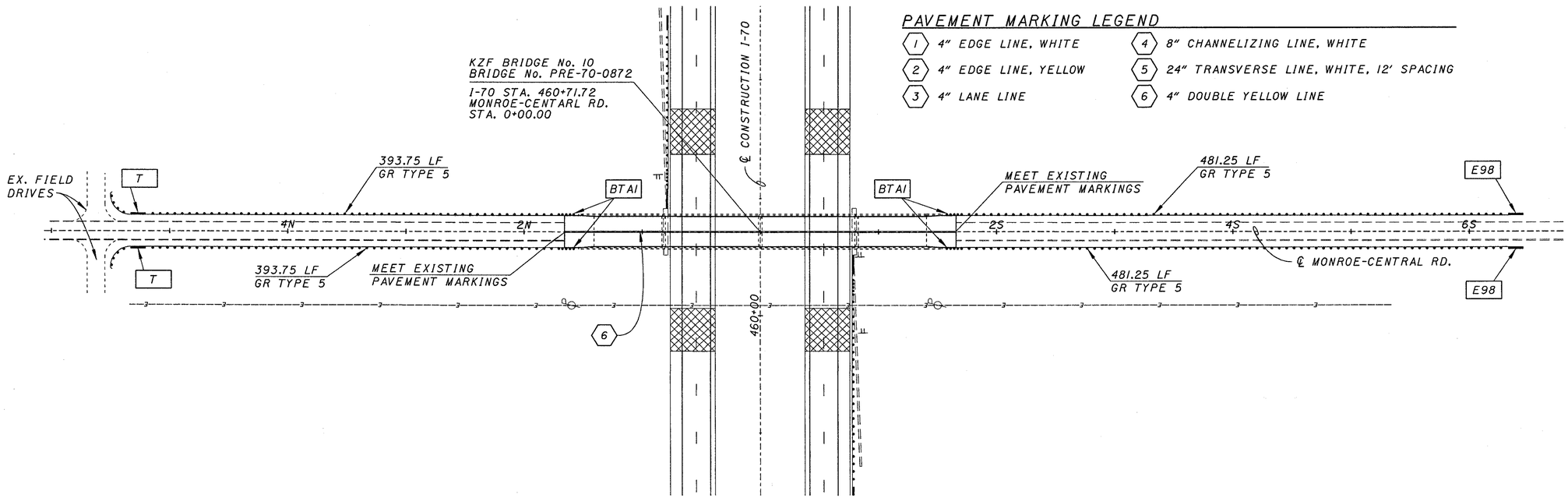
PRE-70-0.00



LEGEND

- PAVEMENT FEATHERING. SEE TYPICAL SECTIONS FOR FURTHER INFORMATION.
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- T GUARDRAIL ANCHOR ASSEMBLY, TYPE T

S.R. 726



PAVEMENT MARKING LEGEND

1 4" EDGE LINE, WHITE	4 8" CHANNELIZING LINE, WHITE
2 4" EDGE LINE, YELLOW	5 24" TRANSVERSE LINE, WHITE, 12' SPACING
3 4" LANE LINE	6 4" DOUBLE YELLOW LINE

MONROE-CENTRAL ROAD

TOP

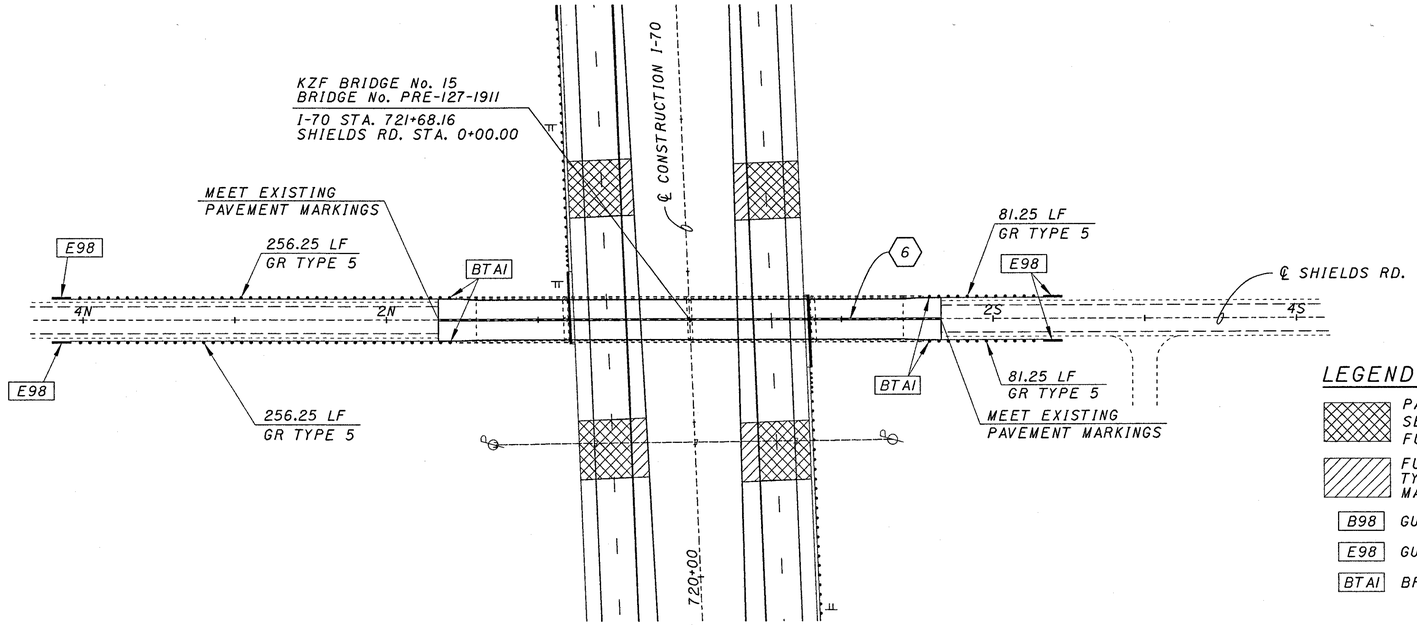
BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

OVERHEAD BRIDGE PLAN
S.R. 726 & MONROE-CENTRAL RD.

PRE-70-0.00

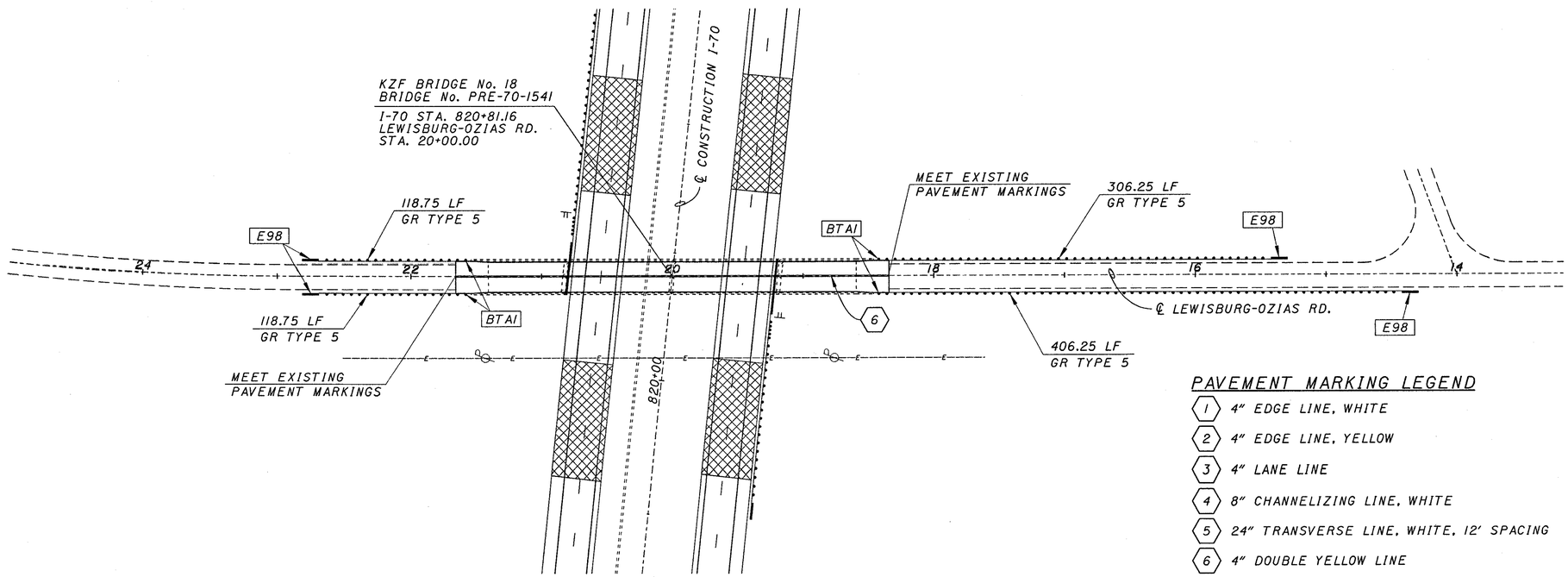
118
283



LEGEND

- PAVEMENT FEATHERING. SEE TYPICAL SECTIONS FOR FURTHER INFORMATION.
- FULL DEPTH PAVEMENT WIDENING, SEE TYPICAL SECTIONS FOR PAVEMENT MAKEUP.
- B98 GUARDRAIL ANCHOR ASSEMBLY, TYPE B-98
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BT AI BRIDGE TERMINAL ASSEMBLY, TYPE I

SHIELDS ROAD



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING
6. 4" DOUBLE YELLOW LINE

LEWISBURG-OZIAS ROAD

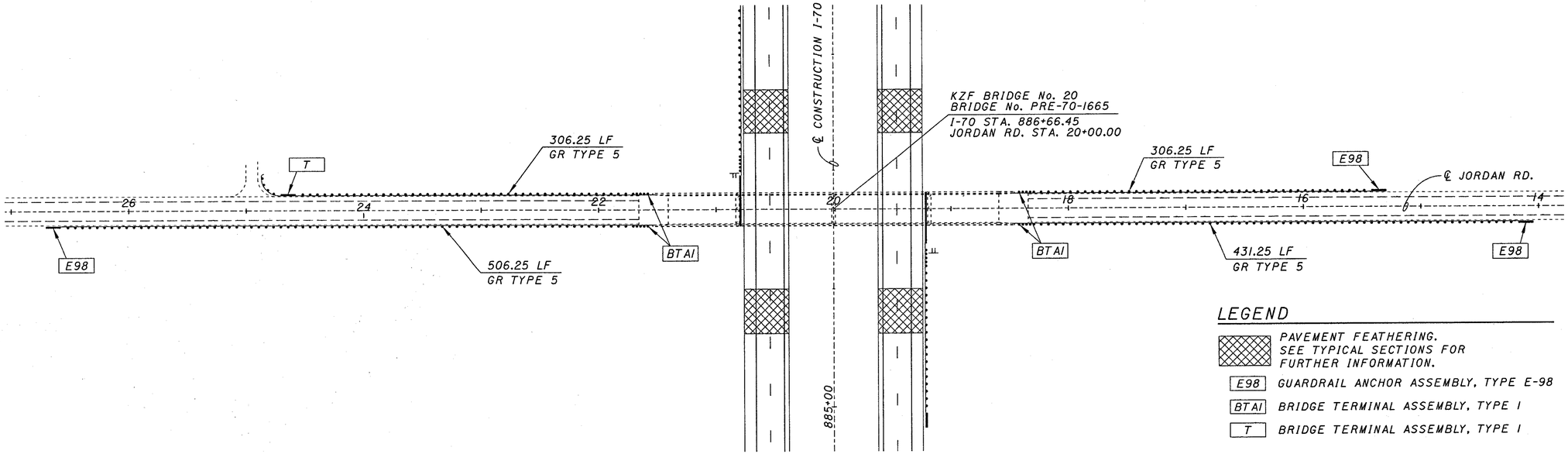
TOP

BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

OVERHEAD BRIDGE PLAN
SHIELDS RD. & LEWISBURG-OZIAS RD.

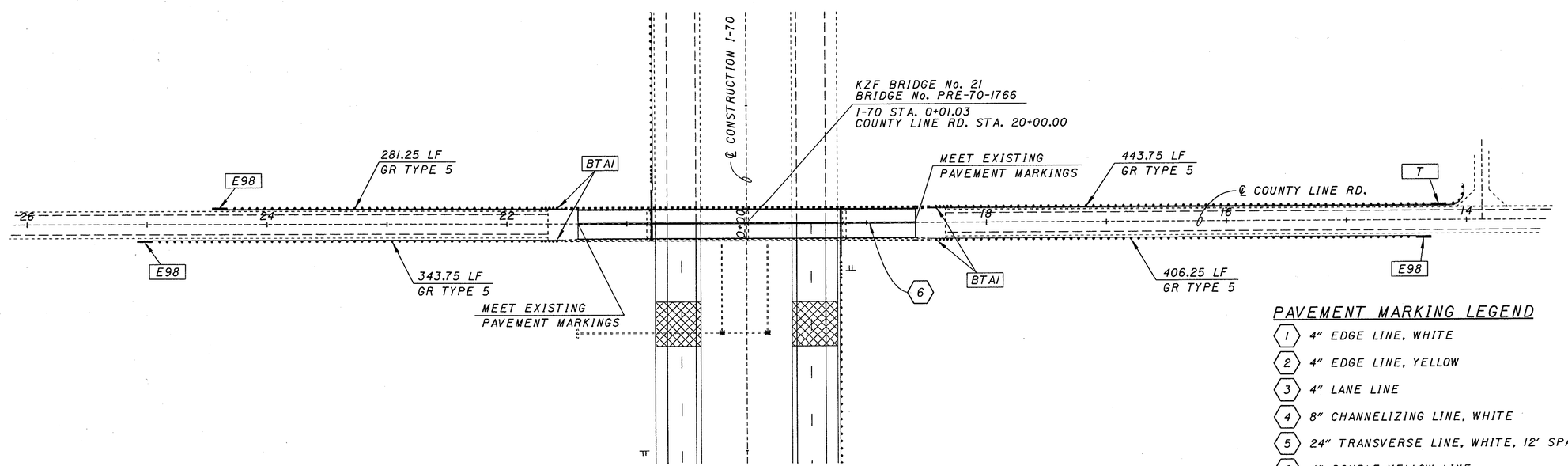
PRE-70-0.00



JORDON ROAD

LEGEND

- PAVEMENT FEATHERING. SEE TYPICAL SECTIONS FOR FURTHER INFORMATION.
- E98 GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98
- BTAI BRIDGE TERMINAL ASSEMBLY, TYPE I
- T BRIDGE TERMINAL ASSEMBLY, TYPE I



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING
6. 4" DOUBLE YELLOW LINE

COUNTY LINE ROAD

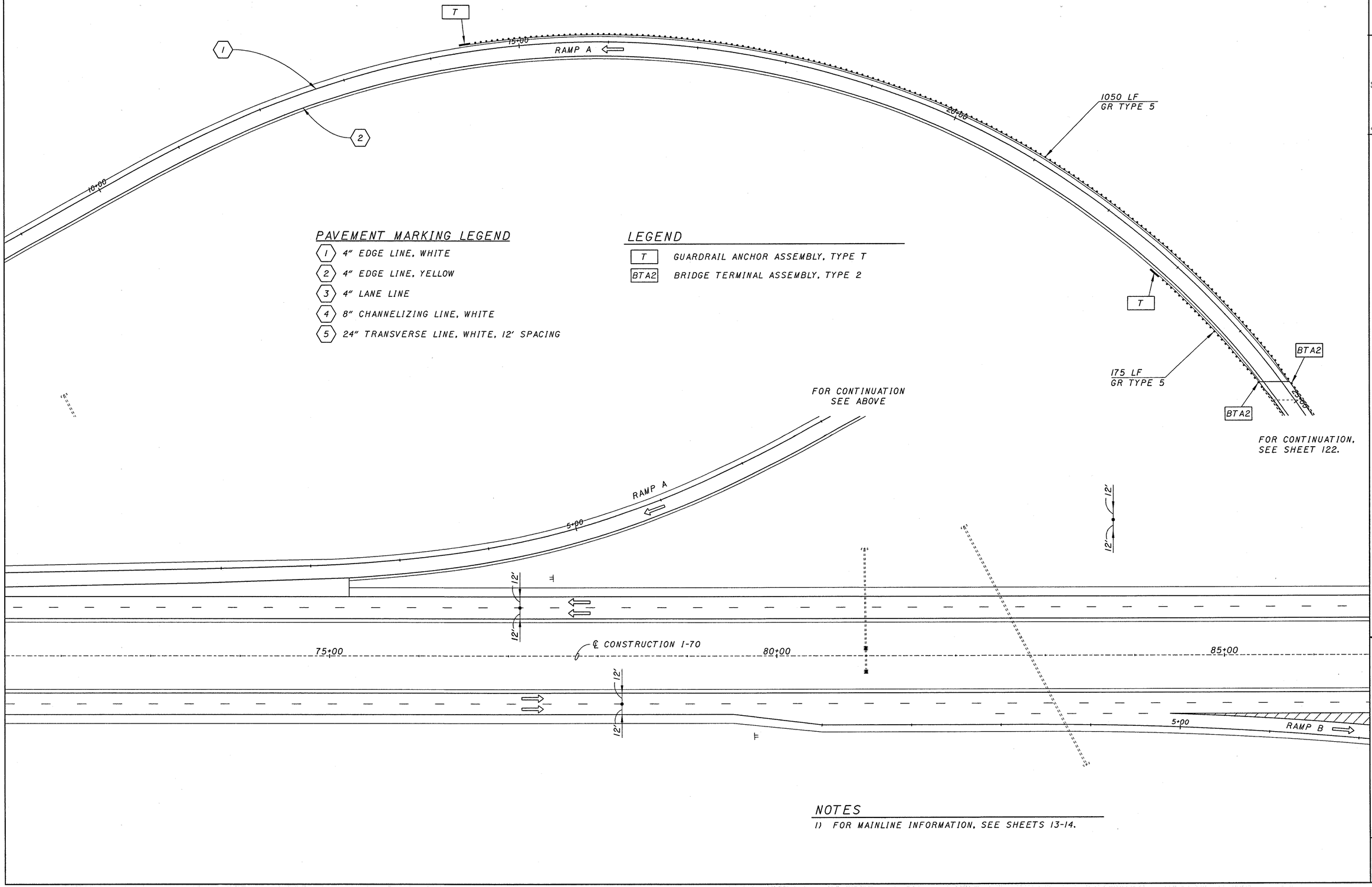
TOP

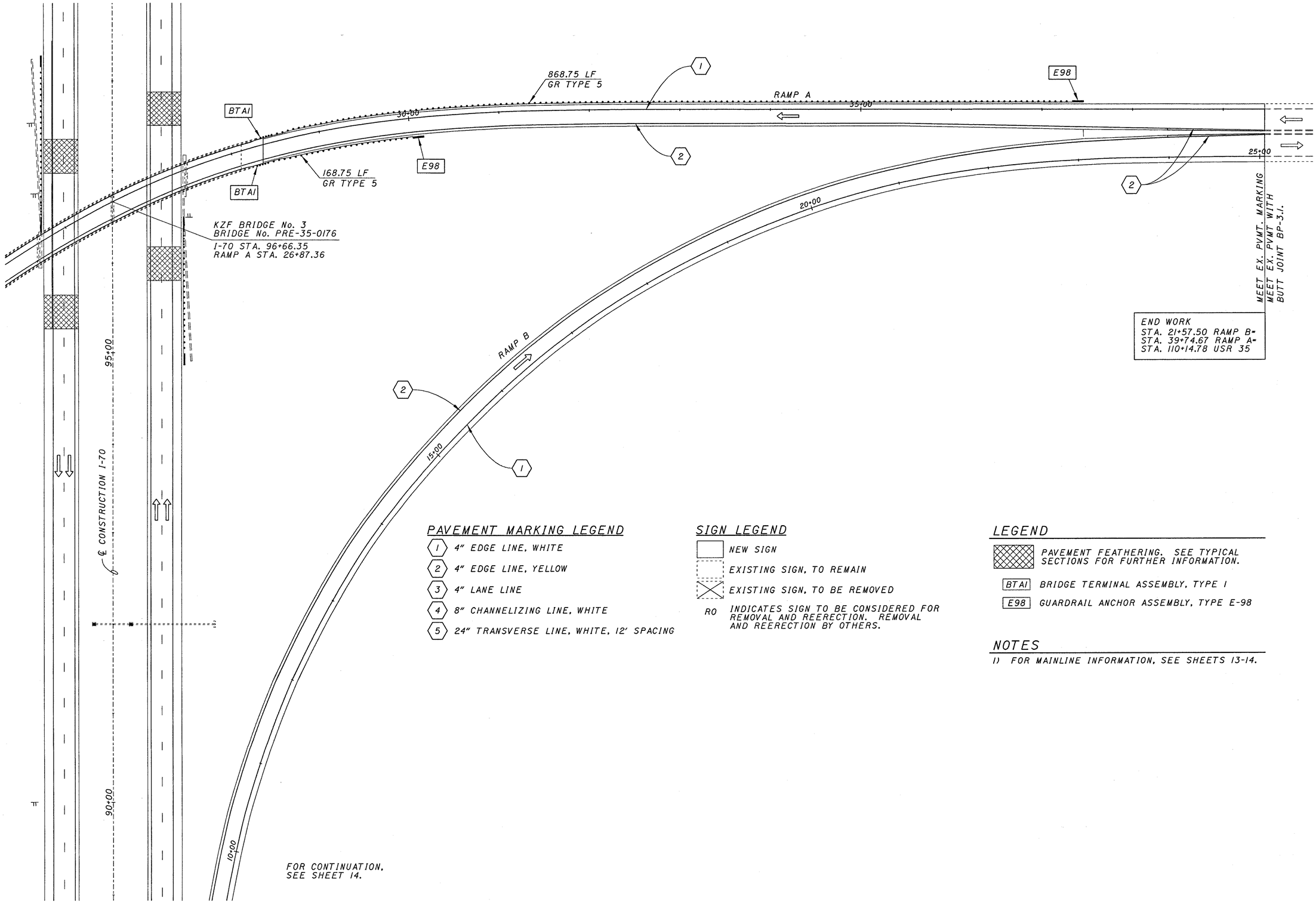
BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

OVERHEAD BRIDGE PLAN
JORDAN RD. & COUNTY LINE RD.

PRE-70-0.00


T
1
2
15+00
RAMP A
10+00
20+00
1050 LF
GR TYPE 5
T
175 LF
GR TYPE 5
BTA2
BTA2
25+00
FOR CONTINUATION
SEE ABOVE
FOR CONTINUATION,
SEE SHEET 122.
RAMP A
5+00
12'
12'
12'
12'
T
℄ CONSTRUCTION I-70
75+00
80+00
85+00
12'
12'
T
5+00
RAMP B
PAVEMENT MARKING LEGEND
1 4" EDGE LINE, WHITE
2 4" EDGE LINE, YELLOW
3 4" LANE LINE
4 8" CHANNELIZING LINE, WHITE
5 24" TRANSVERSE LINE, WHITE, 12' SPACING
LEGEND
T GUARDRAIL ANCHOR ASSEMBLY, TYPE T
BTA2 BRIDGE TERMINAL ASSEMBLY, TYPE 2
NOTES
1) FOR MAINLINE INFORMATION, SEE SHEETS 13-14.
TOP
BOTTOM
0 25 50 100
HORIZONTAL
SCALE IN FEET
PLAN
STA. 82+00 TO STA. 110+00
PRE-70-0.00
121
283



PAVEMENT MARKING LEGEND

1. 4" EDGE LINE, WHITE
2. 4" EDGE LINE, YELLOW
3. 4" LANE LINE
4. 8" CHANNELIZING LINE, WHITE
5. 24" TRANSVERSE LINE, WHITE, 12' SPACING

SIGN LEGEND

- NEW SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED
- RO — INDICATES SIGN TO BE CONSIDERED FOR REMOVAL AND REERECTION. REMOVAL AND REERECTION BY OTHERS.

LEGEND

- PAVEMENT FEATHERING. SEE TYPICAL SECTIONS FOR FURTHER INFORMATION.
- BTAI — BRIDGE TERMINAL ASSEMBLY, TYPE I
- E98 — GUARDRAIL ANCHOR ASSEMBLY, TYPE E-98

NOTES

1) FOR MAINLINE INFORMATION, SEE SHEETS 13-14.

TOP

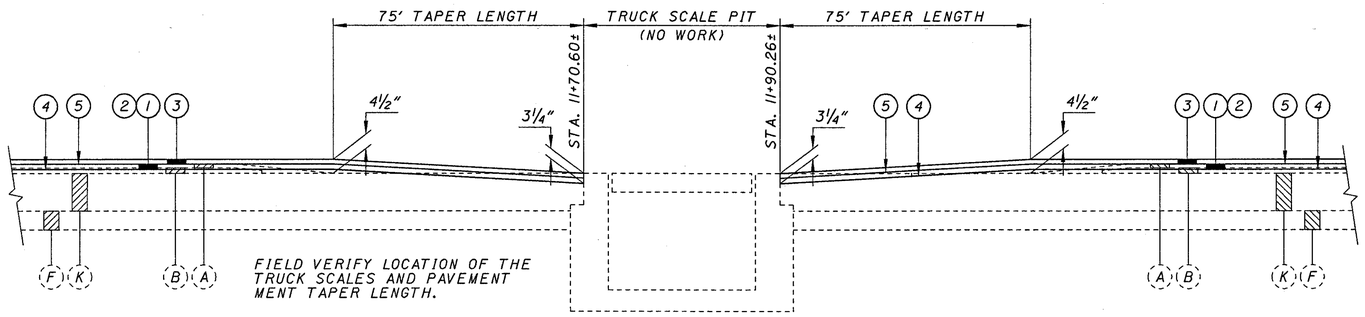
BOTTOM

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN
STA. 82+00 TO STA. 110+00

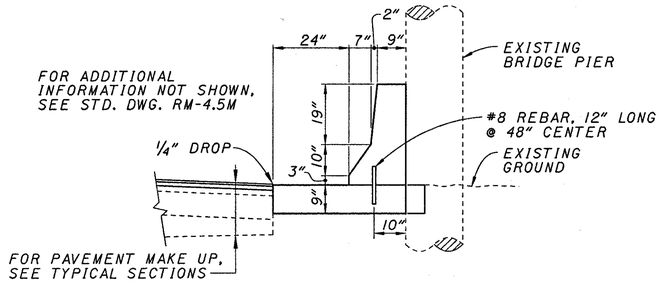
PRE-70-0.00

REF04=>REF04<<
REF03=>REF03<<
REF02=>REF02<<
REF01=>REF01<<
REF04=>REF04<<
REF05=>REF05<<
$$$$SYTIME$$$$$$
USER: $USERNAME$#
REF01=>$$REFERENCE$$$$$$$$$$
REF02=>$$REFERENCE$$$$$$$$$$
REF03=>$$REFERENCE$$$$$$$$$$
REF04=>$$REFERENCE$$$$$$$$$$
REF05=>$$REFERENCE$$$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$



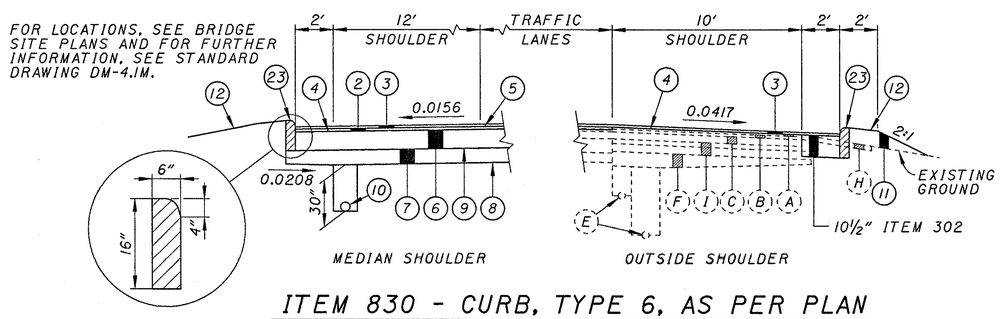
FEATHERING AT WEIGH STATION TRUCK SCALE

NOT TO SCALE



CONCRETE BARRIER TYPE D, AS PER PLAN

NOT TO SCALE
FOR BARRIER LIMITS AND LOCATIONS SEE PLAN SHEETS



ITEM 830 - CURB, TYPE 6, AS PER PLAN

NOT TO SCALE

BRIDGE No. PRE-70-0504 R/L (SEVEN MILE CREEK)
EAST SIDE OF EB & WB BRIDGES - 4 LOCATIONS

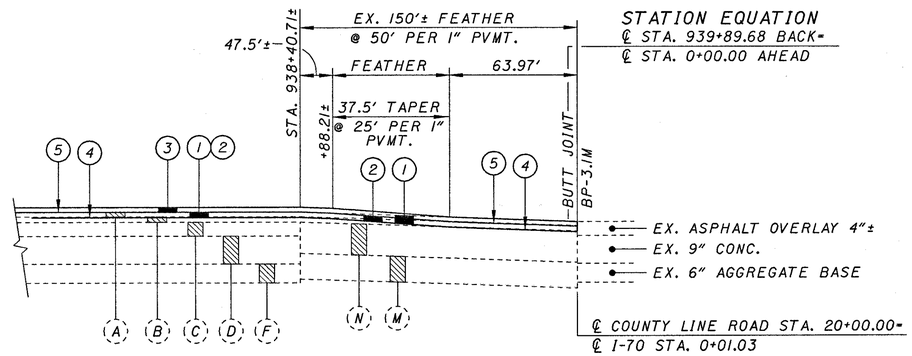
BRIDGE No. PRE-70-0689 R/L (BANTAS FORK CREEK)
EAST SIDE OF EB & WB BRIDGES - 4 LOCATIONS

BRIDGE No. PRE-70-1072 R/L (GOOSE RUN)
WEST SIDE OF EB & WB BRIDGES - 4 LOCATIONS

BRIDGE No. PRE-70-1249 R/L (PRICE'S CREEK)
EAST SIDE OF EB & WB BRIDGES - 4 LOCATIONS
WEST SIDE OF EB & WB BRIDGES - 4 LOCATIONS

BRIDGE No. PRE-70-1349 R/L (JIM'S RUN)
NONE REQUIRED AT THIS LOCATION

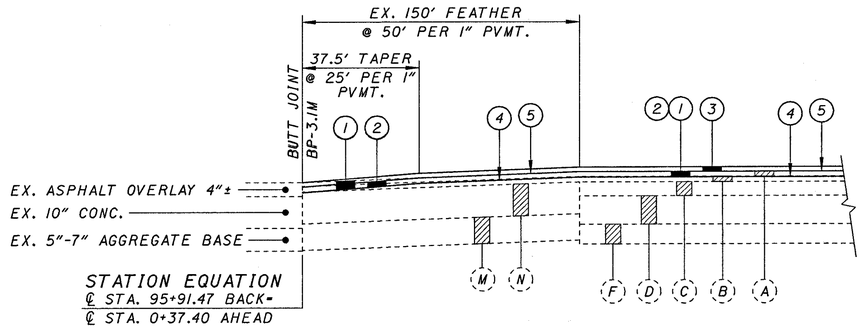
BRIDGE No. PRE-70-1500 R/L (TWIN CREEK)
EAST SIDE OF EB & WB BRIDGES - 4 LOCATIONS



STATION EQUATION
℄ STA. 939+89.68 BACK=
℄ STA. 0+00.00 AHEAD

PAVEMENT FEATHERING @ END PROJECT

NOT TO SCALE
PREBLE/MONTGOMERY COUNTY LINE



STATION EQUATION
℄ STA. 95+91.47 BACK=
℄ STA. 0+37.40 AHEAD

PAVEMENT FEATHERING @ BEGIN PROJECT

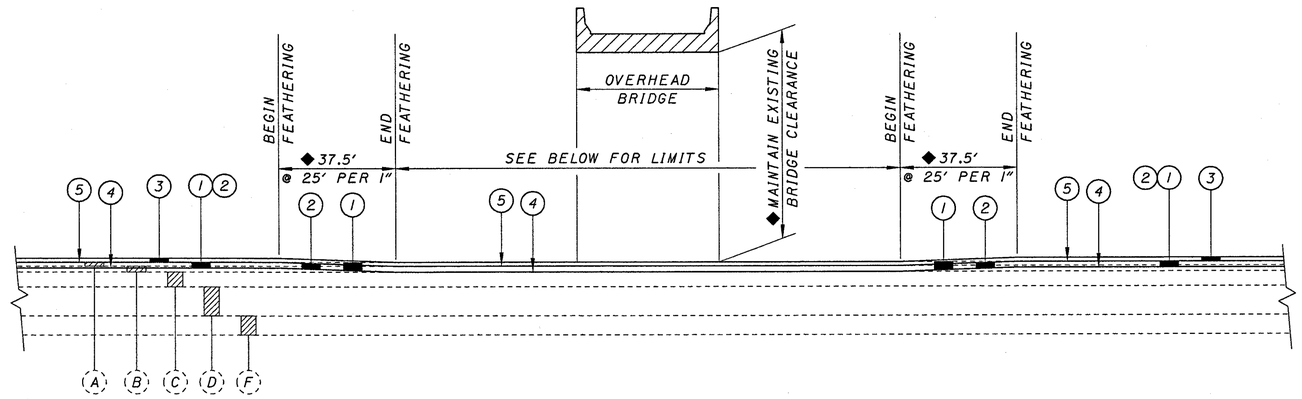
NOT TO SCALE
OHIO/INDIANA STATE LINE (PREBLE/WAYNE COUNTY LINE)

NOTE:

1) FOR ITEM LEGEND, SEE SHEET 5.

MISCELLANEOUS DETAILS
PAVEMENT FEATHERING/CONCRETE BARRIER DETAILS

PRE-70-0.00



PAVEMENT FEATHERING @ OVERHEAD BRIDGES

NOT TO SCALE

◆ EXISTING BRIDGE CLEARANCE DOES NOT MEET CURRENT STANDARDS.
PRE-70-503-1955 (S.R. 503) EXISTING CLEARANCE IS 15.81', INCREASE TO 16', FEATHER LENGTH INCREASES TO 94.5'.
PRE-70-1541 (LEWISBURG-OZIAS RD.) EXISTING CLEARANCE IS 15.83', INCREASE TO 16', FEATHER LENGTH INCREASES TO 88.5'.

BRIDGE No. PRE-320-0117 (S.R. 320)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 57+61.00	TO	STA. 57+98.50	STA. 57+61.00	TO	STA. 57+98.50
STA. 59+54.00	TO	STA. 59+91.50	STA. 59+54.00	TO	STA. 59+91.50

BRIDGE No. PRE-35-0176 (U.S.R. 35 - RAMP A)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 95+26.50	TO	STA. 95+64.00	STA. 95+80.50	TO	STA. 96+18.00
STA. 96+97.00	TO	STA. 97+34.50	STA. 97+50.00	TO	STA. 97+87.50

BRIDGE No. PRE-70-0358 (ORANGEBURG RD.)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 188+23.00	TO	STA. 188+60.50	STA. 188+23.00	TO	STA. 188+60.50
STA. 190+17.50	TO	STA. 190+55.00	STA. 190+17.50	TO	STA. 190+55.00

BRIDGE No. PRE-70-0489 (OXFORD-GETTYSBURG RD.)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 257+83.00	TO	STA. 258+20.50	STA. 257+45.60	TO	STA. 257+83.10
STA. 259+51.60	TO	STA. 259+89.10	STA. 259+14.20	TO	STA. 259+51.70

BRIDGE No. PRE-70-0632 (PENCE-SHEWMAN RD.)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 332+91.50	TO	STA. 333+29.00	STA. 332+84.00	TO	STA. 333+21.50
STA. 334+60.00	TO	STA. 334+97.50	STA. 334+52.50	TO	STA. 334+90.00

BRIDGE No. PRE-726-0428 (S.R. 726)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 389+96.40	TO	STA. 390+33.90	STA. 389+96.40	TO	STA. 390+33.90
STA. 391+68.50	TO	STA. 392+06.00	STA. 391+68.50	TO	STA. 392+06.00

BRIDGE No. PRE-70-0872 (MONROE-CENTRAL RD.)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 459+68.70	TO	STA. 460+06.20	STA. 459+68.70	TO	STA. 460+06.20
STA. 461+37.20	TO	STA. 461+74.70	STA. 461+37.20	TO	STA. 461+74.70

BRIDGE No. PRE-127-1911 (U.S.R. 127)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 522+84.00	TO	STA. 523+21.50	STA. 522+80.00	TO	STA. 523+17.50
STA. 524+98.50	TO	STA. 525+36.00	STA. 524+94.50	TO	STA. 525+32.00

BRIDGE No. PRE-70-1366 (SHIELDS RD.)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 720+66.50	TO	STA. 721+04.00	STA. 720+60.50	TO	STA. 720+98.00
STA. 722+38.00	TO	STA. 722+75.50	STA. 722+32.00	TO	STA. 722+69.50

BRIDGE No. PRE-70-503-1955 (S.R. 503)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 779+79.00	TO	STA. 780+73.50	STA. 779+79.00	TO	STA. 780+73.50
STA. 782+10.50	TO	STA. 783+05.00	STA. 782+10.50	TO	STA. 783+05.00

BRIDGE No. PRE-70-1541 (LEWISBURG-OZIAS RD.)

WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 819+20.20	TO	STA. 820+08.70	STA. 819+33.20	TO	STA. 820+21.70
STA. 821+40.70	TO	STA. 822+29.20	STA. 821+53.70	TO	STA. 822+42.20

BRIDGE No. PRE-70-1665 (JORDAN RD.)

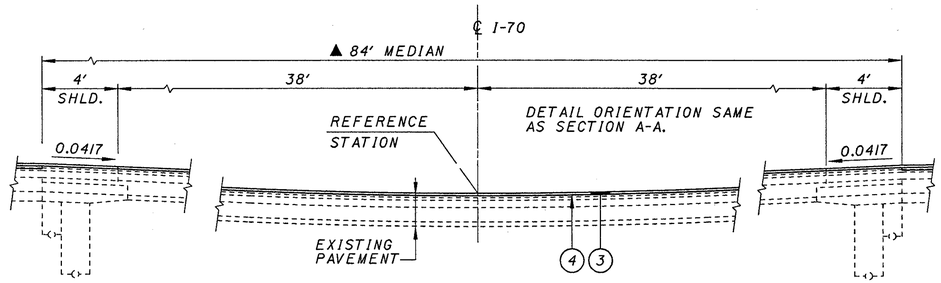
WESTBOUND LANES BEGIN FEATHER		WESTBOUND LANES END FEATHER	EASTBOUND LANES BEGIN FEATHER		EASTBOUND LANES END FEATHER
STA. 885+62.50	TO	STA. 886+00.00	STA. 885+62.50	TO	STA. 886+00.00
STA. 887+32.50	TO	STA. 887+70.00	STA. 887+32.50	TO	STA. 887+70.00

BRIDGE No. PRE-70-1776 (COUNTY LINE RD.)

FOR FEATHER LIMITS SEE "PAVEMENT @ END PROJECT DETAIL" ON THE PREVIOUS SHEET.

MISCELLANEOUS DETAILS
PAVEMENT FEATHERING AT OVERHEAD BRIDGES DETAIL

PRE-70-0.00



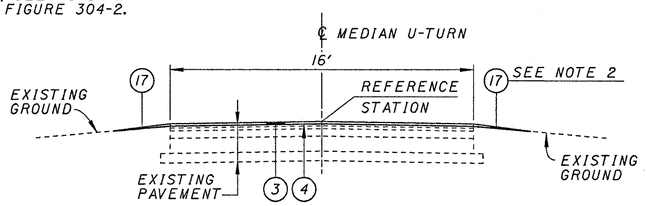
TYPICAL MEDIAN U-TURN OVERLAY DETAIL

NOT TO SCALE

▲ STA. 3+55± STA. 210+50± STA. 489+60±
STA. 114+85± STA. 338+60± STA. 740+00±

▲ MEDIAN WIDTH IS 60'

FOR FURTHER MEDIAN U-TURN INFORMATION, SEE ROADWAY L&D MANUAL, FIGURE 304-2.

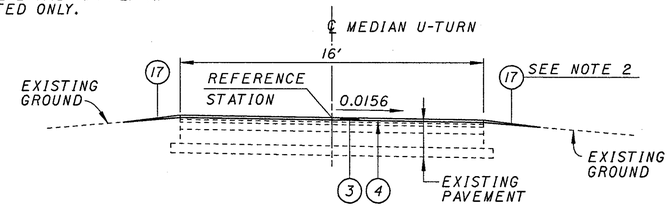


SECTION B'-B'

NOT TO SCALE

STA. 3+55± STA. 338+60±
STA. 114+85± STA. 489+60±

SECTIONS B'-B' & B"-B" ORIENTATION SAME AS SECTION B-B AND APPPLY AT THE STATIONS LISTED ONLY.

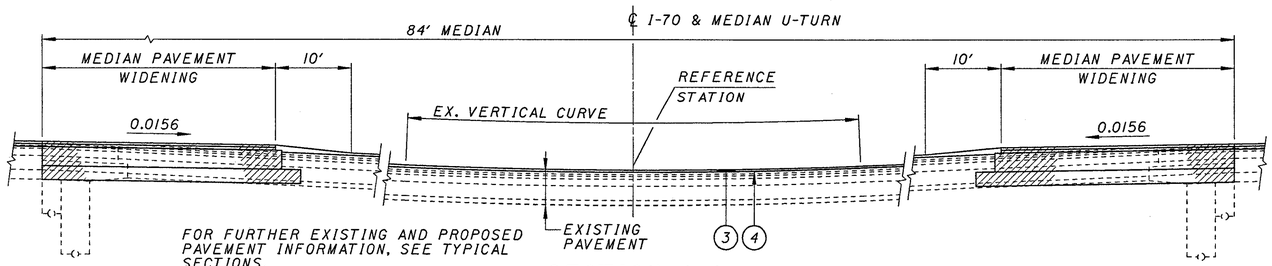


SECTION B"-B"

NOT TO SCALE

STA. 210+50± STA. 740+00±

FOR FURTHER MEDIAN U-TURN INFORMATION, SEE ROADWAY L&D MANUAL, FIGURE 304-2.

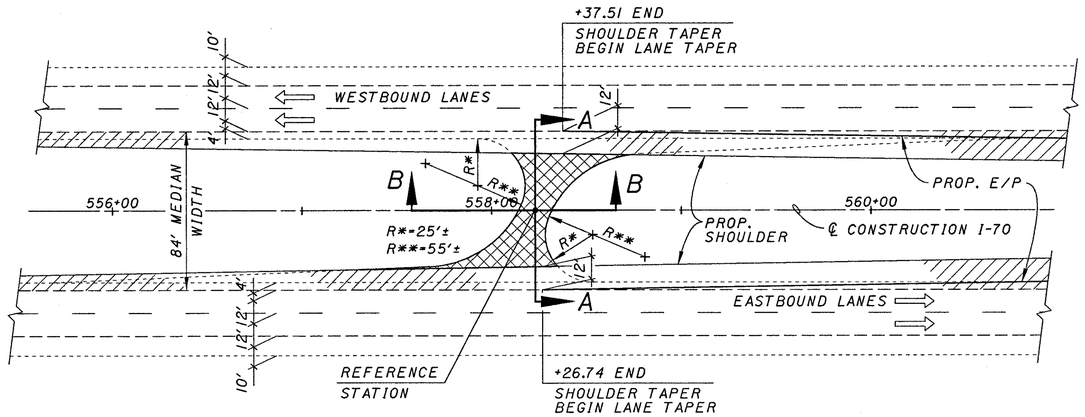


FOR FURTHER EXISTING AND PROPOSED PAVEMENT INFORMATION, SEE TYPICAL SECTIONS.

SECTION A-A

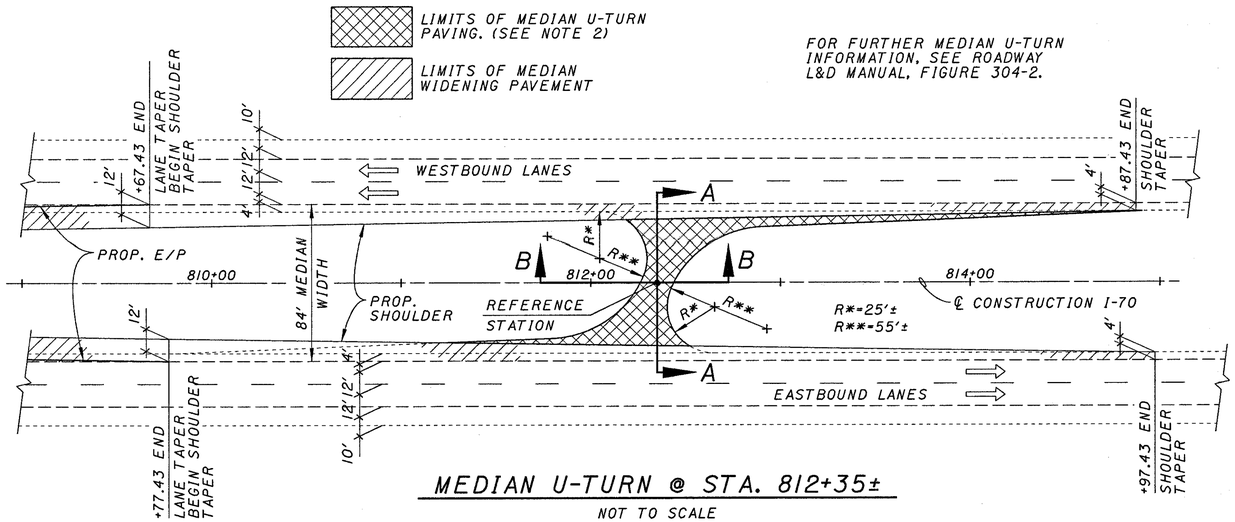
NOT TO SCALE

STA. 558+23± STA. 812+35±



MEDIAN U-TURN @ STA. 558+23±

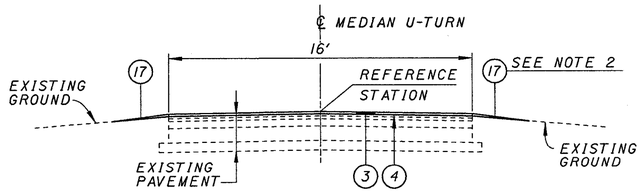
NOT TO SCALE



FOR FURTHER MEDIAN U-TURN INFORMATION, SEE ROADWAY L&D MANUAL, FIGURE 304-2.

MEDIAN U-TURN @ STA. 812+35±

NOT TO SCALE



SECTION B-B

NOT TO SCALE

STA. 558+23± STA. 812+35±

NOTES

1) FOR ITEM LEGEND, SEE SHEET 5.
2) ITEM 617 - COMPACTED AGGREGATE SHALL BE PLACED IF THE DROP-OFF AT THE PAVEMENT EDGE IS 2" OR GREATER.

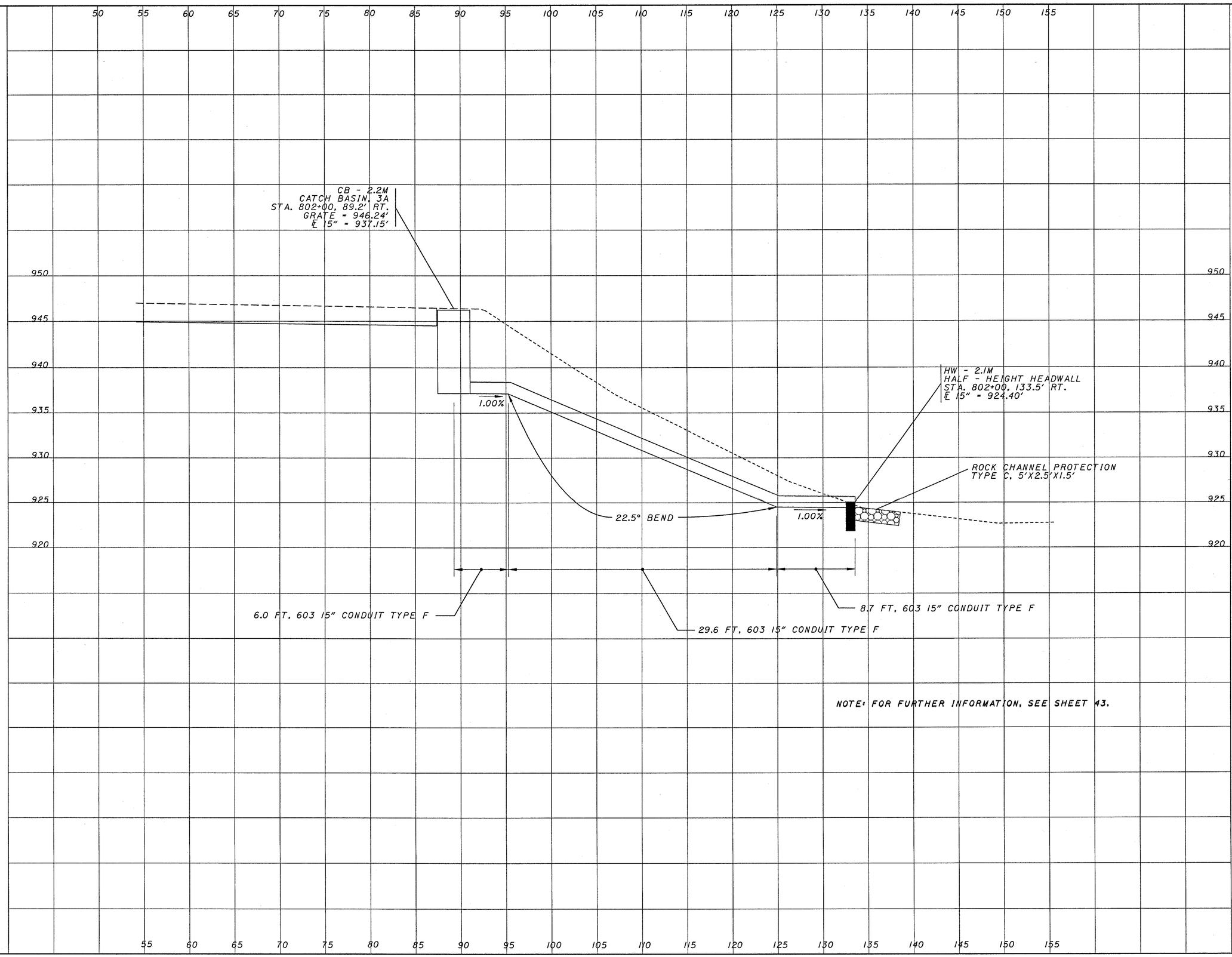
MISCELLANEOUS DETAILS
MEDIAN U-TURN PAVING DETAIL

PRE-70-0.00

CALCULATED | CHECKED

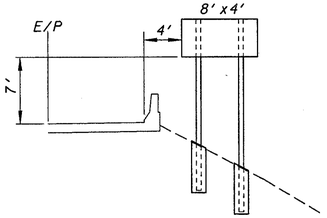
STORM SEWER DETAIL STA. 802+00

PRE-70-0.00



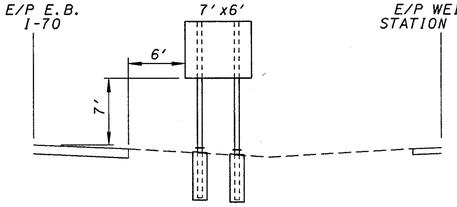
NOTE: FOR FURTHER INFORMATION, SEE SHEET 43.

$$$$$SYSTIME$$$$$$
USER: $$USERNAME$$
DESC: $$DESCRIPTION$$$$$$$$
PREF NAME: $$PREFNAME$$
ACTIVE LEVELS ON: $$LEV$$
REF01: $$REF01$$
REF02: $$REF02$$
REF03: $$REF03$$
REF04: $$REF04$$
REF05: $$REF05$$



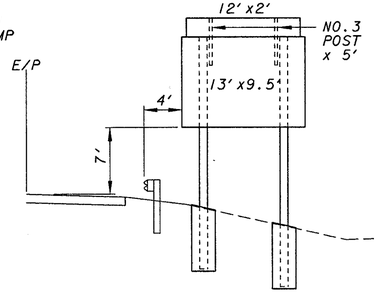
STA.0+40 I-70 E.B. RIGHT

W6x9
SUPPORTS: (2) 18' & 20.4'
SPACING: 1.76',4.48',1.76'
FOUNDATIONS: (2) 1.5'x5'



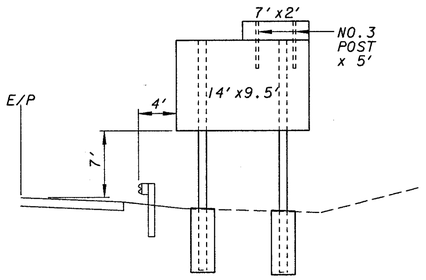
STA.28+90 I-70 E.B. RIGHT

W6x9 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 18.6' & 18.8'
SPACING: 1.54',3.92',1.54'
FOUNDATIONS: (2) 1.5'x5'



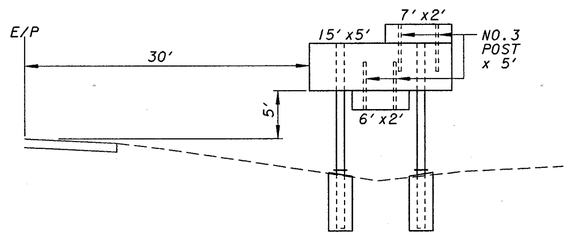
STA.97+55 I-70 W.B. LEFT

W10x22
SUPPORTS: (2) 24.6' & 26.5'
SPACING: 1.75',8.5',1.75'
FOUNDATIONS: (2) 2.5'x6.75'

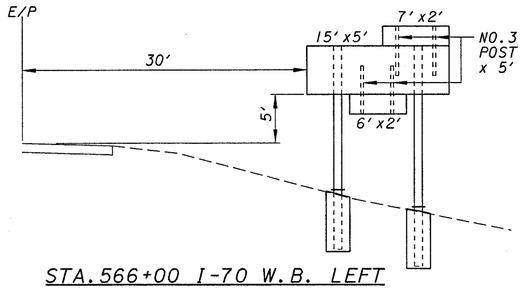


STA.459+85 I-70 E.B. RIGHT

W10x22
SUPPORTS: (2) 24.3' & 24.6'
SPACING: 1.75',8.5',1.75'
FOUNDATIONS: (2) 2.5'x6.75'

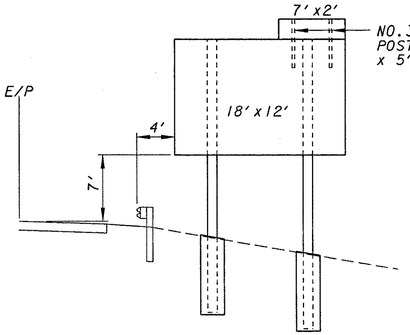


STA.481+00 I-70 E.B. RIGHT



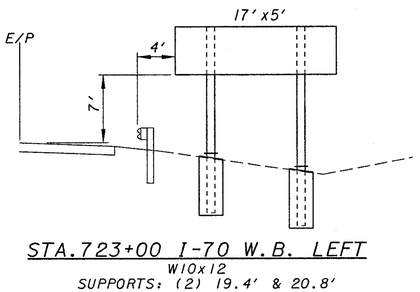
STA.566+00 I-70 W.B. LEFT

W8x18 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 21.1' & 22.9'
SPACING: 3.25',8.5',3.25'
FOUNDATIONS: (2) 2.5'x6'



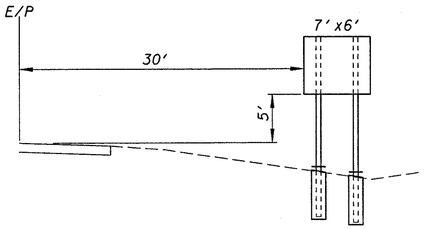
STA.711+75 I-70 E.B. RIGHT

W12x30
SUPPORTS: (2) 28.7' & 30.4'
SPACING: 3.96',10.08',3.96'
FOUNDATIONS: (2) 2.5'x8.25'



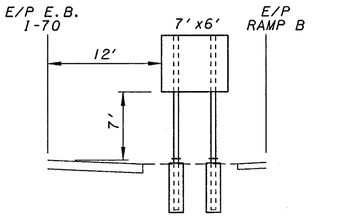
STA.723+00 I-70 W.B. LEFT

W10x12
SUPPORTS: (2) 19.4' & 20.8'
SPACING: 3.74',9.52',3.74'
FOUNDATIONS: (2) 2.5'x6'



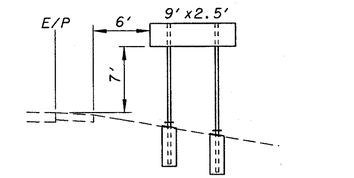
STA.736+20 I-70 W.B. LEFT

W6x9 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 18.8' & 19.4'
SPACING: 1.54',3.92',1.54'
FOUNDATIONS: (2) 1.5'x5'



STA.772+50 I-70 E.B. RIGHT

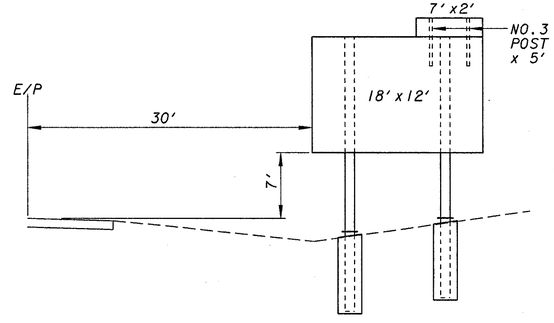
W6x9 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) @ 18.2'
SPACING: 1.54',3.92',1.54'
FOUNDATIONS: (2) 1.5'x5'



STA.12+52N U.S.R.127 S.B. LEFT

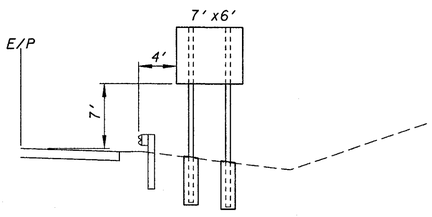
STA.4+34S U.S.R.127 N.B. RIGHT,
STA. 11+93S U.S.R.127 N.B. RIGHT,
AND STA. 44+40 S.R.503 S.B. LEFT
SIMILAR

S4x7.7 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 14.8' & 15.7'
SPACING: 1.98',5.04',1.98'
FOUNDATIONS: (2) 1.5'x4'



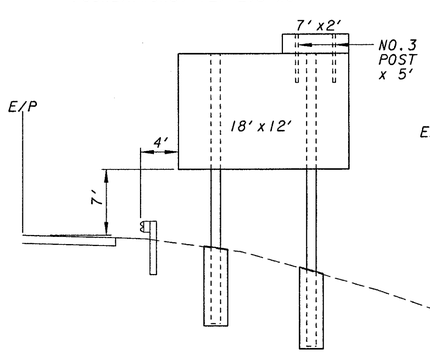
STA.737+00 I-70 E.B. RIGHT

W12x30 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 28.9' & 27.5'
SPACING: 3.96',10.08',3.96'
FOUNDATIONS: (2) 2.5'x8.25'



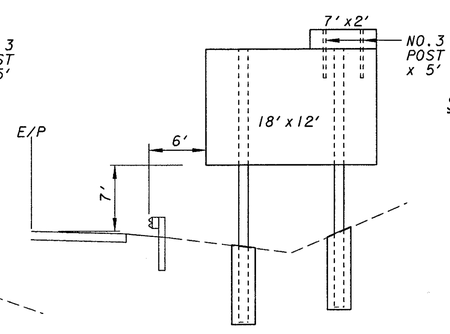
STA.820+50 I-70 E.B. RIGHT

W6x9
SUPPORTS: (2) 18.7' & 19.2'
SPACING: 1.54',3.92',1.54'
FOUNDATIONS: (2) 1.5'x5'



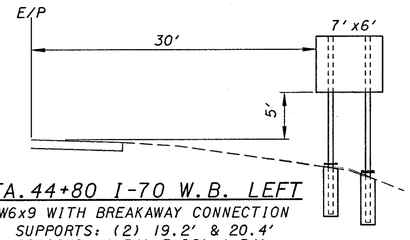
STA.802+60 I-70 W.B. LEFT

W12x30
SUPPORTS: (2) 28.5' & 30.9'
SPACING: 3.96',10.08',3.96'
FOUNDATIONS: (2) 2.5'x8.25'



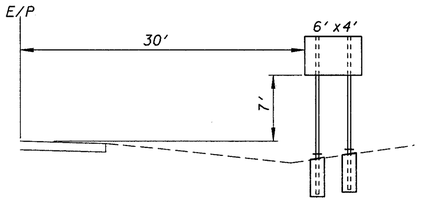
STA.821+25 I-70 W.B. LEFT

W12x30
SUPPORTS: (2) 28.8' & 27.2'
SPACING: 3.96',10.08',3.96'
FOUNDATIONS: (2) 2.5'x8.25'



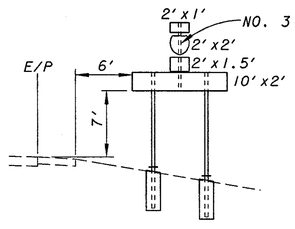
STA.44+80 I-70 W.B. LEFT

W6x9 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 19.2' & 20.4'
SPACING: 1.54',3.92',1.54'
FOUNDATIONS: (2) 1.5'x5'



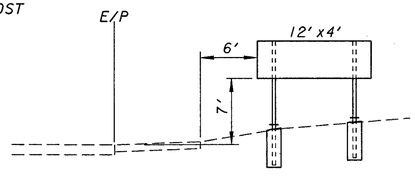
STA.880+00 I-70 W.B. LEFT

S4x7.7 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 16.6' & 16.2'
SPACING: 1.32',3.36',1.32'
FOUNDATIONS: (2) 1.5'x4'



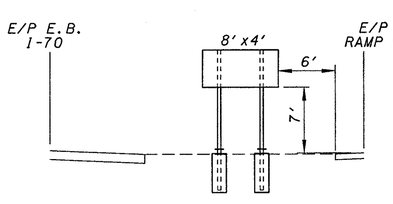
STA.45+40 S.R.503 N.B. RIGHT

STA.34+65 S.R.503 S.B. LEFT - SIMILAR
S4x7.7 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 14.4' & 15.3'
SPACING: 2.2',5.6',2.2'
FOUNDATIONS: (2) 1.5'x4'



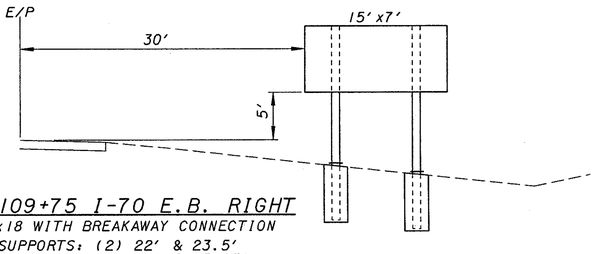
STA.49+00 S.R.503 S.B. LEFT

S4x7.7 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 13.2' & 12.4'
SPACING: 1.75',8.5',1.75'
FOUNDATIONS: (2) 1.5'x4'



STA.13+50 RAMP B LEFT (S.R. 503)

S4x7.7 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) @ 15'
SPACING: 1.76',4.48',1.76'
FOUNDATIONS: (2) 1.5'x4'



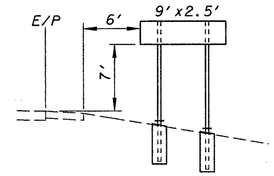
STA.109+75 I-70 E.B. RIGHT

W8x18 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 22' & 23.5'
SPACING: 3.25',8.5',3.25'
FOUNDATIONS: (2) 2.5'x6'

CALCULATED LEP
CHECKED HJZ

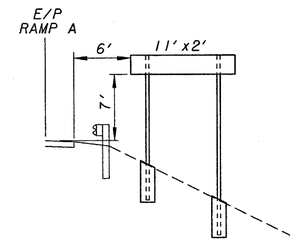
SIGN ELEVATIONS

PRE-70-0.00



STA. 4+45N U.S.R. 127 N.B. LEFT

S4x7.7 WITH BREAKAWAY CONNECTION
SUPPORTS: (2) 14.8' & 15.7'
SPACING: 1.98',5.04',1.98'
FOUNDATIONS: (2) 1.5'x4'



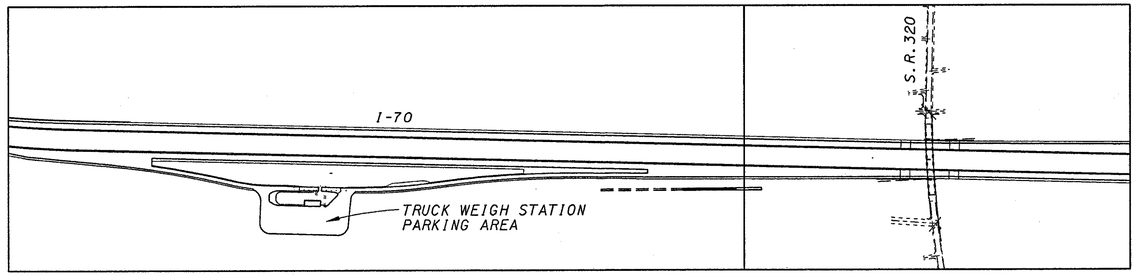
STA. 12+12 RAMP A RIGHT (U.S.R. 127)

S4x7.7
SUPPORTS: (2) 15.3' & 19.0'
SPACING: 1.75',7.5',1.75'
FOUNDATIONS: (2) 1.5'x4'

CALCULATED LEP
CHECKED HJZ

SIGN ELEVATION

PRE-70-0.00



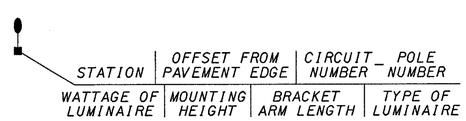
SEE PLAN SHEET 131

SEE PLAN SHEET 132

LEGEND

- LIGHT POLE, 200 WATT HPS (HIGH PRESSURE SODIUM) 41.7' MOUNTING HEIGHT, 18' ARM, STYLE B LUMINAIRE, TYPE II.
- LIGHT POLE, 400 WATT HPS (HIGH PRESSURE SODIUM) 50' MOUNTING HEIGHT, 15' ARM, STYLE B LUMINAIRE, TYPE III.
- LOW MAST LIGHT POLE, 51.7' MOUNTING HEIGHT WITH (1) 400 WATT HPS SYMMETRIC LUMINAIRE, TYPE V.
- EXISTING WOOD POLE AND LUMINAIRE TO BE REMOVED.
- PROPOSED PULL BOX
- CONDUIT STUBBED AND CAPPED
- PROPOSED CIRCUIT - DUCT CABLE
- PROPOSED CIRCUIT - DUCT CABLE IN CONDUIT

INDEX OF SHEETS



TYPICAL POLE IDENTIFICATION

HORIZONTAL SCALE IN FEET
0 300 600

LIGHTING INDEX SHEET

PRE-70-0.00

$$$$$SITE$$$$$
USER=$USERNAME$
DES=$DESIGNATION$
PRES=$PRESENTATION$$$$$$$$$$
ACTIVE LEVELS ON= $$LEV$$

REF01=**REF01**
REF02=**REF02**
REF03=**REF03**
REF04=**REF04**
REF05=**REF05**
REF06=**REF06**

POWER SERVICE, AS PER PLAN

POWER SERVICE EQUIPMENT SHALL BE INSTALLED AS SPECIFIED IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS AND AS SHOWN ON SHEET 5 EXCEPT THAT THE EQUIPMENT WILL BE MOUNTED TO THE INSIDE WALL OF THE WEIGH STATION RATHER THAN A SERVICE POLE.

713.11 LUMINAIRES

IN ADDITION TO THE REQUIREMENTS OF THE DEPARTMENT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES SHALL BE AS FOLLOWS:

STYLE B LUMINAIRES SHALL HAVE SINGLE RATED 240 VOLT, 200 WATT OR 400 WATT, INTEGRAL REGULATOR BALLASTS FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M400, CROUSE-HINDS OVM, AMERICAN 25/26, OR EQUAL APPROVED BY THE ENGINEER.

LOW MAST, SYMMETRIC DISTRIBUTION, 400 WATT HIGH PRESSURE SODIUM, 240 VOLT SHALL BE COOPER HMX, GENERAL ELECTRIC HMA, HOLOPHANE HMST, OR EQUAL AS APPROVED BY THE ENGINEER.

713.14 LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," WESTINGHOUSE "CERAMALUX," SYLVANIA "LUMALUX," OR EQUAL APPROVED BY THE ENGINEER.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL-30.11M FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET.

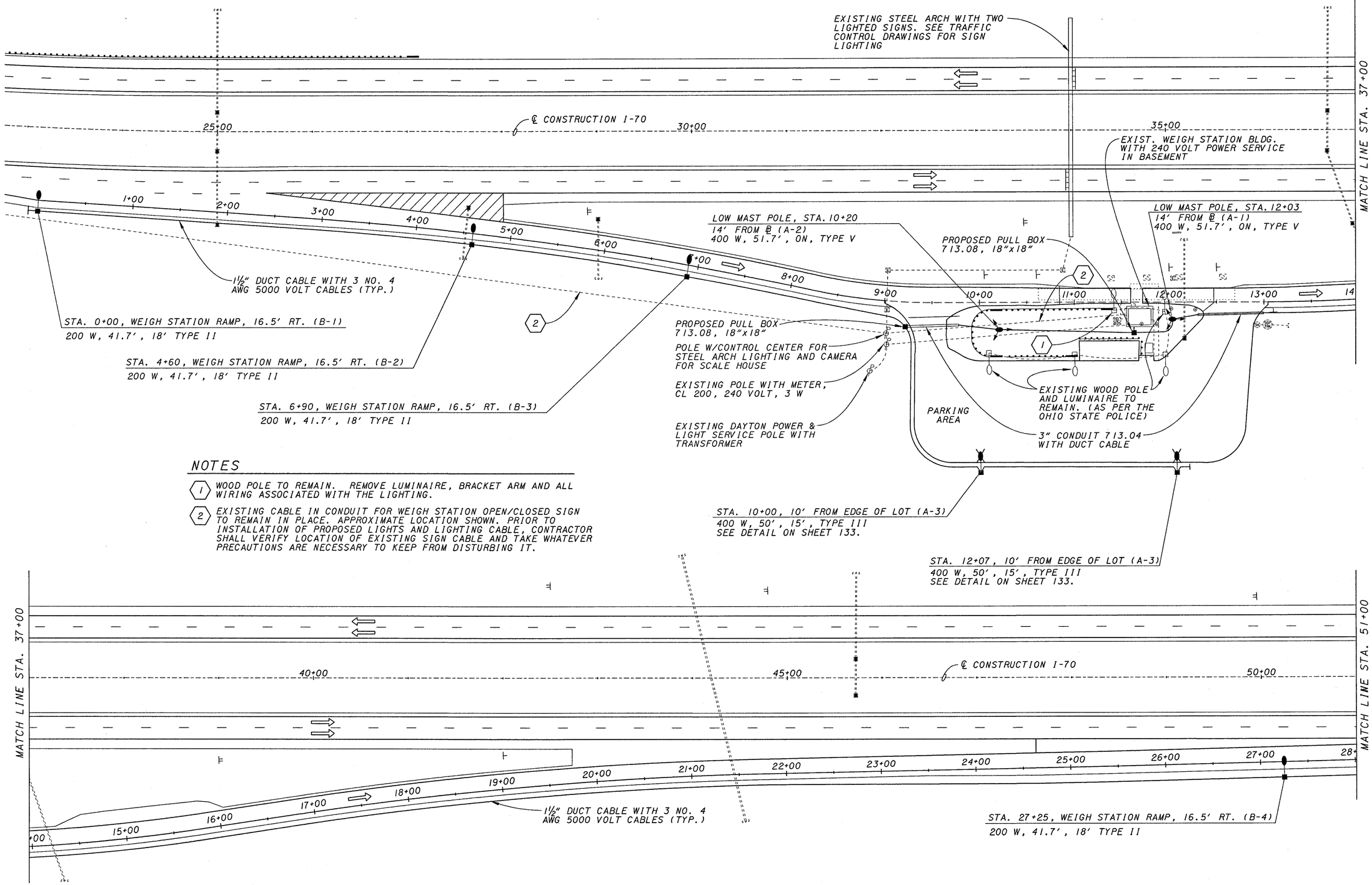
ADDITIONAL ITEMS

THE FOLLOWING ITEMS, ALTHOUGH NOT SPECIFICALLY SHOWN IN THE PLANS AND DETAILS, SHALL BE PROVIDED BY THE CONTRACTOR TO SATISFY ANY AND ALL REQUIREMENTS NECESSARY FOR COMPLETE AND SATISFACTORY INSTALLATION OF THE PROJECT LIGHTING. PROVISION AND INSTALLATION SHALL BE ACCORDING TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION AND THE ODOT STANDARD DRAWINGS:

- HIGH VOLTAGE TEST
- LIGHT POLE FOUNDATIONS
- 24" DEEP TRENCH
- NO.10 AWG POLE AND BRACKET CABLE
- GROUND RODS
- CONNECTOR KITS
- CABLE SPLICING KITS

LIGHTING GENERAL NOTES

PRE-70-0.00



NOTES

1. WOOD POLE TO REMAIN. REMOVE LUMINAIRE, BRACKET ARM AND ALL WIRING ASSOCIATED WITH THE LIGHTING.
2. EXISTING CABLE IN CONDUIT FOR WEIGH STATION OPEN/CLOSED SIGN TO REMAIN IN PLACE. APPROXIMATE LOCATION SHOWN. PRIOR TO INSTALLATION OF PROPOSED LIGHTS AND LIGHTING CABLE, CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SIGN CABLE AND TAKE WHATEVER PRECAUTIONS ARE NECESSARY TO KEEP FROM DISTURBING IT.

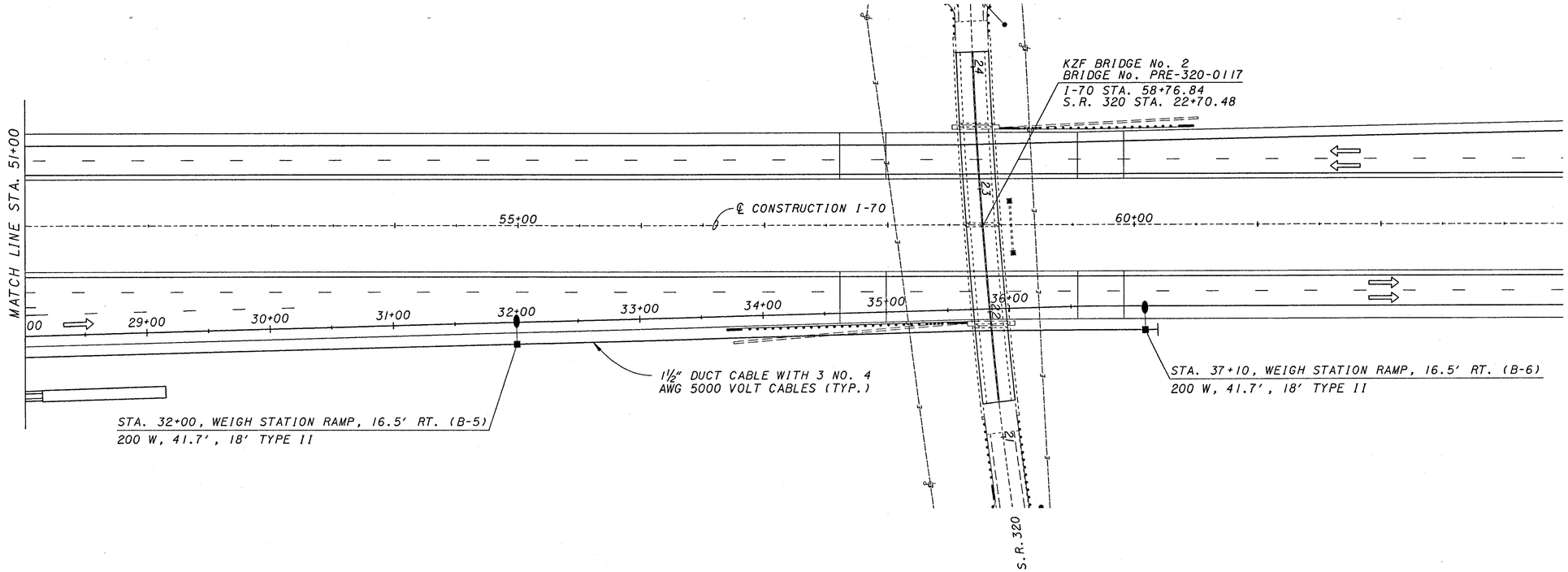
TOP

BOTTOM

0 25 50 100 HORIZONTAL SCALE IN FEET

LIGHTING PLAN
STA. 24+00 TO STA. 51+00

PRE-70-0.00



HORIZONTAL SCALE IN FEET
0 25 50 100

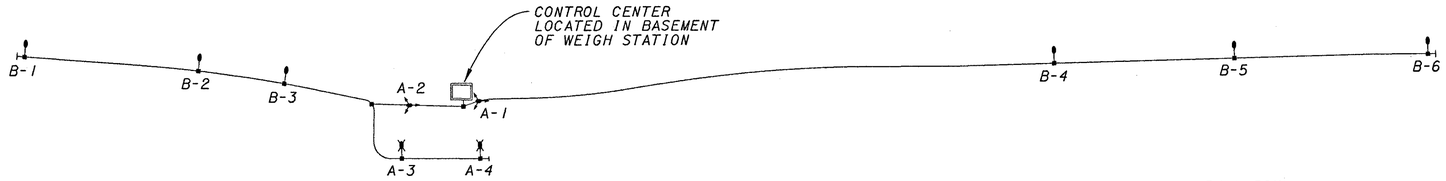
LIGHTING PLAN
STA. 51+00 TO STA. 63+00

PRE-70-0.00

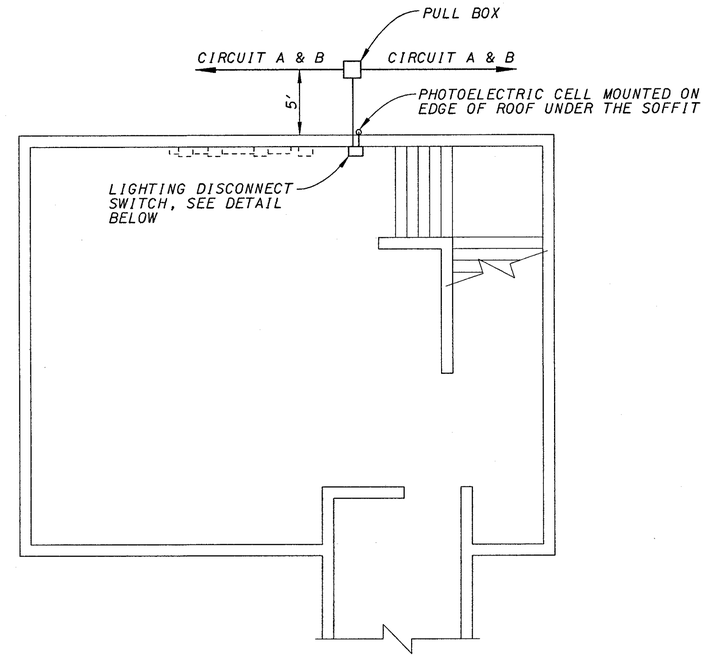
132
283

POWER SERVICE DATA

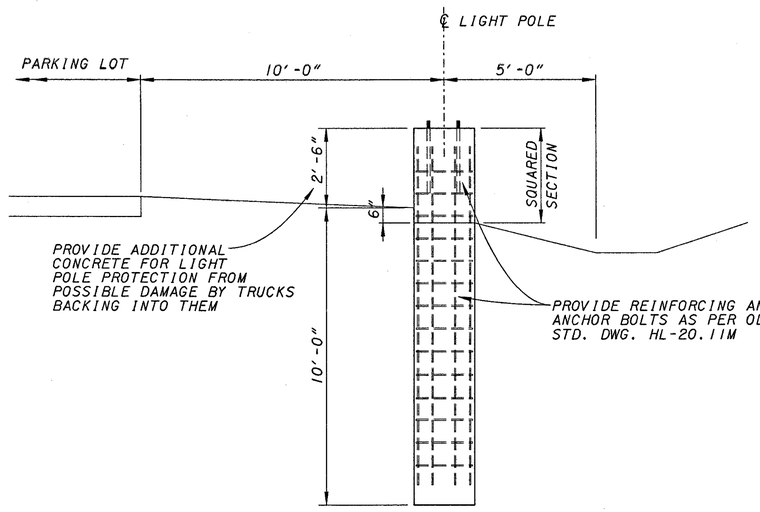
CONTROL CENTER LOCATION	POWER SERVICE	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE	ENCLOSURE RATING (AMPS)	CIRCUIT NUMBER	CIRCUIT LOAD (AMPS)	CIRCUIT BREAKER SIZE	REMARKS	MAINTAINING AGENCY
WEIGH STATION BASEMENT	EXISTING 240 VOLT, 3 WIRE, GROUNDED NEUTRAL	2.8	NO.4	CIRCUIT BREAKER ENCLOSURE	A	6.6	20A	A-1 THRU A-4	ODOT
					B	5	20A	B-1 THRU B-6	



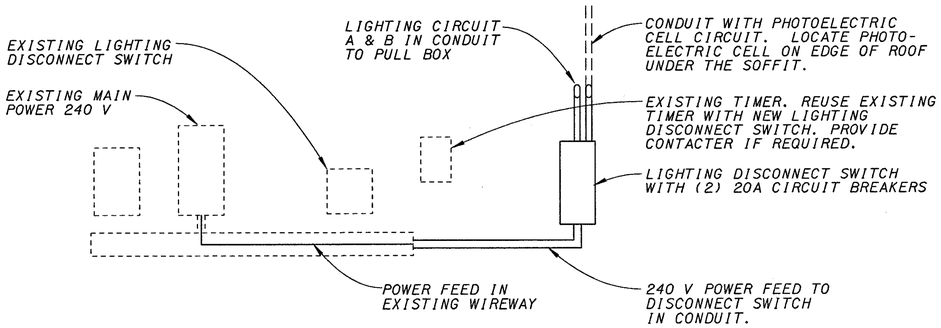
CIRCUIT DIAGRAM



WEIGH STATION BASEMENT PLAN



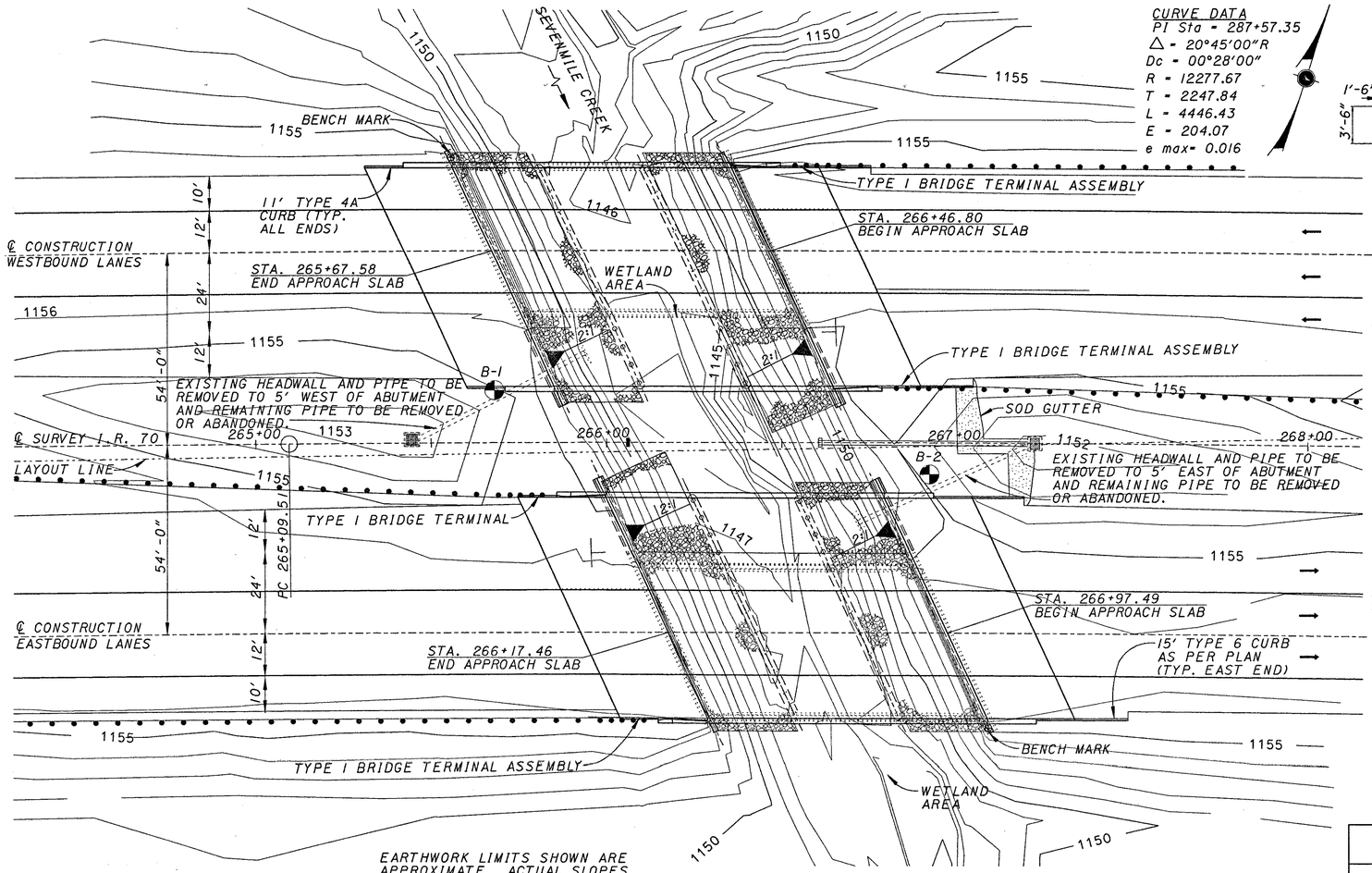
FOUNDATION DETAIL FOR TWO LIGHT POLES AT REAR OF PARKING LOT



CONTROL CENTER ELEVATION

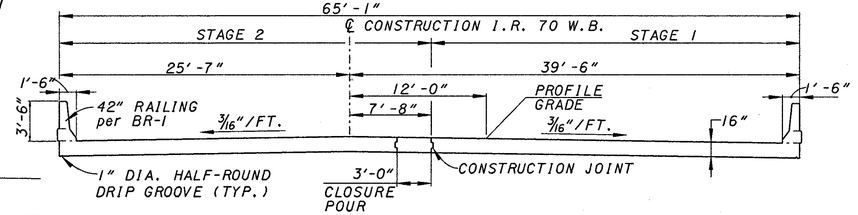
LIGHTING DETAILS

PRE-70-0.00

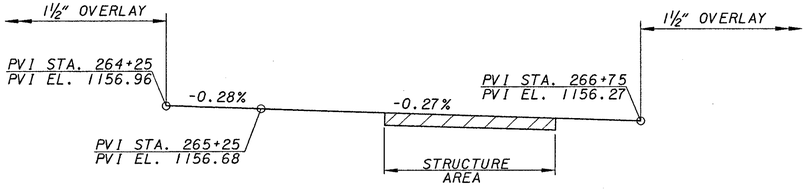


PLAN

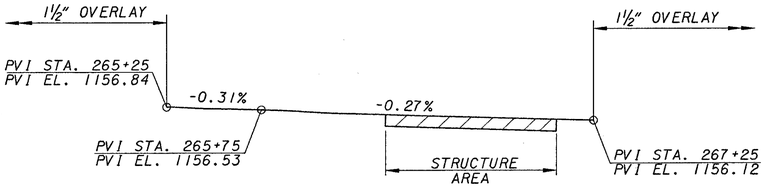
CURVE DATA
PI Sta - 287+57.35
△ - 20°45'00"R
Dc - 00°28'00"
R - 12277.67
T - 2247.84
L - 4446.43
E - 204.07
e max- 0.016



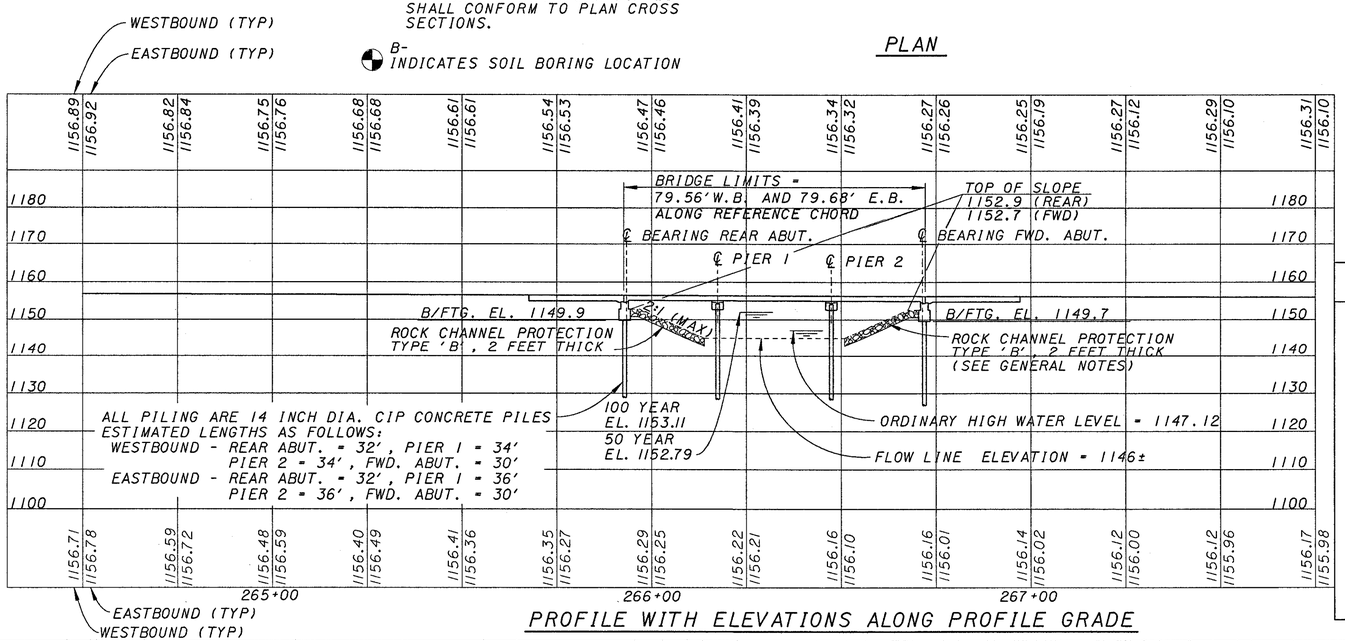
TYPICAL SECTION
(WESTBOUND SHOWN)
(EASTBOUND OPPOSITE HAND)



VERTICAL ALIGNMENT
I.R. 70 WESTBOUND AT PROFILE GRADE



VERTICAL ALIGNMENT
I.R. 70 EASTBOUND AT PROFILE GRADE



PROFILE WITH ELEVATIONS ALONG PROFILE GRADE

TRAFFIC DATA

ADT (2001) = 35,860
ADT (2021) = 50,800
ADTT (2021) = 19,812
SOURCE = ODOT

BENCH MARK

BOX NOTCH ON S.E. ABUTMENT EASTBOUND AT STA.267+09.6, 80.8 RT. AT ELEVATION 1156.61

BOX NOTCH ON N.W. ABUTMENT WESTBOUND AT STA. 265+56.03, 80.0 LT. AT ELEVATION 1156.98

DRAINAGE DATA

DRAINAGE AREA: 4.79 SQ. MILES
EXISTING BRIDGE OPENING: 550 Sq. Ft.
PROPOSED BRIDGE OPENING: 550 Sq. Ft.
HW100: 1153.11
HW50: 1152.79
Q100: 1,550 C.F.S.
Q50: 1,375 C.F.S.
V100: 4.56 F.P.S.
V50: 4.30 F.P.S.
LOW CHORD ELEVATION: 1154.5
TOP OF DECK ELEVATION: 1155.8 TO 1156.5

EXISTING STRUCTURE - I.R. 70

TYPE: 3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH CAPPED PILE SUBSTRUCTURE.
LENGTH OF SPANS: 23'-9 7/8"±, 30'-1 1/2"±, 23'-11 5/8"± W.B.
24'-3 1/8"±, 29'-8 3/8"±, 24'-0 3/4"± E.B.
ROADWAY WIDTH: 39'-8"± TOE/TOE BARRIER
DESIGN LOADING: C.F. 2000
SKEW ANGLE: 25°00'00"± RT. FWD.
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: 0°28'± CURVE RIGHT
YEAR BUILT: 1962

PROPOSED STRUCTURE

PROPOSED WORK: NEW REINFORCED CONCRETE DECK ON WIDENED SUBSTRUCTURE.
TYPE: 3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH CAPPED PILE SUBSTRUCTURE.
LENGTH OF SPANS: 23'-9 7/8"±, 30'-1 1/2"±, 23'-11 5/8"± W.B.
24'-3 1/8"±, 29'-8 3/8"±, 24'-0 3/4"± E.B.
ROADWAY WIDTH: 62'-0"± TOE/TOE BARRIER
DESIGN LOADING: HS-20 WITH ALTERNATE MILITARY
SKEW ANGLE: 25°00'00"± RT. FWD.
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (25' LONG)
ALIGNMENT: 0°28'± CURVE RIGHT (BRIDGE TANGENT)
LATITUDE: N 39°50'00"
LONGITUDE: W 84°43'03"

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Planning
KZF DESIGN INC. 505 Glen Park Drive, Dayton, OH 45402-6700
TEL 513.621.6211 FAX 513.621.3630 WEB www.kzf.com

DATE 6-21-2000
REVIEWED DGK
STRUCTURE FILE NUMBER 6800939/6800904
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

PREBLE COUNTY
STA 265+92.50
STA 266+72.08

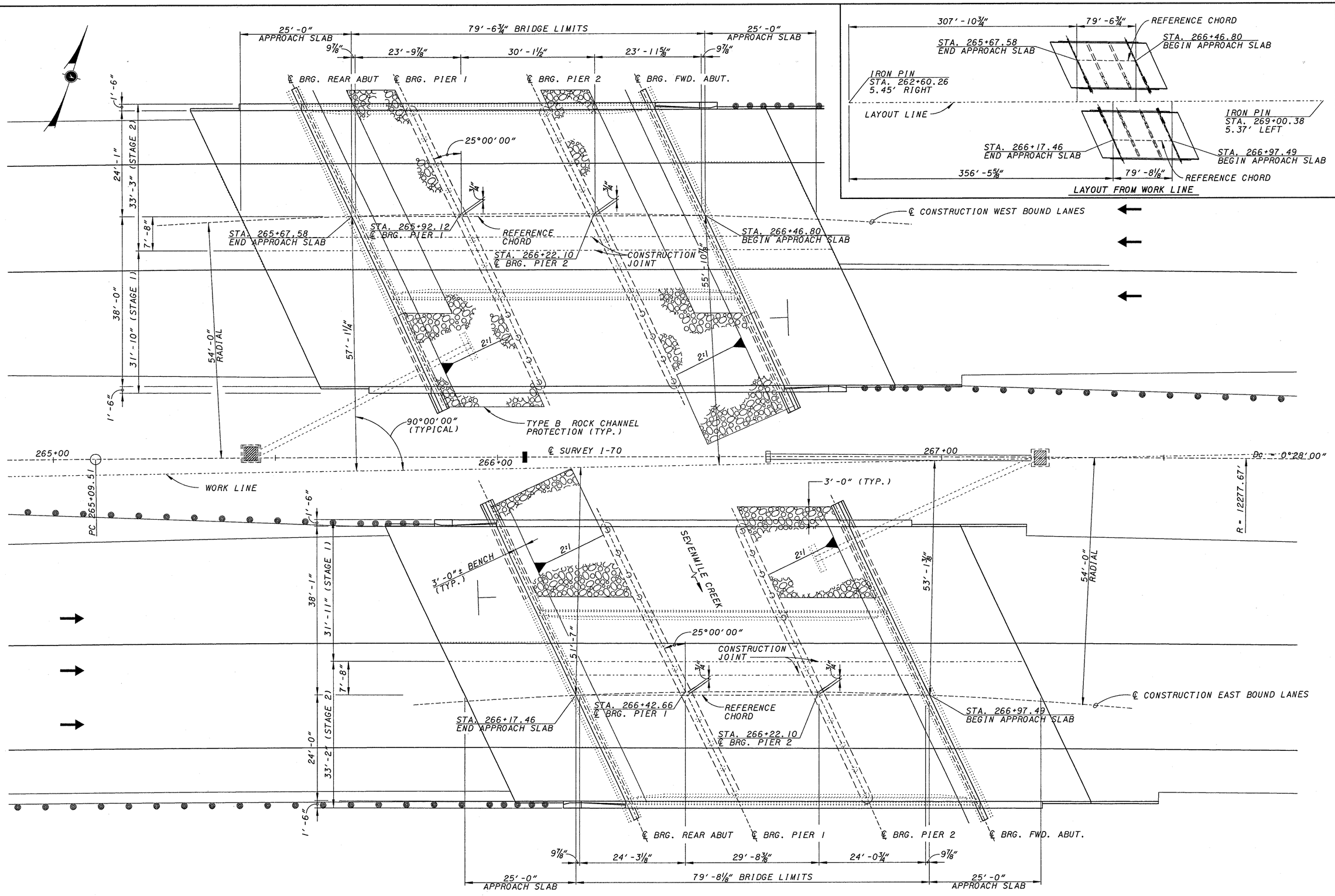
KZF #6

SITE PLAN
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER ±SEVEN MILE CREEK

PRE-70-0.00

1 / 17

134
283



PLAN

LAYOUT FROM WORK LINE

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Kansas City | Lawrence | Columbia | Springfield
TEL 816.931.6611 FAX 816.931.3030 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

KZF #6

GENERAL PLAN
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

2 / 17

135
283

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS :

AS-1-81	REVISED	09-15-94 (SHEETS 1,2 & 3)
BR-1	REVISED	1-6-99
CS-1-93	DATED	5-11-93
CPP-2-94	DATED	12-19-94

AND TO SUPPLEMENTAL SPECIFICATION:

842	DATED	1/6/99
844	DATED	5/5/98
899	DATED	10/21/98
954	DATED	9/9/97
911	DATED	07/10/97

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28-DAY) (SUPERSTRUCTURE)

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28-DAY) (SUBSTRUCTURE)

STRUCTURAL STEEL - ASTM A36 - YIELD STRENGTH 36,000 PSI

REINFORCING STEEL - ASTM A615, A616 OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, SEALING OF CONCRETE SURFACES, CLASS S CONCRETE AND 2½" CONCRETE COVER.

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

REINFORCING BAR SPLICES: REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY 509.08 OF THE C.M.S. UNLESS OTHERWISE NOTED ON THE PLANS.

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

REINFORCING CLEARANCE: UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL CLEARANCE TO FACE OF CONCRETE IS 2".

PROPOSED WORK

1. REMOVE EXISTING CONCRETE DECK, PARAPETS, SCUPPERS, APPROACH SLABS AND PORTIONS OF CONCRETE SUBSTRUCTURES IN A SEQUENCE CONSISTENT WITH MAINTENANCE OF TRAFFIC PLANS AND NOTES AND STAGE CONSTRUCTION.
2. DRIVE PILING AND CONSTRUCT NEW ABUTMENT AND PIER CAPS.
3. CONSTRUCT A NEW CONCRETE DECK AT ELEVATIONS TO MEET OVERLAY ON EXISTING ROADWAY APPROACHES.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS.
5. CONSTRUCT NEW CONCRETE BARRIERS ON DECK AND APPROACH SLABS.
6. PATCH CONCRETE SUBSTRUCTURES AS DIRECTED.
7. CLEAN AND SEAL CONCRETE BARRIERS, ABUTMENTS AND PIERS.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS AND OTHER APPURTENANCES. PORTIONS OF THE PIERS AND ABUTMENTS SHALL ALSO BE REMOVED AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN DURING REMOVALS TO PROTECT PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. ALL REMOVALS SHALL BE CONSISTENT WITH THE STAGE CONSTRUCTION REQUIREMENTS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE ENGINEER.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER, TO ENSURE ADEQUATE DEPTH CONTROL AND TO PREVENT DAMAGE TO CONCRETE SUBSTRUCTURES.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ROCK CHANNEL PROTECTION

BROKEN CONCRETE FROM THE EXISTING BRIDGE DECK MAY BE USED FOR ROCK CHANNEL PROTECTION. MATERIAL CAN BE EITHER TYPE B OR TYPE C WITH A MINIMUM OF 50% OF THE MATERIAL BEING TYPE B.

PILE DESIGN LOADS

THE ULTIMATE BEARING VALUE IS 43 TONS PER PILE FOR THE ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 70 TONS PER PILE FOR THE PIER PILES.

SEAL PIER CAPS, WINGWALLS, ABUTMENTS, PARAPETS, AND DECK EDGES WITH EPOXY-URETHANE: COLOR SHALL BE FEDERAL COLOR STANDARD 17778 (OFF-WHITE)

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE DESIGNATED EXPOSED CONCRETE SURFACE AREAS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 30) ENTITLED, ITEM SPECIAL - SEALING OF CONCRETE SURFACES

PATCH SUBSTRUCTURE CONCRETE

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN Inc. 66 East Fifth Ave Cincinnati, OH 45202-3009
TEL 513.621.6211 FAX 513.621.3550 WEB www.kzf.com

REVIEWED	DATE
DGK	6-21-2000
STRUCTURE FILE NUMBER	
6800939/6800904	

DESIGNED	DRAWN	REVISED
SJA	JDG	
CHECKED		
WBS		

KZF #6

GENERAL NOTES
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

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

ENVIRONMENTAL COMMITMENTS AND RESOURCES TO BE AVOIDED

THE CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWAPP) TO ADDRESS EROSION ASSOCIATED WITH SHOULDER DISTURBANCE/ RECONSTRUCTION AND BRIDGE WORK. (CMS 877.03)

ALL CONDITIONS ATTACHED WITH CORPS PERMIT (NATIONWIDE 3 & 14) SHALL BE IMPLEMENTED IN THE FIELD WITH THE ACTUAL PERMIT BEING DISPLAYED ONSITE.

EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIAL OUT OF THE STREAM CHANNELS. IF ANY MATERIAL FALLS INTO THE WATER, IT SHALL BE REMOVED IMMEDIATELY. ALL DEBRIS OR EXCESS FILL MATERIAL SHOULD BE DISPOSED AT AN APPROVED UPLAND SITE. (ABOVE THE 100 YR. FLOODPLAIN)

IN-STREAM STRUCTURES SHALL BE KEPT TO THE MINIMAL SIZE NEEDED TO FACILITATE WORK AND WILL BE REMOVED IMMEDIATELY TO ORIGINAL GRADE AFTER IN-STREAM WORK IS COMPLETED.

WHILE PAINTING, SANDBLASTING OR SEALING OF ANY PORTION OF THE BRIDGE AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS AND PAINT OVERSPRAY AND SEALANTS FROM ENTERING INTO THE STREAM.

PROPER SEDIMENT AND EROSION CONTROLS SHALL BE IMPLEMENTED THROUGHOUT THE COURSE OF THE PROJECT. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK (ODOT CMS ITEM 877)

IMPLEMENT ODOT CMS ITEM 616, DUST CONTROL AS NECESSARY.

COMPLY WITH ODOT CMS ITEM 107.21 CONTROLLING POLLUTION OF THE ENVIRONMENT.

VEGETATION REMOVAL WILL BE HELD TO AN ABSOLUTE MINIMUM REQUIRED TO COMPLETE THE WORK.

WETLANDS EXIST WITHIN THE PROJECT AREA. ALL WETLANDS NOT DIRECTLY INVOLVED WITH BRIDGE DECK/SUBSTRUCTURE MODIFICATIONS SHALL BE AVOIDED. THE BRIDGE SITE PLANS SHOW WETLAND AREAS TO BE AVOIDED.

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS WHICH ARE DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW REINFORCING STEEL.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH S.R. 741 LEBANON, OHIO 45036 (800) 831-2142. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE DRAWINGS.

ITEM 846 - TREATING CONCRETE WITH HMWM RESIN

SEAL THE CONSTRUCTION JOINT IN THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATIONS FOR SURFACE PREPARATION AND RATE OF APPLICATION.

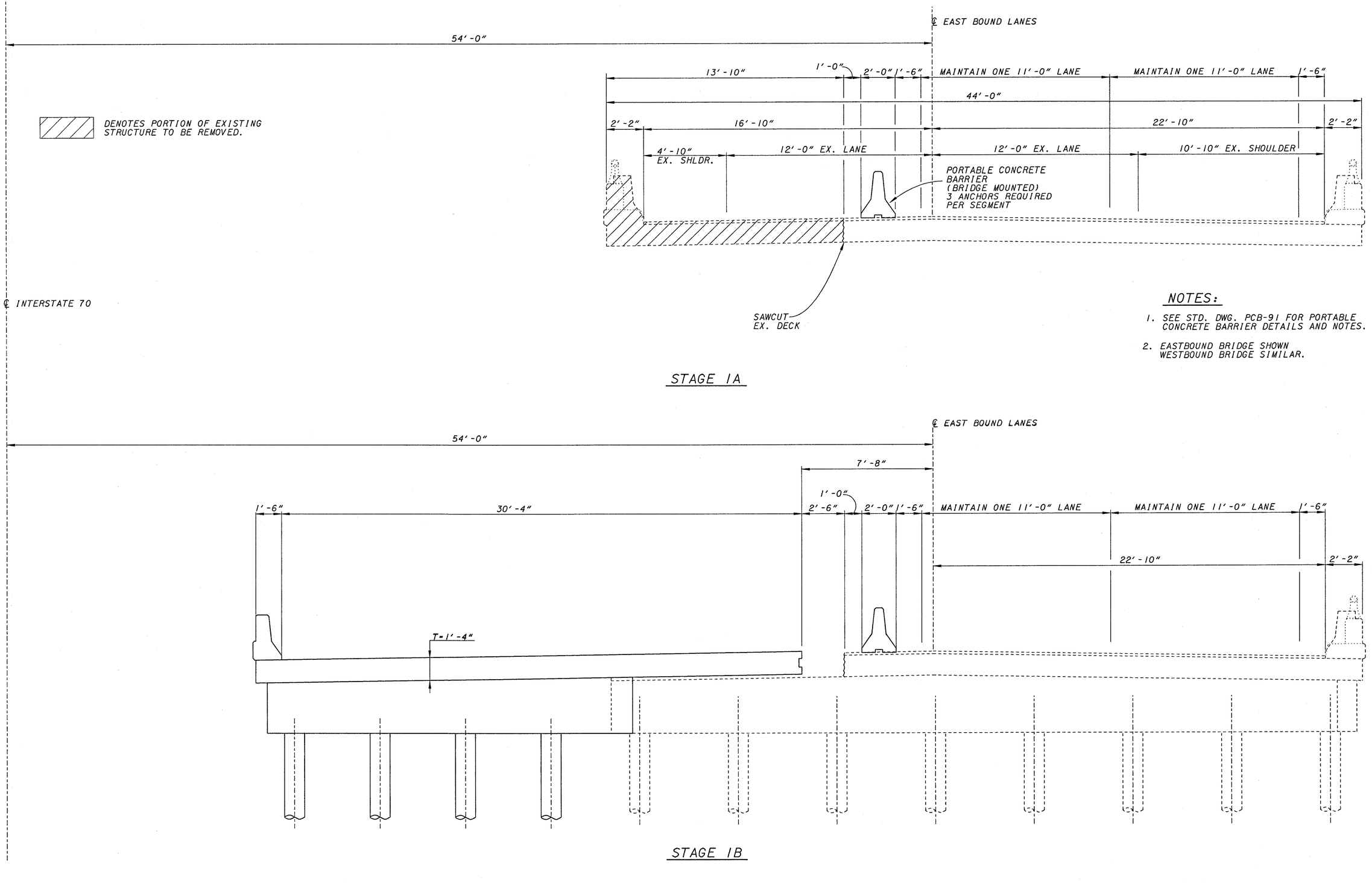
DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 600 Elm Park Drive, Cincinnati, OH 45202-2000
TEL 513.621.2911 FAX 513.621.3000 Web www.kzfdesign

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

KZF #6

GENERAL NOTES
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00



NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.
2. EASTBOUND BRIDGE SHOWN WESTBOUND BRIDGE SIMILAR.

DESIGN AGENCY
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KZF DESIGN INC. 600 Elm Park Drive Cincinnati, OH 45202-6000
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	SJA	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

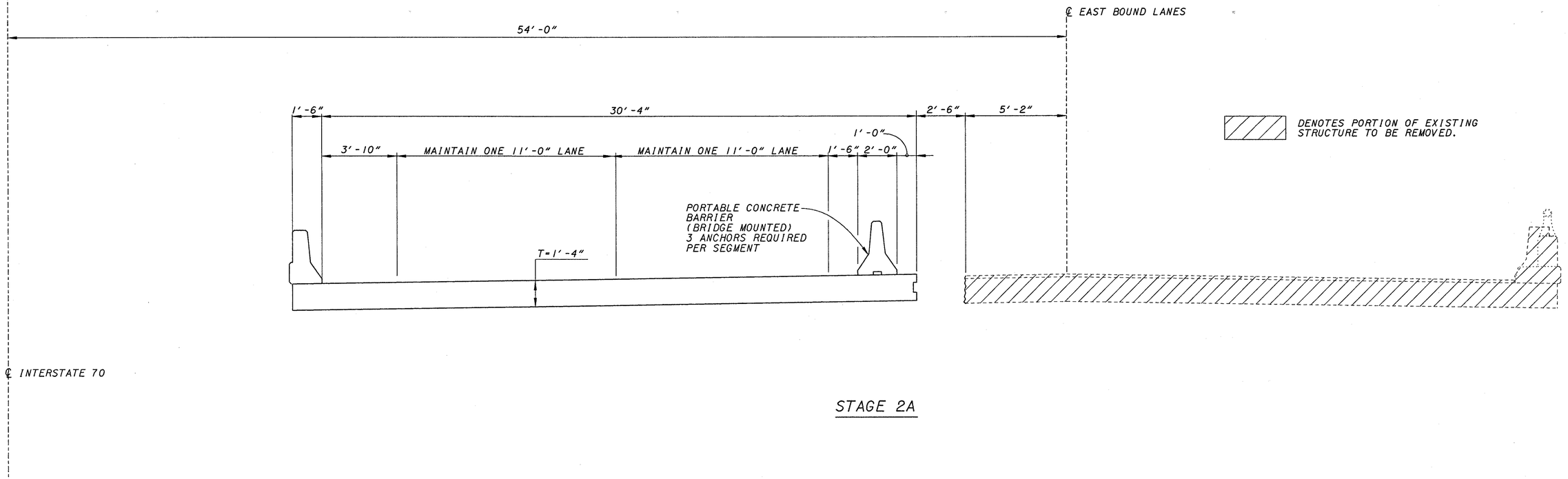
KZF #6

RIGHT BRIDGE STAGE I CONSTRUCTION
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

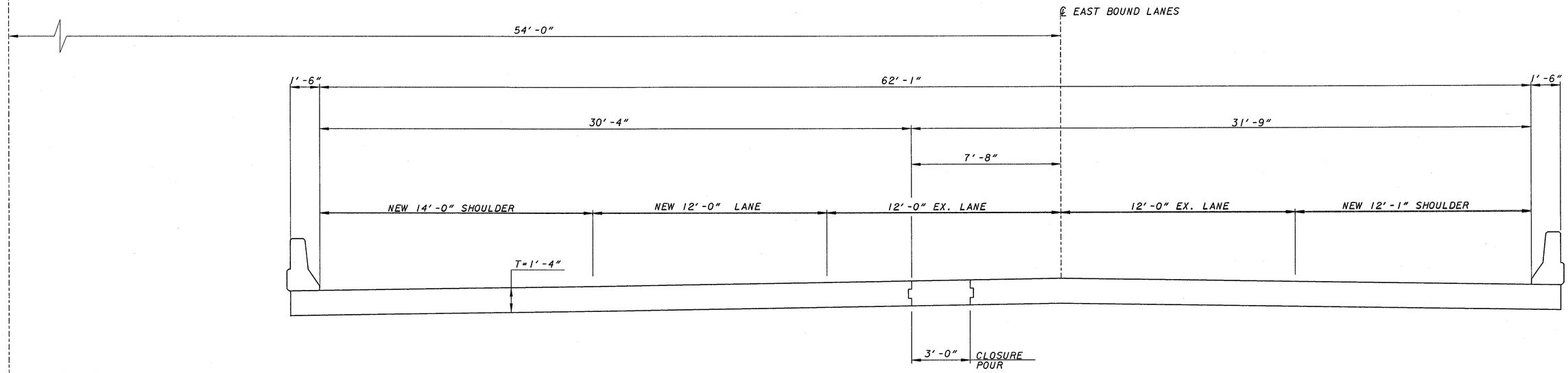
PRE-70-0.00

5 / 17

138
283



STAGE 2A



STAGE 2B

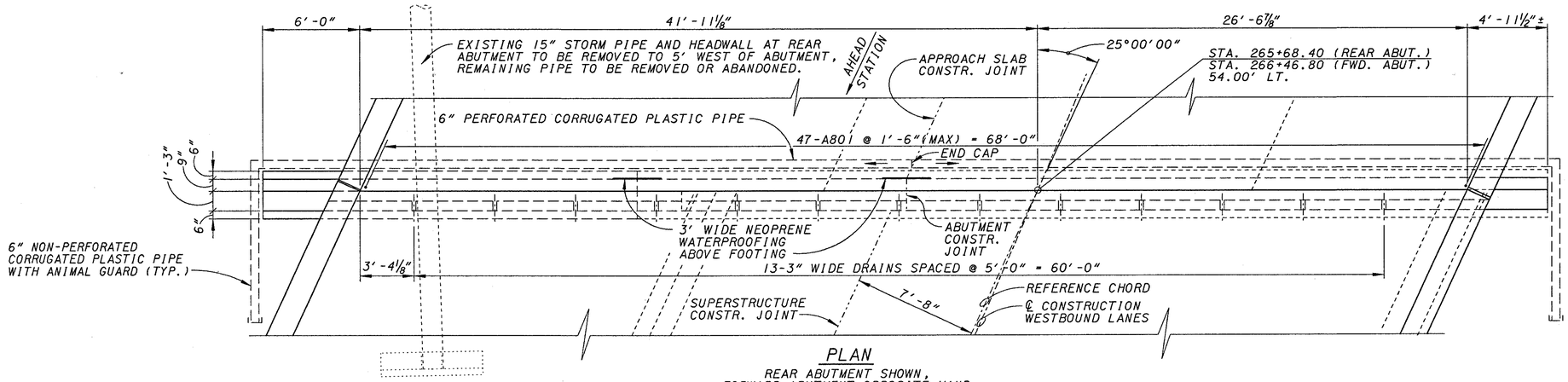
DESIGN AGENCY
KZF DESIGN
KZF DESIGN, INC. Engineering | Surveying | Transportation
KZF DESIGN INC. 6480 Cornerstone Court East, Suite 100, San Diego, CA 92121-3779
TEL 619.621.0711 FAX 619.621.0650 WEB www.kzfd.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

KZF #6

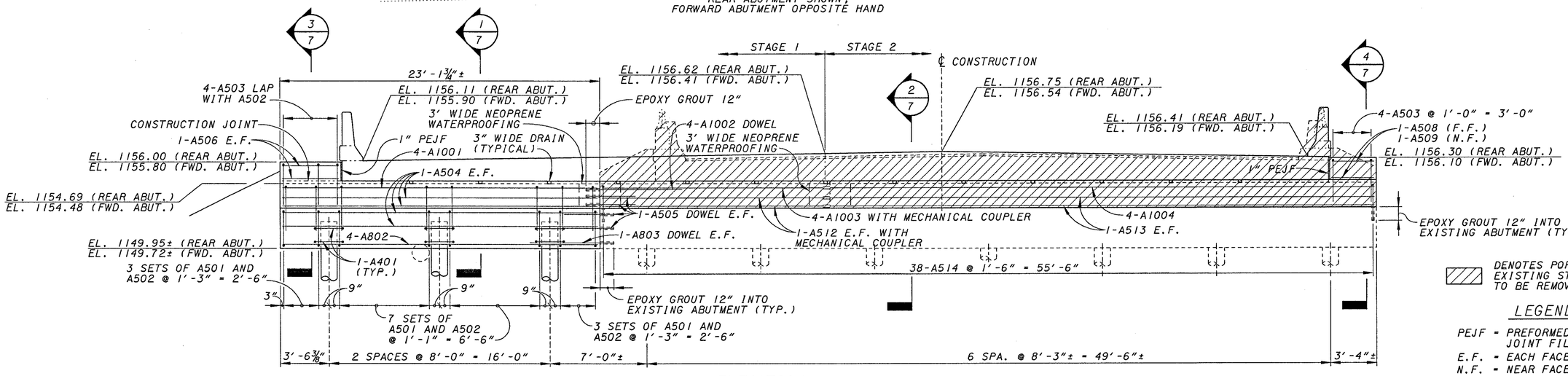
RIGHT BRIDGE STAGE 2 CONSTRUCTION
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00



PLAN

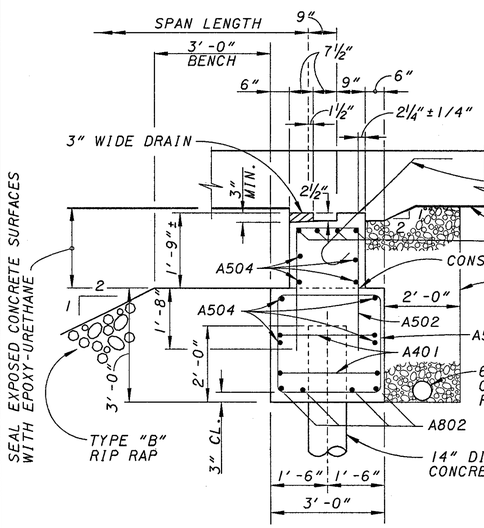
REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND



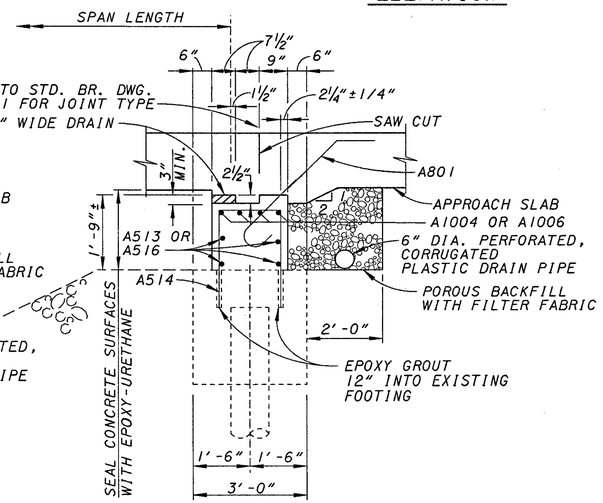
ELEVATION

LEGEND

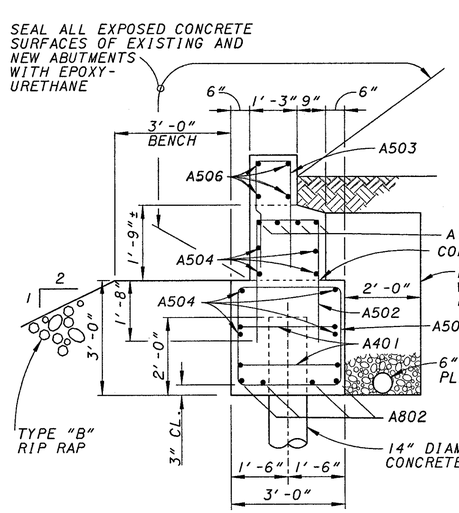
PEJF - PREFORMED EXPANSION JOINT FILLER
E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE



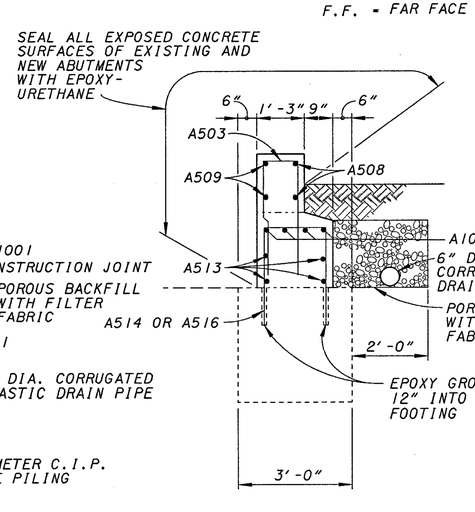
SECTION 1/7 1/8



SECTION 2/7 2/8



SECTION 3/7 3/8



SECTION 4/7 4/8

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
707 SW Washington, Suite 1300, Portland, OR 97205-3500
TEL 503.627.3011 FAX 503.627.3043 www.kzfdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	DGK	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS	9-29-00	6800939/6800904	

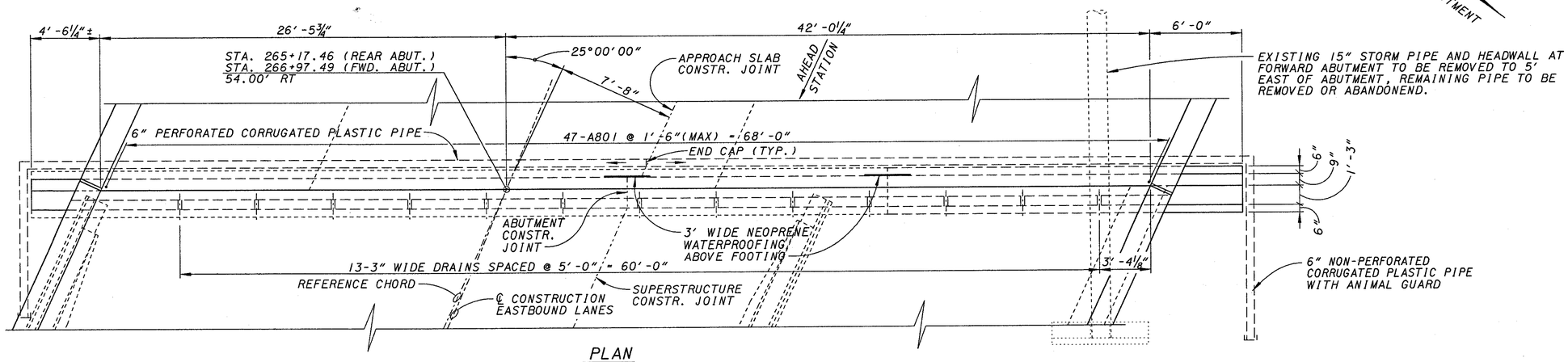
KZF #6

ABUTMENT DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

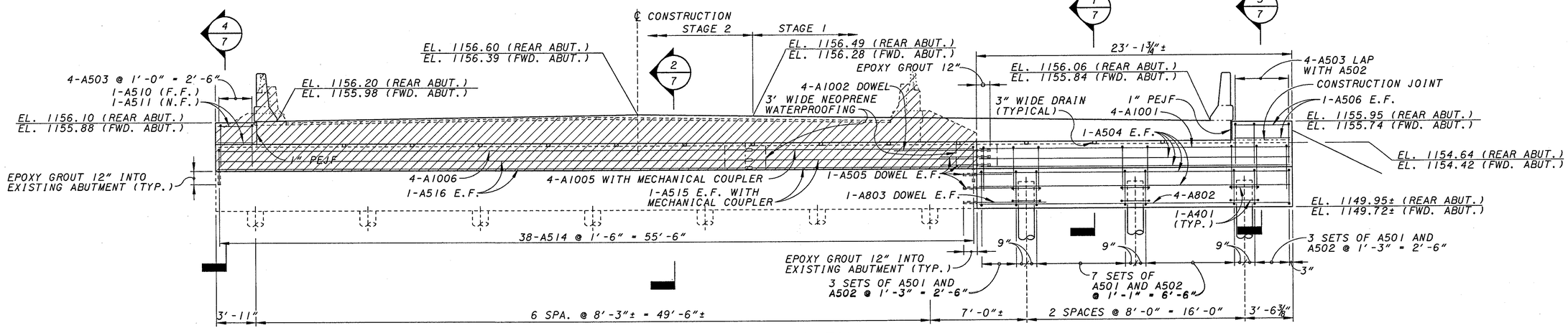
7 / 17

140 / 283



PLAN

REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND



ELEVATION

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

LEGEND

PEJF - PREFORMED EXPANSION JOINT FILLER
E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
1800 Bridgeway, Suite 209, Sausalito, CA 94965
TEL 415.331.1411 FAX 415.331.3630 Web www.kzdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

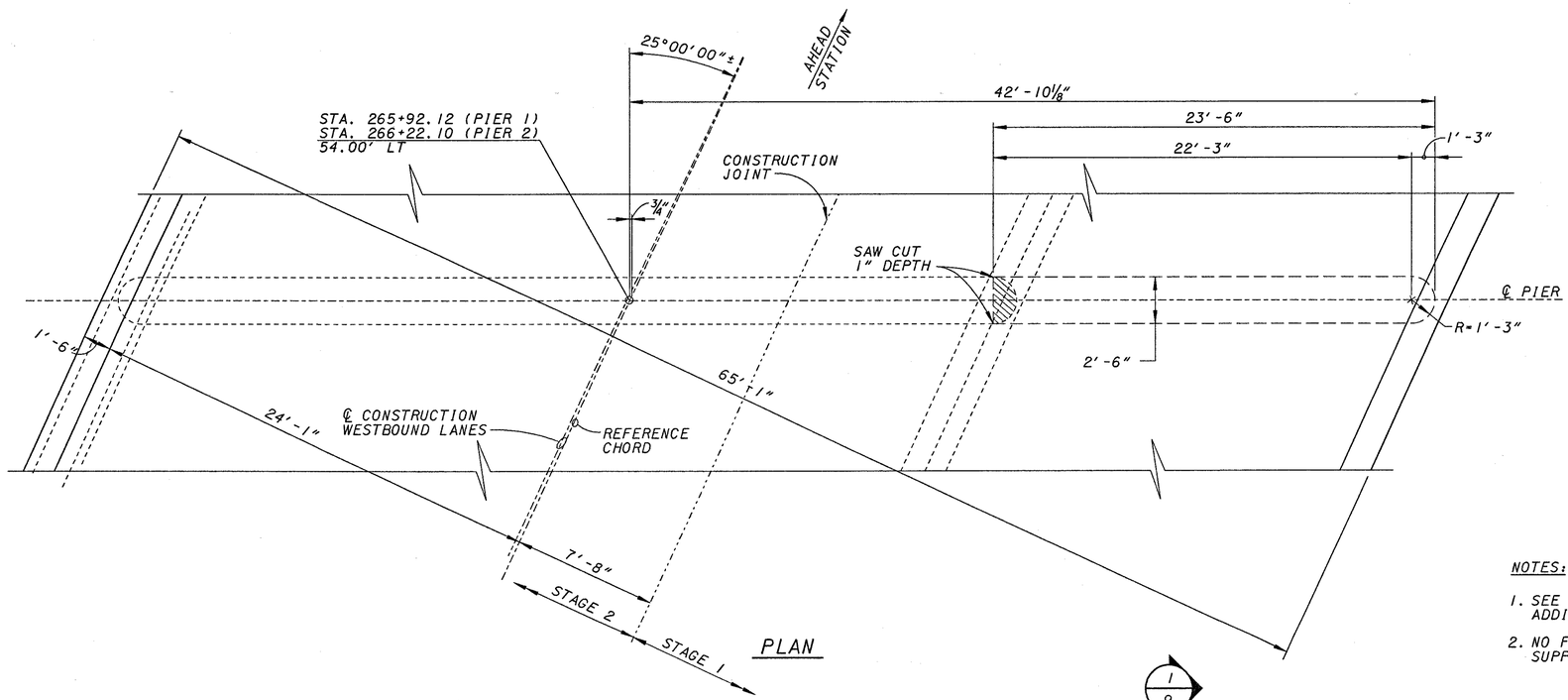
KZF #6

ABUTMENT DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

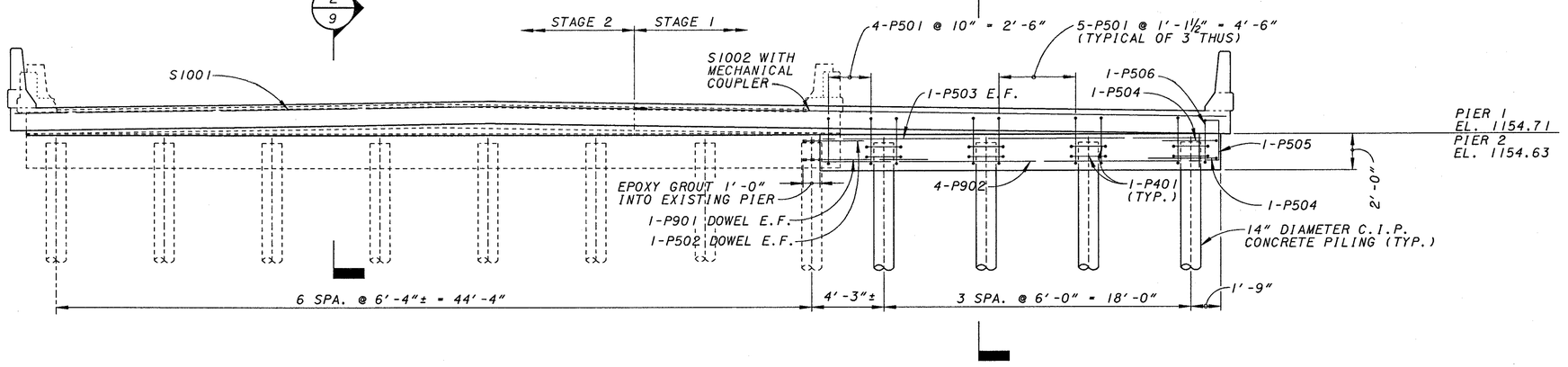
PRE-70-0.00

8 / 17

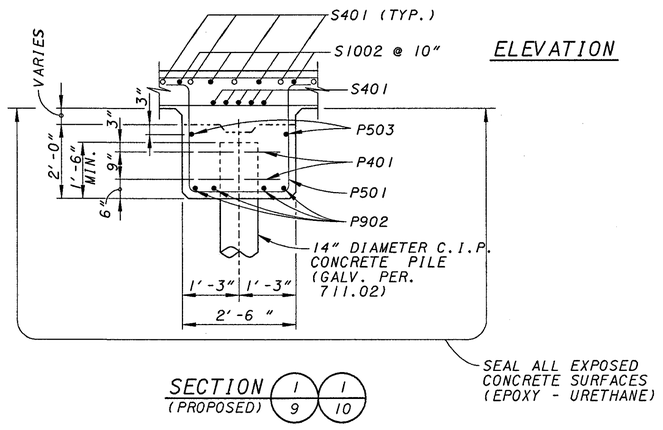
141 / 283



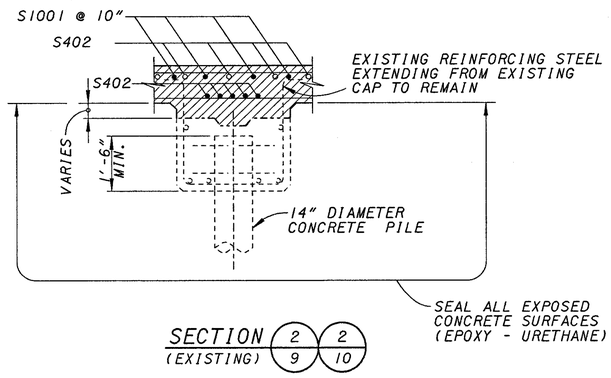
PLAN



ELEVATION



SECTION (PROPOSED) 1/9 1/10



SECTION (EXISTING) 2/9 2/10

DENOTES REMOVAL LIMITS

NOTES:

1. SEE STD. DRAWING CPP-2-94 FOR ADDITIONAL NOTES AND DETAILS
2. NO FALSEWORK SHALL BE SUPPORTED FROM THE PIER CAP.

DESIGN AGENCY
KZF DESIGN
KZF DESIGN, INC. 1501 Main St., Cincinnati, OH 45202-8003
KZF DESIGN INC. 600 Elm Park Dr., Elmhurst, OH 43502-8003
TEL 513.621.5211 FAX 513.621.3650 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

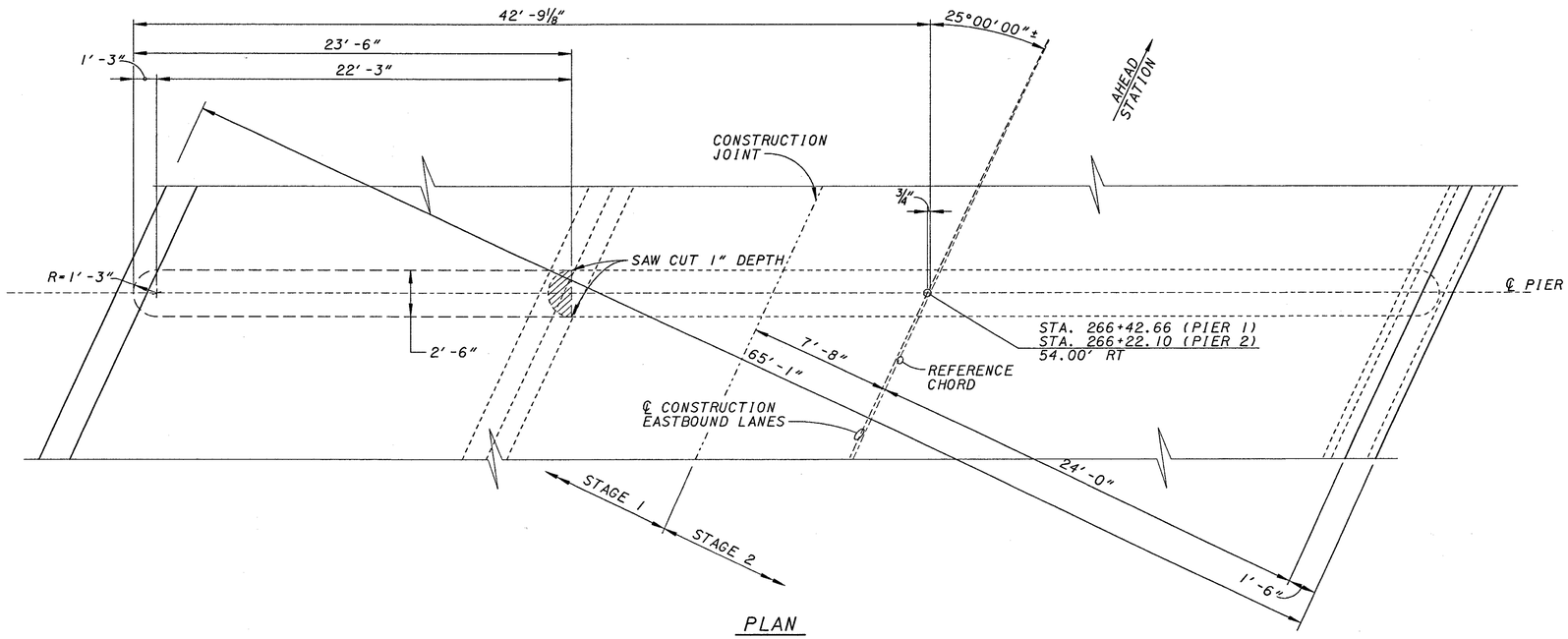
KZF #6

PIER DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

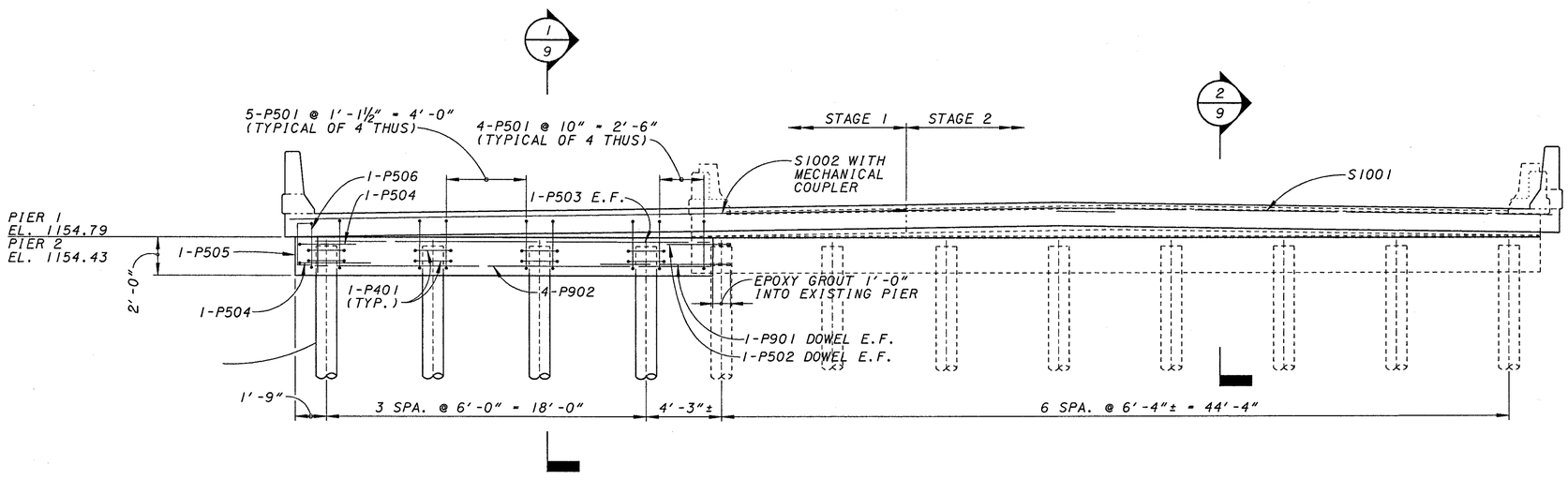
PRE-70-0.00

9 / 17

142
283



PLAN



ELEVATION

DENOTES REMOVAL LIMITS

DESIGN AGENCY
KZF DESIGN
Kentucky Engineering | Infrastructure | Planning
Professional Engineering Consultants
TEL 513.621.6211 FAX 513.621.3600 Web www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

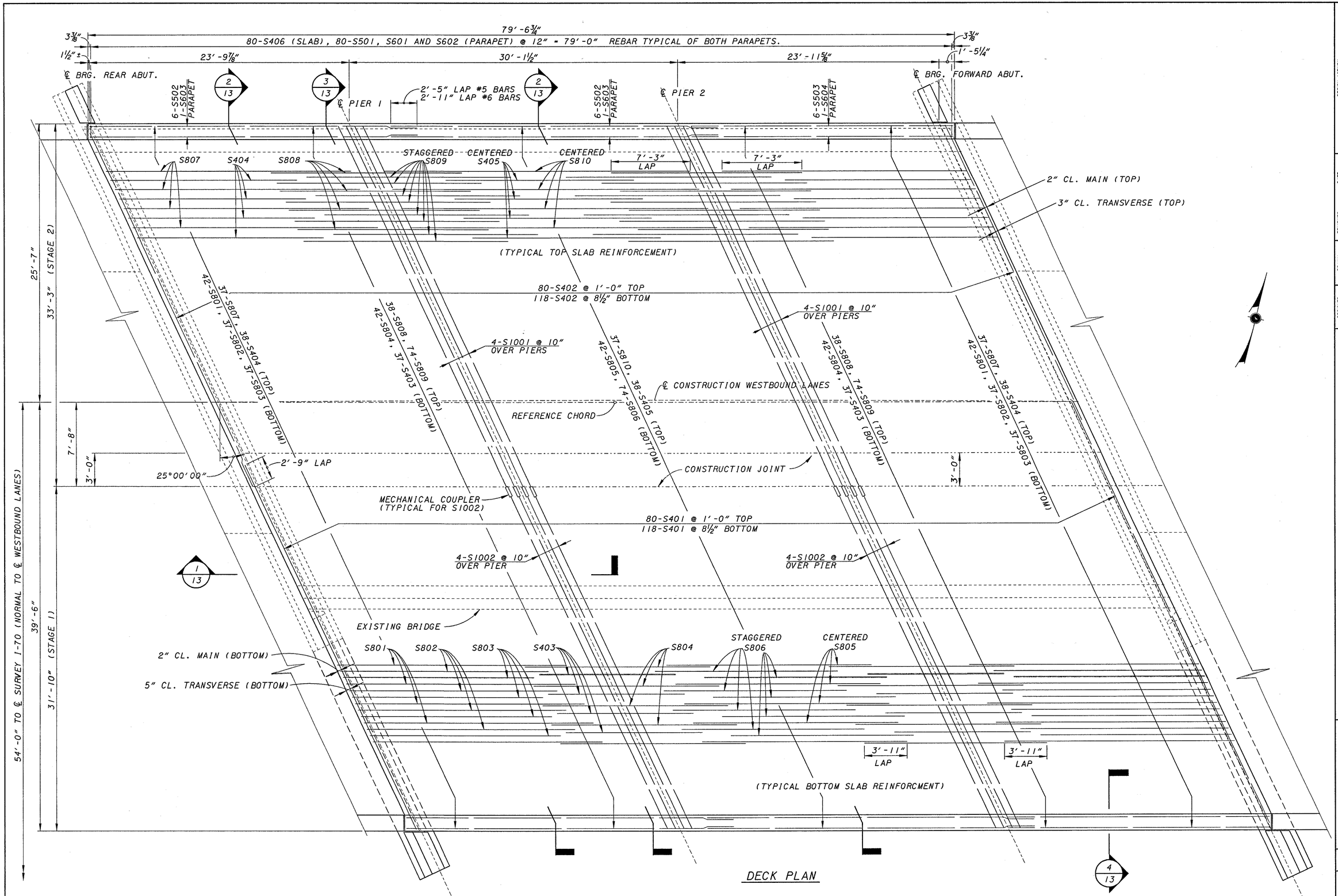
KZF #6

PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

10 / 17

143
283



DESIGN AGENCY
KZF DESIGN
KZF DESIGN, INC. 600 Grant Pl., Suite 410, Denver, CO 80203-3528
TEL 615.831.6311 FAX 615.831.3680 WEB www.kzf.com

DATE 6-21-2000
REVIEWED DGK
STRUCTURE FILE NUMBER 6800939/6800904
DRAWN DGK
REVISED
DESIGNED SJA
CHECKED WBS
KZF #6

DECK PLAN - LEFT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

11 / 17

144 / 283

NOTES:

1. SEE STD. DRAWING CS-1-93 FOR ADDITIONAL NOTES AND DETAILS.
2. SEE STD. DRAWING BR-1 (SHEET 2) FOR ADDITIONAL RAILING NOTES.

79'-8 1/8"
80-S406 (SLAB), 80-S501, S601 AND S602 (PARAPET) @ 12" (MAX.) = 79'-1" REBAR TYPICAL OF BOTH PARAPETS.
3 3/8" 1 1/2" ± 24'-3 1/8" 29'-8 3/8" 24'-0 3/4" 1'-5 1/4" 3 3/8"
℄ BRG. REAR ABUT. ℄ PIER 1 ℄ PIER 2 ℄ BRG. FORWARD ABUT.
6-S502 1-S603 PARAPET
6-S502 1-S603 PARAPET
6-S503 1-S604 PARAPET
2'-5" LAP #5 BARS
2'-11" LAP #6 BARS
2/13 3/13 2/13
S807 S404 S808 STAGGERED S809 CENTERED S405 CENTERED S810
7'-3" LAP 7'-3" LAP
2" CL. MAIN (TOP)
3" CL. TRANSVERSE (TOP)
(TYPICAL TOP SLAB REINFORCEMENT)
80-S402 @ 1'-0" TOP
118-S402 @ 8 1/2" BOTTOM
37-S801, 38-S404 (TOP) 42-S801, 37-S802, 37-S803 (BOTTOM)
38-S808, 74-S809 (TOP) 42-S804, 37-S403 (BOTTOM)
4-S1001@ 10" OVER PIERS
37-S810, 38-S405 (TOP) 42-S805, 74-S806 (BOTTOM)
EXISTING BRIDGE
4-S1001@ 10" OVER PIERS
38-S808, 74-S809 (TOP) 42-S804, 37-S403 (BOTTOM)
37-S801, 38-S404 (TOP) 42-S801, 37-S802, 37-S803 (BOTTOM)
℄ SURVEY I-70 (NORMAL TO ℄ EASTBOUND LANES)
54'-0" 39'-7" 31'-11" (STAGE 1)
2'-9" LAP #4 BARS
MECHANICAL COUPLER (TYPICAL FOR S1002)
CONSTRUCTION JOINT
3'-0" 3'-0"
7'-8"
80-S401 @ 1'-0" TOP
118-S401 @ 8 1/2" BOTTOM
REFERENCE CHORD
℄ CONSTRUCTION EASTBOUND LANES
1/13
4-S1002 @ 10" OVER PIER
4-S1002 @ 10" OVER PIER
25°00'00"
25'-6" 33'-2" (STAGE 2)
2" CL. MAIN (BOTTOM)
5" CL. TRANSVERSE (BOTTOM)
S801 S802 S803 S403 S804 STAGGERED S806 CENTERED S805
3'-11" LAP 3'-11" LAP
(TYPICAL BOTTOM SLAB REINFORCMENT)
4/13

DECK PLAN

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
2000 Powell Street, Suite 1450, Emeryville, CA 94608
TEL 510.601.5001 FAX 510.601.5020 Web www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	DGK	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

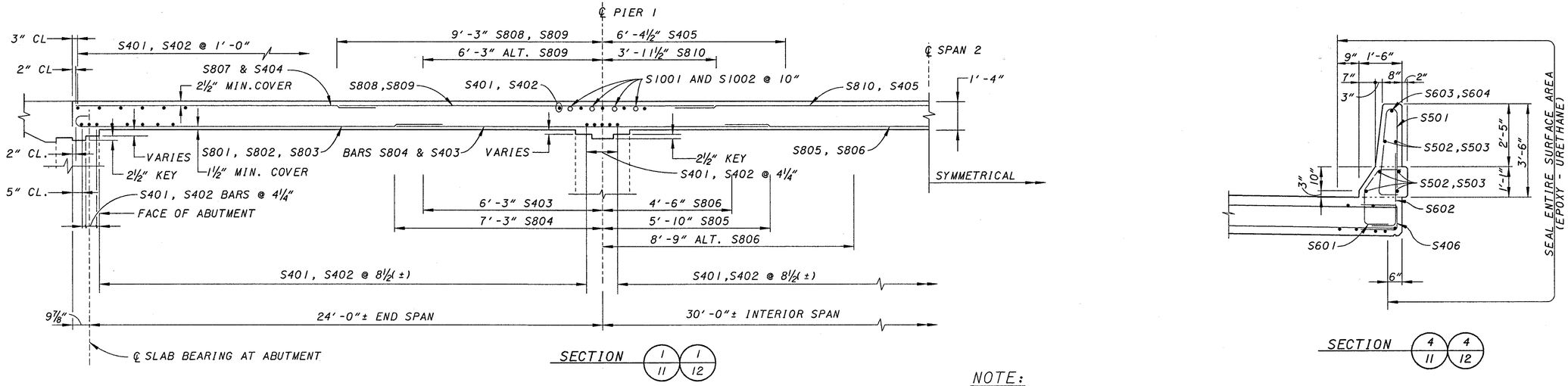
KZF #6

DECK PLAN - RIGHT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

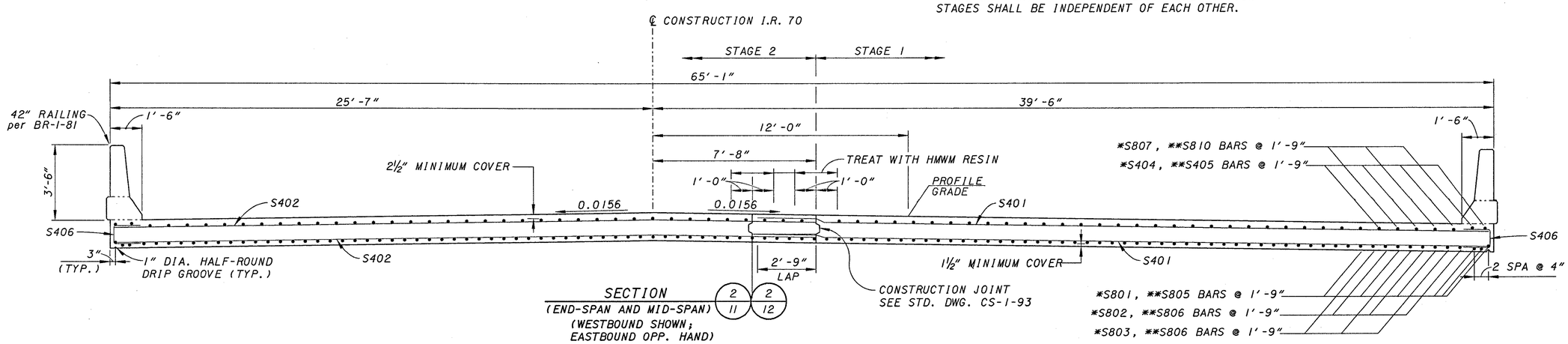
12 / 17

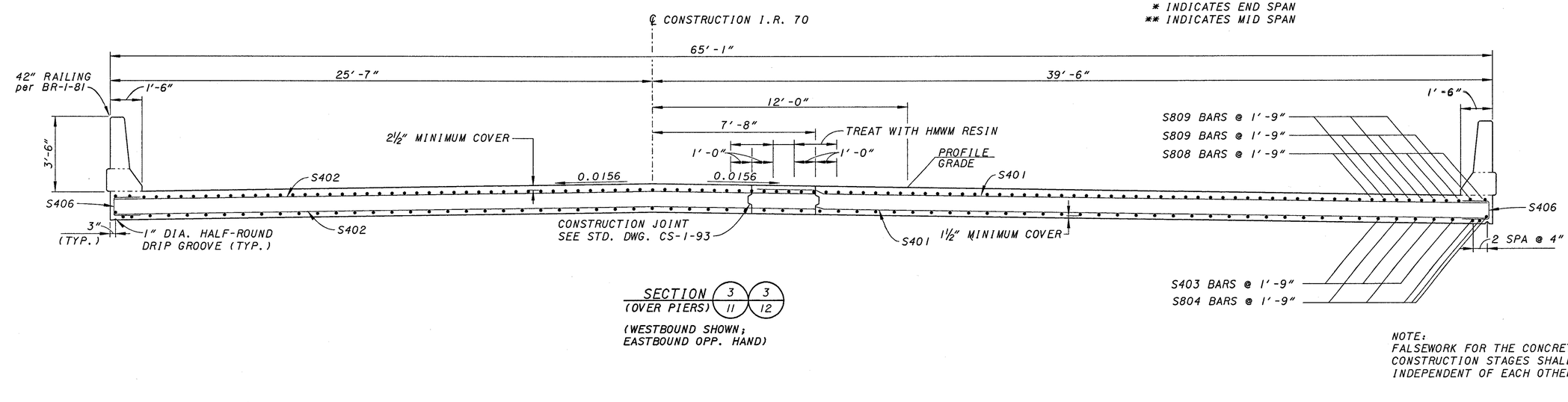
145 / 283



NOTE:

FALSEWORK FOR THE CONCRETE SLAB CONSTRUCTION STAGES SHALL BE INDEPENDENT OF EACH OTHER.





NOTE:
FALSEWORK FOR THE CONCRETE SLAB CONSTRUCTION STAGES SHALL BE INDEPENDENT OF EACH OTHER.

DESIGN AGENCY
KZF DESIGN
KZF DESIGN, INC. 1520 Kemper Meadow Drive, Cincinnati, OH 45240
KZF DESIGN INC. 600 Elm Point Drive Columbus, OH 43202
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SJA	SJA	DGK	6-21-2000
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WBS		6800939/6800904	

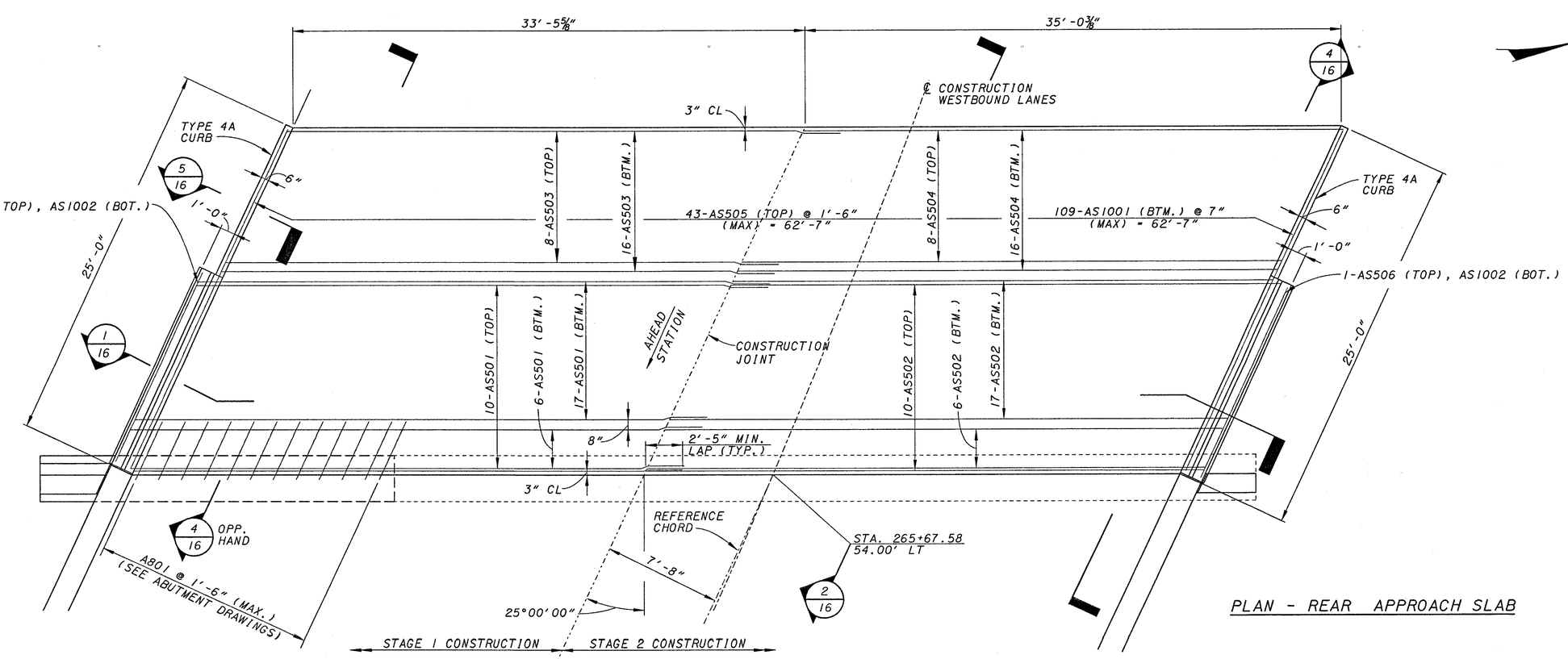
KZF #6

DECK SECTION
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

13 / 17

146 / 283



DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 426 Elwyn Road Drive Cincinnati, OH 45202-6003
TEL 513.621.6211 FAX 513.621.3600 Web www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

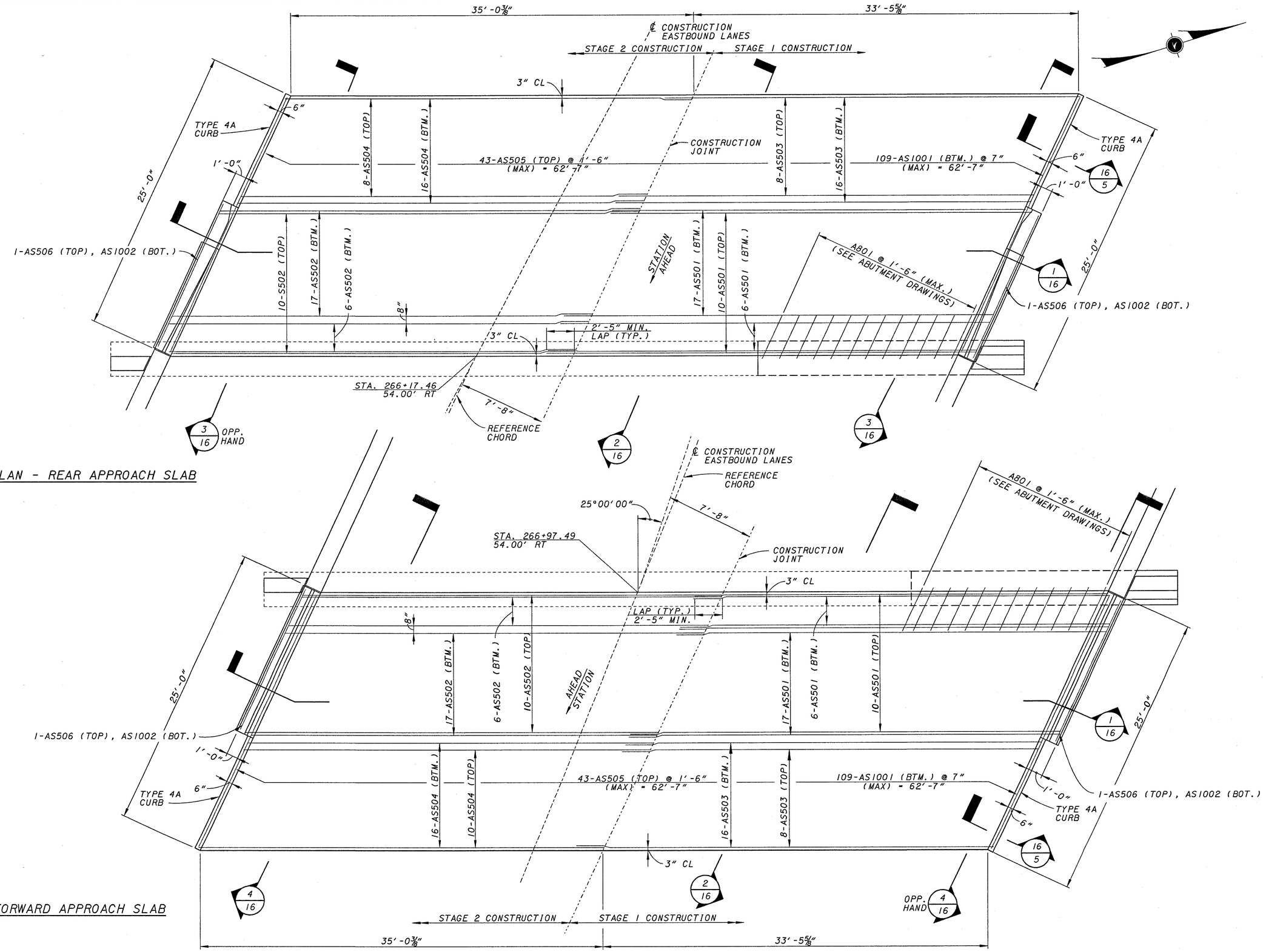
KZF #6

APPROACH SLABS - LEFT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

14 / 17

147 / 283



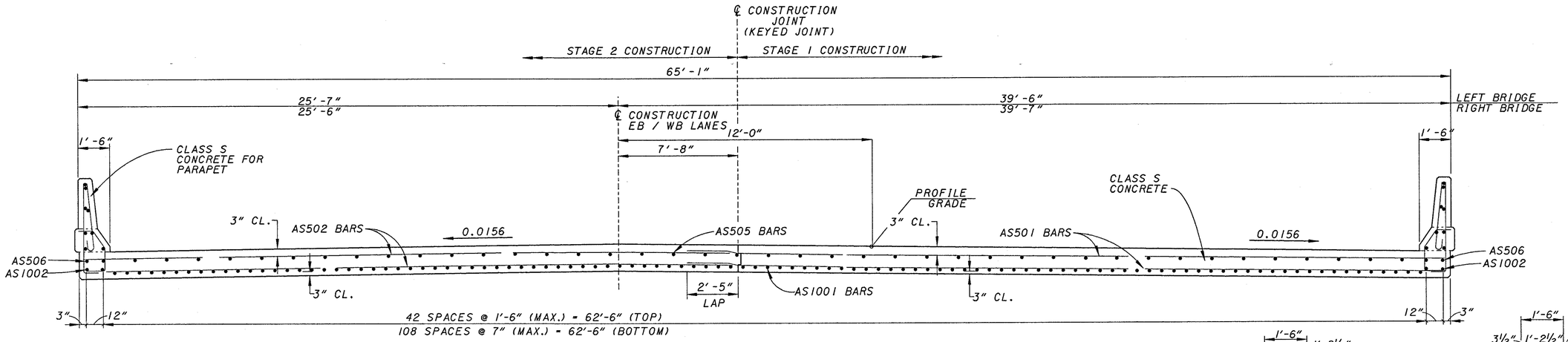
DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 1300 Kemper Meadow Drive Cincinnati, OH 45240-6000
TEL 513.521.5601 FAX 513.521.5650 WEB www.kzf.com

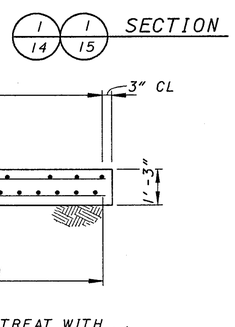
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

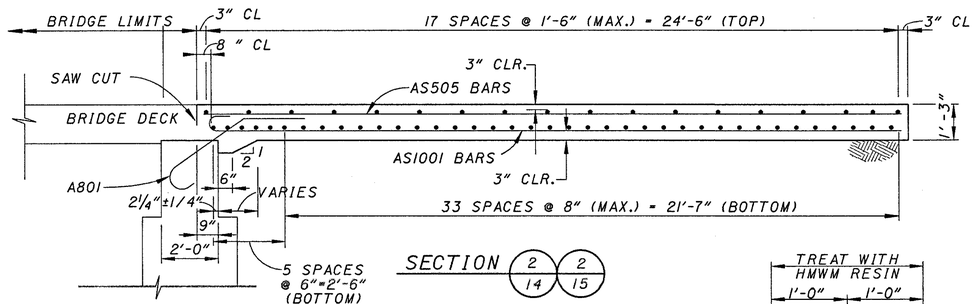
KZF #6

APPROACH SLABS - RIGHT BRIDGE
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

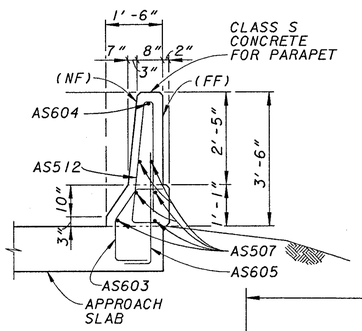
PRE-70-0.00



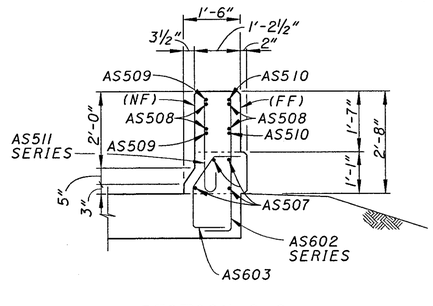




KEYED JOINT DETAIL



SECTION A-A



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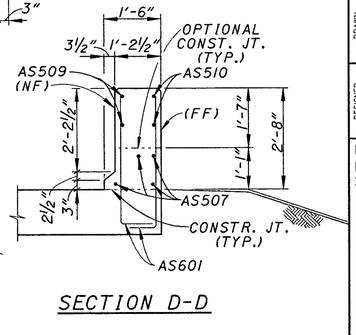

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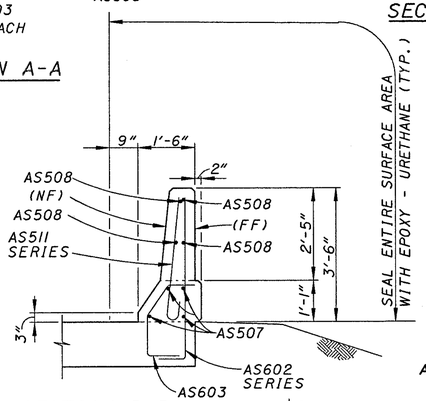
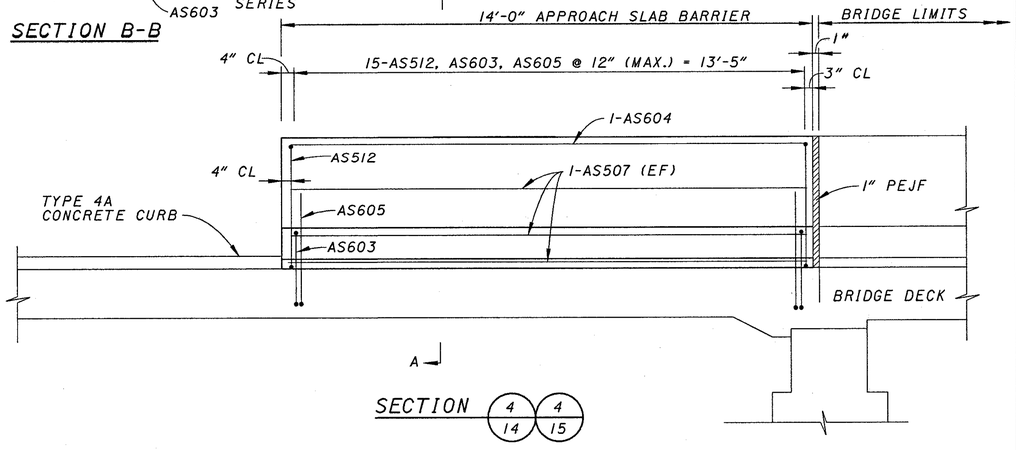
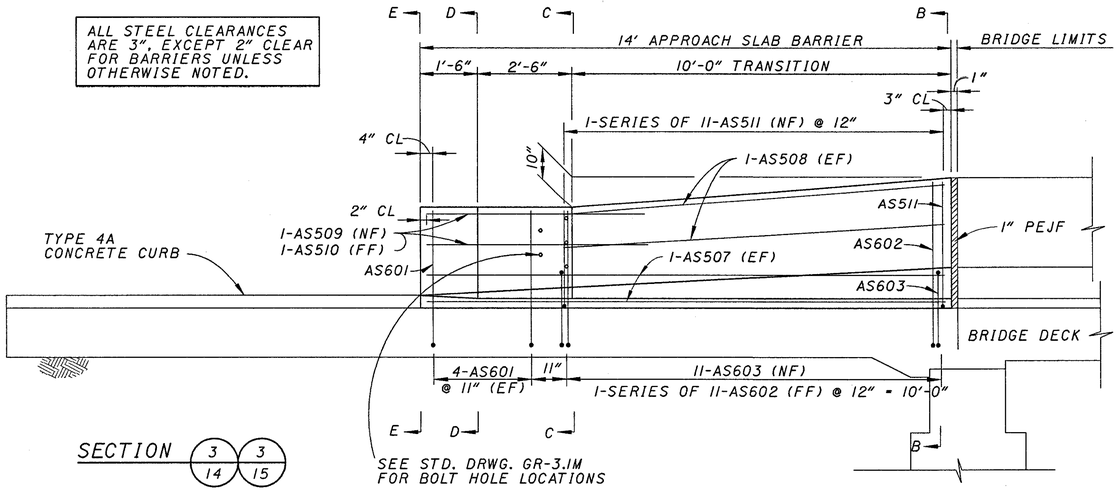


SECTION E-E

SECTION B-B





LEGEND:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE

ALL STEEL CLEARANCES ARE 3", EXCEPT 2" CLEAR FOR BARRIERS UNLESS OTHERWISE NOTED.

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 456 Main Park Drive Cincinnati, OH 45202-6000
TEL 513.621.6271 FAX 513.621.3830 Web www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	6-21-2000
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6800939/6800904	

KZF #6

APPROACH SLAB DETAILS
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

16/17

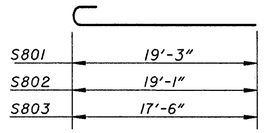
149/283

REF04: ++REF04++
REF05: ++REF05++
REF06: ++REF06++
REF07: ++REF07++
REF08: ++REF08++
REF09: ++REF09++
REF10: ++REF10++
REF11: ++REF11++
REF12: ++REF12++
REF13: ++REF13++
REF14: ++REF14++
REF15: ++REF15++
REF16: ++REF16++
REF17: ++REF17++
REF18: ++REF18++
REF19: ++REF19++
REF20: ++REF20++

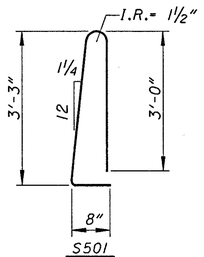
$$$$$$SITMES$$$$$$
USER: $$USERNAME$$
DESCRIPTION: $$APPLICATION$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: $$LEV$$

SUPERSTRUCTURE REINFORCING STEEL LIST

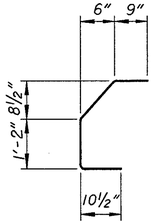
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
S401	37'- 7"	STR.	198	4,971	198	4,971
S402	36'- 5"	STR.	198	4,817	198	4,817
S403	12'- 6"	STR.	74	618	74	618
S404	17'- 1"	STR.	76	867	76	867
S405	17'- 3"	STR.	38	438	38	438
S406	3'- 2"	BENT	160	338	160	338
S501	7'- 1"	BENT	160	1,182	160	1,182
S502	30'- 0"	STR.	24	751	24	751
S503	23'- 11"	STR.	12	299	12	299
S601	3'- 5"	BENT	160	821	160	821
S602	3'- 9"	BENT	160	901	160	901
S603	30'- 0"	STR.	4	180	4	180
S604	24'- 11"	STR.	2	75	2	75
S801	20'- 2"	BENT	84	4,523	84	4,523
S802	20'- 0"	BENT	74	3,952	74	3,952
S803	18'- 5"	BENT	74	3,639	74	3,639
S804	17'- 0"	STR.	84	3,813	84	3,813
S805	18'- 10"	STR.	42	2,112	42	2,112
S806	16'- 9"	STR.	74	3,309	74	3,309
S807	22'- 5"	STR.	74	4,429	74	4,429
S808	17'- 6"	STR.	76	3,551	76	3,551
S809	18'- 10"	STR.	148	7,442	148	7,442
S810	28'- 2"	STR.	37	2,783	37	2,783
S1001	36'- 5"	STR.	8	1,254	8	1,254
S1002	34'- 10"	STR*	8	1,199	8	1,199
		TOTAL POUNDS		58,264		58,264



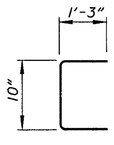
S801, S802,S803



S501



S601



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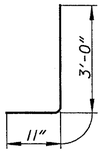

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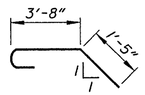
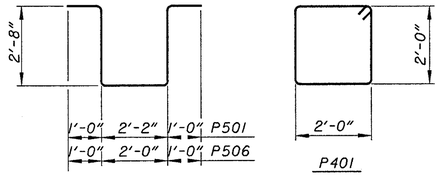


A801

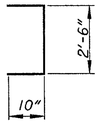
PIER REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
P401	8' - 6"	BENT	16	91	16	91
P501	9' - 0"	BENT	40	375	40	375
P502	3' - 7"	STR.	4	15	4	15
P503	22' - 0"	STR.	4	92	4	92
P504	9' - 0"	BENT	4	38	4	38
P505	3' - 11"	BENT	2	8	2	8
P506	8' - 10"	BENT	2	18	2	18
P901	5' - 9"	STR.	4	78	4	78
P902	22' - 0"	STR.	8	598	8	598
		TOTAL POUNDS		1,314		1,314

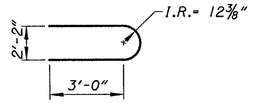


P501, P506

P401



P505



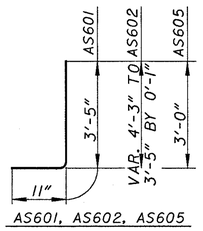
P504

APPROACH SLAB REINFORCING STEEL LIST

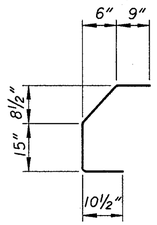
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
AS501	37'- 3"	STR.	66	2,564	66	2,564
AS502	36'- 5"	STR.	66	2,507	66	2,507
AS503	36'- 2"	STR.	48	1,811	48	1,811
AS504	35'- 4"	STR.	48	1,769	48	1,769
AS505	24'- 6"	STR.	86	2,198	86	2,198
AS506	13'- 6"	STR.	4	56	4	56
AS507	13'- 5"	STR.	20	280	20	280
AS508	10'- 0"	STR.	8	83	8	83
AS509	5'- 8"	BENT	4	24	4	24
AS510	5'- 8"	STR.	4	24	4	24
	VAR. 3'-0"		2		2	
AS511	TO 3'-10" BY 0'- 1"	BENT	SER. OF	78	SER. OF	78
AS512	7'- 1"	BENT	30	222	30	222
AS601	4'- 3"	BENT	16	102	16	102
	VAR. 4'-2"		2		2	
AS602	TO 5'- 0" BY 0'- 1"	BENT	SER. OF	151	SER. OF	151
AS603	3'- 5"	BENT	52	267	52	267
AS604	13'- 5"	STR.	2	40	2	40
AS605	3'- 9"	BENT	30		30	
AS1001	25'- 11"	BENT	218	24,311	218	24,311
AS1002	14'- 11"	BENT	4	257	4	257
	TOTAL POUNDS		36,744			36,744

ABUTMENT REINFORCING STEEL LIST

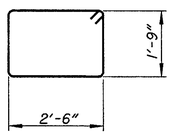
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
A401	9' - 0"	BENT	12	72	12	72
A501	10' - 6"	BENT	40	438	40	438
A502	7' - 3"	BENT	40	302	40	302
A503	5' - 10"	BENT	8	49	8	49
A504	22' - 10"	STR.	16	381	16	381
A505	3' - 7"	STR.	16	60	16	60
A506	4' - 1"	STR.	8	34	8	34
A507	4' - 0"	BENT	8	33	8	33
A508	2' - 11"	STR.	4	12		
A509	3' - 3"	STR.	4	14		
A510	1' - 11"	STR.			4	8
A511	2' - 3"	STR.			4	9
A801	6' - 0"	BENT	22	352	22	352
A802	22' - 10"	STR.	8	488	8	488
A803	6' - 1"	STR.	4	65	4	65
A1001	22' - 10"	STR.	8	786	8	786
A1002	7' - 0"	STR.	4	120	4	120
	TOTAL POUNDS		3,207			3,199



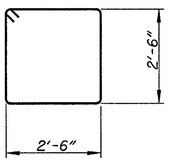
AS601, AS602, AS605



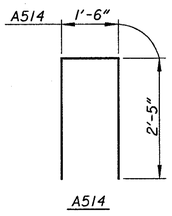
AS603



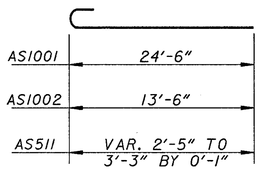
A401



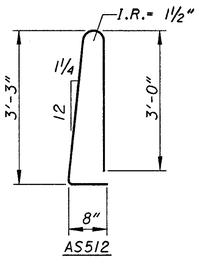
A501



A514



AS1001, AS1002, AS511



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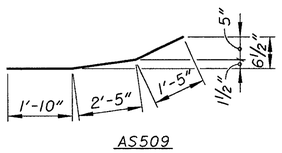

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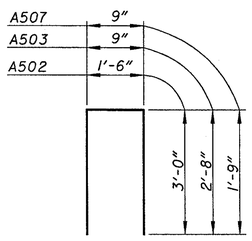


A502, A503, A507

ADDITIONAL REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
A503	5' - 10"	BENT	8	49	8	49
A505	3' - 7"	STR.	8	30	8	30
A512	16' - 6"	STR.	8	138		
A513	39' - 4"	STR.	8	328		
A514	6' - 1"	BENT	76	482	76	482
A515	16' - 10"	STR.			8	140
A516	38' - 8"	STR.			8	323
A801	6' - 0"	BENT	72	1,153	72	1,153
A1002	7' - 0"	STR.	8	241	8	241
A1003	16' - 6"	STR.	8	568		
A1004	39' - 4"	STR.	8	1,354		
A1005	16' - 10"	STR.			8	579
A1006	38' - 8"	STR.			8	1,331
	TOTAL POUNDS		4,343			4,329

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 180° AND 135° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P501 IS A NO. 5 BAR.

DESIGN AGENCY
KZF DESIGN
KZF DESIGN, INC. 1800 Second St. Suite 930 Sarasota, FL 34236
TEL 813.951.6911 FAX 813.951.3600 WEB www.kzf.com

DESIGNED SJA | DRAWN JDG | CHECKED WBS | REVIEWED DGK | DATE 6-21-2000 | REVISED | STRUCTURE FILE NUMBER 6800939/6800904

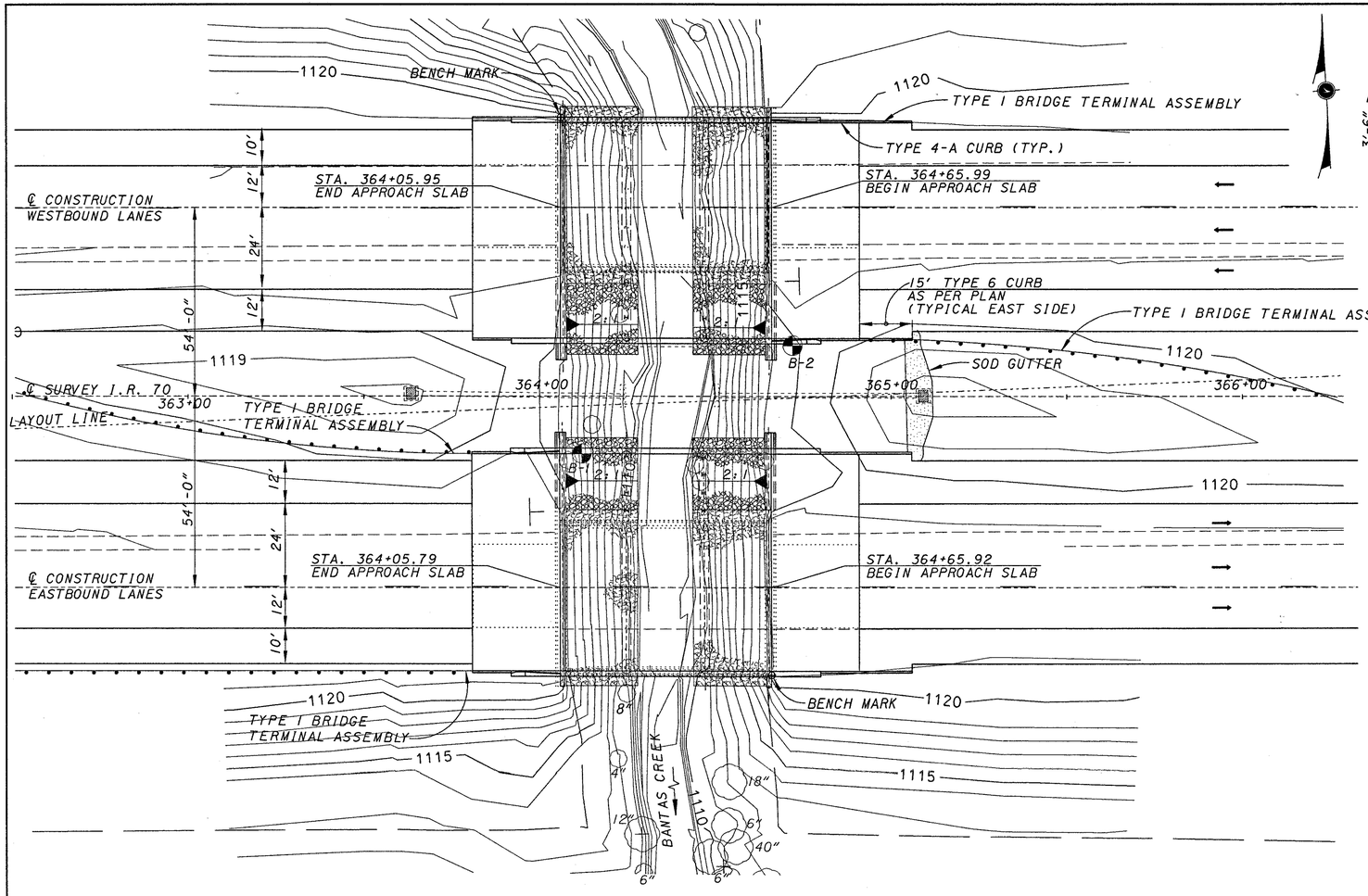
KZF #6

REINFORCING STEEL LIST
BRIDGE NO. PRE-70-0504 L/R
I.R. 70 OVER SEVEN MILE CREEK

PRE-70-0.00

17 / 17

150
283

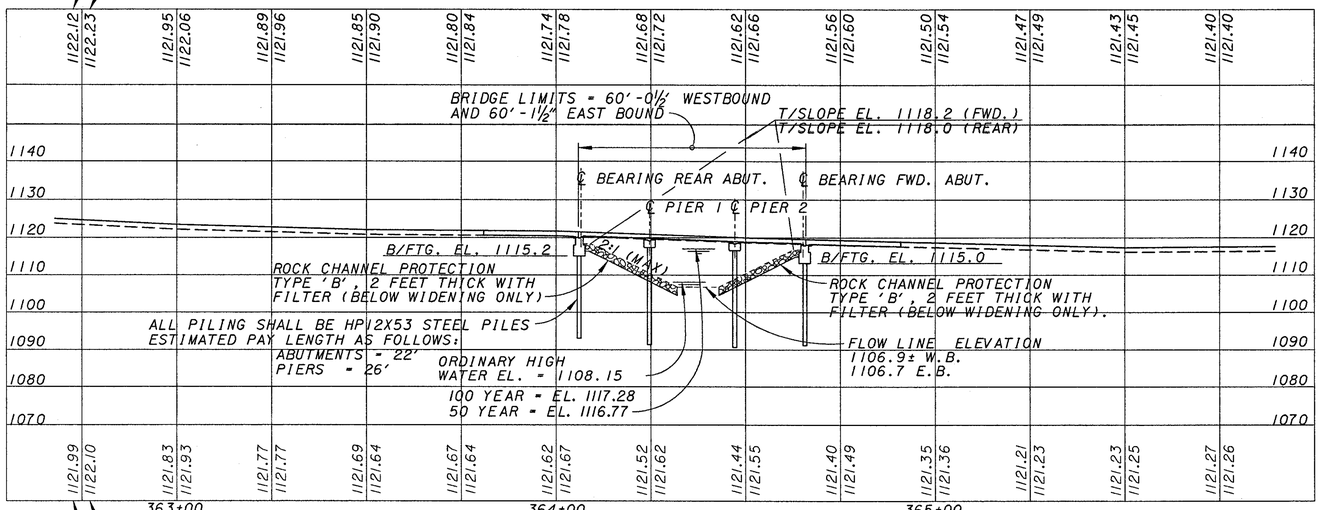


PLAN

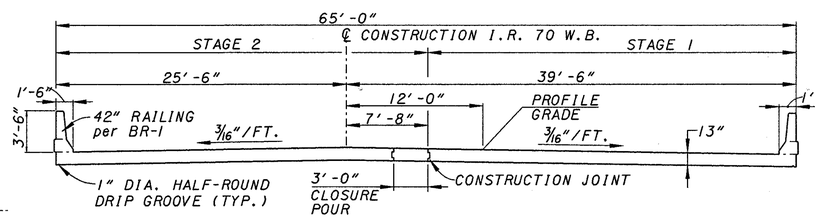
B- INDICATES SOIL BORING LOCATION

WESTBOUND (TYP)
EASTBOUND (TYP)

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

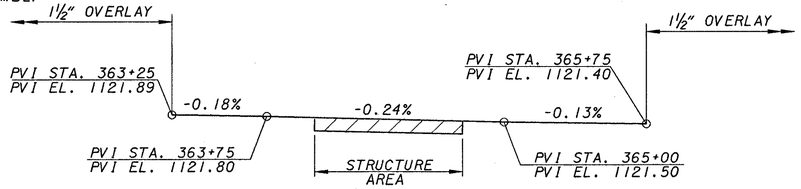


PROFILE WITH ELEVATIONS ALONG PROFILE GRADE



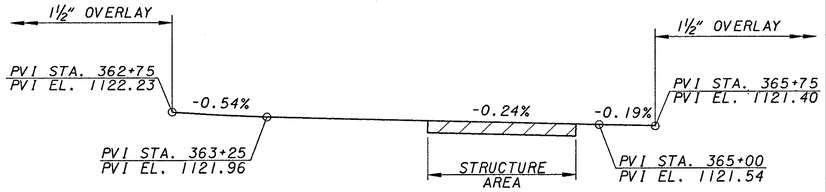
TYPICAL SECTION

(WESTBOUND SHOWN)
(EASTBOUND OPPOSITE HAND)



VERTICAL ALIGNMENT

I.R. 70 WESTBOUND AT PROFILE GRADE



VERTICAL ALIGNMENT

I.R. 70 EASTBOUND AT PROFILE GRADE

TRAFFIC DATA

ADT (2001) = 35,860
ADT (2021) = 50,800
ADTT (2021) = 19,812
SOURCE = ODOT

BENCH MARK

BOX NOTCH ON S.E. ABUTMENT EASTBOUND AT STA.364+65.98 79.12 RT. AT ELEVATION 1122.04

BOX NOTCH ON N.W. ABUTMENT WESTBOUND AT STA. 364+06.07, 79.34 LT. AT ELEVATION 1122.21

DRAINAGE DATA

DRAINAGE AREA: 5.15 MILES
EXISTING BRIDGE OPENING: 413 Sq. Ft.
PROPOSED BRIDGE OPENING: 407 Sq. Ft.
HW100: 1117.28'
HW50: 1116.77'
Q100: 1940 C.F.S.
Q50: 1710 C.F.S.
V100: 8.27 F.P.S.
V50: 7.92 F.P.S.
LOW CHORD ELEVATION: 1120.30
TOP OF DECK ELEVATION: 1121.39 TO 1121.53

EXISTING STRUCTURE - I.R. 70

TYPE: 3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH CAPPED PILE SUBSTRUCTURE.
LENGTH OF SPANS:
LEFT BRIDGE 18'-0½"±, 22'-1⅜"±, 18'-4⅝"±
RIGHT BRIDGE 18'-1¼", 22'-2⅛", 18'-3½"
ROADWAY WIDTH: 39'-8"± TOE/TOE BARRIER
DESIGN LOADING: C.F. 2000
SKEW ANGLE: NONE
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: TANGENT
YEAR BUILT: 1962

PROPOSED STRUCTURE

PROPOSED WORK: NEW REINFORCED CONCRETE DECK ON WIDENED SUBSTRUCTURE.
TYPE: 3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH CAPPED PILE SUBSTRUCTURE.
LENGTH OF SPANS:
LEFT BRIDGE 18'-0½"±, 22'-1⅜"±, 18'-4⅝"±
RIGHT BRIDGE 18'-1¼", 22'-2⅛", 18'-3½"
ROADWAY WIDTH: 62'-0"± TOE/TOE BARRIER
DESIGN LOADING: HS-20 WITH ALTERNATE MILITARY
SKEW ANGLE: NONE
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (25' LONG)
ALIGNMENT: TANGENT
LATITUDE: N 39°50'08"
LONGITUDE: W 84°41'11"

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Kohnen+Zumkehr Associates, Inc.
TEL 513.651.6511 FAX 513.651.3690 WEB www.kzf.com

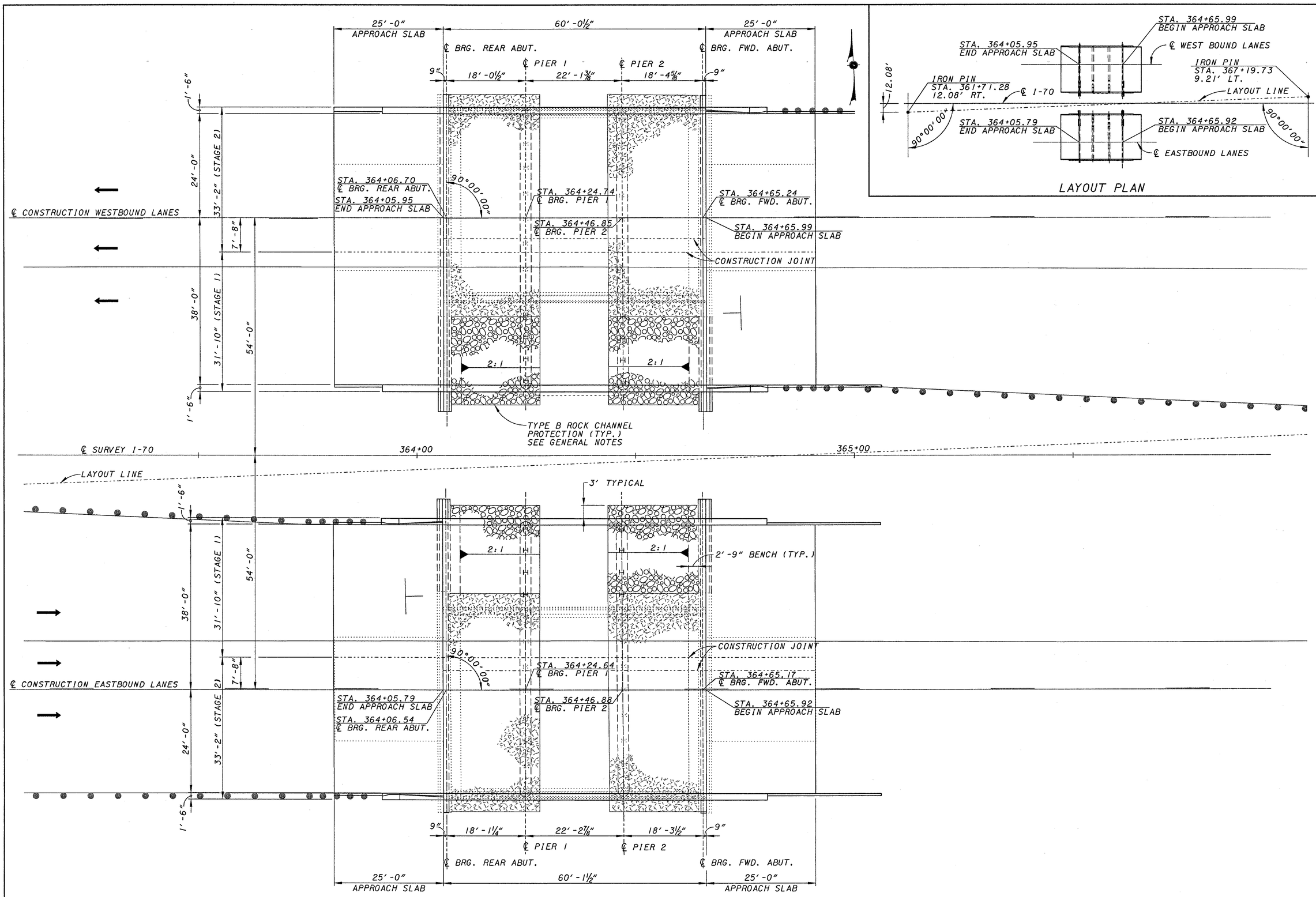
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680102/6800998	

PREBLE COUNTY
STA 364+05.87
STA 364+65.96

KZF #8

SITE PLAN
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00



LAYOUT PLAN

DESIGN AGENCY
KZF DESIGN
Kittelson, Zimmerman & Fleming, Inc.
Engineering | Interiors | Planning
Architecture | Structural | Civil | Mechanical
TEL 913.621.6511 FAX 913.621.3600 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680102I/6800998	

KZF #8

GENERAL PLAN
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

2 / 17

152
284

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS :

AS-1-81	REVISED 09-15-94 (SHEETS 1,2 & 3)
BR-1	REVISED 1-6-99
CS-1-93	DATED 5-11-93
CPP-2-94	DATED 12-19-94

AND TO SUPPLEMENTAL SPECIFICATION:

842	DATED 1/6/99
844	DATED 5/5/98
899	DATED 10/21/98
954	DATED 9/9/97
911	DATED 7/10/97

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28-DAY) (SUPERSTRUCTURE)

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28-DAY) (SUBSTRUCTURE)

STRUCTURAL STEEL - ASTM A36 - YIELD STRENGTH 36,000 PSI

REINFORCING STEEL - ASTM A615, A616 OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, SEALING OF CONCRETE SURFACES, CLASS S CONCRETE AND 2½" CONCRETE COVER.

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

REINFORCING BAR SPLICES: REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY 509.08 OF THE C.M.S. UNLESS OTHERWISE NOTED ON THE PLANS.

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

REINFORCING CLEARANCE: UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL CLEARANCE TO FACE OF CONCRETE IS 2".

PROPOSED WORK

1. REMOVE EXISTING CONCRETE DECK, PARAPETS, SCUPPERS, APPROACH SLABS AND PORTIONS OF CONCRETE SUBSTRUCTURES IN A SEQUENCE CONSISTENT WITH MAINTENANCE OF TRAFFIC PLANS AND NOTES AND STAGE CONSTRUCTION.
2. DRIVE PILING AND CONSTRUCT NEW ABUTMENT AND PIER CAPS.
3. CONSTRUCT A NEW CONCRETE DECK AT ELEVATIONS TO MEET OVERLAY ON EXISTING ROADWAY APPROACHES.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS.
5. CONSTRUCT NEW CONCRETE BARRIERS ON DECK AND APPROACH SLABS.
6. PATCH CONCRETE SUBSTRUCTURES AS DIRECTED.
7. CLEAN AND SEAL CONCRETE BARRIERS, ABUTMENTS AND PIERS.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS AND OTHER APPURTENANCES. PORTIONS OF THE PIERS AND ABUTMENTS SHALL ALSO BE REMOVED AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN DURING REMOVALS TO PROTECT PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. ALL REMOVALS SHALL BE CONSISTENT WITH THE STAGE CONSTRUCTION REQUIREMENTS. EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIALS OUT OF THE STREAM CHANNEL. IF ANY MATERIAL FALLS INTO THE WATER, THE MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL CONSTRUCTION DEBRIS AND OR EXCESS FILL MATERIAL SHALL BE DISPOSED AT AN ENGINEER APPROVED UPLAND SITE. (A DISPOSAL SITE LOCATED ABOVE THE 100-YEAR FLOOD PLAIN.)
ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE ENGINEER.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER, TO ENSURE ADEQUATE DEPTH CONTROL AND TO PREVENT DAMAGE TO CONCRETE SUBSTRUCTURES.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ROCK CHANNEL PROTECTION

BROKEN CONCRETE FROM THE EXISTING BRIDGE DECK MAY BE USED FOR ROCK CHANNEL PROTECTION. MATERIAL CAN BE EITHER TYPE B OR TYPE C WITH A MINIMUM OF 50% OF THE MATERIAL BEING TYPE B.

IN-STREAM STRUCTURES

THE CONTRACTOR SHALL KEEP IN-STREAM STRUCTURES TO THE MINIMUM SIZE NEEDED TO FACILITATE PROJECT WORK. THE CONTRACTOR SHALL REMOVE IN-STREAM STRUCTURES AND RESTORE THE CHANNEL TO ORIGINAL GRADE IMMEDIATELY FOLLOWING COMPLETION OF IN-STREAM WORK.

PILE DESIGN LOADS

THE ULTIMATE BEARING VALUE IS 37 TONS PER PILE FOR THE ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 44 TONS PER PILE FOR THE PIER PILES.

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

DESIGN AGENCY
KZF DESIGN
KZF DESIGN INC. 600 Stewart St., Suite 1300 Seattle, WA 98101
TEL 513.621.6211 FAX 513.621.3030 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801021/6800998	

KZF #8

GENERAL NOTES
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

PILE ENCASEMENT
ALL PILES FOR THE CAPPED PILE PIERS SHALL BE ENCASED IN CLASS S OR CLASS C CONCRETE (SS 899.03) AND SHALL BE IN ACCORDANCE WITH SS 842, EXCEPT AS MODIFIED HEREIN. THE REQUIRED SLUMP IS 6 INCHES, PLUS OR MINUS 2 INCHES . THE MAXIMUM WATER CEMENT RATIO SHALL BE 0.50. IF CONCRETE IS PLACED UNDER WATER, THE REQUIREMENTS OF ADDING 10 PERCENT MORE CEMENT TO THE CONCRETE SHALL BE WAIVED. THE CONCRETE SHALL BE PLACED WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (707.33), OR PVC PIPE (707.42). THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO THE CONCRETE PIER CAP AND SHALL BE POSITIONED SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE.

IN LIEU OF ENCASING THE PILE IN CONCRETE, AT THE OPTION OF THE CONTRACTOR, THE PILE MAY BE GALVANIZED AS PER 711.02. THE GALVANIZING SHALL BE CONTINUOUS FROM A MINIMUM OF 3 FEET BELOW THE FINISH GROUND SURFACE UP TO THE CONCRETE PIER CAP. THE GALVANIZED COATING THICKNESS SHALL BE A MINIMUM OF 4 MILS. ALL GOUGES, SCRAPES, SCRATCHES OR OTHER SURFACE IMPERFECTIONS CAUSED BY THE HANDLING OR THE DRIVING OF THE PILE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS WHICH ARE DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW REINFORCING STEEL.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH S.R. 741 LEBANON, OHIO 45036 (800) 831-2142. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE DRAWINGS.

ITEM 846 - TREATING CONCRETE WITH HMWM RESIN

SEAL THE CONSTRUCTION JOINT IN THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATIONS FOR SURFACE PREPARATION AND RATE OF APPLICATION.

SEAL PIER CAPS, WINGWALLS, ABUTMENTS, PARAPETS, AND DECK EDGES WITH EPOXY-URETHANE: COLOR SHALL BE FEDERAL COLOR STANDARD 17778 (OFF-WHITE)

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE DESIGNATED EXPOSED CONCRETE SURFACE AREAS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 30) ENTITLED, ITEM SPECIAL - SEALING OF CONCRETE SURFACES

PATCH SUBSTRUCTURE CONCRETE

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

ENVIROMENTAL COOMMITMENTS & RESOURCES TO BE AVOIDED

THE CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWAPP) TO ADDRESS EROSION ASSOCIATED WITH SHOULDER DISTURBANCE/ RECONSTRUCTION AND BRIDGE WORK. (CMS 877.03)
ALL CONDITIONS ATTACHED WITH CORPS PERMIT (NATIONWIDE 3 & 14) SHALL BE IMPLEMENTED IN THE FIELD WITH THE ACTUAL PERMIT BEING DISPLAYED ONSITE.
EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIAL OUT OF THE STREAM CHANNELS. IF ANY MATERIAL FALLS INTO THE WATER, IT SHALL BE REMOVED IMMEDIATELY. ALL DEBRIS OR EXCESS FILL MATERIAL SHOULD BE DISPOSED AT AN APPROVED UPLAND SITE. (ABOVE THE 100 YR. FLOODPLAIN)
IN-STREAM STRUCTURES SHALL BE KEPT TO THE MINIMAL SIZE NEEDED TO FACILITATE WORK AND WILL BE REMOVED IMMEDIATELY TO ORIGINAL GRADE AFTER IN-STREAM WORK IS COMPLETED.
WHILE PAINTING, SANDBLASTING OR SEALING OF ANY PORTION OF THE BRIDGE AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS AND PAINT OVERSPRAY AND SEALANTS FROM ENTERING INTO THE STREAM.
PROPER SEDIMENT AND EROSION CONTROLS SHALL BE IMPLEMENTED THROUGHOUT THE COURSE OF THE PROJECT. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK (ODOT CMS ITEM 877)
IMPLEMENT ODOT CMS ITEM 616, DUST CONTROL AS NECESSARY.
COMPLY WITH ODOT CMS ITEM 107.21 CONTROLLING POLLUTION OF THE ENVIRONMENT.
VEGETATION REMOVAL WILL BE HELD TO AN ABSOLUTE MINIMUM REQUIRED TO COMPLETE THE WORK.

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
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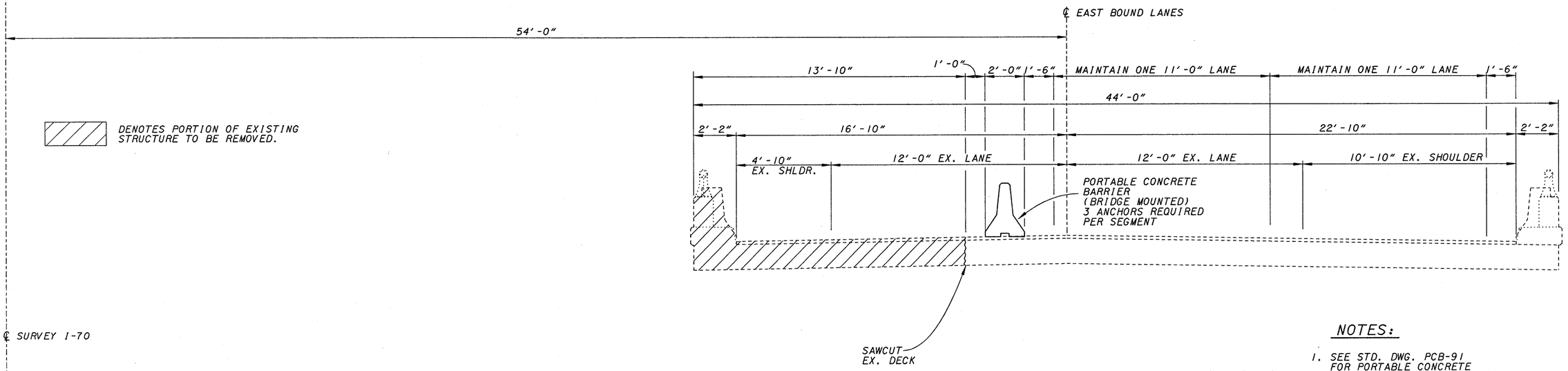
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801021/6800998	

KZF #8

GENERAL NOTES
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

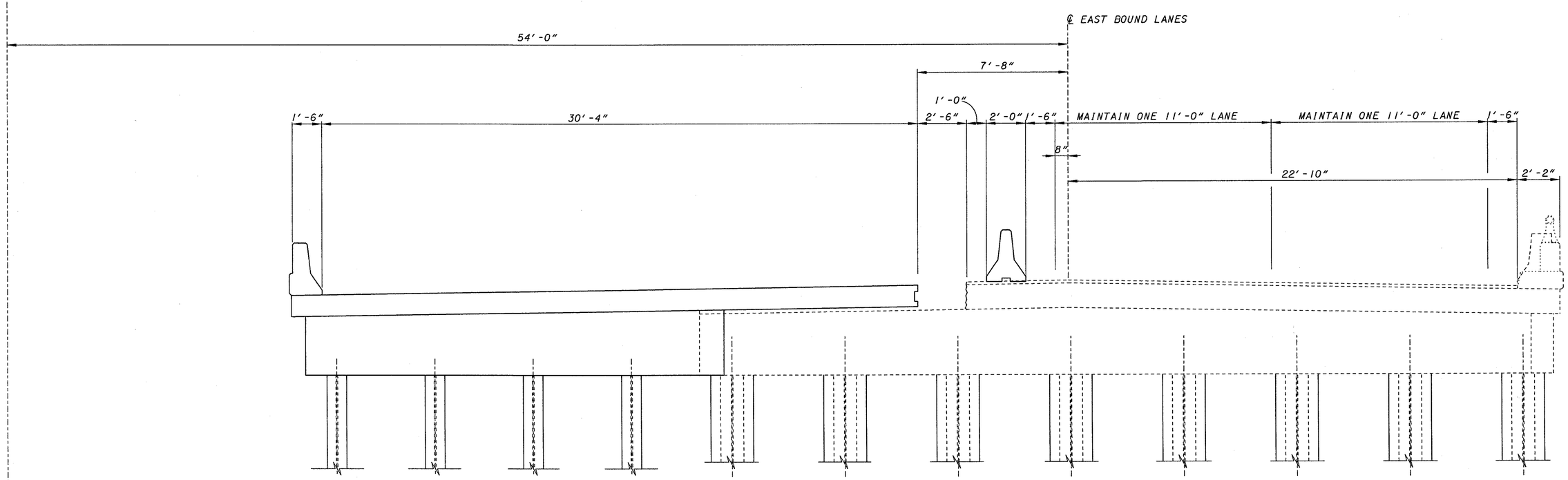
PRE-70-0.00



STAGE IA

NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.
2. EASTBOUND BRIDGE SHOWN WESTBOUND BRIDGE SIMILAR.



STAGE IB

EASTBOUND BRIDGE STAGE I CONSTRUCTION KZF #8
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

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DESIGN AGENCY: KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 600 Elsie Park Drive Cincinnati, OH 45202-6000
TEL 513.621.1921 FAX 513.621.3830 WEB www.kzf.com

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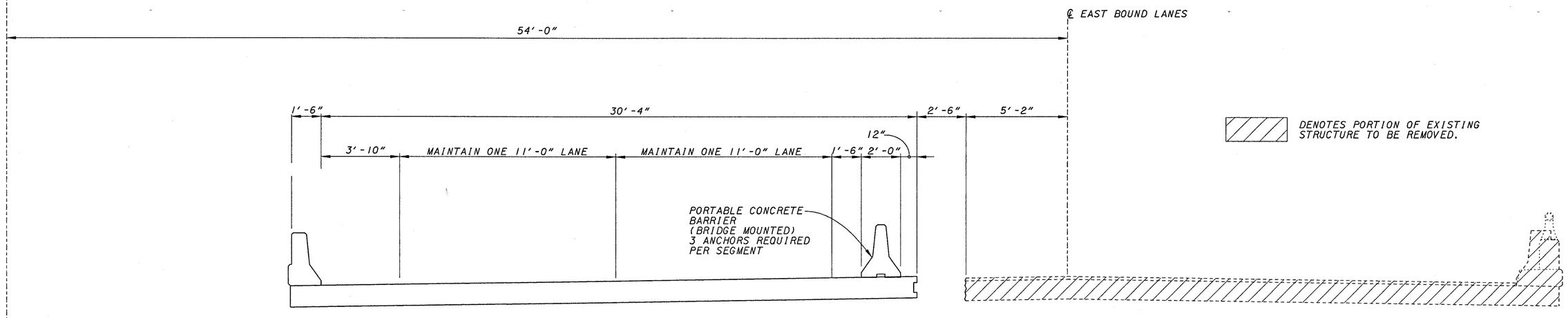
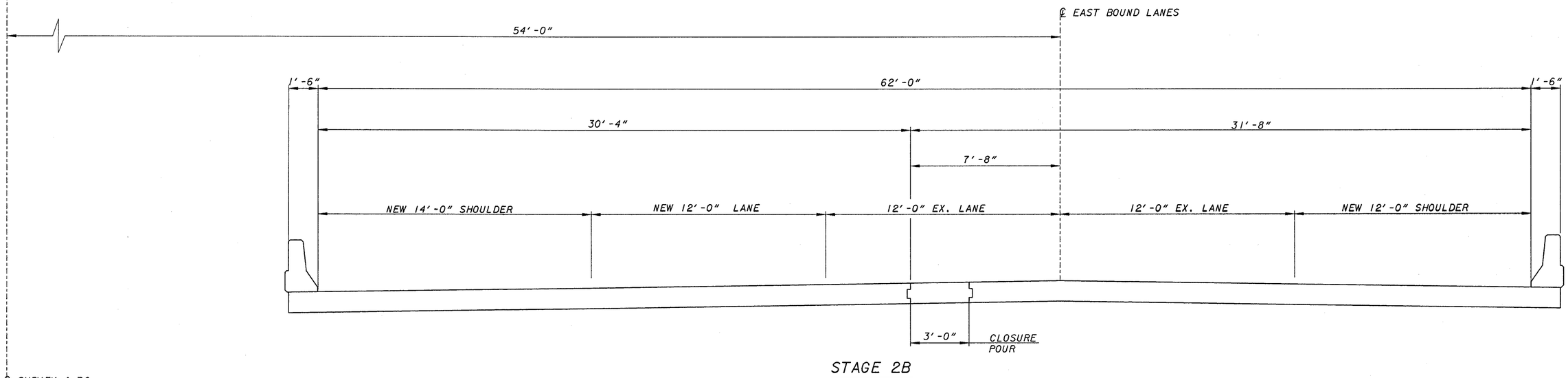
WBS		680102116800998	



STAGE 2A



STAGE 2B

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
707 DESIGN INC. 656 Bair Island Road, Suite 304, Redwood City, CA 94063-2000
TEL 650.589.6069 FAX 650.589.6069 WEB www.kzf.com

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KZF #8

BRIDGE STAGE 2 CONSTRUCTION
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

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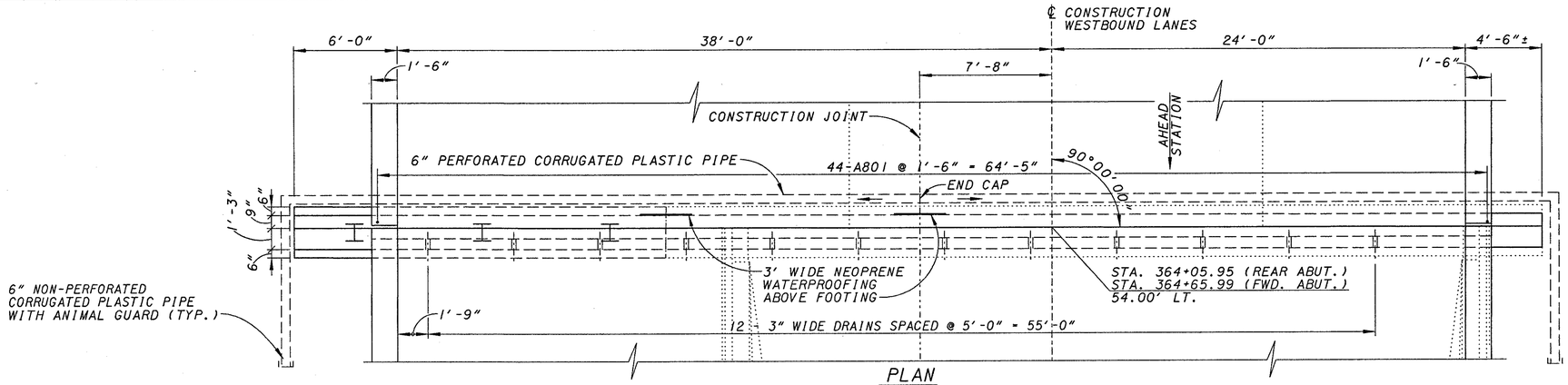
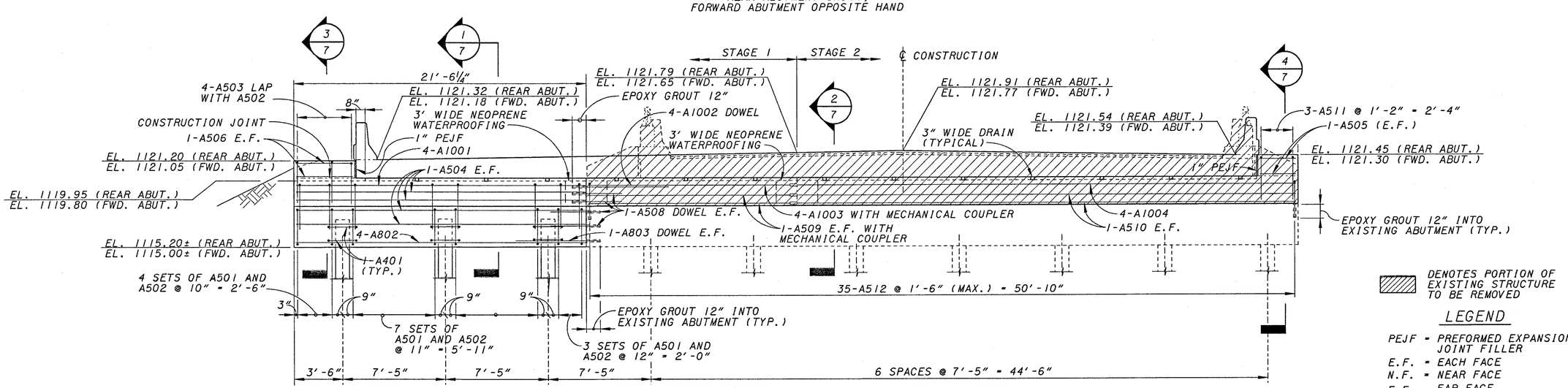
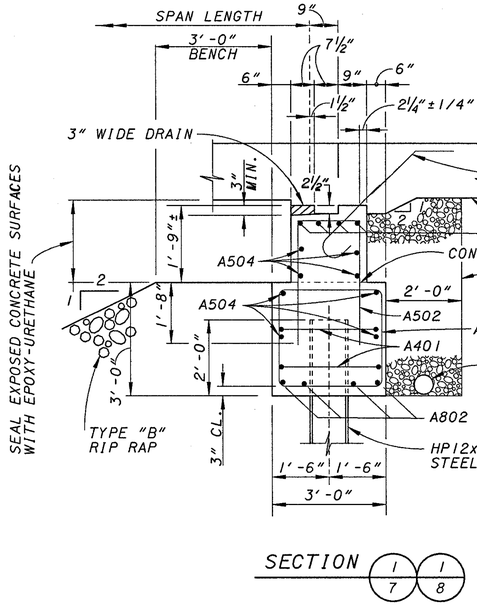


PLAN

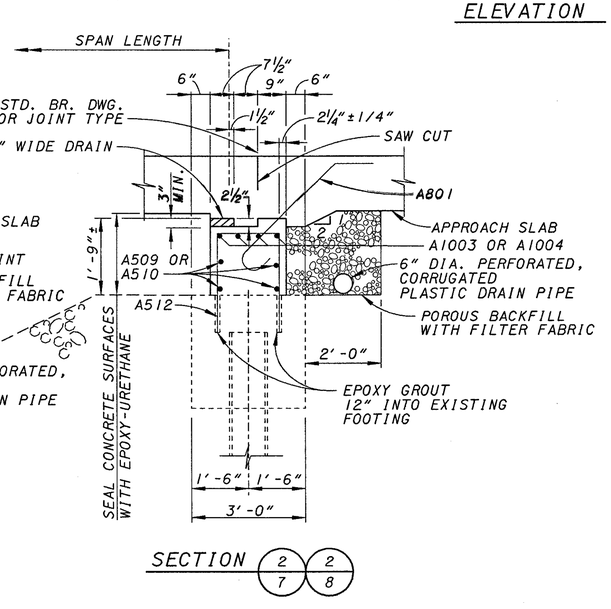
REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND



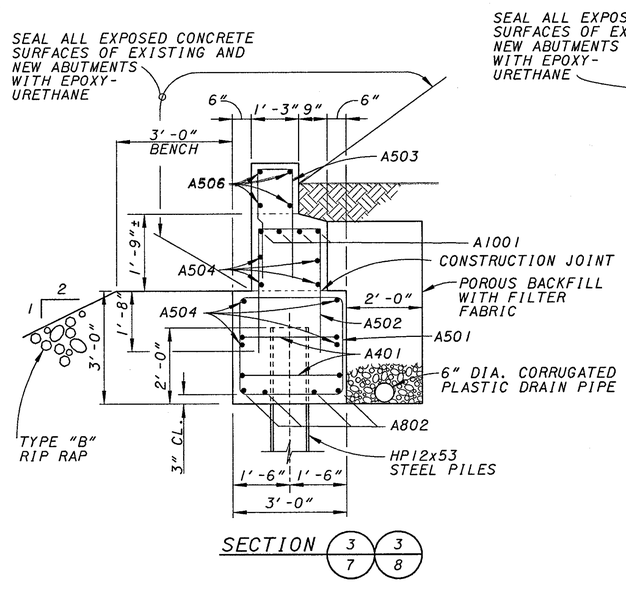
ELEVATION



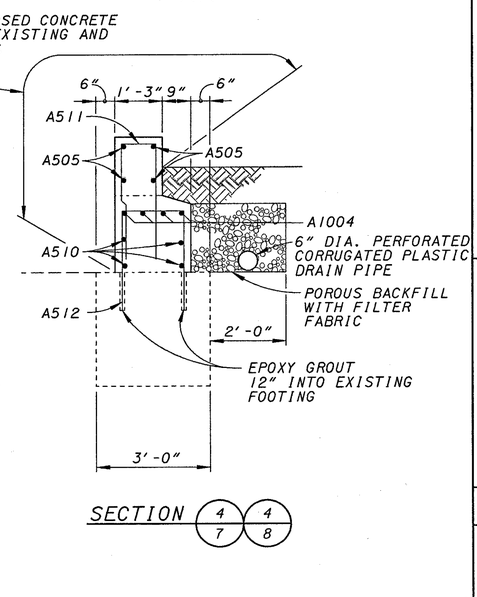
SECTION 1/7 1/8



SECTION 2/7 2/8



SECTION 3/7 3/8



SECTION 4/7 4/8

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
701 Kirkland Ave., Suite 410, Kirkland, WA 98033
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ABUTMENT DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

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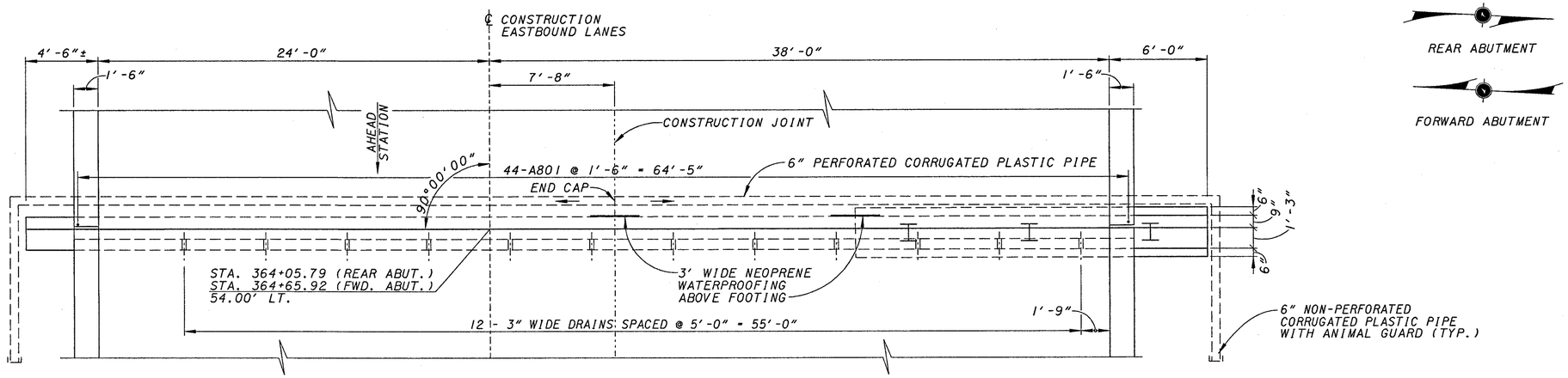
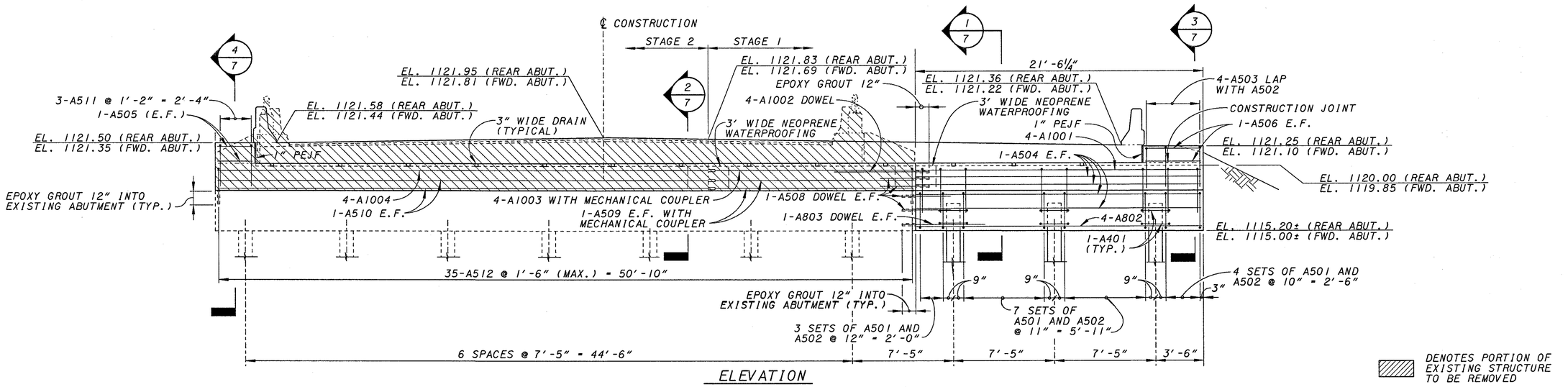


PLAN

REAR ABUTMENT SHOWN,
FORWARD ABUTMENT OPPOSITE HAND



ELEVATION

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

LEGEND

PEJF - PREFORMED EXPANSION JOINT FILLER
E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
625 Kolekole Blvd., Suite 200, Honolulu, HI 96819
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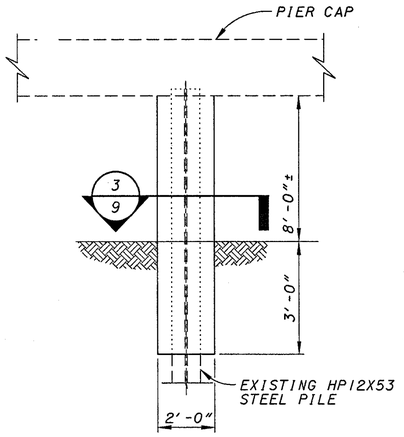
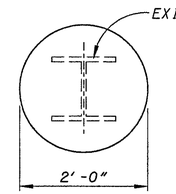
KZF #8

ABUTMENT DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

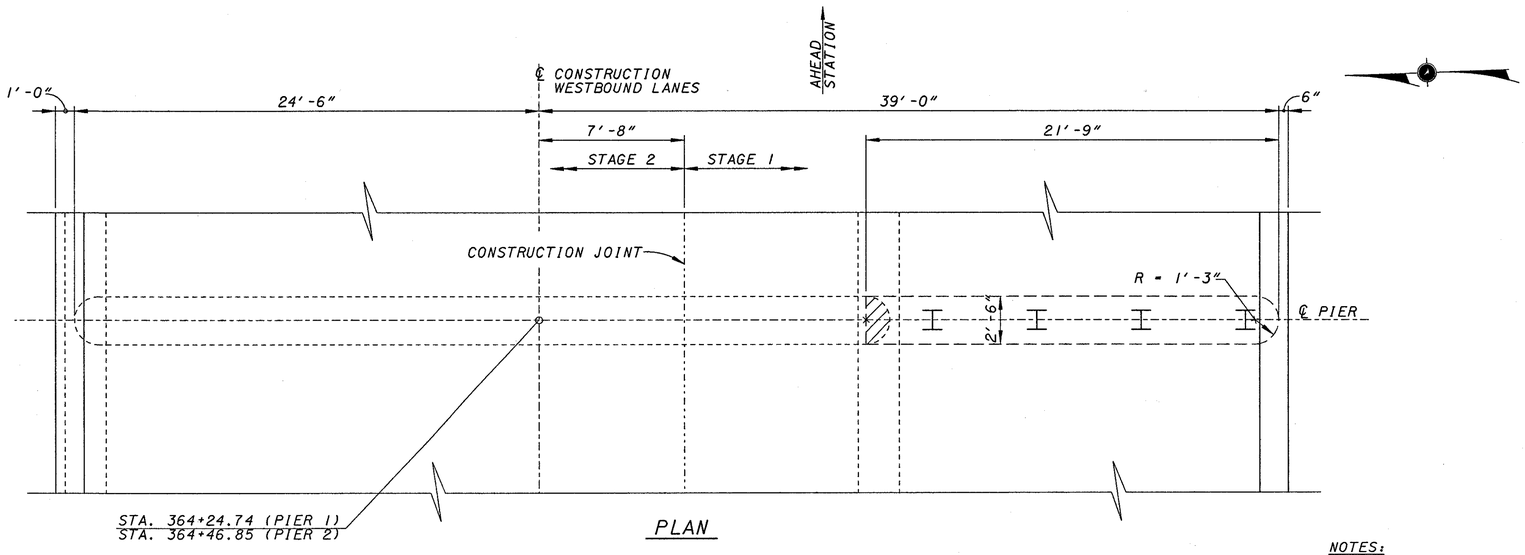
PRE-70-0.00





SECTION 3/9

TYPICAL EXISTING PILE ENCASEMENT DETAIL



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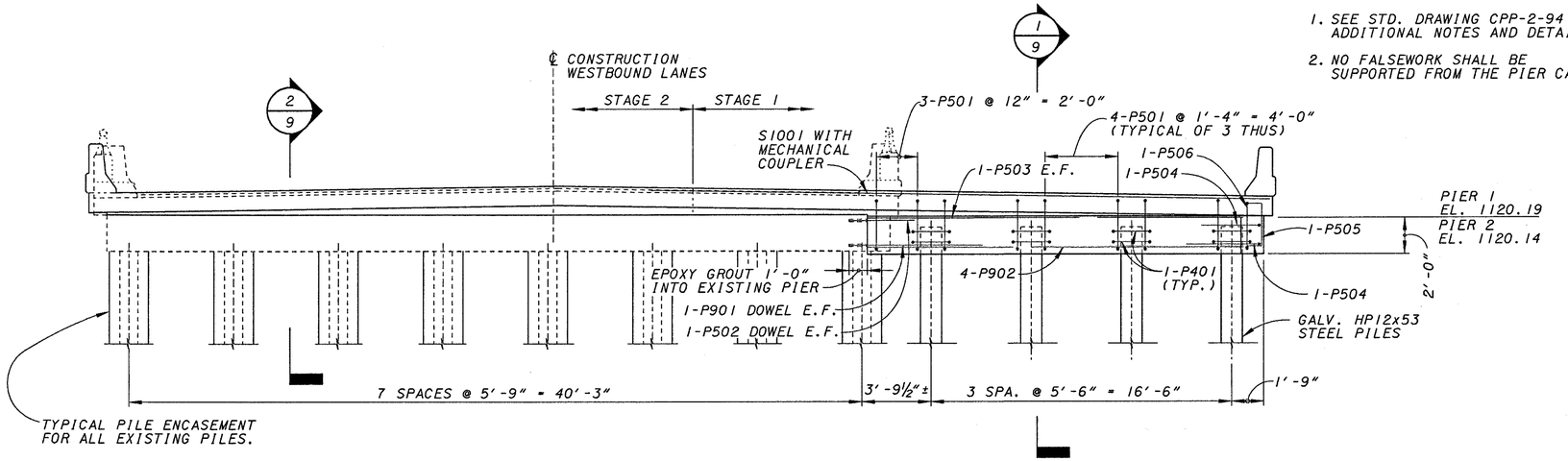

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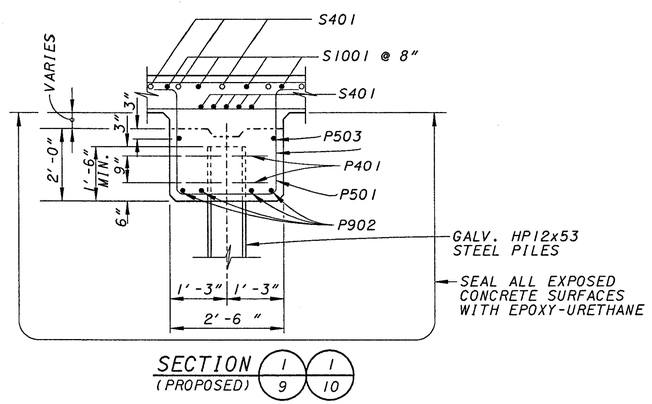
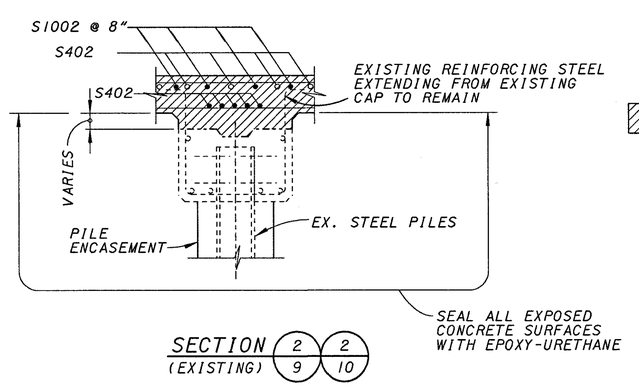


SECTION 1/9 1/10 (PROPOSED)



SECTION 2/9 2/10 (EXISTING)

DENOTES REMOVAL LIMITS

NOTES:

1. SEE STD. DRAWING CPP-2-94 FOR ADDITIONAL NOTES AND DETAILS
2. NO FALSEWORK SHALL BE SUPPORTED FROM THE PIER CAP.

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PIER DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

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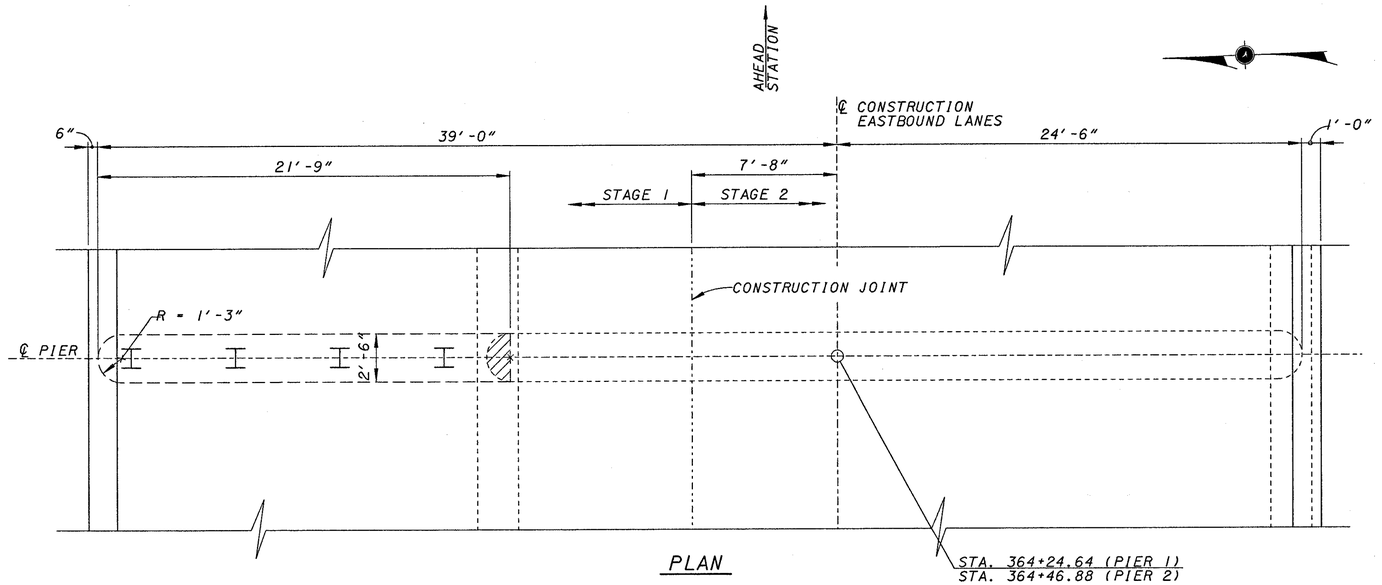
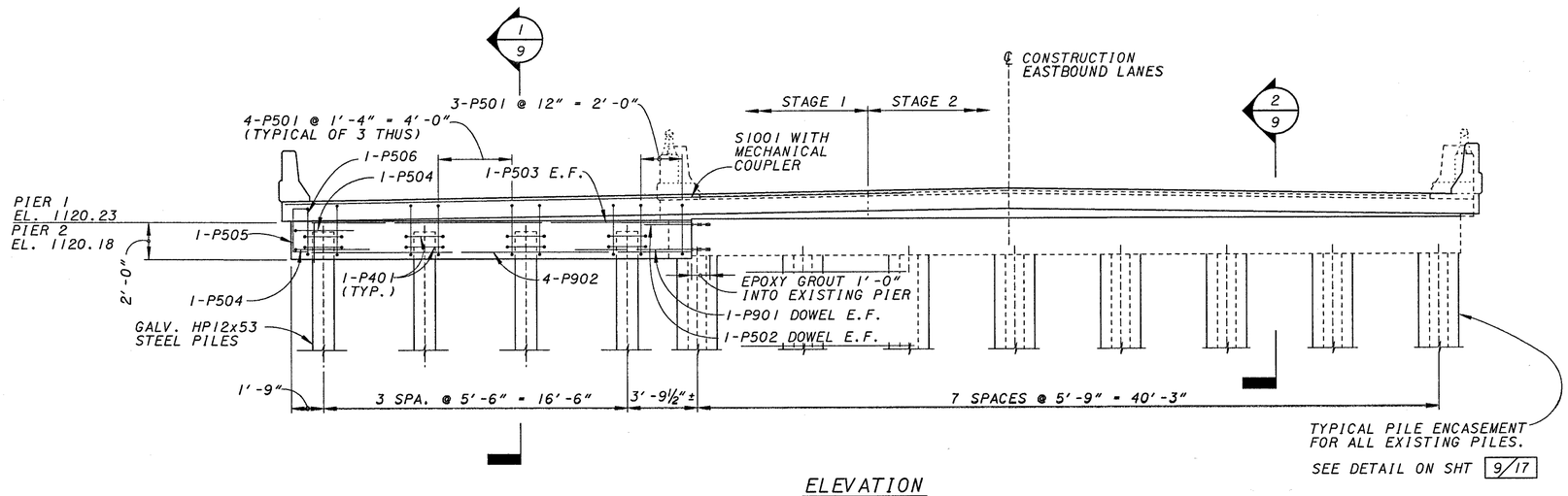


PLAN



ELEVATION

NOTES:

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DESIGN AGENCY
KZF DESIGN
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TEL 1.360.568.4611 FAX 1.360.568.3666 www.kzfdesign.com

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SJA	

DESIGNED	CHECKED
SJA	WBS

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PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

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61-S406 (SLAB), 61- S501, S601 AND S602 (PARAPET) @ 1'-0" (MAX.) - 59'-6" (TYPICAL OF BOTH PARAPETS)

60'-0½"

9" 18'-0½" 22'-1⅜" 18'-4⅝" 9"

℄ BRG. REAR ABUT. ℄ PIER 1 ℄ PIER 2 ℄ BRG. FORWARD ABUT.

3/13 2/13 2/13

6-S502 1-S503 PARAPET

6-S503 1-S604 PARAPET

2'-5" LAP #5 BARS
2'-11" LAP #6 BARS

S404 S707 S708 STAGGERED CENTERED S709 S710 CENTERED S405

3" CL. MAIN (TOP)

3" CL. TRANSVERSE (TOP)

3'-11" MIN LAP (TYP.)

TOP REINFORCEMENT (TYPICAL)

4-S1002 @ 10" O.C OVER PIER IN SLAB

61-S402 @ 1'-0" TOP
96-S402 BOTTOM

℄ CONSTRUCTION WESTBOUND LANES

CONSTRUCTION JOINT

1'-11" LAP #4 BARS

40-S07, 41-S404 (TOP)
49-S01, 44-S702, 44-S703 (BOT.)

80-S709 (TOP)
40-S08, 44-S403 (BOT.)
49-S04

41-S405 (TOP)
40-S10, 88-S706 (BOT.)
49-S05

MECHANICAL COUPLER (TYPICAL FOR S1001)

4-S1001 @ 10" O.C OVER PIER IN SLAB

61-S401 @ 1'-0" TOP
96-S401 BOTTOM

1/13

S701 S702 S703 S704 S403 CENTERED S705 STAGGERED S706 STAGGERED S706

BOTTOM REINFORCEMENT (TYPICAL)

2" CL. MAIN (BOTTOM)

5" CL. TRANSVERSE (BOTTOM)

4/13

33'-2" (STAGE 2)

25'-6"

7'-8"

65'-0"

31'-10" (STAGE 1)

54'-0" TO ℄ SURVEY I-70 (NORMAL TO ℄ WESTBOUND LANES)

NOTES:
1. SEE STD. DRAWING CS-1-93 FOR ADDITIONAL NOTES AND DETAILS.

2. SEE STD. DRAWING BR-1 (SHEET 2) FOR ADDITIONAL RAILING NOTES.

DECK PLAN

DESIGN AGENCY
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REVIEWED DGK
DATE 7/06/00
STRUCTURE FILE NUMBER 6801021/6800998

DECK PLAN - LEFT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

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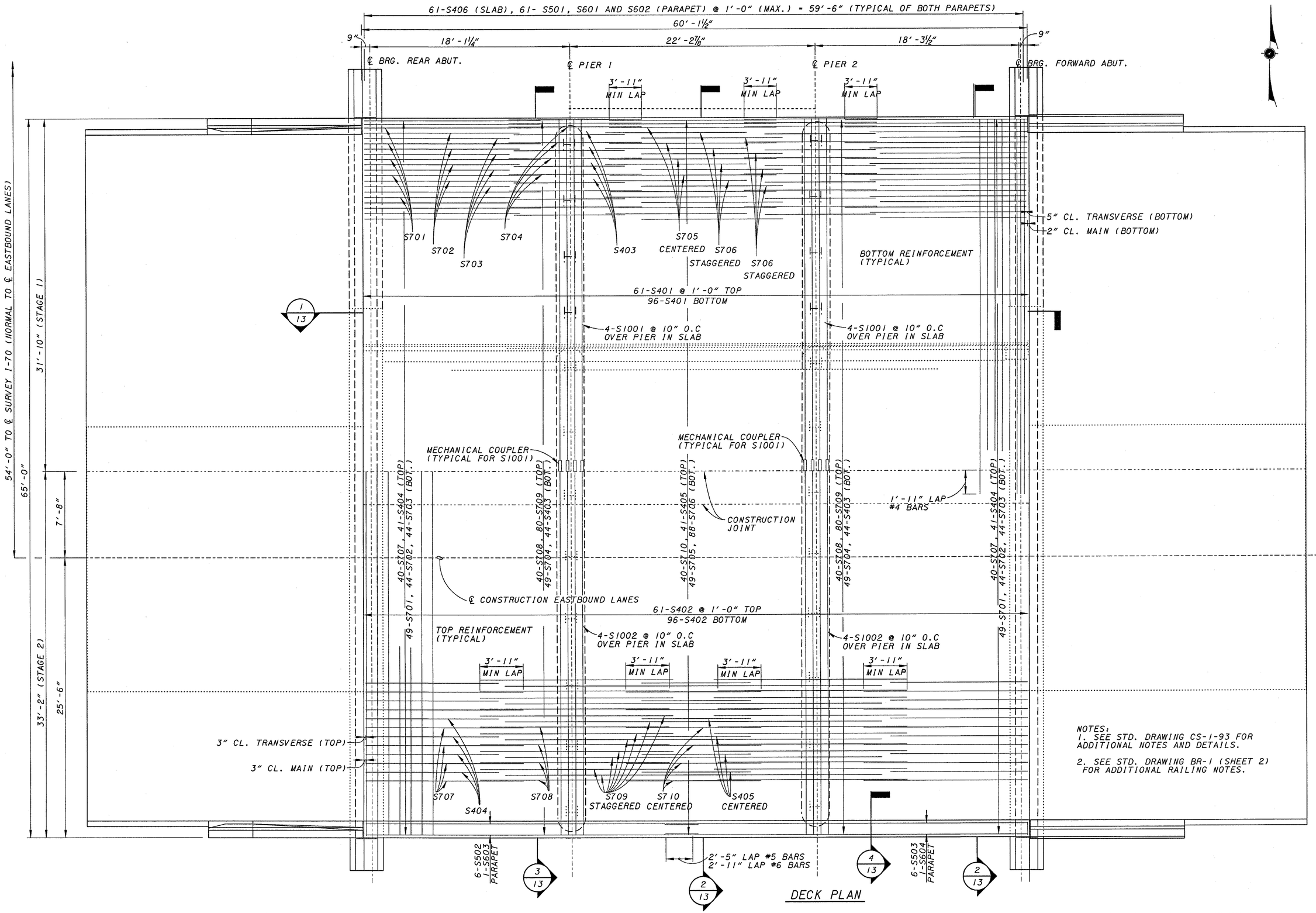

DECK PLAN

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
2000 Powell Street, Suite 1450, Emeryville, CA 94608
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DECK PLAN - RIGHT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
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PRE-70-0.00

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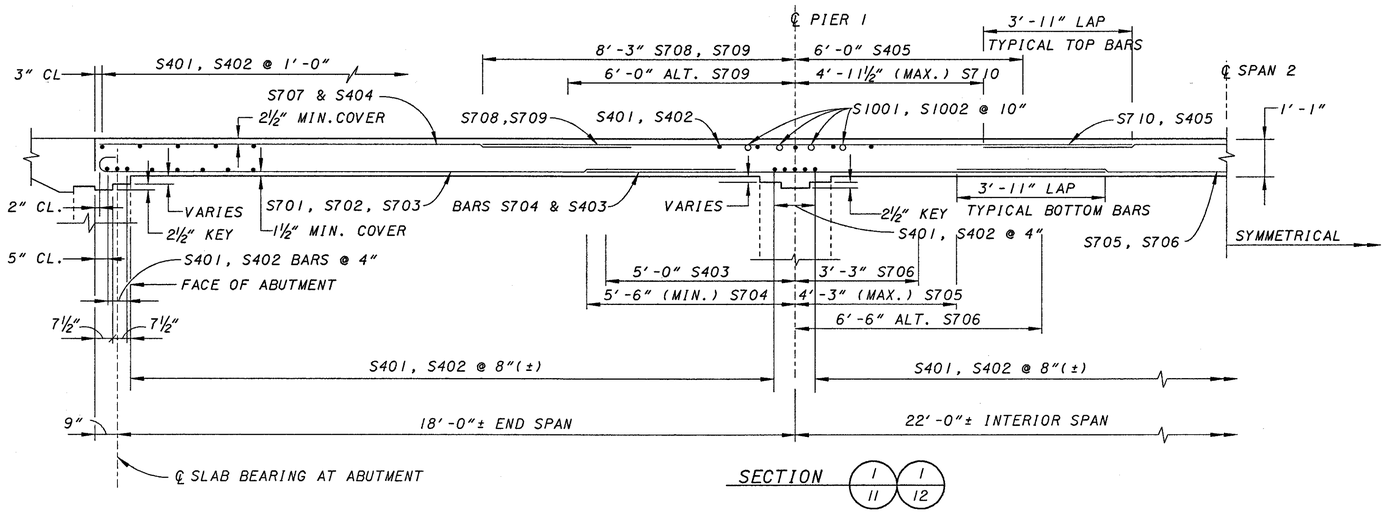
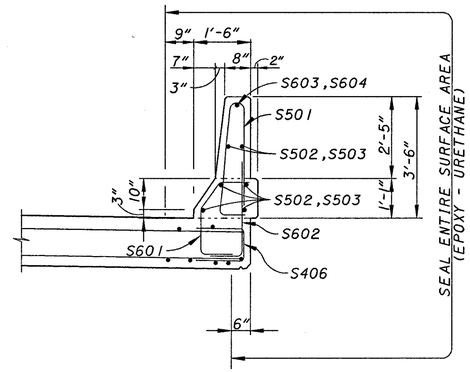
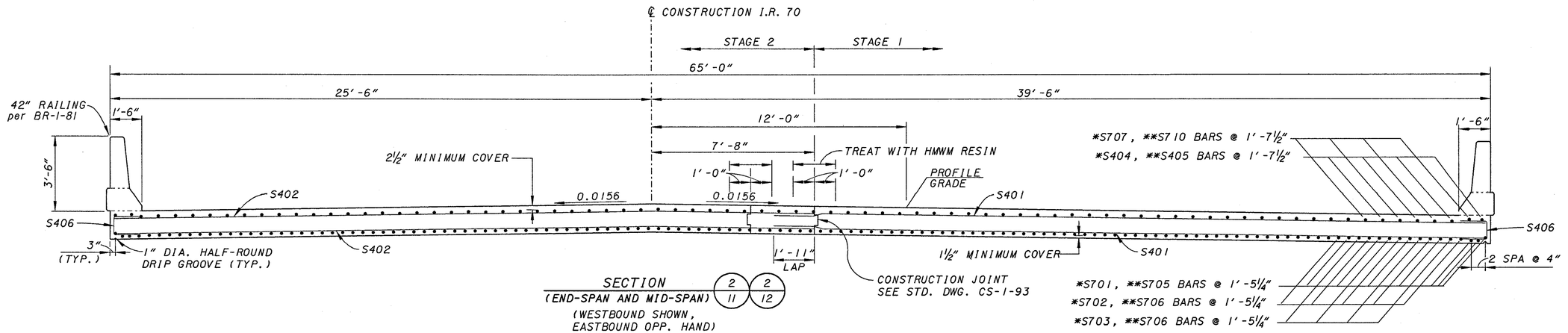
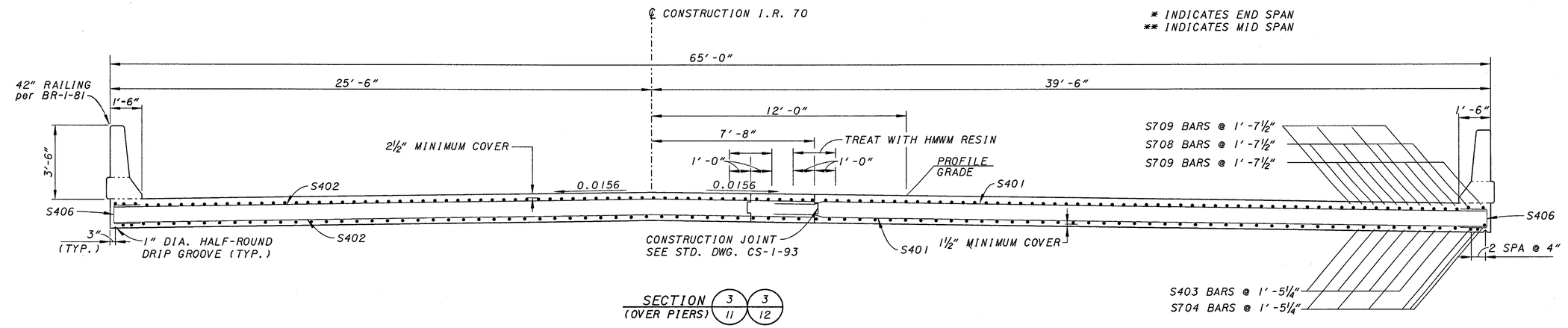
(162 / 284)









NOTE:
FALSEWORK FOR THE CONCRETE SLAB CONSTRUCTION STAGES SHALL BE INDEPENDENT OF EACH OTHER.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
107 DESIGN 261 Elder Park Drive Cincinnati, OH 45202-6000
TEL 513.621.2111 FAX 513.621.2666 WEB www.kzfdesign.com

REVIEWED	DATE
DGK	7/06/00
STRUCTURE FILE NUMBER	
6801021/6800998	
DRAWN	REVISED
DGK	
DESIGNED	CHECKED
SJA	WBS

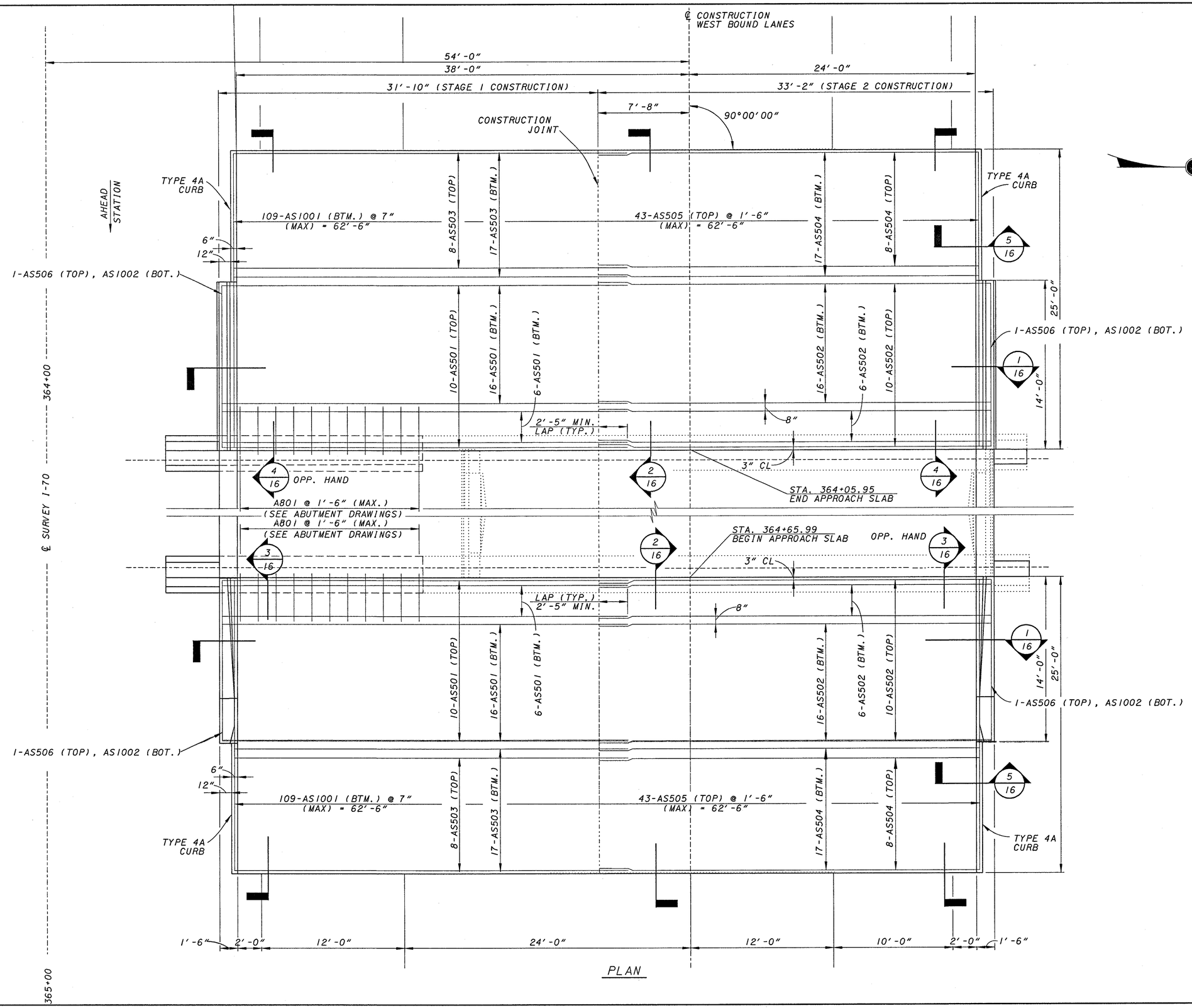
KZF #8

LEFT BRIDGE DECK SECTION
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

13 / 17

163
284



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127 Western Ave. East Blue Park Drive Cincinnati, OH 45202-3000
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	DGK	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801021/6800998	

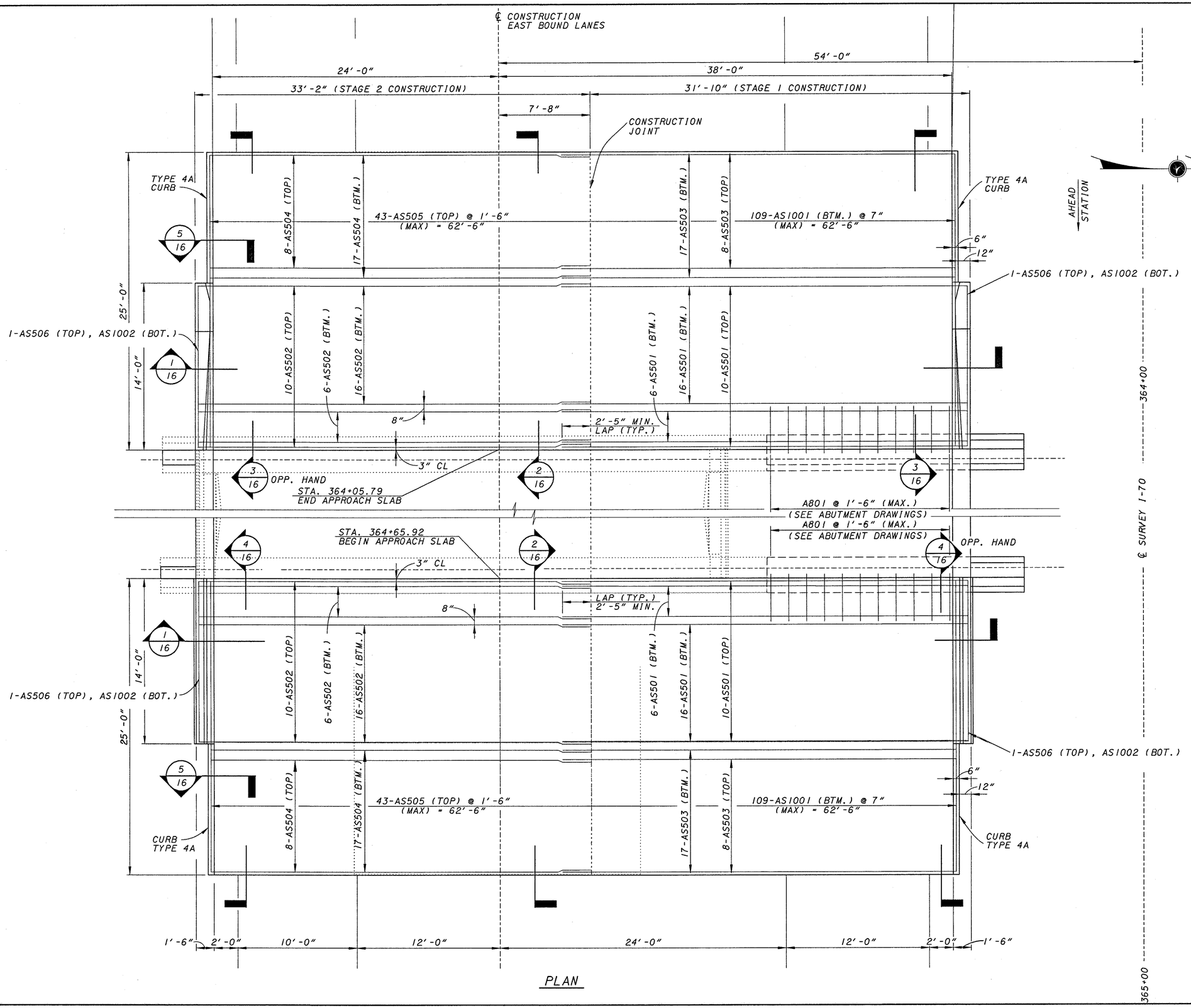
KZF #8

APPROACH SLABS - LEFT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

14 / 17

164
284



PLAN

DESIGN AGENCY
KZF DESIGN
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Interiors | Landscape Architecture
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801021/6800998	

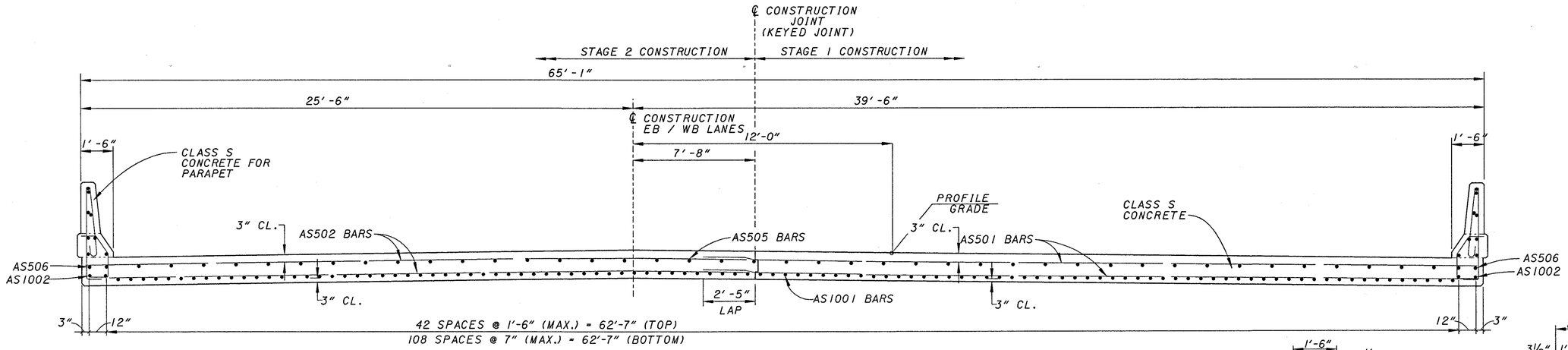
KZF #8

APPROACH SLABS - RIGHT BRIDGE
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

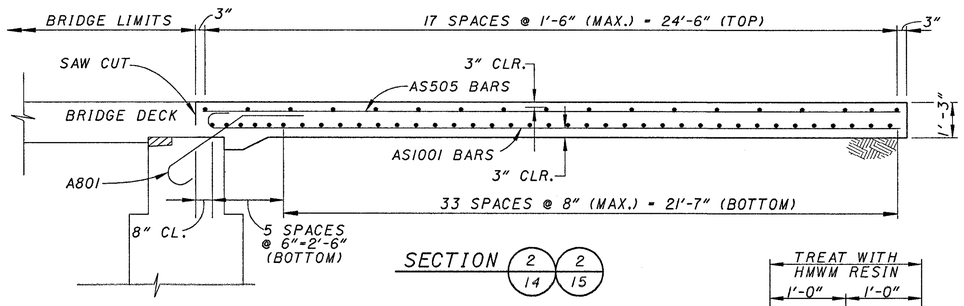
PRE-70-0.00

15 / 17

165 / 284



SECTION 1/14 1/15



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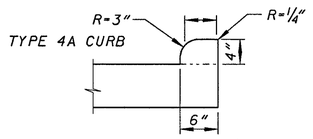
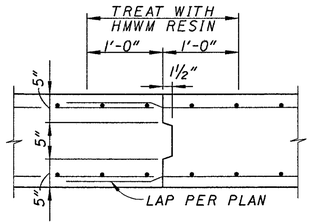
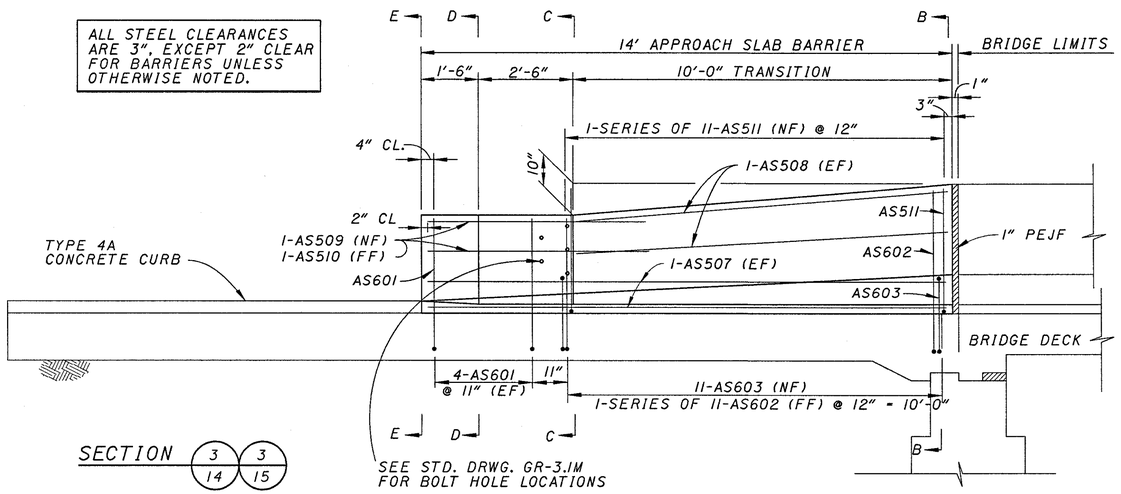




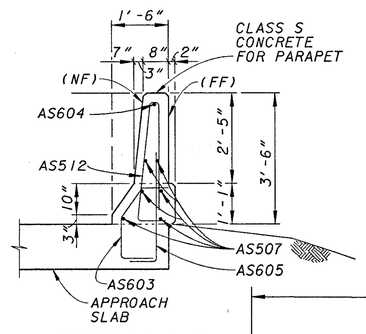
KEYED JOINT DETAIL

LEGEND:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE

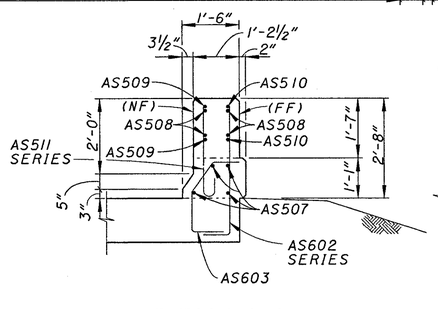
ALL STEEL CLEARANCES ARE 3", EXCEPT 2" CLEAR FOR BARRIERS UNLESS OTHERWISE NOTED.



SECTION 3/14 3/15



SECTION A-A



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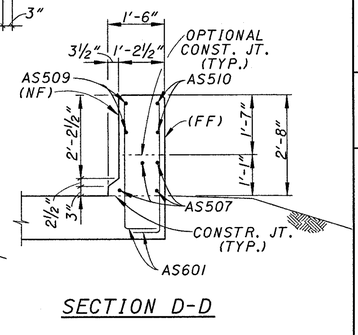
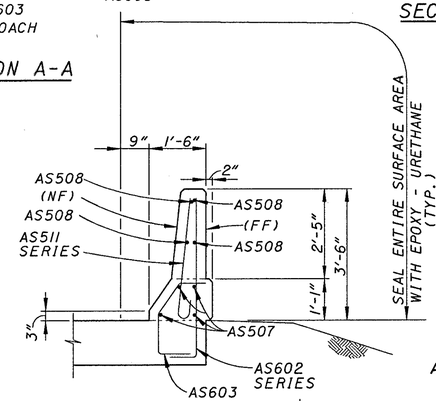


SECTION D-D



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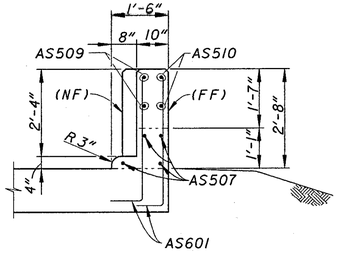

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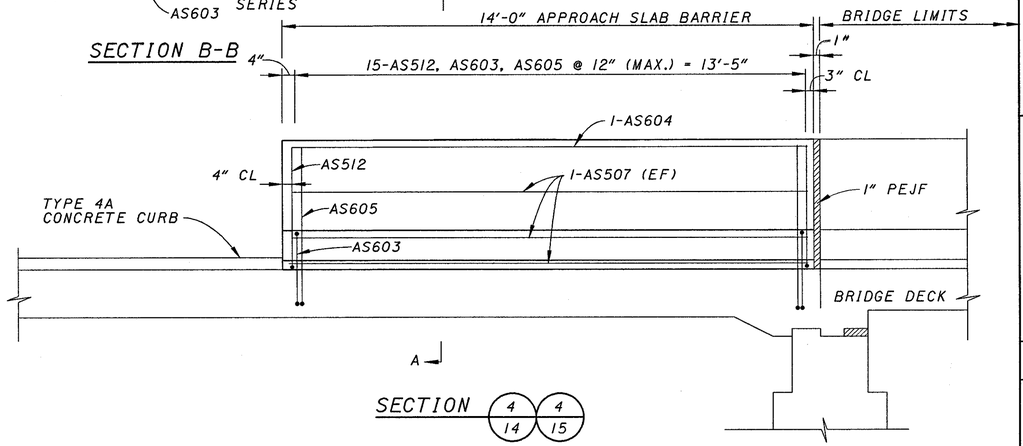

SECTION 4/14 4/15

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	7/06/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680102I/6800998	

KZF #8

APPROACH SLAB DETAILS
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

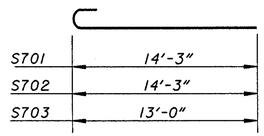
PRE-70-0.00

16 / 17

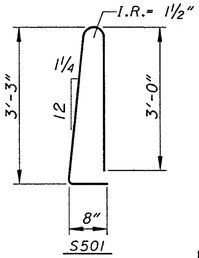
166 / 284

SUPERSTRUCTURE REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
S401	33' - 6''	STR.	157	3,513	157	3,513
S402	32' - 11''	STR.	157	3,452	157	3,452
S403	10' - 0''	STR.	88	588	88	588
S404	12' - 1''	STR.	82	662	82	662
S405	9' - 10''	STR.	41	269	41	269
S406	2' - 11''	BENT	122	238	122	238
S501	7' - 1''	BENT	122	901	122	901
S502	30' - 0''	STR.	12	375	12	375
S503	31' - 11''	STR.	12	399	12	399
S601	3' - 5''	BENT	122	626	122	626
S602	3' - 6''	BENT	122	641	122	641
S603	30' - 0''	STR.	2	90	2	90
S604	32' - 5''	STR.	2	97	2	97
S701	15' - 3''	BENT	98	3,055	98	3,055
S702	15' - 3''	BENT	88	2,743	88	2,743
S703	14' - 0''	BENT	88	2,518	88	2,518
S704	14' - 1''	STR.	98	2,821	98	2,821
S705	16' - 11''	STR.	49	1,694	49	1,694
S706	12' - 9''	STR.	88	2,293	88	2,293
S707	14' - 8''	STR.	80	2,398	80	2,398
S708	16' - 6''	STR.	80	2,698	80	2,698
S709	17' - 5''	STR.	160	5,696	160	5,696
S710	13' - 6''	STR.	40	1,104	40	1,104
S1001	31' - 7''	STR.	8	1,087	8	1,087
S1002	32' - 11''	STR. *	8	1,133	8	1,133
		TOTAL POUNDS		41,095		41,095



S701, S702, S703



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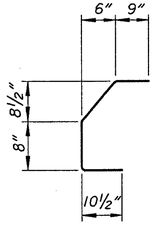

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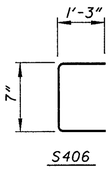

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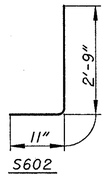

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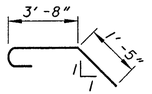
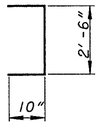


A801



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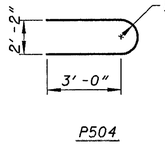

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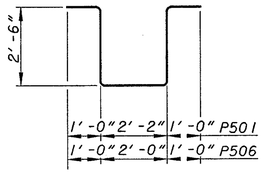
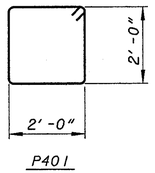


P501, P506



P401

PIER REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
P401	8' - 6''	BENT	16	91	16	91
P501	8' - 8''	BENT	30	271	30	271
P502	3' - 7''	STR.	4	15	4	15
P503	20' - 6''	STR.	4	86	4	86
P504	9' - 0''	BENT	4	38	4	38
P505	3' - 11''	BENT	2	8	2	8
P506	8' - 6''	BENT	2	18	2	18
P901	5' - 9''	STR.	4	78	4	78
P902	20' - 6''	STR.	8	558	8	558
		TOTAL	1,162			1,162

APPROACH SLAB REINFORCING STEEL LIST

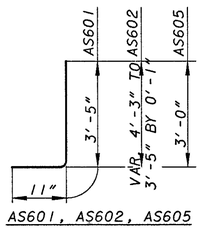
MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
AS501	34' - 0''	STR.	64	2,270	64	2,270
AS502	32' - 11''	STR.	64	2,197	64	2,197
AS503	33' - 0''	STR.	50	1,721	50	1,721
AS504	31' - 11''	STR.	50	1,664	50	1,664
AS505	24' - 6''	STR.	86	2,198	86	2,198
AS506	13' - 6''	STR.	4	56	4	56
AS507	13' - 5''	STR.	20	280	20	280
AS508	10' - 0''	STR.	8	83	8	83
AS509	5' - 8''	BENT	4	24	4	24
AS510	5' - 8''	STR.	4	24	4	24
	VAR 3' -10"		2		2	
AS511	TO 3' -0"	BENT	SER OF	78	SER OF	78
	BY 0' - 1"		11		11	
AS512	7' - 1"	BENT	30	222	30	222
AS601	4' - 3"	BENT	16	102	16	102
	VAR 4' -2"		2		2	
AS602	TO 5' -0"	BENT	SER OF	151	SER OF	151
	BY 0' - 1"		11		11	
AS603	3' - 5"	BENT	52	267	52	267
AS604	13' - 5"	STR.	2	40	2	40
AS605	3' - 9"	BENT	30	169	30	169
AS1001	25' - 11"	BENT	218	24,311	218	24,311
AS1002	14' - 11"	BENT	4	257	4	257
TOTAL POUNDS				36,114		36,114

ABUTMENT REINFORCING STEEL LIST

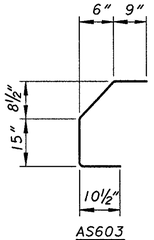
MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
A401	9' - 0''	BENT	12	72	12	72
A501	10' - 6''	BENT	42	460	42	460
A502	7' - 3''	BENT	42	318	42	318
A503	5' - 10''	BENT	8	49	8	49
A504	21' - 3''	STR.	16	355	16	355
A505	2' - 5''	STR.	8	20	8	20
A506	3' - 11''	STR.	8	33	8	33
A507	3' - 10''	BENT	6	24	6	24
A508	3' - 7''	STR.	16	60	16	60
A801	6' - 0''	BENT	22	352	22	352
A802	21' - 3''	STR.	8	454	8	454
A803	6' - 1''	STR.	4	65	4	65
A1001	21' - 3''	STR.	8	732	8	732
A1002	7' - 0''	STR.	4	120	4	120
TOTAL			3,113			3,113

ADDITIONAL REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
A508	3' - 7''	STR.	8	30	8	30
A509	15' - 0''	STR.	8	125	8	125
A510	36' - 0''	STR.	8	300	8	300
A511	6' - 6''	BENT	6	41	6	41
A512	5' - 11''	BENT	70	432	70	432
A801	6' - 0''	BENT	66	1,057	66	1,057
A1002	7' - 0''	STR.	8	241	8	241
A1003	15' - 0''	STR.	8	516	8	516
A1004	36' - 0''	STR.	8	1,239	8	1,239
TOTAL POUNDS			3,982			3,982



AS601, AS602, AS605



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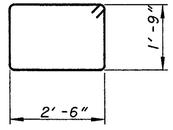

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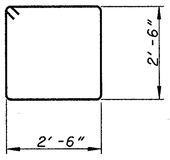

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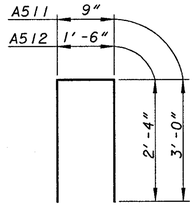
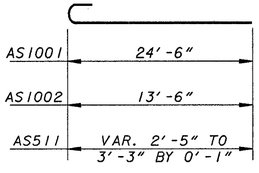
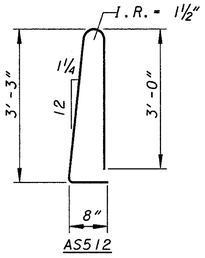


A511, A512



AS1001, AS1002, AS511



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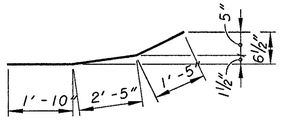
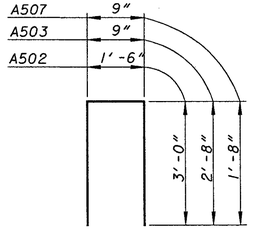


AS509



A502, A503, A507

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 180° AND 135° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A NO. 5 BAR.

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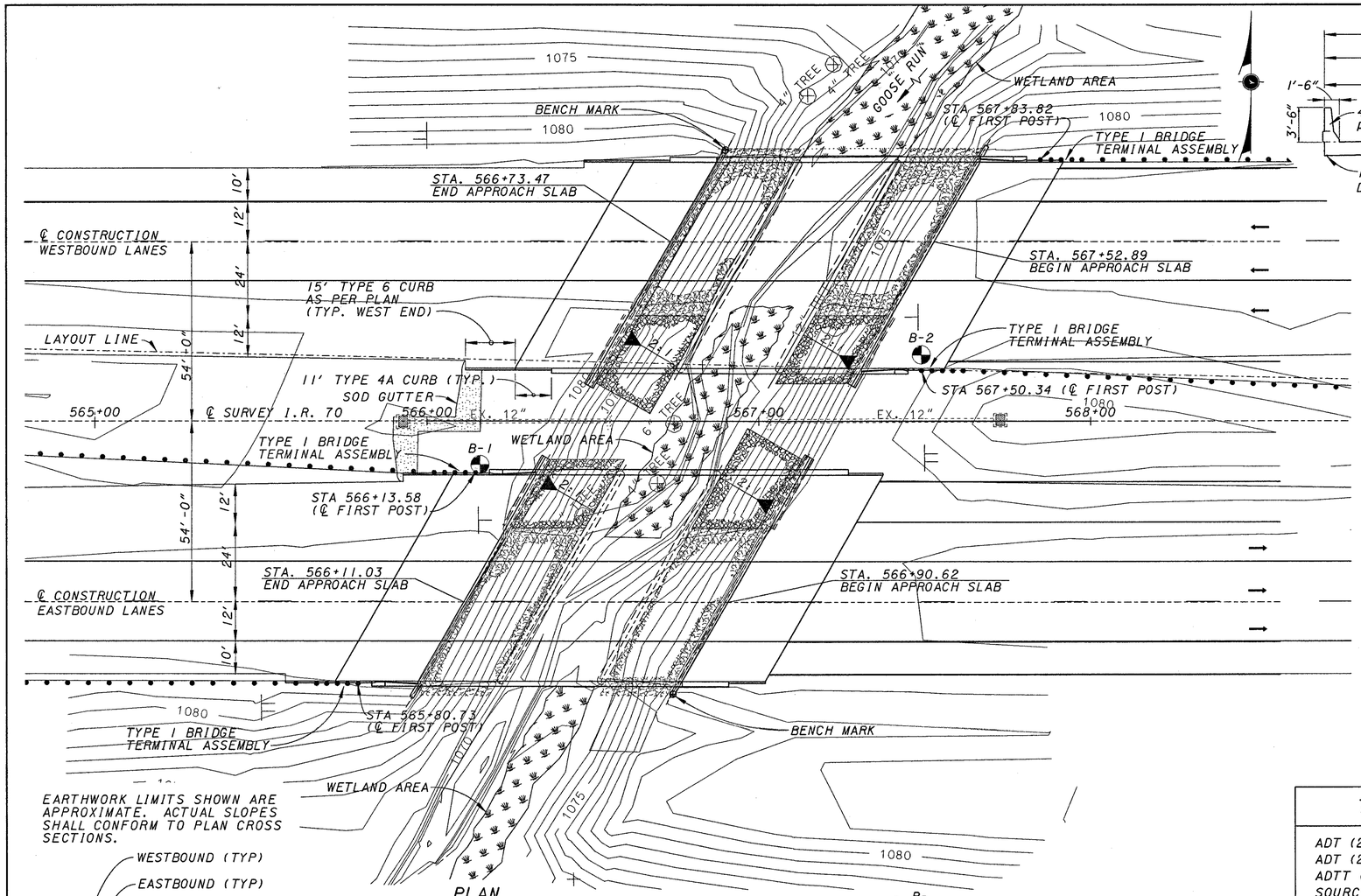
DATE 7/06/00
REVIEWED DGK
DRAWN JDG
DESIGNED SJA
CHECKED WBS
REVISED
STRUCTURE FILE NUMBER 6801021/6800998

KZF #8

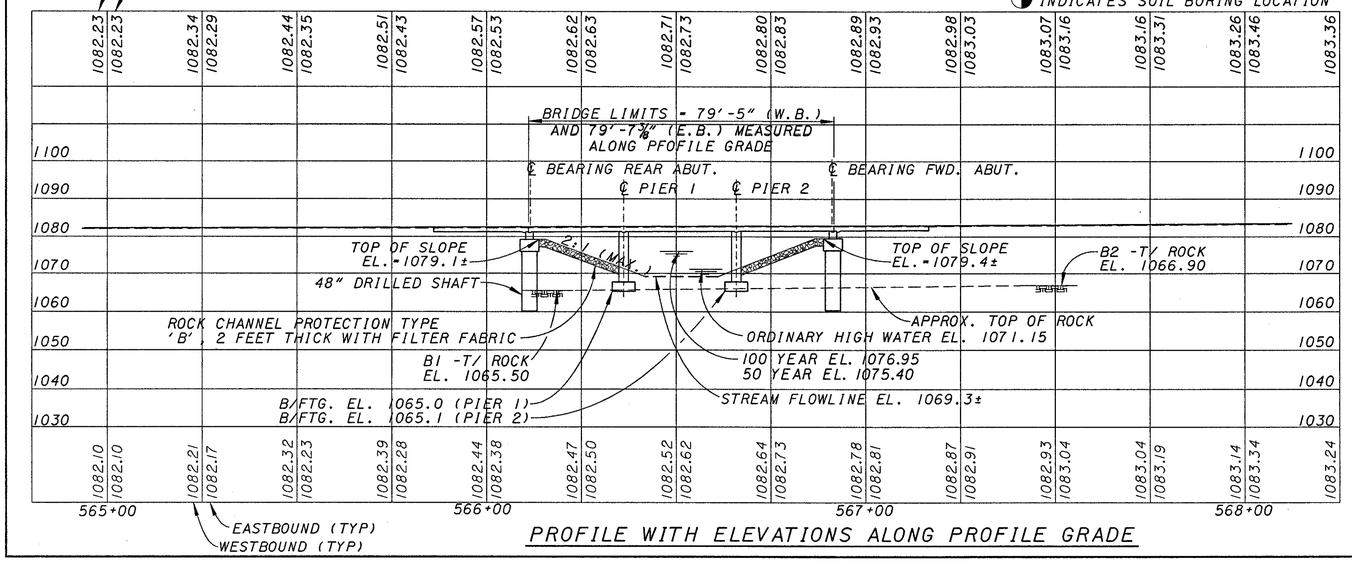
REINFORCING STEEL LIST
BRIDGE NO. PRE-70-0689 L/R
I.R. 70 OVER BANTAS CREEK

PRE-70-0.00

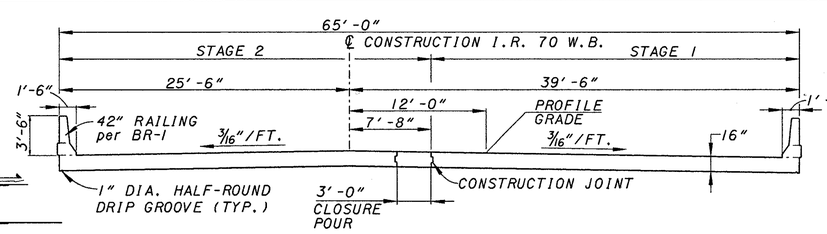


EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

PLAN

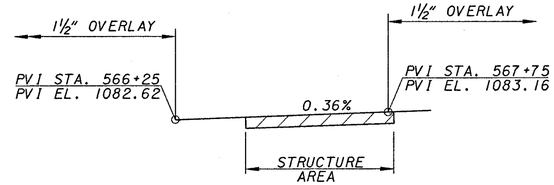


PROFILE WITH ELEVATIONS ALONG PROFILE GRADE



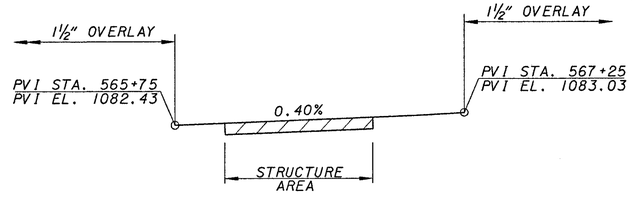
TYPICAL SECTION

(WESTBOUND SHOWN)
(EASTBOUND OPPOSITE HAND)



VERTICAL ALIGNMENT

I.R. 70 WESTBOUND AT PROFILE GRADE



VERTICAL ALIGNMENT

I.R. 70 EASTBOUND AT PROFILE GRADE

TRAFFIC DATA

ADT (2001) = 35,860
ADT (2021) = 50,800
ADTT (2021) = 19,812
SOURCE = ODOT

BENCH MARK

BOX NOTCH ON S.E. ABUTMENT EASTBOUND AT STA. 566+74.54 79.69 RT. AT ELEVATION 1083.27

BOX NOTCH ON N.W. ABUTMENT WESTBOUND AT STA. 566+89.16, 79.07 LT. AT ELEVATION 1083.34

DRAINAGE DATA

DRAINAGE AREA: 4.08 SQ. MILES
EXISTING BRIDGE OPENING: 581 Sq. Ft.
PROPOSED BRIDGE OPENING: 581 Sq. Ft.
HW100: 1076.95
HW50: 1075.40
Q100: 959 C.F.S.
Q50: 851 C.F.S.
V100: 4.13 F.P.S.
V50: 3.56 F.P.S.
LOW CHORD ELEVATION: 1080.98
TOP OF DECK ELEVATION: 1082.31 TO 1082.98

EXISTING STRUCTURE - I.R. 70

TYPE: 3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH CAPPED PILE SUBSTRUCTURE.
LENGTH OF SPANS:
23'-11⅝"±, 29'-10"±, 23'-10½"± W.B.
24'-1⅞"±, 29'-9⅝"±, 23'-10⅞"± E.B.
ROADWAY WIDTH: 39'-8"± TOE/TOE BARRIER
DESIGN LOADING: C.F. 2000
SKEW ANGLE: 30°00'00"± LT. FWD.
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: TANGENT
YEAR BUILT: 1962

PROPOSED STRUCTURE

PROPOSED WORK: NEW REINFORCED CONCRETE DECK ON WIDENED SUBSTRUCTURE.
TYPE: 3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH CAPPED PILE SUBSTRUCTURE.
LENGTH OF SPANS:
23'-11⅝"±, 29'-10"±, 23'-10½"± W.B.
24'-1⅞"±, 29'-9⅝"±, 23'-10⅞"± E.B.
ROADWAY WIDTH: 62'-0"± TOE/TOE BARRIER
DESIGN LOADING: HS-20 WITH ALTERNATE MILITARY
SKEW ANGLE: 30°00'00"± LT. FWD.
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (25' LONG)
ALIGNMENT: TANGENT
LATITUDE: N 39°50'13"
LONGITUDE: W 84°36'52"

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
127 Wessel Dr., Fairborn, OH 45324 (937) 878-4542
Fax (937) 878-4541 www.kzfdesign.com

DATE 08-02-00
REVIEWED DGK
STRUCTURE FILE NUMBER 6801145/6801234
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

PREBLE COUNTY
STA 566+42.25
STA 567+21.76

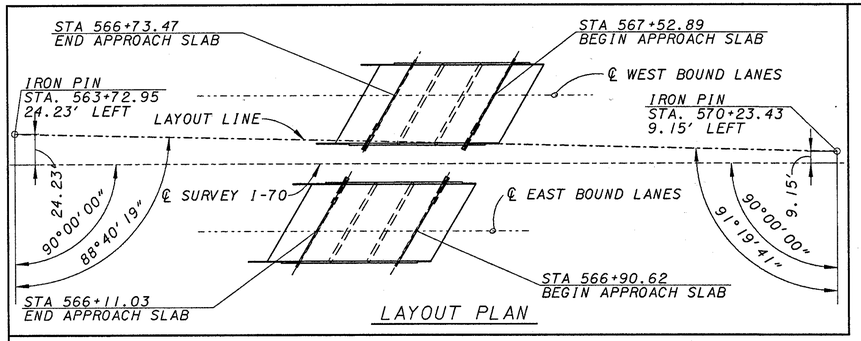
KZF #12

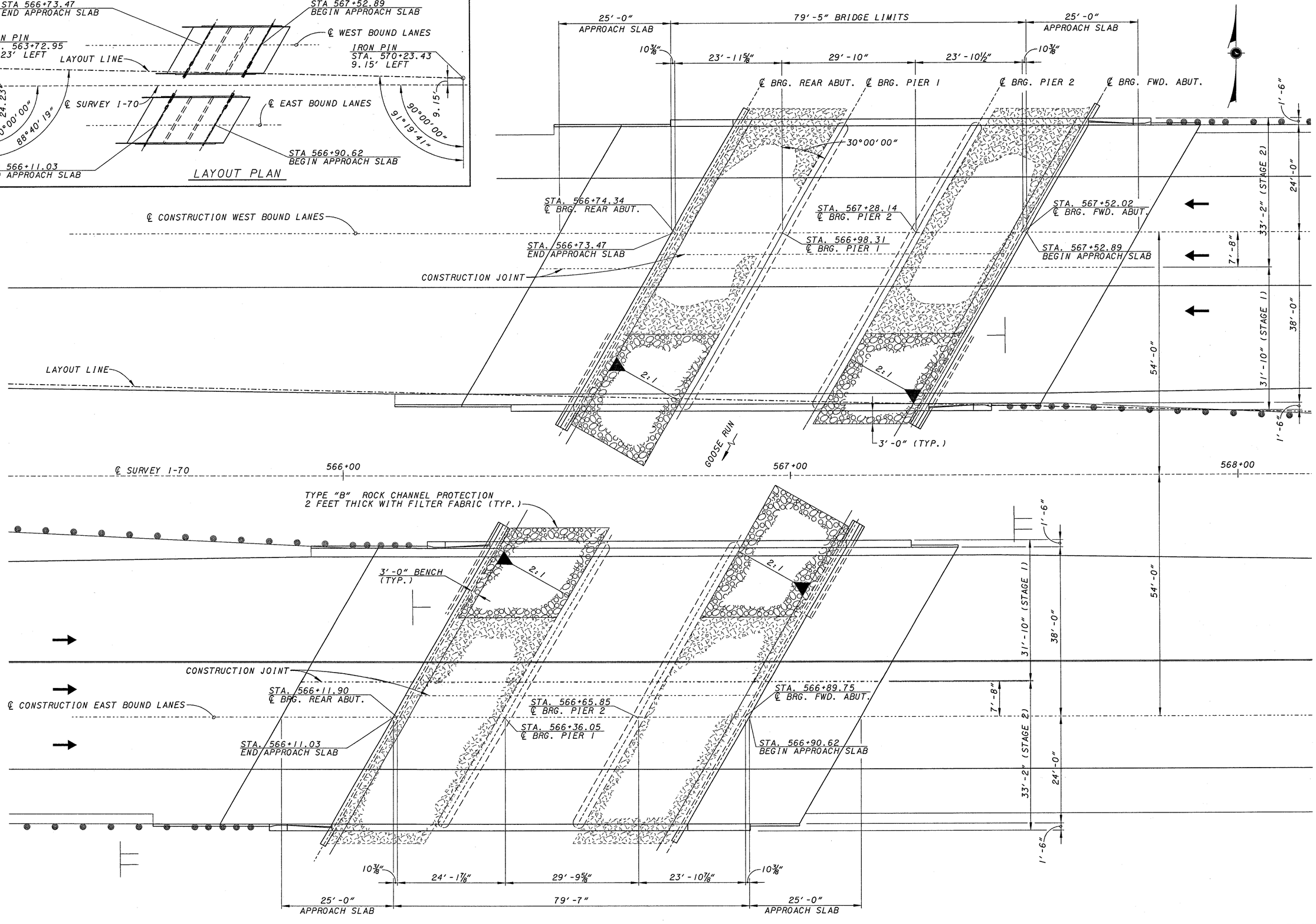
SITE PLAN
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

1 / 17

168
283





DESIGN AGENCY
KZF DESIGN
Kaeser & Zoller Engineers, Inc.
627 Eastern Ave., Suite 200 Cincinnati, OH 45202-8005
TEL 513.621.6611 FAX 513.621.3600 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	08-02-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680/145/6801234	

KZF #12

GENERAL PLAN
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

2 / 17

169
283

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS :

AS-1-81	REVISED	09-15-94 (SHEETS 1,2 & 3)
BR-1	REVISED	1-6-99
CS-1-93	DATED	5-11-93

AND TO SUPPLEMENTAL SPECIFICATION:

842	DATED	1/6/99
844	DATED	1/6/99
899	DATED	10/21/98
954	DATED	9/9/97
911	DATED	7/10/97

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28-DAY) (SUPERSTRUCTURE)

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28-DAY) (SUBSTRUCTURE)

STRUCTURAL STEEL - ASTM A36 - YIELD STRENGTH 36,000 PSI

REINFORCING STEEL - ASTM A615, A616 OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI. SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, SEALING OF CONCRETE SURFACES, CLASS S CONCRETE AND 2½" CONCRETE COVER.

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

REINFORCING BAR SPLICES: REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY 509.08 OF THE C.M.S. UNLESS OTHERWISE NOTED ON THE PLANS.

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

REINFORCING CLEARANCE: UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL CLEARANCE TO FACE OF CONCRETE IS 2".

PROPOSED WORK

1. REMOVE EXISTING CONCRETE DECK, PARAPETS, SCUPPERS, APPROACH SLABS AND PORTIONS OF CONCRETE SUBSTRUCTURES IN A SEQUENCE CONSISTENT WITH MAINTENANCE OF TRAFFIC PLANS AND NOTES AND STAGE CONSTRUCTION.
2. INSTALL DRILL SHAFTS AND CONSTRUCT NEW ABUTMENT AND PIER CAPS.
3. CONSTRUCT A NEW CONCRETE DECK AT ELEVATIONS TO MEET OVERLAY ON EXISTING ROADWAY APPROACHES.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS.
5. CONSTRUCT NEW CONCRETE BARRIERS ON DECK AND APPROACH SLABS.
6. PATCH CONCRETE SUBSTRUCTURES AS DIRECTED.
7. CLEAN AND SEAL CONCRETE BARRIERS, ABUTMENTS AND PIERS.

FOUNDATION BEARING PRESSURE

ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 3.2 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 3.2 TONS PER SQUARE FOOT.

PIER FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 2.0 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.1 TONS PER SQUARE FOOT.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS AND OTHER APPURTENANCES. PORTIONS OF THE PIERS AND ABUTMENTS SHALL ALSO BE REMOVED AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN DURING REMOVALS TO PROTECT PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. ALL REMOVALS SHALL BE CONSISTENT WITH THE STAGE CONSTRUCTION REQUIREMENTS. EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIALS OUT OF THE STREAM CHANNEL. IF ANY MATERIAL FALLS INTO THE WATER, THE MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL CONSTRUCTION DEBRIS AND OR EXCESS FILL MATERIAL SHALL BE DISPOSED AT AN ENGINEER APPROVED UPLAND SITE. (A DISPOSAL SITE LOCATED ABOVE THE 100-YEAR FLOOD PLAIN.)
ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE ENGINEER.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER, TO ENSURE ADEQUATE DEPTH CONTROL AND TO PREVENT DAMAGE TO CONCRETE SUBSTRUCTURES.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ROCK CHANNEL PROTECTION

BROKEN CONCRETE FROM THE EXISTING BRIDGE DECK MAY BE USED FOR ROCK CHANNEL PROTECTION. MATERIAL CAN BE EITHER TYPE B OR TYPE C WITH A MINIMUM OF 50% OF THE MATERIAL BEING TYPE B.

SEAL PIER CAPS, WINGWALLS, ABUTMENTS, PARAPETS, AND DECK EDGES WITH EPOXY-URETHANE: COLOR SHALL BE FEDERAL COLOR STANDARD 17778 (OFF-WHITE)

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE DESIGNATED EXPOSED CONCRETE SURFACE AREAS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 30) ENTITLED, ITEM SPECIAL - SEALING OF CONCRETE SURFACES

PATCH SUBSTRUCTURE CONCRETE

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

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

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
191 E. Chestnut St. | Columbus, OH 43215
TEL 614.621.3455 | FAX 614.621.3456 | www.kzfdesign.com

DESIGNED SJA | DRAWN JDG | REVIEWED DGK | DATE 08-02-00
CHECKED WBS | REVISED | STRUCTURE FILE NUMBER 6801145/6801234

KZF #12

GENERAL NOTES
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

REF5: ••REF5••
REF6: ••REF6••
REF7: ••REF7••
REF8: ••REF8••
REF9: ••REF9••
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REF9: ••REF9••
REF10: ••REF10••

$$$$$SYTIME$$$$$
$$$$$SYDATE$$$$$
DGN FILE: DONNSPECIFICATIONS$$$$$$
ACTIVE LEVELS: ALL
ACTIVE CELLS: NONE $$$$$

ENVIRONMENTAL COMMITMENTS AND RESOURCES TO BE AVOIDED

THE CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWAPP) TO ADDRESS EROSION ASSOCIATED WITH SHOULDER DISTURBANCE/ RECONSTRUCTION AND BRIDGE WORK. (CMS 877.03)

ALL CONDITIONS ATTACHED WITH CORPS PERMIT (NATIONWIDE 3 & 14) SHALL BE IMPLEMENTED IN THE FIELD WITH THE ACTUAL PERMIT BEING DISPLAYED ONSITE.

EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIAL OUT OF THE STREAM CHANNELS. IF ANY MATERIAL FALLS INTO THE WATER, IT SHALL BE REMOVED IMMEDIATELY. ALL DEBRIS OR EXCESS FILL MATERIAL SHOULD BE DISPOSED AT AN APPROVED UPLAND SITE. (ABOVE THE 100 YR. FLOODPLAIN)

IN-STREAM STRUCTURES SHALL BE KEPT TO THE MINIMAL SIZE NEEDED TO FACILITATE WORK AND WILL BE REMOVED IMMEDIATELY TO ORIGINAL GRADE AFTER IN-STREAM WORK IS COMPLETED.

WHILE PAINTING, SANDBLASTING OR SEALING OF ANY PORTION OF THE BRIDGE AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS AND PAINT OVERSPRAY AND SEALANTS FROM ENTERING INTO THE STREAM.

PROPER SEDIMENT AND EROSION CONTROLS SHALL BE IMPLEMENTED THROUGHOUT THE COURSE OF THE PROJECT. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK (ODOT CMS ITEM 877)

IMPLEMENT ODOT CMS ITEM 616, DUST CONTROL AS NECESSARY.

COMPLY WITH ODOT CMS ITEM 107.21 CONTROLLING POLLUTION OF THE ENVIRONMENT.

VEGETATION REMOVAL WILL BE HELD TO AN ABSOLUTE MINIMUM REQUIRED TO COMPLETE THE WORK.

WETLANDS EXIST WITHIN THE PROJECT AREA. ALL WETLANDS NOT DIRECTLY INVOLVED WITH BRIDGE DECK/SUBSTRUCTURE MODIFICATIONS SHALL BE AVOIDED. THE BRIDGE SITE PLANS SHOW WETLAND AREAS TO BE AVOIDED.

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS WHICH ARE DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW REINFORCING STEEL.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH S.R. 741 LEBANON, OHIO 45036 (800) 831-2142. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE DRAWINGS.

ITEM 846 - TREATING CONCRETE WITH HMWM RESIN

SEAL THE CONSTRUCTION JOINT IN THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATIONS FOR SURFACE PREPARATION AND RATE OF APPLICATION.

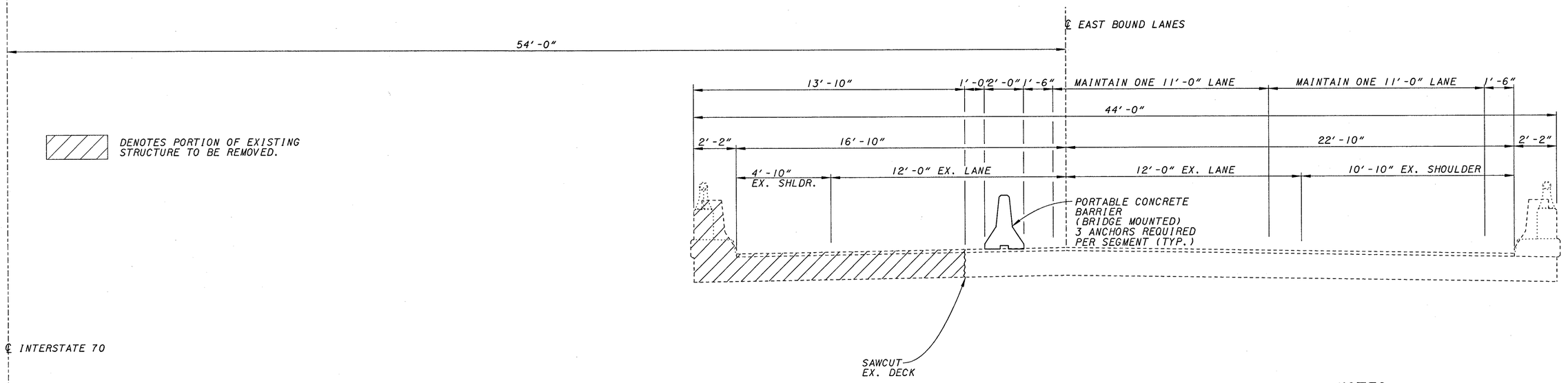
DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 600 Elsinore Drive Cincinnati, OH 45202-6000
TEL 513.621.6211 FAX 513.621.3600 Web www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	08-02-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		680/145/680/1234	

KZF #12

GENERAL NOTES
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

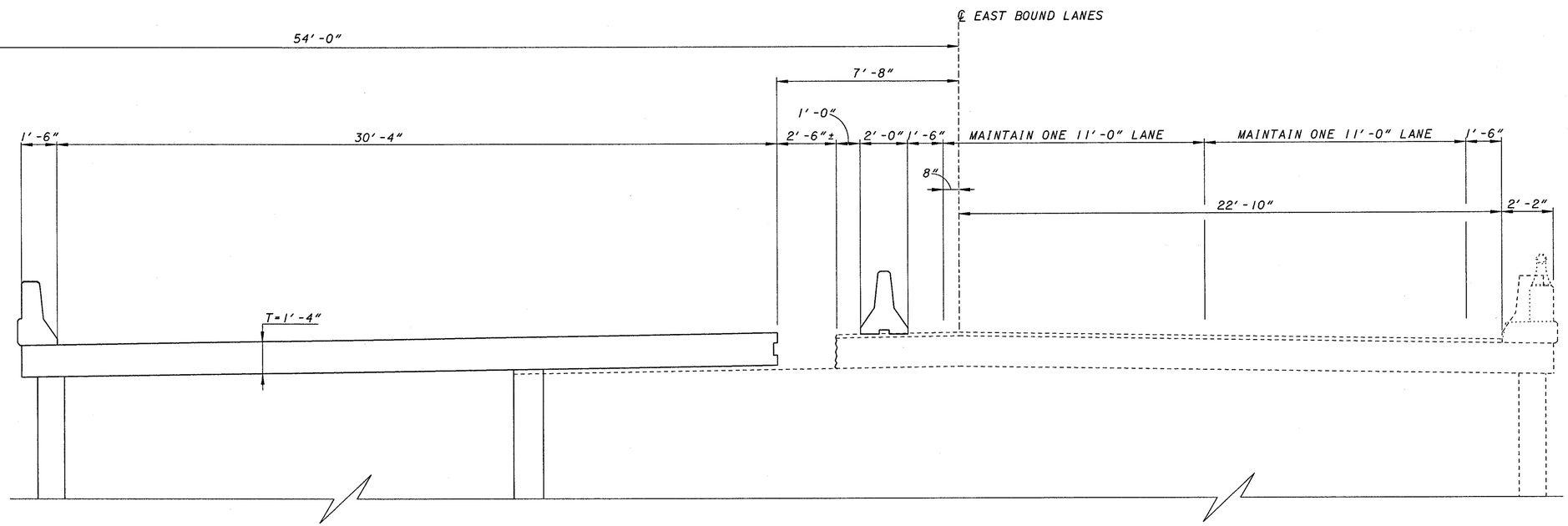
PRE-70-0.00



STAGE IA

NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.
2. EASTBOUND BRIDGE SHOWN, WESTBOUND BRIDGE SIMILAR



STAGE IB

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Akron, Ohio | Cleveland, Ohio | Richmond, Virginia
TEL 513.621.6211 FAX 513.621.3630 Web www.kzf.com

DATE 08-02-00
REVIEWED DGK
STRUCTURE FILE NUMBER 6801145/6801234
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

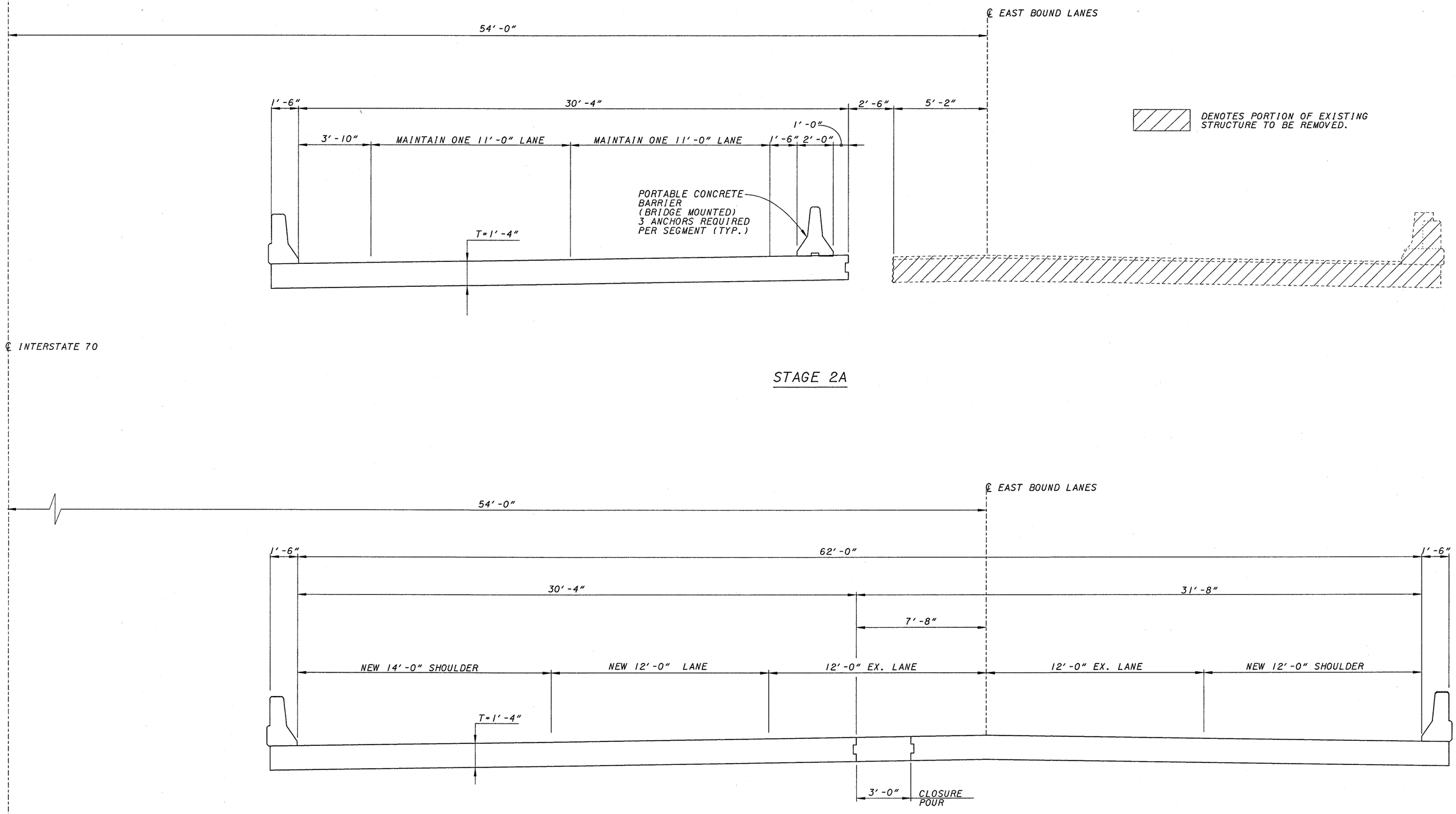
KZF #12

BRIDGE STAGE I CONSTRUCTION
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

5 / 17

172 / 283



STAGE 2A

STAGE 2B

DESIGN AGENCY
KZF DESIGN
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707 Grant Street, 600 Pittsburgh Building, Denver, CO 80203-4000
TEL 303.861.8013 FAX 303.861.8020 WEB www.kzfdesign.com

REVIEWED	DATE
DGK	08-02-00

STRUCTURE FILE NUMBER
6801145/6801234

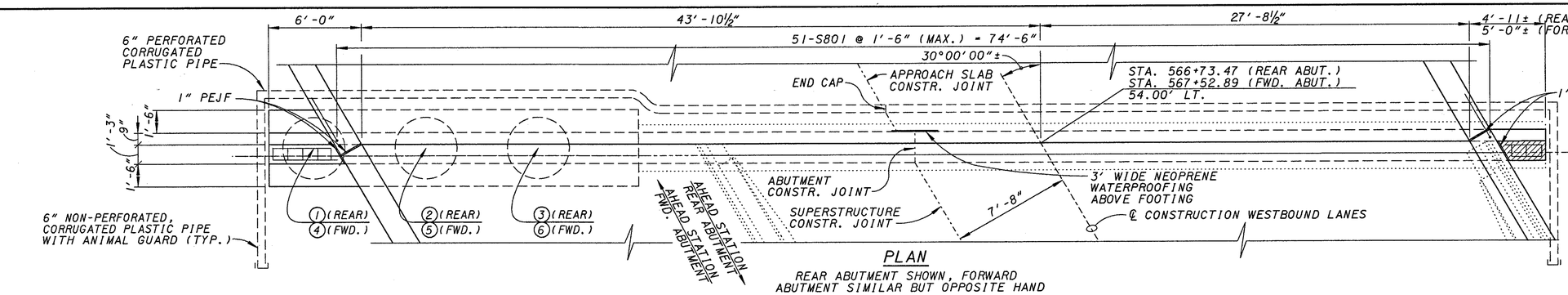
DRAWN	REVISED
JDG	

DESIGNED	CHECKED
SJA	WBS

KZF #12

BRIDGE STAGE 2 CONSTRUCTION
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

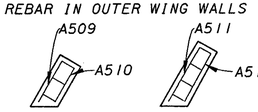


PLAN

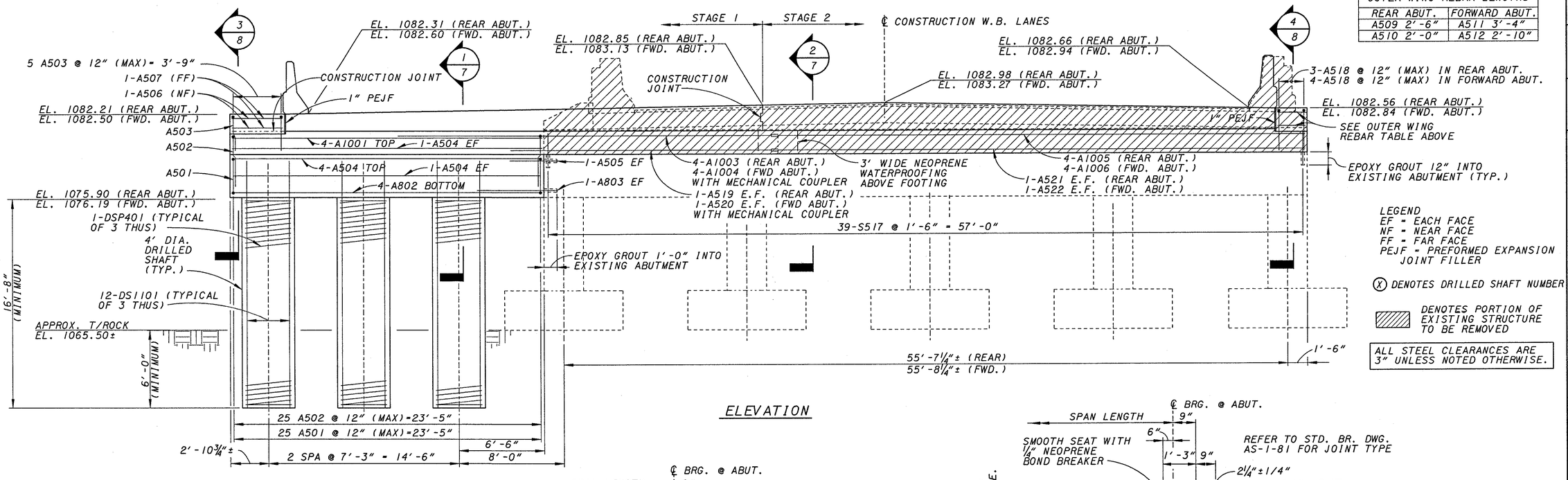
REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND

REVISED

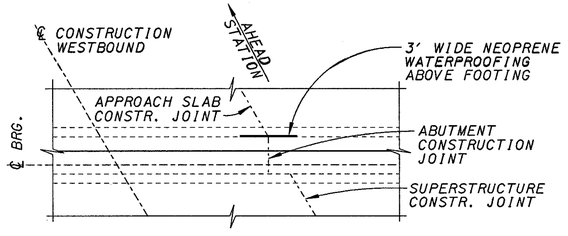
REBAR IN OUTER WING WALLS



OUTER WING REBAR LENGTHS	
REAR ABUT.	FORWARD ABUT.
A509 2'-6"	A511 3'-4"
A510 2'-0"	A512 2'-10"

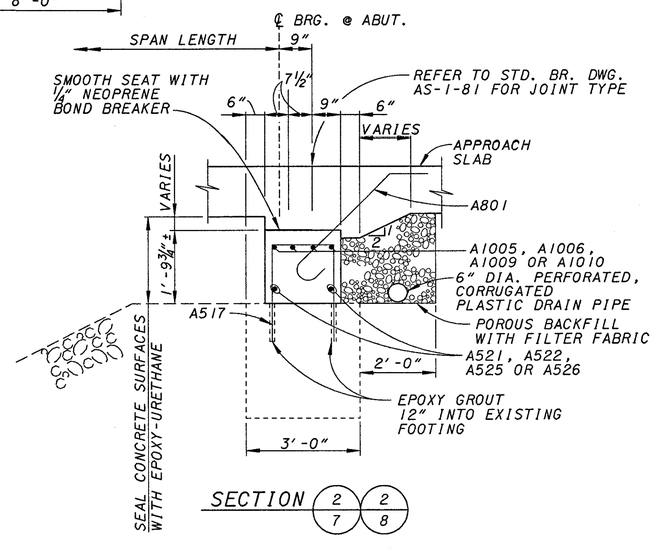


ELEVATION

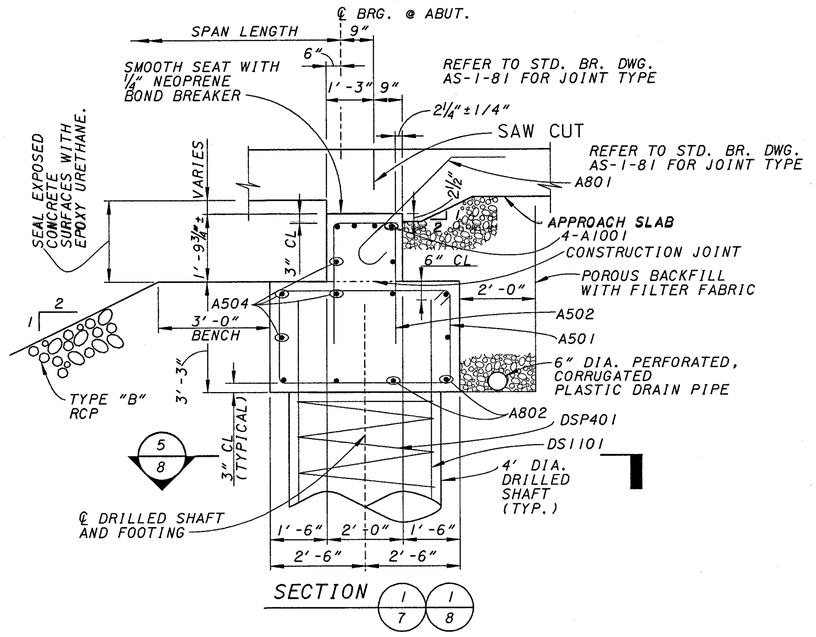


PARTIAL PLAN

FORWARD ABUTMENT



SECTION 2/7 2/8



SECTION 1/7 1/8

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Kohn Zeidler Feldman Inc.
TEL 613.521.0311 FAX 613.521.0030 WEB www.kzf.com

DATE 08-02-00
REVIEWED DGK
STRUCTURE FILE NUMBER 6801145/6801234
DRAWN DGK
REVISED
DESIGNED SJA
CHECKED WBS

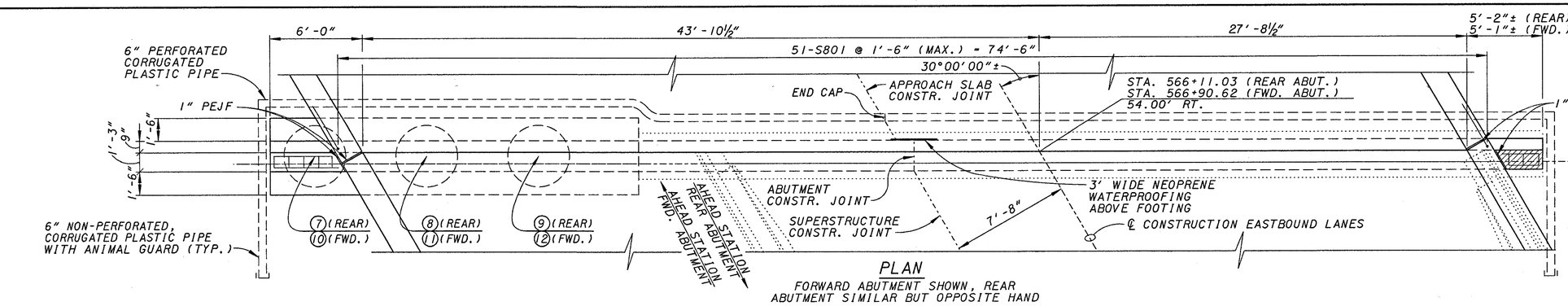
KZF #12

ABUTMENTS - LEFT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

7 / 17

174 / 283

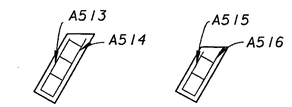


PLAN

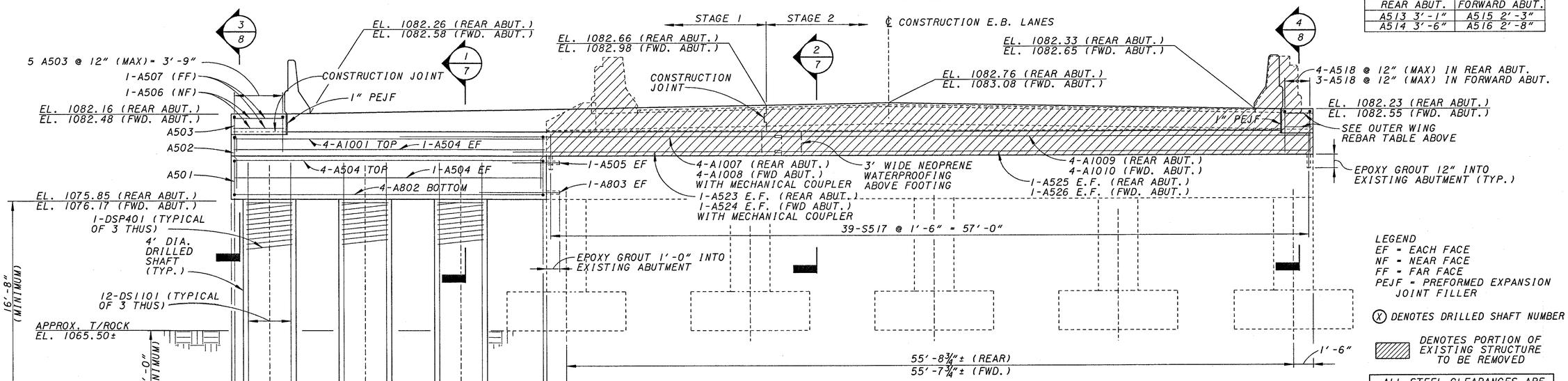
FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR BUT OPPOSITE HAND

REVISED

REBAR IN OUTER WING WALLS



OUTER WING REBAR LENGTHS	
REAR ABUT.	FORWARD ABUT.
A513 3'-1"	A515 2'-3"
A514 3'-6"	A516 2'-8"



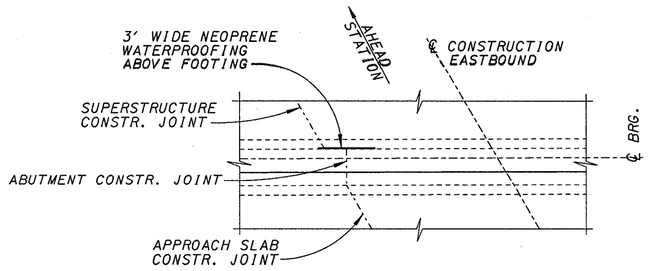
ELEVATION

LEGEND
EF = EACH FACE
NF = NEAR FACE
FF = FAR FACE
PEJF = PREFORMED EXPANSION JOINT FILLER

(X) DENOTES DRILLED SHAFT NUMBER

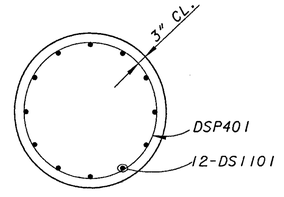
DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

ALL STEEL CLEARANCES ARE 3" UNLESS NOTED OTHERWISE.



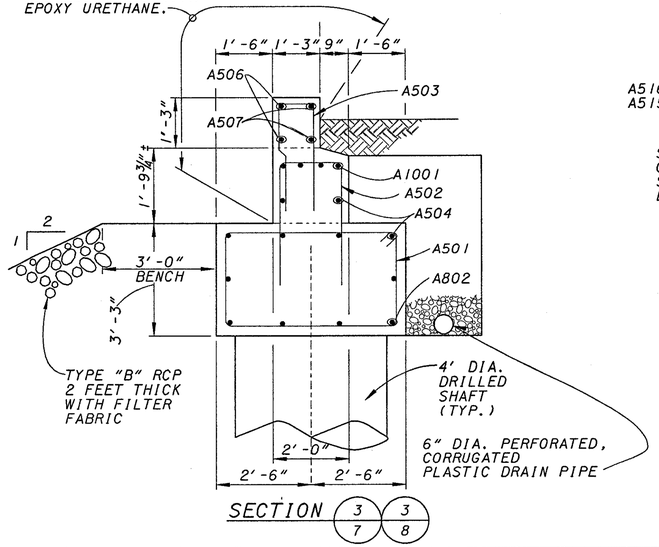
PARTIAL PLAN

REAR ABUTMENT

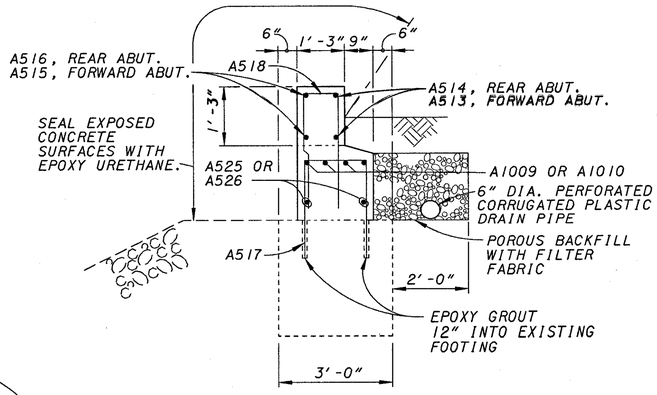


SECTION 5/7

SEAL ALL EXPOSED CONCRETE SURFACES OF EXISTING AND NEW ABUTMENTS WITH EPOXY URETHANE.



SECTION 3/7 3/8



SECTION 4/7 4/8

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Sacramento | Walnut Creek | Woodland | Redding
TEL 916.361.8384 FAX 916.361.1574 WEB www.kzfdesign.com

DATE 08-02-00
REVIEWED DGK
STRUCTURE FILE NUMBER 680 1145/680 1234
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

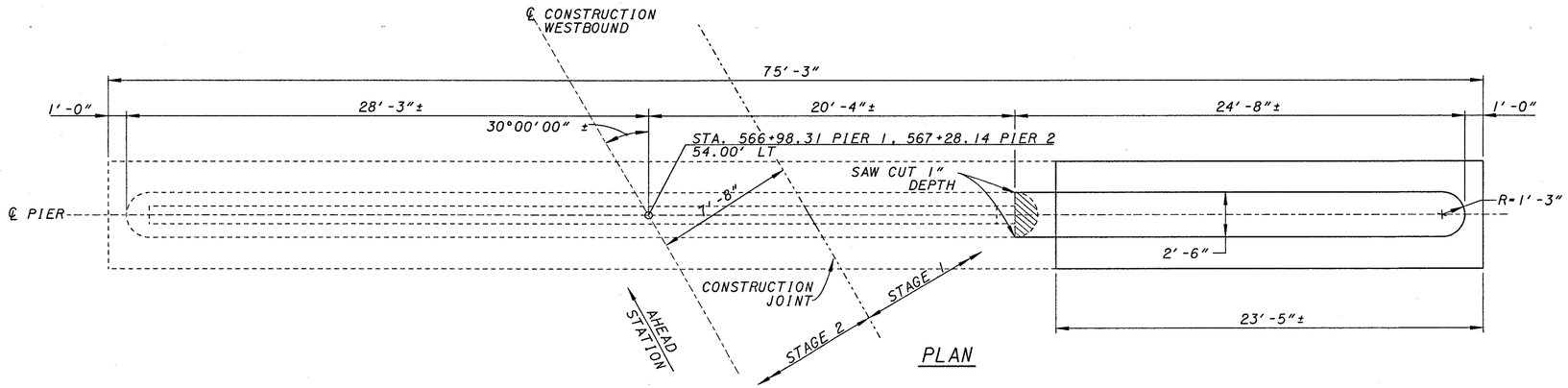
KZF #12

ABUTMENTS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

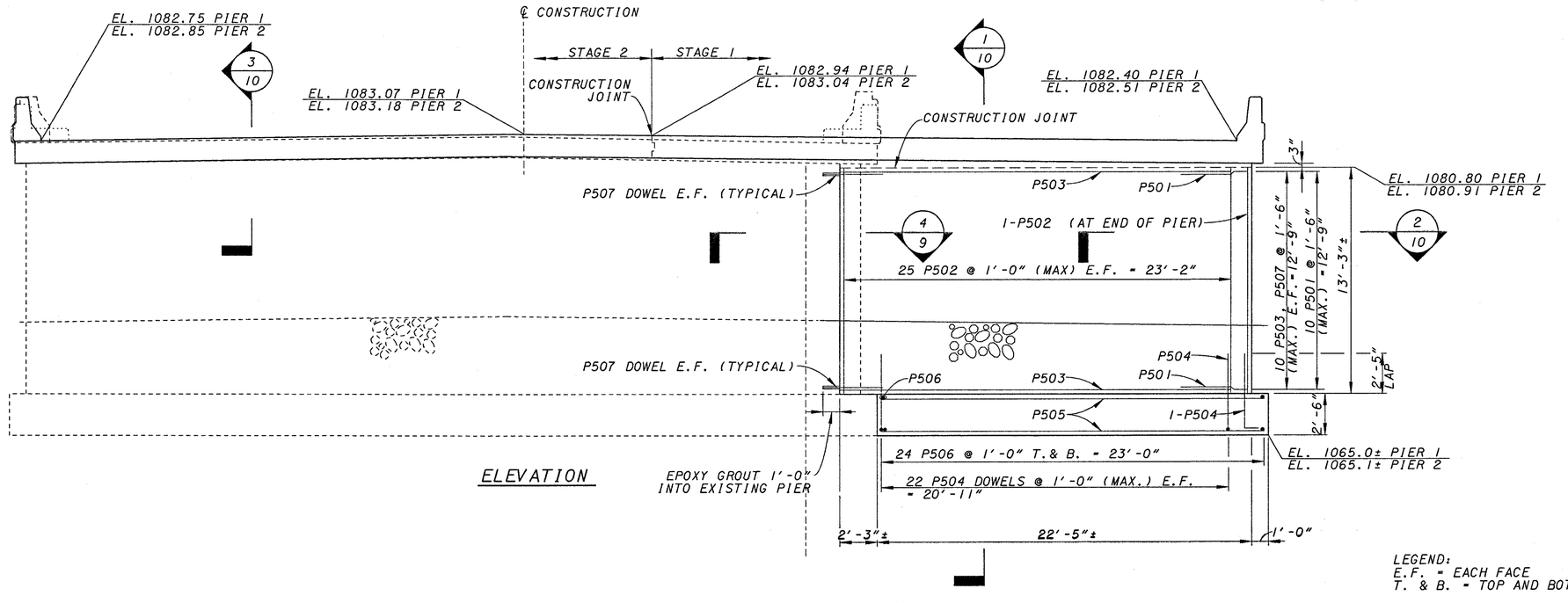
PRE-70-0.00

8 / 17

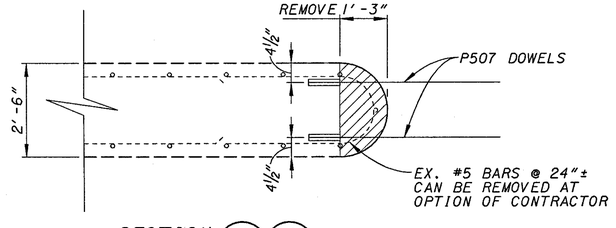
175 / 283



PLAN



ELEVATION



SECTION 4/9 4/10
(PROPOSED)

LEGEND:
E.F. = EACH FACE
T. & B. = TOP AND BOTTOM

DENOTES REMOVAL LIMITS

ALL STEEL CLEARANCES ARE 3" UNLESS NOTED OTHERWISE

NOTE: FOOTINGS SHALL EXTEND A MINIMUM OF 3" INTO THE BOULDERY ZONE OR INTO THE UNDISTRUBED ROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
707 SW Washington, Suite 1500, Portland, OR 97205-3500
Tel: 503.227.3251 Fax: 503.227.3679 www.kzfdesign.com

REVIEWED	DATE
DGK	08-02-00
STRUCTURE FILE NUMBER	
6801145/6801234	
DRAWN	
JDG	
REVISED	
DESIGNED	
SJA	
CHECKED	
WBS	

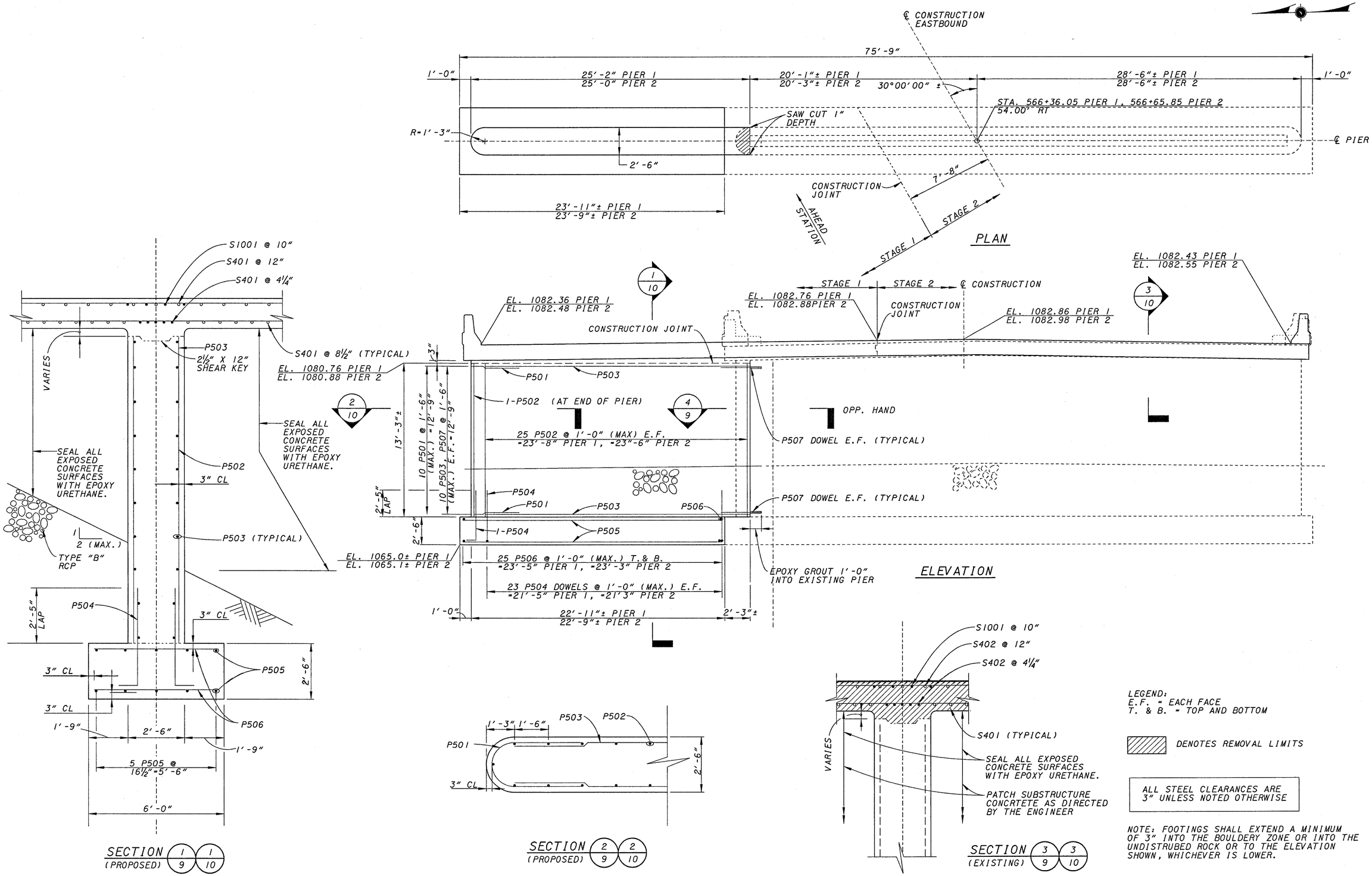
KZF #12

PIER DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

9 / 17

176 / 283



DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Sacramento, CA 95815 Tahoe City, CA 96145
TEL 916.924.8541 FAX 916.921.3600 WEB www.kzfcom

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	08-02-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680/145/680/1234	

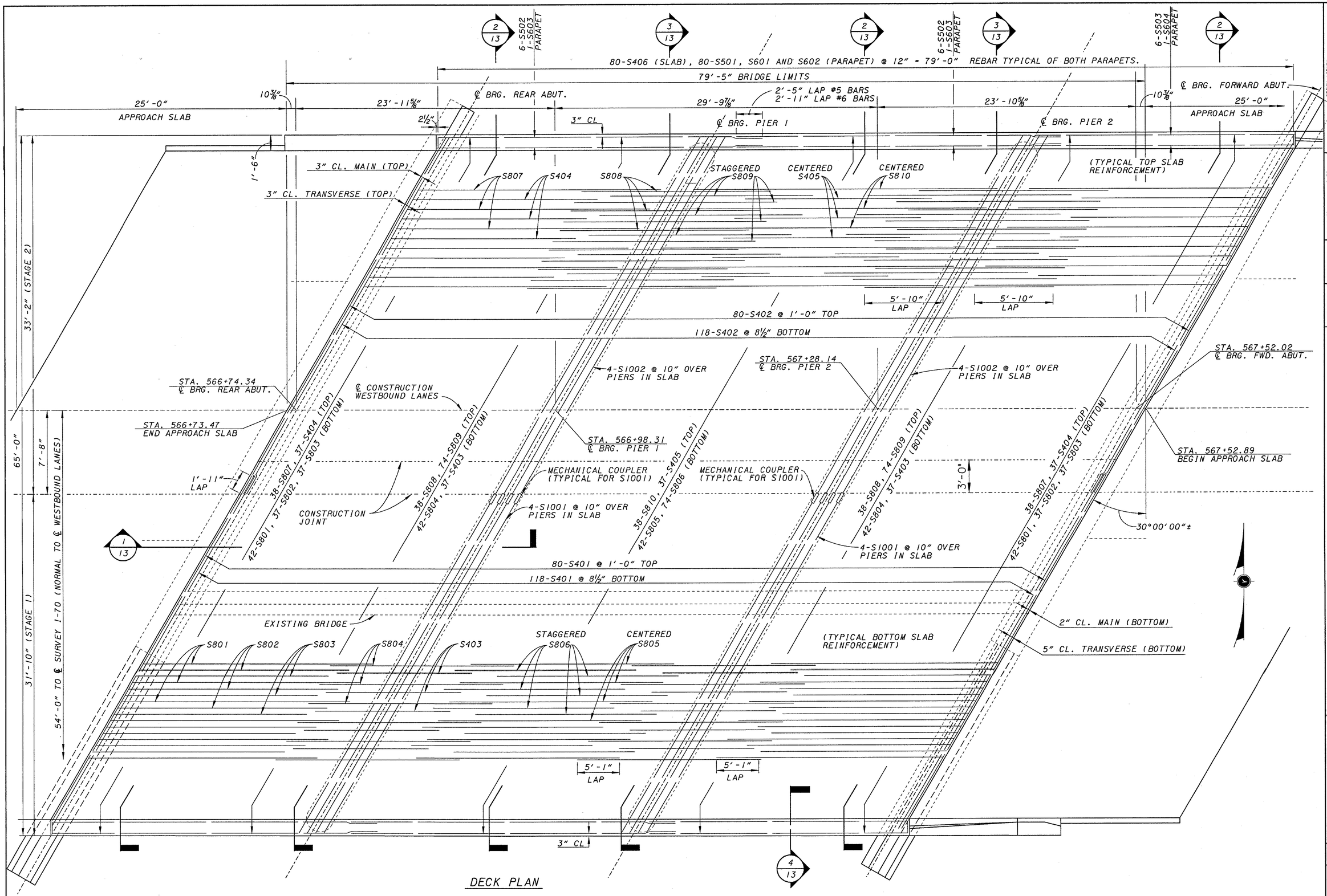
KZF #12

PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

10/17

177/283



DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 600 Vine Street Suite 2 Cincinnati, OH 45202-6000
TEL 513.621.6677 FAX 513.621.3053 WEB www.kzfdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	08-02-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680I145/680I234	

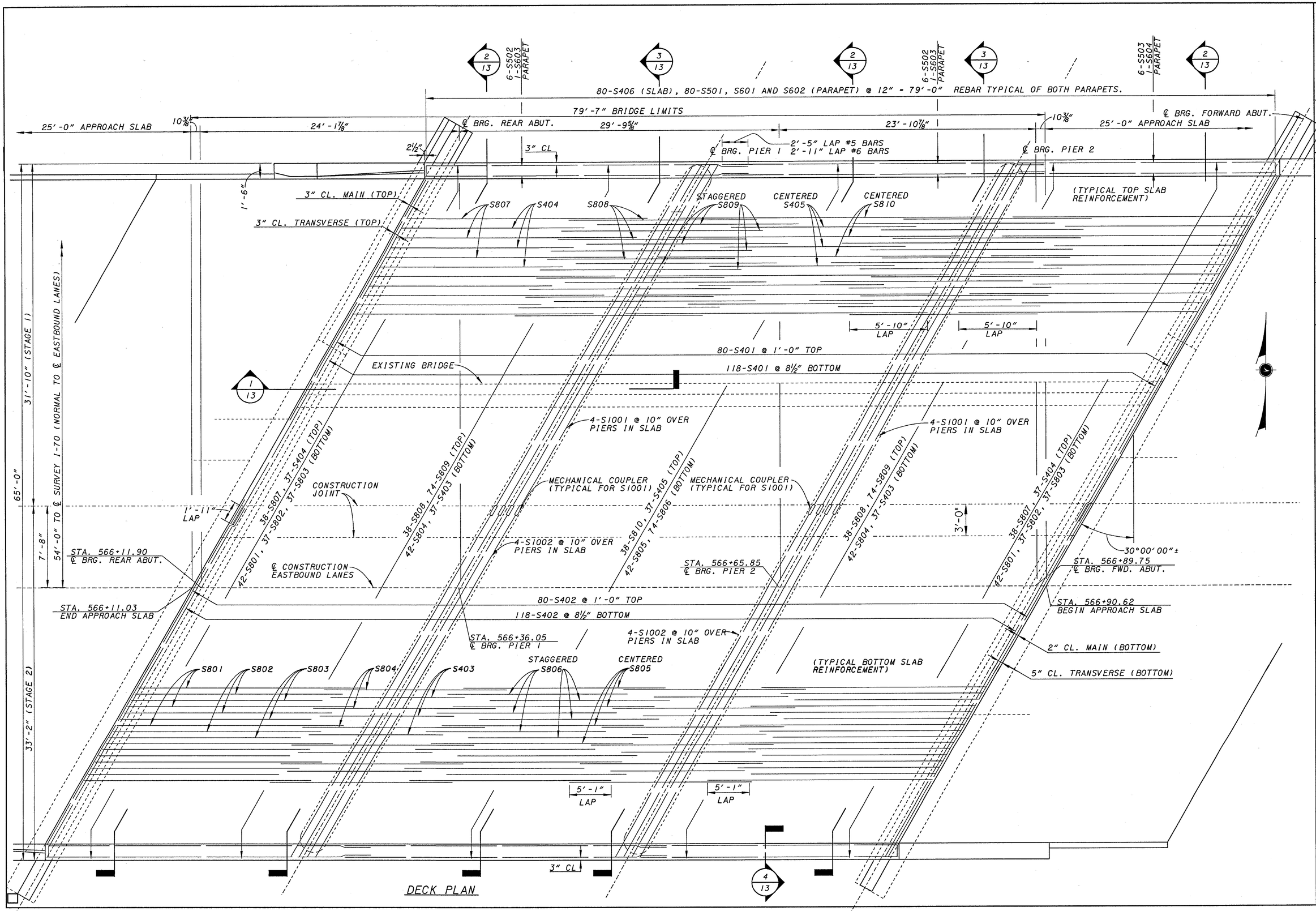
KZF #12

DECK PLAN - LEFT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I.R. TO OVER GOOSE RUN

PRE-70-0.00

11 / 17

178 / 283



DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Portland, Oregon 97214
TEL 503.621.2811 FAX 503.621.3600 WEB www.kzf.com

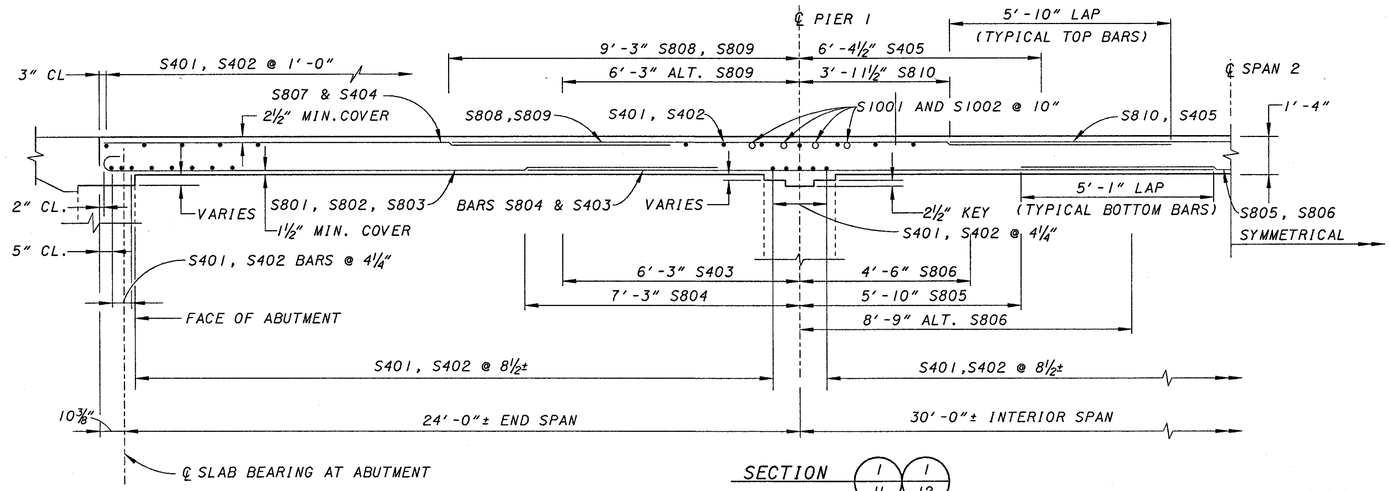
DESIGNED SJA	DRAWN JDG	REVIEWED DGK
CHECKED WBS	REVISED	DATE 08-02-00
KZF #12		STRUCTURE FILE NUMBER 6801145/6801234

DECK PLAN - RIGHT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I-R. 70 OVER GOOSE RUN

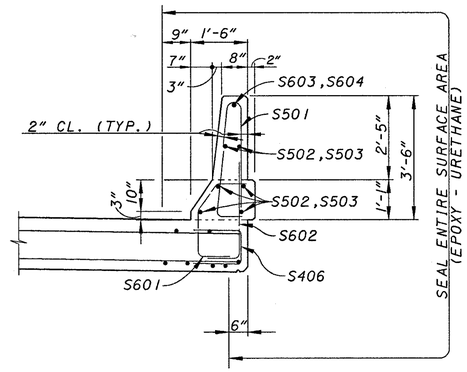
PRE-70-0.00

12 / 17

179 / 283



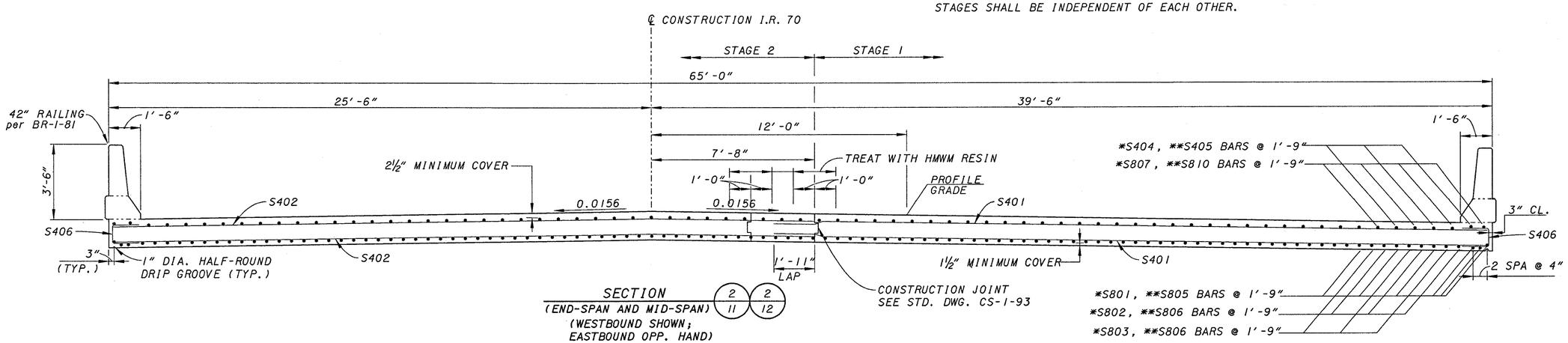
SECTION 1/11 1/12



SECTION 4/11 4/12

NOTE:

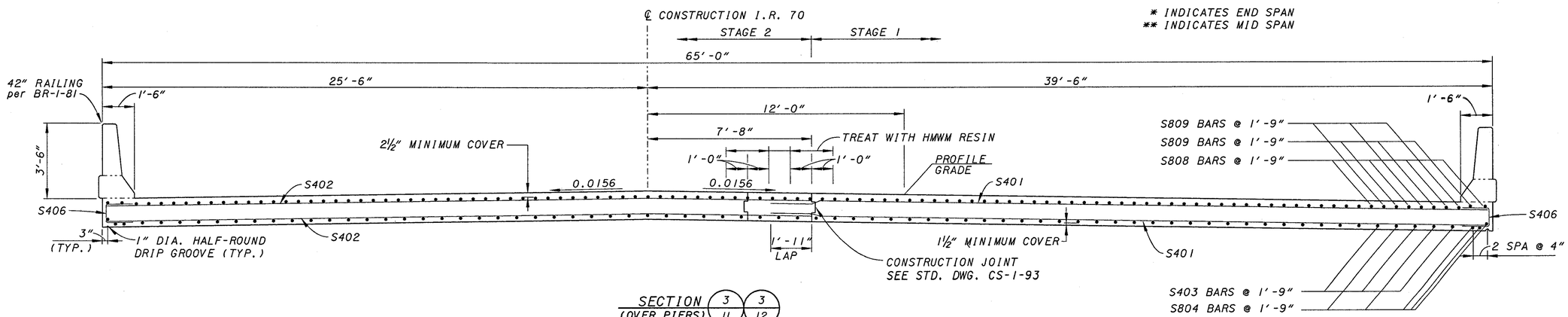
FALSEWORK FOR THE CONCRETE SLAB CONSTRUCTION STAGES SHALL BE INDEPENDENT OF EACH OTHER.



SECTION (END-SPAN AND MID-SPAN) 2/11 2/12

(WESTBOUND SHOWN; EASTBOUND OPP. HAND)

* INDICATES END SPAN
** INDICATES MID SPAN



SECTION (OVER PIERS) 3/11 3/12

(WESTBOUND SHOWN; EASTBOUND OPP. HAND)

DESIGN AGENCY
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DESIGNED SJA
DRAWN SJA
CHECKED WBS
REVIEWED DGK
DATE 08-02-00
STRUCTURE FILE NUMBER 6801145/680234
REVISED

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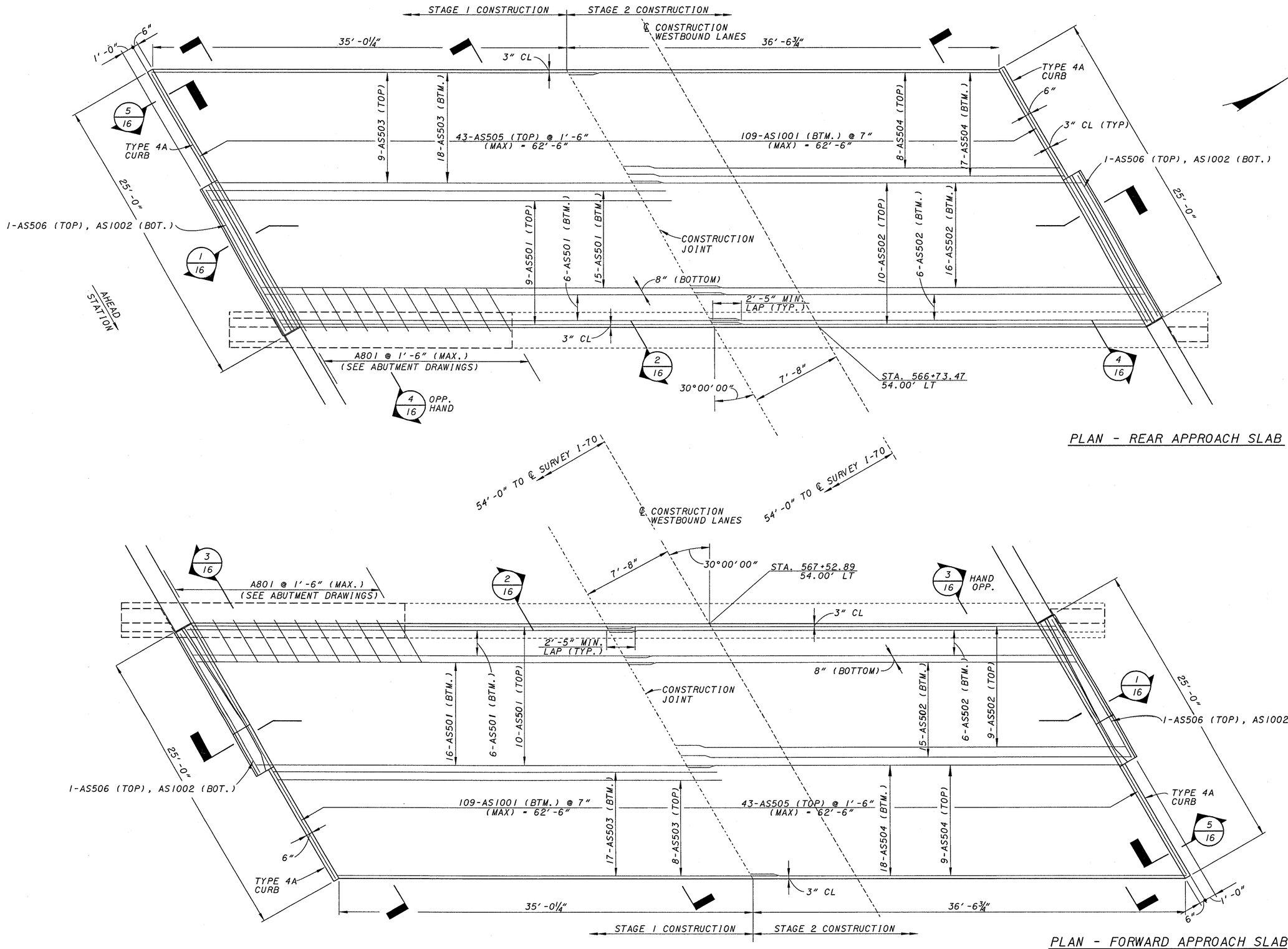
DECK SECTIONS
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

13 / 17

180 / 283



DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
727 Glacier Ave., Juneau, AK 99801 (907) 463-3000
701 E. Tudor Rd., Suite 310, Anchorage, AK 99503 (907) 561-3900
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	08-02-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801145/6801234	

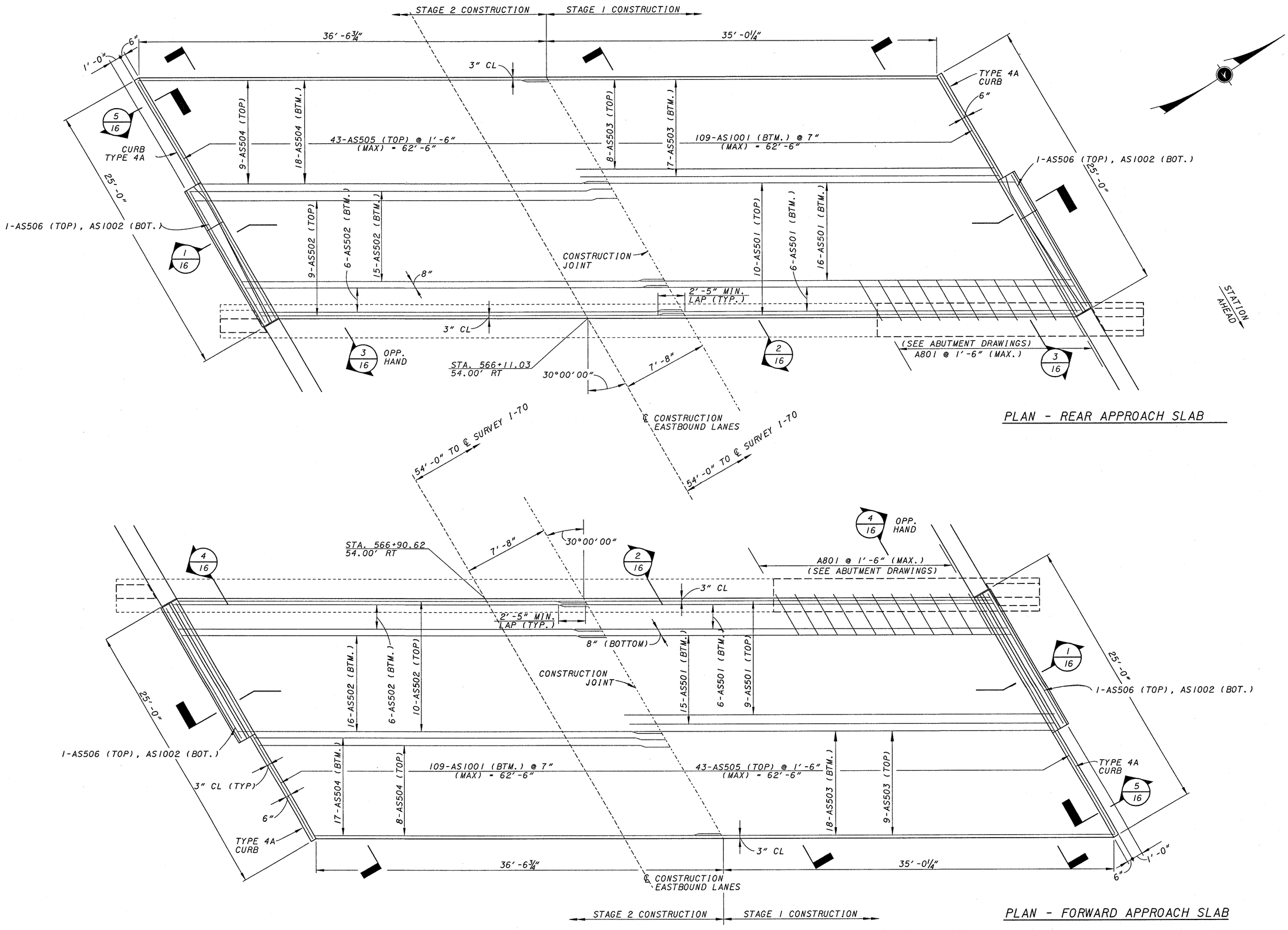
KZF #12

APPROACH SLABS - LEFT BRIDGE
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

14 / 17

181 / 283



DESIGN AGENCY
KZF DESIGN
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Portland, Oregon | Vancouver, Washington
TEL 503.621.5511 FAX 503.621.3600 WEB www.kzfdesign

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	08-02-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801145/6801234	

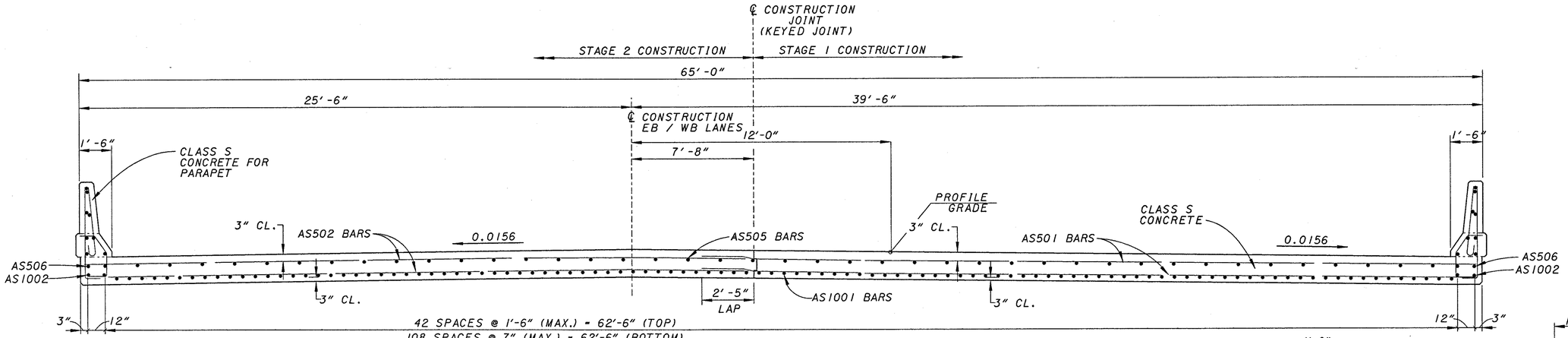
KZF #12

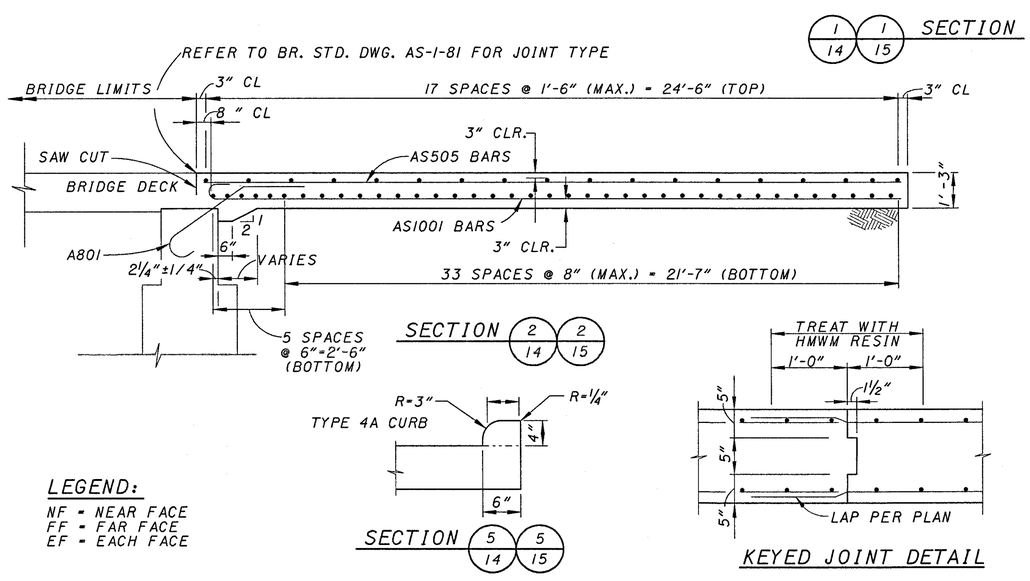
APPROACH SLABS - RIGHT
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

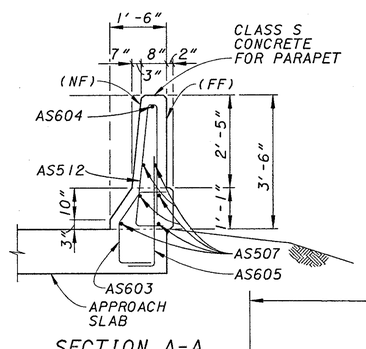
PRE-70-0.00

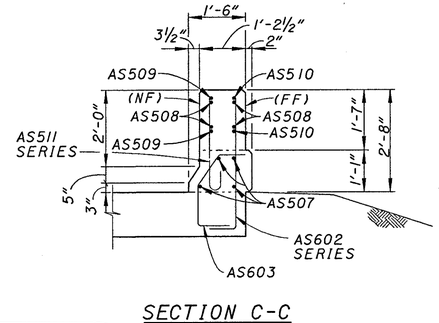
15 / 17

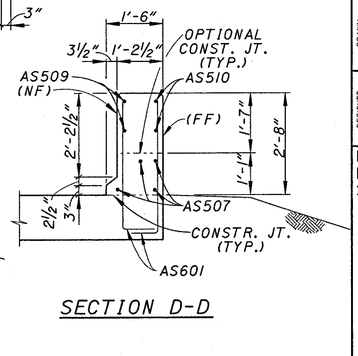
182 / 283

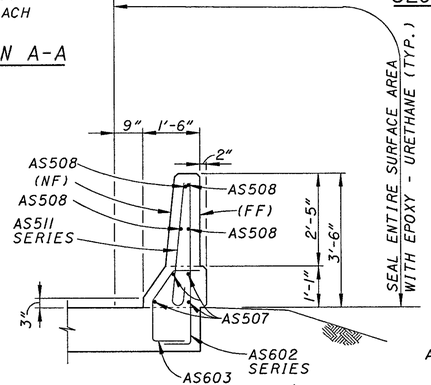


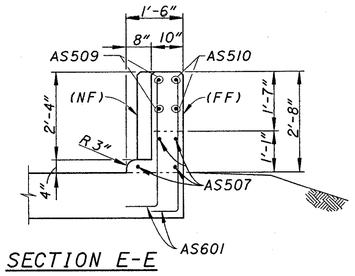




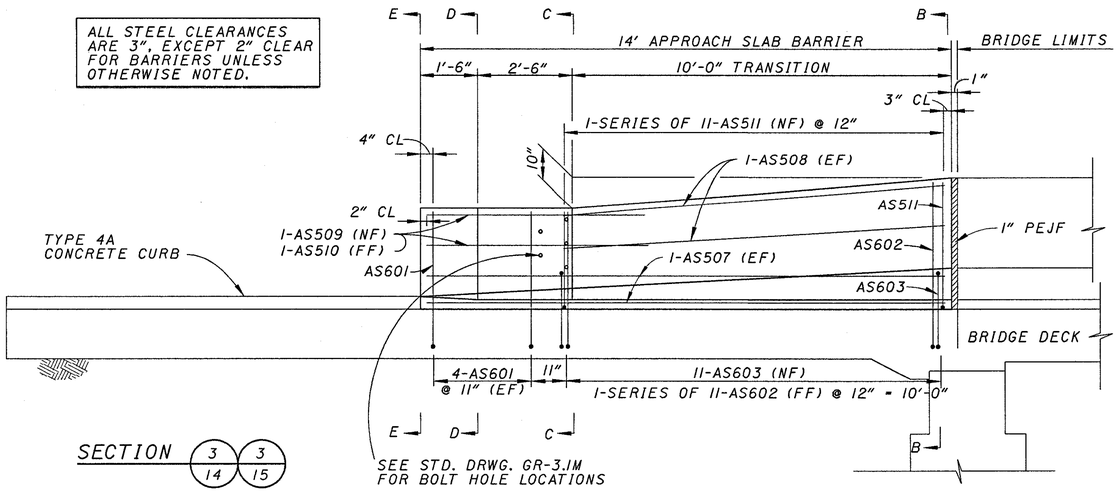


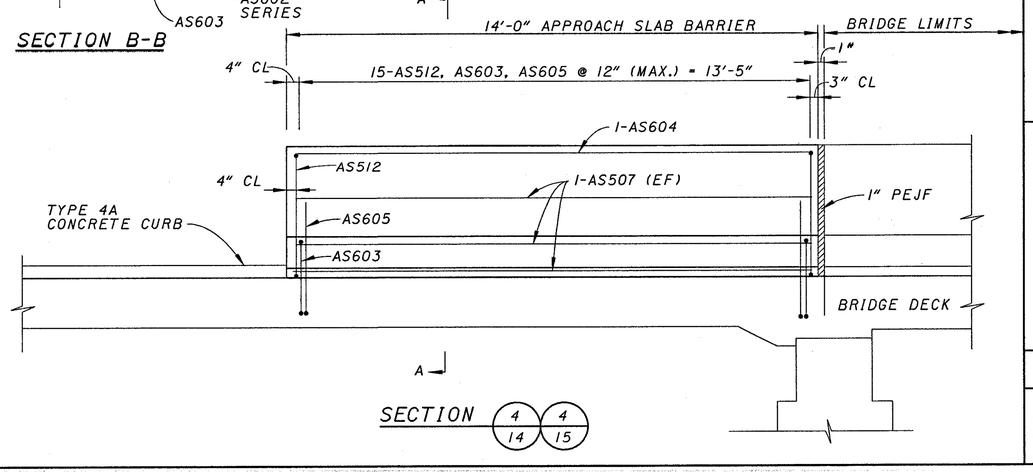






ALL STEEL CLEARANCES ARE 3", EXCEPT 2" CLEAR FOR BARRIERS UNLESS OTHERWISE NOTED.





DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
619 SW Boone Ave, Suite 700, Portland, OR 97205
TEL 503.221.0211 FAX 503.221.3033 WEB www.kzf.com

REVIEWED	DATE
DGK	08-02-00

STRUCTURE FILE NUMBER 680/145/680/234

DRAWN	REVISED
JDG	

DESIGNED	CHECKED
SJA	WBS

KZF #12

APPROACH SLAB DETAILS

BRIDGE NO. PRE-70-1072 L/R
I.R. TO OVER GOOSE RUN

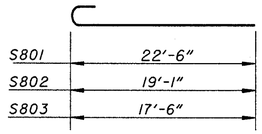
PRE-70-0.00

16 / 17

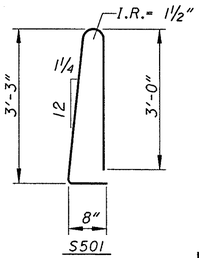
183 / 283

SUPERSTRUCTURE REINFORCING STEEL LIST

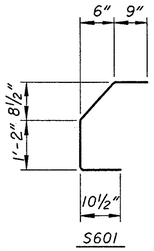
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
S401	38'-5"	STR.	198	5,081	198	5,081
S402	38'-0"	STR.	198	5,026	198	5,026
S403	12'-6"	STR.	74	618	74	618
S404	17'-1"	STR.	74	844	74	844
S405	17'-3"	STR.	37	426	37	426
S406	3'-2"	BENT	160	338	160	338
S501	7'-1"	BENT	160	1,182	160	1,182
S502	30'-0"	STR.	24	751	24	751
S503	24'-3"	STR.	12	304	12	304
S601	3'-5"	BENT	160	821	160	821
S602	3'-9"	BENT	160	901	160	901
S603	30'-0"	STR.	4	180	4	180
S604	25'-3"	STR.	2	76	2	76
S801	23'-5"	BENT	84	5,252	84	5,252
S802	20'-0"	BENT	74	3,952	74	3,952
S803	18'-5"	BENT	74	3,639	74	3,639
S804	18'-2"	STR.	84	4,074	84	4,074
S805	18'-4"	STR.	42	2,056	42	2,056
S806	16'-9"	STR.	74	3,309	74	3,309
S807	21'-3"	STR.	76	4,312	76	4,312
S808	19'-1"	STR.	76	3,872	76	3,872
S809	18'-10"	STR.	148	7,442	148	7,442
S810	22'-1"	STR.	38	2,241	38	2,241
S1001	36'-6"	STR.	8	1,256	8	1,256
S1002	38'-0"	STR*	8	1,308	8	1,308
	TOTAL POUNDS			59,263		59,263



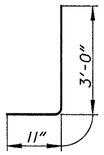
S801, S802, S803



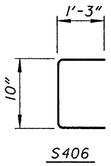
S501



S601



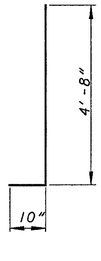
S602



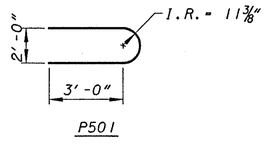
S406

PIER REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
P501	9'-0"	BENT	20	188	20	188
P502	13'-0"	STR.	102	1,383	102	1,383
P503	23'-5"	STR.	40	977	40	977
P504	5'-4"	BENT	90	501	94	523
P505	23'-2"	STR.	20	483	20	483
P506	5'-6"	STR.	96	551	100	574
P507	3'-7"	STR.	40	149	40	149
	TOTAL POUNDS			4,232		4,277



P504



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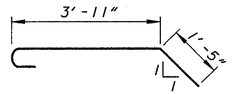

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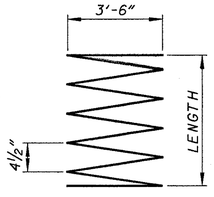
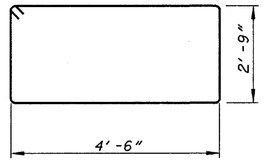
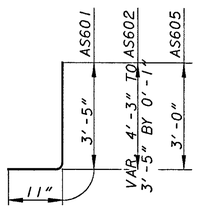


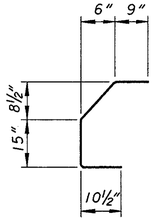
DSP401



A501



AS601, AS602, AS605



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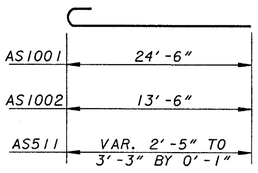
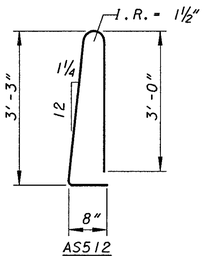
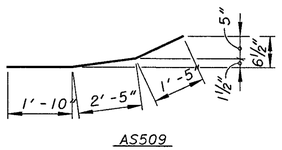


AS1001, AS1002, AS511



AS512



AS509

ADDITIONAL REINFORCING STEEL LIST

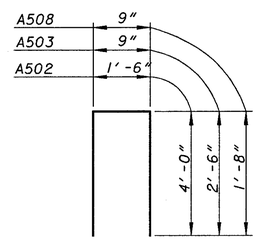
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
A517	6'-1"	BENT	78	495	78	495
A518	9'-0"	BENT	7	66	7	66
A519	20'-7"	STR.	2	43		
A520	20'-3"	STR.	2	42		
A521	40'-7"	STR.	2	85		
A522	40'-11"	STR.	2	85		
A523	20'-3"	STR.			2	42
A524	20'-7"	STR.			2	43
A525	41'-1"	STR.			2	86
A526	40'-9"	STR.			2	85
A801	6'-0"	BENT	78	1,250	78	1,250
A1003	28'-11"	STR.	4	498		
A1004	28'-7"	STR.	4	492		
A1005	40'-7"	STR.	4	699		
A1006	40'-11"	STR.	4	704		
A1007	28'-8"	STR.			4	493
A1008	28'-11"	STR.			4	498
A1009	41'-1"	STR.			4	707
A1010	40'-9"	STR.			4	701
	TOTAL POUNDS		4,458			4,466

APPROACH SLAB REINFORCING STEEL LIST

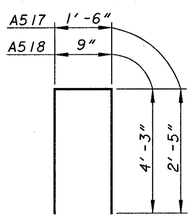
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
AS501	38'-11"	STR.	62	2,517	62	2,517
AS502	38'-0"	STR.	62	2,457	62	2,457
AS503	37'-9"	STR.	52	2,047	52	2,047
AS504	36'-11"	STR.	52	2,002	52	2,002
AS505	24'-6"	STR.	86	2,198	86	2,198
AS506	13'-6"	STR.	4	56	4	56
AS507	13'-5"	STR.	20	280	20	280
AS508	10'-0"	STR.	8	83	8	83
AS509	5'-8"	BENT	4	24	4	24
AS510	5'-8"	STR.	4	24	4	24
	VAR. 3'-10"		2		2	
AS511	TO 3'-0"	BENT	SER. OF	78	SER. OF	78
	BY 0'-1"		11		11	
AS512	7'-1"	BENT	30	222	30	222
AS601	4'-3"	BENT	16	102	16	102
	VAR. 4'-2"		2		2	
AS602	TO 5'-0"	BENT	SER. OF	151	SER. OF	151
	BY 0'-1"		11		11	
AS603	3'-5"	BENT	52	267	52	267
AS604	13'-5"	STR.	2	40	2	40
AS605	3'-9"	BENT	30	169	30	169
AS1001	25'-11"	BENT	218	24,311	218	24,311
AS1002	14'-11"	BENT	4	257	4	257
TOTAL POUNDS				37,286		37,286

ABUTMENT REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
DSP401	16'-2"	BENT	6	2,008	6	2,008
A501	17'-0"	BENT	50	887	50	887
A502	9'-3"	BENT	50	482	50	482
A503	5'-9"	BENT	10	60	10	60
A504	23'-5"	STR.	16	391	16	391
A505	3'-7"	STR.	8	30	8	30
A506	4'-3"	STR.	4	18	4	18
A507	3'-9"	STR.	4	16	4	16
A508	3'-10"	BENT	7	28	7	28
A509	2'-6"	STR.	2	5	0	0
A510	2'-0"	STR.	2	4	0	0
A511	3'-4"	STR.	2	7	0	0
A512	2'-10"	STR.	2	6	0	0
A513	3'-1"	STR.	0	0	2	6
A514	3'-6"	STR.	0	0	2	7
A515	2'-3"	STR.	0	0	2	5
A516	2'-8"	STR.	0	0	2	6
A801	6'-3"	BENT	24	401	24	401
A802	23'-5"	STR.	8	500	8	500
A803	6'-1"	STR.	4	65	4	65
A1001	23'-8"	STR.	8	815	8	815
A1002	9'-0"	STR.	4	155	4	155
DS1101	19'-2"	STR.	72	7,332	72	7,332
	TOTAL POUNDS			13,209		13,210



A502, A503, A507



A517, A518

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 180° AND 135° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A NO. 5 BAR.

DESIGN AGENCY: KZF DESIGN
Architecture | Engineering | Interiors | Planning
101 Stewart St., Ste. 700 Seattle, WA 98101 206.623.4162
701 Washington St., Ste. 104 Vancouver, WA 98660 360.695.3488 www.kzf.com

DESIGNED SJA | DRAWN JDG | REVIEWED DGK | DATE 08-02-00 | CHECKED WBS | REVISED

STRUCTURE FILE NUMBER 680145/680234

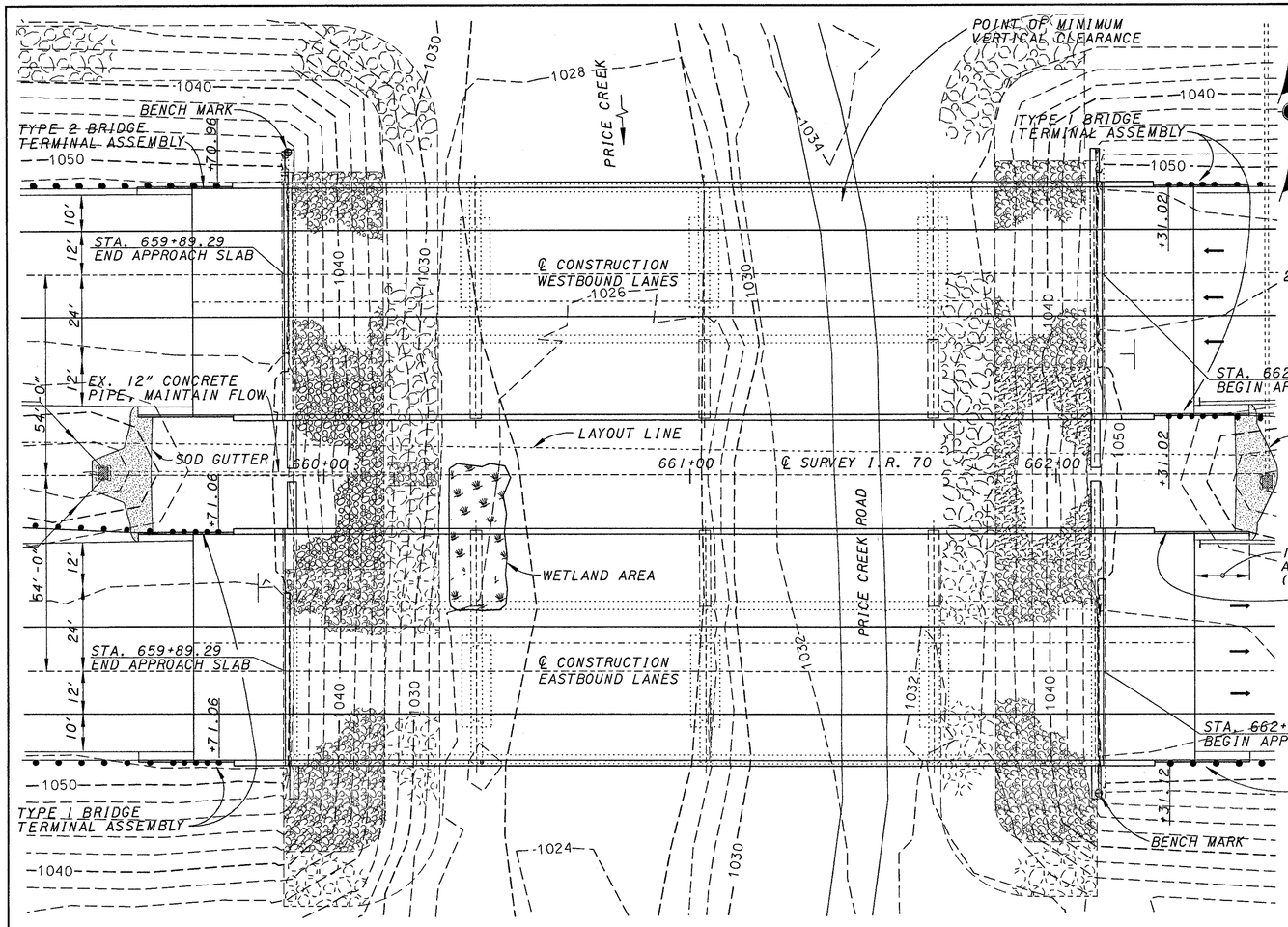
KZF #12

REINFORCING STEEL LIST
BRIDGE NO. PRE-70-1072 L/R
I.R. 70 OVER GOOSE RUN

PRE-70-0.00

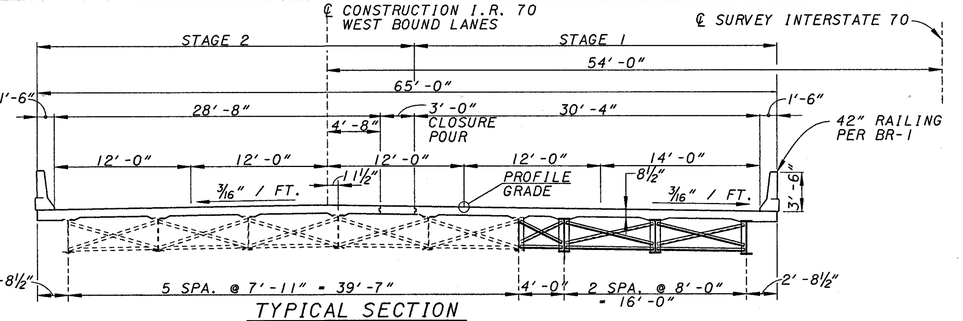
17 / 17

184 / 283



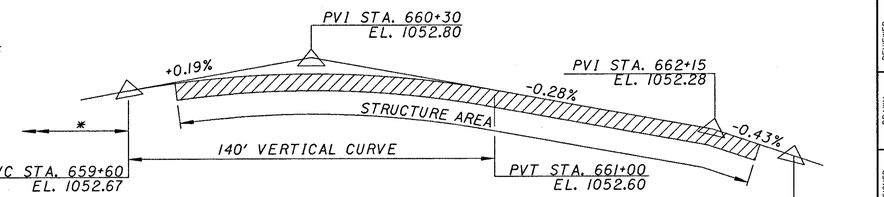
PLAN

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



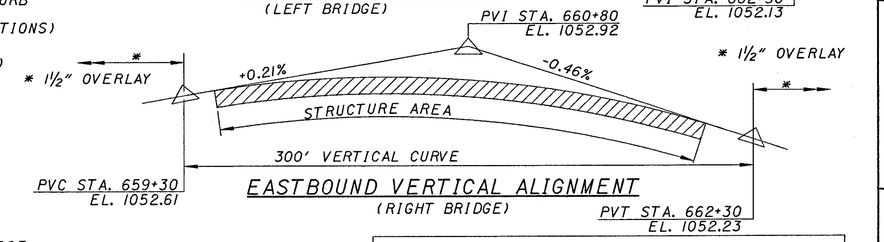
TYPICAL SECTION

(WESTBOUND SHOWN, EASTBOUND OPP. HAND)



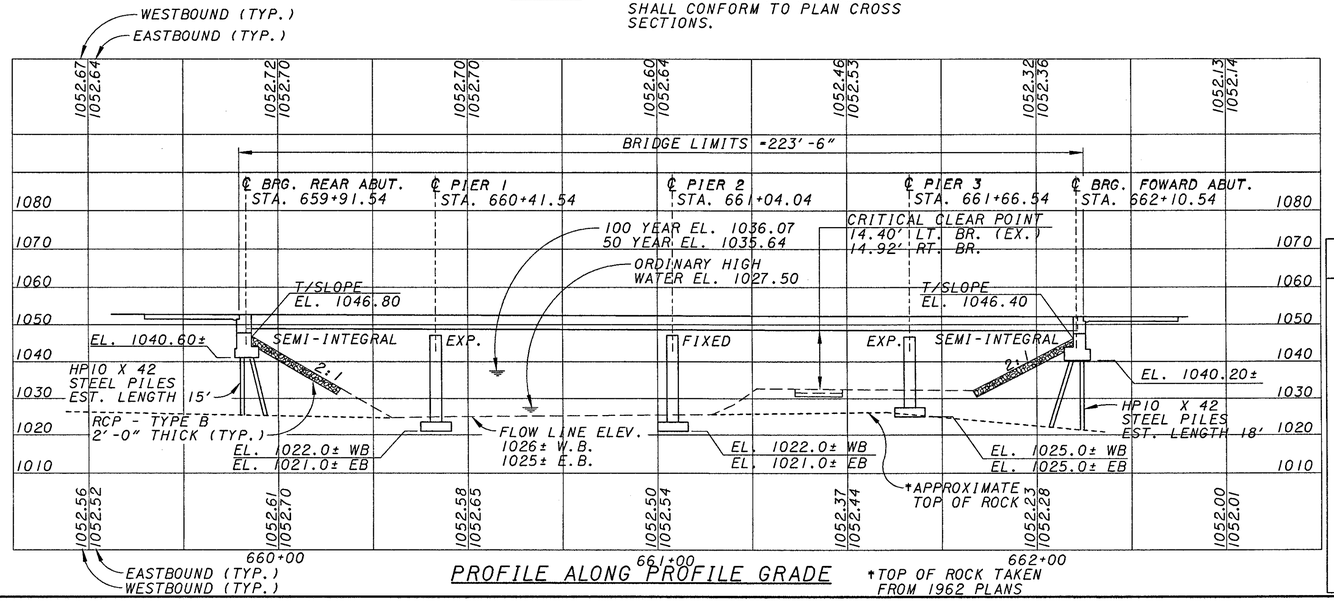
WESTBOUND VERTICAL ALIGNMENT

(LEFT BRIDGE)



EASTBOUND VERTICAL ALIGNMENT

(RIGHT BRIDGE)



PROFILE ALONG PROFILE GRADE

†TOP OF ROCK TAKEN FROM 1962 PLANS

TRAFFIC DATA

ADT (2001) = 35,860
ADT (2021) = 50,800
ADTT (2021) = 19,812
SOURCE = ODOT

BENCH MARK

BOX NOTCH ON S.E. ABUTMENT EASTBOUND AT STA. 662+12±, 85' RT. AT ELEVATION 1051.95

BOX NOTCH ON N.W. ABUTMENT WESTBOUND AT STA. 659+90±, 85' LT. AT ELEVATION 1052.36

DRAINAGE DATA

DRAINAGE AREA: 18.6 SQ. MILES
EXISTING BRIDGE OPENING: 3470 Sq. Ft.
PROPOSED BRIDGE OPENING: 3470 Sq. Ft.
HW100: 1036.07
HW50: 1035.64
Q100: 4050 C.F.S.
Q50: 3610 C.F.S.
V100: 11.61 F.P.S.
V50: 11.55 F.P.S.
LOW CHORD ELEVATION: 1048.30
TOP OF DECK ELEVATION: 1052.3 TO 1052.7

EXISTING STRUCTURE - I.R. 70

TYPE: CONTINUOUS STEEL BEAM ''PAINTED'' WITH REINFORCED CONCRETE DECK, REINFORCED CONCRETE PIERS AND ABUTMENTS.

LENGTH OF SPANS: 50'-0"±, 62'-6"±, 62'-6"± 44'-0"±

ROADWAY WIDTH: 39'-8"± TOE/TOE BARRIER

DESIGN LOADING: C.F. 2000

SKEW ANGLE: NONE

SUPERELEVATION: NONE - NORMAL CROWN

WEARING SURFACE: 1" MONOLITHIC CONCRETE

ALIGNMENT: TANGENT

YEAR BUILT: 1962

PROPOSED STRUCTURE

PROPOSED WORK: NEW COMPOSITE REINFORCED CONCRETE DECK WITH ADDITIONAL BEAMS ON WIDENED SUBSTRUCTURE

TYPE: CONTINUOUS STEEL BEAM "A709-50 PAINTED" WITH COMPOSITE REINFORCED CONCRETE DECK, SEMI-INTEGRAL REINFORCED CONCRETE ABUTMENTS AND REINFORCED CONCRETE "T" TYPE PIERS.

LENGTH OF SPANS: 50'-0"±, 62'-6"±, 62'-6"± 44'-0"±

ROADWAY WIDTH: 62'-0"± TOE/TOE BARRIER

DESIGN LOADING: HS-20 WITH ALTERNATE MILITARY LOADING, CASE 1

SKEW ANGLE: NONE

SUPERELEVATION: NONE - NORMAL CROWN

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLAB: AS-1-81 (25' LONG)

ALIGNMENT: TANGENT

LATITUDE: N 39°50'10"

LONGITUDE: W 84°34'51"

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
ARCHITECTS ENGINEERS
TEL 513.821.8311 FAX 513.821.3650 WEB www.kzf.com

DESIGNED SJA | DRAWN JDG | CHECKED WES | REVIEWED DGK | DATE 09/20/00 | REVISED | STRUCTURE FILE NUMBER 6801269/6801293

PREBLE COUNTY
STA 659+89.74
STA 662+13.24

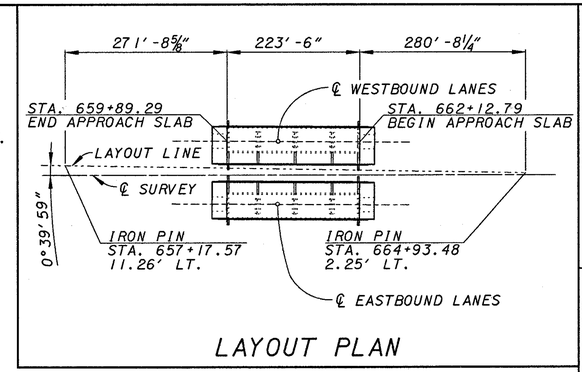
KZF #13

SITE PLAN
BRIDGE NO. PRE-70-1249
I.R. 70 OVER PRICE CREEK

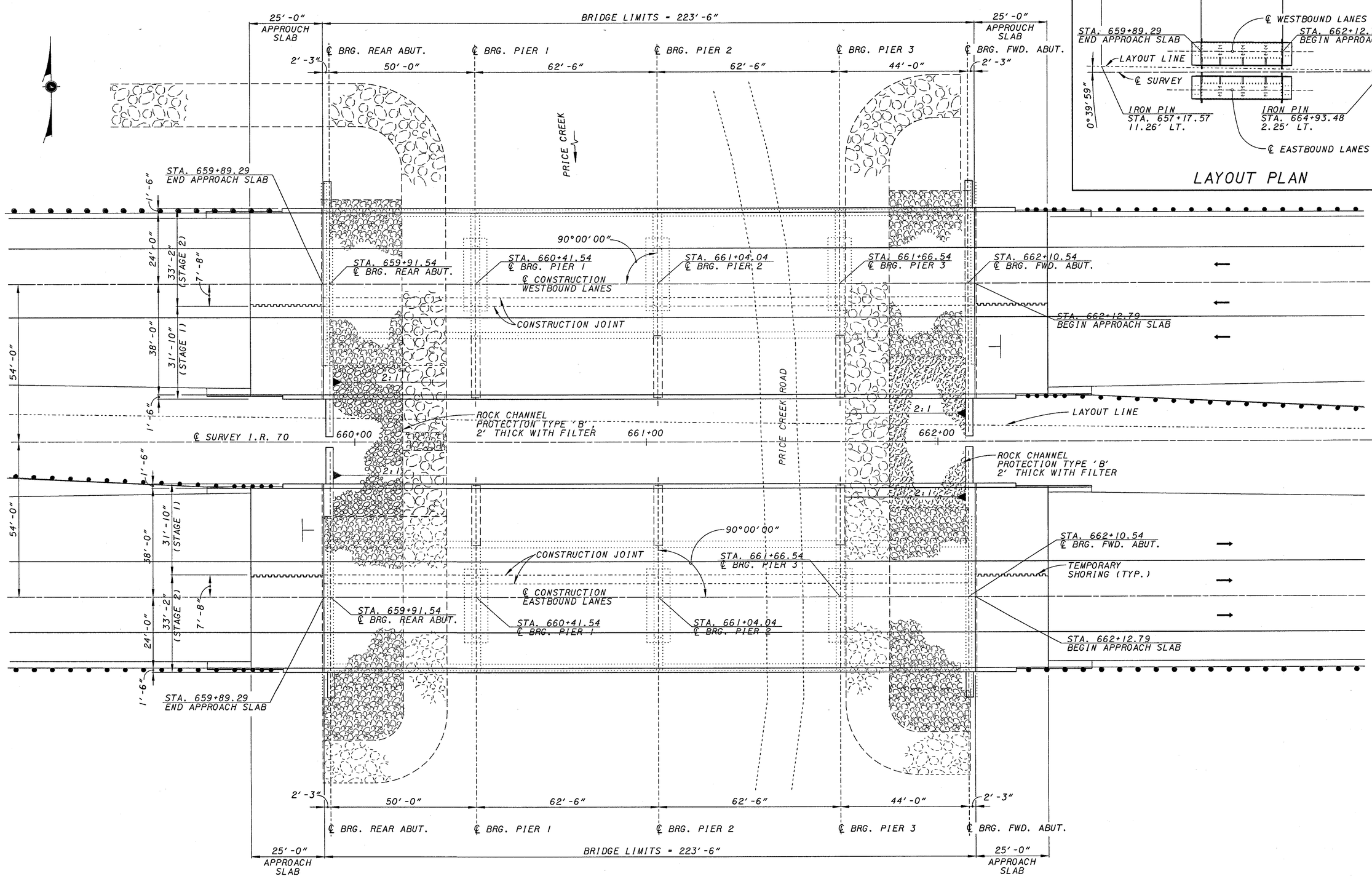
PRE-70-0.00

1 / 27

185 / 283



LAYOUT PLAN



PLAN

DESIGN AGENCY
K Z DESIGN
ARTHUR KUNZ, P.E. Engineering Consultants, Planners
627 DESIGN INC. 655 Dana Park Drive Cincinnati, OH 45255-3020
TEL 513.821.6211 FAX 513.821.3020 WEB www.kzd.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	09/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680/269/6801293	

KZF #13

GENERAL PLAN
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

2 / 27

186
283

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS :

AS-1-81	REVISED 09-15-94 (SHEETS 1,2 & 3)
BR-1	REVISED 1-6-99
BS-1-93	DATED 12-19-94
GSD-1-96M	DATED 2-12-97
RB-1-55	REVISED 2-2-59
SICD-1-96M	DATED 2-12-97

AND TO SUPPLEMENTAL SPECIFICATION:

815	DATED 5/30/96
816	DATED 4/21/97
842	DATED 1/6/99
844	DATED 1/6/99
846	DATED 9/9/97
899	DATED 10/21/98
910	DATED 7/28/98
911	DATED 7/10/97
954	DATED 9/9/97

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44, CASE I AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28-DAY) (SUPERSTRUCTURE)

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28-DAY) (SUBSTRUCTURE)

STRUCTURAL STEEL - ASTM A572/A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

REINFORCING STEEL - ASTM A615, A616 OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, SEALING OF CONCRETE SURFACES, CLASS S CONCRETE AND 2½" CONCRETE COVER.

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

REINFORCING BAR SPLICES: REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY 509.08 OF THE C.M.S. UNLESS OTHERWISE NOTED ON THE PLANS.

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

PROPOSED WORK

1. REMOVE EXISTING CONCRETE DECK, PARAPETS, SCUPPERS, APPROACH SLABS AND PORTIONS OF CONCRETE SUBSTRUCTURES IN A SEQUENCE CONSISTENT WITH MAINTENANCE OF TRAFFIC PLANS AND NOTES AND STAGE CONSTRUCTION.
2. INSTALL PILING AND CONSTRUCT ABUTMENT AND PIER WIDENING.
3. INSTALL NEW BEAMS AND CONSTRUCT A NEW CONCRETE DECK AT ELEVATIONS TO MEET PROPOSED OVERLAY ON EXISTING ROADWAY APPROACHES.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS.
5. CONSTRUCT NEW CONCRETE BARRIERS ON DECK AND APPROACH SLABS.
6. PATCH CONCRETE SUBSTRUCTURES AS DIRECTED.
7. CLEAN AND SEAL CONCRETE BARRIERS, ABUTMENTS AND PIERS.
8. PAINT EXISTING STRUCTURAL STEEL WITH SYSTEM OZEU.
9. PAINT NEW STRUCTURAL STEEL WITH SYSTEM IZEU.

PILES DRIVEN TO BEDROCK: PILES FOR THE ABUTMENTS 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.

FOUNDATION BEARING PRESSURE

PIER FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 3.8 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 5 TONS PER SQUARE FOOT.

PILE DESIGN LOADS

THE ULTIMATE BEARING VALUE IS 88 TONS PER PILE FOR THE ABUTMENT PILES.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS AND OTHER APPURTENANCES. PORTIONS OF THE ABUTMENTS SHALL ALSO BE REMOVED AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN DURING REMOVALS TO PROTECT PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. ALL REMOVALS SHALL BE CONSISTENT WITH THE STAGE CONSTRUCTION REQUIREMENTS. EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIALS OUT OF THE STREAM CHANNEL. IF ANY MATERIAL FALLS INTO THE WATER, THE MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL CONSTRUCTION DEBRIS AND OR EXCESS FILL MATERIAL SHALL BE DISPOSED AT AN ENGINEER APPROVED UPLAND SITE. (A DISPOSAL SITE LOCATED ABOVE THE 100-YEAR FLOOD PLAIN.)
ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK SHALL BE DRAWN ON THE SURFACE OF DECK. SMALL DIAMETER PILOT HOLES SHALL BE DRILLED 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. DURING CUTTING OF THE DECK SLAB, CARE SHALL BE TAKEN NOT TO DAMAGE STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER, TO ENSURE ADEQUATE DEPTH CONTROL AND TO PREVENT DAMAGE TO CONCRETE SUBSTRUCTURES.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS WHICH ARE DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW REINFORCING STEEL.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 105.02 AND 513.02.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH S.R. 741 LEBANON, OHIO 45036 (800) 831-2142. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE DRAWINGS.

INSPECTION OF STRUCTURAL STEEL:

THE ENGINEER SHALL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THAT THEY ARE FREE OF DEFECTS. THE DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS SHALL NOT BE ERECTED UNTIL THE ENGINEER HAS COMPLETED THIS INSPECTION. THIS INSPECTION SHALL NOT TAKE PLACE UNTIL AFTER THE TOP FLANGES ARE CLEANED AS SPECIFIED IN 511.08, BUT SHALL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE, THE EXISTING REINFORCING STEEL WHERE REQUIRED IN THE PLANS SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

EXTRANEOUS MEMBERS: EXISTING EXTRANEOUS MEMBERS (I.E., FINISHING MACHINE AND FORM SUPPORTS, ETC., AND THE SUPPORT FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) ATTACHED BY WELDED CONNECTIONS TO PORTIONS OF THE TOP FLANGES DESIGNATED "TENSION" SHALL BE REMOVED AND THE FLANGE SURFACES GROUND SMOOTH. GRINDING SHALL BE CAREFULLY DONE AND PARALLEL TO THE FLANGES.

DECK REMOVALS: DUE TO THE POSSIBLE PRESENCE OF WELDED ATTACHMENTS TO EXISTING STRUCTURAL STEEL (FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.), CARE SHALL BE TAKEN DURING DECK REMOVAL TO AVOID DAMAGING STRINGERS WHICH ARE TO REMAIN. STRINGERS DAMAGED BY THE CONTRACTOR'S REMOVAL OPERATIONS SHALL, AT NO COST TO THE PROJECT, BE REPLACED OR REPAIRED. PROPOSED REPAIRS, DEVELOPED BY A REGISTERED PROFESSIONAL ENGINEER, SHALL BE SUBMITTED IN WRITING FOR REVIEW AND APPROVAL BY THE DIRECTOR.

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KZF #13

GENERAL NOTES
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

ROCK CHANNEL PROTECTION

BROKEN CONCRETE FROM THE EXISTING BRIDGE DECK MAY BE USED FOR ROCK CHANNEL PROTECTION. MATERIAL CAN BE EITHER TYPE B OR TYPE C WITH A MINIMUM OF 50% OF THE MATERIAL BEING TYPE B.

SEAL PIER CAPS, WINGWALLS, ABUTMENTS, PARAPETS, AND DECK EDGES WITH EPOXY-URETHANE: COLOR SHALL BE FEDERAL COLOR STANDARD 17778 (OFF-WHITE)

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE DESIGNATED EXPOSED CONCRETE SURFACE AREAS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 30) ENTITLED, ITEM SPECIAL - SEALING OF CONCRETE SURFACES

PATCH SUBSTRUCTURE CONCRETE

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

ITEM 846 - TREATING CONCRETE WITH HMWM RESIN

SEAL THE CONSTRUCTION JOINTS IN THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATIONS FOR SURFACE PREPARATION AND RATE OF APPLICATION.

REINFORCING CLEARANCE: UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL CLEARANCE TO FACE OF CONCRETE IS 2".

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

ENVIRONMENTAL COMMITMENTS & RESOURCES TO BE AVOIDED

THE CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWAPP) TO ADDRESS EROSION ASSOCIATED WITH SHOULDER DISTURBANCE/ RECONSTRUCTION AND BRIDGE WORK. (CMS 877.03)

ALL CONDITIONS ATTACHED WITH C.O.E. PERMIT (NATIONWIDE 3 & 14) SHALL BE IMPLEMENTED IN THE FIELD WITH THE ACTUAL PERMIT BEING DISPLAYED ONSITE.

EVERY EFFORT SHALL BE MADE TO KEEP DEMOLITION MATERIAL OUT OF THE STREAM CHANNELS. IF ANY MATERIAL FALLS INTO THE WATER, IT SHALL BE REMOVED IMMEDIATELY. ALL DEBRIS OR EXCESS FILL MATERIAL SHOULD BE DISPOSED AT AN APPROVED UPLAND SITE. (ABOVE THE 100 YR. FLOODPLAIN)

IN-STREAM STRUCTURES SHALL BE KEPT TO THE MINIMAL SIZE NEEDED TO FACILITATE WORK AND WILL BE REMOVED IMMEDIATELY TO ORIGINAL GRADE AFTER IN-STREAM WORK IS COMPLETED.

WHILE PAINTING, SANDBLASTING OR SEALING OF ANY PORTION OF THE BRIDGE AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS AND PAINT OVERSPRAY AND SEALANTS FROM ENTERING INTO THE STREAM.

PROPER SEDIMENT AND EROSION CONTROLS SHALL BE IMPLEMENTED THROUGHOUT THE COURSE OF THE PROJECT. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK (ODOT CMS ITEM 877)

IMPLEMENT ODOT CMS ITEM 616, DUST CONTROL AS NECESSARY.

COMPLY WITH ODOT CMS ITEM 107.21 CONTROLLING POLLUTION OF THE ENVIRONMENT.

VEGETATION REMOVAL WILL BE HELD TO AN ABSOLUTE MINIMUM REQUIRED TO COMPLETE THE WORK.

WETLANDS EXIST WITHIN THE PROJECT AREA. ALL WETLANDS NOT DIRECTLY INVOLVED WITH BRIDGE DECK/SUBSTRUCTURE MODIFICATIONS SHALL BE AVOIDED. THE BRIDGE SITE PLANS SHOW WETLAND AREAS TO BE AVOIDED.

CLASS C CONCRETE, ABUTMENT:

GENERAL PURPOSE HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT ABUTMENTS SHALL BE INSTALLEDIN ACCORDANCE WITH STANDARD DRAWING SICD-9-96M

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND ALL EQUIPMENT TO RAISE OR REPOSITION ANY EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND OPERATION OF AN ADEQUATE JACKING SYSTEM, INCLUDING ANY TEMPORARY OR PERMANENT SUPPORTS NECESSARY TO PERFORM THE WORK DESCRIBED IN THE PROJECT PLANS. THREE (3) SETS OF JACKING PLANS, WHICH INCLUDE THE INFORMATION DESCRIBED IN THIS NOTE, SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN. THE PLANS SHALL BE PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER.

JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

1. THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF THE PROFESSIONAL ENGINEER WHO PREPARED THE SUBMITTAL.
2. CALCULATIONS AND ANALYSIS OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE CONTRACTOR'S SELECTION JACKING POINTS.
3. A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.
4. A SCHEMATIC LAYOUT OF JACKS, CHECK VALVES, PUMPS WITH 3 WAY REACTOR VALVE, PRESSURE GAGES, FLOW CONTROL VALVES, ETC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS FOR EACH ABUTMENT OR PIER SHALL BE CONNECTED TOGETHER. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE THE SAME SIZE.
5. ANALYSIS AND CALCULATIONS OF THE STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY OR PERMANENT SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY OR PERMANENT SUPPORTS.
6. PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORTS. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.
7. A STEP BY STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION.
8. METHOD OF ATTATCHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS WILL NOT BE PERMITTED.

THE ENTIRE SYSTEM INCLUDING JACKS SHALL HAVE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED LOADS.
FOR LIFTS GREATER THAN 1 INCH, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT.

JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK.

JACKS ALONE SHALL NOT BE USED TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. TEMPORARY SUPPORTS, BLOCKING OR OTHER METHODS APPROVED BY THE DIRECTOR SHALL BE USED.

SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM SHALL NOT BE USED.

SPARE EQUIPMENT SHALL BE AVAILABLE ON SITE FOR THE REQUIRED STRUCTURE RAISING TO PROCEED IN THE EVENT OF A BREAKDOWN. A LIST OF SPARE EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER.

AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY. THE ONLY EXCEPTION IS THE SITUATION WHERE THE WORK INVOLVES REPLACING OR REHABILITATING INDIVIDUAL BEARINGS, NO PERMANENT SHIMMING IS REQUIRED AND THE HEIGHT OF THE LIFT SHALL NOT EXCEED 1/4 INCH.

MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE 1 INCH OR LESS.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS OBSERVED, THE JACKING OPERATION SHALL IMMEDIATELY CEASE AND APPROVED SUPPORTS SHALL BE INSTALLED. THE CONTRACTOR SHALL ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. ANY BEAMS THAT SEPARATE FROM THE DECK SHALL BE EPOXY INJECTED FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH THE PROPOSAL NOTE "CONCRETE REPAIR BY EPOXY INJECTION." COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL DEMOSTRATE TO THE ENGINEER THAT THE BRIDGE BEARINGS ARE FULLY SEATED BETWEEN ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUITABLE MEANS OF REPAIR, SUBJECT TO THE APPROVAL OF THE ENGINEER, WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE

THE JACKING OPERATION SHALL BE DIRECTED BY A PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR. FAILURE TO HAVE A PROFESSIONAL ENGINEER PRESENT SHALL BE CAUSE FOR CEASING JACKING OPERATIONS.

CONCRETE PARAPETS:

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 1 1/4" DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. THE SAWCUTS SHALL BE PLACED AT A MINIMUM OF 6 FEET AND A MAXIMUM OF 10 FEET CENTERS. THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL SURFACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A POLYURETHANE OR POLYMERIC CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E. THE BOTTOM 1/2 INCH OF THE INSIDE AND OUTSIDE FACE SHOULD BE LEFT UNSEALED TO ALLOW WATER TO ESCAPE.

ASBESTOS ABATEMENT

THE CONTRACTOR SHALL CONDUCT ASBESTOS INSPECTIONS OF ALL BRIDGES SUBJECT TO RENOVATION OR DEMOLITTION AS PER CHAPTER 3745-20 OF THE OHIO ADMINISTRATIVE CODE (OAC) "ASBESTOS EMISSIONS CONTROL FROM RENOVATION/DEMOLITION AND WASTER DISPOSAL OPERATION" MAY 29, 1990 UTILIZING A CERTIFIED OHIO ASBESTOS HAZARD EVALUATION SPECIALIST. SHOULD SUSPECT ASBESTOS CONTAINING MATERIAL (ACM) BE ENCOUNTERED; PERFORM BULK SAMPLING AND ANALYSIS. PREPARE A LETTER REPORT (1-2 PAGES) INCLUDING A BRIEF DISCUSSION OF THE INSPECTION AND SAMPLING METHOLOGY, MAPPING INDICATING THE BRIDGE LOCATION AND SAMPLING LOCATIONS, AND ANALYTICAL TEST RESULTS.

THE CONTRACTOR SHALL COMPLETE AN OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORM AND SUBMIT THIS TO THE OHIO EPA AT LEAST 10 WORKING DAYS BEFORE OPERATIONS BEGIN.

AS THESE INSPECTION REPORTS AND NOTIFICATION FORMS ARE COMPLETED, COPIES SHALL BE FORWARD TO ODOT'S ON SITE PROJECT ENGINEER.

PAYMENT OF THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR EACH BRIDGE.

SHOULD ASBESTOS CONTAINING MATERIAL BE ENCOUNTERED, ALL SUSPECT MATERIALS SHALL BE REMOVED AND PROPERLY DESPOSED OF BY A CERTIFIED ASBESTOS REMOVAL CONTRACTOR IN ACCORDANCE WITH OAC 3745-20. AN INDIVIDUAL TRAINED IN THE PROVISIONS OF NESHAPS (30 CFR PART 61, SUBPART M) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION OF ANY STRUCTURE WITH ACM AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE DURING NORMAL BUSINESS HOURS.

ALL ASSOCIATED COSTS OF ASBESTOS MATERIALS TO BE REMOVED AND PROPERLY DISPOSED OF, WILL BE PAYED UNDER 'THIRD PARTY BILLING' PROVISIONS OF ODOT CHANGE ORDER POLICY 512-004(P) APPENDIX D.

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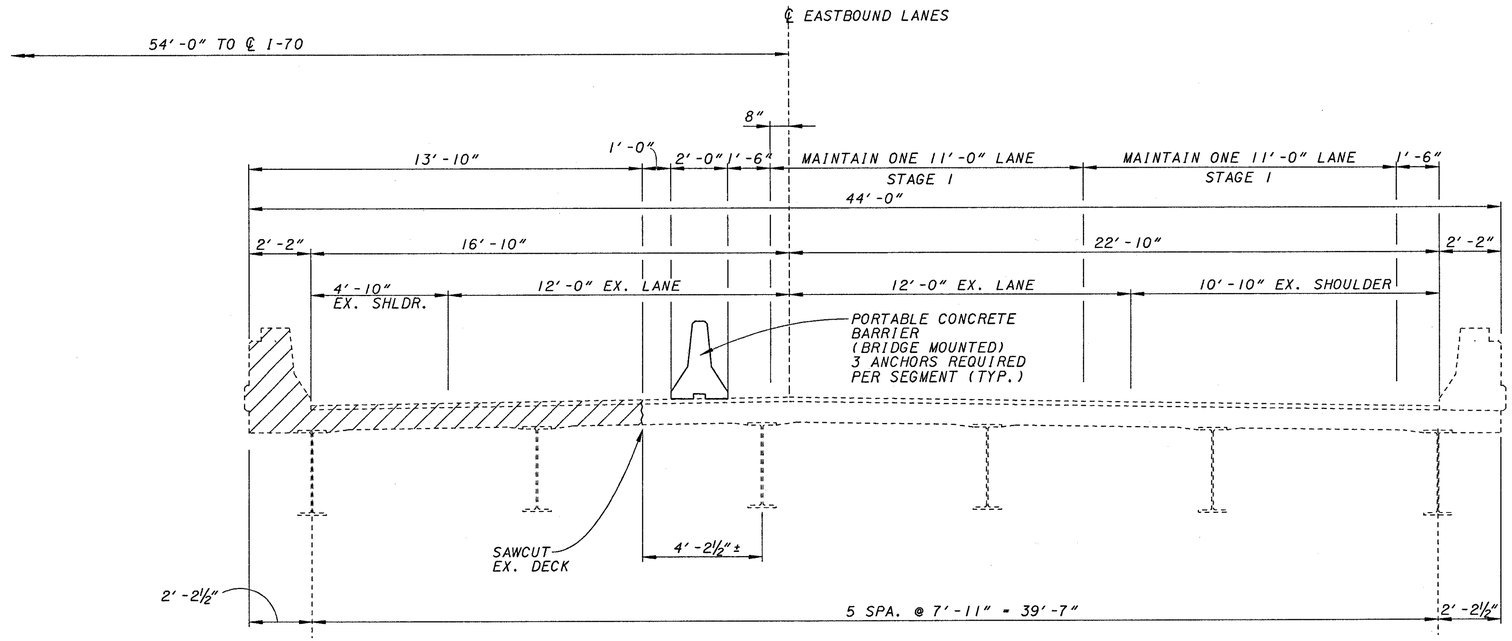
KZF #13

GENERAL NOTES
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00



STAGE IA

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.

NOTE:

BRIDGE FOR EASTBOUND TRAFFIC SHOWN
BRIDGE FOR WESTBOUND TRAFFIC (OPP. HAND) SIMILAR.

NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.

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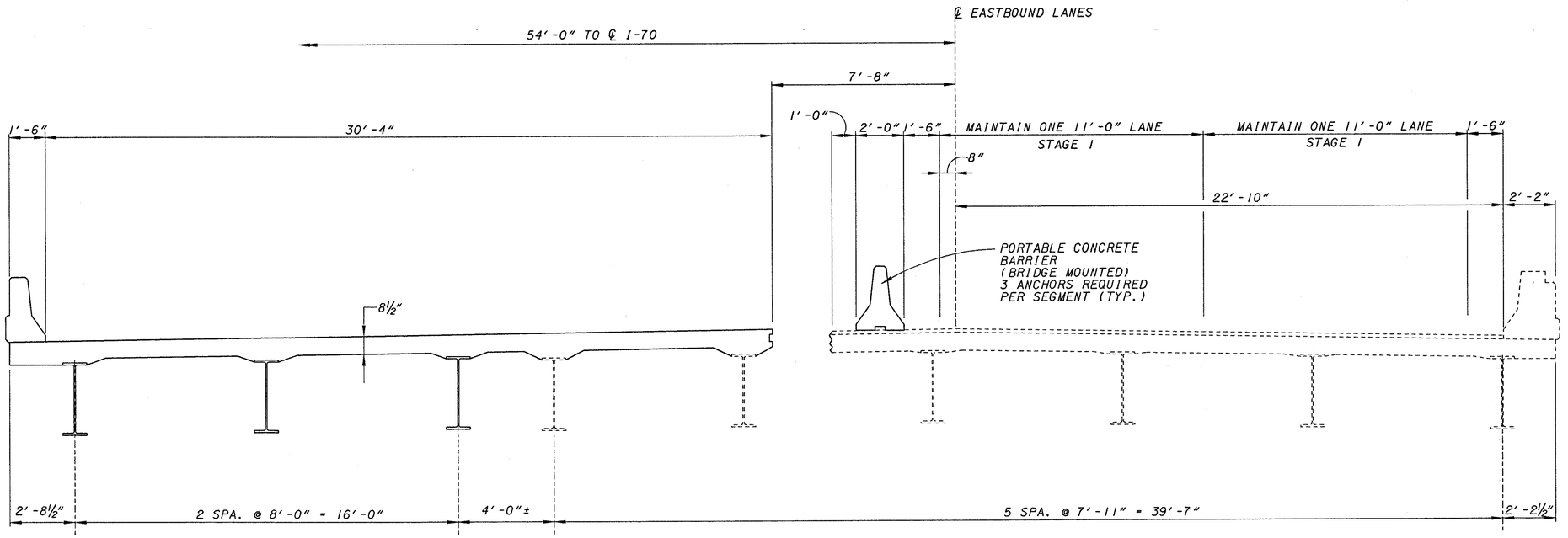
BRIDGE STAGE IA CONSTRUCTION
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

4/27

189/283



STAGE IB

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BRIDGE STAGE IB CONSTRUCTION
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

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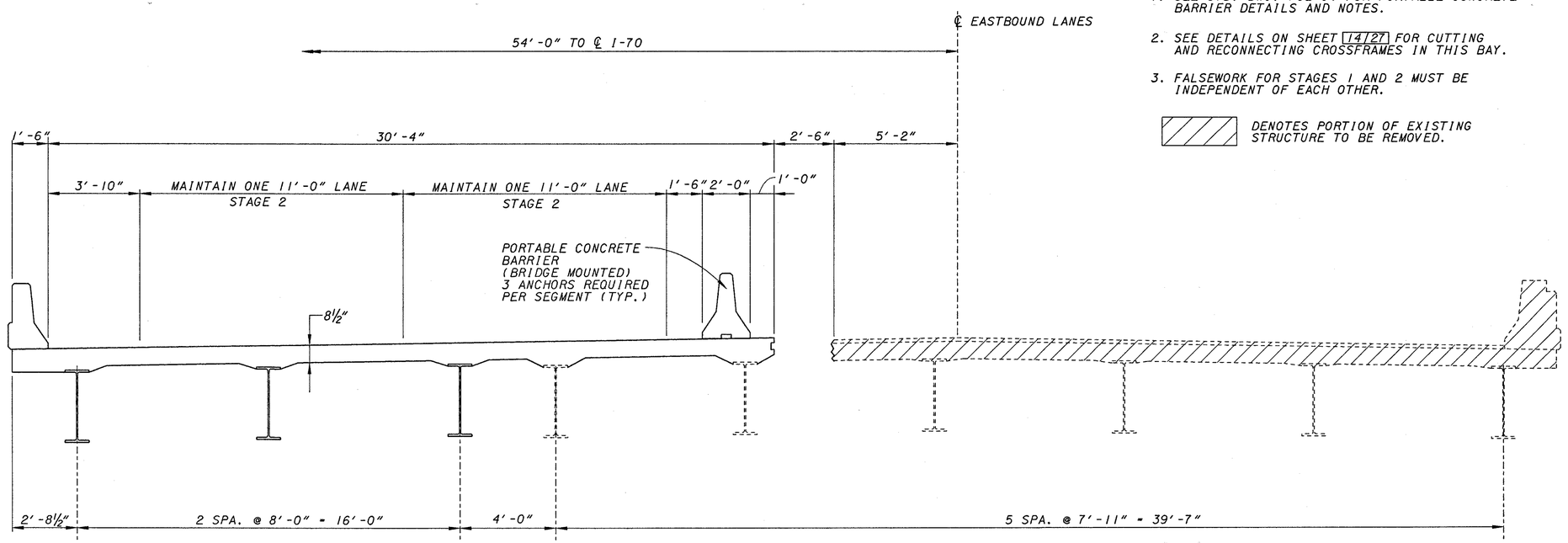
5 / 27

190 / 283

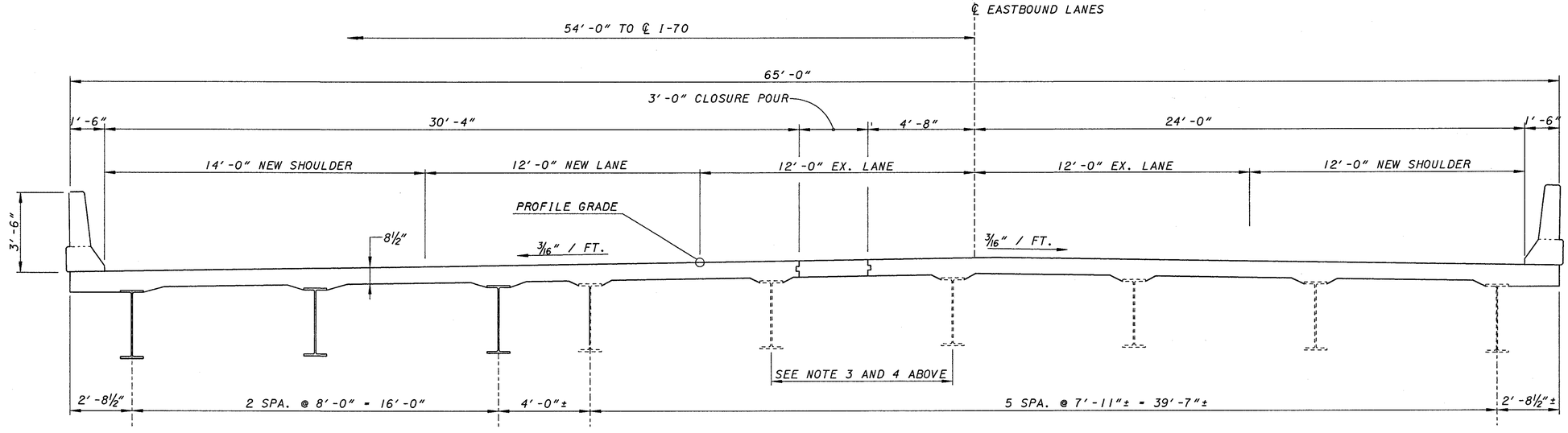
NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.
2. SEE DETAILS ON SHEET 14/27 FOR CUTTING AND RECONNECTING CROSSFRAMES IN THIS BAY.
3. FALSEWORK FOR STAGES 1 AND 2 MUST BE INDEPENDENT OF EACH OTHER.

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.



STAGE 2A



STAGE 2B

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BRIDGE STAGE 2 CONSTRUCTION
BRIDGE NO. PRE-70-1249 L/R
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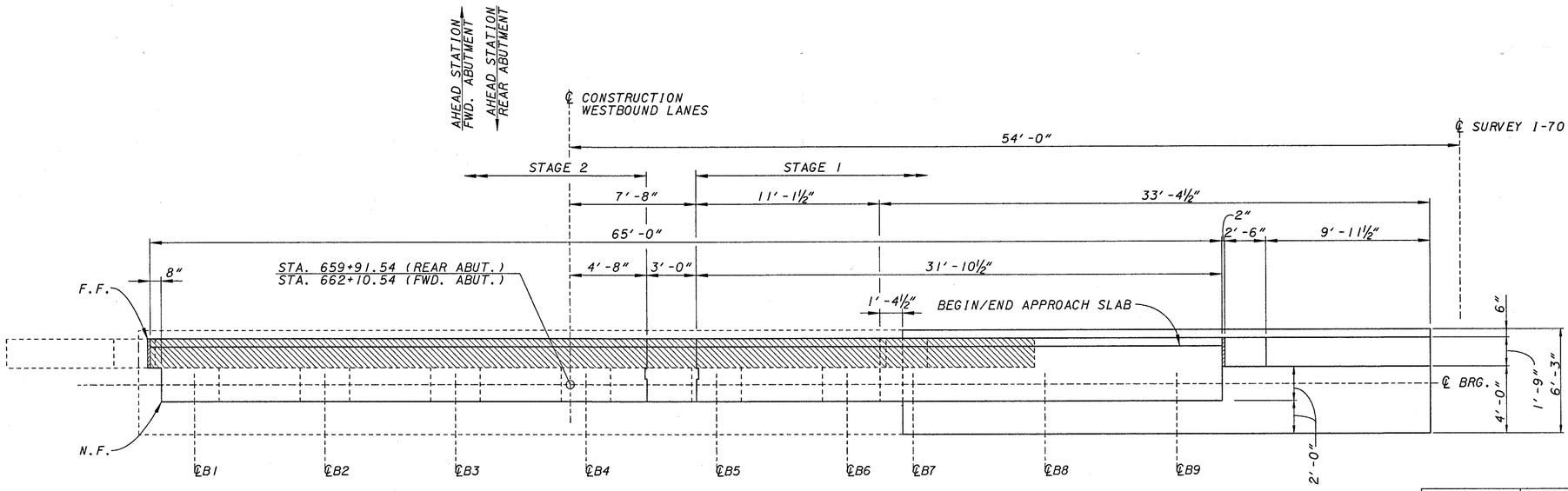
PRE-70-0.00

6/27

191/283



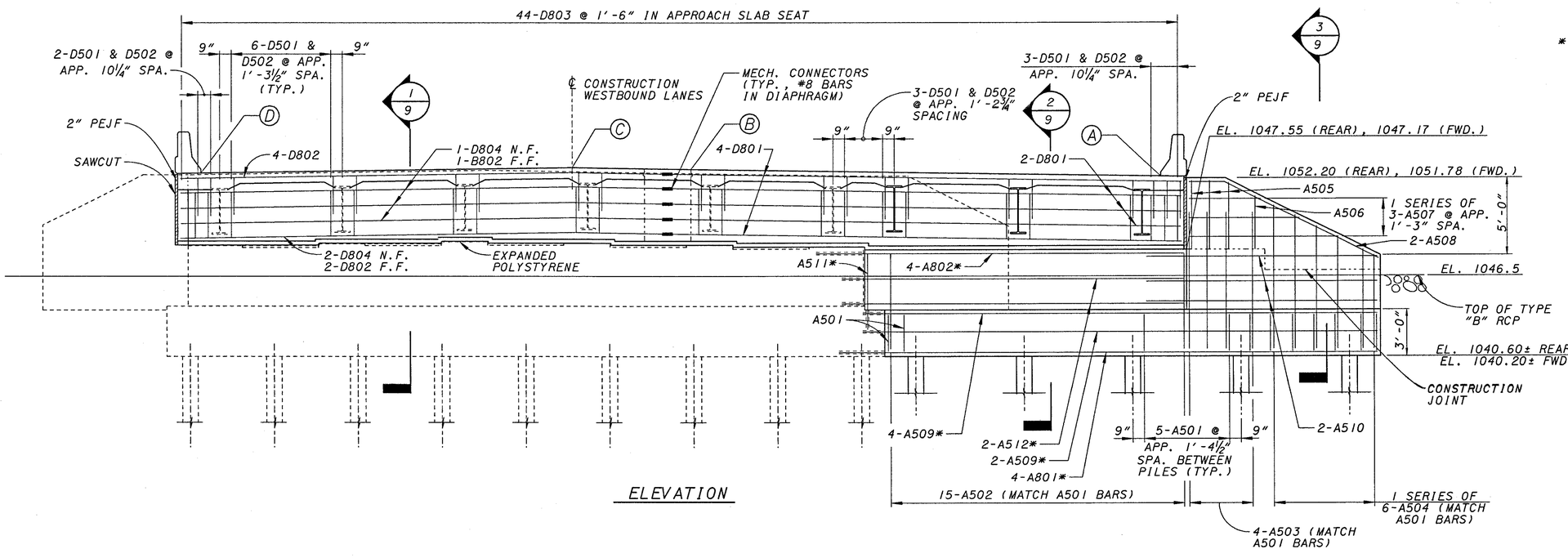
PLAN

FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR

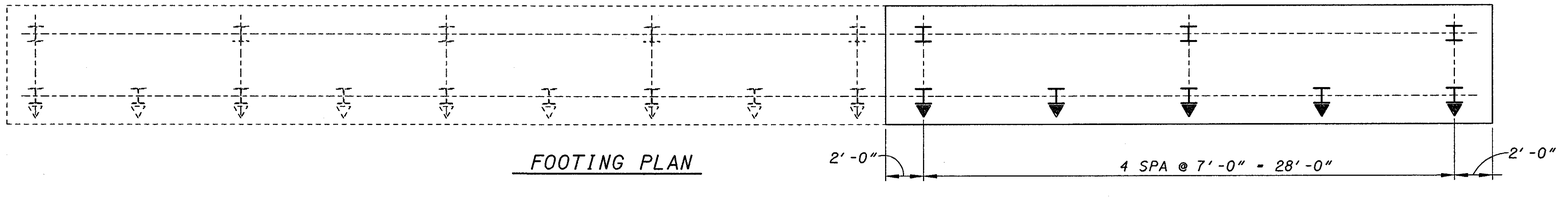
REAR ABUTMENT

FORWARD ABUTMENT

		Ⓐ	Ⓑ	Ⓒ	Ⓓ
WESTBOUND LANES	REAR	1052.30	1052.78	1052.90	1052.52
	FORWARD	1051.88	1052.36	1052.48	1052.10



ELEVATION



FOOTING PLAN

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

* DOWEL #5 BARS 1'-5" (MIN.) AND #8 BARS 2'-10" (MIN.) INTO EXISTING ABUTMENT FOOTING AND BREASTWALL.

LEGEND

PEJF - PREFORMED EXPANSION JOINT FILLER
E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE
APP. - APPROXIMATELY
DENOTES PROPOSED HP10x42 PILE BATTERED AT 1:4
DENOTES VERTICAL HP10x42 PILE

ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS NOTED OTHERWISE

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ABUTMENTS - LEFT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
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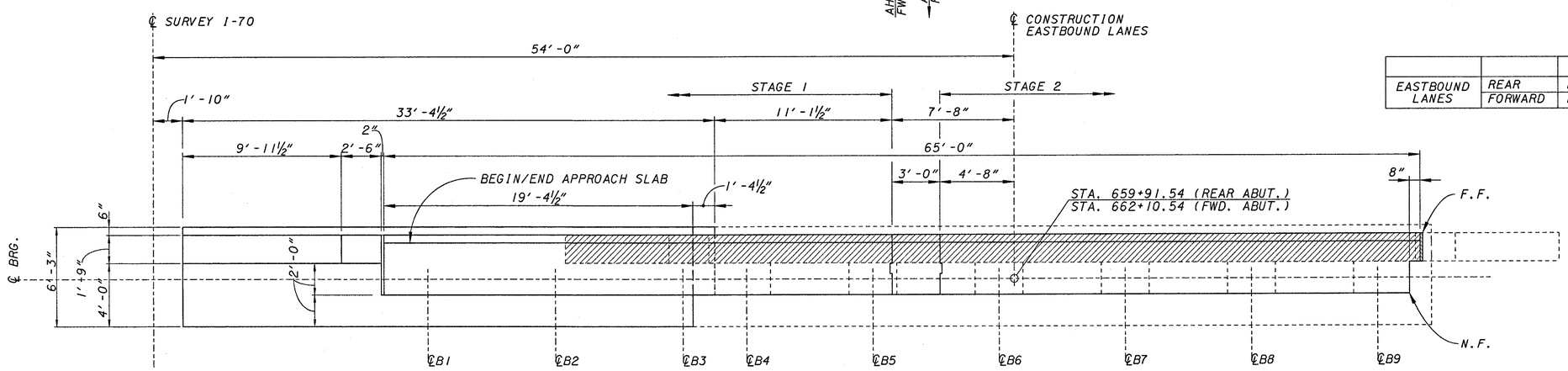
PRE-70-0.00



PLAN

FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR

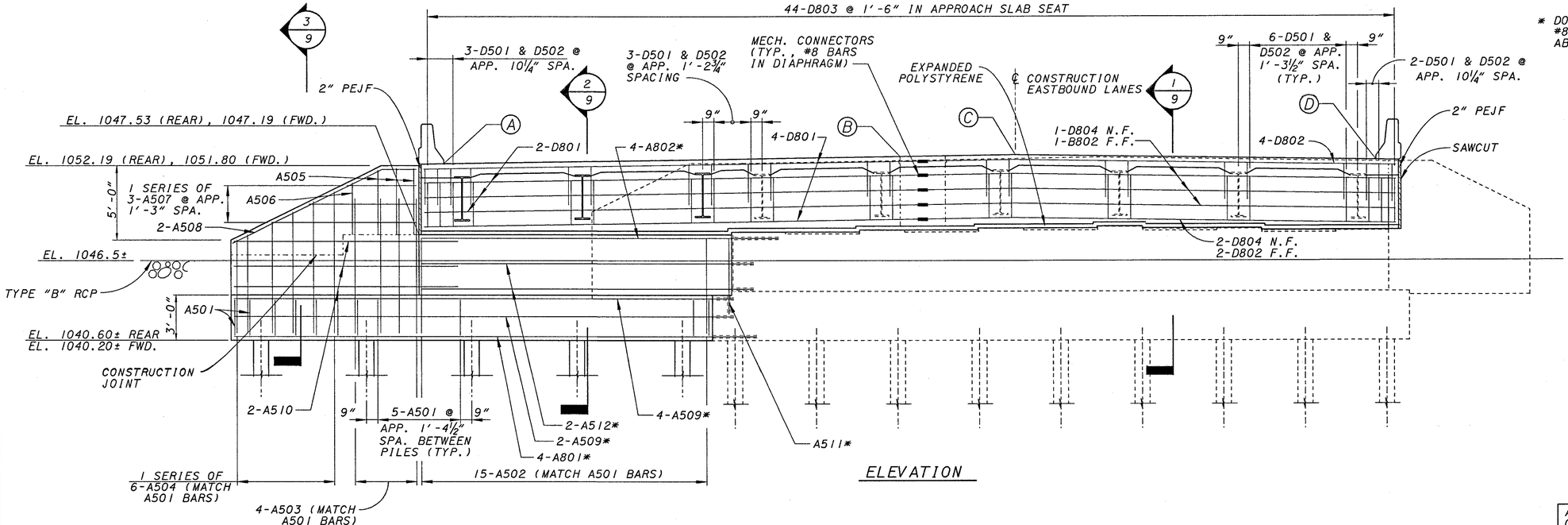
REAR ABUTMENT

FORWARD ABUTMENT

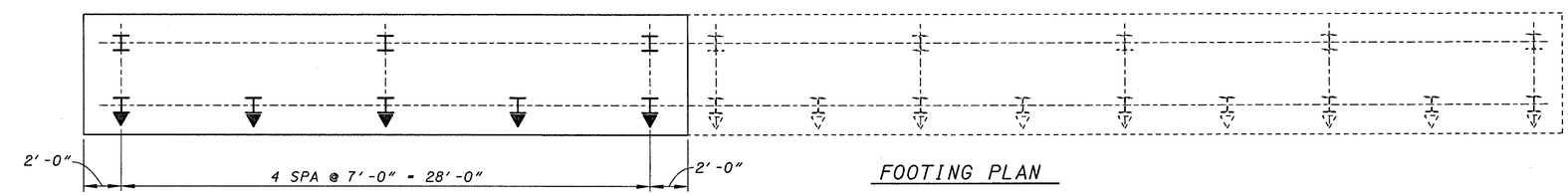
		Ⓐ	Ⓑ	Ⓒ	Ⓓ
EASTBOUND LANES	REAR	1052.29	1052.76	1052.88	1052.50
	FORWARD	1051.90	1052.37	1052.49	1052.12

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

* DOWEL #5 BARS 1'-5" (MIN.) AND #8 BARS 2'-10" (MIN.) INTO EXISTING ABUTMENT FOOTING AND BREASTWALL.



ELEVATION



FOOTING PLAN

LEGEND

PEJF - PREFORMED EXPANSION JOINT FILLER
E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE
APP. - APPROXIMATELY

DENOTES PROPOSED HP10x42 PILE BATTERED AT 1:4

DENOTES VERTICAL HP10x42 PILE

ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS NOTED OTHERWISE

DESIGN AGENCY
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4200 Beach Arbor Road, Suite 200, Arbor Hills, Ann Arbor, MI 48105
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DGK	09/20/00
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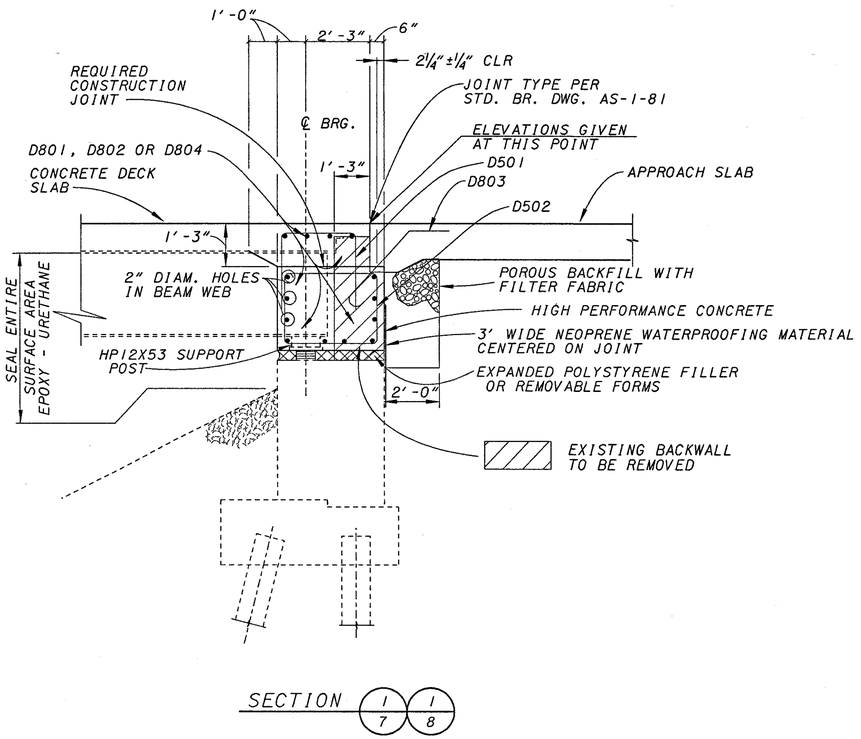
SJA	680/269/680/293
DESIGNED	REVISED
SJA	
CHECKED	
WBS	

KZF #13

ABUTMENTS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

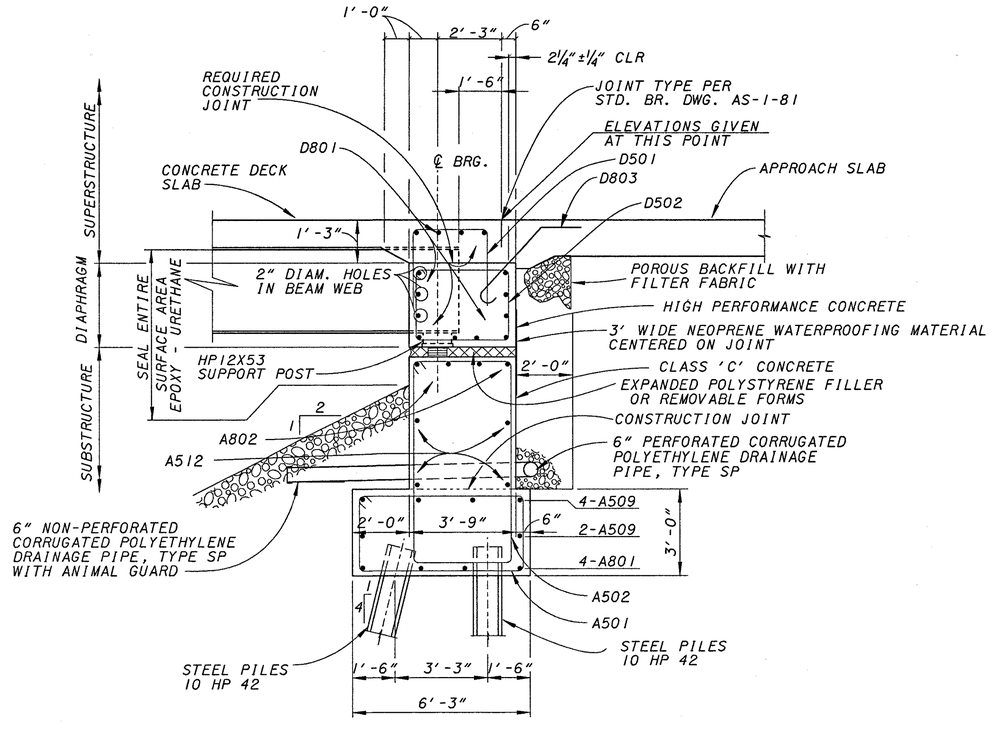
PRE-70-0.00



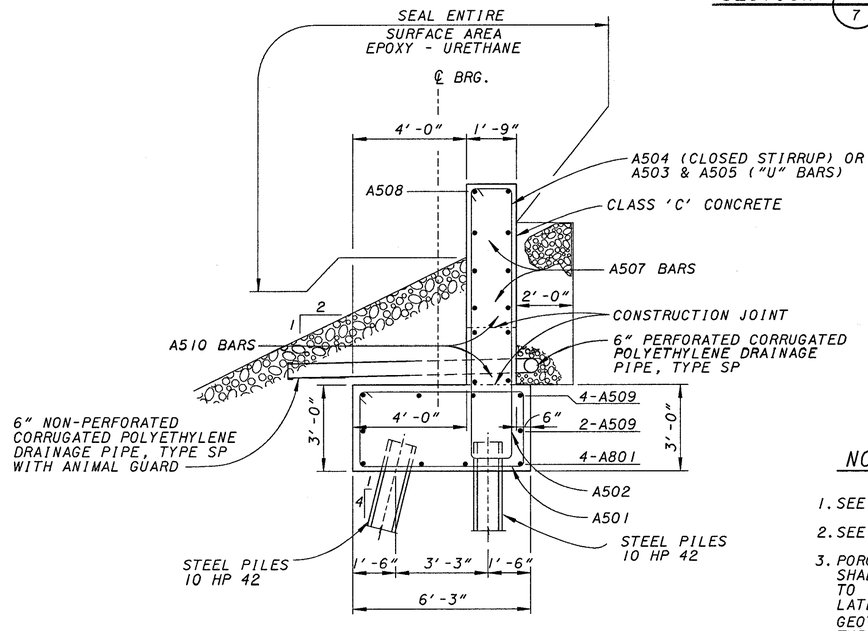
SECTION 1/7 1/8

CLOSURE POUR DETAIL

(DIAPHRAGM PLAN VIEW)



SECTION 2/7 2/8



SECTION 3/7 3/8

NOTES:

1. SEE STD. DWG. SICD-1-96M FOR ADDITIONAL DETAILS.
2. SEE SHEET 16/27 FOR BEARING DETAILS.
3. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1'-0" BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS. GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. TURN GEOTEXTILE FABRIC UP 6" ALONG BACK OF WALL.

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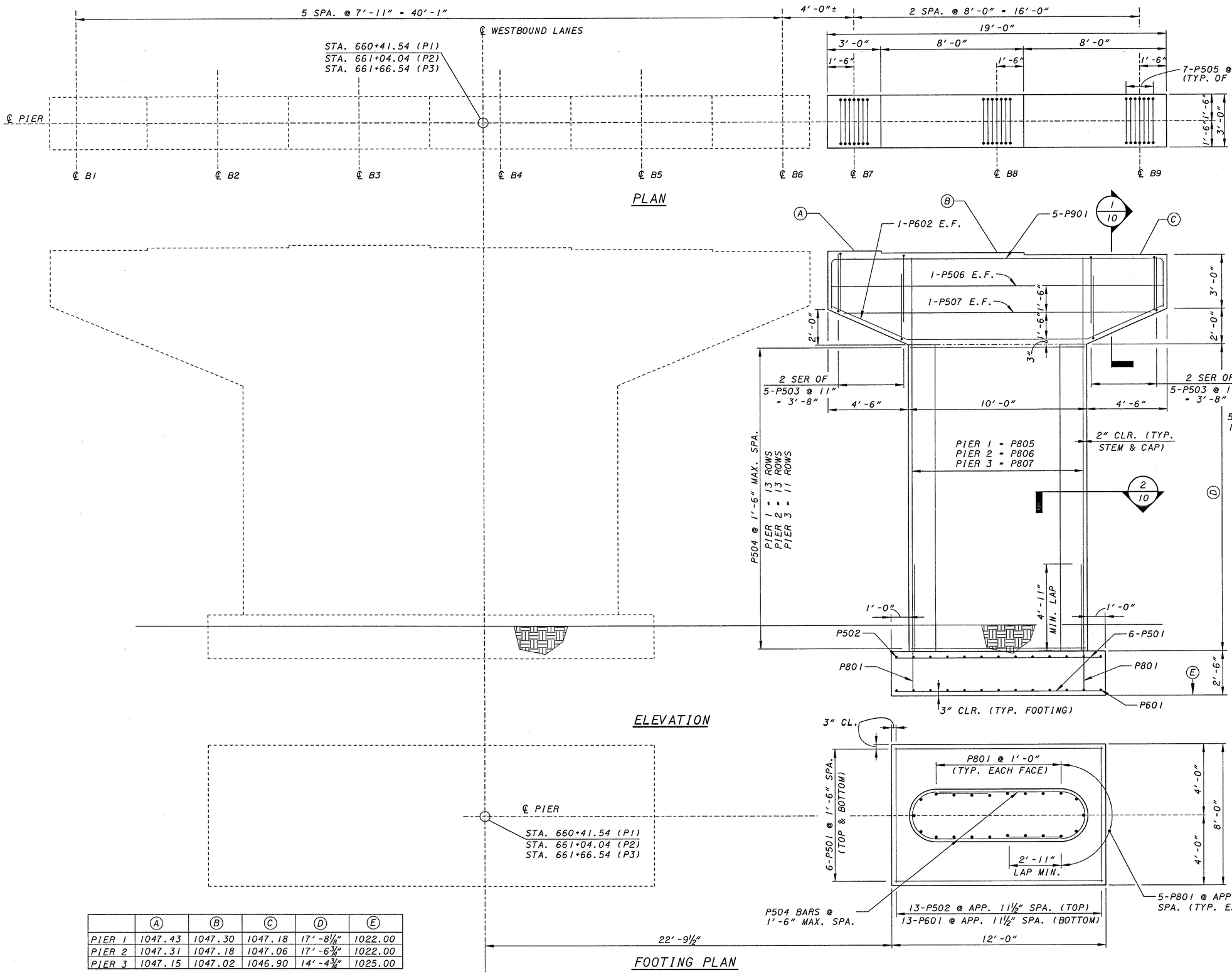
KZF #13

ABUTMENT SECTIONS
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

9/27

194/283



	A	B	C	D	E
PIER 1	1047.43	1047.30	1047.18	17'-8⅛"	1022.00
PIER 2	1047.31	1047.18	1047.06	17'-6¾"	1022.00
PIER 3	1047.15	1047.02	1046.90	14'-4¾"	1025.00

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DRAWN	
JDG	REVISED
DESIGNED	CHECKED
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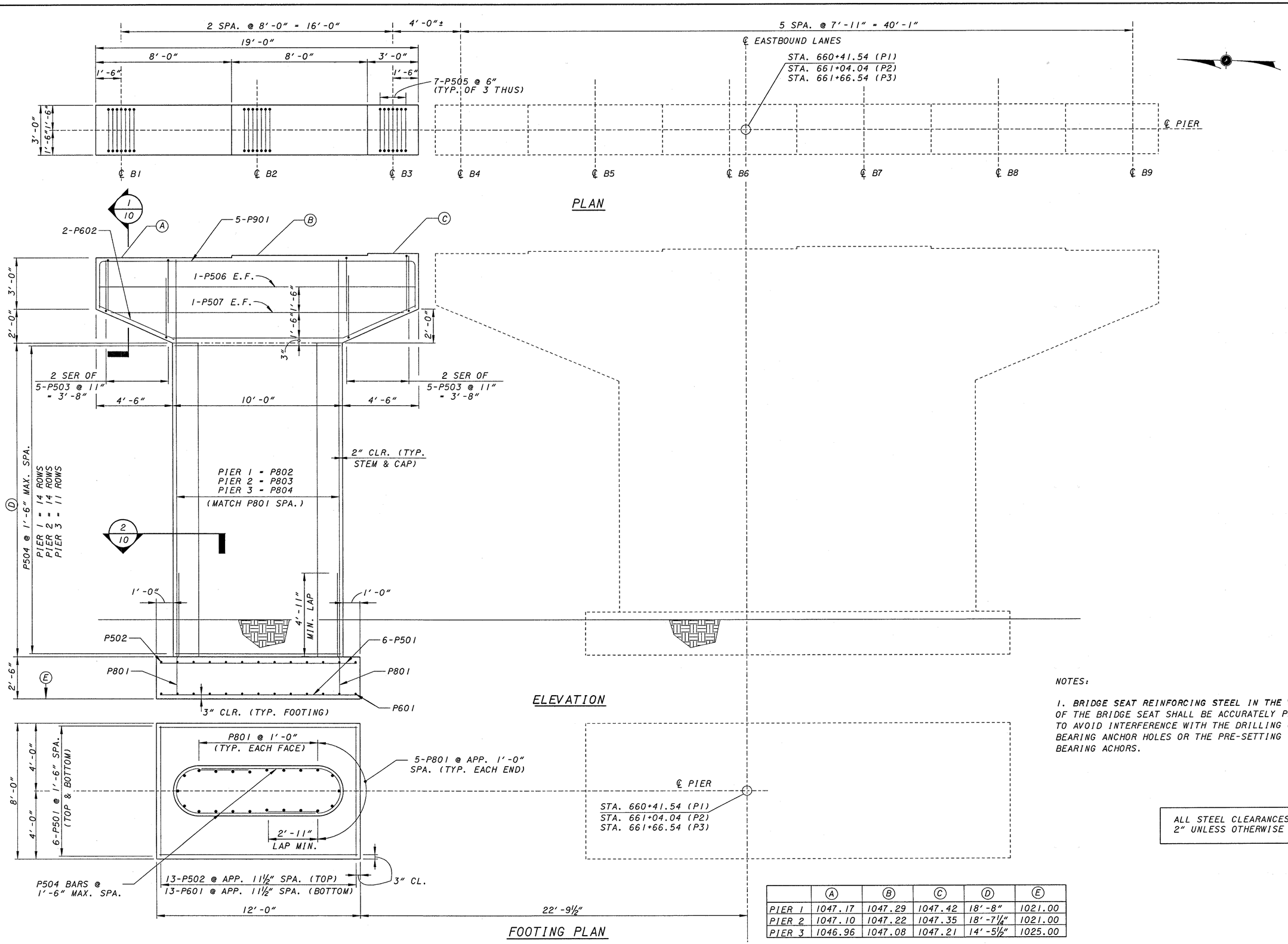
PIER DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

10/27

195/283



NOTES:

1. BRIDGE SEAT REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ACHORS.

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
PIER 1	1047.17	1047.29	1047.42	18'-8"	1021.00
PIER 2	1047.10	1047.22	1047.35	18'-7¼"	1021.00
PIER 3	1046.96	1047.08	1047.21	14'-5½"	1025.00

DESIGN AGENCY
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1400 Kaiser Road, Napa, CA 94558 Web: www.kzf.com
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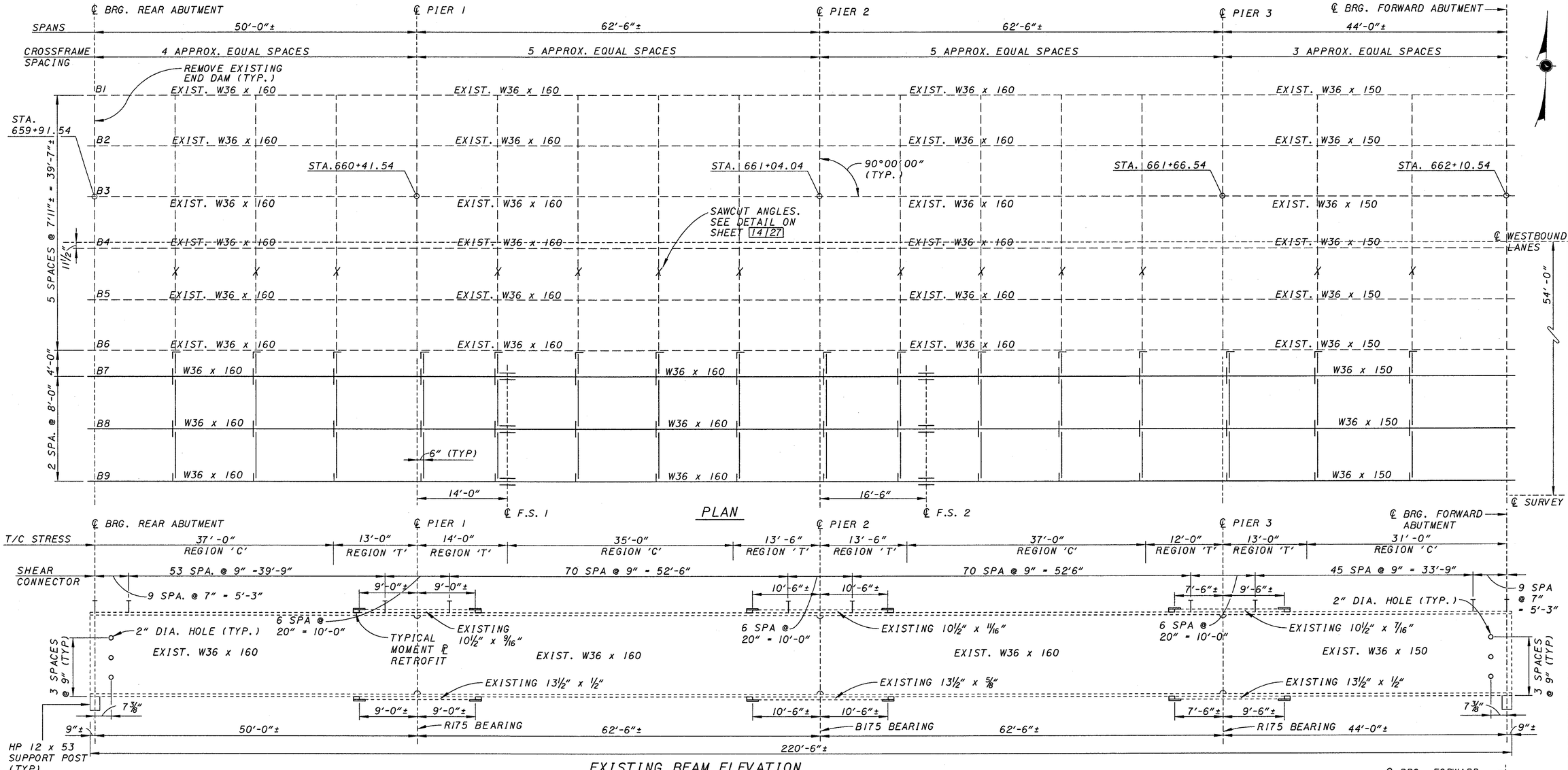
PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00



NOTES

1. ALL NEW BEAMS TO BE GRADE 50 STEEL.

DESIGN AGENCY
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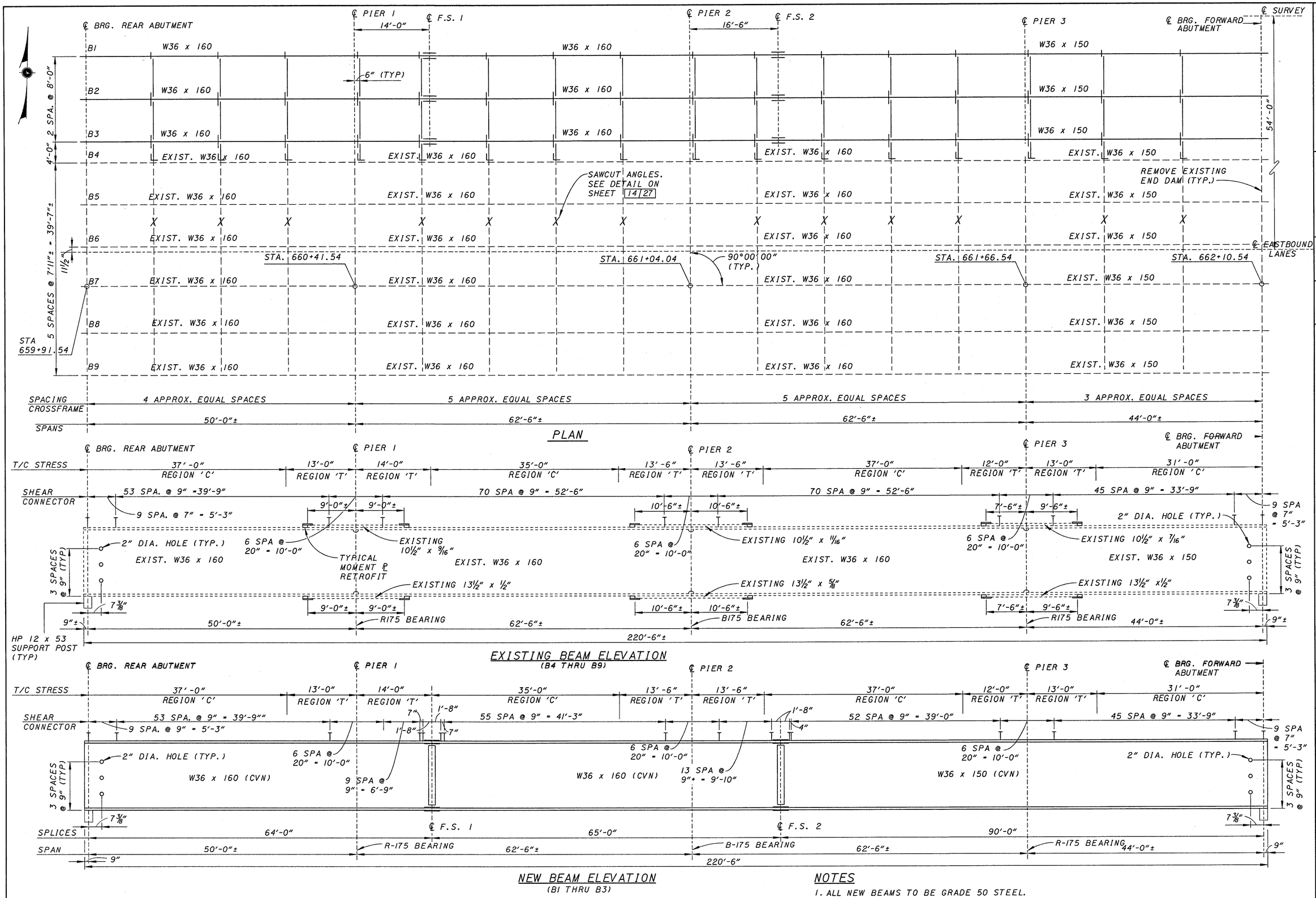
KZF #13

FRAMING PLAN - LEFT BRIDGE
BRIDGE NO. PRE-70-1249 LLR
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

12/27

197/283



NOTES

1. ALL NEW BEAMS TO BE GRADE 50 STEEL.

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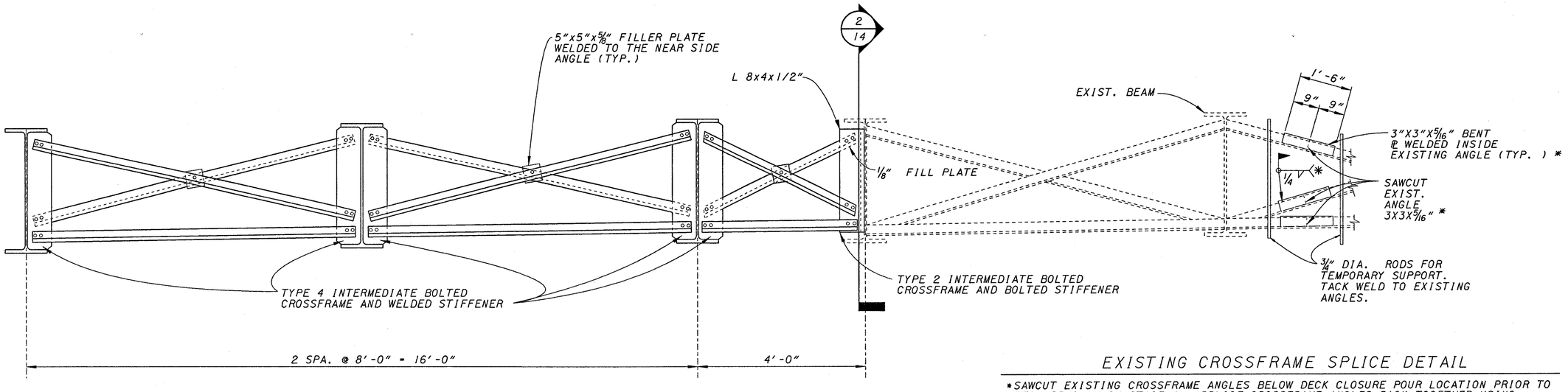
FRAMING PLAN - RIGHT BRIDGE

BRIDGE NO. PRE-70-1249 LRR
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

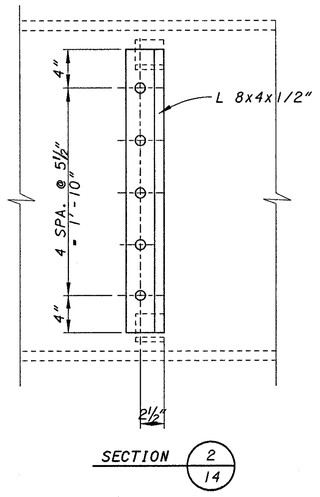
13/27

198/283

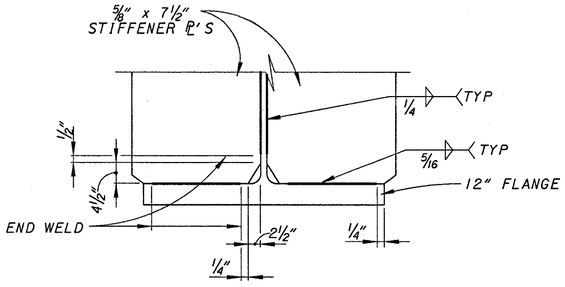


EXISTING CROSSFRAME SPLICE DETAIL

*SAWCUT EXISTING CROSSFRAME ANGLES BELOW DECK CLOSURE POUR LOCATION PRIOR TO DECK REMOVAL IN STAGE 1. SPLICE CROSSFRAME ANGLES BACK TOGETHER USING 3"X3" BENT PLATES AFTER STAGE 2 CONCRETE DECK HAS CURED PER CMS SPECIFICATIONS. AFTER SPLICING CROSSFRAME ANGLES PLACE CLOSURE DECK POUR.

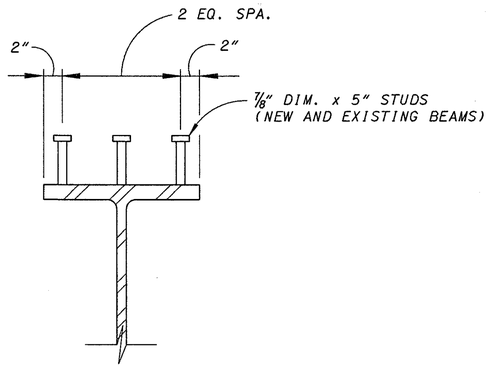


SECTION 2/14



STIFFENER WELD DETAIL

(TYPICAL)



SHEAR CONNECTOR DETAIL

NOTES

1. ALL NEW MATERIAL TO BE ASTM-A572/A709 GRADE 50 PAINTED UNLESS INDICATED OTHERWISE. ALL NEW AND EXISTING STEEL SHALL BE PAINTED OZEU (EXISTING) AND IZEU (NEW) WITH FEDERAL STANDARD COLOR 10324 (DARK NEUTRAL). STEEL SHALL BE FABRICATED IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 863.
2. SEE SHEET 20/27 FOR WELDED ATTACHMENT NOTE.
3. REGION "T" DENOTES TOP FLANGE IN TENSION AND BOTTOM FLANGE IN COMPRESSION (NEGATIVE MOMENT REGION).
4. REGION "C" DENOTES TOP FLANGE IN COMPRESSION AND BOTTOM FLANGE IN TENSION (POSITIVE MOMENT REGION).
5. SEE SHEET 17/27 FOR DEFLECTION AND CAMBER DETAILS.
6. SEE STANDARD DRAWING RB-1-55 FOR R-175 AND B-175 BEARINGS.
7. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF CMS.
8. ALL BOLTS TO BE HIGH STRENGTH 1 1/8" DIA. A325, UNLESS OTHERWISE NOTED.
9. SEE STANDARD DRAWING GSD-1-96 FOR ADDITIONAL CROSSFRAME DETAILS.
10. STIFFENERS TO BE NORMAL TO BEAMS.
11. CONCRETE END DIAPHRAGMS AT ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE ANY DECK CONCRETE IS PLACED.
12. END DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE.

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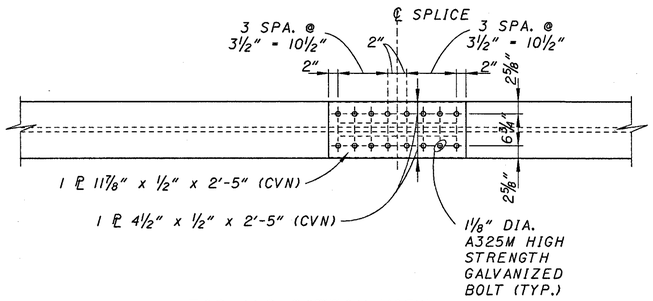
KZF #13

FRAMING DETAILS
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

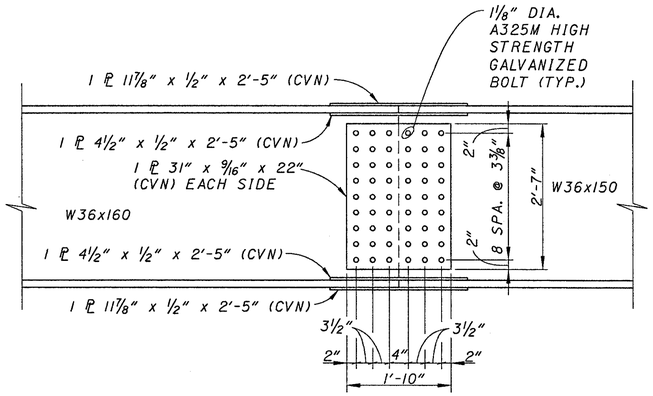
PRE-70-0.00

14/27

199/283

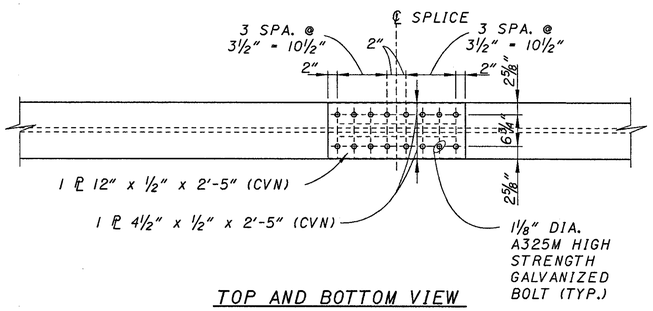


TOP AND BOTTOM VIEW

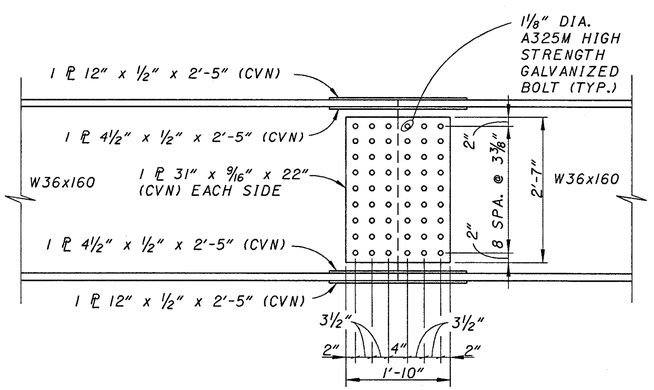


W36 X 150 BEAM SPLICE DETAIL

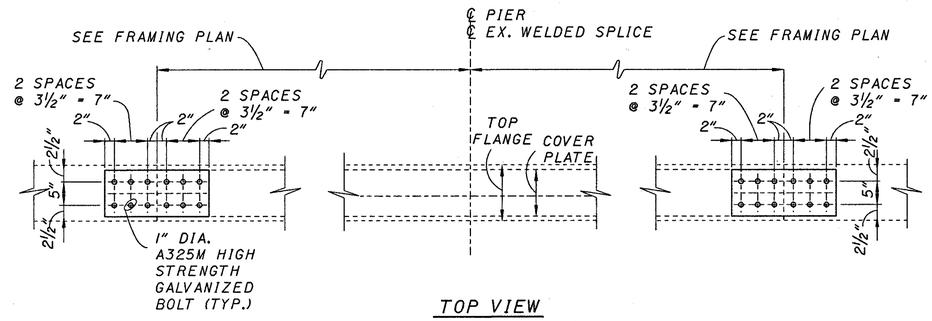
* PLACE BOLT HEADS ON EXPOSED SIDE OF FASCIA BEAMS AND BOTTOM SURFACE OF LOWER FLANGE



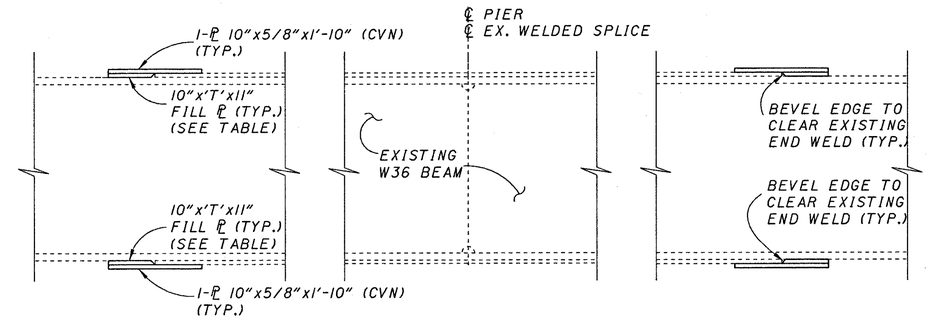
TOP AND BOTTOM VIEW



W36 X 160 BEAM SPLICE DETAIL

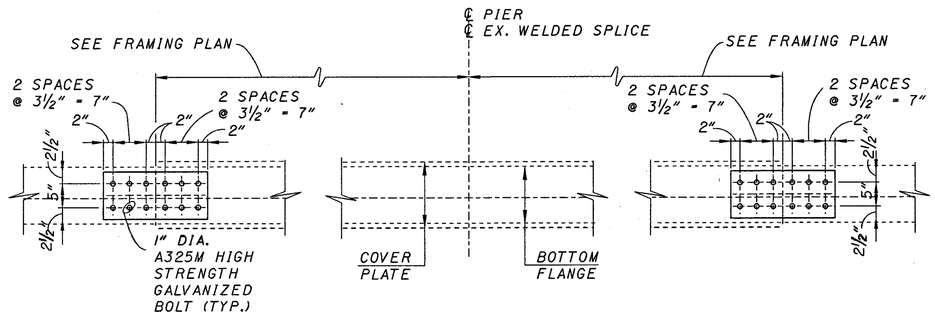


TOP VIEW



EXIST. W36 MOMENT PLATE RETROFIT DETAIL

(THIS DETAIL CONSTITUTES ONE MOMENT PLATE RETROFIT)



BOTTOM VIEW

FILL PLATE THICKNESS 'T'		
	TOP FLANGE	BOTTOM FLANGE
PIER 1	9/16"	½"
PIER 2	11/16"	5/8"
PIER 3	7/16"	½"

NOTES:

1. ALL MOMENT PLATE RETROFIT STEEL SHALL BE A709-36.
2. MOMENT PLATE RETROFIT WORK TO BE DONE ON A TIME AND MATERIAL BASIS.
3. SEE STANDARD DRAWING GSD-1-96 FOR ADDITIONAL CROSSFRAME DETAILS.
4. SEE STANDARD DRAWING BS-1-93 FOR ADDITIONAL SPLICE DETAILS.

DESIGN AGENCY
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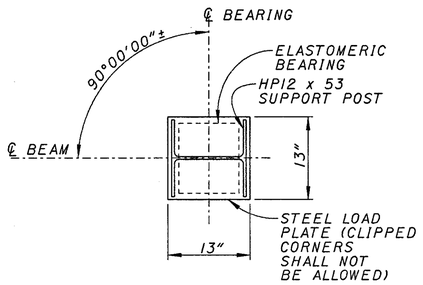
FRAMING DETAILS
BRIDGE NO. PRE-70-1249 L/R & I.R. 70 OVER PRICE CREEK

PRE-70-0.00

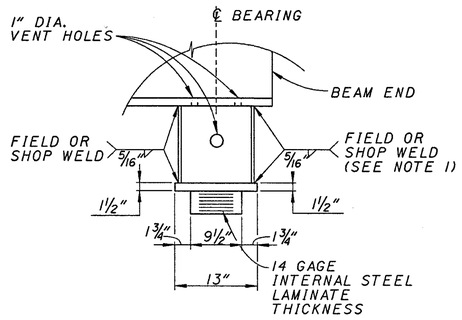
15 / 27

200 / 283



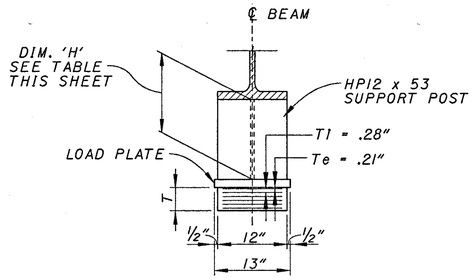
PLAN

REAR ABUTMENT	
(MAX.) DEAD LOAD REACTION	= 50.1 KIPS
(MAX.) LIVE LOAD REACTION	= 45.4 KIPS
MAX DESIGN LOAD	= 95.5 KIPS



SIDE ELEVATION

NEW BEAM SHOWN
(EX. BEAM SIMILIAR)



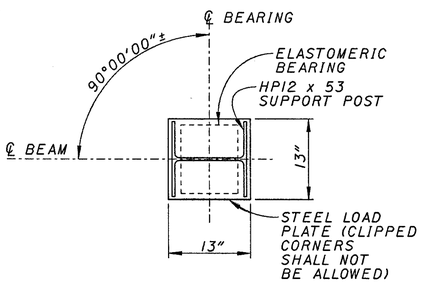
END ELEVATION

EXTERIOR ELASTOMERIC LAYERS	2 X 0.19 In	= 0.387 In
INTERIOR ELASTOMERIC LAYERS	6 X 0.28 In	= 1.68 In
STEEL PLATES	7 X 0.075 In	= 0.525 In
TOTAL	'T'	= 2.59 In

LAMINATED ELASTOMERIC EXPANSION BEARING AT ABUTMENTS (18 REQ'D)
50 DUROMETER ELASTOMER, GRADE 3

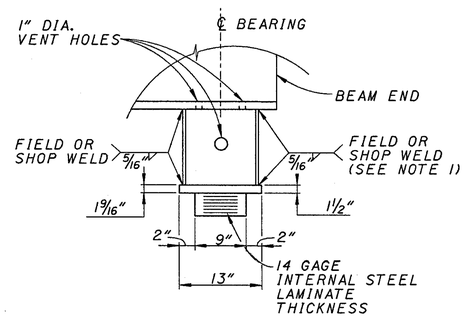
SUPPORT POST HEIGHT TABLE			
LEFT BRIDGE			
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	"H"	BEAM	"H"
B1	6 5/8"	B1	6 5/8"
B2	6 5/8"	B2	6 5/8"
B3	6 5/8"	B3	6 5/8"
B4	6 5/8"	B4	6 5/8"
B5	6 5/8"	B5	6 5/8"
B6	6 5/8"	B6	6 5/8"
B7	9 3/8"	B7	9 3/8"
B8	8 1/8"	B8	7 1/8"
B9	6 5/8"	B9	6 3/8"

SUPPORT POST HEIGHT TABLE			
RIGHT BRIDGE			
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	"H"	BEAM	"H"
B1	6 5/8"	B1	6 3/8"
B2	8 1/8"	B2	7 1/8"
B3	9 5/8"	B3	9 3/8"
B4	6 5/8"	B4	6 5/8"
B5	6 5/8"	B5	6 5/8"
B6	6 5/8"	B6	6 5/8"
B7	6 5/8"	B7	6 5/8"
B8	6 5/8"	B8	6 5/8"
B9	6 5/8"	B9	6 5/8"



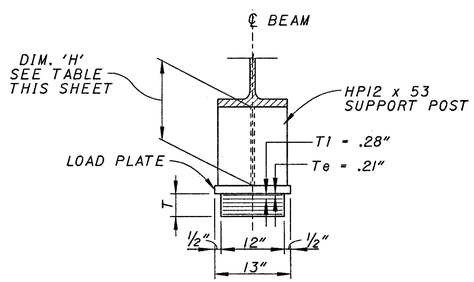
PLAN

FORWARD ABUTMENT	
(MAX.) DEAD LOAD REACTION	= 44.6 KIPS
(MAX.) LIVE LOAD REACTION	= 44.1 KIPS
MAX DESIGN LOAD	= 88.7 KIPS



SIDE ELEVATION

NEW BEAM SHOWN
(EX. BEAM SIMILIAR)



END ELEVATION

EXTERIOR ELASTOMERIC LAYERS	2 X 0.19 In	= 0.38 In
INTERIOR ELASTOMERIC LAYERS	6 X 0.28 In	= 1.68 In
STEEL PLATES	7 X 0.075 In	= 0.525 In
TOTAL	'T'	= 2.59 In

LAMINATED ELASTOMERIC EXPANSION BEARING AT ABUTMENTS (18 REQ'D)
50 DUROMETER ELASTOMER, GRADE 3

BEARING NOTES:

1. WELDING OF THE LOAD PLATE TO THE HP12 x 53 SUPPORT POST OR GIRDER FLANGE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMERIC BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

   STEEL FOR BEARING LOAD PLATES TO BE A709-36.

   HP12 x 53 SUPPORT POSTS TO BE A709-36

   THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

   IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F, AND THE BEARING SHEAR DEFLECTION EXCEEDS ONE SIXTH OF THE BEARING HEIGHT AT 60°F ±9°F, THE BEAM SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F.

2. **SEE STD. DWG. SICD-1-96M FOR ADDITIONAL DETAILS.**

3. 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 (METHOD A).

DESIGN AGENCY
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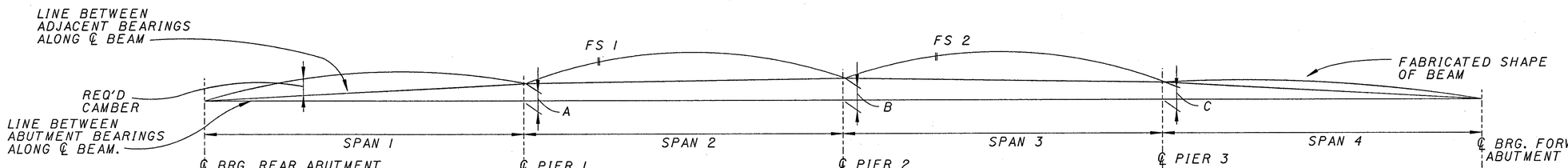
DATE 09/20/00
REVIEWED DGK
STRUCTURE FILE NUMBER 6801269/6801293
DRAWN MWL
REVISED
DESIGNED SJA
CHECKED WBS

KZF #13

BEARING DETAILS
BRIDGE NO. PRE-70-1249 L/R & R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

CAMBER DIAGRAM DIMENSION (INCH)			
LOCATION	A	B	C
LEFT BRIDGE	1 1/8"	1 1/8"	1/2"
RIGHT BRIDGE	1 1/8"	1 5/8"	1"



BEAMS	LOCATION	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
LEFT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/16	1/16	1/16	0	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	1/16	1/8	3/16	1/4	3/16	3/16	1/8	1/16	0
	VERTICAL CURVE CORRECTION	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/16	1/16
	REQUIRED SHOP CAMBER (INCHES)	1/8	3/16	3/8	7/16	3/8	5/16	1/4	1/8	1/16
RIGHT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/16	1/16	1/16	0	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	1/16	1/8	3/16	1/4	3/16	3/16	1/8	1/16	0
	VERTICAL CURVE CORRECTION	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0
	REQUIRED SHOP CAMBER (INCHES)	1/16	3/16	5/16	3/8	5/16	1/4	3/16	1/8	0

BEAMS	LOCATION	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
LEFT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/16	1/16	1/16	1/16	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	3/16	3/16	1/4	3/16	3/16	1/16	0
	VERTICAL CURVE CORRECTION	1/16	1/8	3/16	3/16	3/16	3/16	3/16	1/8	1/16
	REQUIRED SHOP CAMBER (INCHES)	1/16	1/4	7/16	7/16	1/2	7/16	7/16	3/16	1/16
RIGHT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/16	1/16	1/16	1/16	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1/8	3/16	3/16	1/4	3/16	3/16	1/16	0
	VERTICAL CURVE CORRECTION	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/16	1/16
	REQUIRED SHOP CAMBER (INCHES)	1/16	3/16	3/8	3/8	7/16	3/8	3/8	1/8	1/16

BEAMS	LOCATION	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
LEFT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/16	1/16	1/16	1/16	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	1/16	1/8	3/16	1/4	5/16	1/4	1/4	1/8	1/16
	VERTICAL CURVE CORRECTION	0	0	0	0	0	0	0	0	0
	REQUIRED SHOP CAMBER (INCHES)	1/16	1/8	1/4	5/16	3/8	5/16	5/16	1/8	1/16
RIGHT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	1/16	1/16	1/16	1/16	1/16	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	1/16	1/8	3/16	1/4	5/16	1/4	1/4	1/8	1/16
	VERTICAL CURVE CORRECTION	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/16	1/16
	REQUIRED SHOP CAMBER (INCHES)	1/8	3/16	5/16	7/16	1/2	7/16	7/16	3/16	1/8

BEAMS	LOCATION	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	FS1	FS2
LEFT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	0	0	0	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	0	1/16	1/16	1/16	1/8	1/16	1/16	1/16	1/8	3/16
	VERTICAL CURVE CORRECTION	0	0	0	0	0	0	0	0	0	1/8	0
	REQUIRED SHOP CAMBER (INCHES)	0	0	1/16	1/16	1/16	1/8	1/16	1/16	1/16	1/4	3/16
RIGHT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	0	0	0	0	0	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	0	1/16	1/16	1/16	1/8	1/16	1/16	1/16	1/8	3/16
	VERTICAL CURVE CORRECTION	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	1/16	1/16
	REQUIRED SHOP CAMBER (INCHES)	0	1/16	1/8	1/8	1/8	3/16	1/8	1/8	1/16	3/16	1/4

CAMBER NOTES:

1. POSITIVE CAMBER IS UPWARD

NOTES:

1. SEE SHEETS 12/27 AND 13/27 FOR BEAM ELEVATIONS.

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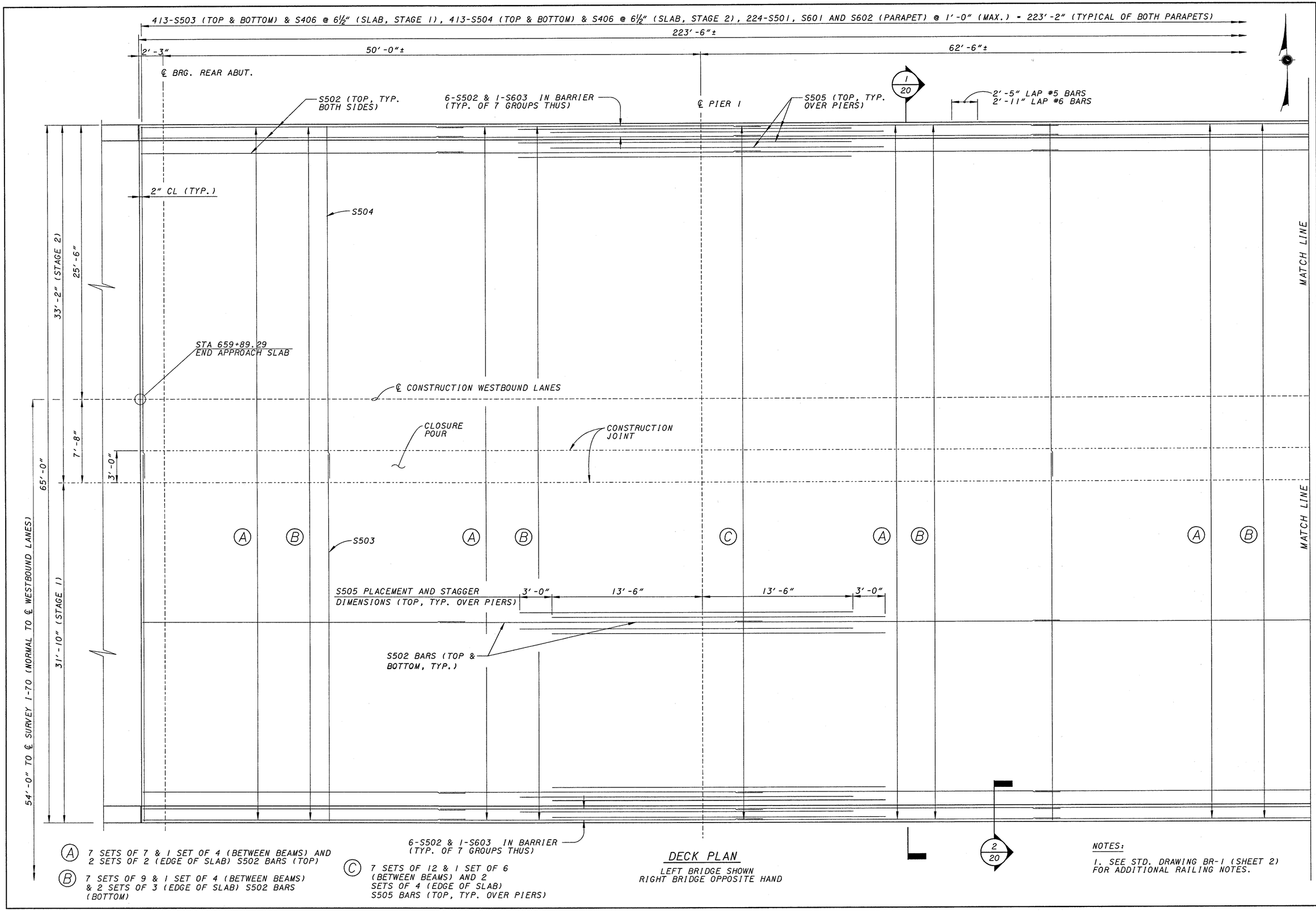
REVIEWED DGK
DATE 09/20/00
STRUCTURE FILE NUMBER 6801269/6801293
DRAWN SPG
REVISED
DESIGNED SJA
CHECKED WBS

KZF #13

CAMBER DETAILS
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00



(A) 7 SETS OF 7 & 1 SET OF 4 (BETWEEN BEAMS) AND 2 SETS OF 2 (EDGE OF SLAB) S502 BARS (TOP)

(B) 7 SETS OF 9 & 1 SET OF 4 (BETWEEN BEAMS) & 2 SETS OF 3 (EDGE OF SLAB) S502 BARS (BOTTOM)

(C) 7 SETS OF 12 & 1 SET OF 6 (BETWEEN BEAMS) AND 2 SETS OF 4 (EDGE OF SLAB) S505 BARS (TOP, TYP. OVER PIERS)

DECK PLAN

LEFT BRIDGE SHOWN
RIGHT BRIDGE OPPOSITE HAND

NOTES:

1. SEE STD. DRAWING BR-1 (SHEET 2) FOR ADDITIONAL RAILING NOTES.

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WBS		6801269/6801293	

KZF #13

DECK PLAN I
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

413-S503 (TOP & BOTTOM) & S406 @ 6½" (SLAB, STAGE 1), 413-S504 (TOP & BOTTOM) & S406 @ 6½" (SLAB, STAGE 2), 224-S501, S601 AND S602 (PARAPET) @ 1'-0" (MAX.) - 223'-2" (TYPICAL OF BOTH PARAPETS)

223'-6"±

62'-6"± | 62'-6"± | 44'-0"± | 2'-3"

℄ PIER 2 | ℄ PIER 3 | ℄ BRG. FORWARD ABUT.

2'-5" LAP #5 BARS
2'-11" LAP #6 BARS

1/20

S505 (TOP, TYP. OVER PIERS)

S502 (TOP, TYP. BOTH SIDES)

6-S502 & 1-S604 IN BARRIER (TYP. OF 1 GROUP THUS)

2" CL. (TYP.)

STA 662+12.79
BEGIN APPROACH SLAB

S504

MATCH LINE

33'-2" (STAGE 2)

25'-6"

℄ CONSTRUCTION WESTBOUND LANES

CLOSURE POUR

CONSTRUCTION JOINT

7'-8"

3'-0"

65'-0"

54'-0" TO ℄ SURVEY I-70 (NORMAL TO ℄ WESTBOUND LANES)

31'-10" (STAGE 1)

Ⓒ Ⓑ Ⓐ Ⓑ Ⓐ Ⓒ Ⓑ Ⓐ Ⓑ Ⓐ

3'-0" | 13'-6" | 13'-6" | 3'-0" S505 PLACEMENT AND STAGGER DIMENSIONS (TOP, TYP. OVER PIERS)

S502 BARS (TOP & BOTTOM, TYP.)

S504

6-S502 & 1-S604 IN BARRIER (TYP. OF 1 GROUP THUS)

2/20

Ⓐ 7 SETS OF 7 & 1 SET OF 4 (BETWEEN BEAMS) AND 2 SETS OF 2 (EDGE OF SLAB) S502 BARS (TOP)

Ⓑ 7 SETS OF 9 & 1 SET OF 4 (BETWEEN BEAMS) & 2 SETS OF 3 (EDGE OF SLAB) S502 BARS (BOTTOM)

Ⓒ 7 SETS OF 12 & 1 SET OF 6 (BETWEEN BEAMS) AND 2 SETS OF 4 (EDGE OF SLAB) S505 BARS (TOP, TYP. OVER PIERS)

DECK PLAN

LEFT BRIDGE SHOWN
RIGHT BRIDGE OPPOSITE HAND

NOTES:

1. SEE STD. DRAWING BR-1 (SHEET 2) FOR ADDITIONAL RAILING NOTES.

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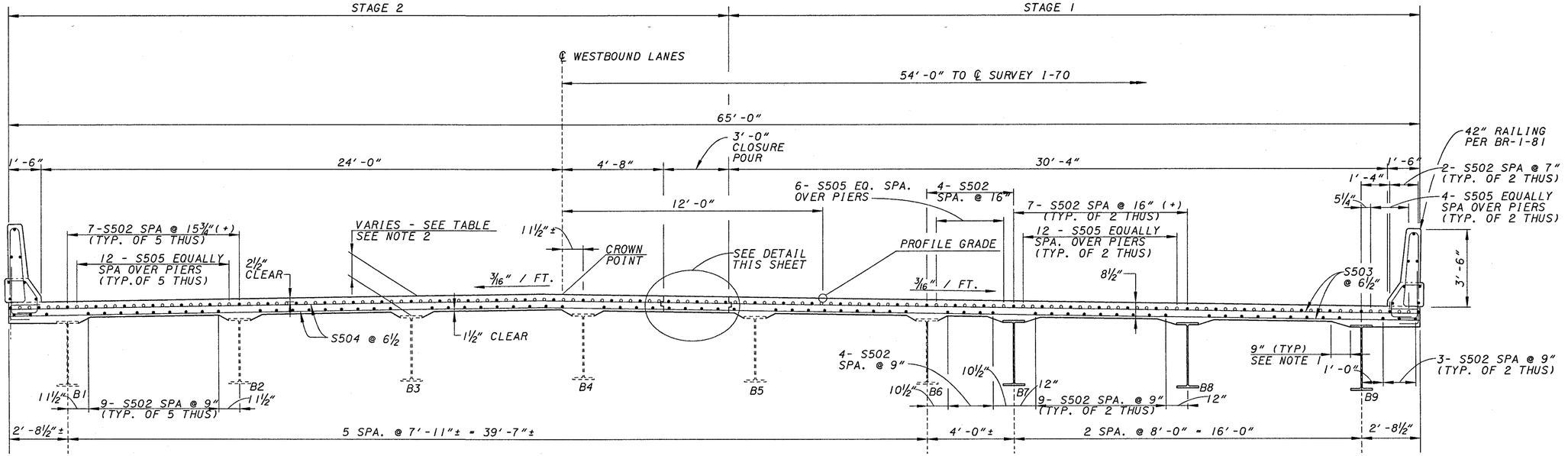
KZF #13

DECK PLAN 2
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

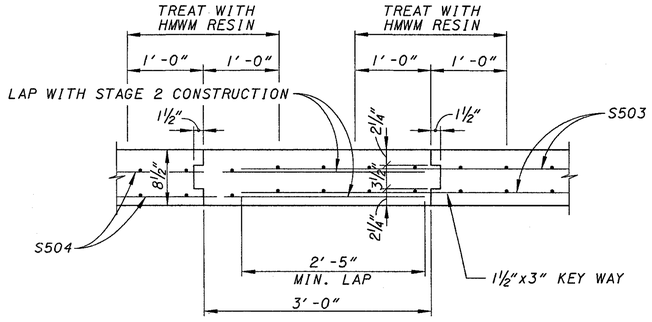
PRE-70-0.00

19 / 27

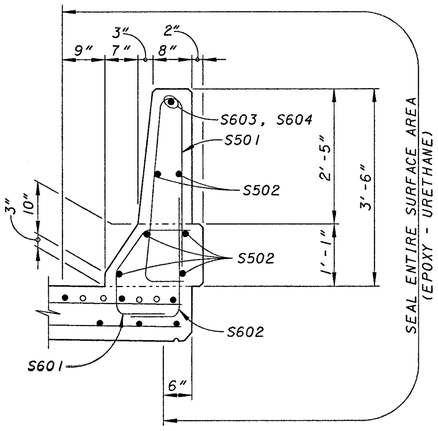
204 / 283



SECTION 1/18 1/19



KEYED DECK JOINT AND CLOSURE DETAIL



SECTION 2/18 2/19

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

CONCRETE DECK HAUNCH DEPTH (INCHES)					
BEAM	REAR ABUT.	PIER-1	PIER-2	PIER-3	FWD. ABUT.
B1	10½"	11⅜"	11¼"	10⅜"	10⅛"
B2	10¼"	11⅜"	11¼"	10⅜"	10¼"
B3	10½"	11⅛"	11⅛"	10½"	10⅜"
B4	10¼"	11¼"	11⅛"	10¼"	10¼"
B5	10⅜"	11⅜"	11⅛"	10⅛"	10⅛"
B6	10¼"	11⅜"	11⅜"	10¼"	10⅛"
B7-B9	10½"	10½"	10½"	10½"	10½"

NOTES:

1. A HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE (OVER NEW BEAMS). HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12".
2. THE DISTANCE FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 2" THE QUANTITY OF DECK CONCRETE SHALL BE BASED ON THIS DIMENSION MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
3. SEE SHEET 3/27 AND 3A/27 FOR GENERAL NOTES.
4. SEE SHEET 27/27 FOR REINFORCING STEEL SCHEDULE.

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DESIGNED SJA | DRAWN SJA | REVIEWED DGK | DATE 09/20/00
CHECKED WBS | REVISED | STRUCTURE FILE NUMBER: 680/269/680/293

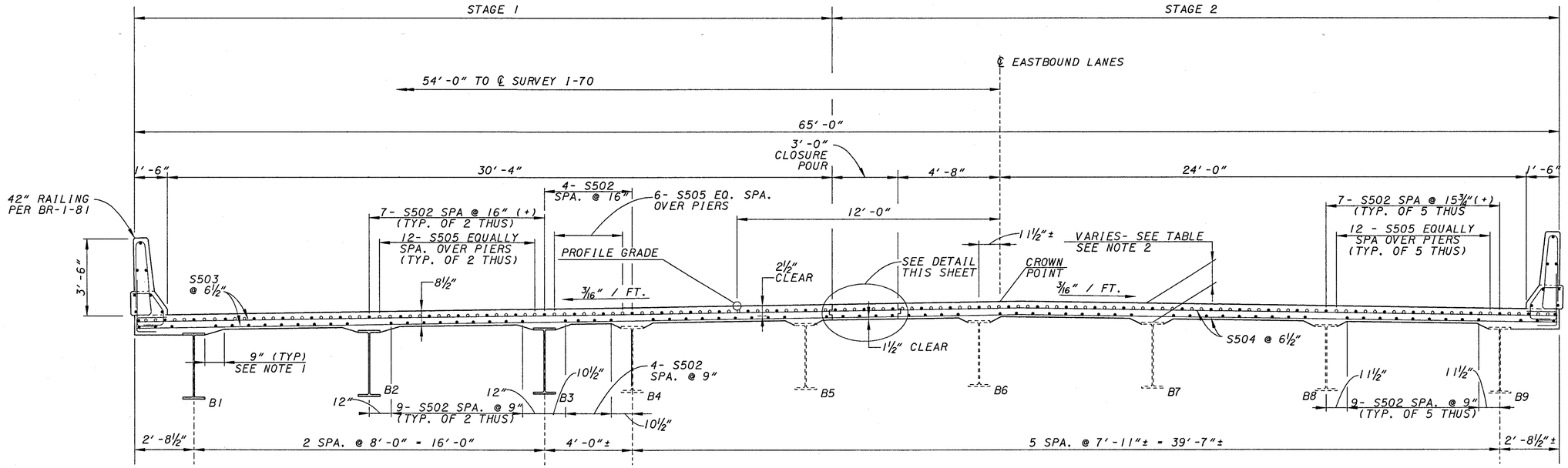
KZF #13

DECK SECTION - LEFT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

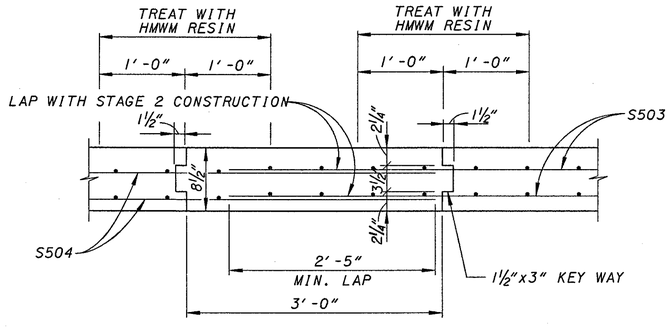
PRE-70-0.00

20/27

205/283



DECK SECTION



KEYED DECK JOINT AND CLOSURE DETAIL

CONCRETE DECK HAUNCH DEPTH (INCHES)					
BEAM	REAR ABUT.	PIER-1	PIER-2	PIER-3	FWD. ABUT.
B1-B3	10½"	10½"	10½"	10½"	10½"
B4	10⅛"	11⅜"	11¼"	10⅞"	10⅝"
B5	10¼"	11"	11⅝"	11"	10½"
B6	10⅜"	11"	11⅜"	12⅜"	10⅝"
B7	10½"	11"	11¾"	11¼"	10⅝"
B8	10½"	11¼"	11½"	11⅛"	10¼"
B9	10½"	11⅛"	11⅞"	11"	10½"

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED

NOTES:

1. A HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE (OVER NEW BEAMS). HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12".
2. THE DISTANCE FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 2" THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
3. SEE SHEET 3/27 AND 3A/27 FOR GENERAL NOTES.
4. SEE SHEET 27/27 FOR REINFORCING STEEL SCHEDULE.

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KZF #13

DECK SECTION - RIGHT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

21/27

206/283

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

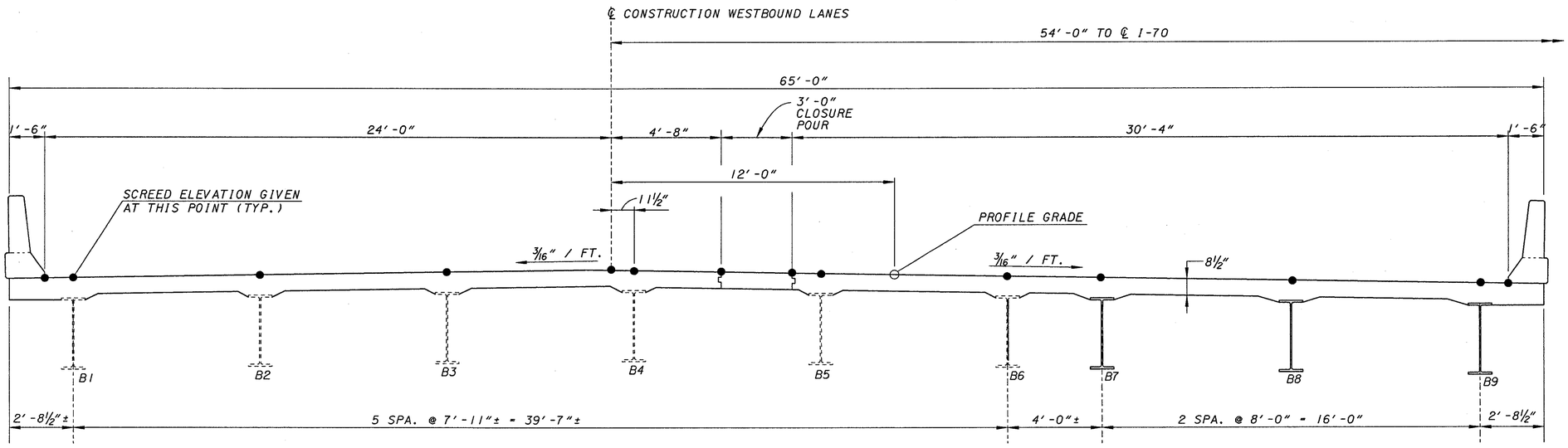
	℄ BEARING REAR ABUT.	0.2 L	0.4 L	0.6 L	0.8 L	PIER 1	0.2 L	0.4 L	0.6 L	0.8 L	PIER 2
LEFT GUTTER	1052.52	1052.54	1052.55	1052.55	1052.54	1052.52	1052.52	1052.51	1052.49	1052.45	1052.41
BEAM B1	1052.54	1052.56	1052.57	1052.57	1052.56	1052.54	1052.54	1052.53	1052.50	1052.47	1052.42
BEAM B2	1052.67	1052.68	1052.69	1052.69	1052.68	1052.67	1052.66	1052.65	1052.63	1052.59	1052.55
BEAM B3	1052.79	1052.81	1052.82	1052.81	1052.81	1052.79	1052.78	1052.78	1052.75	1052.71	1052.67
℄ CONSTRUCTION & CROWN	1052.90	1052.92	1052.92	1052.92	1052.91	1052.90	1052.89	1052.88	1052.86	1052.82	1052.78
BEAM B4	1052.88	1052.90	1052.91	1052.91	1052.90	1052.88	1052.88	1052.87	1052.84	1052.81	1052.76
LEFT CONSTRUCTION JOINT	1052.82	1052.84	1052.85	1052.85	1052.84	1052.82	1052.82	1052.81	1052.79	1052.75	1052.71
RIGHT CONSTRUCTION JOINT	1052.78	1052.80	1052.80	1052.80	1052.79	1052.78	1052.77	1052.76	1052.74	1052.70	1052.66
BEAM B5	1052.76	1052.78	1052.79	1052.79	1052.78	1052.76	1052.75	1052.75	1052.72	1052.68	1052.64
BEAM B6	1052.64	1052.65	1052.66	1052.66	1052.65	1052.64	1052.63	1052.62	1052.60	1052.56	1052.52
BEAM B7	1052.57	1052.59	1052.60	1052.60	1052.59	1052.57	1052.57	1052.56	1052.54	1052.50	1052.46
BEAM B8	1052.45	1052.47	1052.48	1052.47	1052.47	1052.45	1052.44	1052.43	1052.41	1052.37	1052.33
BEAM B9	1052.32	1052.34	1052.35	1052.35	1052.34	1052.32	1052.32	1052.31	1052.29	1052.25	1052.21
RIGHT GUTTER	1052.30	1052.32	1052.33	1052.33	1052.32	1052.30	1052.30	1052.29	1052.27	1052.23	1052.19

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

	PIER 2	0.2 L	0.4 L	0.6 L	0.8 L	PIER 3	0.2 L	0.4 L	0.6 L	0.8 L	℄ BEARING FORWARD ABUT.
LEFT GUTTER	1052.41	1052.38	1052.36	1052.32	1052.28	1052.23	1052.21	1052.19	1052.16	1052.14	1052.11
BEAM B1	1052.42	1052.40	1052.38	1052.34	1052.30	1052.25	1052.23	1052.21	1052.18	1052.16	1052.13
BEAM B2	1052.55	1052.52	1052.50	1052.47	1052.42	1052.37	1052.35	1052.33	1052.31	1052.28	1052.25
BEAM B3	1052.67	1052.65	1052.62	1052.59	1052.54	1052.50	1052.47	1052.45	1052.43	1052.40	1052.37
℄ CONSTRUCTION & CROWN	1052.78	1052.75	1052.73	1052.70	1052.65	1052.60	1052.58	1052.56	1052.54	1052.51	1052.48
BEAM B4	1052.76	1052.74	1052.72	1052.68	1052.64	1052.59	1052.57	1052.55	1052.52	1052.50	1052.47
LEFT CONSTRUCTION JOINT	1052.71	1052.68	1052.66	1052.63	1052.58	1052.53	1052.51	1052.49	1052.47	1052.44	1052.41
RIGHT CONSTRUCTION JOINT	1052.66	1052.64	1052.61	1052.58	1052.53	1052.49	1052.46	1052.44	1052.42	1052.39	1052.36
BEAM B5	1052.64	1052.62	1052.59	1052.56	1052.51	1052.47	1052.44	1052.42	1052.40	1052.37	1052.34
BEAM B6	1052.52	1052.49	1052.47	1052.44	1052.39	1052.34	1052.32	1052.30	1052.28	1052.25	1052.22
BEAM B7	1052.46	1052.43	1052.41	1052.37	1052.33	1052.28	1052.26	1052.24	1052.21	1052.19	1052.16
BEAM B8	1052.33	1052.31	1052.28	1052.25	1052.20	1052.16	1052.13	1052.11	1052.09	1052.06	1052.03
BEAM B9	1052.21	1052.18	1052.16	1052.12	1052.08	1052.03	1052.01	1051.99	1051.97	1051.94	1051.91
RIGHT GUTTER	1052.19	1052.16	1052.14	1052.11	1052.06	1052.01	1051.99	1051.97	1051.95	1051.92	1051.89

NOTES:

1. FOR DEFLECTIONS & CHAMBER TABLES SEE SHEET 17 / 27.
2. SCREED ELEVATIONS ARE GIVEN FOR THE TOP SURFACE OF THE CONCRETE DECK PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
3. L DENOTES LENGTH OF SPAN



FINAL DECK ELEVATIONS

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DGK	09/20/00
STRUCTURE FILE NUMBER	
680/269/680/293	
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SPG	
DESIGNED	CHECKED
SJA	WBS

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SCREED TABLE - LEFT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

22 / 27

207 / 283

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

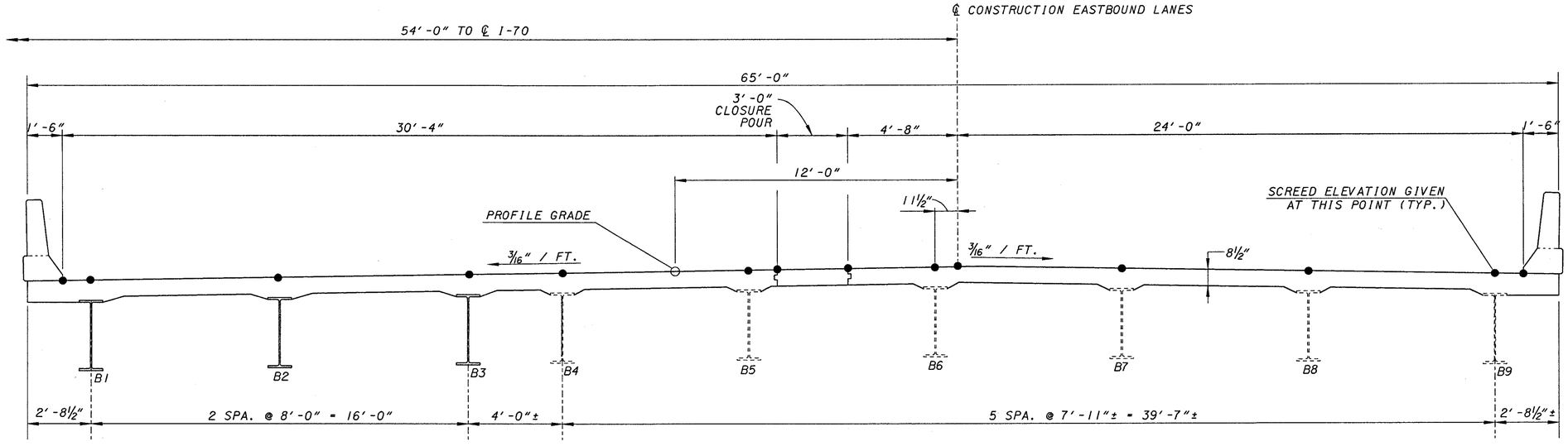
	℄ BEARING REAR ABUT.	0.2 L	0.4 L	0.6 L	0.8 L	PIER 1	0.2 L	0.4 L	0.6 L	0.8 L	PIER 2
LEFT GUTTER	1052.29	1052.30	1052.31	1052.31	1052.31	1052.29	1052.30	1052.30	1052.28	1052.25	1052.23
BEAM B1	1052.31	1052.32	1052.33	1052.33	1052.33	1052.31	1052.32	1052.32	1052.30	1052.27	1052.25
BEAM B2	1052.43	1052.45	1052.46	1052.46	1052.45	1052.44	1052.44	1052.44	1052.43	1052.40	1052.37
BEAM B3	1052.55	1052.57	1052.58	1052.58	1052.58	1052.56	1052.56	1052.56	1052.55	1052.52	1052.50
BEAM B4	1052.62	1052.64	1052.64	1052.64	1052.64	1052.63	1052.63	1052.63	1052.61	1052.59	1052.56
BEAM B5	1052.74	1052.76	1052.77	1052.77	1052.76	1052.75	1052.75	1052.75	1052.74	1052.71	1052.68
LEFT CONSTRUCTION JOINT	1052.76	1052.78	1052.79	1052.79	1052.78	1052.77	1052.77	1052.77	1052.75	1052.73	1052.70
RIGHT CONSTRUCTION JOINT	1052.81	1052.82	1052.83	1052.83	1052.83	1052.81	1052.82	1052.82	1052.80	1052.77	1052.75
BEAM B6	1052.86	1052.88	1052.89	1052.89	1052.89	1052.87	1052.87	1052.87	1052.86	1052.83	1052.80
℄ CONSTRUCTION & CROWN	1052.88	1052.90	1052.91	1052.91	1052.90	1052.89	1052.89	1052.89	1052.87	1052.85	1052.82
BEAM B7	1052.77	1052.79	1052.80	1052.80	1052.79	1052.78	1052.78	1052.78	1052.77	1052.74	1052.71
BEAM B8	1052.65	1052.67	1052.67	1052.67	1052.67	1052.66	1052.66	1052.66	1052.64	1052.61	1052.59
BEAM B9	1052.52	1052.54	1052.55	1052.55	1052.54	1052.53	1052.53	1052.53	1052.52	1052.49	1052.46
RIGHT GUTTER	1052.50	1052.52	1052.53	1052.53	1052.53	1052.51	1052.51	1052.51	1052.50	1052.47	1052.45

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

	PIER 2	0.2 L	0.4 L	0.6 L	0.8 L	PIER 3	0.2 L	0.4 L	0.6 L	0.8 L	℄ BEARING FORWARD ABUT.
LEFT GUTTER	1052.23	1052.21	1052.20	1052.17	1052.12	1052.07	1052.04	1052.02	1051.99	1051.95	1051.91
BEAM B1	1052.25	1052.23	1052.22	1052.19	1052.14	1052.09	1052.06	1052.04	1052.01	1051.97	1051.93
BEAM B2	1052.37	1052.36	1052.34	1052.31	1052.27	1052.22	1052.19	1052.16	1052.13	1052.10	1052.05
BEAM B3	1052.50	1052.48	1052.47	1052.44	1052.39	1052.34	1052.31	1052.29	1052.26	1052.22	1052.18
BEAM B4	1052.56	1052.54	1052.53	1052.50	1052.45	1052.40	1052.37	1052.35	1052.32	1052.28	1052.24
BEAM B5	1052.68	1052.67	1052.65	1052.62	1052.58	1052.53	1052.50	1052.47	1052.44	1052.41	1052.36
LEFT CONSTRUCTION JOINT	1052.70	1052.69	1052.67	1052.64	1052.59	1052.54	1052.52	1052.49	1052.46	1052.42	1052.38
RIGHT CONSTRUCTION JOINT	1052.75	1052.73	1052.72	1052.69	1052.64	1052.59	1052.56	1052.54	1052.51	1052.47	1052.43
BEAM B6	1052.80	1052.79	1052.77	1052.74	1052.70	1052.65	1052.62	1052.60	1052.57	1052.53	1052.49
℄ CONSTRUCTION & CROWN	1052.82	1052.81	1052.79	1052.76	1052.71	1052.66	1052.64	1052.61	1052.58	1052.54	1052.50
BEAM B7	1052.71	1052.70	1052.68	1052.65	1052.61	1052.56	1052.53	1052.50	1052.47	1052.44	1052.39
BEAM B8	1052.59	1052.57	1052.56	1052.53	1052.48	1052.43	1052.40	1052.38	1052.35	1052.31	1052.27
BEAM B9	1052.46	1052.45	1052.43	1052.40	1052.36	1052.31	1052.28	1052.26	1052.22	1052.19	1052.15
RIGHT GUTTER	1052.45	1052.43	1052.42	1052.39	1052.34	1052.29	1052.26	1052.24	1052.21	1052.17	1052.13

NOTES:

1. FOR DEFLECTIONS & CHAMBER TABLES SEE SHEET 17 / 27.
2. SCREED ELEVATIONS ARE GIVEN FOR THE TOP SURFACE OF THE CONCRETE DECK PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
3. L DENOTES LENGTH OF SPAN



FINAL DECK ELEVATIONS

DESIGN AGENCY
KZF DESIGN
KZF DESIGN, Inc. | Engineers | Planners | Surveyors
KZF DESIGN Inc., 250 Grandview Drive, Suite 200, Fort Mitchell, KY 41017-2000
TEL 513.621.6211 FAX 513.621.3000 WEB www.kzf.com

DATE 09/20/00
REVIEWED DGK
STRUCTURE FILE NUMBER 680/269/680/293
DRAWN SPG
REVISED
DESIGNED SJA
CHECKED WBS

KZF #13

SCREED TABLE - RIGHT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

23 / 27

208 / 283

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Architecture | Engineering | Interiors | Planning
TEL 970.927.3660 FAX 970.927.3620 Web www.kzfdesign.com

REVIEWED	DATE
DGK	09/20/00
STRUCTURE FILE NUMBER	
680I269/6801293	
DRAWN	REVISED
SJA	
DESIGNED	CHECKED
SJA	WBS

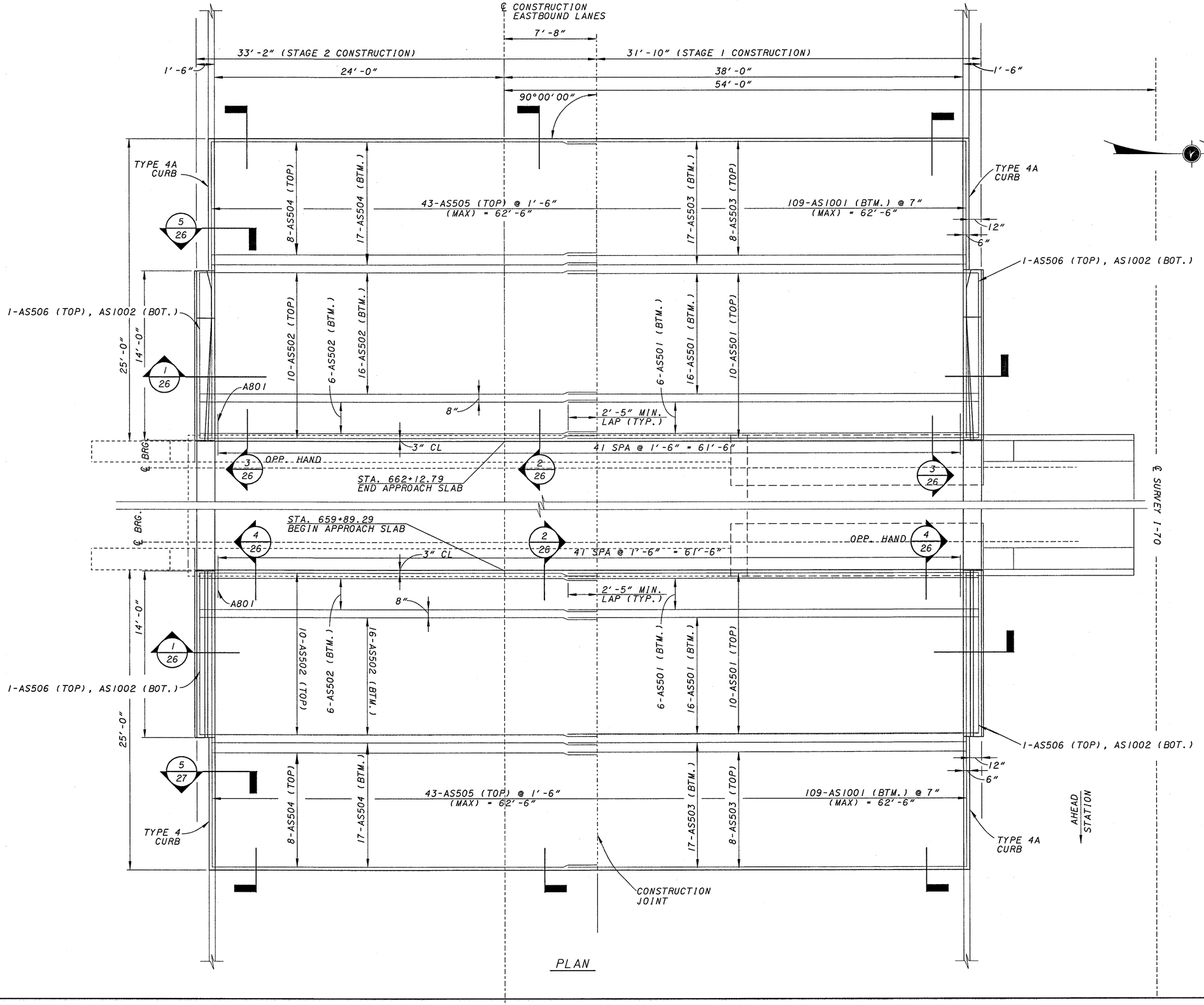
KZF #13

APPROACH SLABS - LEFT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

PRE-70-0.00

24/27

209/283



PLAN

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
4900 Euclid Road, Suite 100 Bridgeport, KY 41018
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	09/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801269/6801293	

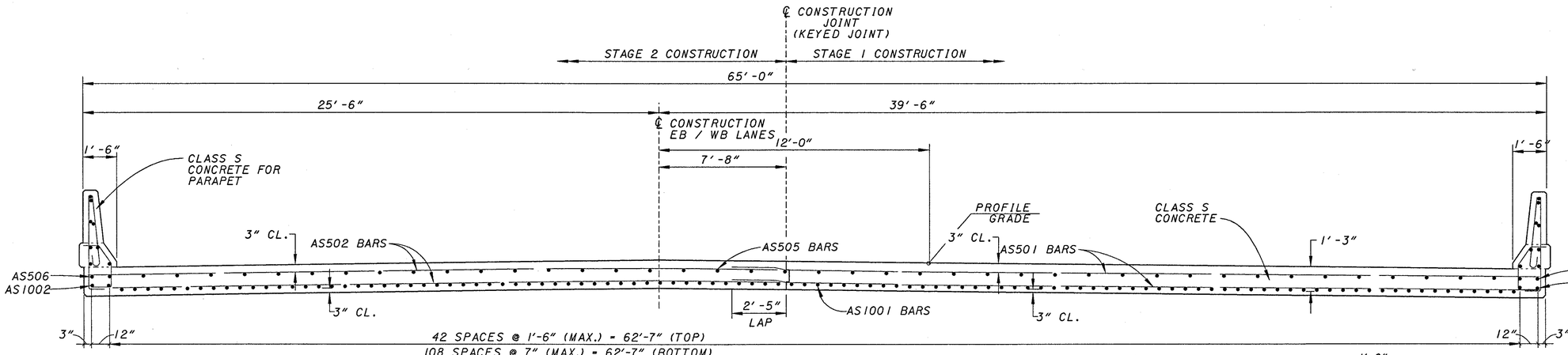
KZF #13

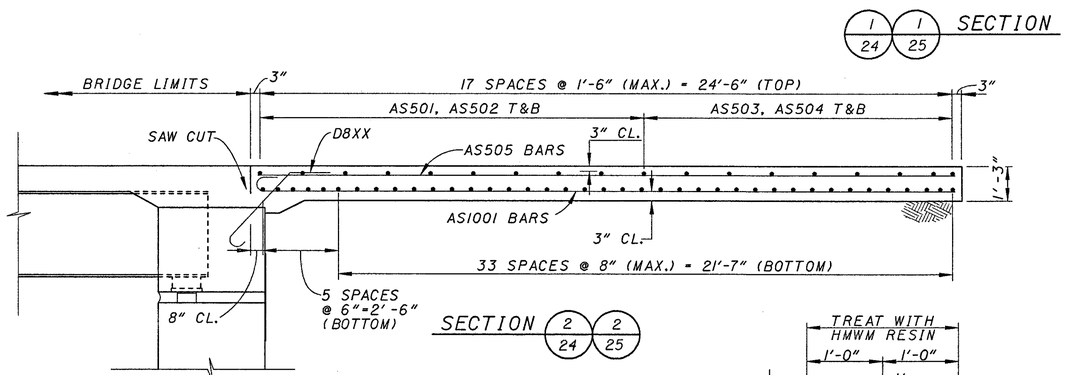
APPROACH SLABS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1249 L/R
I-R. 70 OVER PRICE CREEK

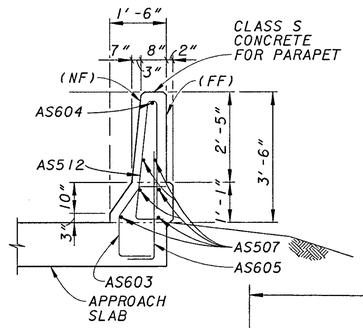
PRE-70-0.00

25/27

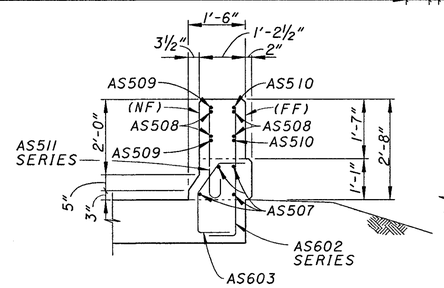
210/283







SECTION A-A



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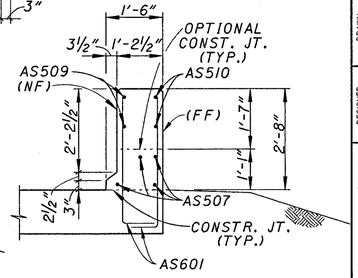
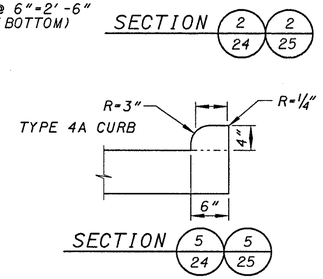
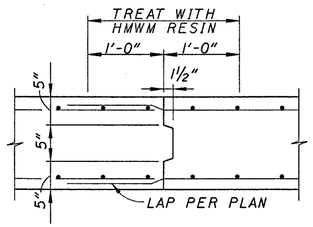


SECTION D-D

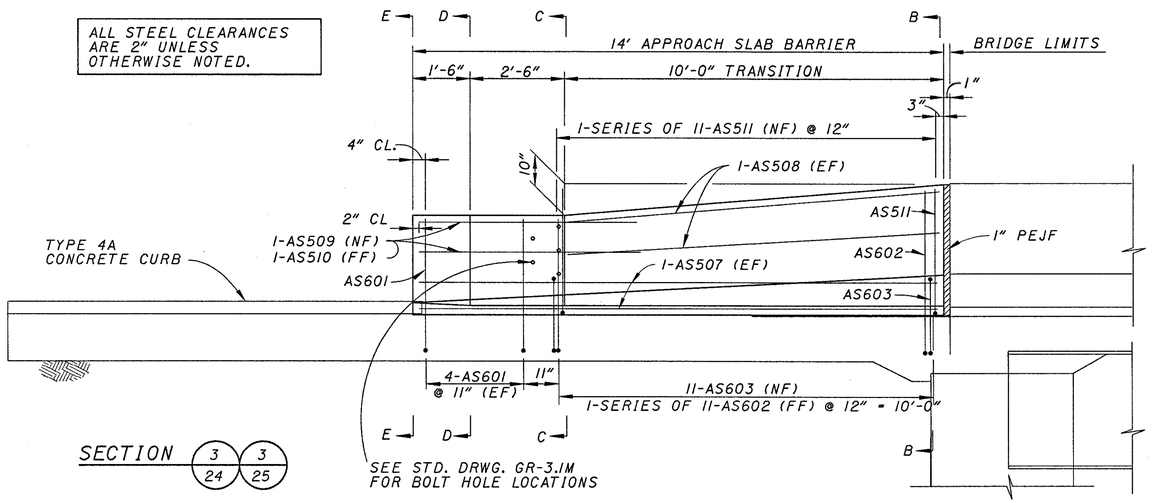




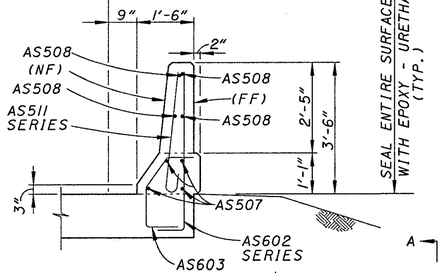
KEYED JOINT DETAIL

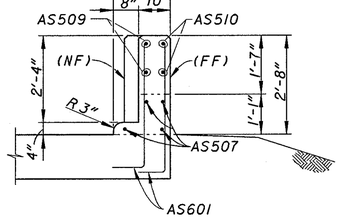
LEGEND:
NF - NEAR FACE
FF - FAR FACE
EF - EACH FACE
T&B - TOP AND BOTTOM

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

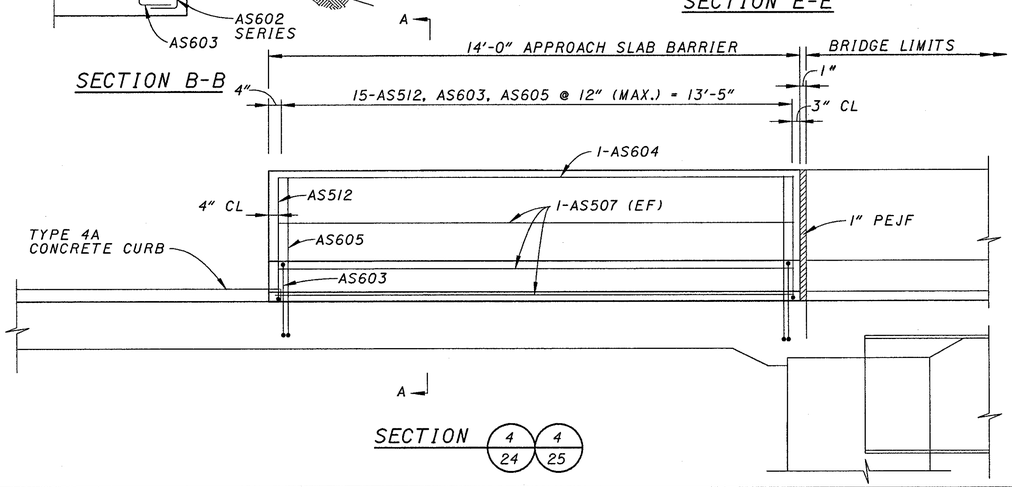


SECTION 3/24 3/25





SECTION E-E



SECTION B-B

SECTION 4/24 4/25

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
1001 SW Klickitat Way, Suite 207 Seattle, WA 98134
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REVIEWED	DATE
DGK	09/20/00
STRUCTURE FILE NUMBER	
680/269/680/293	
DRAWN	
JDG	
REVISED	
DESIGNED	
SJA	
CHECKED	
WBS	

KZF #13

APPROACH SLAB DETAILS

BRIDGE NO. PRE-70-124
I-R. 70 OVER PRICE CREEK

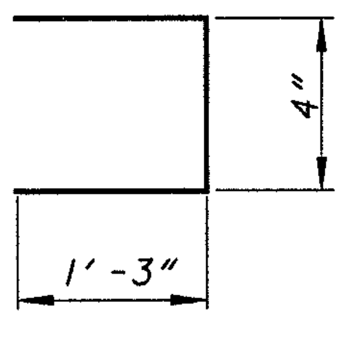
PRE-70-0.00

26/27

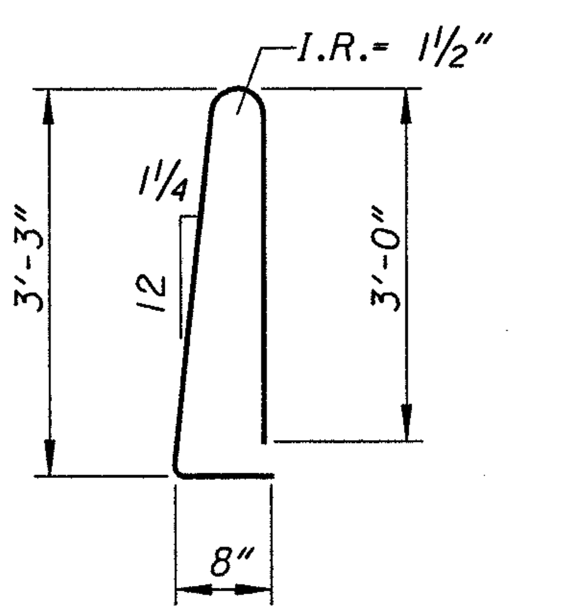
211/283

SUPERSTRUCTURE REINFORCING STEEL LIST

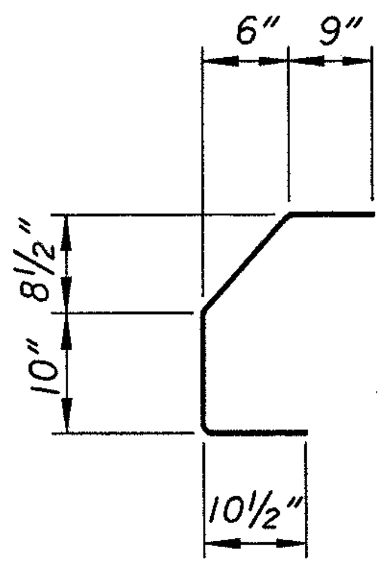
MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
S406	2'-7"	BENT	826	1426	826	1426
S501	7'-1"	BENT	448	3310	448	3310
S502	30'-0"	STR.	1136	35546	1136	35546
S503	34'-4"	STR.	826	29579	826	29579
S504	32'-9"	STR.	826	28215	826	28215
S505	30'-0"	STR.	294	9200	294	9200
S601	3'-0"	BENT	448	2019	448	2019
S602	3'-1"	BENT	448	2075	448	2075
S603	30'-0"	STR.	14	631	14	631
S604	33'-7"	STR.	2	101	2	101
	TOTAL	LBS		112102		112102



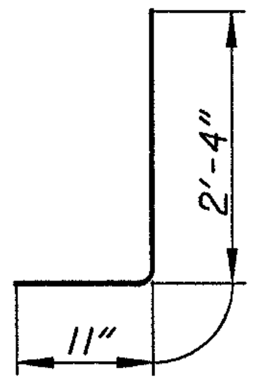
S406



S501



S601

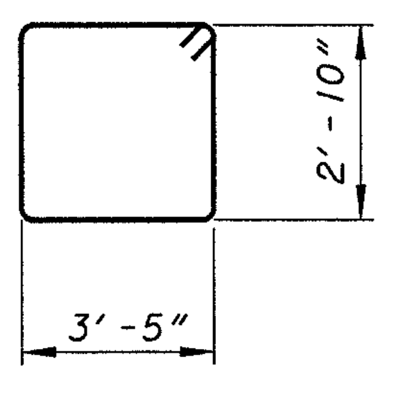


S602

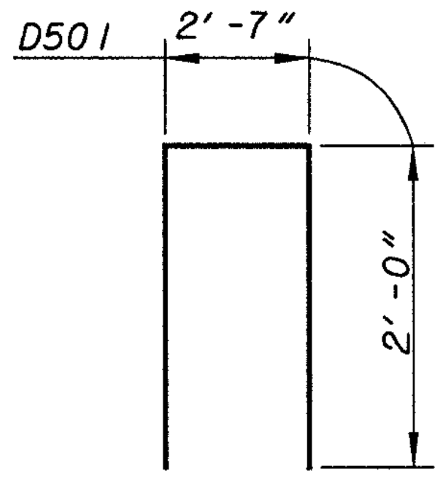
DIAPHRAGM REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
D501	6'-4"	BENT	102	667	102	667
D502	13'-0"	BENT	102	1369	102	1369
D801*	33'-2"	STR.	28	2480	28	2480
D802	31'-5"	STR.	18	1509	18	1509
D803	5'-0"	BENT	88	1175	88	1175
D804	30'-9"	STR.	10	821	10	821
	TOTAL	LBS		8021		8021

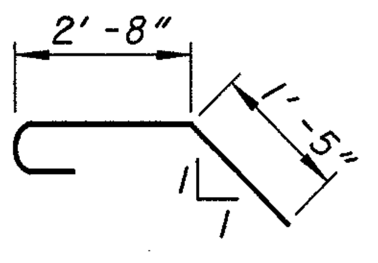
* 28 MECH. CONNECTORS REQ'D AT EACH BRIDGE FOR D801 BARS



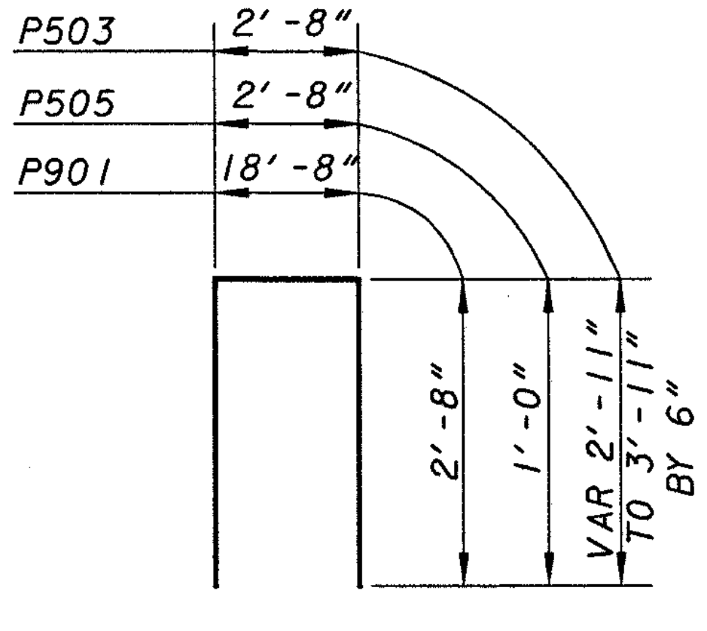
D502



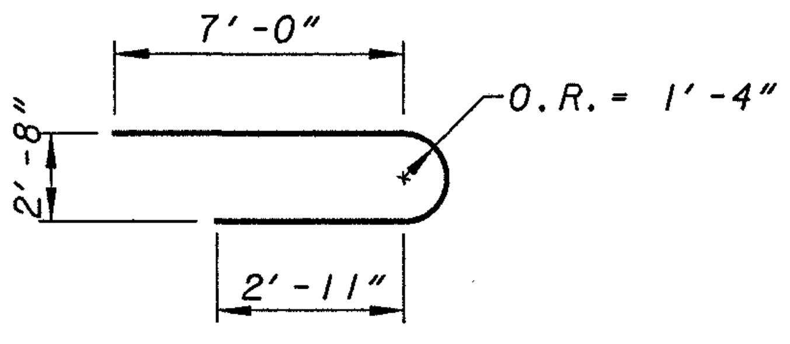
D501



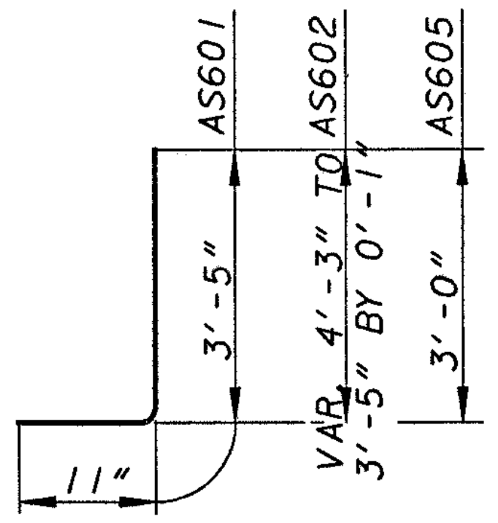
D803



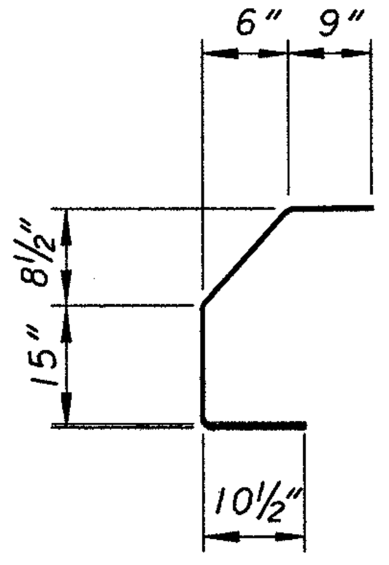
P503, P901, P505



P504



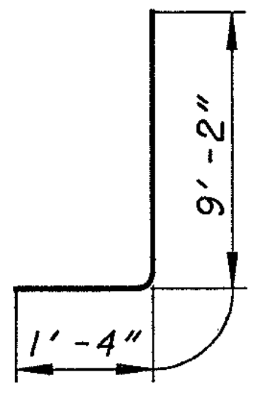
AS601, AS602, AS605



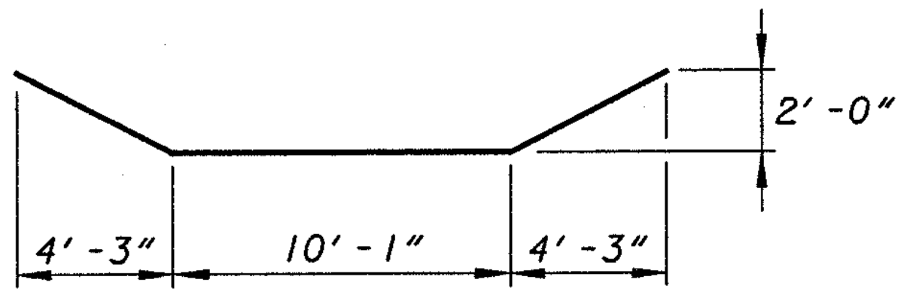
AS603

PIER REINFORCING STEEL LIST

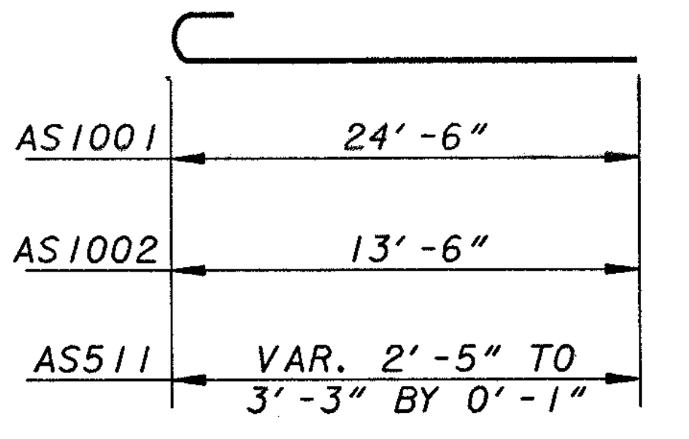
MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
P501	11'-6"	STR.	36	432	36	432
P502	7'-6"	STR.	39	306	39	306
	VAR 10'-3"		12		12	
P503	TO 8'-3"	BENT	SER OF	579	SER OF	579
	BY 0'-6"		5		5	
P504	14'-3"	BENT	74	1100	78	1160
P505	4'-5"	BENT	63	291	63	291
P506	18'-8"	STR.	6	117	6	117
P507	17'-3"	STR.	6	108	6	108
P601	7'-6"	STR.	39	440	39	440
P602	19'-5"	BENT	6	175	6	175
P801	10'-4"	BENT	66	1821	66	1821
P802	23'-6"	STR.			22	1381
P803	23'-5"	STR.			22	1376
P804	19'-3"	STR.			22	1131
P805	22'-6"	STR.	22	1322		
P806	22'-4"	STR.	22	1312		
P807	19'-2"	STR.	22	1126		
P901	23'-5"	BENT	15	1195	15	1195
	TOTAL	LBS		10,324		10,512



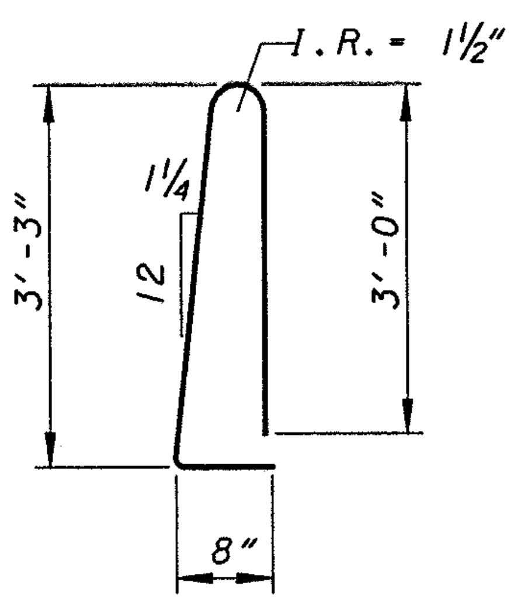
P801



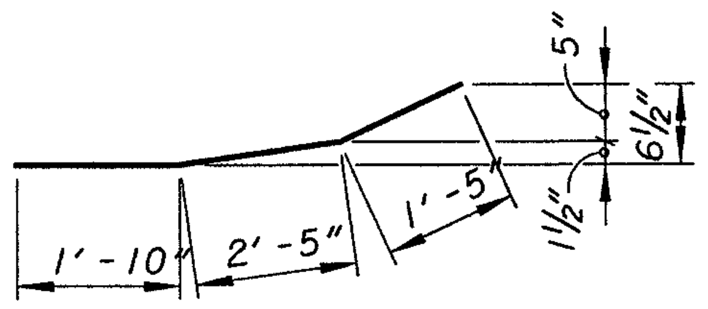
P602



AS1001, AS1002, AS511



AS512



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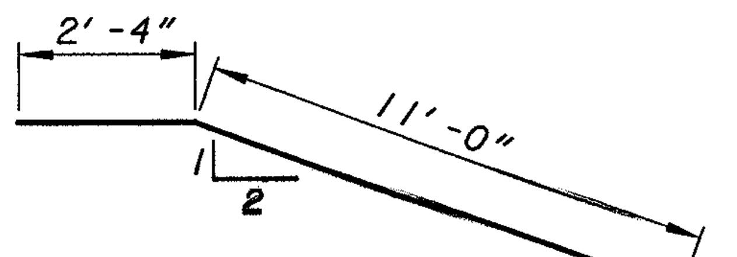

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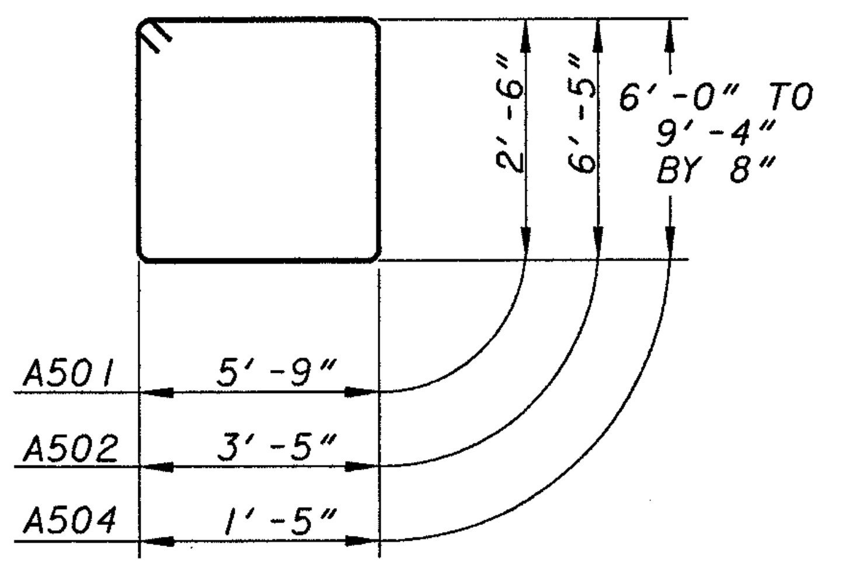
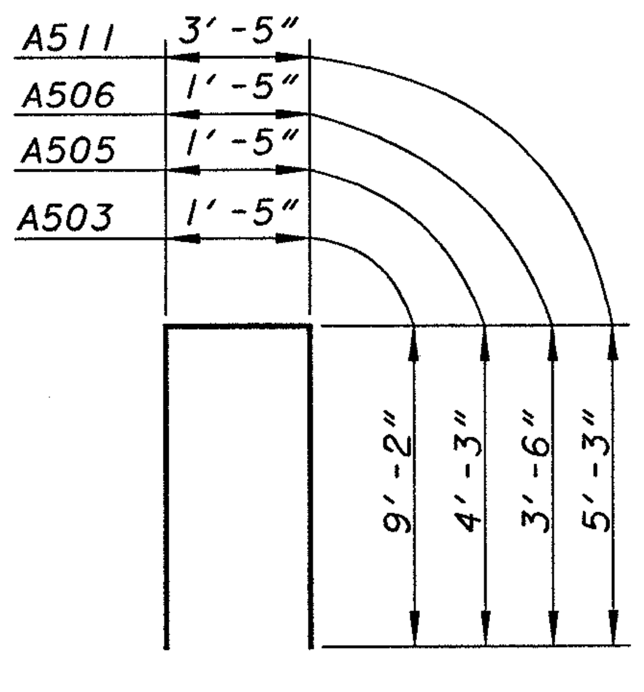


A501, A502, A504



A503, A505, A506, A511

APPROACH SLAB REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
AS501	34'- 0''	STR.	64	2,270	64	2,270
AS502	32'- 11''	STR.	64	2,197	64	2,197
AS503	33'- 0''	STR.	50	1,721	50	1,721
AS504	31'- 11''	STR.	50	1,664	50	1,664
AS505	24'- 6''	STR.	86	2,198	86	2,198
AS506	13'- 6''	STR.	4	56	4	56
AS507	13'- 5''	STR.	20	280	20	280
AS508	10'- 0''	STR.	8	83	8	83
AS509	5'- 8''	BENT	4	24	4	24
AS510	5'- 8''	STR.	4	24	4	24
	VAR 3'-10"		2		2	
AS511	TO 3'-0''	BENT	SER OF	78	SER OF	78
	BY 0'-1''		11		11	
AS512	7'- 1''	BENT	30	222	30	222
AS601	4'- 3''	BENT	16	102	16	102
	VAR 4'-2''		2		2	
AS602	TO 5'-0''	BENT	SER OF	151	SER OF	151
	BY 0'-1''		11		11	
AS603	3'- 5''	BENT	52	267	52	267
AS604	13'- 5''	STR.	2	40	2	40
AS605	3'- 9''	BENT	30	169	30	169
AS1001	25'- 11''	BENT	218	24,311	218	24,311
AS1002	14'- 11''	BENT	4	257	4	257
TOTAL LBS.				36,114		36,114

ABUTMENT REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
A501	17'-0"	BENT	48	852	48	852
A502	20'-2"	BENT	30	632	30	632
A503	19'-6"	BENT	8	163	8	163
	VAR 22'-1"		2		2	
A504	TO 15'-5"	BENT	SER OF	235	SER OF	235
	BY 1'-4"		6		6	
A505	9'-8"	BENT	6	61	6	61
A506	8'-2"	BENT	2	18	2	18
	VAR 9'-7"		4		4	
A507	TO 4'-7"	STR.	SER OF	89	SER OF	89
	BY 2'-6"		3		3	
A508	13'-4"	BENT	4	56	4	56
A509	33'-3"	STR.	12	417	12	417
A510	14'-9"	STR.	12	185	12	185
A511	13'-8"	BENT	2	29	2	29
A512	22'-1"	STR.	8	185	8	185
A801	34'-8"	STR.	8	741	8	741
A802	23'-6"	STR.	8	502	8	502
	TOTAL	LBS		4165		4165

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 180° AND 135° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A NO. 5 BAR.

DESIGN AGENCY
KZF DESIGN
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KZF DESIGN INC. 655 Eden Park Drive Cincinnati, OH 45202-6000
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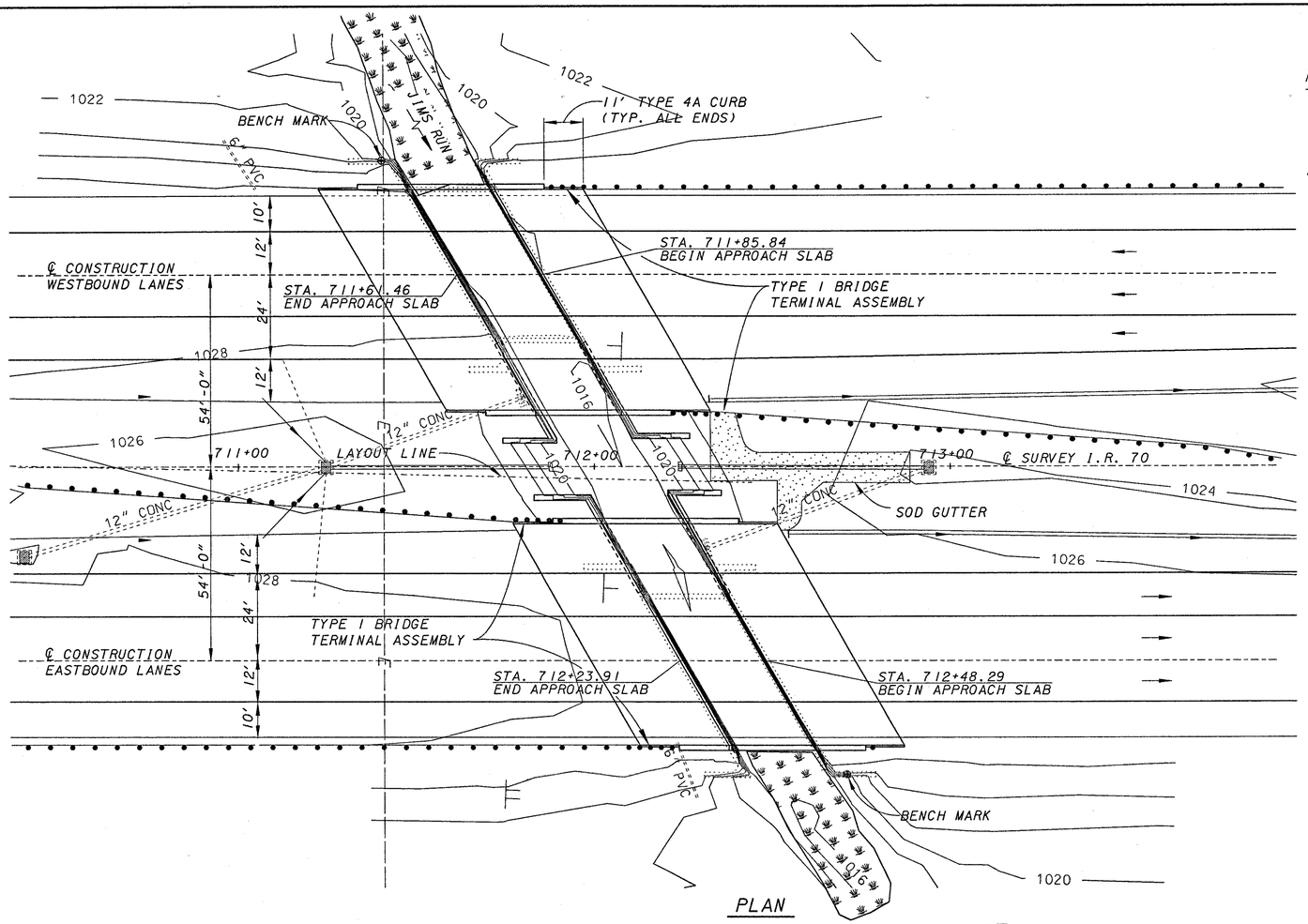
DESIGNED SJA
DRAWN JDG
REVIEWED DGK
DATE 09/20/00
CHECKED WBS
REVISED
STRUCTURE FILE NUMBER 6801269/6801293

KZF #13

REINFORCING STEEL LIST
BRIDGE NO. PRE-70-1249 L/R
I.R. 70 OVER PRICE CREEK

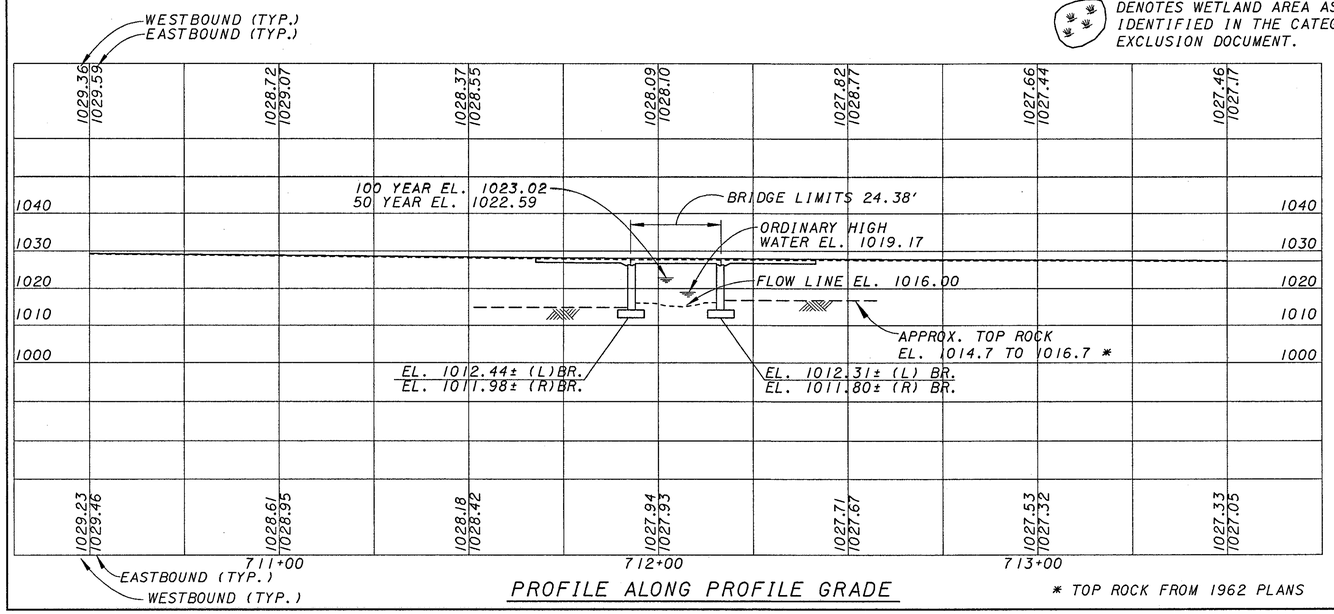
PRE-70-0.00

27/27



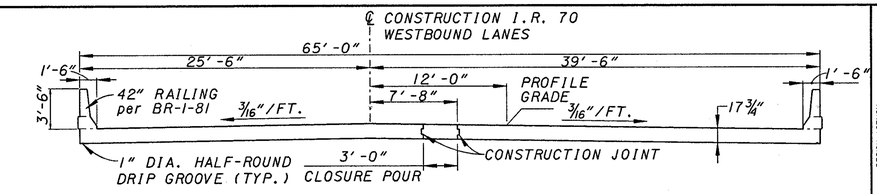
PLAN

DENOTES WETLAND AREA AS IDENTIFIED IN THE CATEGORICAL EXCLUSION DOCUMENT.



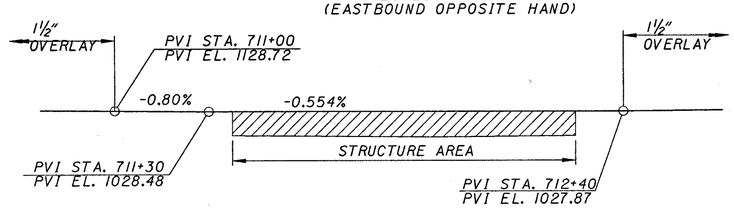
PROFILE ALONG PROFILE GRADE

* TOP ROCK FROM 1962 PLANS

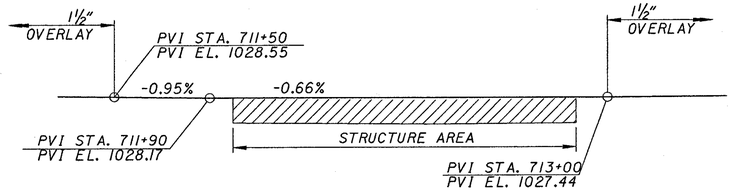


TYPICAL SECTION

(WESTBOUND SHOWN)
(EASTBOUND OPPOSITE HAND)



WESTBOUND VERTICAL PROFILE



EASTBOUND VERTICAL PROFILE

TRAFFIC DATA

ADT (2001) = 35,860
ADT (2021) = 50,800
ADTT (2021) = 19,812
SOURCE = ODOT

BENCH MARK

BOX NOTCH ON S.E. ABUTMENT EASTBOUND AT STA. 712+65±, 80' RT. AT ELEVATION 1025.87

BOX NOTCH ON N.W. ABUTMENT WESTBOUND AT STA. 711+40±, 80' LT. AT ELEVATION 1026.52

DRAINAGE DATA

DRAINAGE AREA: 1.5 SQ. MILES
EXISTING BRIDGE OPENING: 182 Sq. Ft.
PROPOSED BRIDGE OPENING: 182 Sq. Ft.
HW100: 1023.02
HW50: 1022.59
Q100: 734 C.F.S.
Q50: 649 C.F.S.
V100: 7.67 F.P.S.
V50: 7.29 F.P.S.
LOW CHORD ELEVATION: 1025.98
TOP OF DECK ELEVATION: 1027.45 TO 1028.44

EXISTING STRUCTURE - I.R. 70

TYPE: SIMPLE SPAN REINFORCED CONCRETE SLAB WITH CANTILEVER ABUTMENTS
LENGTH OF SPAN: 21'-6" CLEAR
ROADWAY WIDTH: 42'-0"± FACE/FACE BARRIER
DESIGN LOADING: C.F. 2000
SKEW ANGLE: 30°00'00"± RT. FWD.
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: TANGENT
YEAR BUILT: 1962

PROPOSED STRUCTURE

PROPOSED WORK: NEW REINFORCED CONCRETE DECK ON WIDENED SUBSTRUCTURE.

TYPE: SIMPLE SPAN REINFORCED CONCRETE SLAB WITH CANTILEVER ABUTMENTS
LENGTH OF SPAN: 21'-6" CLEAR
ROADWAY WIDTH: 62'-0"± FACE/FACE BARRIER
DESIGN LOADING: HS-20 WITH ALTERNATE MILITARY
SKEW ANGLE: 30°00'00"± RT. FWD.
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (25' LONG)
ALIGNMENT: TANGENT
LATITUDE: N 39°50'16"
LONGITUDE: W 84°33'39"

DESIGN AGENCY
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Architecture | Engineering | Planning
KZF DESIGN Inc. 800 Main Street Cincinnati, OH 45202-8002
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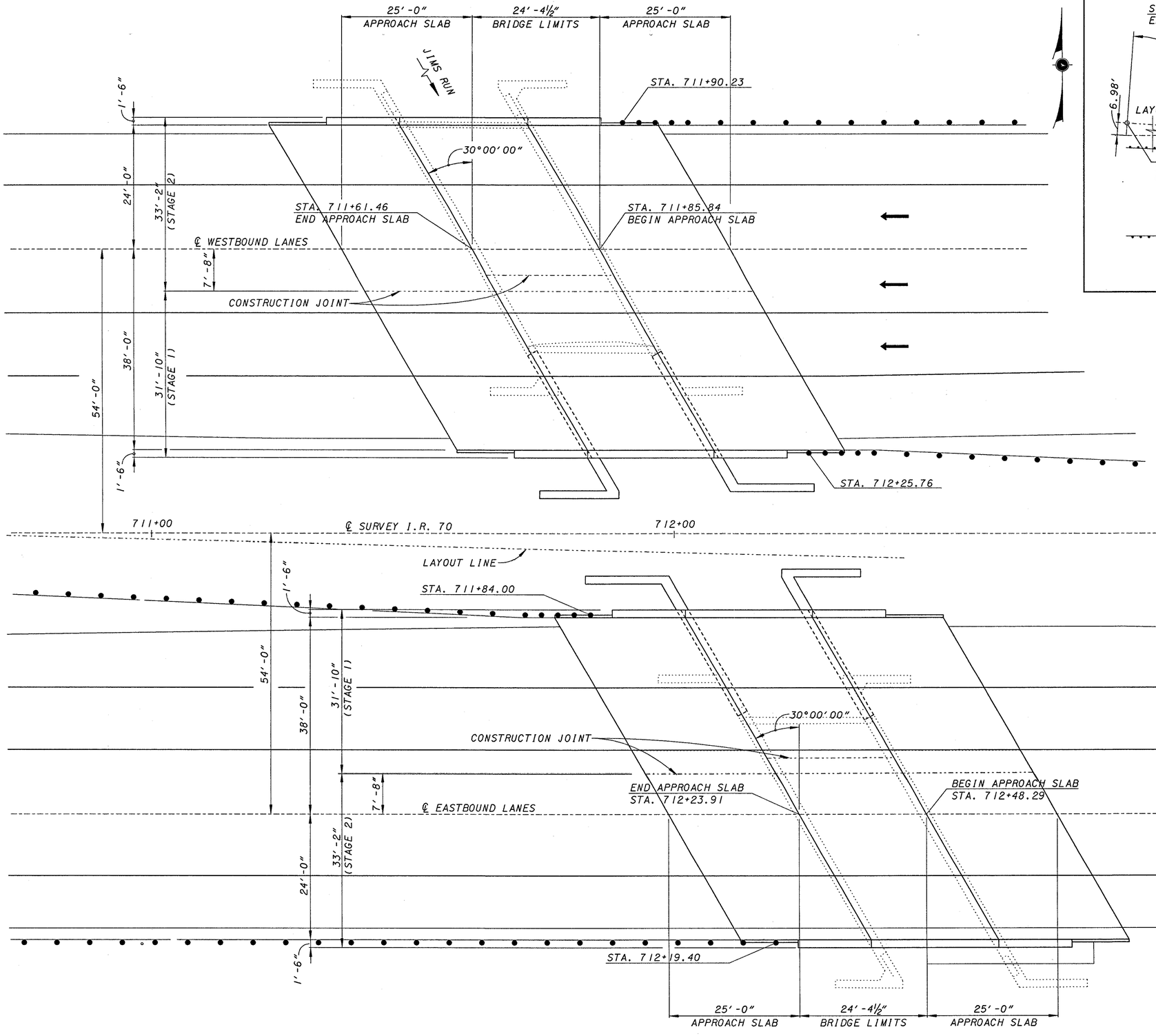
DESIGNED SJA | DRAWN JDG | CHECKED WBS | REVIEWED DGK | DATE 1/29/01
REVISED | STRUCTURE FILE NUMBER 680/323/680/358

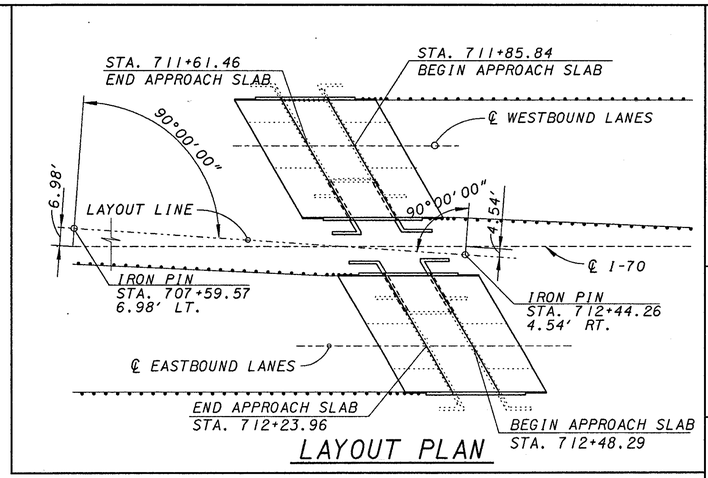
PREBLE COUNTY
STA 17+96.00
STA 21+23.00

KZF #14

SITE PLAN
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00





LAYOUT PLAN

DESIGN AGENCY
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601 Brooks Rd. Suite 1 Medford, OR 97501
437 DESIGN INC. 800 Elm Park Drive Cincinnati, OH 45202-6000
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DESIGNED	CHECKED
SJA	WBS

DRAWN	REVISED
JDG	

REVIEWED	DATE
DGK	1/29/01

STRUCTURE FILE NUMBER
680132316801358

KZF #14

GENERAL PLAN
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00

2 / 15

214
283

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS :

AS-1-81	REVISED 09-15-94 (SHEETS 1,2 & 3)
BR-1	REVISED 1-6-99
SB-6-94	DATED 12-19-94

AND TO SUPPLEMENTAL SPECIFICATION:

842	DATED 1/6/99
844	DATED 1/6/99
846	DATED 9/9/97
899	DATED 10/21/98
905	DATED 4/01/98
907	DATED 10/21/98
911	DATED 7/10/97
954	DATED 9/9/97

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28-DAY) (SUPERSTRUCTURE)

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28-DAY) (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615, A616 OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, SEALING OF CONCRETE SURFACES AND 2½" CONCRETE COVER.

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

REINFORCING BAR SPLICES: REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY 509.08 OF THE C.M.S. UNLESS OTHERWISE NOTED ON THE PLANS.

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

REINFORCING CLEARANCE: UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL CLEARANCE TO FACE OF CONCRETE IS 2".

PROPOSED WORK

1. REMOVE EXISTING CONCRETE DECK, PARAPETS, SCUPPERS, APPROACH SLABS AND PORTIONS OF CONCRETE SUBSTRUCTURES IN A SEQUENCE CONSISTENT WITH MAINTENANCE OF TRAFFIC PLANS AND NOTES AND STAGE CONSTRUCTION.
2. CONSTRUCT ABUTMENT WIDENING.
3. CONSTRUCT A NEW CONCRETE DECK AT ELEVATIONS TO MEET OVERLAY ON EXISTING ROADWAY APPROACHES.
4. CONSTRUCT NEW CONCRETE APPROACH SLABS.
5. CONSTRUCT NEW CONCRETE BARRIERS ON DECK AND APPROACH SLABS.
6. PATCH CONCRETE SUBSTRUCTURES AS DIRECTED.
7. CLEAN AND SEAL CONCRETE BARRIERS, ABUTMENTS AND PIERS.

FOUNDATION BEARING PRESSURE

ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.8 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.3 TONS PER SQUARE FOOT.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED,
AS PER PLAN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS AND OTHER APPURTENANCES. PORTIONS OF THE PIERS AND ABUTMENTS SHALL ALSO BE REMOVED AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN DURING REMOVALS TO PROTECT PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. ALL REMOVALS SHALL BE CONSISTENT WITH THE STAGE CONSTRUCTION REQUIREMENTS. EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIALS OUT OF THE STREAM CHANNEL. IF ANY MATERIAL FALLS INTO THE WATER, THE MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL CONSTRUCTION DEBRIS AND OR EXCESS FILL MATERIAL SHALL BE DISPOSED AT AN ENGINEER APPROVED UPLAND SITE. (A DISPOSAL SITE LOCATED ABOVE THE 100-YEAR FLOOD PLAIN.)
ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER, TO ENSURE ADEQUATE DEPTH CONTROL AND TO PREVENT DAMAGE TO CONCRETE SUBSTRUCTURES.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ENVIRONMENTAL COMMITMENTS AND RESOURCES TO BE AVOIDED

THE CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWAPP) TO ADDRESS EROSION ASSOCIATED WITH SHOULDER DISTURBANCE/ RECONSTRUCTION AND BRIDGE WORK. (CMS 877.03)

ALL CONDITIONS ATTACHED WITH CORPS PERMIT (NATIONWIDE 3 & 14) SHALL BE IMPLEMENTED IN THE FIELD WITH THE ACTUAL PERMIT BEING DISPLAYED ONSITE.

EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIAL OUT OF THE STREAM CHANNELS. IF ANY MATERIAL FALLS INTO THE WATER, IT SHALL BE REMOVED IMMEDIATELY. ALL DEBRIS OR EXCESS FILL MATERIAL SHOULD BE DISPOSED AT AN APPROVED UPLAND SITE. (ABOVE THE 100 YR. FLOODPLAIN)

IN-STREAM STRUCTURES SHALL BE KEPT TO THE MINIMAL SIZE NEEDED TO FACILITATE WORK AND WILL BE REMOVED IMMEDIATELY TO ORIGINAL GRADE AFTER IN-STREAM WORK IS COMPLETED.

WHILE PAINTING, SANDBLASTING OR SEALING OF ANY PORTION OF THE BRIDGE AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS AND PAINT OVERSPRAY AND SEALANTS FROM ENTERING INTO THE STREAM.

PROPER SEDIMENT AND EROSION CONTROLS SHALL BE IMPLEMENTED THROUGHOUT THE COURSE OF THE PROJECT. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK (ODOT CMS ITEM 877)

IMPLEMENT ODOT CMS ITEM 616, DUST CONTROL AS NECESSARY.

COMPLY WITH ODOT CMS ITEM 107.21 CONTROLLING POLLUTION OF THE ENVIRONMENT.

VEGETATION REMOVAL WILL BE HELD TO AN ABSOLUTE MINIMUM REQUIRED TO COMPLETE THE WORK.

WETLANDS EXIST WITHIN THE PROJECT AREA. ALL WETLANDS NOT DIRECTLY INVOLVED WITH BRIDGE DECK/SUBSTRUCTURE MODIFICATIONS SHALL BE AVOIDED. THE BRIDGE SITE PLANS SHOW WETLAND AREAS TO BE AVOIDED.

SEAL WINGWALLS, ABUTMENTS, PARAPETS, AND DECK EDGES WITH EPOXY-URETHANE: COLOR SHALL BE FEDERAL COLOR STANDARD 17778 (OFF-WHITE)

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE EXPOSED CONCRETE SURFACE AREAS DESIGNATED IN THE PLANS AND PROPOSAL IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 50) ENTITLED, ITEM SPECIAL - SEALING OFCONCRETE SURFACES.

PATCH SUBSTRUCTURE CONCRETE

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

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

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS WHICH ARE DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW REINFORCING STEEL.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH S.R. 741 LEBANON, OHIO 45036 (800) 831-2142. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE DRAWINGS.

ITEM 846 - TREATING CONCRETE WITH HMWM RESIN

SEAL THE CONSTRUCTION JOINT IN THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATIONS FOR SURFACE PREPARATION AND RATE OF APPLICATION.

CONCRETE PARAPETS:

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 1¼" DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. THE SAWCUTS SHALL BE PLACED AT A MINIMUM OF 6 FEET AND A MAXIMUM OF 10 FEET CENTERS. THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL SURFACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF ¼ INCH. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A POLYURETHANE OR POLYMERIC CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E. THE BOTTOM ½ INCH OF THE INSIDE AND OUTSIDE FACE SHOULD BE LEFT UNSEALED TO ALLOW WATER TO ESCAPE.

DESIGN AGENCY
KZ DESIGN
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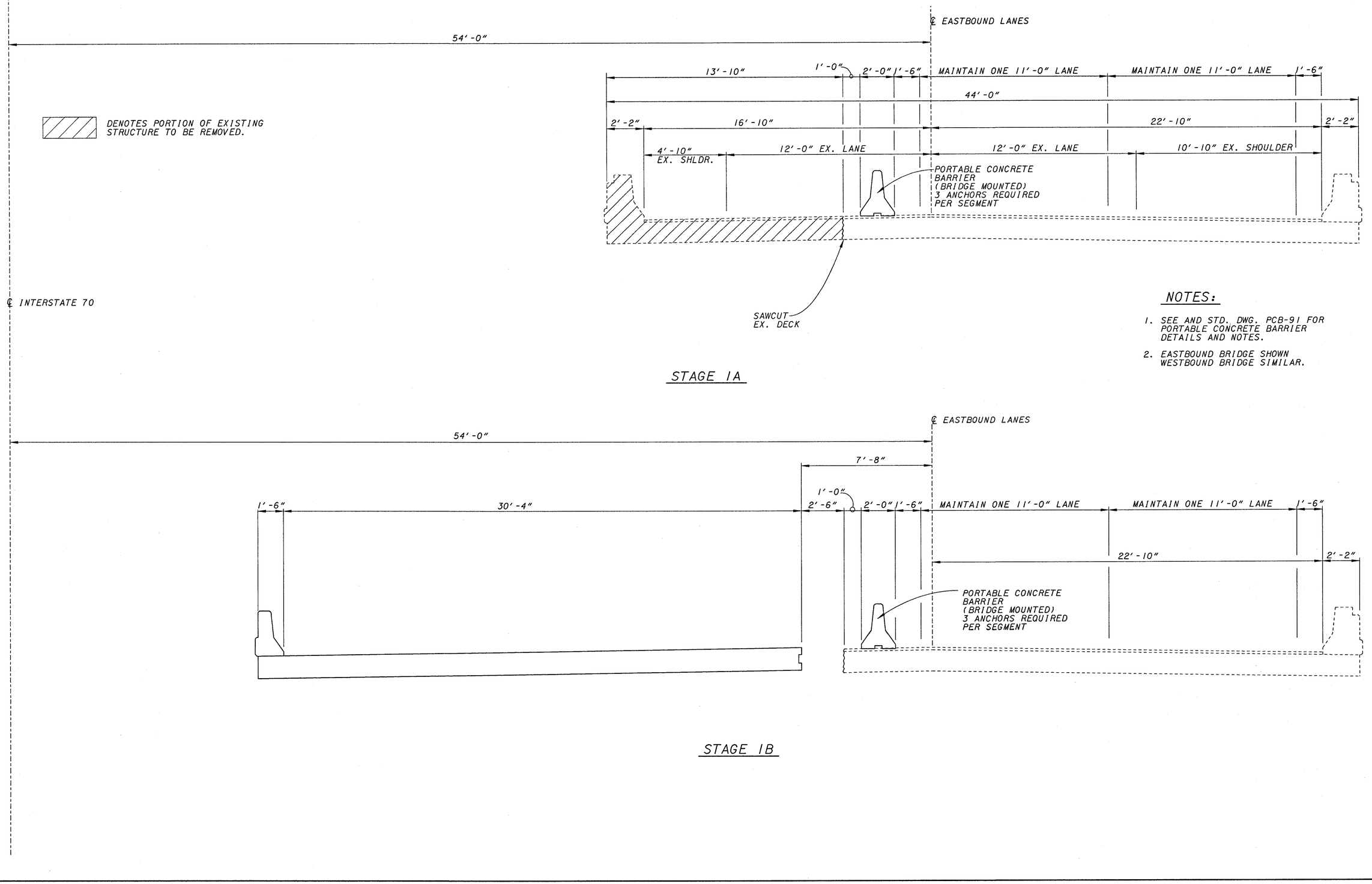
KZF DESIGN INC. 555 Metro Place North Dublin, OH 43017-5090
TEL 614.923.2221 FAX 614.923.2600 Web www.kzf.com

DESIGNED	SJA	DATE	1/29/01
DRAWN	JDG	REVIEWED	DGK
CHECKED	WBS	REVISED	
KZF #14		STRUCTURE FILE NUMBER	6801323/6801358

GENERAL NOTES
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00



NOTES:

1. SEE AND STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.
2. EASTBOUND BRIDGE SHOWN WESTBOUND BRIDGE SIMILAR.

DESIGN AGENCY
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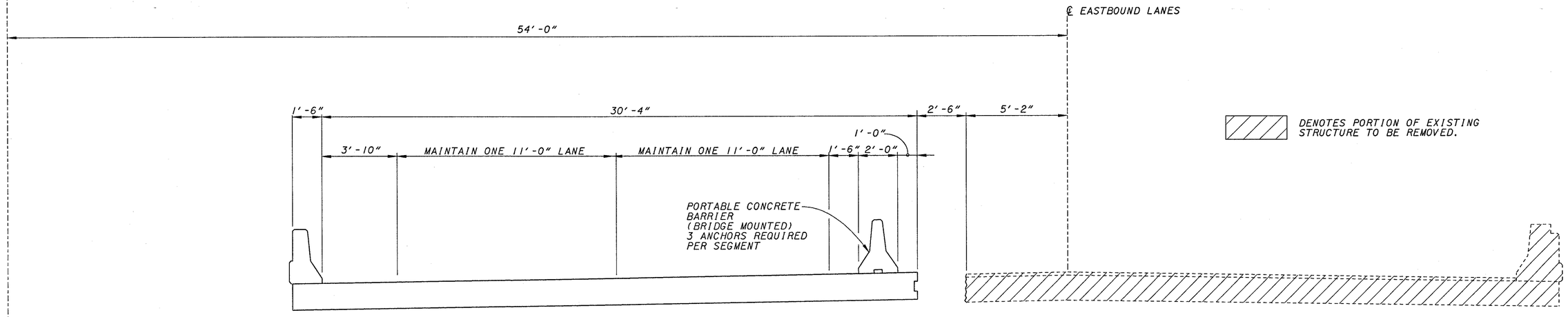
DESIGNED	DRAWN	REVIEWED	DATE
SJA	SJA	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801323/6801358	

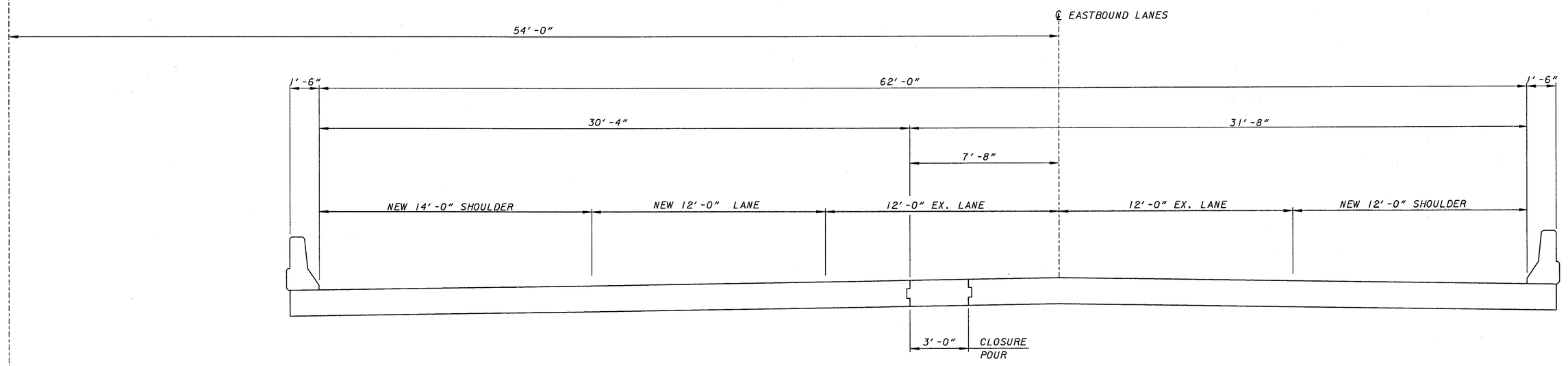
KZF #14

RIGHT BRIDGE STAGE I CONSTRUCTION
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00



STAGE 2A



STAGE 2B

DESIGN AGENCY
KZF DESIGN
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Kirkwood, Missouri | Overland Park, Kansas
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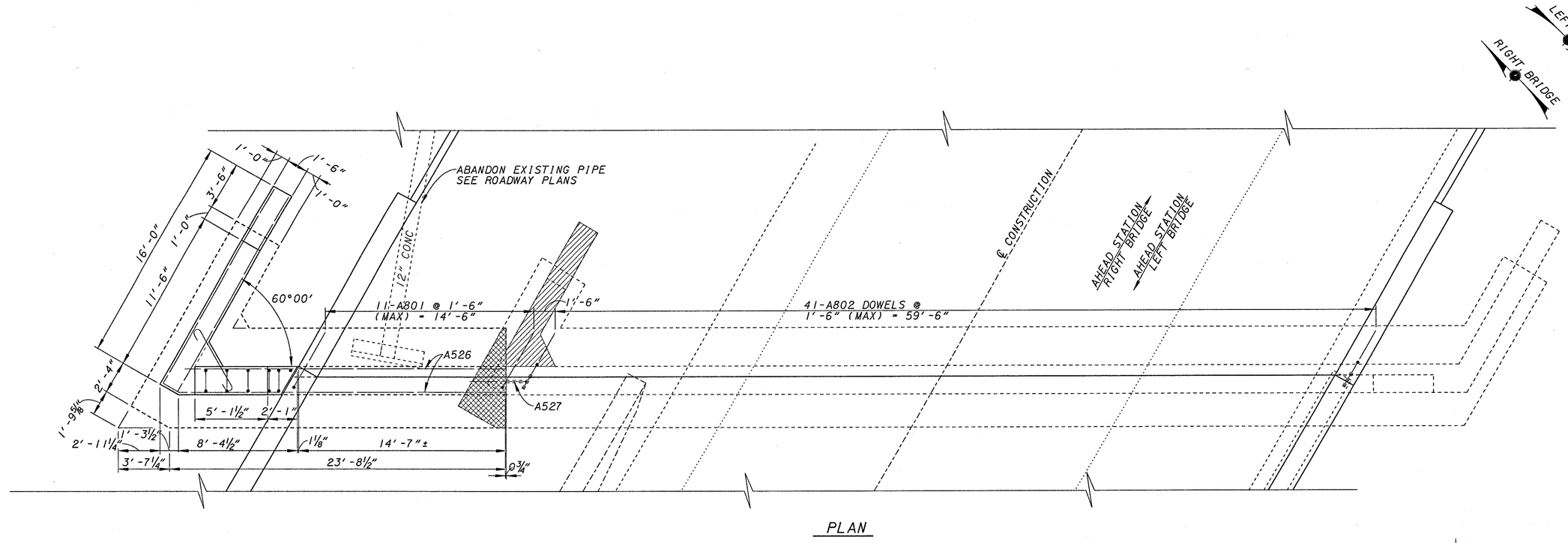
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680323/6801358	

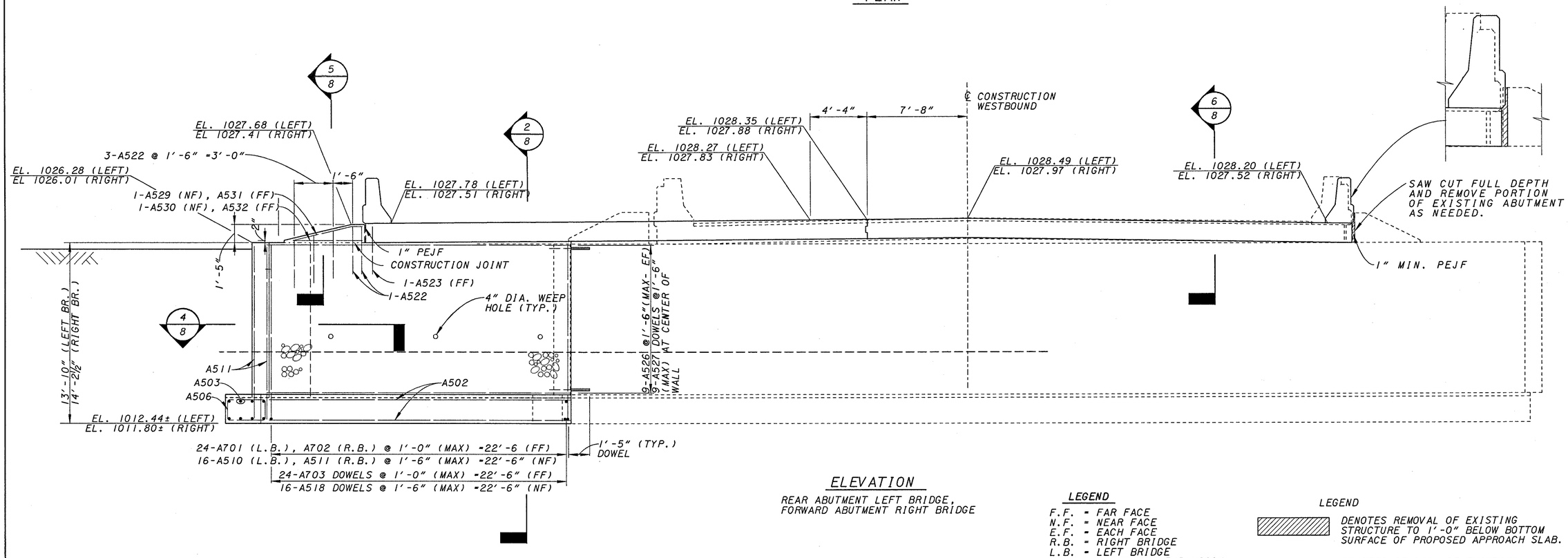
KZF #14

RIGHT BRIDGE STAGE 2 CONSTRUCTION
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00



PLAN



ELEVATION

REAR ABUTMENT LEFT BRIDGE,
FORWARD ABUTMENT RIGHT BRIDGE

LEGEND

F.F. = FAR FACE
N.F. = NEAR FACE
E.F. = EACH FACE
R.B. = RIGHT BRIDGE
L.B. = LEFT BRIDGE
PEJF = PREFORMED EXPANSION JOINT FILLER

LEGEND

DENOTES REMOVAL OF EXISTING STRUCTURE TO 1'-0" BELOW BOTTOM SURFACE OF PROPOSED APPROACH SLAB.

DENOTES REMOVAL OF EXISTING STRUCTURE.

DESIGN AGENCY
KZF DESIGN
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Portland, Oregon 97214
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680 1323/680 1358	

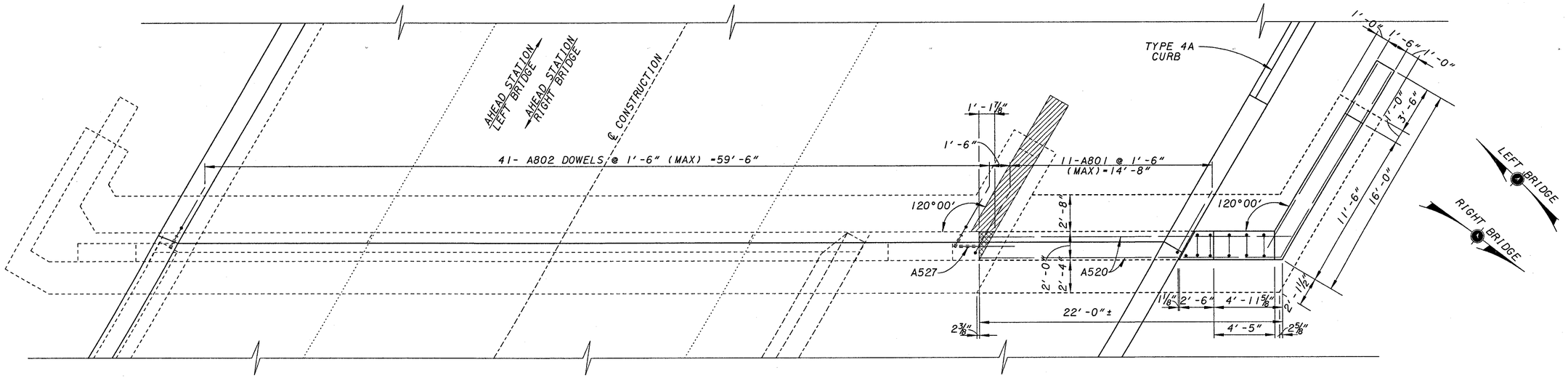
KZF #14

ABUTMENT DETAILS, ACUTE WINGWALL
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

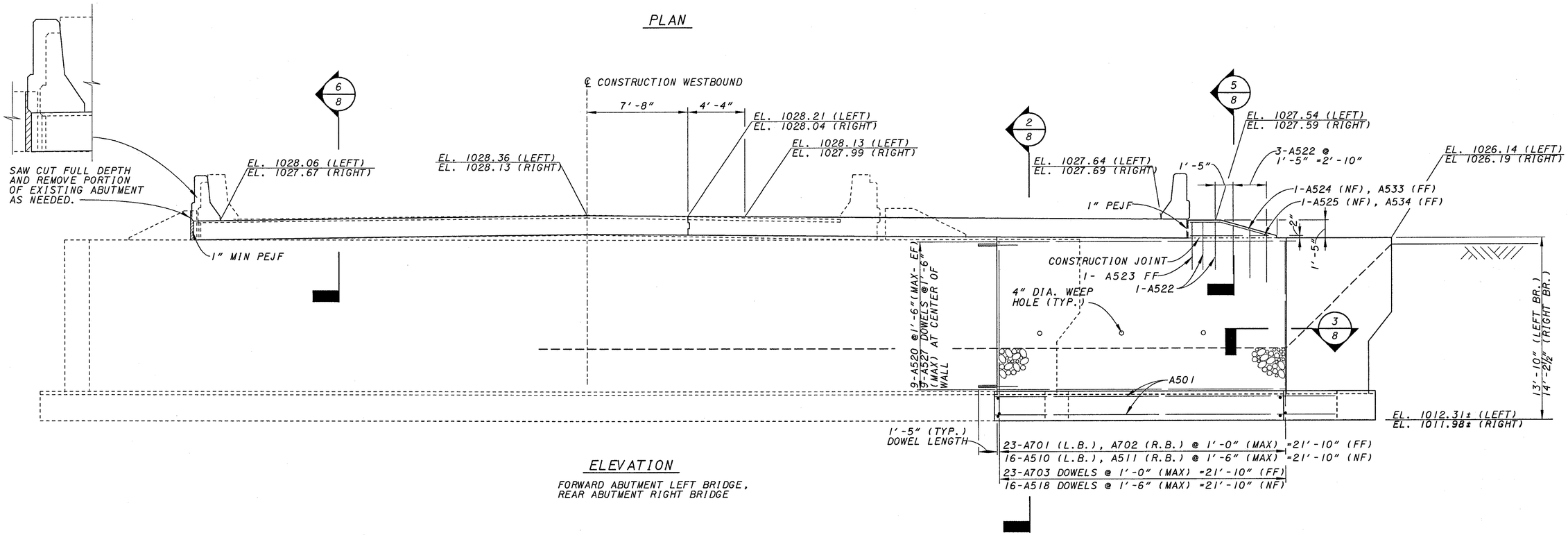
PRE-70-0.00

6 / 15

218 / 283



PLAN



ELEVATION

FORWARD ABUTMENT LEFT BRIDGE,
REAR ABUTMENT RIGHT BRIDGE

LEGEND

F.F. = FAR FACE
N.F. = NEAR FACE
E.F. = EACH FACE
R.B. = RIGHT BRIDGE
L.B. = LEFT BRIDGE
PEJF = PREFORMED EXPANSION JOINT FILLER

LEGEND

DENOTES REMOVAL OF EXISTING STRUCTURE TO 1'-0" BELOW BOTTOM SURFACE OF PROPOSED APPROACH SLAB.

DENOTES REMOVAL OF EXISTING STRUCTURE.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Kansas City, Missouri 64111 816.931.5911
St. Louis, Missouri 63020 Web: www.kzf.com
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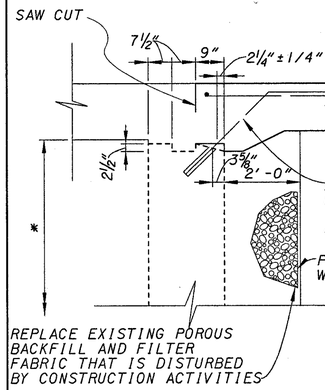
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680/323/680/358	

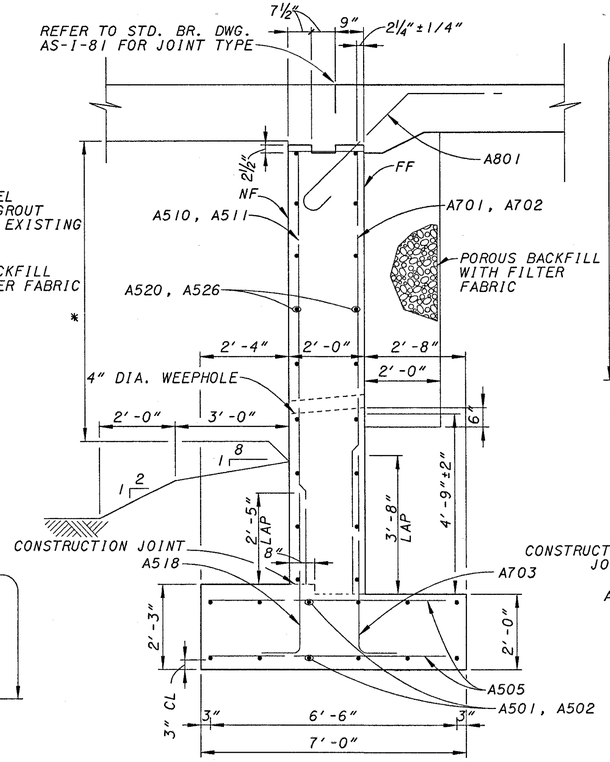
KZF #14

ABUTMENT DETAILS, OBTUSE WINGWALL
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

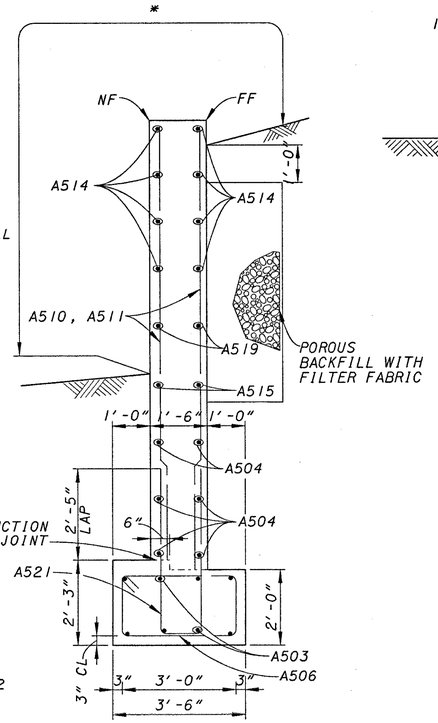
PRE-70-0.00



SECTION 6/6 6/7

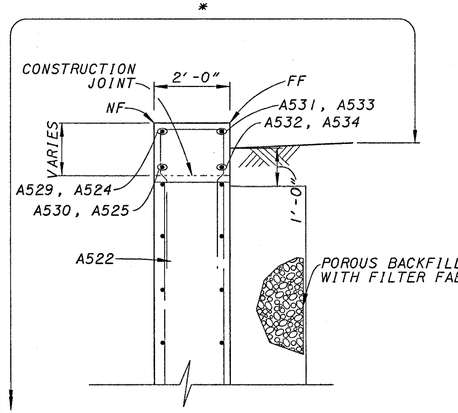


SECTION 2/6 2/7

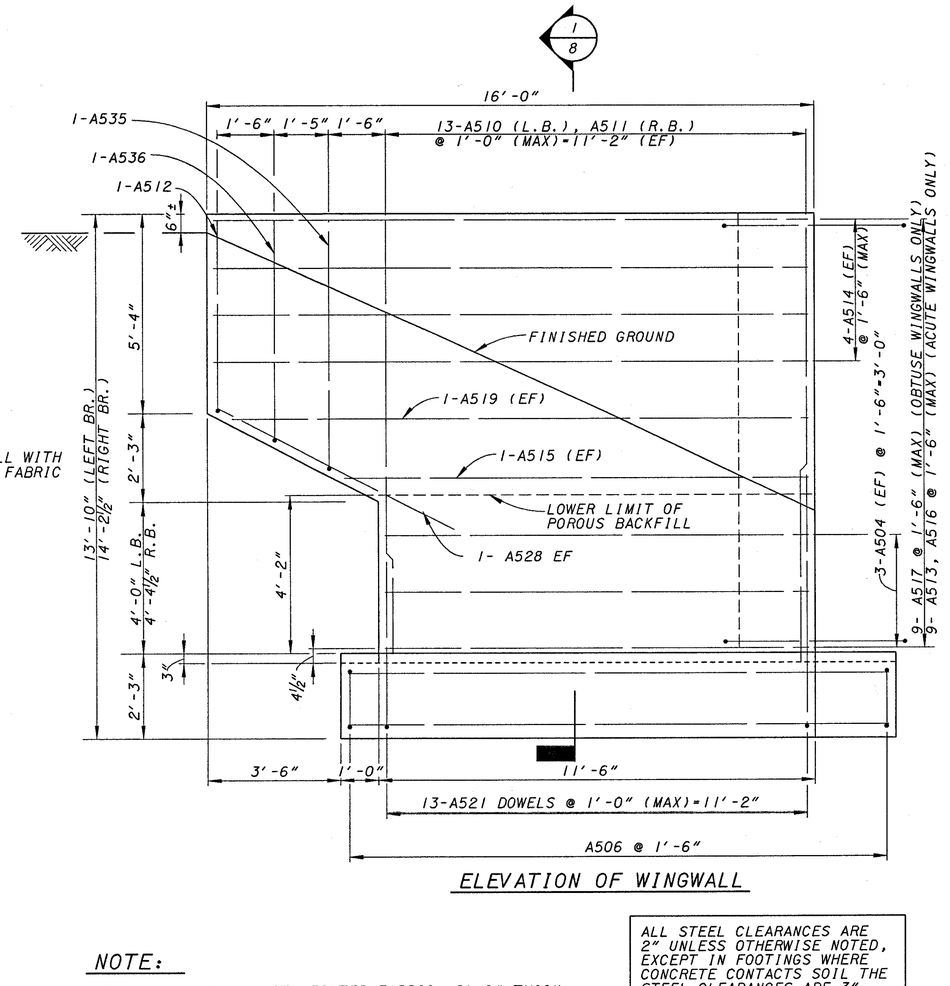


SECTION 1/8

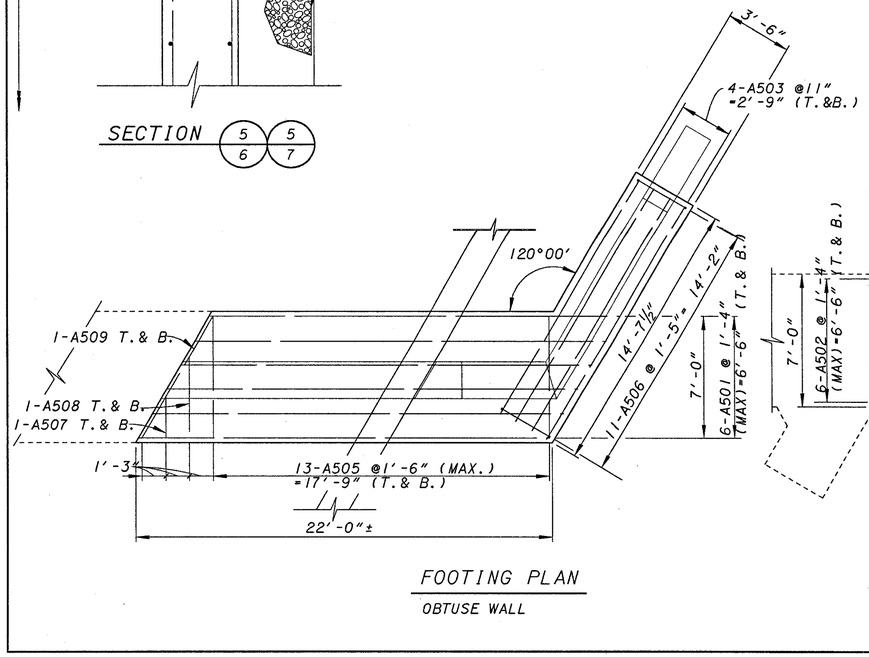
ACUTE WALL SHOWN, OBTUSE WALL OPPOSITE HAND (BACKFILL EACH FACE EQUALLY)



SECTION 5/6 5/7



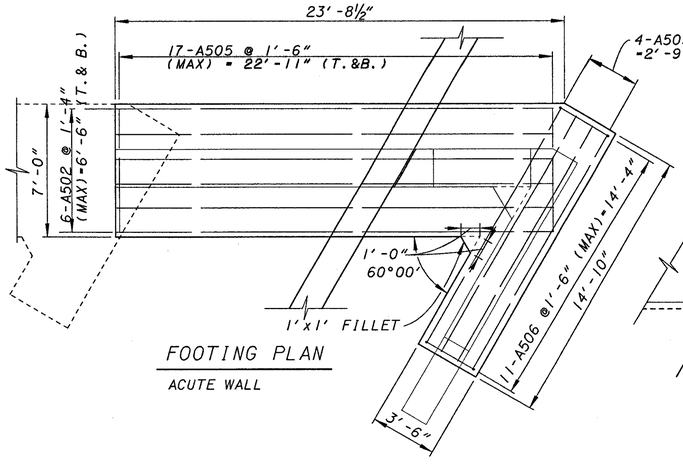
ELEVATION OF WINGWALL



FOOTING PLAN

OBTUSE WALL

* SEAL ENTIRE SURFACE AREA WITH EPOXY URETHANE



FOOTING PLAN

ACUTE WALL

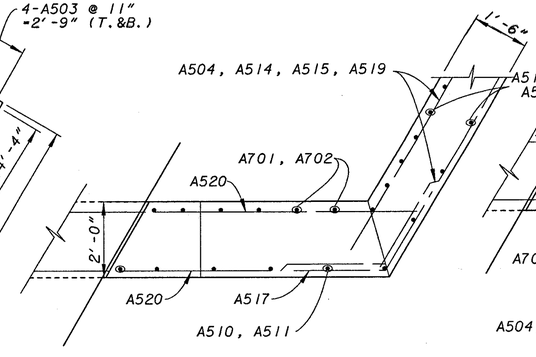
NOTE:

1. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1'-0" BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS. GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. TURN GEOTEXTILE FABRIC UP 6" ALONG BACK OF WALL.

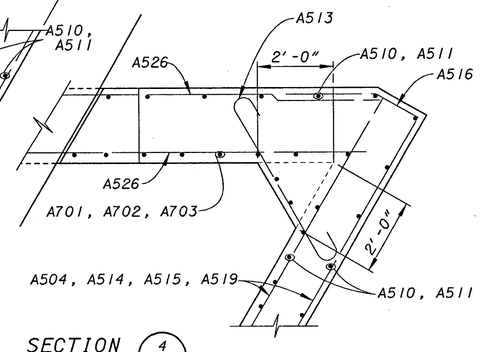
ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED, EXCEPT IN FOOTINGS WHERE CONCRETE CONTACTS SOIL THE STEEL CLEARANCES ARE 3".

LEGEND

T.& B. - TOP AND BOTTOM
BOT. - BOTTOM
EF - EACH FACE
NF - NEAR FACE
FF - FAR FACE
L.B. - LEFT BRIDGE
R.B. - RIGHT BRIDGE
BR. - BRIDGE



SECTION 3/6



SECTION 4/7

DESIGN AGENCY
KZF DESIGN
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TEL 510.821.5811 FAX 510.821.3080 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801323/6801358	

KZF #14

ABUTMENT AND WINGWALL DETAILS
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00

8 / 15

220 / 283

25'-0" APPROACH SLAB

24'-4½" BRIDGE LIMITS

25'-0" APPROACH SLAB

1 / 11

3 / 11

2 / 11

6"

8¾"

3-D901 (BOT.) @ 4" = 8"

25-D402 (TOP) @ 12" = 24'-0"

5-D502 (BOT.) @ 6" = 2'-0"

8"

1'-1"

17-D502 (BOT.) @ 1'-1" (MAX) = 16'-10½"

1'-1"

5-D502 (BOT.) @ 6" = 2'-0"

8"

STA. 711+85.84 BEGIN APPROACH SLAB

STA. 711+61.46 END APPROACH SLAB

℄ WESTBOUND LANES

CONSTRUCTION JOINT

2'-5" LAP (TYP.)

3'-0"

65-D403 (MAX) - 64'-6" @ 8¾" (MAX) - 85-D901 (BOT.) @ 1'-2½" (MAX) - 61'-2½"

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

LEGEND

BOT. - BOTTOM

1'-6"

24'-0"

33'-2" (STAGE 2)

7'-8"

38'-0"

31'-10" (STAGE 1)

54'-0"

1'-6"

30°00'00"

25-D401 (TOP) @ 12" = 24'-0"

5-D501 (BOT.) @ 6" = 2'-0"

8"

1'-1"

17-D501 (BOT.) @ 1'-1" (MAX) = 16'-10½"

1'-1"

5-D501 (BOT.) @ 6" = 2'-0"

8"

3-D901 (BOT.) @ 4" = 8"

8¾"

6"

JIMS RUN

712+00

℄ SURVEY I.R. 70

LAYOUT LINE

14'-0" (TYP.)

1" (TYP.)

DESIGN AGENCY

KZ DESIGN

Architecture | Engineering | Interiors | Planning

KZF DESIGN INC. 666 Barr Pwe Drive Cincinnati, OH 45202-4500

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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680/323/680/358	

KZF #14

DECK PLAN - LEFT BRIDGE

BRIDGE NO. PRE-70-1349 L/R

I.R. 70 OVER JIM'S RUN

PRE-70-0.00

9 / 15

221 / 283

REF6b:*REF6b*
REF7b:*REF7b*
REF8b:*REF8b*
REF9b:*REF9b*
REF20b:*REF20b*

REF5b:*REF5b*
REF4b:*REF4b*
REF3b:*REF3b*
REF2b:*REF2b*
REF1b:*REF1b*

REF6a:*REF6a*
REF7a:*REF7a*
REF8a:*REF8a*
REF9a:*REF9a*
REF20a:*REF20a*

REF5a:*REF5a*
REF4a:*REF4a*
REF3a:*REF3a*
REF2a:*REF2a*
REF1a:*REF1a*

$$$$$SYTWERS$$$$$
$$$$$SYTWERS$$$$$
DESIGNSPECIFICATION$$$$$$$$
PRF_NAME:$PRFNAME$
ACTIVE LEVELS ON *#LS*

℄ SURVEY I.R. 70

712+00

LAYOUT LINE

1'-6"

54'-0"

38'-0"

31'-10"

STAGE 1

7'-8"

℄ EASTBOUND LANES

24'-0"

33'-2"

STAGE 2

1'-6"

6"

8¾"

3-D901 (BOT.) @ 4" - 8"

2

11

5-D501 (BOT.) @ 6" - 2'-0"

8"

1'-1"

1'-1" (MAX) = 16'-10½"

17-D501 (BOT.) @

1'-1"

5-D501 (BOT.) @ 6" - 2'-0"

8"

25-D401 (TOP) @ 12" - 24'-0"

CONSTRUCTION JOINT

2'-5" LAP (TYP.)

3'-0"

66-D403 (TOP) @ 1'-0" (MAX) - 64'-6"

85-D501 (BOT.) @ 8¾" (MAX) - 61'-2½"

BEGIN APPROACH SLAB
STA. 712+48.29

END APPROACH SLAB
STA. 712+23.91

5-D502 (BOT.) @ 6" - 2'-0"

8"

1'-1"

17-D502 (BOT.) @
1'-1" (MAX) - 16'-10½"

1'-1"

5-D502 (BOT.) @ 6" - 2'-0"

8"

25-D402 (TOP) @ 12" - 24'-0"

30°00'00"

3

11

8¾"

3-D901 (BOT.) @ 4" - 8"

6"

1

11

25'-0"
APPROACH SLAB

24'-4½"
BRIDGE LIMITS

25'-0"
APPROACH SLAB

LEGEND

T. & B. - TOP AND BOTTOM
BOT. - BOTTOM

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Akron, Ohio | Cleveland, Ohio | Pittsburgh, Pennsylvania
TEL 513.621.6211 FAX 513.621.3000 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801323/6801358	

KZF #14

DECK PLAN - RIGHT BRIDGE
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00

10 / 15

222
283

REF6a ••REF6a••
REF7a ••REF7a••
REF8a ••REF8a••
REF9a ••REF9a••
REF10a ••REF10a••
REF1a ••REF1a••
REF2a ••REF2a••
REF3a ••REF3a••
REF4a ••REF4a••
REF5a ••REF5a••
REF6 ••REF6••
REF7 ••REF7••
REF8 ••REF8••
REF9 ••REF9••
REF10 ••REF10••
REF1 ••REF1••
REF2 ••REF2••
REF3 ••REF3••
REF4 ••REF4••
REF5 ••REF5••
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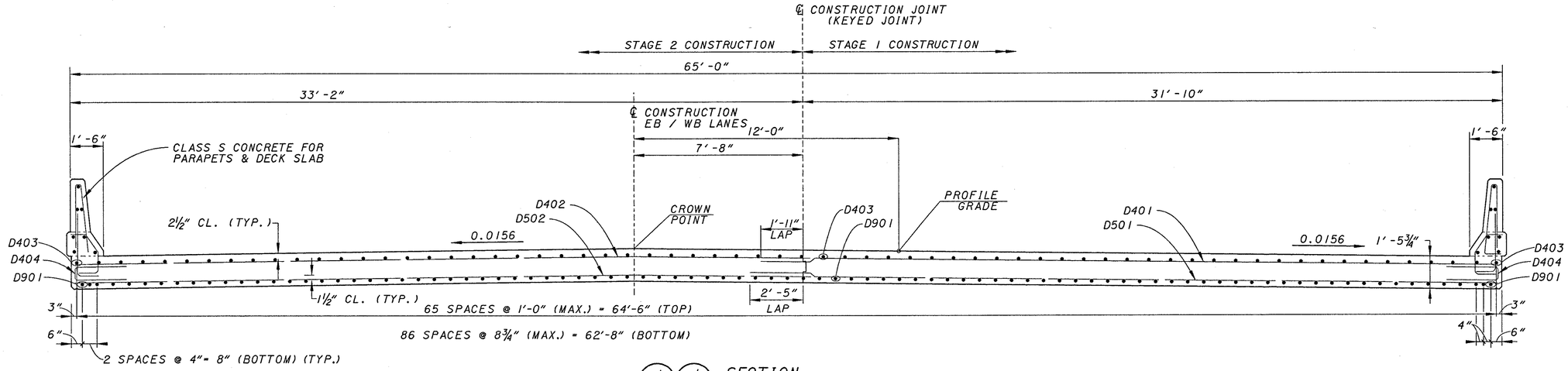
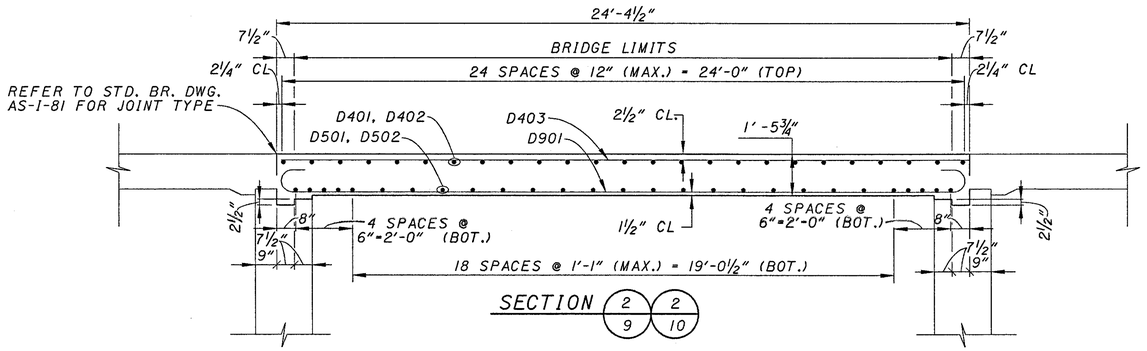
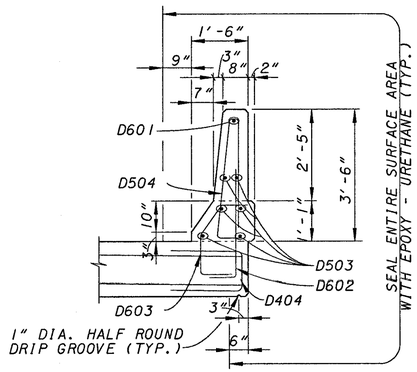
USER: $$USERNAME$$
FILE: $$DRAWINGSPECIFICATION$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS ON: ##LEV##



SECTION 1/9 1/10



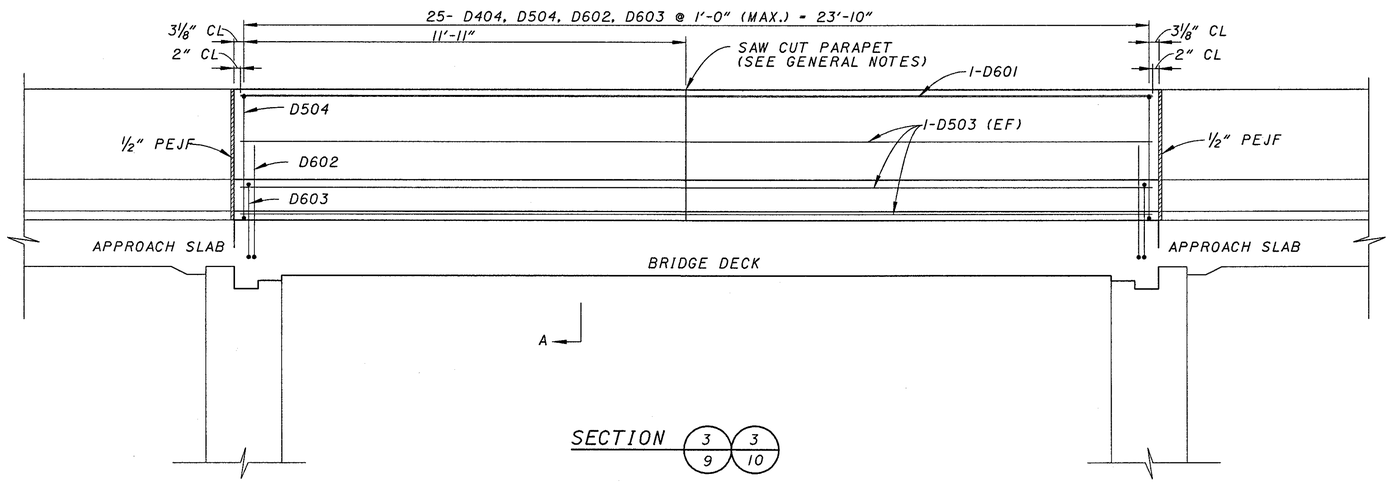
SECTION 2/9 2/10



SECTION A-A

ALL STEEL CLEARANCES ARE
2" UNLESS OTHERWISE NOTED.

A



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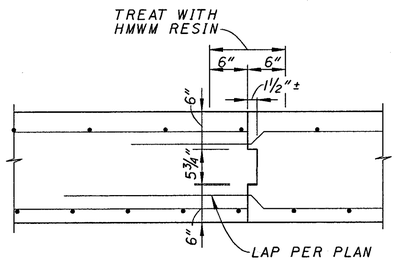
SECTION 3/9 3/10



KEYED JOINT DETAIL

LEGEND:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
BOT. = BOTTOM
PEJF = PREFORMED EXPANSION JOINT FILLER

NOTES:

1. THE CONTRACTOR SHALL INCREASE FINISHED, MID-SPAN DECK ELEVATIONS BY ⅛ TO ACCOUNT FOR DEAD LOAD DEFLECTION OF THE CONCRETE SLAB AND PARAPET.
2. FALSEWORK FOR THE CONCRETE SLAB CONSTRUCTION STAGES SHALL BE INDEPENDENT OF EACH OTHER.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Kansas City, Missouri 64108
TEL 816.471.6611 FAX 816.471.3630 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680/323/680358	

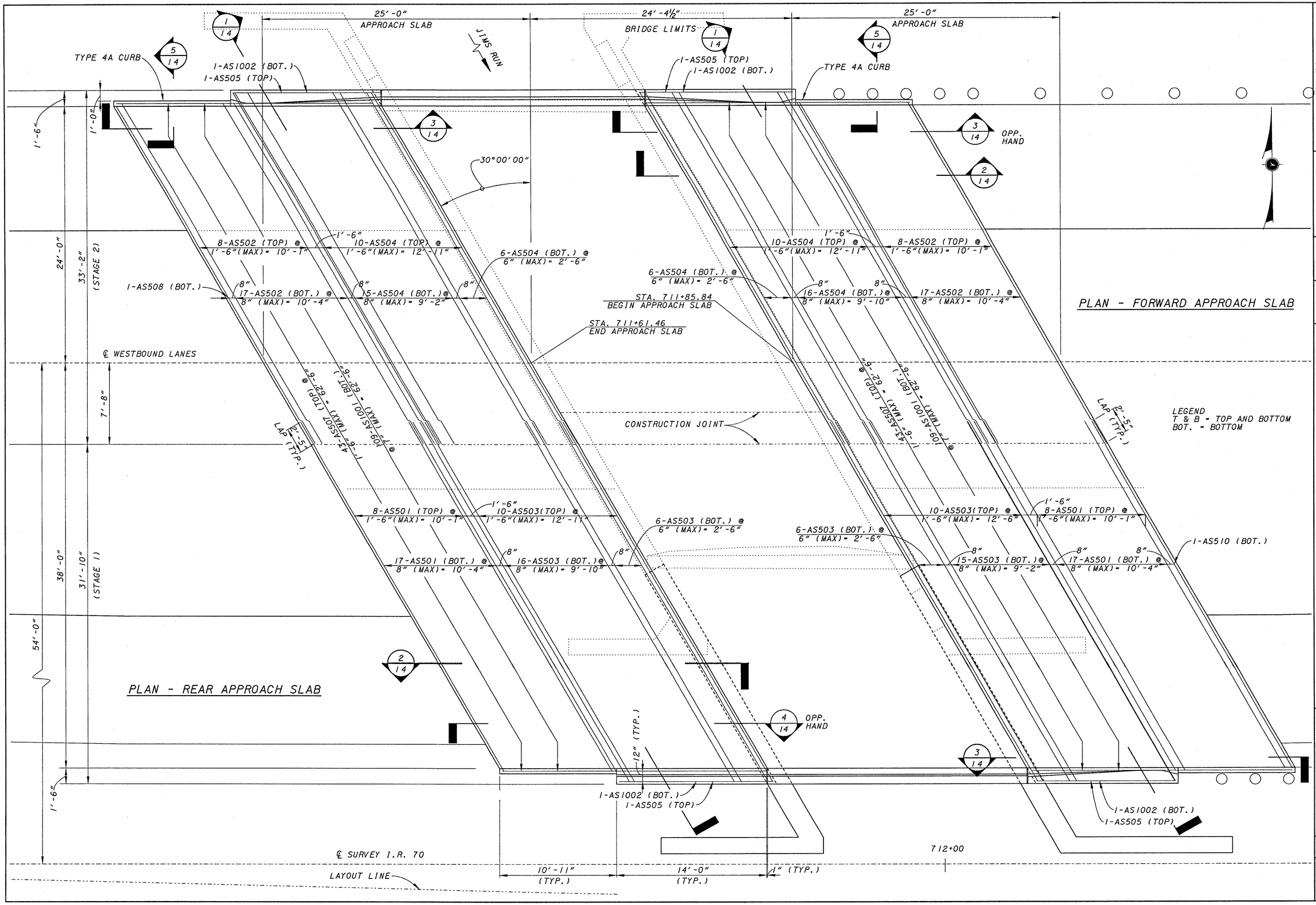
KZF #14

DECK SECTIONS
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00

11 / 15

223
283



DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	1/29/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680132/680135	

KZF #14

APPROACH SLABS - LEFT BRIDGE
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00

712+00

℄ SURVEY I.R. 10

LAYOUT LINE

1-AS505 (TOP)
1-AS1002 (BOT.)

1'-6"
1'-0"
54'-0"
38'-0"
31'-10"
STAGE 1
7'-8"

8-AS501 (TOP) @ 1'-6" (MAX) = 10'-1"
10-AS503 (TOP) @ 1'-6" (MAX) = 12'-6"
1-AS510 (BOT.)
8" 17-AS501 (BOT.) @ 8" (MAX) = 10'-4"
8" 15-AS503 (BOT.) @ 8" (MAX) = 9'-2"
8"
6-AS503 (BOT.) @ 6" (MAX) = 2'-6"

30°00'00"

CONSTRUCTION JOINT

6-AS503 (BOT.) @ 6" (MAX) = 2'-6"
8"
16-AS503 (BOT.) @ 8" (MAX) = 9'-10"
10-AS503 (TOP) @ 1'-6" (MAX) = 12'-6"
8-AS501 (TOP) @ 1'-6" (MAX) = 10'-1"
17-AS501(BOT.) @ 8" (MAX) = 10'-4"

9-AS507 (TOP) @ 9'-2" (MAX)
9-AS1001 (BOT.) @ 9'-6" (MAX)
2'-5" LAP (TYP.)

PLAN - FORWARD APPROACH SLAB

LEGEND
T & B - TOP AND BOTTOM
BOT. - BOTTOM

℄ EASTBOUND LANES

BEGIN APPROACH SLAB
STA. 712+48.29

END APPROACH SLAB
STA. 712+23.91

24'-0"
33'-2"
STAGE 2

8-AS502 (TOP) @ 1'-6" (MAX) = 10'-1"
10-AS504 (TOP) @ 1'-6" (MAX) = 12'-6"
17-AS502 (BOT.) @ 8" (MAX) = 10'-4"
16-AS504 (BOT.) @ 8" (MAX) = 9'-10"
6-AS504 (BOT.) @ 6" (MAX) = 2'-6"
6-AS504 (BOT.) @ 6" (MAX) = 2'-6"
15-AS504 (BOT.) @ 8" (MAX) = 9'-2"
17-AS502 (BOT.) @ 8" (MAX) = 10'-4"
1-AS508 (BOT.)

PLAN - REAR APPROACH SLAB

OPP. HAND

12" (TYP.)
1'-6"
TYPE 4A CURB
1-AS1002 (BOT.)
1-AS505 (TOP)
1-AS1002 (BOT.)
1-AS505 (TOP)
TYPE 4A CURB

25'-0" APPROACH SLAB
24'-4½" BRIDGE LIMITS
25'-0" APPROACH SLAB

DESIGN AGENCY
KZF DESIGN
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DATE 1/29/01
REVIEWED DGK
STRUCTURE FILE NUMBER 680/323/680/358
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

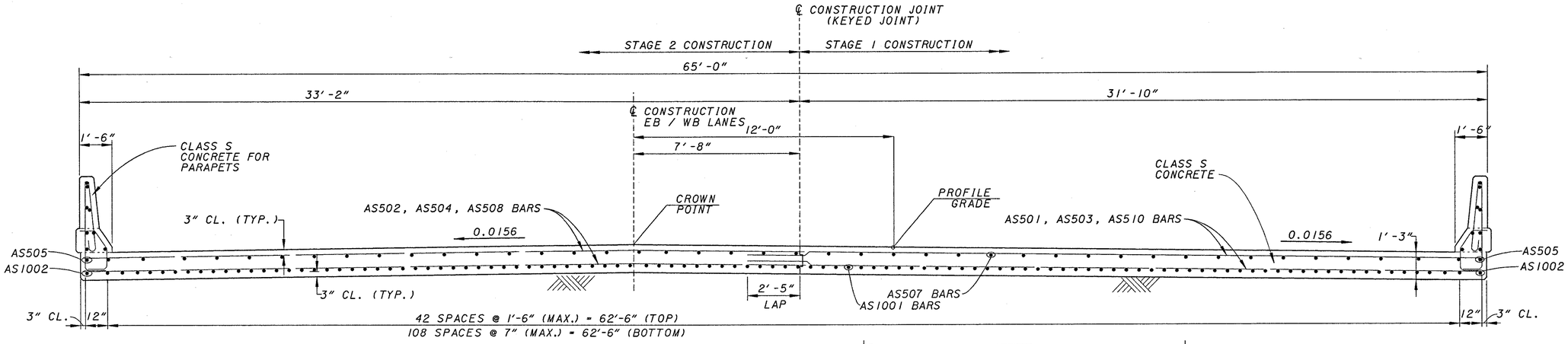
KZF #14

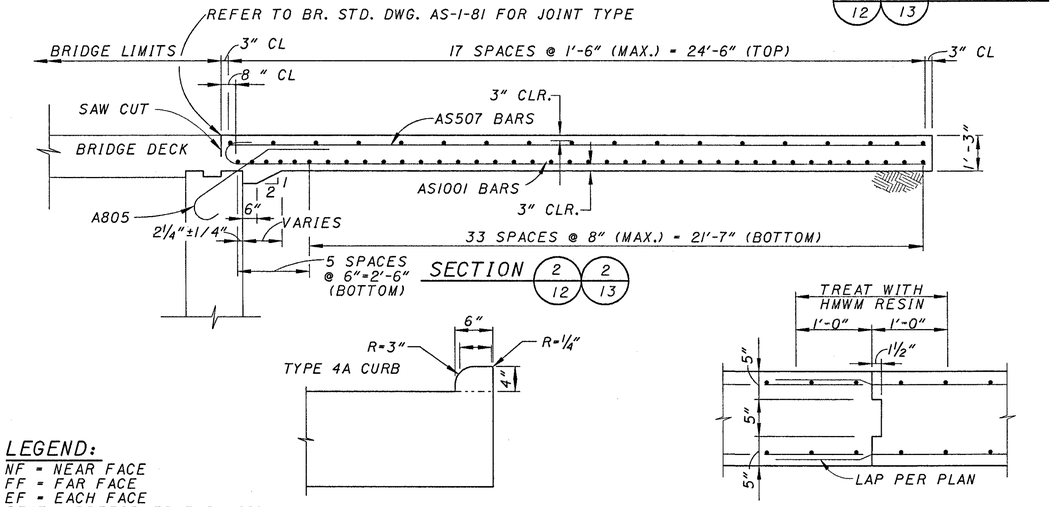
APPROACH SLABS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

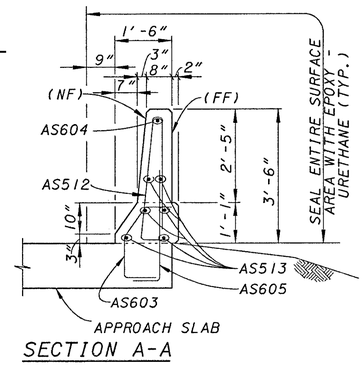
PRE-70-0.00

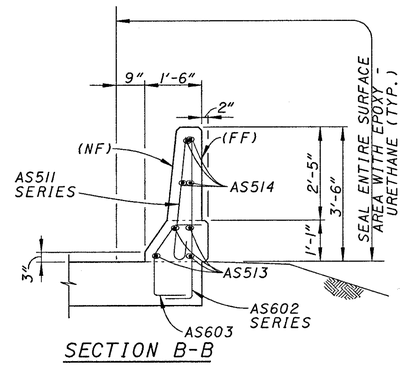
13 / 15

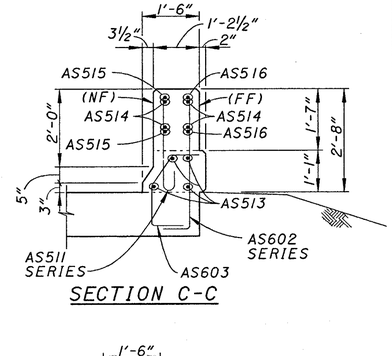
225 / 283

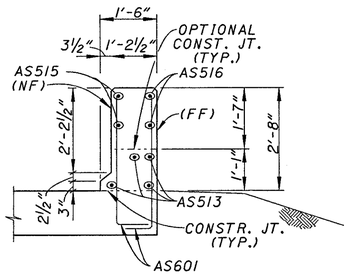


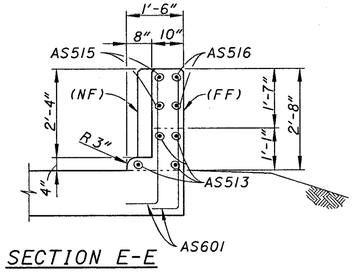


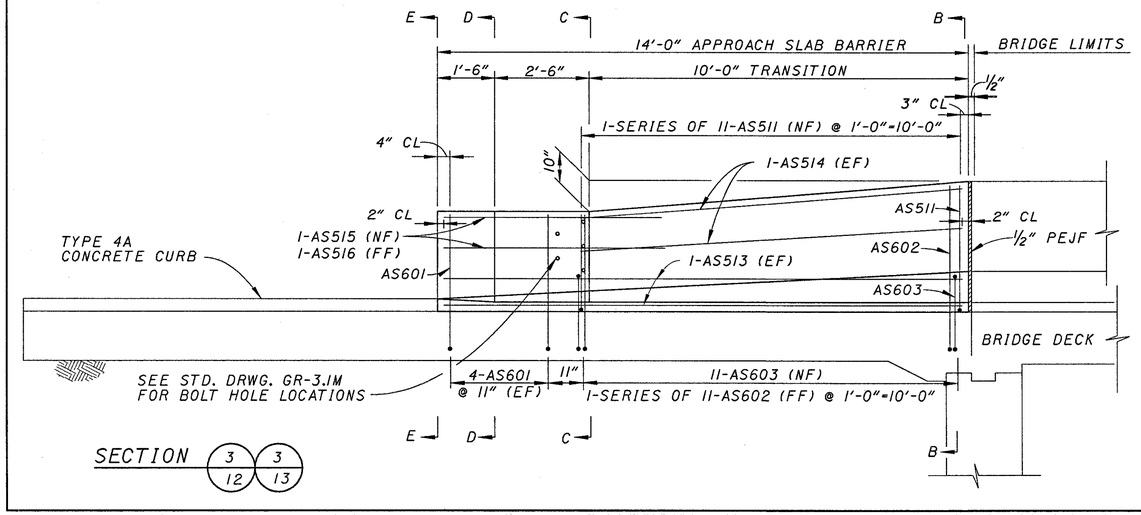


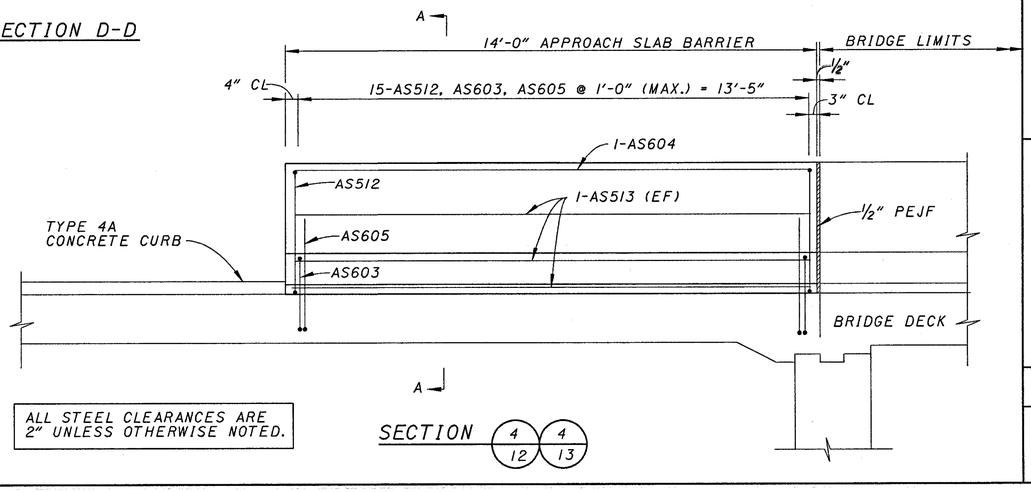












LEGEND:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
PEJF = PREFORMED EXPANSION JOINT FILLER

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN, INC. 1400 Kearny Street, Denver, CO 80220
TEL 913.831.8231 FAX 913.831.3630 WEB www.kzfd.com

DATE 1/29/01
REVIEWED DGK
STRUCTURE FILE NUMBER 680/323/680/358
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

KZF #14

APPROACH SLAB DETAILS
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

PRE-70-0.00

14 / 15

226 / 283

ABUTMENT REINFORCING STEEL LIST

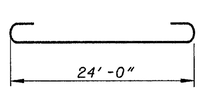
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
A501	21'-9''	STR.	12	272	12	272
A502	23'-1''	STR.	12	289	12	289
A503	14'-4''	STR.	16	239	16	239
A504	11'-2''	STR.	12	140	12	140
A505	6'-6''	STR.	30	203	30	203
A506	9'-8''	BENT	22	222	22	222
A507	2'-2''	STR.	2	5	2	5
A508	4'-4''	STR.	2	9	2	9
A509	7'-6''	STR.	2	16	2	16
A510	11'-5''	STR.	84	1,000	0	0
A511	11'-9''	STR.	0	0	84	1,029
A512	10'-11''	BENT	2	23	2	23
A513	8'-0''	BENT	9	75	9	75
A514	15'-8''	STR.	16	261	16	261
A515	12'-2''	STR.	4	51	4	51
A516	3'-8''	BENT	9	34	9	34
A517	4'-10''	BENT	9	45	9	45
A518	5'-2''	BENT	32	172	32	172
A519	15'-2''	STR.	4	63	4	63
A520	21'-9''	STR.	18	408	18	408
A521	9'-9''	BENT	26	264	26	264
A522	6'-9''	BENT	10	70	10	70
A523	2'-8''	BENT	2	6	2	6
A524	6'-0''	BENT	1	6	1	6
A525	6'-0''	STR.	1	6	1	6
A526	22'-9''	STR.	18	427	18	427
A527	4'-0''	STR.	18	75	18	75
A528	7'-0''	STR.	4	29	4	29
A529	5'-5''	BENT	1	6	1	6
A530	5'-3''	STR.	1	5	1	5
A531	6'-4''	BENT	1	7	1	7
A532	6'-3''	STR.	1	7	1	7
A533	5'-2''	BENT	1	5	1	5
A534	5'-2''	STR.	1	5	1	5
A535	13'-11''	BENT	2	29	2	29
A536	12'-5''	BENT	2	26	2	26
A701	11'-8''	STR.	47	1,121	0	0
A702	12'-0''	STR.	0	0	47	1,153
A703	6'-5''	BENT	47	616	46	603
A801	5'-10''	STR.	22	343	22	343
A802	4'-5''	STR.	82	967	82	967
TOTAL POUNDS				7,550		7,598

SUPERSTRUCTURE REINFORCING STEEL LIST

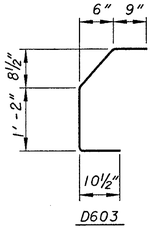
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
D401	38'-10''	STR.	26	674	26	674
D402	38'-1''	STR.	26	661	26	661
D403	24'-0''	STR.	66	1,058	66	1,058
D404	4'-11''	BENT	50	164	50	164
D501	39'-0''	STR.	27	1,098	27	1,098
D502	38'-1''	STR.	27	1,072	27	1,072
D503	24'-0''	STR.	12	300	12	300
D504	7'-1''	BENT	50	369	50	369
D601	24'-0''	STR.	2	72	2	72
D602	3'-7''	BENT	50	269	50	269
D603	3'-4''	BENT	50	250	50	250
D901	26'-6''	BENT	91	8,199	91	8,199
TOTAL POUNDS				14,189		14,189

APPROACH SLAB REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
AS501	37'-9''	STR.	50	1,969	50	1,969
AS502	36'-10''	STR.	50	1,921	50	1,921
AS503	38'-11''	STR.	63	2,557	63	2,557
AS504	38'-0''	STR.	63	2,497	63	2,497
AS505	14'-4''	STR.	4	60	4	60
AS506	37'-5''	STR.	1	39	1	39
AS507	24'-6''	STR.	86	2,198	86	2,198
AS508	36'-7''	STR.	1	38	1	38
	VAR. 3'-10''		3		3	
AS511	TO 3'-0''	BENT	SER OF	118	SER OF	118
	BY 0'-1''		11		11	
AS512	7'-1''	BENT	15	111	15	111
AS513	13'-8''	STR.	18	257	18	257
AS514	10'-0''	STR.	12	125	12	125
AS515	5'-8''	BENT	6	35	6	35
AS516	5'-8''	STR.	6	35	6	35
AS601	4'-1''	BENT	24	147	24	147
	VAR. 4'-11''		3		3	
AS602	TO 4'-1''	BENT	SER OF	223	SER OF	223
	BY 0'-1''		11		11	
AS603	3'-4''	BENT	48	240	48	240
AS604	13'-8''	STR.	1	21	1	21
AS605	3'-7''	BENT	15	81	15	81
AS1001	25'-10''	BENT	218	24,233	218	24,233
AS1002	14'-11''	BENT	4	257	4	257
TOTAL POUNDS				37,161		37,161



D901



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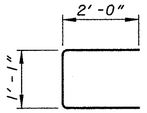

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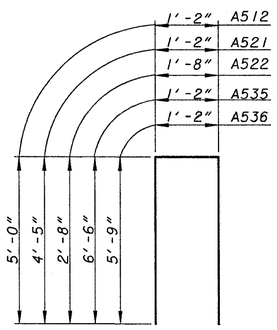
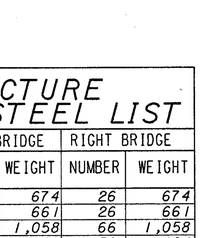


A512, A521, A522, A535, A536

D602



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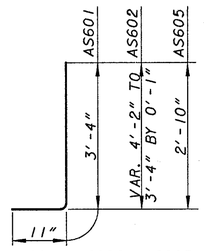
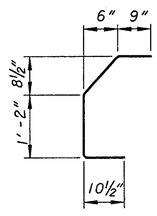


AS601, AS602, AS605



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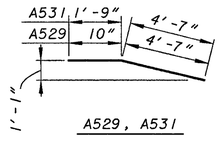
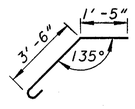
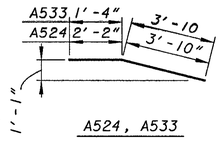


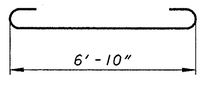
A529, A531



A801



A524, A533



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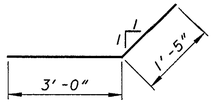

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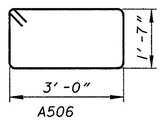

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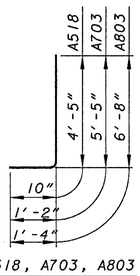
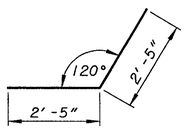


A518, A703, A803



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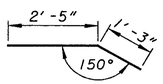

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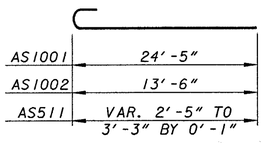
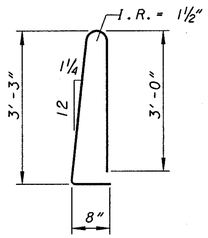
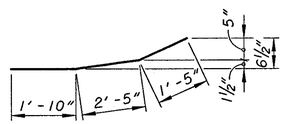


AS1001, AS1002, AS511



AS512



AS515

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 180° AND 135° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A NO. 5 BAR.

DESIGN AGENCY
KZF DESIGN
Kirkham Zeller Fisher & Associates
KZF DESIGN INC. 825 Eastwood Road Cincinnati, OH 45202-8002
TEL 513.621.6211 FAX 513.621.3830 WEB www.kzf.com

DESIGNED SJA | DRAWN JDG | CHECKED WBS | REVIEWED DGK | DATE 1/29/01 | REVISED | STRUCTURE FILE NUMBER 680/323/680/358

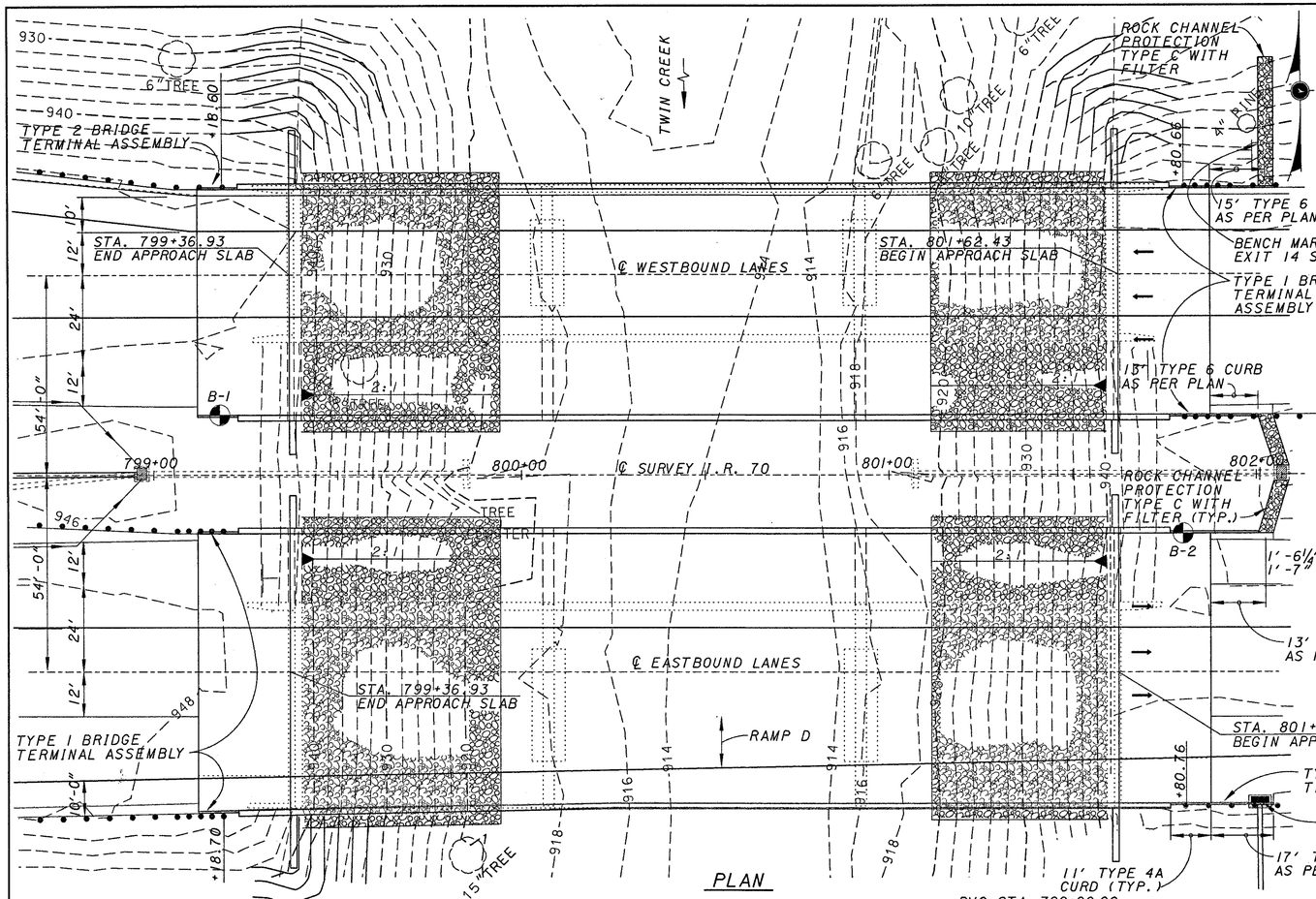
KZF #14

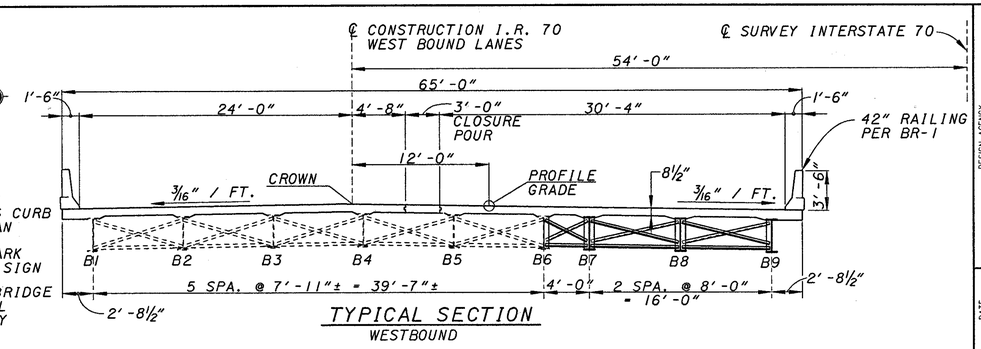
REINFORCING STEEL LIST
BRIDGE NO. PRE-70-1349 L/R
I.R. 70 OVER JIM'S RUN

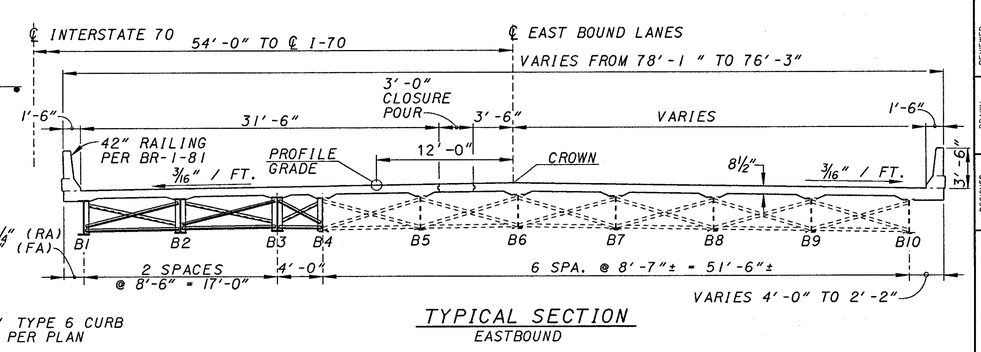
PRE-70-0.00

15 / 15

227
283



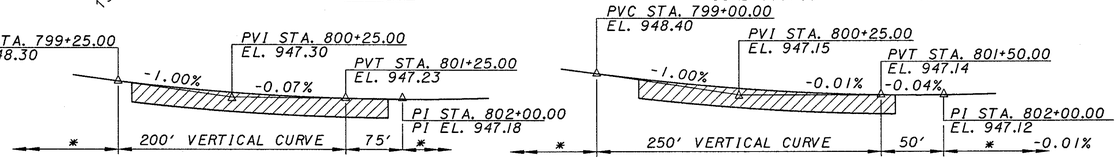


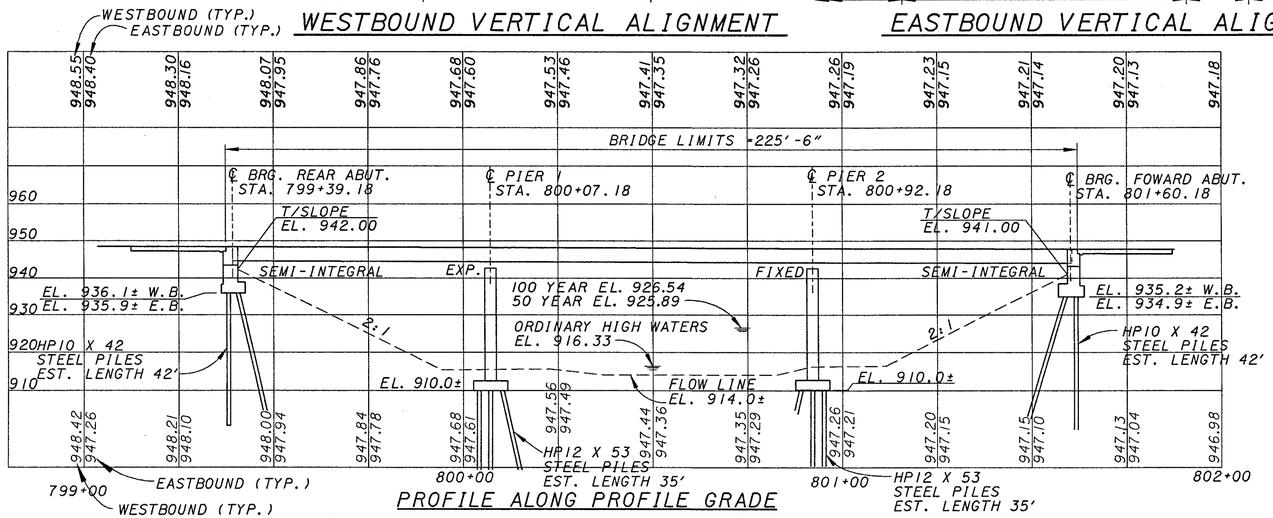


EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

B- INDICATES SOIL BORING LOCATION

* INDICATES 1½" OVERLAY





TRAFFIC DATA

ADT (2001) = 35,860
ADT (2021) = 50,800
ADTT (2021) = 19,812
SOURCE = ODOT

BENCH MARK

N.W. BOLT OF SOUTH SIGN POST AT STA. 802+01.75, 84'LT. AT EL. 946.28
(EXIT 14 SIGN FOR S.R. 503)

DRAINAGE DATA

DRAINAGE AREA: 96.0 SQ. MILES
EXISTING BRIDGE OPENING: 4890 Sq. Ft.
PROPOSED BRIDGE OPENING: 4890 Sq. Ft.
HW100: 926.54
HW50: 925.89
Q100: 14,500 C.F.S.
Q50: 12,900 C.F.S.
V100: 10.6 F.P.S.
V50: 10.2 F.P.S.
LOW CHORD ELEVATION: 942.83
TOP OF DECK ELEVATION: 946.76 TO 948.24

EXISTING STRUCTURE - I.R. 70

TYPE: CONTINUOUS STEEL BEAM ''PAINTED'' WITH REINFORCED CONCRETE DECK, REINFORCED CONCRETE PIERS AND ABUTMENTS.
LENGTH OF SPANS: 68'-0"±, 85'-0"±, 68'-0"± MEASUERD C/C BEARINGS
ROADWAY WIDTH: 42'-0"± F/F BARRIER (LT.) 54'-0"± F/F BARRIER (RT.)
DESIGN LOADING: C.F. 2000
SKEW ANGLE: NONE
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: TANGENT
YEAR BUILT: 1962

PROPOSED STRUCTURE

PROPOSED WORK: NEW COMPOSITE REINFORCED CONCRETE DECK WITH ADDITIONAL BEAMS ON WIDENED SUBSTRUCTURE
TYPE: CONTINUOUS STEEL BEAM "A709-50 PAINTED" WITH COMPOSITE REINFORCED CONCRETE DECK, SEMI-INTEGRAL REINFORCED CONCRETE ABUTMENTS AND REINFORCED CONCRETE "T" TYPE PIERS.
LENGTH OF SPANS: 68'-0"±, 85'-0"±, 68'-0"± MEASUERD C/C BEARINGS
ROADWAY WIDTH: 62'-0" (LT.) & 72'-9" (RT.) TOE/TOE BARRIER
DESIGN LOADING: HS-20 WITH ALTERNATE MILITARY LOADING, CASE I
SKEW ANGLE: NONE
SUPERELEVATION: NONE - NORMAL CROWN
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (25' LONG)
ALIGNMENT: TANGENT
LATITUDE: N 39°50'15"
LONGITUDE: W 84°33'45"

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Cincinnati | Columbus | Dayton | Northern Kentucky
TEL 513.521.6211 FAX 513.521.3030 WEB www.kzfdesign.com

DATE	REVIEWED	DRAWN	DESIGNED
11/20/00	DGK	JDG	SJA

STRUCTURE FILE NUMBER	REVISED	CHECKED
6801471/6801501		WBS

PREBLE COUNTY
STA 799+36.93
STA 801+62.43

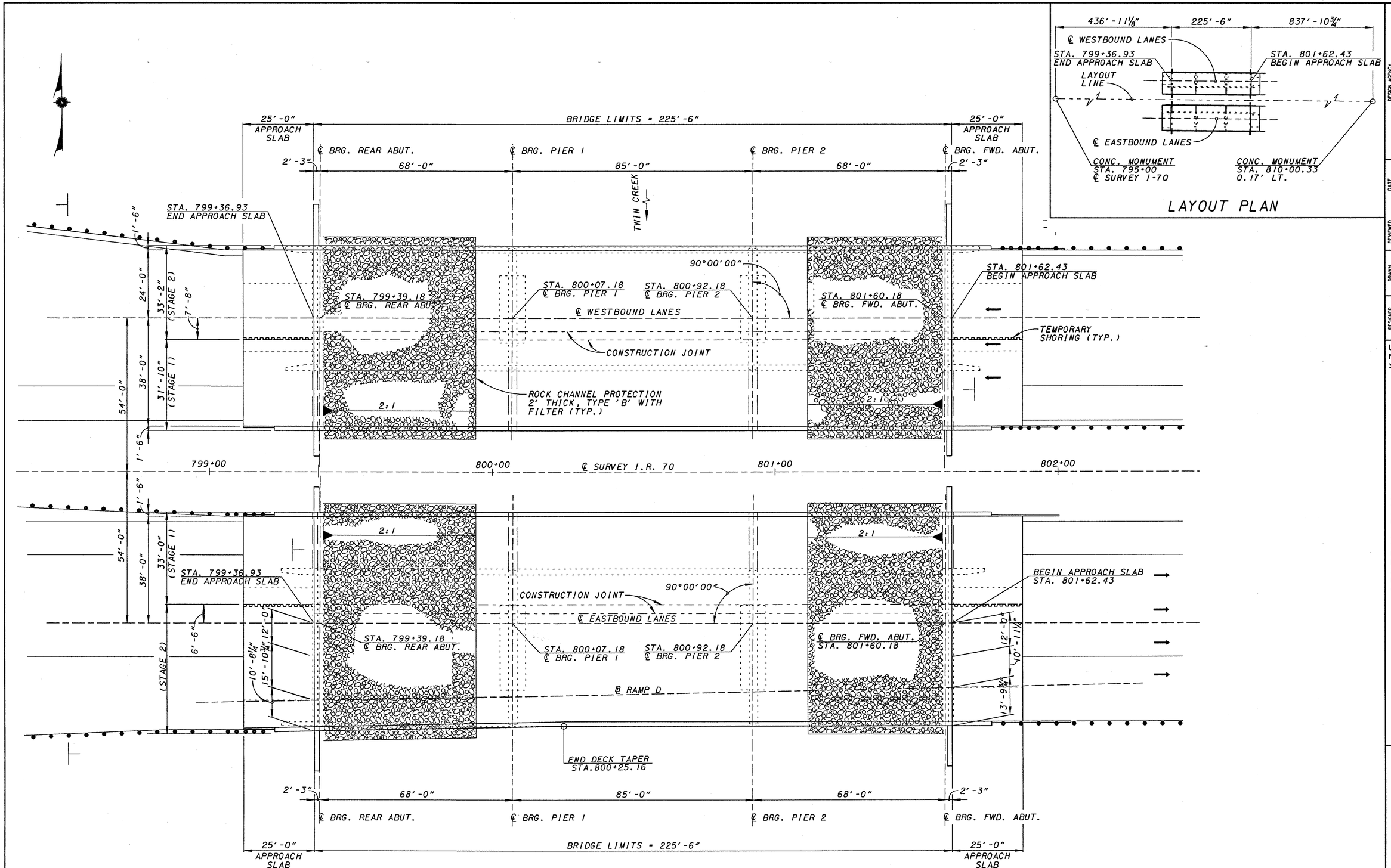
KZF #17

SITE PLAN
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

1 / 32

228 / 283



GENERAL PLAN
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

2/32

229/283

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
127 DESIGN WAY, 600 Elder Park Drive Cincinnati, OH 45202-6000
TEL 513.621.1001 FAX 513.621.0888 WEB www.kzf.com

DATE 11/20/00
REVIEWED DCK
DRAWN JDG
DESIGNED SJA
CHECKED WBS
STRUCTURE FILE NUMBER 680147/680150
REVISED

KZF #17

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS :

AS-1-81	REVISED 09-15-94 (SHEETS 1,2 & 3)
BR-1	REVISED 1-6-99
BS-1-93	DATED 12-19-94
GSD-1-96M	DATED 11-21-97
RB-1-55	REVISED 2-2-59
SICD-1-96M	DATED 2-12-97

AND TO SUPPLEMENTAL SPECIFICATION:

815	DATED 5/30/96
816	DATED 4/21/97
842	DATED 1/6/99
846	DATED 9/9/97
899	DATED 10/21/98
910	DATED 7/28/98
911	DATED 7/10/97
954	DATED 9/9/97

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44, CASE I AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28-DAY) (SUPERSTRUCTURE)

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28-DAY) (SUBSTRUCTURE)

STRUCTURAL STEEL - ASTM A572/A709 GRADE 50 - YIELD STRENGTH 50,000 PSI

REINFORCING STEEL - ASTM A615, A616 OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, SEALING OF CONCRETE SURFACES, CLASS S CONCRETE AND 2½" CONCRETE COVER.

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

REINFORCING BAR SPLICES: REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY 509.08 OF THE C.M.S. UNLESS OTHERWISE NOTED ON THE PLANS.

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

PROPOSED WORK

1. CONSTRUCT NEW MEDIAN PIERS.
2. REINFORCE OF EXISTING PIERS.
3. REMOVE EXISTING CONCRETE DECK, PARAPETS, SCUPPERS, APPROACH SLABS AND PORTIONS OF CONCRETE SUBSTRUCTURES IN A SEQUENCE CONSISTENT WITH MAINTENANCE OF TRAFFIC PLANS AND NOTES AND STAGE CONSTRUCTION.
4. INSTALL PILING AND CONSTRUCT ABUTMENT WIDENING.
5. INSTALL NEW BEAMS AND CONSTRUCT A NEW CONCRETE DECK AT ELEVATIONS TO MEET PROPOSED OVERLAY ON EXISTING ROADWAY APPROACHES.
6. CONSTRUCT NEW CONCRETE APPROACH SLABS.
7. CONSTRUCT NEW CONCRETE BARRIERS ON DECK AND APPROACH SLABS.
8. PATCH CONCRETE SUBSTRUCTURES AS DIRECTED.
9. CLEAN AND SEAL CONCRETE BARRIERS, ABUTMENTS AND PIERS.
10. PAINT EXISTING STRUCTURAL STEEL WITH SYSTEM OZEU.
11. PAINT NEW STRUCTURAL STEEL WITH SYSTEM IZEU.

PILE DESIGN LOADS

THE ULTIMATE BEARING VALUE IS 98 TONS PER PILE FOR THE ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 124 TONS PER PILE FOR THE PIER PILES. THE PIER PILES INCLUDE AN ADDITIONAL 28 TONS PER PILE OF ULTIMATE BEARING VALUE DUE TO THE POSSIBILITY OF LOSING FRICTIONAL RESISTANCE DUE TO SCOUR.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS. PORTIONS OF THE ABUTMENTS SHALL ALSO BE REMOVED AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN DURING REMOVALS TO PROTECT PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. ALL REMOVALS SHALL BE CONSISTENT WITH THE STAGE CONSTRUCTION REQUIREMENTS. EVERY EFFORT SHALL BE MADE TO KEEP DECK MATERIALS OUT OF THE STREAM CHANNEL. IF ANY MATERIAL FALLS INTO THE WATER, THE MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL CONSTRUCTION DEBRIS AND OR EXCESS FILL MATERIAL SHALL BE DISPOSED AT AN ENGINEER APPROVED UPLAND SITE. (A DISPOSAL SITE LOCATED ABOVE THE 100-YEAR FLOOD PLAIN.)
ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK SHALL BE DRAWN ON THE SURFACE OF DECK. SMALL DIAMETER PILOT HOLES SHALL BE DRILLED 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. DURING CUTTING OF THE DECK SLAB, CARE SHALL BE TAKEN NOT TO DAMAGE STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS ABOVE STEEL MEMBERS, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. REMOVAL METHODS OVER BRIDGE MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STEEL MEMBERS.

SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS WHICH ARE DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW REINFORCING STEEL.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 105.02 AND 513.02.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH S.R. 741 LEBANON, OHIO 45036 (800) 831-2142. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE DRAWINGS.

INSPECTION OF STRUCTURAL STEEL:

THE ENGINEER SHALL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THAT THEY ARE FREE OF DEFECTS. THE DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS SHALL NOT BE ERECTED UNTIL THE ENGINEER HAS COMPLETED THIS INSPECTION. THIS INSPECTION SHALL NOT TAKE PLACE UNTIL AFTER THE TOP FLANGES ARE CLEANED AS SPECIFIED IN 511.08, BUT SHALL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE, THE EXISTING REINFORCING STEEL WHERE REQUIRED IN THE PLANS SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

EXTRANEOUS MEMBERS: EXISTING EXTRANEOUS MEMBERS (I.E., FINISHING MACHINE AND FORM SUPPORTS, ETC., AND THE SUPPORT FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) ATTACHED BY WELDED CONNECTIONS TO PORTIONS OF THE TOP FLANGES DESIGNATED "TENSION" SHALL BE REMOVED AND THE FLANGE SURFACES GROUND SMOOTH. GRINDING SHALL BE CAREFULLY DONE AND PARALLEL TO THE FLANGES.

DECK REMOVALS: DUE TO THE POSSIBLE PRESENCE OF WELDED ATTACHMENTS TO EXISTING STRUCTURAL STEEL (FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.), CARE SHALL BE TAKEN DURING DECK REMOVAL TO AVOID DAMAGING STRINGERS WHICH ARE TO REMAIN. STRINGERS DAMAGED BY THE CONTRACTOR'S REMOVAL OPERATIONS SHALL, AT NO COST TO THE PROJECT, BE REPLACED OR REPAIRED. PROPOSED REPAIRS, DEVELOPED BY A REGISTERED PROFESSIONAL ENGINEER, SHALL BE SUBMITTED IN WRITING FOR REVIEW AND APPROVAL BY THE DIRECTOR.

MECHANICAL CONNECTORS: AN APPROVED MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATION. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY, AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEET THE SPECIFICATIONS. MECHANICAL CONNECTORS AND DOWEL BAR EXTENSIONS SHALL CONFORM WITH ITEM 509 AND BE INCLUDED IN THE BID PRICE PER CUBIC YARD FOR ITEMS 842 AND 844.

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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WSS		6801471/6801501	

KZF #17

GENERAL NOTES
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

ROCK CHANNEL PROTECTION

BROKEN CONCRETE FROM THE EXISTING BRIDGE DECK MAY BE USED FOR ROCK CHANNEL PROTECTION. MATERIAL CAN BE EITHER TYPE B OR TYPE C WITH A MINIMUM OF 50% OF THE MATERIAL BEING TYPE B.

SEAL PIER CAPS, WINGWALLS, ABUTMENTS, PARAPETS, AND DECK EDGES WITH EPOXY-URETHANE: COLOR SHALL BE FEDERAL COLOR STANDARD 17778 (OFF-WHITE)

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE DESIGNATED EXPOSED CONCRETE SURFACE AREAS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 30) ENTITLED, ITEM SPECIAL - SEALING OF CONCRETE SURFACES

PATCH SUBSTRUCTURE CONCRETE

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

ITEM 846 - TREATING CONCRETE WITH HMWM RESIN

SEAL THE CONSTRUCTION JOINTS IN THE BRIDGE DECK AND APPROACH SLABS AS SHOWN IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATIONS FOR SURFACE PREPARATION AND RATE OF APPLICATION.

REINFORCING CLEARANCE: UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL CLEARANCE TO FACE OF CONCRETE IS 2".

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

ENVIRONMENTAL COMMITMENTS & RESOURCES TO BE AVOIDED

THE CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWAPP) TO ADDRESS EROSION ASSOCIATED WITH SHOULDER DISTURBANCE/ RECONSTRUCTION AND BRIDGE WORK. (CMS 877.03)

ALL CONDITIONS ATTACHED WITH C.O.E. PERMIT (NATIONWIDE 3 & 14) SHALL BE IMPLEMENTED IN THE FIELD WITH THE ACTUAL PERMIT BEING DISPLAYED ONSITE.

EVERY EFFORT SHALL BE MADE TO KEEP DEMOLITION MATERIAL OUT OF THE STREAM CHANNELS. IF ANY MATERIAL FALLS INTO THE WATER, IT SHALL BE REMOVED IMMEDIATELY. ALL DEBRIS OR EXCESS FILL MATERIAL SHOULD BE DISPOSED AT AN APPROVED UPLAND SITE. (ABOVE THE 100 YR. FLOODPLAIN)

IN-STREAM STRUCTURES SHALL BE KEPT TO THE MINIMAL SIZE NEEDED TO FACILITATE WORK AND WILL BE REMOVED IMMEDIATELY TO ORIGINAL GRADE AFTER IN-STREAM WORK IS COMPLETED.

WHILE PAINTING, SANDBLASTING OR SEALING OF ANY PORTION OF THE BRIDGE AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS AND PAINT OVERSPRAY AND SEALANTS FROM ENTERING INTO THE STREAM.

PROPER SEDIMENT AND EROSION CONTROLS SHALL BE IMPLEMENTED THROUGHOUT THE COURSE OF THE PROJECT. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK (ODOT CMS ITEM 877)

IMPLEMENT ODOT CMS ITEM 616, DUST CONTROL AS NECESSARY.

COMPLY WITH ODOT CMS ITEM 107.21 CONTROLLING POLLUTION OF THE ENVIRONMENT.

VEGETATION REMOVAL WILL BE HELD TO AN ABSOLUTE MINIMUM REQUIRED TO COMPLETE THE WORK.

WETLANDS EXIST WITHIN THE PROJECT AREA. ALL WETLANDS NOT DIRECTLY INVOLVED WITH BRIDGE DECK/SUBSTRUCTURE MODIFICATIONS SHALL BE AVOIDED. THE BRIDGE SITE PLANS SHOW WETLAND AREAS TO BE AVOIDED.

CLASS 'C' CONCRETE, ABUTMENT:

GENERAL PURPOSE HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT ABUTMENTS SHALL BE INSTALLEDIN ACCORDANCE WITH STANDARD DRAWING SICD-9-96M

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND ALL EQUIPMENT TO RAISE OR REPOSITION ANY EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND OPERATION OF AN ADEQUATE JACKING SYSTEM, INCLUDING ANY TEMPORARY OR PERMANENT SUPPORTS NECESSARY TO PERFORM THE WORK DESCRIBED IN THE PROJECT PLANS. THREE (3) SETS OF JACKING PLANS, WHICH INCLUDE THE INFORMATION DESCRIBED IN THIS NOTE, SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN. THE PLANS SHALL BE PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER.

JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

1. THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF THE OHIO REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THE SUBMITTAL.
2. CALCULATIONS AND ANALYSIS OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE CONTRACTOR'S SELECTION JACKING POINTS.
3. A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.
4. A SCHEMATIC LAYOUT OF JACKS, CHECK VALVES, PUMPS WITH 3 WAY REACTOR VALVE, PRESSURE GAGES, FLOW CONTROL VALVES, ETC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS FOR EACH ABUTMENT OR PIER SHALL BE CONNECTED TOGETHER. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE THE SAME SIZE.
5. ANALYSIS AND CALCULATIONS OF THE STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY OR PERMANENT SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY OR PERMANENT SUPPORTS.
6. PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORTS. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.
7. A STEP BY STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION.
8. METHOD OF ATTATCHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS WILL NOT BE PERMITTED.

THE ENTIRE SYSTEM INCLUDING JACKS SHALL HAVE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED LOADS.
FOR LIFTS GREATER THAN 1 INCH, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT.

JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK.

JACKS ALONE SHALL NOT BE USED TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. TEMPORARY SUPPORTS, BLOCKING OR OTHER METHODS APPROVED BY THE DIRECTOR SHALL BE USED.

SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM SHALL NOT BE USED.

SPARE EQUIPMENT SHALL BE AVAILABLE ON SITE FOR THE REQUIRED STRUCTURE RAISING TO PROCEED IN THE EVENT OF A BREAKDOWN. A LIST OF SPARE EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER.

AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY. THE ONLY EXCEPTION IS THE SITUATION WHERE THE WORK INVOLVES REPLACING OR REHABILITATING INDIVIDUAL BEARINGS, NO PERMANENT SHIMMING IS REQUIRED AND THE HEIGHT OF THE LIFT SHALL NOT EXCEED 1/4 INCH.

MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE 1 INCH OR LESS.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS OBSERVED, THE JACKING OPERATION SHALL IMMEDIATELY CEASE AND APPROVED SUPPORTS SHALL BE INSTALLED. THE CONTRACTOR SHALL ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. ANY BEAMS THAT SEPARATE FROM THE DECK SHALL BE EPOXY INJECTED FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH THE PROPOSAL NOTE "CONCRETE REPAIR BY EPOXY INJECTION." COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL DEMOSTRATE TO THE ENGINEER THAT THE BRIDGE BEARINGS ARE FULLY SEATED BETWEEN ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUITABLE MEANS OF REPAIR, SUBJECT TO THE APPROVAL OF THE ENGINEER, WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE

THE JACKING OPERATION SHALL BE DIRECTED BY A PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR. FAILURE TO HAVE A PROFESSIONAL ENGINEER PRESENT SHALL BE CAUSE FOR CEASING JACKING OPERATIONS.

3. CONCRETE PARAPETS:

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 1 1/4" DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. THE SAWCUTS SHALL BE PLACED AT A MINIMUM OF 6 FEET AND A MAXIMUM OF 10 FEET CENTERS. THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL SURFACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 1" WITH A POLYURETHANE OR POLYMERIC CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E. THE BOTTOM 1/2 INCH OF THE INSIDE AND OUTSIDE FACE SHOULD BE LEFT UNSEALED TO ALLOW WATER TO ESCAPE.

ASBESTOS ABATEMENT

THE CONTRACTOR SHALL CONDUCT ASBESTOS INSPECTIONS OF ALL BRIDGES SUBJECT TO RENOVATION OR DEMOLITTION AS PER CHAPTER 3745-20 OF THE OHIO ADMINISTRATIVE CODE (OAC) "ASBESTOS EMISSIONS CONTROL FROM RENOVATION/DEMOLITION AND WASTER DISPOSAL OPERATION" MAY 29, 1990 UTILIZING A CERTIFIED OHIO ASBESTOS HAZARD EVALUATION SPECIALIST. SHOULD SUSPECT ASBESTOS CONTAINING MATERIAL (ACM) BE ENCOUNTERED; PERFORM BULK SAMPLING AND ANALYSIS. PREPARE A LETTER REPORT (1-2 PAGES) INCLUDING A BRIEF DISCUSSION OF THE INSPECTION AND SAMPLING METHOLOGY, MAPPING INDICATING THE BRIDGE LOCATION AND SAMPLING LOCATIONS, AND ANALYTICAL TEST RESULTS.

THE CONTRACTOR SHALL COMPLETE AN OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORM AND SUBMIT THIS TO THE OHIO EPA AT LEAST 10 WORKING DAYS BEFORE OPERATIONS BEGIN.

AS THESE INSPECTION REPORTS AND NOTIFICATION FORMS ARE COMPLETED, COPIES SHALL BE FORWARD TO ODOT'S ON SITE PROJECT ENGINEER.

PAYMENT OF THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR EACH BRIDGE.

SHOULD ASBESTOS CONTAINING MATERIAL BE ENCOUNTERED, ALL SUSPECT MATERIALS SHALL BE REMOVED AND PROPERLY DESPOSED OF BY A CERTIFIED ASBESTOS REMOVAL CONTRACTOR IN ACCORDANCE WITH OAC 3745-20. AN INDIVIDUAL TRAINED IN THE PROVISIONS OF NESHAPS (30 CFR PART 61, SUBPART M) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION OF ANY STRUCTURE WITH ACM AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE DURING NORMAL BUSINESS HOURS.

ALL ASSOCIATED COSTS OF ASBESTOS MATERIALS TO BE REMOVED AND PROPERLY DISPOSED OF, WILL BE PAYED UNDER 'THIRD PARTY BILLING' PROVISIONS OF ODOT CHANGE ORDER POLICY 512-004(P) APPENDIX D.

CONVERSION OF STANDARD BRIDGE DRAWINGS:

SOME OF THE STANDARD BRIDGE DRAWINGS REFERENCED IN THIS PLAN ARE METRIC. ANY CONVERSION OF DIMENSIONS REQUIRED TO CONSTRUCT THE ITEMS SHOWN ON THE STANDARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONVERSIONS SHALL BE MADE USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

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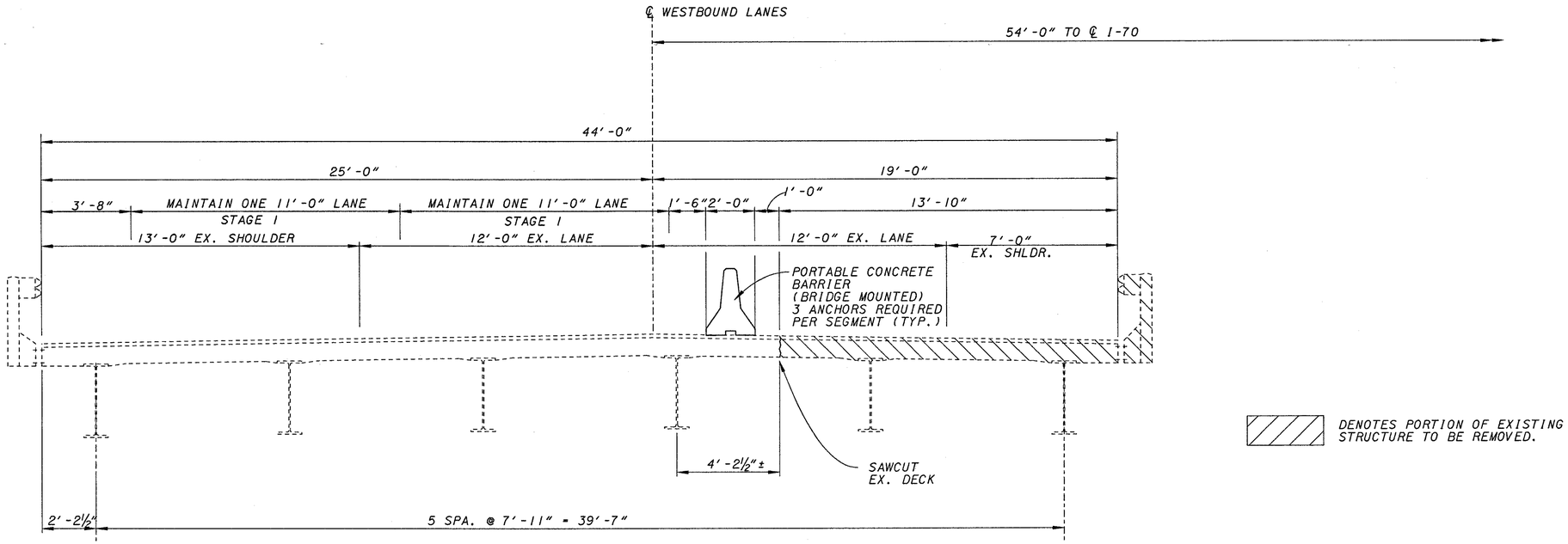
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801471/6801501	

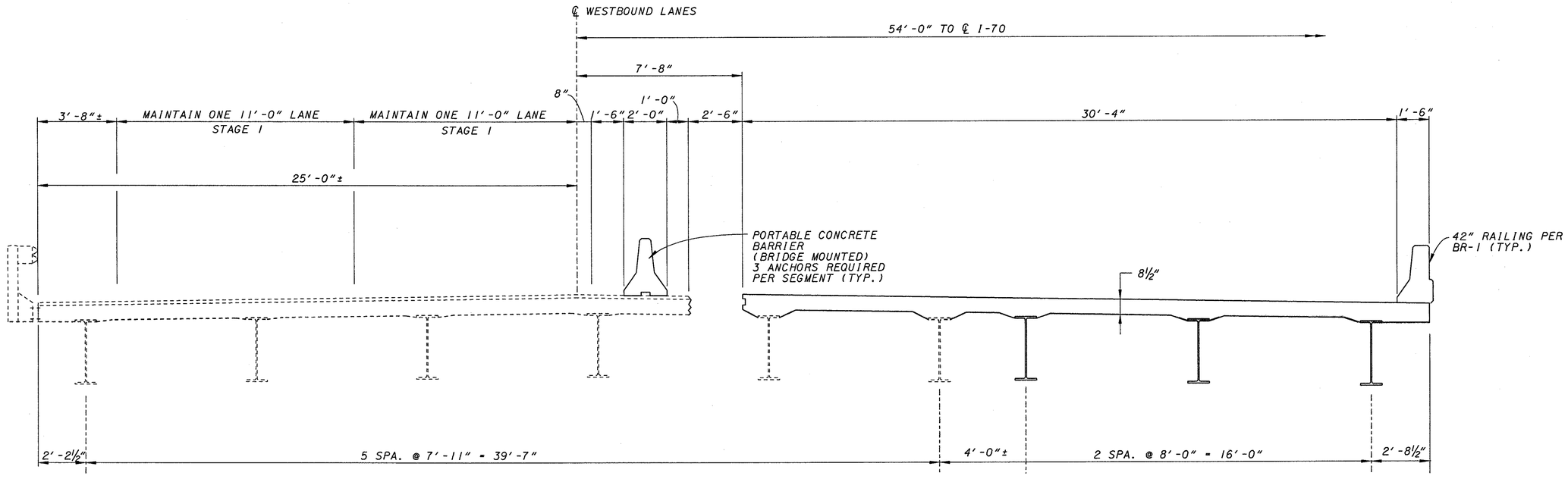
KZF #17

GENERAL NOTES
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00



STAGE IA



STAGE IB

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.

NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.

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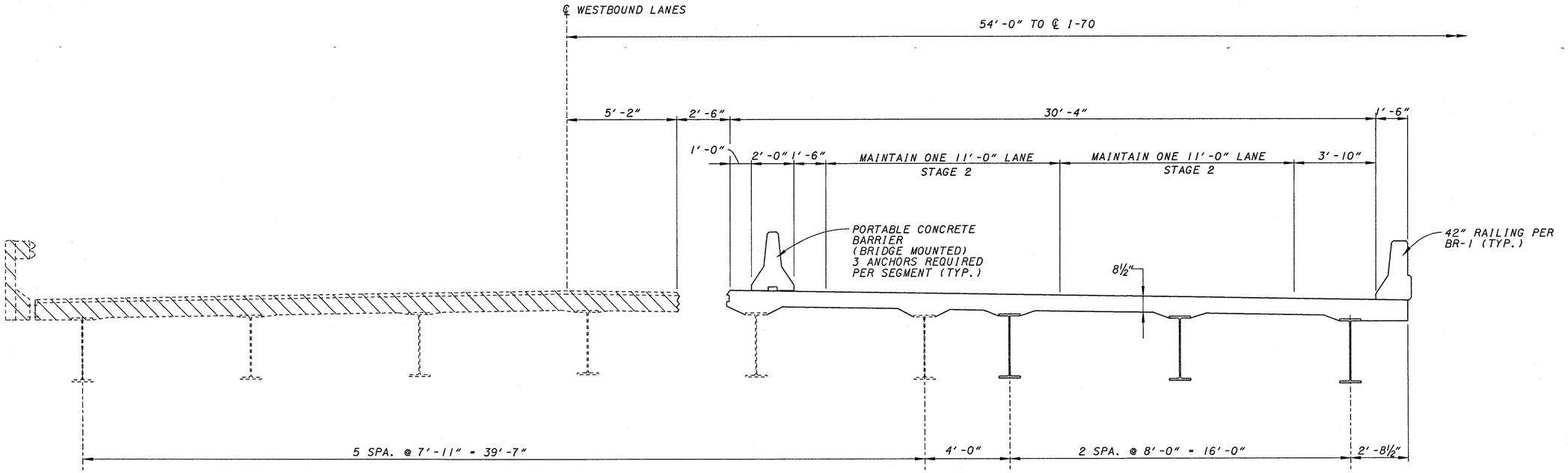
DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801471/6801501	

BRIDGE STAGE IA CONSTRUCTION - LEFT BRIDGE KZF #17
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

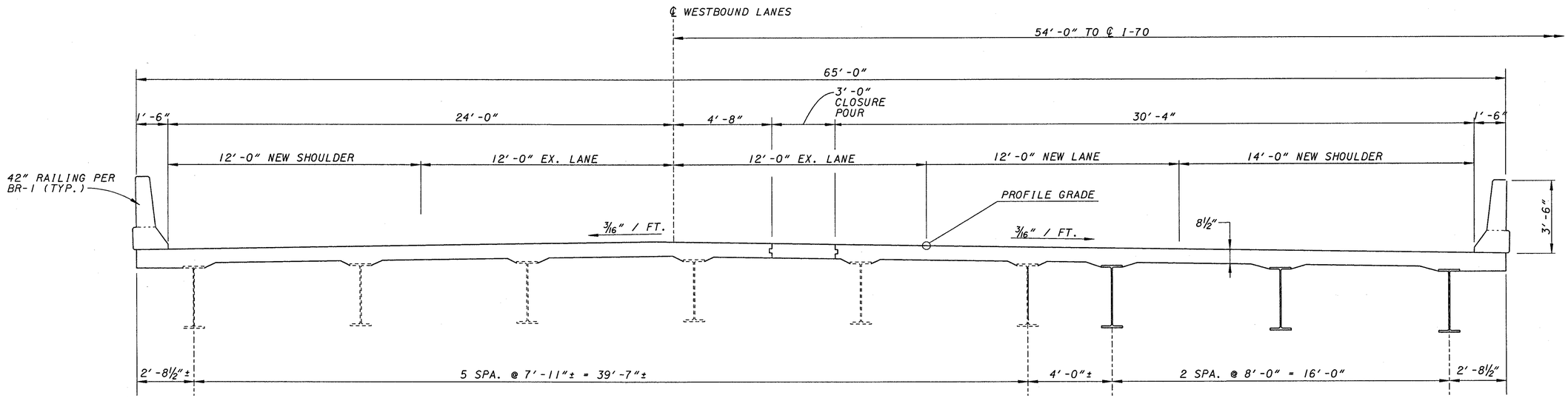


STAGE 2A

NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.



STAGE 2B

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Cincinnati, OH Columbus, OH Louisville, KY
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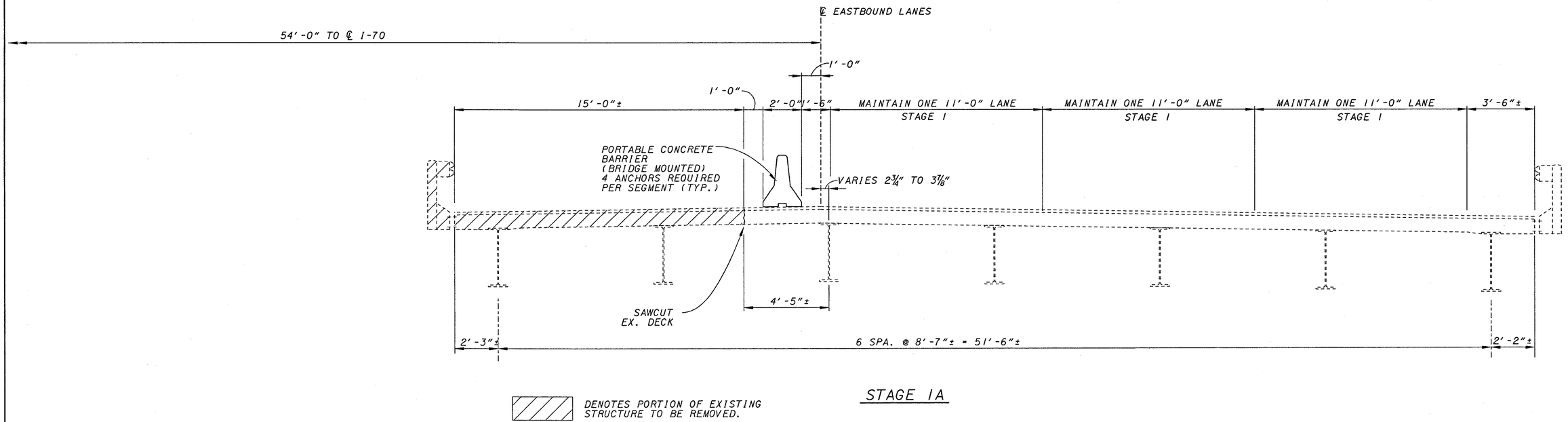
SJA	JDG	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	680147/1/6801501

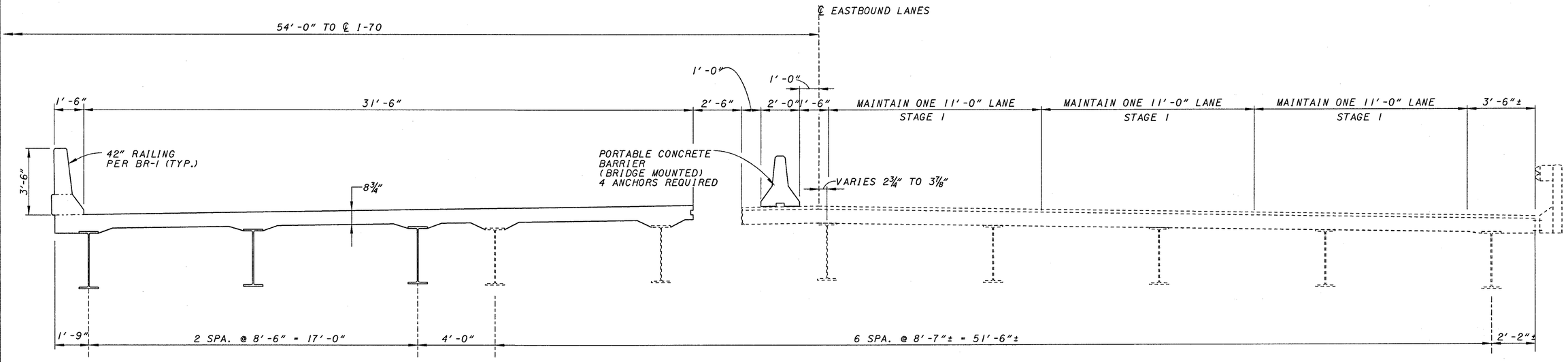
BRIDGE STAGE 2 CONSTRUCTION - LEFT BRIDGE KZF #17
BRIDGE NO. PRE-70-1500 L/AR
I.R. 70 OVER TWIN CREEK

PRE-70-0.00



DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.

STAGE IA



STAGE IB

NOTES:

1. SEE STD. DWG. PCB-91 FOR PORTABLE CONCRETE BARRIER DETAILS AND NOTES.

DESIGN AGENCY
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SJA	JDG	DGK	11/20/00
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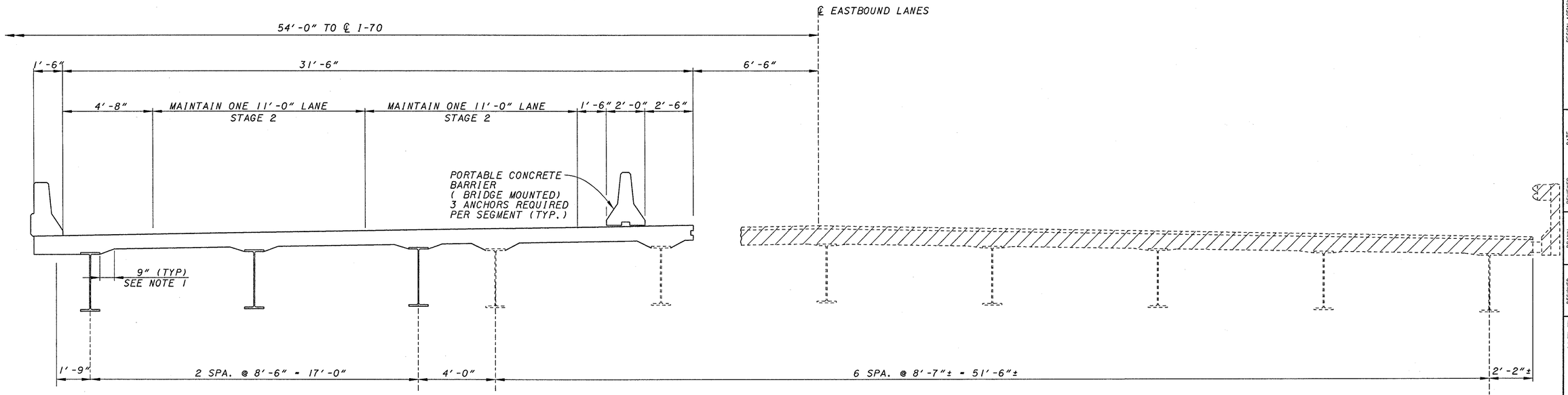
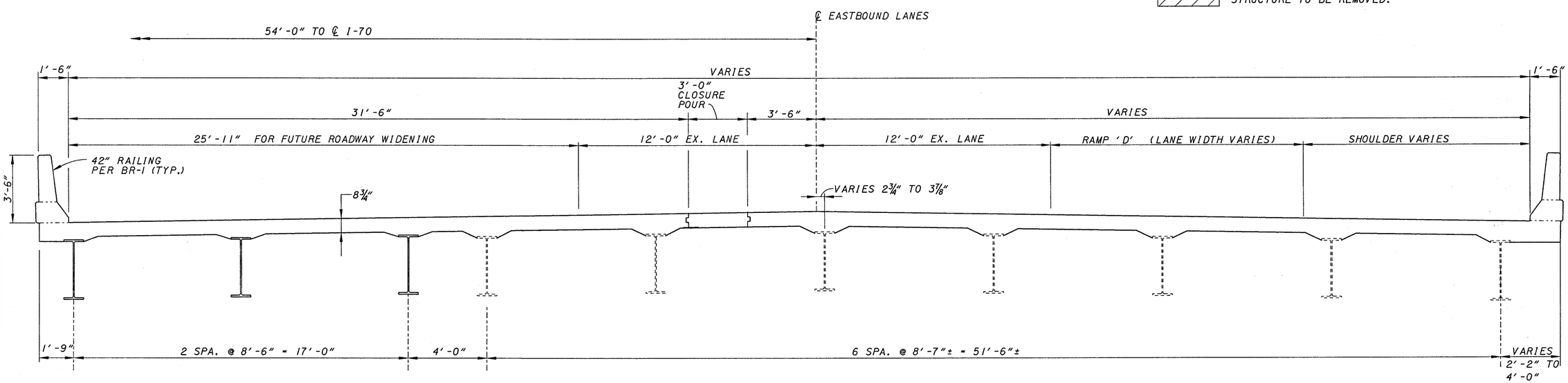
BRIDGE STAGE I CONSTRUCTION - RIGHT BRIDGE #17
BRIDGE NO. PRE-70-1500 L/R
I-R. 70 OVER TWIN CREEK

PRE-70-0.00



STAGE 2A

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.



STAGE 2B

DESIGN AGENCY
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KZF #17

STAGE 2 CONSTRUCTION - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

REMOVE TOP PORTION OF EXIST. TURNBACK WINGWALLS, BACK WALL AND CURTAIN WALLS DOWN TO BEAM SEAT ELEVATION (TYP.).

℄ SURVEY I.R. 70

AHEAD STATION
FWD. ABUTMENT

AHEAD STATION
REAR ABUTMENT

REAR ABUTMENT

FORWARD ABUTMENT

STAGE 1 | STAGE 2

65'-0"

39'-6"

℄ CONSTRUCTION WESTBOUND LANES

10'-4" | 2'-6" | 2" | 19'-11" | 9" | 18'-10" | 25'-6" | 9" | 2" | 2'-6" | 12'-0"

BEGIN/END APPROACH SLAB

STA. 801+62.43 (FWD.)
STA. 799+36.93 (REAR)

2" PEJF (TYP.)

6" | 1'-9" | 4'-0" | 6'-3" | 2'-0"

℄ B9 | ℄ B8 | ℄ B7 | ℄ B6 | ℄ B5 | ℄ B4 | ℄ B3 | ℄ B2 | ℄ B1

11½"±

8'-0" | 8'-0" | 4'-0" | 7'-11"± | 7'-11"± | 7'-11"± | 7'-11"± | 7'-11"±

PLAN

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)

44-D804 @ 1'-6" = 64'-6"

EL. 942.97 (REAR)
EL. 942.10 (FWD.)

EL. 947.68 (REAR)
EL. 946.70 (FWD.)

3-A514 @1'-1" = 2'-2"

1 SER. OF 5-A512 @1'-3¾" = 5'-3"

1 SER. OF 3-A511 @1'-1" = 2'-2"

CONSTRUCTION JOINT

1 SER. OF 3-A509 @ 1'-1" = 2'-2" E.F.

4'-0"

1-A510 E.F.

1-A508 E.F.

EL. 942.0± (REAR)
EL. 941.0± (FWD.)

1-A528 N.F.

3'-0"

EL. 936.1± (REAR)
EL. 935.2± (FWD.)

3-A501 @ 1'-0" = 2'-0"

5-A501 @ 1'-3¾" = 5'-3" (3 THUS)

3-D501 & 3-D502 @ 10" = 1'-8"

3-A501 AND 3-A502 @ 1'-1"(MAX) = 2'-2"

2'-5" LAP

3-D501 & 3-D502 @ 1'-3" = 2'-6"

EL. 947.78 (REAR)
EL. 946.80 (FWD.)

3" CL

4" CL

9" (TYP.)

3-A501 AND 3-A502 @ 1'-4" = 2'-8"

5-A502 @ 1'-3¾" = 5'-3" (2 THUS) (MATCH A501 BARS)

EL. 948.25 (REAR)
EL. 947.27 (FWD.)

4-D801

1-D801 E.F.

4-D801

6-D501 & 6-D502 @ 1'-4" (MAX) = 6'-5" (TYP. OF 7 THUS)

℄ WESTBOUND LANES

7'-8"

3'-0" CLOSURE POUR

9" | 9"

CROWN POINT

EL. 948.37 (REAR)
EL. 947.39 (FWD.)

2-A802 N.F.*
2-A803 F.F.*
1-A515 E.F.*
1-A506 N.F.*
1-A507 F.F.*
1-A504 N.F.*
1-A505 F.F.*
4-A503 *
2-A503 *
4-A801 *

MECHANICAL CONNECTORS (TYP.)

CONSTRUCTION JOINT

TOP OF SLOPE

3-A501 AND 3-A502 @ 1'-1"(MAX) = 2'-1"

EL. 948.00 (REAR)
EL. 947.02 (FWD.)

2-D802 N.F.
2-D803 F.F.

1-D802 N.F.
1-D803 F.F.

2-D802 N.F.
2-D803 F.F.

1-D503 & 1-D504

1-D501 & 1-D502

1-A519 E.F.

1-A518 E.F.*
1-A517 E.F.*
4-A516 *
1-A516 E.F.*
1-A526 E.F.*
4-A804 *

1-A501

3" CL

1'-0" | 1'-6"

1 SER. OF 6 A524 @1'-6"(MAX) = 7'-4"

1-A522

1-A521 E.F.

CONSTRUCTION JOINT AT EL. OF EXISTING SEAT

1 SER. OF 3-A520 @1'-0" = 2'-0" E.F.

4'-0"

EL. 947.90 (REAR)
EL. 946.92 (FWD.)

1 SER. OF 3 A525 @1'-5" = 2'-9"

EL. 943.1± (REAR.)
EL. 942.2± (FWD.)

3'-0"

EL. 936.1± (REAR)
EL. 935.2± (FWD.)

3-A501 @ 1'-5" = 2'-9"

5-A501 @ 1'-6"(MAX) = 5'-10"

9" (TYP.)

ELEVATION

6'-3" | 1'-6" | 3'-3" | 1'-6"

32 1 | 33 2 | 34 3 | 35 4 | 36 5 | 37 6 | 38 7 | 39 8 | 40 9 | 41 11 | 42 10 | 43 12 | 44 13

2'-11" | 4 SPA @ 6'-9" = 27'-0" | 3'-0"

32'-11"

45'-2"±

3'-8" | 7'-4" | 3'-8"

14'-8"

FOOTING PLAN

33 1 — REAR ABUTMENT PILE NUMBER / FORWARD ABUTMENT PILE NUMBER

ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS NOTED OTHERWISE

* DOWEL #5 BARS 1'-5" (MIN.) AND #8 BARS 2'-10" (MIN.) INTO EXISTING ABUTMENT FOOTING AND BREASTWALL.

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

LEGEND

PEJF - PREFORMED EXPANSION JOINT FILLER
E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE
APP. - APPROXIMATELY

▼ DENOTES PROPOSED HP10x42 PILE BATTERED AT 1:4

I DENOTES VERTICAL HP10x42 PILE

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STRUCTURE FILE NUMBER 6801471/6801501

DRAWN JDG
DESIGNED SJA
CHECKED WBS
REVISED

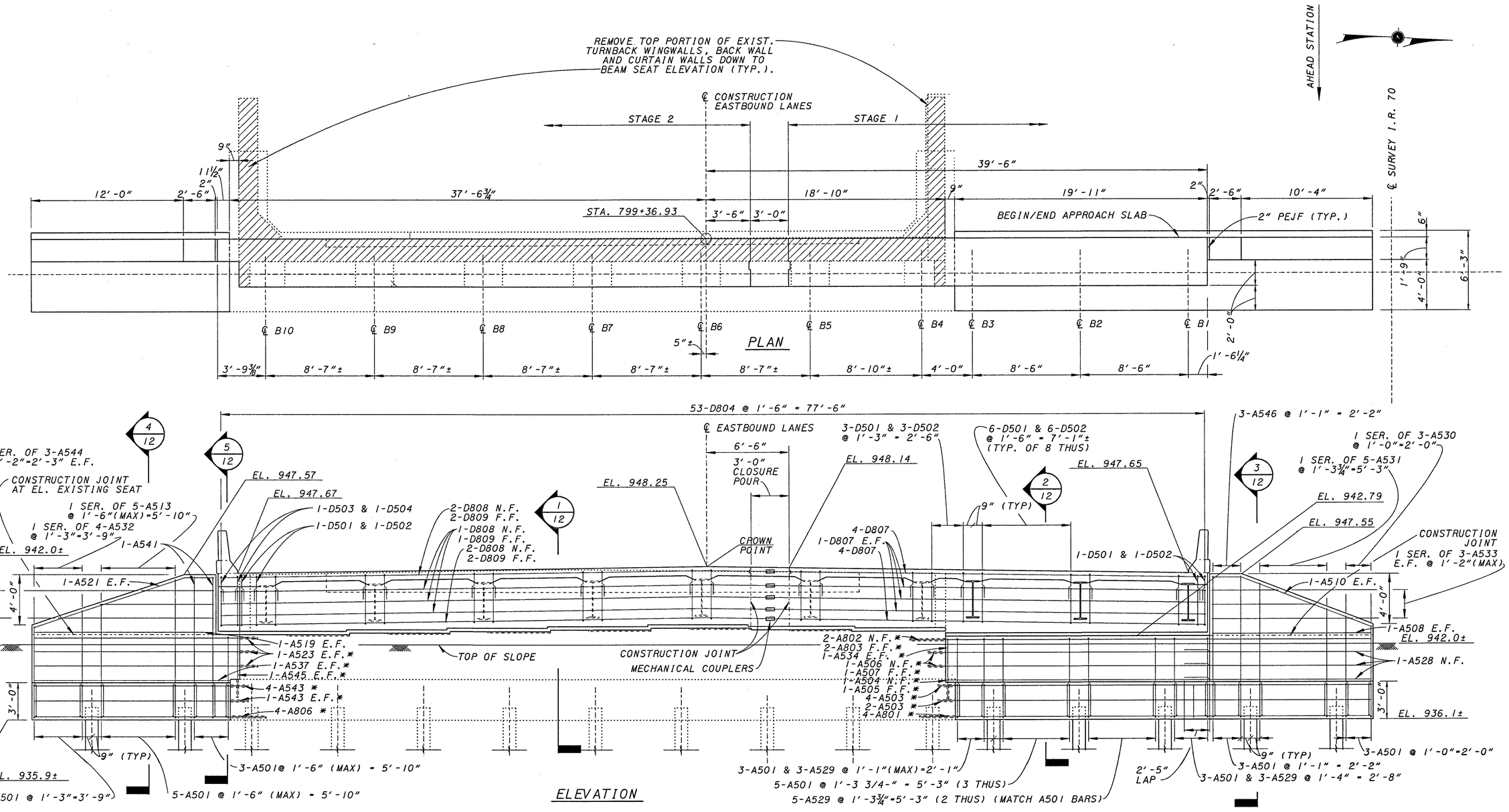
KZF #17

ABUTMENT MODIFICATIONS - LEFT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

9 / 32

236 / 283



LEGEND

PEJF = PREFORMED EXPANSION JOINT FILLER
E.F. = EACH FACE
N.F. = NEAR FACE
F.F. = FAR FACE
APP. = APPROXIMATELY

▼ DENOTES PROPOSED HP10x42 PILE BATTERED AT 1:4

I DENOTES VERTICAL HP10x42 PILE

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

(1) I REAR ABUTMENT PILE NUMBER

* DOWEL #5 BARS 1'-5" (MIN.) AND #8 BARS 2'-10" (MIN.) INTO EXISTING ABUTMENT FOOTING AND BREASTWALL.

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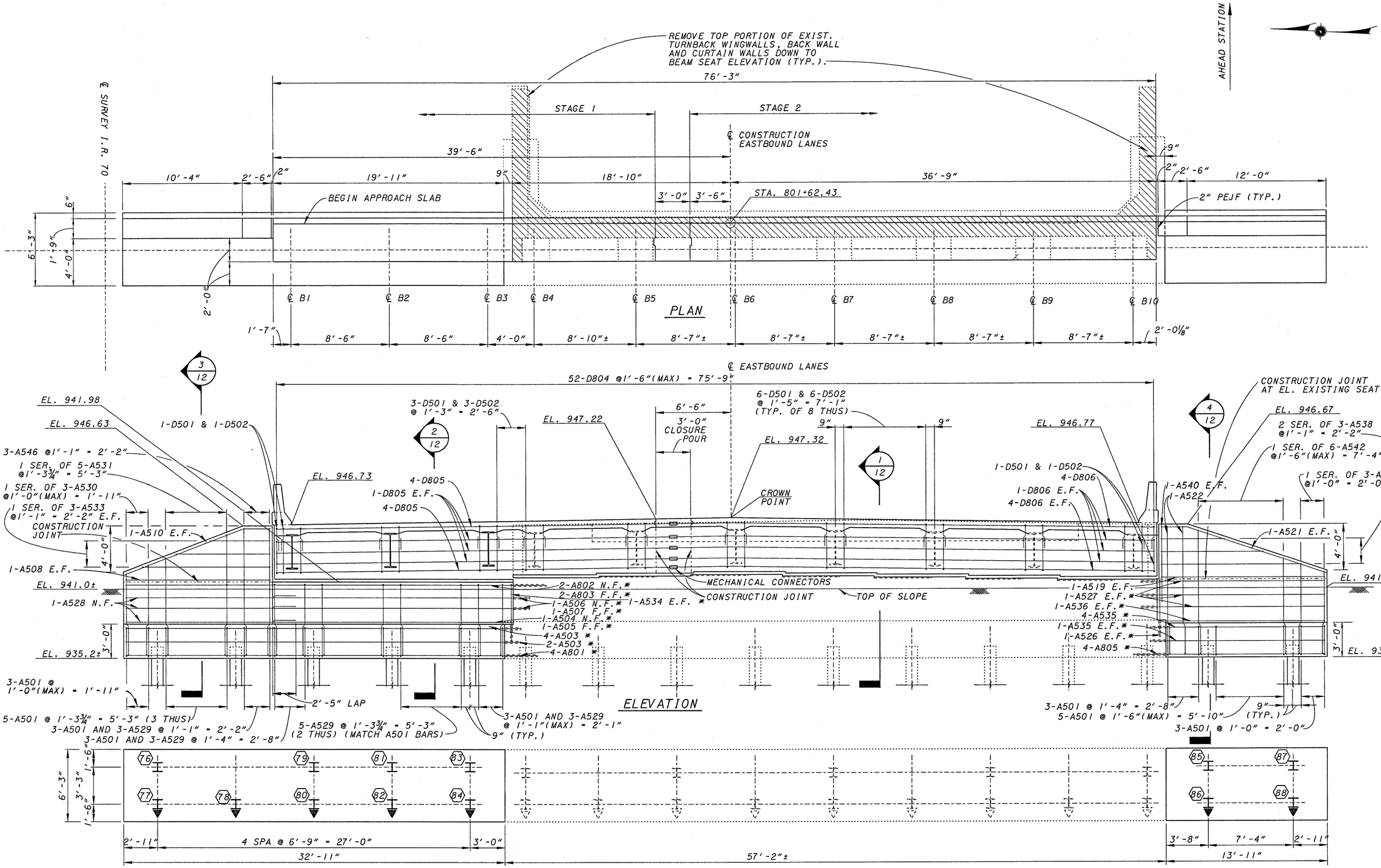
REAR ABUTMENT MODIFICATIONS - RIGHT
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

BRIDGE KZF #17

PRE-70-0.00

10 / 32

237 / 283



LEGEND

PEJF = PREFORMED EXPANSION JOINT FILLER

E.F. = EACH FACE

N.F. = NEAR FACE

F.F. = FAR FACE

APP. = APPROXIMATELY

DENOTES PROPOSED HP10x42 PILE BATTERED AT 1:4

DENOTES VERTICAL HP10x42 PILE

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED

76 — FORWARD ABUTMENT PILE NUMBER

* DOWEL #5 BARS 1'-5" (MIN.) AND #8 BARS 2'-10" (MIN.) INTO EXISTING ABUTMENT FOOTING AND BREASTWALL.

DESIGN AGENCY
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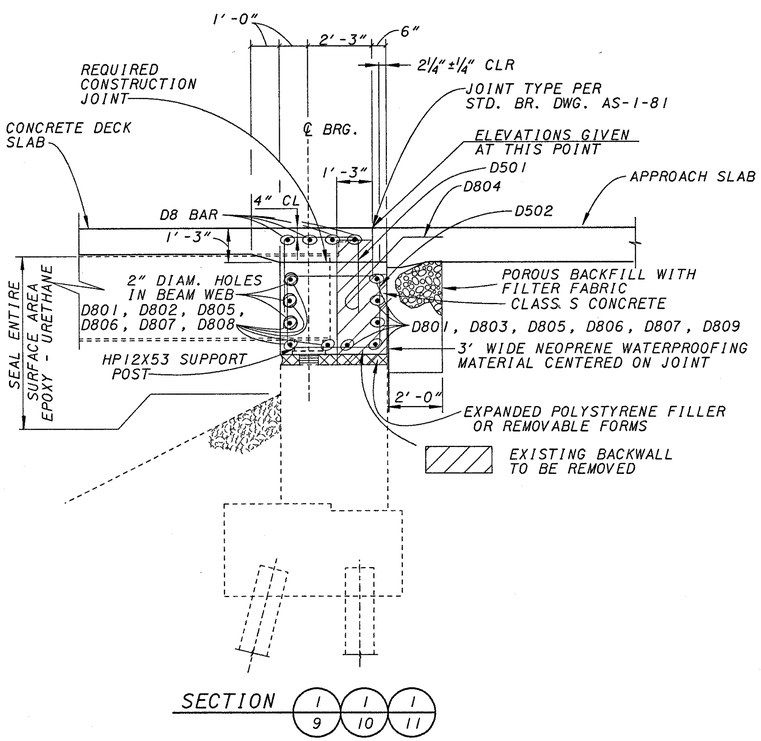
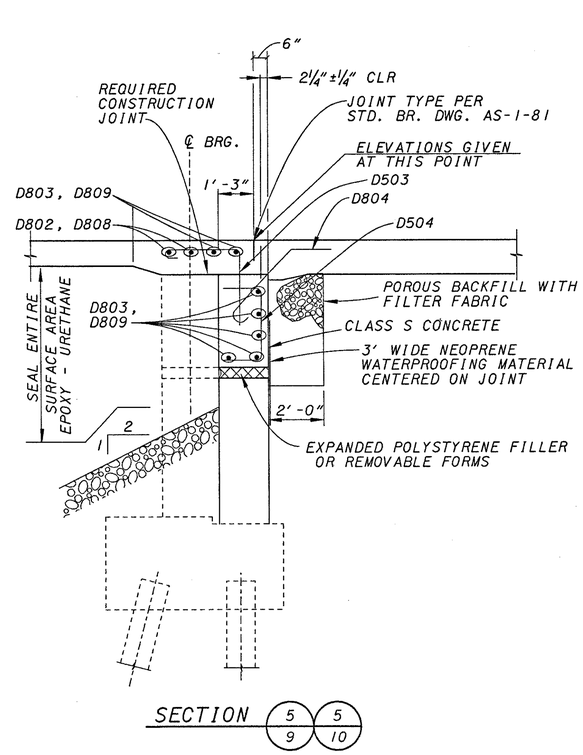
FORWARD ABUTMENT MODIFICATIONS - RIGHT
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK
DESIGN AGENCY KZF #17

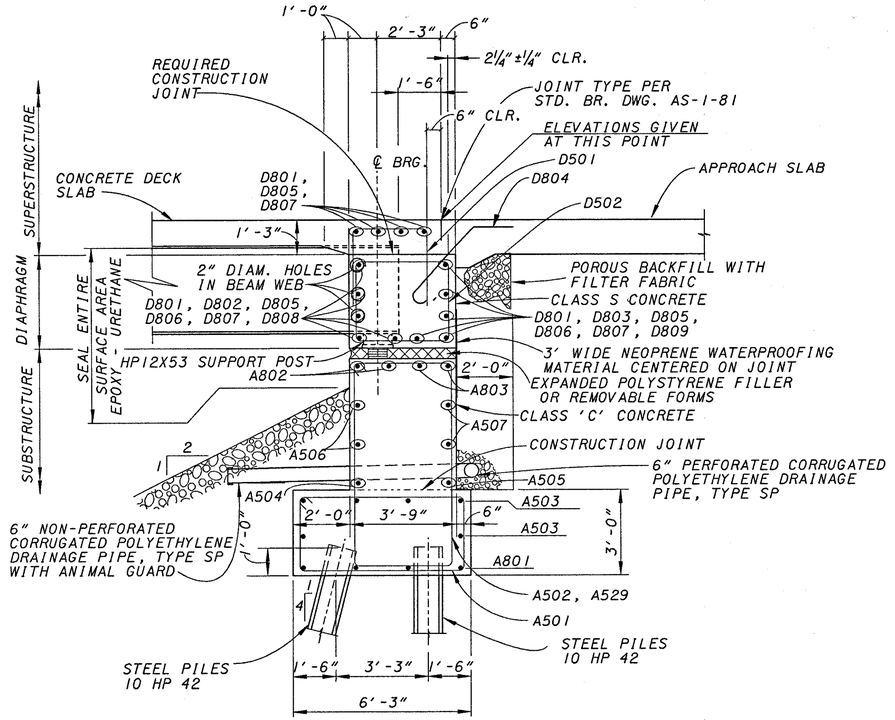
PRE-70-0.00

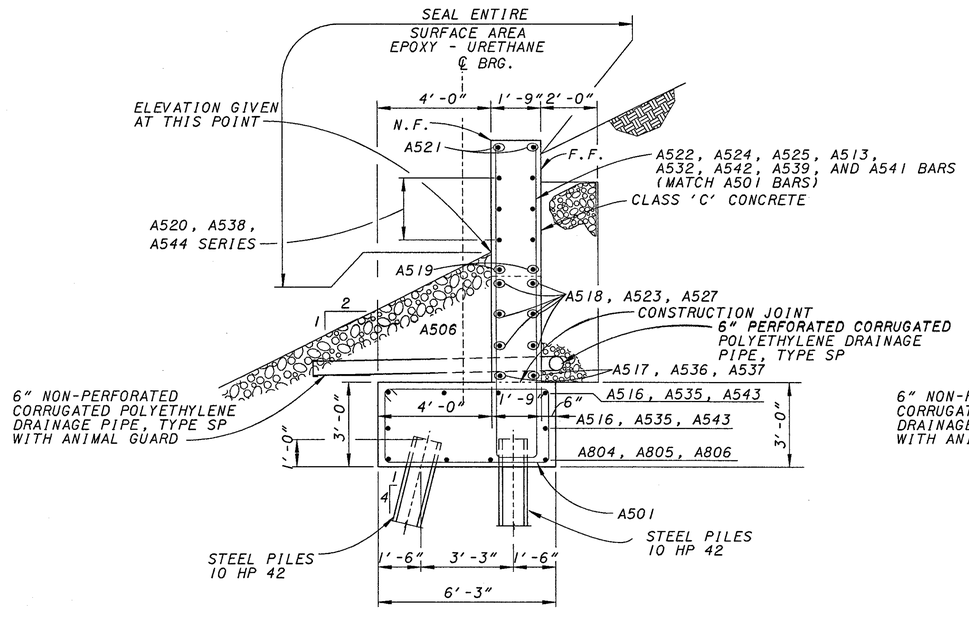
11 / 32

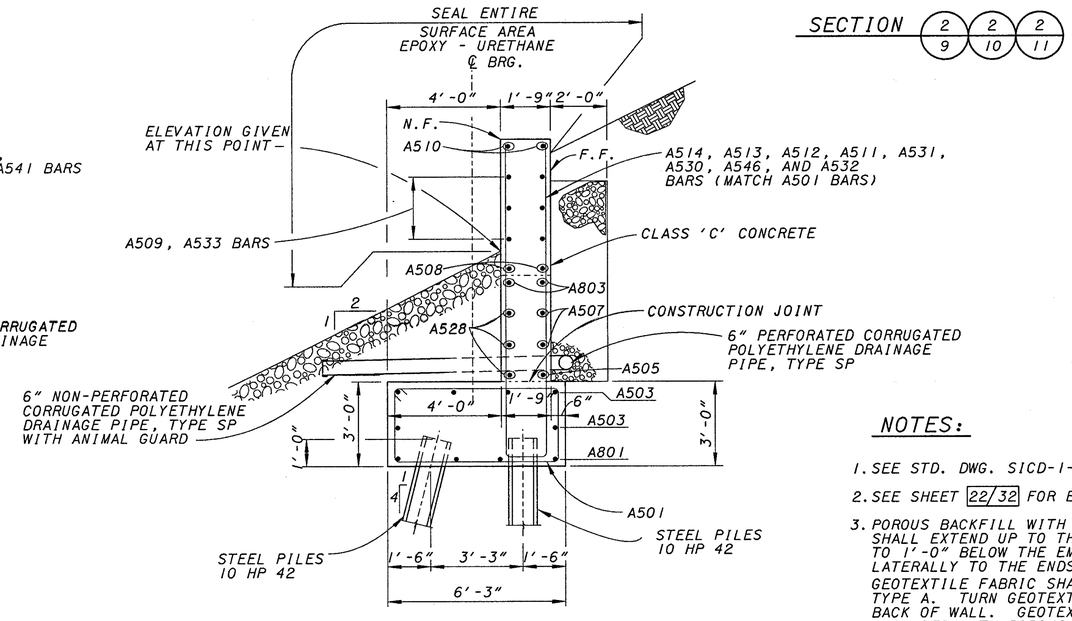
238 / 283











NOTES:

1. SEE STD. DWG. SICD-1-96M FOR ADDITIONAL DETAILS.
2. SEE SHEET 22/32 FOR BEARING DETAILS.
3. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1'-0" BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS. GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. TURN GEOTEXTILE FABRIC UP 6" ALONG BACK OF WALL. GEOTEXTILE FABRIC SHALL BE INCLUDED WITH POROUS BACKFILL FOR PAYMENT.
4. BRIDGE SEAT REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INERFERENCE WITH THE DRILLING OF RETAINER BOLT HOLES.

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STRUCTURE FILE NUMBER 680147/6801501

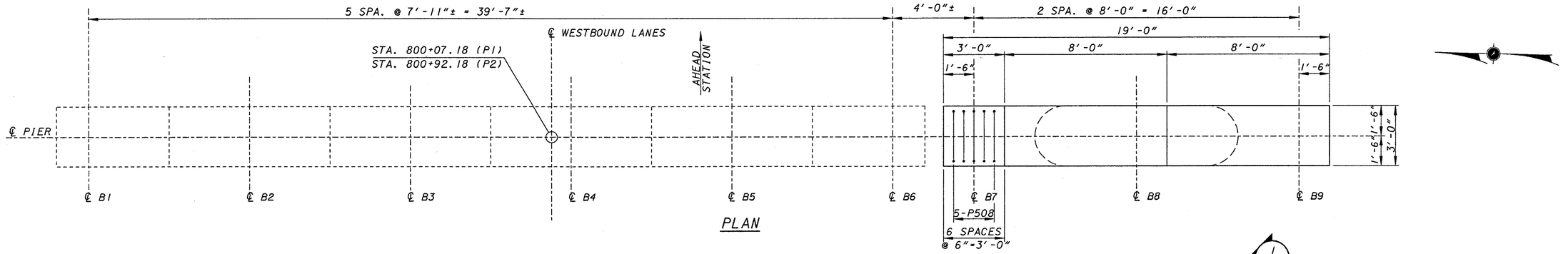
KZF #17

ABUTMENT SECTIONS
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

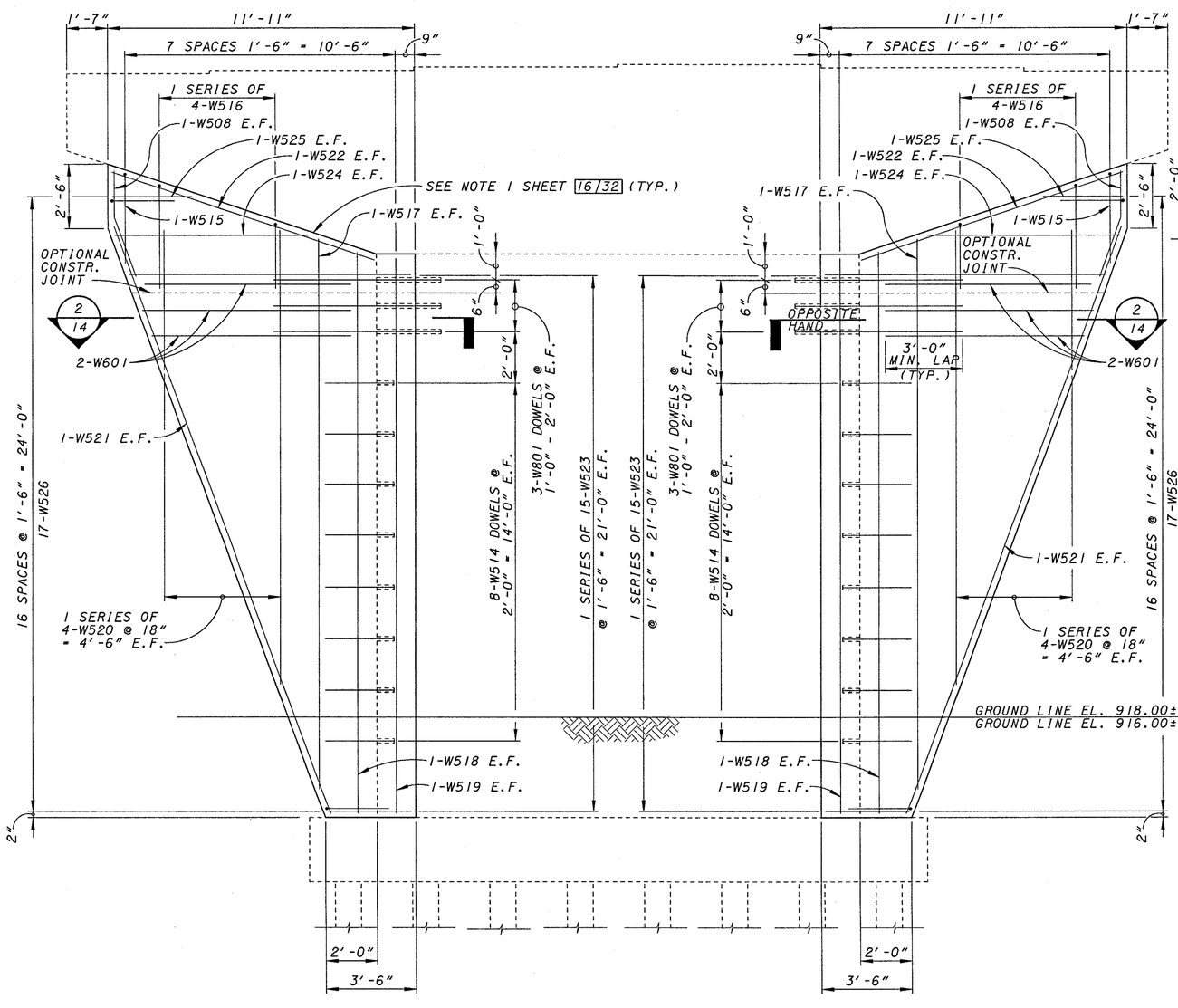
PRE-70-0.00

12/32

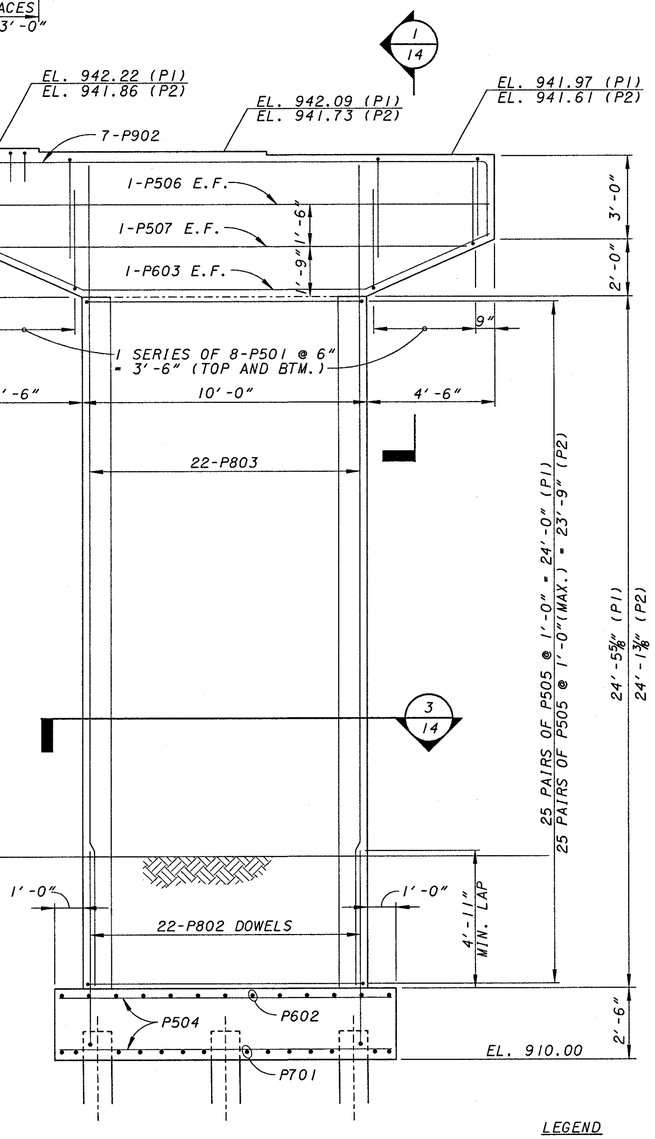
239/283



PLAN



ELEVATION



ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

LEGEND
E.F. = EACH FACE
BTM. = BOTTOM
(P1) = PIER 1
(P2) = PIER2

DESIGN AGENCY
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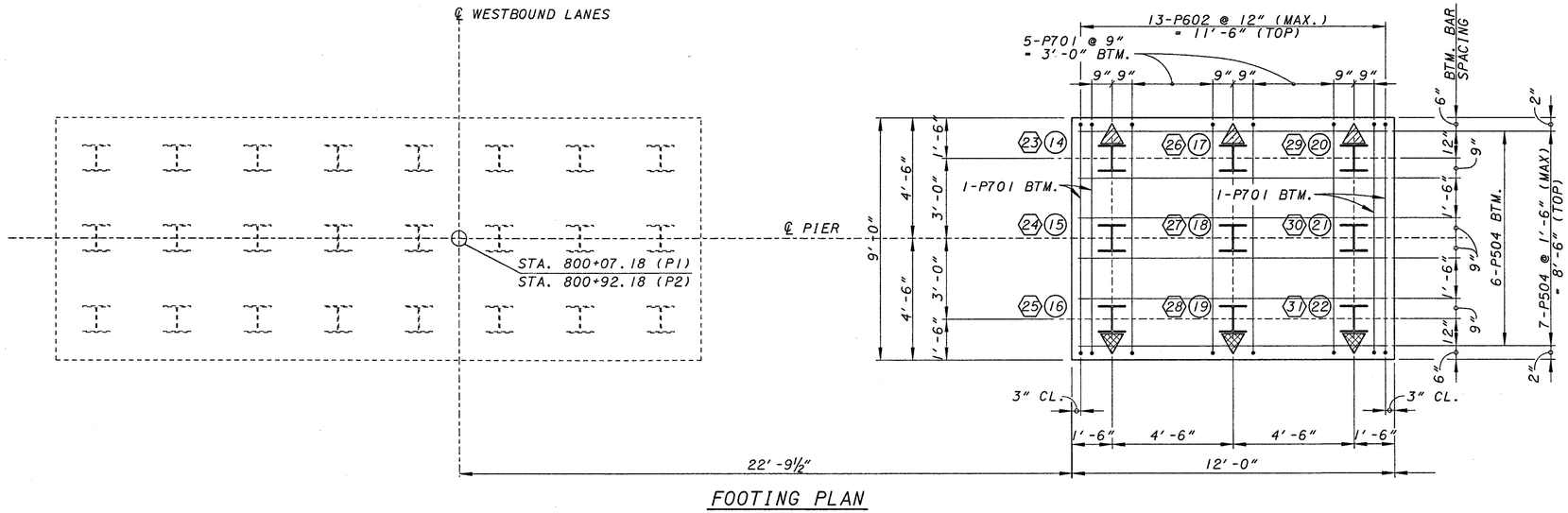
PIER DETAILS - LEFT BRIDGE

BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

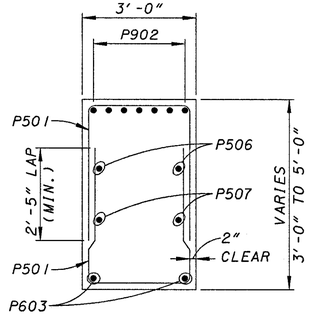
PRE-70-0.00

13 / 32

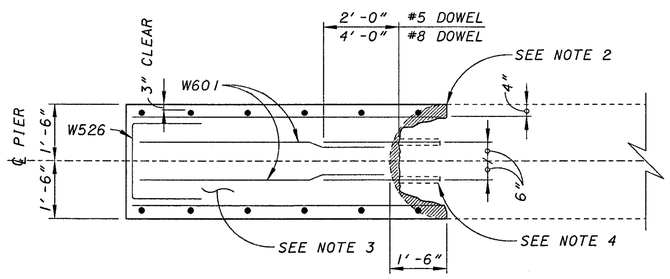
240 / 283



FOOTING PLAN



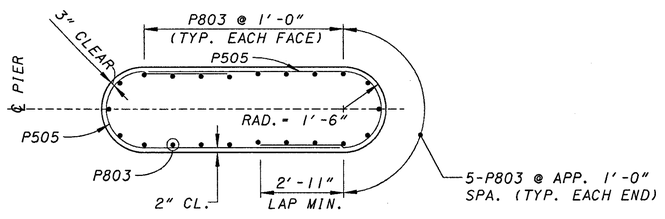
SECTION 1/13



SECTION 2/13

LEGEND

- DENOTES PROPOSED HP12x53 PILE BATTERED AT 1:4 (PIER 1 ONLY)
- DENOTES PROPOSED HP12x53 PILE BATTERED AT 1:4 (PIER 2 ONLY)
- DENOTES PROPOSED HP12x53 PILE VERTICAL
- 67 / 58 — PIER 1 PILE NUMBER / PIER 2 PILE NUMBER



SECTION 3/13

NOTES

1) FILL ANY VOIDS AND SHRINKAGE CRACKS BETWEEN NEW AND OLD CONCRETE BY EPOXY INJECTION PER PROPOSAL NOTE 522.

2) SAW CUT 1½" INTO EXISTING CONCRETE FOR FULL HEIGHT OF STEM.

3) CONCRETE FOR SUPPORT WEDGE TO BE CLASS "C". CONCRETE SLUMP MAY BE INCREASED TO 7" ± 2" BY THE ADDITION OF A CHEMICAL ADMIXTURE MEETING THE REQUIREMENTS OF 705.12 TYPE F OR G

4) DRILL AND GROUT DOWELS INTO EXISITNG PIER STEM USING NON SHRINK GROUT PER 510 AND 705.20. GROUT # 8 BARS 30" INTO EXISTING AND # 5 BARS 8" INTO EXISTING.

5) THE WORK INVOLVED IN REINFORCING THE EXISTING PIER CANTILIVERS SHALL BE COMPLETED PRIOR TO SHIFTING TRAFFIC ON THE BRIDGE OR ANY DECK REMOVALS.

6) THE WORK INVOLVED IN REINFORCING THE EXISTING PIER CANTILEVER SHALL BE DONE AS A CHANGE ORDER.

DESIGN AGENCY
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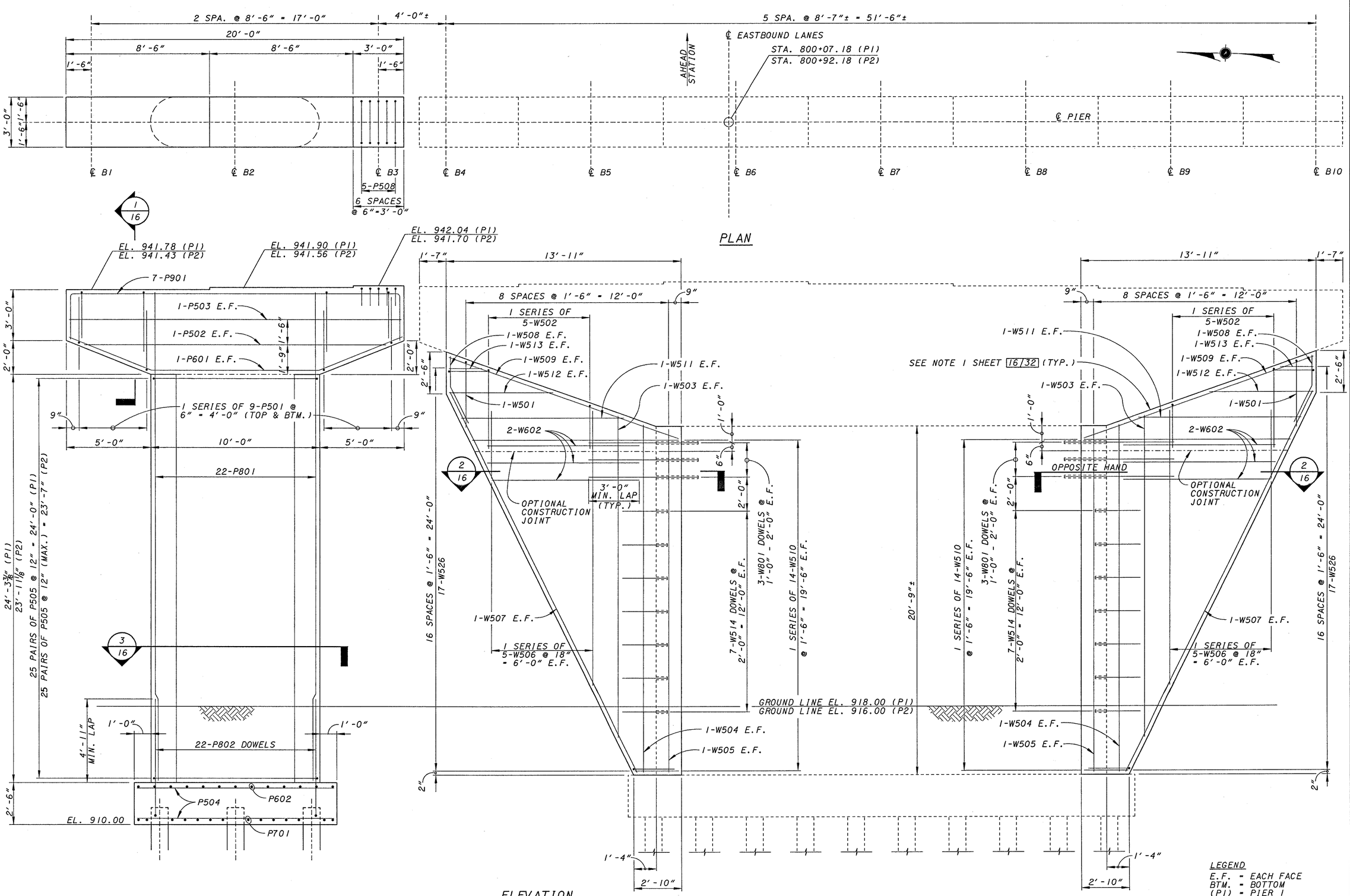
KZF #17

PIER DETAILS - LEFT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00



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WBS	

KZF #17

PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

15/32

242/283

REF6h:*REF6h**
REF7h:*REF7h**
REF8h:*REF8h**
REF9h:*REF9h**
REF10h:*REF10h**
REF20h:*REF20h**
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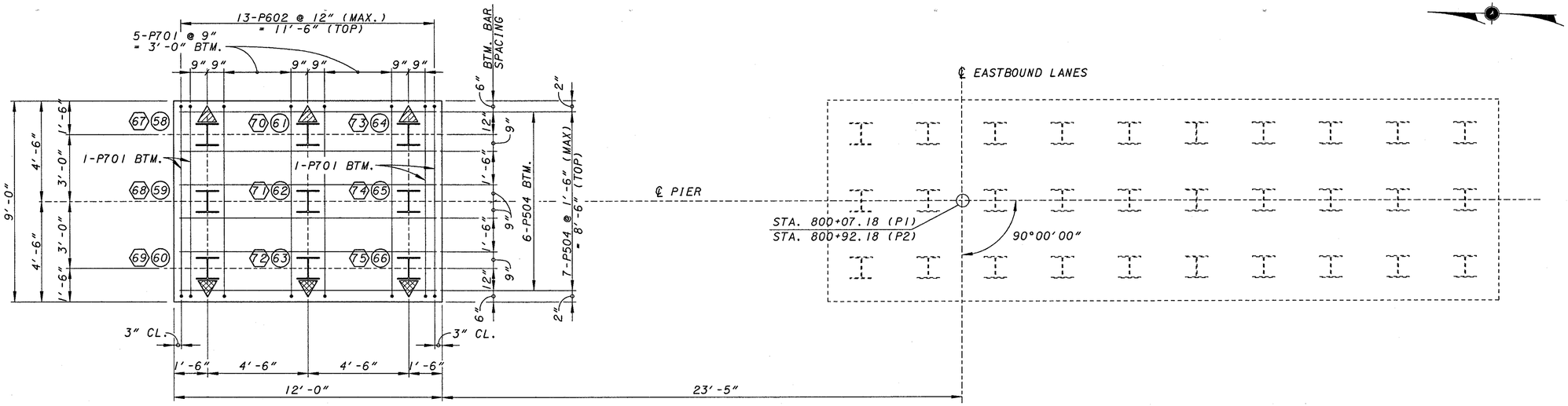
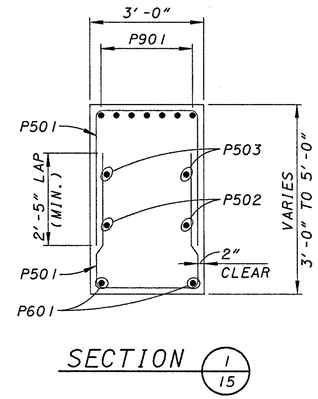
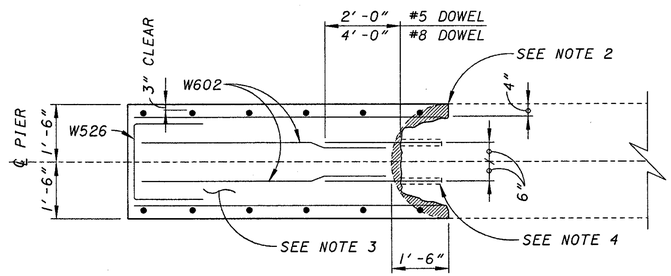
REF6h:*REF6h**
$$$$SYSTIMES$$$$
USER:KEVIN HOWARD
DGS-FILE:DGNSPECIFICATION$$$$$$$$
REFERENCE FILES:$$$$$$
ACTIVE LEVELS ON: $$LEV##



FOOTING PLAN



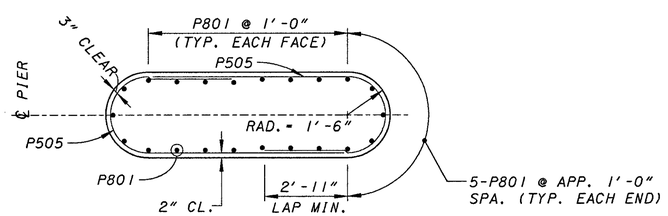
SECTION 1/15



SECTION 2/15

LEGEND

- DENOTES PROPOSED HP12x53 PILE BATTERED AT 1:4 (PIER 1 ONLY)
- DENOTES PROPOSED HP12x53 PILE BATTERED AT 1:4 (PIER 2 ONLY)
- DENOTES PROPOSED HP12x53 PILE VERTICAL
- (67)(58) PIER 1 PILE NUMBER / PIER 2 PILE NUMBER



SECTION 3/15

NOTES

1) FILL ANY VOIDS AND SHRINKAGE CRACKS BETWEEN NEW AND OLD CONCRETE BY EPOXY INJECTION PER PROPOSAL NOTE 522.

2) SAW CUT 1½" INTO EXISTING CONCRETE FOR FULL HEIGHT OF STEM.

3) CONCRETE FOR SUPPORT WEDGE TO BE CLASS "C". CONCRETE SLUMP MAY BE INCREASED TO 7" ± 2" BY THE ADDITION OF A CHEMICAL ADMIXTURE MEETING THE REQUIREMENTS OF 705.12 TYPE F OR G

4) DRILL AND GROUT DOWELS INTO EXISITNG PIER STEM USING NON SHRINK GROUT PER 510 AND 705.20. GROUT # 8 BARS 30" INTO EXISTING AND # 5 BARS 8" INTO EXISTING.

5) THE WORK INVOLVED IN REINFORCING THE EXISTING PIER CANTILIVERS SHALL BE COMPLETED PRIOR TO SHIFTING TRAFFIC ON THE BRIDGE OR ANY DECK REMOVALS.

6) THE WORK INVOLVED IN REINFORCING THE EXISTING PIER CANTILEVER SHALL BE DONE AS A CHANGE ORDER.

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	JDG	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		6801471/6801501	

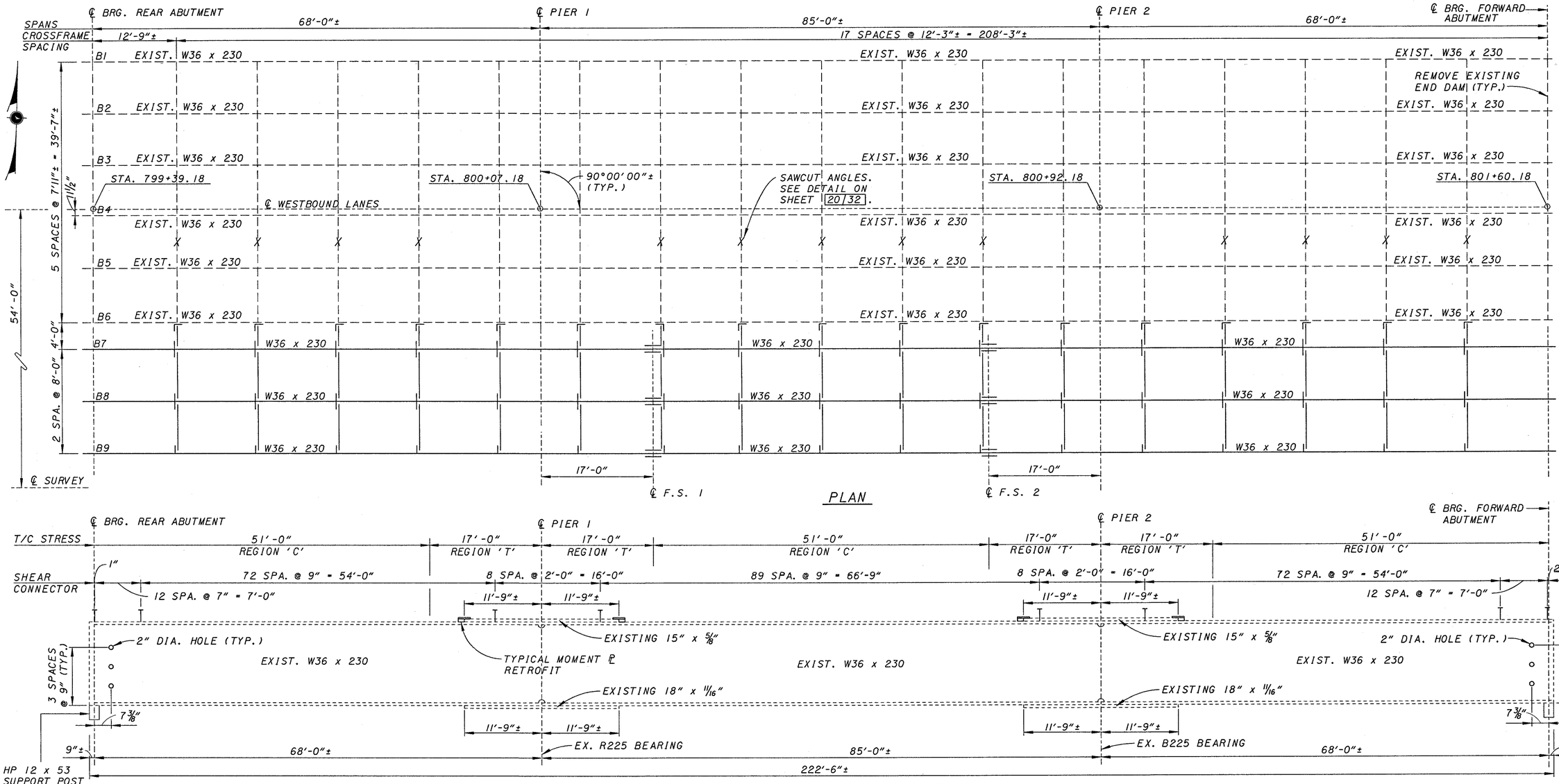
KZF #17

PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

16/32

243/283



NOTES

1. ALL BEAMS ARE TO BE GRADE 50 STEEL

DESIGN AGENCY
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Architecture | Engineering | Interiors | Planning
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SJA	MWL	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680147/680150/	

KZF #17

FRAMING PLAN - LEFT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

17/32

244/283

℄ SURVEY
℄ BRG. REAR ABUTMENT
℄ PIER 1
17'-0"
℄ F.S. 1
℄ F.S. 2
17'-0"
℄ PIER 2
℄ BRG. FORWARD ABUTMENT

B1 W36 x 260
B2 W36 x 260
B3 W36 x 260
B4 EXIST. W36 x 260
B5 EXIST. W36 x 260
B6 EXIST. W36 x 260
B7 EXIST. W36 x 260
B8 EXIST. W36 x 260
B9 EXIST. W36 x 260
B10 EXIST. W36 x 260

54'-0"
2 SPA. @ 8'-6" = 17'-0"
4'-0"
6 SPA. @ 8'-7"± = 51'-6"±
2¾"±
3⅛"±

STA. 799+39.18
STA. 800+07.18
90°00'00"± (TYP.)
STA. 800+92.18
STA. 801+60.18
℄ EASTBOUND LANES
SAWCUT ANGLES. SEE DETAIL ON SHEET 20/32.
REMOVE END DAM (TYP.)

12'-9"±
17 SPA. @ 12'-3"± = 208'-3"±
68'-0"±
85'-0"±
68'-0"±

PLAN

℄ BRG. REAR ABUTMENT
℄ PIER 1
℄ PIER 2
℄ BRG. FORWARD ABUTMENT

T/C STRESS: 51'-0" REGION 'C' | 17'-0" REGION 'T' | 17'-0" REGION 'T' | 51'-0" REGION 'C' | 17'-0" REGION 'T' | 17'-0" REGION 'T' | 51'-0" REGION 'C'

SHEAR CONNECTOR: 1" | 12 SPA. @ 7" = 7'-0" | 72 SPA. @ 9" = 54'-0" | 8 SPA. @ 2'-0" = 16'-0" | 89 SPA. @ 9" = 66'-9" | 8 SPA. @ 2'-0" = 16'-0" | 72 SPA. @ 9" = 54'-0" | 12 SPA. @ 7" = 7'-0" | 2"

11'-9"± 11'-9"± 11'-9"± 11'-9"±

2" DIA. HOLE (TYP.)
3 SPACES @ 9" (TYP.)
EXISTING 15" x ⅝"
TYPICAL MOMENT ℄ RETROFIT
EXISTING 15" x ⅝"
EXISTING 18" x 11/16"
EXISTING 18" x 11/16"
EXIST. W36 x 260
EXIST. W36 x 260
EXIST. W36 x 260
7⅜"
9"±
11'-0"± 11'-0"± 11'-0"± 11'-0"±
EX. R250 BEARING
EX. B250 BEARING
68'-0"± 85'-0"± 68'-0"±
222'-6"±
HP 12 x 53 SUPPORT POST (TYP)

EXISTING BEAM ELEVATION
(B4 THRU B10)

℄ BRG. REAR ABUTMENT
℄ PIER 1
℄ PIER 2
℄ BRG. FORWARD ABUTMENT

T/C STRESS: 51'-0" REGION 'C' | 17'-0" REGION 'T' | 17'-0" REGION 'T' | 51'-0" REGION 'C' | 17'-0" REGION 'T' | 17'-0" REGION 'T' | 51'-0" REGION 'C'

SHEAR CONNECTOR: 1" | 12 SPA. @ 7" = 7'-0" | 72 SPA. @ 9" = 54'-0" | 8 SPA. @ 2'-0" = 16'-0" | 2'-8" | 8" | 60 SPA. @ 9" = 45'-0" | 2'-8" | 8 SPA. @ 2'-0" = 16'-0" | 72 SPA. @ 9" = 54'-0" | 12 SPA. @ 7" = 7'-0" | 1"

2" DIA. HOLE (TYP.)
3 SPACES @ 9" (TYP.)
7 SPA. @ 9" = 5'-3"
7 SPA. @ 9" = 5'-3"
2" DIA. HOLE (TYP.)
3 SPACES @ 9" (TYP.)
W36 x 260 (CVN)
W36 x 260 (CVN)
W36 x 260 (CVN)
7⅜"
7⅜"

SPLICES
SPAN
℄ F.S. 1
℄ F.S. 2
85'-0" 51'-0" 85'-0"
68'-0"± R250 BEARING 85'-0"± B250 BEARING 68'-0"±
9" 9"
222'-6"

NEW BEAM ELEVATION
(B1 THRU B3)

NOTES
1. ALL BEAMS ARE TO BE GRADE 50 STEEL.

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	MWL	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680147/680150	

KZF #17

FRAMING PLAN - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

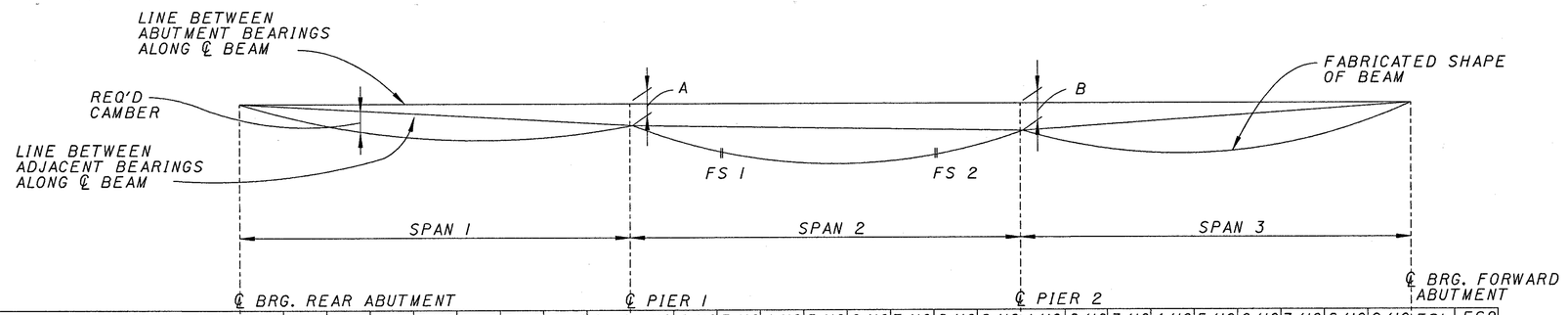
PRE-70-0.00

18/32
245/283

REF01: *REF01*
REF02: *REF02*
REF03: *REF03*
REF04: *REF04*
REF05: *REF05*
REF06: *REF06*
REF07: *REF07*
REF08: *REF08*
REF09: *REF09*
REF10: *REF10*
REF11: *REF11*
REF12: *REF12*
REF13: *REF13*
REF14: *REF14*
REF15: *REF15*
REF16: *REF16*

$$$$SYTME$$$$$$
$$$$SDATE$$$$$$
DESIGN SPECIFICATION$$$$$$$$
PRF NAME: $$PRFNAME$$
ACTIVE LEVELS FOR $$LEVS$$

CAMBER DIAGRAM DIMENSION (INCH)		
LOCATION	A	B
LEFT BRIDGE	2 13/16"	2 11/16"
RIGHT BRIDGE	2 7/16"	2 7/16"



BEAMS	LOCATION	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	FS1	FS2
LEFT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	1/16	1/16	1/8	1/8	1/8	1/16	1/16	1/16	0	0	1/16	1/8	1/8	1/8	1/8	1/8	1/16	0	0	1/16	1/16	1/16	1/8	1/8	1/8	1/16	1/16	1/16	1/16
	DEFLECTION DUE TO REMAINING DEAD LOAD	3/16	5/16	3/8	7/16	7/16	3/8	1/4	1/8	1/16	1/16	1/4	3/8	1/2	9/16	1/2	3/8	1/4	1/16	1/16	1/8	1/4	3/8	7/16	7/16	3/8	5/16	3/16	1/4	1/4
	VERTICAL CURVE CORRECTION	-1/8	-3/16	-1/4	-5/16	-5/16	-5/16	-1/4	-3/16	-1/8	-3/16	-5/16	-7/16	-1/2	-1/2	-1/2	-7/16	-5/16	-3/16	-1/16	-1/8	-3/16	-3/16	-1/8	-1/8	-1/16	-1/16	0	-5/16	-5/16
	REQUIRED SHOP CAMBER (INCHES)	1/8	3/16	1/4	1/4	1/4	1/8	1/16	0	-1/16	-1/8	0	1/16	1/8	3/16	1/8	1/16	0	-1/8	0	1/16	1/8	1/4	7/16	7/16	7/16	5/16	1/4	0	0
RIGHT BRIDGE	DEFLECTION DUE TO WEIGHT OF STEEL	1/16	1/16	1/8	1/8	1/8	1/16	1/16	1/16	0	0	1/16	1/8	1/8	1/8	1/8	1/8	1/16	0	0	1/16	1/16	1/16	1/8	1/8	1/8	1/16	1/16	1/16	1/16
	DEFLECTION DUE TO REMAINING DEAD LOAD	1/8	5/16	3/8	7/16	3/8	5/16	1/4	1/8	1/16	1/16	1/4	3/8	1/2	1/2	1/2	3/8	1/4	1/16	1/16	1/8	1/4	5/16	3/8	7/16	3/8	5/16	1/8	1/4	1/4
	VERTICAL CURVE CORRECTION	-1/8	-3/16	-1/4	-1/4	-1/4	-1/4	-1/4	-3/16	-1/8	-1/8	-1/4	-3/8	-7/16	-7/16	-7/16	-3/8	-1/4	-1/8	-1/8	-3/16	-1/4	-1/4	-1/4	-1/4	-3/16	-1/8	-1/16	-1/4	-1/4
	REQUIRED SHOP CAMBER (INCHES)	1/16	3/16	1/4	5/16	1/4	3/16	1/16	0	-1/16	-1/16	1/16	1/8	3/16	3/16	3/16	1/8	1/16	-1/16	-1/16	0	1/16	1/8	1/4	5/16	5/16	1/4	1/8	1/16	1/16

CAMBER NOTES:

1. POSITIVE CAMBER IS UPWARD

NOTES:

1. SEE SHEETS 17/32 AND 18/32 FOR BEAM ELEVATION.

DESIGN AGENCY
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DESIGNED SJA | DRAWN SPG | REVIEWED DGK | DATE 11/20/00
CHECKED WBS | REVISED | STRUCTURE FILE NUMBER 680147/680150/501

KZF #17

CAMBER DETAILS
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

19/32

246/283

REF01 ••REF04••
REF02 ••REF05••
REF03 ••REF06••
REF04 ••REF07••
REF05 ••REF08••
REF06 ••REF09••
REF07 ••REF10••
REF08 ••REF11••
REF09 ••REF12••
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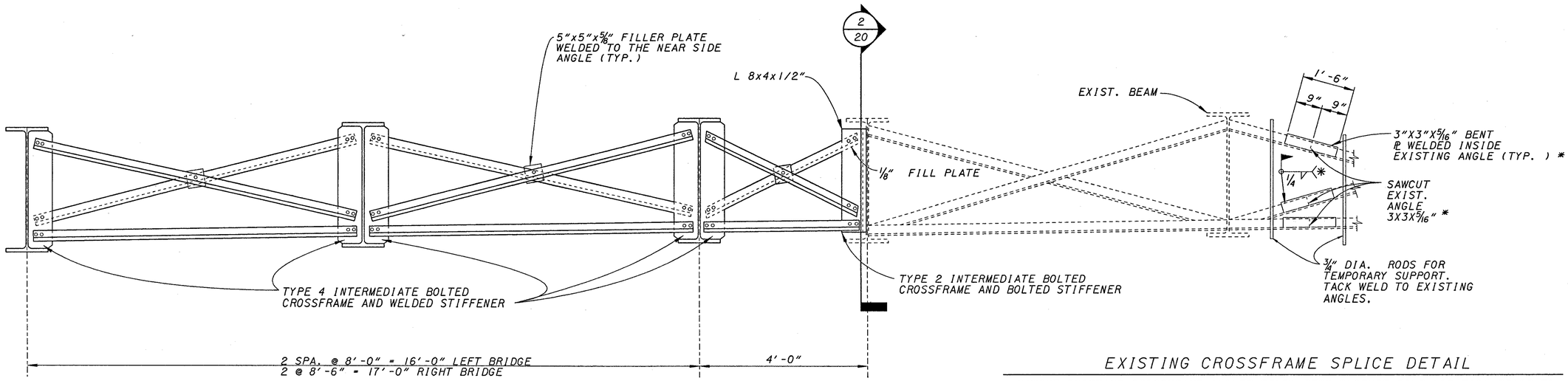
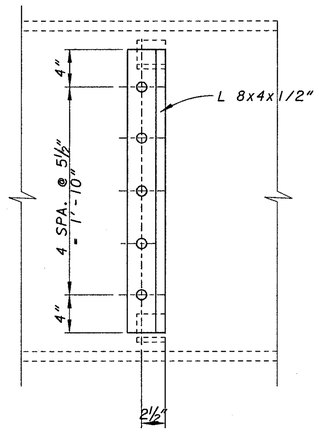
REF18 ••REF21••
REF19 ••REF22••
REF20 ••REF23••

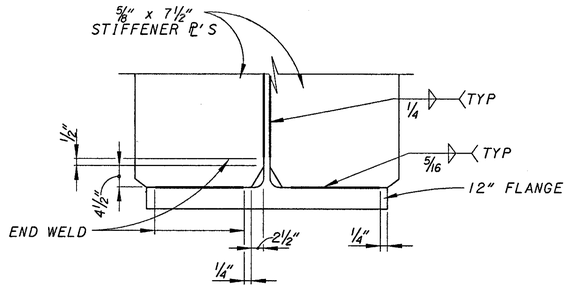


EXISTING CROSSFRAME SPLICE DETAIL

*SAWCUT EXISTING CROSSFRAME ANGLES BELOW DECK CLOSURE POUR LOCATION PRIOR TO DECK REMOVAL IN STAGE 1. SPLICE CROSSFRAME ANGLES BACK TOGETHER USING 3"X3" BENT PLATES AFTER STAGE 2 CONCRETE DECK HAS CURED PER CMS SPECIFICATIONS. AFTER SPLICING CROSSFRAME ANGLES PLACE CLOSURE DECK POUR.

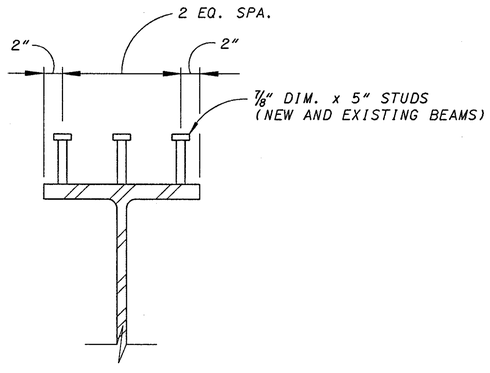


SECTION 2/20



STIFFENER WELD DETAIL

(TYPICAL)



SHEAR CONNECTOR DETAIL

NOTES

1. ALL NEW MATERIAL TO BE ASTM-A572/A709 GRADE 50 PAINTED UNLESS INDICATED OTHERWISE. ALL NEW AND EXISTING STEEL SHALL BE PAINTED OZEU (EXISTING) AND IZEU (NEW) WITH FEDERAL STANDARD COLOR 10324 (DARK NEUTRAL). STEEL SHALL BE FABRICATED IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 863.
2. SEE SHEET 24/32 FOR WELDED ATTACHMENT NOTE.
3. REGION "T" DENOTES TOP FLANGE IN TENSION AND BOTTOM FLANGE IN COMPRESSION (NEGATIVE MOMENT REGION).
4. REGION "C" DENOTES TOP FLANGE IN COMPRESSION AND BOTTOM FLANGE IN TENSION (POSITIVE MOMENT REGION).
5. SEE SHEET 19/32 FOR DEFLECTION AND CAMBER DETAILS.
6. SEE STANDARD DRAWING RB-1-55 FOR R-225 AND B-225 BEARINGS.
7. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF CMS.
8. ALL BOLTS TO BE HIGH STRENGTH 1 1/8" DIA. A325, UNLESS OTHERWISE NOTED.
9. SEE STANDARD DRAWING GSD-1-96 FOR ADDITIONAL CROSSFRAME DETAILS.
10. STIFFENERS TO BE NORMAL TO BEAMS.
11. CONCRETE END DIAPHRAGMS AT ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE ANY DECK CONCRETE IS PLACED.
12. END DIAPHRAGM CONCRETE SHALL BE HIGH PERFORMANCE.

DESIGN AGENCY
KZF DESIGN
Structural Engineering | Bridge Engineering
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DESIGNED	DRAWN	REVIEWED	DATE
SJA	MWL	DGK	11/20/00
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WBS		680147/6801501	

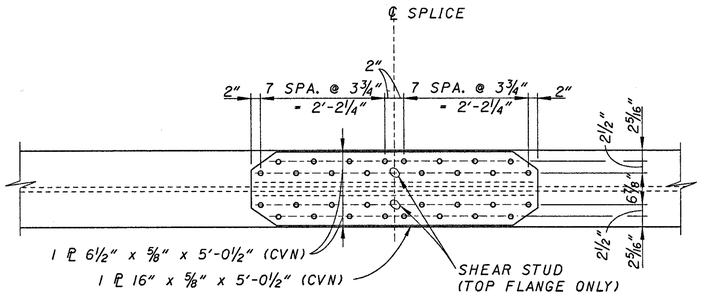
KZF #17

FRAMING DETAILS
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

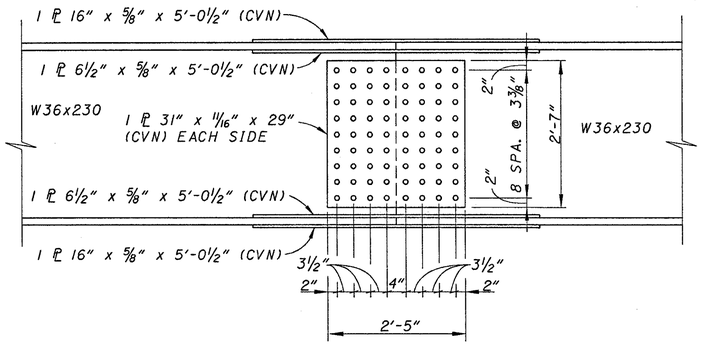
PRE-70-0.00

20/32

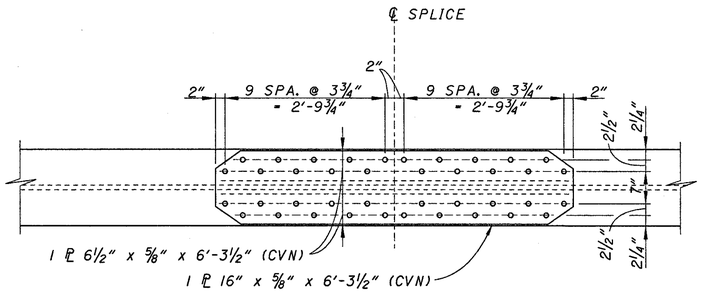
247/283



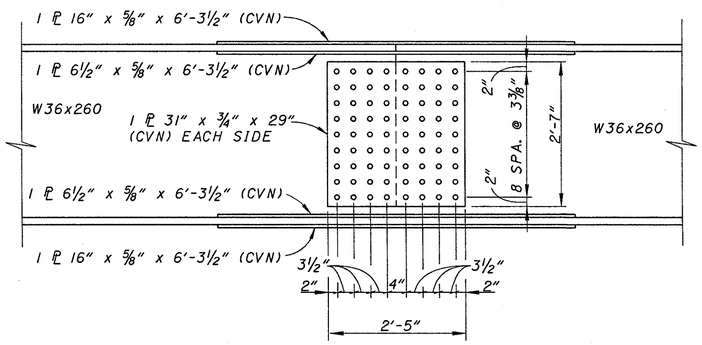
TOP AND BOTTOM VIEW
LEFT BRIDGE



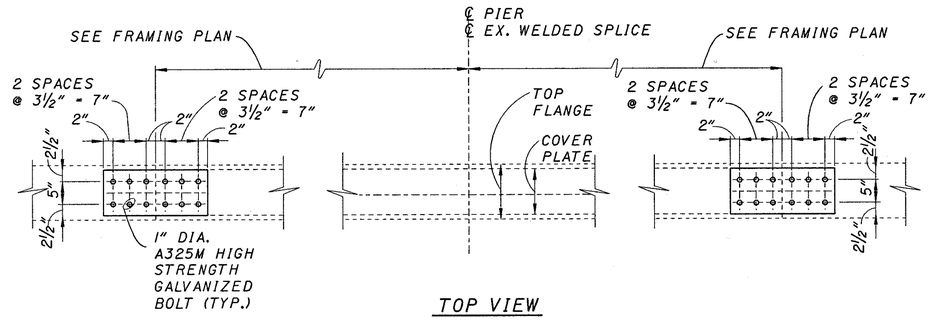
W36 X 230 BEAM SPLICE DETAIL
LEFT BRIDGE



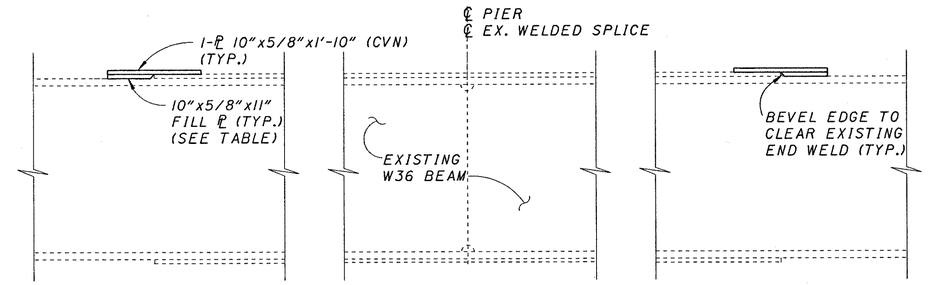
TOP AND BOTTOM VIEW
RIGHT BRIDGE



W36 X 260 BEAM SPLICE DETAIL
RIGHT BRIDGE



TOP VIEW



EXIST. W36 MOMENT PLATE RETROFIT DETAIL
(THIS DETAIL CONSTITUTES ONE MOMENT PLATE RETROFIT)

NOTES:

1. ALL MOMENT PLATE RETROFIT STEEL SHALL BE A36/A709-36.
2. MOMENT PLATE RETROFIT WORK TO BE DONE ON A TIME AND MATERIAL BASIS.
3. SEE STANDARD DRAWING GSD-I-96M FOR ADDITIONAL CROSSFRAME DETAILS.
4. SEE STANDARD DRAWING BS-I-93 FOR ADDITIONAL DETAILS.

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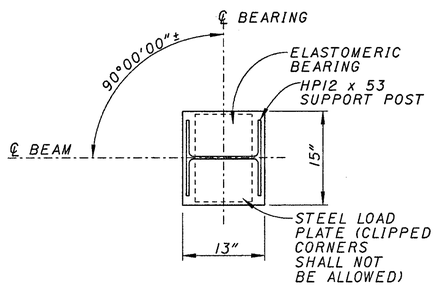
SJA	SPG	DGK	11/20/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS		680147 I/680150 I	

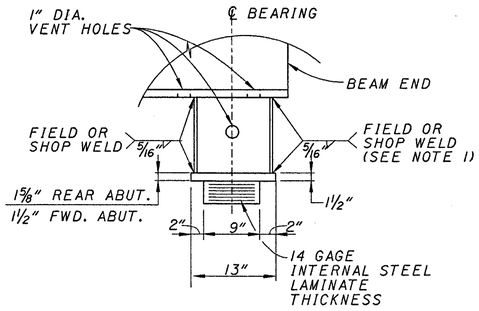
KZF #17

FRAMING DETAILS
BRIDGE NO. PRE-70-1500 L/R & R
I.R. 70 OVER TWIN CREEK

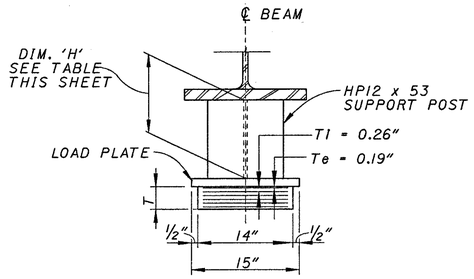
PRE-70-0.00



PLAN



SIDE ELEVATION



END ELEVATION

NEW BEAM SHOWN
EX. BEAM SIMILIAR

LAMINATED ELASTOMERIC EXPANSION BEARING AT ABUTMENTS
50 DUROMETER ELASTOMER, GRADE 3

ABUTMENT BEARINGS		
EXTERIOR ELASTOMERIC LAYERS	2 X 0.18 In	= 0.36 In
INTERIOR ELASTOMERIC LAYERS	7 X 0.26 In	= 1.82 In
STEEL PLATES	8 X 0.075 In	= 0.60 In
TOTAL	'T'	= 2.78 In

LEFT BRIDGE	
DEAD LOAD REACTION	= 63.2 KIPS
LIVE LOAD REACTION	= 48.4 KIPS
MAX DESIGN LOAD	= 111.6 KIPS

RIGHT BRIDGE	
DEAD LOAD REACTION	= 67.4 KIPS
LIVE LOAD REACTION	= 50.8 KIPS
MAX DESIGN LOAD	= 118.2 KIPS

SUPPORT POST HEIGHT TABLE			
LEFT BRIDGE			
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	"H"	BEAM	"H"
B1	6⅜"	B1	6 7/16"
B2	6⅜"	B2	6 7/16"
B3	6⅜"	B3	6 7/16"
B4	6⅜"	B4	6 7/16"
B5	6⅜"	B5	6 7/16"
B6	6⅜"	B6	6 7/16"
B7	10"	B7	9"
B8	8½"	B8	7½"
B9	7"	B9	6"

SUPPORT POST HEIGHT TABLE			
RIGHT BRIDGE			
REAR ABUTMENT		FORWARD ABUTMENT	
BEAM	"H"	BEAM	"H"
B1	7"	B1	6"
B2	8 5/8"	B2	7 5/8"
B3	10¼"	B3	9¼"
B4	6⅜"	B4	6 7/16"
B5	6⅜"	B5	6 7/16"
B6	6⅜"	B6	6 7/16"
B7	6⅜"	B7	6 7/16"
B8	6⅜"	B8	6 7/16"
B9	6⅜"	B9	6 7/16"

BEARING NOTES:

1. WELDING OF THE LOAD PLATE TO THE HP12 x 53 SUPPORT POST OR GIRDER FLANGE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMERIC BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

   STEEL FOR BEARING LOAD PLATES TO BE A709-36

   HP12 x 53 SUPPORT POSTS TO BE A709-36

   THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

   IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F, AND THE BEARING SHEAR DEFLECTION EXCEEDS ONE SIXTH OF THE BEARING HEIGHT AT 60°F ±9°F, THE GIRDER SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F.

2. REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRESETTING OF BEARING ANCHORS FOR THE BEARING RETAINERS.

3. SEE STD. DWG. SICD-1-96M FOR ADDITIONAL DETAILS.

4. 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 (METHOD A).

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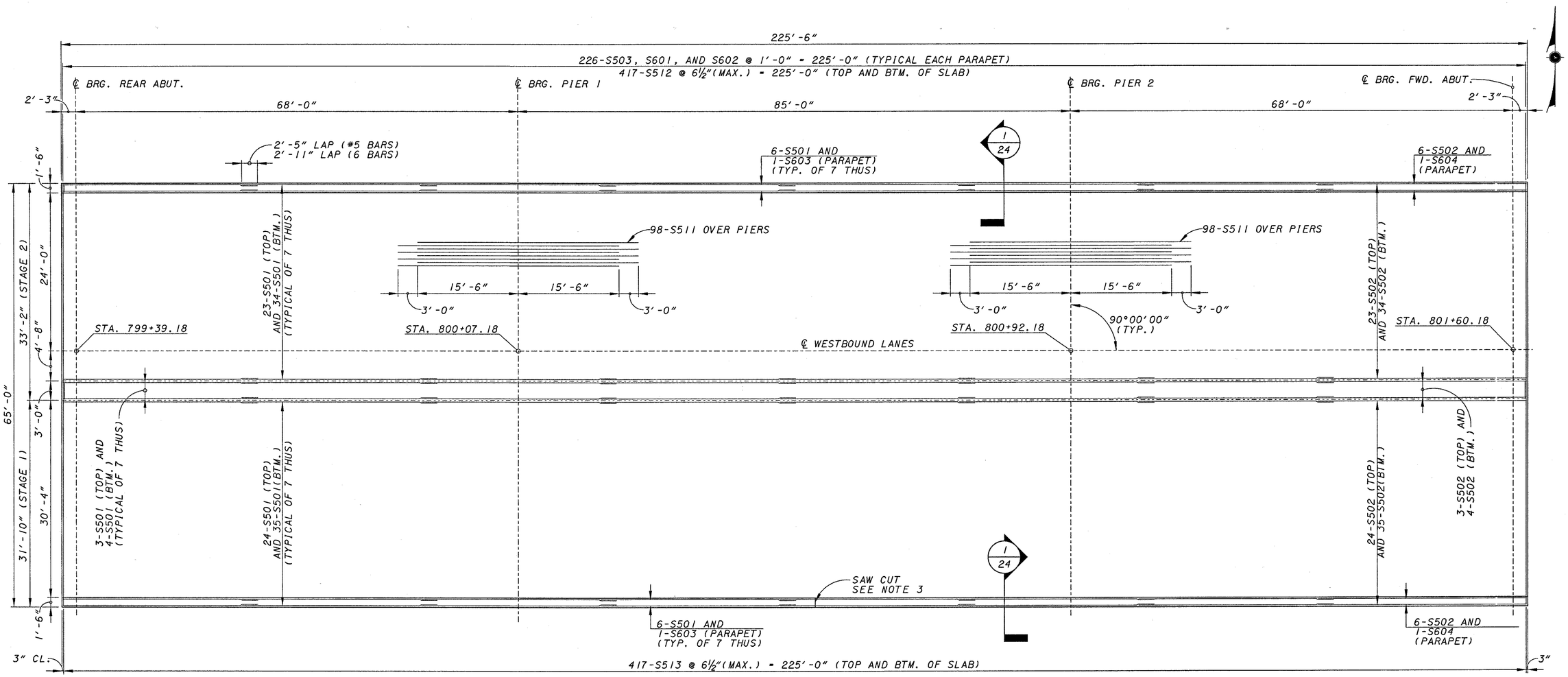
BEARING DETAILS
BRIDGE NO. PRE-70-1500 L/R & R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00



PLAN

NOTE:

1. SEE SHEET 24/32 FOR SUPERSTRUCTURE NOTES.

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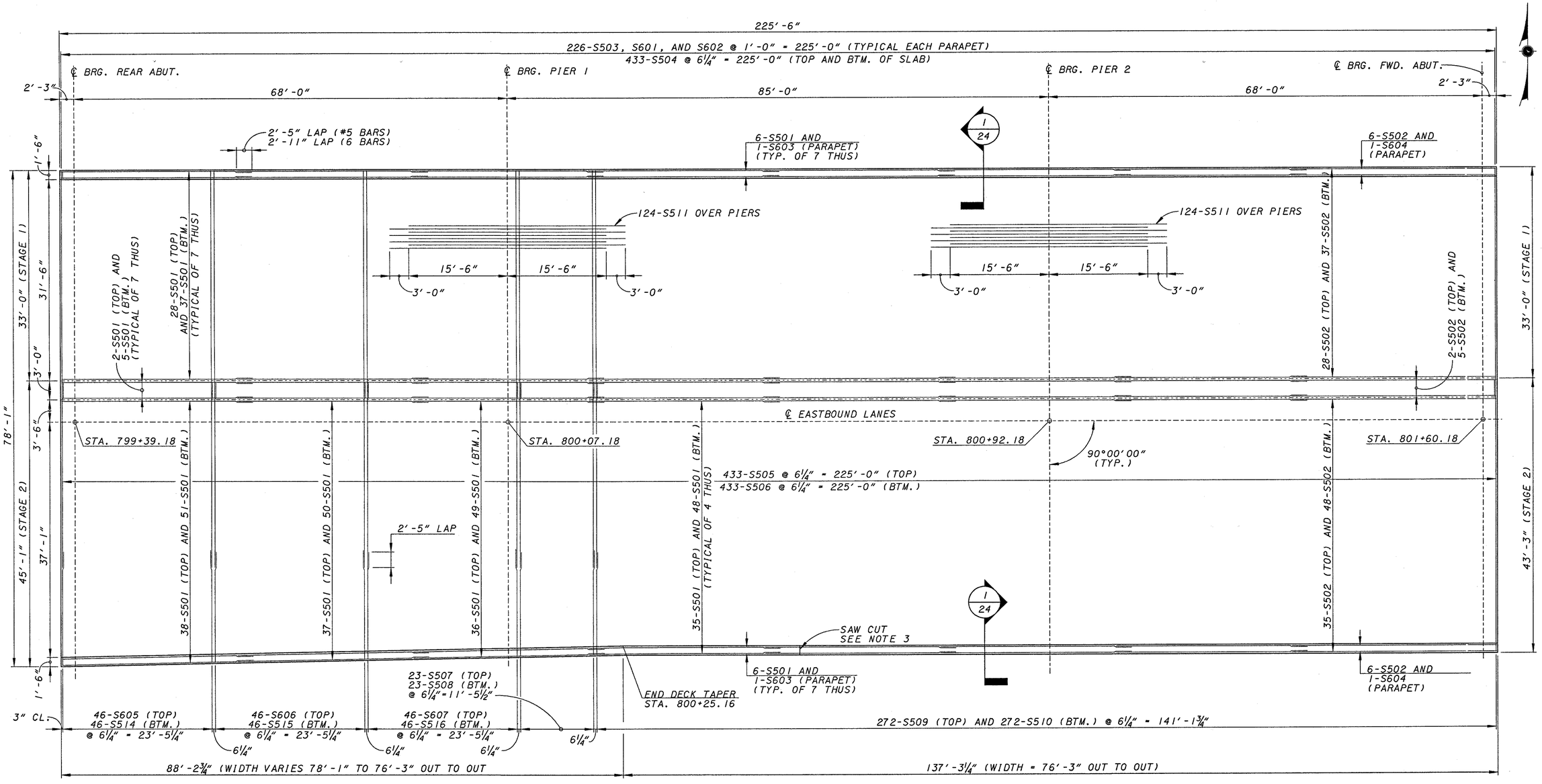
DECK PLAN - LEFT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

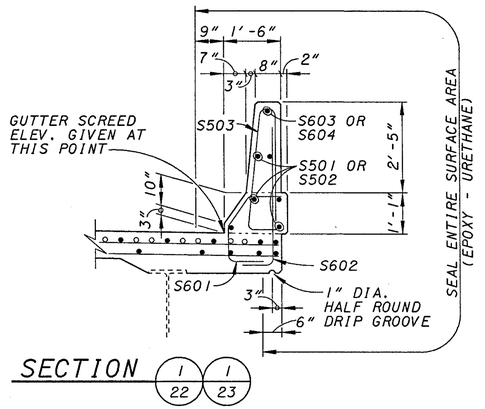
PRE-70-0.00

23/32

250/283



PLAN



SECTION 1/22 1/23

NOTES:

1. SEE SHEET 3/32 FOR GENERAL NOTES.
2. SEE SHEET 31/32 FOR REINFORCING STEEL SCHEDULE.
3. SEE CONCRETE PARAPETS NOTE ON SHEET 3/32
4. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL NOT BE CLOSER THAN 1 INCH FROM EDGE OF FLANGE, AND NOT BE MORE THAN 2 INCHES LONG, AND NOT BE SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
5. SEE DECK SECTION ON SHEET 25/32 FOR PLACEMENT OF REINFORCING BARS OVER PIERS.
6. SUPERSTRUCTURE SHALL BE SEALED WITH EPOXY - URETHANE AS INDICATED.

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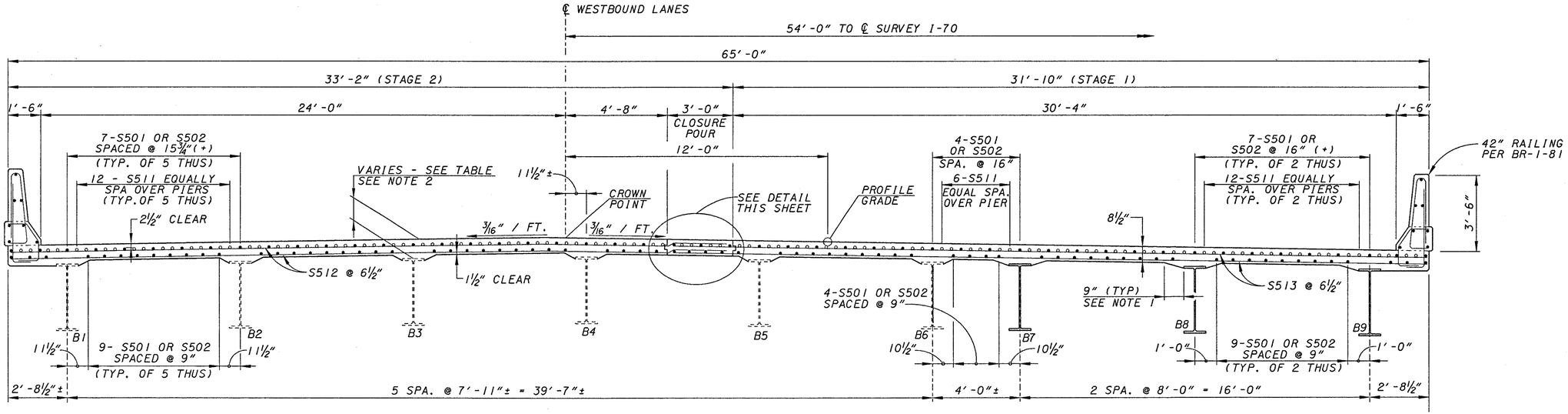
DECK PLAN - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

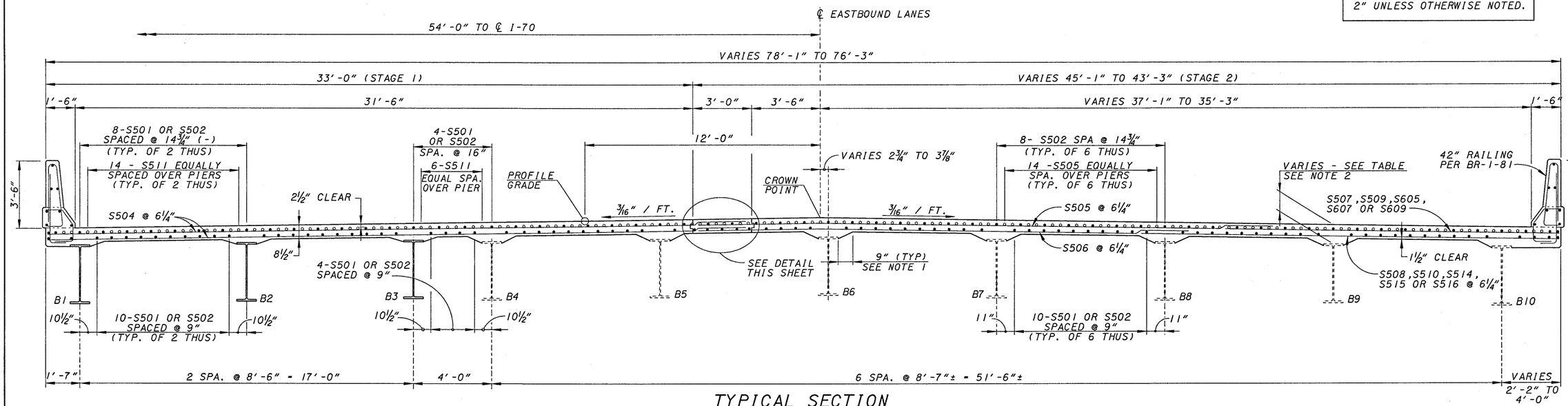
24/32

251
283

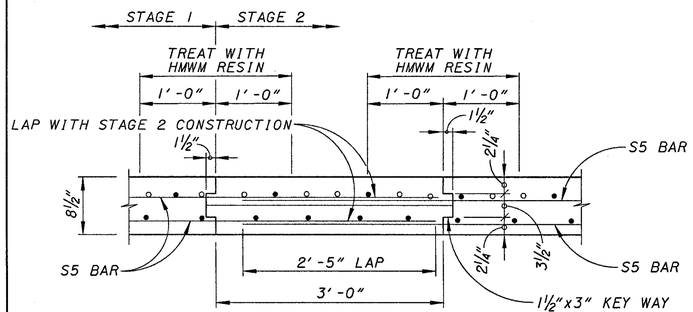


TYPICAL SECTION
LEFT BRIDGE

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.



TYPICAL SECTION
RIGHT BRIDGE



KEYED DECK JOINT AND CLOSURE DETAIL

LEFT BRIDGE CONCRETE DECK HAUNCH DEPTH

BEAM	REAR ABUT.	PIER-1	PIER-2	FWD. ABUT.
B1	12"	10⅞"	11⅛"	11⅜"
B2	11¾"	10⅞"	11"	11⅜"
B3	11⅝"	10⅞"	11⅜"	11⅜"
B4	11⅜"	10⅞"	11⅛"	11½"
B5	11⅛"	10⅞"	11¼"	11¼"
B6	11⅝"	11⅛"	11⅛"	11⅜"
B7-B9	10½"	10½"	10½"	10½"

RIGHT BRIDGE CONCRETE DECK HAUNCH DEPTH

BEAM	REAR ABUT.	PIER-1	PIER-2	FWD. ABUT.
B1-B3	10½"	10½"	10½"	10½"
B4	10½"	10⅛"	10¾"	11"
B5	10½"	9⅞"	10½"	10⅞"
B6	10¾"	10¼"	10¼"	11"
B7	10½"	10"	10⅜"	10¾"
B8	10¼"	10¼"	10⅜"	10⅜"
B9	10¼"	10¼"	10⅜"	10½"
B10	10⅜"	10¼"	10⅝"	10⅝"

NOTES:

1. A HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE (OVER NEW BEAMS). HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12".
2. THE DISTANCE FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM FLANGE IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 2 INCHES. THE QUANTITY OF DECK CONCRETE SHALL BE BASED ON THIS DIMENSION, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 511.18.
3. FOR ADDITIONAL NOTES SEE SHEET 24/32 .

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TYPICAL DECK SECTIONS
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

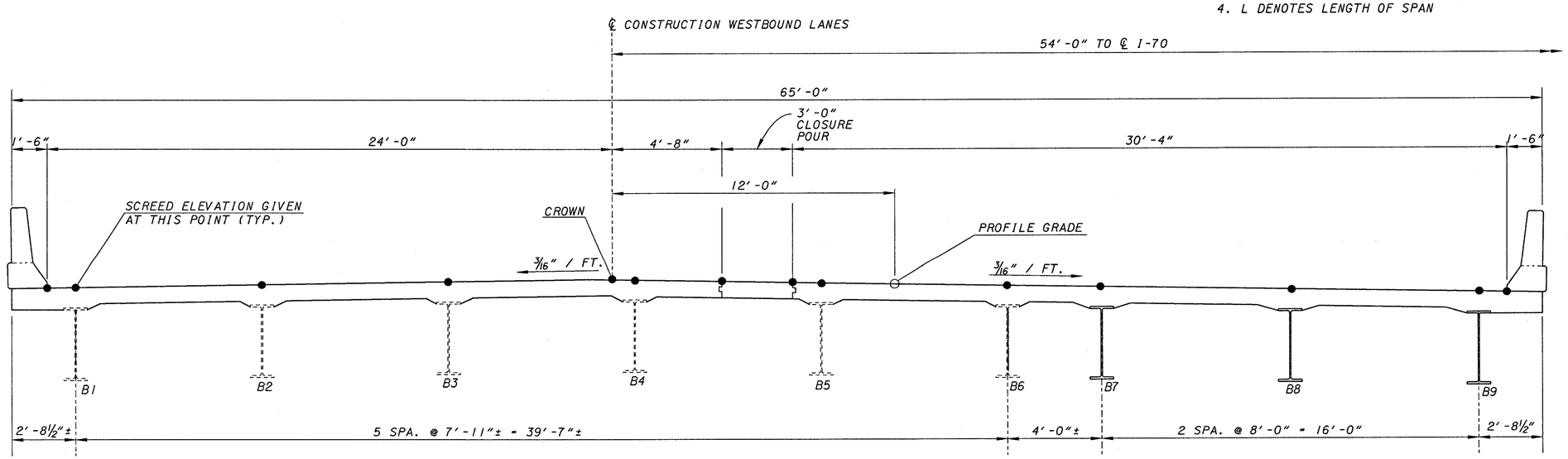
	℄ BEARING REAR ABUT.	0.2 L	0.4 L	0.6 L	0.8 L	PIER 1	0.2 L	0.4 L	0.6 L	0.8 L	PIER 2
LEFT GUTTER	947.98	947.88	947.78	947.66	947.55	947.45	947.37	947.31	947.24	947.16	947.09
BEAM B1	947.99	947.90	947.79	947.68	947.57	947.47	947.39	947.33	947.26	947.17	947.11
BEAM B2	948.12	948.02	947.92	947.81	947.69	947.59	947.51	947.45	947.38	947.30	947.23
BEAM B3	948.24	948.14	948.04	947.93	947.81	947.71	947.64	947.57	947.50	947.42	947.36
℄ CONSTRUCTION & CROWN	948.35	948.25	948.15	948.04	947.92	947.82	947.74	947.68	947.61	947.53	947.47
BEAM B4	948.34	948.24	948.14	948.02	947.91	947.81	947.73	947.67	947.60	947.51	947.45
LEFT CONSTRUCTION JOINT	948.28	948.18	948.08	947.96	947.85	947.75	947.67	947.61	947.54	947.46	947.39
RIGHT CONSTRUCTION JOINT	948.23	948.13	948.03	947.92	947.80	947.70	947.62	947.56	947.49	947.41	947.35
BEAM B5	948.21	948.11	948.01	947.90	947.78	947.68	947.61	947.54	947.47	947.39	947.33
BEAM B6	948.09	947.99	947.89	947.78	947.66	947.56	947.48	947.42	947.35	947.27	947.20
BEAM B7	948.03	947.93	947.83	947.71	947.60	947.50	947.42	947.36	947.29	947.21	947.14
BEAM B8	947.90	947.80	947.70	947.59	947.47	947.37	947.29	947.23	947.16	947.08	947.02
BEAM B9	947.78	947.68	947.58	947.46	947.35	947.25	947.17	947.11	947.04	946.96	946.89
RIGHT GUTTER	947.76	947.66	947.56	947.44	947.33	947.23	947.15	947.09	947.02	946.94	946.87

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

	PIER 2	0.2 L	0.4 L	0.6 L	0.8 L	℄ BEARING FORWARD ABUT.
LEFT GUTTER	947.09	947.08	947.08	947.07	947.05	947.02
BEAM B1	947.11	947.09	947.10	947.09	947.07	947.04
BEAM B2	947.23	947.22	947.22	947.22	947.20	947.16
BEAM B3	947.36	947.34	947.34	947.34	947.32	947.28
℄ CONSTRUCTION & CROWN	947.47	947.45	947.45	947.45	947.43	947.39
BEAM B4	947.45	947.44	947.44	947.43	947.41	947.38
LEFT CONSTRUCTION JOINT	947.39	947.38	947.38	947.38	947.36	947.32
RIGHT CONSTRUCTION JOINT	947.35	947.33	947.33	947.33	947.31	947.27
BEAM B5	947.33	947.31	947.31	947.31	947.29	947.25
BEAM B6	947.20	947.19	947.19	947.19	947.17	947.13
BEAM B7	947.14	947.13	947.13	947.12	947.10	947.07
BEAM B8	947.02	947.00	947.00	947.00	946.98	946.94
BEAM B9	946.89	946.88	946.88	946.87	946.85	946.82
RIGHT GUTTER	946.87	946.86	946.86	946.86	946.84	946.80

NOTES:

1. FOR DEFLECTIONS & CHAMBER TABLES SEE SHEET. 19/32
2. FOR SLAB PLAN SEE SHEET. 23/32
3. SCREED ELEVATIONS ARE GIVEN FOR THE TOP SURFACE OF THE CONCRETE DECK PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
4. L DENOTES LENGTH OF SPAN



DECK ELEVATIONS

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SCREED TABLE - LEFT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

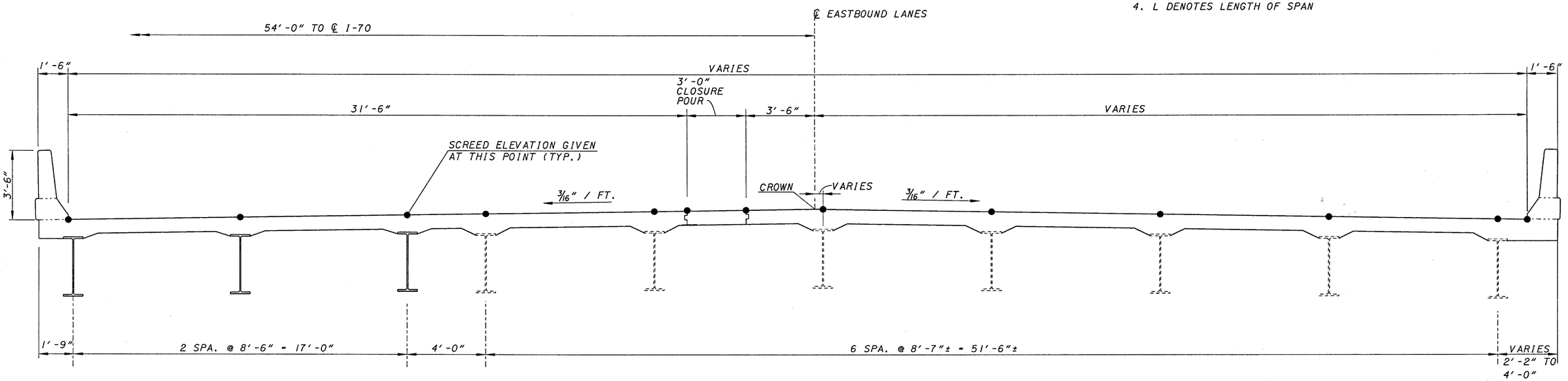
	℄ BEARING REAR ABUT.	0.2 L	0.4 L	0.6 L	0.8 L	PIER 1	0.2 L	0.4 L	0.6 L	0.8 L	PIER 2
LEFT GUTTER	947.63	947.55	947.45	947.35	947.24	947.15	947.08	947.02	946.95	946.87	946.80
BEAM B1	947.63	947.55	947.46	947.35	947.24	947.15	947.08	947.02	946.95	946.87	946.81
BEAM B2	947.77	947.68	947.59	947.49	947.38	947.28	947.21	947.16	947.09	947.00	946.94
BEAM B3	947.90	947.81	947.72	947.62	947.51	947.42	947.34	947.29	947.22	947.14	947.07
BEAM B4	947.96	947.88	947.78	947.68	947.57	947.48	947.41	947.35	947.28	947.20	947.13
BEAM B5	948.10	948.01	947.92	947.81	947.71	947.61	947.54	947.48	947.41	947.33	947.27
LEFT CONSTRUCTION JOINT	948.11	948.02	947.93	947.83	947.72	947.63	947.55	947.50	947.43	947.35	947.28
RIGHT CONSTRUCTION JOINT	948.16	948.07	947.98	947.87	947.77	947.67	947.60	947.54	947.47	947.39	947.33
℄ CONSTRUCTION & CROWN	948.23	948.14	948.05	947.94	947.84	947.74	947.67	947.61	947.54	947.46	947.40
BEAM B6	948.22	948.14	948.04	947.94	947.83	947.74	947.67	947.61	947.54	947.46	947.39
BEAM B7	948.09	948.00	947.91	947.81	947.70	947.61	947.53	947.48	947.41	947.33	947.26
BEAM B8	947.95	947.87	947.78	947.67	947.56	947.47	947.40	947.34	947.27	947.19	947.12
BEAM B9	947.82	947.73	947.64	947.54	947.43	947.34	947.27	947.21	947.14	947.06	946.99
BEAM B10	947.68	947.59	947.50	947.39	947.29	947.19	947.12	947.06	947.00	946.91	946.85
RIGHT GUTTER	947.65	947.57	947.48	947.38	947.28	947.19	947.12	947.06	947.00	946.91	946.85

CONSTRUCTION ELEVATIONS (SCREEDS) FOR BRIDGE DECK PLACEMENT

	PIER 2	0.2 L	0.4 L	0.6 L	0.8 L	℄ BEARING FORWARD ABUT.
LEFT GUTTER	946.80	946.79	946.78	946.78	946.76	946.73
BEAM B1	946.81	946.79	946.78	946.78	946.76	946.73
BEAM B2	946.94	946.92	946.92	946.91	946.89	946.86
BEAM B3	947.07	947.05	947.05	947.04	947.02	947.00
BEAM B4	947.13	947.11	947.11	947.11	947.09	947.06
BEAM B5	947.27	947.25	947.25	947.24	947.22	947.19
LEFT CONSTRUCTION JOINT	947.28	947.26	947.26	947.25	947.23	947.21
RIGHT CONSTRUCTION JOINT	947.33	947.31	947.31	947.30	947.28	947.25
℄ CONSTRUCTION & CROWN	947.40	947.38	947.38	947.37	947.35	947.32
BEAM B6	947.39	947.37	947.37	947.37	947.35	947.32
BEAM B7	947.26	947.24	947.24	947.23	947.21	947.19
BEAM B8	947.12	947.11	947.10	947.10	947.08	947.05
BEAM B9	946.99	946.97	946.97	946.96	946.95	946.92
BEAM B10	946.85	946.83	946.83	946.82	946.80	946.77
RIGHT GUTTER	946.85	946.83	946.83	946.82	946.80	946.77

NOTES:

1. FOR DEFLECTIONS & CHAMBER TABLES SEE SHEET. 19/32
2. FOR SLAB PLAN SEE SHEET. 24/32
3. SCREED ELEVATIONS ARE GIVEN FOR THE TOP SURFACE OF THE CONCRETE DECK PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.
4. L DENOTES LENGTH OF SPAN



DECK ELEVATIONS

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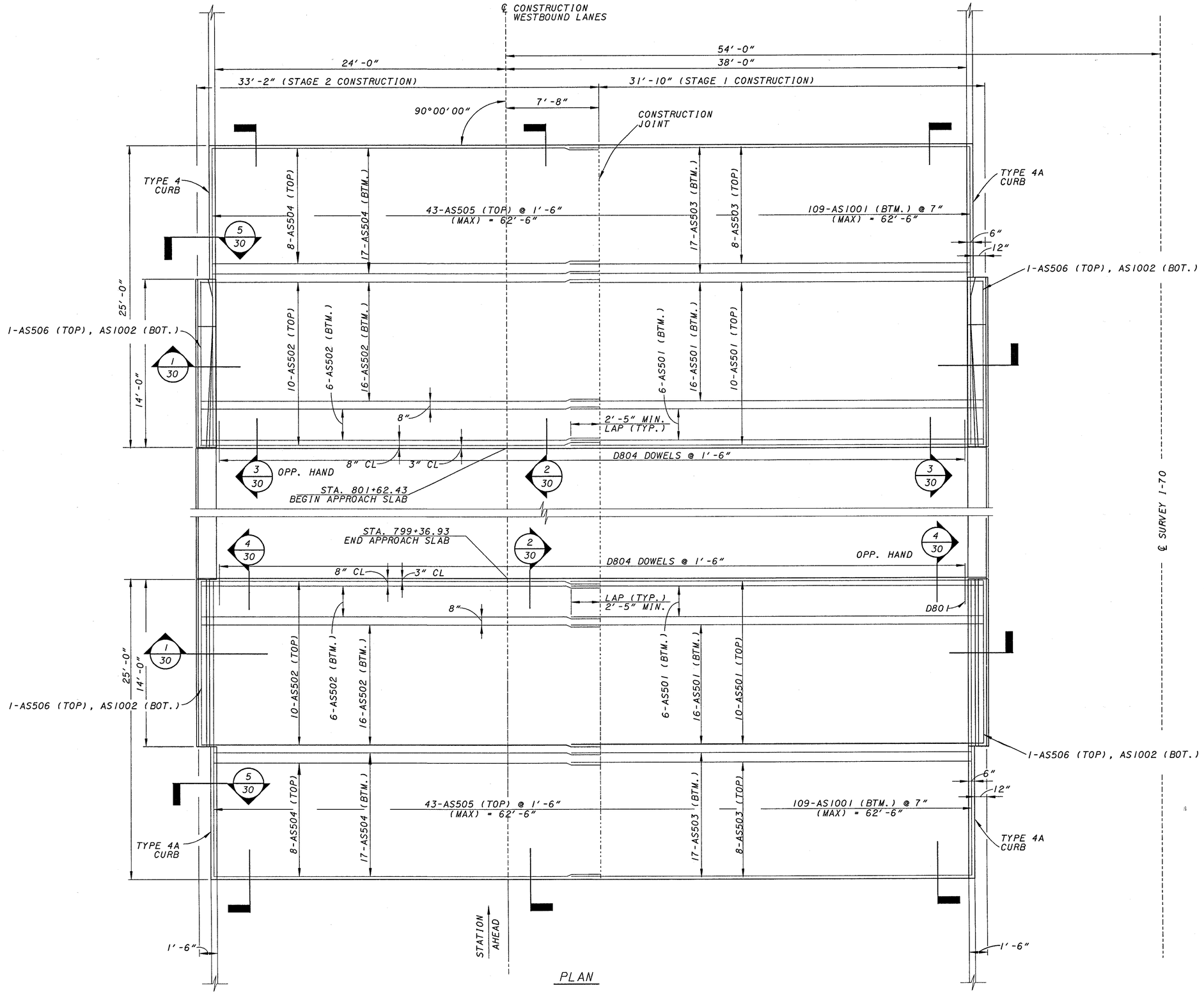
SCREED TABLE - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

27/32

254/283



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	WBS

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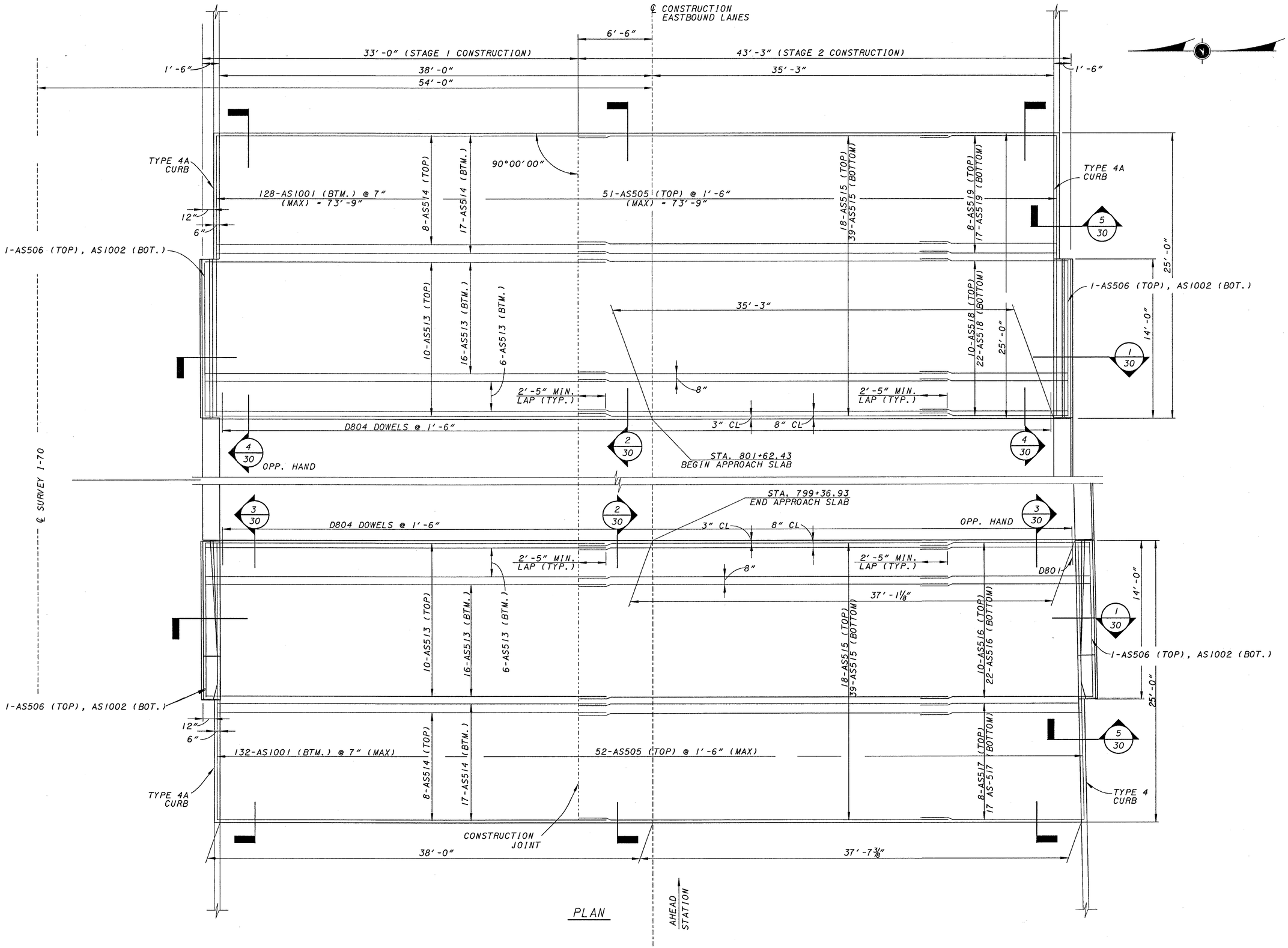
APPROACH SLABS - LEFT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

28/32

255/283



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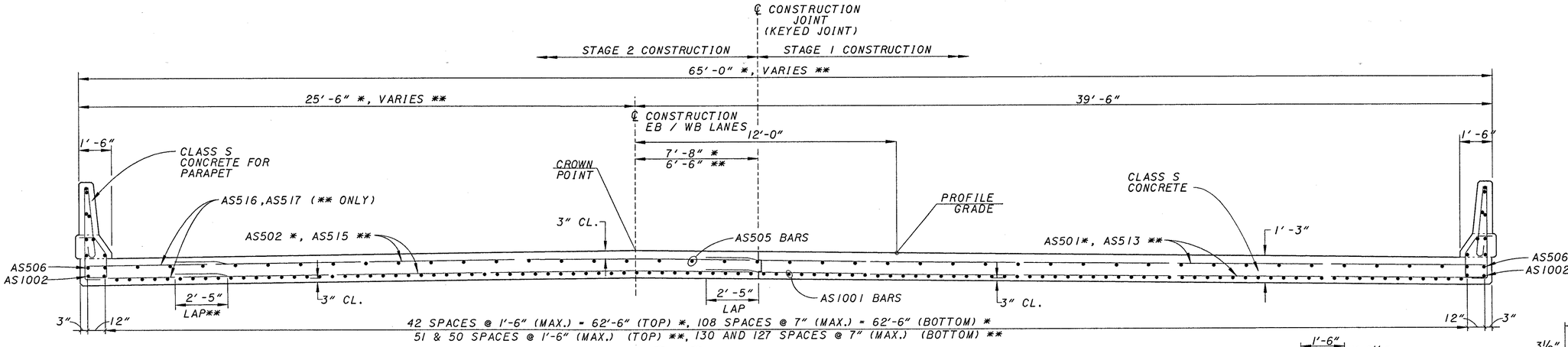
APPROACH SLABS - RIGHT BRIDGE
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

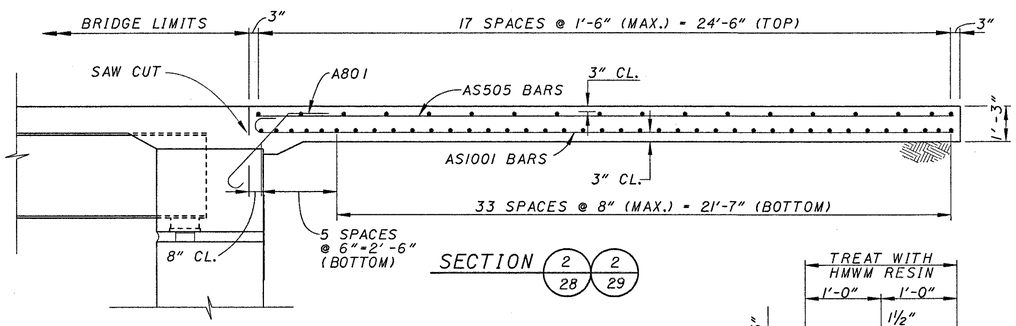
29/32

256/283

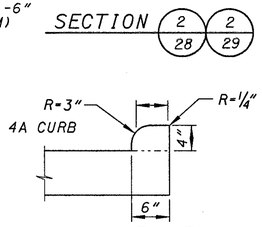


SECTION (1/28, 1/29)

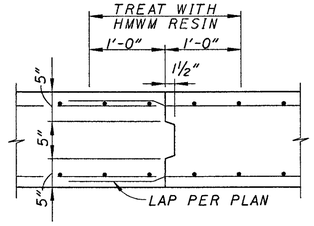
* - LEFT BRIDGE
** - RIGHT BRIDGE



SECTION (2/28, 2/29)



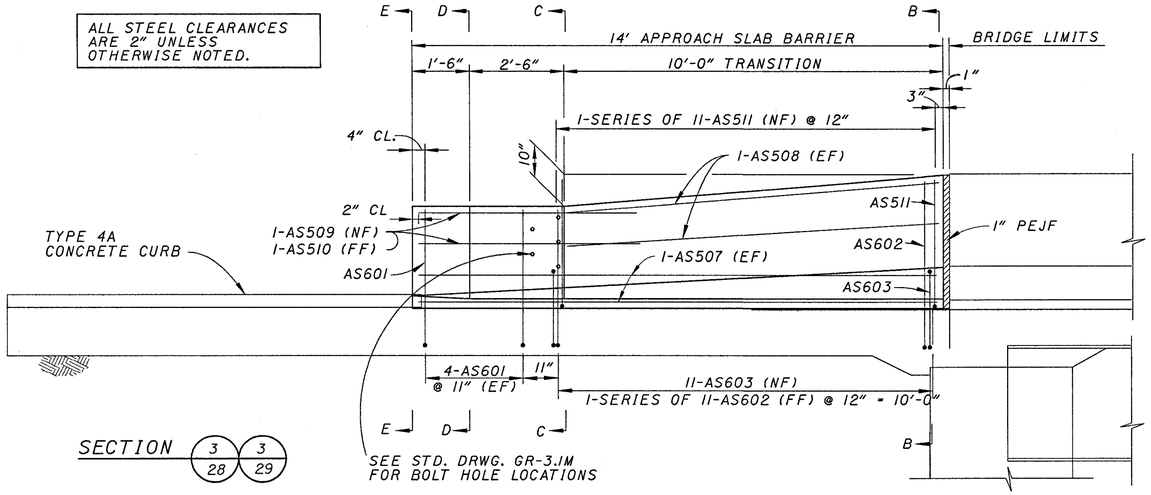
SECTION (5/28, 5/29)



KEYED JOINT DETAIL

LEGEND:
NF - NEAR FACE
FF - FAR FACE
EF - EACH FACE
T&B - TOP AND BOTTOM

ALL STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.



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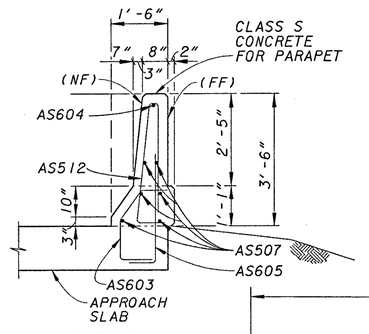
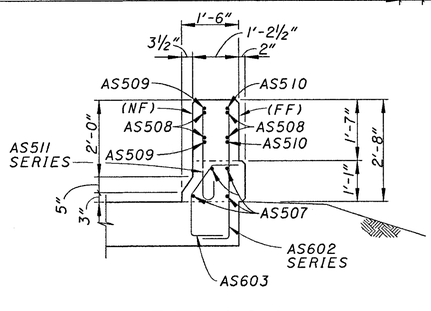
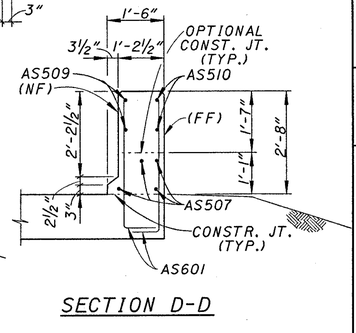


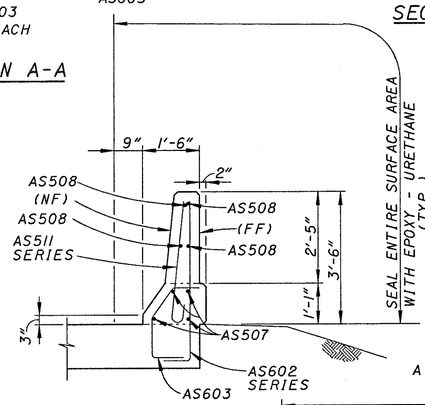
SECTION A-A

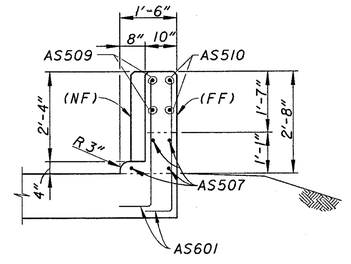


SECTION C-C

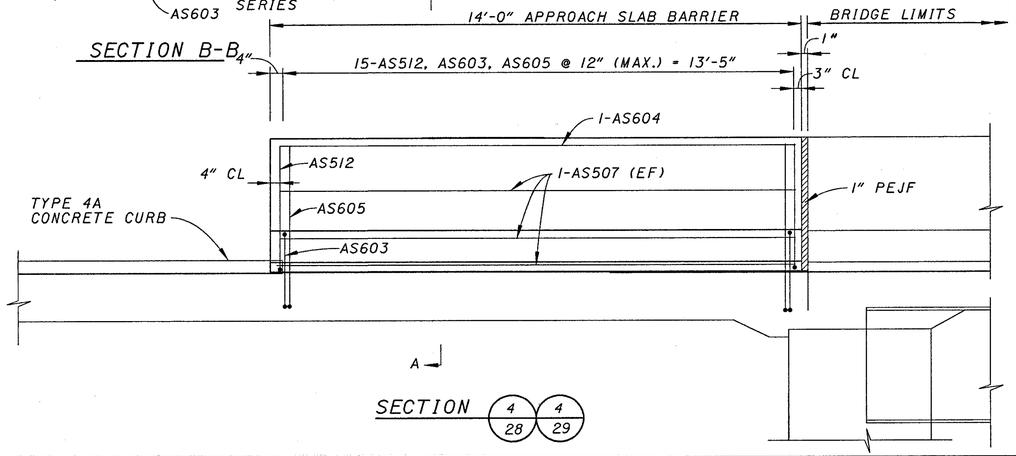


SECTION D-D





SECTION E-E



SECTION (4/28, 4/29)

DESIGN AGENCY
KZ DESIGN
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107 DESIGN INC. 456 Eden Park Drive Cincinnati, OH 45202-6000
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DATE 11/20/00
REVIEWED DGK
STRUCTURE FILE NUMBER 680/147/680/501
DRAWN JDG
REVISED
DESIGNED SJA
CHECKED WBS

KZF #17

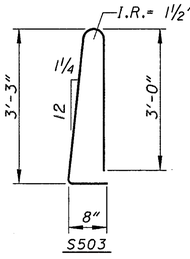
APPROACH SLAB DETAILS
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

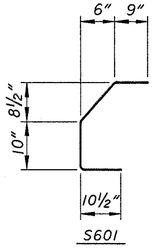
30/32
257/283

SUPERSTRUCTURE REINFORCING STEEL LIST

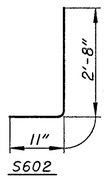
MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
S501	30'-0''	STR.	945	29,569	1,181	36,953
S502	32'-1''	STR.	135	4,517	167	5,588
S503	7'-1''	BENT	452	3,339	452	3,339
S504	35'-7''	STR.			866	32,140
S505	29'-1''	STR.			433	13,135
S506	24'-9''	STR.			433	11,178
S507	16'-5''	STR.			23	394
S508	20'-9''	STR.			23	498
S509	16'-2''	STR.			272	4,586
S510	20'-6''	STR.			272	5,816
S511	34'-0''	STR.	196	6,951	248	8,795
S512	32'-9''	STR.	834	28,488		
S513	34'-5''	STR.	834	29,938		
S514	22'-3''	STR.			46	1,068
S515	21'-9''	STR.			46	1,044
S516	21'-3''	STR.			46	1,020
S601	3'-0''	BENT	452	2,037	452	2,037
S602	3'-6''	BENT	452	2,376	452	2,376
S603	30'-0''	STR.	14	631	14	631
S604	35'-7''	STR.	2	107	2	107
S605	17'-11''	STR.			46	1,238
S606	17'-5''	STR.			46	1,203
S607	16'-11''	STR.			46	1,169
				107,953		134,313



S503



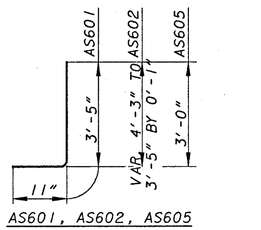
S601



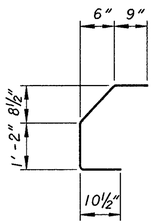
S602

DIAPHRAGM REINFORCING STEEL LIST

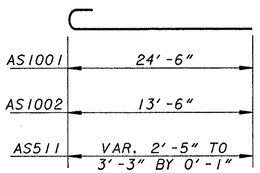
MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
D501	6'-4''	BENT	100	661	110	727
D502	12'-11''	BENT	100	1,347	110	1,482
D503	5'-1''	BENT	2	11	2	11
D504	5'-3''	BENT	2	11	2	11
D801	33'-2''	STR.	28	2,480	0	0
D802	30'-9''	STR.	14	1,149	0	0
D803	31'-6''	STR.	14	1,177	0	0
D804	5'-0''	BENT	88	1,175	105	1,402
D805	34'-4''	STR.	0	0	14	1,283
D806	41'-7''	STR.	0	0	14	1,554
D807	34'-4''	STR.	0	0	14	1,283
D808	41'-8''	STR.	0	0	7	779
D809	43'-4''	STR.	0	0	7	810
TOTAL POUNDS				8,011		9,342



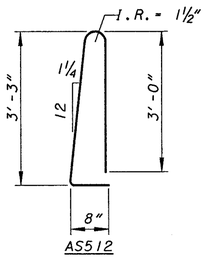
AS601, AS602, AS605



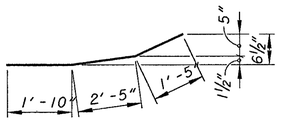
AS603



AS1001, AS1002, AS511

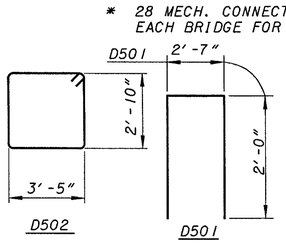


AS512

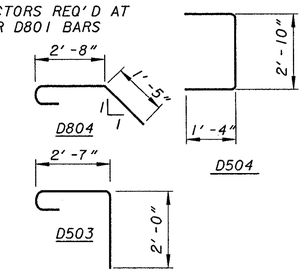


AS509

* 28 MECH. CONNECTORS REQ'D AT EACH BRIDGE FOR D801 BARS



D502 D501



D804 D504 D503

APPROACH SLAB REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE		RIGHT BRIDGE	
			NUMBER	WEIGHT	NUMBER	WEIGHT
AS501	34'-0''	STR.	64	2,270		
AS502	32'-11''	STR.	64	2,197		
AS503	33'-0''	STR.	50	1,721		
AS504	31'-11''	STR.	50	1,664		
AS505	24'-6''	STR.	86	2,198	103	2,632
AS506	13'-6''	STR.	4	56	4	56
AS507	13'-7''	STR.	20	283	20	283
AS508	10'-0''	STR.	8	83	8	83
AS509	5'-8''	BENT	4	24	4	24
AS510	5'-8''	STR.	4	24	4	24
	VAR 3'-10"		2		2	
AS511	TO 3'-0''	BENT	SER OF	78	SER OF	78
	BY 0'-1''		11		11	
AS512	7'-1''	BENT	30	222	30	222
AS513	35'-3''	STR.			64	2,353
AS514	34'-3''	STR.			50	1,786
AS515	30'-0''	STR.			114	3,567
AS516	17'-6''	STR.			32	584
AS517	16'-9''	STR.			25	437
AS518	15'-5''	STR.			32	515
AS519	14'-5''	STR.			25	376
AS601	4'-2''	BENT	16	100	16	100
	VAR 4'-2''		2		2	
AS602	TO 5'-0''	BENT	SER OF	151	SER OF	151
	BY 0'-1''		11		11	
AS603	3'-4''	BENT	52	260	52	260
AS604	13'-7''	STR.	2	41	2	41
AS605	3'-9''	BENT	30	169	30	169
AS1001	25'-11''	BENT	218	24,311	260	28,995
AS1002	14'-11''	BENT	4	257	4	257
TOTAL POUNDS				36,110		42,993

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 180° AND 135° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT WHERE RADIUS "R" IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A NO. 5 BAR.

DESIGN AGENCY
KZF DESIGN
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DATE 11/20/00
REVIEWED DGK
DRAWN JDG
DESIGNED SJA
CHECKED WBS
REVISED
STRUCTURE FILE NUMBER 680147/1/6801501

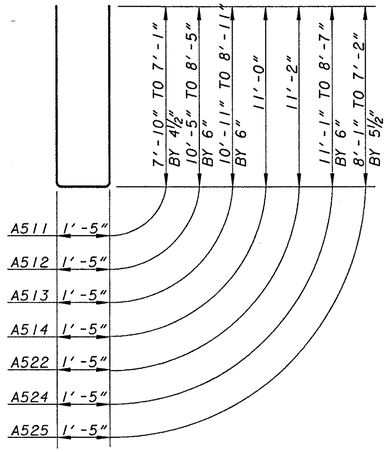
KZF #17

REINFORCING STEEL LIST
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

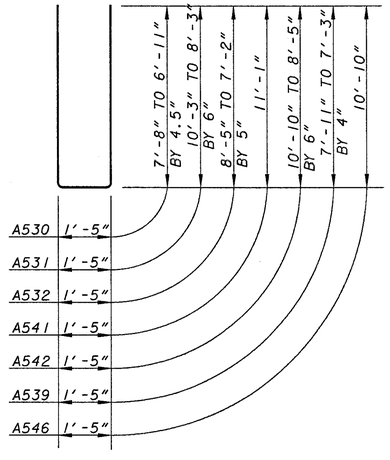
PRE-70-0.00

ABUTMENT REINFORCING STEEL LIST

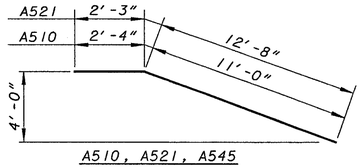
MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
A501	17'-1''	BENT	76	1,354	77	1,372
A502	19'-9''	BENT	32	659	0	0
A503	34'-2''	STR.	12	428	12	428
A504	20'-6''	STR.	2	43	2	43
A505	33'-6''	STR.	2	70	2	70
A506	21'-11''	STR.	4	91	4	91
A507	34'-11''	STR.	4	146	4	146
A508	12'-6''	STR.	4	52	4	52
	VAR 11'-1''		4		0	
A509	TO 5'-6''	STR.	SER OF	104		0
	BY 2'-10''		3		0	
A510	13'-4''	BENT	4	56	4	56
	VAR 16'-10''		2		0	
A511	TO 15'-4''	BENT	SER OF	101		0
	BY 9''		3		0	
	VAR 22'-0''		2		0	
A512	TO 18'-0''	BENT	SER OF	209		0
	BY 12''		5		0	
	VAR 23'-0''		0		1	
A513	TO 19'-0''	BENT		0	SER OF	110
	BY 12''		0		5	
A514	23'-2''	BENT	6	145	0	0
A515	5'-1''	STR.	4	21	0	0
A516	15'-11''	STR.	12	199	0	0
A517	15'-3''	STR.	4	64	0	0
A518	16'-8''	STR.	12	209	0	0
A519	14'-2''	STR.	4	59	4	59
	VAR 11'-11''		4		0	
A520	TO 5'-11''	STR.	SER OF	112		0
	BY 3'-0''		3		0	
A521	14'-11''	BENT	4	62	4	62
A522	23'-6''	BENT	4	98	2	49
A523	17'-7''	STR.	0	0	6	110
	VAR 23'-4''		2		0	
A524	TO 18'-4''	BENT	SER OF	261		0
	BY 12''		6		0	
	VAR 17'-4''		2		0	
A525	TO 15'-6''	BENT	SER OF	103		0
	BY 11''		3		0	
A526	5'-6''	STR.	4	23	0	0
A527	15'-11''	STR.	0	0	6	100
A528	14'-10''	STR.	6	93	6	93
A529	19'-5''	BENT	0	0	32	648
	VAR 16'-6''		0		2	
A530	TO 15'-0''	BENT		0	SER OF	99
	BY 9''		0		3	
	VAR 21'-8''		0		2	
A531	TO 17'-8''	BENT		0	SER OF	205
	BY 12''		0		5	
	VAR 18'-0''		0		1	
A532	TO 15'-6''	BENT		0	SER OF	70
	BY 10''		0		4	
	VAR 11'-1''		0		4	
A533	TO 5'-3''	STR.		0	SER OF	102
	BY 2'-11''		0		3	
A534	4'-11''	STR.	0	0	4	21
A535	15'-2''	STR.	0	0	6	95
A536	13'-9''	STR.	0	0	2	29
A537	16'-2''	STR.	0	0	2	34
	VAR 12'-2''		0		2	
A538	TO 5'-8''	STR.		0	SER OF	56
	BY 3'-3''		0		3	
	VAR 17'-0''		0		1	
A539	TO 15'-8''	BENT		0	SER OF	51
	BY 8''		0		3	
A540	6'-7''	STR.	0	0	2	14
A541	23'-4''	BENT	0	0	2	49
	VAR 22'-10''		0		1	
A542	TO 18'-0''	BENT		0	SER OF	128
	BY 12''		0		6	
A543	16'-10''	STR.	0	0	6	105
	VAR 12'-3''		0		2	
A544	TO 5'-6''	STR.		0	SER OF	56
	BY 3'-5''		0		3	
A545	4'-8''	STR.	0	0	2	10
A546	22'-10''	BENT	0	0	6	143
A801	35'-7''	STR.	8	760	8	760
A802	23'-4''	STR.	4	249	4	249
A803	36'-4''	STR.	4	388	4	388
A804	17'-4''	STR.	8	370	0	0
A805	16'-6''	STR.	0	0	4	176
A806	18'-3''	STR.	0	0	4	195
TOTAL POUNDS				6,527		6,520



A511, A512, A513, A514, A522, A524, A525



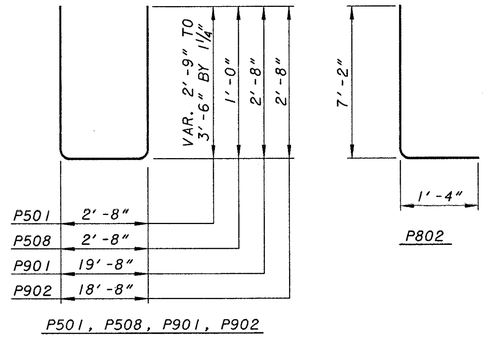
A530, A531, A532, A541, A542, A539, A543, A546,



A510, A521, A545

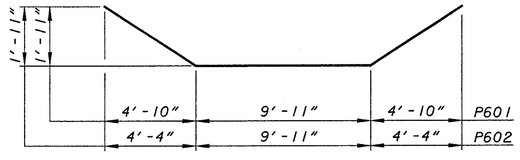
PIER REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
	VAR. 7'-11"		8		8	
P501	TO 9'-5"	BENT	SERIES	651	SERIES	651
	BY 2½"		OF 9		OF 9	
P502	17'-10''	STR.			4	74
P503	19'-8''	STR.			4	82
P504	11'-6''	STR.	26	312	26	312
P505	13'-10''	BENT	100	1,443	100	1,443
P506	18'-8''	STR.	4	78		
P507	17'-0''	STR.	4	71		
P508	4'-5''	BENT	10	46	10	46
P601	20'-3''	BENT			4	122
P602	8'-6''	STR.	26	332	26	332
P603	19'-5''	BENT	4	117		
P701	10'-2''	BENT	28	582	28	582
P801	28'-9''	STR.			44	3,378
P802	8'-4''	BENT	44	979	44	979
P803	28'-11''	STR.	44	3,397		
P901	24'-5''	BENT			14	1,162
P902	23'-5''	BENT	14	1,115		
TOTAL POUNDS				9,122		9,162

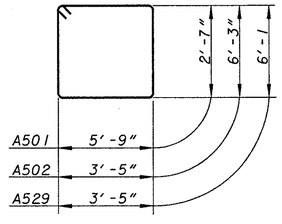


P501, P508, P901, P902

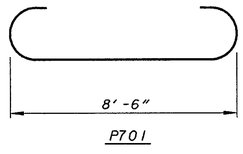
P802



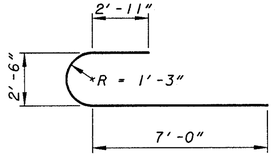
P601, P602



A501, A502, A529



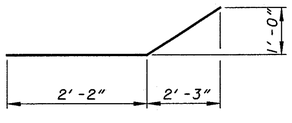
P701



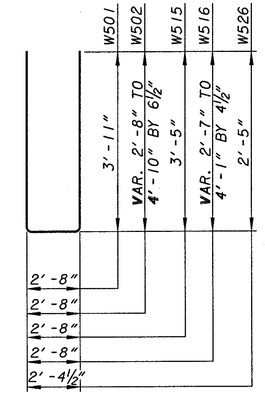
P505

EXISTING PIER SUPPORT REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	LEFT BRIDGE NUMBER	LEFT BRIDGE WEIGHT	RIGHT BRIDGE NUMBER	RIGHT BRIDGE WEIGHT
W501	10'-3''	BENT			4	43
	VAR. 7'-9"				4	
W502	TO 12'-1"	BENT			SERIES	207
	BY 1'-1"				OF 5	
W503	19'-1''	STR.			8	159
W504	20'-10''	STR.			8	174
W505	20'-6''	STR.			8	171
	VAR. 4'-0"				8	
W506	TO 16'-4"	STR.			SERIES	424
	BY 3'-1"				OF 5	
W507	25'-2''	STR.			8	210
W508	4'-7''	BENT	8	38	8	38
W509	14'-5''	STR.			8	120
	VAR. 2'-7"				8	
W510	TO 12'-1"	STR.			SERIES	857
	BY 8¾"				OF 14	
W511	9'-7''	STR.			8	80
W512	6'-2''	STR.			8	51
W513	2'-0''	STR.			8	17
W514	2'-8''	STR.	64	178	56	156
W515	9'-3''	BENT	4	39		
	VAR. 7'-7"		4			
W516	TO 10'-7"	BENT	SERIES	152		
	BY 1'-0"		OF 5			
W517	21'-5''	STR.	8	179		
W518	21'-11''	STR.	8	183		
W519	21'-8''	STR.	8	181		
	VAR. 5'-4"		8			
W520	TO 17'-8"	STR.	SERIES	384		
	BY 4'-1⅜"		OF 4			
W521	24'-5''	STR.	8	204		
W522	10'-8''	STR.	8	89		
	VAR. 3'-3"		8			
W523	TO 10'-11"	STR.	SERIES	887		
	BY 6⅝"		OF 15			
W524	7'-6''	STR.	8	63		
W525	3'-1''	STR.	8	26		
W526	7'-0''	BENT	68	496	68	496
W601	8'-0''	STR.	24	288		
W602	9'-0''	STR.			24	324
W801	6'-6''	STR.	24	417	24	417
TOTAL POUNDS				3,803		3,945



W508



W501, W502, W515, W516, W526

REINFORCING STEEL LIST
BRIDGE NO. PRE-70-1500 L/R
I.R. 70 OVER TWIN CREEK

PRE-70-0.00

32/32

259/283

DESIGN AGENCY: KZ DESIGN, Architecture | Engineering | Interiors | Planning, 627 Dickson Rd., 600 Elm Pl. Ste. Cincinnati, OH 45202-6000, TEL 513.621.4311 FAX 513.621.3000 Web: www.kzd.com

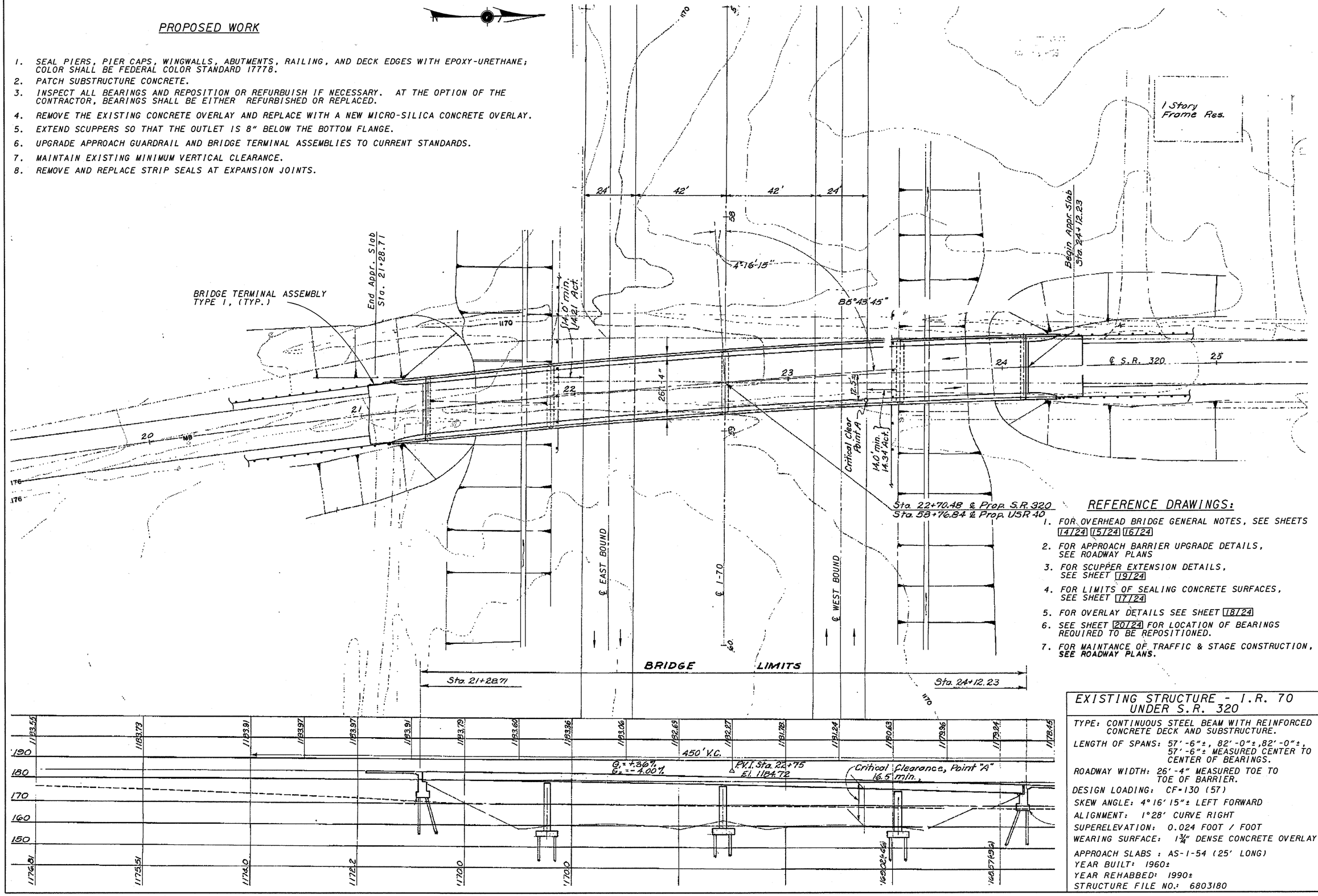
DESIGNED SJA | DRAWN | REVIEWED DGK 11/20/00 | DATE | STRUCTURE FILE NUMBER 680147/6801501 | CHECKED | REVISED

KZF #17

$$$$$$SCTINFO$$$$$$
DESIGNER: $$USERNAME$$
DGN FILE: $$DGNNAME$$
DES FILED DGN SPECIFICATION: $$$$$$$$
DATE: $$DATE$$
PDF NAME: $$PRINAME$$
ACTIVE LEVELS ON RELEVS: $$$$

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. PATCH SUBSTRUCTURE CONCRETE.
3. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
4. REMOVE THE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW MICRO-SILICA CONCRETE OVERLAY.
5. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
6. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
7. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
8. REMOVE AND REPLACE STRIP SEALS AT EXPANSION JOINTS.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR OVERLAY DETAILS SEE SHEET 18/24
6. SEE SHEET 20/24 FOR LOCATION OF BEARINGS REQUIRED TO BE REPOSITIONED.
7. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER S.R. 320

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-6"±, 82'-0"±, 82'-0"±, 57'-6"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 26'-4" MEASURED TOE TO TOE OF BARRIER.
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: 4°16'15"± LEFT FORWARD
ALIGNMENT: 1°28' CURVE RIGHT
SUPERELEVATION: 0.024 FOOT / FOOT
WEARING SURFACE: 1¾" DENSE CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6803180

DESIGN AGENCY
KZ DESIGN
KZF DESIGN, INC. 1520 Bryan Street, Suite 205, Dallas, TX 75201-2689
TEL 214.871.6311 FAX 214.871.3600 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	MWL	SJA	08/02/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

PREBLE COUNTY
STA 21+28.71
STA 24+12.23

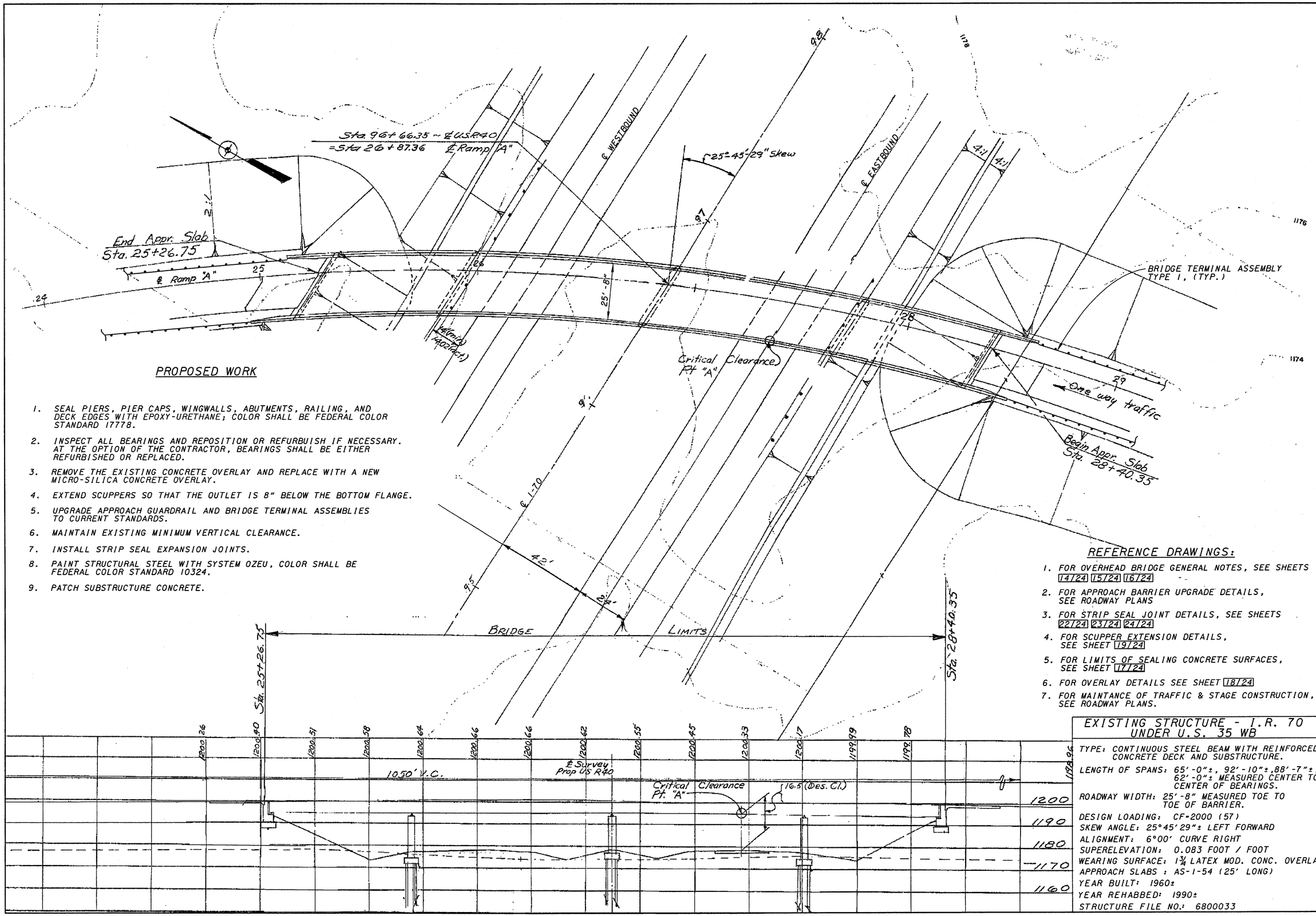
KZF #2

SITE PLAN
BRIDGE NO. PRE-320-0117
I.R. 70 UNDER S.R. 320

PRE-70-0.00

1/24

260/283



PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. REMOVE THE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW MICRO-SILICA CONCRETE OVERLAY.
4. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
5. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
6. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
7. INSTALL STRIP SEAL EXPANSION JOINTS.
8. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
9. PATCH SUBSTRUCTURE CONCRETE.

REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR STRIP SEAL JOINT DETAILS, SEE SHEETS 22/24 23/24 24/24
4. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
5. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
6. FOR OVERLAY DETAILS SEE SHEET 18/24
7. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER U.S. 35 WB

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 65'-0"±, 92'-10"±, 88'-7"±, 62'-0"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 25'-8" MEASURED TOE TO TOE OF BARRIER.
DESIGN LOADING: CF-2000 (57)
SKEW ANGLE: 25°45'29"± LEFT FORWARD
ALIGNMENT: 6°00' CURVE RIGHT
SUPERELEVATION: 0.083 FOOT / FOOT
WEARING SURFACE: 1¾ LATEX MOD. CONC. OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6800033

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
Kingwood Office Park, Kingwood, Texas 77339
TEL 9136351401 FAX 9136353800 WEB www.kzfdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	MWL	SJA	08/02/00
CHECKED	REVISED		STRUCTURE FILE NUMBER
WBS			

KZF #3
PREBLE COUNTY
STA 25+26.75
STA 28+40.35

SITE PLAN
BRIDGE NO. PRE-35-0176
I.R. 70 UNDER U.S. 35 WB

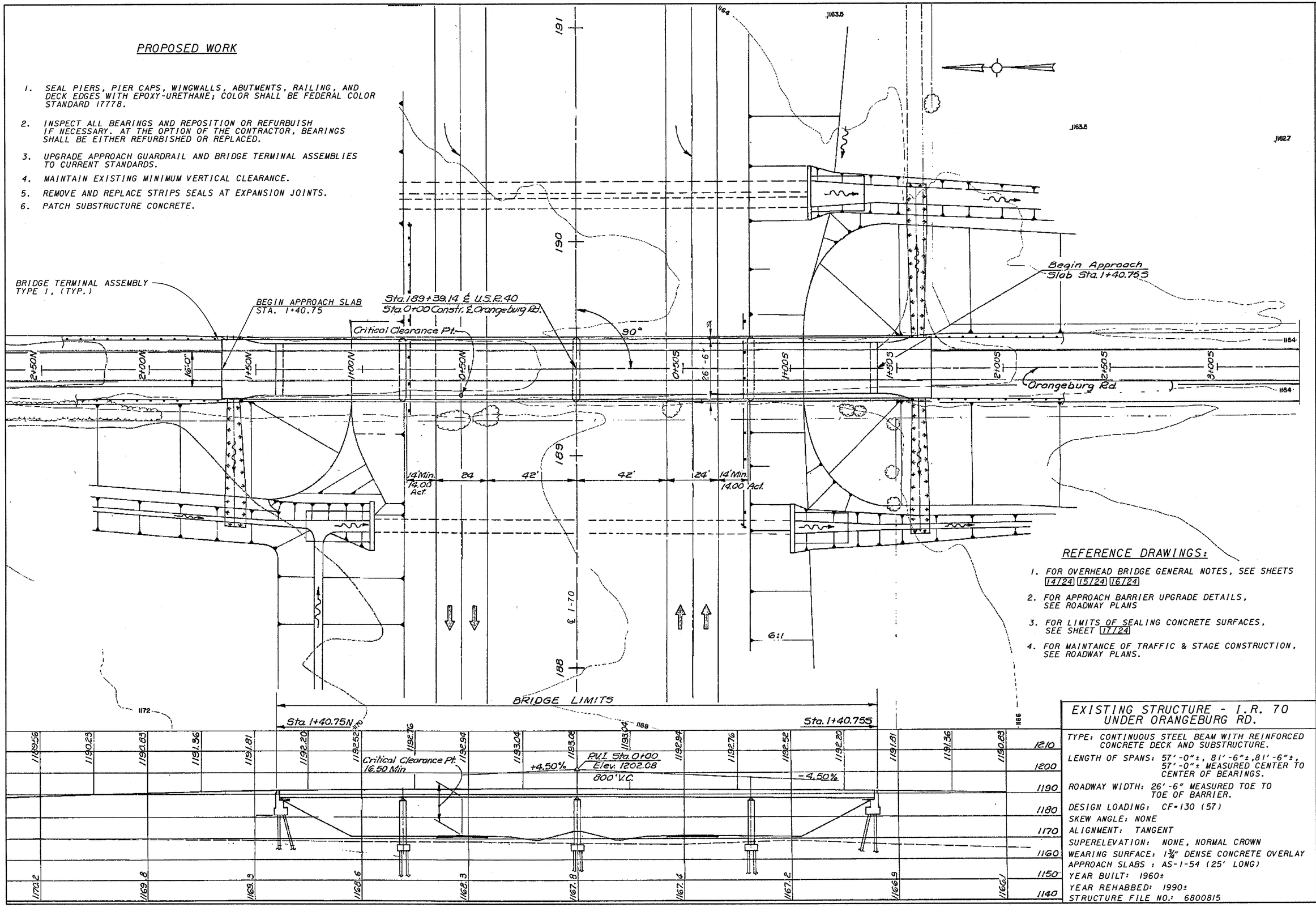
PRE-70-0.00

2/24

261/283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
4. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
5. REMOVE AND REPLACE STRIPS SEALS AT EXPANSION JOINTS.
6. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
4. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER ORANGEBURG RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-0"±, 81'-6"±, 81'-6"±, 57'-0"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 26'-6" MEASURED TOE TO TOE OF BARRIER.
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: NONE
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: 1¾" DENSE CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6800815

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
TEL 843.881.9311 FAX 843.881.9600 Web www.kzfdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	MWL	SJA	08/02/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

PREBLE COUNTY
STA 1+40.75 N
STA 1+40.75 S

KZF #4

SITE PLAN
BRIDGE NO. PRE-70-0358
I.R. 70 UNDER ORANGEBURG RD.

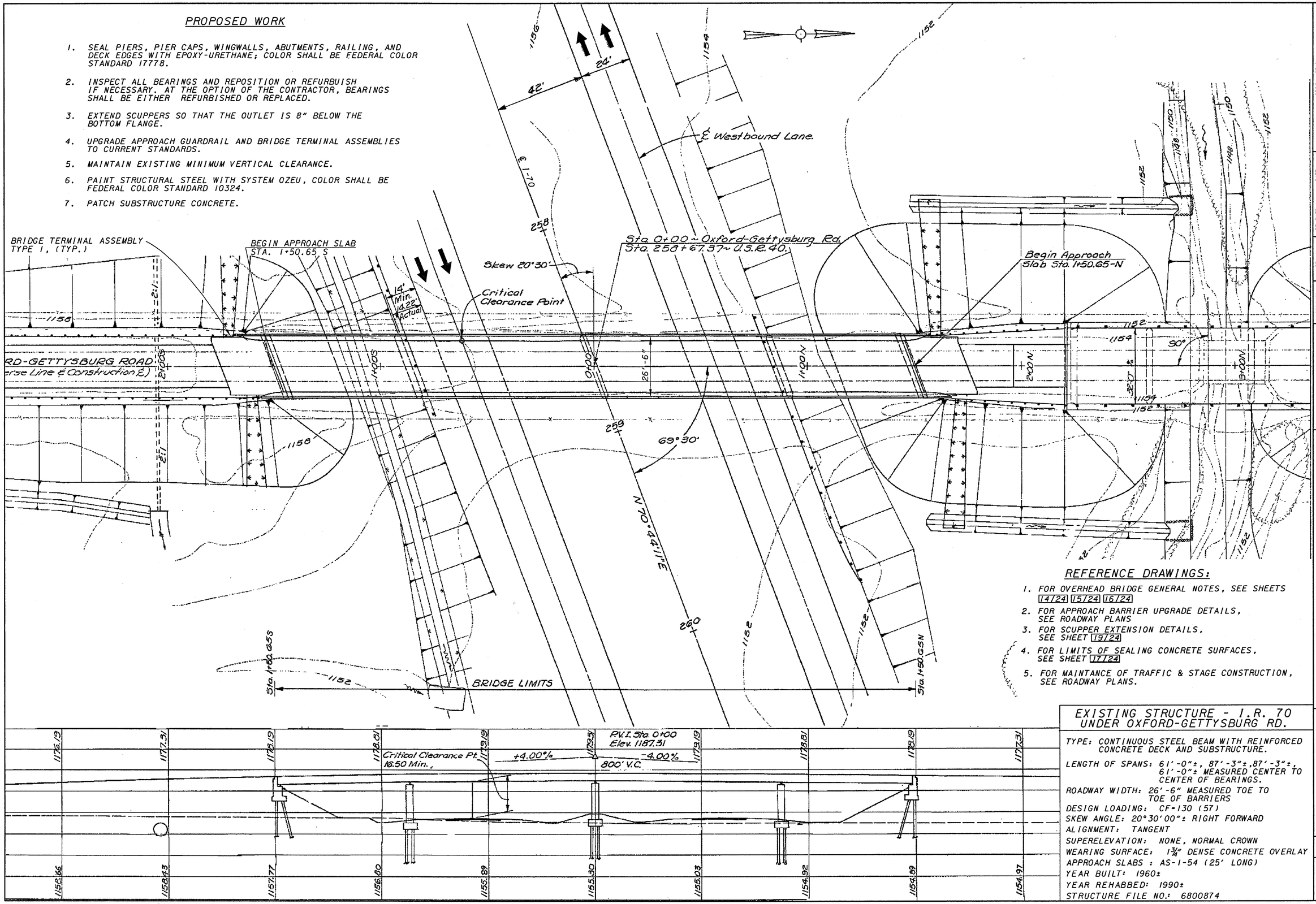
PRE-70-0.00

3/24

262/283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
4. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
5. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
6. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
7. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER OXFORD-GETTYSBURG RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 61'-0"±, 87'-3"±, 87'-3"±, 61'-0"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 26'-6" MEASURED TOE TO TOE OF BARRIERS
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: 20°30'00"± RIGHT FORWARD
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: 1¾" DENSE CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6800874

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 644 Main Park Drive Cincinnati, OH 45202-6005
TEL 513.621.6611 FAX 513.621.6699 KZF www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
DCK	MWL	SJA	08/02/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

PREBLE COUNTY
STA 1+50.65 S
STA 1+50.65 N

SITE PLAN
BRIDGE NO. PRE-70-0489
I.R. TO UNDER OXFORD-GETTYSBURG RD.

KZF #5

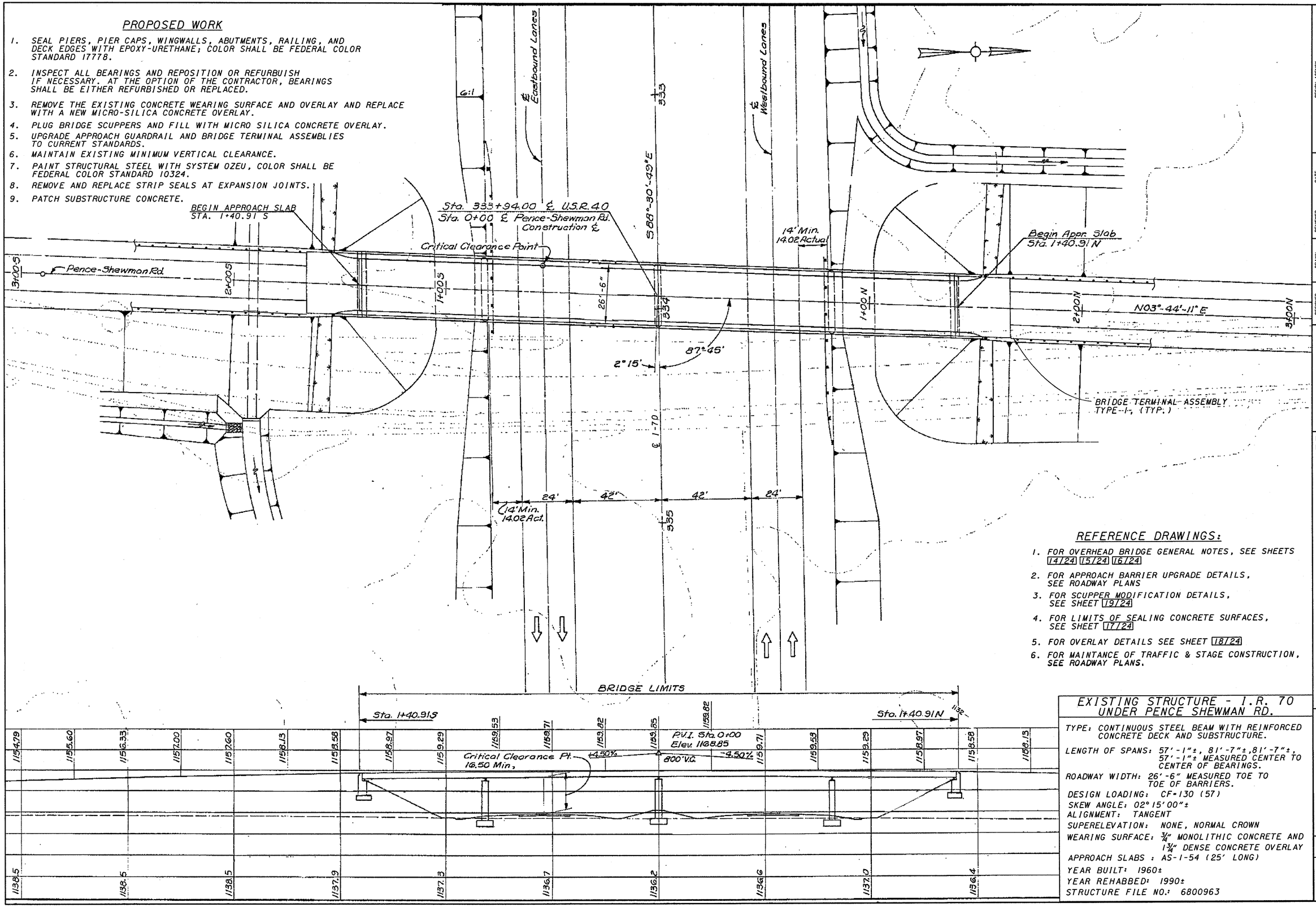
PRE-70-0.00

4/24

263
283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. REMOVE THE EXISTING CONCRETE WEARING SURFACE AND OVERLAY AND REPLACE WITH A NEW MICRO-SILICA CONCRETE OVERLAY.
4. PLUG BRIDGE SCUPPERS AND FILL WITH MICRO SILICA CONCRETE OVERLAY.
5. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
6. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
7. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
8. REMOVE AND REPLACE STRIP SEALS AT EXPANSION JOINTS.
9. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER MODIFICATION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR OVERLAY DETAILS SEE SHEET 18/24
6. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER PENCE SHEWMAN RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-1"±, 81'-7"±, 81'-7"±, 57'-1"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 26'-6" MEASURED TOE TO TOE OF BARRIERS.
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: 02°15'00"±
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: ¾" MONOLITHIC CONCRETE AND 1¾" DENSE CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6800963

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN, INC. 600 Vine St. One Chase Square, Cincinnati, OH 45202
TEL 513.977.8200 FAX 513.977.8141 www.kzfdesign.com

DATE	REVIEWED	DRAWN	DESIGNED	CHECKED
08/02/00	SJA	MWL	DGK	WBS

STRUCTURE FILE NUMBER
REVISED

PREBLE COUNTY
STA 1+40.91 S
STA 1+40.91 N

KZF #7

SITE PLAN
BRIDGE NO. PRE-70-0632
I.R. 70 UNDER PENCE SHEWMAN RD.

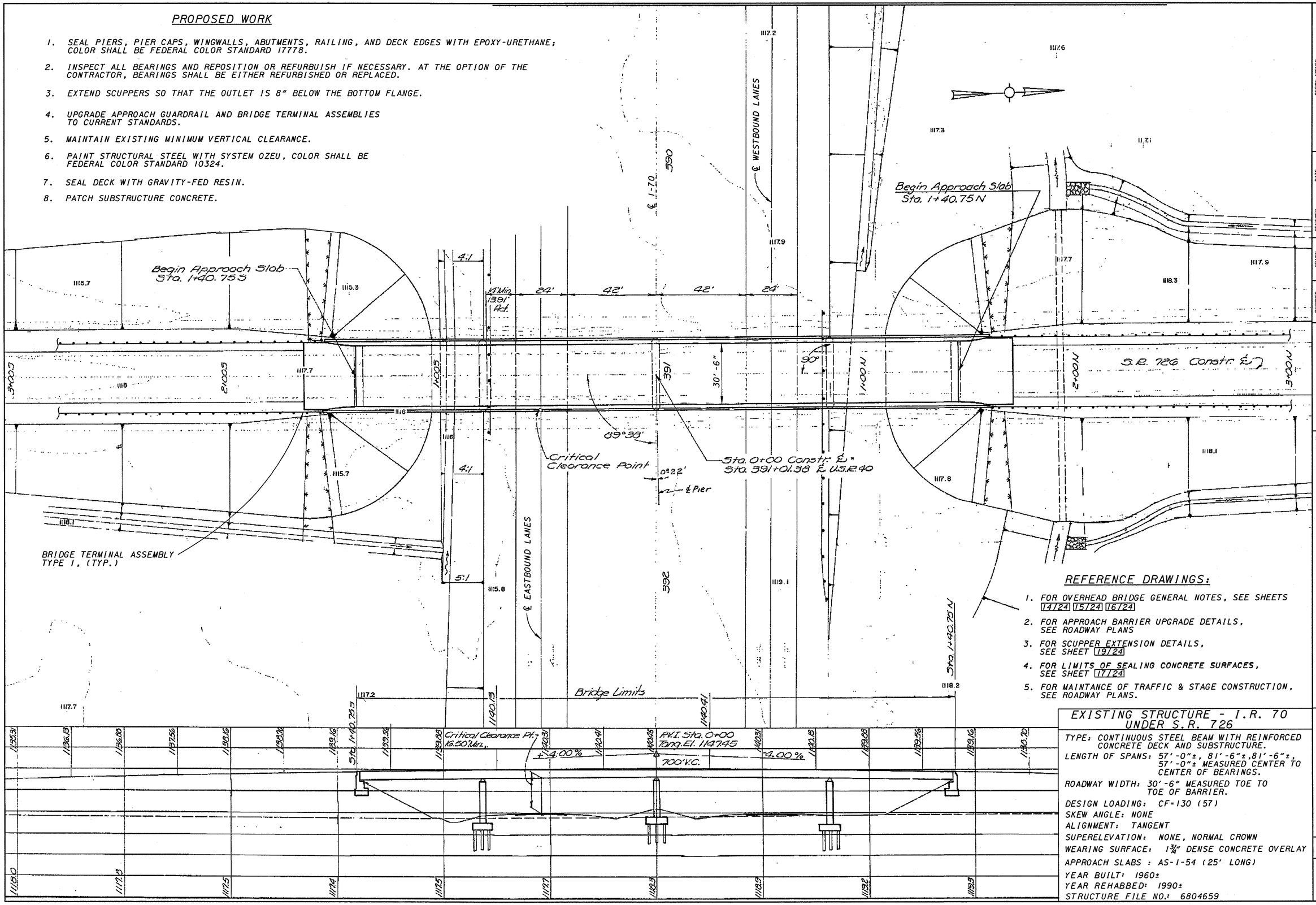
PRE-70-0.00

5/24

264/283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
4. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
5. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
6. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
7. SEAL DECK WITH GRAVITY-FED RESIN.
8. PATCH SUBSTRUCTURE CONCRETE.


℄ I-70
390
℄ WESTBOUND LANES
Begin Approach Slab
Sta. 1+40.75S
Begin Approach Slab
Sta. 1+40.75N
4:1
5:1
24'
42'
42'
24'
Ld.Wid. 1391' Act.
30'-6"
391
90°
89°38'
0°22'
℄ Pier
Critical Clearance Point
Sta. 0+00 Constr. ℄
Sta. 391+01.38 ℄ U.S.R.40
S.R. 726 Constr. ℄
BRIDGE TERMINAL ASSEMBLY TYPE I, (TYP.)
℄ EASTBOUND LANES
392
Sta. 1+40.75N
Bridge Limits
Critical Clearance Pt. 16.50 Min.
Sta. 1+40.25S
Sta. 1+40.75S
P.V.I. Sta. 0+00 Tang. El. 1147.45
±4.00%
±4.00%
700' V.C.
3+00S
2+00S
1+00S
1+00N
2+00N
3+00N
1115.7
1115.3
1115.8
1116
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1117.7
1118
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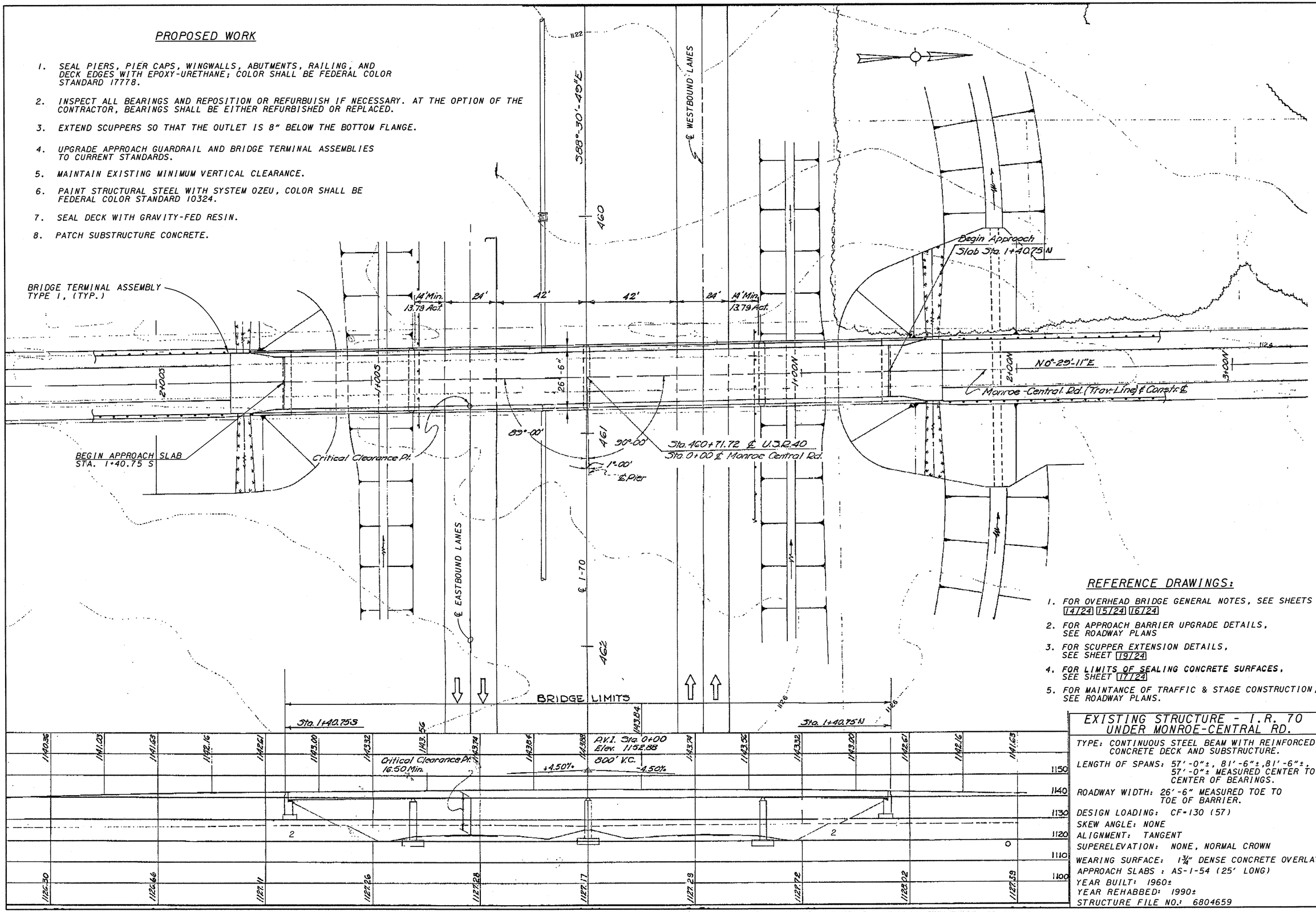
-

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
4. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
5. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
6. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
7. SEAL DECK WITH GRAVITY-FED RESIN.
8. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER MONROE-CENTRAL RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-0"±, 81'-6"±, 81'-6"±, 57'-0"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 26'-6" MEASURED TOE TO TOE OF BARRIER.
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: NONE
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: 1¾" DENSE CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6804659

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC., 600 Dave Ave. Suite A, Cincinnati, OH 45220-3000
TEL: 513.533.6777 FAX: 513.533.6999 http://www.kzfdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	MWL	SJA	08/02/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

PREBLE COUNTY
STA 1+40.75 S
STA 1+40.75 N

KZF #10

SITE PLAN

BRIDGE NO. PRE-70-0872
I.R. 70 UNDER MONROE-CENTRAL RD.

PRE-70-0.00

7/24

266/283

REF56: ••REF56••
REF71: ••REF71••
REF78: ••REF78••
REF79: ••REF79••
REF80: ••REF80••
REF20: ••REF20••

REF74: ••REF74••
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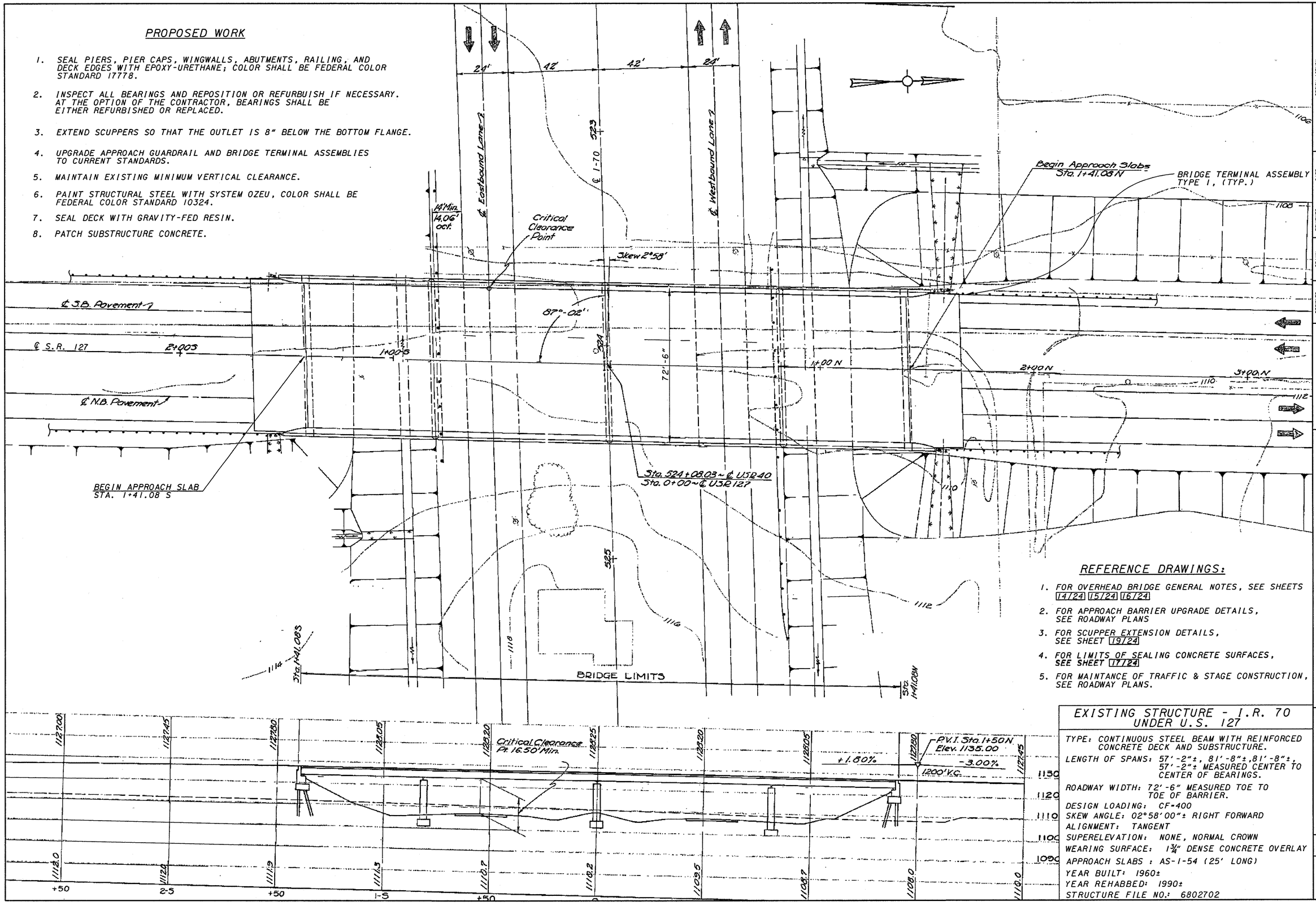
REF05: ••REF05••

$$$$SYSTIMEAM$$$$
$$$$USERNAME$$$$
DGN FILE:DOWNSPECIFICATION$$$$$$$$
DATE/TIME PLOTTED:$$$$$$$$
ACTIVE LEVELS ON: $$$LEV$$

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
4. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
5. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
6. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
7. SEAL DECK WITH GRAVITY-FED RESIN.
8. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER U.S. 127

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-2"±, 81'-8"±, 81'-8"±, 57'-2"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 72'-6" MEASURED TOE TO TOE OF BARRIER.
DESIGN LOADING: CF-400
SKEW ANGLE: 02°58'00"± RIGHT FORWARD
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: 1¾" DENSE CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
YEAR REHABBED: 1990±
STRUCTURE FILE NO.: 6802702

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 600 Blair Park Drive Cincinnati, OH 45202-6000
TEL 513.621.6221 FAX 513.621.0800 WEB www.kzfdesign

DATE 08/02/00
REVIEWED SJA
STRUCTURE FILE NUMBER
DRAWN MWL
REVISED
DESIGNED DGK
CHECKED WBS

PREBLE COUNTY
STA 1+41.08 S
STA 1+41.08 N

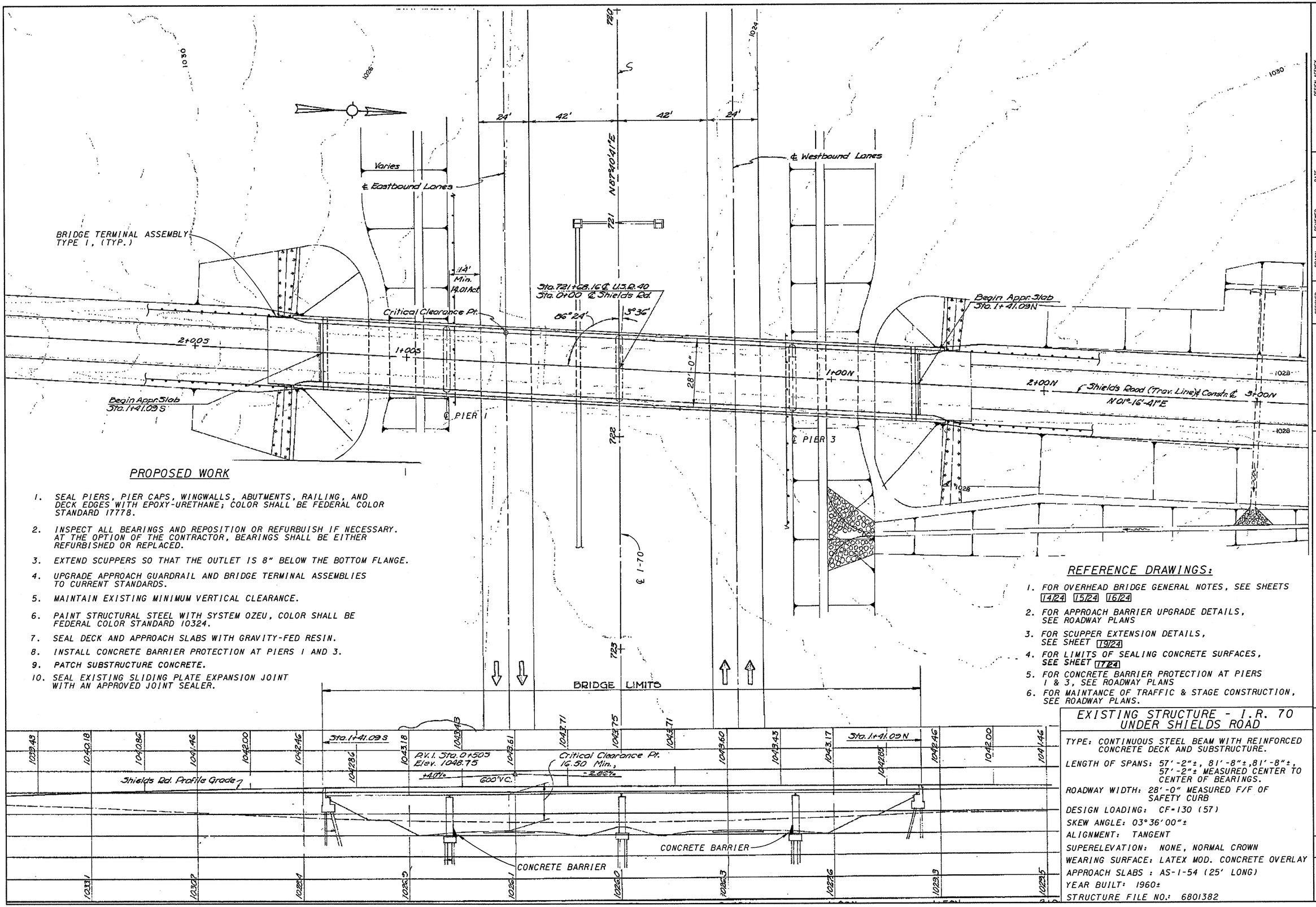
KZF #11

SITE PLAN
BRIDGE NO. PRE-127-1911
I.R. 70 UNDER U.S. 127

PRE-70-0.00

8/24

267/283



PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
4. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
5. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
6. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
7. SEAL DECK AND APPROACH SLABS WITH GRAVITY-FED RESIN.
8. INSTALL CONCRETE BARRIER PROTECTION AT PIERS 1 AND 3.
9. PATCH SUBSTRUCTURE CONCRETE.
10. SEAL EXISTING SLIDING PLATE EXPANSION JOINT WITH AN APPROVED JOINT SEALER.

REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR CONCRETE BARRIER PROTECTION AT PIERS 1 & 3, SEE ROADWAY PLANS
6. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER SHIELDS ROAD

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-2"±, 81'-8"±, 81'-8"±, 57'-2"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 28'-0" MEASURED F/F OF SAFETY CURB
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: 03°36'00"±
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: LATEX MOD. CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
STRUCTURE FILE NO.: 6801382

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
2300 Chambers Road, Suite 100, Columbus, Ohio 43212
TEL 614.481.6611 FAX 614.481.8600 WEB www.kzfdesign.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	MWL	S.J.A	08/02/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

PREBLE COUNTY
STA 1+41.09 S
STA 1+41.09 N

KZF #15

SITE PLAN
BRIDGE NO. PRE-70-1366
I.R. 70 UNDER SHIELDS RD.

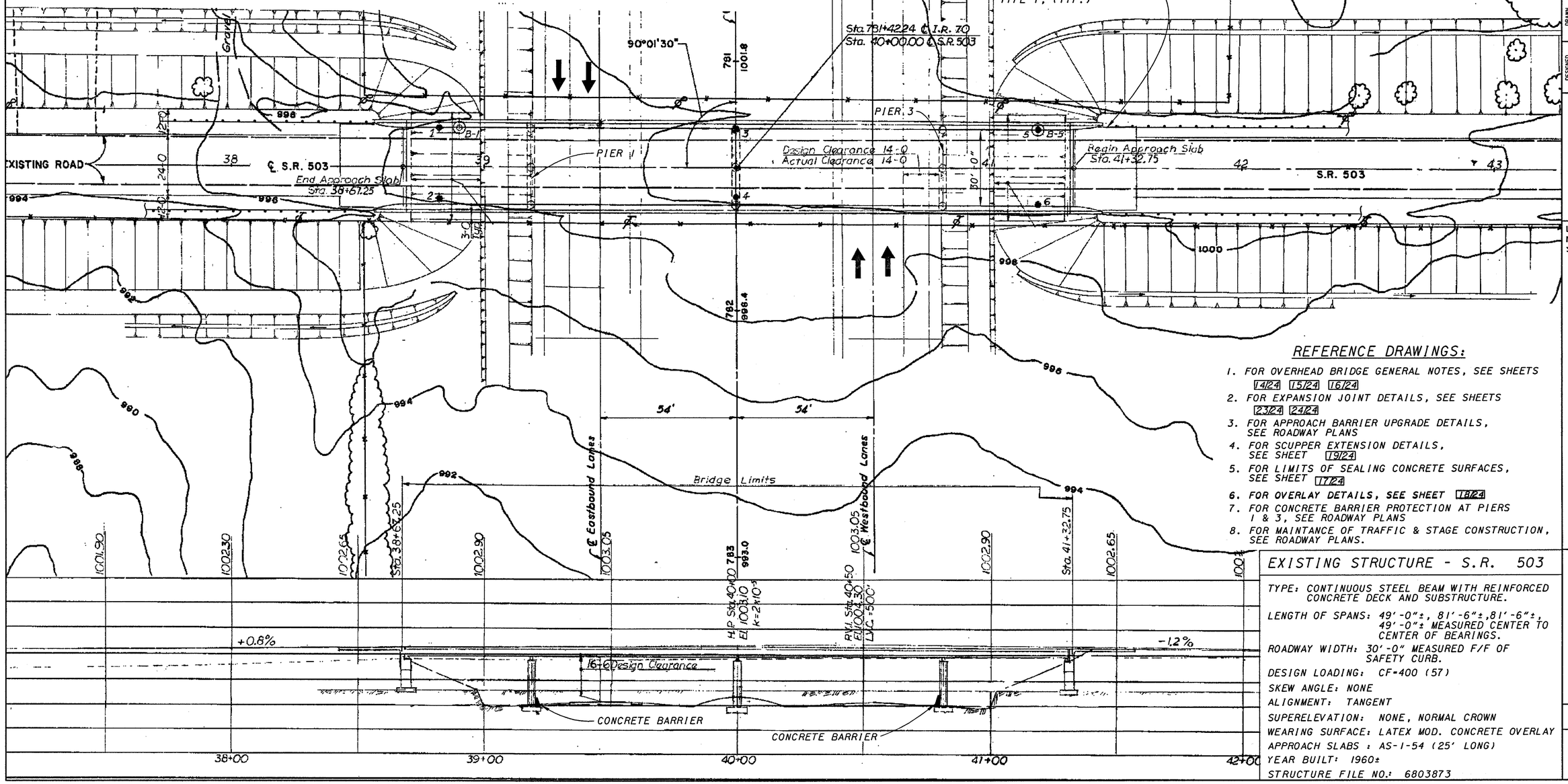
PRE-70-0.00

9/24

268/283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. PATCH SUBSTRUCTURE CONCRETE.
3. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
4. REMOVE THE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW MICRO-SILICA CONCRETE OVERLAY.
5. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
6. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
7. PROVIDE ADDITIONAL PLANNING UNDER THE BRIDGE TO PROVIDE 16.00 FT MINIMUM CLEARANCE UPON PROJECT COMPLETION. EXISTING MINIMUM CLEARANCE IS 15.81 FT±
8. INSTALL STRIP SEAL EXPANSION JOINTS.
9. INSTALL CONCRETE BARRIER PROTECTION AT PIERS 1 AND 3.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR EXPANSION JOINT DETAILS, SEE SHEETS 23/24 24/24
3. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
4. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
5. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
6. FOR OVERLAY DETAILS, SEE SHEET 18/24
7. FOR CONCRETE BARRIER PROTECTION AT PIERS 1 & 3, SEE ROADWAY PLANS
8. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - S.R. 503

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.

LENGTH OF SPANS: 49'-0"±, 81'-6"±, 81'-6"±, 49'-0"± MEASURED CENTER TO CENTER OF BEARINGS.

ROADWAY WIDTH: 30'-0" MEASURED F/F OF SAFETY CURB.

DESIGN LOADING: CF-400 (57)

SKEW ANGLE: NONE

ALIGNMENT: TANGENT

SUPERELEVATION: NONE, NORMAL CROWN

WEARING SURFACE: LATEX MOD. CONCRETE OVERLAY

APPROACH SLABS : AS-1-54 (25' LONG)

YEAR BUILT: 1960±

STRUCTURE FILE NO.: 6803873

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
107 DESIGN INC. 300 East Park Drive Cincinnati, OH 45202-4000
TEL 513.621.2911 FAX 513.621.3000 Web www.kzdesign.com

DATE 08/02/00
REVIEWED SJA
DRAWN MWL
DESIGNED DGK
CHECKED WBS
REVISED
STRUCTURE FILE NUMBER

PREBLE COUNTY
STA 38+67.25
STA 41+32.75

KZF #16

SITE PLAN
BRIDGE NO. PRE-503-1955
I.R. 70 UNDER S.R. 503

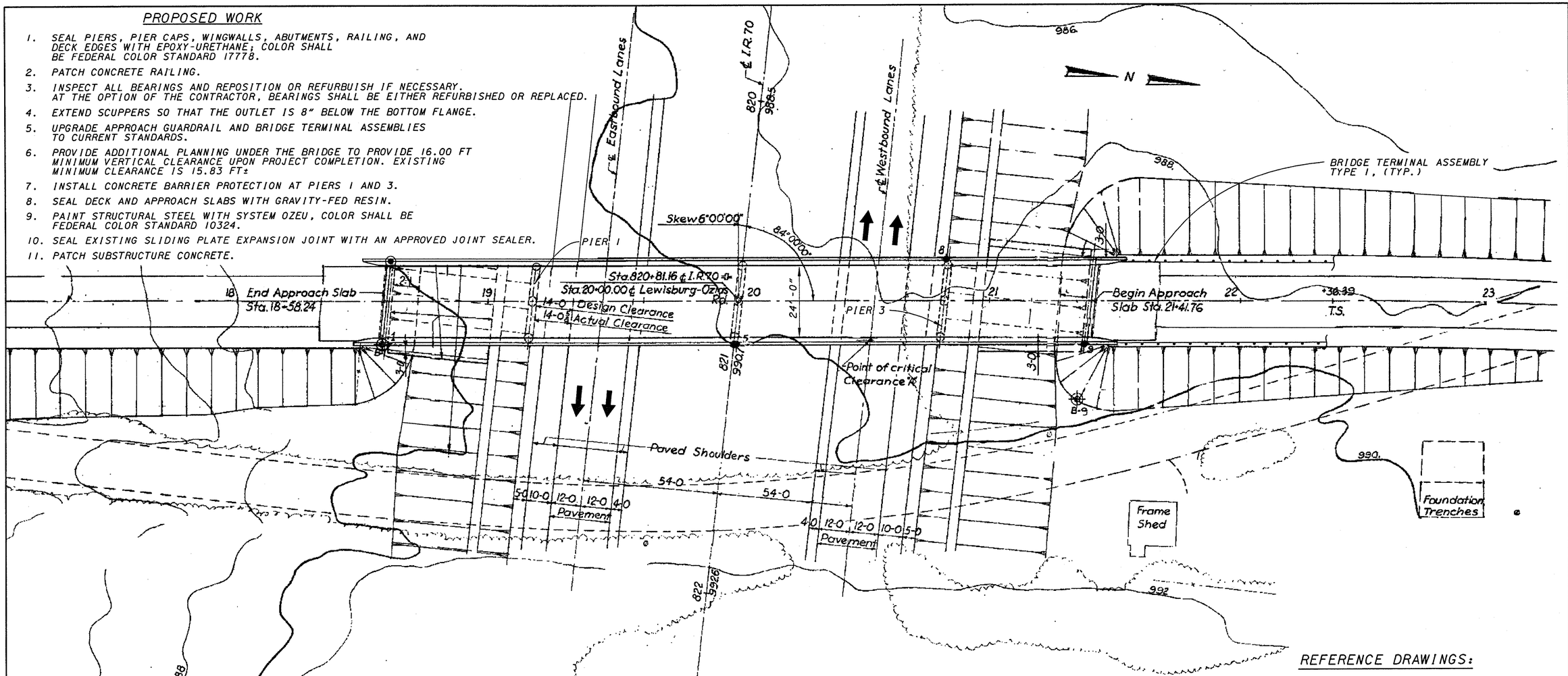
PRE-70-0.00

10/24

269/283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. PATCH CONCRETE RAILING.
3. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
4. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
5. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
6. PROVIDE ADDITIONAL PLANNING UNDER THE BRIDGE TO PROVIDE 16.00 FT MINIMUM VERTICAL CLEARANCE UPON PROJECT COMPLETION. EXISTING MINIMUM CLEARANCE IS 15.83 FT±
7. INSTALL CONCRETE BARRIER PROTECTION AT PIERS 1 AND 3.
8. SEAL DECK AND APPROACH SLABS WITH GRAVITY-FED RESIN.
9. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
10. SEAL EXISTING SLIDING PLATE EXPANSION JOINT WITH AN APPROVED JOINT SEALER.
11. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR CONCRETE BARRIER PROTECTION AT PIERS, SEE ROADWAY PLANS
6. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.

EXISTING STRUCTURE - I.R. 70 UNDER LEWISBURG-OZIAS RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.

LENGTH OF SPANS: 57'-6"±, 82'-0"±, 82'-0"±, 57'-6"± MEASURED CENTER TO CENTER OF BEARINGS.

ROADWAY WIDTH: 24'-0" MEASURED F/F OF SAFETY CURBS.

DESIGN LOADING: CF-130 (57)

SKEW ANGLE: 06°00'00" LEFT FORWARD

ALIGNMENT: TANGENT

SUPERELEVATION: NONE, NORMAL CROWN

WEARING SURFACE: LATEX MOD. CONCRETE OVERLAY

APPROACH SLABS : AS-1-54 (25' LONG)

YEAR BUILT: 1960±

STRUCTURE FILE NO.: 6801536

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN, INC. 836 Penn Ave. Suite 200 Pittsburgh, PA 15222-3800
TEL & 412.261.2912 FAX & 412.261.4656 WEB & www.kzfdesign.com

REVIEWED	DATE
SJA	08/02/00
DRAWN	REVISED
MWL	
DESIGNED	CHECKED
DGK	WBS

PREBLE COUNTY
STA 18+58.24
STA 21+41.76

KZF #18

SITE PLAN

BRIDGE NO. PRE-70-1541
I.R. 70 LEWISBUG-OZIAS RD.

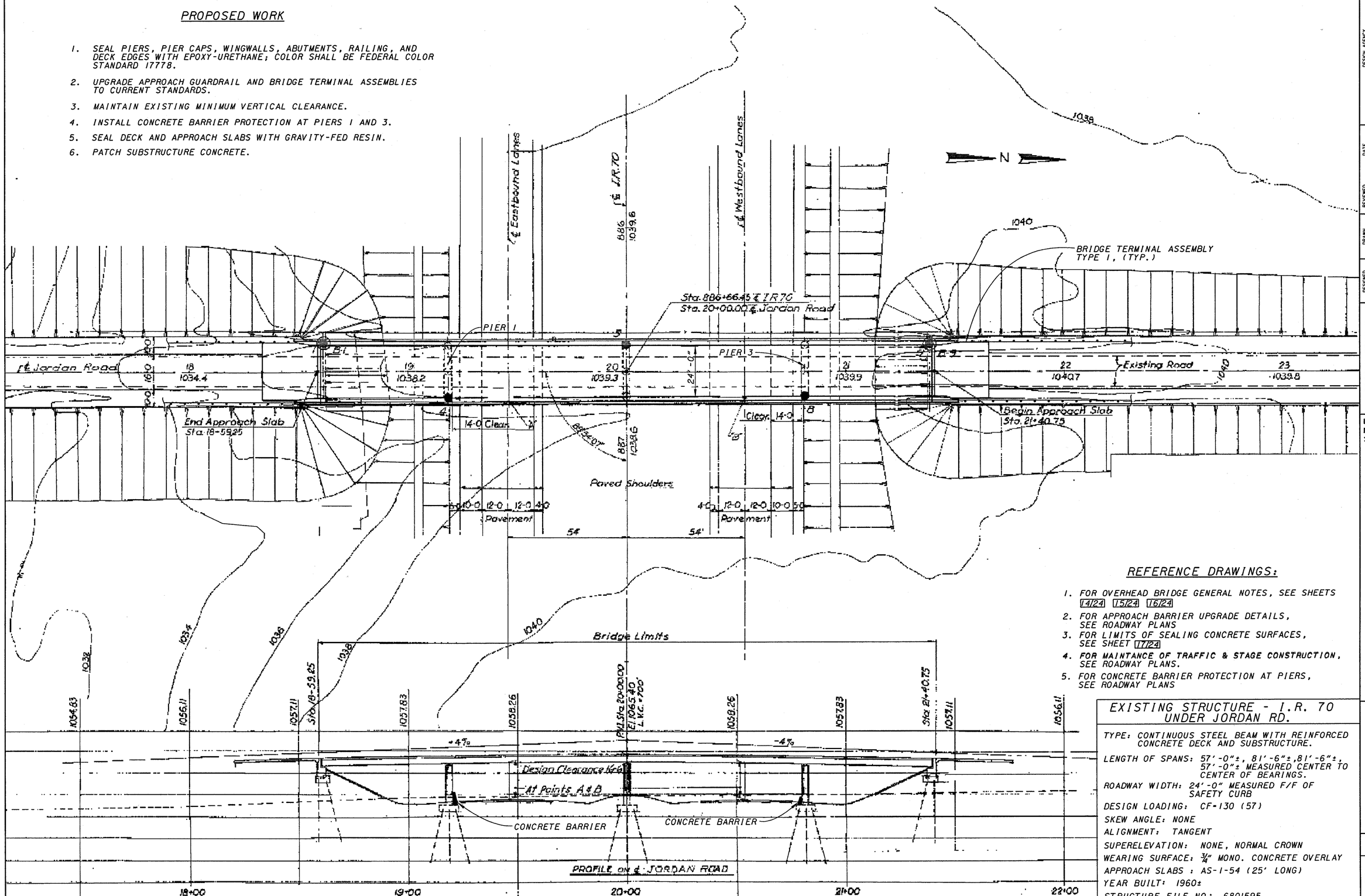
PRE-70-0.00

11 / 24

270 / 283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
3. MAINTAIN EXISTING MINIMUM VERTICAL CLEARANCE.
4. INSTALL CONCRETE BARRIER PROTECTION AT PIERS 1 AND 3.
5. SEAL DECK AND APPROACH SLABS WITH GRAVITY-FED RESIN.
6. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
4. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.
5. FOR CONCRETE BARRIER PROTECTION AT PIERS, SEE ROADWAY PLANS

EXISTING STRUCTURE - I.R. 70 UNDER JORDAN RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
LENGTH OF SPANS: 57'-0"±, 81'-6"±, 81'-6"±, 57'-0"± MEASURED CENTER TO CENTER OF BEARINGS.
ROADWAY WIDTH: 24'-0" MEASURED F/F OF SAFETY CURB
DESIGN LOADING: CF-130 (57)
SKEW ANGLE: NONE
ALIGNMENT: TANGENT
SUPERELEVATION: NONE, NORMAL CROWN
WEARING SURFACE: ¾" MONO. CONCRETE OVERLAY
APPROACH SLABS : AS-1-54 (25' LONG)
YEAR BUILT: 1960±
STRUCTURE FILE NO.: 6801595

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
621 DESIGN INC. 600 East Five Drive Cincinnati, OH 45202-6005
TEL 513.621.0621 FAX 513.621.0800 WEB www.kzf.com

REVIEWED	DATE
SJA	08/02/00
DRAWN	REVISED
MWL	
DESIGNED	CHECKED
DGK	WBS

STRUCTURE FILE NUMBER

PREBLE COUNTY
STA 18+59.25
STA 21+40.75

KZF #20

SITE PLAN
BRIDGE NO. PRE-70-1665
I.R. 70 UNDER JORDON RD.

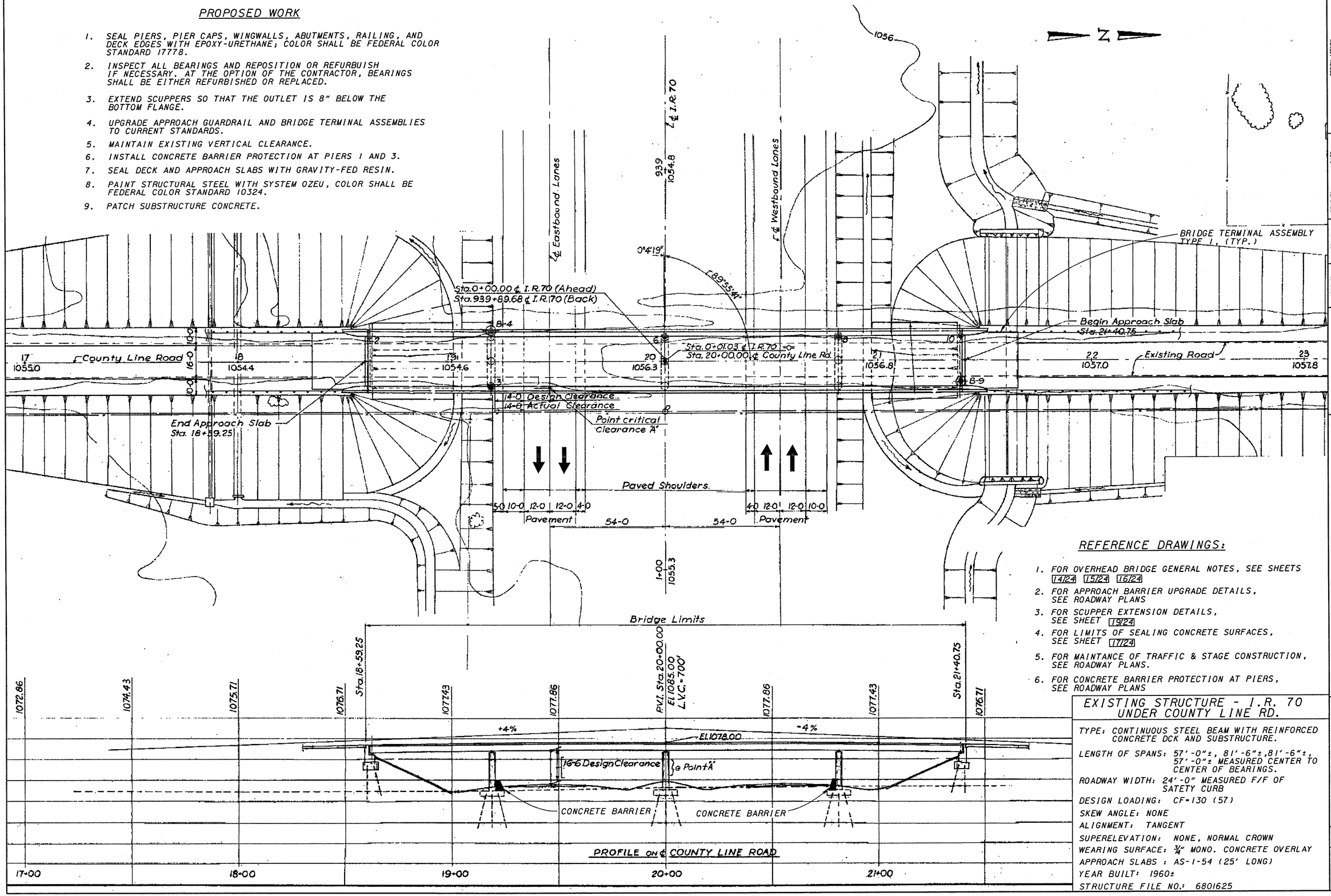
PRE-70-0.00

12/24

271/283

PROPOSED WORK

1. SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.
2. INSPECT ALL BEARINGS AND REPOSITION OR REFURBUISH IF NECESSARY. AT THE OPTION OF THE CONTRACTOR, BEARINGS SHALL BE EITHER REFURBISHED OR REPLACED.
3. EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.
4. UPGRADE APPROACH GUARDRAIL AND BRIDGE TERMINAL ASSEMBLIES TO CURRENT STANDARDS.
5. MAINTAIN EXISTING VERTICAL CLEARANCE.
6. INSTALL CONCRETE BARRIER PROTECTION AT PIERS 1 AND 3.
7. SEAL DECK AND APPROACH SLABS WITH GRAVITY-FED RESIN.
8. PAINT STRUCTURAL STEEL WITH SYSTEM OZEU, COLOR SHALL BE FEDERAL COLOR STANDARD 10324.
9. PATCH SUBSTRUCTURE CONCRETE.



REFERENCE DRAWINGS:

1. FOR OVERHEAD BRIDGE GENERAL NOTES, SEE SHEETS 14/24 15/24 16/24
2. FOR APPROACH BARRIER UPGRADE DETAILS, SEE ROADWAY PLANS
3. FOR SCUPPER EXTENSION DETAILS, SEE SHEET 19/24
4. FOR LIMITS OF SEALING CONCRETE SURFACES, SEE SHEET 17/24
5. FOR MAINTANCE OF TRAFFIC & STAGE CONSTRUCTION, SEE ROADWAY PLANS.
6. FOR CONCRETE BARRIER PROTECTION AT PIERS, SEE ROADWAY PLANS

EXISTING STRUCTURE - I.R. 70 UNDER COUNTY LINE RD.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DCK AND SUBSTRUCTURE.

LENGTH OF SPANS: 57'-0"±, 81'-6"±, 81'-6"±, 57'-0"± MEASURED CENTER TO CENTER OF BEARINGS.

ROADWAY WIDTH: 24'-0" MEASURED F/F OF SATETY CURB

DESIGN LOADING: CF-130 (57)

SKEW ANGLE: NONE

ALIGNMENT: TANGENT

SUPERELEVATION: NONE, NORMAL CROWN

WEARING SURFACE: ¾" MONO. CONCRETE OVERLAY

APPROACH SLABS : AS-1-54 (25' LONG)

YEAR BUILT: 1960±

STRUCTURE FILE NO.: 6801625

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 666 Dorchester Boulevard West, Montreal, Quebec H3B 1L8
TEL: 514.861.6611 FAX: 514.861.2200 Web: www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	MWL	SJA	08/02/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

PREBLE COUNTY
STA 18+59.25
STA 21+40.75

KZF #21

SITE PLAN
BRIDGE NO. PRE-70-1766
I.R. 70 UNDER COUNTY LINE RD.

PRE-70-0.00

13/24

272/283

REFERENCE SHALL BE MADE TO THE FOLLOWING ODOT 1997 CONSTRUCTION AND MATERIAL SPECIFICATIONS:

ITEM 202 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
ITEM 448 - ASPHALT CONCRETE
ITEM 508 - FALSEWORK AND FORMS.
ITEM 509 - REINFORCING STEEL.
ITEM 513 - STRUCTURAL STEEL.
ITEM 516 - EXPANSION AND CONTRACTION JOINTS, JOINT SEALER AND BEARING DEVICES.
ITEM 518 - DRAINAGE OF STRUCTURES
ITEM 519 - PATCHING CONCRETE STRUCTURE.

REFERENCE SHALL BE MADE TO THE FOLLOWING ODOT SUPPLEMENTAL SPECIFICATIONS:

815 DATED 5/30/96 - FIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU.
842 DATED 1/6/99 - CONCRETE FOR STRUCTURES.
899 DATED 10/21/98 - CONCRETE - GENERAL
910 DATED 7/28/98 - OZEU STRUCTURAL STEEL PAINT.

REFERENCE SHALL BE MADE TO THE FOLLOWING ODOT STANDARD DRAWINGS:

EXJ - 4-87 REVISED 2-14-97
RB - 1- 55 REVISED 2-2-59

REFERENCE SHALL BE MADE TO THE FOLLOWING ODOT PROPOSAL NOTES:

NO. 515 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN - 11/15/94.

NO. 550 - FIELD PAINTING OF EXISTING STEEL USING EPOXY AND URETHANE (EEU) - 7/20/92

REFERENCE SHALL BE MADE TO THE FOLLOWING ODOT PROJECT 3003 PROPOSAL NOTES:

PAGE 31 -BRIDGE DECK REPAIR AND OVERLAY WITH MICRO-SILICA CONCRETE USING HYDRODEMOLITION - 4/15/96.
PAGE 42 - BRIDGE DECK REPAIR AND OVERLAY WITH MICRO - SILICA MODIFIED CONCRETE - 4/15/96.
PAGE 48 - PATCHING CONCRETE BRIDGE DECKS - 9/25/91.
PAGE 50 - SEALING OF CONCRETE SURFACES - 4/14/93.

DESIGN STRESSES:

CLASS S CONCRETE - COMPRESSIVE STRENGTH 4500 PSI (28 DAY) (PARAPETS)
CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (28 DAY) (SUBSTRUCTURE)
STRUCTURAL STEEL - ASTM-A36-YIELD STRENGTH 36,000 PSI
REINFORCING STEEL - ASTM A615, A616, OR A617. EPOXY COATED GRADE 60 - MINIMUM YIELD STRENGTH 60,000 PSI.

EXTEND SCUPPERS SO THAT THE OUTLET IS 8" BELOW THE BOTTOM FLANGE.

FURNISH AND INSTALL MATERIALS NECESSARY TO EXTEND SCUPPERS TO AN ELEVATION WHERE THE SCUPPER OUTLET IS LOCATED 8 INCHES BELOW THE BOTTOM FLANGE OF THE ADJACENT BRIDGE BEAM.
REFER TO SCUPPER DETAILS ON SHEET 19/24.

REFURBISHING BEARING DEVICES

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED WITH THIS ITEM THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK ITEMS: DISASSEMBLY OF THE BEARINGS; HAND TOOL CLEANING (GRINDING IF NECESSARY); PAINTING WITH OZEU; REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PRE-FORMED BEARING PADS (SEE ODOT SPEC SECTION 711.21); INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT; REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS; RE-WELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60* F; LUBRICATING SLIDING SURFACES; AND RE-ASSEMBLY OF THE BEARINGS. THE CONTRACTOR SHALL ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT THE OPTION OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE STATE, NEW BEARINGS OF THE SAME TYPE AS THE EXISTING MAY BE INSTALLED IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.

JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE TO ENABLE PERFORMANCE OF BEARING REFURBISHMENT.

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT TO RAISE OR RE-POSITION ANY EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS AND TO ENABLE REFURBISHMENT OF PROJECT OVERHEAD BRIDGE BEARINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND OPERATION OF AN ADEQUATE JACKING SYSTEM, INCLUDING ANY TEMPORARY OR PERMANENT SUPPORTS NECESSARY TO PERFORM THE WORK DESCRIBED IN THE PROJECT

SUBMITTAL REQUIREMENTS:
THREE (3) SETS OF JACKING PLANS CONSISTING OF AT LEAST THE INFORMATION REQUESTED BY THIS NOTE SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS SCHEDULED TO BEGIN. THE PLANS SHALL BE PREPARED AND STAMPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER. JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

1. THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF THE OHIO REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THE SUBMITTAL.
2. CALCULATIONS AND ANALYSES OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE CONTRACTOR'S SELECTED JACKING POINTS.
3. A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.
4. A SCHEMATIC LAYOUT OF JACKS, CHECK VALVES, PUMPS WITH 3-WAY RETRACTOR VALVES, PRESSURE GAGES, FLOW CONTROL VALVES, ETC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS FOR EACH ABUTMENT OR PIER SHALL BE CONNECTED TOGETHER. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE THE SAME SIZE.
5. ANALYSIS AND CALCULATIONS OF THE STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY OR PERMANENT SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY OR PERMANENT SUPPORTS.
6. PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORTS. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.
7. A STEP BY STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION.
8. A METHOD OF ATTACHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS SHALL NOT BE PERMITTED.

JACKING PLAN
THE CONTRACTOR'S PROPOSED PLAN OF STRUCTURE JACKING PERFORMANCE SHALL BE IN CONFORMANCE WITH THE FOLLOWING ITEMS:
1. THE ENTIRE SYSTEM INCLUDING JACKS SHALL PROVIDE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED LOADS.
2. FOR LIFTS GREATER THAN 1 INCH, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT.
3. JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD, OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK.
4. JACKS ALONE SHALL NOT BE USED TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. TEMPORARY SUPPORTS, BLOCKING, OR OTHER METHODS APPROVED BY THE DIRECTOR SHALL BE USED.
5. SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM SHALL NOT BE USED.
6. SPARE EQUIPMENT SHALL BE AVAILABLE ON SITE FOR THE REQUIRED STRUCTURE RAISING TO PROCEED IN THE EVENT OF BREAKDOWN. A LIST OF SPARE EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER.
7. AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY. THE ONLY EXCEPTION IS THE SITUATION WHERE ALL THREE OF THE FOLLOWING ELEMENTS APPLY: THE WORK INVOLVES REPLACING OR REHABILITATING INDIVIDUAL BEARINGS, NO PERMANENT SHIMMING IS REQUIRED, AND THE HEIGHT OF THE LIFT SHALL NOT EXCEED 1/4 INCH. MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE 1 INCH OR LESS. THIS HEIGHT MAY BE MODIFIED IF CALCULATIONS, BY THE CONTRACTOR'S OHIO REGISTERED PROFESSIONAL ENGINEER, SHOW THE SUPERSTRUCTURE COMPONENTS WILL NOT BE TEMPORARILY STRESSED BEYOND ALLOWABLE STRESSES FOR THOSE COMPONENTS AND THAT NO PERMANENT STRESSES WILL BE INDUCED IN THE COMPONENTS AFTER THEY OBTAIN THEIR FINAL POSITION.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, THE JACKING OPERATION SHALL IMMEDIATELY CEASE AND APPROVED SUPPORTS SHALL BE INSTALLED. THE CONTRACTOR SHALL THEN ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. ANY BEAMS THAT SEPARATE FROM THE DECK SHALL BE EPOXY INJECTED FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH ODOT'S PROPOSAL NOTE "CONCRETE REPAIR BY EPOXY INJECTION". COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT THE BRIDGE BEARINGS ARE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUITABLE MEANS OF REPAIR, SUBJECT TO THE ENGINEER'S APPROVAL, WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

REMOVE AND REPLACE STRIP SEALS AT EXPANSION JOINTS

BRIDGES #2, #4, & #7

PROVIDE ALL LABOR AND MATERIALS TO REMOVE AND INSTALL A NEW 3" STRIP SEAL AT EXPANSION JOINTS. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NOTES AND SPECIFICATIONS ON STANDARD AND DRAWING EXJ-4-87 (SHEET 5 OF 5)

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT THE CONTRACTOR'S COST.

ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL

KZ DESIGN
ENGINEERING & CONSULTING, LTD.
427 DEBORAH DR. SOUTH PARK DRIVE CROSSING, OH 45306-9303
TEL 513.821.6211 FAX 513.821.9800 WEB www.kzd.com

DESIGNED DGK | DRAWN DGK | REVIEWED SJA | DATE 08/02/00
CHECKED WBS | REVISED | STRUCTURE FILE NUMBER

GENERAL NOTES FOR OVERHEAD BRIDGES

PRE-70-0.00

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL.

THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE, THE EXISTING REINFORCING STEEL WHERE REQUIRED IN THE PLANS SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

SUBSTRUCTURE CONCRETE REMOVAL: SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 90 POUNDS, MAY BE USED UPON THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

SEAL EXISTING SLIDING PLATE EXPANSION JOINT WITH JOINT SEALER.
BRIDGE #15 AND #18

THIS WORK SHALL CONSIST OF PROVIDING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO CLEAN AND SEAL EXISTING SLIDING JOINTS.

THE SEALANT SHALL BE DOW CORNING #902 SEALANT (ONE PART/NON SAG/MED. MODULUS) AS MANUFATURED BY DOW CORNING, ALL STATE CAULKING, COLUMBUS, OHIO (614-554-1528): OR APPROVED EQUIVALENT.

JOINTS SHALL BE THOROUGHLY CLEANED BY SANDBLASTING AND/ OR POWER TOOLS AND WITH A SUFFICIENT AMOUNT OF COMPRESSED AIR TO REMOVE ANY DIRT, OR DELETERIOUS MATTER. WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY, AND JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 P.S.I. SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST.

THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. AFTER CLEANING AND DRYING, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE JOINT.

THE SILICONE SEALANT MATERIALS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, EXCEPT AS MODIFIED BY THESE NOTES. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER APPLICATION OF THE SEALANT.

FIELD PAINTING OF EXISTING STRUCTURAL STEEL.

ON THOSE BRIDGES REQUIRING FIELD PAINTING THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION 815 DATED MAY 30, 1996. ALL EXPOSED SURFACES OF BEAMS, CROSS FRAMES, SCUPPERS, DRAINS, AND BEARINGS SHALL BE PAINTED. FINISH COAT COLOR SHALL BE FEDERAL COLOR STANDARD 10324 (DARK NEUTRAL). **ALL PAINTING SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT STAGING** AND THE MAINTENANCE OF TRAFFIC PLANS.

PATCH CONCRETE RAILING.

PATCHING CONCRETE RAILING SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER.

PATCH SUBSTRUCTURE CONCRETE.

PATCHING SUBSTRUCTURE CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 519 PATCHING CONCRETE STRUCTURES. THE LOCATION AND SURFACE AREA EXTENT OF PATCHING CONCRETE STRUCTURES SHALL BE FIELD-DETERMINED BY THE ODOT PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ACCESS TO CONCRETE SURFACES FOR INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AEROSOL PAINT FOR THE PURPOSE OF MARKING SUBSTRUCTURE CONCRETE TO BE PATCHED.

REMOVE THE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW MICRO-SILICA CONCRETE OVERLAY. THIS NOTE REFERS TO BRIDGES 2, 3, AND 16.

REMOVE THE EXISTING CONCRETE WEARING SURFACE AND REPLACE WITH A NEW MICRO-SILICA CONCRETE OVERLAY. THIS NOTE REFERS TO BRIDGE 7 ONLY.

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO REMOVE THE EXISTING CONCRETE SURFACE AND OVERLAY THE SPECIFIED CONCRETE BRIDGE DECKS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGES 31-50). REMOVAL DEPTHS AND OVERLAY THICKNESS OF THE DESIGNATED BRIDGES ARE SHOWN ON THE BRIDGE OVERLAY DETAIL SHEET.

SEAL DECK AND APPROACH SLABS WITH GRAVITY-FED RESIN.

THE SPECIFIED WORK SHALL BE PERFORMED ACCORDING TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION PROPOSAL NOTE NUMBERED 515, TREATING CONCRETE BRIDGE DECKS (AND APPROACH SLABS WHERE INDICATED) WITH GRAVITY-FED RESIN.

SEAL PIERS, PIER CAPS, WINGWALLS, ABUTMENTS, RAILING, AND DECK EDGES WITH EPOXY-URETHANE; COLOR SHALL BE FEDERAL COLOR STANDARD 17778.

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL THE DESIGNATED EXPOSED CONCRETE SURFACE AREAS IN ACCORDANCE WITH THE PROJECT PROPOSAL DOCUMENT (PAGE 30) ENTITLED, ITEM SPECIAL - SEALING OF CONCRETE SURFACES.

MAINTAIN EXISTING MINIMUM VERTICAL CLEARENCE

CONTRACTOR TO DETERMINE MINIMUM VERTICAL CLEARANCE FOR ALL OVERHEAD BRIDGES. THIS CLEARANCE SHALL BE MAINTAINED (EASTBOUND AND WESTBOUND) AND PROPER ADJUSTMENTS MADE FOR THE OVERLAY ON I-70. THIS WILL REQUIRE SOME ADDITIONAL PAVEMENT PLANNING. BRIDGES #16 AND #18 REQUIRE ADDITIONAL CLEARANCE ABOVE THE EXISTING AND EVEN MORE PLANNING WILL BE REQUIRED. SEE ROADWAY PLANS FOR ADDITIONAL DETAILS. RAISING OF OVERHEAD BRIDGES IS NOT REQUIRED.

ASBESTOS ABATEMENT

THE CONTRACTOR SHALL CONDUCT ASBESTOS INSPECTIONS OF ALL BRIDGES SUBJECT TO RENOVATION OR DEMOLITTION AS PER CHAPTER 3745-20 OF THE OHIO ADMINISTRATIVE CODE (OAC) "ASBESTOS EMISSIONS CONTROL FROM RENOVATION/DEMOLITION AND WASTER DISPOSAL OPERATION" MAY 29, 1990 UTILIZING A CERTIFIED OHIO ASBESTOS HAZARD EVALUATION SPECIALIST. SHOULD SUSPECT ASBESTOS CONTAINING MATERIAL (ACM) BE ENCOUNTERED; PERFORM BULK SAMPLING AND ANALYSIS. PREPARE A LETTER REPORT (1-2 PAGES) INCLUDING A BRIEF DISCUSSION OF THE INSPECTION AND SAMPLING METHOLOGY, MAPPING INDICATING THE BRIDGE LOCATION AND SAMPLING LOCATIONS, AND ANALYTICAL TEST RESULTS.

THE CONTRACTOR SHALL COMPLETE AN OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORM AND SUBMIT THIS TO THE OHIO EPA AT LEAST 10 WORKING DAYS BEFORE OPERATIONS BEGIN.

AS THESE INSPECTION REPORTS AND NOTIFICATION FORMS ARE COMPLETED, COPIES SHALL BE FORWARD **TO ODOT'S ON SITE PROJECT ENGINEER.**

PAYMENT OF THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR EACH BRIDGE.

SHOULD ASBESTOS CONTAINING MATERIAL BE ENCOUNTERED, ALL SUSPECT MATERIALS SHALL BE REMOVED AND PROPERLY DESPOSED OF BY A CERTIFIED ASBESTOS REMOVAL CONTRACTOR IN ACCORDANCE WITH OAC 3745-20. AN INDIVIDUAL TRAINED IN THE PROVISIONS OF NESHAPS (30 CFR PART 61, SUBPART M) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION OF ANY STRUCTURE WITH ACM AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE DURING NORMAL BUSINESS HOURS.

ALL ASSOCIATED COSTS OF ASBESTOS MATERIALS TO BE REMOVED AND PROPERLY DISPOSED OF, WILL BE PAYED UNDER 'THIRD PARTY BILLING' PROVISIONS OF ODOT CHANGE ORDER POLICY 512-004(P) APPENDIX D.

DESIGN AGENCY
KZF DESIGN
Kingsley Zeller Fisher Design, Inc.
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401 DESIGN, INC. 600 Dorchester Blvd., Cincinnati, OH 45203-2019
TEL 513.621.6211 FAX 513.621.3000 WEB www.kzd.com

DESIGNED DGK | DRAWN DGK | REVIEWED SJA | DATE 08/02/00
CHECKED WBS | REVISED | STRUCTURE FILE NUMBER

GENERAL NOTES FOR OVERHEAD BRIDGES

PRE-70-0.00

PROPOSAL NOTE 550

FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU) - 07/20/92

GENERAL NOTES

THIS PAINTING PROJECT SHALL CONSIST OF:

1. A COMPLETE WASHDOWN OF ALL STEEL USING A POWER WASHER WITH 7,000 PSI MINIMUM AT NOZZLE WITH A FLOWRATE OF 3-4 GAL./MIN. NOZZLE TO BE HELD AT RIGHT ANGLES TO AND NO MORE THAN 12 INCH FROM THE STEEL SURFACE.

2. SOLVENT CLEANING AS NEEDED.

3. SPOT CLEANING TO REMOVE ALL RUST, MILL SCALE, UNSOUND PAINT, ETC., USING POWER TOOLS GUNS, DESCALERS, ABRASIVE WHEELS, DISCS, ROTARY IMPACT FLAPS, WIRE BRUSHES, ETC. (SEE SSPC 11-8TR) THE APPEARANCE OF THE SURFACE AFTER POWER TOOL CLEANING SHALL CORRESPOND TO PICTORIAL STANDARDS B ST 3, C ST 3 OR D ST 3.

4. A TEST SECTION TO VERITY COMPATIBILITY OF PRIMER WITH EXISTING PAINT.

5. A SPOT PRIME USING AN APPROVED EPOXY MASTIC (5 MILS) MINIMUM.

6. A FULL PRIME (5 MILS) MINIMUM USING EPOXY MASTIC OVER ALL AREAS OF THE BRIDGE INCLUDING OVER SPOT PRIME. SPOT PRIME OR FULL PRIME SHALL BE TINTED TO CONTRAST WITH PREVIOUS COAT.

7. A COMPLETE TOP COAT USING A URETHANE (3 MILS) MINIMUM.

8. ALL PROVISIONS OF OZEU PROPOSAL NOTE WILL APPLY TO THIS PROJECT, EXCEPT THOSE WHICH DIRECTLY CONFLICT WITH THIS NOTE.

9. THE FOLLOWING EXCEPTIONS APPLY TO THIS PROJECT:

A. AREAS OF RUST, UNSOUND (PEELING, FLAKING) PAINT, ETC. SHALL BE REMOVED BY HANDTOOL OR POWER TOOL CLEANING. THE REMOVAL SHALL EXTEND OUT ADEQUATELY TO LEAVE ONLY SOUND, WELL BONDED EXISTING PAINT AND SHALL BE FEATHER EDGED 2 INCHES MIN. FROM BARE STEEL TO SOUND TOP COAT AROUND THE PERIMETER OF EACH SPOT CLEANED.
THE INTENT OF THIS SPECIFICATION IS TO PROVIDE FOR CLEANING AND PAINTING OF THE BRIDGE(S) WITHOUT THE USE OF ABRASIVE BLASTING. THE CONTRACTOR MAY CHOOSE TO USE SELECTIVE ABRASIVE BLASTING ON THIS PROJECT IN CONJUNCTION WITH HANDTOOL CLEANING, HOWEVER, ANY ABRASIVE BLASTING MUST BE ACCOMPANIED WITH CONTAINMENT, COLLECTION, STORAGE, TESTING AND DISPOSAL OF ALL BLASTING DEBRIS IN ACCORDANCE WITH THE PROVISIONS OF OZEU AND WASTE CONTROL PROPOSAL NOTES, EXCEPT NO SEPARATE PAYMENT WILL BE MADE FOR WASTE CONTROL. VACUUM BLASTING WILL ALSO BE CONSIDERED ACCEPTABLE, PROVIDING ALL ABRASIVE IS RECYCLED.

B. MINIMUM MIL THICKNESS OF EACH COAT OF PAINT SHALL BE VERIFIED WITH A POSITECTOR.

C. PRIME COATS TO BE APPLIED BY BRUSH OR ROLLER (SUBJECT TO APPROVAL OF THE ENGINEER). AIRLESS SPRAY ALLOWED ONLY IF OVERSPRAY IS CONTAINED BY ENCLOSURES.

PAINT COMPATIBILITY TEST SECTION

BEFORE ANY PAINTING CAN BEGIN ON THIS BRIDGE (AND AT LEAST 24 HOURS PRIOR TO PAINTING), A 2' X 2' SECTION OF EXISTING SOUND PAINT SHALL BE REMOVED DOWN TO BARE METAL. THE PRIMER TO BE USED SHALL BE APPLIED TO THE TEST SECTION MAKING SURE THAT PRIMER OVERLAPS EXPOSED EDGES OF SOUND PAINT. ANY LIFTING, WRINKLING OR OTHER DETRIMENTAL EFFECTS ON THE SURROUNDING SOUND PAINT WITHIN THE FIRST 24 HOURS SHALL BE GROUNDS FOR DISAPPROVAL OF THE SELECTED PRIMER AND ANOTHER PRIMER SHALL BE SELECTED FOLLOWED BY ANOTHER TEST SECTION. THE COST OF THESE TEST SECTIONS SHALL BE INCLUDED FOR PAYMENT WITH SURFACE PREPARATION. COATINGS WHICH WILL BE ACCEPTABLE (PENDING ACCEPTABILITY OF TEST SECTIONS) ARE:

THE CARBOLINE CO.
350 HANLEY INDUSTRIAL CT.
ST. LOUIS, MO 63144

PRIMER - CARBOMASTIC 15
TOP COAT - CARBOTHANE D 134 HS

POLYCARB VALSPAR CORP.
33095 BAINBRIDGE ROAD
SOLON, OH 44139

PRIMER - UFTRAPOX II, MARK 60.1
TOP COAT - MARK 73 ULTRAKOTE
THE SHERWIN-WILLIAMS CO.
101 PROSPECT AVENUE NW
CLEVELAND, OH 44115

PRIMER - EPOXY MASTIC ALUMINUM II
B62S100/B60V100
TOP COAT - POLYURETHANE B65 SERIES/B60 V2

PRIMER AND TOP COAT MUST BE BY SAME MANUFACTURER.

AMERON PROTECTION COATINGS DIV.
201 NORTH BERRY STREET
BREA, CA 92621

PRIMER - AMEDOCK 400 OR 400 AL
TOP COAT - AMERCOAT 450 HS

901 NORTH GREENWOOD AVE.
KANKAKEE, IL 60901

PRIMER - ALUMAPOXY V75A1
TOP COAT - V40 SERIES URETHANE

PROPOSAL NOTE 515

TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN - 11/15/94

THIS WORK SHALL CONSIST OF PREPARING AND TREATING THE CONCRETE BRIDGE DECK WITH A GRAVITY-FED CRACK WELDING SYSTEM IN ACCORDANCE WITH THESE SPECIFICATIONS IN REASONABLY CLOSE CONFORMITY WITH THE PLANS AND THE MANUFACTURER'S RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER.

THIS WORK ITEM SHALL NOT BE PERFORMED DURING THE PERIOD BEGINNING NOVEMBER 1ST AND ENDING MARCH 31ST.

ROADWAY DIRT AND DEBRIS SHALL FIRST BE REMOVED FROM THE AREA TO BE TREATED. SURFACES TO WHICH THE SEALER IS TO BE APPLIED SHALL BE SWEEP ABRASIVE BLASTED, THEN MANUAL OR POWER BROOM SWEPT AND BLOWN WITH COMPRESSED AIR SO THAT THEY SHALL BE DRY AND FREE OF DUST AND DIRT. HIGH PRESSURE COMPRESSED AIR SHALL BE USED TO BLOW ALL LOOSE MATERIAL FROM VISIBLE CRACKS. IF PARTICLES ARE HIGHLY EMBEDDED IN THE CRACKS, A HIGH PRESSURE WATER BLAST FOLLOWED BY AN AIR BLAST SHALL BE USED TO CLEAN CRACKS. THE CLEANING EQUIPMENT SHALL BE FINED WITH SUITABLE TRAPS, FILTERS, DRIP PANS, DRYERS AND OTHER DEVICES TO PREVENT OIL AND OTHER FOREIGN MATERIAL FROM BEING DEPOSITED ON THE SURFACE. TRAFFIC SHALL NOT BE ALLOWED ON THE CLEAN SURFACES PRIOR TO APPLICATION OF THE SEALER. EXISTING PAVEMENT MARKING SHALL BE REMOVED ACCORDING TO SECTION 621.134 OF THE ODOT CMS. ALL TRACES OF ASPHALT OR PETROLEUM PRODUCTS AND CONCRETE CURING SEALS SHALL BE REMOVED BY THE ABRASIVE BLASTING PRIOR TO AIR SWEEPING.

THE MATERIAL USED FOR TREATING THE CONCRETE BRIDGE DECK SHALL BE:

MARK 135 SAFE-T-SEAL
POLY-CARB
33095 BAINBRIDGE ROAD
SOLON, OH 44139
(216) 248-1223

DURAL 335-FLOWABLE CRACK SEALER
TAMMS INDUSTRIES, CO.
7405 PRODUCTION DRIVE
MENTOR, OH 44060

VERSAFILL-PENETRATING CONCRETE CRACK FILLER
HENKEL
5325 SOUTH 9TH AVENUE
LAGRANGE, IL 60525-3602
(800) 248-1233

CLEANING AND FLUSHING OF EQUIPMENT, TOOLS, ETC. SHALL BE DONE WITH AN APPROPRIATE SOLVENT, AS APPROVED BY THE ENGINEER, IN SUCH A MANNER TO MINIMIZE PERSONAL AND ENVIRONMENTAL HAZARDS.

THE SURFACE TO BE TREATED SHALL BE VISIBLY DRY WITH A TEMPERATURE BETWEEN 40 DEGREES F AND 100 DEGREES F PRIOR TO RESIN APPLICATION. THE RESIN MAY NOT BE APPLIED WITHIN 24 HOURS AFTER A RAIN, DURING RAIN, WHEN RAIN IS FORECAST WITHIN 12 HOURS OR WHEN THE AMBIENT AIR TEMPERATURE IS BELOW 40 DEGREES F. NO STANDING WATER SHALL BE PRESENT DURING APPLICATION. THE DECK SHALL BE PRE-MARKED TO CONTROL MIXED MATERIAL USAGE AND TO PROVIDE A RATE OF APPLICATION OF APPROXIMATELY 100-150 SQUARE FEET PER GALLON. THE EXACT RATE SHALL BE DETERMINED BY THE ENGINEER BUT WILL NOT EXCEED 150 SQUARE FEET PER GALLON.

THE AREA TO BE SEALED SHALL BE FLOODED WITH RESIN. ALLOWING PENETRATION INTO THE CONCRETE AND FILLING OF ALL CRACKS. THE RESIN SHALL BE MIXED TO A LIMIT OF 5 GALLONS AT A TIME FOR MANUAL APPLICATION. A SIGNIFICANT INCREASE IN VISCOSITY SHALL BE CAUSE FOR REJECTION. EXCESS MATERIAL SHALL BE REDISTRIBUTED BY SQUEEGEE WITHIN 10 MINUTES AFTER APPLICATION. FRONT AND BACK MOVEMENT WITH THE SQUEEGEE IS RECOMMENDED OVER CRACKS AND PATCH PERIMETERS TO ENHANCE PENETRATION.

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO PREVENT THE RESIN FROM FLOWING INTO LANES OPEN TO TRAFFIC. THE ENTIRE SEALED AREA OF THE BRIDGE DECK SHALL HAVE SAND BROADCAST BY MECHANICAL MEANS TO EFFECT A UNIFORM COVERAGE OF 1 POUND PER 2-3 SQUARE FOOT. THE SAND SHALL BE A UNIFORMLY GRADED AGGREGATE CONFORMING TO THE QUALITY REQUIREMENTS OF SECTION 703 OF THE CMS AND SHALL CONFORM TO THE FOLLOWING LIMITS FOR GRADING:

SIEVE SIZE	% PASSING MAX.
(NO. 4)	100
(NO. 8)	90 - 100
(NO. 20)	5 -15
(NO. 50)	0 - 5

IT IS THE INTENTION OF THIS SPECIFICATION TO ONLY USE NATURAL SAND PRODUCTS APPLIED BY COMMON LAWN BROADCAST TYPE SEEDER/SPREADER. SAND SHALL BE PLACED BETWEEN 45 TO 75 MINUTES BEHIND THE RESIN SPREADING FRONT DEPENDING ON AIR AND SURFACE TEMPERATURE. THE CONTRACTOR SHALL PROVIDE TIMELY AND SUFFICIENT BROADCAST OF THE AGGREGATE TO INSURE THAT THE SKID RESISTANCE ON THE DECK DOES NOT DROP BELOW 40 AFTER CURING OF THE RESIN. IF THE SURFACE CONTAINS LARGE, DEEP CRACKS, THE LOW VISCOSITY LIQUID COULD RUN COMPLETELY THROUGH THE CONCRETE SLAB. IN THESE AREAS, A SECOND COAT WILL BE REQUIRED AFTER THE FIRST COAT HAS STARTED TO CURE.

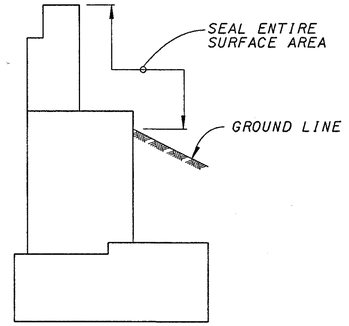
BEFORE THE RESIN HARDENS, IMPERFECTIONS OR SPALLS WITH STANDING LIQUID SHALL BE FILLED WITH COMMERCIAL QUALITY CONCRETE OR SANDBLAST SAND, AND FINISHED TO A UNIFORM SURFACE. THE SAND SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 0.5 OF THE PERCENT OF ABSORPTION WHEN TREATED IN ACCORDANCE TO CALIFORNIA TEST 226. TRAFFIC AND EQUIPMENT SHALL NOT BE PERMITTED ON THE TREATED DECK UNTIL IT IS TACK FREE, A MINIMUM OF 6 HOURS HAVE ELAPSED SINCE TREATMENT AND THE SAND COVER ADHERES SUFFICIENTLY TO RESIST BRUSHING OFF BY HAND. THE TREATMENT SHALL BE PROTECTED FROM MOISTURE FOR NOT LESS THAN 6 HOURS AFTER PLACEMENT.

KZ DESIGN
Architecture | Engineering | Interiors | Planning
627 DODSON Ave. Des Plaines One Cincinnati, OH 45202-6000
TEL 513.651.6611 FAX 513.651.2855 WEB www.kzdesign.com

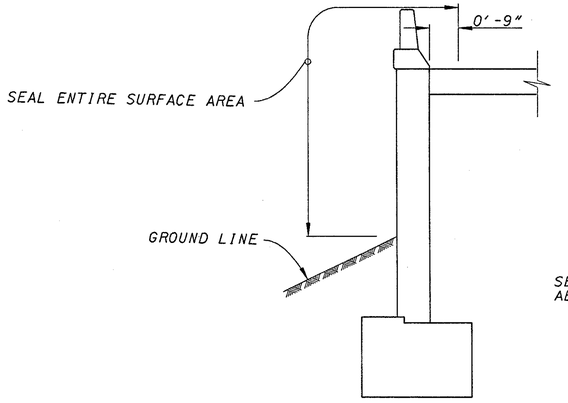
DESIGNED DGK | DRAWN DGK | REVIEWED SJA | DATE 08/02/00
CHECKED WBS | REVISED | STRUCTURE FILE NUMBER

GENERAL NOTES FOR OVERHEAD BRIDGES

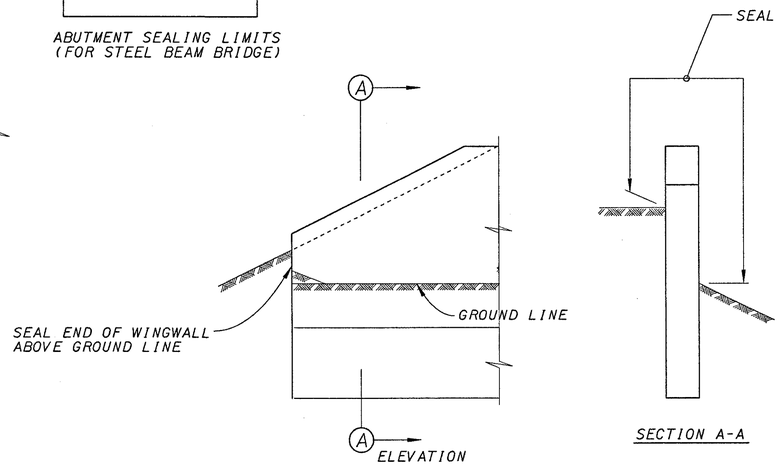
PRE-70-0.00



ABUTMENT SEALING LIMITS
(FOR STEEL BEAM BRIDGE)

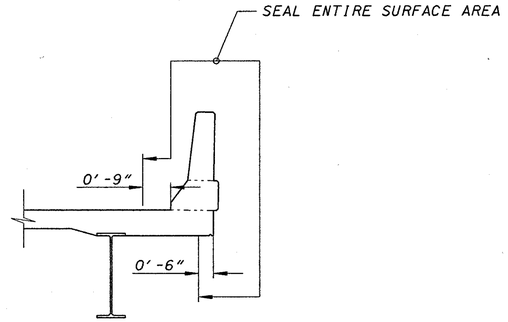


WINGWALL SEALING LIMITS
(TURNBACK WALL ON U-TYPE ABUTMENT)



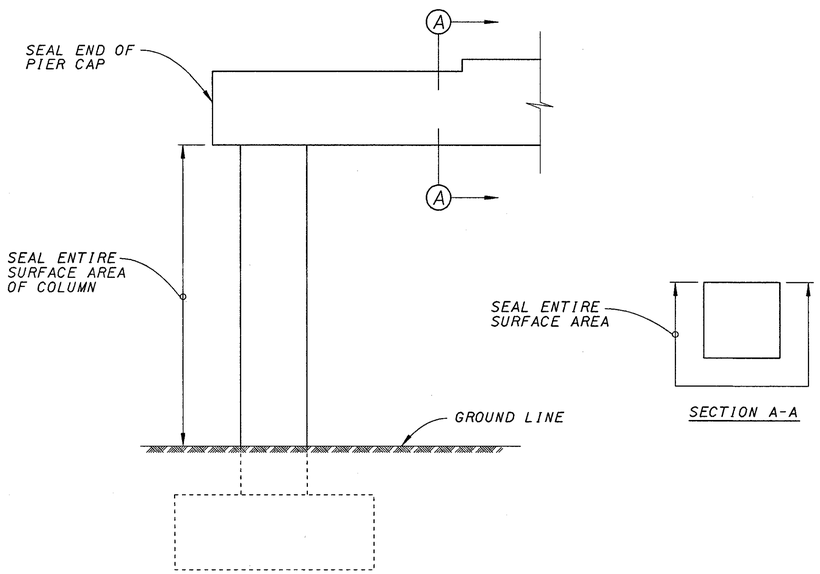
WINGWALL SEALING LIMITS
(STRAIGHT WING ABUTMENT)

SEALING OF CONCRETE SURFACES, SUPERSTRUCTURE



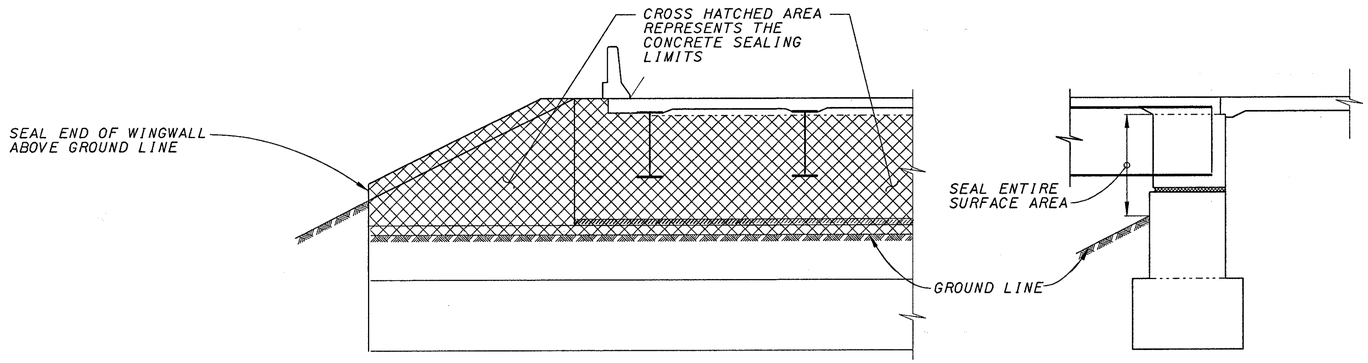
CONCRETE DECK WITH DEFLECTOR PARAPET

SEALING OF CONCRETE SURFACES, SUBSTRUCTURE



PIER SEALING LIMITS

SEALING OF CONCRETE SURFACES. SUBSTRUCTURE



ABUTMENT SEALING LIMITS
(FOR SEMI-INTREGAL ABUTMENT STEEL BEAM BRIDGE)

SEALING OF CONCRETE SURFACES. SUBSTRUCTURE

DESIGN AGENCY
K Z DESIGN
Architecture | Engineering | Interiors | Planning
427 DEBSON INC. 600 East Pratt Drive Cincinnati, OH 45202-6002
TEL 513.621.6211 FAX 513.621.3000 WEB www.kzd.com

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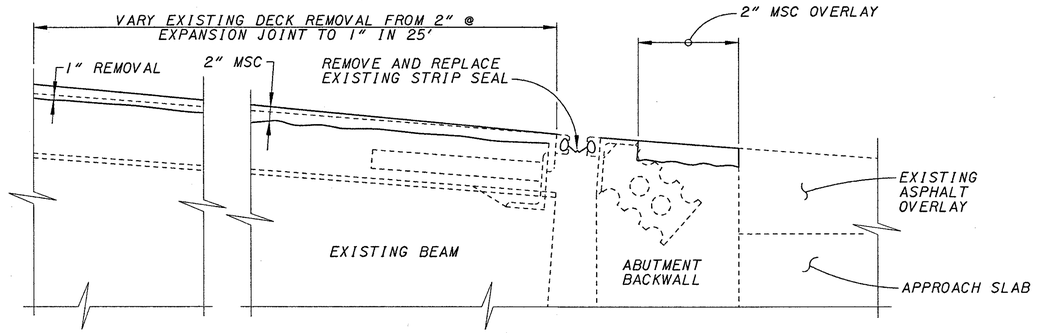
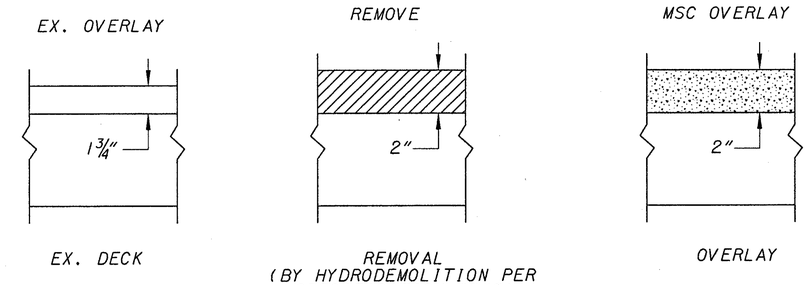
WBS	JW	SJA	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DCK			

SEALING OF CONCRETE SURFACES

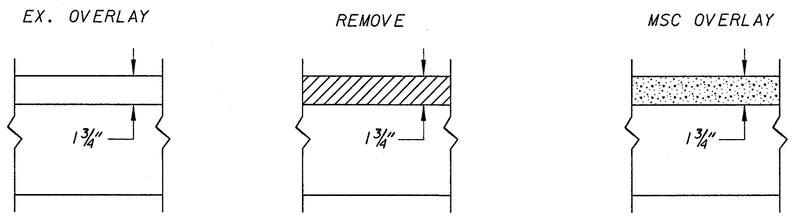
PRE-70-0.00



DETAIL AT ENDS OF BRIDGE #7

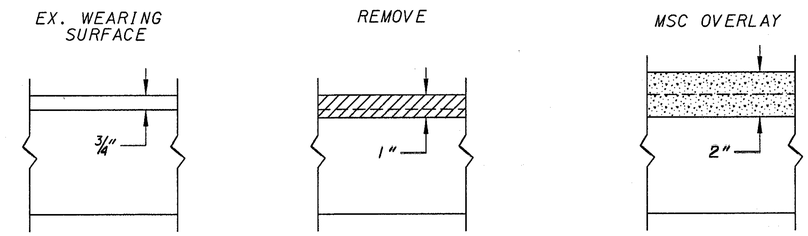


2' WIDE @ EACH GUTTER LINE



REMOVE THE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW MICRO-SILICA OVERLAY.

TYPICAL OF BRIDGES NUMBERED 2, 3, AND 16



22'-6" WIDE AREA

REMOVE THE EXISTING CONCRETE WEARING SURFACE AND REPLACE WITH NEW MICRO-SILICA OVERLAY

TYPICAL OF BRIDGE #7, ONLY

OVERLAY DETAILS

DESIGN AGENCY
KZ DESIGN
ARCHITECTURE | ENGINEERING | PLANNING
KZF DESIGN INC, 600 Eden Park Dr, Cincinnati, OH 45202-6000
TEL 513.621.6211 FAX 513.621.3830 WEB www.kzf.com

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DGK	DGK	SJA	
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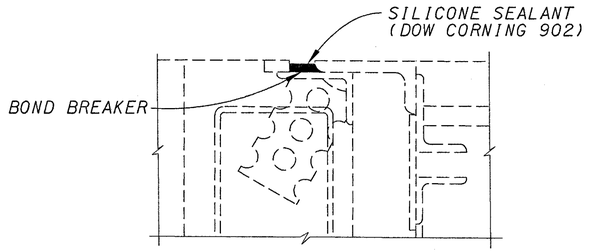
WBS			

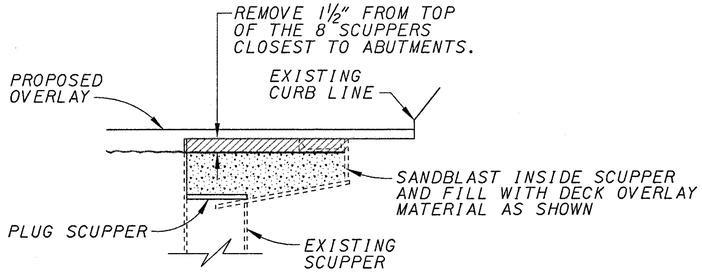
OVERLAY DETAILS

PRE-70-0.00



EXISTING SLIDING JOINT

ROCKER OR BOLSTER SIZE	MINIMUM JACKING CAPACITY REQUIRED
R 75	50 TON
R 100	60 TON
R 175	100 TON
R 200	120 TON
R 250	150 TON

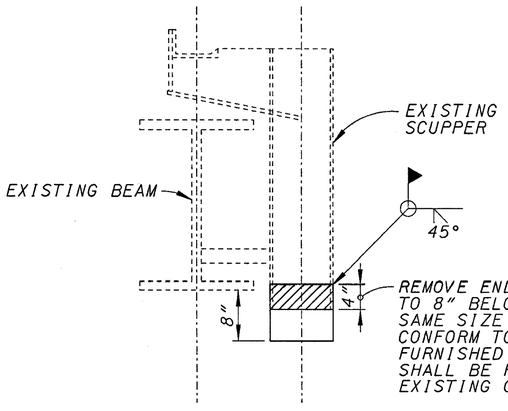


EXISTING SCUPPER TREATMENT
AT BRIDGE #7

BRIDGE #	REAR ABUTMENT BEARING TYPE (KIPS)	PIER 1 BEARING TYPE (KIPS)	PIER 2 BEARING TYPE (KIPS)	PIER 3 BEARING TYPE (KIPS)	FORWARD ABUTMENT BEARING TYPE (KIPS)
2	R 75	R 175	B 200	R 175	R 75
3	R 100	R 250	B 275	R 250	R 100
4	R 75	R 200	B 200	R 200	R 75
5	R 75	R 200	B 200	R 200	R 75
7	R 75	R 200	B 200	R 200	R 75
9	R 100	R 200	B 225	R 200	R 100
10	R 75	R 200	B 200	R 200	R 75
11	R 100M	R 200	B 225	R 200	R 100M
15	R 100	R 200	B 225	R 200	R 100
16	R 100	R 175	B 200	R 175	R 100
18	R 75	R 175	B 200	R 175	R 75
20	NOT REQUIRED				
21	R 75	R 175	B 200	R 175	R 75

BEARING TYPES :
R = ROCKERS AND B = BOLSTERS

BEARING REFURBISHMENT
FOR PROJECT OVERHEAD BRIDGES



REMOVE END 4"± OF EXISTING SCUPPER. EXTEND SCUPPER TO 8" BELOW THE BOTTOM OF THE BEAM FLANGE WITH THE SAME SIZE PIPE AS THE EXISTING PIPE. PIPE SHALL CONFORM TO ODOT 748.06. EXTENSION PIECE SHALL BE FURNISHED WITH ONE END BEVELLED FOR WELDING. DOWNSPOUTS SHALL BE PAINTED PER PROPOSED NOTE 550. TOP COAT TO MATCH EXISTING COLOR.

SCUPPER EXTENSION DETAIL

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN Inc. 455 Eden Park Dr. Cincinnati, OH 45202-6005
TEL 513.621.6211 FAX 513.621.3530 Web www.kzd.com

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DGK	DGK	SJA	
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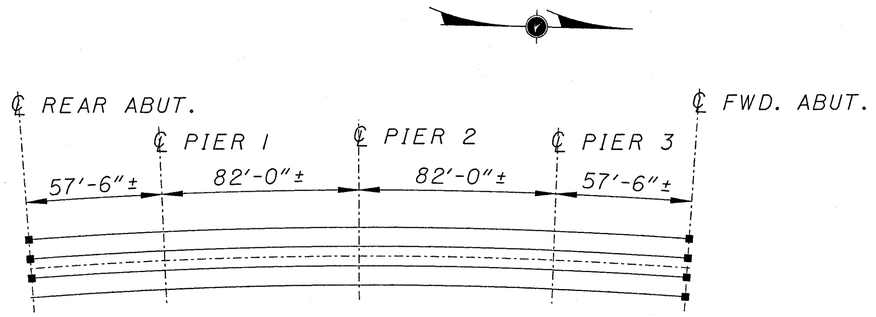
WBS			

SCUPPERS - SEALING - JOINTS - BEARINGS

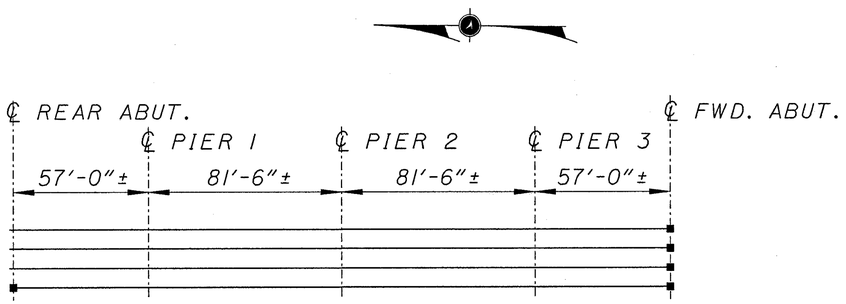
PRE-70-0.00



FRAMING PLAN

▪ INDICATES R-75 BEARING THAT NEEDS TO BE REPOSITIONED.

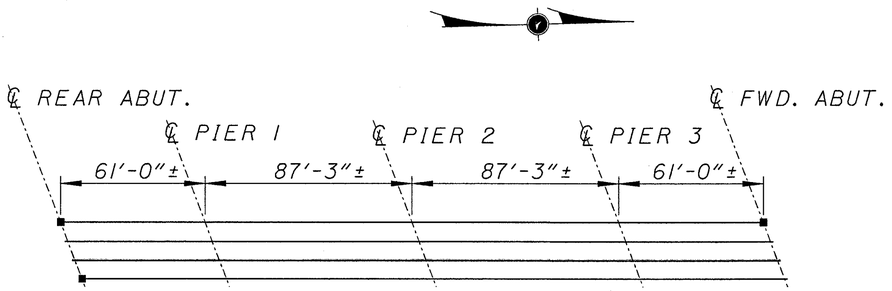
KZF BRIDGE #2



FRAMING PLAN

▪ INDICATES R-75 BEARING THAT NEEDS TO BE REPOSITIONED.

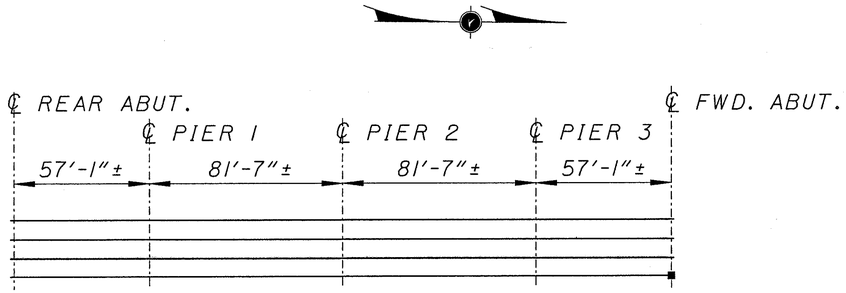
KZF BRIDGE #4



FRAMING PLAN

▪ INDICATES R-75 BEARING THAT NEEDS TO BE REPOSITIONED.

KZF BRIDGE #5



FRAMING PLAN

▪ INDICATES R-75 BEARING THAT NEEDS TO BE REPOSITIONED.

KZF BRIDGE #7

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN INC. 605 Main Post Drive Cincinnati, OH 45202-8000
TEL 513.621.6611 FAX 513.621.3000 Web www.kzf.com

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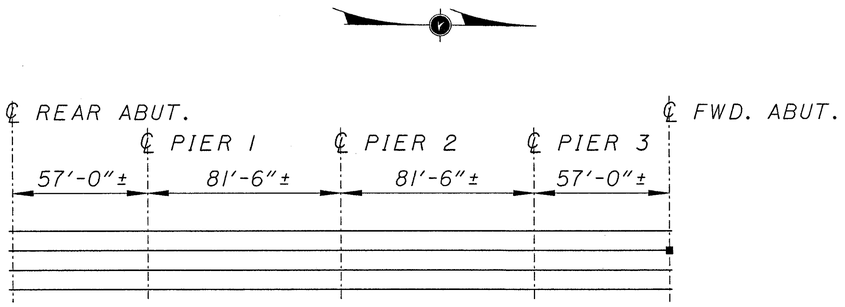
BEARING REQUIRING REPOSITIONING

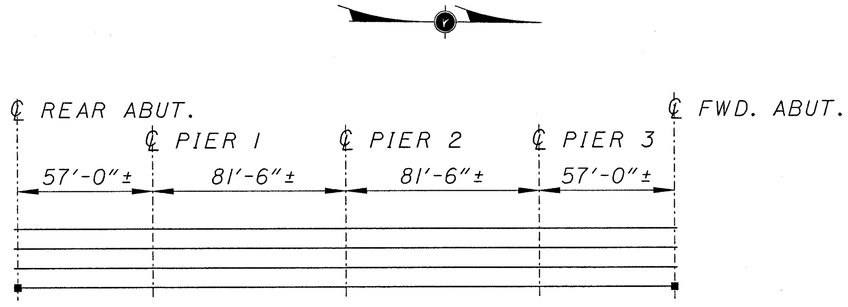
PRE-70-0.00



FRAMING PLAN

▪ INDICATES R-75 BEARING THAT NEEDS TO BE REPOSITIONED.

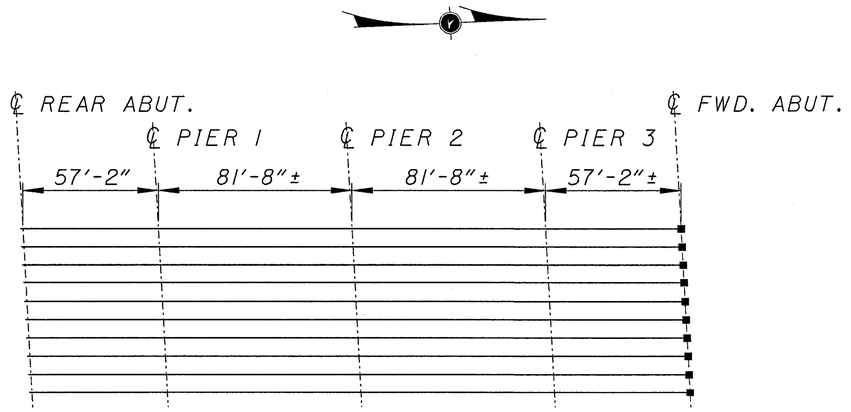
KZF BRIDGE #9



FRAMING PLAN

▪ INDICATES R-75 BEARING THAT NEEDS TO BE REPOSITIONED.

KZF BRIDGE #10



FRAMING PLAN

▪ INDICATES R-100 (MOD.) BEARING THAT NEEDS TO BE REPOSITIONED.

KZF BRIDGE #11

DESIGN AGENCY
KZ DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN, INC. 855 Dana Park Drive Cincinnati, OH 45202-6000
TEL 513.621.2277 FAX 513.621.2800 Web www.kzf.com

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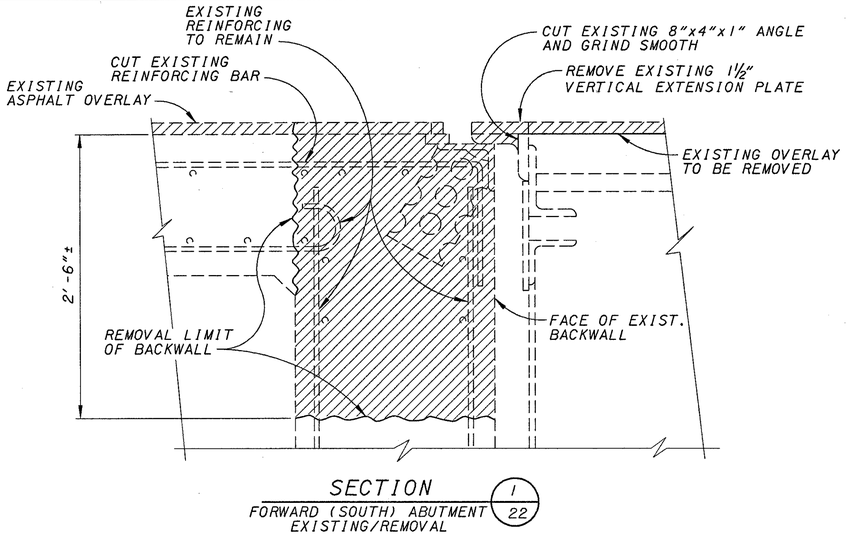
BEARING REQUIRING REPOSITIONING

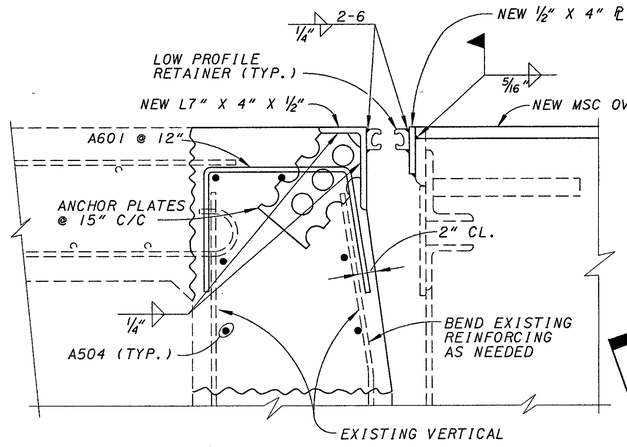
PRE-70-0.00

21/24

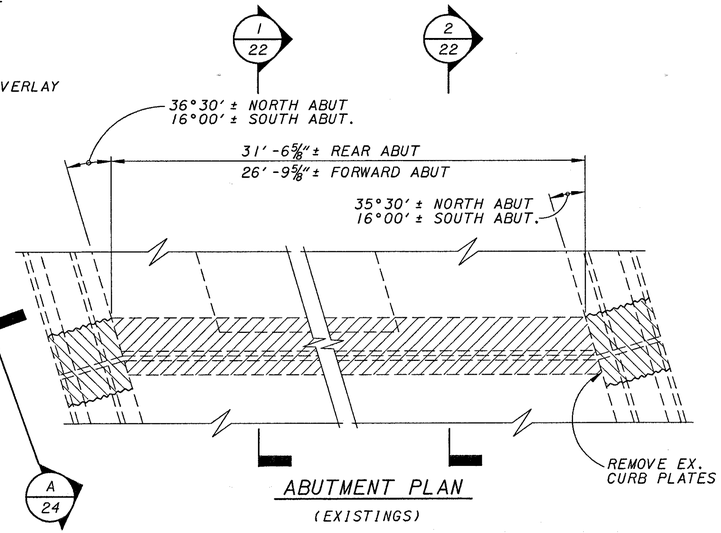
280/283



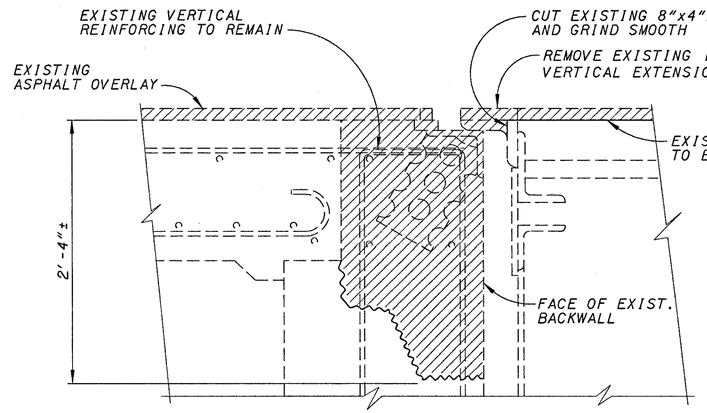
SECTION
FORWARD (SOUTH) ABUTMENT EXISTING/REMOVAL
1 / 22



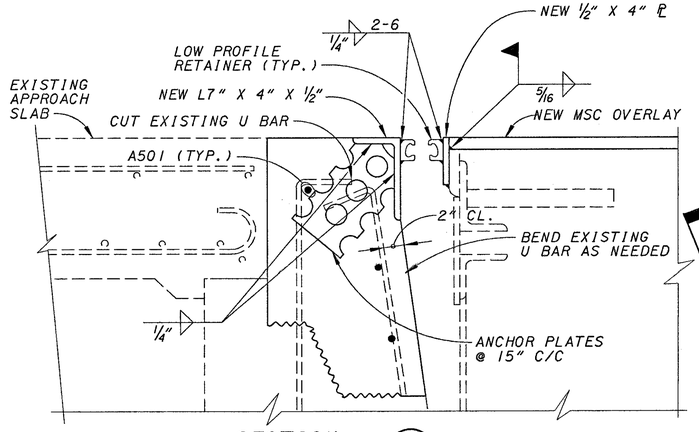
SECTION
FORWARD (SOUTH) ABUTMENT EXISTING/REMOVAL
3 / 22



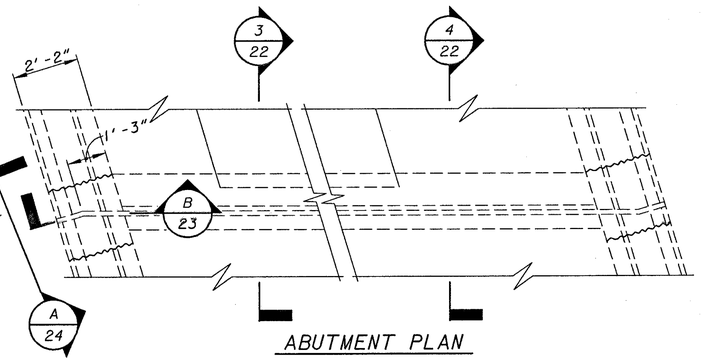
ABUTMENT PLAN
(EXISTINGS)



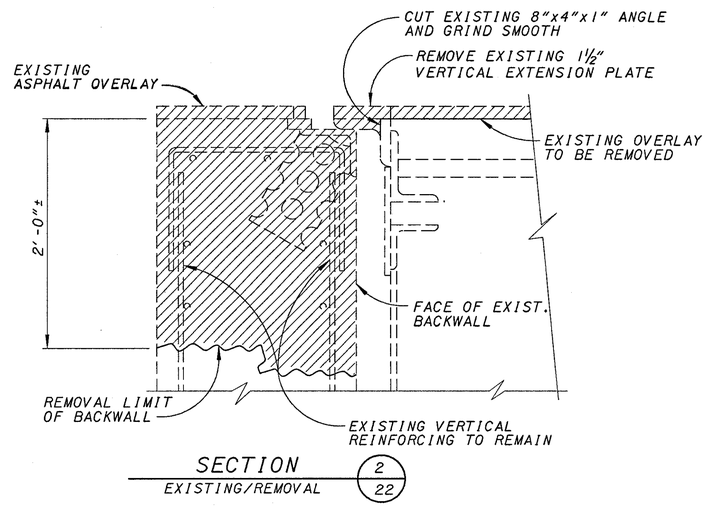
SECTION
REAR (NORTH) ABUTMENT EXISTING/REMOVAL
1 / 22



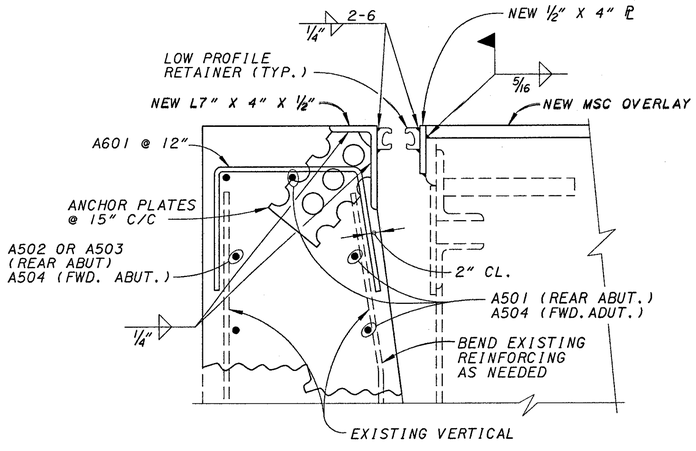
SECTION
REAR (NORTH) ABUTMENT PROPOSED DETAIL
3 / 22



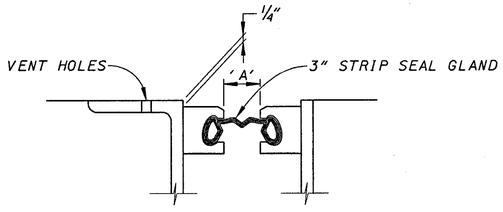
ABUTMENT PLAN
(PROPOSED)



SECTION
EXISTING/REMOVAL
2 / 22



SECTION
PROPOSED DETAIL
4 / 22



STRIP SEAL DIM. 'A' (SEE STD. DWG. EJ-4-87M)								
TEMPERATURE	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F
REAR ABUTMENT	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	1"
FORWARD ABUTMENT	1⅞"	1¾"	1⅝"	1½"	1⅜"	1¼"	1⅛"	1"

FOR ADDITIONAL JOINT DETAILS, NOTES AND INSTALLATION DETAILS SEE STD. DWG. EXJ-4-87.

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.

DESIGN AGENCY
KZF DESIGN
Architecture | Engineering | Interiors | Planning
KZF DESIGN, INC. 636 East Third Street Cincinnati, OH 45202-6000
TEL 513.621.6211 FAX 513.621.3800 WEB www.kzf.com

DESIGNED	DRAWN	REVIEWED	DATE
DGK	JDG	SJA	8/2/00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WBS			

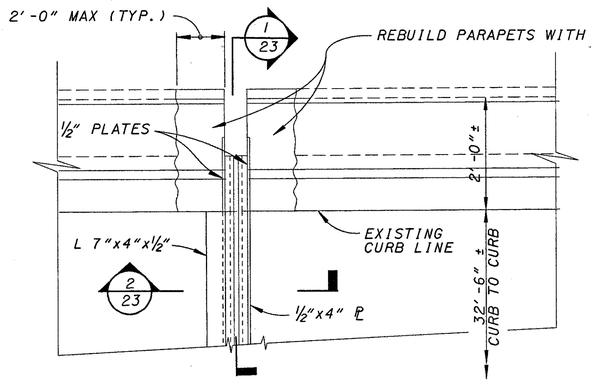
KZF #3

JOINT DETAILS
BRIDGE NO. PRE-35-0176
I.R. 70 UNDER U.S. 35 WB

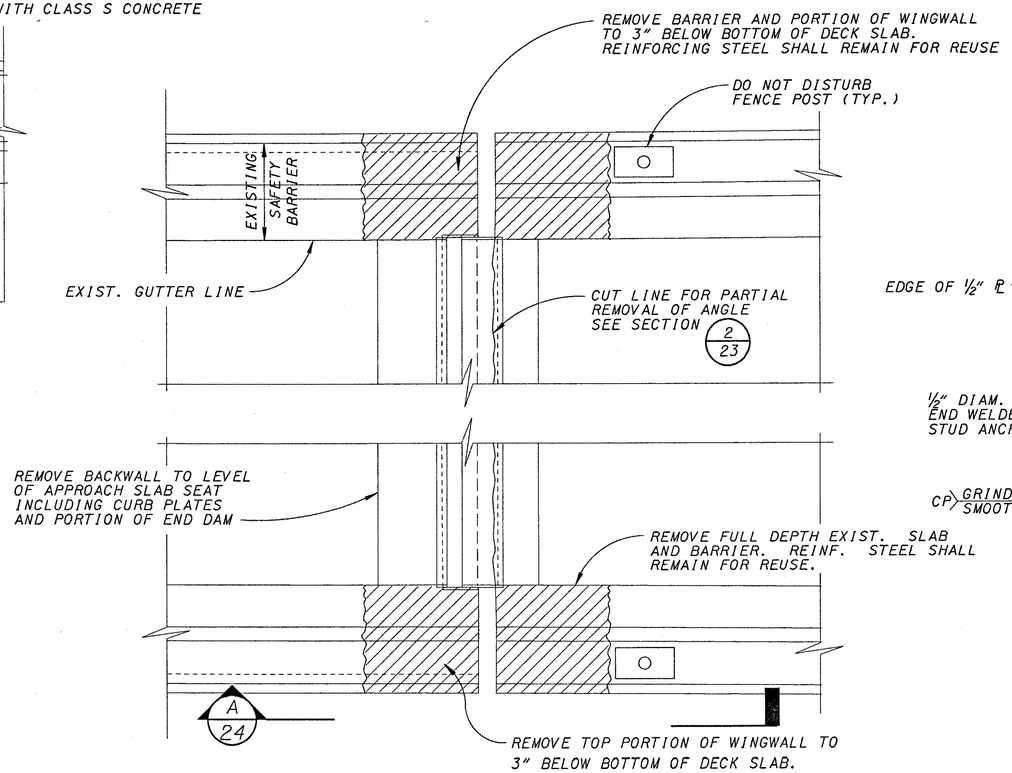
PRE-70-0.00

22 / 24

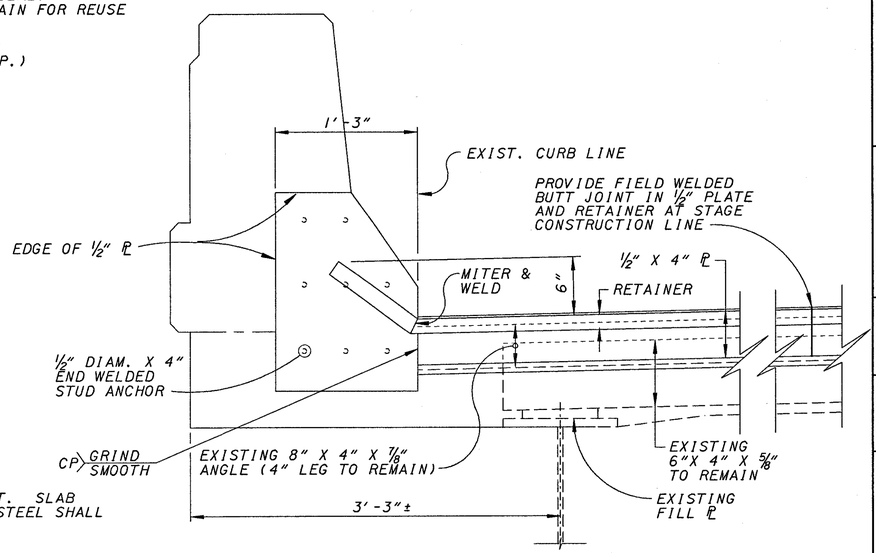
281 / 283



EXTENSION OF STRUCTURAL EXPANSION JOINT

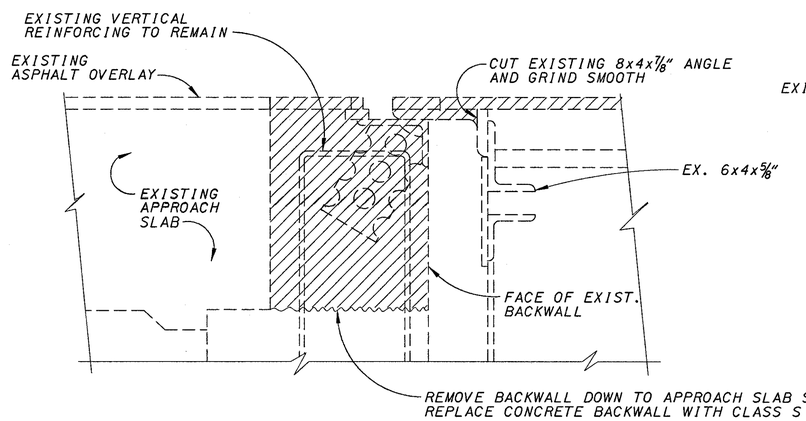


REMOVALS FOR JOINT MODIFICATION



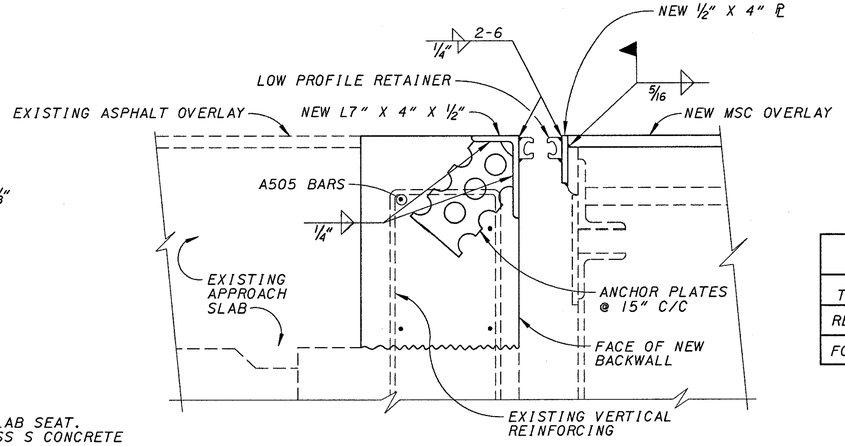
SECTION B/22 1/23
BRIDGE 16 SHOWN
BRIDGE 3 SIMILAR

HORIZONTAL EXTENSION OF STRUCTURAL EXPANSION JOINT



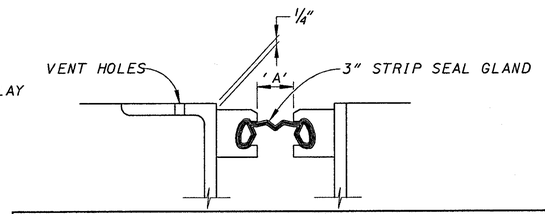
SECTION 2/23

EXPANSION JOINT REMOVAL DETAIL



SECTION 2/23

EXPANSION JOINT DETAIL



STRIP SEAL DIM. 'A' (SEE STD. DWG. EJ-4-87M)								
TEMPERATURE	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F
REAR ABUTMENT	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"
FORWARD ABUTMENT	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"

FOR ADDITIONAL JOINT DETAILS, NOTES AND INSTALLATION DETAILS SEE STD. DWG. EXJ-4-87.

DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.

DESIGN AGENCY
KZ DESIGN
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627 DEBEVOIS INC. 666 Euclid Ave. Suite Cincinnati, OH 45202-6000
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DESIGNED | DRAWN | REVIEWED | DATE
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KZF #16

JOINT DETAILS
BRIDGE NO. PRE-503-1955
I.R. 70 UNDER S.R. 503

PRE-70-0.00

23/24
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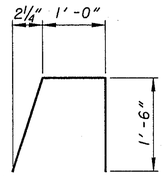
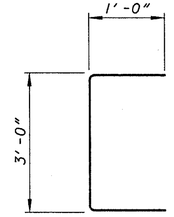
ABUTMENT AND BARRIER REINFORCING

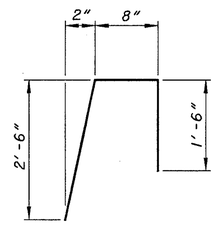
MARK	NUMBER			LENGTH	WEIGHT (LBS)	SHAPE
	BRIDGE 3	BRIDGE 16	TOTAL			
A501	6		6	19'-2"	120	STR.
A502	3		3	9'-0"	28	STR.
A503	3		3	4'-0"	13	STR.
A504	12		12	16'-10"	211	STR.
A505		16	16	19'-6"	325	STR.
A601	42		42	3'-8"	231	BT.
A602	24	24	48	4'-8"	336	BT.
A603	24	24	48	4'-4"	312	BT.
A604	24	24	48	3'-8"	264	BT.
				TOTAL	1840	



A601



A602



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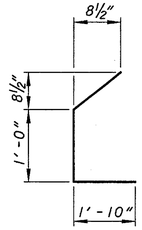
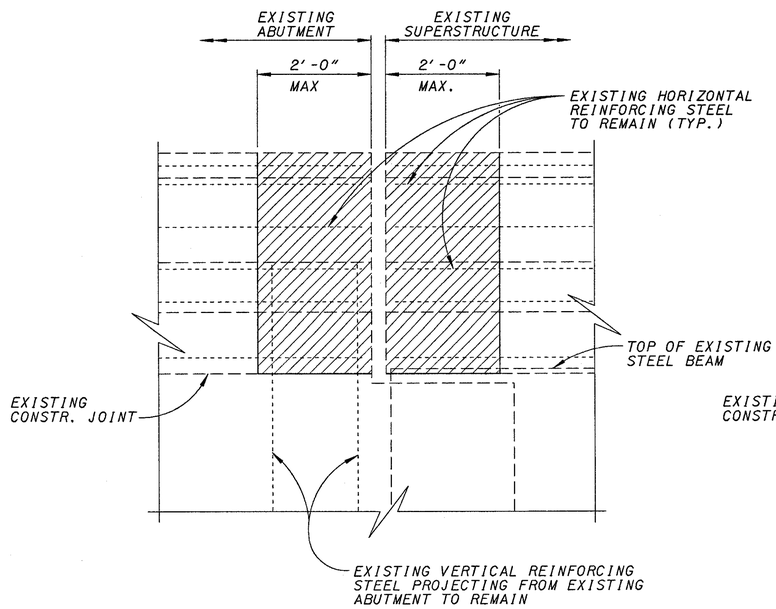
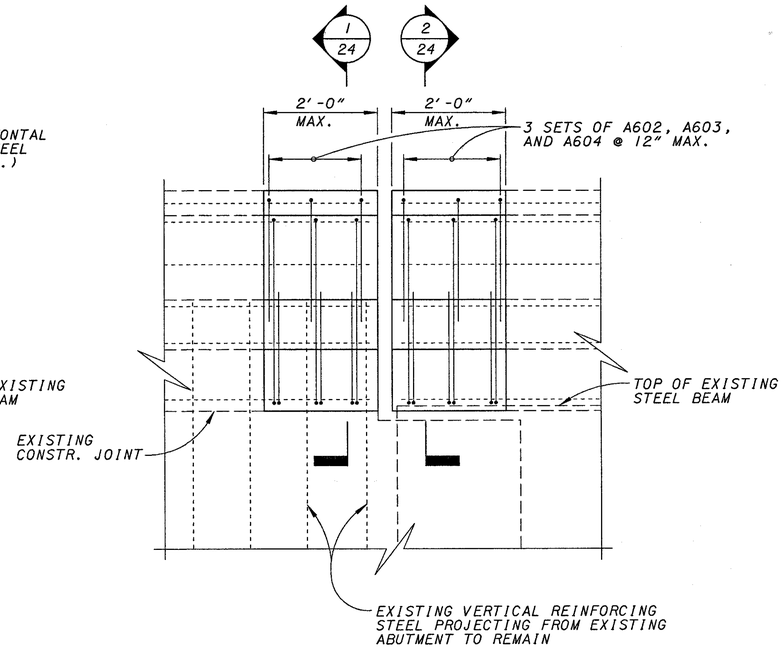


A604

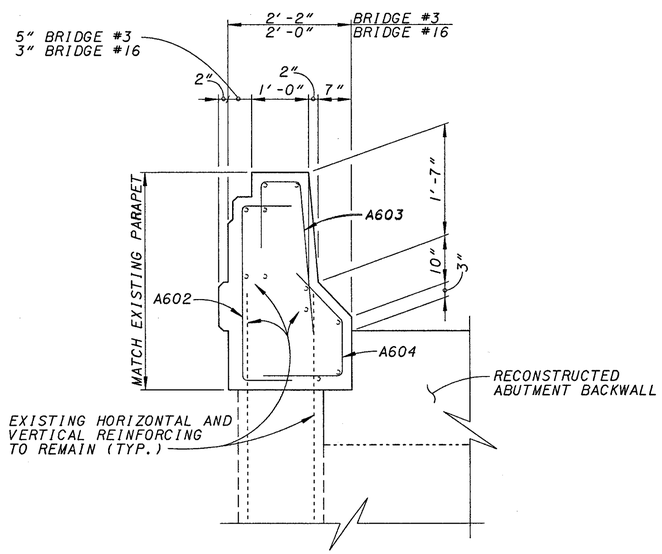


VIEW EXISTING/REMOVAL (A 22 / A 23)

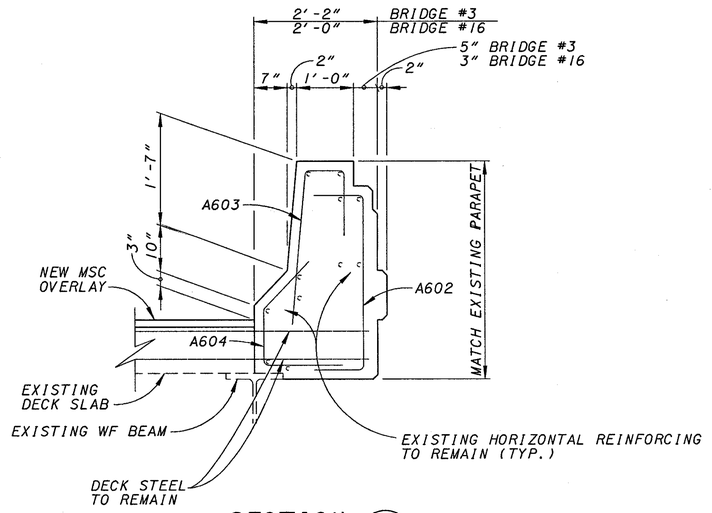
DENOTES PORTION OF EXISTING STRUCTURE TO BE REMOVED.



VIEW PROPOSED (A 22 / A 23)



SECTION 1/24



SECTION 2/24

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KZF#3
KZF#16

BARRIER MODIFICATIONS AND REINFORCING LIST

PRE-70-0.00

24/24

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