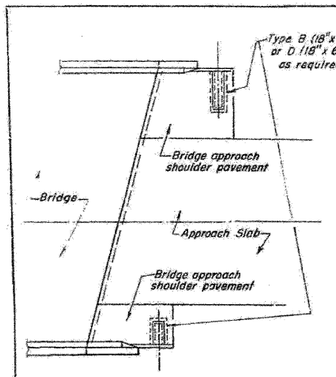
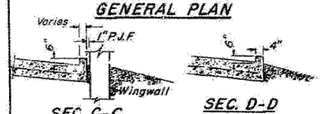
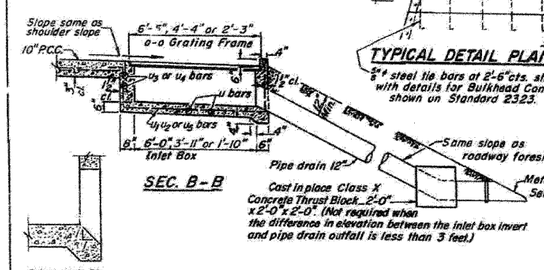
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



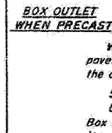
GENERAL PLAN



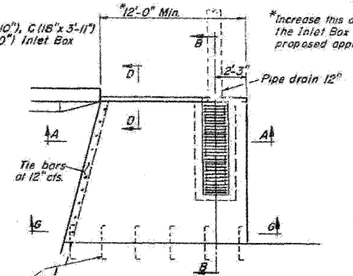
SEC. C-C SEC. D-D



SEC. B-B



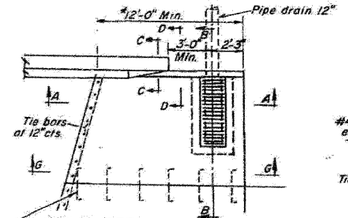
BOX OUTLET WHEN PRECAST



TYPICAL DETAIL PLAN (w/o Wingwall)

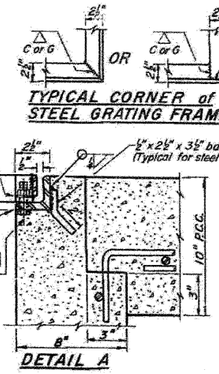
*Increase this dimension as needed to position the Inlet Box and Pipe Drain between the proposed approach guardrail posts.

5/8" ϕ steel tie bars at 2'-6" cts. shall be in accordance with details for Bulkhead Construction Joint shown on Standard 2323.

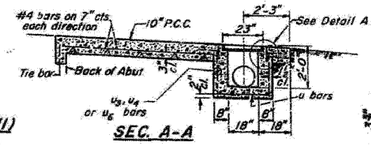


TYPICAL DETAIL PLAN (with Wingwall)

5/8" ϕ steel tie bars at 2'-6" cts. shall be in accordance with details for Bulkhead Construction Joint shown on Standard 2323.

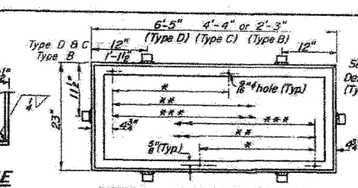


DETAIL A



SEC. A-A

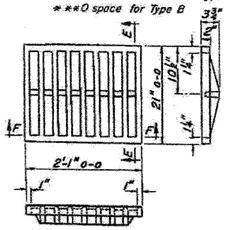
SEC. G-G



TYPICAL CORNER of STEEL GRATING FRAME

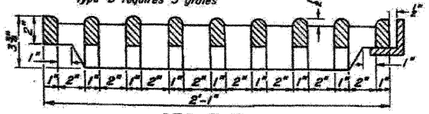
DETAIL of STEEL FRAME

Cast frame to have same basic dimensions.
* 1 space at 2'-1" for Type C
** 2 spaces at 2'-1" for Type D
*** O space for Type B

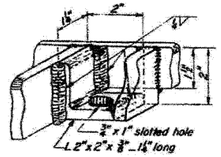


DETAIL of CAST GRATING

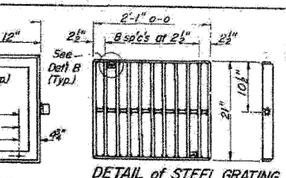
Type B requires 1 grate
Type C requires 2 grates
Type D requires 3 grates



SEC. F-F

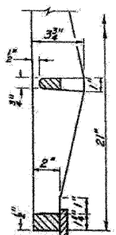


DETAIL B

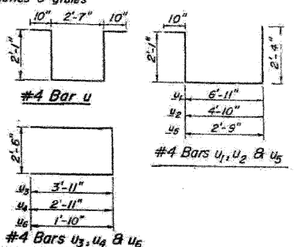


DETAIL of STEEL GRATING

Type B requires 1 grate
Type C requires 2 grates
Type D requires 3 grates



SEC. E-E



Material Required for One Type B Inlet Box

Bar	No.	Size	Length
u	4	#4	8'-5"
u5	3	#4	8'-0"
u6	4	#4	6'-2"
Concrete_Class X or Precast		Cu. Yds.	0.4
Reinf Bars		Lbs.	60
Grating		Sq. Ft.	3.7

Material Required for One Type C Inlet Box

Bar	No.	Size	Length
u	6	#4	8'-5"
u3	3	#4	10'-1"
u4	4	#4	8'-4"
Concrete_Class X or Precast		Cu. Yds.	0.9
Reinf. Bars		Lbs.	80
Grating		Sq. Ft.	7.3

Material Required for One Type D Inlet Box

Bar	No.	Size	Length
u	8	#4	8'-5"
u1	3	#4	12'-2"
u3	4	#4	10'-4"
Concrete_Class X or Precast		Cu. Yds.	1.2
Reinf. Bars		Lbs.	100
Grating		Sq. Ft.	11.0

GENERAL NOTES

When Inlet Box or Boxes are not required, surface of the shoulder pavement shall be finished to provide a smooth transition from back of the abutment to normal approach roadway shoulder.

See plans for location of bridge approach shoulder pavement.

Use Type C Inlet Box for 5' and 6' shoulder widths, use Type D Inlet Box for 7' and wider shoulder widths, use Type B Inlet Box for shoulders less than 5' wide.

For placement of approach shoulder pavement on existing construction substitute expansion anchor ties for tie bars. For non-rigid approaches, shoulder pavement will be as shown except omit tie bars in approach pavement.

The material for 12" ϕ Pipe Drains shall be either corrugated steel, aluminum alloy or polyethlene (P.E.) pipe with UV protection.

Corrugated steel and aluminum alloy pipe shall have 2' coupling bands. All pipe connections shall be water tight.

The P.C. Concrete used in the shoulder slab shall meet the requirements of Section 408 of the Standard Specifications.

The lengths of #4 bars used in the approach shoulder pavement shall be as required to accommodate the length, width and skew of the slab.

Class X concrete or precast concrete shall be used for the inlet.

Precast concrete shall be in accordance with Sections 505.01 thru 505.05 of the Standard Specifications except that the concrete strength shall be 4000 p.s.i after 28 days.

All exposed edges of the inlet, except the upper perimeter, shall be beveled 3/4".

Shop drawings will not be required for precast Inlet Boxes.

A 3" deep CA-12 bedding conforming to Article 704.01, 0 Quality or better shall be provided under full length and width of precast units, and all voids around the pipe drain entrance, both inside and outside, shall be sealed with mortar.

The grating shall seat firmly in the frame and steel grates shall be secured to the frame with a locking device as shown. Cast grates will not require the locking device.

Steel grating and frames shall conform to Article 710.04 of the Standard Specifications and shall be galvanized to AASHTO Specification M111 after fabrication.

Cast grating and frames shall conform to Article 710.17 of the Standard Specifications. Cast grating and frames shall not be galvanized.

Pipe drains shall be installed, measured and paid for in accordance with Section 607 of the Standard Specifications, except sand bedding will not be required.

Metal End Sections shall be installed, measured and paid for in accordance with Section 511 of the Standard Specifications.

Bridge approach shoulder pavement will be measured in place and paid for in square yards as P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT which shall include the cost of subgrade preparation, expansion anchor ties, reinforcement and joint fillers. In computing the area for payment, a deduction will be made for the area displaced by the inlet. (1.2 Sq. Yds. Type C; 1.7 Sq. Yds. Type D, 0.6 Sq. Yds. Type B.)

The contract unit price "Each" for TYPE (B, C or D) INLET BOX STANDARD 2324, in place, shall include the frame and grating, class X or precast concrete, reinforcement bars, excavation, bedding when required, and compacted backfill.

The contract unit price "Each" for CONCRETE THRUST BLOCKS, in place, shall include excavation and compacted backfilling.

Illinois Department of Transportation

PASSED July 18, 1984
Engineer of Bridge and Traffic Structures

APPROVED July 18, 1984
Engineer of Design

SSSHD (2-1-69)

BRIDGE APPROACH SHOULDER PAVEMENT

STANDARD 2324-6

EXISTING PLAN INFORMATION 4 OF 6
STRUCTURE NO. 022-0099

FOR INFORMATION ONLY

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10050

SHEET NO. 16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	290/355	22(1, 1-1, 2&3)RS-7	DUPAGE	546	278
			CONTRACT NO. 60G51		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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