

Rev. June 8, 1971

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(90):13	1972	126	202

ESTIMATED QUANTITIES - STRUCTURE NO. 15

ITEM NO.	ITEM	UNIT	QUANTITY
503.086	Concrete In Structure No. 15 Footings	L.S.	56 CY
503.085	Concrete In Structure No. 15 (Except Footings)	L.S.	218 CY
602.019	Reinforcing Steel In Structure 15	L.S.	47,100 lbs
612.01	Grouted Rubble Paving (Include Structure No. 14)	C.Y.	212
206.81	Filter Material for Structures	C.Y.	38
504.39	Type IV, Prestressed Concrete Girders in Structure #15	L.S.	618 LF
505.040	Precast, Prestressed Concrete Piles, Furnished	L.F.	1,728
505.400	Precast, Prestressed Concrete Piles, Driven	L.F.	1,197
505.800	Driving Test Piles	L.F.	56
505.700	Redrilled Holes For Piling	L.F.	355
507.10	Metal Bridge Railing - One Rail On Parapet	L.F.	239
507.70	Concrete Bridge Parapet, Including End Post	L.F.	279
206.60	Structure Excavation For Bridges	C.Y.	229

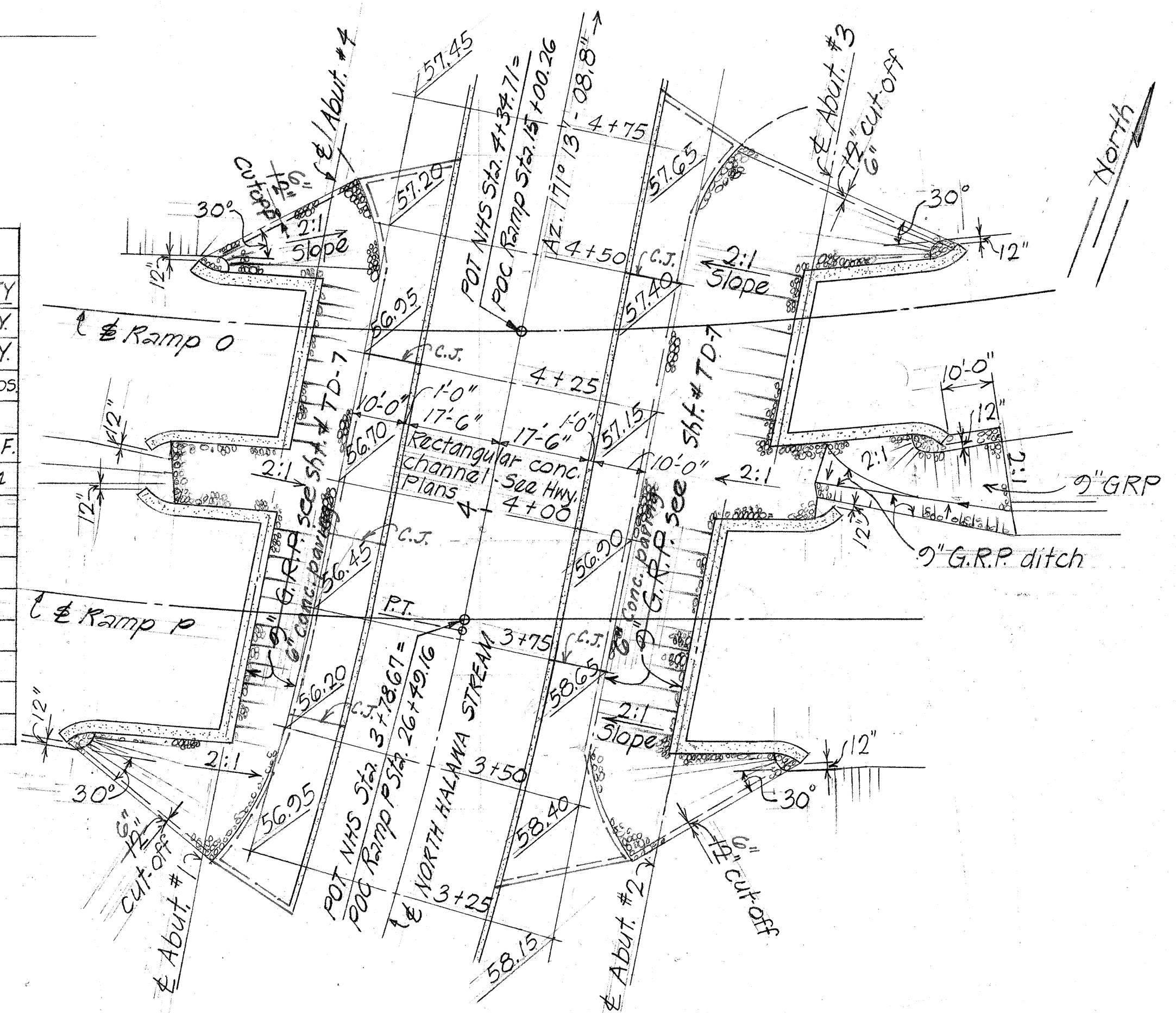
FINISH GRADE PLAN

Scale: 1" = 20'-0"

ESTIMATED QUANTITIES - STRUCTURE NO. 14

ITEM NO.	ITEM	UNIT	QUANTITY
503.084	Concrete In Structure No. 14 Footings	L.S.	42 CY
503.083	Concrete In Structure No. 14 (Except Footing)	L.S.	184 CY
602.018	Reinforcing Steel in Structure 14	L.S.	40,800 lbs
612.01	Grouted Rubble Paving	C.Y.	*
504.38	Type IV, Prestressed Concrete Girders in Structure #14	L.S.	482 LF
505.040	Precast, Prestressed Concrete Piles, Furnished	L.F.	2,424
505.400	Precast, Prestressed Concrete Piles, Driven	L.F.	1,793
505.800	Driving Test Piles	L.F.	283
505.700	Redrilled Holes For Piling	L.F.	239
507.10	Metal Bridge Railing - One Rail on Parapet	L.F.	263
507.70	Concrete Bridge Parapet, Including End Post	L.F.	303
505.001	Pile Load Test	Each	1
206.60	Structure Excavation for Bridge	C.Y.	182
206.81	Filter Material for Structures	C.Y.	32

* GRP quantities are included with Structure No. 15 quantities.



REFERENCE NOTES:

For design notes, general notes, symbols & abbreviations, refer to sht. # TD-1.
For boring logs, see shts. # 1 P thru 8 P.

GENERAL NOTES:

In case drilled holes for piles are required through natural ground and their locations and quantities are not shown on plans, all operations performed shall be at the Contractor's expense & will not be paid for separately.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALAWA INTERCHANGE
STRUCTURE NOS 14 & 15

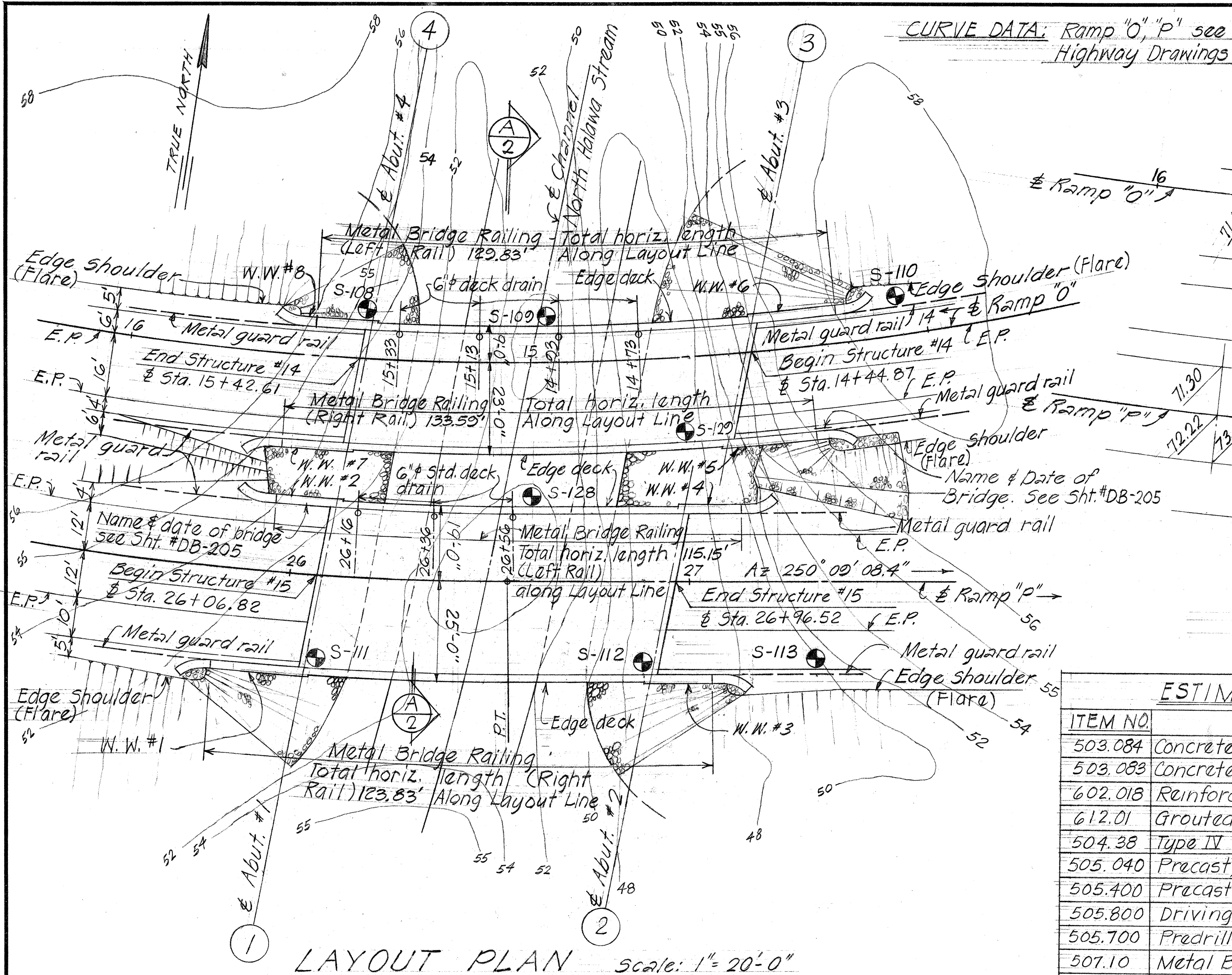
STA. 14+44.87 TO STA. 15+42.61 - N^o 14
STA. 26+06.82 TO STA. 26+96.52 - N^o 15

LAYOUT PLAN & DETAILS

Proj. No. I-HI-1(90):13 May 1971

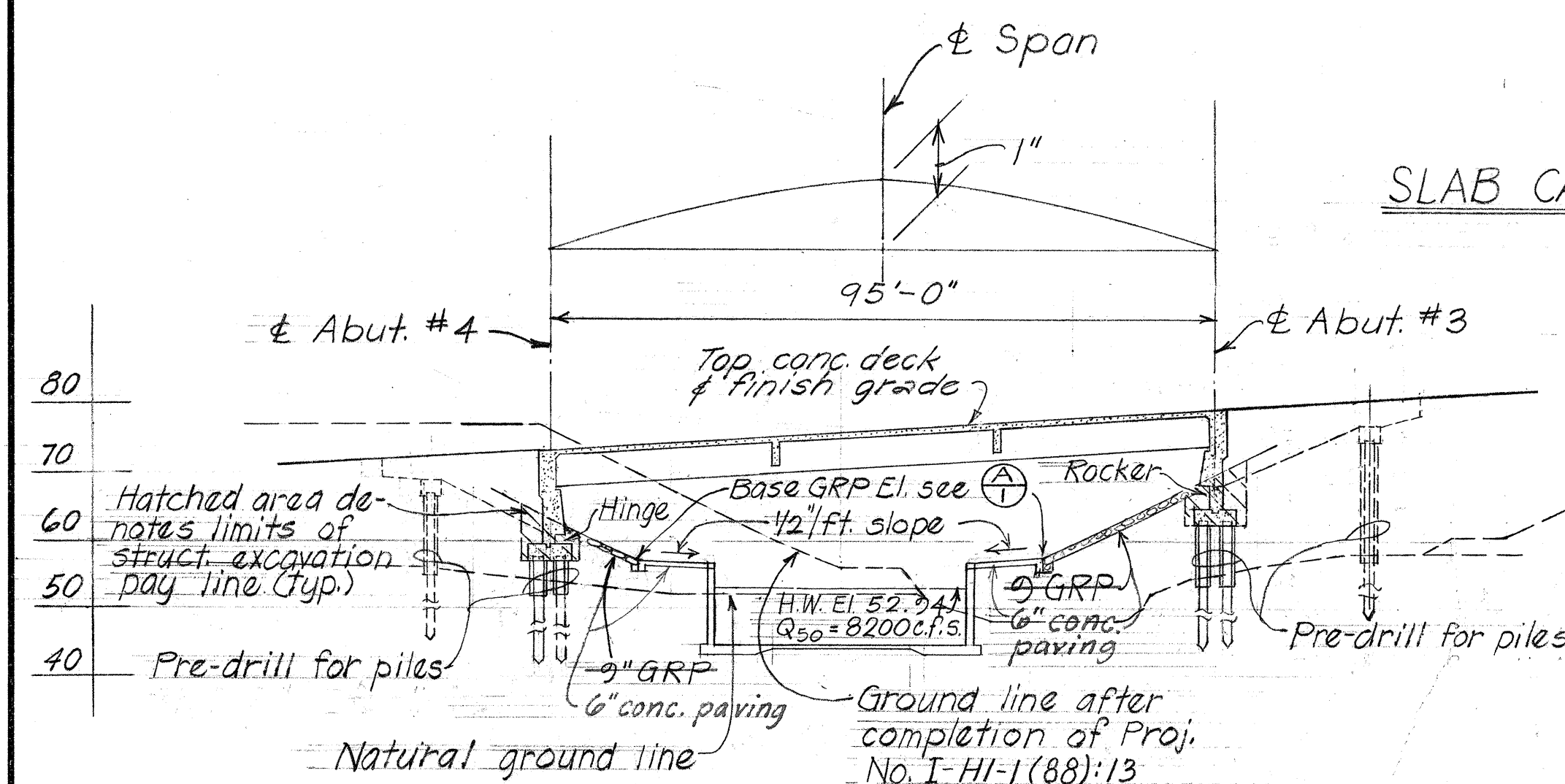
SHEET No. 1 OF 8 SHEETS

126

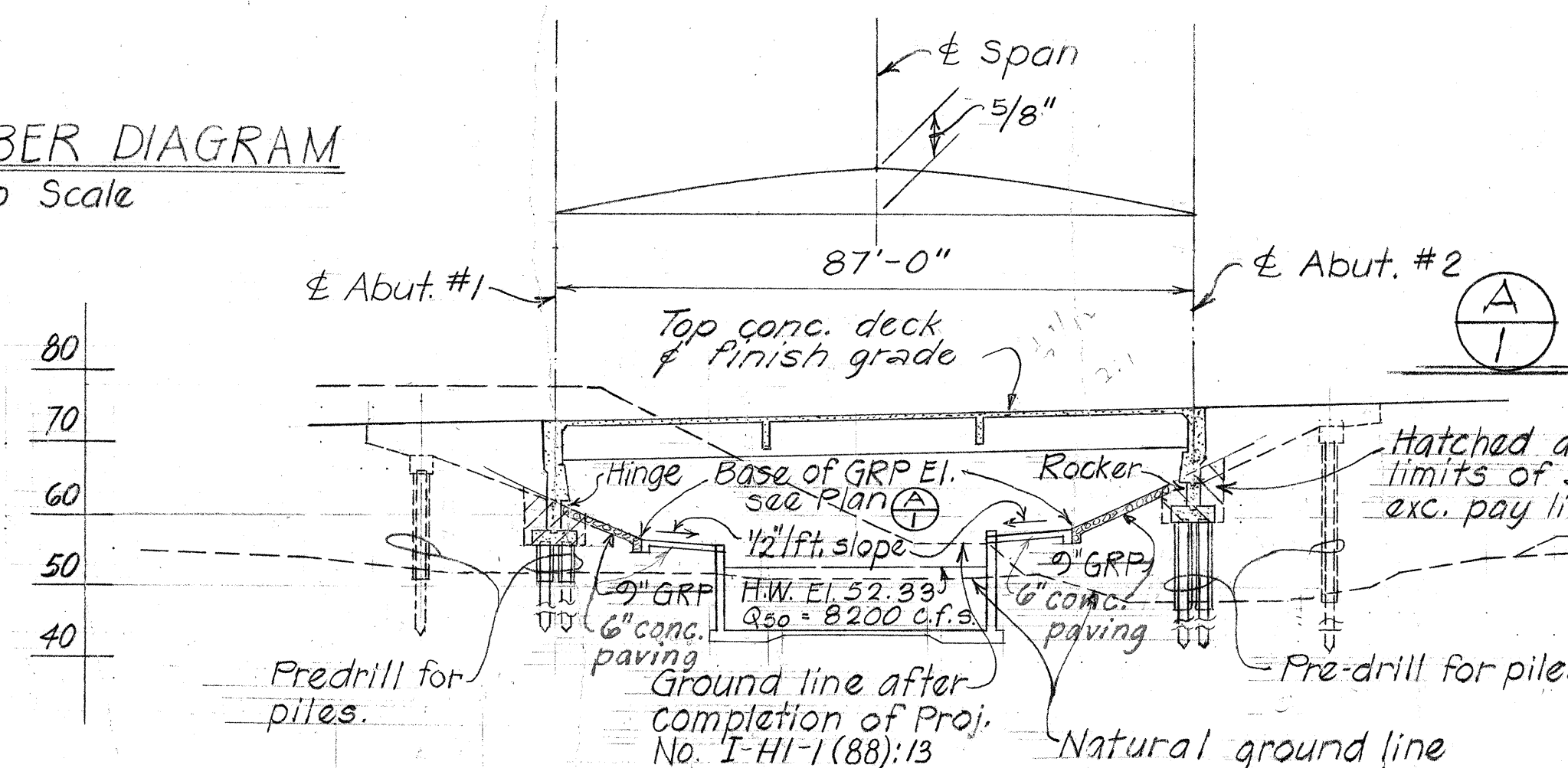


SLAB CAMBER DIAGRAM

No Scale



STRUCTURE #14



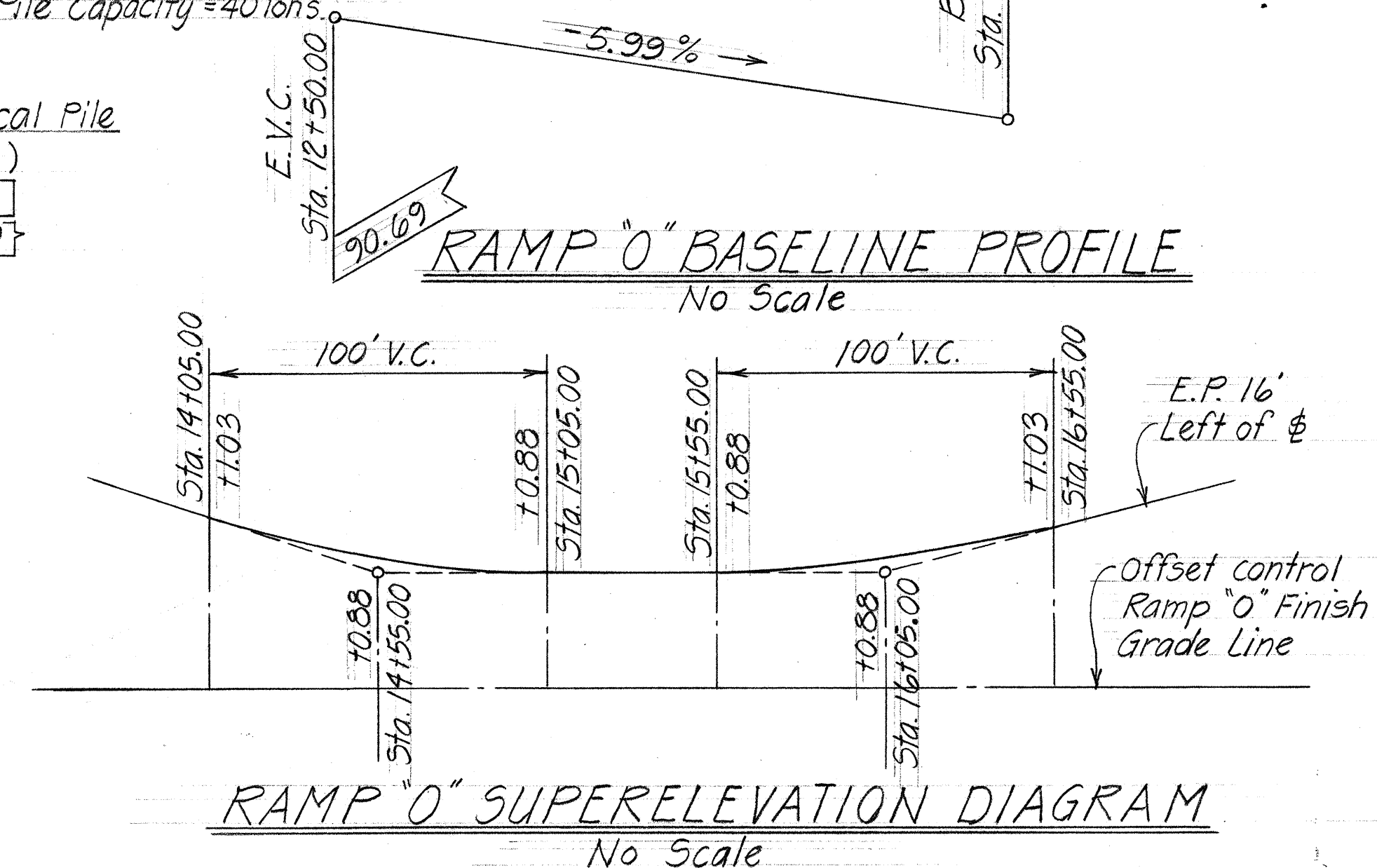
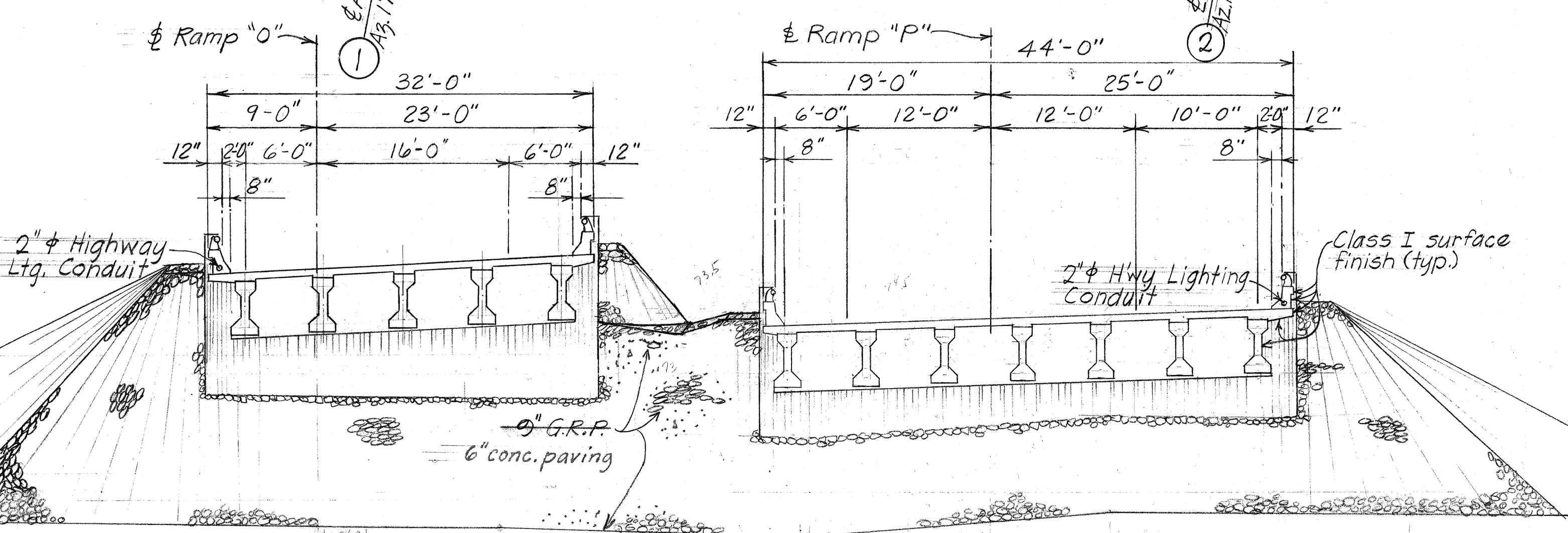
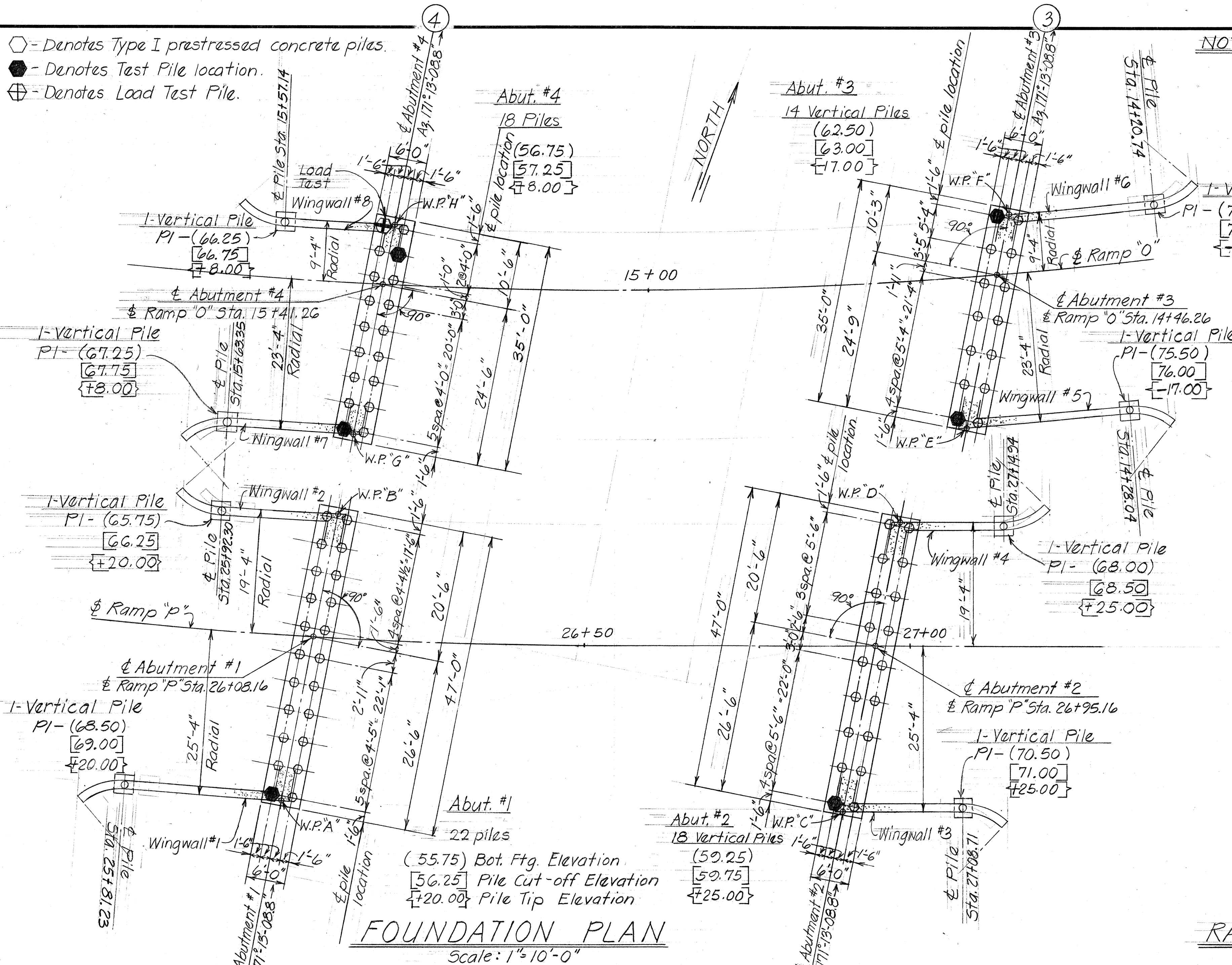
STRUCTURE #15

DATE	11/1/70
SURVEY PLOTTED BY	W.M.
DESIGNED BY	W.M.
QUANTITIES BY	W.M.
CHECKED BY	W.M.
ORIGINAL PLAN	11/1/70
NOTE BOOK	11/1/70
NO.	11/1/70

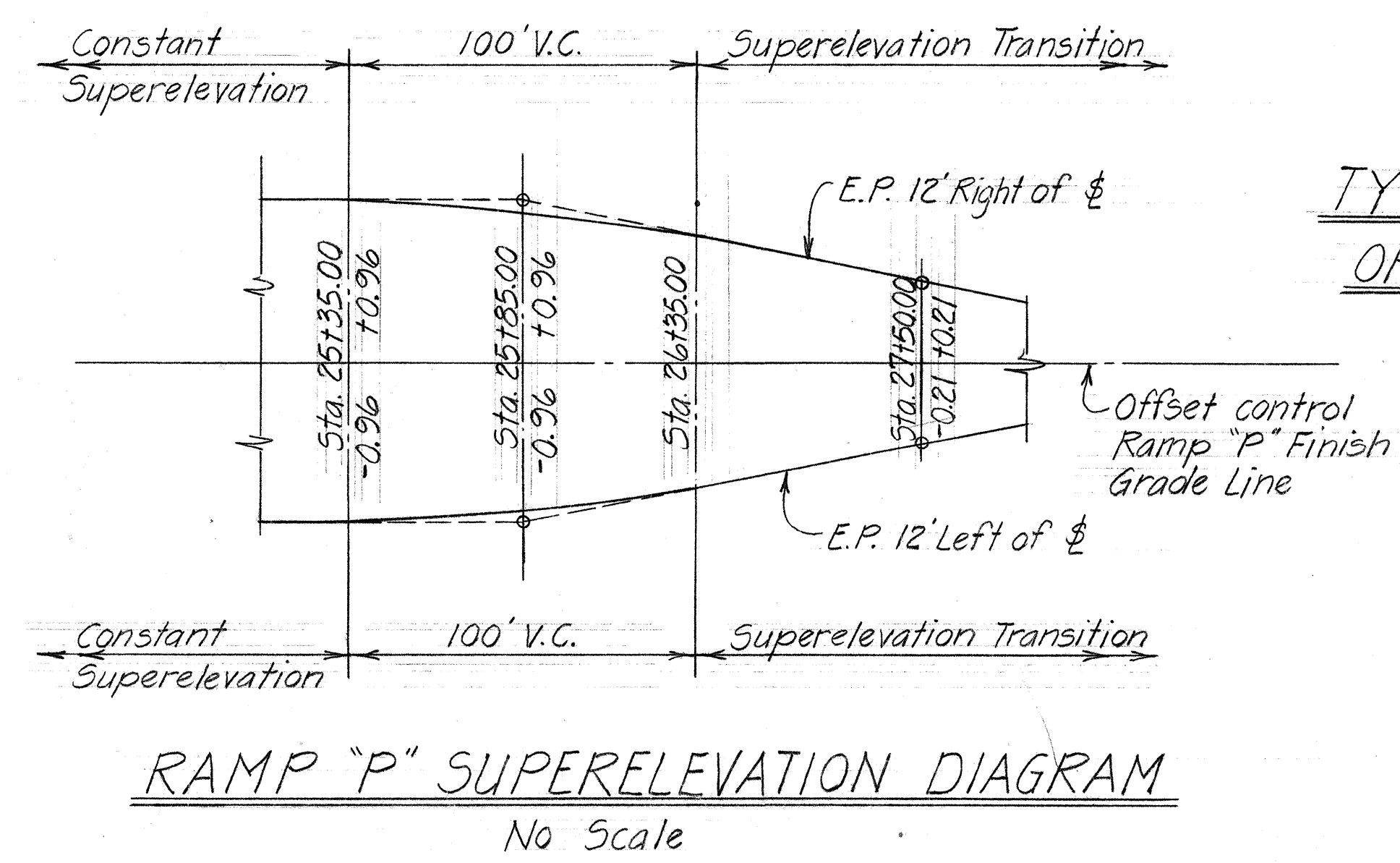
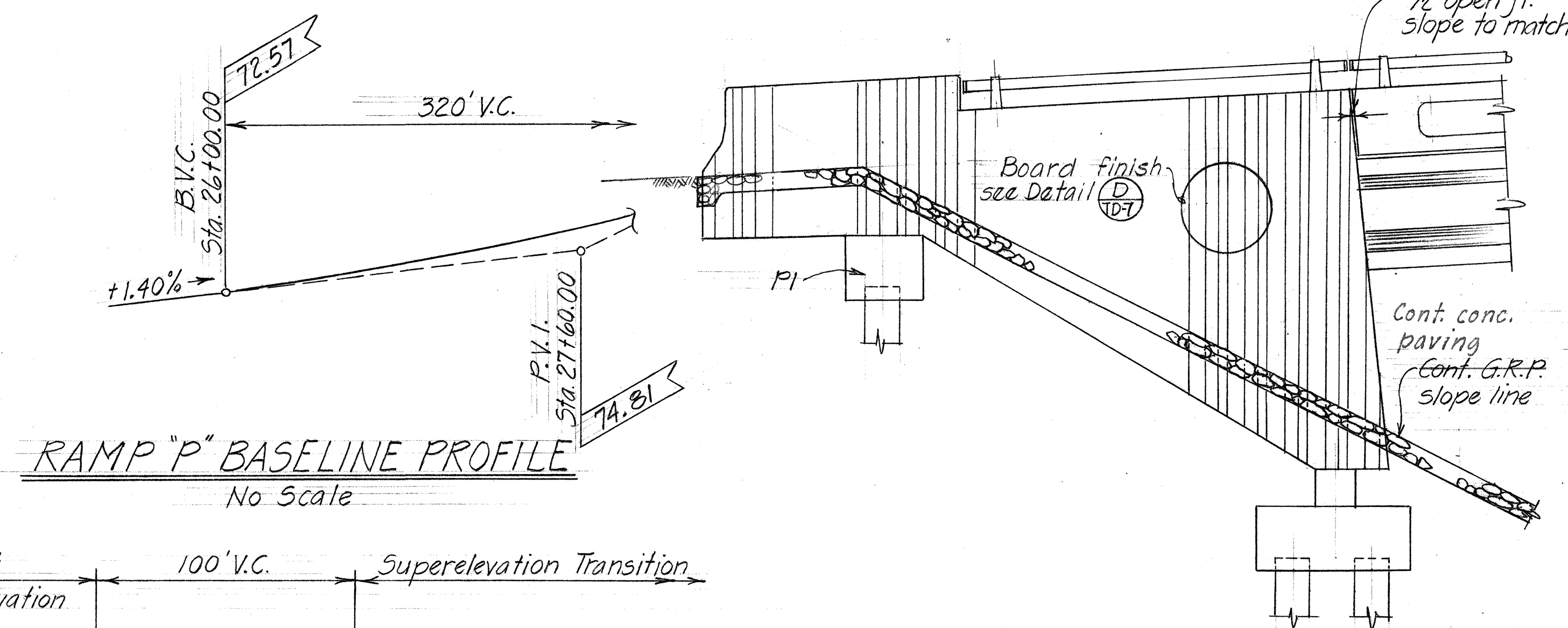
- - Denotes Type I prestressed concrete piles.
 ● - Denotes Test Pile location.
 ⊕ - Denotes Load Test Pile.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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NOTE: All piles to be Type I prestressed concrete piles. See Standard Sht #DB-300-1, 300-2.
 Drive test piles indicated on plan for length determination. Test piles shall be driven before casting balance of piles.
 Pile Capacity = 40 tons.



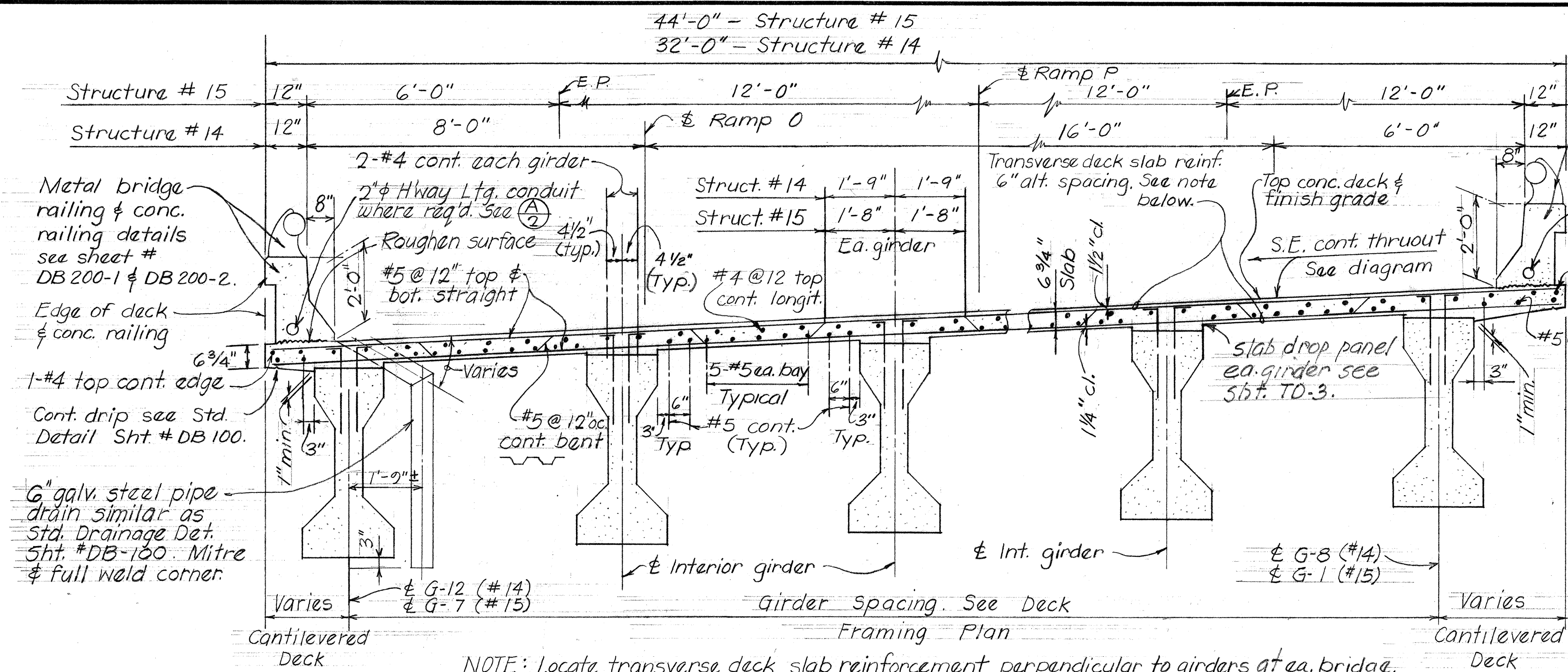
NOTE: Refer to Highway Drwgs. for complete profiles & S.E. diagrams.



TYPICAL EXTERIOR TREATMENT OF ABUTMENT WINGWALLS Scale: 1/4"=1'-0"

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HALAWA INTERCHANGE
 STRUCTURE NO. 14 & 15
 FOUNDATION PLAN & DETAILS
 Proj. No. I-HI-1(90):13 May 1971
 SHEET No. 2 OF 8 SHEETS

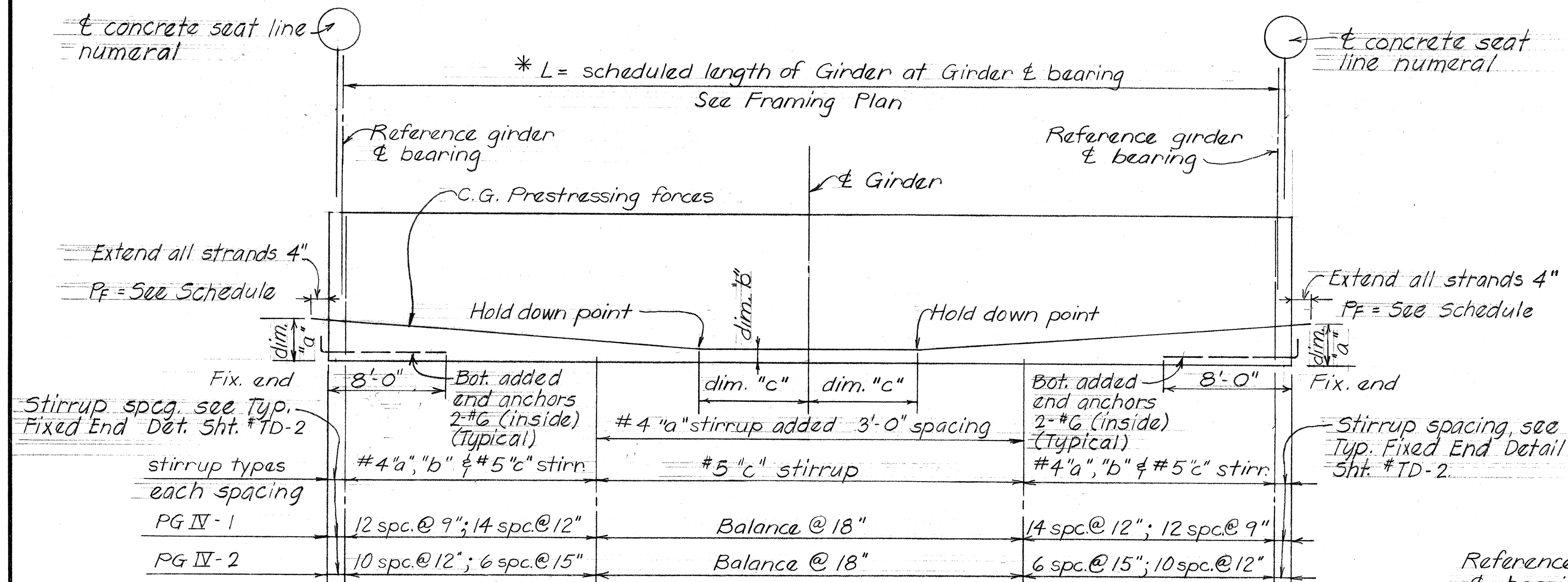
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(90)13	1972	128	202



NOTE: Locate transverse deck slab reinforcement perpendicular to girders at ea. bridge.

NORMAL DECK SECTION $\left(\frac{A}{3}\right)$ - STRUCTURE NOS. 14 OR 15

Scale 1/2" - 1' - 0"



TYPICAL TYPE PG IV-1 & PG IV-2 GIRDER DETAILS Not to scale

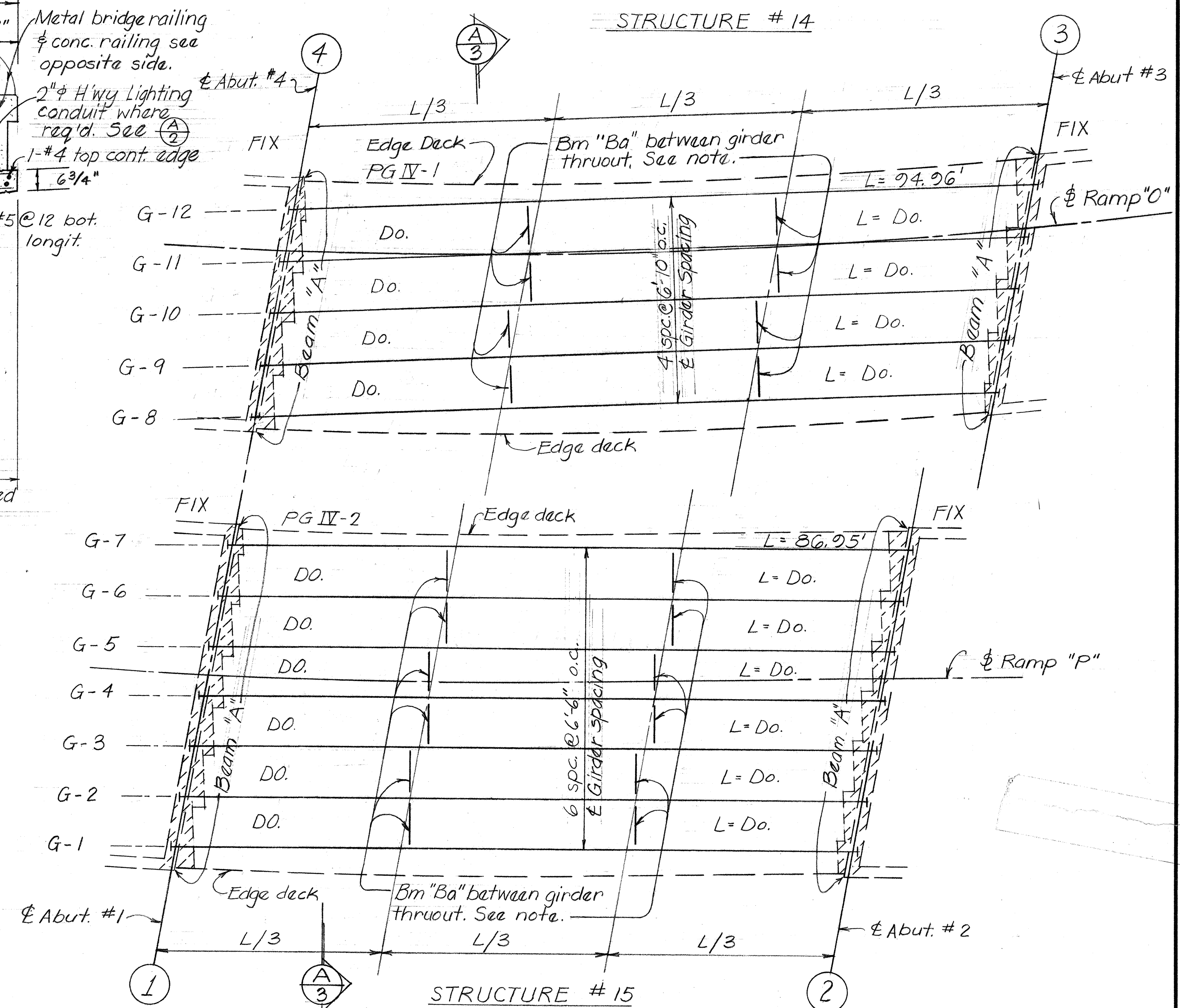
PRESTRESSED GIRDER SCHEDULE				
GIRDER TYPES	dim "a"	dim "b"	dim "c"	WORKING P _F IN KIPS
PG IV - 1	15 1/16"	4 3/4"	10' - 0"	989 K
PG IV - 2	14 1/2"	4 7/8"	10' - 0"	801 K

NOTES:

* Girder dimension L = Horizontal measurement between girder & bearings. The Contractor shall determine total length of girder.

For additional end anchorage connection in prestressed girders at Beams "A" & Beams "Ba", refer to Sht. #TD-4, #8.

For additional prestressed girder details & reinforcement not covered by these drawings, refer to Sht. #TD-2.

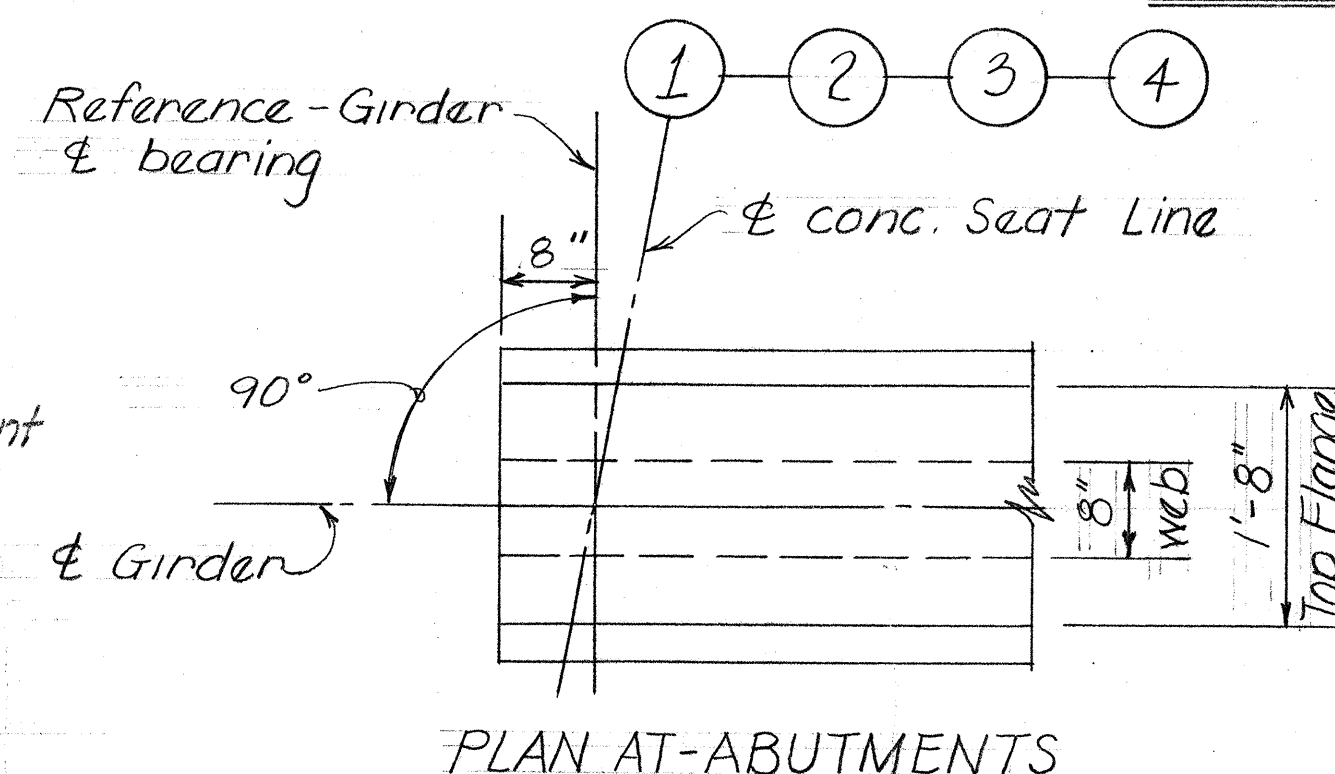


DECK FRAMING PLAN Scale: 1" = 10'-0"

Scale : 1" = 10'-0"

NOTES:

Beams "Ba" shall be located in pairs as shown. See Typ. Det. Sht. #104.
Hatched areas shown thus  denotes limits of special transverse slab reinforcement. See Diagram 



PLAN AT-ABUTMENTS

TYPICAL FIXED END OF GIRDER

Scale : $3/4" = 1' - 0"$

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HALAWA INTERCHANGE
STRUCTURE NOS 14 & 15
DECK FRAMING PLAN & DETAILS

Proj. No. I-HI-1(90):t3 May 1971

SHEET No. 3 OF 8 SHEETS

1 2 3

8

TOP CONCRETE SEAT ELEVATION AND SLOPE SCHEDULE (AT GIRDER & BEARING)

STRUCTURE N^o 14

	ABUT. N ^o 4		DIRECTION		ABUT. N ^o 3	
	AT GIRDER & BEAR'G		TOP SEAT SLOPE		AT GIRDER & BEAR'G	
G-12	67.63	(+)	$\frac{3}{4} : 12$	(+)	73.35	
G-11	67.94	(+)	$\frac{3}{4} : 12$	(+)	73.62	
G-10	68.26	(+)	$\frac{13}{16} : 12$	(+)	73.89	
G-9	68.58	(+)	$\frac{1}{8} : 12$	(+)	74.16	
G-8	68.90	(+)	$\frac{15}{16} : 12$	(+)	74.43	

STRUCTURE N^o 15

	ABUT. N ^o 1		DIRECTION		ABUT. N ^o 2	
	AT GIRDER & BEAR'G		TOP SEAT SLOPE		AT GIRDER & BEAR'G	
G-7	66.20	(+)	$\frac{5}{16} : 12$	(+)	68.63	
G-6	66.64	(+)	$\frac{5}{16} : 12$	(+)	68.83	
G-5	67.08	(+)	$\frac{1}{4} : 12$	(+)	69.04	
G-4	67.52	(+)	$\frac{1}{4} : 12$	(+)	69.25	
G-3	67.97	(+)	$\frac{3}{16} : 12$	(+)	69.47	
G-2	68.42	(+)	$\frac{3}{16} : 12$	(+)	69.70	
G-1	68.88	(+)	$\frac{1}{8} : 12$	(+)	69.93	

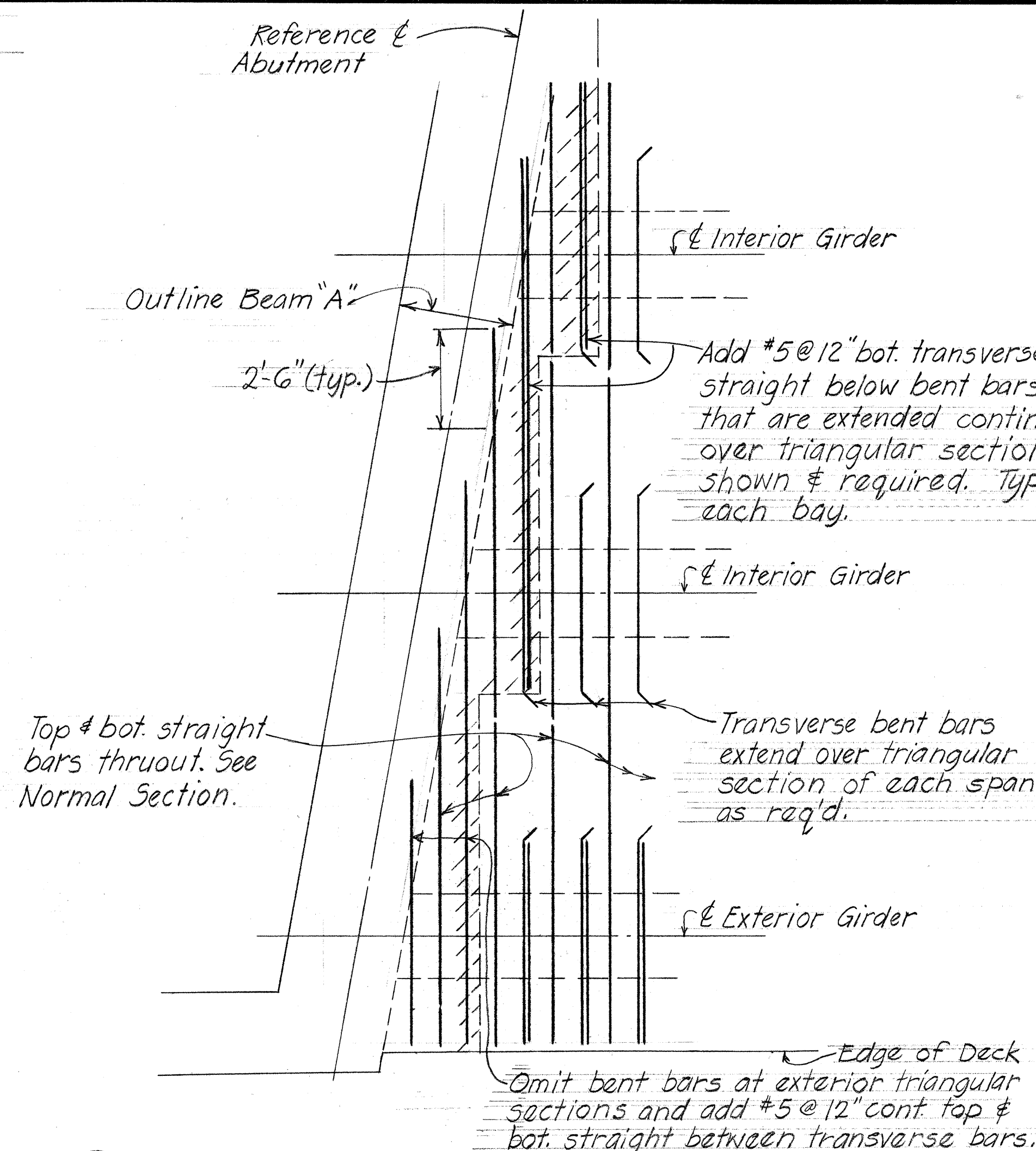


DIAGRAM - TYPICAL ARRANGEMENT OF DECK REINFORCING AT ABUTMENT SKEWED ENDS
Not to Scale

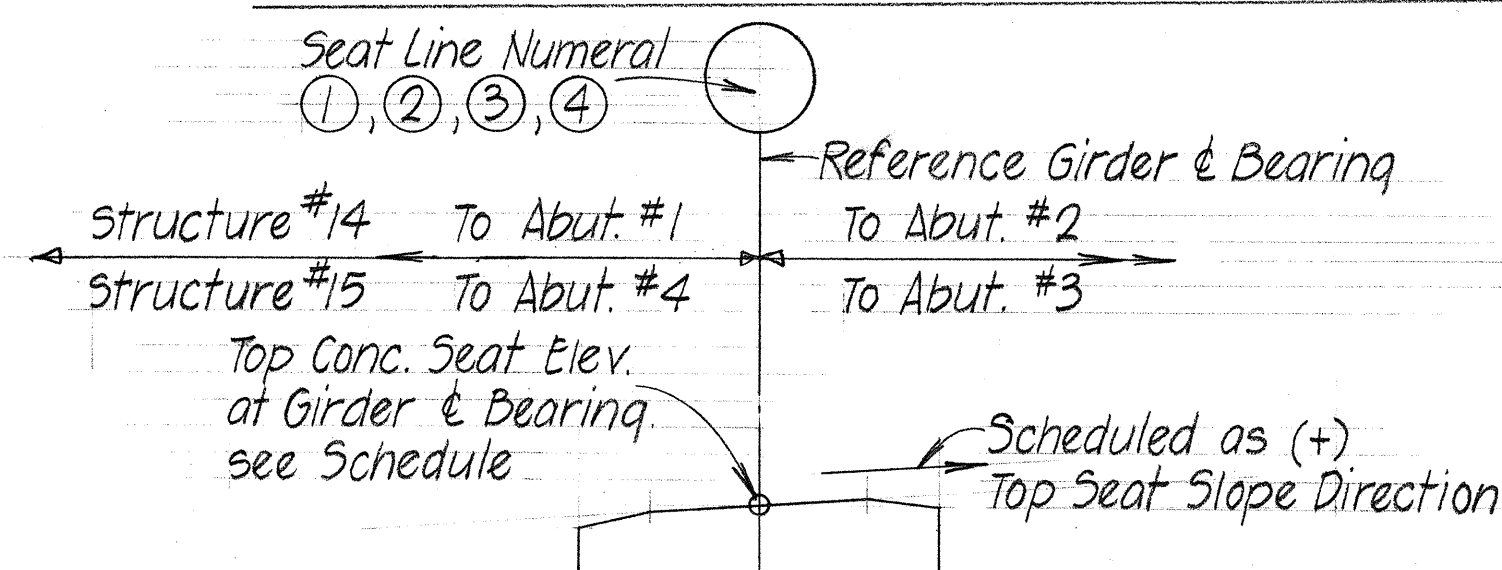
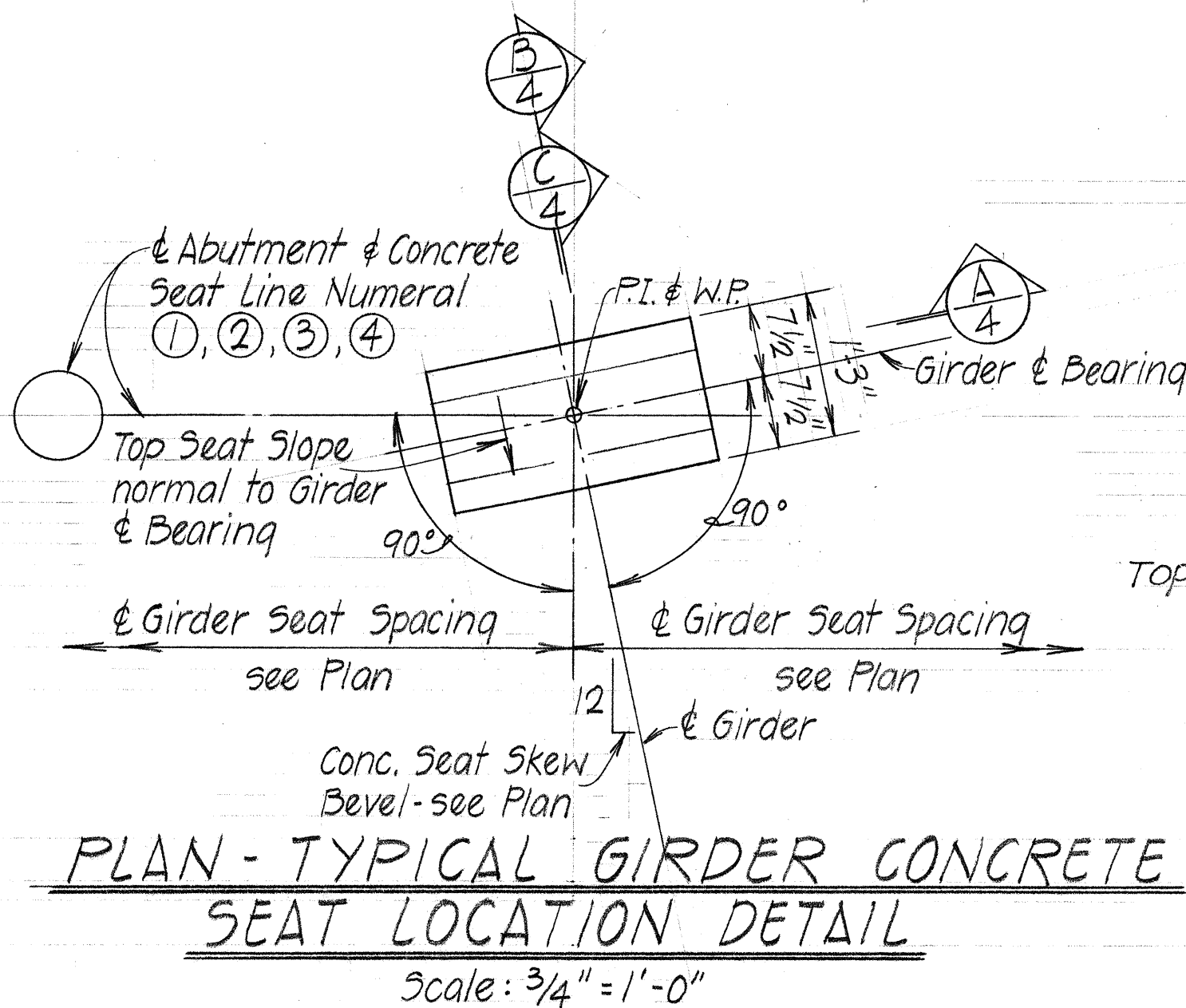
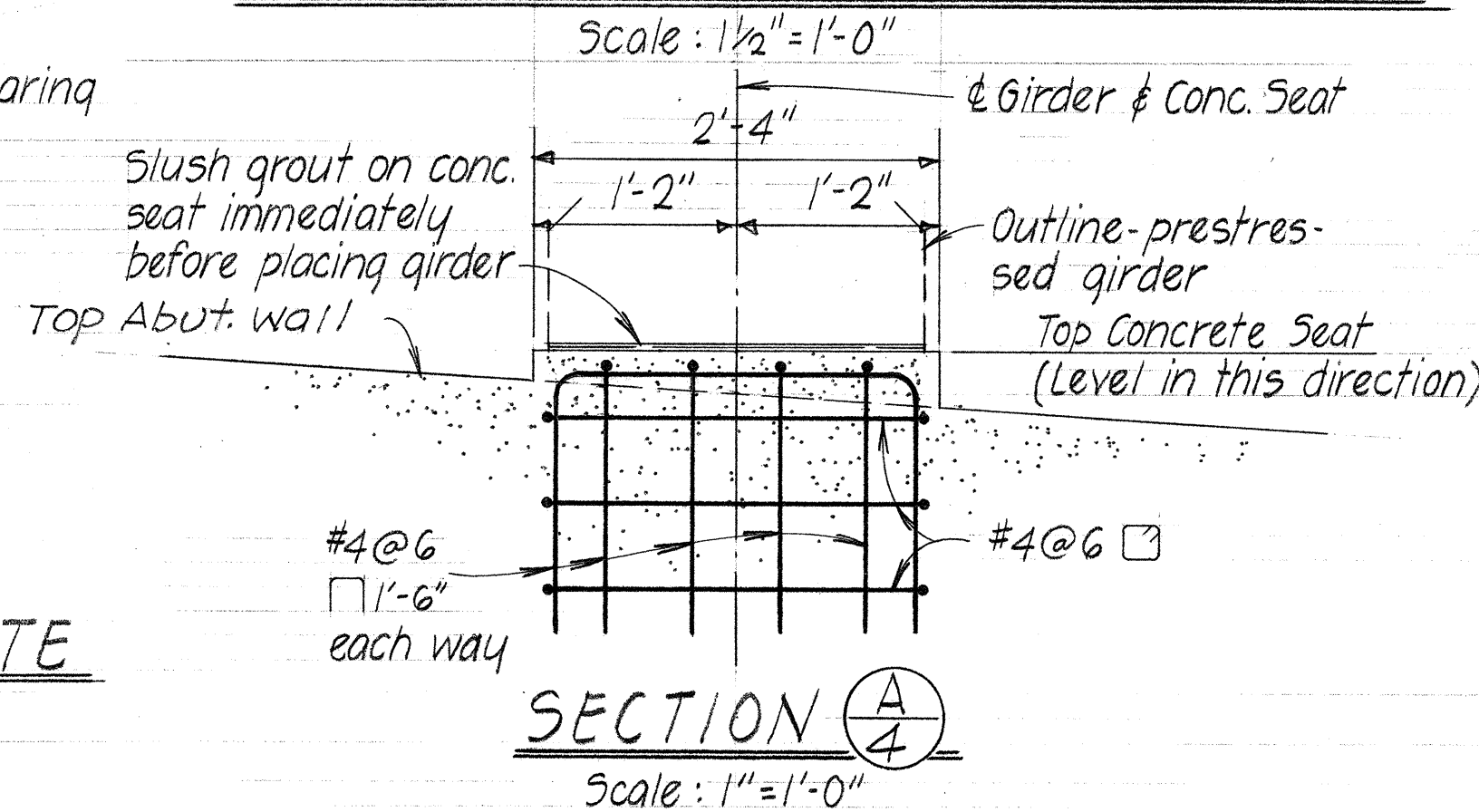


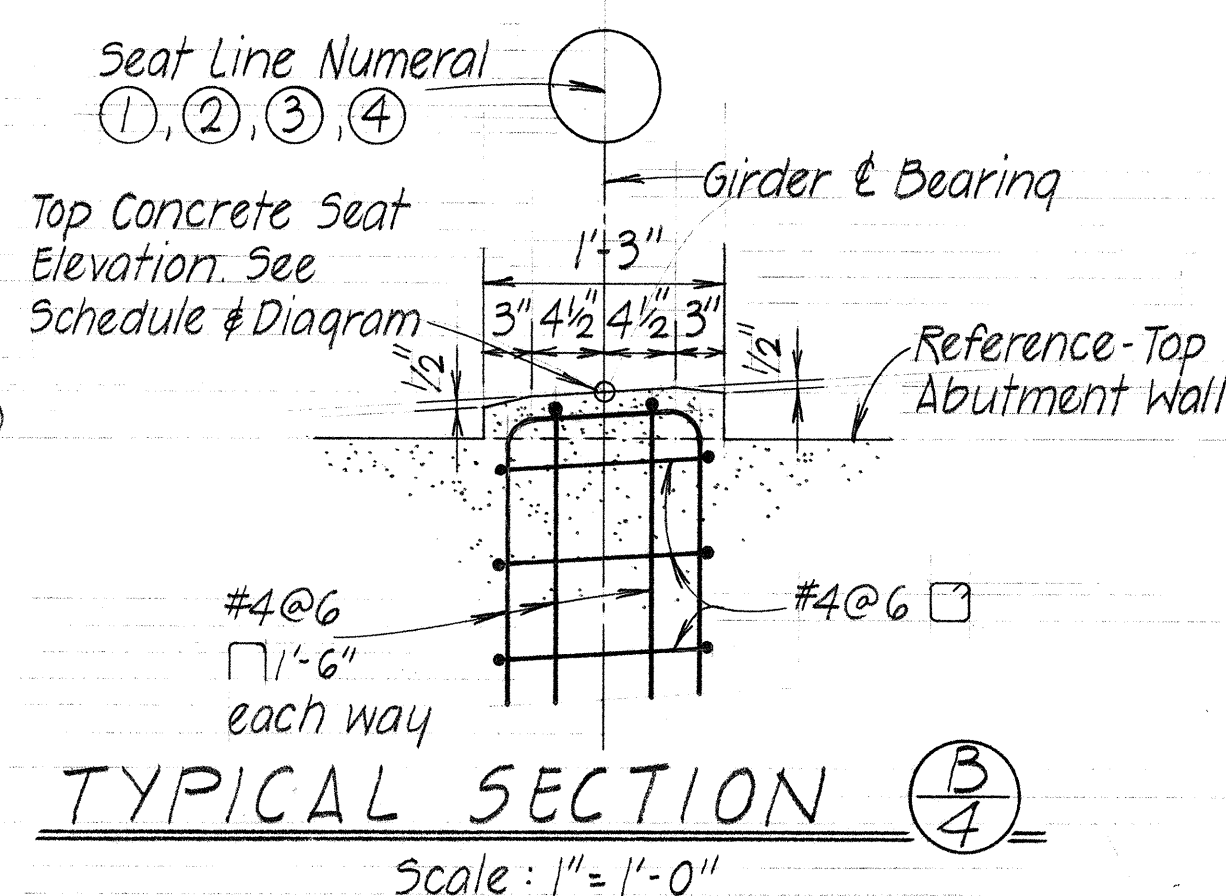
DIAGRAM - TYPICAL TOP CONCRETE SEAT SLOPE AND DESIGNATIONS
Scale: 1 1/2" = 1'-0"



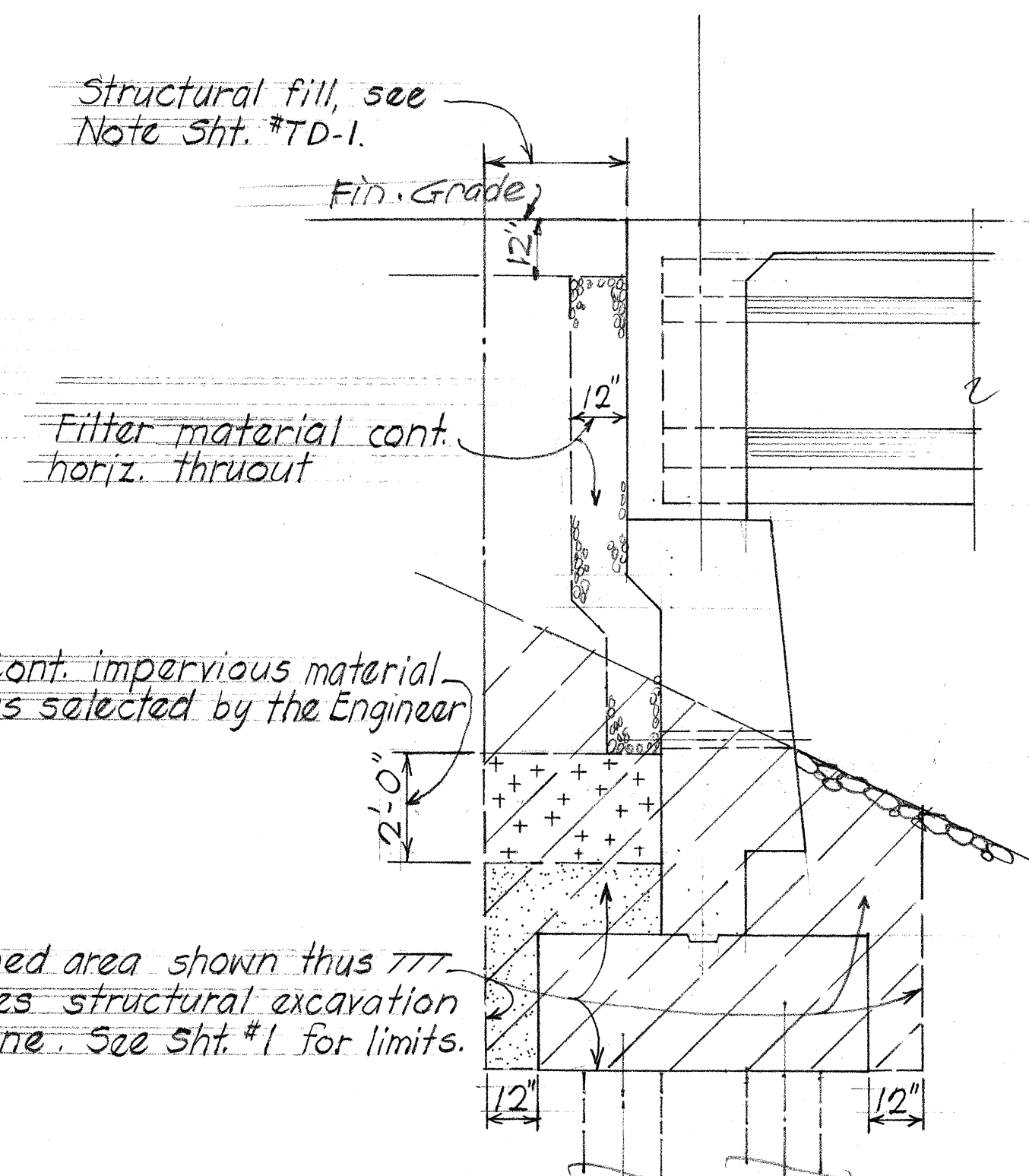
PLAN - TYPICAL GIRDER CONCRETE SEAT LOCATION DETAIL
Scale: 3/4" = 1'-0"



SECTION A
Scale: 1" = 1'-0"



TYPICAL SECTION B
Scale: 1" = 1'-0"



ABUTMENT STRUCTURAL EXCAVATION PAYLINE & BACKFILL
Scale: 3/8" = 1'-0"

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

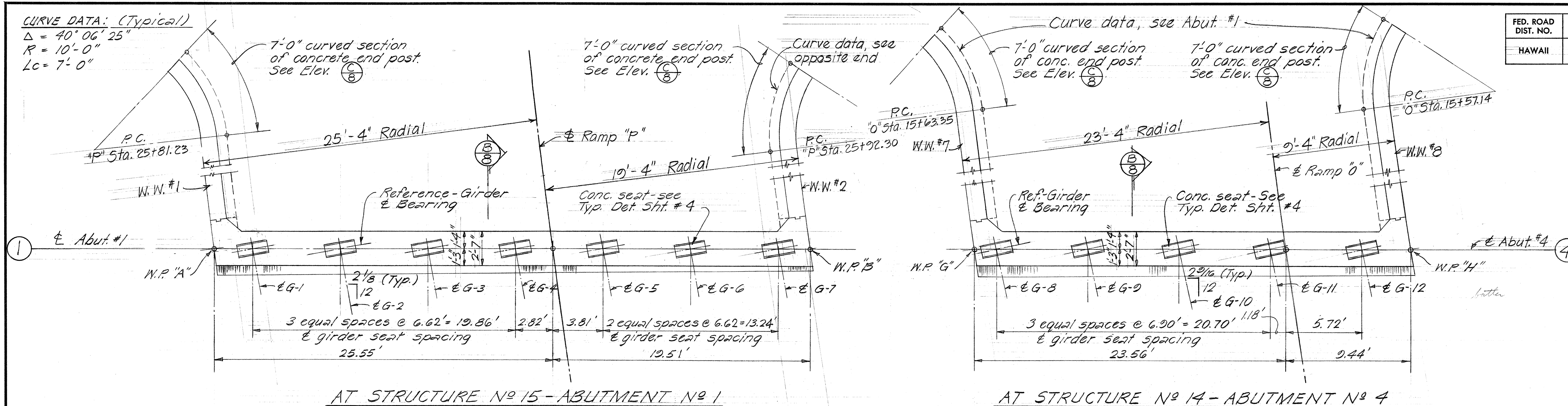
HALAWA INTERCHANGE
STRUCTURE NOS 14 & 15
MISCELLANEOUS DETAILS

Proj. No. I-HI-1(90)13 May 1971

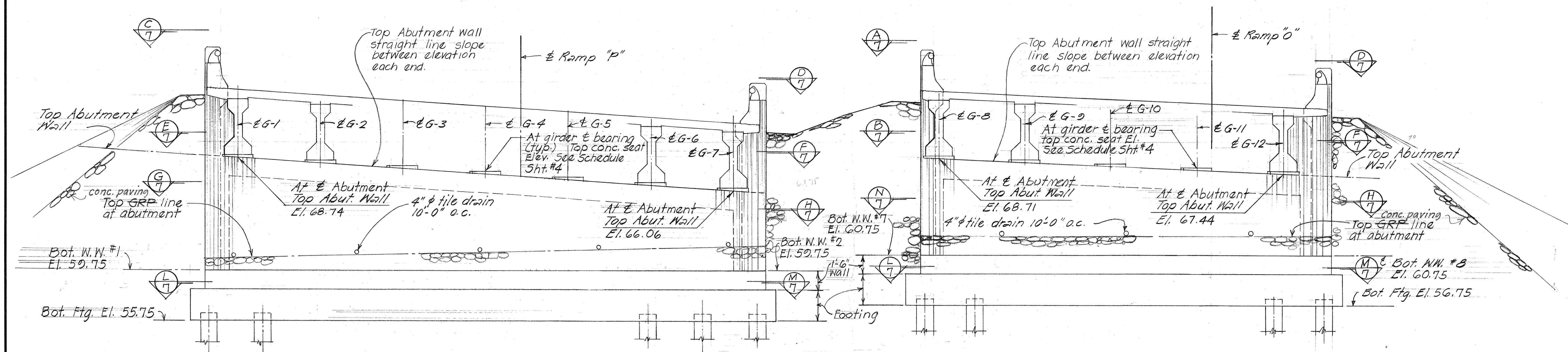
SHEET No. 4 OF 8 SHEETS

CURVE DATA: (Typical)
 $\Delta = 40^\circ 06' 25''$
 $R = 10'-0''$
 $L_c = 7'-0''$

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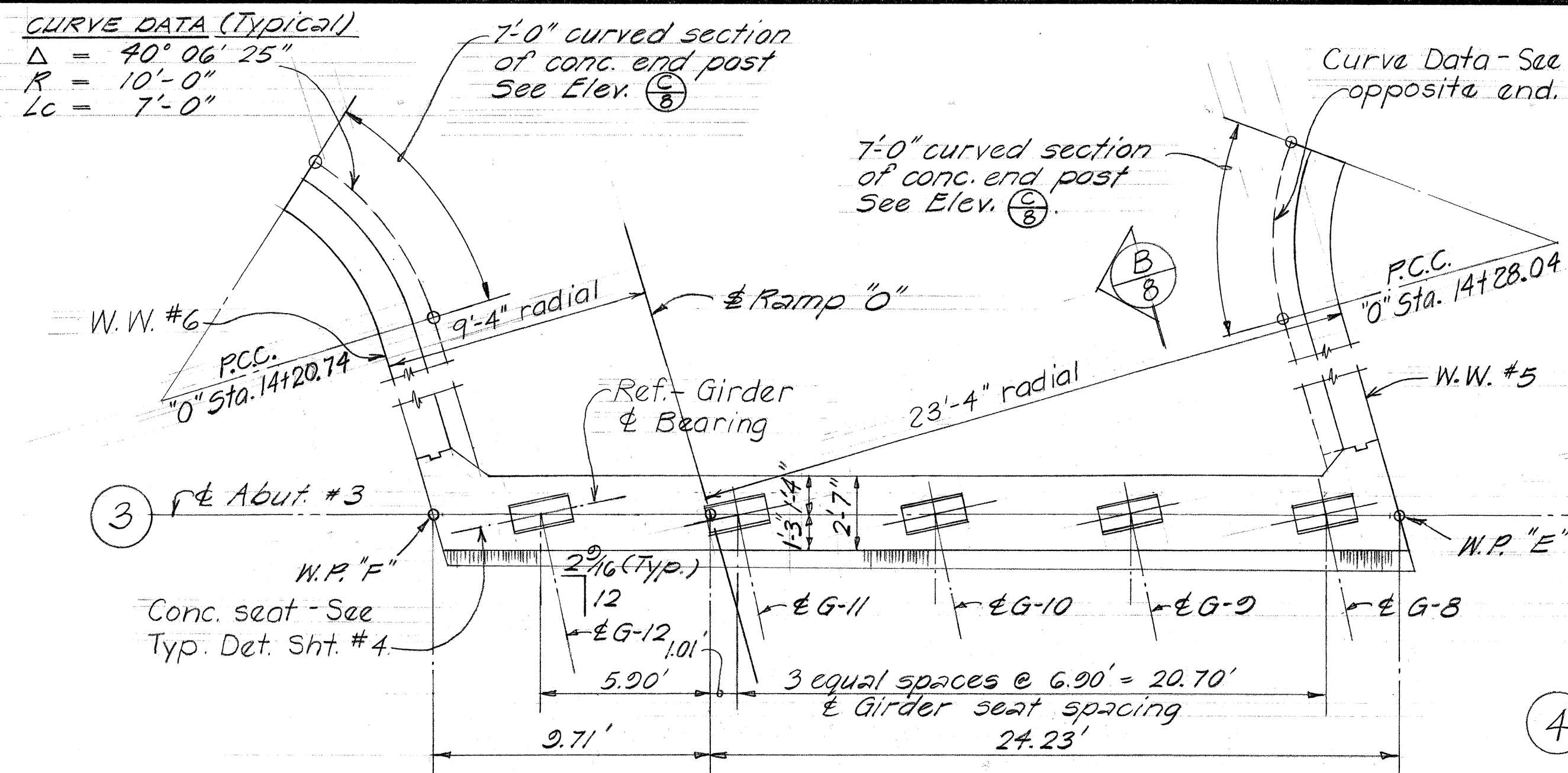
PLAN - TOP OF ABUTMENT WALL Scale: $\frac{1}{4}'' = 1'-0''$



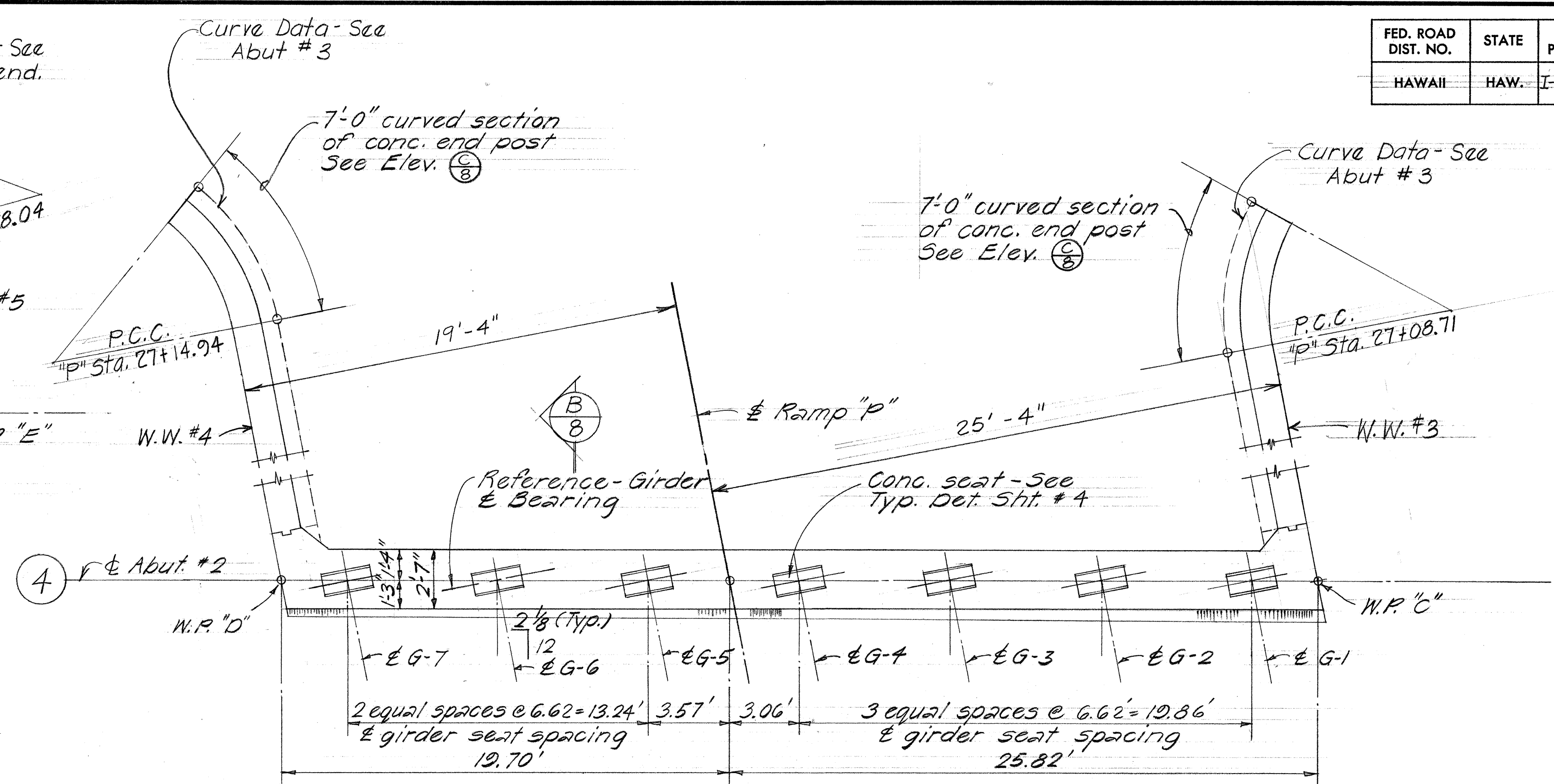
ELEVATION - ABUTMENT Scale: $\frac{1}{4}'' = 1'-0''$

STATE OF HAWAII
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HALAWA INTERCHANGE
STRUCTURE NOS 14 & 15
ABUTMENT NOS 1 & 4 DETAILS
 Proj. No. I-HI-1(90)13 May 1971
 SHEET No. 5 OF 8 SHEETS

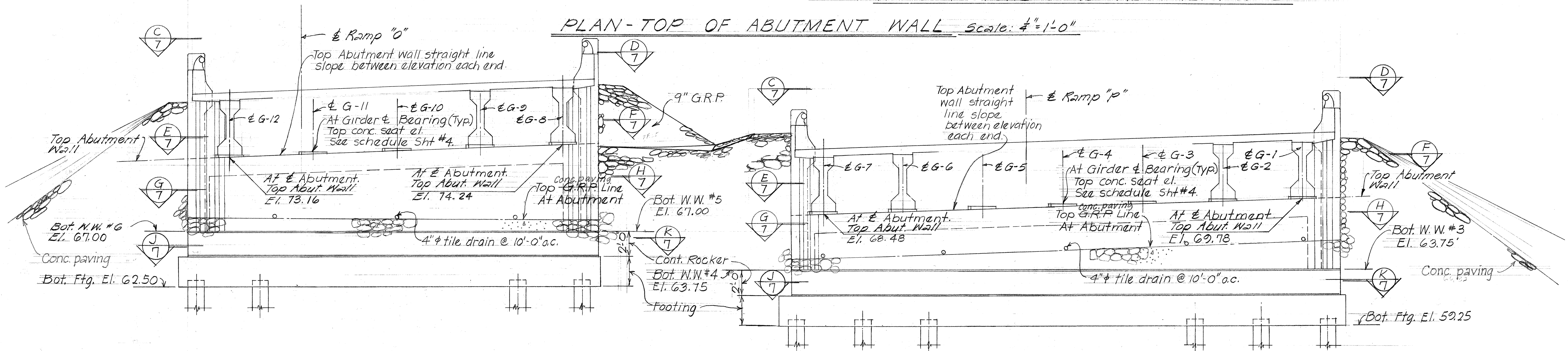
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(90):13	1972	131	202



AT STRUCTURE NO 14 - ABUTMENT NO 3



AT STRUCTURE NO 15 - ABUTMENT NO 2



AT STRUCTURE NO 14 - ABUTMENT NO 3

AT STRUCTURE NO 15 - ABUTMENT NO 2

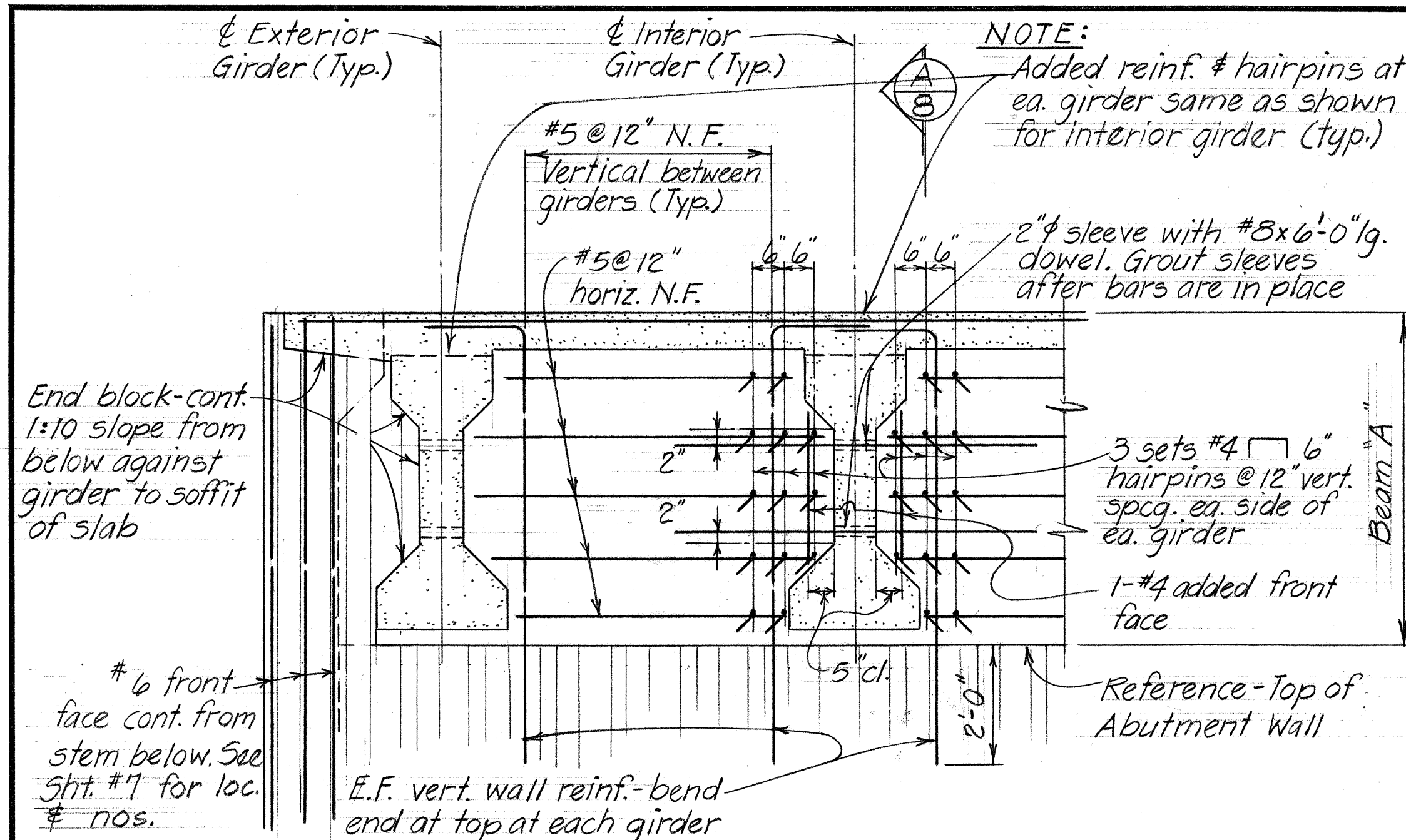
ELEVATION - ABUTMENT Scale: 1/4" = 1'-0"

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

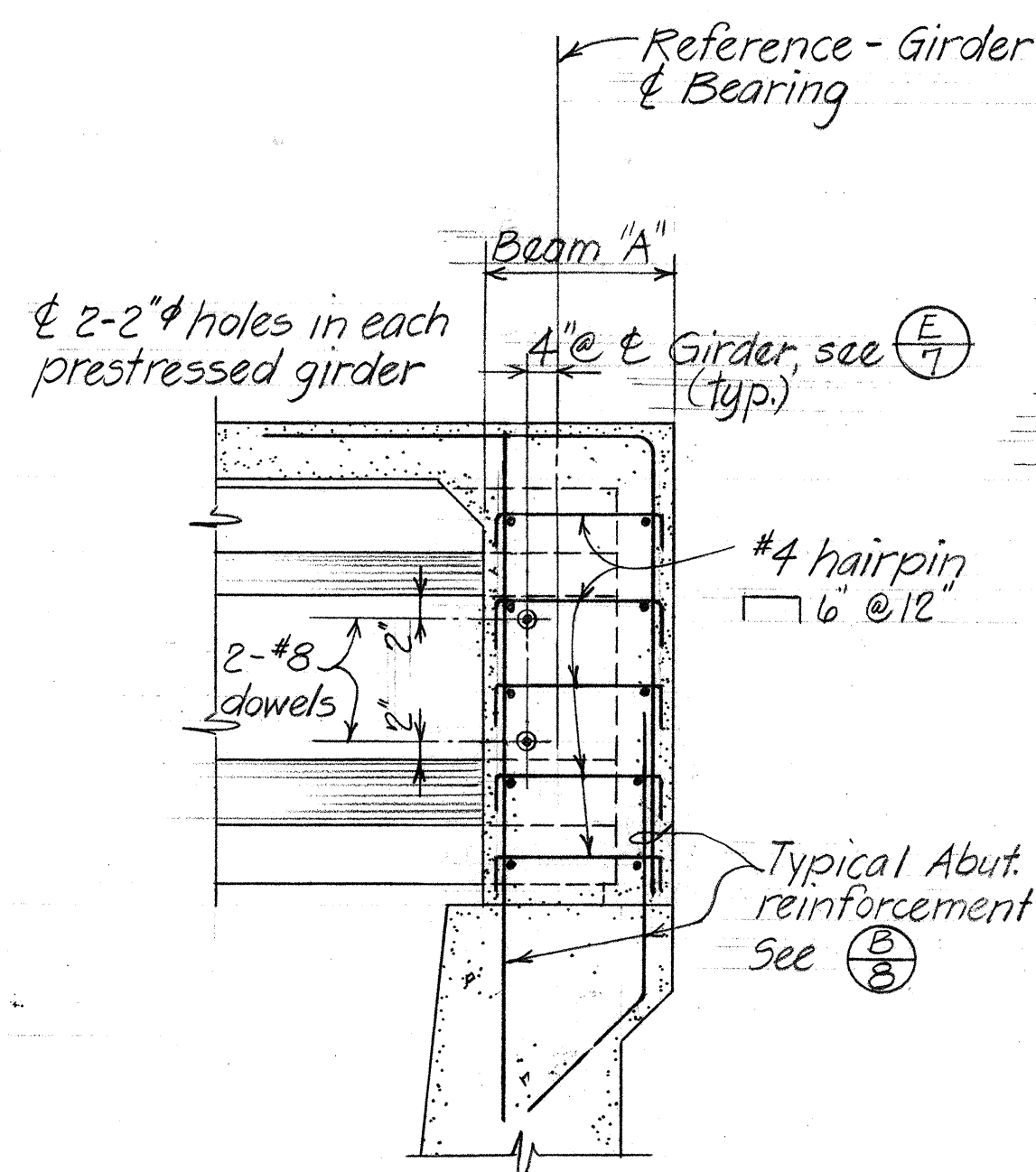
HALAWA INTERCHANGE
STRUCTURE NOS 14 & 15
ABUTMENT NOS 2 & 3 DETAILS

Proj. No. I-HI-1(90):13 May 1971
 SHEET No. 6 OF 8 SHEETS

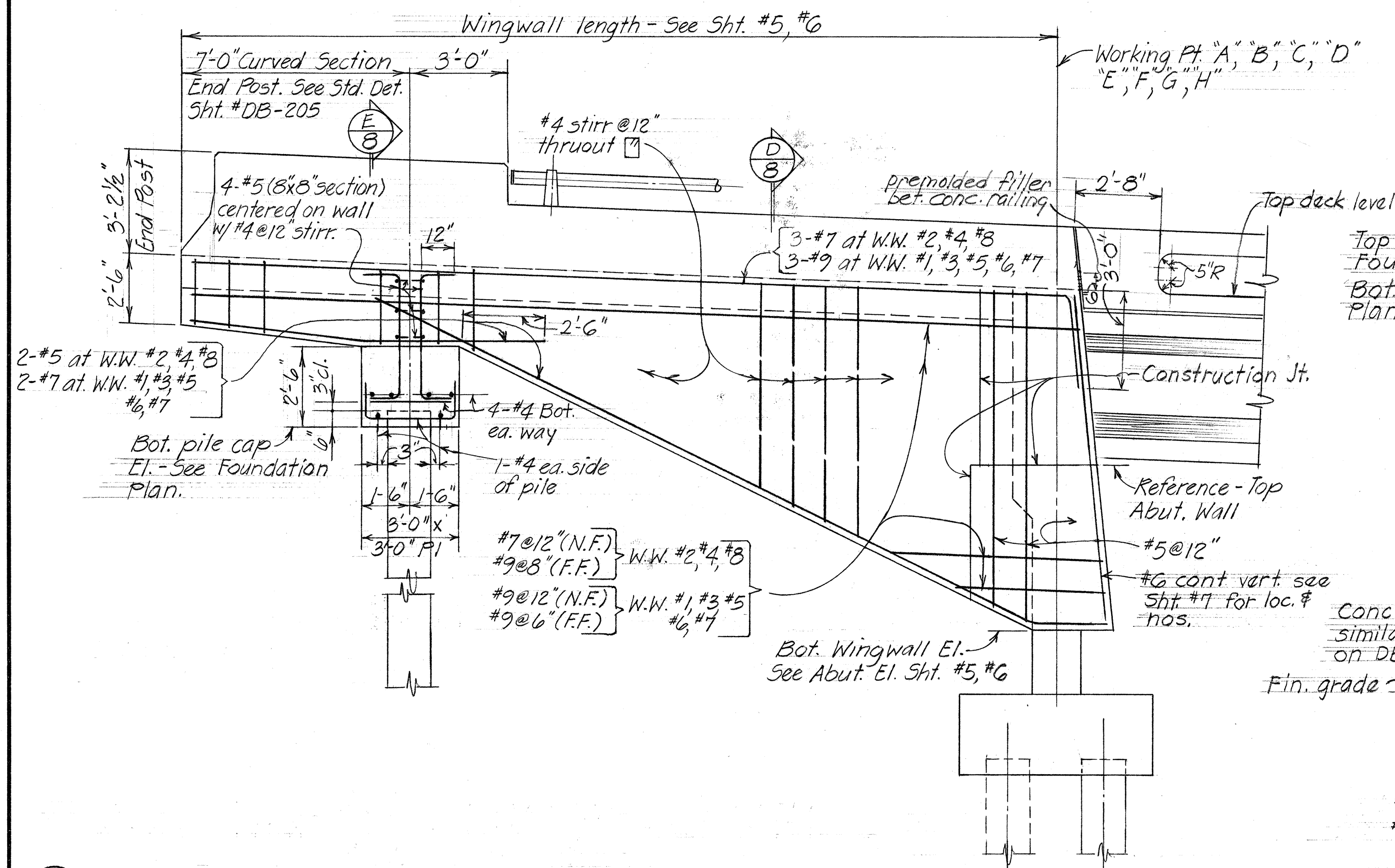
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(90)13	1972	133	202



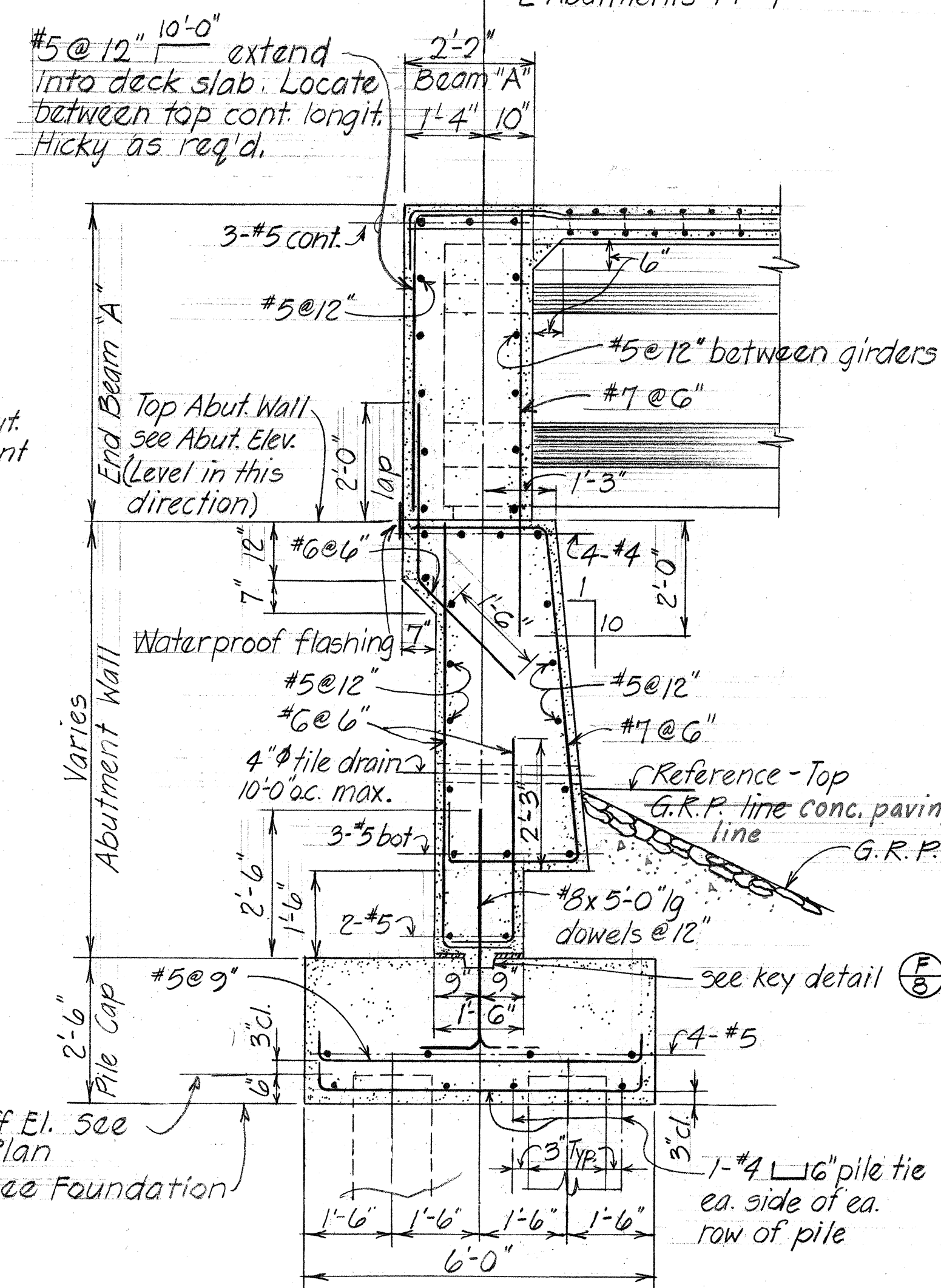
(G) PART ELEVATION-TYPICAL BEAM "A" DETAIL
Scale: 1/2" = 1'-0"



SECTION (A)
Scale: 1/2" = 1'-0"

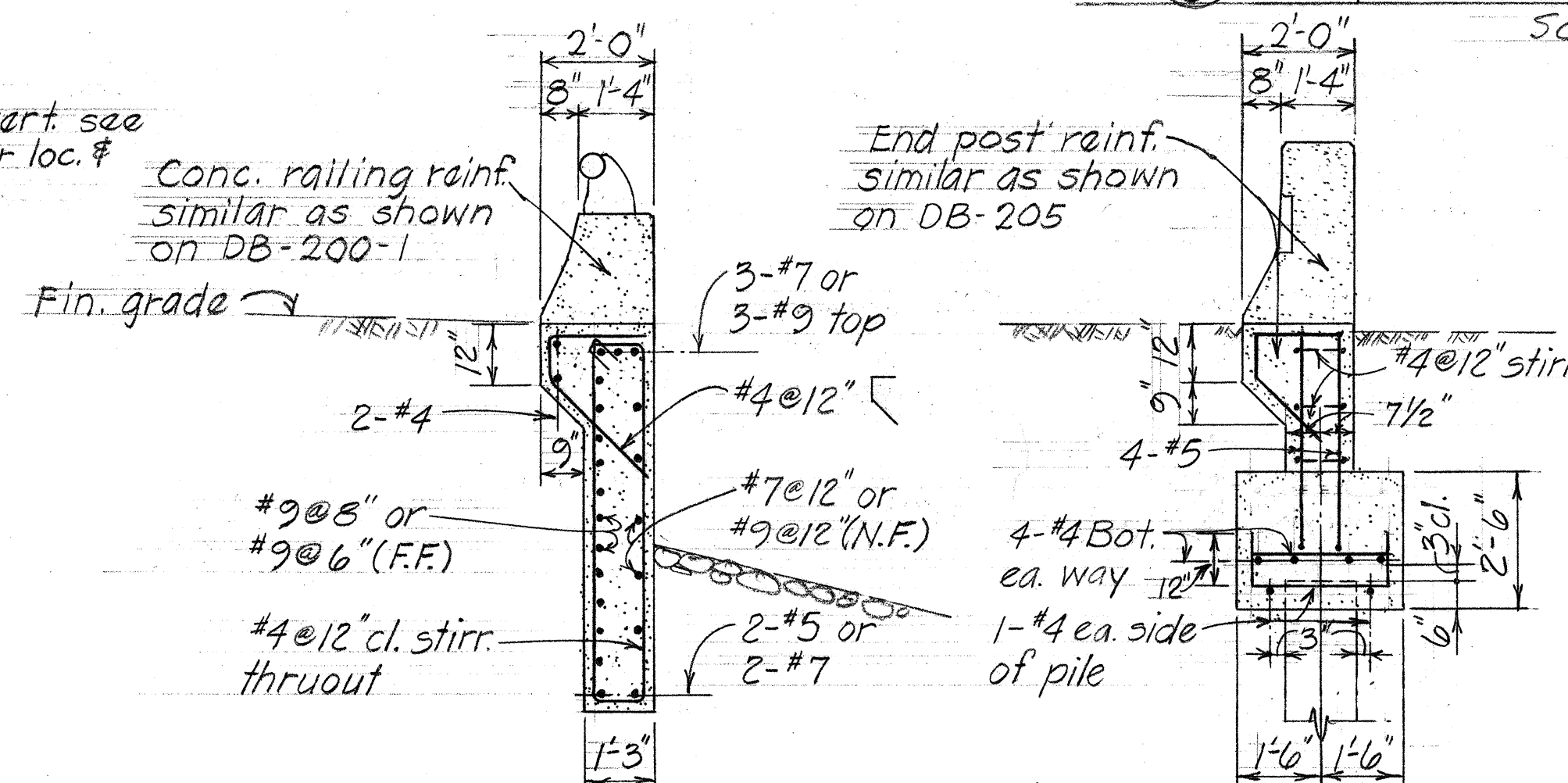


(C) EXTERIOR ELEVATION-TYPICAL ABUTMENT WINGWALL
Scale: 3/8" = 1'-0"



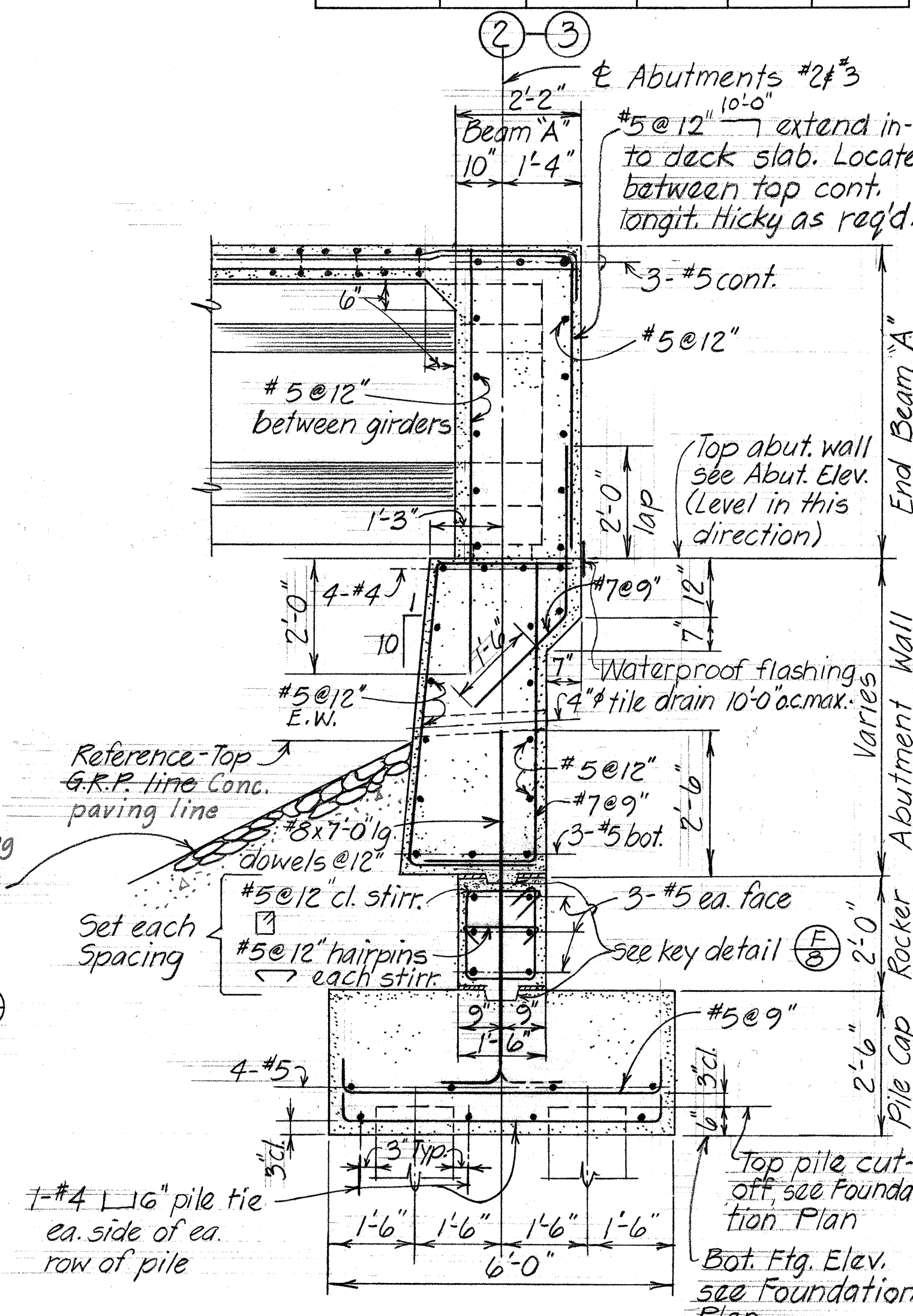
ABUTMENTS NO 1 OR NO 4

(B) TYPICAL ABUTMENT SECTIONS
SCALE: 1/2" = 1'-0"

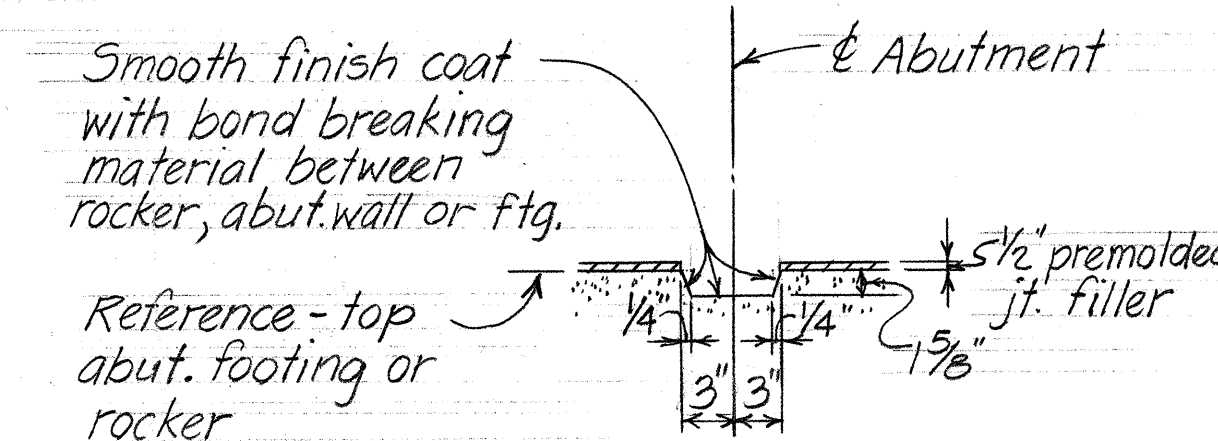


SECTION (D)
Scale: 3/8" = 1'-0"

SECTION (E)
Scale: 3/8" = 1'-0"



ABUTMENTS NO 2 OR NO 3



KEY DETAIL (F)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALAWA INTERCHANGE
STRUCTURE NOS 14 & 15
ABUTMENT SECTIONS & DETAILS

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SHEET No. 3 OF 8 SHEETS