January 13, 2014

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION
DEPARTMENT OF TRANSPORTATION
RHODE ISLAND CONTRACT NO. 2014-CB-004

FEDERAL AID PROJECT NO. FAP Nos: BRO-0465(001)

Improvements to I-195
Accelerated Bridge Construction (ABC) of
Bridge No. 465 Replacement
I-195 Ramp (DR-2) over Warren Avenue

CITY/TOWN OF East Providence, Rhode Island

COUNTY OF PROVIDENCE

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 2:
Prospective Bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal, and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

A. Clarification

1. Existing Bridge Plans

   The available Existing Plans for Bridge 465 from the RIDOT Contract Number 5801 have been included in Addendum No. 2. The List of Drawings (sheet 2 of 596) has been included for reference.

B. Contract Dates

1. Bid Opening

   The Bid Opening has been changed to January 24, 2014 at 3:00pm.

2. Phase 1 Completion Date

   The Phase 1 Completion Date of 11/2/2014 has been deleted from the contract. Milestones shall be defined as shown in Addendum No. 1.

RI Department of Transportation
Chief Engineer

FED. HWY. DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	F-[illegible]		2	[illegible]

LIST OF DRAWINGS

SET NO. 1

EAST PROVIDENCE EXPRESSWAY

HIGHWAY PLANS

SHEET NO.	TITLE
1	COVER SHEET
2	LIST OF DRAWINGS
3 - 15	GENERAL DETAIL & BORING LOCATION PLAN NO. 1-13
16 - 18	SEQUENCE OF CONSTRUCTION NO. 1-3
19 - 23	HIGHWAY BORING LOGS NO. 1-5
24-26	TYPICAL ROAD SECTIONS NO. 1 & 2 - MISCELLANEOUS ROAD DETAILS
27-39	LOCATION PLAN NO. 1-13
40-52	GRADING & DRAINAGE PLAN NO. 1-13
53-61	SANITARY SEWER & WATER PLAN NO. 1-9
62-64	DRAINAGE, WATER & SEWER DETAILS NO 1-3
65-74	UTILITY PLANS NO. 1-10, GAS, ELECTRIC & TELEPHONE
75-76	TRAFFIC SIGNAL CONTROL NO 1 & 2
77-89	LIGHTING & TRAFFIC SIGNS - POLICE & FIRE ALARM NO. 1-13
90-94	SIGN DETAIL NO. 1-5
95-124	GRADE PLAN NO 1-30
125-156	PROFILE NO. 1-32
157-277	CROSS SECTIONS NO. 1-121

SET NO. 2

EAST PROVIDENCE EXPRESSWAY

BRIDGE & WALL PLANS

SHEET NO.	TITLE
278	COVER SHEET
279	LIST OF DRAWINGS
280-294	VALLEY STREET BRIDGE NO. 462
295-313	TAUNTON AVENUE RAMP NO 463
314-329	WARREN AVENUE RAMPS (N+S) NO 464,465
330-343	PARKWAY RAMP NO. 466
344-359	POTTER STREET BRIDGE NO. 467
360-372	PURCHASE STREET BRIDGE NO 468
373-384	LYON AVENUE BRIDGE NO. 469
385-396	BROADWAY BRIDGE NO 470
397-407	PAWTUCKET AVENUE BRIDGE NO 471
408-428	HORTON FARM BRIDGE NO. 472
429-444	EAST SHORE HIGHWAY BRIDGE NO 475
445-458	WARREN AVENUE BRIDGE NO. 473
459-460	RUNNINS RIVER CULVERT NO. 474
461-472	BRIDGE DETAILS AND TRANSFORMER STATION
473-495	RETAINING WALLS

SET NO. 3

EAST SHORE EXPRESSWAY

HIGHWAY, BRIDGE & WALL PLANS

SHEET NO.	TITLE
496	COVER SHEET
497	LIST OF DRAWINGS
498-503	GENERAL DETAIL & BORING LOCATION PLAN NO 1-6
504-507	HIGHWAY BORING LOGS NO 1-4
508	TYPICAL ROAD SECTIONS & MISCELLANEOUS ROAD DETAILS NO 1
509-514	LOCATION PLAN NO. 1-6
515-520	GRADING & DRAINAGE PLAN NO 1-6
521-522	DRAINAGE, WATER & SEWER DETAILS NO. 1 & 2
523-528	LIGHTING & TRAFFIC SIGNS- POLICE & FIRE ALARM PLAN NO 1-6
529	SIGN DETAIL NO. 1
530-539	GRADE PLANS NO. 1-10
540-848	PROFILE NO. 1-9
549-574	CROSS SECTIONS NO. 1-26
575-586	McCORMICK QUARRY BRIDGE NO. 476
587-596	WAMPANOAG TRAIL BRIDGE NO 477

SPECIFICATIONS TO GOVERN THIS PROJECT ARE "R. I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - REVISION OF 1948" AS TEMPORARILY APPROVED JULY 25, 1947 AND THE STATE AND FEDERAL PROVISIONS INCLUDED IN THE PROPOSAL UNLESS OTHERWISE SHOWN ON THESE PLANS. THE STRUCTURES USED IN THIS PROJECT ARE:

R. I. STANDARD STRUCTURE NO. 2A CATCH BASIN TYPE D
5 HEAD WALL (8"-30" DIA.)
5A HEAD WALL (36"-72" DIA.)
8 SUBDRAIN
14 DROP INLET
20 MANHOLE DESIGN
21 FRAME AND COVER - CATCH BASIN
29 PRE-CAST CONC. CATCH BASIN INLET STONES
31 TYPE "D" CATCH BASIN WITH TYPE "S" CONC. CURB
35 GRANITE CURB AND INLET STONE, 6" X 20"
35A GRANITE CURB AND INLET STONE, 6" X 18"
36 PRE-CAST, TYPE "S" CONCRETE CURB
38C SQUARE FRAME AND GRATE
42 GUTTER INLET

NO. 44 MANHOLE AND CATCH BASIN STEP
48 CATCH BASIN HEAD, TYPE "F"
53 CATCH BASIN SQUARE FRAME AND ROUND COVER
56 ROUND FRAME AND COVER (MANHOLE)
57 MANHOLE HEAD
60 CATCH BASIN HEAD
67 HAND HOLE FOR TRAFFIC SIGNAL WIRING
79 BOUNDARY WIRE FENCE
88 TRAFFIC SIGN MOUNTING, TYPE "A"
89 " " " TYPE "B"
90 " " " TYPE "C"
91 " " " TYPE "D"

F-417

CHARLES A MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS
DATE FEB 1958 FILE NO.
SCALE SHEET 2 OF 596

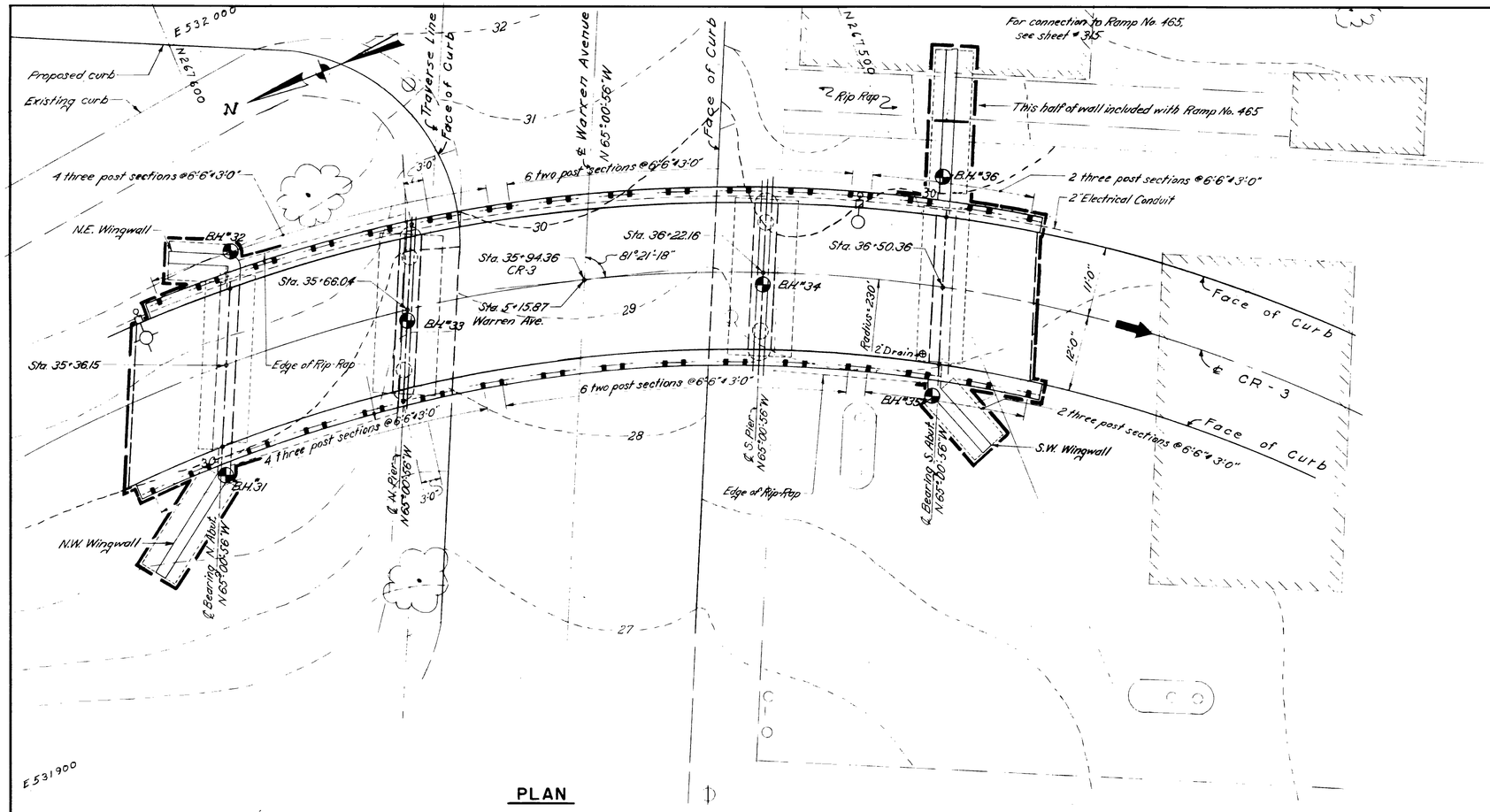
RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES
EAST PROVIDENCE EXPRESSWAY & EAST SHORE EXPRESSWAY
R I PROJECT NO I-03(10) & F-03I(4)
EAST PROVIDENCE, RHODE ISLAND

LIST OF DRAWINGS

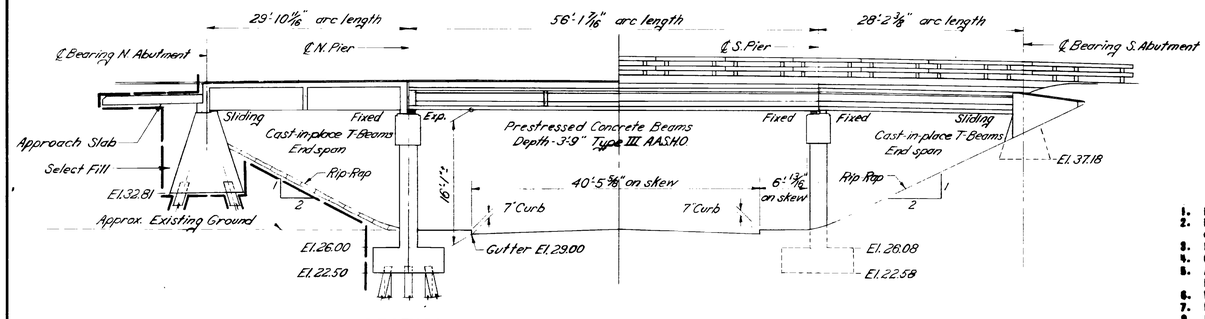
APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

SET NO. [ ]
PRINTED [ ]
[illegible]

FED. ROAD DIST No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	314	596



PLAN



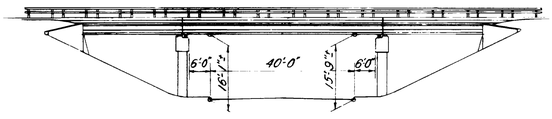
SECTION ELEVATION

LEGEND

- Bore Hole
- Building to be Removed
- Existing Contours
- Rail Posts
- Light Standard (In Earth) (On Structure)
- Electric Pole
- Limits of Lump Sum Work

SUB-LIST OF DRAWINGS

SHEET	TITLE
314	LOCATION PLAN (SOUTH)
315	LOCATION PLAN (NORTH)
316	FOUNDATION & UTILITY PLAN
317	FRAMING PLAN
318	CROSS SECTIONS & CONTOURS
319	DECK REINFORCING PLAN
320	SOUTH ABUTMENTS
321	SOUTH ABUTMENT (SOUTH)
322	SOUTH ABUTMENT (NORTH)
323	SOUTH PIERS
324	SOUTH PIERS
325	BORINGS S1 THRU S6
326	BORINGS S6 THRU S1
327	REINFORCING SCHEDULE SH. 1
328	REINFORCING SCHEDULE SH. 2
329	REINFORCING SCHEDULE SH. 3



CLEARANCE DIAGRAM

SCALE: 1" = 20'-0"

GENERAL NOTES

1. Elevations are referenced to Mean Sea Level = 0.00 Feet.
2. Dimensions, stations, and elevations are shown to the nearest one hundredth of a foot or nearest one sixteenth of an inch.
3. Bearings and angles are shown to the nearest second.
4. Contours of existing ground are shown to the nearest foot.
5. All footing dimensions and elevations to be verified by the Engineer before concrete is placed.
6. For grading and drainage see Sheet No. 41.
7. For [illegible] data see Sheet No. 28.
8. For concrete notes see Sheet No. 471.
9. For prestressed concrete notes see Sheet No. 465.
10. Cast in place concrete piles, design load 45 tons
11. Steel H piles, design load 45 tons
12. Clearance diagram on Sheet 314 and Sheet 315.
13. For prestressed beam details see Sheets No. 466 thru 468.
14. For miscellaneous structural details see general detail sheets 466 thru 472.

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R I PROJECT NO. I-03(10)

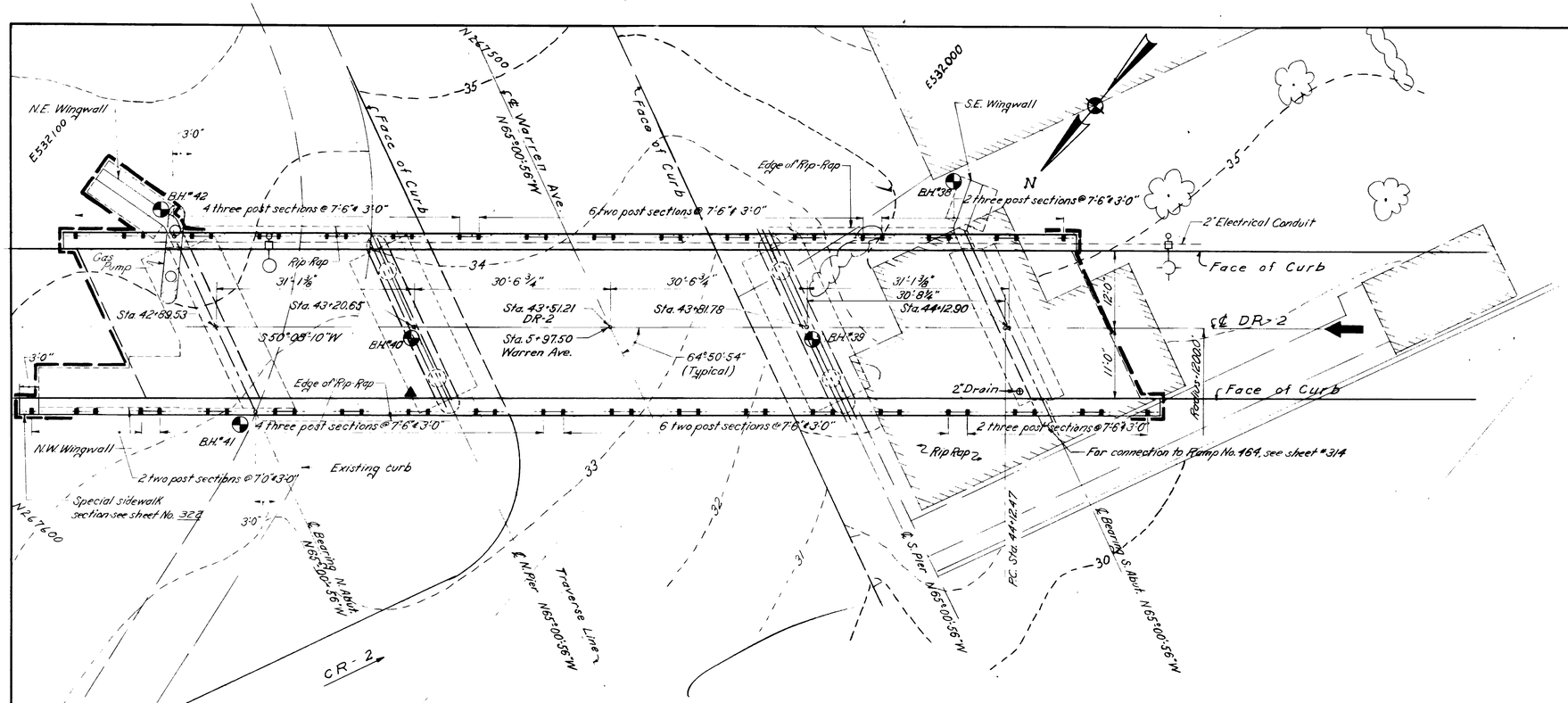
EAST PROVIDENCE, RHODE ISLAND

WARREN AVENUE RAMP (SOUTH) LOCATION PLAN

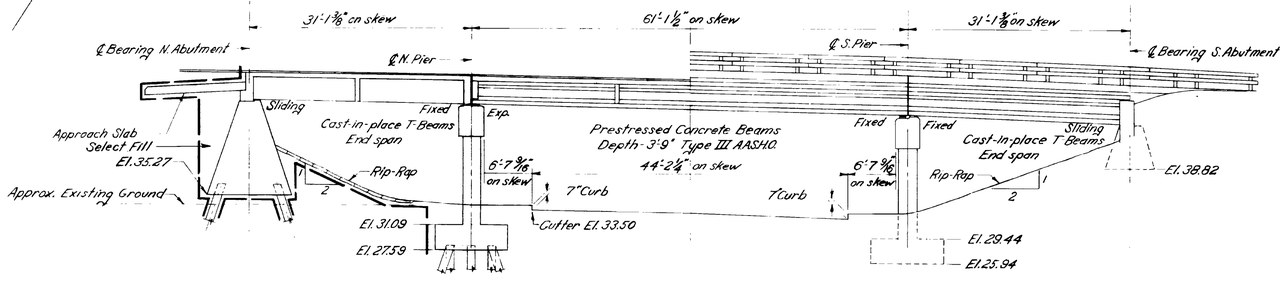
CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R I BOSTON, MASS
DATE [redacted] FILE NO. [redacted]
SCALE: 1" = 10'-0" SHEET 314 OF 596

APPROVED _____ ENGINEER — SET NO. [ ] PRINTED [ ]
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER — ISSUED TO [ ]
FINAL DATE

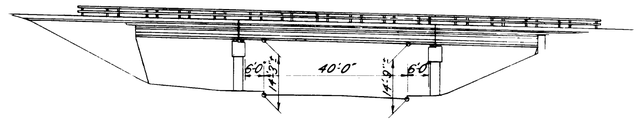
FED ROAD DIST No	STATE	PROJ No	FED AID No	SHEET No	TOTAL SHEETS
1	R.I.	I-03(10)	1958	315	596



PLAN



SECTION ELEVATION



CLEARANCE DIAGRAM

SCALE: 1" = 20'-0"

LEGEND

- Bore Hole
- Building to be Removed
- Existing Contours
- Scuppers
- Rail Posts
- Light Standards (In Earth)
- (On Structure)
- Limits of Lump Sum Work

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVENUE RAMP (NORTH)
LOCATION PLAN

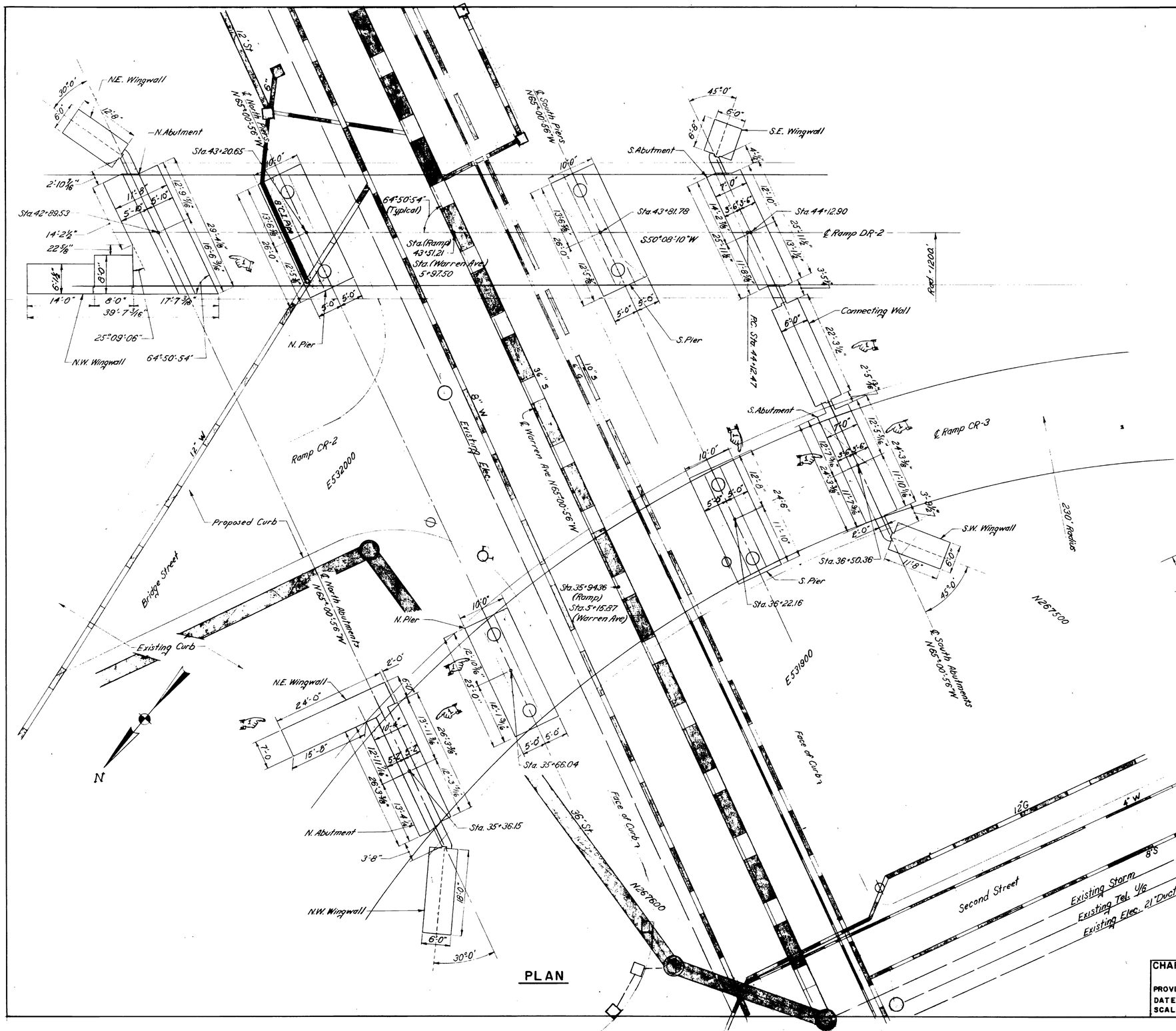
CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS.
DATE [redacted] FILE NO.
SCALE: 1" = 10'-0" SHEET 315 OF 596

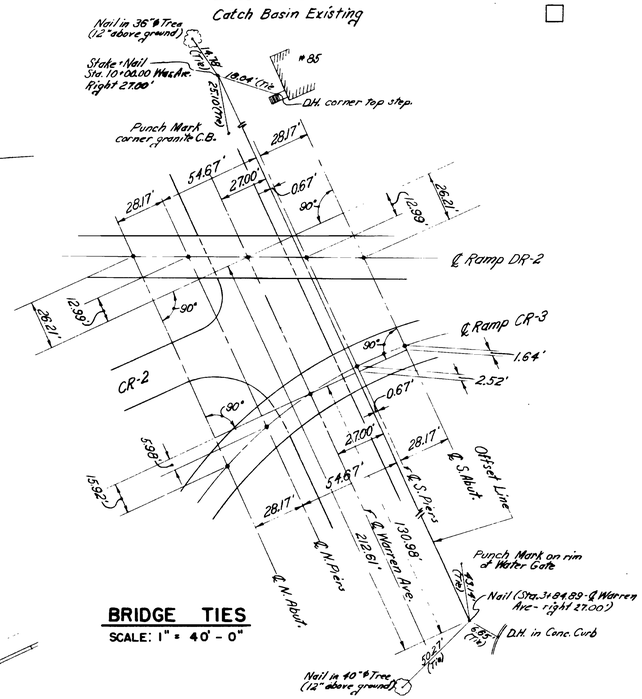
APPROVED _____ ENGINEER — SET NO [ ] PRINTED [ ]
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER — ISSUED TO [ ]
FINAL DATE

FED. ROAD DIST. No	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	316	596

UTILITY LEGEND

- Existing Utilities to Remain
- Existing Utilities to Remove or Abandon
- Proposed Utilities
- Catch Basin New
- Drop Inlet
- M.H. New
- M.H. Existing
- Hydrant
- Sewer — S
- Gas — G
- Water — W
- Drain — D
- Electric — E
- Telephone — T
- Electric Pole
- Catch Basin Existing





BRIDGE TIES

SCALE: 1" = 40' - 0"

REVISIONS		
NO	DATE	BY
1	8-8-58	V.F.L.

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R.I. PROJECT NO. I-03-(10)

EAST PROVIDENCE, RHODE ISLAND

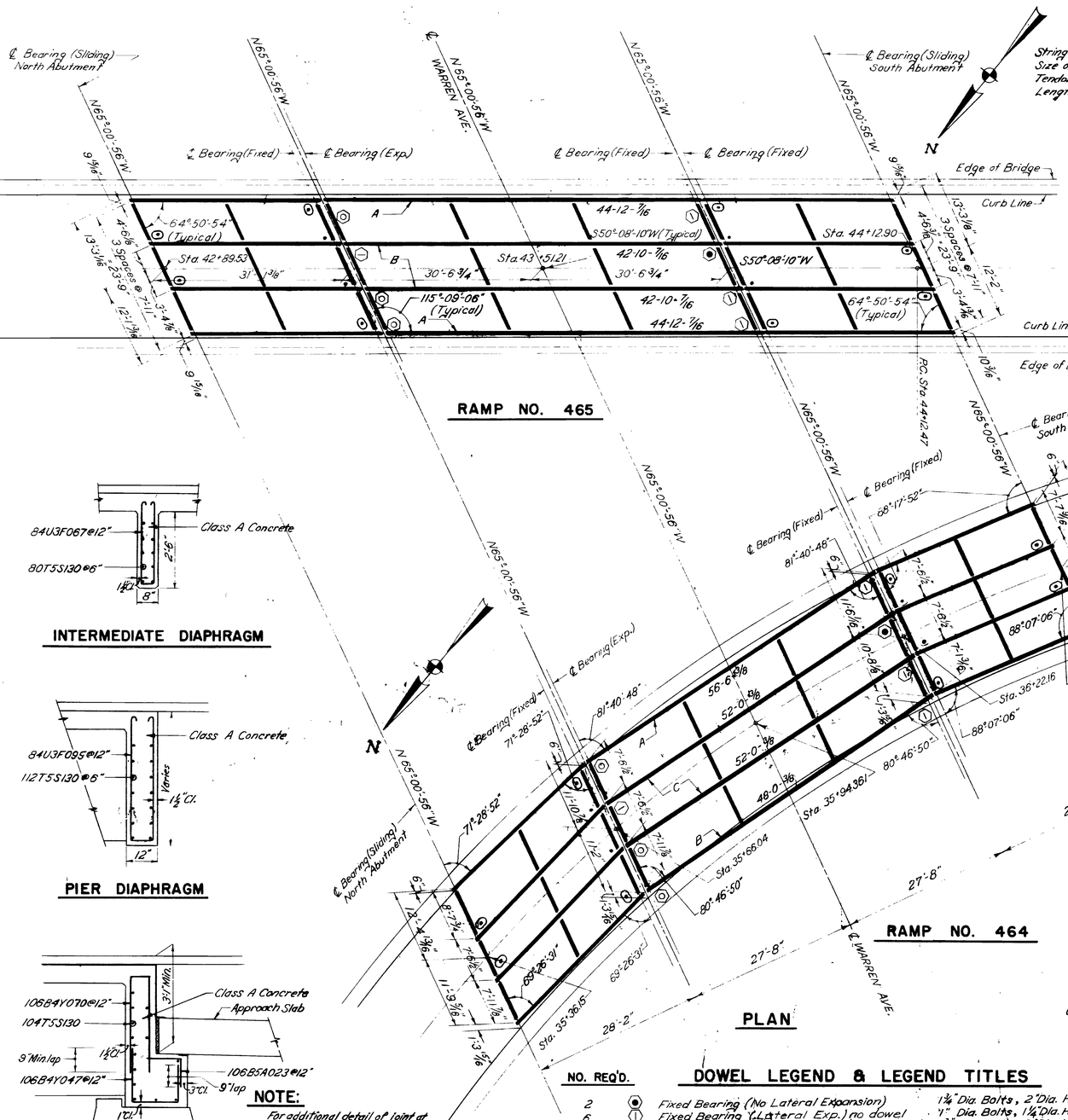
WARREN AVE. RAMPS (N. & S.) FOUNDATION & UTILITY PLAN

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS.
DATE: [redacted] FILE NO.
SCALE: 1" = 10' - 0" SHEET 316 OF 596

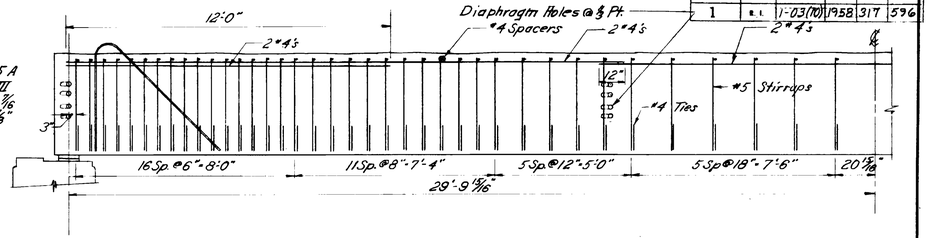
APPROVED _____ ENGINEER — SET NO. / PRINTED
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER — ISSUED TO
FINAL DATE

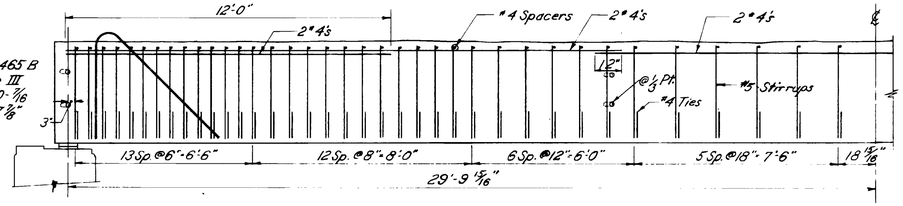
464,465

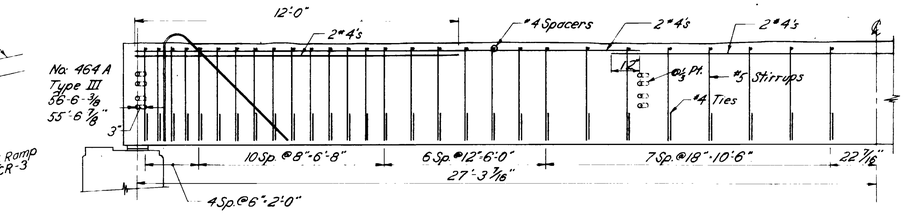
FED ROAD DIST No	STATE	FED AID PROJ No	FISCAL YEAR	SHEET No	TOTAL SHEETS
1	R.I.	I-03(10)	1958	317	596

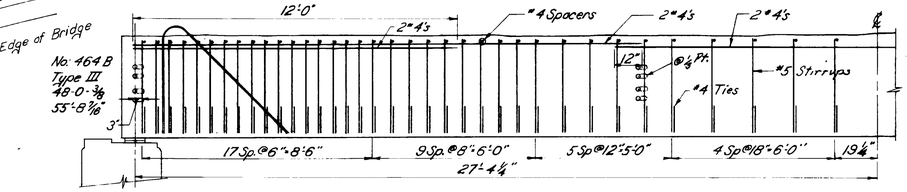


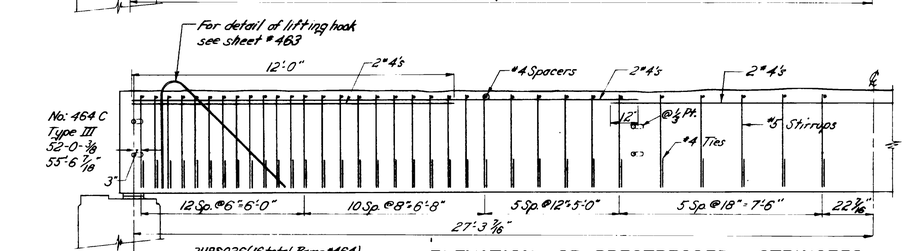
Stringer Designation No: 465 A
Size of Stringer: Type III
Tendon Designation: 44-12-7/16
Length of Stringer: 60'-7 7/8"











ELEVATION OF PRESTRESSED STRINGERS
SCALE: 3/8" = 1'-0"

INTERMEDIATE DIAPHRAGM

PIER DIAPHRAGM

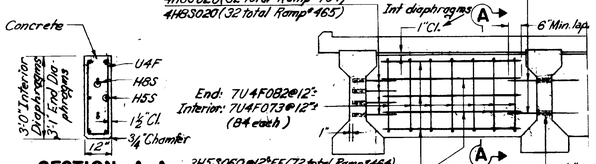
NOTE:
For additional detail of joint at abutment see section MM sheet No. 467

ABUTMENT DIAPHRAGM
CAST-IN-PLACE DIAPHRAGMS
SCALE: 1/2" = 1'-0"

NO. REQ'D.		DOWEL LEGEND & LEGEND TITLES	
2	◉	Fixed Bearing (No Lateral Expansion)	1¾" Dia. Bolts, 2" Dia. Holes
6	⬡	Fixed Bearing (Lateral Exp.) no dowel	1" Dia. Bolts, 1¼ Dia. Holes
2	⬡	Expansion Bearing (No Lateral Expansion)	1¾ Dia. Bolts, 2" Dia. Holes
6	⬡	Expansion Bearing (Lateral Expansion)	1" Dia. Bolts, 1¼ Dia. Holes

NOTE:
For Details of Prestressed Beams see Sheets 462, 463, 464, & 465.

PLAN



SECTION A-A

2H8S036 (16 total Ramp #464)
2H8S033 (16 total Ramp #465)
4H8S020 (32 total Ramp #464)
4H8S020 (32 total Ramp #465)
3H5S060@12" EF (72 total Ramp #464)
3H5S063@12" EF (72 total Ramp #465)
2H5S060 (24 total Ramp #464)
2H5S063 (24 total Ramp #465)

TYPICAL DIAPHRAGM
PRESTRESSED SPAN
SCALE: 3/8" = 1'-0"

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R.I. PROJECT NO. I-03(10)
EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.) FRAMING PLAN

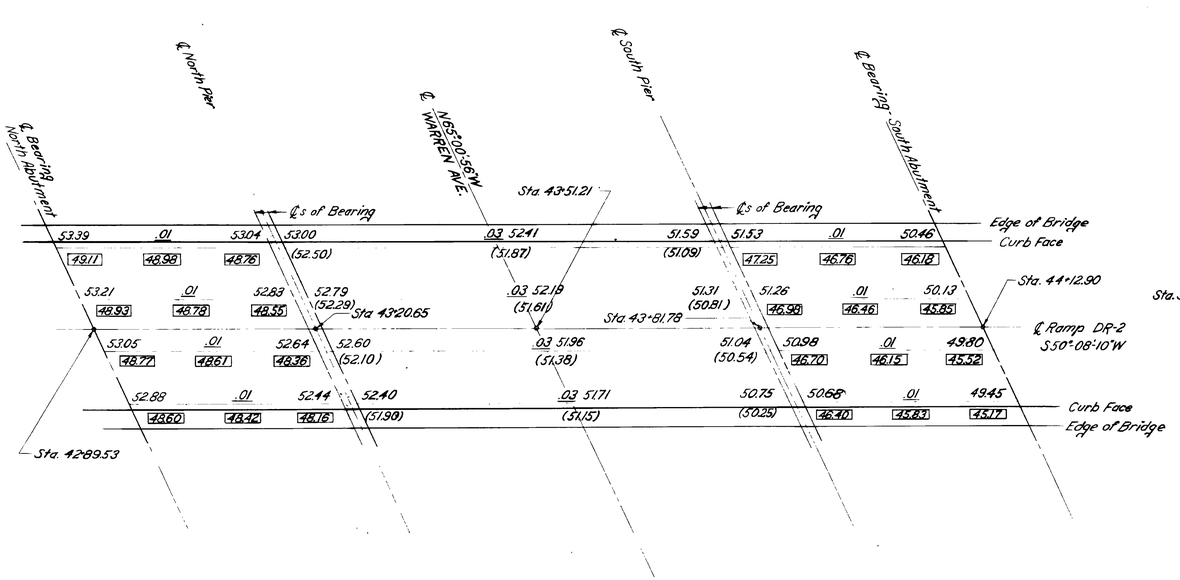
CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS.
DATE [redacted] FILE NO.
SCALE: 1" = 10'-0" SHEET 317 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

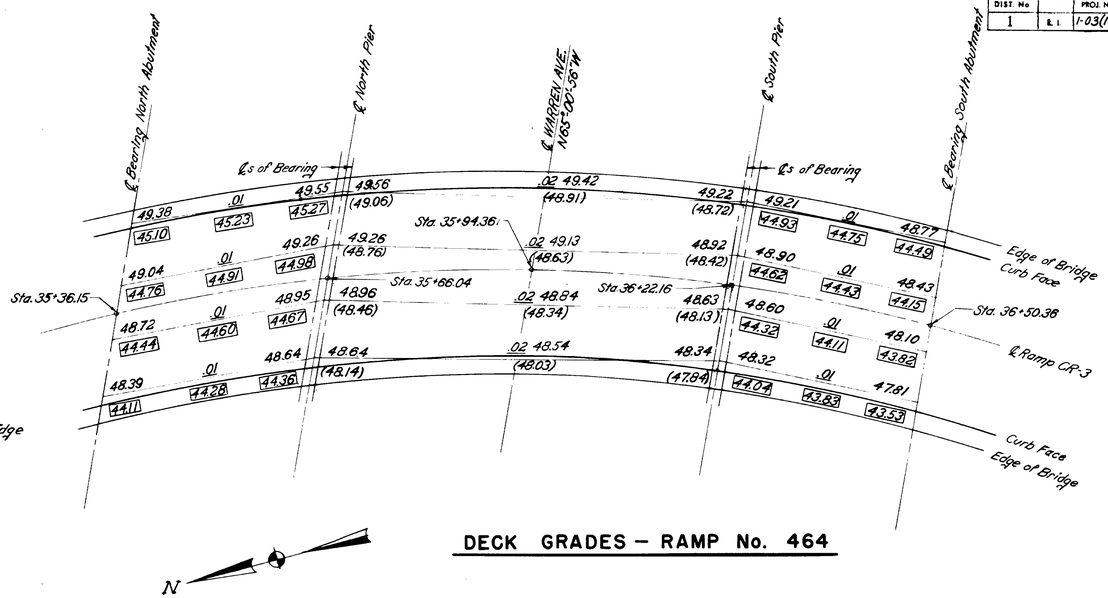
SET NO. [ ]
PRINTED
ISSUED TO

464, 465

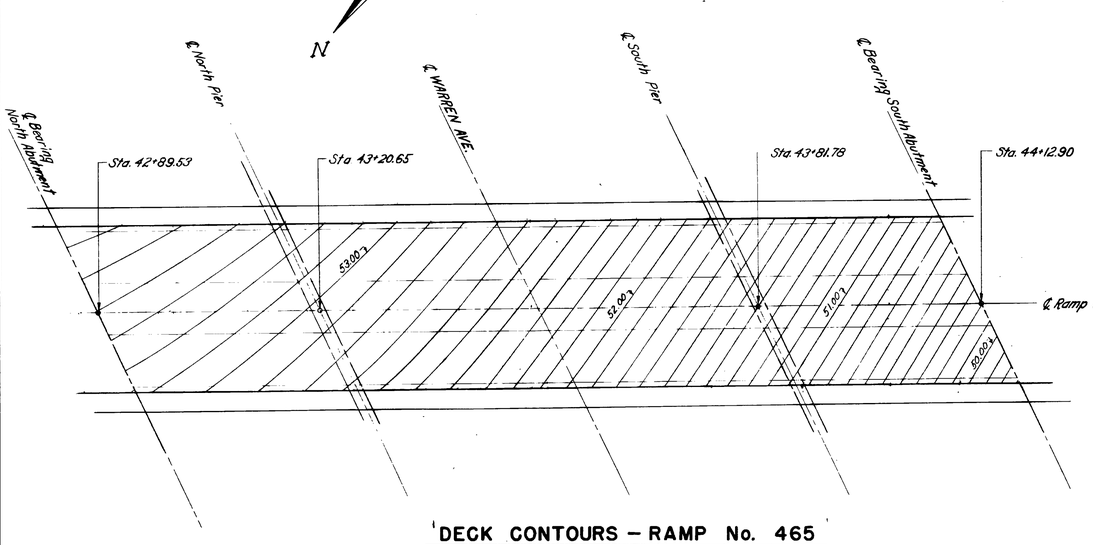
FED. ROAD DIST. No	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	318	596



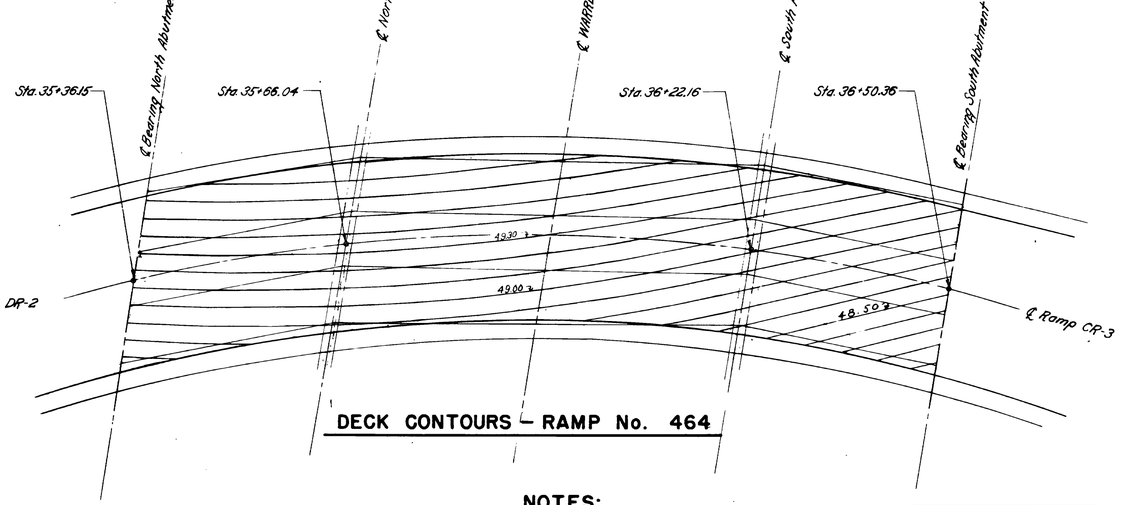
DECK GRADES — RAMP No. 465



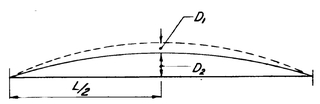
DECK GRADES — RAMP No. 464



DECK CONTOURS — RAMP No. 465



DECK CONTOURS — RAMP No. 464



$D_1 + D_2$ · Initial Camber
D_1 · Dead Load Deflection.
D_2 · Residual Camber

CAMBER DIAGRAM

NOT TO SCALE

NOTES:

1. Elevations are given at center of prestressed spans ℄ at ℄ of bearing on piers ℄ abutments.
2. Figures underlined thus 00.00 are dead load deflections.
3. Figures indicated thus (00.00) are at top of prestressed stringer before concreting.
4. Figures indicated thus [00.00] are at bottom of cast-in-place stringers.
5. Other figures is top of finished concrete, .27ft. below top of finished road.

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R I PROJECT NO. I-03-(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.) DECK GRADES & CONTOURS

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS.
DATE: [redacted] FILE NO.
SCALE: 1" = 10'-0" SHEET 318 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

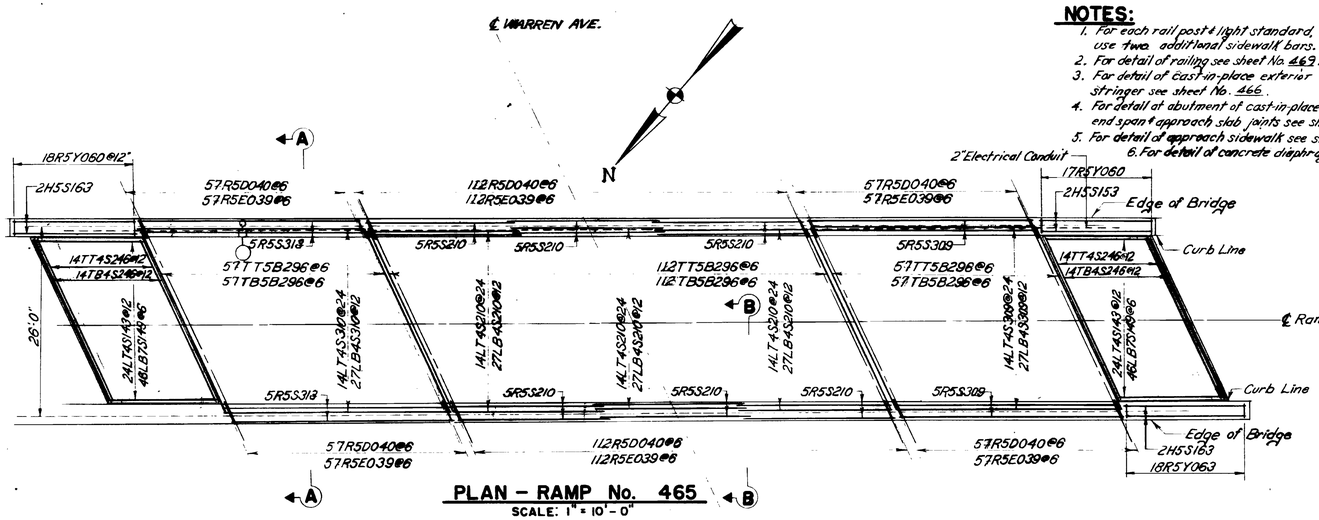
SET NO. ☐
PRINTED ☐
ISSUED TO ☐

464.465

FED. ROAD DIST No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOT. SHEETS
1	R.I.	I-03(10)	1958	319	596

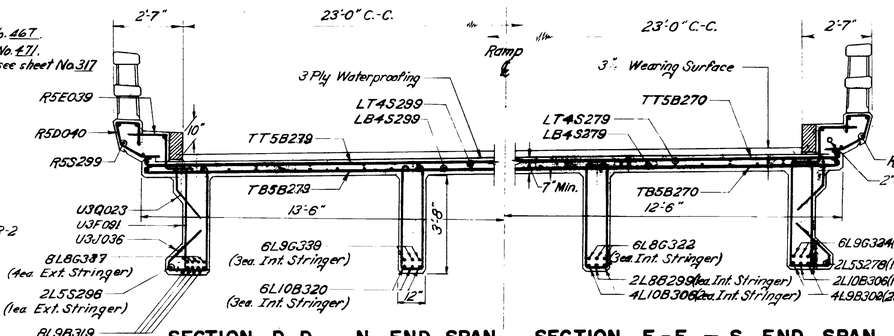
NOTES:

1. For each rail post & light standard, use two additional sidewalk bars.
2. For detail of railing see sheet No. 469.
3. For detail of cast-in-place exterior stringer see sheet No. 466.
4. For detail at abutment of cast-in-place end span & approach slab joints see sheet No. 467.
5. For detail of approach sidewalk see sheet No. 471.
6. For detail of concrete diaphragms see sheet No. 317.



PLAN – RAMP No. 465

SCALE: 1" = 10'-0"



SECTION D-D – N. END SPAN

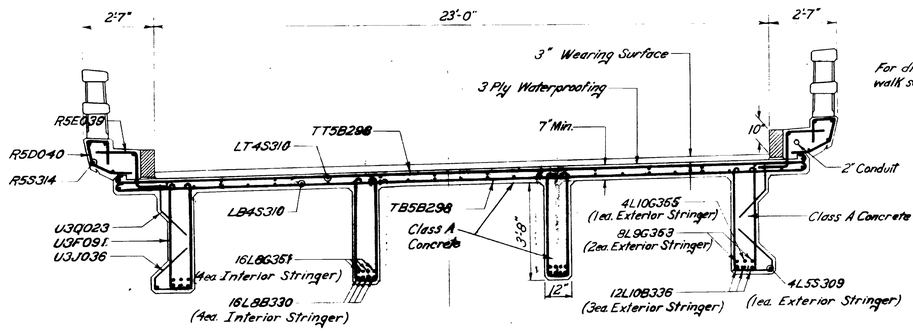
RAMP NO. 464

SCALE: 3/8" = 1'-0"

SECTION E-E – S. END SPAN

RAMP NO. 464

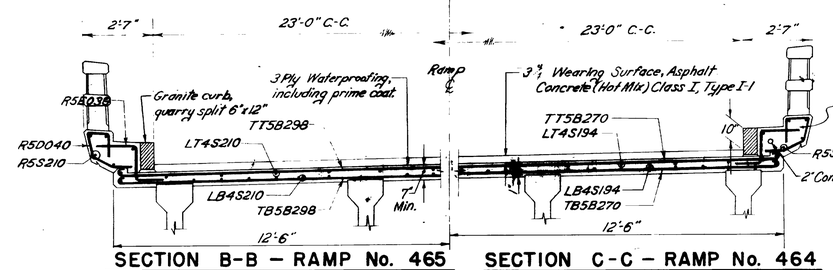
SCALE: 3/8" = 1'-0"



For dimensions of safety walk see sheet No. 467

SECTION A-A – RAMP No. 465

SCALE: 3/8" = 1'-0"

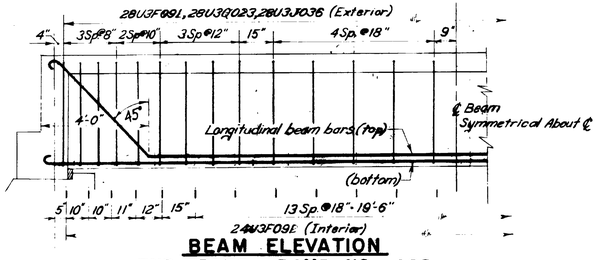


SECTION B-B – RAMP No. 465

SCALE: 3/8" = 1'-0"

SECTION C-C – RAMP No. 464

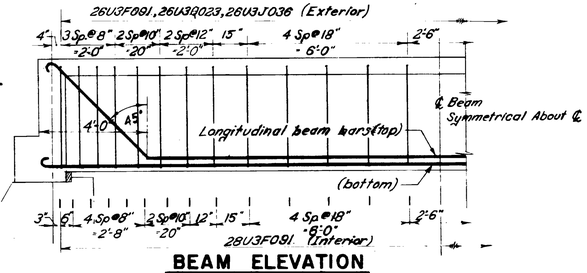
SCALE: 3/8" = 1'-0"



BEAM ELEVATION

END SPANS – RAMP NO. 465

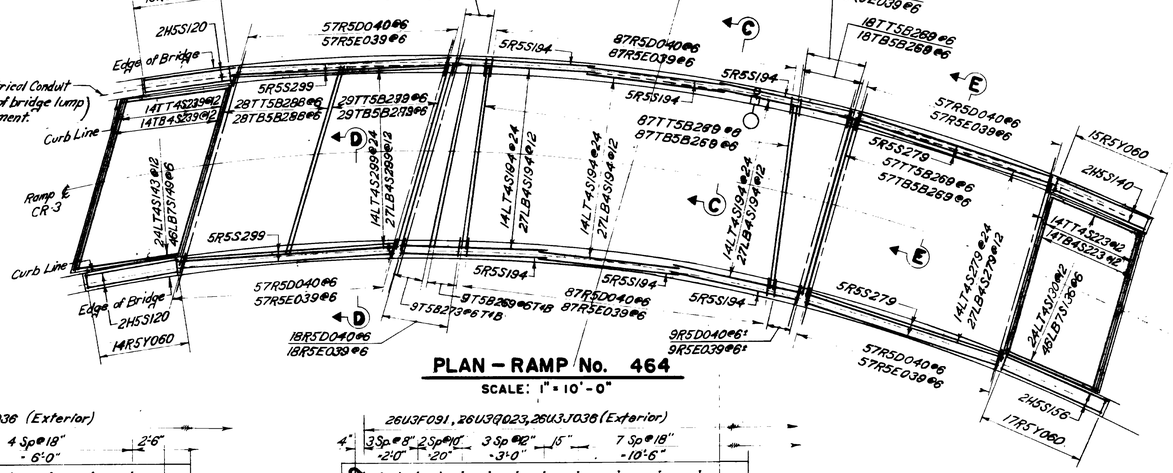
SCALE: 3/8" = 1'-0"



BEAM ELEVATION

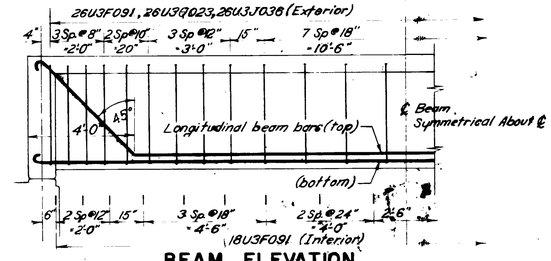
NORTH END SPAN – RAMP NO. 464

SCALE: 3/8" = 1'-0"



PLAN – RAMP No. 464

SCALE: 1" = 10'-0"



BEAM ELEVATION

SOUTH END SPAN – RAMP NO. 464

SCALE: 3/8" = 1'-0"

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R.I. PROJECT NO. I-03-(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)
DECK REINFORCING PLAN

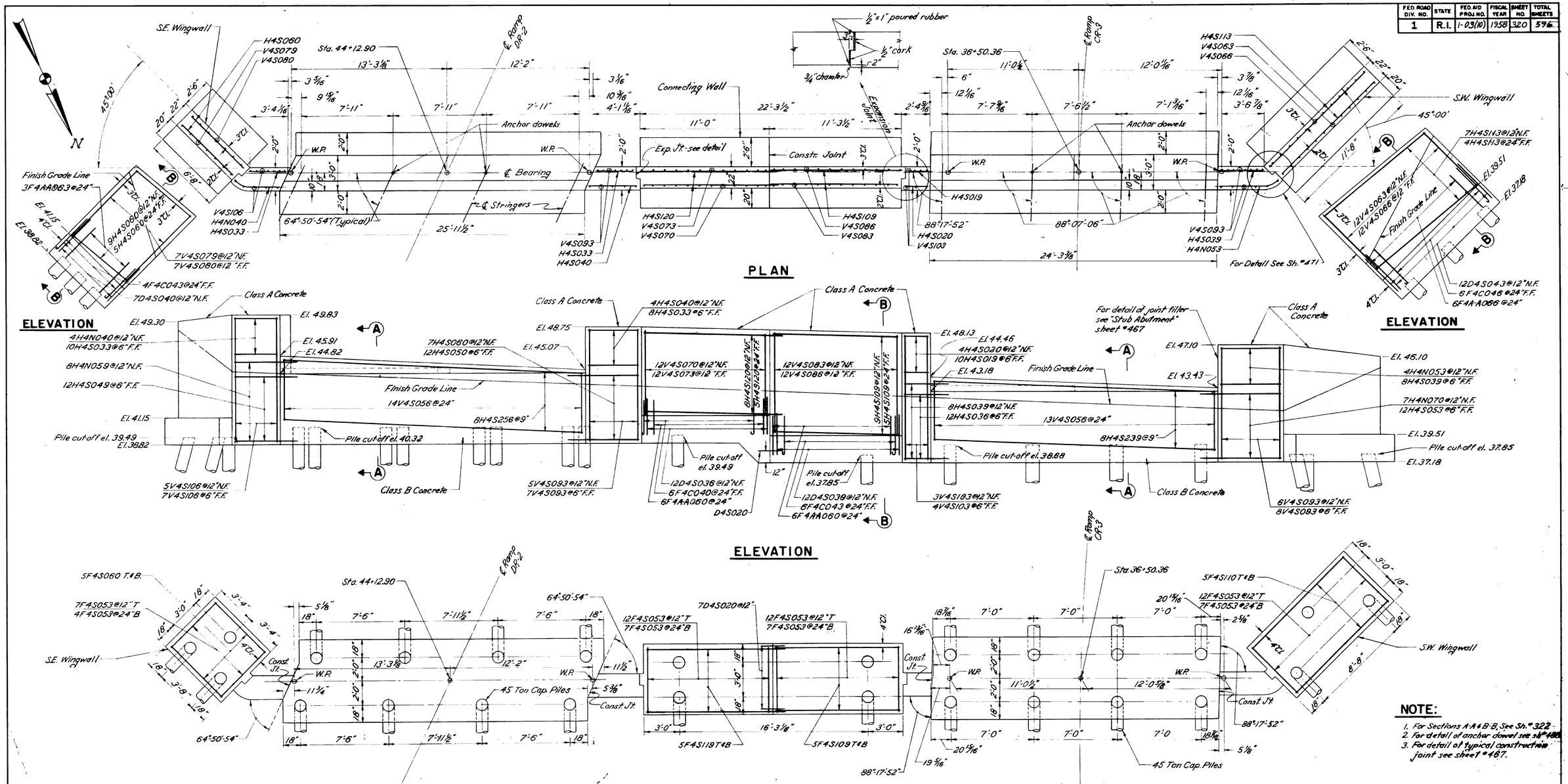
CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS.
DATE: [redacted] FILE NO. [redacted]
SCALE: AS SHOWN SHEET 319 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

SET NO.
PRINTED
ISSUED TO

464 465

F.ED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-095(10)	1958	320	596



NOTE:

1. For Sections A-A & B-B, See Sh.#322
2. For detail of anchor dowel see sh.#465
3. For detail of typical construction joint see sheet #467.

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I - 03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)
SOUTH ABUTMENTS

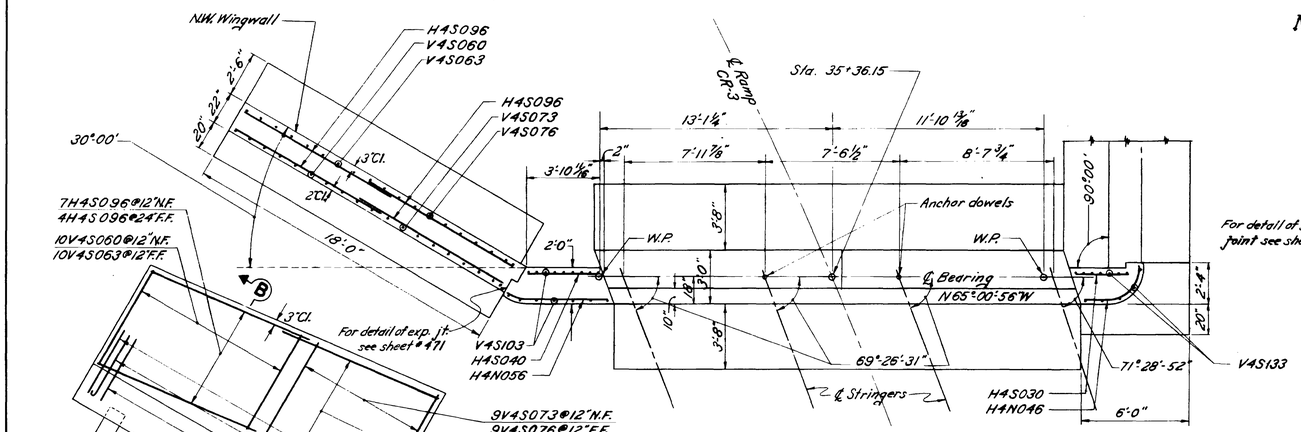
CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: 1/4" = 1'-0" SHEET 320 OF 596

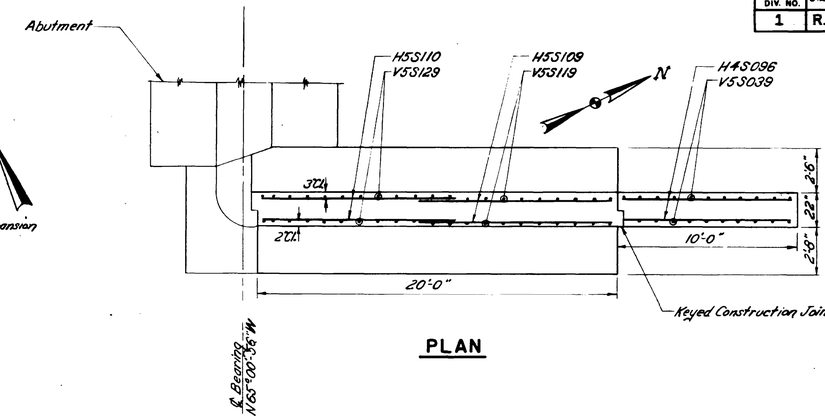
APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

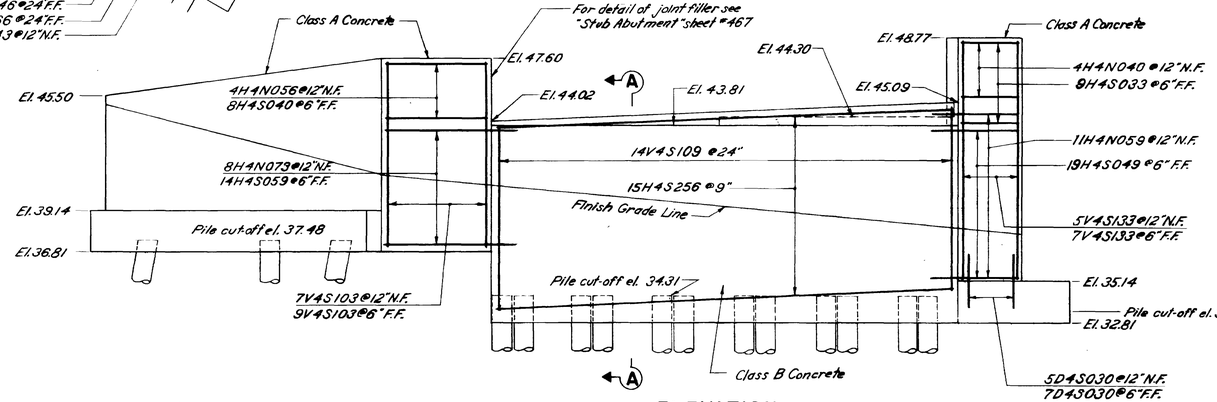
SET NO.
PRINTED
ISSUED

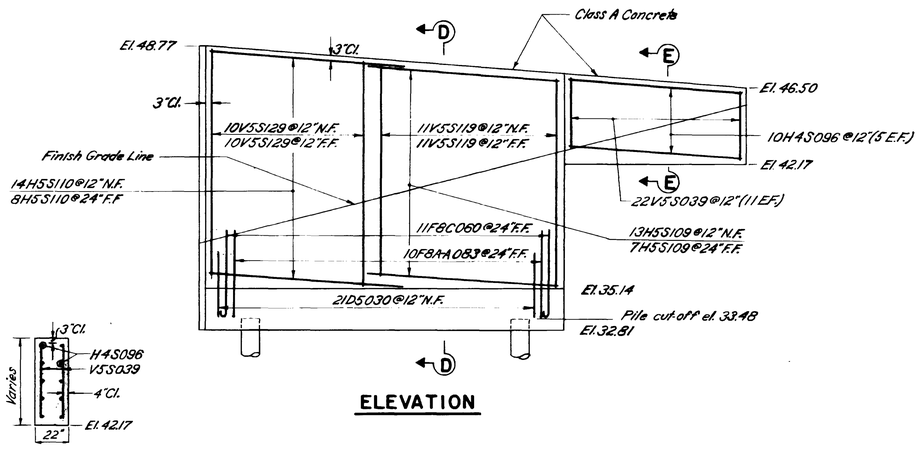
464.465

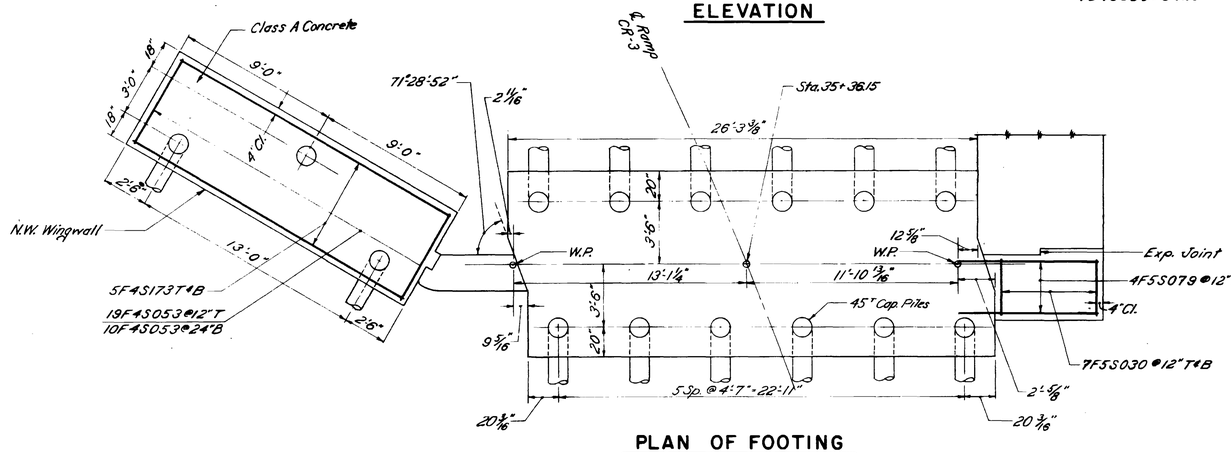
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	321	596

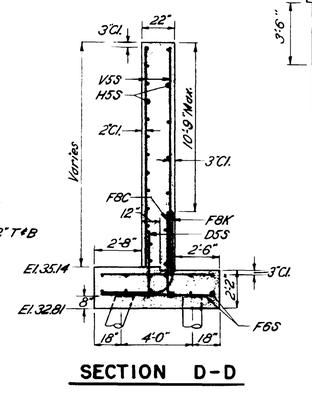


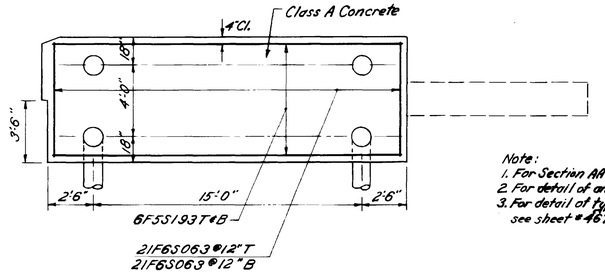












Note:
1. For Section AA&BB see sheet #322
2. For detail of anchor dowel see sh. #468
3. For detail of typical construction joint see sheet #467.

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

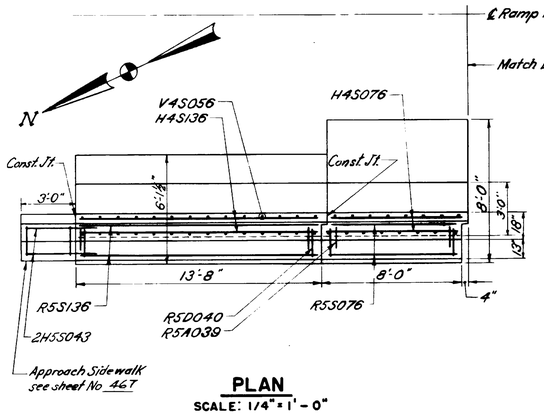
WARREN AVENUE RAMP (SOUTH)
NORTH ABUTMENT

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: 1/4" = 1'-0" SHEET 321 OF 596

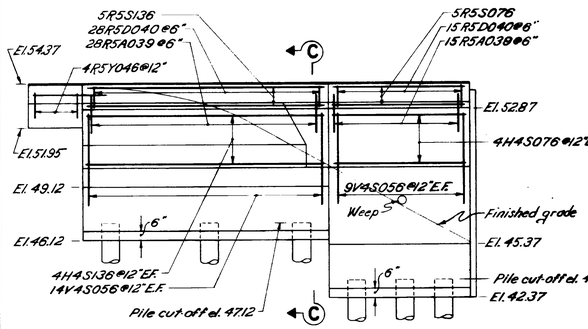
APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

SET NO. ☐
PRINTED
ISSUED TO

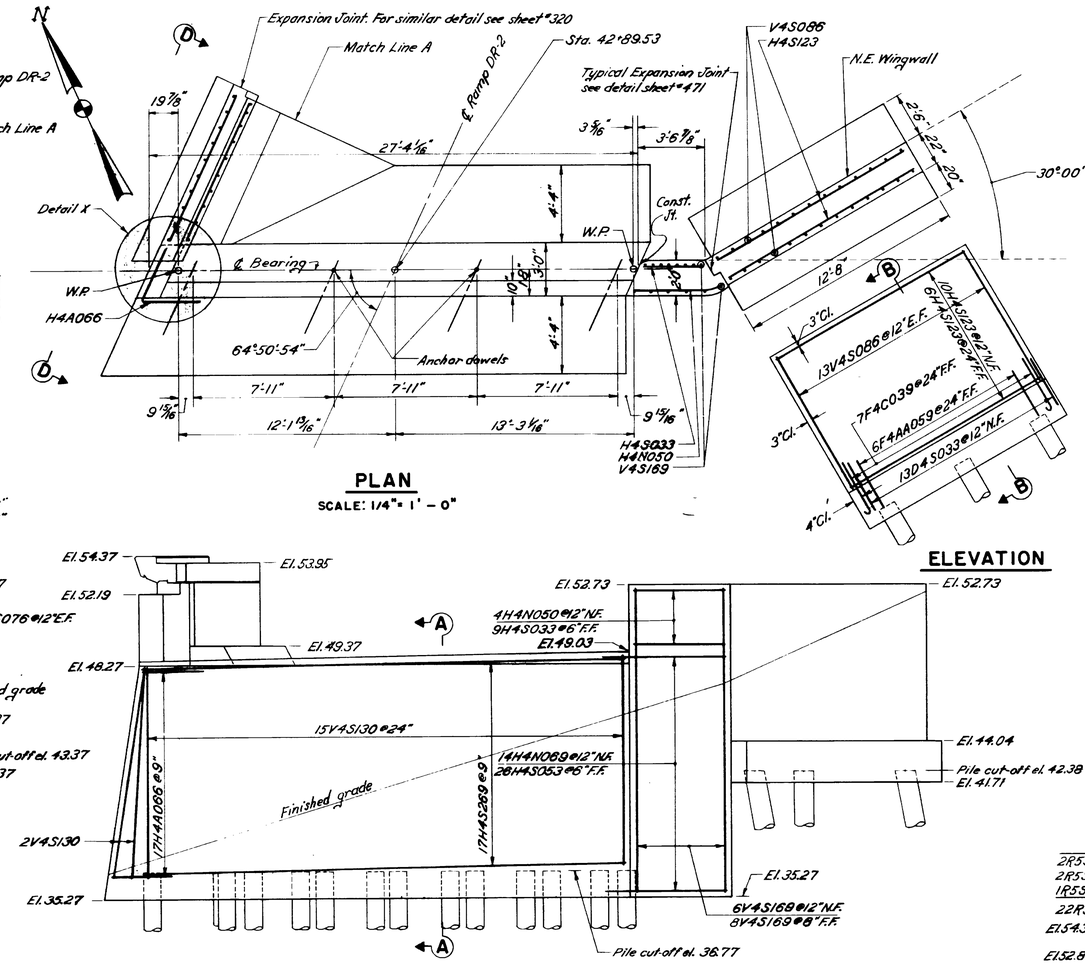
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	322	596



PLAN
SCALE: 1/4" = 1'-0"



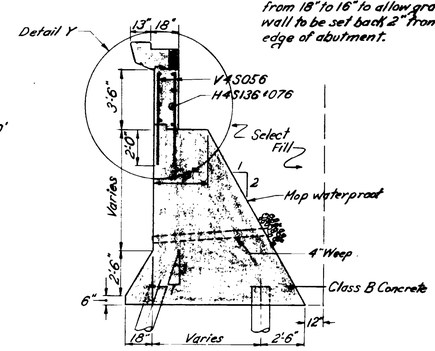
ELEVATION
SCALE: 1/4" = 1'-0"



PLAN
SCALE: 1/4" = 1'-0"

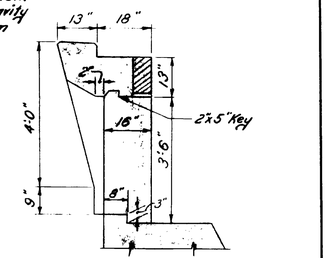
ELEVATION
SCALE: 1/4" = 1'-0"

ELEVATION
SCALE: 1/4" = 1'-0"

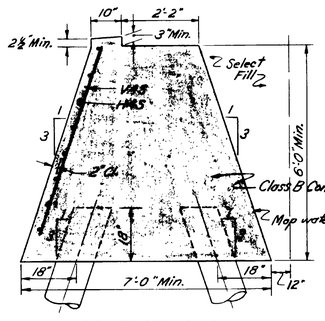


SECTION C-C
SCALE: 1/4" = 1'-0"

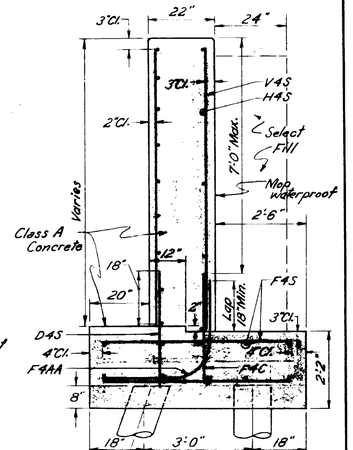
NOTE:
Wall cap decreased in width from 18" to 16" to allow gravity wall to be set back 2" from edge of abutment.



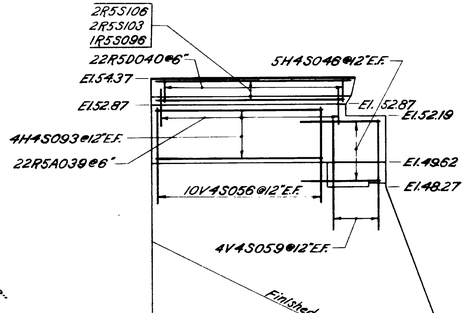
DETAIL Y
SCALE: 1/2" = 1'-0"



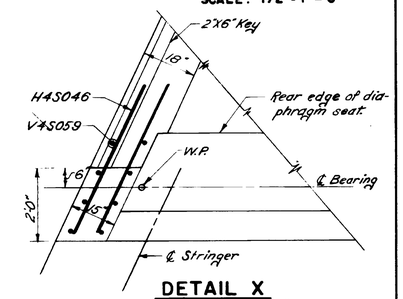
SECTION A-A
SCALE: 1/2" = 1'-0"



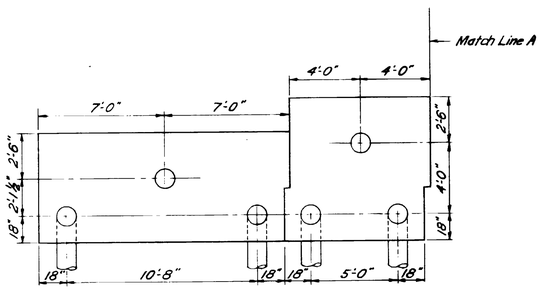
SECTION B-B
SCALE: 1/2" = 1'-0"



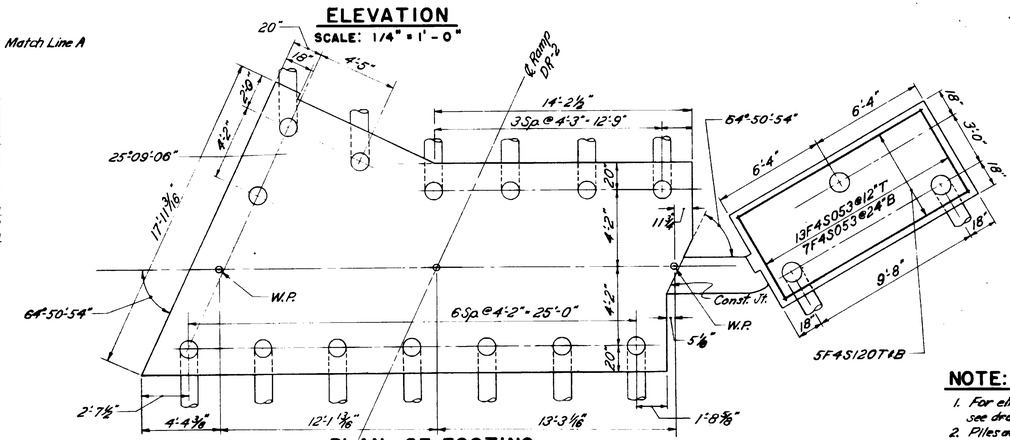
ELEVATION D-D
SCALE: 1/4" = 1'-0"



DETAIL X
SCALE: 1/2" = 1'-0"



PLAN OF FOOTING
NORTHWEST WINGWALL
SCALE: 1/4" = 1'-0"



PLAN OF FOOTING
SCALE: 1/4" = 1'-0"

NOTE:

1. *For elevations not shown on sections, see drawing of particular structure.*
2. *Piles are 45T capacity.*
3. *For detail of anchor dowel see sh. #469.*
4. *For detail of typical construction joint see sh. #467.*

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVENUE RAMP (NORTH)
NORTH ABUTMENT

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: AS SHOWN SHEET 322 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

SET NO. ☐
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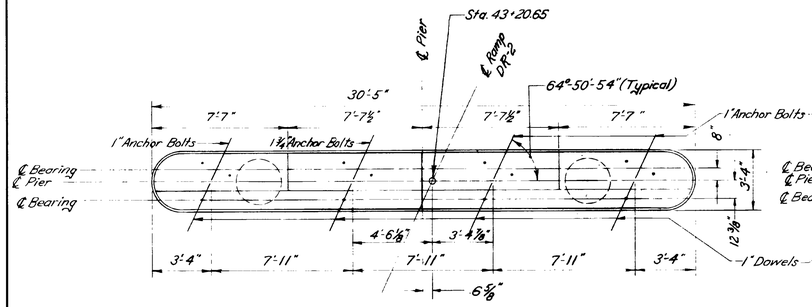
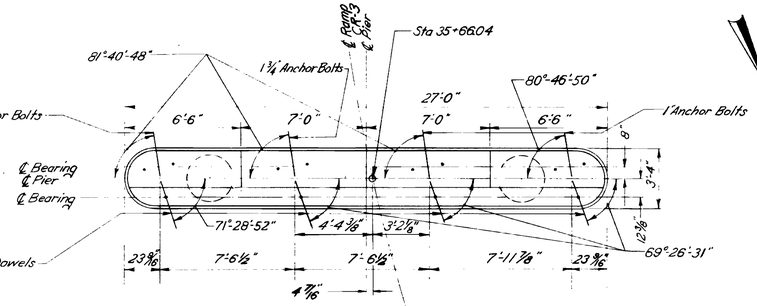
ISSUED TO

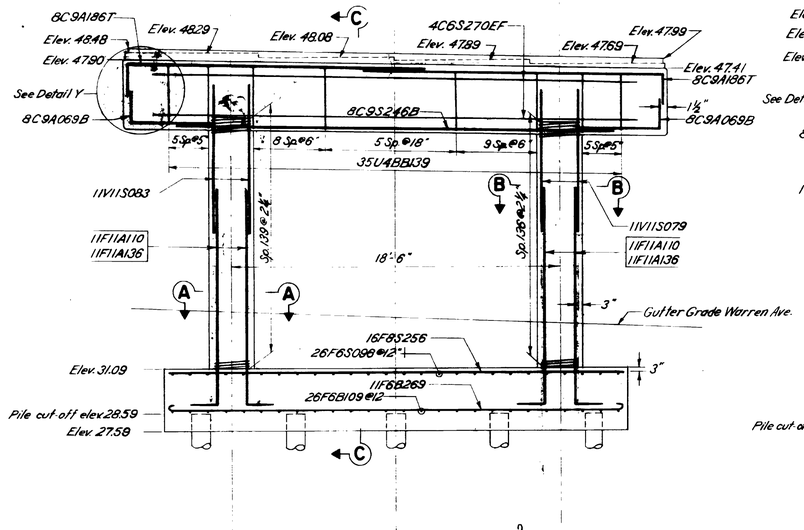
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	323	596



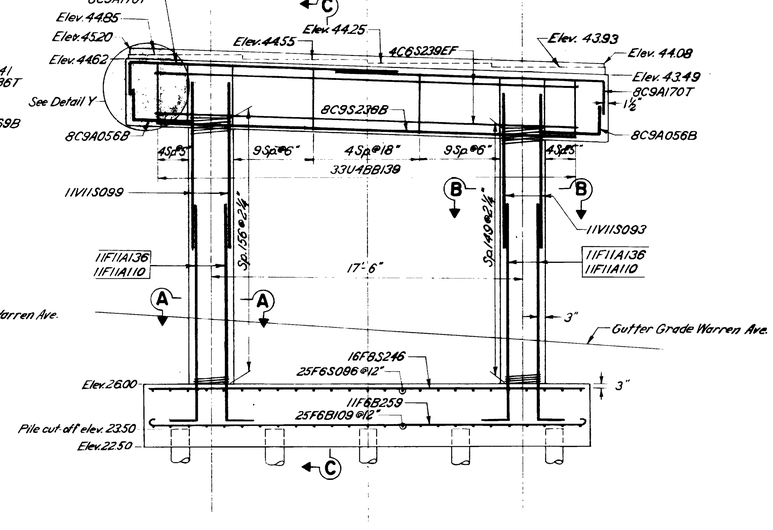
PLAN OF PIER CAP
SCALE: 1/4" = 1'-0"



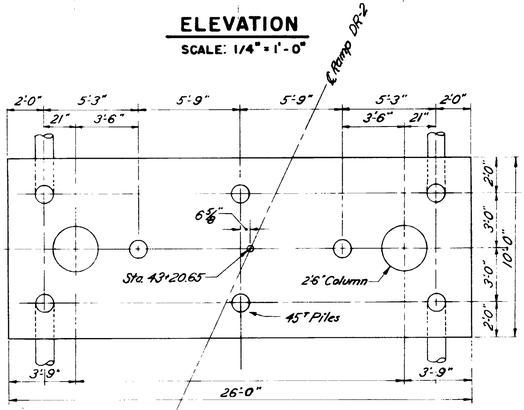
PLAN OF PIER CAP
SCALE: 1/4" = 1'-0"



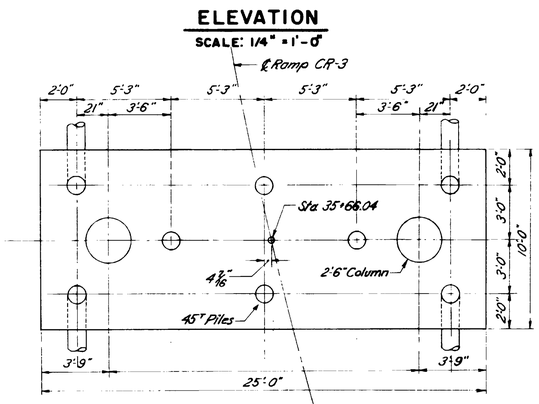
ELEVATION
SCALE: 1/4" = 1'-0"



ELEVATION
SCALE: 1/4" = 1'-0"

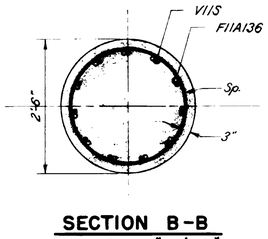


PLAN OF FOOTING
RAMP NO. 465
SCALE: 1/4" = 1'-0"

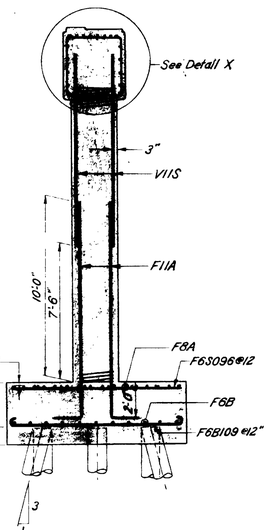


PLAN OF FOOTING
RAMP NO. 464
SCALE: 1/4" = 1'-0"

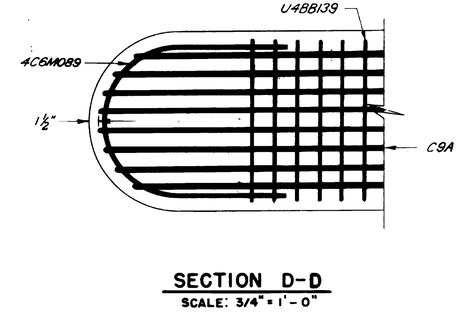
SECTION A-A
SCALE: 3/4" = 1'-0"



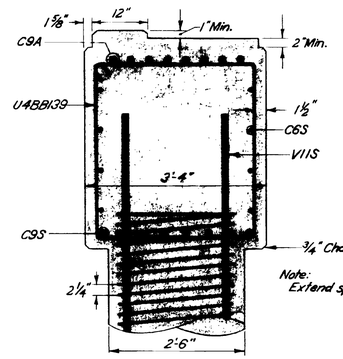
SECTION B-B
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 1/4" = 1'-0"



ELEVATION
DETAIL Y
SCALE: 3/4" = 1'-0"



Note:
Extend spiral 3½ turns into cap.

DETAIL X
SCALE: 3/4" = 1'-0"

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)
NORTH PIERS

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: AS SHOWN SHEET 323 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
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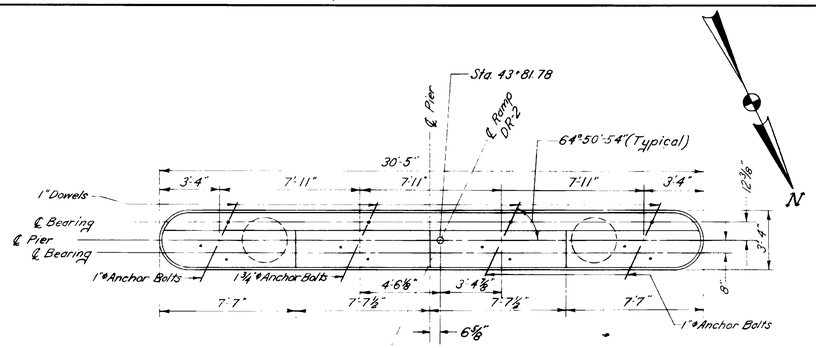
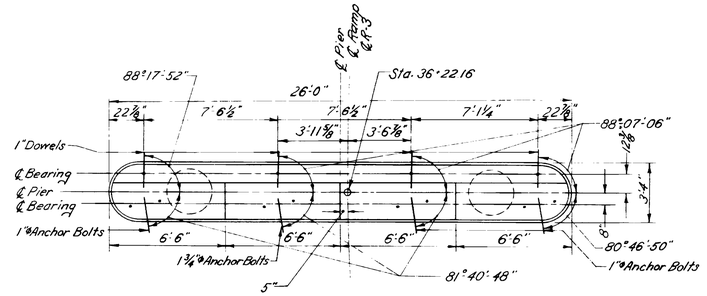
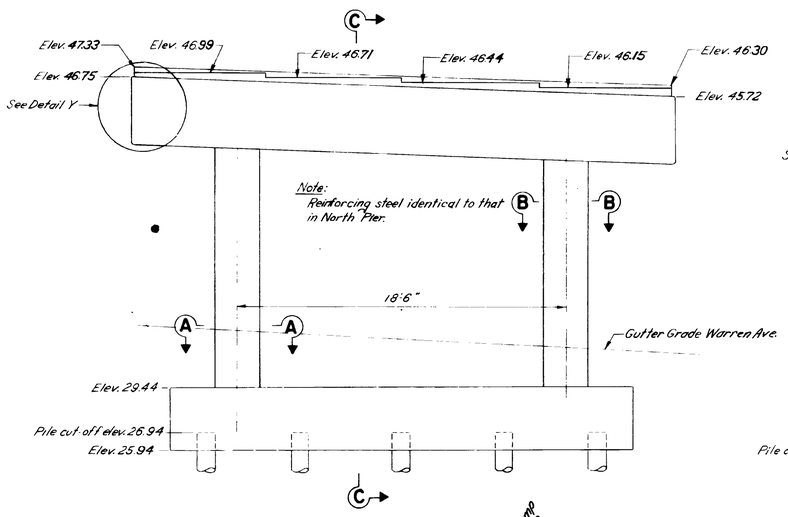
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	324	596



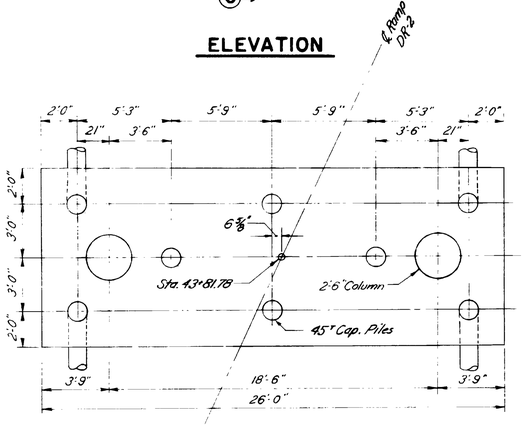
PLAN OF PIER CAP



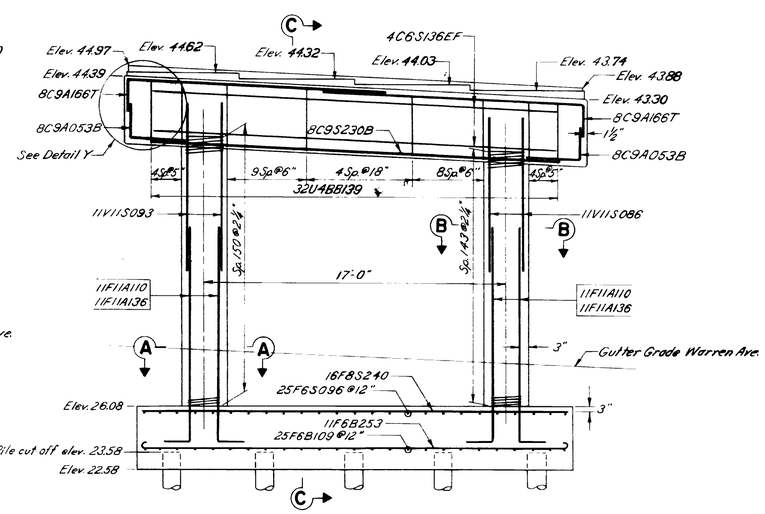
PLAN OF PIER CAP



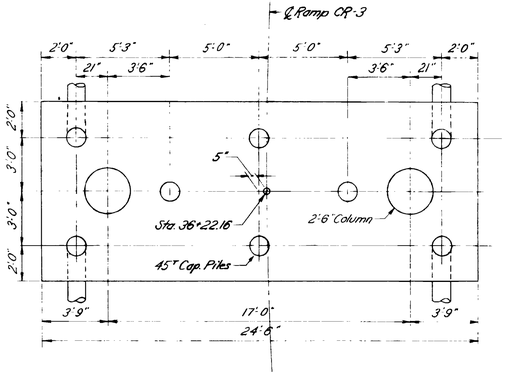
ELEVATION



PLAN OF FOOTING
RAMP NO. 465



ELEVATION



PLAN OF FOOTING
RAMP NO. 464

B.H. 42

35.00				
	1	Gray-brown medium to fine SAND, trace medium to fine Gravel, trace Silt - FILL	17	1
33.00			14	2
			6	3
			7	4
			5	5
	2	Brown medium to fine SAND, trace fine Gravel FILL	6	6
28.00			15	7
			13	8
			12	9
	3	Brown medium to fine SAND, trace Silt	14	10
			8	11
			12	12
			19	13
			20	14
	4	Gray-brown @ 15'	21	15
			5	16
			14	17
17.00			16	18
			36	19
	5	Gray-brown fine SAND, little Silt	23	20
			22	21
13.00			25	22
			29	23
			32	24
			18	25
	6	Gray-brown coarse to fine SAND, trace Silt	26	26
			30	27
			34	28
			24	29
	7		25	30
			15	31
			29	32
			13	33
1.00			19	34
	8	Gray-brown medium to fine SAND, trace Silt	25	35
-2.00			26	36
			27	37
			20	38
		Brown coarse to fine SAND, trace medium to fine Gravel, trace Silt	21	39
	9		22	40
			28	41
			22	42
			23	43
-9.00			21	44
			27	45
	10	Gray-brown coarse to fine SAND, trace Silt, trace medium to fine Gravel	18	46
			32	47
			36	48
-14.00			56	49
	11	Brown coarse to fine SAND, and coarse to fine GRAVEL, trace clayey Silt	53	50
			15	51
-18.00			38	52
			55	53
		Brown coarse to fine SAND, little coarse to fine Gravel, little Silt	70	54
	12		73	55
			98	56
-22.00			34	57
		Mottled Gray and Brown, coarse to fine SAND, little Silt, trace medium to fine Gravel w/black decomposed graphitic shale	132	58
			210	59
	13			
-28.00				
	14	Gray fine SAND, some Silt, little medium to fine Gravel		
-35.06				
	15			
	16	Gray fine SAND, little Silt, trace medium to fine Gravel		
-46.50	17	Bottom of Boring 81.5'		

Note: Washed ahead of casing from 59.0'

NOTE:

1. For Sections A-A, B-B, C-C & Detail Y see sh. #323.
2. For Boring Legend see sh. #19.

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)
SOUTH PIERS

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: 1/4" = 1'-0" SHEET 324 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

SET NO.
PRINTED
ISSUED TO

464,465

B.H. 31

Elev.		Description		
29.7	1	Brown fine SAND, some SILT w/organic material	3	1
			6	2
27.7		Brown fine SAND, some Silt	9	3
			12	4
	2		8	5
			13	6
			24	7
			23	8
			28	9
			24	10
19.7	3	Brown medium to fine SAND trace Silt	26	11
			40	12
			50	13
15.7			51	14
	4	Medium to fine SAND, some Silt	28	15
			20	16
			31	17
12.7		Gray-brown medium to fine SAND, trace Silt	49	18
			41	19
			42	20
	5		28	21
			150	22
6.7			189	23
		Brown medium to fine SAND, some fine gravel trace Silt	108	24
			98	25
	6		91	26
			68	27
			63	28
0.7			56	29
	7	Brown coarse to medium SAND	40	30
			25	31
-2.3			44	32
		Brown fine SAND,SILT trace medium to fine Gravel	30	33
			24	34
	8		33	35
			26	36
			44	37
			37	38
			29	39
-10.3			25	40
	9	Gray-brown fine SAND, SILT trace gravel	33	41
			72	42
			165	43
			144	44
			107	45
	10		116	46
-17.3			105	47
		Gray-brown medium to fine SAND, trace inorganic SILT	184	48
			213	49
	11		190	50
			127	51
			150	52
			80	53
			81	54
			50	55
-25.3			130	56
	12	Brown fine SAND, some Silt, little fine Gravel	115	57
			115	58
			154	59
			127	60
	13	-becoming gray @ 65.0'	128	61
			170	63
			140	64
			133	65
	14		98	66
			75	67
-37.3			100	68
		Brown medium to fine SAND, trace inorganic SILT	110	69
			109	70
	15		135	71
			123	72
-43.3			52	73
			174	74
		Gray SILT, some fine sand, little fine Gravel	236	75
	16		129	76
			111	77
			128	78
			347	79
			949	80
	17		800	81
		Gray inorganic SILT, some fine Sand, trace fine Gravel	660	82
			425	83
			295	84
-55.3			435	85
	18	Gray medium to fine SAND, some inorganic silt, trace fine gravel	1050	86
			974	87
			860	88
-61.3			948	89
		Gray inorganic SILT, trace fine sand, trace fine gravel		
	19			
-69.05		Top of rock 98'9"		
	20	Jointed gray Rock SHALE		
-74.05		Bottom of Boring 103'9"		

B.H. 32

Elev.		Description		
27.30	1	Brown organic sandy SILT Little fine gravel	31	1
			21	2
25.30		Gray and red fine SAND with brick and cinders - FILL	14	3
	2		12	4
			9	6
			17	6
			16	7
			15	8
			16	9
18.30	3	Gray fine SAND, trace Silt	12	10
			25	11
			24	12
			22	13
13.30			28	14
	4	Gray fine SAND, little SILT	26	15
11.30			36	16
		Gray medium to fine SAND, some fine gravel, trace Silt	69	17
			73	18
	5		72	19
			50	20
6.30			25	21
		Gray-brown medium to fine SAND, trace Silt	48	22
			48	23
	6		68	24
			28	25
			37	26
0.30			46	27
		Gray-brown medium to fine SAND, trace Silt	65	28
	7		59	29
			45	30
			27	31
			28	32
			36	33
			37	34
-6.70			48	35
	8	Gray-brown coarse to fine SAND, some coarse gravel	25	36
			45	37
			62	38
			64	39
	9	Becomes medium to fine GRAVEL, at 38.0'	52	40
			31	41
-14.70			44	42
		Gray-brown coarse to fine SAND, trace medium to fine gravel	71	43
	10		62	44
			79	45
		Brown medium to fine SAND, trace Silt	58	46
			55	47
			54	48
			65	49
	11		57	50
			53	51
-23.70			36	52
			52	53
		Brown fine SAND, little Silt	56	54
	12		58	55
			49	56
-31.70		Gray fine SAND, some Silt	67	57
			70	58
			78	59
			110	60
			120	61
			88	62
-35.70			89	63
			135	64
	13	Brown medium to fine GRAVEL, some coarse to fine Sand, trace Silt	128	65
			140	66
			118	67
			123	68
	14	becoming coarse to fine GRAVEL	148	69
			168	70
			136	71
			141	72
-45.70			129	73
	15	Gray-brown coarse to fine SAND, some fine gravel, some Silt	108	74
			115	75
-48.70			139	76
		Gray fine SAND, some Silt, trace medium to fine Gravel	178	77
	16		BASH	
	17	Gray fine SAND, some Silt trace medium to fine gravel		
-58.37		Bottom of Boring 85'8"		

B.H. 34

Elev.		Description		
29.40	1		15	1
			20	2
			20	3
			20	4
			14	5
	2	Brown fine SAND, trace Silt	20	6
			22	7
			22	8
			23	9
	3		11	10
			20	11
			44	12
			38	13
15.40			32	14
	4	Brown medium to fine SAND, trace Silt, trace fine Gravel	29	15
			11	16
			25	17
			36	18
	5	Brown coarse to fine SAND, little medium to fine Gravel	43	19
			38	20
			10	21
			46	22
			50	23
			45	24
			44	25
	6		40	26
			34	27
			55	28
			82	29
			69	30
	7		44	31
			40	32
-3.60			39	33
			64	34
	8	Gray coarse to fine SAND, trace Silt	79	35
			65	36
			48	37
			43	38
	9		66	39
			67	40
			58	41
			38	42
			46	43
			48	44
	10		65	45
			170	46
			455	47
			185	48
			445	49
	11		385	50
-20.60			230	51
		Gray-brown coarse to fine SAND, little medium to fine Gravel, trace Silt	155	52
			237	53
			155	54
			71	55
			88	56
	12		183	57
			100	58
			185	59
		Mottled gray-brown and red-brown medium to fine SAND, little Silt, trace medium to fine Gravel	210	60
	13		170	61
			277	62
			132	63
			137	64
-34.60			206	65
		Mottled Gray-brown and red-brown coarse to fine SAND, little Silt, trace medium to fine Gravel	245	66
	14		210	67
			165	68
	15			
-44.60				
		Brown SILT, some fine Gravel, trace fine Sand		
	16			
		Brown fine SAND, some Silt and fine Gravel		
	17			
	18	Bottom of Boring 86'6"		
-57.10				

B.H. 35

Elev.		Description		
28.50	1	Brown medium to fine SAND, trace SILT	9	1
		becoming	20	2
		Brown fine SAND, trace Silt	17	3
		becoming	20	4
	2	Brown medium to fine SAND, trace Silt	22	5
			8	6
			36	7
			37	8
			38	9
	3		36	10
			9	11
			16	12
			35	13
			37	14
	4		32	15
			47	16
			40	17
			38	18
			36	19
9.50			11	20
	5	Brown coarse to SAND, trace Silt	35	21
			45	22
			39	23
			38	24
	6		30	25
			20	26
			29	27
1.50			44	28
		Brown fine SAND, little Silt	56	29
			60	30
	7		41	31
			20	32
			23	33
			32	34
-5.50			42	35
		Brown coarse to fine SAND, trace Silt	44	36
	8		28	37
			30	38
			33	39
-10.50			37	40
	9	Brown fine SAND, little Silt	37	41
			41	42
			42	43
-14.50			48	44
		Brown coarse to fine SAND, trace Silt	49	45
	10		53	46
			110	47
			122	48
			110	49
	11	Brown coarse to fine "Gravel, some coarse to fine Sand, trace Silt	136	50
			177	51
			141	52
-20.50		"Boulder Fragments	255	53
		Boulder, gray Granitic SANDSTONE	180	54
-26.50			215	55
-28.50			265	56
			399	57
			399	58
			357	59
		Gray-brown fine SAND, little coarse to fine Gravel, little Silt	215	60
	12		225	61
			481	62
			298	63
			325	64
			125	65
-36.50			225	66
			220	67
			227	68
			276	69
		Gray-brown coarse to fine GRAVEL, some coarse to fine Sand, trace clayey Silt	340	70
	13		295	71
			290	72
			284	73
			309	74
-46.50			205	75
		Gray coarse to fine SAND, some coarse to fine Gravel, little Silt	215	76
	14		315	77
-48.50			255	78
		Gray-brown coarse to fine SAND, little coarse to fine Gravel, little clayey	270	79
	15		300	80
			265	81
-52.50			290	82
		Gray medium to fine SAND, some Silt, some medium to fine Gravel	305	83
	16		340	84
	17	Refusal 86'6"		
-58.0				

B.H. 36

Elev.		Description		
29.50	1	Brown fine SAND, some Silt	3	1
			9	2
			28	3
			31	4
	2	Brown fine SAND, little Silt	15	5
			19	6
			29	7
			30	8
			33	9
			24	10
	3		28	11
			24	12
			24	13
			28	14
	4		19	15
			19	16
			26	17
12.50			31	18
		Brown medium to fine SAND, trace Silt	34	19
			29	20
	5		24	21
			41	22
			48	23
		Brown fine SAND, little Silt	59	24
			55	25
			38	26
3.50			29	27
	6	Brown fine SAND, trace Silt	39	28
			47	29
			45	30
			48	31
-1.50			25	32
	7	Brown fine SAND, little Silt	29	33
			30	34
			29	35
			31	36
-7.50			35	37
	8	Brown medium to fine SAND, trace Silt	41	38
			45	39
			48	40
	9	Brown fine SAND, little Silt	49	41
			58	42
			65	43
-14.50		Brown coarse to fine SAND, trace "medium to fine Gravel, trace Silt	78	44
			105	45
	10	"boulder chips	135	46
			139	47
		Boulder at 47.5' pushed ahead	161	48
			START	49
			WASH	50
				51
				52
				53
-23.50				54
		Gray-brown coarse to fine SAND, little medium to fine "Gravel, little Silt		55
	11			56
		"boulder chips		57
				58
		Boulder pushed ahead		59
				60
				61
				62
-33.50				63
	12	Gray-brown fine SAND, some Silt and Gravel		64
				65
				66
				67
				68
-38.50				69
	13	Gray fine SAND, some Silt, some medium to fine Gravel		70
				71
				72
				73
-43.50				74
	14	Brown coarse to fine SAND, some fine gravel, trace Silt		75
				76
	15			77
				78
-48.50		Gray fine SAND, trace Silt		79
-50.50				80
		Gray fine SAND, little Silt, trace fine Gravel		81
				82
		becoming		83
	16			84
		Gray fine SAND, some medium to fine Gravel, little Silt		85
				86
		Boulder at 84.5'		87
				88
				89
				90
				91
				92
				93
				94
	17	Top of Rock 95'0"		95
-65.50				96
		Jointed Gray Granitic SANDSTONE		97
				98
		Bottom of Boring 100'		99
-70.50				100

Drilling Time 1 hr. 15 min.

B.H. 33

Elev.		Description		
29.60	1	Brown fine SAND, little Silt with organic matter	4	1
			4	2
27.60			8	3
		Light Brown SAND	12	4
	2		12	5
			15	6
			20	7
21.60			19	8
			13	9
	3	Brown medium to fine SAND, trace Silt	15	10
			9	11
			15	12
			21	13
16.60			28	14
	4		36	15
			25	16
		Brown coarse to fine SAND, trace medium to fine Gravel	33	17
			45	18
	5		50	19
			74	20
			60	21
			20	22
			40	23
5.60			57	24
			68	25
	6		71	26
			22	27
		Brown coarse to fine SAND, some medium to fine Gravel, trace Silt	33	28
			31	29
	7		35	30
			40	31
-3.40			46	32
			55	33
		Brown medium to fine SAND, trace medium to fine Gravel, trace Silt	65	34
	8		71	35
			66	36
			100	37
			84	38
-8.40			87	39
			72	40
	9		31	41
			44	42
			56	43
			82	44
		Brown coarse to fine SAND, little coarse to fine Gravel, trace Silt	89	45
	10		80	46
			120	47
			155	48
			START	49
			WASH	50
	11			51
-21.40				52
				53
		Gray-brown coarse to fine GRAVEL", some coarse to fine Sand, trace Silt		54
	12			55
				56
				57
-28.40				58
				59
	13			60
				61
				62
		Gray-brown coarse to fine SAND, medium to fine Gravel, trace Silt		63
				64
	14			65
				66
				67
				68
				69
	15			70
				71
				72
				73
				74
-44.90		Bottom of Boring 74'6"		75

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	325	596

For Boring Legend See Sheet #13

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R.I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVENUE RAMP (SOUTH)
BORINGS 31, 32, 33, 34, 35, 36

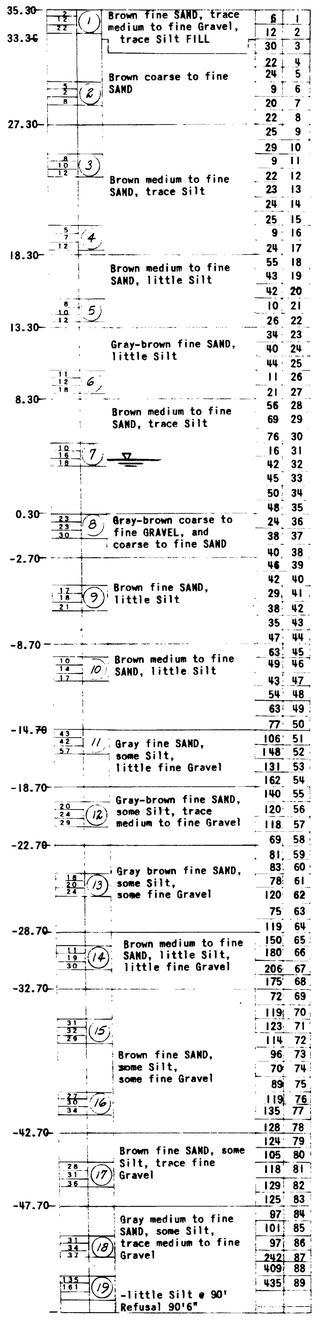
CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R.I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: 1" = 5'-0" SHEET 325 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

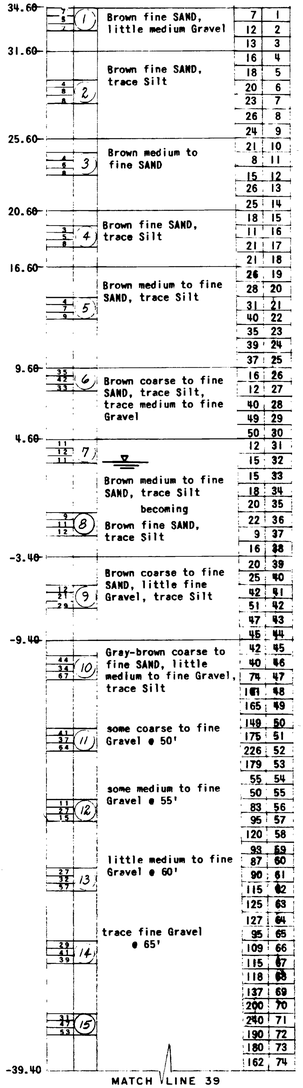
SET NO. ☐
PRINTED
ISSUED TO

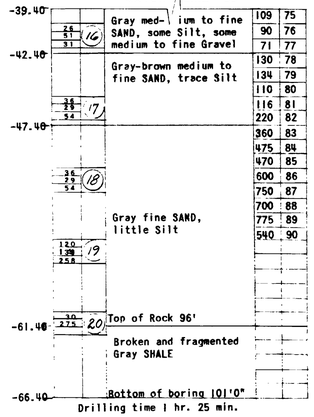
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	I-03(10)	1958	326	596

B.H. 38

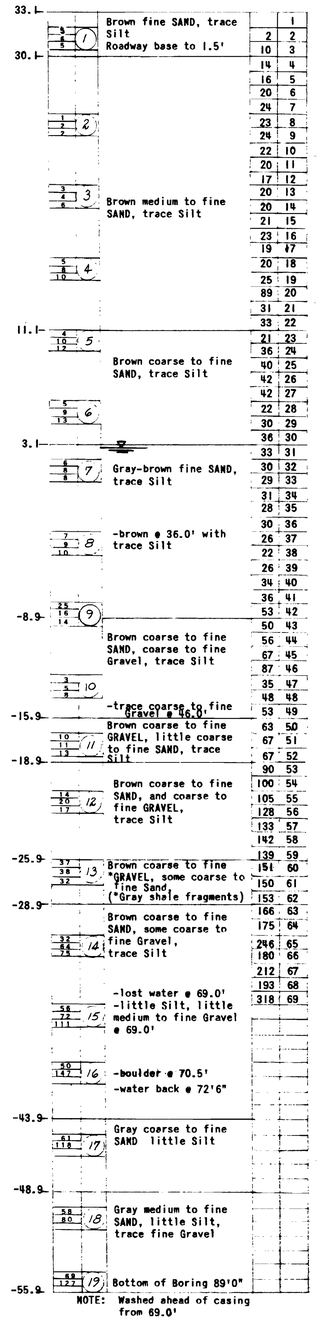


B.H. 39

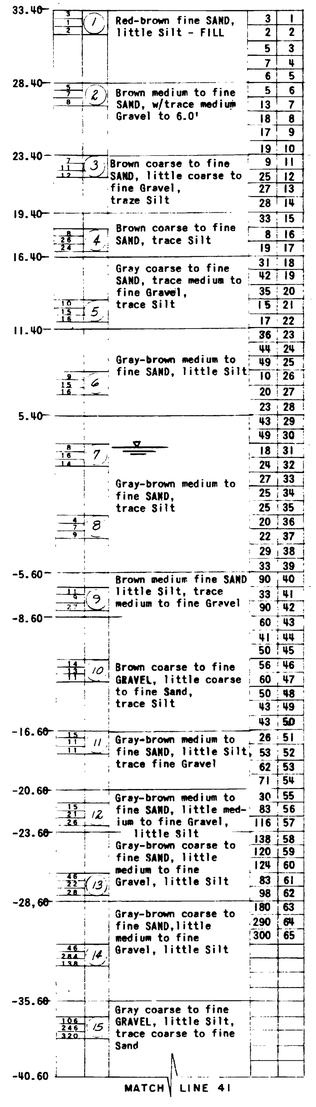


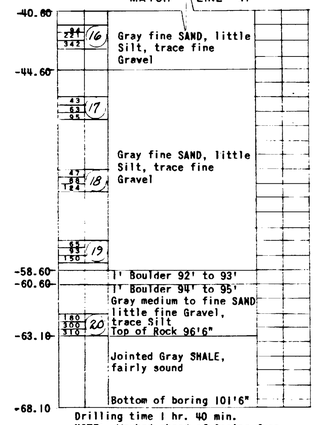


B.H. 40



B.H. 41





For Boring Legend See Sheet #19

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVENUE RAMP (NORTH)
BORINGS 38, 39, 40, 41

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE: FEB 1958 FILE NO.
SCALE: 1" = 5'-0" SHEET 326 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

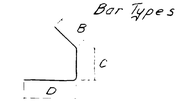
SET NO. ____
PRINTED ____
ISSUED TO ____

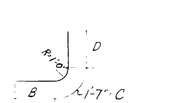
Location	Number	Location	Size	Type	Length Ft	in	A	B	C	D	E	F	G	O	Remarks
NORTH ABUTMENT RAMP NO. 465															
Stem	17	H	4	S 26	9										
	14	V	4	S 16	9										
	17	V	4	S 13	0										
	8	V	4	S 05	9										
	20	V	4	S 05	6										
	27	W	4	S 05	3										*
	10	H	4	S 04	6										
	9	H	4	S 03	3										
	14	H	4	M 06	9		5-9	1-0							
	17	H	4	A 06	6		3-3	3-3							
	4	H	4	M 05	0		4-0	1-0							
Cap	8	H	4	S 09	3										
	22	R	5	A 03	9		2-3	1-6							
Sidewalk	2	R	5	S 10	6										
	2	R	5	S 10	3										
	1	R	5	S 09	6										
	22	R	5	D 04	0		(See Sketch)								
	4	R	5	D 04	0		(See Sketch)								2 additional each rail post
North West Wing Wall															
Stem	46	V	4	S 05	6										
Cap	8	H	4	S 13	6										
	8	H	4	S 07	6										
	43	R	5	A 03	9		2-3	1-6							
Sidewalk	5	R	5	S 13	6										
	6	R	5	S 07	6										*
	2	H	5	S 04	3										
	4	R	5	Y 04	6		1-6	1-6	1-6						
	43	R	5	D 04	0		(See Sketch)								
	8	R	5	D 04	0		(See Sketch)								2 additional each rail post
North East Wing Wall															
Footing	10	F	4	S 12	0										
	20	F	4	S 05	3										
	13	D	4	S 03	3										
	6	F	4	AA 05	9		2-2	1-7	2-0						
	7	F	4	C 03	9										
Stem	16	H	4	S 12	3										
	26	V	4	S 08	6										
NORTH ABUTMENT RAMP NO. 464															
Stem	8	F	5	S 07	9										
	14	F	5	S 03	0										
	16	H	4	S 25	6										
	12	V	4	S 13	3										
	14	V	4	S 10	9										
	16	V	4	S 10	3										
	14	H	4	S 05	9										
	19	H	4	S 04	9										
	8	H	4	S 04	0										
	9	H	4	S 03	3										
	12	D	4	S 03	0										
	8	H	4	N 07	3		6-3	1-0							
	11	H	4	M 05	9		3-0	2-9							
	4	H	4	M 05	6		4-6	1-0							
	4	H	4	M 04	0		1-3	2-9							
North East Wing Wall															
Footing	12	F	6	S 19	3										
	43	F	6	S 06	3										*
	21	D	5	S 03	0										
	10	F	8	AA 08	3		3-8	1-7	3-0						
	12	F	8	C 06	0	1-0	5-0								*
Stem	20	V	5	S 12	9										
	22	V	5	S 11	9										
	22	H	5	S 11	0										
	20	H	5	S 10	9										
	10	H	4	S 09	6										
	22	V	5	S 03	9										

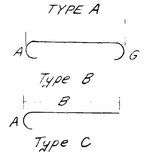
Location	Number	Location	Size	Type	Length Ft	in	A	B	C	D	E	F	G	O	Remarks
North West Wing Wall															
Footing	10	F	4	S 17	3										
	29	F	4	S 05	3										
	19	D	4	S 03	3										
	9	F	4	AA 06	6		2-11	1-7	2-0						
	10	F	4	C 04	6	0-6	4-0								
Stem	24	H	4	S 09	6										
	9	V	4	S 07	6										
	9	V	4	S 07	3										
	10	V	4	S 06	3										
	10	V	4	S 06	0										
SOUTH ABUTMENTS (N & S)															
SOUTH ABUTMENT RAMP NO. 465															
Stem	8	H	4	S 25	6										
	12	V	4	S 10	6										
	12	V	4	S 09	3										
	7	H	4	S 06	0										
	14	V	4	S 05	6										
	12	H	4	S 05	0										
	12	H	4	S 04	9										
	4	H	4	S 04	0										
	18	H	4	S 03	3										
	8	H	4	N 05	9		4-3	1-6							
	4	H	4	N 04	0		2-6	1-6							
South East Wing Wall															
Footing	10	F	4	S 06	0										
	11	F	4	S 05	3										
	7	D	4	S 04	0										
	3	F	4	AA 06	3		2-8	1-7	2-0						
	4	F	4	C 04	3	0-6	3-9								
Stem	7	V	4	S 08	0										
	7	V	4	S 07	9										
	14	H	4	S 06	0										
Connecting Wall															
Footings	10	F	4	S 11	9										
	10	F	4	S 10	9										
	38	F	4	S 05	3										
	12	D	4	S 03	9										
	12	D	4	S 03	6										
	7	D	4	S 02	0										
	12	F	4	AA 06	0		2-5	1-7	2-0						
	6	F	4	C 04	3	0-6	3-9								
	6	F	4	C 04	0	0-6	3-6								
Stem	13	H	4	S 12	0										
	14	H	4	S 10	9										
	12	V	4	S 08	6										
	12	V	4	S 08	3										
	12	V	4	S 07	3										
	12	V	4	S 07	0										
SOUTH ABUTMENT RAMP NO. 464															
Stem	8	H	4	S 23	9										
	7	V	4	S 10	3										
	14	V	4	S 09	3										
	13	V	4	S 05	6										
	12	H	4	S 05	3										
	16	H	4	S 03	9										
	12	H	4	S 03	6										
	4	H	4	S 02	0										
	10	H	4	S 01	9										
	7	H	4	N 07	0		5-6	1-6							
	4	H	4	M 05	3		3-9	1-6							

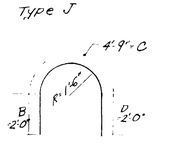
Location	Number	Location	Size	Type	Length Ft	in	A	B	C	D	E	F	G	O	Remarks
South West Wing Wall															
Footing	5	F	4	S 11	0										
	19	F	4	S 05	3										
	12	D	4	S 04	3										
	6	F	4	AA 06	6		2-11	1-7	2-0						
	6	F	4	C 04	6	0-6	4-0								
Stem	11	H	4	S 11	3										
	12	V	4	S 06	6										
	12	V	4	S 06	3										

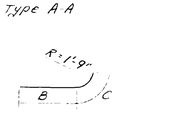
Bar Types

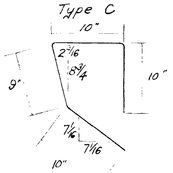


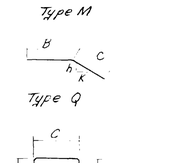


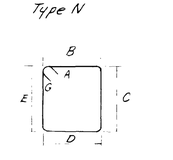


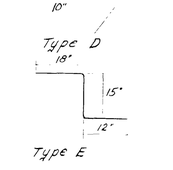


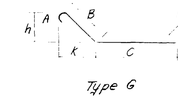












RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)
REINFORCING SCHEDULE SHEET No. 1

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE FEB 1958 FILE NO.
SCALE SHEET 327 OF 596

APPROVED _____ ENGINEER
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER
FINAL DATE

SET NO. ☐
PRINTED ☐
ISSUED TO ☐

1-03(10) 1958 327 596

464,465

1-03(10) 1958 328 596

Location	Bar Mark: Number	Location	Size	Type	Length ft	Length in	A	B	C	D	E	F	G	O	Remarks
NORTH PIER RAMP NO. 465															
Footing	16	F	8	S 25	6										
	26	F	6	S 09	6										
	22	F	1	A 13	6			1-6	12-0						
	22	F	1	A 11	0			1-6	9-6						
	11	F	6	B 26	9		0-8	25-5					0-8		
	26	F	6	B 10	9		0-8	9-5					0-8		
Columns	11	V	1	S 08	3										
	12	V	1	S 07	9										
Spirals				Height		Core	Pitch								
		Sp	4	13	9	2-1	2-¼								
		Sp	4	13	6	2-1	2-¼								
Cap	8	C	9	S 24	6										
	8	C	6	S 27	0										
	16	C	9	A 18	6			1-9	16-9						
	17	C	9	A 06	9			1-9	5-0						+
	8	C	6	M 08	9			2-0	4-9	2-0					
	35	U	4	BB 13	9		0-4½	3-5	3-1	3-5	3-1		0-4½		
NORTH PIER RAMP NO. 464															
Footing	16	F	8	S 24	6										
	25	F	6	S 09	6										
	22	F	1	A 13	6										
	22	F	1	A 11	0										
Columns	11	V	1	S 09	9										
	11	V	1	S 09	3										
Spirals				Height		Core	Pitch								
		Sp	4	13	6	2-1	2-½								
		Sp	4	14	9	2-1	2-½								
Cap	8	C	9	S 23	6										
	8	C	6	S 23	9										
	16	C	9	A 17	C			1-9	15-3						
	16	C	9	A 05	6			1-9	3-9						
	8	C	6	M 08	9			2-0	4-9	2-0					
	33	U	4	BB 13	9		0-4½	3-5	3-1	3-5	3-1		0-4½		
SOUTH PIER RAMP NO. 465															
Footing	16	F	8	S 25	6										
	26	F	6	S 09	6										
	22	F	1	A 13	6			1-6	12-0						
	22	F	1	A 11	0			1-6	9-6						
	11	F	6	B 26	9		0-8	25-5							
	26	F	6	B 10	9		0-8	9-5							
Columns	11	V	1	S 08	3										
	12	V	1	S 07	9										+
Spirals				Height		Core	Pitch								
		Sp	4	13	6	2-1	2½								
		Sp	4	13	6	2-1	2½								
Cap	8	C	9	S 24	6										
	8	C	6	S 27	0										

Location	Bar Mark: Number	Location	Size	Type	Length ft	Length in	A	B	C	D	E	F	G	O	Remarks
	16	C	9	A 18	6			1-9	16-9						
	16	C	9	A 06	9			1-9	5-0						
	8	C	6	M 08	9			2-0	4-9	2-0					
	35	U	4	BB 13	9		0-4½	3-5	3-1	3-5	3-1		0-4½		
~~SOUTH PIER RAMP NO. 464~~															
Footing	16	F	8	S 24	0										
	25	F	6	S 09	6										
	22	F	11	A 13	6			1-6	12-0						
	22	F	11	A 11	0			1-6	9-6						
	11	F	6	B 25	3		0-8	23-11					0-8		
	25	F	6	B 10	9		0-8	9-5					0-8		
Columns	11	V	11	S 09	3										
	11	V	11	S 08	6										
Spirals				Height		Core	Pitch								
		Sp	4	15	0	2-1	2¼								
		Sp	4	14	3	2-1	2¼								
Cap	8	C	9	S 23	0										
	16	C	9	A 16	6			1-9	14-9						
	8	C	6	S 13	6										
	16	C	9	A 05	3			1-9	3-6						
	8	C	6	M 08	9			2-0	4-9	2-0					
	32	U	4	BB 13	9		0-4½	3-5	3-1	3-5	3-1		0-4½		
WARREN AVE. RAMP NO. 465 North & South Approach Slabs															
	92	LB	7	S 14	9										46 Each Slab
	28	TT	4	S 24	6										14 Each Slab
	28	TB	4	S 24	6										14 Each Slab
	48	LT	4	S 14	3										24 Each Slab
WARREN AVE. RAMP NO. 465 North & South End Spans															
Slab	14	LT	4	S 31	0										
	27	LB	4	S 31	0										South End Span
	14	LT	4	S 30	9										
	27	LB	4	S 30	9										
	113	TT	5	B 29	6	07	28-4							0-7	56 @ South End Span
	113	TB	5	B 29	6	07	28-4							0-7	56 @ South End Span
Exterior Beams															
	4	L	5	S 30	9										2 Each Span
	4	L	0	G 35	5		1-5	5-2	22-3	5-2				1-5 30-7	2 Each Span X = K = 04-2
	12	L	0	B 33	6		1-5	30-8						1-5	6 Each Span Y = H = 03-6
	8	L	9	G 35	3		1-3	5-2	22-5	5-2				1-3 30-7	4 Each Span X = K = 04-2 Y = H = 03-6
	112	U	3	F 09	1		0-4	3-10	0-9	3-10				0-4	56 Each Span
	112	U	3	J 03	6			1-9	0-5	1-4					56 Each Span
	112	U	3	Q 02	3			1-5	0-10						56 Each Span
Interior Beams															
	16	L	8	G 35	1		1-1	5-1	22-9	5-1				1-1 30-7	8 Each Span X = K = 04-0
	16	L	8	B 33	0		1-1	30-10						1-1	8 Each Span Y = H = 03-6
	96	U	3	F 09	1		0-4	3-10	0-9	3-10				0-4	48 Each Span
Abutment Diaphragm															
	52	T	5	S 13	0										26 Each Span
	54	B	5	A 02	3			1-0	1-3						27 Each Span
	54	R	4	Y 07	0			3-2	0-8	3-2					27 Each Span
	54	R	4	Y 04	7			1-9	1-7	1-3					27 Each Span

Location	Bar Mark: Number	Location	Size	Type	Length ft	Length in	A	B	C	D	E	F	G	O	Remarks
Intermediate Diaphragm															
	40	T	5	S 13	8										~~20 Each Span~~
	54	U	3	F 06	7		0-4	2-9	0-5	2-9			0-4		27 Each Span
Pier Diaphragm															
	56	T	5	S 13	0										~~28 Each Span~~
	54	U	3	F 09	5		0-4	4-0	0-9	4-0			0-4		27 Each Span
Sidewalk															
	10	R	5	S 31	3										~~North Span~~
	10	R	5	S 30	9										~~South Span~~
	228	R	5	D 04	0		(See Sketch)								114 Each Span
	228	R	5	E 03	9		(See Sketch)								~~114 Each Span~~
	48	R	5	D 04	0		(See Sketch)								~~2 additional bars~~
	48	R	5	E 03	9		(See Sketch)								~~for each rail post~~
APPROACH SIDEWALK N& S RAMP NO. 465															
	4	H	5	S 16	3										
	2	H	5	S 15	5										
	53	R	5	Y 06	8			2-2	1-8	2-3					
	18	R	5	Y 06	0			2-3	1-8	2-3					~~2 additional bars each post~~

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE FEB 1958 FILE NO.
SCALE SHEET 328 OF 596

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)

REINFORCING SCHEDULE SHEET No. 2

SET NO.
APPROVED _____ ENGINEER PRINTED
APPROVED _____ PRINCIPAL HIGHWAY ENGINEER ISSUED TO
FINAL DATE

464,465

Location	Bar Mark Number	Location	Size	Type	Length Ft	Length In	A	B	C	D	E	F	G	O	Remarks
WARREN AVE. RAMP NO. 465 CENTER SPAN															
Slab	42	LT	4	S	21	0									
	81	LB	4	S	21	0									
	112	TT	5	B	29	6	0-7	28-4					0-7		
	>112	TB	5	B	29	6	0-7	28-4					0-7		
Diaphragms															
	16	H	8	S	03	3									2 @ 8 places
	32	H	8	S	02	0									4 @ 8 places
	96	H	5	S	06	3									8 @ 12 places
	42	U	4	F	07	0	0-4½	2-9	0-9	2-9			0-4½		7 @ 6 places
	42	U	4	F	08	2	0-4½	3-4	0-9	3-4			0-4½		do
Sidewalk															
	30	R	5	S	21	0									
	224	R	5	D	04	0		(See Sketch)							
	224	R	5	E	03	9		(See Sketch)							
	48	R	5	D	04	0		(See Sketch)							2 additional bars for each rail post
	48	R	5	E	03	9		(See Sketch)							
WARREN AVE. RAMP NO. 464 NORTH END SPAN															
Approach Slab															
	46	LB	7	S	14	9									*
	14	TT	4	S	23	9									
	14	TB	4	S	23	9									
	24	LT	4	S	14	3									
Deck	14	LT	4	S	29	9									
	27	LB	4	S	29	9									
	28	TT	5	B	28	6	0-7	27-4					0-7		
	28	TB	5	B	28	6	0-7	27-4					0-7		
	29	TT	5	B	27	9	0-7	26-7					0-7		
	29	TB	5	B	27	9	0-7	26-7					0-7		
Exterior Beams															
	2	L	5	S	29	6									
	8	L	9	B	31	9	1-3	29-3	1-3						
	8	L	8	G	33	7	1-1	5-1	21-3	5-1			1-1	29-1	h = 036, k = 040
	26	U	3	F	09	1	0-4	3-10	0-9	3-10			0-4		
	26	U	3	J	03	6		1-9	0-5	1-4					
	26	U	3	O	02	3		1-5	0-10						h-008, k-008
Interior Beams															
	6	L	10	B	32	0	1-5	29-2					1-5		
	6	L	9	G	33	9	1-3	5-2	20-11	5-2			1-3	29-1	h = 036, k = 041
	56	U	3	F	09	1	0-4	3-10	0-9	3-10			0-4		
Abutment Diaphragm															
	26	T	5	S	13	0									
	27	B	5	A	02	3		1-0	1-3						
	27	B	4	Y	07	0		3-2	0-8	3-2					
	27	B	4	Y	04	7		1-9	1-7	1-3					
Intermediate Diaphragm															
	20	T	5	S	13	0									
	26	U	3	F	06	7	0-4	2-9	0-5	2-9			0-4		
Pier Diaphragm															
	28	T	5	S	13	0									
	26	U	3	F	09	5	0-4	4-0	0-9	4-0			0-4		
Sidewalk															
	10	R	5	S	29	9									
	114	R	5	D	04	0		(See Sketch)							
	114	R	5	E	03	9		(See Sketch)							
	24	R	5	D	04	0		(See Sketch)							
	24	R	5	E	03	9		(See Sketch)							2 additional bars for each rail post

Location	Bar Mark Number	Location	Size	Type	Length Ft	Length In	A	B	C	D	E	F	G	O	Remarks
WARREN AVE. RAMP NO. 464 SOUTH END SPAN															
Approach Slab															
	46	LB	7	S	13	6									
	14	TT	4	S	22	3									
	14	TB	4	S	22	3									
	24	LT	4	S	13	0									
Deck	14	LT	4	S	27	9									
	27	LB	4	S	27	9									
	57	TT	5	B	26	9	0-7	25-7					0-7		
	57	TB	5	B	26	9	0-7	25-7					0-7		
Exterior Beams															
	2	L	5	S	27	8									
	2	L	10	B	30	6	1-5	27-8					1-5		
	6	L	9	G	32	4	1-3	5-2	19-6	5-2			1-3	27-8	k = 036, k = 041
	4	L	9	B	30	2	1-3	27-8					1-3		
	52	U	3	F	09	1	0-4	3-10	0-9	3-10			0-4		
	52	U	3	J	03	6		1-9	0-5	1-4					
	52	U	3	O	02	3		1-5	0-10						
Interior Beams															
	5	L	0	B	30	6	1-5	27-8					1-5		*
	2	L	8	B	29	9	1-1	27-8					1-1		
	6	L	8	G	32	2	1-1	5-1	19-10	5-1			1-1	27-8	k = 040, h = 036
	36	U	3	F	09	1	0-4	3-10	0-9	3-10			0-4		
Abutment Diaphragm															
	26	T	5	S	13	0									
	25	B	5	A	02	3									
	25	B	4	Y	07	0		3-2	0-8	3-2					
	25	B	4	Y	04	7		1-9	1-7	1-3					
Intermediate Diaphragm															
	20	T	5	S	13	0									
	25	U	3	F	06	7	0-4	2-9	0-5	2-9			0-4		
Pier Diaphragm															
	28	T	5	S	13	0									
	25	U	3	F	09	5	0-4	4-0	0-9	4-0			0-4		
Sidewalk															
	10	R	5	S	27	9									
	114	R	5	D	04	0		(See Sketch)							
	114	R	5	E	03	9		(See Sketch)							
	24	R	5	D	04	0		(See Sketch)							add 2 additional bars for each rail post
	24	R	5	E	03	9		(See Sketch)							
WARREN AVE. RAMP NO. 464 CENTER SPAN															
Slab	42	LT	4	S	19	4									
	81	LB	4	S	19	4									
	9	TT	5	B	27	3	0-7	26-1					0-7		
	9	TB	5	B	27	3	0-7	26-1					0-7		
	114	TT	5	B	26	9	0-7	25-7					0-7		
	114	TB	5	B	26	9	0-7	25-7					0-7		
Diaphragms															
	16	H	8	S	03	6									2 @ 8 places
	32	H	8	S	02	0									4 @ 8 places
	96	H	5	S	06	0									8 @ 12 places
	42	U	4	F	07	0	0-4½	2-9	0-9	2-9			0-4½		7 @ 6 places
	42	U	4	F	08	2	0-4½	3-4	0-9	3-4			0-4½		do
Sidewalk															
	30	R	5	S	19	4									
	228	R	5	D	04	0		(See Sketch)							
	228	R	5	E	03	9		(See Sketch)							
	48	R	5	D	04	0		(See Sketch)							
	48	R	5	E	03	9		(See Sketch)							add 2 additional bars for each rail post

Location	Bar Mark Number	Location	Size	Type	Length Ft	Length In	A	B	C	D	E	F	G	O	Remarks
APPROACH SIDEWALK N & S RAMP NO. 464															
	2	H	5	S	15	6									
	2	H	5	S	14	3									
	4	H	5	S	17	9									
	60	R	5	Y	06	0		2-3	1-6	2-3					
	24	R	5	Y	06	0		2-3	1-6	2-3					2 additional each rail post

TOTAL SHEETS

I-03(10) 1958 329 596

RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ROADS AND BRIDGES

EAST PROVIDENCE EXPRESSWAY

R. I. PROJECT NO. I-03(10)

EAST PROVIDENCE, RHODE ISLAND

WARREN AVE. RAMPS (N. & S.)
REINFORCING SCHEDULE SHEET No. 3

CHARLES A. MAGUIRE & ASSOCIATES
ENGINEERS
PROVIDENCE, R. I. BOSTON, MASS.
DATE FEB 1958 FILE NO.
SCALE SHEET 329 OF 596

APPROVED _____ ENGINEER — SET NO. ____ PRINTED ____

APPROVED _____ PRINCIPAL HIGHWAY ENGINEER — ISSUED TO ____

FINAL DATE

464,465