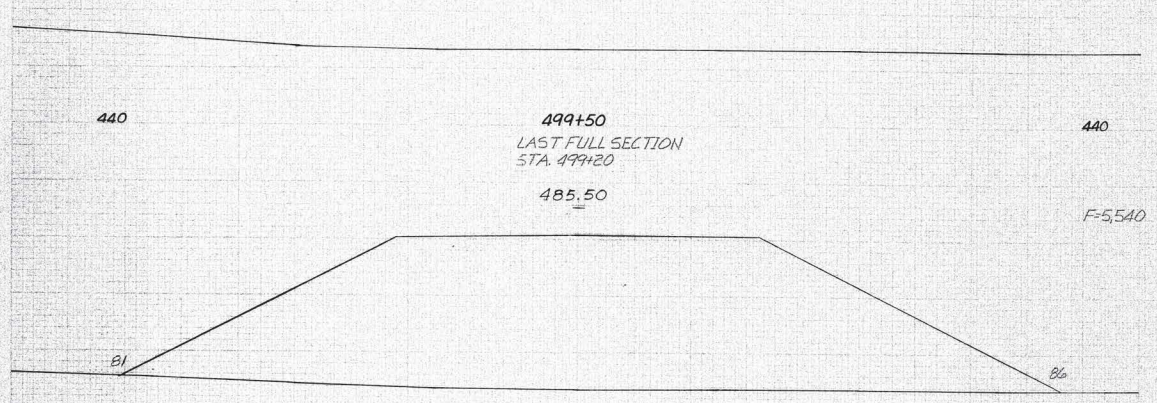
943

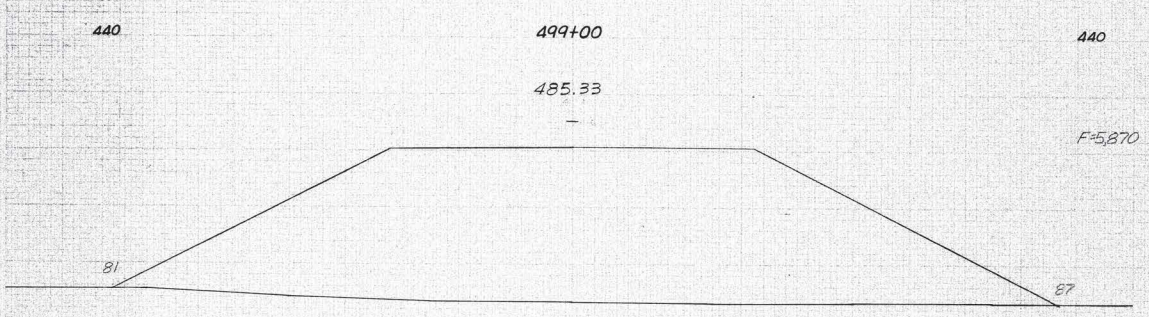
℄

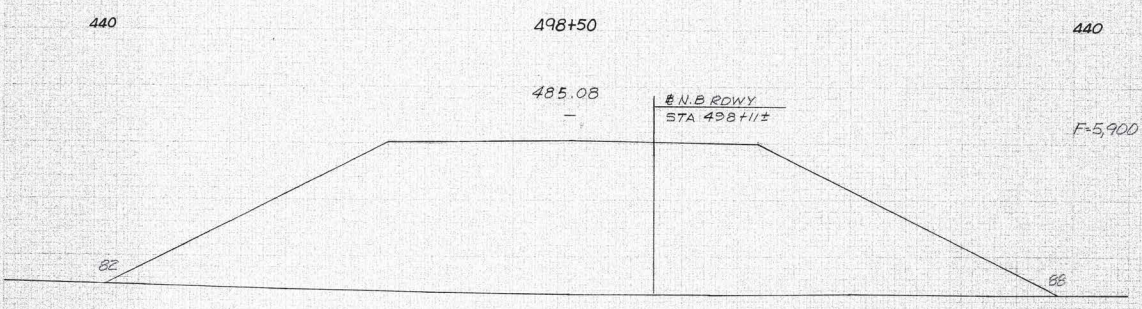
STA. 499+75±
(3 - SECTION)

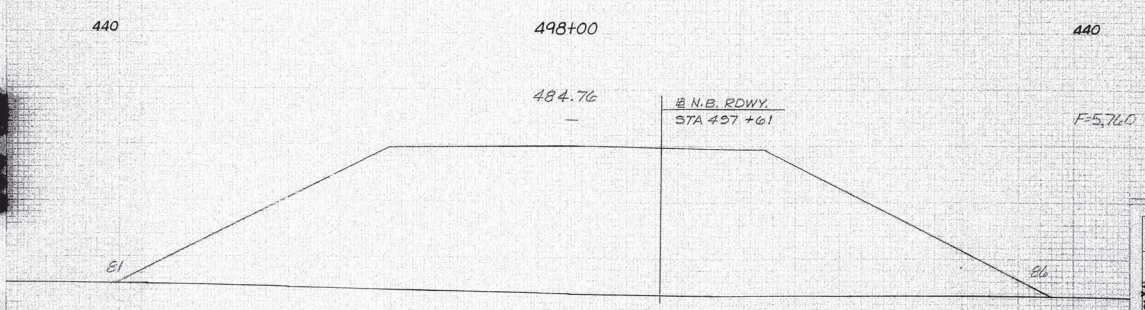
STRUCTURE

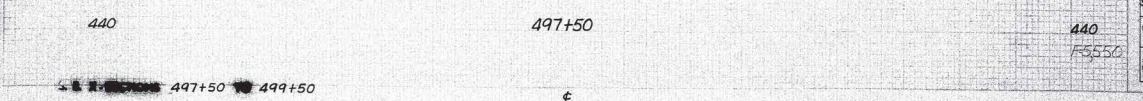
485.59











[redacted] 497+50 [redacted] 499+50

℄

B.P.R. REG. NO. 1	DATE	PROJECT NUMBER	SHEET NO.
SURVEY		6916-9148	31 of 45
			SHEET TOTAL

(43) [redacted]

943

SJKG CDDD 3-6-64
SJKG 3-6-64
SEA 12-6-64
SAW 2-5-65
SAW 2-5-65

℄
485.38

STRUCTURE
FIRST FULL SECTION
STA. 501+25

440 501+00 440
F=3820
C=68
M=6

STRUCTURE

MUCK EXCAVATION STA.
500+80± TO STA. 504+00±

440 500+83 440

STRUCTURE

STA. 500+70
0-SECTION

450 500+60 450

STRUCTURE

440 500+27 440

STRUCTURE

485.60

450 500+00 450

S. & [redacted] 500+00 [redacted] 501+00

℄

			P.W.A.
			REV. NO.
			1
			STATE
			NAME
			PROJECT NUMBER
			SHEET NO. 32
			TOTAL SHEETS 49

943

STA. 505+55
D-SECTION

℄

F=5,810
C=39

LAST FULL SECTION
STA. 504+90

TO FISH STREAM.

100 82

449.0

440 504+70 440

482.99

F=8,100
C=35

93 84

449.5

440 504+00 440

484.00

F=12,600
C=716
M=570

89 90

440 503+00 440

484.85

F=13,500
C=940
M=2,020

88 92

F=16,400
C=790
M=1,66

430 502+00 430

502+00 TO 504+70

℄

(43)

943

SAW F DDD 3-64
SAW 10-64
SAW 1-65
SAW 2-65

℄

476.95

85 453.0 453.3 90

440 510+00 440

477.45

C=153
F=2,830

90 452.8 453.2 84

440 509+50 440

477.95

C=106
F=3,140

88 452.6 453.1 86

440 509+00 440

478.46

C=97
F=3,300

DITCH FROM 452.4
RELOC. S.A.-1

450 452.9 82 450

508+50
FIRST FULL SECTION
STA. 508+25
478.96

C=61
F=2,845

STRUCTURE

450 508+00 450

479.47

STRUCTURE
0-SECTION
STA. 507+90

450 507+50 450

479.97

STRUCTURE

450 FISH STREAM 507+00 450

[redacted] 507+00 [redacted] 510+00

℄

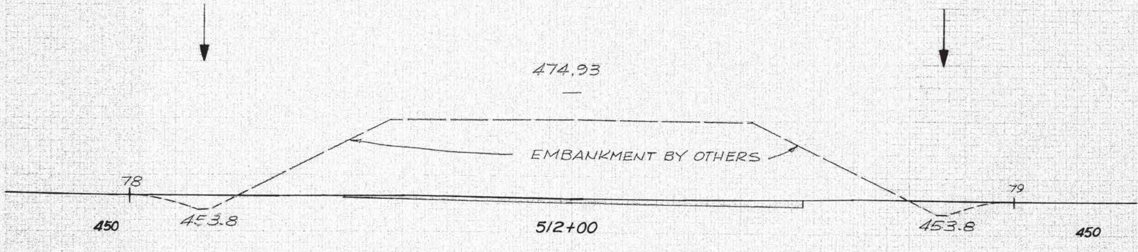
S.P.R. SEQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MONT.	[redacted]	54	45

943

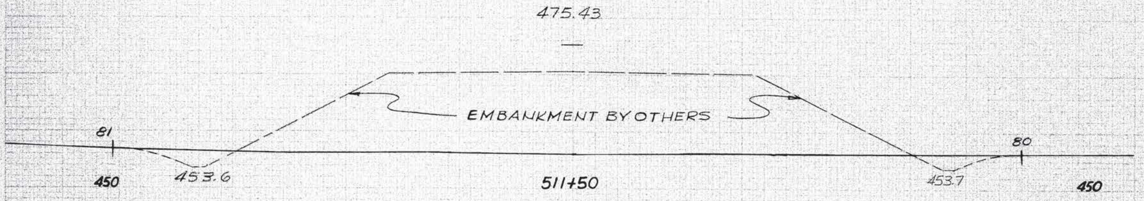
S.H.G.
J.A.W. & D.D.D.
C.E.A.
G.H.H.
J.A.W.

3-64
10-64
12-64
1-65
2-65

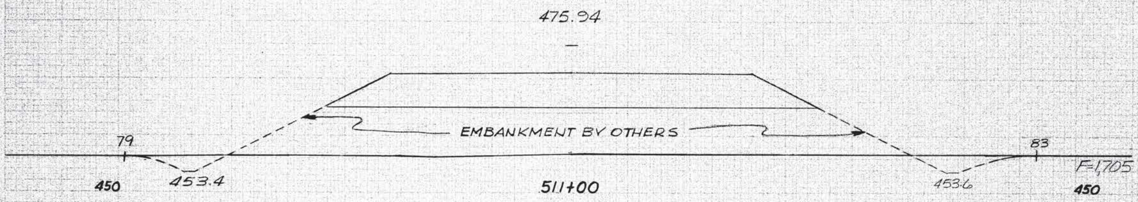
℄



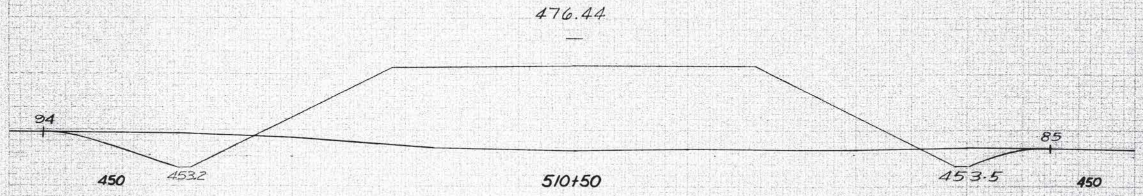
STA.511+66.00
END PROJECT I-IG-95-9(43)
BEGIN PROJECT I-95-9(37)
LIMIT OF WORK



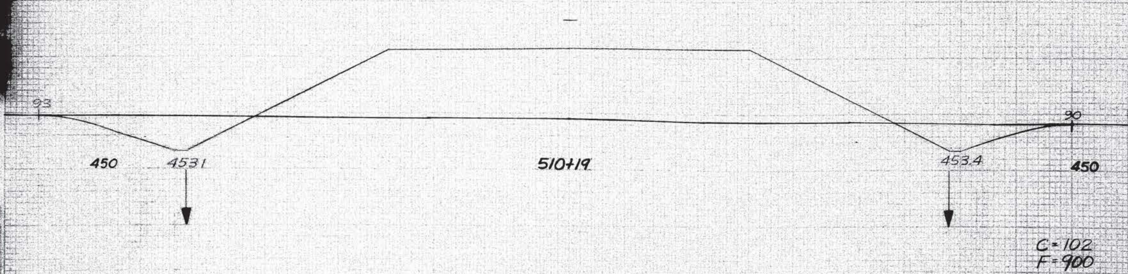
F=320



F=1,705



C=190
F=1430



C=102
F=900

B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	[redacted]	35	45

(43)

[redacted] 510+19 TO 512+00

℄

943

4 C.E.A.

℄

458.44

-8" @ 2+60

+8" @ 2+60

4:1

49

31

445 2+50 445

C=14
F=142

458.64

-4½"

+4½"

32.5

39

445 2+00 445

C=37
F=98

458.84

-2½"

+1"

31

NOTE:
GRAVEL BASE VARIES FROM EXIST. DEPTH
AT STA. 1+00 TO 18" AT STA. 2+00

GRUBBING IN FILL
STA. 1+25± TO STA 3+50±

51

445 1+50 445

C=23
F=62

459.04

LIMIT OF WORK
STA. 1+00

445 1+00 445

450 0+75 450

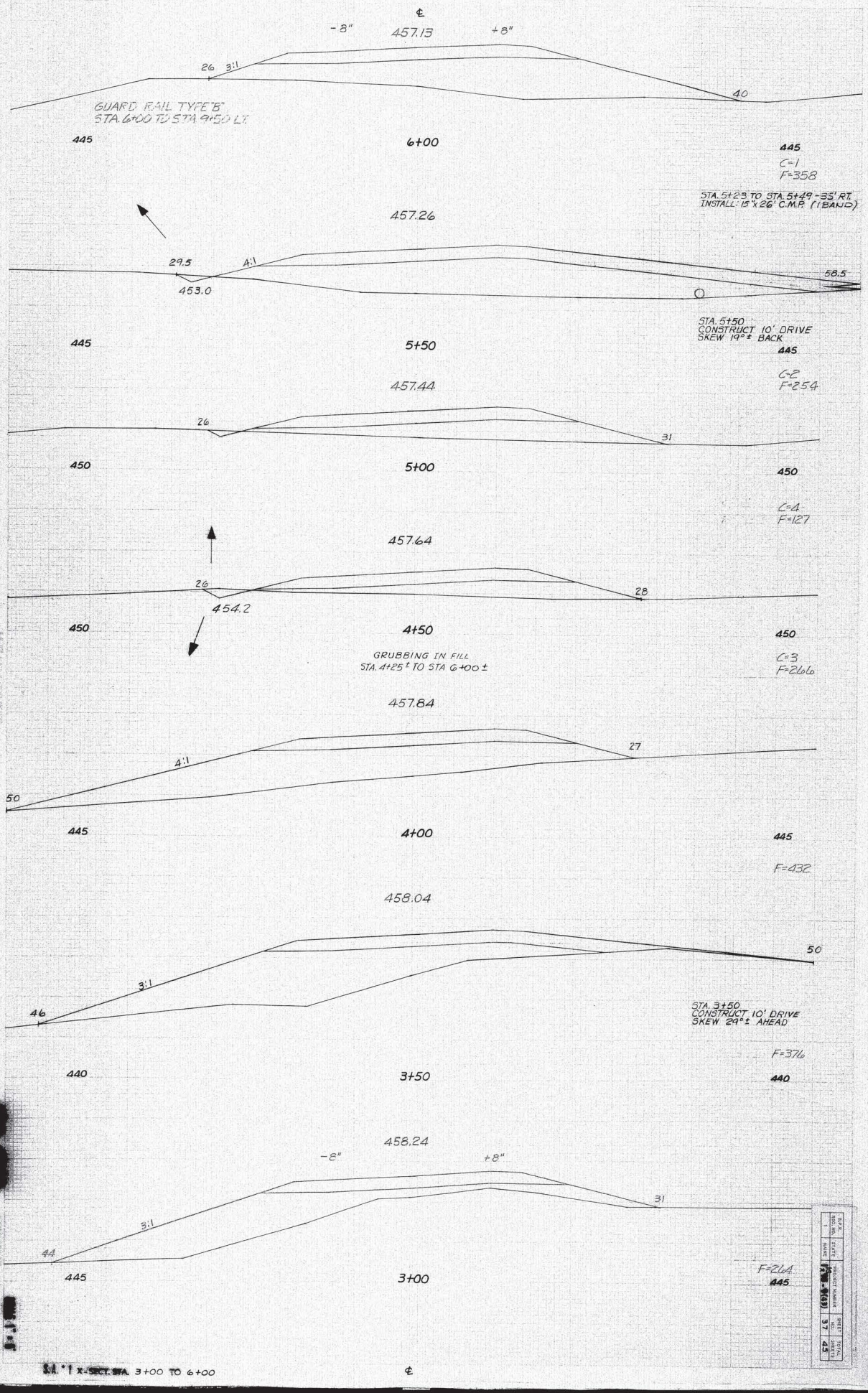
450 0+50 450

445 0+00 445

B.P.R. REG. NO.			
DATE			
DATE			
PROJECT NO.	SHEET NO.	TOTAL SHEETS	
	316	43	

N°1 L. SECT. STA. 0+00 TO 2+50

℄

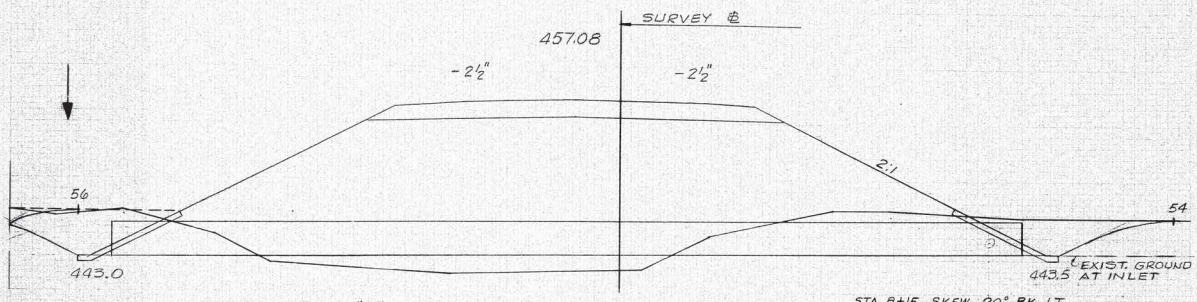


S.A. "1" X-SECT. STA. 3+00 TO 6+00

R.O.W. SEC. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	[redacted]	37	45

S.H.C.
G.B.H.
D.D.H.
C.E.A.
E.A.

℄

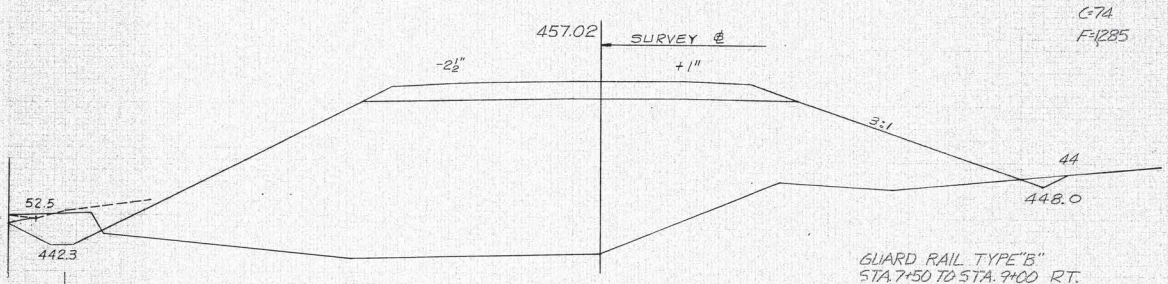


JUTE MATTING WEAVE "H"
STA. 8+00 TO STA. 8+50 LT.

STA. 8+15 SKEW 20° BK. LT.
INSTALL: 36"x86' A.C.C.M.P. (4 BANDS)
PLACE SOD AROUND INLET
& OUTLET

435 8+00 435

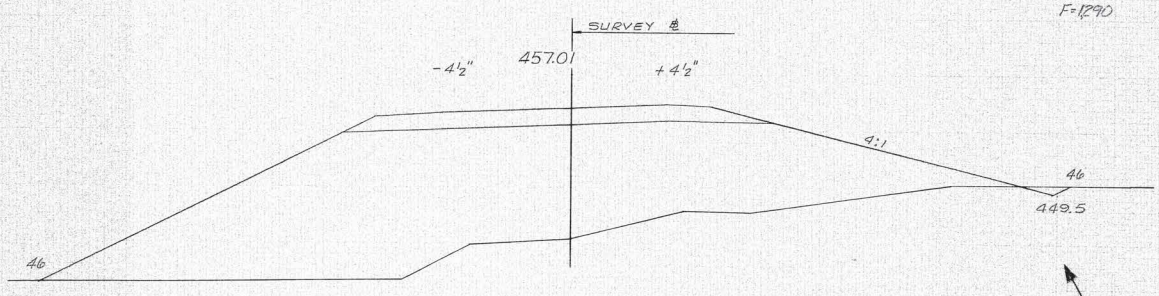
C=74
F=1285



GUARD RAIL TYPE "B"
STA. 7+50 TO STA. 9+00 RT.

435 7+50 435

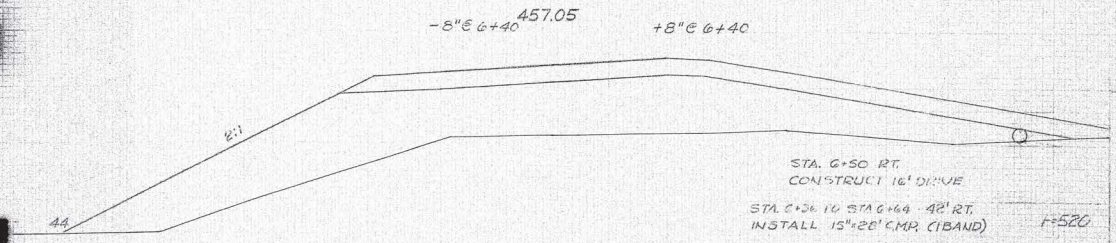
C=10
F=1290



JUTE MATTING WEAVE "H"
STA. 7+00 TO STA. 8+30 RT.

435 7+00 435

C=1
F=963



STA. 6+50 RT.
CONSTRUCT 16' DRIVE

STA. 6+36 TO STA. 6+64 - 42' RT.
INSTALL 15"x28' C.M.P. (1 BAND)

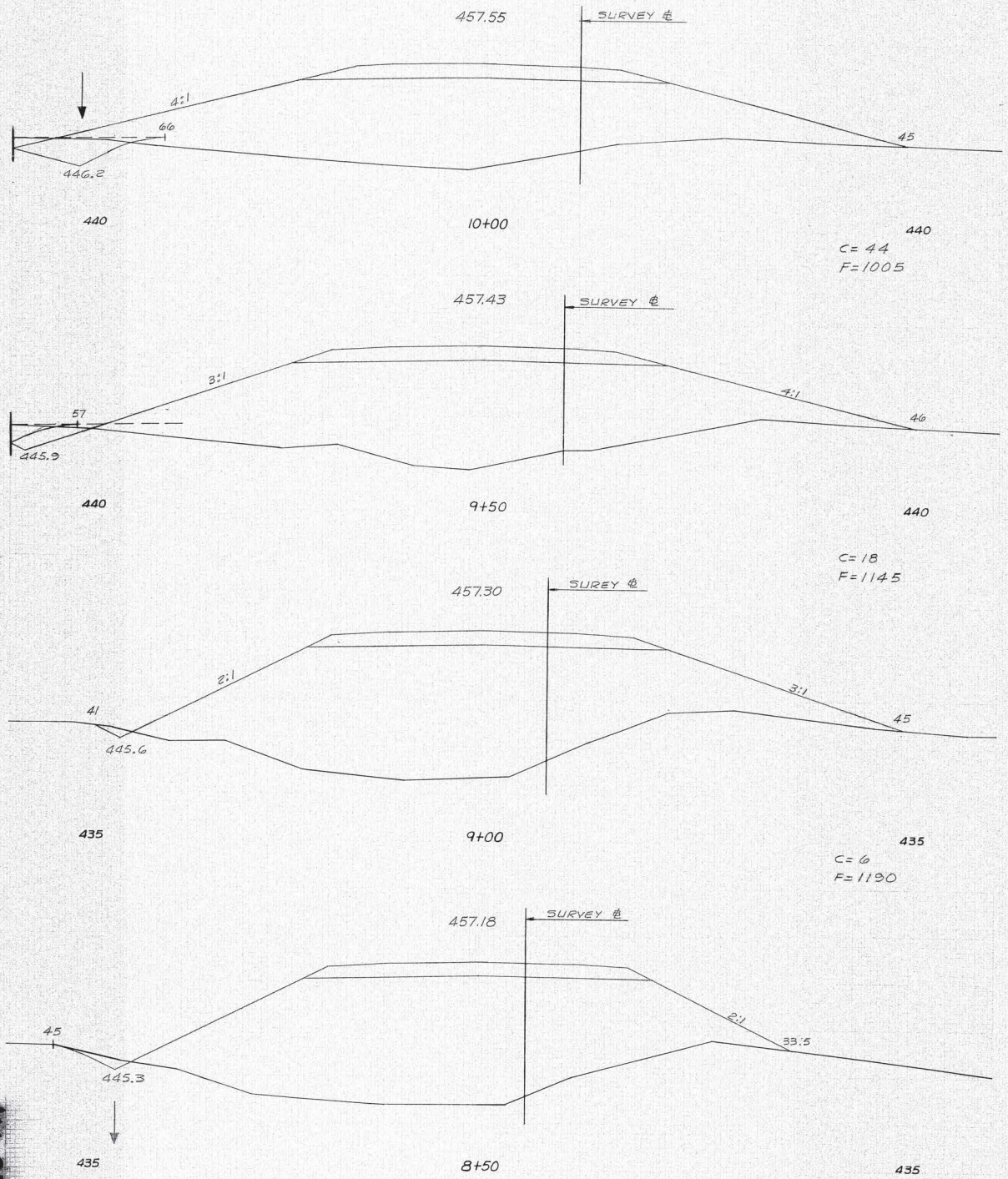
F=520

440 6+50 440

B.R.M. SEC. NO.	1	STATE	
SHOW		PROJECT NUMBER	F-90-9(43)
		SHEET NO.	38
		TOTAL SHEETS	43

6+50 TO 8+00

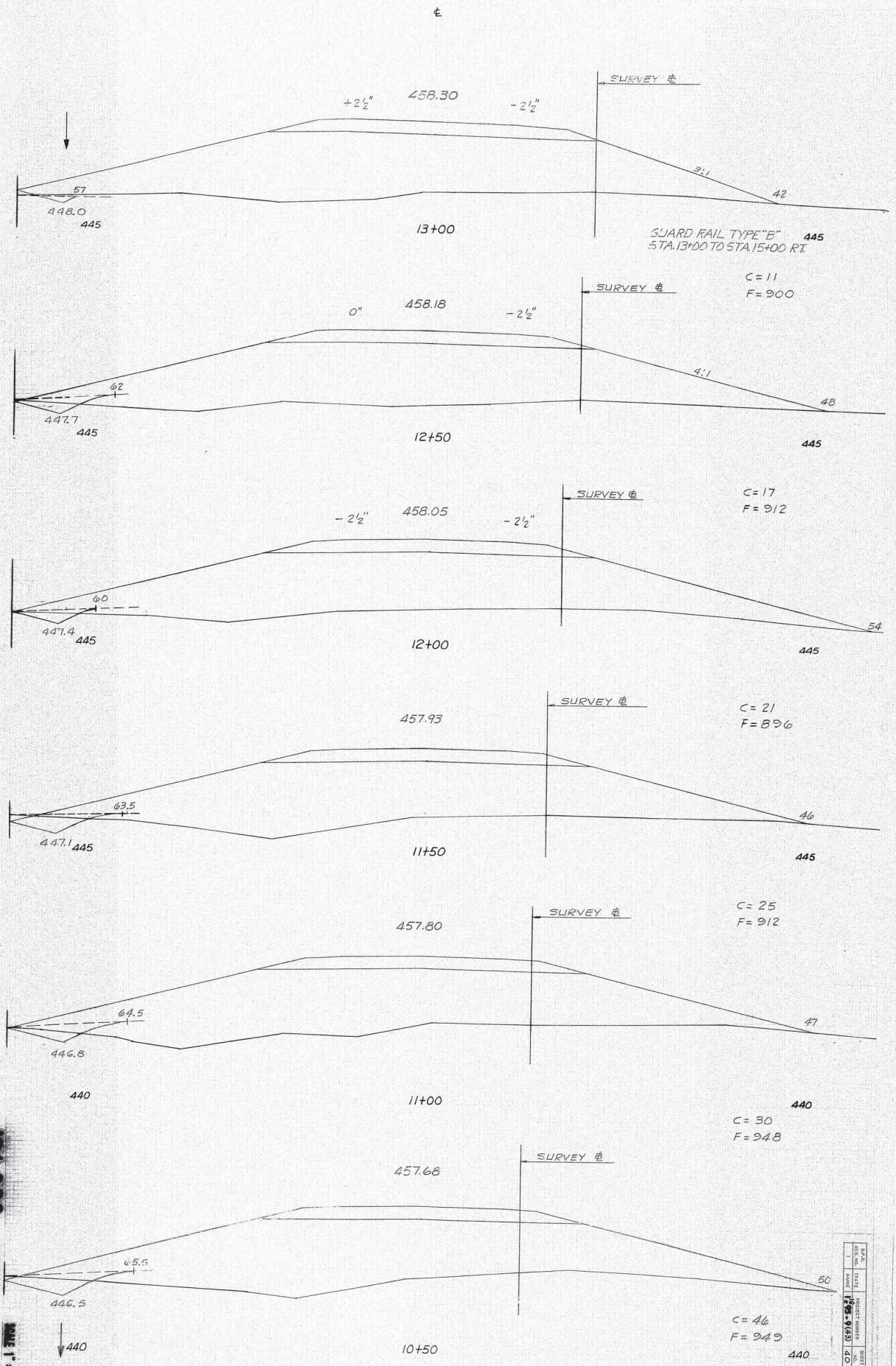
℄



SCALE 1" = 5'

S.A. "I" X-SECT. STA. 8+50 TO 10+00

℄



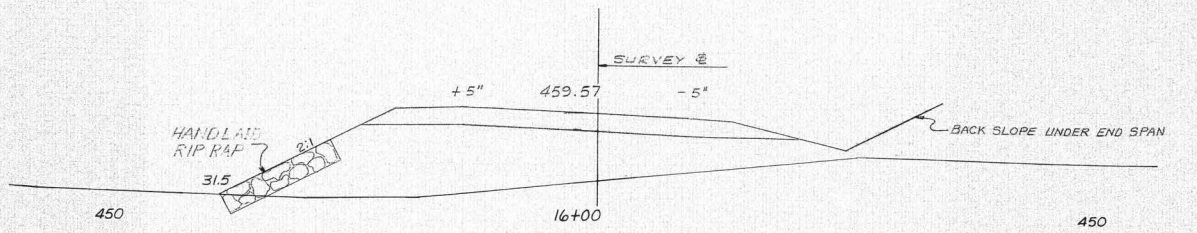
S.H.C. & C.E.A.
m. A.

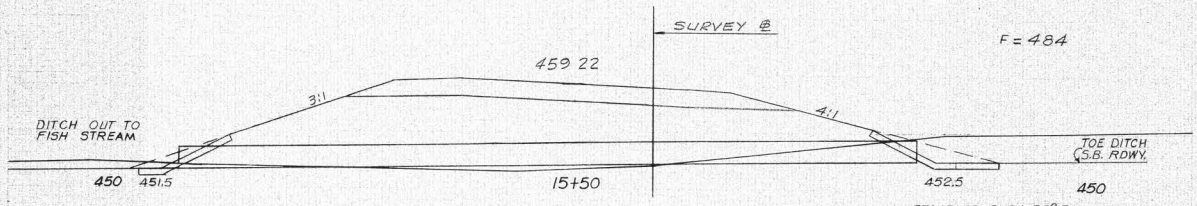
STATE OF MAINE (13)

NOTE 1" = 5'

FIG. 1 X-SECT. STA. 10+50 TO 13+00

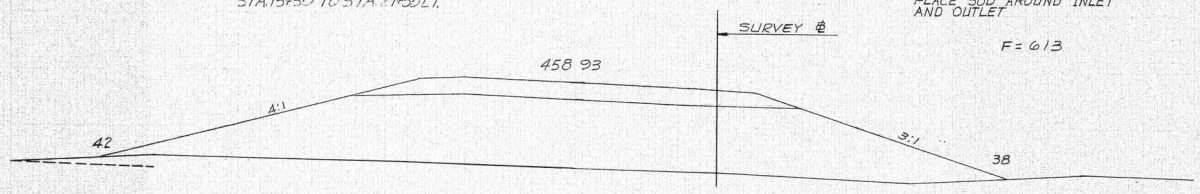
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	I-95-1(43)	40	45

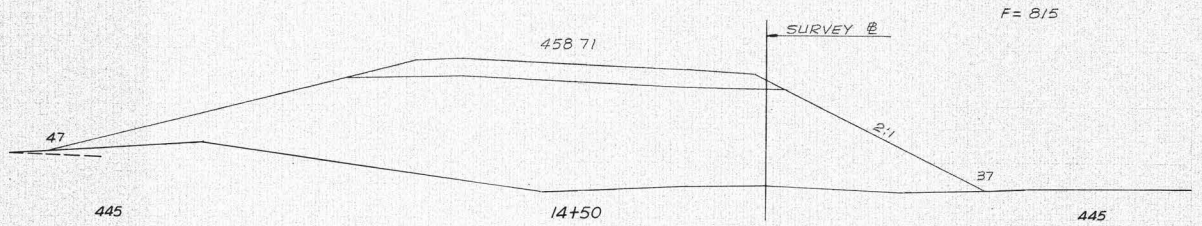


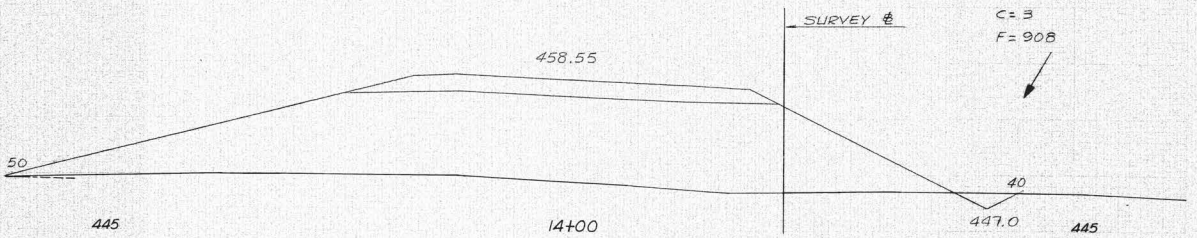


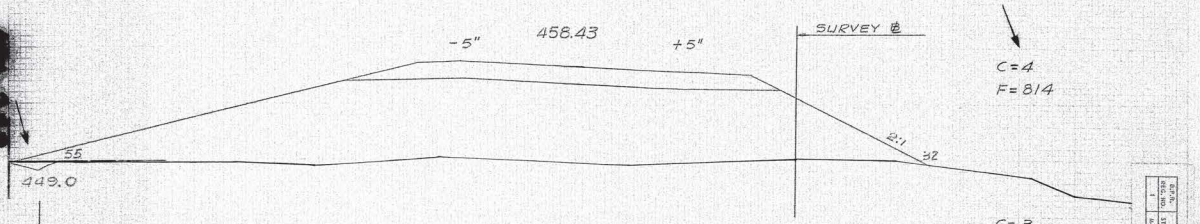
GUARD RAIL TYPE "B"
STA.15+50 TO STA.21+50 LT.

STA.15+48 SKEW 22° BACK LT.
INSTALL: 24"X72' A.C.C.M.P. (3 BANDS)
PLACE SOD AROUND INLET
AND OUTLET





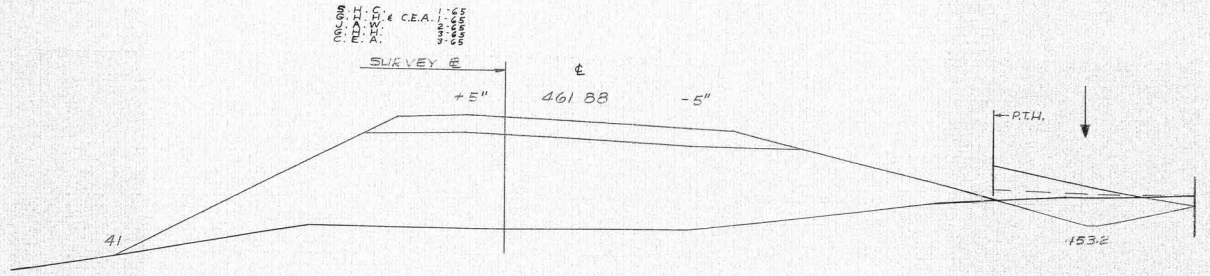


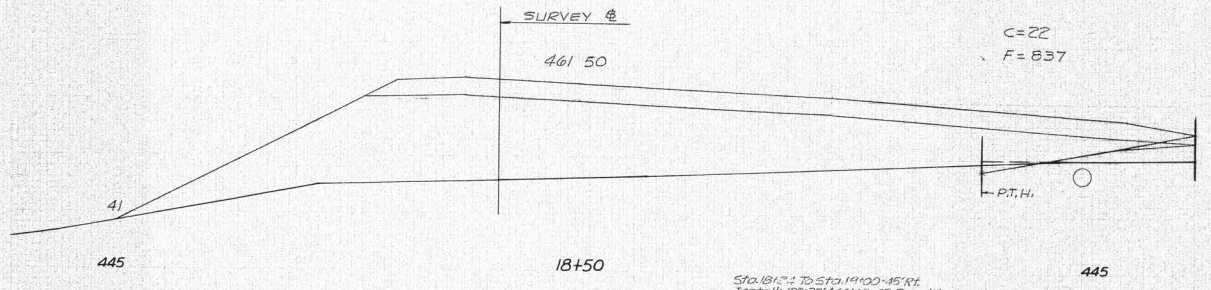


X-SECT. STA. 13+50 TO 16+00

SCALE 1" = 5'

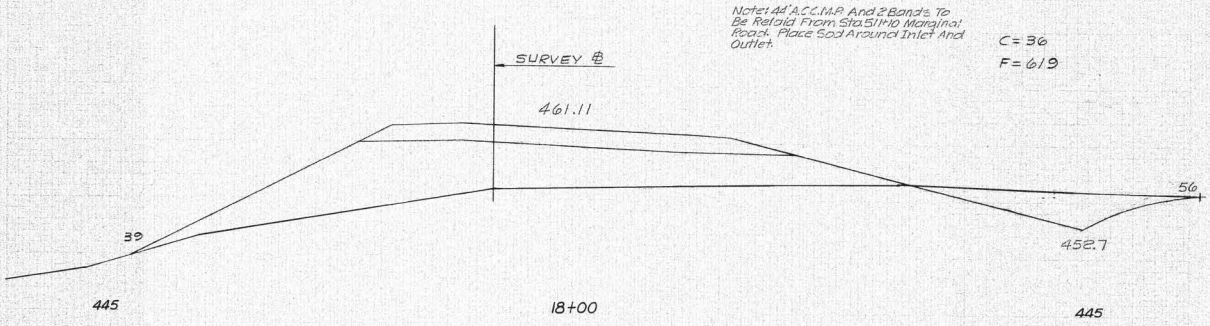
SHEET 5

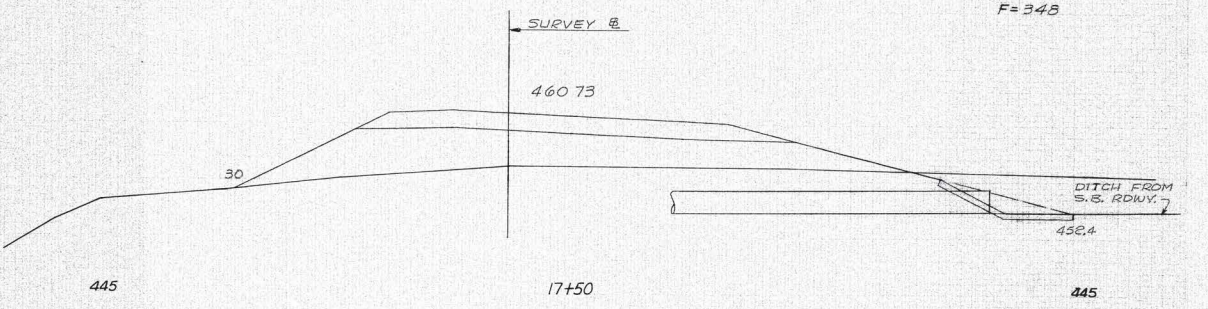




Sta. 18+12.4 To Sta. 19+00-45' Rt.
Install: 18"x32' ACCMP (2 Bands)

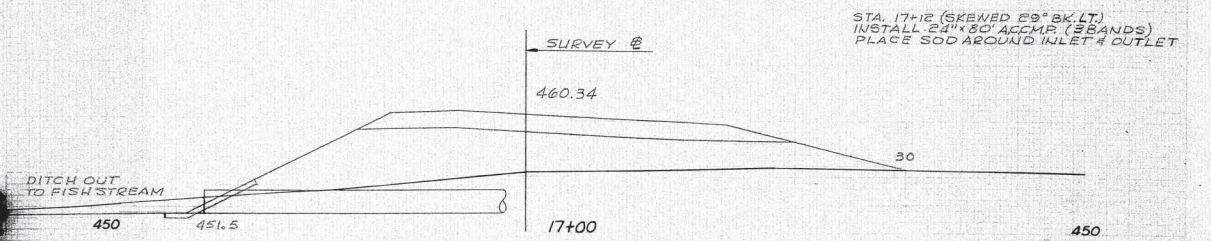
Note: 44' A.C.C.M.P. And 2 Bands To Be Refold From Sta. 51+10 Marginal Road. Place Sod Around Inlet And Outlet.



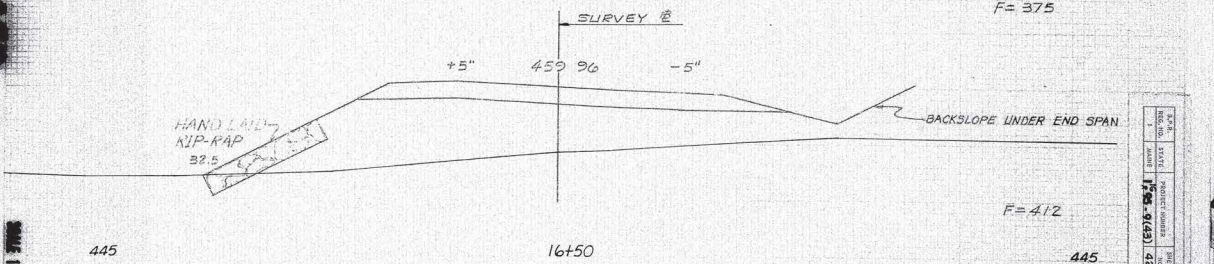


F= 315

STA. 17+12 (SKEWED 29° BK. LT.)
INSTALL 24"x80' ACCMP. (3 BANDS)
PLACE SOD AROUND INLET & OUTLET



F= 375



F=412

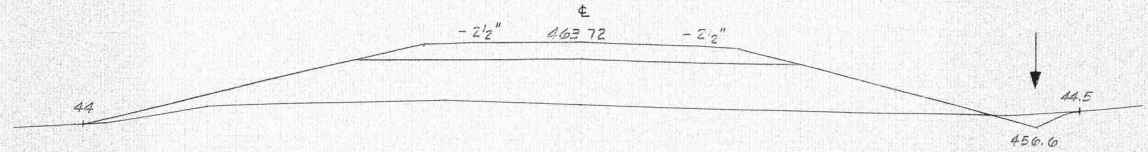
SCALE: 1" = 5'

ISLAND FALLS (C)

S.L. #1 X-SECT. STA. 16+50 TO 19+00

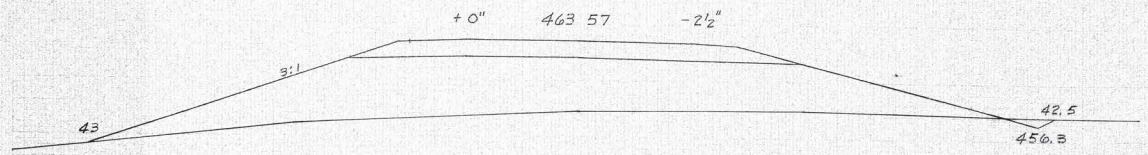
F.A. NO.	STATE	SHEET	TOTAL SHEETS
1	MAINE	42	45

PROJECT NUMBER F-96-9(43)



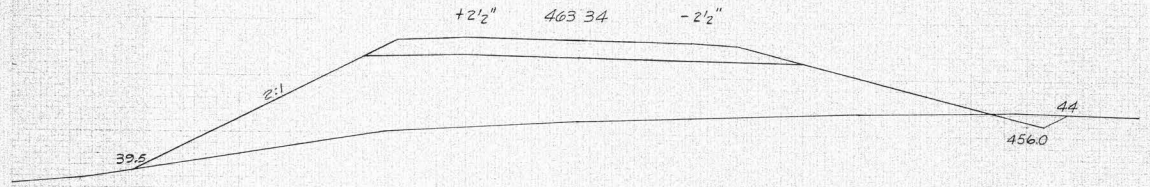
450 22+00 450

C=4
F=491



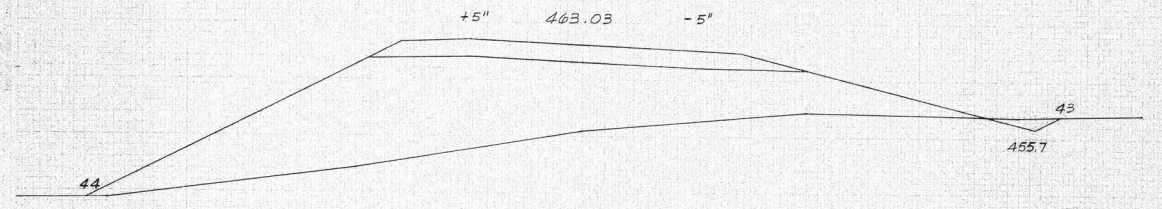
450 21+50 450

C=4
F=579



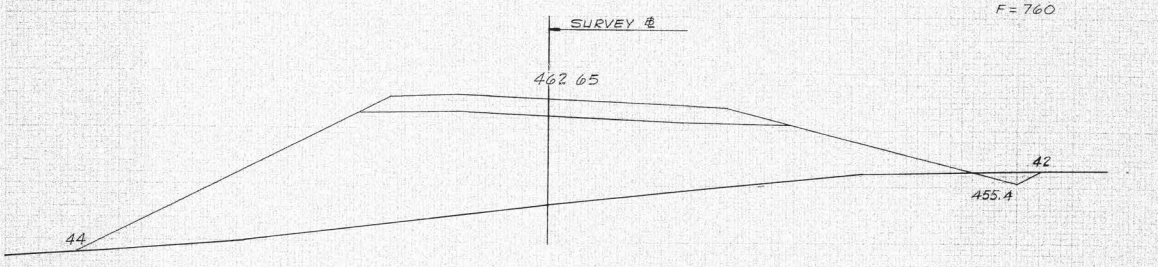
445 21+00 445

C=6
F=676



445 20+50 445

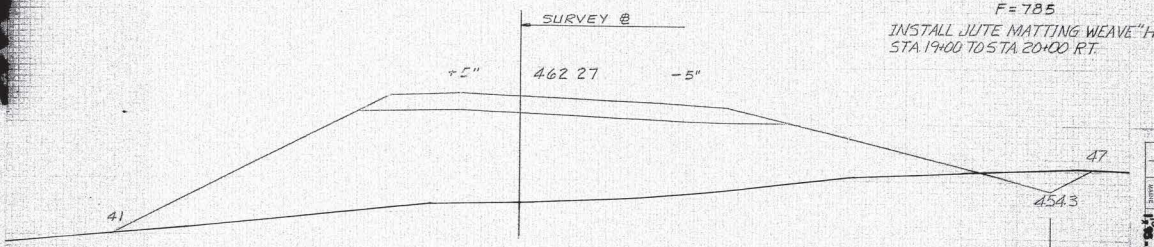
C=5
F=760



445 20+00 445

C=4
F=785

INSTALL JUTE MATTING WEAVE "H"
STA 19+00 TO STA 20+00 RT.



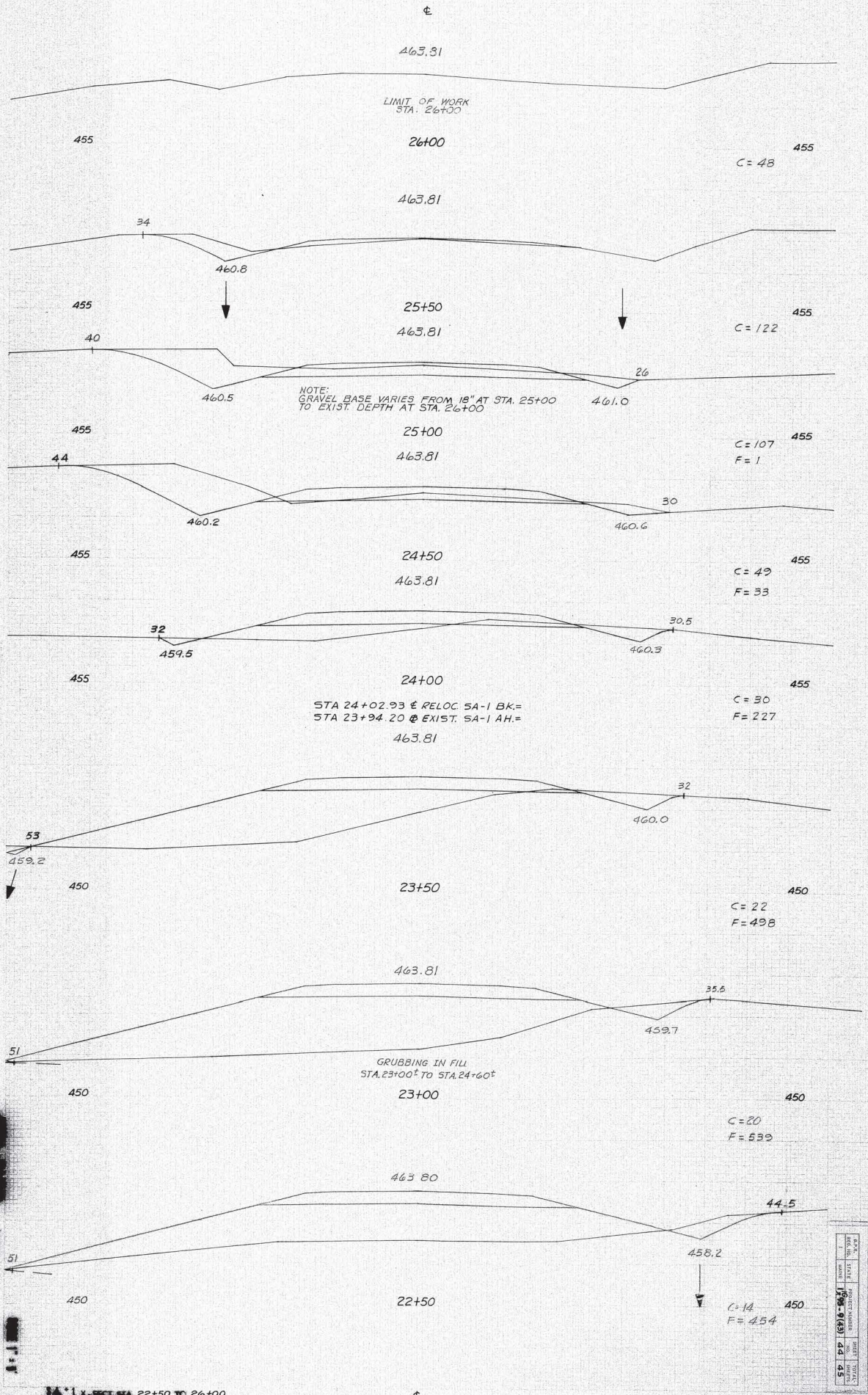
445 19+50 445

C=22
F=818

SA*1 X-SECT. STA. 19+50 TO 22+00 ℄

R.P.L. SEC. NO.	STATE	PROJECT NUMBER	SHEET NO.
1	MAINE		43
			SHEETS TOTAL 45

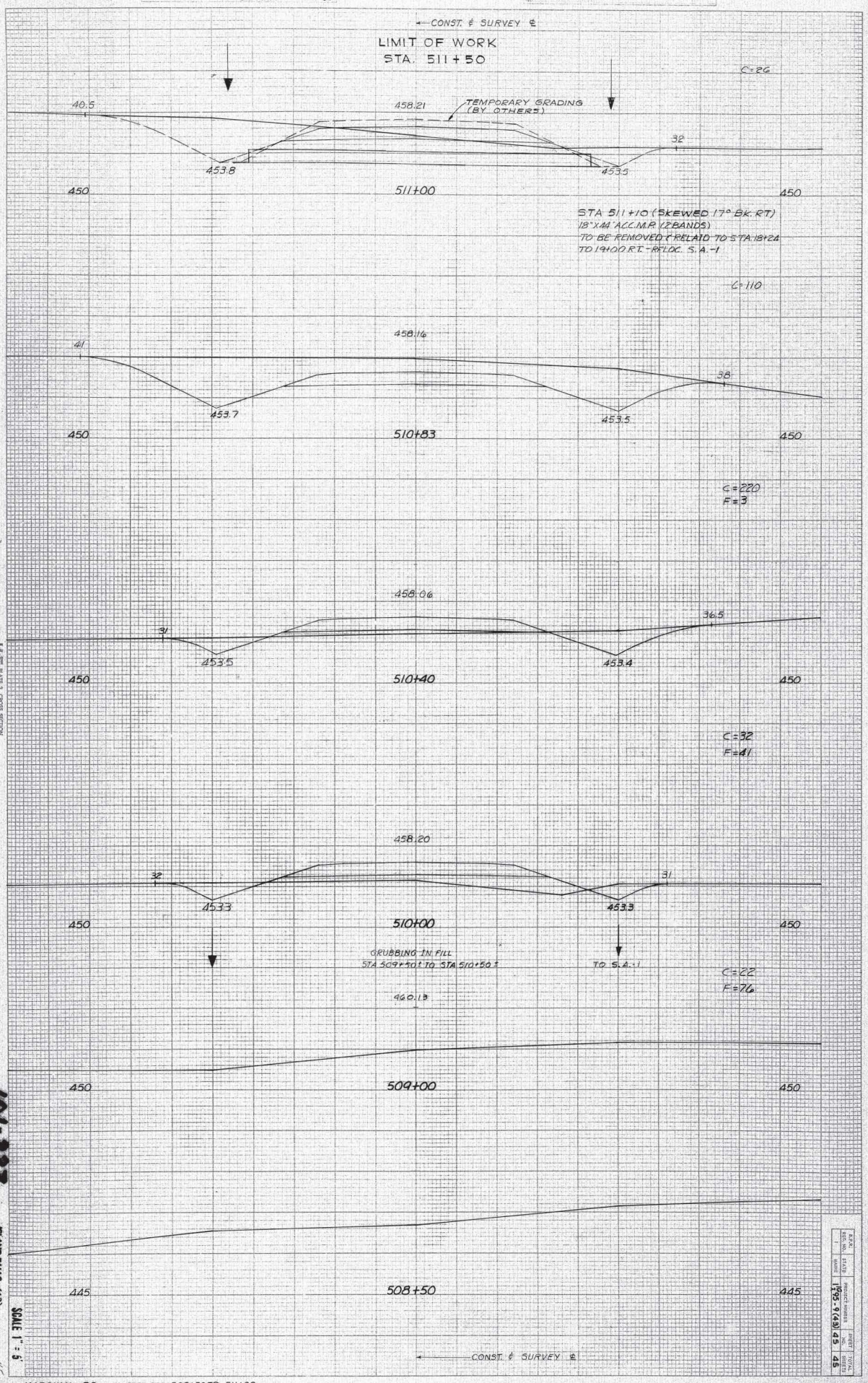
1" = 5' (45)


℄
463.31
LIMIT OF WORK
STA. 26+00
455
26+00
455
C = 48
463.81
34
460.8
455
25+50
455
C = 122
463.81
40
26
460.5
461.0
NOTE:
GRAVEL BASE VARIES FROM 18" AT STA. 25+00
TO EXIST. DEPTH AT STA. 26+00
455
25+00
455
C = 107
F = 1
463.81
44
30
460.2
460.6
455
24+50
455
C = 49
F = 33
463.81
32
30.5
459.5
460.3
455
24+00
455
C = 30
F = 227
STA 24+02.93 ℄ RELOC. SA-1 BK.=
STA 23+94.20 ℄ EXIST. SA-1 AH.=
463.81
32
460.0
53
459.2
450
23+50
450
C = 22
F = 498
463.81
35.5
459.7
51
GRUBBING IN FILL
STA. 23+00± TO STA. 24+60±
450
23+00
450
C = 20
F = 532
463 80
44.5
458.2
51
450
22+50
450
C = 14
F = 454
INCHES
1 2 3 4 5
X-SECT. STA. 22+50 TO 26+00
℄

ORIGINAL SURVEY NOTE BOOK NO.

DESIGNED H.C.
DRAWN D.D.D.
CHECKED
DATE
APPROVED

FINAL SURVEY NOTE BOOK NO.



K&E PLATE 3 CROSS SECTION KEUFFEL & ESSER CO.

101-237

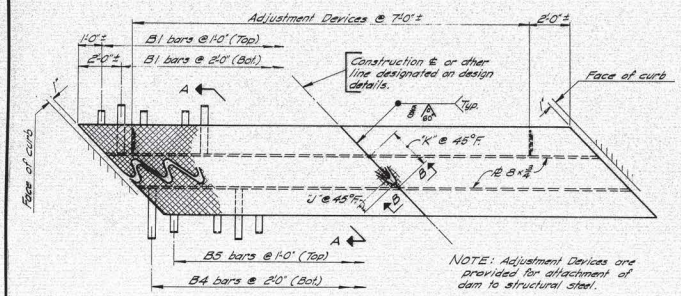
ISLAND FALLS (43)

SCALE 1" = 5'

R.A.P. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL NO. SHEETS
	MAINE	1995-9(49)45	45	

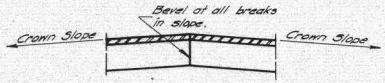
MARGINAL RD. X-SECT. STA. 508+50 TO 511+00

S.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



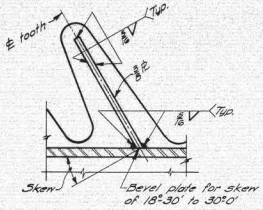
PLAN

Right skew indicated



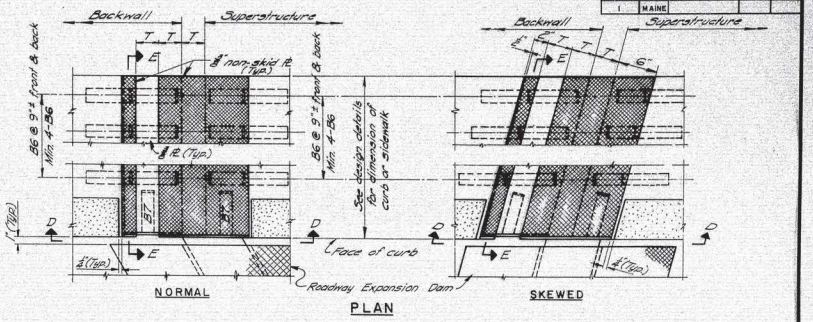
SECTION B-B

See design details for construction ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.

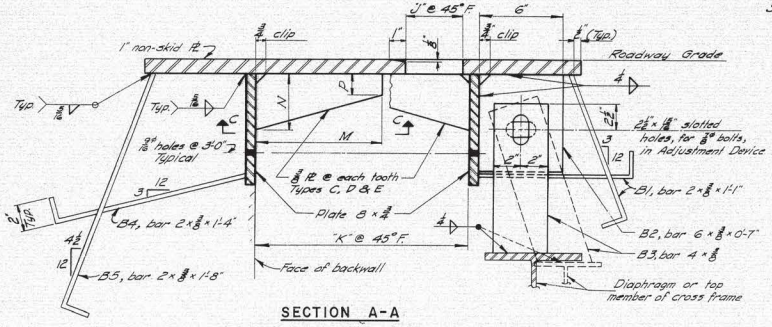


SECTION C-C

Skew ~0° to 30°-0'

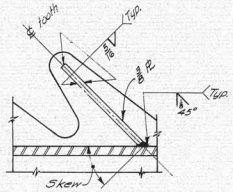


PLAN



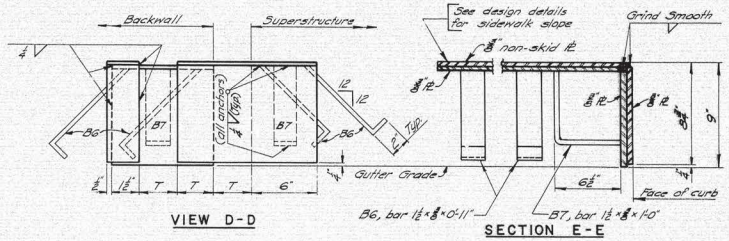
SECTION A-A

Bar B3 may be vertical or inclined as indicated, depending on design conditions.
After Adjustment Device is in final position weld bars B2 to B3 with 1/4" fillet weld.



SECTION C-C

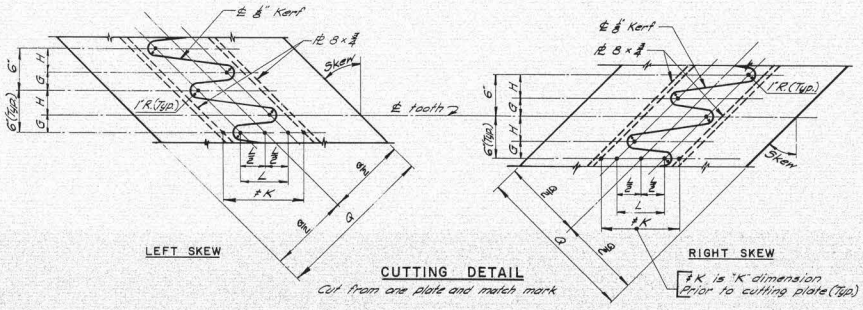
Skew over 30°



VIEW D-D **SECTION E-E**

TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-440'	440'-600'	600'-760'	760'-920'
T	3"	4"	5"	6"	7"

CURB AND SIDEWALK EXPANSION DAM – DETAILS



CUTTING DETAIL

Cut from one plate and match mark.

 # K is "K" dimension prior to cutting plate (Typ.)

ROADWAY EXPANSION DAM – DETAILS

TABLE OF DIMENSIONS

Type	Exp. Length	Skew	# K	L	G	H	K@45°	J@45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	2 3/8"	—	—	—	21"
		5°-10'	7 1/4"	4 1/4"	2 3/8"	3 1/8"	9 1/8"	2 3/8"	—	—	—	22"
		10°-20'	8"	4 3/8"	2 3/8"	3 1/8"	10"	2 3/8"	—	—	—	22"
		20°-30'	8 3/8"	5 1/4"	2 3/8"	3 1/4"	10 3/8"	2 3/8"	—	—	—	23"
		30°-40'	9 1/4"	5 3/8"	2 3/8"	3 3/8"	11 3/8"	2 3/8"	—	—	—	23"
		40°-50' incl.	11"	6 1/2"	2 1/2"	3 1/2"	13 1/2"	2 3/8"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	3 1/8"	—	—	—	23"
		5°-10'	9 1/2"	6 1/2"	2 3/8"	3 1/8"	12 1/2"	3 1/8"	—	—	—	24"
		10°-20'	10"	6 3/8"	2 3/8"	3 1/8"	13"	3 1/8"	—	—	—	24"
		20°-30'	10 3/4"	7 1/2"	2 3/8"	3 1/4"	13 3/8"	3 1/8"	—	—	—	25"
		30°-40'	12"	8"	2 3/8"	3 1/2"	15"	3 1/8"	—	—	—	25"
		40°-50' incl.	13 1/2"	8 3/4"	2 3/8"	3 3/8"	16 1/2"	3 1/8"	—	—	—	25"
C	440'-600'	0°-10° incl.	11 1/2"	8 1/2"	3"	3"	15 1/2"	4 1/8"	9"	4"	1 1/2"	26"
		10°-20'	12"	8 3/4"	2 3/8"	3 1/8"	16"	4 1/8"	10"	4"	1 1/2"	26"
		20°-30'	12 3/4"	9 1/2"	2 3/8"	3 1/8"	16 3/4"	4 1/8"	11"	4"	1 1/2"	26"
		30°-40'	14"	10"	2 3/8"	3 1/4"	18"	4 1/8"	11"	4"	1 1/2"	26"
		40°-50' incl.	15 1/2"	10 3/4"	2 3/8"	3 3/8"	19 1/2"	4 1/8"	12"	4"	1 1/2"	26"
D	600'-760'	0°-10° incl.	13 3/4"	10 3/4"	3"	3"	18 1/2"	5 3/8"	11"	5"	2"	30"
		10°-20'	14"	10 3/4"	2 3/8"	3 1/8"	19"	5 3/8"	12"	5"	2"	30"
		20°-30'	14 3/4"	11 3/4"	2 3/8"	3 1/8"	19 3/4"	5 3/8"	13"	5"	2"	30"
		30°-40'	16"	12"	2 3/8"	3 1/8"	21"	5 3/8"	13"	5"	2"	30"
		40°-50' incl.	17 1/4"	13"	2 3/8"	3 1/2"	22 1/4"	5 3/8"	15"	5"	2"	30"
E	760'-920'	0°-10° incl.	15 1/4"	12 1/4"	3"	3"	21 1/4"	6 3/8"	13"	6"	2 1/2"	36"
		10°-20'	16"	12 3/4"	2 3/8"	3 1/8"	22"	6 3/8"	14"	6"	2 1/2"	36"
		20°-30'	16 3/4"	13 1/4"	2 3/8"	3 1/8"	22 3/4"	6 3/8"	15"	6"	2 1/2"	36"
		30°-40'	18"	14"	2 3/8"	3 1/8"	24"	6 3/8"	15"	6"	2 1/2"	36"
		40°-50' incl.	19 1/4"	15"	2 3/8"	3 1/2"	25 1/4"	6 3/8"	17"	6"	2 1/2"	36"

GENERAL NOTES

Expansion Dams to be paid for as Structural Steel.
If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.

Steel Classification: A.S.T.M. A36

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

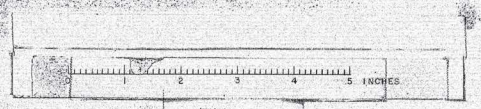
STANDARD DETAILS

(BD 105 – 64)

EXPANSION DAMS

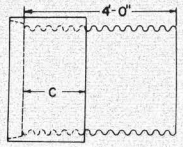
APRIL 1964

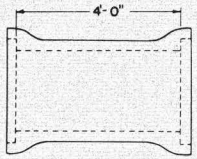
101-238 ISLAND FALLS (13)



B.P.R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	X-95-B(8)	5	66

PIPE CONNECTIONS





GROOVE END COMBINATION

For 24" to 72", inclusive, diameter connection between concrete and metal pipe

"C" = 17" min. for sizes 30" to 48" incl.
"C" = 23" min. for sizes over 48"

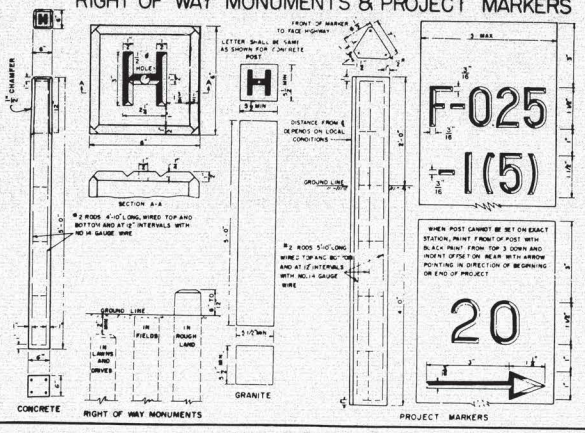
Asphalt coated corrugated metal pipe shall conform to the latest standard specifications

REINFORCED CONCRETE PIPE CONNECTOR DOUBLE BELL

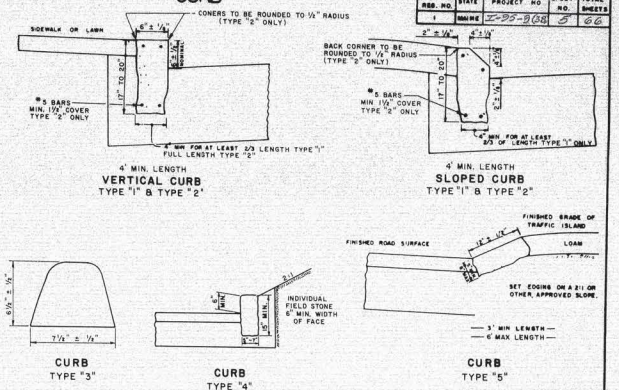
For 12" to 18", inclusive, diameter connection between concrete and metal pipe

Reinforced concrete pipe shall conform to the latest standard specifications

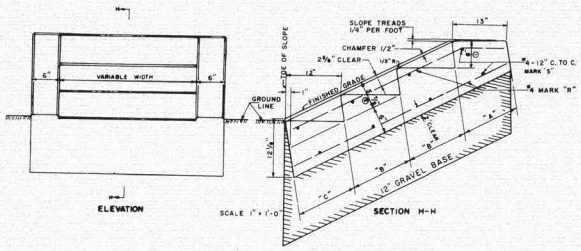
RIGHT OF WAY MONUMENTS & PROJECT MARKERS



CURB



CONCRETE STEPS



CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.030 CU. YDS.	.015 CU. YDS.
"B" EA. INTER. ST.	.030 CU. YDS.	.020 CU. YDS.
"C" FOOTER	.030 CU. YDS.	.020 CU. YDS.

6" RISE - 12" TREAD (2:1 SLOPE)

REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	#4 .668 LBS. PER FT.	2 EACH PARAPET 1 EACH FT. OF WIDTH	11" FOR "A" +13.4 FOR EACH "B" +12" FOR "C"
S	#4 .668 LBS. PER FT.	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	4" EACH PARAPET +12" PER FT. OF WIDTH

NOTE:
To determine the quantity of *"Structural Excavation"* for payment refer to the *"Standard Specifications"* section 204-6D, structural earth and rock excavation-abutments and retaining wall or piers.

PAY ITEMS

ITEM NO.	DESCRIPTION
204-10	Struct. earth excav.-drain.
204-11	Struct. rocks excav.-drain.
302-14	Gravel for foundations
705-13	Reinforcing steel, delivered
705-14	Reinforcing steel, placed
904-11	Reinforced concrete steps

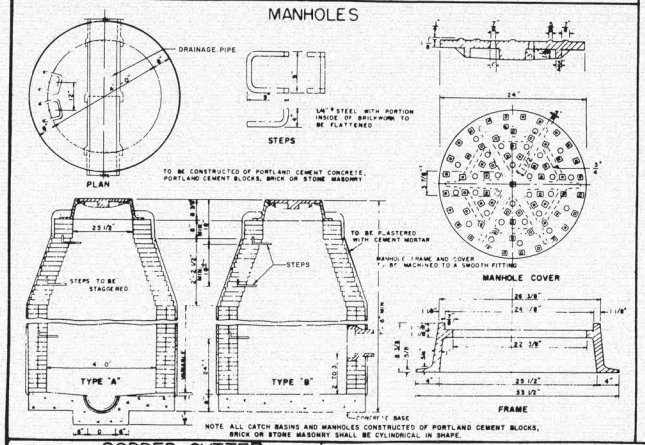
CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.035 CU. YDS.	.018 CU. YDS.
"B" EA. INTER. ST.	.035 CU. YDS.	.024 CU. YDS.
"C" FOOTER	.035 CU. YDS.	.024 CU. YDS.

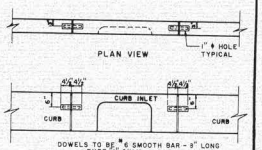
8" RISE - 12" TREAD (1 1/2 : 1 SLOPE)

REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	#4 .668 LBS. PER FT.	2 EACH PARAPET 1 EACH FT. OF WIDTH	11" FOR "A" +14 7/8" FOR EACH "B" +12" FOR "C"
S	#4 .668 LBS. PER FT.	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	4" EACH PARAPET +12" PER FT. OF WIDTH

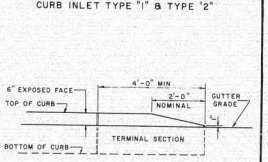
① = 8"
② = 7 7/8"

MANHOLES

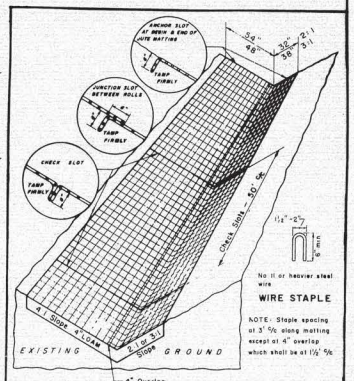




DOWEL DETAIL AT CATCH BASIN
CURB INLET TYPE "1" & TYPE "2"

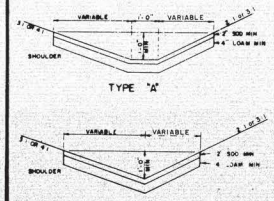


TERMINAL SECTION
TYPE "1" & TYPE "2"

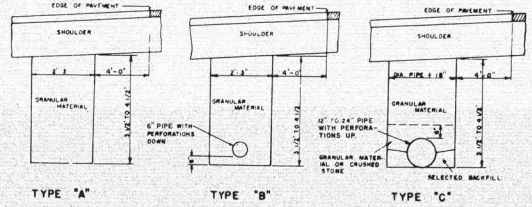


JUTE MATTING - DITCH SECTION

SODDED GUTTER



UNDERDRAIN



NOTE: IF FIELD CONDITIONS WARRANT, THE ENGINEER MAY CHANGE THE DIMENSIONS DETAILED ABOVE.

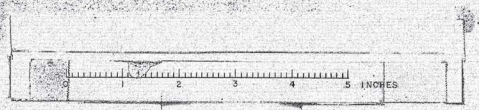
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

MISCELLANEOUS ITEMS

Feb. 3-65

101-239 ISLAND FALLS (43)



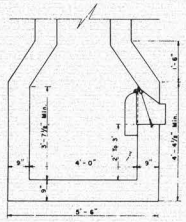
B P R REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE			

DETAIL OF TRAP

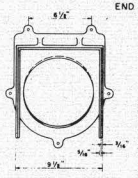
To be used with combined system

Other types may be used if approved by the engineer.

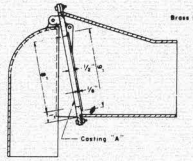
Traps shall be installed on the outlets of catch basins or manholes which empty a storm water system into a sanitary sewerage system



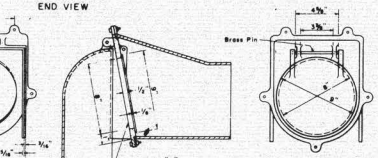
CATCH BASIN



END VIEW WITH HOOD AND CLAPPER REMOVED

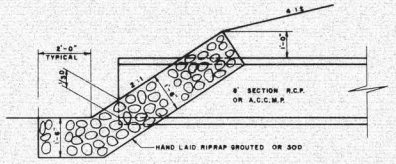


SECTION THROUGH CENTER

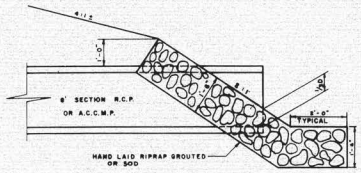


CASTING "A" & CLAPPER

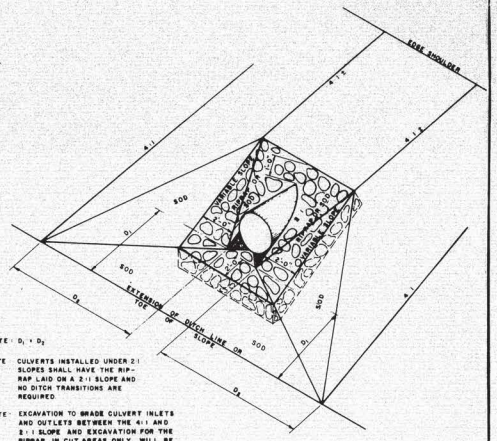
TYPICAL RIPRAP DETAIL FOR R.C.P. OR A.C.C.M.P.



INLET



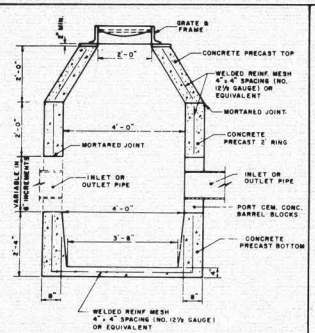
OUTLET



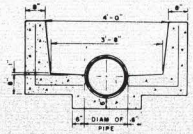
NOTE - $D_1 + D_2$

NOTE CULVERTS INSTALLED UNDER 2:1 SLOPES SHALL HAVE THE RIPRAP LAID ON A 2:1 SLOPE AND NO DITCH TRANSITIONS ARE REQUIRED

NOTE - EXCAVATION TO GRADE CULVERT INLETS AND OUTLETS BETWEEN THE 4:1 AND 2:1 SLOPE AND EXCAVATION FOR THE RIPRAP, IN CUT AREAS ONLY, WILL BE PAID FOR UNDER ITEM NO. 204-10 STRUCTURAL EARTH EXCAVATION-DRAINAGE.

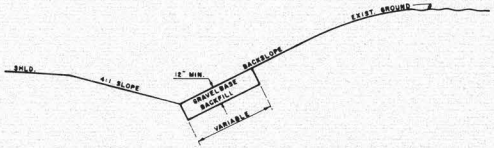


PRECAST PORTLAND CEMENT CONCRETE CATCH BASINS
TYPES C, F, H & I - MANHOLE TYPE B

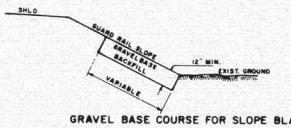


PRECAST PORTLAND CEMENT CONCRETE CATCH BASIN TYPE G
MANHOLE TYPE A

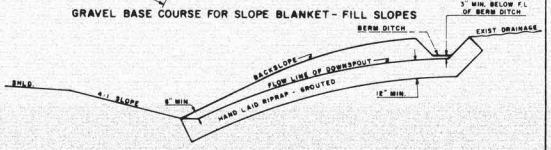
NOTE:
THE THREE SECTIONS DETAILED BELOW SHALL BE USED WHEN DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS



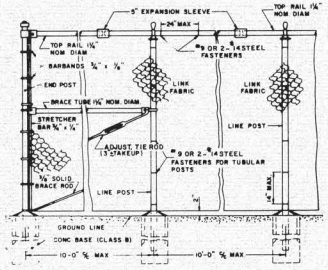
GRAVEL BASE COURSE FOR SLOPE BLANKET - BACKSLOPES



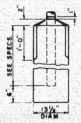
GRAVEL BASE COURSE FOR SLOPE BLANKET - FILL SLOPES



HAND LAID RIPRAP GROUTED DOWNSPOUT



PORTLAND CEMENT CONCRETE (CLASS B)

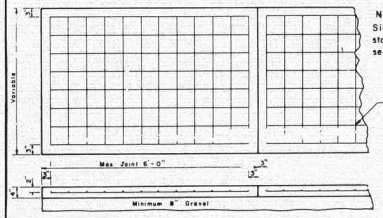


LINE, GATE AND END POST BASE

NOTE
ROUND BASES MAY BE SUBSTITUTED FOR THE SQUARE BASES SHOWN BY USING FIBRE TUBULAR FORMS SUBSTITUTIONS SHALL BE AS FOLLOWS 13¼" ⌀ ROUND FOR 12" SQUARE OR 15" SQUARE

" CHAIN LINK FENCE

REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK



NOTE
Sidewalk shall conform to standard specifications section 904.

Welded Steel Wire Fabric 6" x 6" 10/10 Approx. Weight 21 lbs per 100 sq ft

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

DETAIL OF TRAP, REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK, CHAIN LINK FENCE, TYPICAL RIPRAP DETAIL & PRECAST CATCH BASINS & MANHOLES

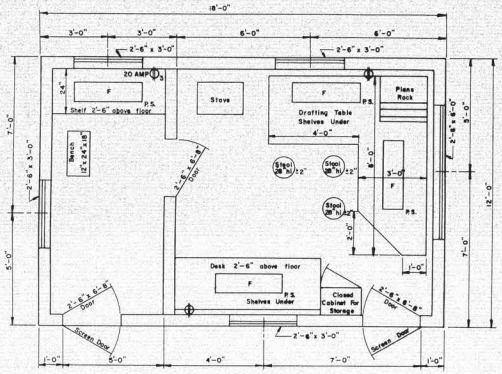
Feb. 4-65

101-240 GLAND FALLS (43)

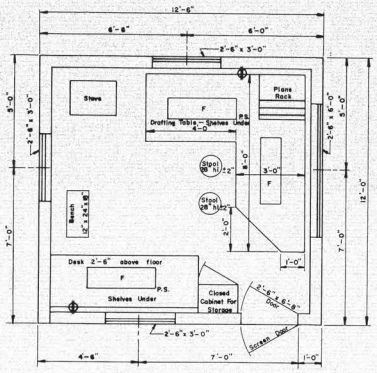
48

0 1 2 3 4 5 INCHES

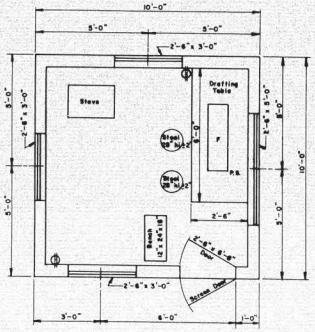
S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-13-95-1(13)		



FLOOR PLAN
TYPE "A"



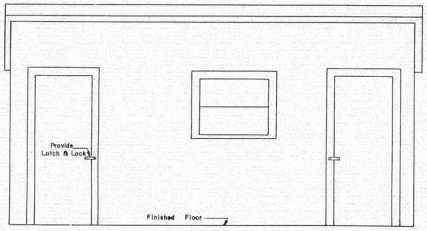
FLOOR PLAN
TYPE "B"



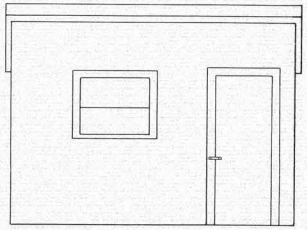
FLOOR PLAN
TYPE "C"

GENERAL NOTES

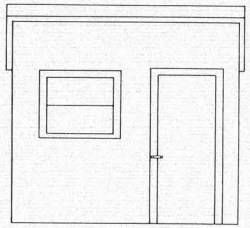
1. Drafting table shall be 3'-4" high at front edge and placed 2" from studs to allow prints to hang down behind table when in use.
2. Shelves under desk shall be constructed to received 11½" x 14" x 25" transfiles.
3. Windows shall be double hung.
4. Stovepipe shall not be in direct contact with combustible material ; the pipe shall be surrounded with at least 8" of fireproof material.
5. Continuous 110 volt 60 cycle electric service shall be supplied.
6. The engineer may rearrange the items shown on the plan views during construction of the field office.
7. FURNISHINGS TO BE SUPPLIED :
   - 2 Straight back chairs for types A and B
   - 1 Bench for types A, B & C
   - 3 Stool for type A
   - 2 Stools for types B & C
8. SYMBOLS :
   - F Florescent lights (2 light , rapid start 48" strips and 40 watt bulbs.)
   - P.S. Pull switch
   - Duplex wall outlet — 15 amp unless otherwise noted.
   - Triplex Wall Outlet
9. For the Type "A" Field Office one clean 55 gal. drum shall be supplied , installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furished with water at all times.



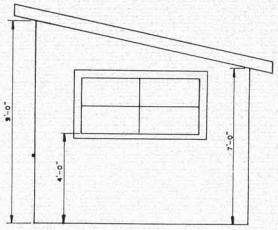
FRONT ELEVATION
TYPE "A"



FRONT ELEVATION
TYPE "B"



FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A" "B" & "C"

REVISIONS	

MAINE STATE HIGHWAY COMMISSION
AUGUSTA , MAINE

STANDARD DETAILS

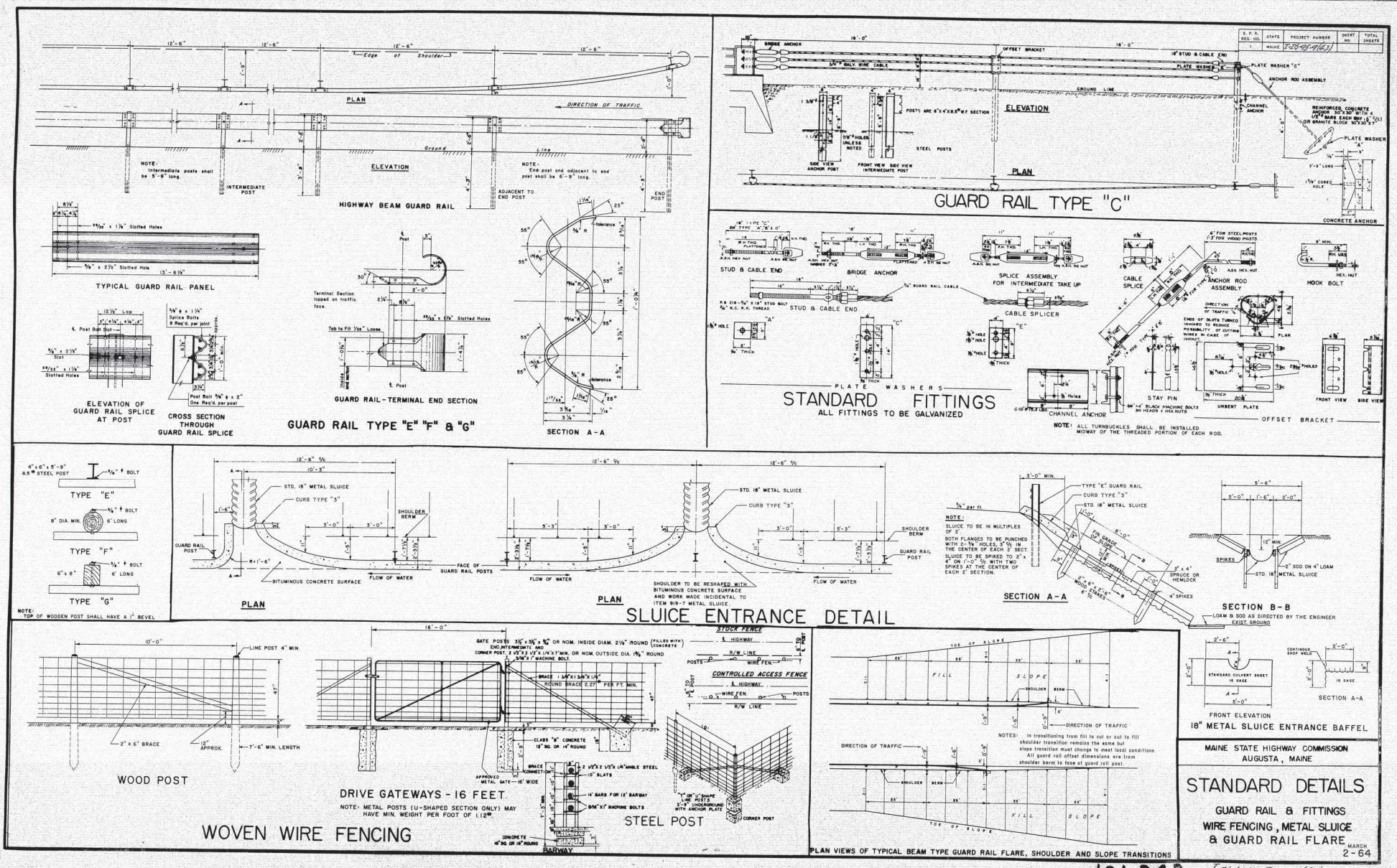
FIELD OFFICES
TESTING LABORATORY

AUG. 1965 (B)

101-241

ISLAND FALLS (B4)

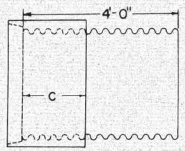
0 1 2 3 4 5 INCHES

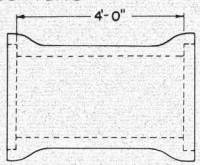


101-242 ISLAND FALLS (43)

B. P. R. REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F-10-09-(1)(3)		

PIPE CONNECTIONS





GROOVE END COMBINATION

For 24" to 72", inclusive, diameter connection between concrete and metal pipe

"C" = 17" min. for sizes 30" to 48" incl.
"C" = 23" min. for sizes over 48"

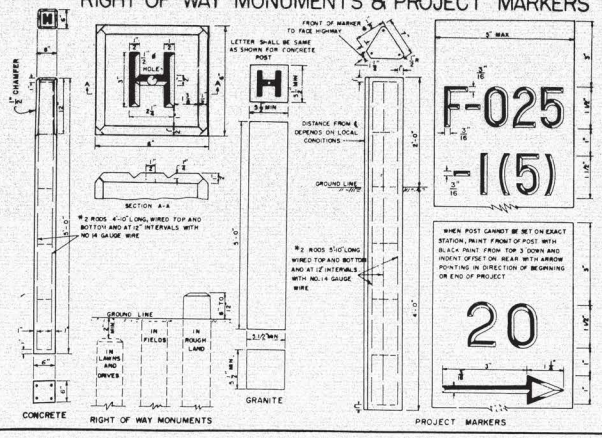
Asphalt coated corrugated metal pipe shall conform to the latest standard specifications

REINFORCED CONCRETE PIPE CONNECTOR DOUBLE BELL

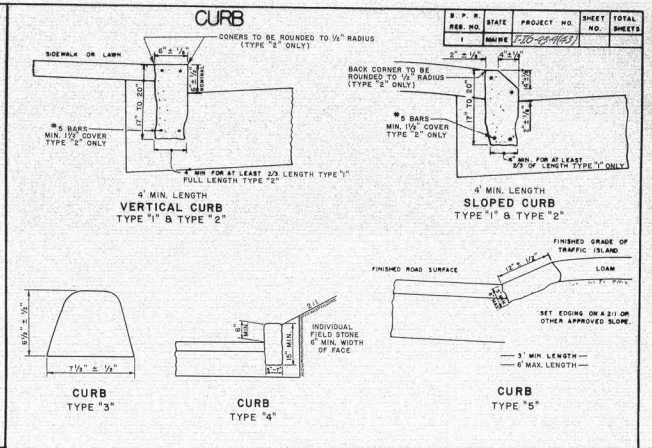
For 12" to 18", inclusive, diameter connection between concrete and metal pipe

Reinforced concrete pipe shall conform to the latest standard specifications

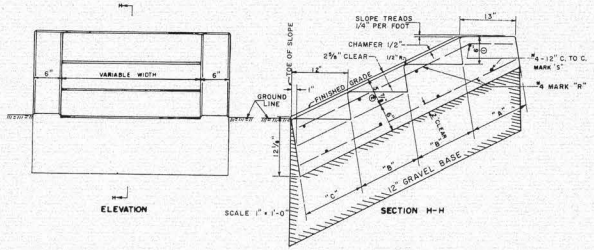
RIGHT OF WAY MONUMENTS & PROJECT MARKERS



CURB



CONCRETE STEPS



CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.030 CU. YDS.	.015 CU. YDS.
"B" EA. INTER ST.	.030 CU. YDS.	.020 CU. YDS.
"C" FOOTER	.030 CU. YDS.	.020 CU. YDS.

6" RISE - 12" TREAD (2:1 SLOPE)

REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	#4 .668 LBS. PER FT.	2 EACH PARAPET 1 EACH FT. OF WIDTH	11" FOR "A" +13.4' FOR EACH "B" +12" FOR "C"
S	#4 .668 LBS. PER FT.	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	4' EACH PARAPET +12" PER FT. OF WIDTH

PAY ITEMS

ITEM NO.	DESCRIPTION
204-10	Struct. earth excav.-drain.
204-11	Struct. rocks excav.-drain.
302-14	Gravel for foundations
701-47	Portland cement
705-13	Reinforcing steel, delivered
705-14	Reinforcing steel, placed
904-11	Reinforced concrete steps

NOTE:
To determine the quantity of *"Structural Excavation"* for payment refer to the *"Standard Specifications"* section 204-6D, structural earth and rock excavation-abutments and retaining wall or piers.

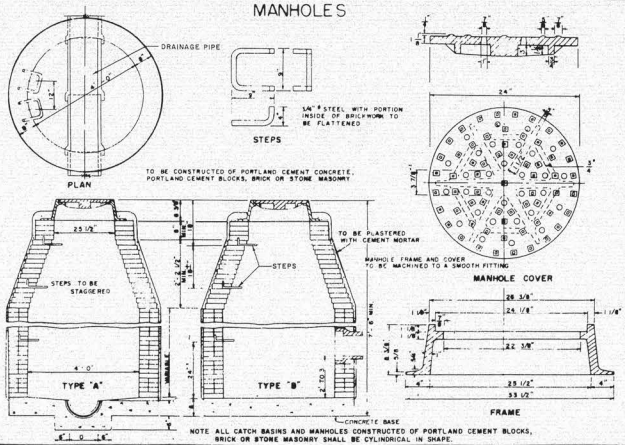
CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.035 CU. YDS.	.018 CU. YDS.
"B" EA. INTER ST.	.035 CU. YDS.	.024 CU. YDS.
"C" FOOTER	.035 CU. YDS.	.024 CU. YDS.

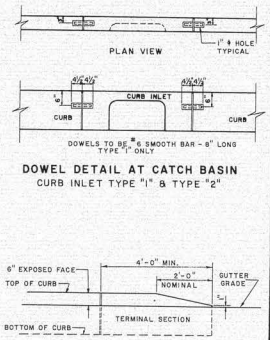
8" RISE - 12" TREAD (1 1/2:1 SLOPE)

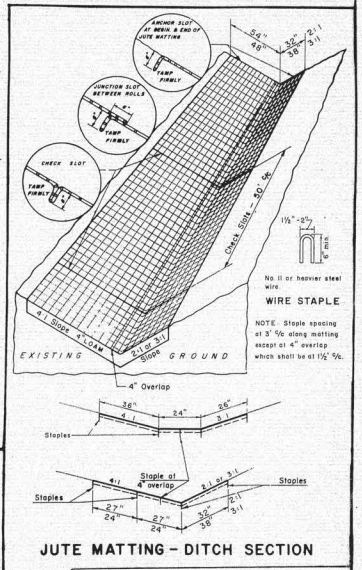
REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	#4 .668 LBS. PER FT.	2 EACH PARAPET 1 EACH FT. OF WIDTH	11" FOR "A" +14 1/2' FOR EACH "B" +12" FOR "C"
S	#4 .668 LBS. PER FT.	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	4' EACH PARAPET +12" PER FT. OF WIDTH

① = 8"
② = 7 1/2"

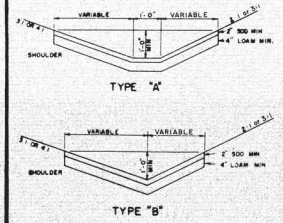
MANHOLES



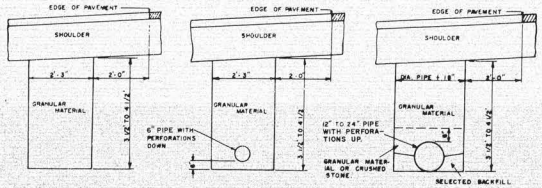




SODDED GUTTER



UNDERDRAIN



NOTE: IF FIELD CONDITIONS WARRANT, THE ENGINEER MAY CHANGE THE DIMENSIONS DETAILED ABOVE.

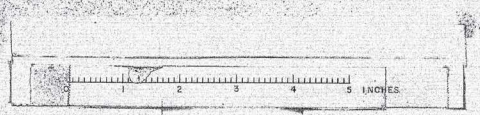
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

MISCELLANEOUS ITEMS

MARCH 3-64

101-243 ISLAND FALLS (43)



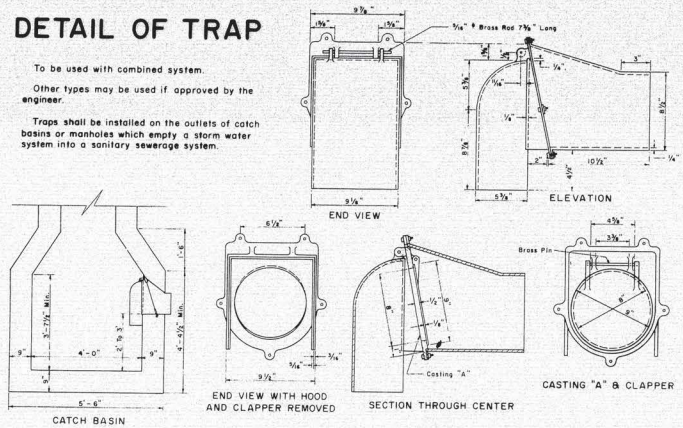
B.P.R. REGION NO.	STATE	FEDERAL AID PROJECT NO	SHEET NO	TOTAL SHEETS
1	MAINE	Z-(0-95-4)(43)		

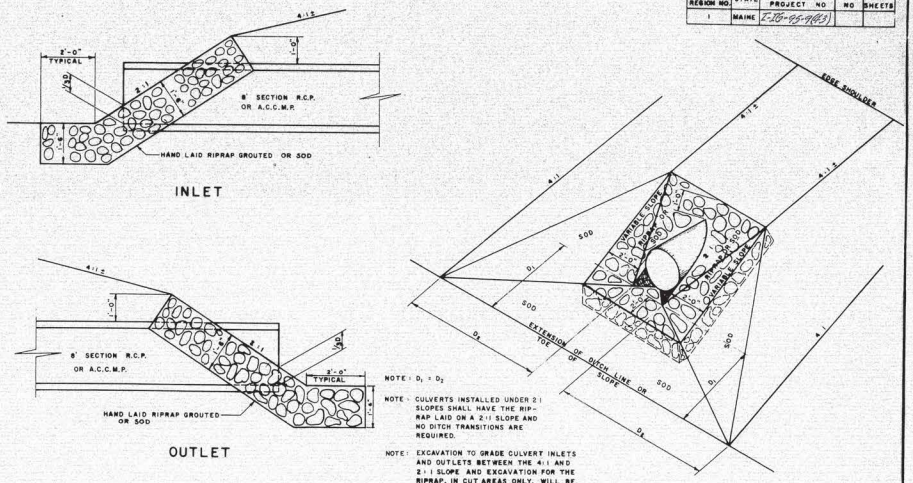
DETAIL OF TRAP

To be used with combined system.

Other types may be used if approved by the engineer.

Traps shall be installed on the outlets of catch basins or manholes which empty a storm water system into a sanitary sewerage system.



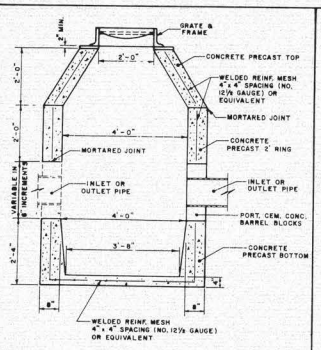


NOTE: $D_1 = D_2$

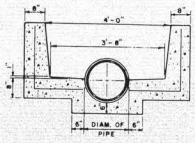
NOTE: CULVERTS INSTALLED UNDER 2:1 SLOPES SHALL HAVE THE RIPRAP LAID ON A 2:1 SLOPE AND NO DITCH TRANSITIONS ARE REQUIRED.

NOTE: EXCAVATION TO GRADE CULVERT INLETS AND OUTLETS BETWEEN THE 4:1 AND 2:1 SLOPE AND EXCAVATION FOR THE RIPRAP, IN CUT AREAS ONLY, WILL BE PAID FOR UNDER ITEM NO. 204-10 STRUCTURAL EARTH EXCAVATION-DRAINAGE.

TYPICAL RIPRAP DETAIL FOR R.C.P. OR A.C.C.M.P.

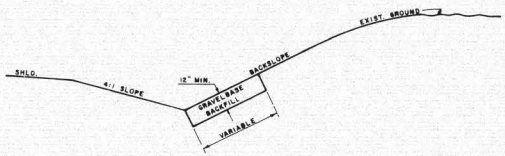


PRECAST PORTLAND CEMENT CONCRETE CATCH BASINS
TYPES C, F, H & I - MANHOLE TYPE B

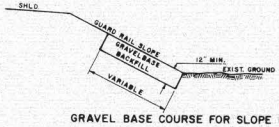


PRECAST PORTLAND CEMENT CONCRETE CATCH BASIN TYPE G
MANHOLE TYPE A

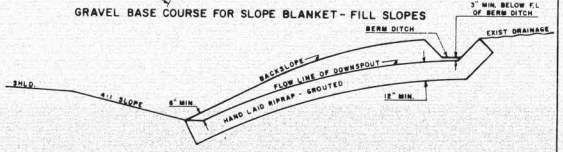
NOTE:
THE THREE SECTIONS DETAILED BELOW SHALL BE USED WHEN DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS



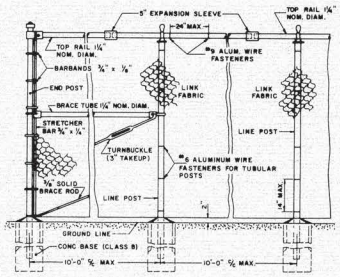
GRAVEL BASE COURSE FOR SLOPE BLANKET - BACKSLOPES



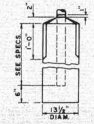
GRAVEL BASE COURSE FOR SLOPE BLANKET - FILL SLOPES



HAND LAID RIPRAP GROUTED DOWNSPOUT



PORTLAND CEMENT CONCRETE (CLASS B)

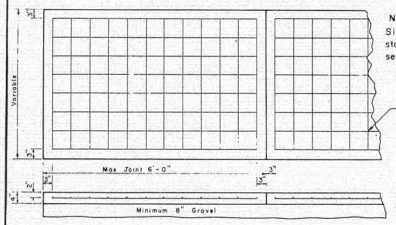


LINE, GATE AND END POST BASE

NOTE
ROUND BASES MAY BE SUBSTITUTED FOR THE SQUARE BASES SHOWN BY USING FIBRE TUBULAR FORMS. SUBSTITUTIONS SHALL BE AS FOLLOWS 13½" I.D. ROUND FOR 12" SQUARE OR 15" SQUARE

" CHAIN LINK FENCE

REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK



NOTE
Sidewalk shall conform to standard specifications section 904.

Welded Steel Wire Fabric 6" x 6" 10/10 Approx. Weight 21 lbs. per 100 sq. ft.

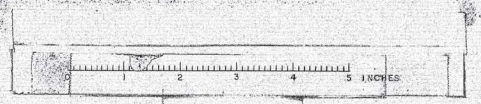
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

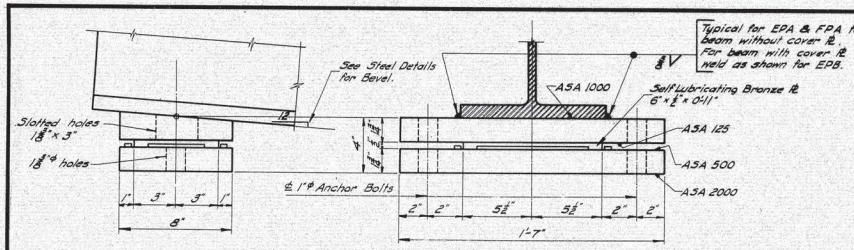
DETAIL OF TRAP, REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK, CHAIN LINK FENCE, TYPICAL RIPRAP DETAIL & PRECAST CATCH BASINS & MANHOLES

MARCH 4-64

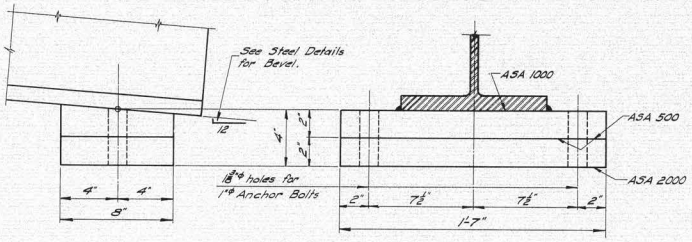
101-244 (ISLAND FALLS (43))



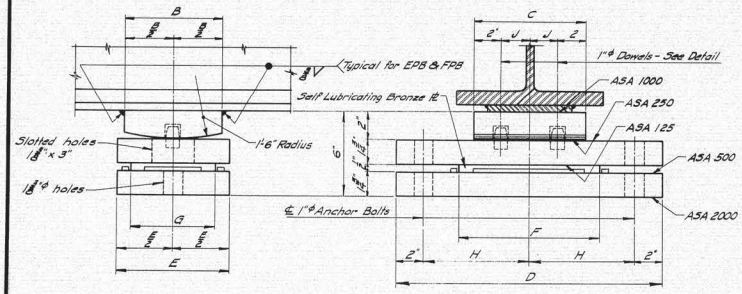
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-15-115-9(63)		



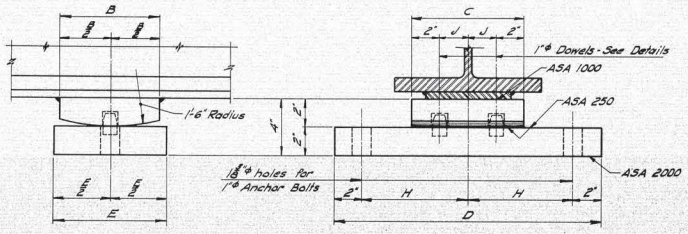
EXPANSION PEDESTAL - EPA



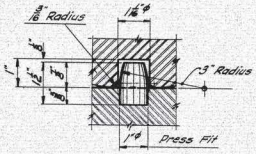
FIXED PEDESTAL - FPA



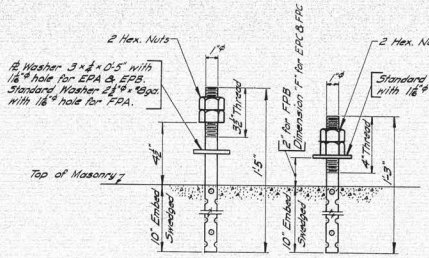
EXPANSION PEDESTAL - EPB



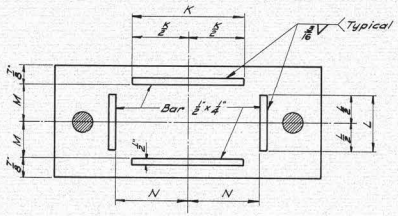
FIXED PEDESTAL - FPB



DOWEL DETAIL

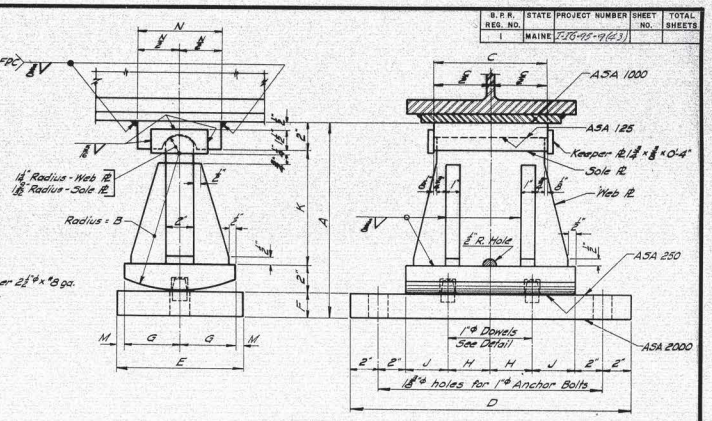


ANCHOR BOLT DETAIL

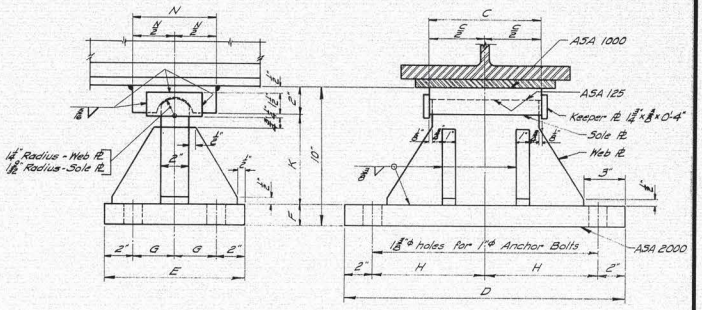


For EPA & EPB

MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS													
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 K	—	—	—	—	—	—	—	—	—	8"	4"	3 1/2"	5 3/8"
FPA	150 K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 K	—	6"	8"	1'-7"	8"	10"	6"	7 1/2"	2"	8"	4"	3 1/2"	5 3/8"
EPB-2	165 K	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3 3/4"	6 3/8"
EPB-3	224 K	—	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	4 1/2"	1'-2"	5"	3 3/4"	6 3/8"
FPB-1	120 K	—	6"	8"	1'-7"	8"	—	—	7 1/2"	2"	—	—	—	—
FPB-2	165 K	—	7"	10"	1'-8"	9"	—	—	8"	3"	—	—	—	—
FPB-3	224 K	—	8"	1'-2"	2'-0"	10"	—	—	10"	5"	—	—	—	—
EPC-1	70 K	3 1/2"	6"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	—	1/2"	6"
EPC-2	100 K	1 1/4"	8"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	—	1/2"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1 3/4"	4"	3"	3"	8 1/2"	—	1/2"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1 3/4"	4"	4"	3"	8 1/2"	—	1/2"	7"
EPC-5	190 K	1'-2 1/2"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	—	1/2"	8"
EPC-6	220 K	1'-4 1/2"	1'-0"	10"	2'-0"	1'-0"	2 1/2"	5"	5"	3"	10 1/2"	—	1"	8"
EPC-7	250 K	1'-4 1/2"	1'-0"	1'-0"	2'-2"	1'-0"	2 1/2"	5"	5"	4"	10 1/2"	—	1"	8"
FPC-1	100 K	—	—	8"	1'-8"	9"	1 1/2"	2 1/2"	8"	—	6 1/2"	—	—	6"
FPC-2	160 K	—	—	8"	1'-8"	10"	1 1/2"	3"	8"	—	6 1/2"	—	—	7"
FPC-3	190 K	—	—	9"	2'-0"	10"	1 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	220 K	—	—	10"	2'-0"	1'-0"	1 3/4"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	250 K	—	—	1'-0"	2'-0"	1'-0"	2"	4"	10"	—	6"	—	—	8"

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than sizes of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of 1/4 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1961, with Interim Specifications, 1961 & 1962

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A7, A36, or A 307
All other - A36.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

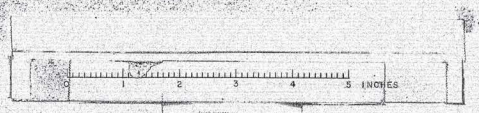
STANDARD DETAILS

(BD 101 - 64)

BEARING PEDESTALS

JANUARY 1964

101-245 ISLAND FALLS (93)



B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
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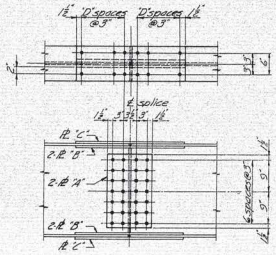
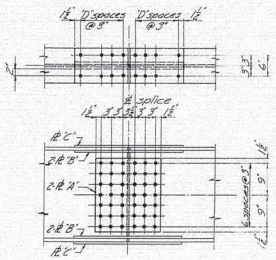
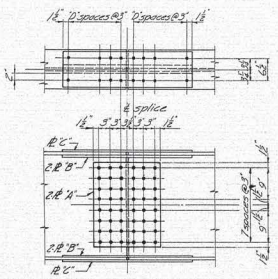


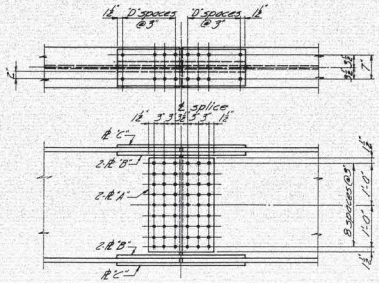
27 WF 84



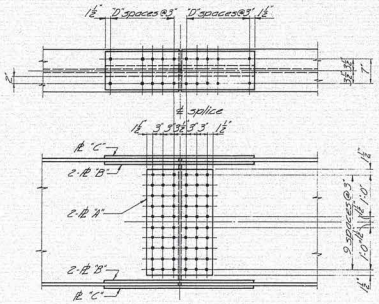
27 WF 94, 102, 114



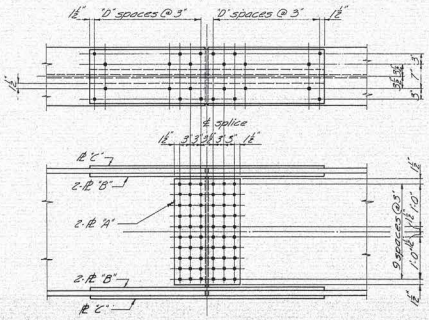
30 WF 99, 108, 116, 124, 132



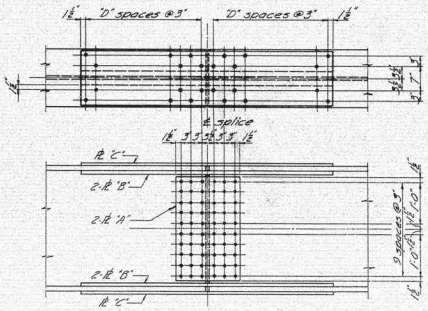
33 WF 118, 130, 141, 152



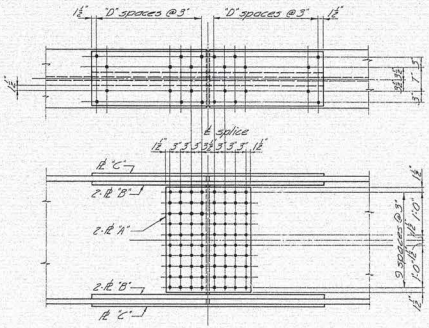
36 WF 135, 150, 160, 170, 182, 194



36 WF 230, 260



36 WF 245, 280



36 WF 300

SPLICE DESIGN, PLATES AND FLANGE HOLES

BEAM	BEND. M.	SHEAR	PLATE "A"	PLATE "B"	PLATE "C"	"D"
27 WF 84	3070 K'	111 K	12½ x ½	4 x 5/16	10 x 5/16	3
27 WF 94	3520 K'	119 K	12½ x 9/16	4 x ½	10 x 7/16	3
27 WF 102	3862 K'	126 K	12½ x 9/16	4 x 5/16	10 x 7/16	4
27 WF 114	4341 K'	140 K	12½ x ⅝	4 x ⅜	10 x ½	4
30 WF 99	3921 K'	139 K	12½ x ½	4 x ⅜	10 x ⅜	3
30 WF 108	4360 K'	147 K	12½ x 9/16	4 x 5/16	10 x 7/16	4
30 WF 116	4780 K'	152 K	12½ x 9/16	4 x ⅜	10 x 7/16	4
30 WF 124	5170 K'	159 K	12½ x 9/16	4 x 7/16	10 x ½	4
30 WF 132	5530 K'	168 K	12½ x ⅝	4 x ⅜	10 x 9/16	5
33 WF 118	5287 K'	164 K	12½ x ½	4 x 9/16	11 x 7/16	4
33 WF 130	5978 K'	179 K	12½ x ⅝	4 x ⅜	11 x 9/16	5
33 WF 141	6604 K'	181 K	12½ x 9/16	4 x 11/16	11 x ½	5
33 WF 152	7193 K'	191 K	12½ x 9/16	4 x ⅝	11 x 7/16	6
36 WF 135	6473 K'	191 K	12½ x ½	4 x 7/16	11 x 9/16	4
36 WF 150	7436 K'	202 K	12½ x ⅝	4 x 11/16	11 x ½	5
36 WF 160	8005 K'	212 K	12½ x 9/16	4 x ⅝	11 x 9/16	6
36 WF 170	8574 K'	221 K	12½ x 9/16	4 x 13/16	11 x ⅝	6
36 WF 182	9204 K'	237 K	12½ x 9/16	4 x 15/16	11 x 11/16	7
36 WF 194	9838 K'	253 K	12½ x ¾	4 x 1	11 x ¾	8
36 WF 230	12574 K'	247 K	12½ x 11/16	6 x 1	16 x ⅝	10
36 WF 245	13441 K'	260 K	12½ x 11/16	6 x 1	16 x 11/16	11
36 WF 260	14330 K'	276 K	12½ x ¾	6 x 1 1/16	16 x ¾	12
36 WF 280	15351 K'	291 K	12½ x ⅞	6 x 1 3/16	16 x 13/16	13
36 WF 300	16676 K'	312 K	12½ x 15/16	6 x 1 ⅜	16 x ⅞	14

GENERAL NOTES

1. Splice connections to be made with ⅞" ϕ high tensile strength bolts. Holes to be 15/16" ϕ.

2. The design bending moment is 90% of the net resisting moment of the beam with an allowable stress of 20,000 p.s.i. The design shear is 75% of the shear strength of the gross section of the web with an allowable stress of 12,000 p.s.i.

3. If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design details. See design details for filler plate dimensions. △

4. See design details for slopes of beams in order to correctly fabricate bevels at the splices.

A.S.T.M. STEEL CLASSIFICATION

High Tensile Strength Bolts A-325
Splice Plates A-36

DESIGN SPECIFICATIONS

AASHO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 & 1962

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

(BD 103-64)

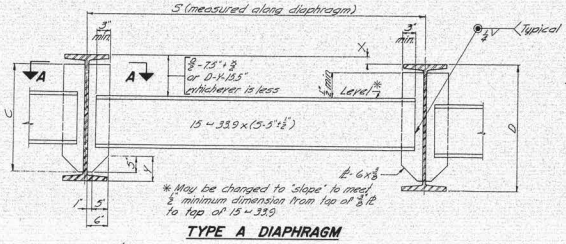
BEAM SPLICES

△ Revised Feb. 1966

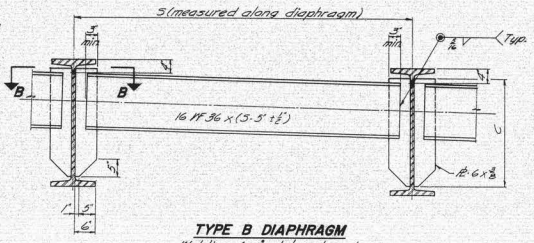
JANUARY 1964

101-246 ISLAND FALLS (43)

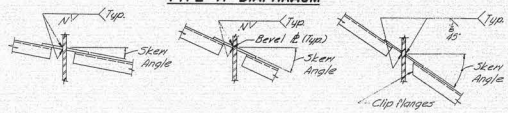
B.P.R. DIV. NO	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-76-(3)-(4)(7)		



TYPE A DIAPHRAGM



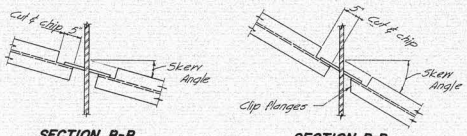
TYPE B DIAPHRAGM
Welding 6x3/8 plates to web same as for Type A Diaphragm.



SECTION A-A
Skew Angle 0° to 18°-30'

SECTION A-A
Skew Angle over 18°30' to 30°-00'

SECTION A-A
Skew Angle over 30°-00'



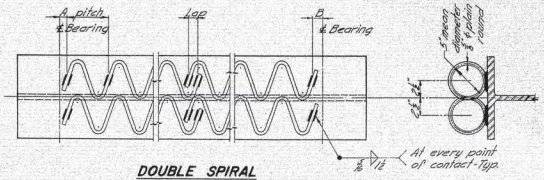
SECTION B-B
Skew Angle 0° to 25°-00'

SECTION B-B
Skew Angle over 25°-00'

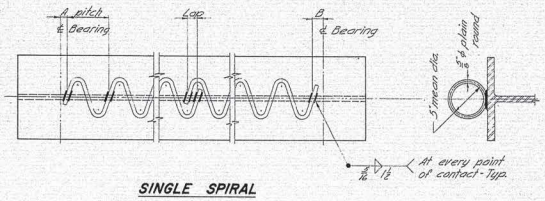
NOTE
See design details for diaphragm type, location and skew.

FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM PLATES		
BEAM	C	N
27 PF 84 to 114 incl.	1'-11"	1/2"
30 PF 99 to 132 incl.	2'-2"	1/2"
33 PF 118 to 152 incl.	2'-5"	1/2"
36 PF 135 to 194 incl.	2'-7"	1/2"
36 PF 230 to 300 incl.	2'-6"	5/8"

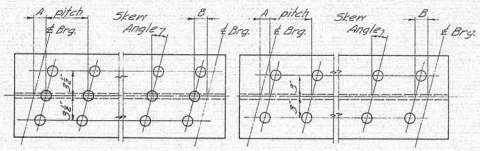
DIAPHRAGMS



DOUBLE SPIRAL



SINGLE SPIRAL

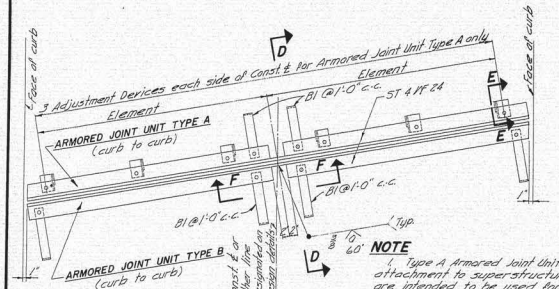


TRIPLE STUDS **DOUBLE STUDS**

STUD DETAIL

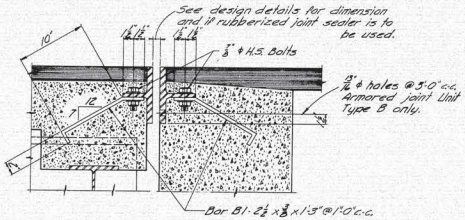
NOTE
1. Spiral reinforcing or studs may be used at the option of the Contractor.
2. If studs are used they shall be granular or solid flux filled and automatically end welded to the top flange in the shop or field.
3. Studs are a patented product. If the Contractor elects to use them, he shall pay the royalty and payment to the contractor will be included in the lump sum price for Shear Connectors.
4. See the design details for Dimensions "A" and "B", spiral and stud pitch and Skew Angle for Studs.

SHEAR CONNECTORS



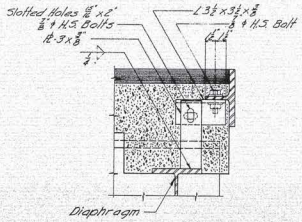
PLAN

NOTE
1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two Type A Armored Joint Units shall be used.
2. If rubberized joint sealer is called for on the design details the area to which it is to be bonded shall not be painted and it shall be supported on non-bituminous material. At the Contractor's option the supporting material may be left in place or be removed. If the supporting material is left in place, it shall be compressible in accordance with specification AASHO M 153-54. In either case bond between the supporting material and the rubberized joint sealer shall be prevented by a 1" minimum thickness of Poly-urethane foam.
3. If more elements than the two shown in the "Plan" are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the "Plan".
4. Armored Joints to be paid for as Structural Steel.

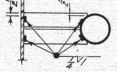


ARMORED JOINT UNIT TYPE A — ARMORED JOINT UNIT TYPE B

SECTION D-D

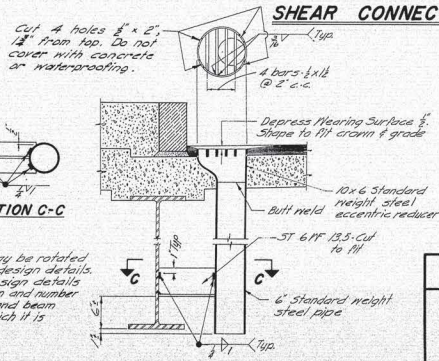


SECTION E-E
Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld 3/8" PL to angle with 1/4" fillet



SECTION C-C

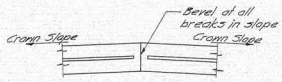
NOTE
1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.



DRAIN

Revised Nov. 1964, Welding Drain Support

GENERAL NOTE
Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.



SECTION F-F
Note: See design details for Const. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

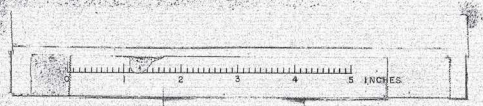
ARMORED JOINT
An armored joint consists of two armored joint units. See note 1.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 104-64)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

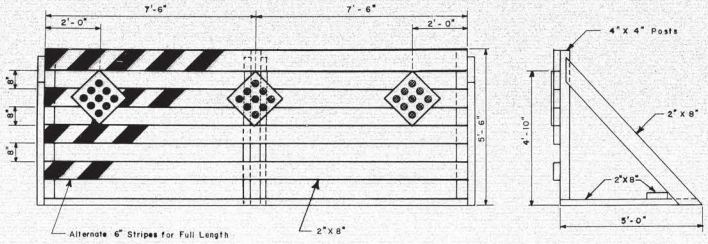
JANUARY 1964

101-247 ISLAND FALLS (93)

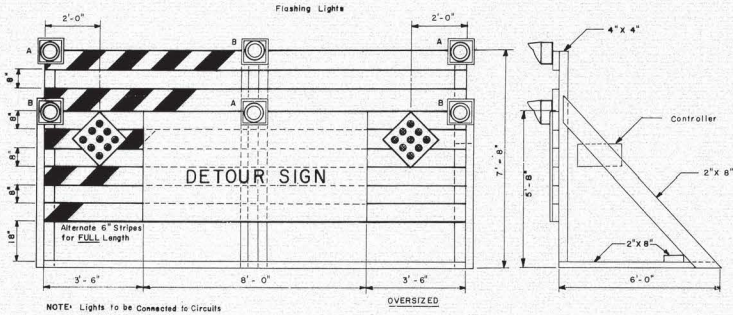


B.P.R. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	[illegible]		

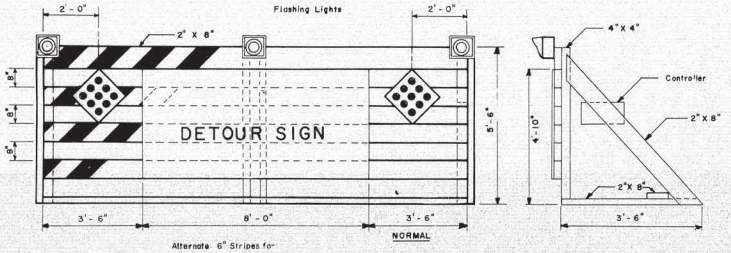
PORTABLE BARRICADE



PORTABLE BARRICADES WITH FLASHING LIGHTS AND DETOUR SIGN



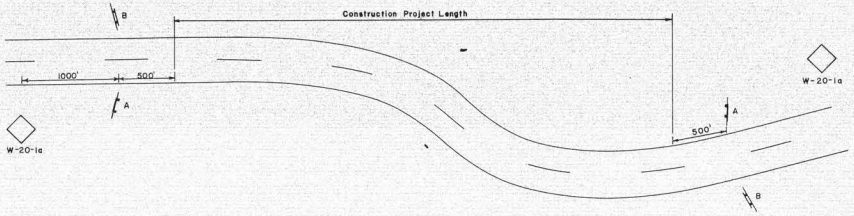
NOTE: Lights to be Connected to Circuits A & B as shown above

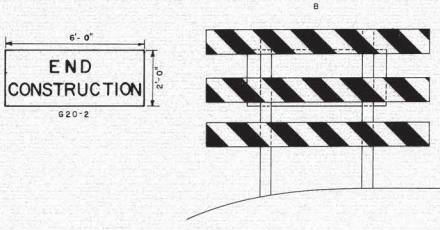


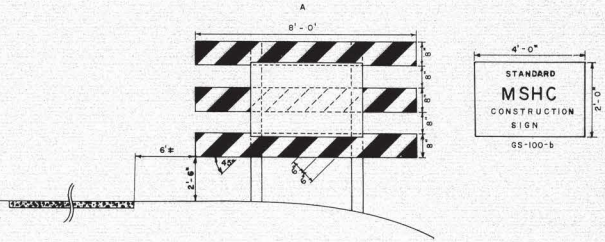
Alternate 6" Stripes for the FULL Length

Barricade Scale 1" = 2'-0"

WING BARRICADES

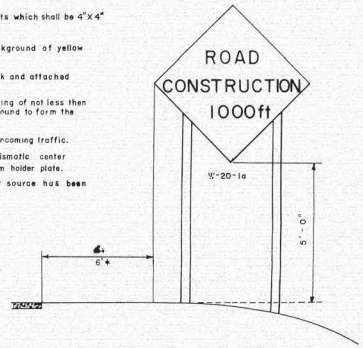






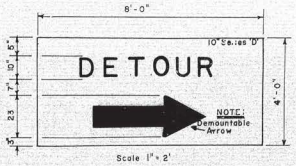
GENERAL NOTES
PORTABLE BARRICADES

1. Lumber sizes for use on barricades shall be 2" X 8" except for posts which shall be 4" X 4"
2. DETOUR sign shall be 5/8" thick plywood
3. The word "DETOUR" shall be painted or screened in black on a background of yellow Reflective sheeting.
4. The demountable arrow shall be of 1/4" plywood painted black and attached securely by not less than three bolts.
5. 6" Stripes of silver reflective sheeting on an aluminum backing of not less than 0.019 gage shall be securely attached to a black painted background to form the alternate stripes
6. Flashing lights shall be mounted to permit rotation to face oncoming traffic.
7. Hazard markers shall consist of nine (9) acrylic plastic prismatic center mount type reflectors assembled to an 18" diamond aluminum holder plate.
8. Location of service and meter to be determined after power source has been decided

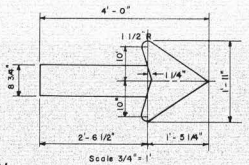


GENERAL NOTES
WING BARRICADES

1. Lumber sizes for use on WING Barricades shall be 1" X 8" except for posts which will be 4" X 4"
2. 6" Stripes of silver reflective sheeting on an aluminum backing of not less than 0.019 gage shall be securely attached to a black painted background to form the alternate stripes.
3. Signs G20-2, W20-1a, and GS-100-b will be furnished by the State Highway Commission
4. Location of signs and barricades will be determined by the engineer.
5. Lighting when specified under special provisions shall be mounted on the wing barricades.
6. Wing barricades shall not be used, unless specifically called for in the special provisions.



Scale 1" = 2'



Scale 3/4" = 1'

DETOUR SIGN

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD BARRICADE DETAIL

SCALE: AS NOTED

101-248 ISLAND FALLS (43)

58

1 2 3 4 5 INCHES