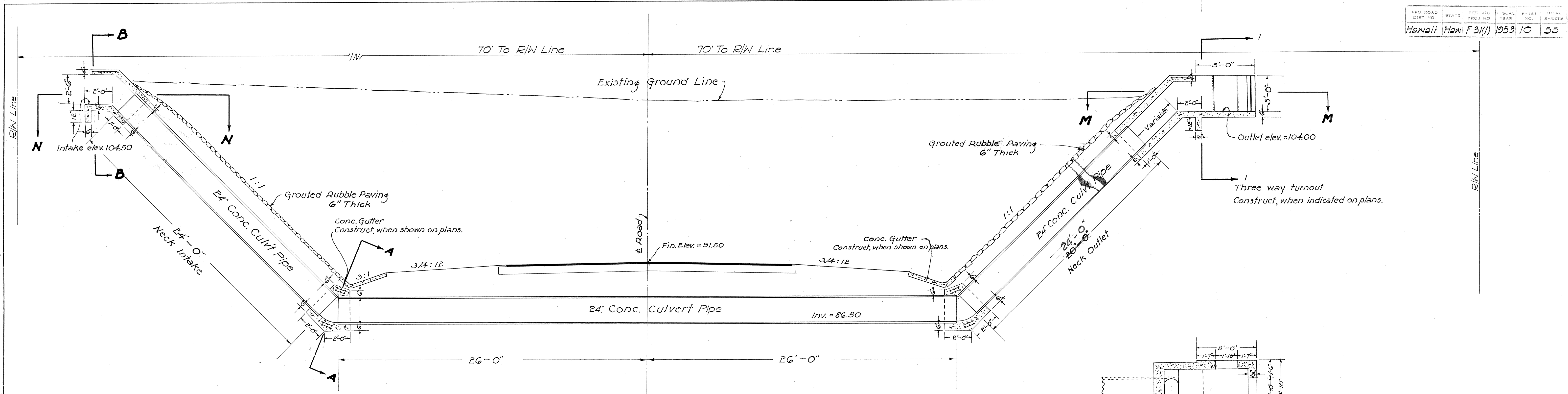
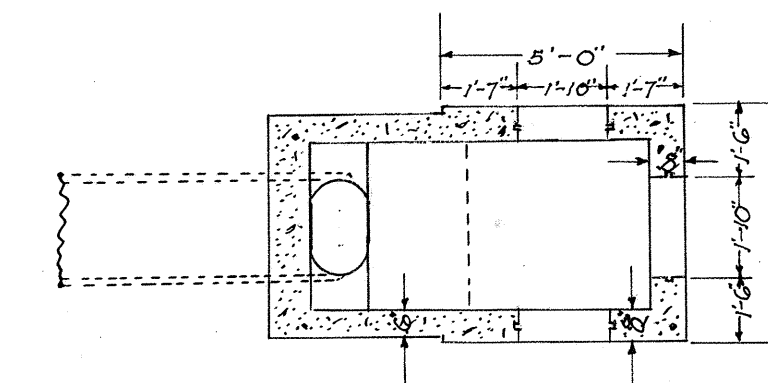
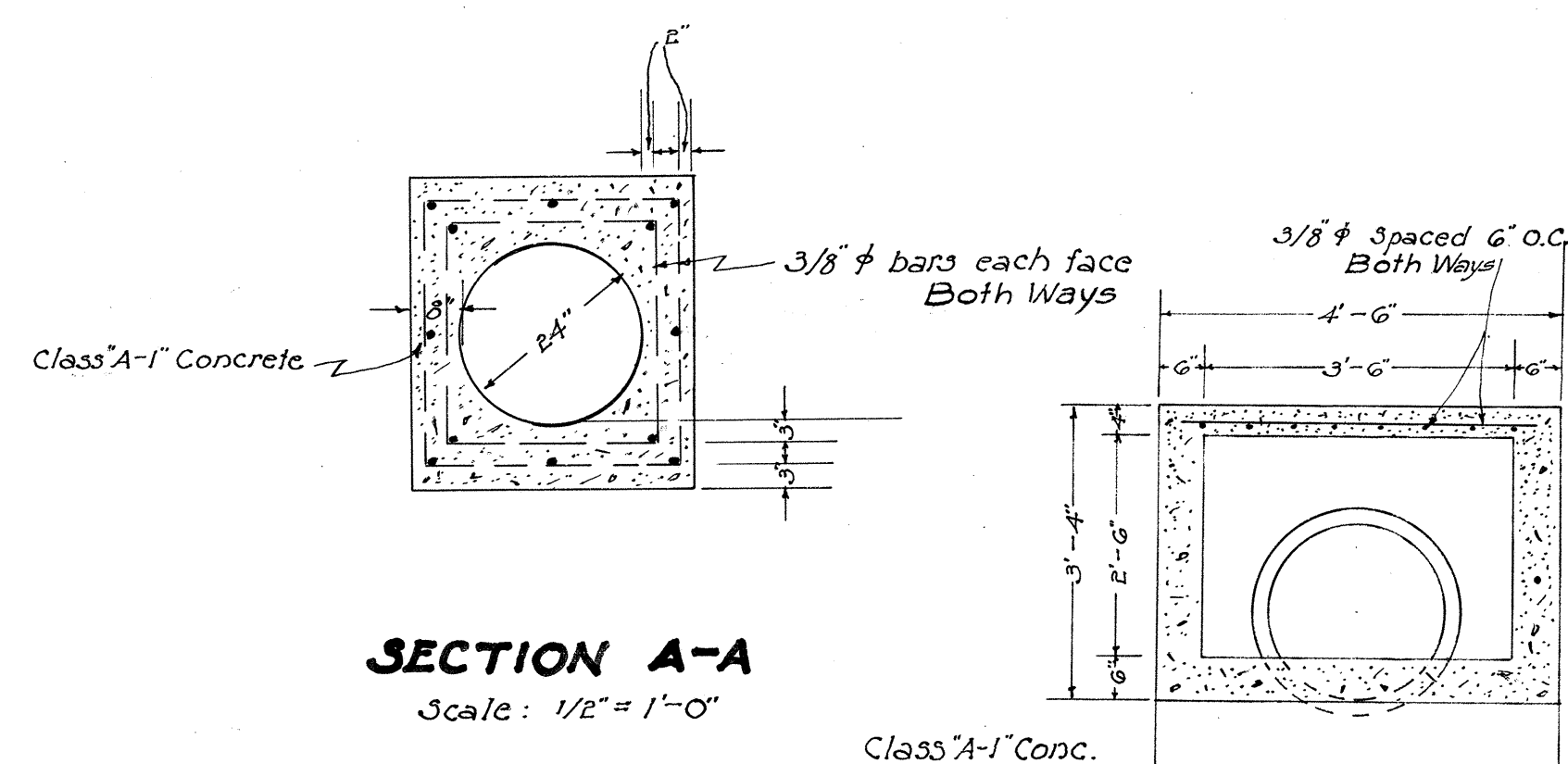


SECTION N-N
Scale: 1/4" = 1'-0"

**SECTION OF SYPHON
AT STA. 36+20**
Scale: 1/4" = 1'-0"

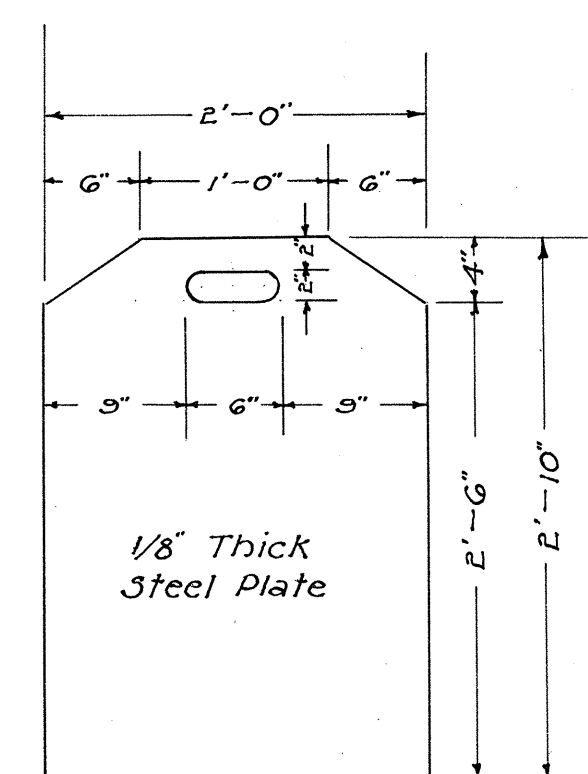


SECTION M-M
Scale: 1/4" = 1'-0"



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

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



DETAIL OF STEEL GATE
Scale: 1" = 1'-0"

ESTIMATED QUANTITIES

Structural Excavation	66.5 C.Y.
24" Culvert Pipe	138 feet
Class A-1 Concrete	5.5 C.Y.
Grouted Rubble Paving	6.8 C.Y.
Reinforcing Steel	100 lbs.
Steel Gates	2

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

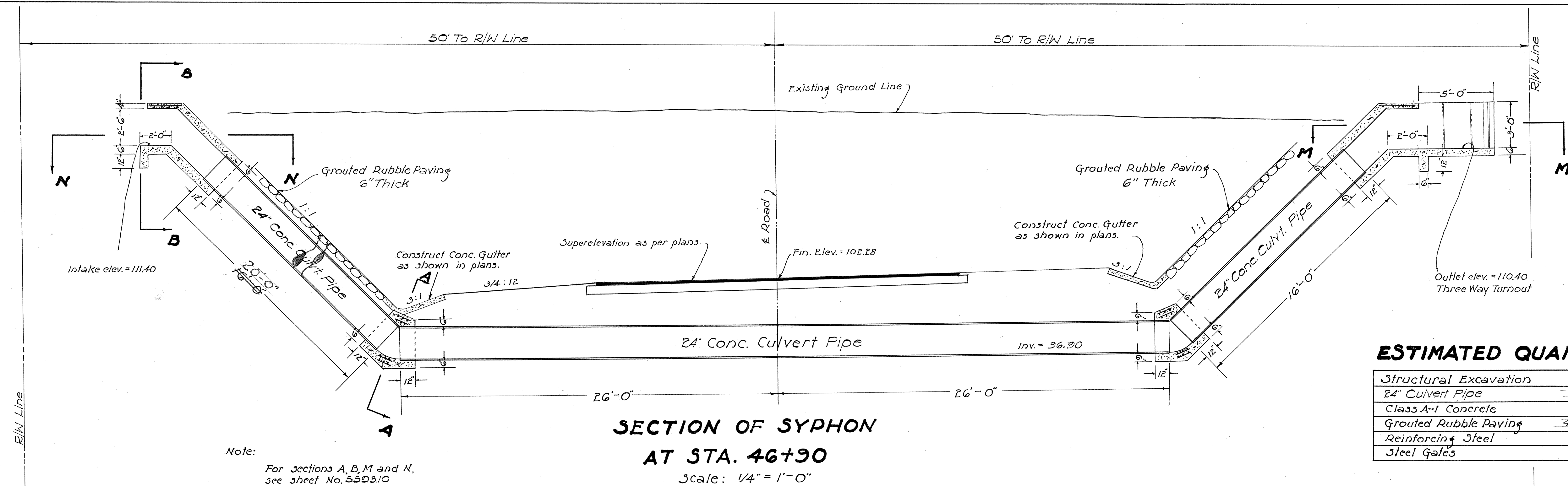
DETAIL OF SYPHON
STA. 36+20
KAUAI BELT ROAD
Proj. No. F 31(1)

Scales: As Shown

January 1953

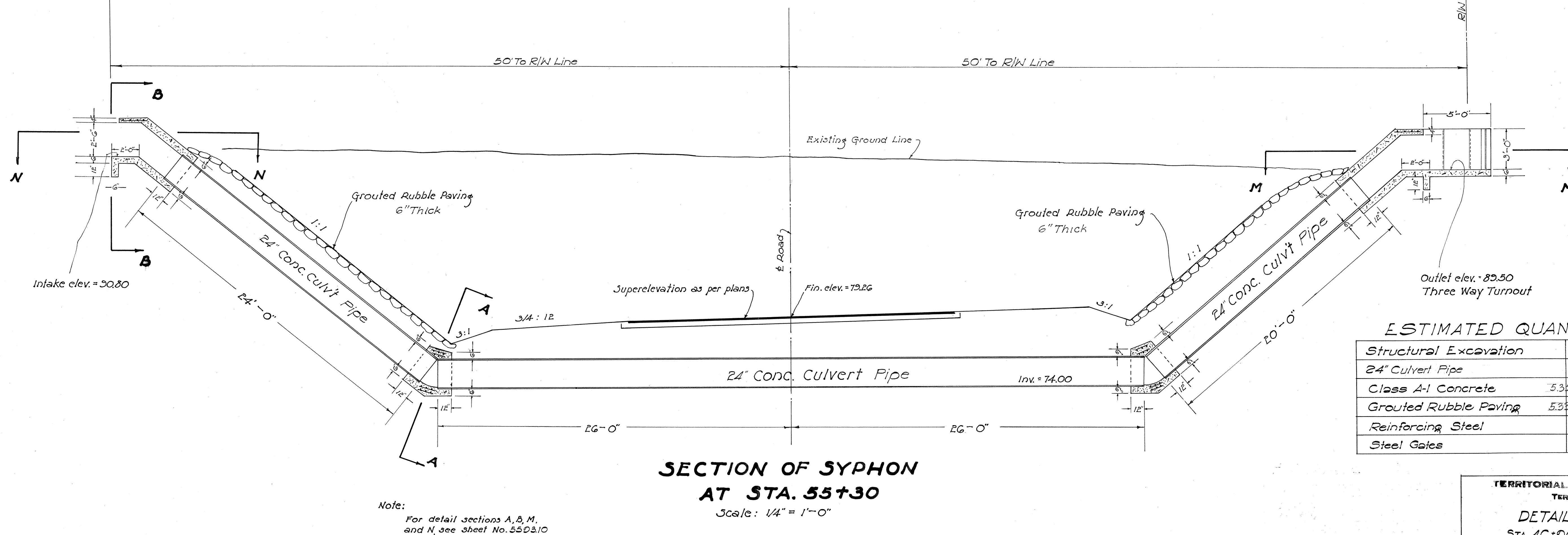
SHEET No. 1 OF 1 SHEETS

5593.10



ESTIMATED QUANTITIES

Structural Excavation	68 C.Y.
24" Culvert Pipe	38.84 feet
Class A-1 Concrete	3.80 C.Y.
Grouted Rubble Paving	4.538.00 C.Y.
Reinforcing Steel	100 lbs.
Steel Gates	2



ESTIMATED QUANTITIES

Structural Excavation	70 c.y.
24" Culvert Pipe	26 feet
Class A-1 Concrete	5.355.80 c.y.
Grouted Rubble Paving	5.339.80 c.y.
Reinforcing Steel	100 lbs.
Steel Gates	2

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

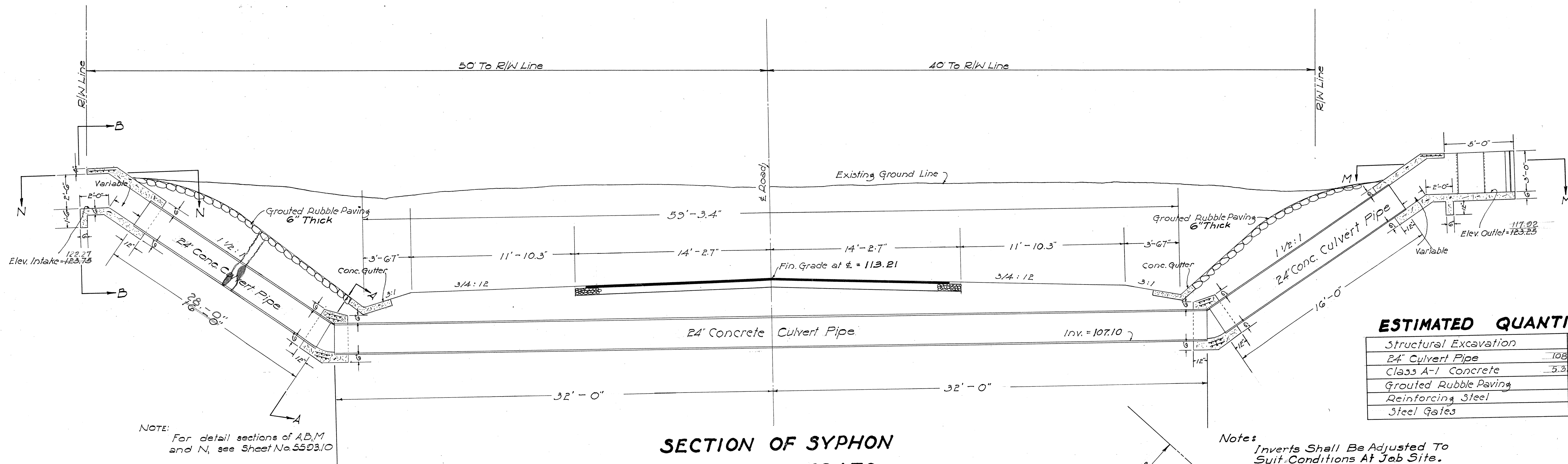
DETAIL OF SYPHONS
STA. 46+00 & STA. 55+30
KAUAI BELT ROAD
Proj. No. F 31(1)

Scales: As Shown

January 1953

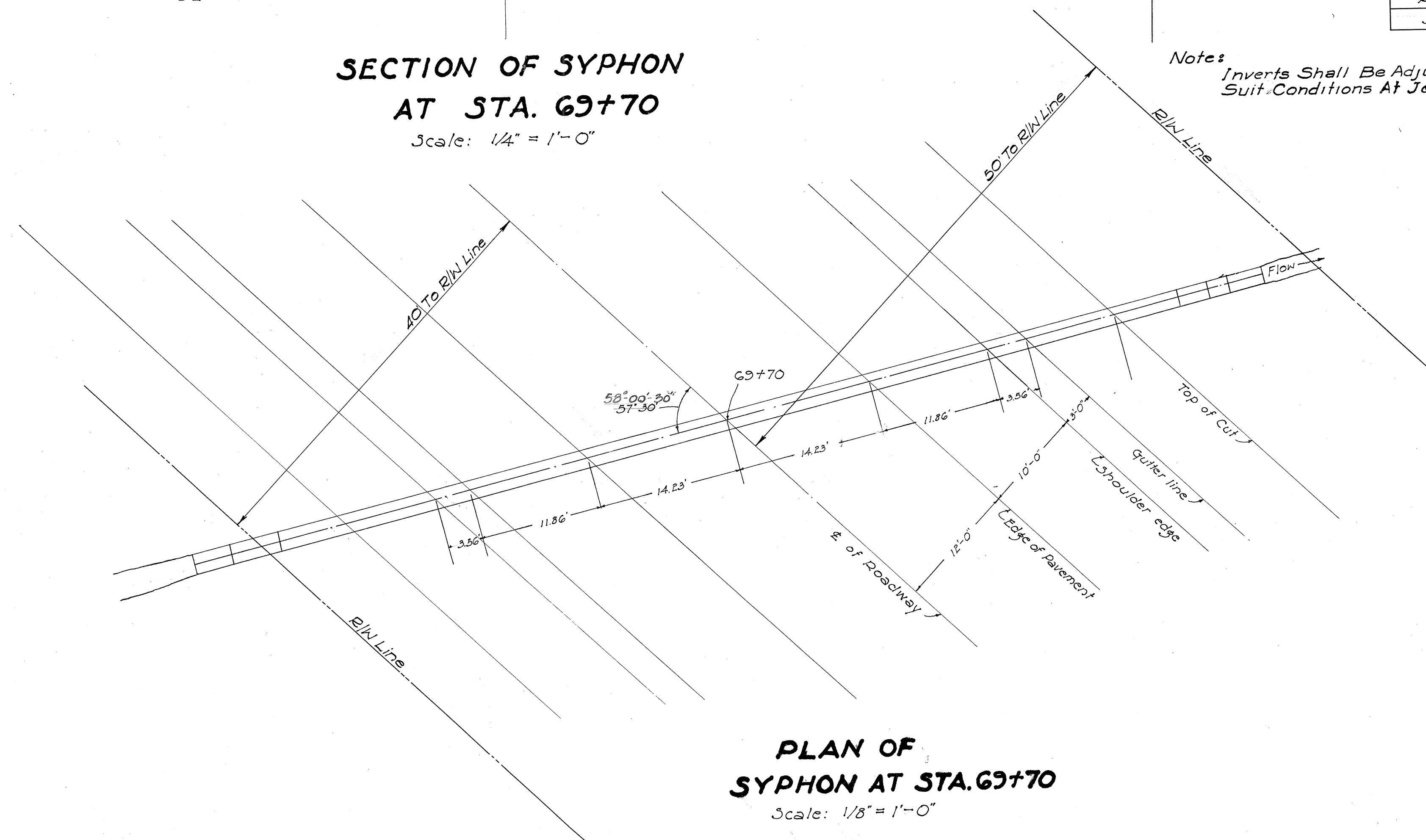
SHEET No. 1 OF 1 SHEETS

5593.11



ESTIMATED QUANTITIES

Structural Excavation	4.5 C.Y.
24" Culvert Pipe	108.96 lin.ft.
Class A-1 Concrete	5.35 C.Y.
Grouted Rubble Paving	5.6 C.Y.
Reinforcing Steel	100 lbs.
Steel Gates	2



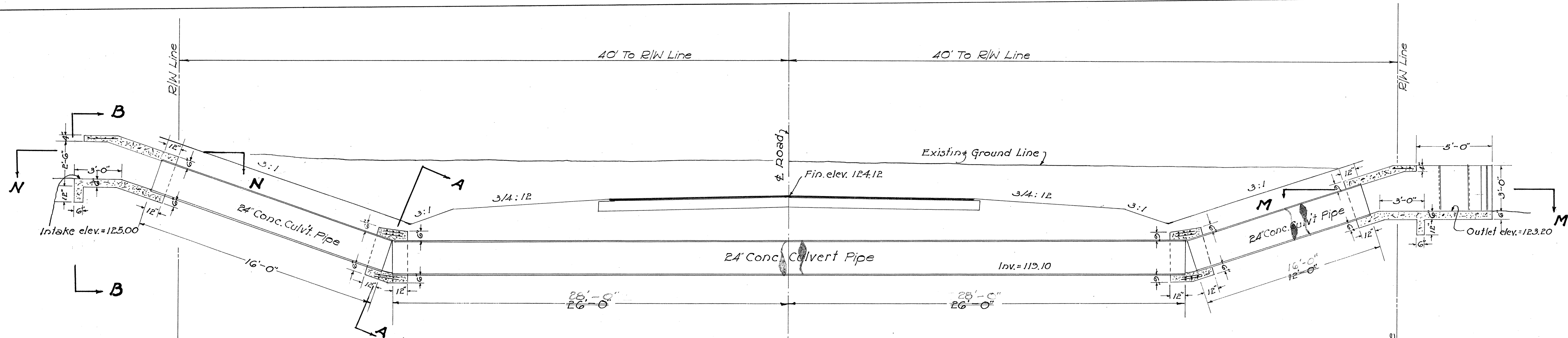
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
CHECKED BY	
ORIGINAL PLAN	No.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAIL OF SYPHON
STA. 69+70
KAUAI BELT ROAD
Proj. No. F31(1)

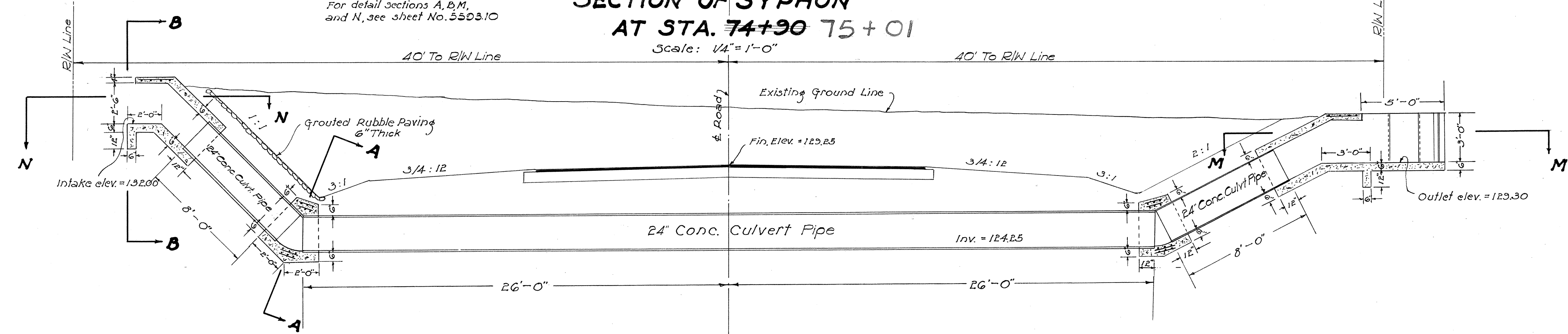
Scales: As Shown January 1953

SHEET No. 1 OF 1 SHEETS

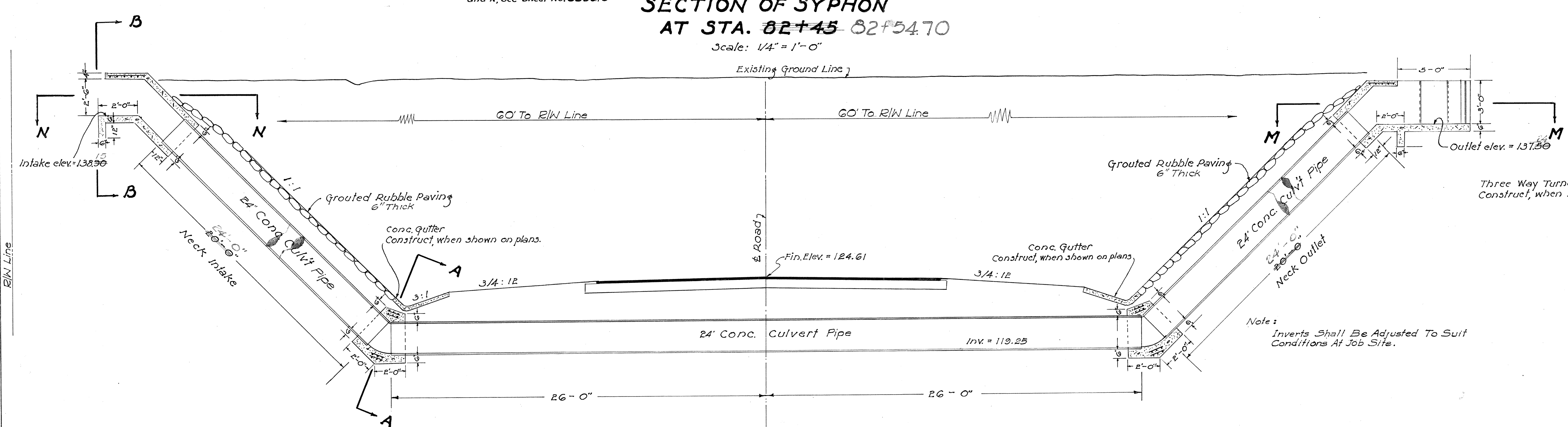
5593.12



**SECTION OF SYPHON
AT STA. 74+00 75+01**
Scale: 1/4" = 1'-0"



**SECTION OF SYPHON
AT STA. 82+45 82+54.70**
Scale: 1/4" = 1'-0"



**SECTION OF SYPHON
AT STA. 88+45**
Scale: 1/4" = 1'-0"

ESTIMATED QUANTITIES

Structural Excavation	25.60 C.Y.
24" Culvert Pipe	88.80 feet
Class A-1 Concrete	13.94 C.Y.
Reinforcing Steel	100 lbs.
Steel Gates	2

ESTIMATED QUANTITIES

Structural Excavation	55 C.Y.
24" Culvert Pipe	68 feet
Class A-1 Concrete	244.50 C.Y.
Grouted Rubble Paving	2.50 C.Y.
Reinforcing Steel	100 lbs.
Steel Gates	2

ESTIMATED QUANTITIES

Structural Excavation	70 C.Y.
24" Culvert Pipe	100.92 feet
Class A-1 Concrete	13.47 C.Y.
Grouted Rubble Paving	4.44 C.Y.
Reinforcing Steel	422 lbs.
Steel Gates	2

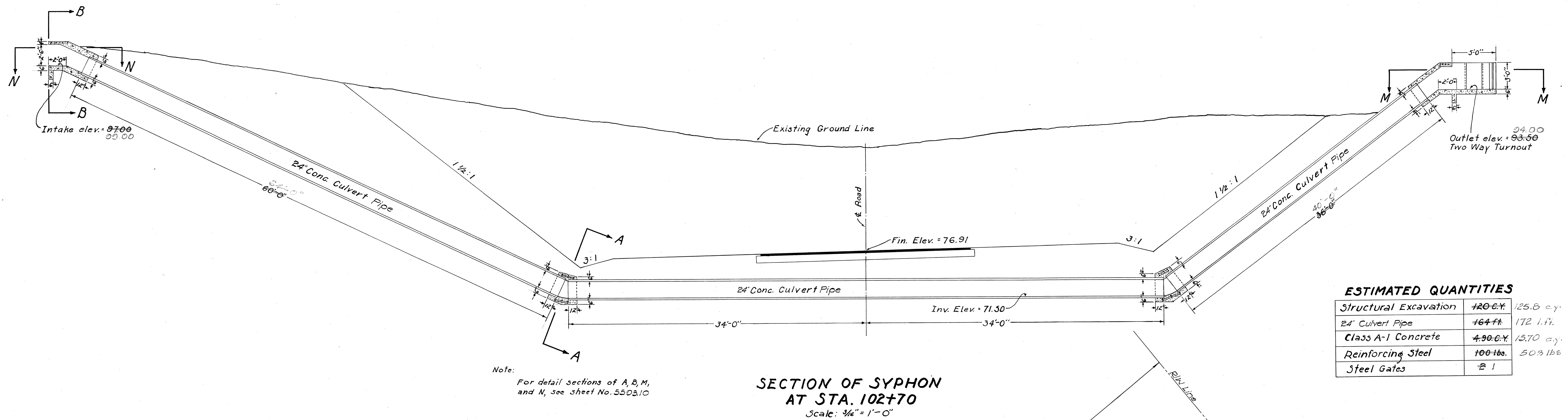
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

DETAIL OF SYPHONS
STA. 74+00; STA. 82+45; STA. 88+45
KAUAI BELT ROAD
PROJ. No. F 31(1)

Scales: As Shown January 1953

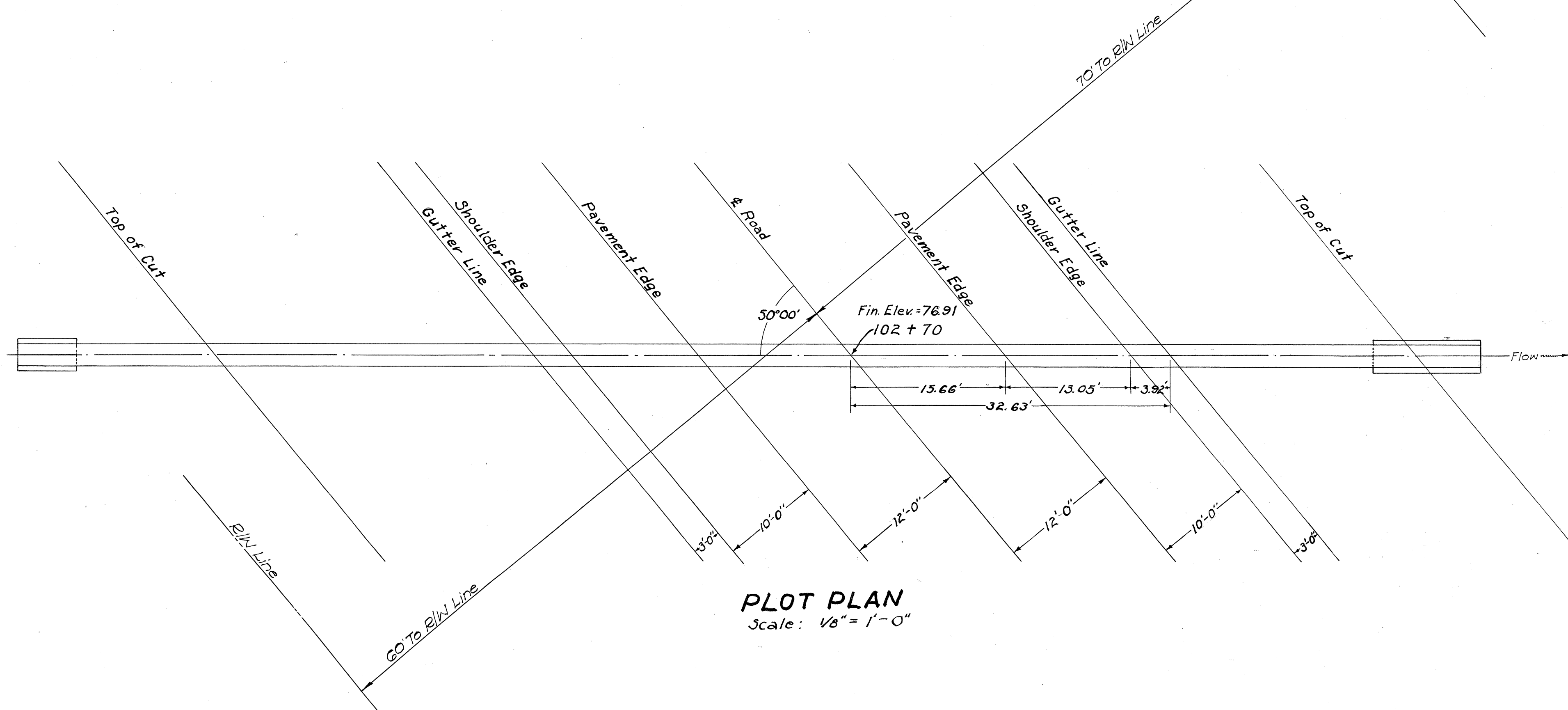
SHEET No. 1 OF 1 SHEETS

5593.13



ESTIMATED QUANTITIES

Structural Excavation	120.0 Y	125.8 c.y.
24" Culvert Pipe	464 ft.	172 l.ft.
Class A-1 Concrete	490.0 Y	15.70 c.y.
Reinforcing Steel	100 lbs.	50.3 lbs.
Steel Gates	2	



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

DETAIL OF SYPHON
STA. 102+70

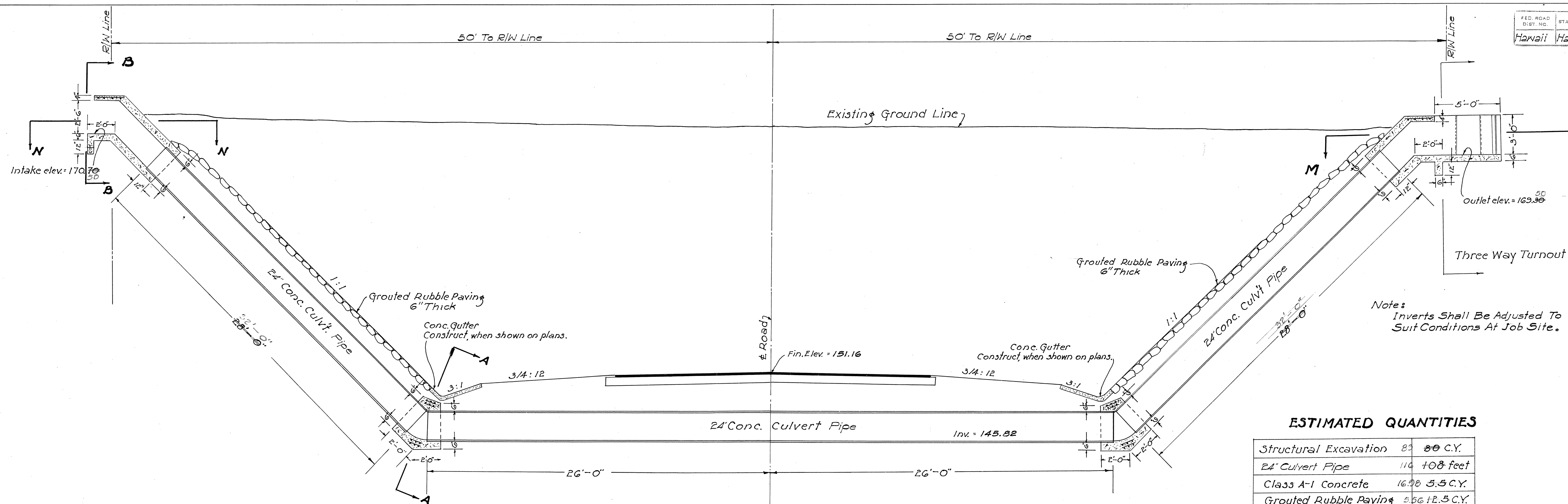
KAUAI BELT ROAD
Proj. No. F 31(1)

Scales: As Shown

January 1953

SHEET No. 1 OF 1 SHEETS

5593.14

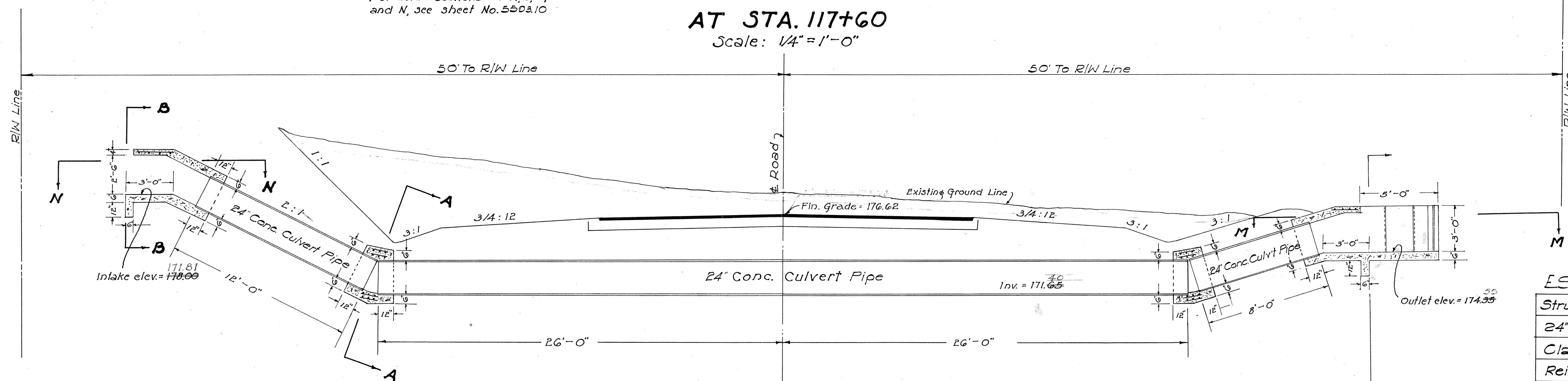


Note:
For detail sections of A, B, M,
and N, see sheet No. 5503.10

SECTION OF SYPHON AT STA. 117+60 Scale: 1/4" = 1'-0"

ESTIMATED QUANTITIES

Structural Excavation	82	80 C.Y.
24" Culvert Pipe	110	108 feet
Class A-1 Concrete	16.08	5.5 C.Y.
Grouted Rubble Paving	5.56	12.5 C.Y.
Reinforcing Steel	455	100 lbs.
Steel Gates	2	1



Note:
For detail sections A, B, M,
and N, see sheet No. 5503.10

SECTION OF SYPHON AT STA. 135+20 Scale: 1/4" = 1'-0"

ESTIMATED QUANTITIES

Structural Excavation	57	C.Y.
24" Culvert Pipe	72	feet
Class A-1 Concrete	5.0	4.5 C.Y.
Reinforcing Steel	100	lbs.
Steel Gates	2	1

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

DETAIL OF SYPHONS
STA. 117+60 & STA. 135+20

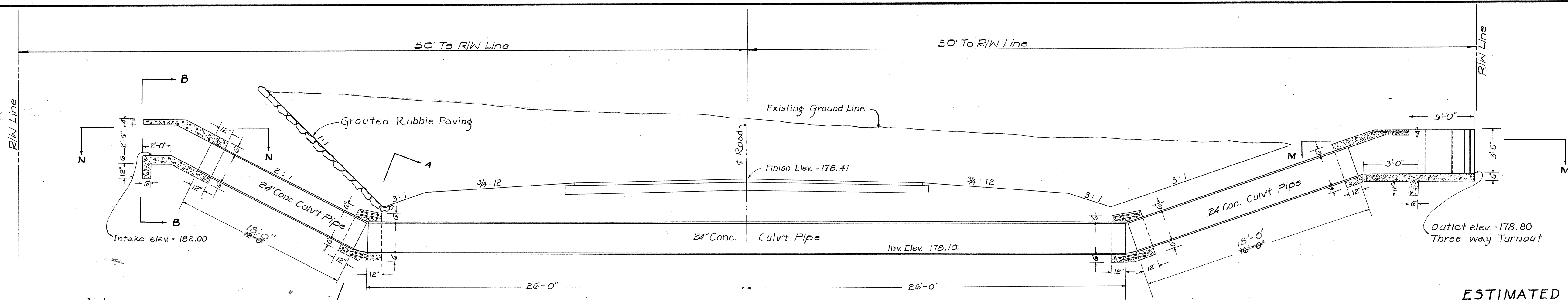
KAUAI BELT ROAD
Proj. No. F 31(1)

Scales: As Shown

January 1953

SHEET No. 15 OF 55 SHEETS

5593.15



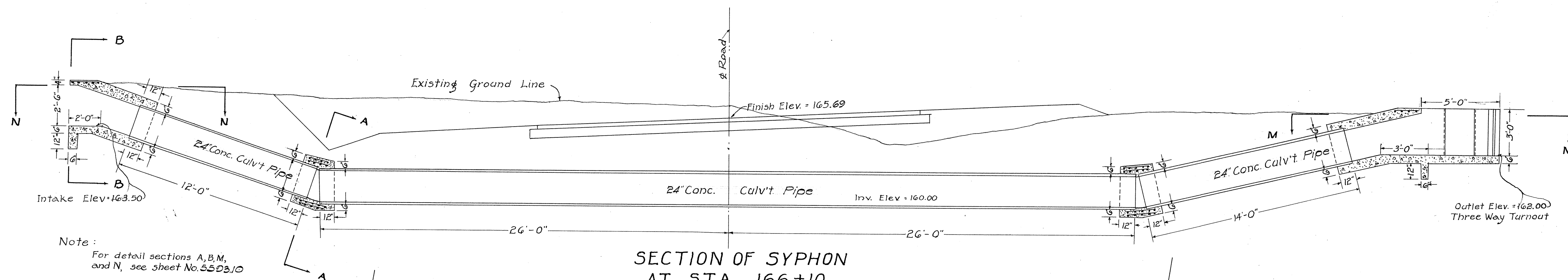
Note:
For detail sections of A, B, M,
and N, see sheet No. 5593.10

SECTION OF SYPHON
AT STA. 138+40
Scale 1/4" = 1'

ESTIMATED QUANTITIES

Structural Excavation	67.57 c.y.
24" Culvert Pipe	86.88 feet
Class A-1 Concrete	5.00 c.y.
Grouted Rubble Paving	2.80 c.y.
Reinforcing Steel	100 lbs.
Steel Gates	2

Note:
Invert Shall Be Adjusted To
Suit Condition At Job Site.



Note:
For detail sections A, B, M,
and N, see sheet No. 5593.10

SECTION OF SYPHON
AT STA. 166+10
Scale 1/4" = 1'

ESTIMATED QUANTITIES

Structural Excavation	42 c.y.
24" Culvert Pipe	507.8 feet
Class A-1 Concrete	5.0 c.y.
Grouted Rubble Paving	
Reinforcing Steel	100 lbs.
Steel Gates	2



PLOT PLAN
Scale 1/8" = 1'

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAIL OF SYPHONS
STA. 138+40 & STA. 166+10
KAUAI BELT ROAD
PROJ. NO. F31(1)

Scales: As Shown

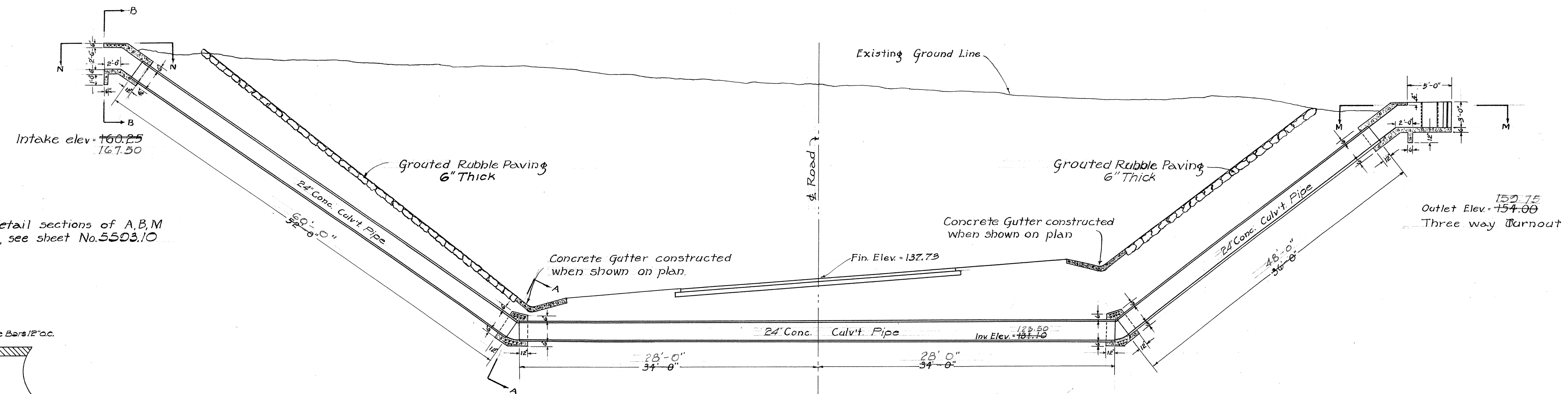
January 1953

SHEET No. 1 OF 1 SHEETS

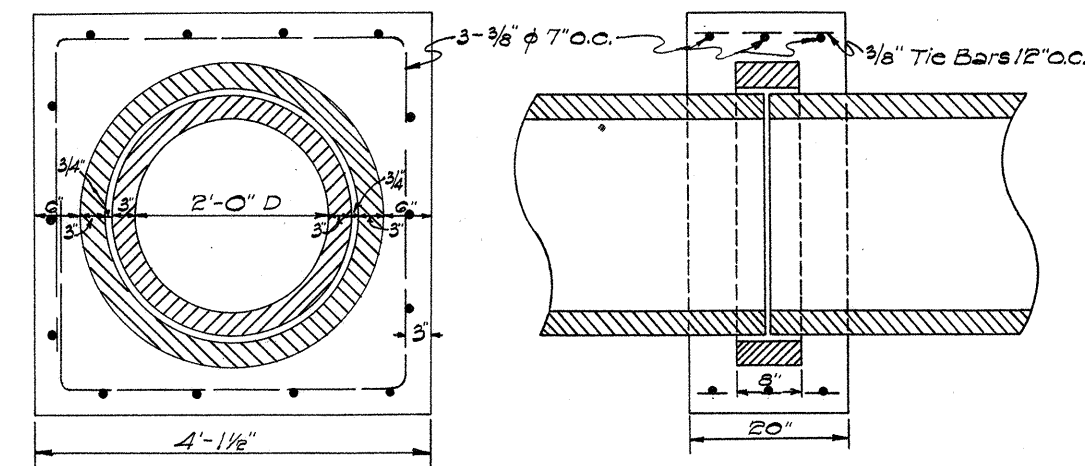
5593.16

DATE	_____
DESIGNED BY	_____
DRAWN BY	_____
CHECKED BY	_____
NOTE BOOK NO.	_____

5/15/53



Note: For detail sections of A,B,M and N, see sheet No. 5503.10



DETAILS OF CONCRETE JACKETS
Scale: 1/2" = 1'-0"

SECTION OF SYPHON AT STA. 176+00

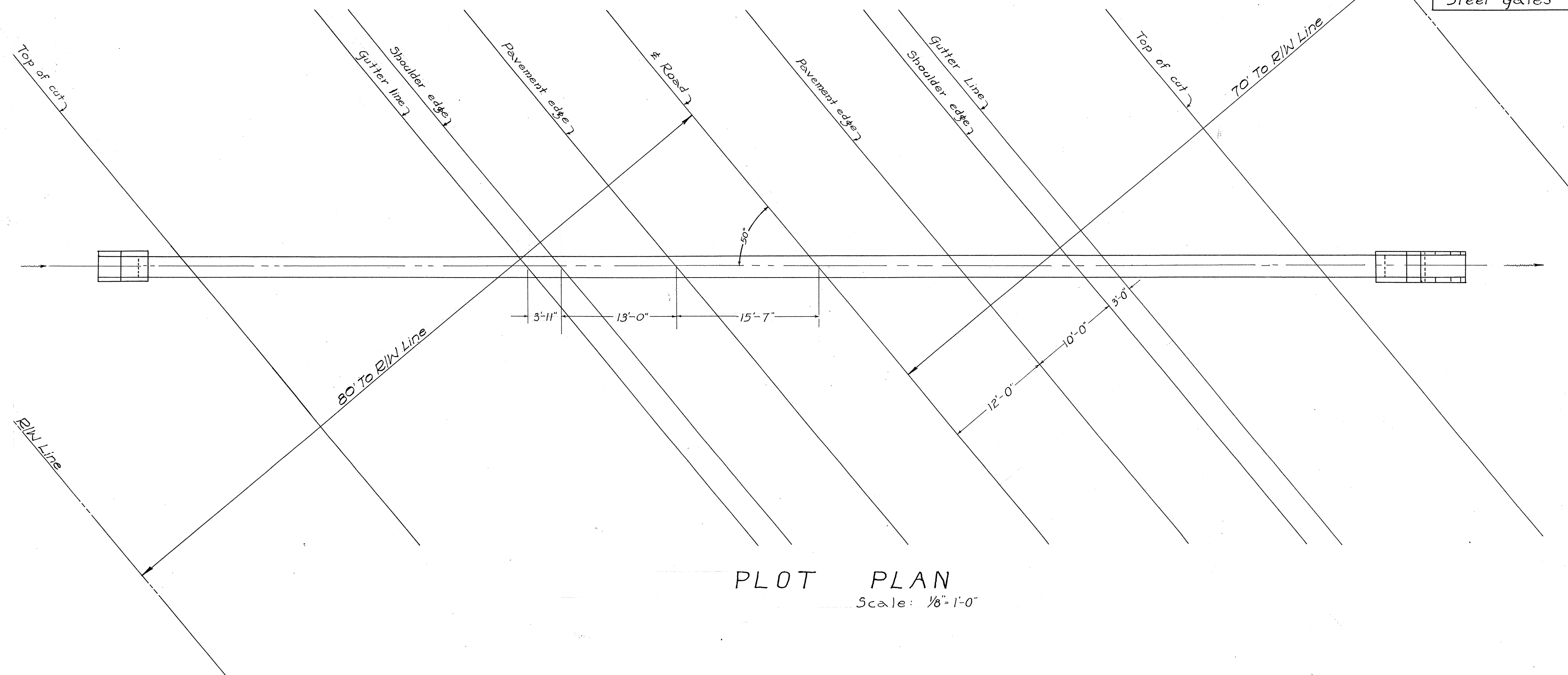
Scale: 1/8" = 1'-0"

ESTIMATED QUANTITIES

Structural Excavation	120	# c.y.
24" Culvert Pipe	168	# feet
Class A-1 Concrete	15.84	# c.y.
Grouted Rubble Paving	13.12	# c.y.
Reinforcing Steel	427	# lbs.
Steel Gates	2	

NOTE:
CONCRETE JACKETS SHALL BE REQUIRED
AT ALL JOINTS IN SYPHONS LOCATED
AT THE FOLLOWING STATIONS:
STA. 88+45
STA. 102+70
STA. 117+00
STA. 176+00

TOTAL ADDITIONAL QUANTITIES
CLASS A-1 CONC. = 40.8 c.y.
REINF. STEEL = 1,487 lb.



PLOT PLAN
Scale: 1/8" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAIL OF SYPHON
STA. 176+00
KAUAI BELT ROAD
Proj. No. F31(1)

Scales: As Shown January 1953

SHEET No. 1 OF 1 SHEETS

5593.17

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
No.	