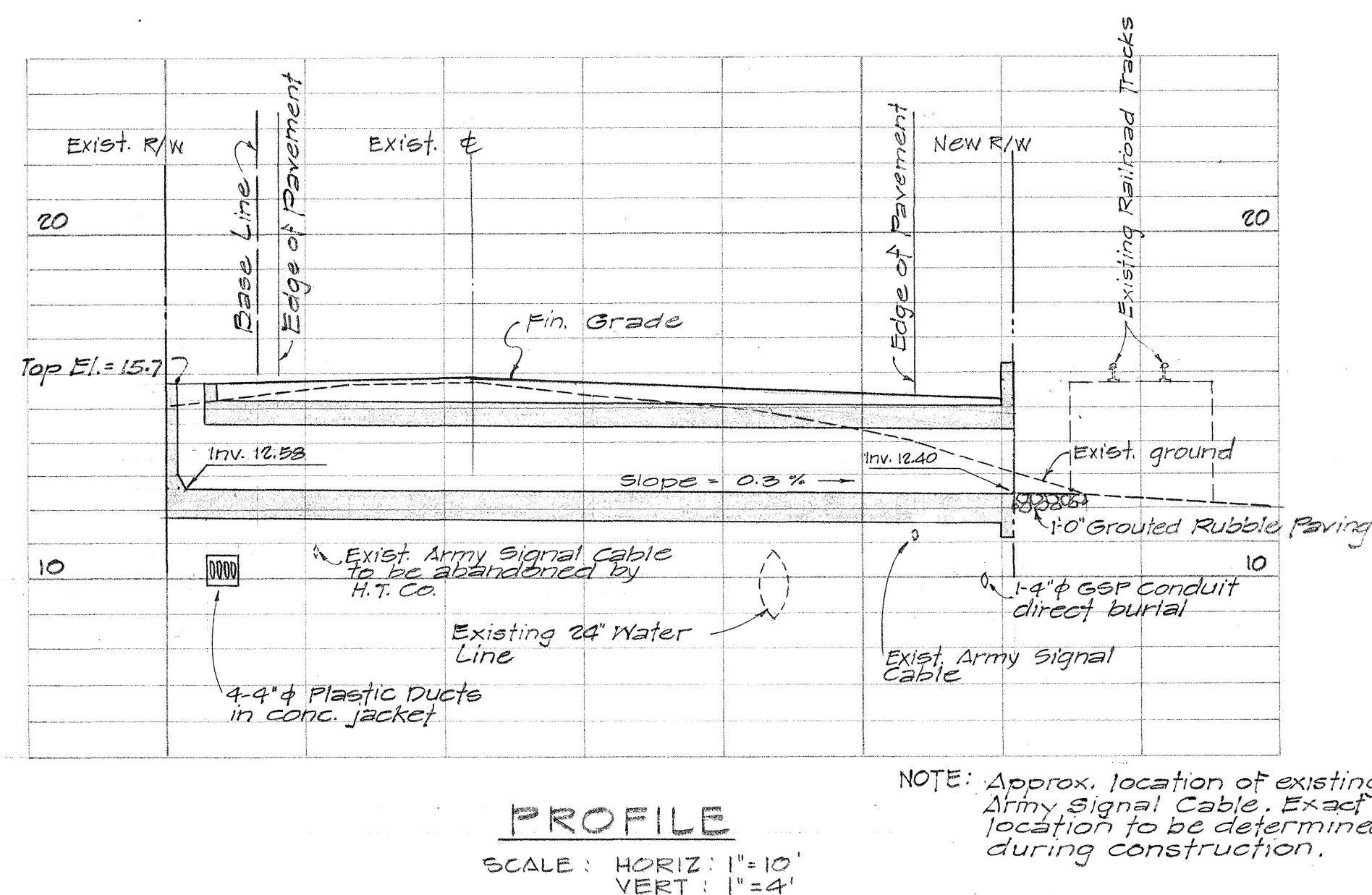
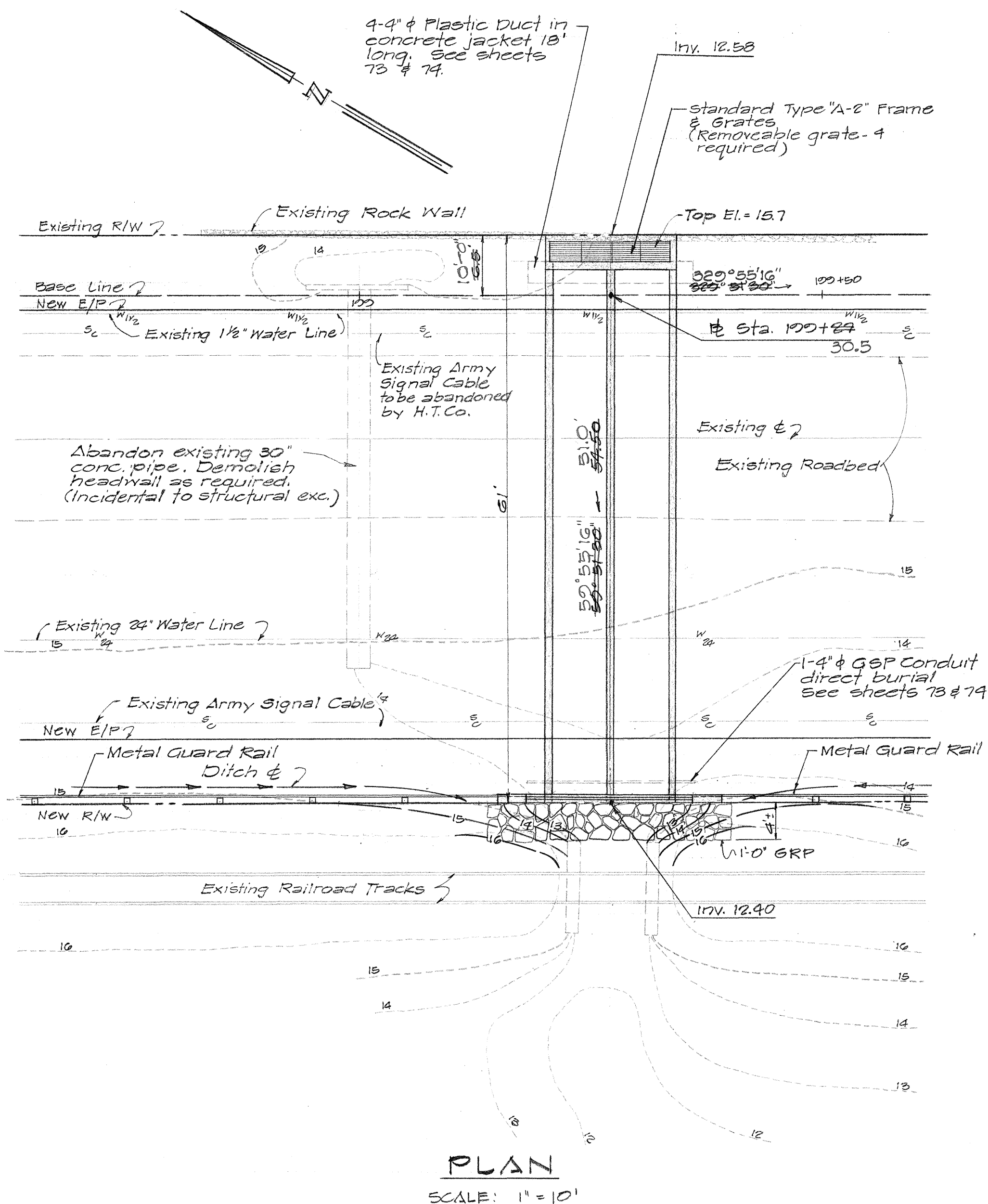
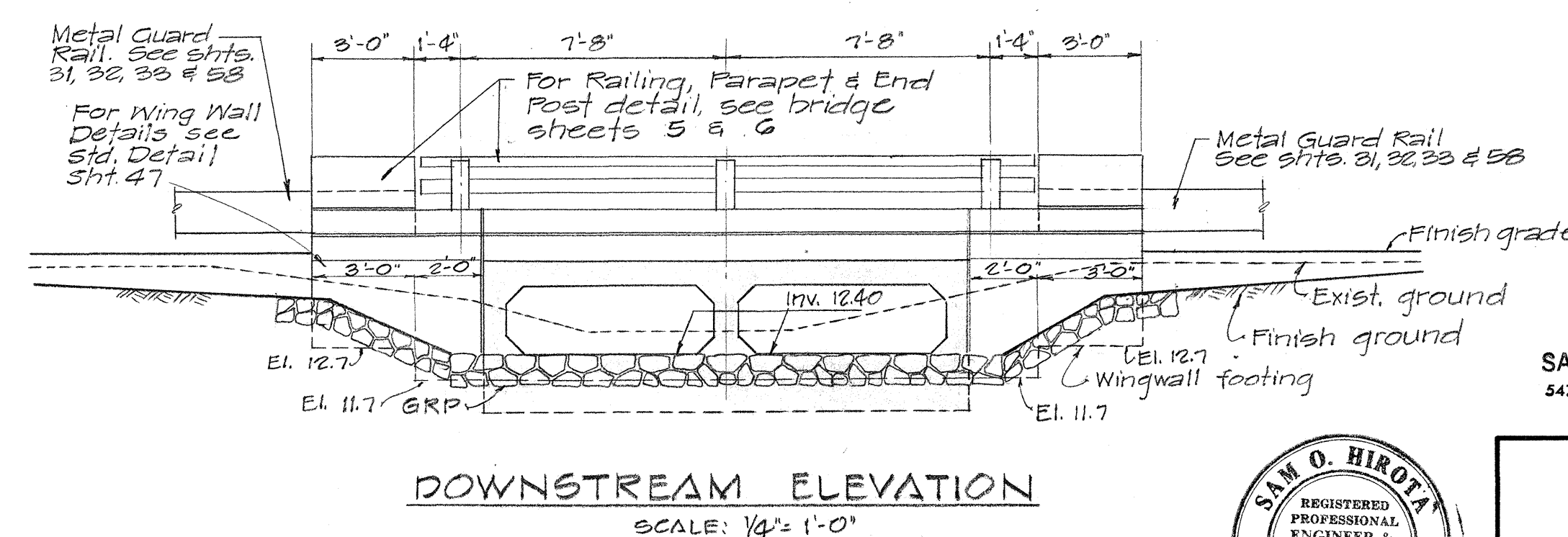
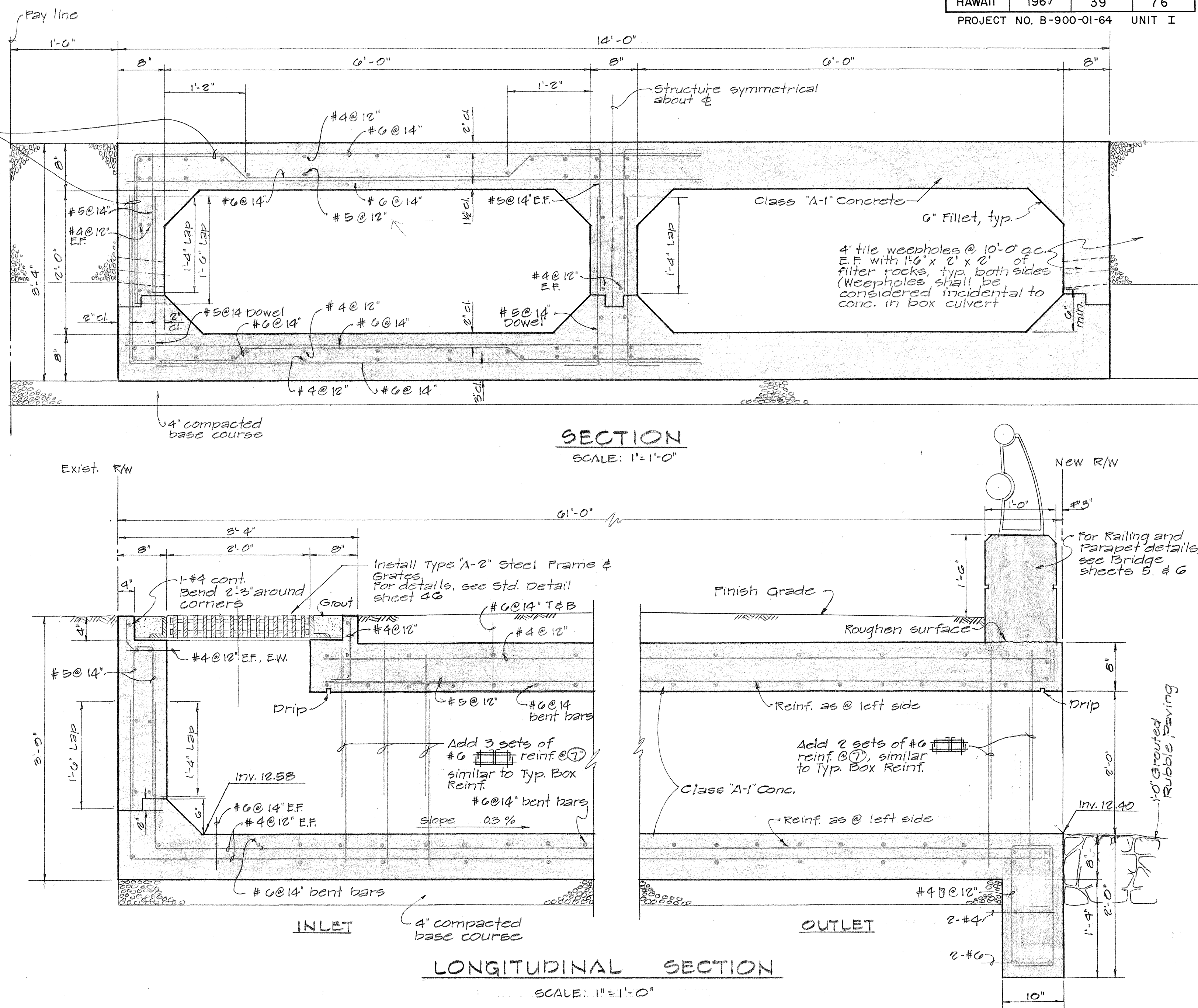


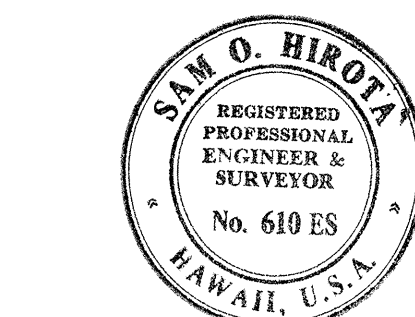


ESTIMATED QUANTITIES

STRUCT. EXCAVATION	= 13.00	C.Y.
UNTREATED BASE FOR STRUCTURE FOUNDATION	= 13	C.Y.
CONC. IN BOX CULVERT	= 57.00	C.Y.
REINF. STEEL IN BOX CULVERT	= 13.00	LB.
FILTER MATERIAL	= 23	C.Y.
TYPE 'A-2' STEEL FRAME & GRATES	= 2	EA.
GROUTED RUBBLE PAVING	= 4.00	C.Y.
METAL BRIDGE RAILING	= 18	L.F.
CONCRETE BRIDGE PARAPET INCLUDING END POSTS	= 24	L.F.



APPROVED BY:
[Signature]
Chief, Engineering Div. B.W.S. Date 10/3/67

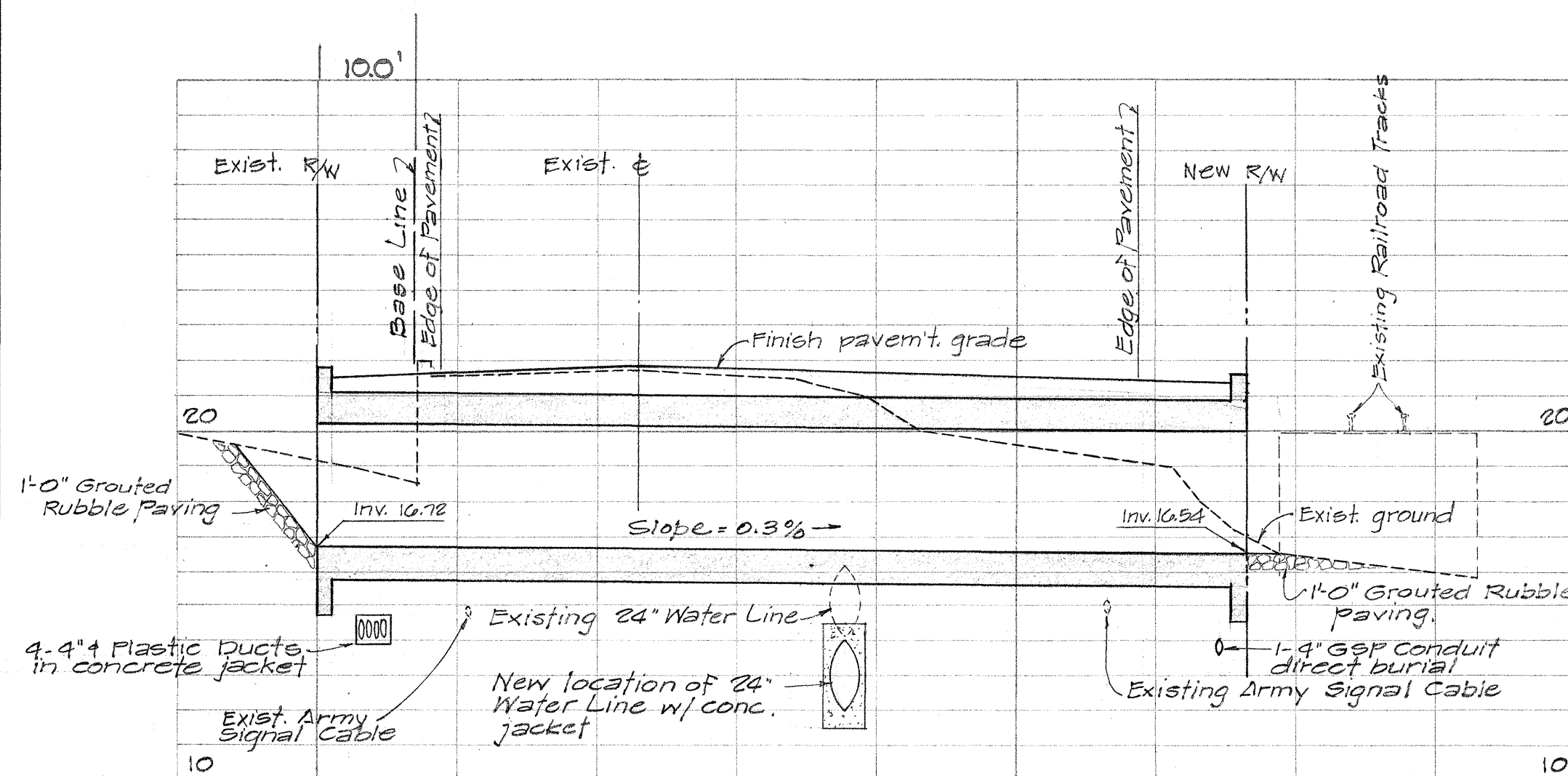
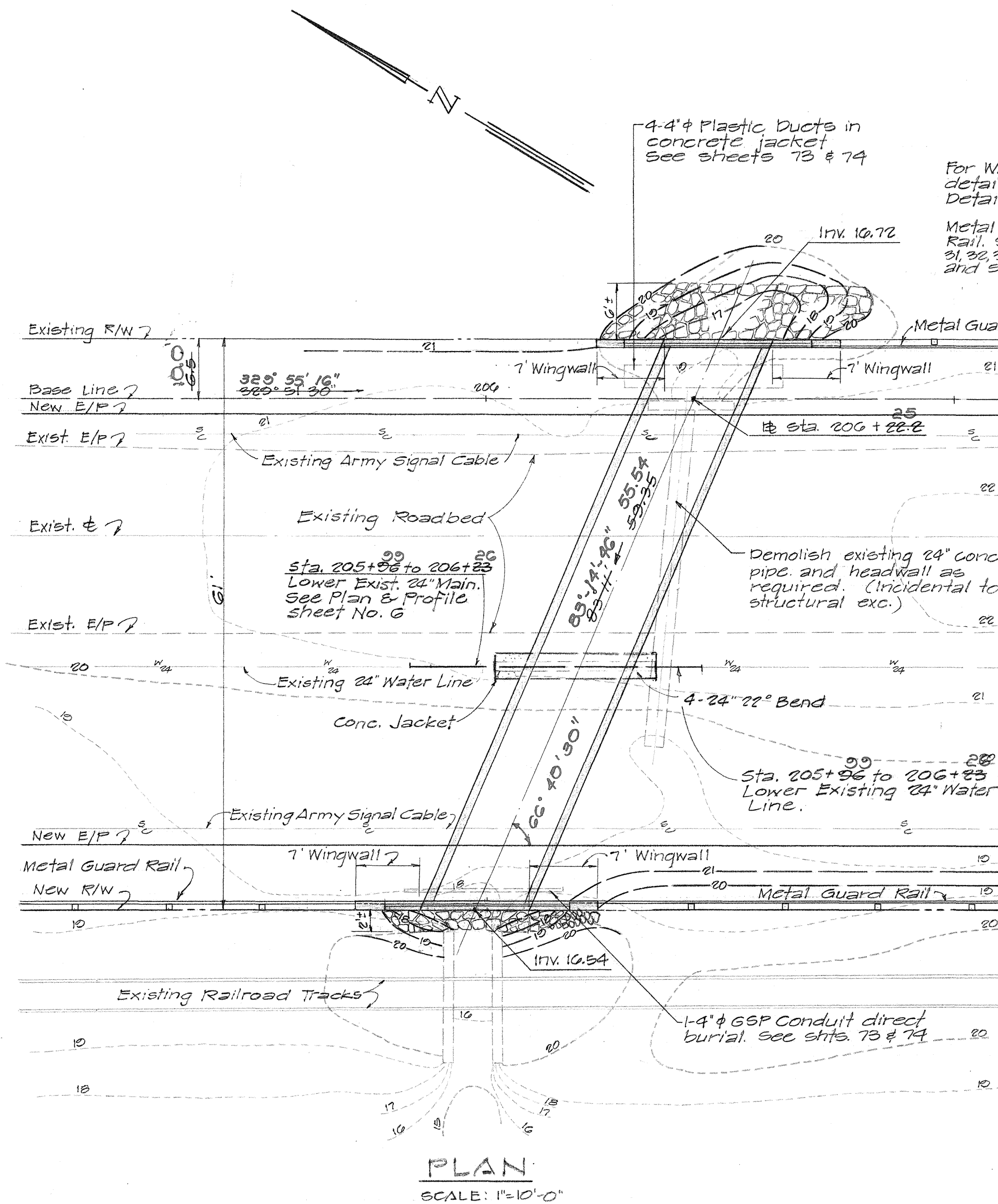


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature]
Sam O. Hirota, P.E.

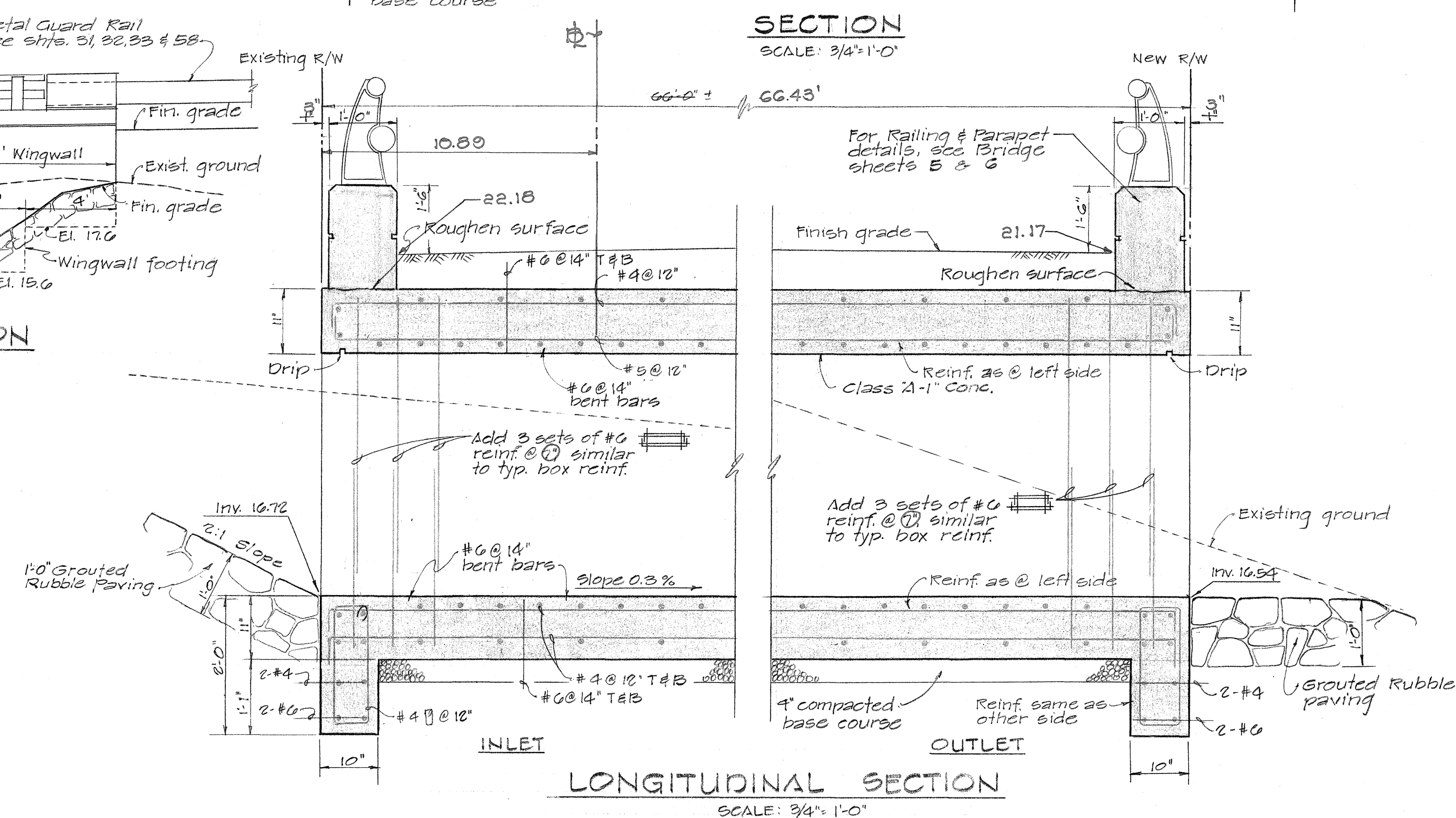
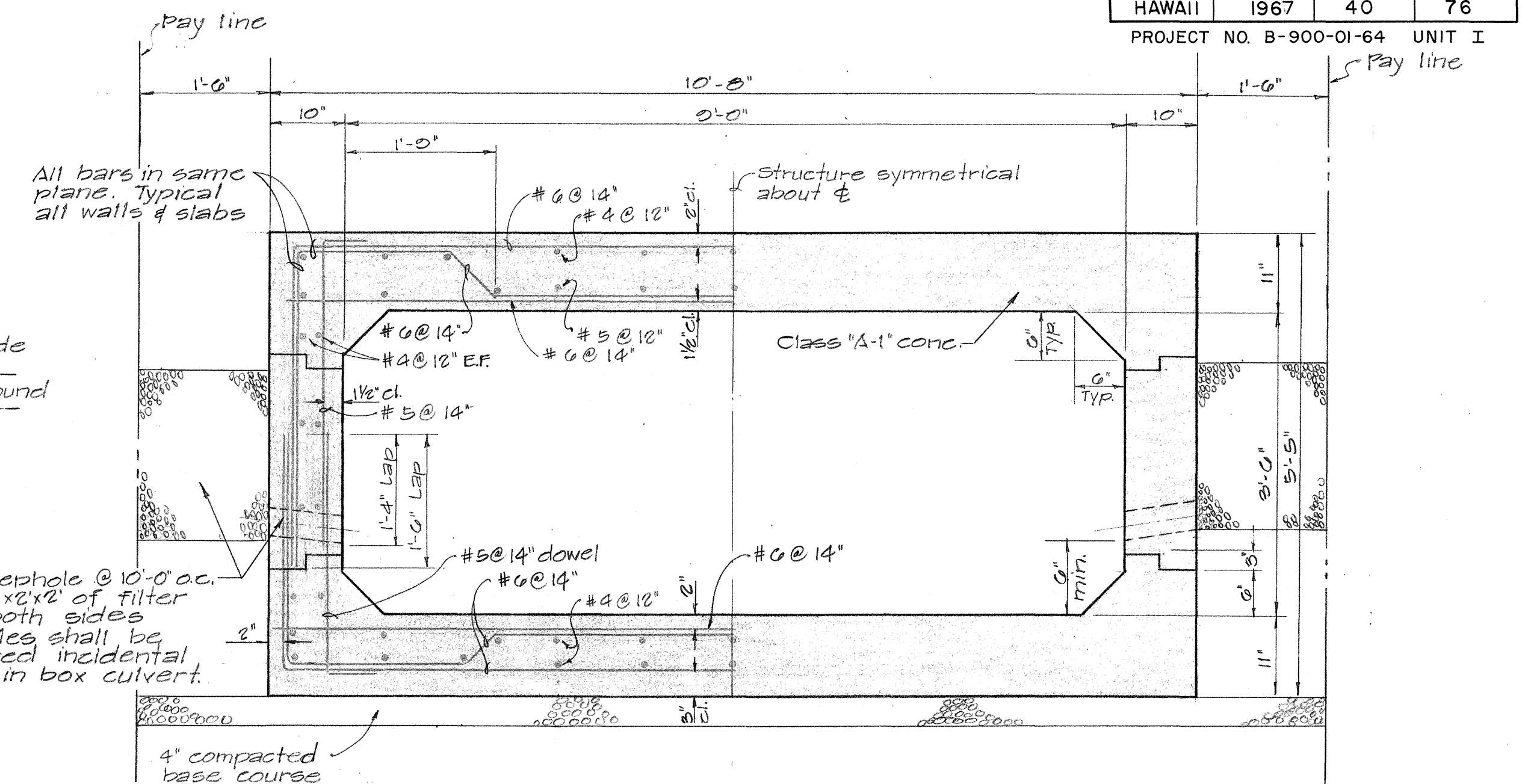
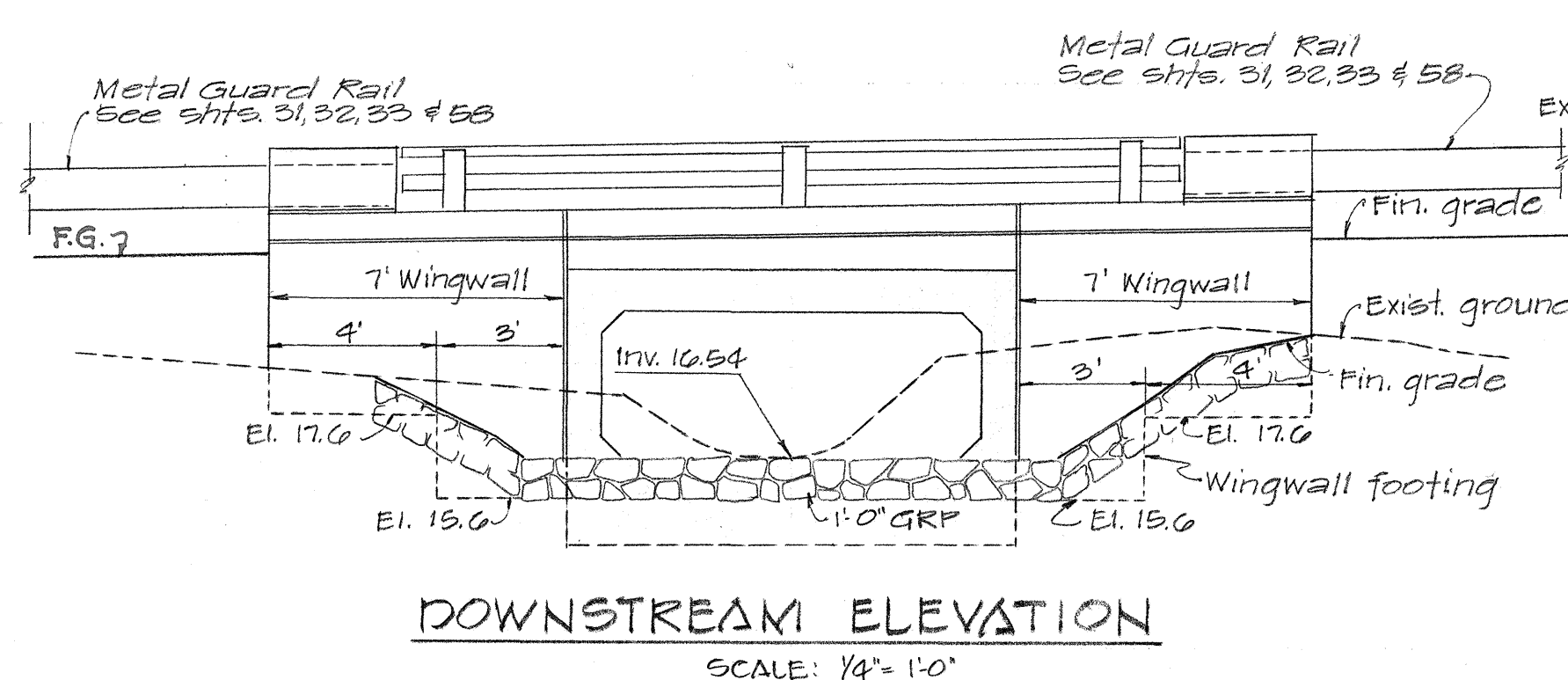
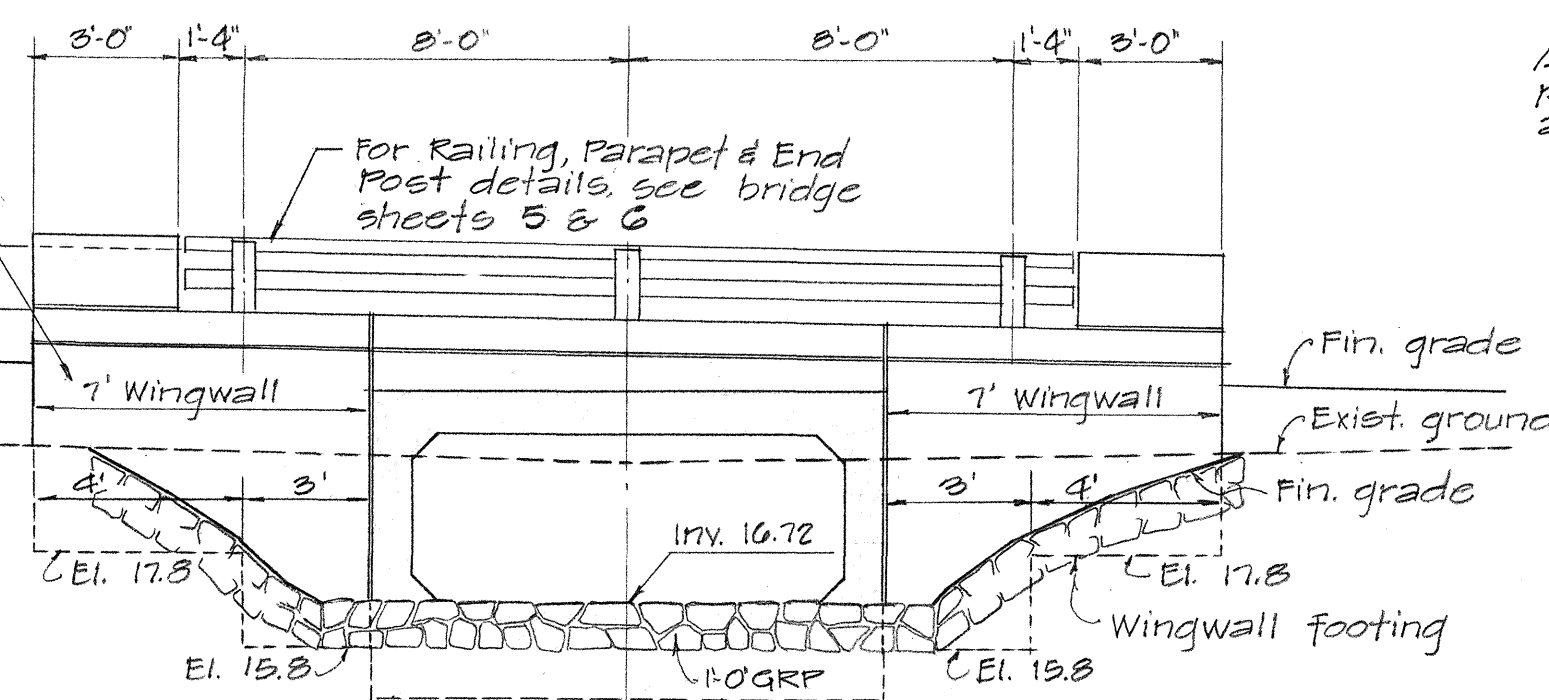
SAM O. HIROTA, P. E. - CIVIL ENGINEERS & SURVEYORS
547 HALEKAUWILA ST. - ROOM 204 - HONOLULU, HAWAII 96813

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
BOX CULVERT DETAILS
DOUBLE 6'-0" x 2'-0"
STA. 100 + 27.30.5
FARRINGTON HIGHWAY WIDENING
PROJECT B-900-01-64
UNIT I
SCALE: AS NOTED

SHEET No. 1 OF 5 SHEETS



NOTE: Approx. location of existing Army Signal Cable. Exact location to be determined during construction.



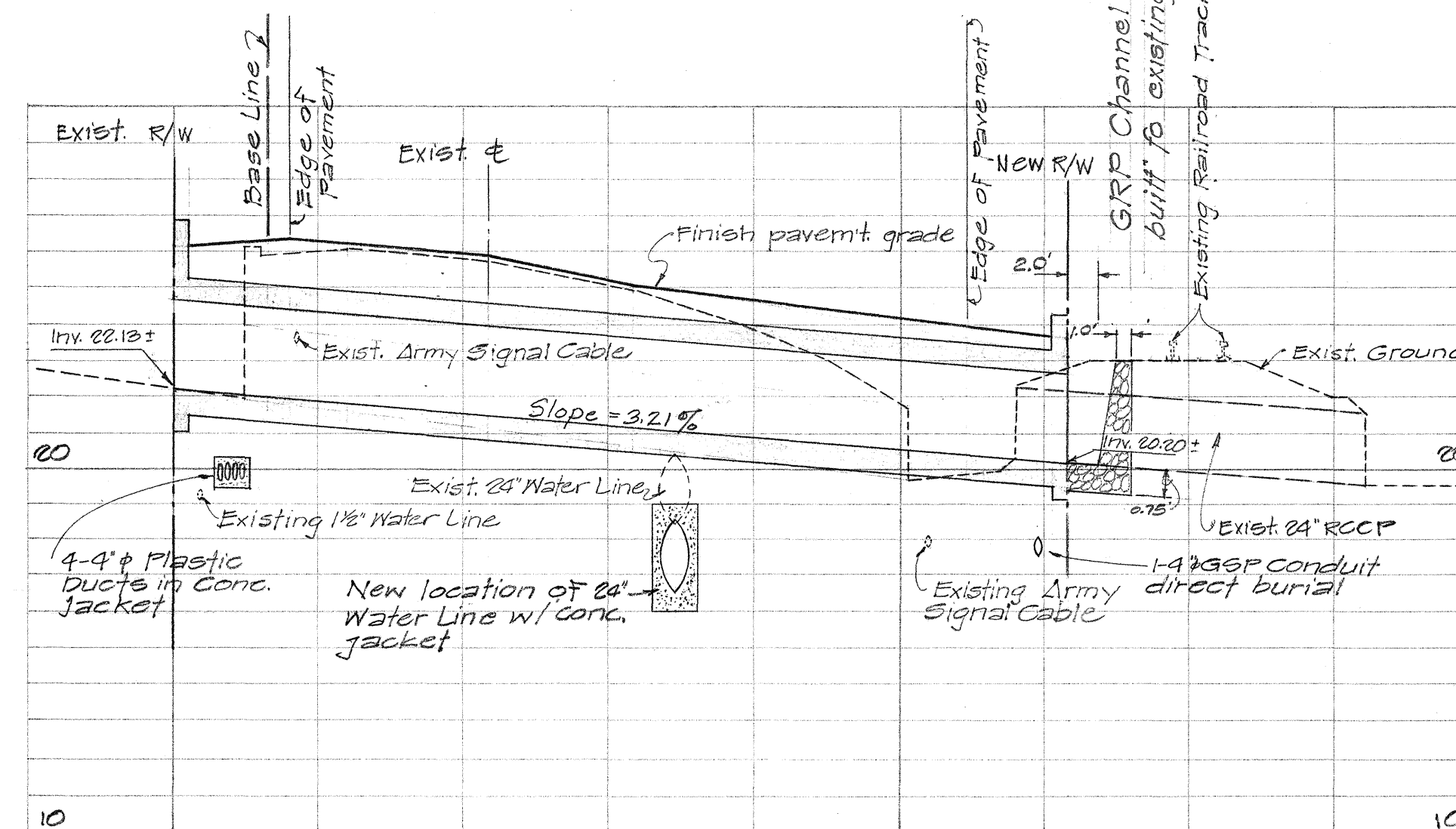
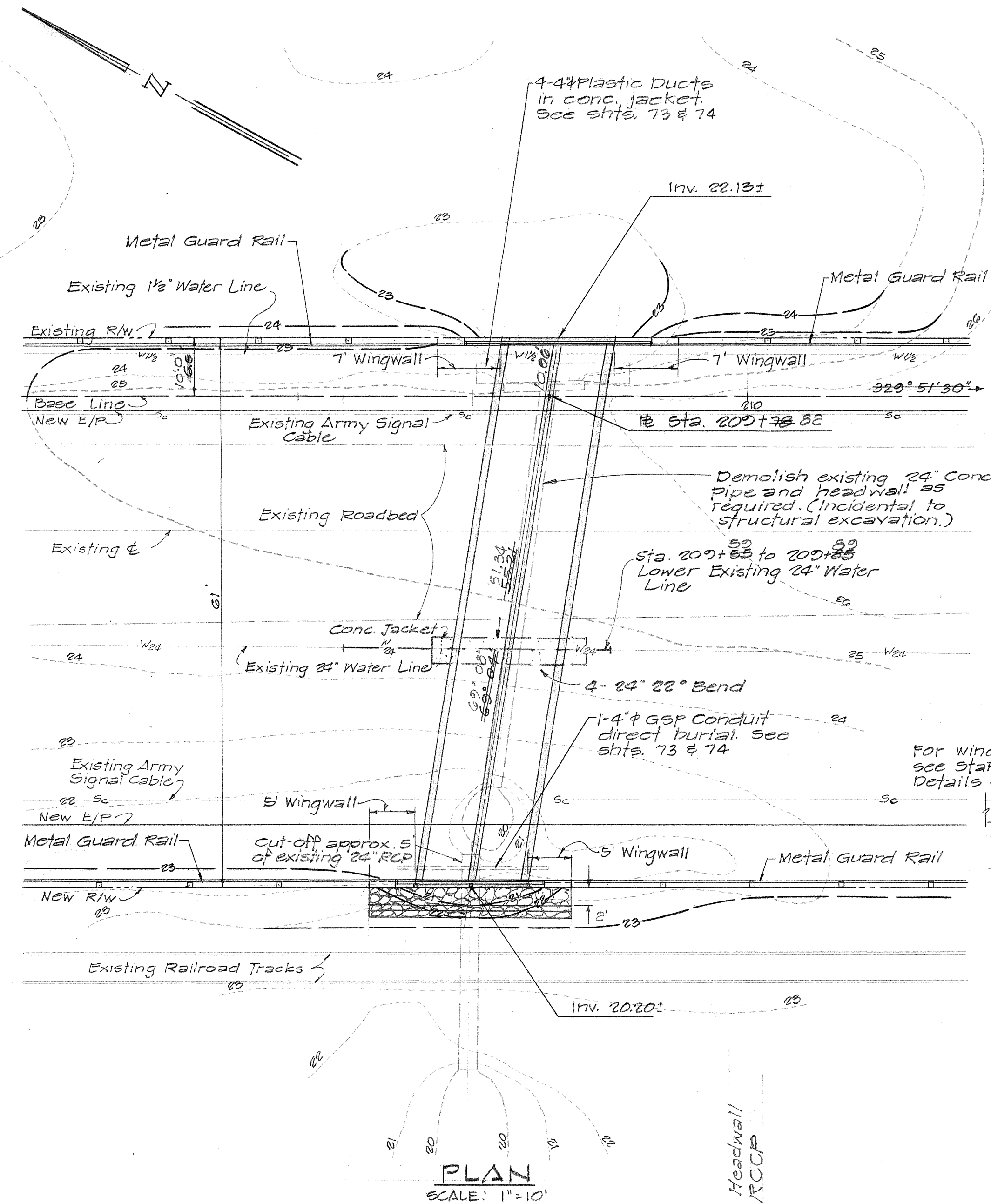
ESTIMATED QUANTITIES

STRUCT. EXCAVATION	= 173 C.Y.
UNTREATED BASE FOR STRUCTURE FOUNDATION	= 10 C.Y.
CONC. IN BOX CULVERT	= 12 C.Y.
REINF. STEEL IN BOX CULVERT	= 2500 LB.
FILTER MATERIAL	= 4.3 C.Y.
GROUTED RUBBLE PAVING	= 15 C.Y.
METAL BRIDGE RAILING	= 33 L.F.
CONCRETE BRIDGE PARAPET, INCLUDING END POSTS	= 51 L.F.

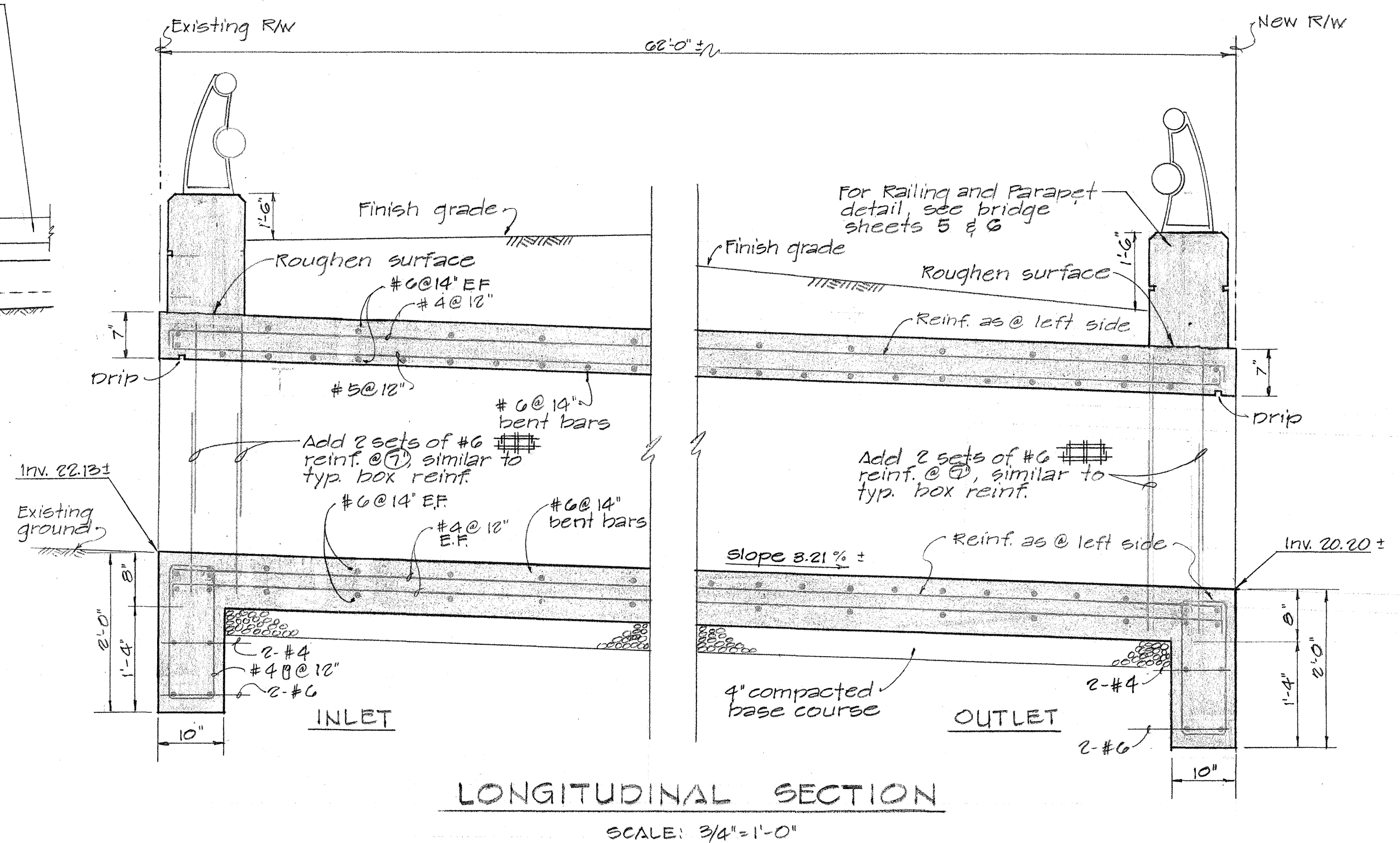
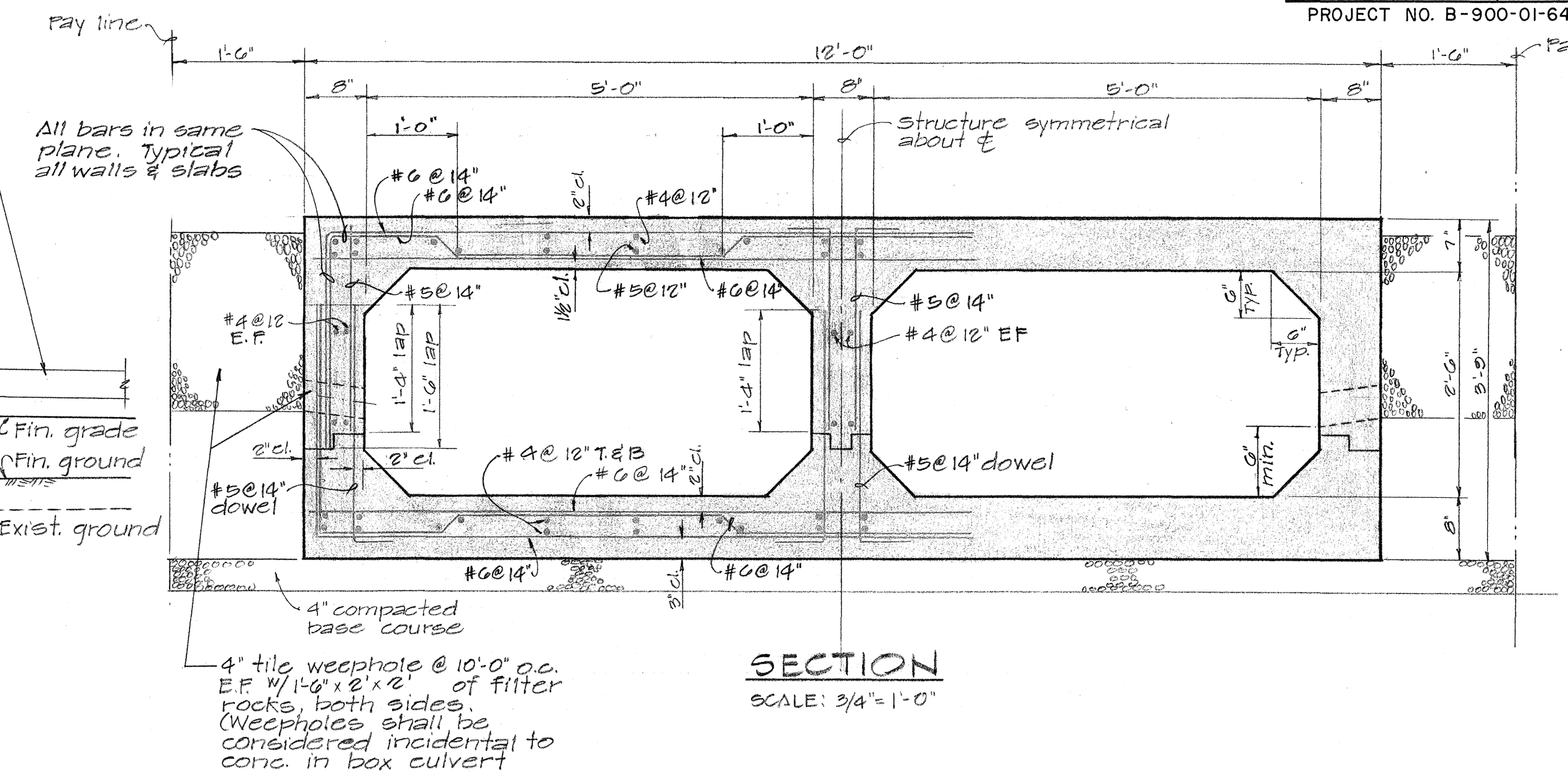
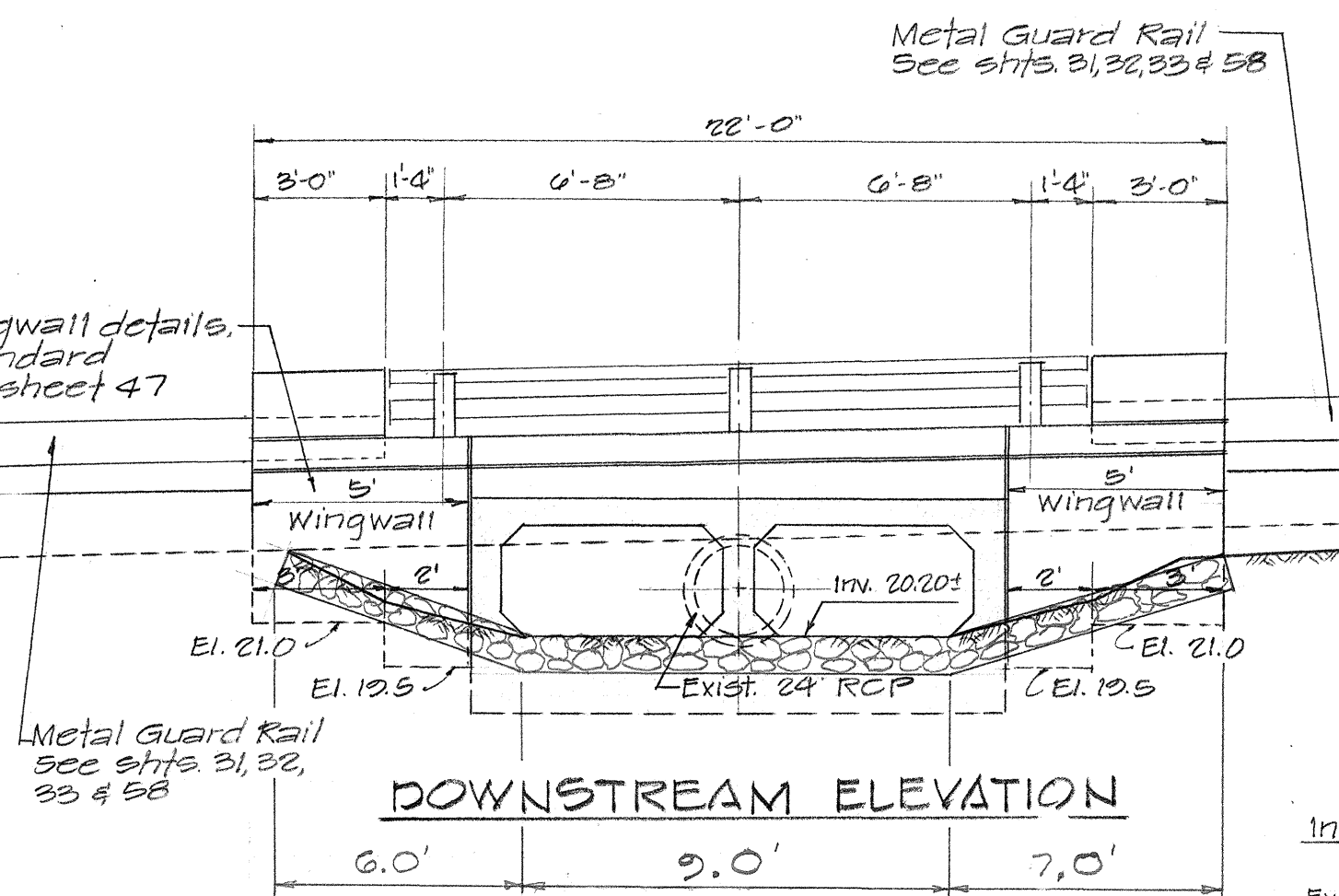
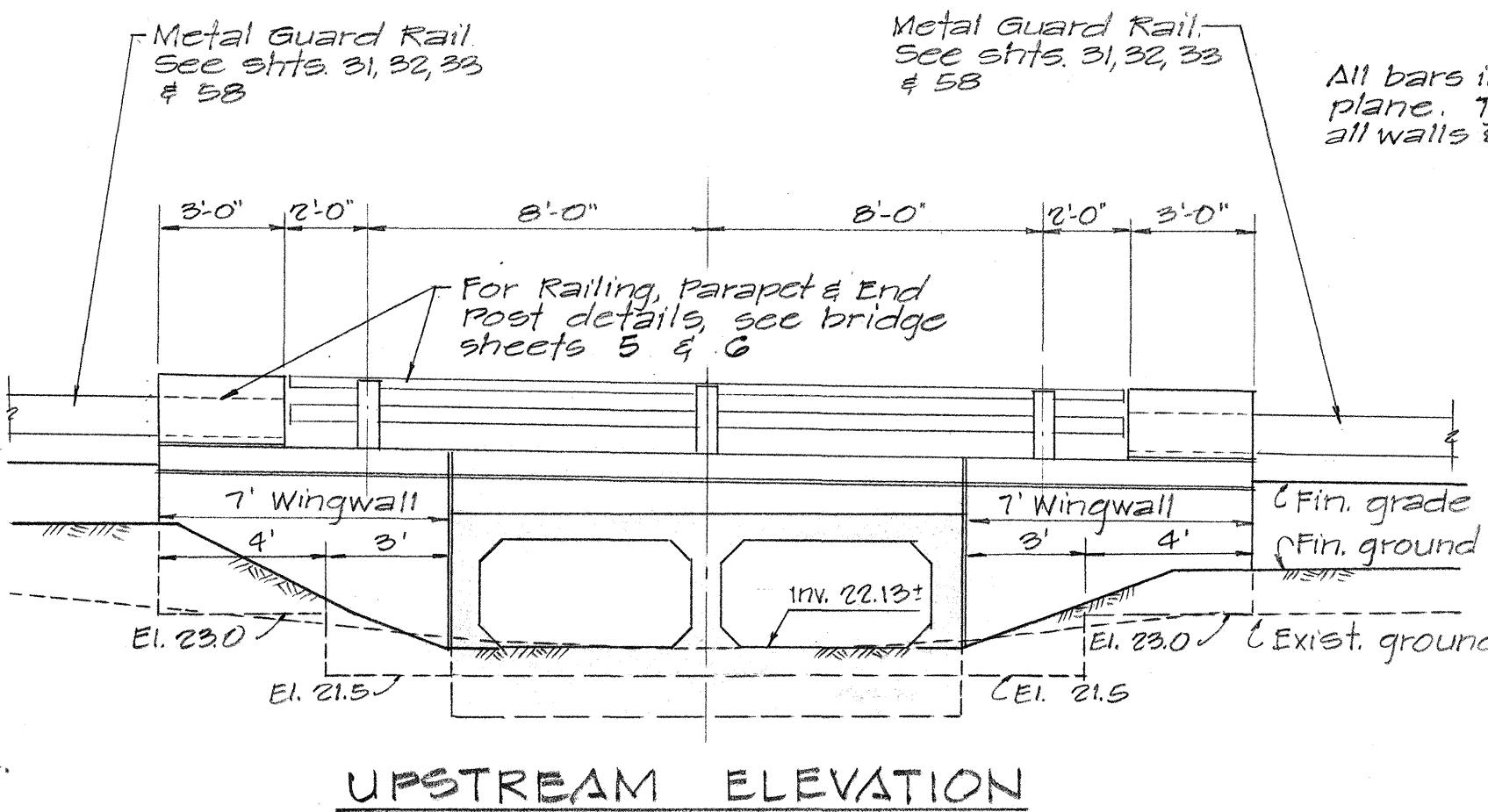
APPROVED BY:
Chief, Engineering Div. B.W.S.

10/3/67
Date

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
BOX CULVERT DETAILS
3'-0" X 3'-0" 25
STA. 206+22.2
FARRINGTON HIGHWAY WIDENING
PROJECT B-900-01-64
UNIT I
SCALE AS NOTED



NOTE: Approx. location of existing Army Signal Cable. Exact location to be determined during construction.

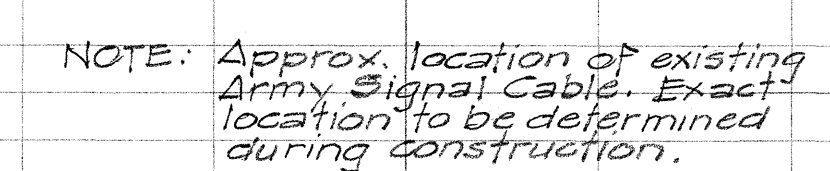
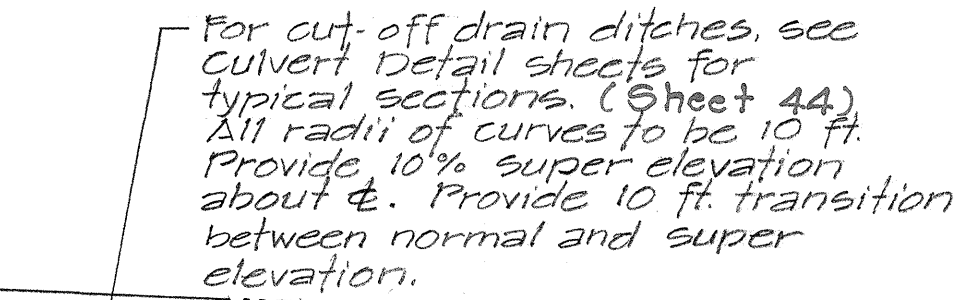


ESTIMATED QUANTITIES		
GRAVEL RUBBLE PAVING	5	C.Y.
STRUCT. EXCAVATION	116.42	C.Y.
UNTREATED BASE FOR STRUCTURE FOUNDATION	8.42	C.Y.
CONC. IN BOX CULVERT	54.55	C.Y.
REINF. STEEL IN BOX CULVERT	12,103	LB.
FILTER MATERIAL	8.3	C.Y.
METAL BRIDGE RAILING	34.33	LF
CONCRETE BRIDGE PARAPET INCLUDING END POSTS	98	LF

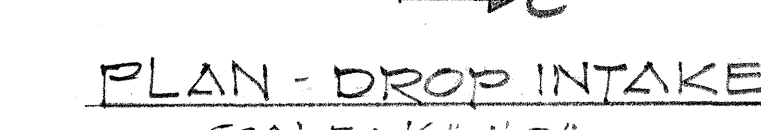
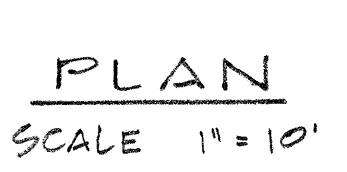
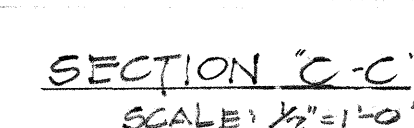
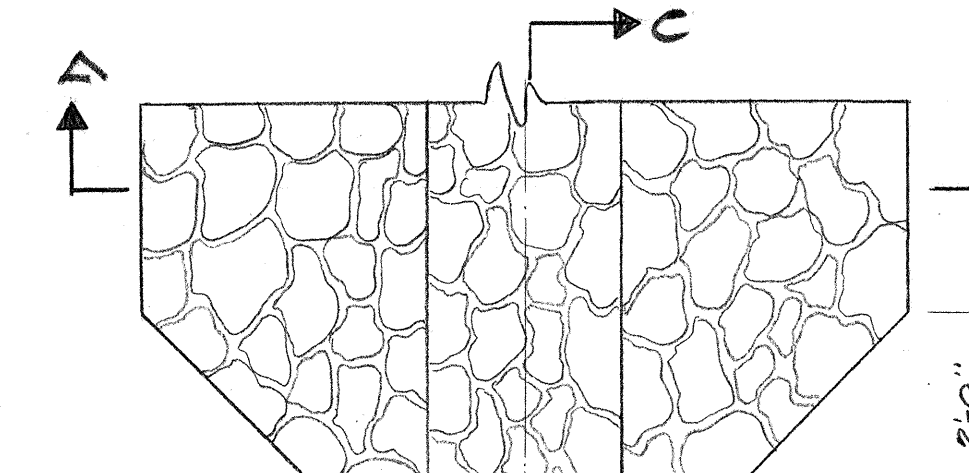
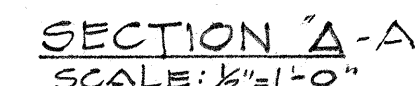
APPROVED BY:

 Chief Engineer Div. B.W.S. Date: 10/3/67

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
BOX CULVERT DETAILS
 DOUBLE 5'-0" x 2'-6"
 STA. 200+73.82
 FARRINGTON HIGHWAY WIDENING
 PROJECT B-900-01-64
 UNIT I
 SCALE AS NOTED

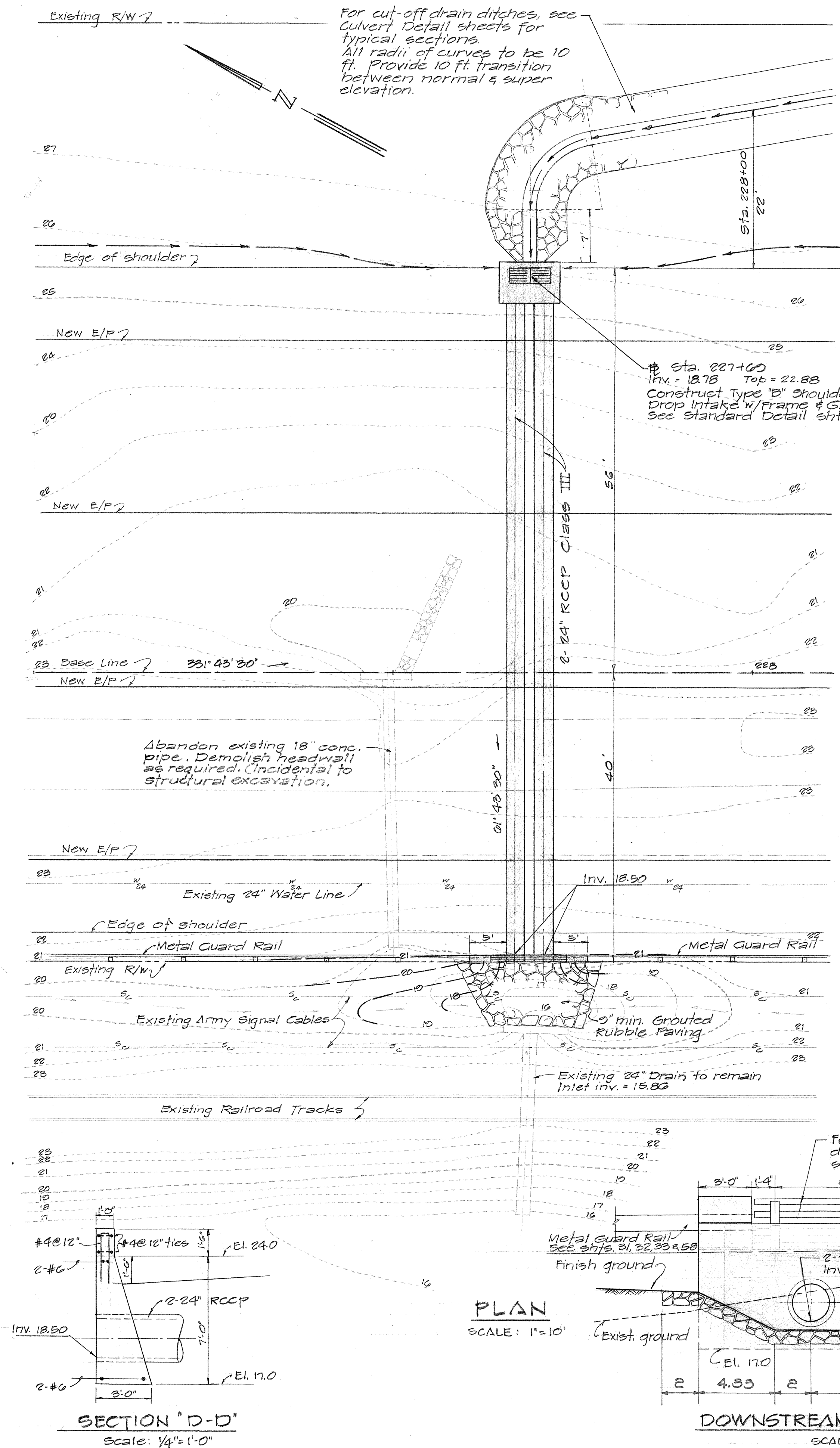


STRUCT. EXCAVATION	= 75	C.Y.
CL. "A-1" CONCRETE	= 5.2	C.Y.
REINF. STEEL	= 381	LB.
GRADED RUMBLE PAVING	= 25	C.Y.
TYPE "A-2" STEEL FRAME AND GRATES	= 1	EA.
30" PIPE CULVERT	= 91	L.F.
WIRE MESH (included in reinf. steel)	= 15	LB.



APPROVED BY: S. Hewitson 10/3/67
Chief, Engineering Div B.W.S. Date 10/3/67

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CULVERT DETAILS
STA. 222 + 67
FARRINGTON HIGHWAY WIDENING
PROJECT B- 000- 01- 64
UNIT 1
SCALE: AS NOTED
SHEET NO. 1 OF 1 SHEETS



ESTIMATED QUANTITIES

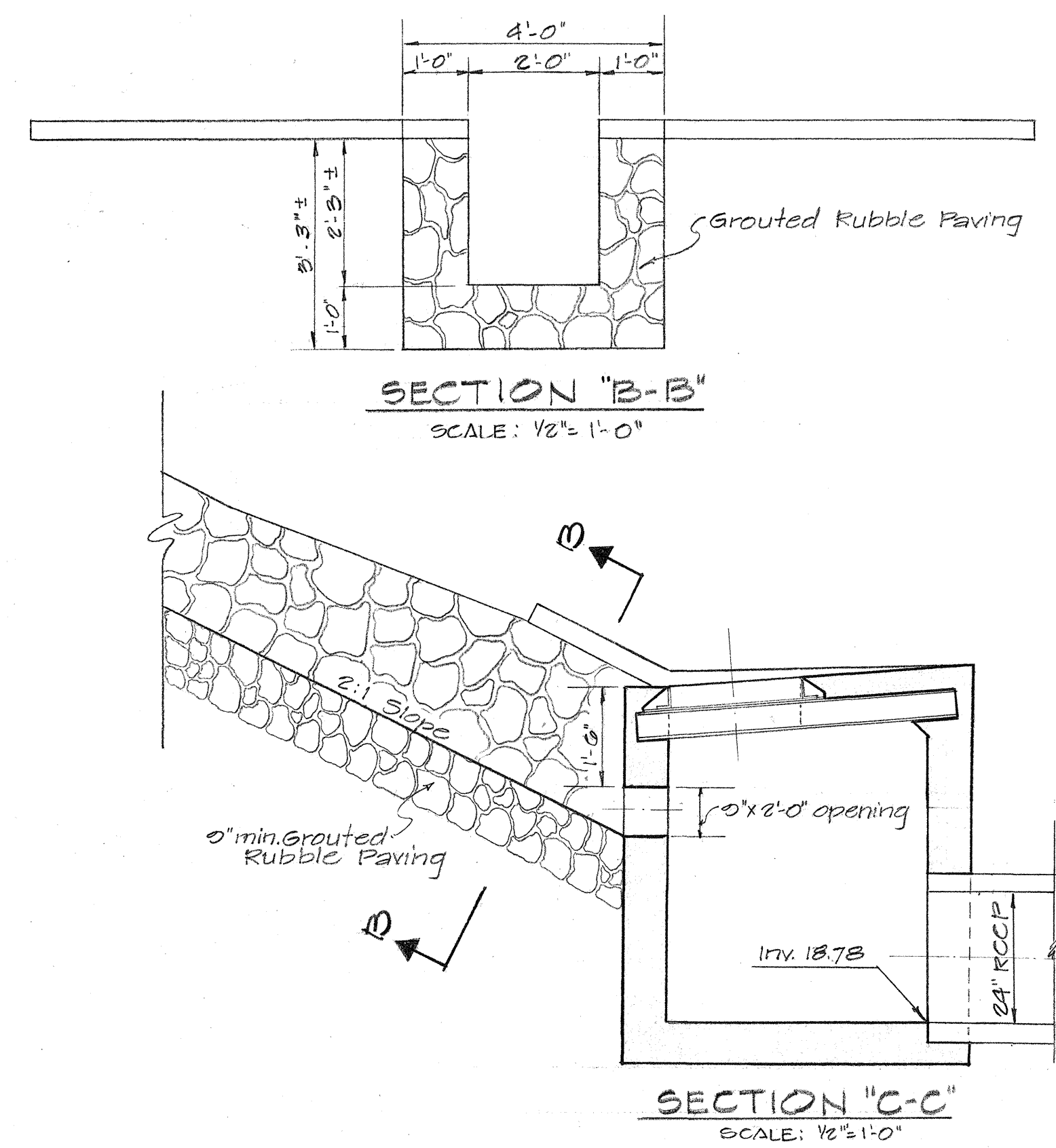
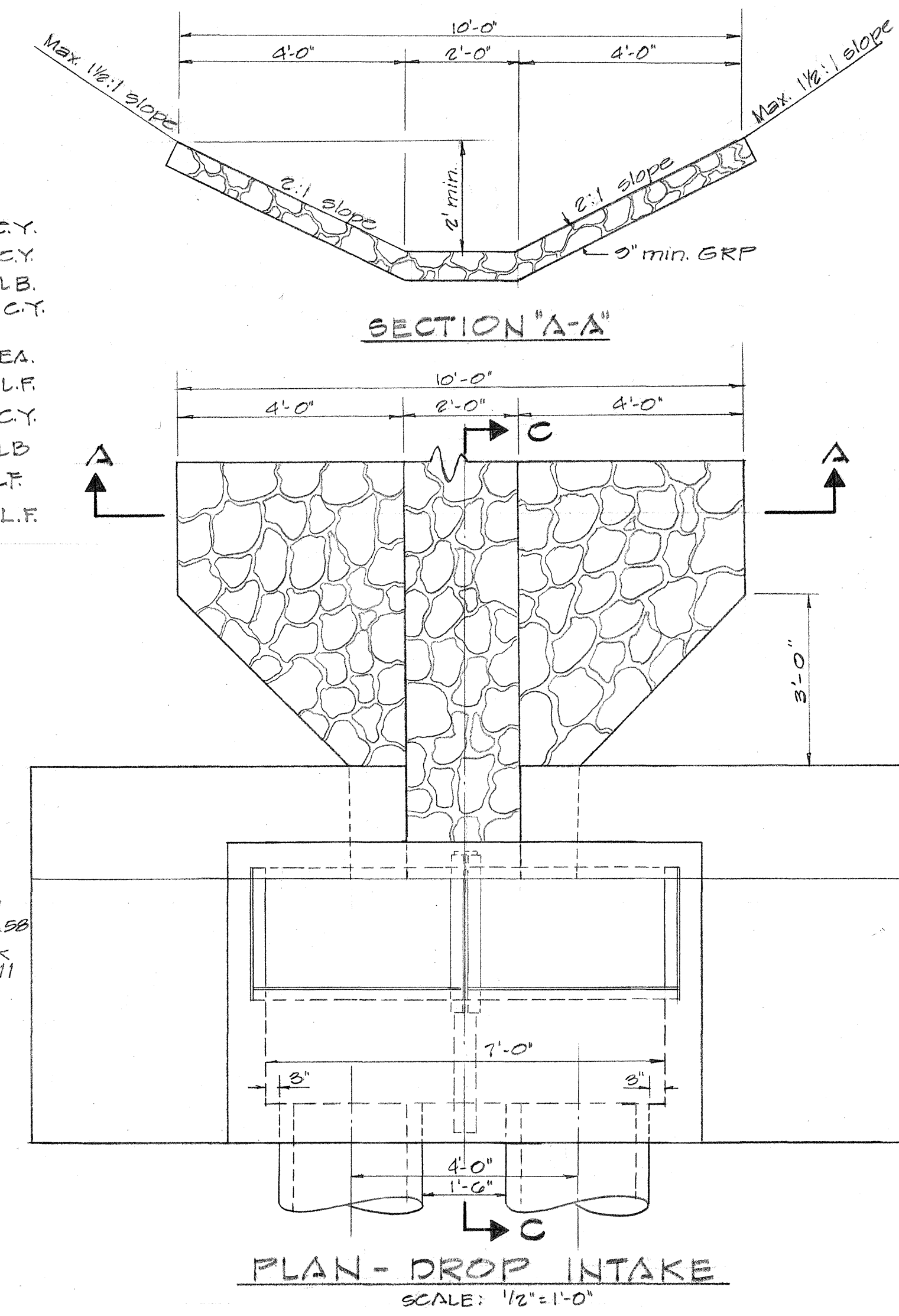
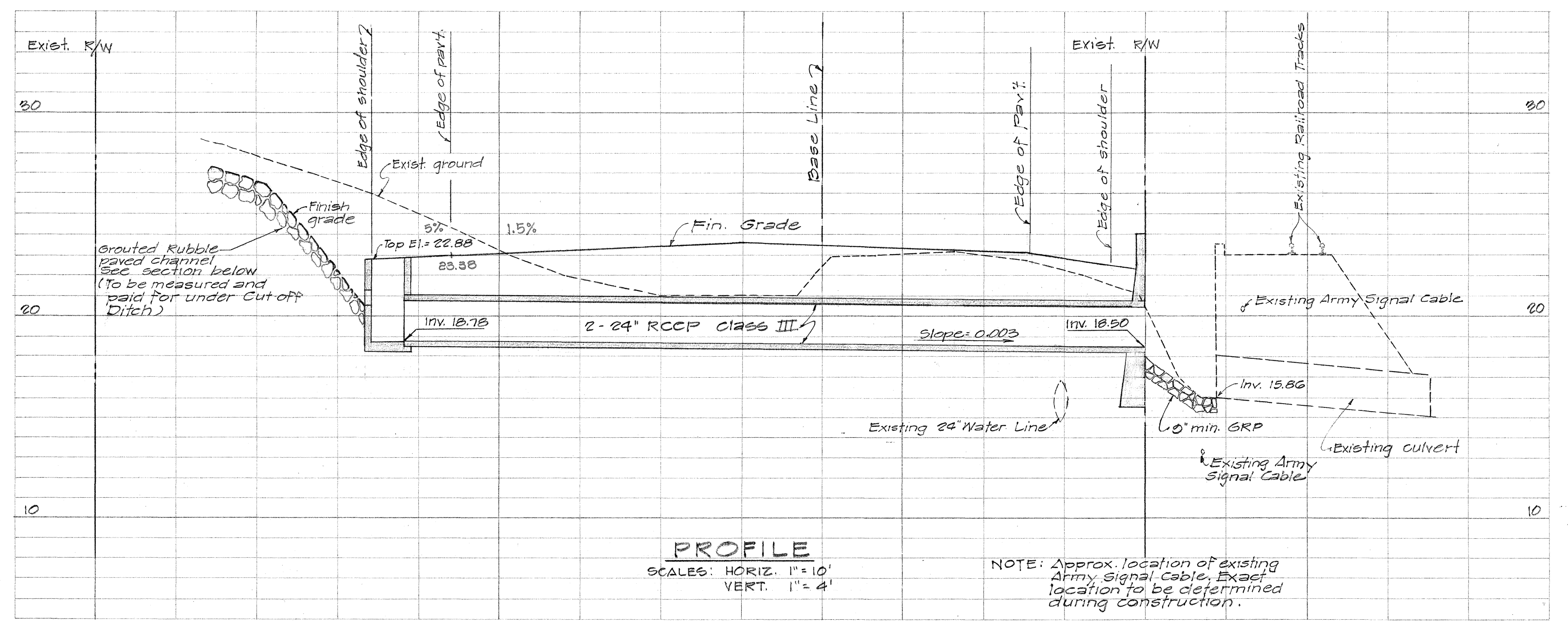
STRUCT. EXCAVATION	135 C.Y.
CLASS "A-1" CONCRETE	5 C.Y.
REINF. STEEL	855 LB.
GRADED RUBBLE PAVING	15 C.Y.
TYPE "A-2" STEEL FRAME AND GRATES	15 EA.
24" PIPE CULVERTS	120 L.F.
CLASS "B-1" CONCRETE	8 C.Y.
WIRE MESH (included in reinf. steel)	15 LB.
METAL BRIDGE RAILING	11 L.F.
CONC. BRIDGE PARAPET INCLUDING END POST	17 L.F.

PLAN

SCALE: 1" = 10'

DOWNSTREAM ELEVATION

SCALE: 1" = 4'



APPROVED BY: *[Signature]* 10/3/67
Chief, Engineering Div. B.W.S. Date

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CULVERT DETAILS
STA. 227 + 00

FARRINGTON HIGHWAY WIDENING
PROJECT B-900-01-64
UNIT I

SCALE: AS NOTED