

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	930D-01-69	1969	2	8

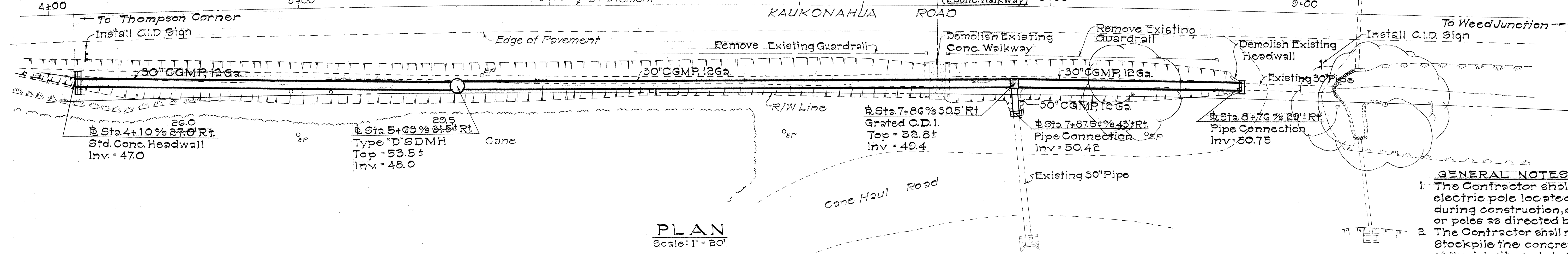
TRUE NORTH
Scale: 1" = 20'

ESTIMATED QUANTITIES
Construct Type 'D' S.D.M.H.
Install 30" CGMP, 12 Ga.
Struct. Exc. = 48 C.Y. 105
Imported Material = 138 C.Y.
Cl. "B-1" Conc. = 4 C.Y. 0.66
Brickwall for S.D.M.H. = 6 L.F. 5.4
Type 'A' Cl. Fr. Cover = 1 Ea.
Reinf. Steel = 32 lbs.
30" Pipe Culvert = 452 L.F. 150

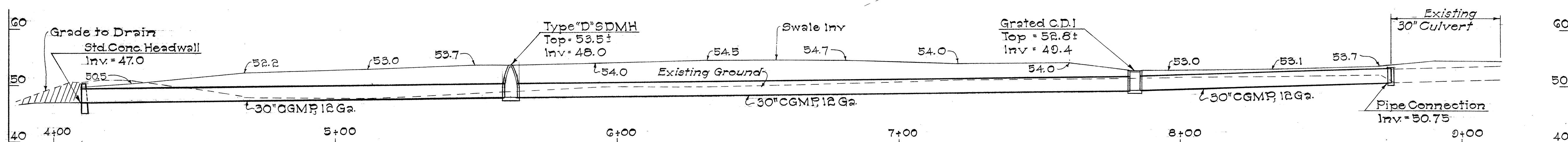
ESTIMATED QUANTITIES
Construct Grated C.D.I.
Install 30" CGMP, 12 Ga.
Struct. Exc. = 147 C.Y. 149.3
Imported Material = 181 C.Y.
Cl. "A-1" Conc. = 4 C.Y. 1.54
Type 'A' Fr. Grate = 1 Ea.
Reinf. Steel = 28 lbs. 26
30" Pipe Culvert = 218 L.F.

ESTIMATED QUANTITIES
Construct Connection to Existing 30" Pipe (For detail see this sht.)
Install 30" CGMP, 12 Ga.
Struct. Exc. = 4 C.Y. 8.2
Imported Material = 8 C.Y.
Cl. "B-1" Conc. = 4 C.Y. 0.54
Reinf. Steel = 37 lbs. 31
30" Pipe Culvert = 12 L.F. 10.5

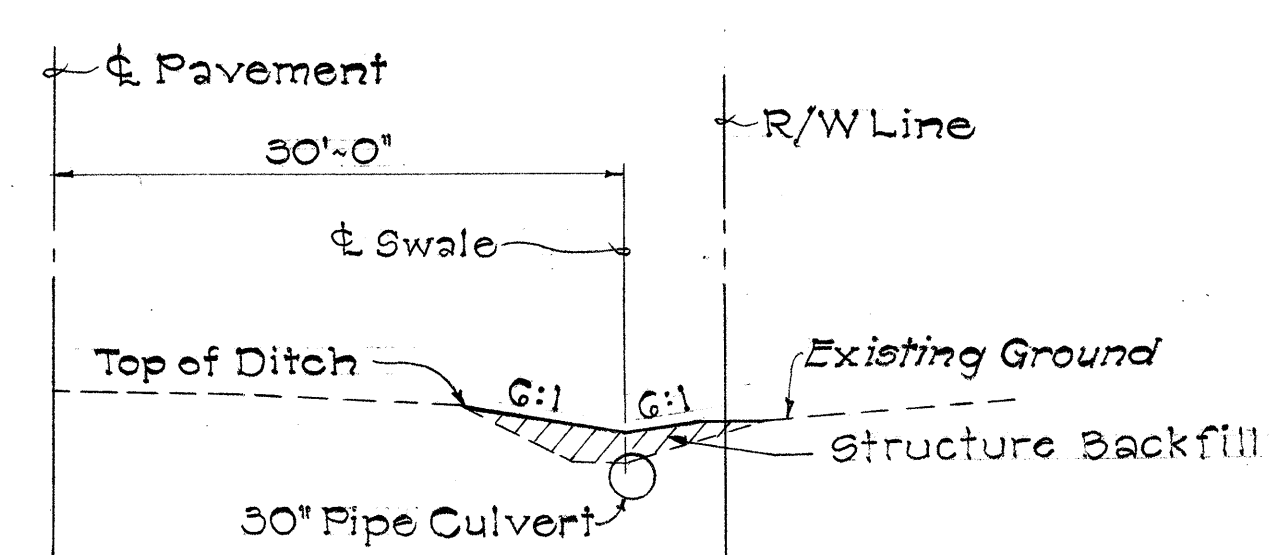
ESTIMATED QUANTITIES
Construct Connection to Existing 30" Pipe (For detail see this sht.)
Install 30" CGMP, 12 Ga.
Struct. Exc. = 66 C.Y. 44.6
Imported Material = 33 C.Y.
Cl. "B-1" Conc. = 4 C.Y. 0.66
Reinf. Steel = 37 lbs.
30" Pipe Culvert = 90 L.F. 86



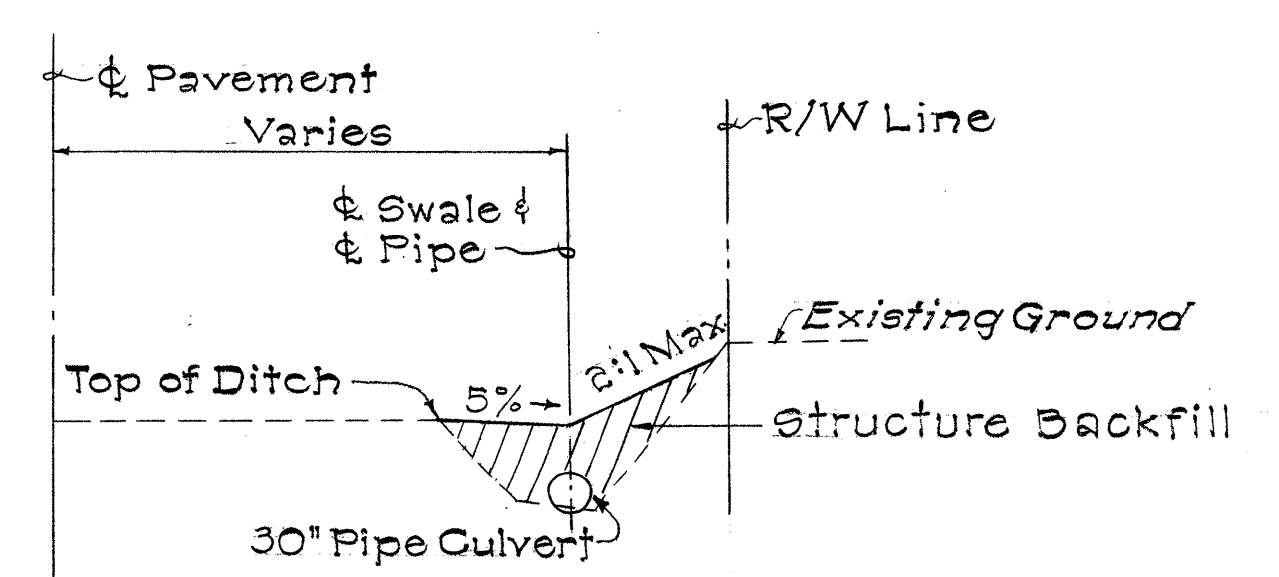
PLAN
Scale: 1" = 20'



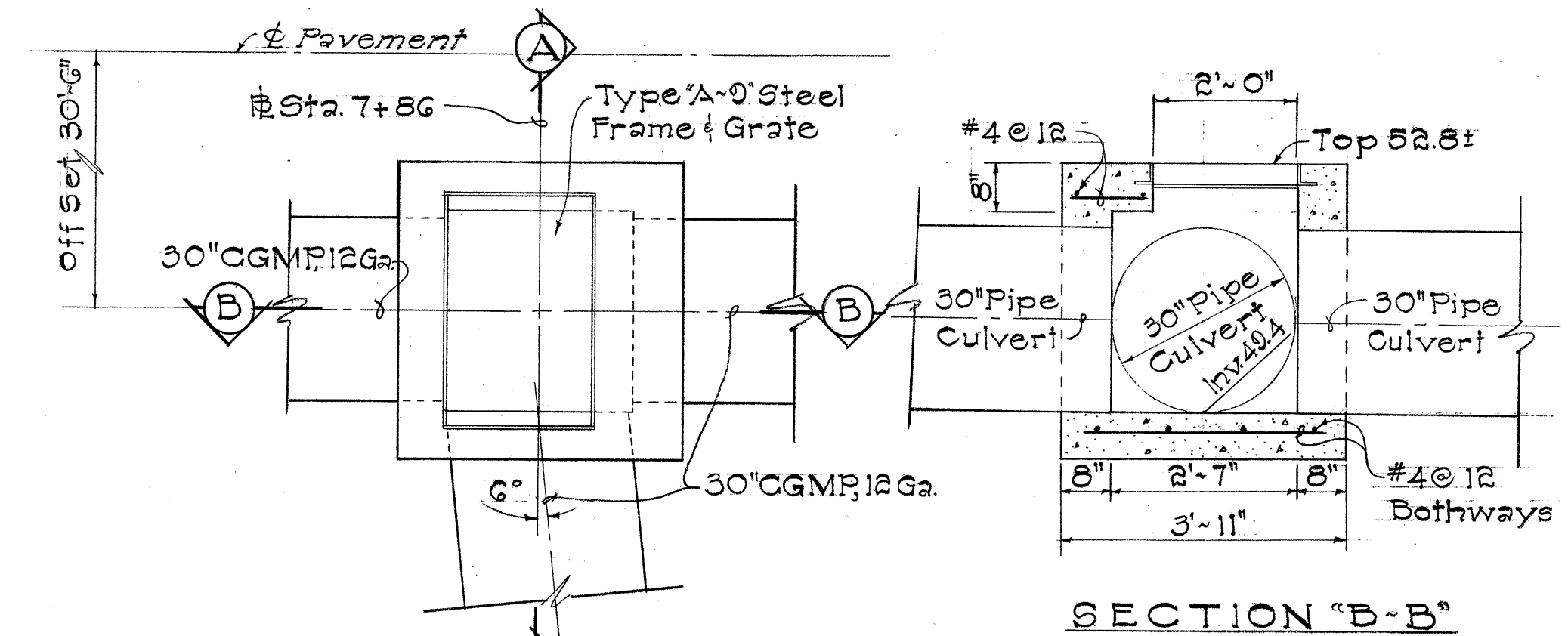
PROFILE



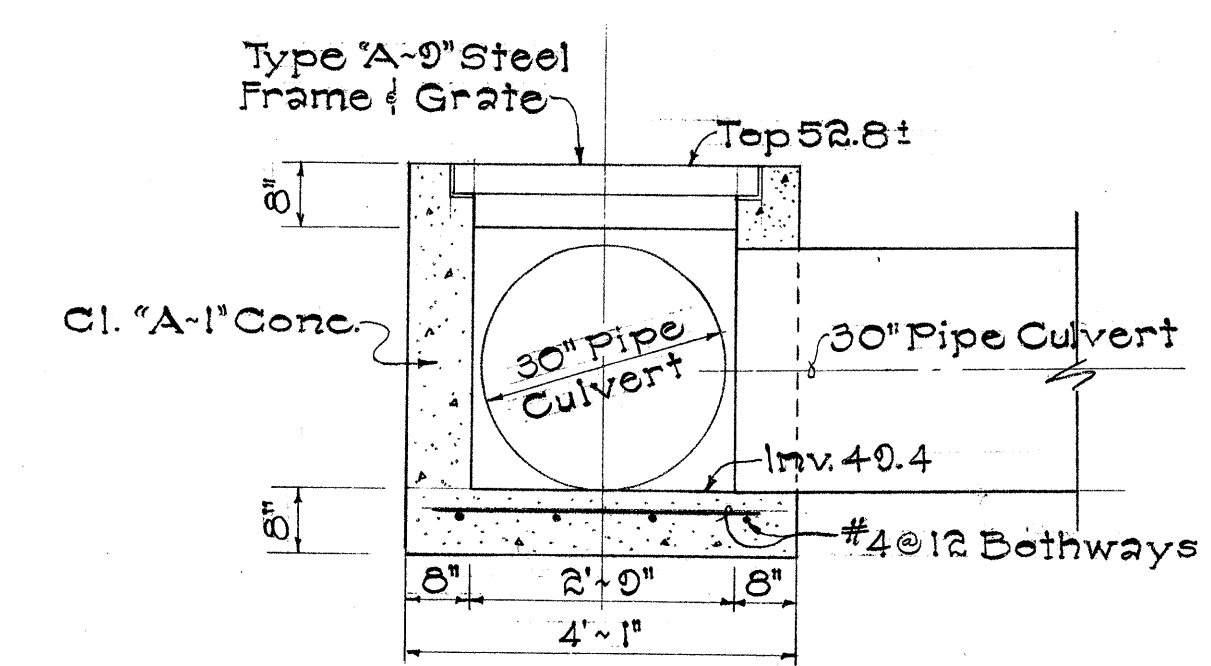
TYPICAL SECTION OF SWALE
STA. 7+86 TO STA. 8+76
Scale: 1" = 10'



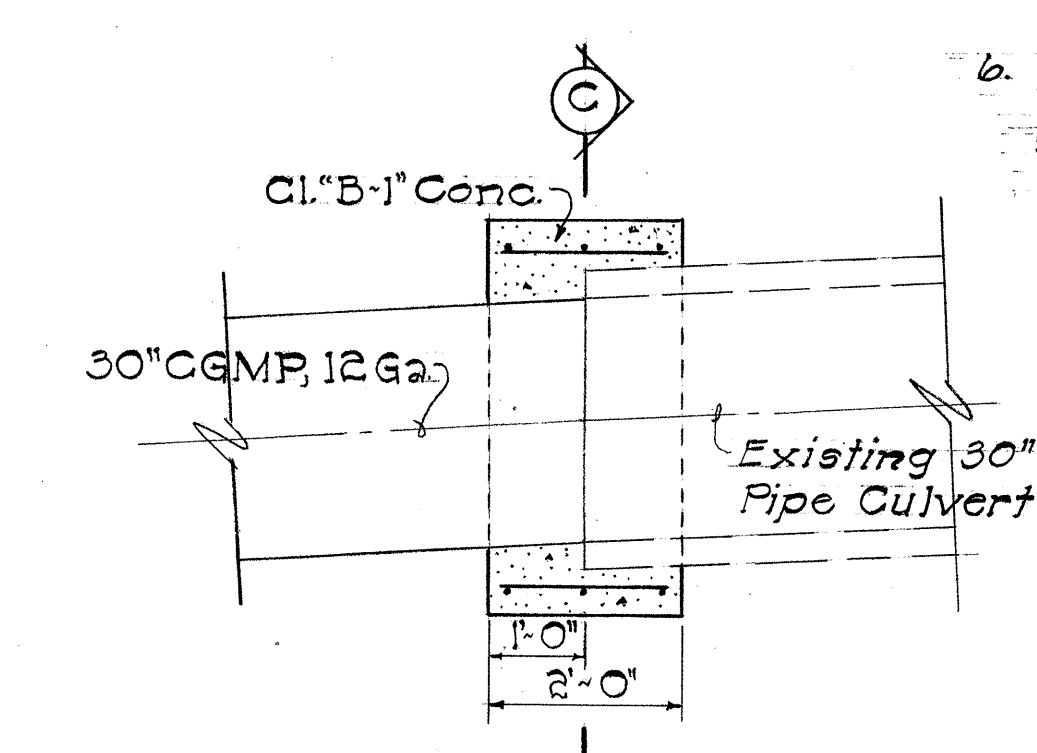
TYPICAL SECTION OF SWALE
STA. 4+10 TO STA. 7+86
Scale: 1" = 10'



PLAN



SECTION "A-A"
DETAIL OF GRATED C.D.I. @ STA. 7+86% 30.5' RT.
Scale: 1/2" = 1'-0"



ELEVATION

DETAIL OF CONNECTION TO EXISTING 30" PIPE
AT STA. 7+87.5% 43' RT & STA. 8+76% 20' RT.
Scale: 1/2" = 1'-0"

- GENERAL NOTES:**
- The Contractor shall side brace the electric pole located at Sta. 5+73+Rt. during construction, or any other pole or poles as directed by the Engineer.
 - The Contractor shall remove, clean and stockpile the concrete guardrail posts at the jobsite and shall be responsible for the disposal of the wooden rails. Payment for the above work shall be considered incidental to the various contract items.
 - Grade to drain shall not be paid for separately but shall be considered incidental to the various contract items.
 - The existing utilities shown are approximate only, the Contractor shall verify the exact location in the field.
 - All Demolition work shall not be paid for separately, but shall be considered incidental to the various items in the contract.
 - Imported material required for structure backfill will not be paid for separately, but shall be considered incidental to structure excavation.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**DRAINAGE IMPROVEMENTS
ON KAUONAHUA ROAD**
(Vicinity of Koga Store)
Proj. No. 930D-01-69
Scale: As Shown Date: April, 1969
SHEET No. 1 OF 1 SHEETS

DATE	_____
DESIGNED BY	_____
TRACED BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____