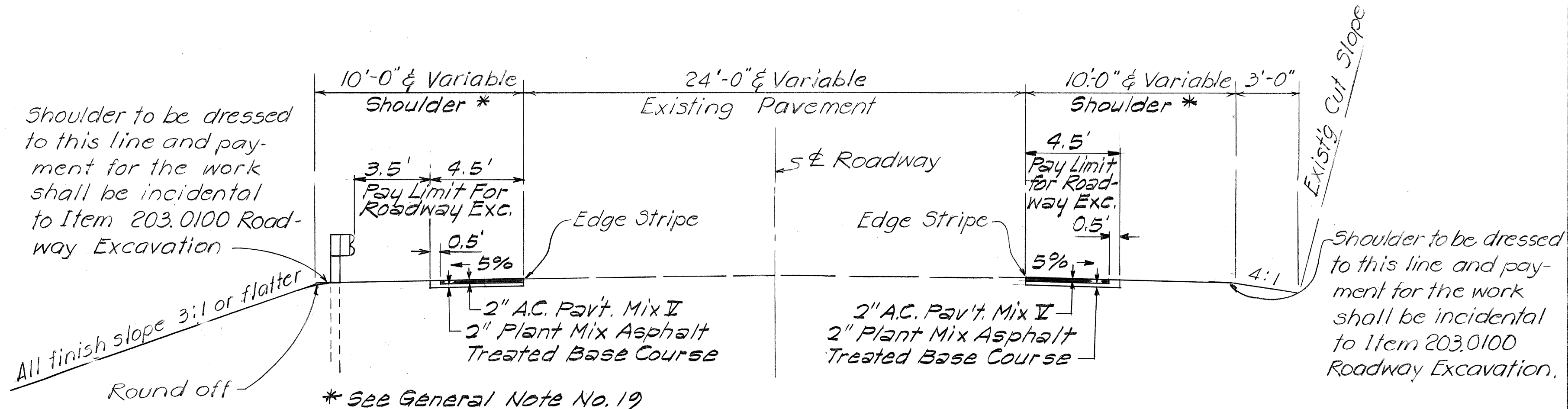


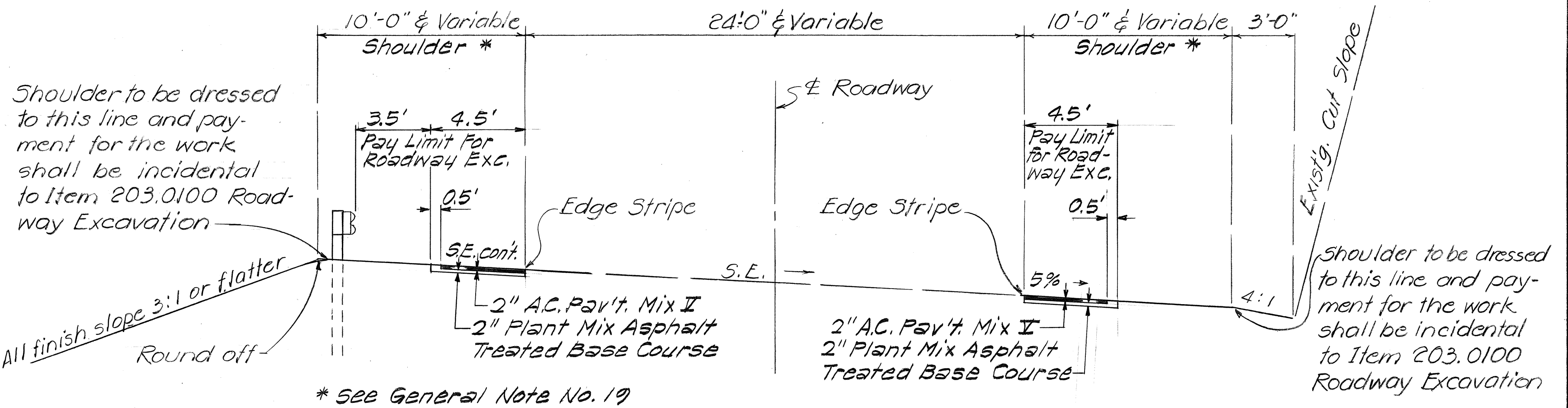
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	30C-01-78	1980	2	40

GENERAL NOTES

- All work shall conform to the Standard Specifications for Road and Bridge Construction, dated 1976.
- Prior to filling or resurfacing, the existing surface shall be cleaned as described in Section 310 of the Standard Specifications. Payment shall be considered incidental to A.C. Pavement Mix V, Item 401.0500.
- Ruts and depressions on the existing roadway pavement shall be filled and compacted with a thin layer of leveling course, Mix No. I prior to resurfacing. This leveling course will be considered as A.C. Mix No. I, and shall be paid for under Item No. 401.0500.
- Smooth riding connection shall be constructed at the beginning and at the end of the project and all connecting approaches and at extra widenings, as required by the Engineer.
- The A.C. Pavement thickness shall be 2 inches unless otherwise directed by the Engineer.
- Locations of regulatory and warning signs, milepost markers, reflector markers and route marker assemblies shall be Contractor stake out.
- Replacement of signs shall include removal of existing sign with posts, stockpiling, and install new sign with posts unless otherwise specified. The cost shall be incidental to pay item 621.5100.
- Installation of signs includes installation of new sign with posts unless otherwise specified.
- Replacement of Mile Post Marker with Post shall consist of a new Post with 2 Mile Post Marker Plates and 2 Highway Route Number Plates installed back-to-back at the locations designated on the plans.
- Layout of pavement edge striping shall be done by the Contractor. Contractor shall check layout of striping with the Engineer prior to performing work.
- The Contractor's attention is directed to Sub-section 104.04 of the Standard Specifications concerning maintenance of traffic flow.
- Extension of existing culverts - Removal of existing Headwall, excavation, culvert cushion bedding material, backfilling, ditch and channel exc., grade to drain, and cleaning of existing culverts shall be considered incidental to each respective culvert. Ditch and channel excavation shall be entire excavation to ocean and shall be disposed of by spreading on adjacent areas or as directed by the Engineer. See Typical Section of Drainage Channel on plan sheet No. 33.
- Reconstruction of Drop Intake - backfilling, ditch and channel exc., grade to drain and cleaning of existing drop intake shall be considered incidental to Item 668.0200.
- Removal of existing guard rails and posts shall be considered incidental to Item 606.3110 and 606.4160.
- Connection of new to existing concrete pipe culverts shall receive mortar in accordance with Section 603 of the Standard Specifications and Special Provisions.
- Existing concrete posts and wooden guard rails shall be dismantled and removed in a neat and workmanlike manner. All materials removed, including hardware shall be disposed of by the Contractor.
- Planting of trees shall be in accordance with Section 619 of the Standard Specifications. Total of twelve (12) trees and stumps to be removed including Keawe, Shower, and Monkey Pod. Eight (8) Coconut trees shall be planted in area between Sta. 47+00± to Sta. 100+00± R as designated by the Engineer.
- Shoulder excavation material to be disposed of in designated areas as shown on plan sh. No. 3. All fill slopes shown as disposal areas shall be grubbed & cleared prior to filling, at least 28 feet from edge of pavement. Payment shall be incidental to Item 203.0100
- Decreased scope of work in accordance with Sub-section 104.09-Availability of Funds of the Special Provisions, by reducing the paved shoulder width to 4.0' and substituting 2" Plant Mix Asphalt Treated Base Course in lieu of 4" Aggregate Base Course.



TYPICAL SECTION
ON TANGENT
Scale: 1/4" = 1'-0"



TYPICAL SECTION
ON SUPERELEVATION
Scale: 1/4" = 1'-0"

NOTE:
On high side of superelevated sections, shoulder slope shall be continuous with the pavement slope, when the slope equals or exceeds 0%. Shoulder slope on the low side shall be 5%.

General notes 2 & 3 applies to existing extra wide shoulders.

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

8/19/80	Revised shoulder and added General Note No. 19.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

**TYPICAL SECTIONS
& GENERAL NOTES**

HONOAPIILANI HIGHWAY
Proj. No. 30C-01-78

Scale: As Shown Date: 5/5/80

SHEET NO. 1 OF 4 SHEETS

SUMMARY

ITEM : 603.1010, 24" REINFORCED CONC. PIPE, CL. III
603.1014, 36" REINFORCED CONC. PIPE, CL. III
603.1018, 48" REINFORCED CONC. PIPE, CL. III
EXTENSION OF CULVERTS

STATION	SIZE AND TYPE	Lin. Ft.		
		603.1010	603.1014	603.1018
47+00 Lt.	Extend 48" Conc. Pipe	-	-	12
56+25 Lt.	Extend 24" Conc. Pipe	16	-	-
56+25 Rt.	Extend 24" Conc. Pipe	20	-	-
64+25 Lt.	Extend 24" Conc. Pipe	14	-	-
64+25 Rt.	Extend 24" Conc. Pipe	16	-	-
91+50 Lt.	Extend 36" Conc. Pipe	-	14	-
91+50 Rt.	Extend 36" Conc. Pipe	-	12	-
157+50 Lt.	Extend 24" Conc. Pipe	16	-	-
157+50 Rt.	Extend 24" Conc. Pipe	14	-	-
162+50 Lt.	Extend 24" Conc. Pipe	16	-	-
162+50 Rt.	Extend 24" Conc. Pipe	8	-	-
167+75 Lt.	Extend 24" Conc. Pipe	14	-	-
167+75 Rt.	Extend 24" Conc. Pipe	12	-	-
178+50 Lt.	Extend 2-24" Conc. Pipe	30	-	-
178+50 Rt.	Extend 2-24" Conc. Pipe	30	-	-
188+00 Lt.	Extend 24" Conc. Pipe	16	-	-
97+00 Rt.	Extend 2-24" Conc. Pipe	24	-	-
136+50 Rt.	Extend 24" Conc. Pipe	12	-	-
106+00 Lt. ±	Extend 24" Conc. Pipe	258 12	26	12
Total		270	26	12

SIGN SUMMARY

STATION	SIGN TYPE	ITEM NO. 621.			
		5100	5300	6100	7600
-2+00 Rt.	REDUCED SPEED 30 MPH R2-5b(30)-A	-	1	-	-
3+70 Lt.	SPEED LIMIT 45, MIN. 35, R2-4a(45/35)	1	-	-	-
4+25 Rt.	SPEED LIMIT 30 R2-1(30)-A	-	1	-	-
6+40 Rt.	W2-1	1	-	-	-
9+80 Lt.	NO PARKING ANY TIME R7-1	1	-	-	-
10+80 Lt.	NO PARKING ANY TIME R7-1	1	-	-	-
11+80 Lt.	NO PARKING ANY TIME R7-1	1	-	-	-
12+50 Lt.	M.P. 15	-	-	-	1
14+50 Lt. & Rt.	M1-6(30), M3-2, M3-4	-	-	2	-
15+25 Lt.	W2-1	1	-	-	-
17+30 Lt.	SPEED LIMIT 30 R2-1(30)-A	-	1	-	-
17+30 Rt.	SPEED LIMIT 45, MIN. 35 R2-4a(45/35)	1	-	-	-
26+25 Lt.	REDUCED SPEED 30 MPH R2-5b(30)-A	-	1	-	-
48+25 Lt.	W2-2	2	-	-	-
53+50 Lt.	SPEED LIMIT 45, MIN. 35 R2-4a(45/35)	1	-	-	-
54+50 Lt.	SPEED LIMIT 55, MIN. 45 R2-4a(55/45)	1	-	-	-
58+00 Lt.	REDUCED SPEED 45 MPH R2-5b(45)	1	-	-	-
65+25 Lt.	M.P. 14	-	-	-	1
89+50 Lt.	M1-6(30), M3-2, M3-4	-	-	2	-
118+00 Lt.	M.P. 13	-	-	-	1
144+00 Lt.	DO NOT PASS R4-1	1	-	-	-
171+00 Lt.	M.P. 12	-	-	-	1
0+38 Rt.	DO NOT PASS R4-1	1	-	-	-
5+00 Lt.	PASS WITH CARE R4-2	1	-	-	-
55+75 Rt.	PASS WITH CARE R4-2	1	-	-	-
55+75 Lt.	DO NOT PASS R4-1	1	-	-	-
130+27 Rt.	DO NOT PASS R4-1	1	-	-	-
136+60 Lt.	PASS WITH CARE R4-2	1	-	-	-
138+00 Lt.	PASS WITH CARE R4-2	1	-	-	-
TOTAL		20	4	4	4

DISPOSAL SITE SUMMARY

STATIONS	QUANTITY-C.Y.
-2+00 - 0+00 Rt.	11
45+00 - 72+00 Lt.	658
64+00 - 66+00 Rt.	76
71+00 - 73+00 Rt.	78
89+00 - 91+00 Rt.	18
90+00 - 92+00 Lt.	74
92+00 - 98+00 Lt.	82
108+00 - 110+00 Rt.	18
146+00 - 151+00 Rt.	182
153+00 - 158+00 Rt.	60
157+00 - 159+00 Lt.	8
160+00 - 163+00 Rt.	56
164+00 - 173+00 Lt.	187
173+00 - 178+00 Rt.	38
189+00 - 182+00 Lt.	26
TOTAL	1572

SUMMARY ~ REMOVAL OF LARGE TREES AND STUMPS

ITEM 201.0110		
STATION	TYPE	EACH
100+50± Lt.	TREE	1
114+50± Rt.	TREE	1
115+00± Rt.	TREE	1
115+40± Rt.	TREE	1
118+75± Lt.	TREE	1
119+00± Lt.	TREE	1
130+50± Lt.	STUMP	1
131+30± Lt.	TREE	1
137+50± Lt.	STUMP	1
142+00± Lt.	STUMP	1
142+50± Lt.	STUMP	1
150+50± Lt.	TREE	1
TOTAL		12

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	30C-01-78	1980	3	40

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
SUMMARY OF
CULVERTS, SIGNS,
FILL SECTION & TREES
HONOAPIILANI HIGHWAY
PROJECT NO. 30C-01-78
NO SCALE
MAY 1980
SHEET No. 2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	30C01-78	1980	4	40

SUMMARY

- ITEM 606.3110 - GUARD RAIL, TYPE 3 - SINGLE WITH STEEL POST
- ITEM 606.4160 - GUARD RAIL, TYPE 4K CONCRETE RIGID BARRIER
- ITEM 606.6010 - END ANCHORAGES C & F
- ITEM 606.7000 - TERMINAL SECTION, TYPE BCT
- ITEM 621.4100 - REFLECTOR MARKER WITH POST, (RM1 & RM3)

STATION TO STATION	606.3110 L.F.	606.4160 L.F.	621.4100 RM1 RM3	606.7000 EACH	606.6010 EACH - TYPE
-4+00 to 3+00 Lt.	100	-	3	1	-
-4+15 to -1+20 Rt.	225	-	-	1	-
7+00 to 9+50 Lt.	250	-	-	2	-
7+00 to 8+00 Rt.	100	-	-	2	-
9+80 to 11+80 Lt.	200	-	-	2	-
9+80 to 11+30 Rt.	150	-	-	2	-
12+25 to 33+50 Lt.	2125	-	10	2	-
37+50 to 40+00 Rt.	250	-	-	2	-
43+50 to 46+50 Rt.	300	-	1	2	-
51+50 to 55+50 Rt.	400	-	1	2	-
73+00 to 74+00 Rt.	100	-	-	1	-
74+00 to 76+50 Rt.	-	273.5	-	-	-
76+50 to 77+50 Rt.	100	274	-	1	-
100+00 to 101+00 Rt.	100	-	-	1	-
101+00 to 106+50 Rt.	101.6	275	-	-	-
106+50 to 107+50 Rt.	100	-	-	1	-
122+50 to 125+50 Lt.	300	-	1	1	-
124+75 to 125+25 Rt.	50	-	-	1	-
127+00 to 127+50 Rt.	50	-	-	1	-
127+50 to 128+50 Lt.	100	-	-	1	-
131+75 to 139+50 Lt.	775	-	3	2	2
138+50 to 139+50 Rt.	100	-	-	1	-
139+50 to 142+00 Rt.	-	275.2	-	-	-
142+00 to 143+00 Rt.	100	274	-	-	-
173+00 to 175+00 Rt.	200	-	-	2	2
181+00 to 185+00 Rt.	400	-	1	2	2
205+80 to 206+80 Rt.	100	-	-	-	1-Type C
	-	-	-	-	1-Type F
205+80 to 206+80 Lt.	103.4	-	-	-	1-Type C
	100	-	-	-	1-Type F
TOTAL	7375	#22	20	Sub-Total 46	34
	6733.90	1123.7			#4

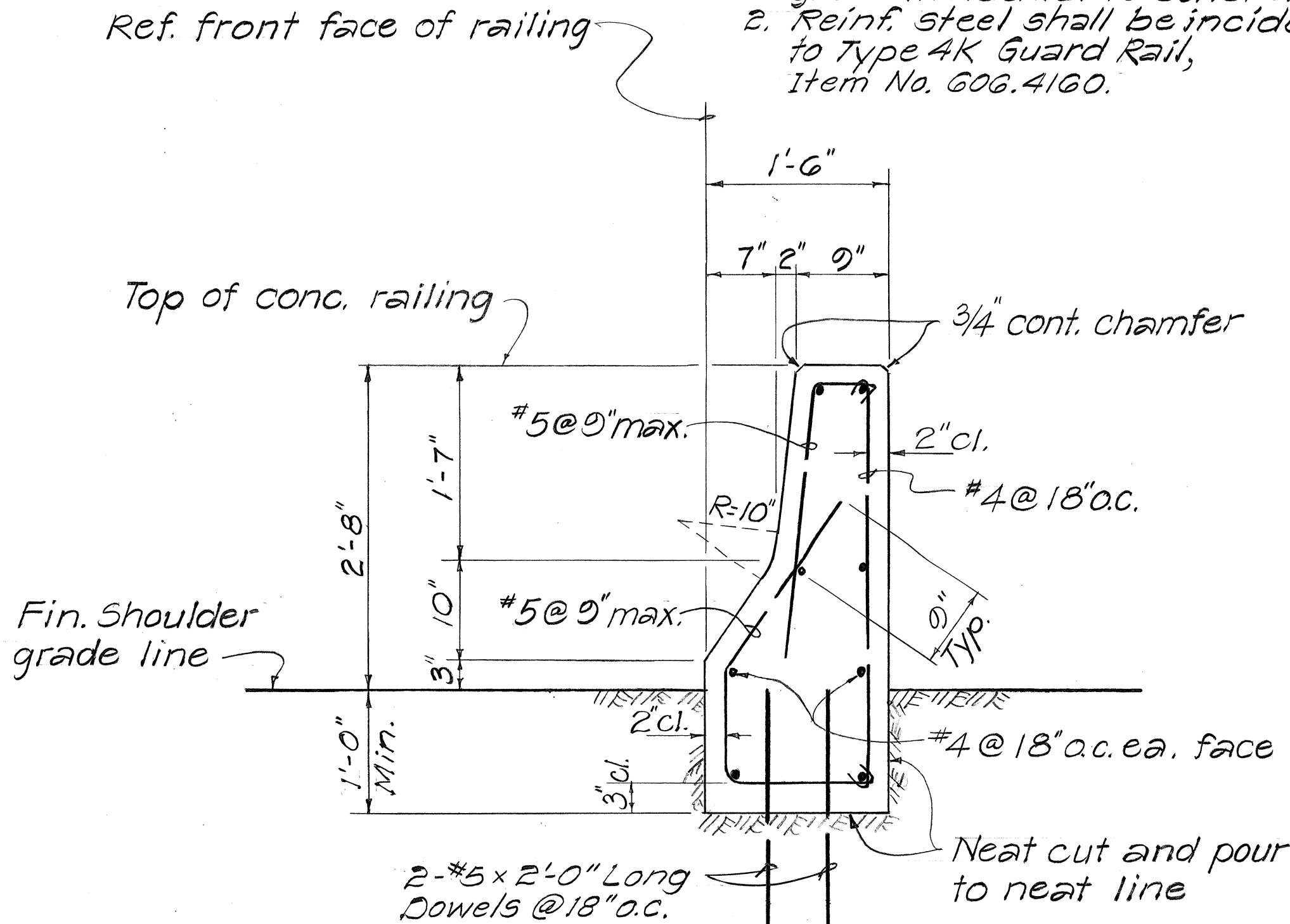
NOTE:

- Guard rail lengths exclude BCT Anchors.
- Additional RM-1's installed approx. Sta. 40+00 Lt. to Sta. 65+00 Lt. - Item 621.4100 = 9.

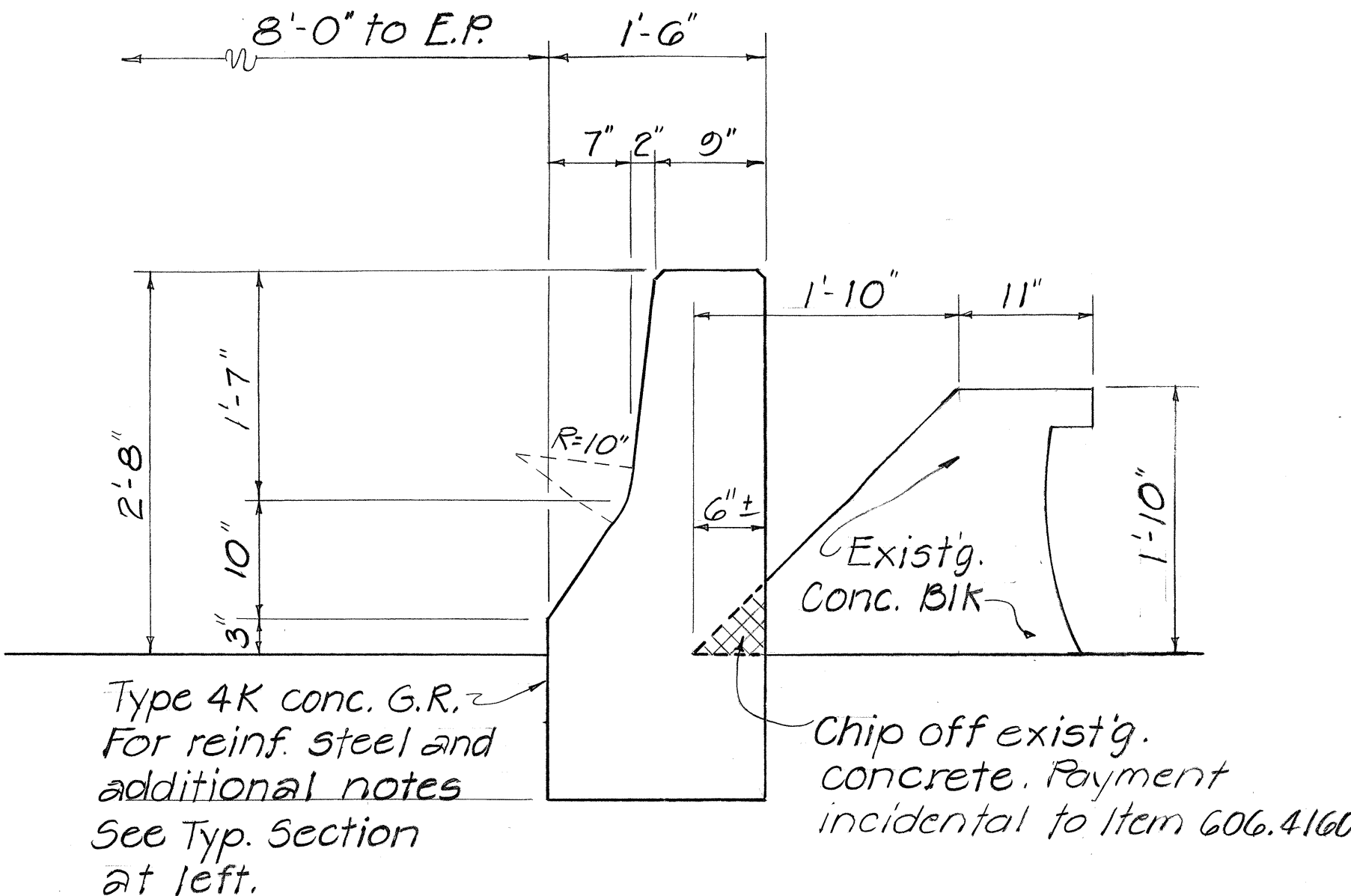
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
TYPE 4K GUARD RAIL,
SUMMARY OF GUARD RAIL &
REFLECTOR MARKER
HONOAPIILANI HIGHWAY
PROJ. NO 30C-01-78
SCALE: AS SHOWN
MAY 1980
SHEET NO. 3 OF 4 SHEETS

NOTE:

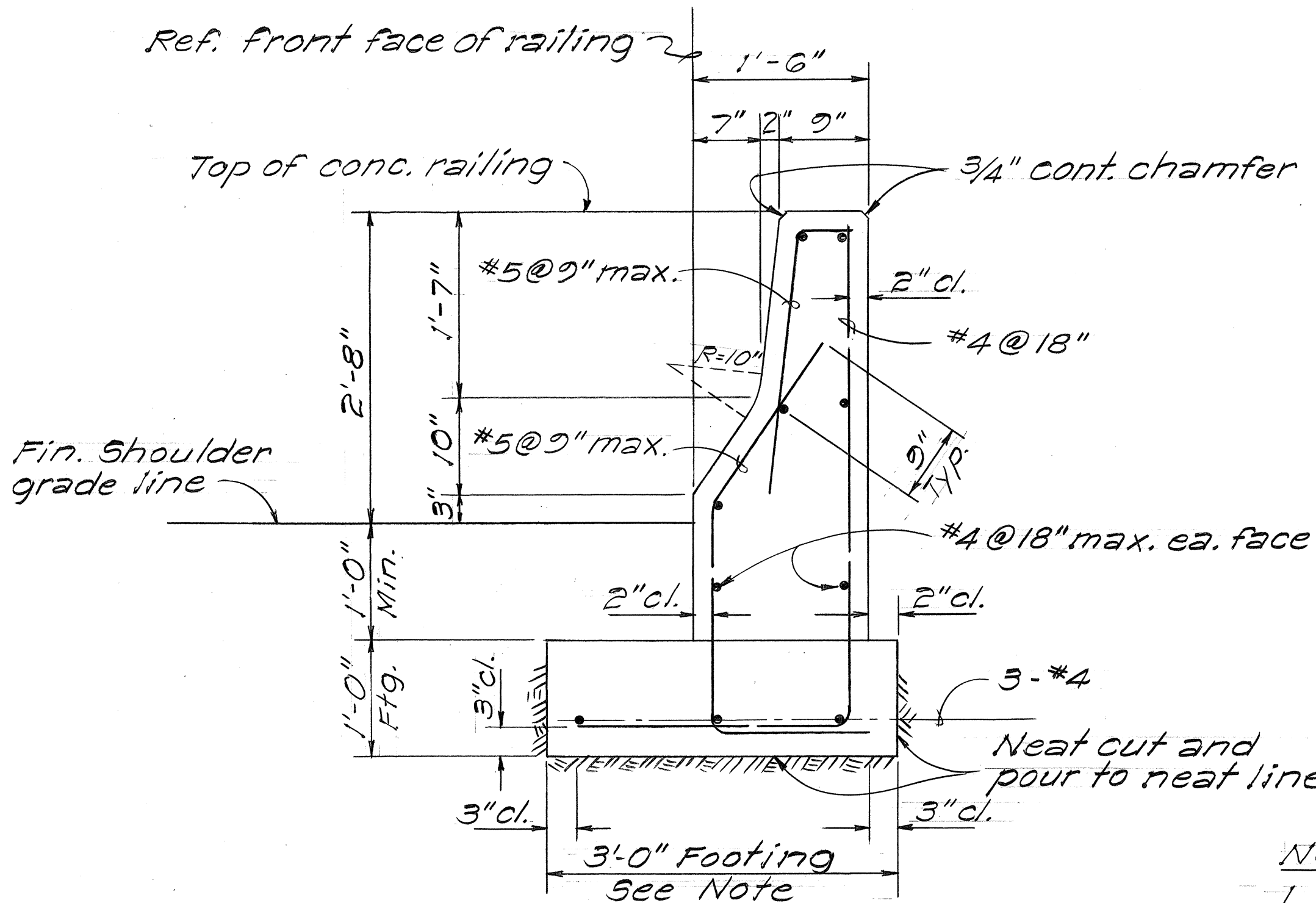
- Fill holes with epoxy grout to secure dowel. Drill holes & grout incidental to concrete.
- Reinf. steel shall be incidental to Type 4K Guard Rail, Item No. 606.4160.



TYPICAL SECTION (IN ROCK)
TYPE 4K GUARD RAIL W/O FOOTING
Scale: 1" = 1'-0"



TYPE 4K GUARD RAIL
@ STA. 101+00 to 106+50
Scale: 1" = 1'-0"



TYPICAL SECTION
TYPE 4K GUARD RAIL
Scale: 1" = 1'-0"

NOTES:

- Reinforced steel shall be incidental to Type 4K Guard Rail, Item No. 606.4160.
- Where solid rock is encountered, 1' x 3' footing may be eliminated, see "Typical Guard Rail Section without Footing."

STATION	621.4100 RM3
38+25 FACE CANE HAUL RD.	2
47+00 Lt.	1
64+25 Lt.	1
64+25 Rt.	1
91+60 Lt.	1
91+60 Rt.	1
97+00 Rt.	1
132+50 Rt.	1
136+50 Rt.	1
157+50 Lt.	1
157+50 Rt.	1
162+50 Lt.	1
162+50 Rt.	1
167+80 Lt.	1
167+80 Rt.	1
178+50 Lt.	1
178+50 Rt.	1
188+00 Lt.	1
56+25 Lt & Rt	2
Sub TOTAL	21
Brought Fwd	46
TOTAL	67

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

End of Conc. Rail

Hole for $\frac{5}{8}$ " ϕ x 16" long (length under head) Anchor Bolt

Hole for 4- $\frac{7}{8}$ " ϕ x 16" long (length under head) Anchor Bolts

Rail Post

8"

1'-0 $\frac{3}{4}$ "

4"

4"

1'-6"

1'-2 $\frac{1}{2}$ "

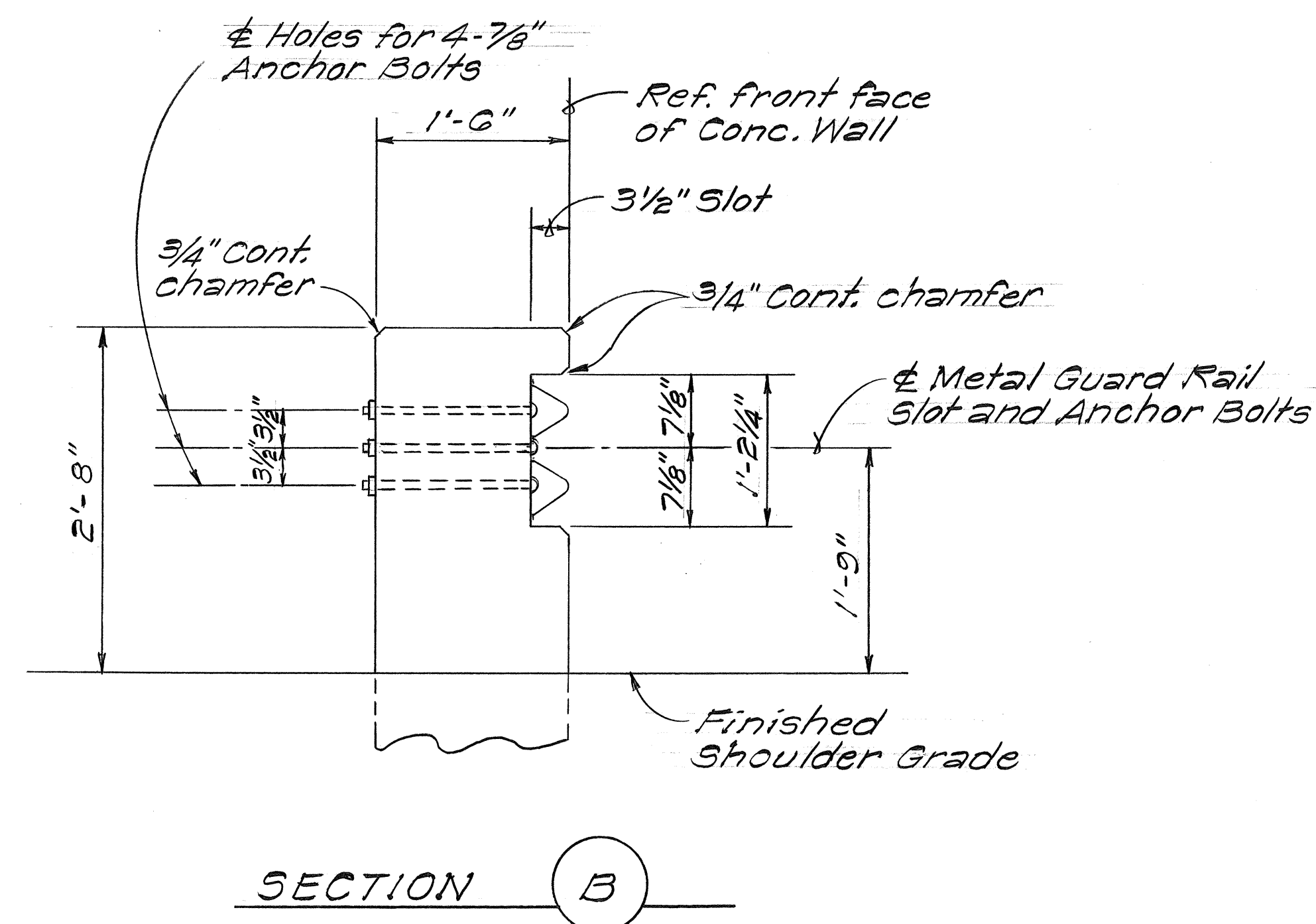
3'-1 $\frac{1}{2}$ "

3'-0"

2'-8" Slot

9'-0" Transition

Varies from sloping face to vertical face -



2. End Post shall meet the materials requirements of Subsection 606.02 Materials and shall be constructed in accordance with Subsection 606.03(c) Rigid Barrier Type Guard Rail of the Special Provisions and the Specifications.

Scale: 1" = 1'-0"

□