

[illegible][illegible]

spacing, location & size of bundle bars, see reinf. plan below.

BUNDLE BAR DETAIL

Existing Curb To Be Removed.

#6 @ 8" thru out

Cut bars as required @ M.H. See Det. (M)

2'-0" Tip

Bend and cut exist. vert. reinf. as shown thru out.

2-Pairs of #6 cont. bundle bars @ 7" o.c.

2-Pairs of #5 cont. bundle bars @ 8" o.c.

Manhole Opening

#6 @ 8" thru out. Cut bars as required @ M.H. See Det. (M)

FED. ROAD DIST. NO.	STATE	FED. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-070-1(14)	1968	7	24

5'-0" Exist. Sidewalk To Remain. (See Note)
 New Type "D" Curb
 Exist. Grade
 Manhole Opening
 Working Point - Top of M.H. Frame To Match With Top of New Finish Rdwy. Grade @ Low Pt. New Finish Roadwy. Grade To Match $A\frac{3}{4}"$ AC. Existing Rdwy. Grade.
 Top of New Slab level
 Hatched area indicate limits of removal of existing structure.
 2'-0" lap (Typ)
 10"
 2" cl. (top)
 3" Fillet
 #5 @ 12" both ways Cut bars @ M.H. See Det. (M).
 #5 @ 6"
 #6 @ 6"
 Cut bars @ M.H. See Det. See "Bott. Layer Reinf. Plan A"
 Existing Manhole structure shown by dash lines.
 Untreated Base
 Remove Existing Curb.
 Existing Reinf. - Clean and bend into new slab as shown
 M.H. Open'g. Symm. about Φ .
 Top layer - 4" o.c.
 Bott. layer - See Bott. layer reinf. plans A & B for bundle bar size and spacing.
 4" o.c. typ.
 5/8" Bol.
 Existing

Plan View:

- Existing Sidewalk (See Note)
- New Manhole (Upright Type 2 Frame. Use Salvaged Frame & Cover From Exst. Manhole.)
- Working Point - Top of M.H. Frame To Match With Top of Sidewalk.
- Top of Curb To Match Top of Sidewalk & Type "D" curb. See "Plan for Limits."
- Top of new slab at roadway to follow slope of finish roadway grade.
- Existing Grade
- New finish roadway grade.
- Set Manhole on slab
- #5 Cont. Around Ref. Top Slab
- 3' offit (level).
- Remove Exist. Curb.
- Untreated Base
- 4 3/4" A.C.
- 8' min. New Top Slab
- #5 @ 12" both ways Top Layer
- #6 @ 7" #5 @ 8" See "Bott. Layer Reinf. Plan B"
- 3" Fillet
- #4 @ 18" bent.
- Hatched area indicate limits of removal of existing structure.
- Exist. Reinft. - Clean and bend into new slab as shown.
- Ret. Wall

Cross Section:

- 5'-0" Existing Sidewalk (See Note)
- New M.H. Opening
- 2'-0" lap Typ. 2 #4 cont.
- Existing Sidewalk
- New M.H. Opening
- 2'-0" lap Typ. 2 #4 cont.
- 3" Fillet
- #4 @ 18" bent.
- #6 @ 7" #5 @ 8" See "Bott. Layer Reinf. Plan B"
- 3" Fillet
- #4 @ 18" bent.
- Double Dip Galv. Steel
- 1" through 1" Galv. pipe.
- 1" Galv. Pipe
- Ref. Top of Frame
- Typ. Top Lay Reinf.

M.H. ESTIMATED QUANTITIES

Location	Item	Sta. 267+30±	Sta. 270+85
Class A-1 Conc.	2.3	- 3.0 c.y.	1.1 - 2.0 c.y.
	Reinf. Steel	922.0 # 1054.6 #	523.0 # 646.0 #
Struct. Exc.		12.0 + 7.0 c.y.	6.0 + 1.0 c.y.

APPROVED:
[Signature]
 COMMANDER PACIFIC DIVISION NAVY
 DATE 1/15/68

M. H. ESTIMATED QUANTITIES			
Location	Item	Sta. 267+30±	Sta. 270+85±
	Class A-1 Conc.	2.3 3.0 c.y.	1.1 2.0 c.y.
	Reinf. Steel	1054.6 #	846.0 #
	Struct. Exc.	12.0 17.0 c.y.	6.0 11.0 c.y.

APPROVED: Frank W. Thomas 1/15/68
DATE
COMMANDER, PACIFIC DIVISION, NAVY
FACILITIES, ENGINEERING COMMAND

NOTE! Sidewalk over the manhole structure shall be reconstructed to meet adjacent portions of the existing sidewalk, and shall be incidental to reconstruction of top slab.

Top layer only - #6 x 5'-0" lq. added
bars around opening as shown.
Bot. layer - Cont. bundle bars.
see Bot. layer reinf. plans
A & B for bar size, spacing
and location.

PLAN VIEW SECTION (B)
MANHOLE OPENING DETAIL (M)

Note:
For general note see Sheet No.21

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REVISED NAVY
TELEPHONE MANHOLE

AT
Sta. 267+30 ± $\neq$ 270+85 ±

Kam. Hwy. Widening F.A. Proj. #F-090-1(14)
Scale: No Scale Date: Aug., 1961

SHEET No. 1 OF 1 SHEETS