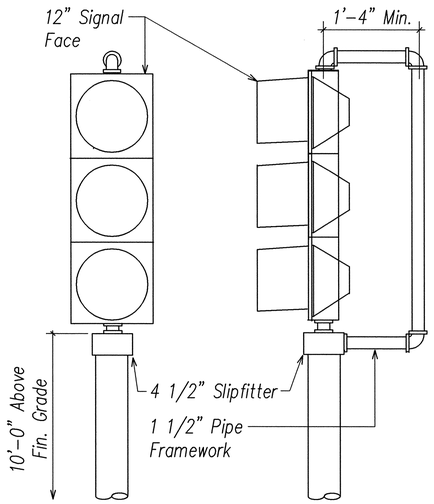
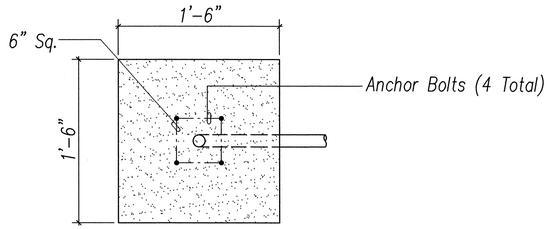
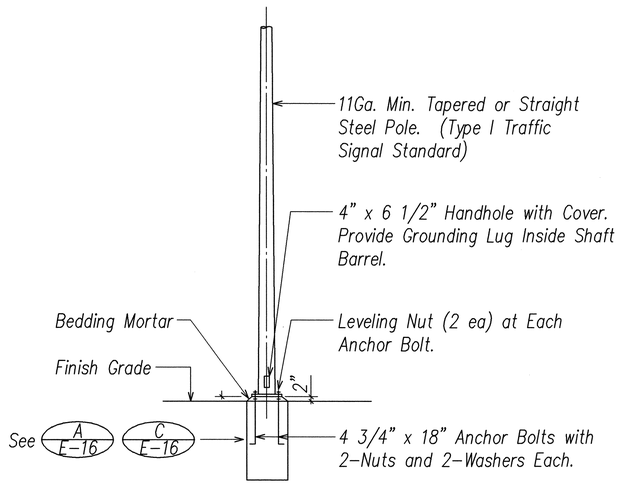
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-063-1(22)	2003	63	69



FRONT VIEW SIDE VIEW



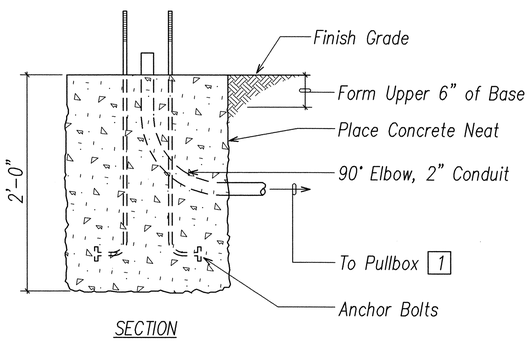
PLAN



NOTES:

1. Standard shall be Designed in Accordance with Latest Edition of "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals", with Design Revisions Noted on Sheet E-2.
2. Submit Shop Drawings for Approval.

A E-16 **TRAFFIC SIGNAL POLE DETAIL**
NOT TO SCALE



SECTION

NOTES:

1. Concrete Shall have a Minimum 28 Day Compressive Strength of 4000 psi.
2. Conduit Bend is Incidental to Concrete Base Construction.
3. 1 Provide #6 B.C. Wire from Ground Lug in Pole to Ground Rod in Pullbox.

B E-16 **CONCRETE BASE DETAIL**
NOT TO SCALE

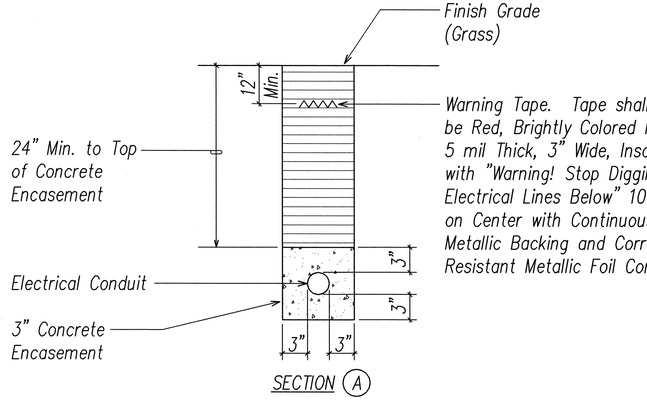
BACKFILL NOTES:

Type "A" Backfill – Earth & gravel. rock size to be 1" max. & the mixture to contain not more than 50% by volume of rock particles. 95% compaction.

Concrete – 3" encasement, 2500 psi compressive strength @ 28 days.

DUCT SECTION NOTE:

1. 24" Minimum Burial Depth, Depth Varies, Avoid Conflict with Other Utilities.
2. Contractor shall Restore Grass to Original Condition or Better After Backfill.



SECTION (A)

C E-16 **DUCT SECTION DETAIL**
NOT TO SCALE

SEAN K. SUGAI LICENSED PROFESSIONAL ENGINEER No. 9023-E HAWAII, U.S.A.

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SIGNATURE 4/22/03 — April 30, 2004 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL POLE DETAIL

LIKELIKE HIGHWAY
Wilson Tunnel Improvements
Leak and Crack Remediation
F. A. Project No. STP-063-1(22)

Scale: AS NOTED Date: April 24, 2003

SHEET No. E-16 OF 17 SHEETS

ORIGINAL PLAN | NOTE BOOK | No. | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

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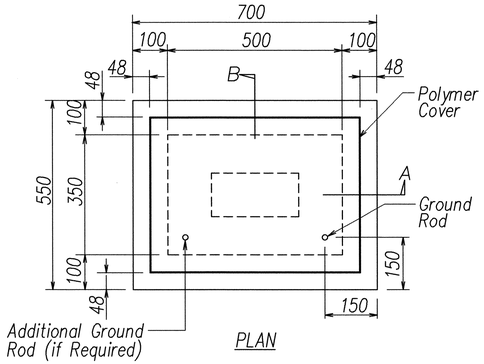
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-063-1(22)	2003	64	69



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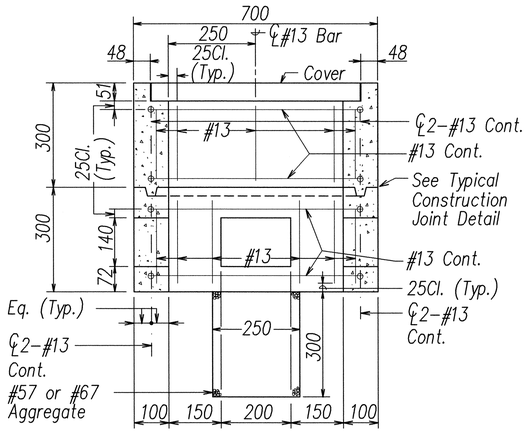
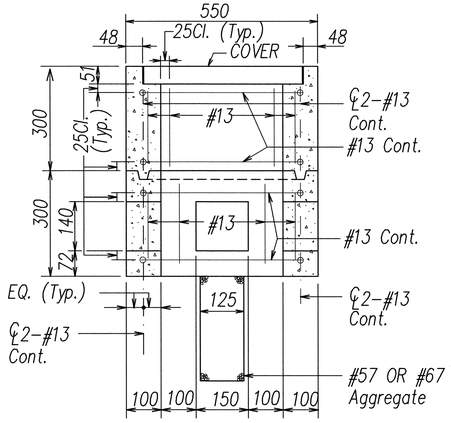


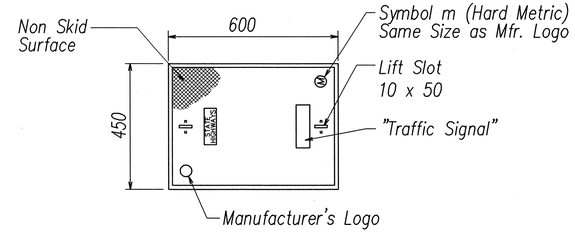
SECTION A-A



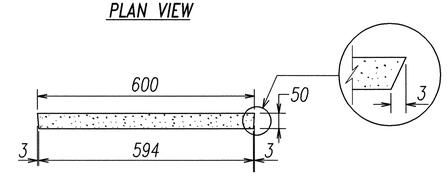
SECTION B-B

GENERAL NOTES FOR PULLBOX

1. Provide a minimum of one 16 x 2.5m copperweld ground rod in each pullbox. When directed by the Engineer, install additional ground rods. Cost of ground rods shall be incidental to the pullboxes.
2. All pre-cast concrete pullboxes shall be manufactured in two pieces.
3. The pullbox with cover shall be capable of supporting an MS 18 loading.
4. The maximum weight of the pullbox cover shall not exceed 27 kilograms.
5. The openings for the conduits on all pullboxes shall be pre-cast concrete knockouts.
6. After installing the conduits in the openings of the pullboxes, the Contractor shall fill the excess opening in the pre-cast knockouts with concrete mortar.
7. Prior to installing the pullboxes, the Contractor shall level the bottom of the trench and achieve a minimum of 95% relative compaction of the bottom of the trench.
8. All concrete shall be class A (25MPA, min.)
9. Rebars shall be grade 300 and all lapped splices shall be 360mm minimum.
10. The #57 or #67 size aggregate shall conform to latest version of AASHTO M43 (ASTM D 448).

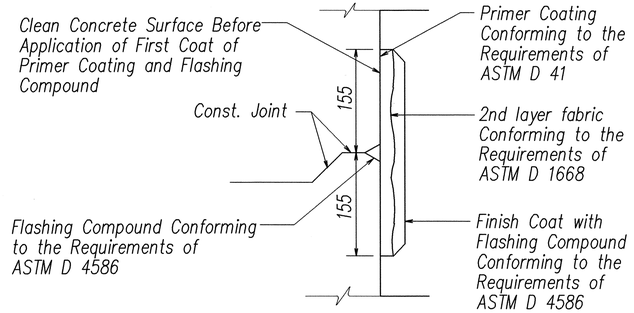


PLAN VIEW

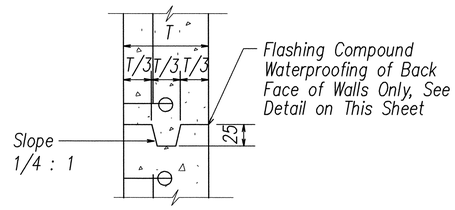


ELEVATION

C E-17 **POLYMER CONCRETE COVER**
NOT TO SCALE



B E-17 **FLASHING COMPOUND WATERPROOFING DETAILS**
NOT TO SCALE



D E-17 **TYPICAL CONSTRUCTION JOINT DETAIL**
NOT TO SCALE

A E-17 **TYPE "A" PULLBOX (OLD TYPE "B")**
NOT TO SCALE

All Dimensions on this Sheet are in Millimeters Unless Otherwise Shown

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