

6'-0"+D/2 7'-0"+D/2 -2**-#**6 Bars D/2+12"D/2_ -2-#6 Bars

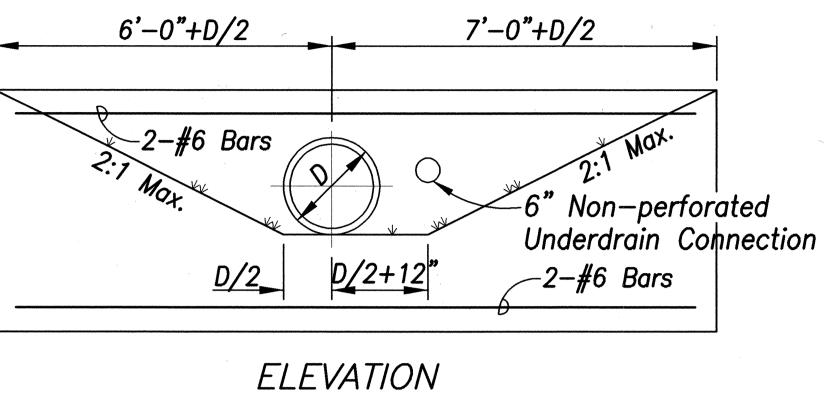
ELEVATION Scale: 1/2"=1'-0"

FOR SINGLE PIPE DRAIN

Note: For general notes & bevel detail see std. plan H−16.

CONCRETE HEADWALL DETAILS

Scale: 1/2"=1'-0"



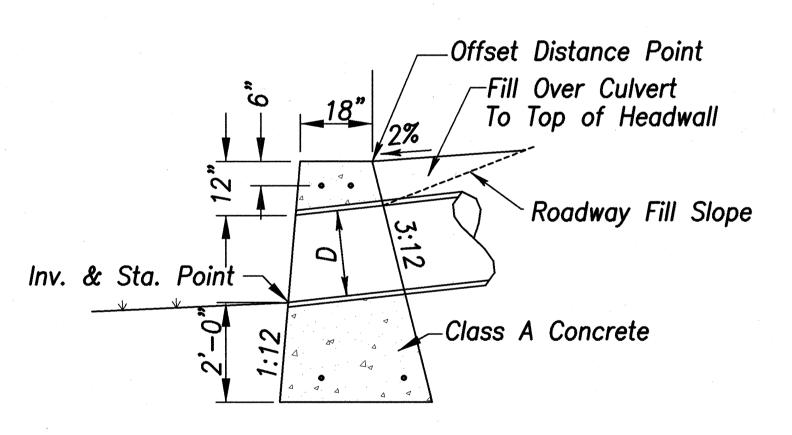
6'-0"+D/2

_2−#6 Bars

FOR DUAL DRAIN

ELEVATION

4'-0" For D=30" 4'-6" For D=36"



FED. ROAD DIST. NO.

STATE

D/2+12" with Underdrain

6'-0"+D/2 without Underdrain

7'-0"+D/2 with Underdrain

FISCAL YEAR

2003

NH-0311(5)

6" Non-perforated

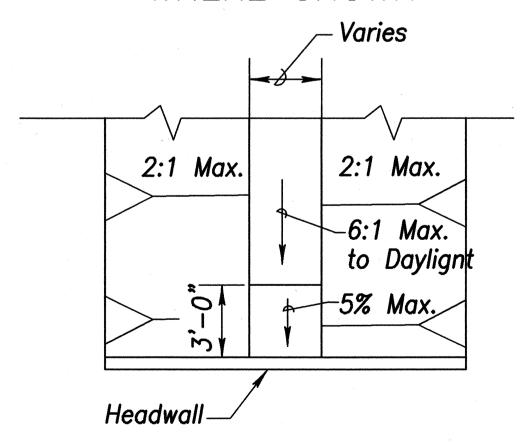
Underdrain Connection Where Shown

SECTION

Scale: 1/4"=1'-0"

TYPICAL EARTH SWALE

WHERE SHOWN



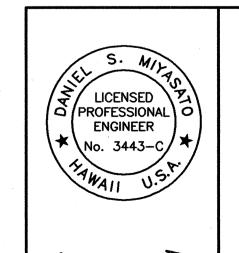
Note: Structure Excavation for earth swale and inlet condition will be paid for under Item No. 206.2025, "Structure Excavation for Drainage Culverts".

PLAN

Scale: 1/4"=1'-0"

TYPICAL INLET CONDITION

WHERE SHOWN



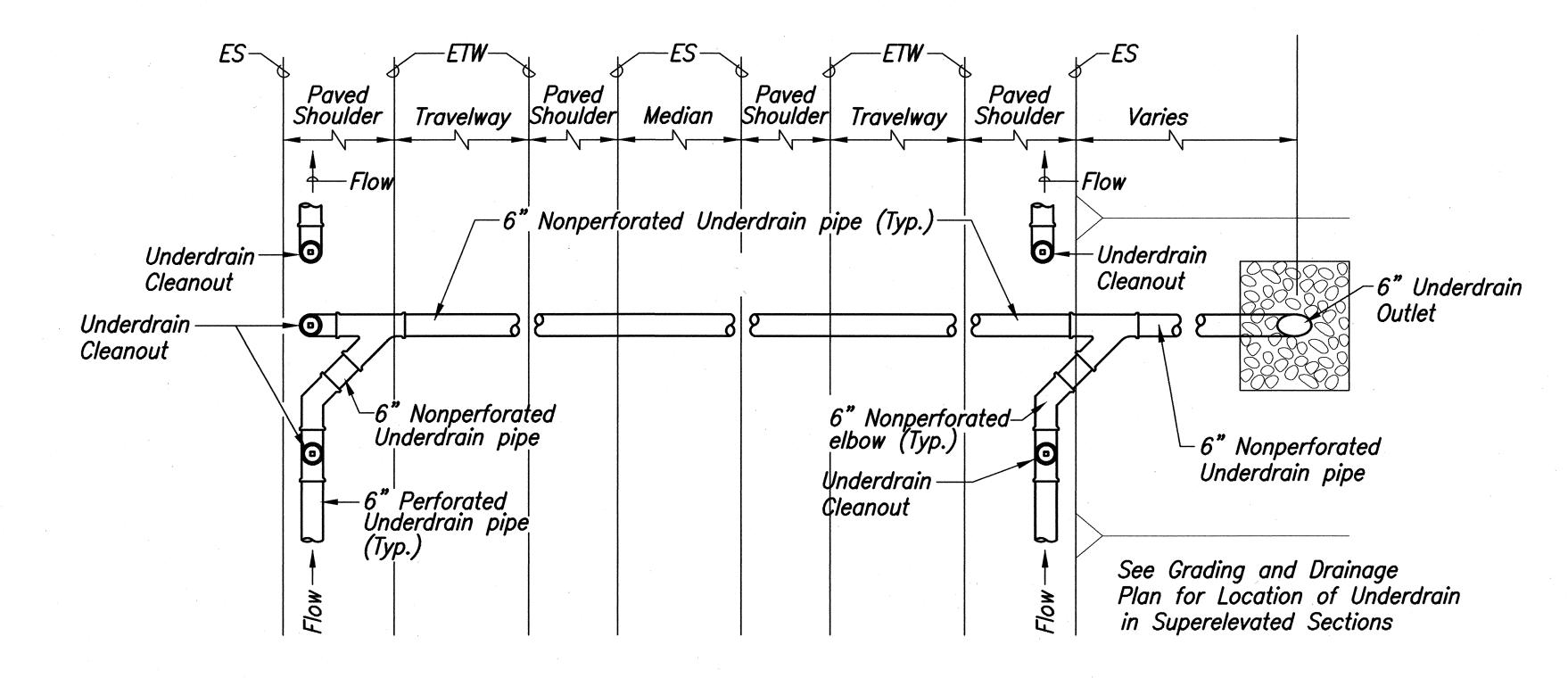
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

MOKULELE HIGHWAY WIDENING <u>Vicinity of Cane Haul Road</u>

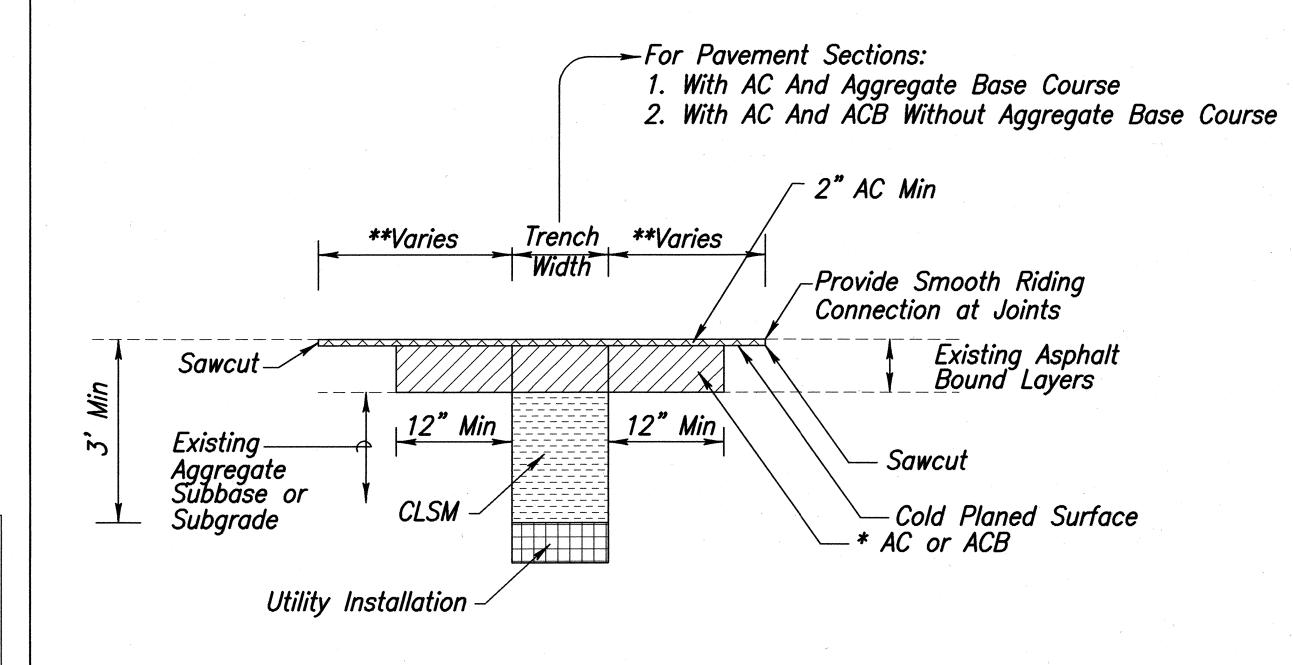
Maui Humane Society

Federal - Aid Project No. NH-0311(5) SATO & ASSOCIATES, INC. Date: JUNE 2002 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION SHEET No. 2 OF 4 SHEETS



CONNECTION TO UNDERDRAIN OUTLET

Scale: Not to Scale



* NOTES:

- 1. When Thickness Less Than 8", use AC
- 2. When Thickness 6" or Greater, use ACB or AC

** NOTES:

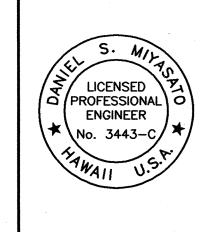
- 1. If Trench Aligned Transverse to Direction of Travel 1 Foot on Each Side of Trench.
- 2. If Trench Aligned Along Direction of Travel, to Edge of Lane in Which Edge of Trench Is Located.
- 3. Smoothness of Paved Surfaces: The Distance From The Paved Surface to the Testing Edge of a Ten-foot Straight Edge Between Two Points of Contact Shall Not Exceed 3/16".

NOTES:

- 1. This Trench Restoration is to be Used Wherever the Pavement is an Apshalt Surface, Including Medians and Paved Areas Between Guardrails. For Trenches Located in Unpaved Areas, the Backfill Need Not be CLSM and can be Backfilled as Specified in the Standard Specifications.
- 2. Tack Coat Exisiting Asphalt Bound Material Faces Prior to Filling Excavation With Asphalt Bound Material.
- 3. When Groundwater is Encountered in Trenches, Backfill With

ASPHALT PAVEMENT RESTORATION OVER TRENCH EXCAVATIONS FOR EXISITNG PAVEMENTS WITHOUT PERMEABLE BASE

Not to Scale



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

MOKULELE HIGHWAY WIDENING Vicinity of Cane Haul Road

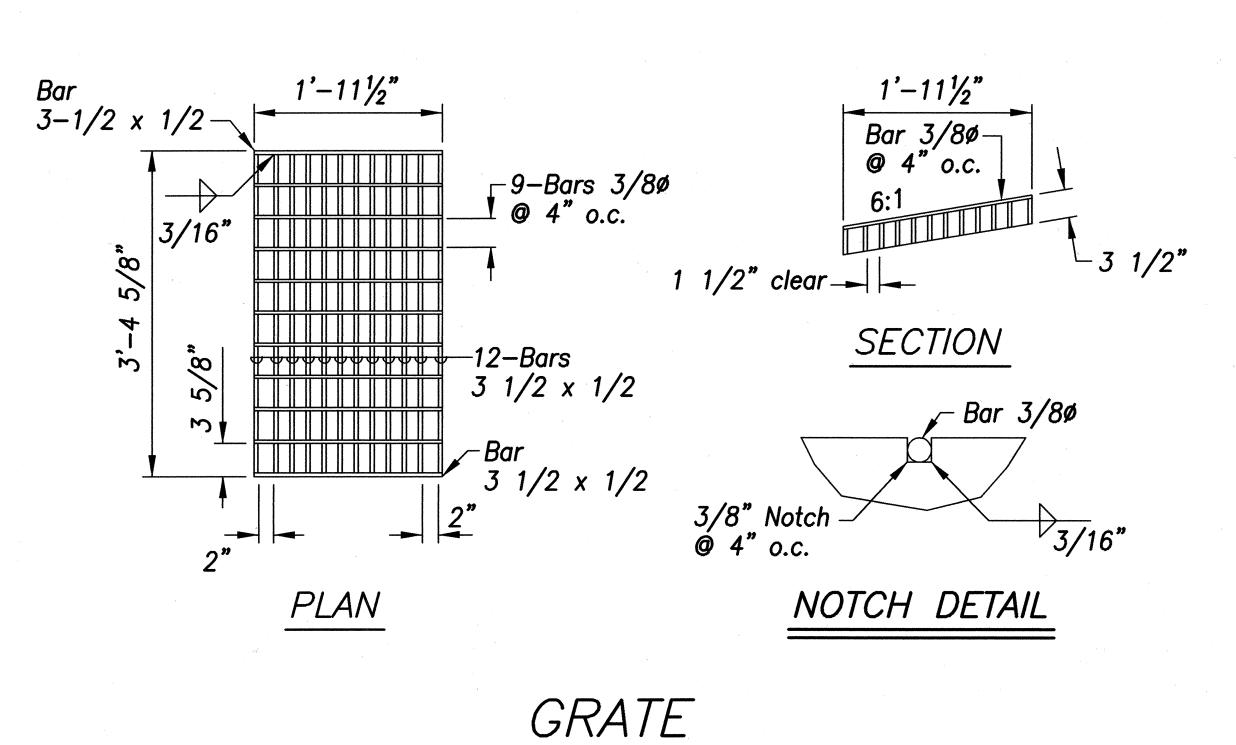
SATO & ASSOCIATES, INC. THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

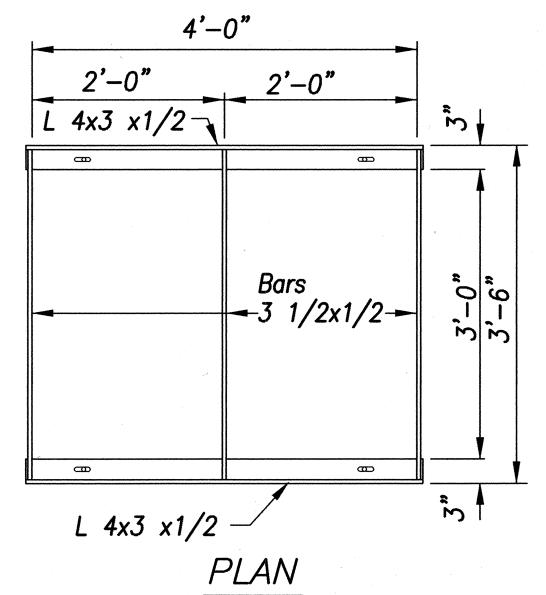
To Maui Humane Society Federal — Aid Project No. NH-0311(5) Date: JUNE 2002 Scale: AS NOTED

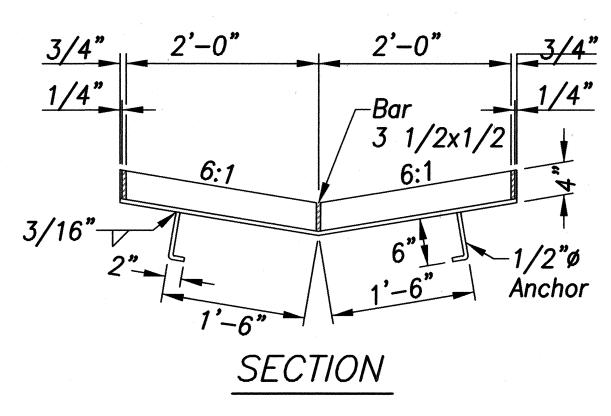
> SHEET No. 3 OF 4 SHEETS

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FED. ROAD DIST. NO. FEDERAL — AID PROJ. NO. FISCAL YEAR STATE NH-0311(5) 2003







GENERAL NOTES

- Frames and Grates shall be hot dip galvanized after frabrication
 All welds 3/8" unless otherwise noted
 Use in locations off the road bed on all types of highways. (Pedestrian safe)

FRAME

TYPE 61614P STEEL GRATES

Scale: 1"=1'-0"

LICENSED PROFESSIONAL ENGINEER

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

MOKULELE HIGHWAY WIDENING Vicinity of Cane Haul Road

To Maui Humane Society

Federal - Aid Project No. NH-0311(5)

Date: JUNE 2002 SHEET No. 4 OF 4 SHEETS