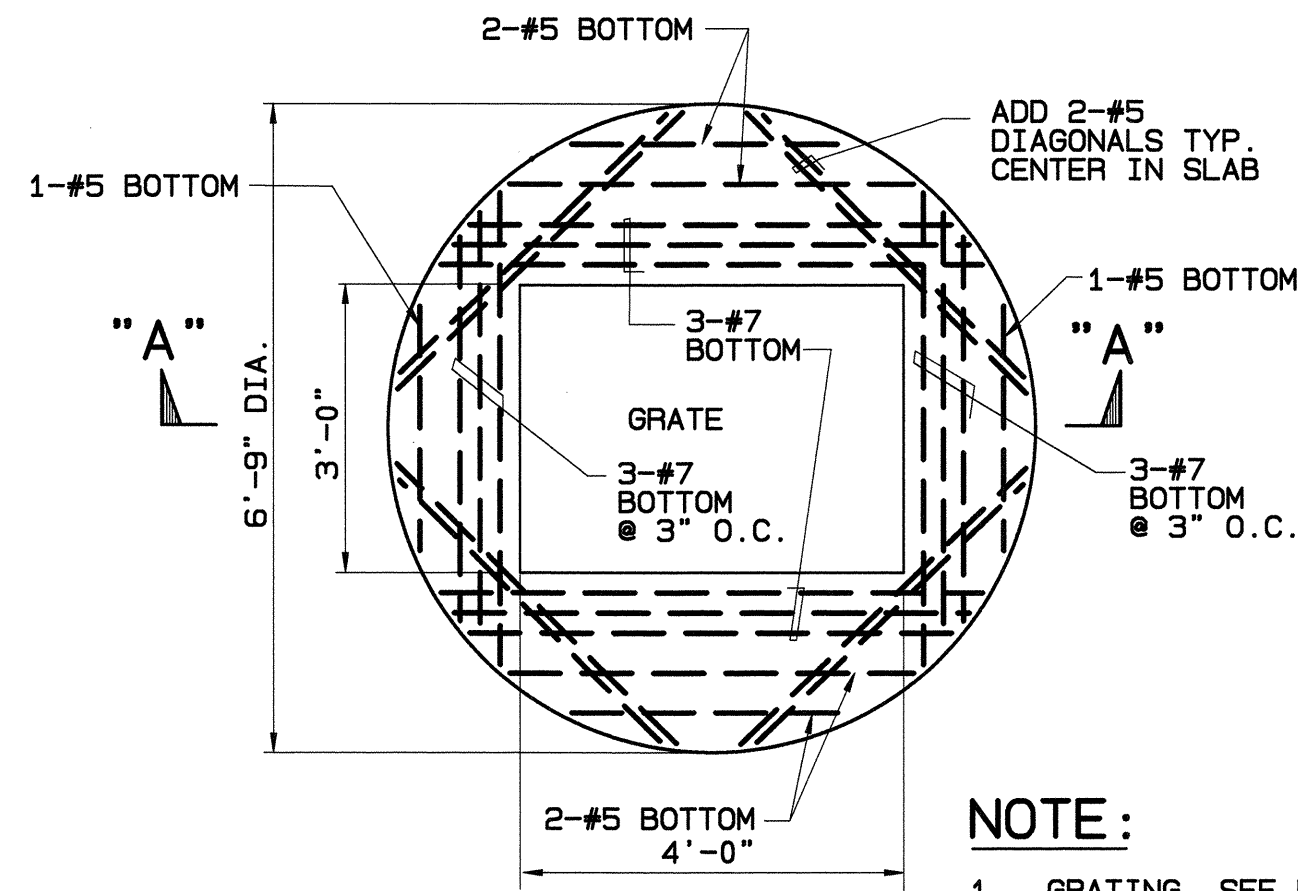
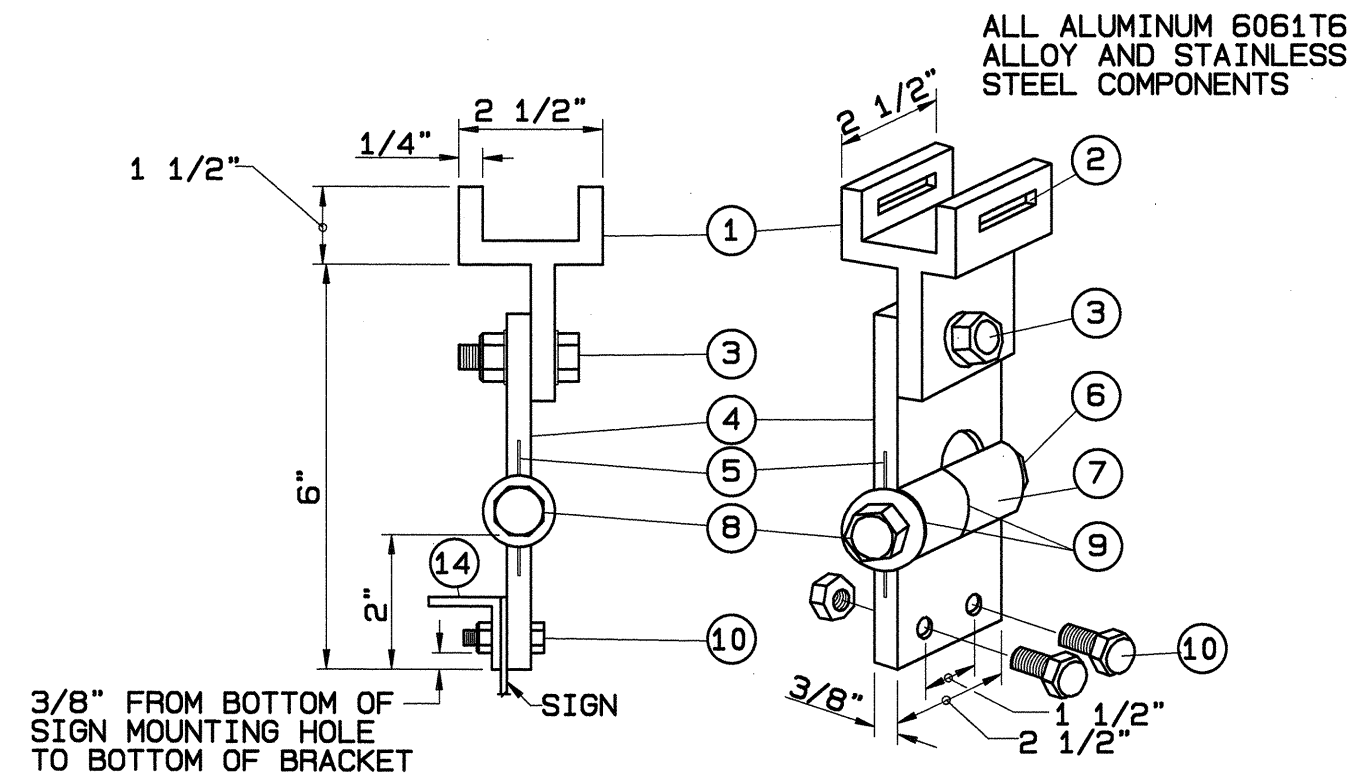




PLAN

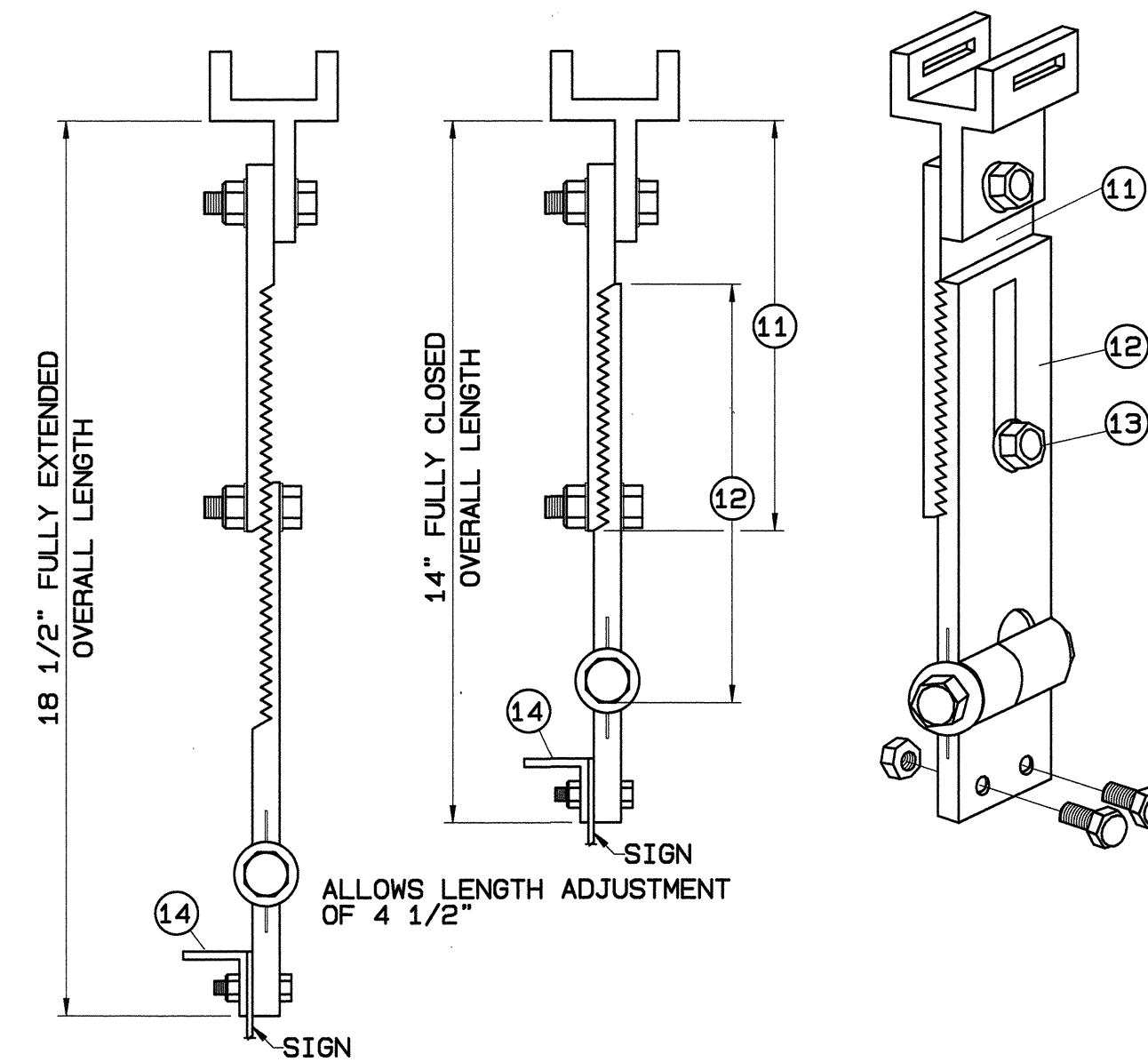
NOTE:

1. GRATING, SEE D.O.T. STD. PLAN H-13
2. CONCRETE-28 DAY COMPRESSIVE CONCRETE STRENGTH = 3000 PSI.



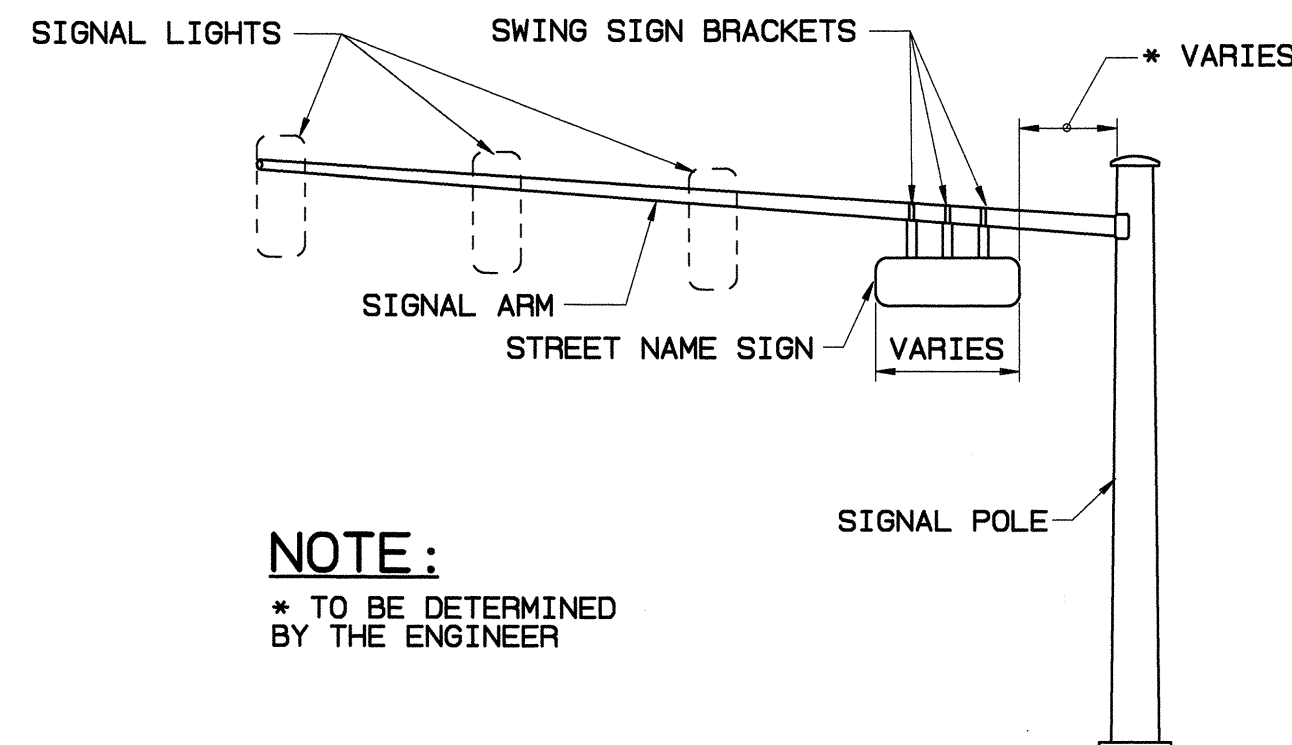
**FIXED LENGTH NON-ADJUSTABLE
SWING SIGN BRACKET**

NOT TO SCALE



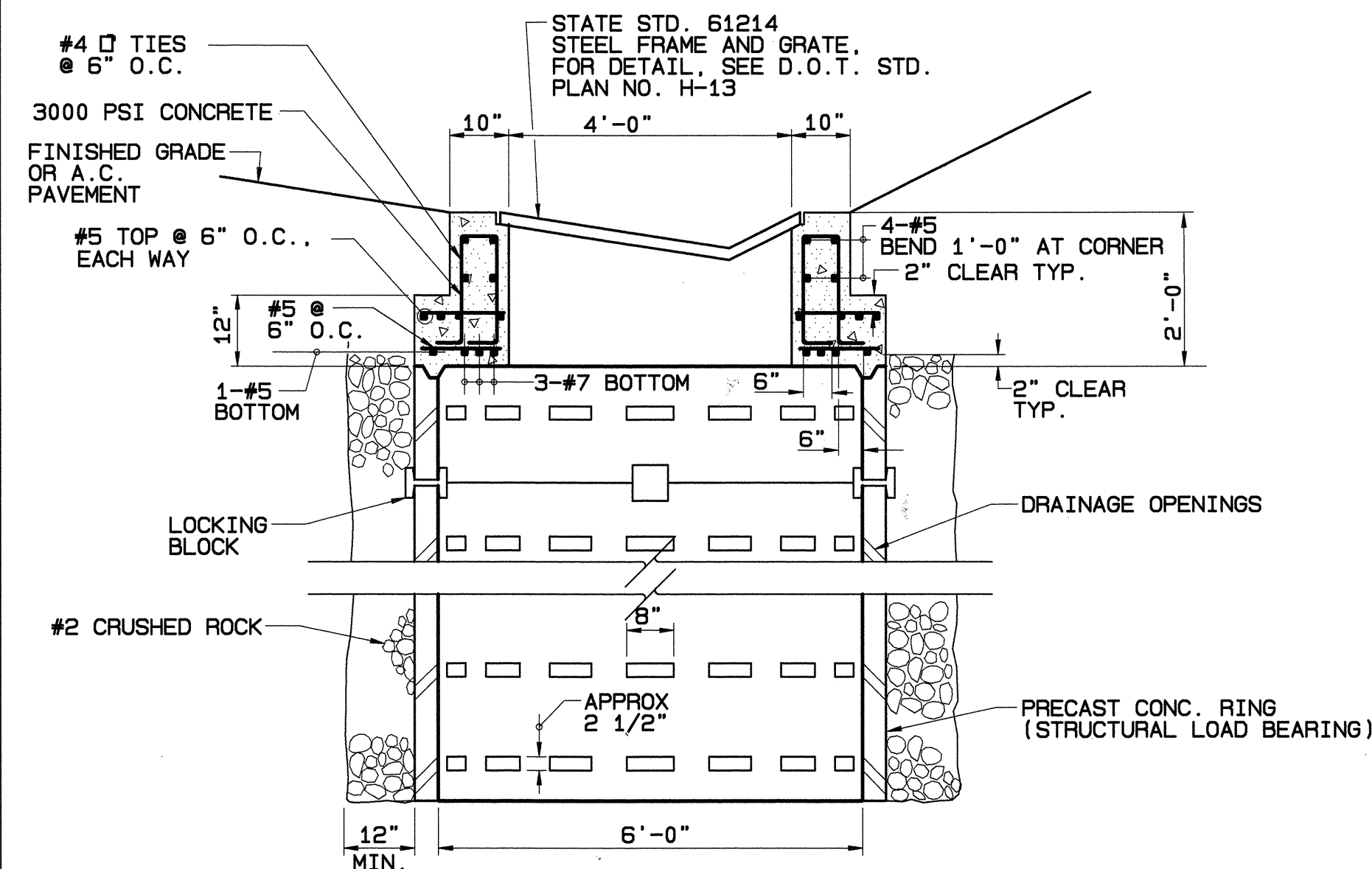
**ADJUSTABLE LENGTH
SWING SIGN BRACKET**

NOT TO SCALE



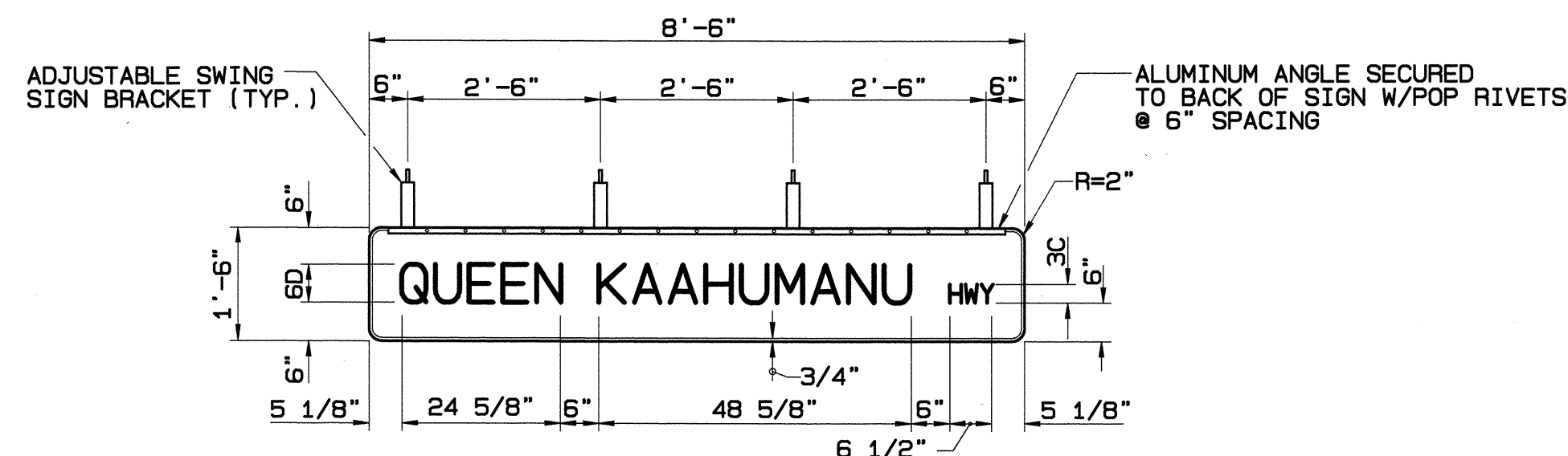
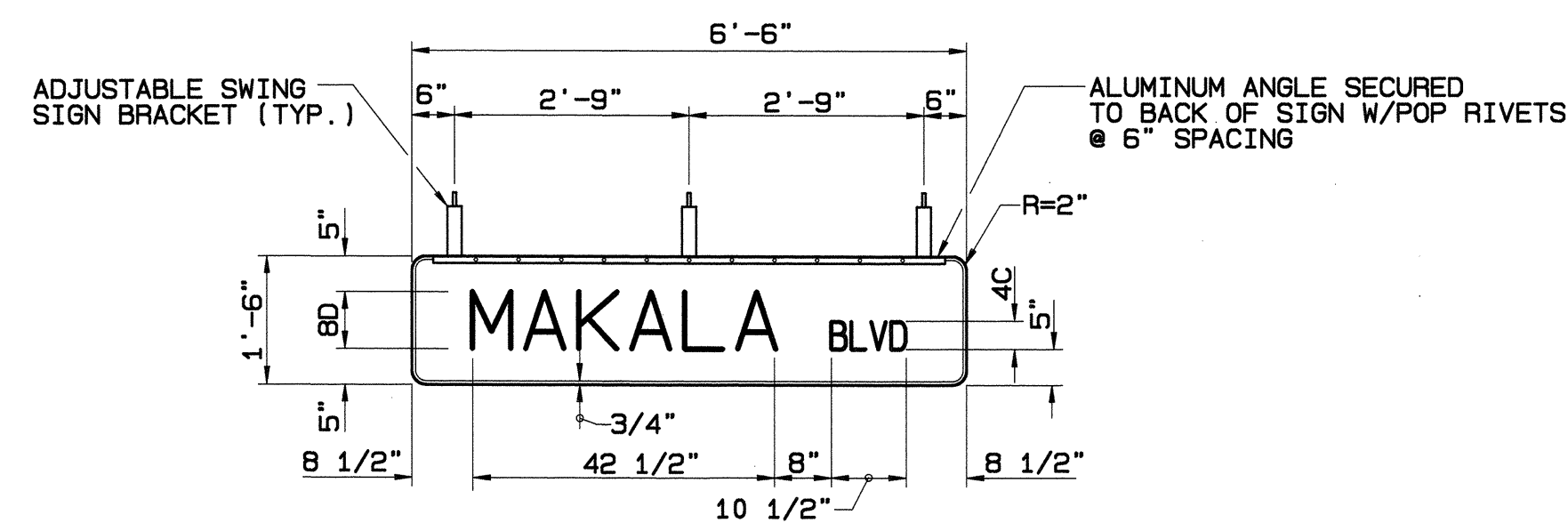
**STREET NAME SIGN
MOUNTING ON MAST ARM**

NOT TO SCALE



**SECTION "A"-A"
DRYWELL DETAILS**

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



**TYPICAL PANEL & SWING BRACKET
LAYOUT FOR STREET NAME SIGN**

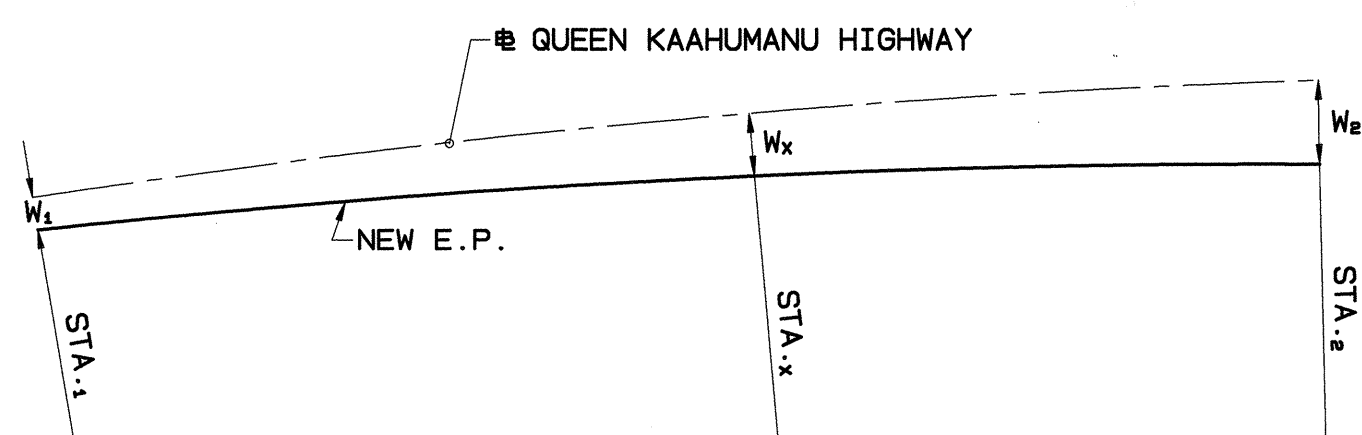
NOT TO SCALE

- MATERIAL DESCRIPTION**
- 1 PIVOTAL UPPER BRACKET
 - 2 1 5/8"x1/4" SLOT FOR DOUBLE STRAPPING TO ELECTROLIER MAST ARM. (M26-34S(HD).03"x3/4" HEAVY DUTY STAINLESS STEEL STRAP WITH M26-34B(HD) BUCKLE RECOMMENDED.)
 - 3 1/2"-13x1 1/2" STAINLESS STEEL HEX HEAD BOLT WITH STAINLESS STEEL HEX LOCK NUT AND 1/16" STAINLESS STEEL WASHER (BOTH SIDES). ALLOWS UPPER BRACKET TO PIVOT AND ALIGN WITH ELECTROLIER MAST ARM.
 - 4 6" OVERALL DROP WITH FIXED LENGTH SIGN BRACKET.
 - 5 STAINLESS STEEL DAMPER SPRING (REMOVABLE).
 - 6 STAINLESS STEEL HEX NUT WITH 1/16" STAINLESS STEEL WASHER.
 - 7 1" O.D. AXLE HOUSING.
 - 8 1/2"-13x1 1/2" STAINLESS STEEL HEX HEAD BOLT WITH 1/16" STAINLESS STEEL WASHER.
 - 9 OILITE BUSHING.
 - 10 SIGN MOUNTING SETS, CONSISTING OF TWO EACH 5/16"-18x1" STAINLESS STEEL HEX HEAD BOLT WITH STAINLESS STEEL HEX LOCK NUT. TWO HOLES ON 1 1/2" CENTERS PROVIDE POSITIVE LOCK SIGN MOUNTING TO BRACKET.
 - 11 8 1/4" OVERALL LENGTH UPPER ADJUSTABLE SIGN BRACKET SECTION.
 - 12 9" OVERALL LENGTH LOWER ADJUSTABLE SIGN BRACKET SECTION, INCLUDING AXLE HOUSING (8" OVERALL LENGTH TO TOP OF AXLE HOUSING).
 - 13 1/2"-13x1 1/2" STAINLESS STEEL HEX BOLT WITH STAINLESS STEEL HEX LOCK NUT AND 1/16" STAINLESS STEEL WASHERS (BOTH SIDES). LOOSEN LOCK NUT, ADJUST BRACKET TEETH TO LEVEL SIGN.
 - 14 1 1/4"x1 1/4"x 1/8" ALUMINUM ANGLE.

NOTE: DIMENSIONS MAY VARY SLIGHTLY.

SIGN NOTES

1. SIGNS SHALL BE NEW STREET NAME SIGNS. THE CONTRACTOR SHALL PROVIDE THE SAME MESSAGE ON THE FRONT AND BACK SIDE OF THE SIGN. PAYMENT WILL NOT BE MADE SEPARATELY BUT SHALL BE CONSIDERED AS ONE UNIT.
2. COLORS:
LEGEND - WHITE (REFLECTORIZED)
BACKGROUND - GREEN (REFLECTORIZED)
3. ALL PANELS SHALL BE REFLECTORIZED WITH TYPE B REFLECTIVE SHEETING IN ACCORDANCE WITH SECTION 712.20 OF THE STANDARD SPECIFICATIONS.
4. BORDERS AND MESSAGES SHALL CONFORM TO DETAILS AS SHOWN ON THE PLANS AND AS SPECIFIED IN THE MUTCD.
5. SIGN MOUNTING BRACKETS, ALUMINUM ANGLE, FIXTURE, FASTENERS AND ALL NECESSARY HARDWARE AND EQUIPMENT, TOOLS, LABOR, MATERIALS AND OTHER INCIDENTALS FOR INSTALLATION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO STREET NAME SIGN INSTALLATION.
6. ALL SIGNS SHALL CONFORM TO SECTION 621 OF THE STANDARD SPECIFICATIONS AND THE LATEST EDITIONS AND AMENDMENTS OF THE FOLLOWING FHWA PUBLICATIONS:
A. "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD)
B. "STANDARD HIGHWAY SIGNS"
C. "STANDARD ALPHABETS FOR HIGHWAY SIGNS"



- CONDITION 1 (WHEN $W_1 < W_2$): $W_x = [W_1 + \frac{W_2 - W_1}{STA. 2 - STA. 1}](STA. x - STA. 1)$
- CONDITION 2 (WHEN $W_1 > W_2$): $W_x = [W_1 - \frac{W_1 - W_2}{STA. 2 - STA. 1}](STA. x - STA. 1)$

NEW E.P. TAPER DETAIL

NOT TO SCALE

Rev	Date	Description	Eng	App

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

ROYDEN L. ISHII
LICENSED PROFESSIONAL ENGINEER
No. 4385-C
HAWAII, U.S.A.

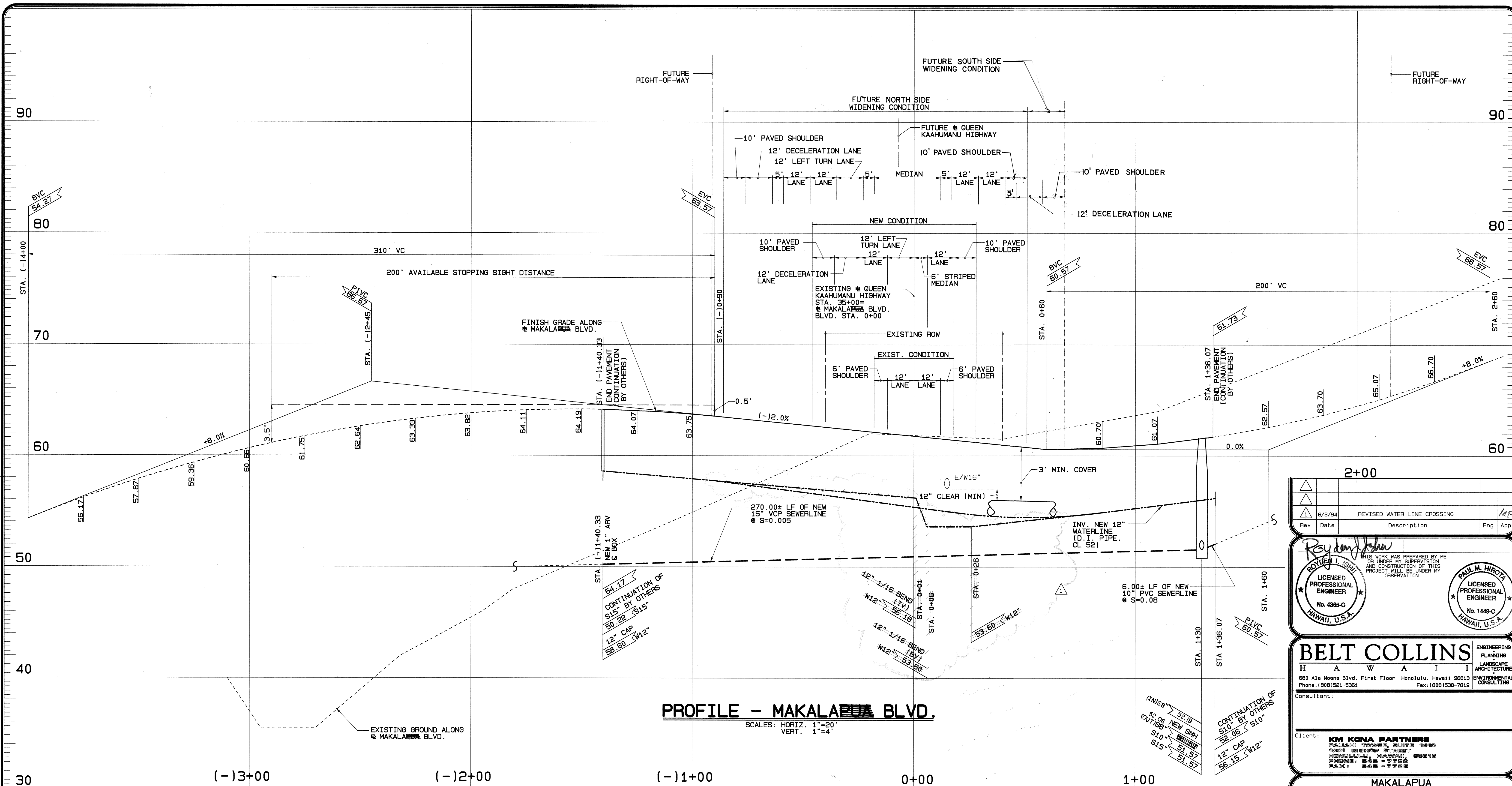
BELT COLLINS
H A W A I I
680 Ala Moana Blvd, First Floor Honolulu, Hawaii 96813
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FAX: 808-772-7222

MAKALAPUA
SIGNALIZED INTERSECTION AT QUEEN
KAAHUMANU HIGHWAY AND MAKALAPUA BLVD
**MISCELLANEOUS
DETAILS**

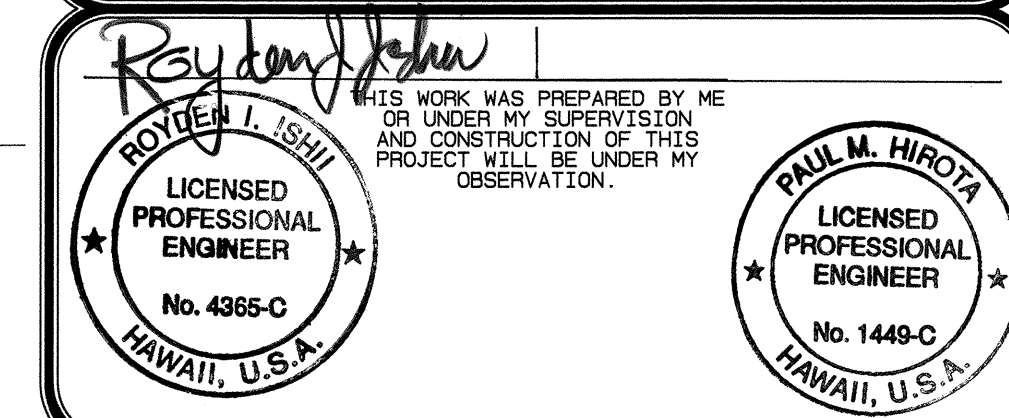
Designed By: **RI, KT** Drawn By: **OL**
Project No. **333.5000** Date: **JAN. 1994**
Approved By: _____

FILE	POCKET	FOLDER	NO.



VERTICAL CREST CURVE DESIGN INFORMATION	
DESIGN SPEED	= 30 MPH
REQUIRED STOPPING SIGHT DISTANCE	= 200'
AVAILABLE STOPPING SIGHT DISTANCE	= 200'

△				
△				
①	6/3/94	REVISED WATER LINE CROSSING		<i>Net</i>
Rev	Date	Description	Eng	App



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MAKALAPUA
SIGNALIZED INTERSECTION AT QUEEN
KAAHUMANU HIGHWAY AND MAKALAPUA BLVD

MISCELLANEOUS
PROFILE

Designed By: RI, KT Drawn By: OL
Project No. 333.5000 Date: JAN. 1994
Approved By: _____

Approved By: _____