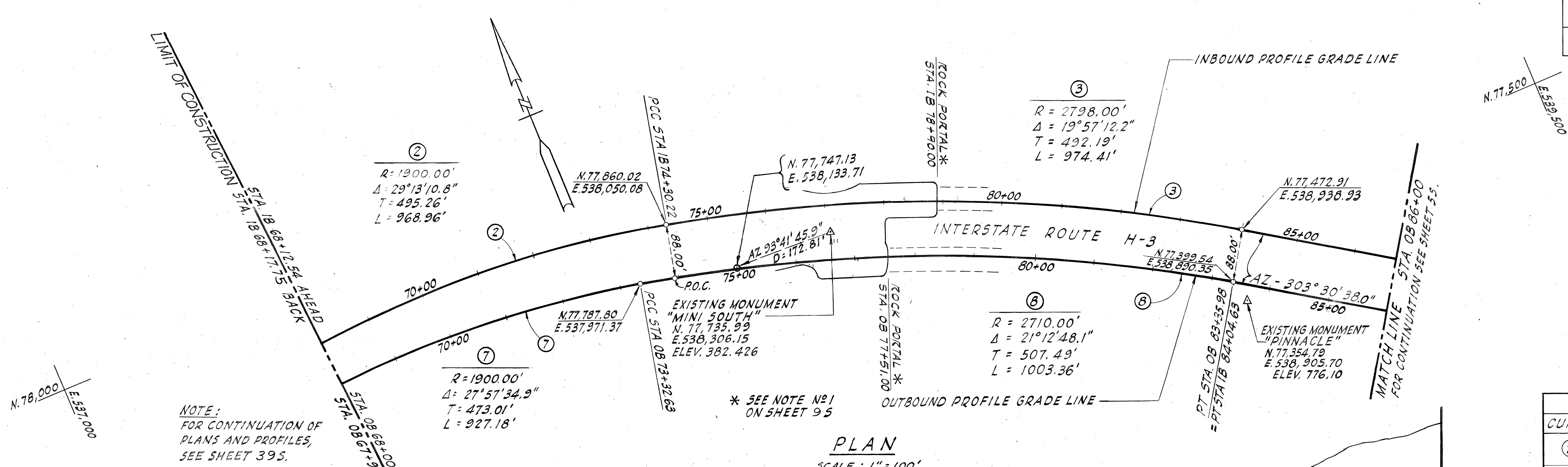


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-3(25)3	1975	8	111



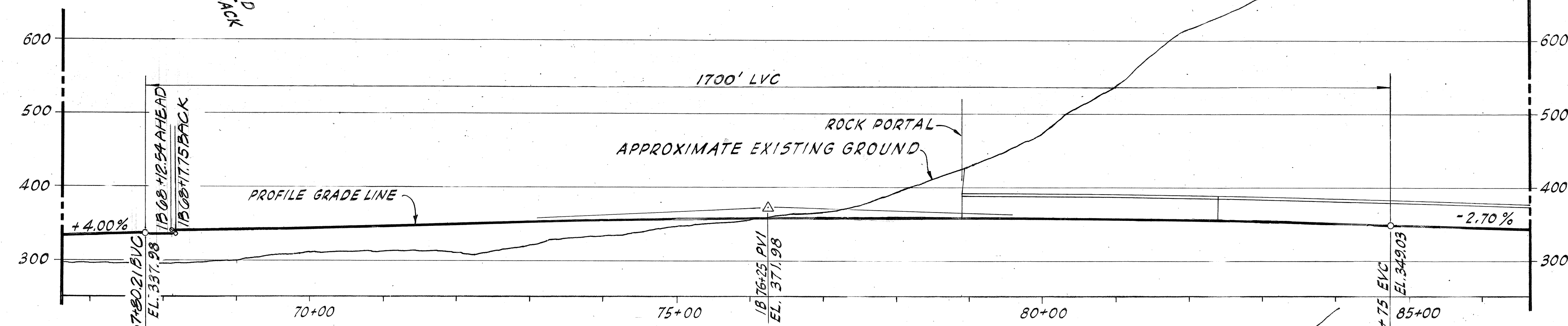
NOTE:
FOR CONTINUATION OF
PLANS AND PROFILES,
SEE SHEET 39S.

* SEE NOTE NO. 1
ON SHEET 9S

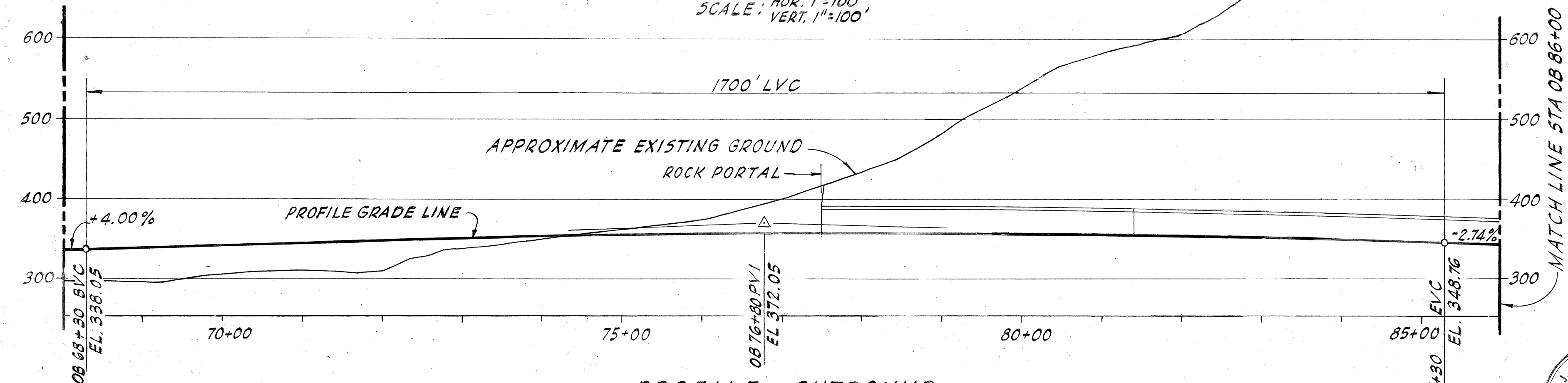
PLAN
SCALE: 1"=100'

CENTER OF CURVATURE & P.I.				
CURVE	POINT	COORDINATES		
②	C.C.	N. 76,012.96	E. 537,604.69	
	P.I.	N. 77,976.12	E. 537,568.62	
③	C.C.	N. 75,139.98	E. 537,394.19	
	P.I.	N. 77,744.64	E. 538,528.56	
⑦	C.C.	N. 75,931.40	E. 537,566.70	
	P.I.	N. 77,888.54	E. 537,509.21	
⑧	C.C.	N. 75,139.98	E. 537,394.19	
	P.I.	N. 77,679.72	E. 538,467.22	

- NOTES
1. SUPERELEVATION DIAGRAMS & ROADWAY CROSS SECTIONS ARE SHOWN ON SHEET 6S
 2. FOR ROADWAY GRADES-INBOUND, SEE SHEET 7S
 3. FOR ROADWAY GRADES-OUTBOUND, SEE SHEET 8S
 4. ORIGIN OF COORDINATES: HAWAIIAN PLANE COORDINATE SYSTEM ZONE 3.
 5. DATUM IS MEAN SEA LEVEL, ELEVATION 0.00

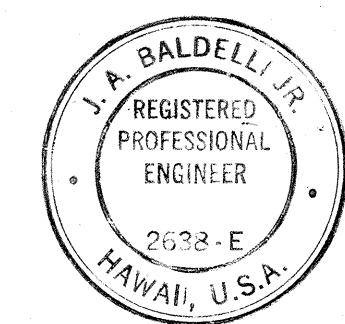


PROFILE - INBOUND
SCALE: HOR. 1"=100'
VERT. 1"=100'



PROFILE - OUTBOUND
SCALE: HOR. 1"=100'
VERT. 1"=100'

SURVEY PLANNED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	

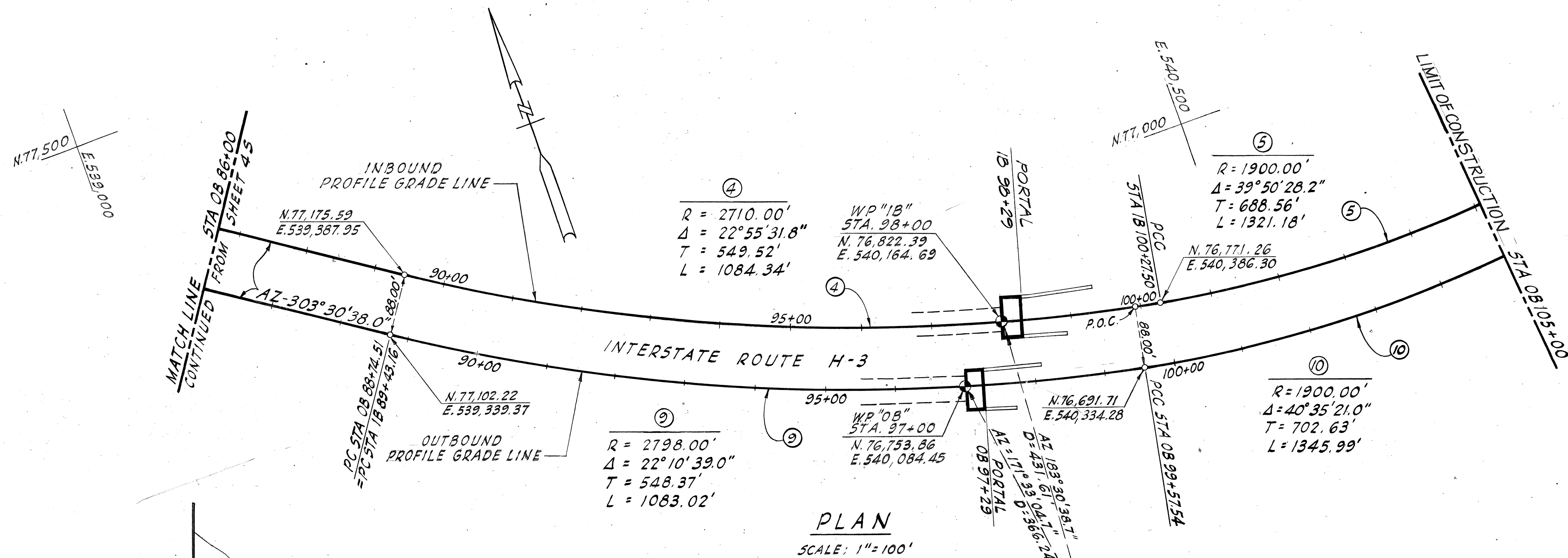


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.
Joseph A. Baldelli, Jr.

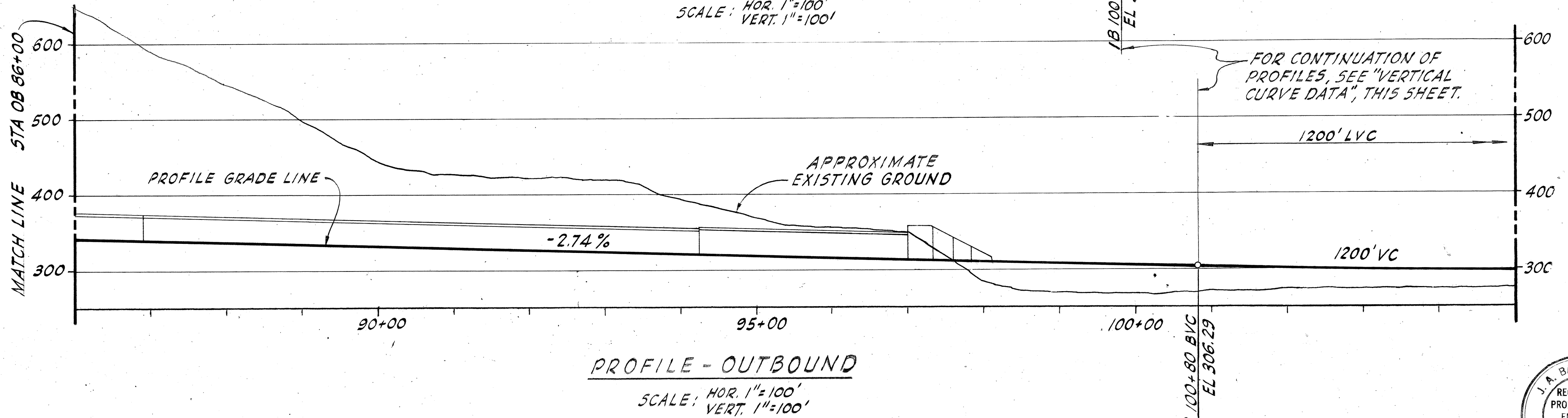
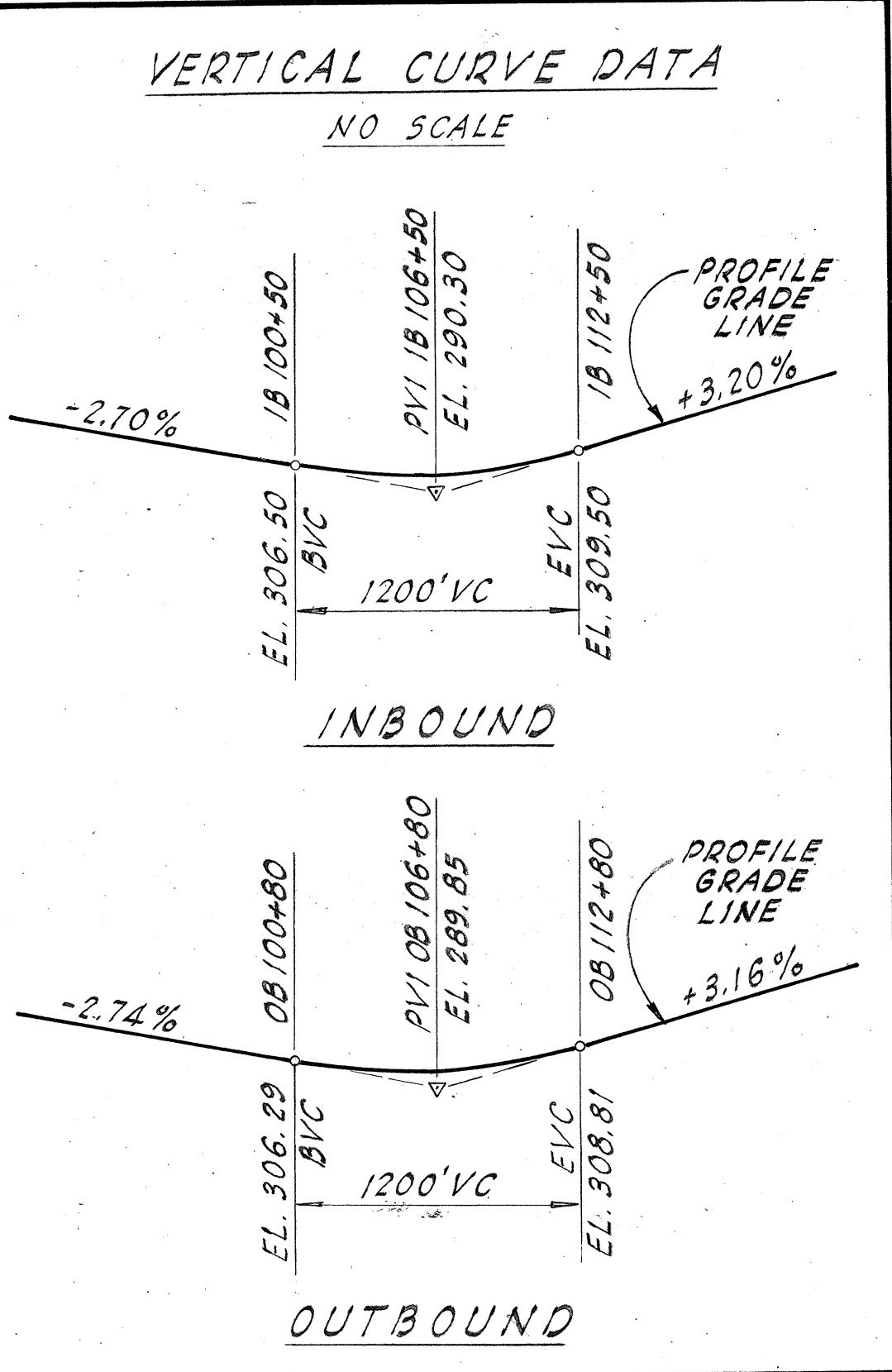
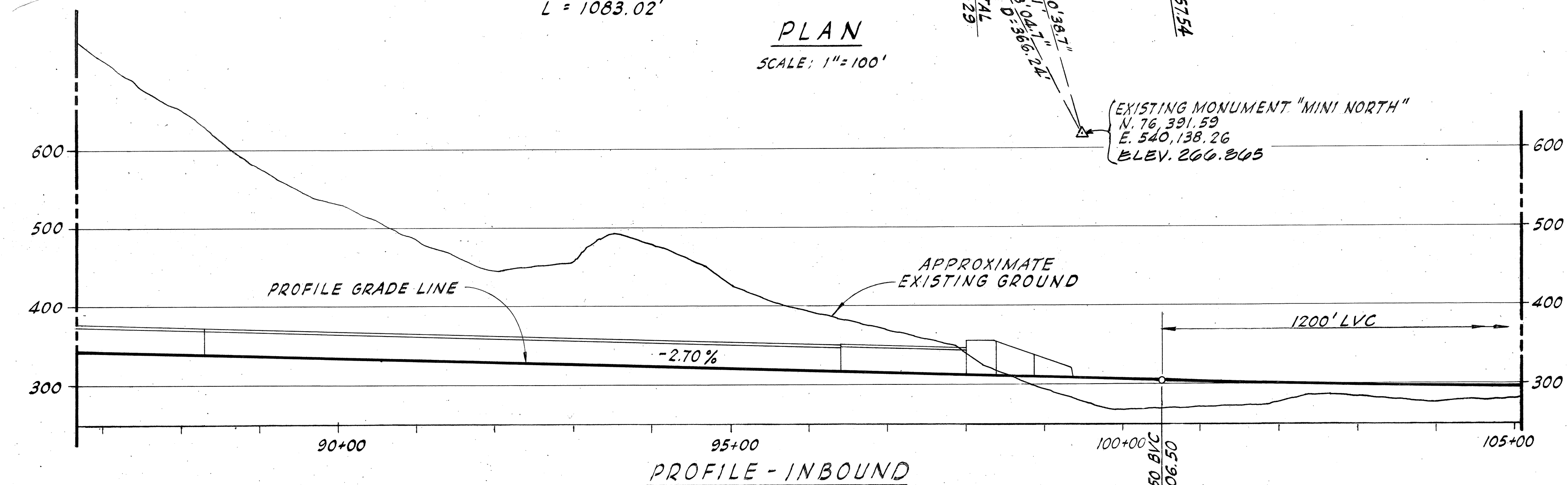
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RED HILL TUNNELS
ALIGNMENT & PROFILES
SHEET 1
F.A.I. PROJECT NO I-H-3-1(25)3
SCALE: 1"=100' DATE: JAN 31, 1975
SHEET No. 4S OF 85 SHEETS

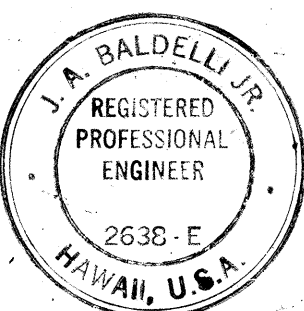
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H31(25)3	1975	9	111



CENTER OF CURVATURE & P.I.				
CURVE	POINT	COORDINATES		
④	C.C.	N. 79,435.15	E. 540,884.12	
	P.I.	N. 76,872.21	E. 539,846.13	
⑤	C.C.	N. 78,638.93	E. 540,735.33	
	P.I.	N. 76,644.78	E. 541,063.15	
⑨	C.C.	N. 79,435.15	E. 540,884.12	
	P.I.	N. 76,799.47	E. 539,796.59	
⑩	C.C.	N. 78,554.66	E. 540,707.65	
	P.I.	N. 76,553.63	E. 541,023.20	



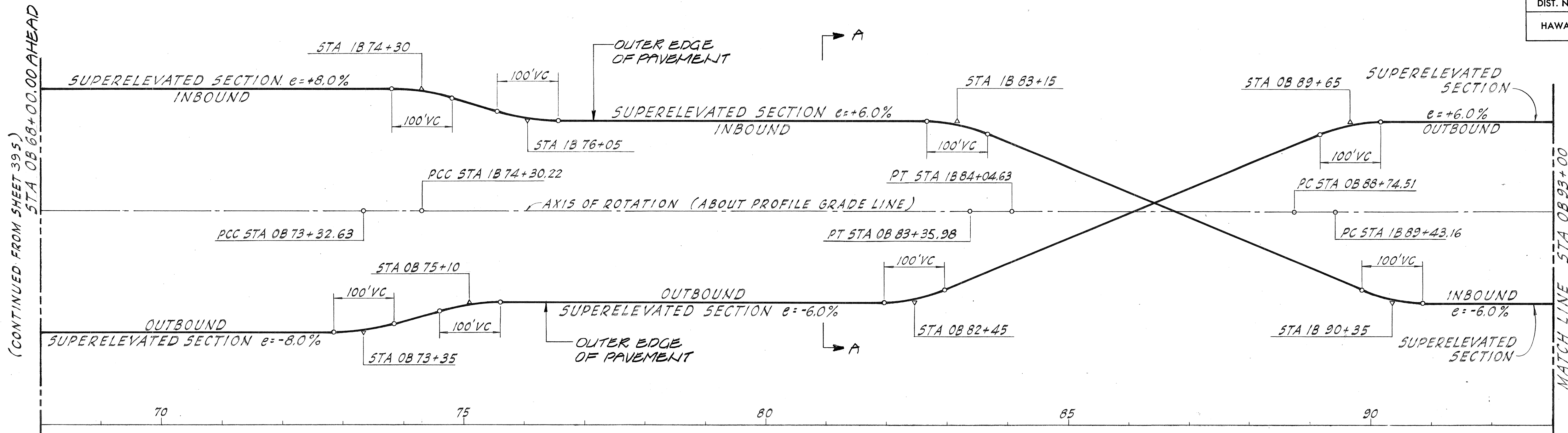
DESIGNED BY	JOHN K. BALDELLI, JR.
TRACED BY	VIC E. BALDELLI
NOTED BY	JOE BALDELLI
DATE	1/11/75
ORIGINAL PLAN	1/11/75
NOTE BOOK	1/11/75
NO.	1/11/75



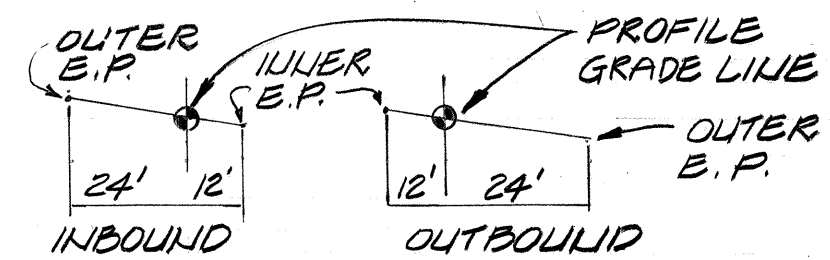
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RED HILL TUNNELS
ALIGNMENT & PROFILES
SHEET 2
F.A.I. PROJECT NO. I-H3-1(25)3
SCALE: 1"=100' DATE: JAN 31, 1975
SHEET No. 55 OF 85 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(25)-3	1975	10	111



- NOTES:
- SUPERELEVATION IS INDICATED AS PLUS (+) WHEN OUTER EDGE OF PAVEMENT IS HIGHER THAN THE PROFILE GRADE LINE.
 - SUPERELEVATION IS INDICATED AS MINUS (-) WHEN OUTER EDGE OF PAVEMENT IS LOWER THAN THE PROFILE GRADE LINE.
 - ROADWAY GRADES (TOP OF PAVEMENT ELEVATIONS) ARE SHOWN ON SHEETS 75 AND 85.

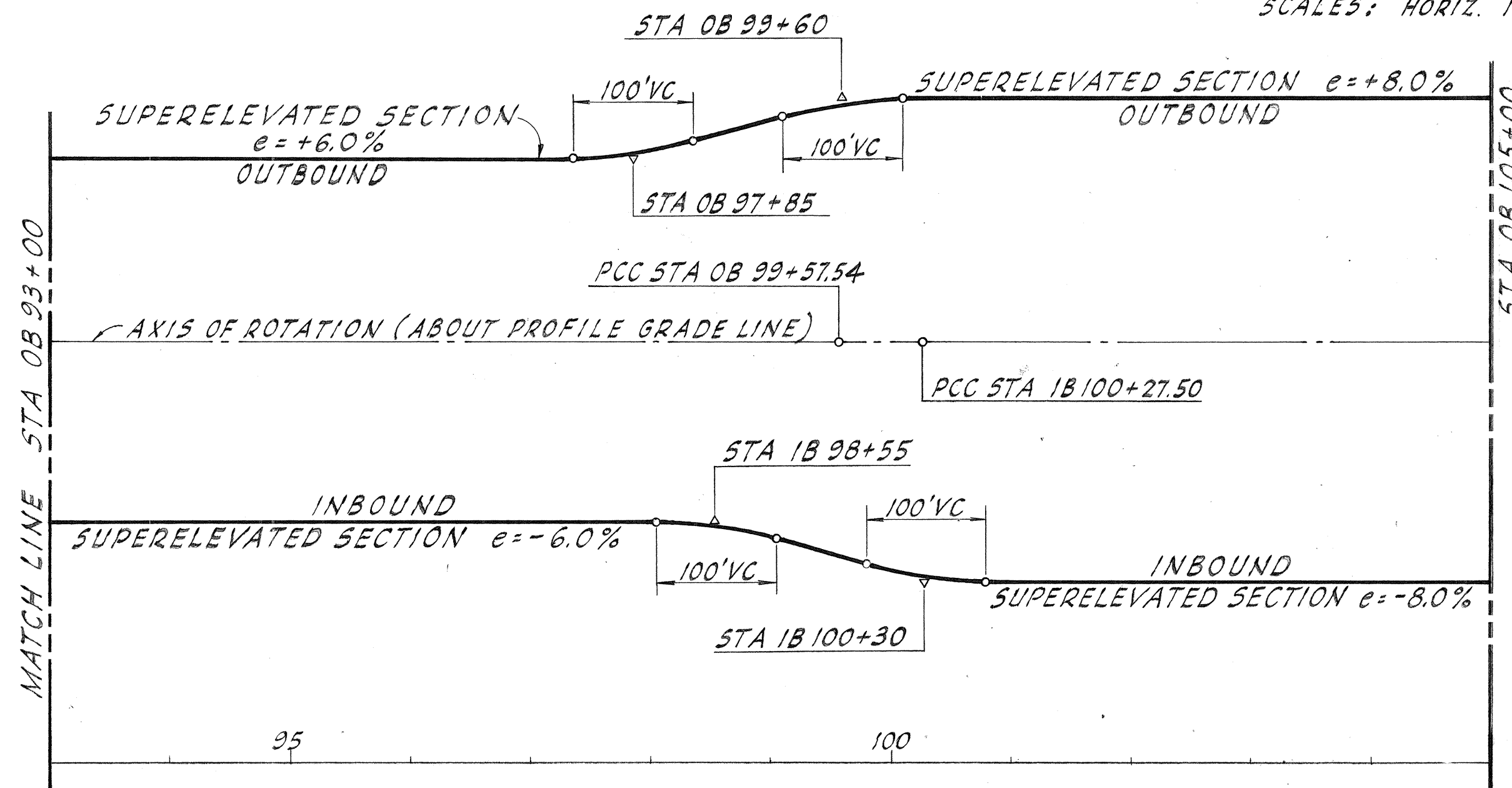


SECTION A
NO SCALE

- * APPROXIMATE STATIONS
SEE GRADING PLANS SHEETS
24S & 25S.
2. FOR CROSS SECTIONS THROUGH
SUBGRADE IN LEVEL AREA TO
ROCK PORTALS, SEE SHEET 10S.

SUPERELEVATION DIAGRAMS

SCALES: HORIZ. 1"=100' VERT. 1"=4'



EMBANKMENT SLOPE NOT
STEEPER THAN TWO HORIZ.
TO ONE VERTICAL
TYPICAL.

EXISTING GROUND

OUTER EDGE
OF PAVEMENT

ROADBED DETAIL
FOR VARIATIONS OF THIS DETAIL
SEE EARTHWORK CROSS SECTION SHEETS

* OB 61+00 TO OB 74+00
NO SCALE

40'-0" GUTTER TO GUTTER
3 LANES @ 12'-0" = 36'-0"

TUNNEL ϕ 6'-0"

PAVEMENT
STRUCTURE N.I.C.

6" AGGREGATE
BASE COURSE

INNER EDGE OF
PAVEMENT

TOP OF SUBGRADE
(FINISH GRADE THIS
CONTRACT)

TUNNEL ROADWAY
INBOUND LANES SHOWN
OUTBOUND LANES SIMILAR
TYPICAL OB 77+51 TO OB 97+11 & 1B 78+90 TO 1B 98+11
SCALE: 1"=5'

CONDITION WHERE EM-
BANKMENT IS TO BE CON-
STRUCTED ON EXISTING
SLOPES STEEPER THAN
4 HORIZ. TO 1 VERT.

DIVERT STORM WATER AWAY
FROM TOES. REMOVE ADOBE
CLAY.

TUNNEL EXCAVATED MATERIAL

PROVIDE SUBDRAINS
IN NATURAL DRAINAGEWAYS

CLEAR & GRUB.
REMOVE ADOBE CLAY
& SOFT POCKETS.

BENCH WHERE GROUND
IS STEEPER THAN 4:1

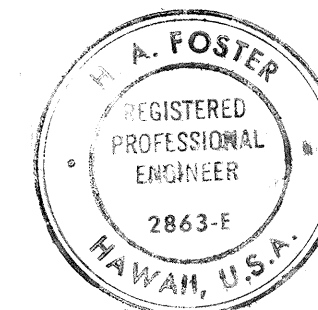
DAYLIGHT 6" ϕ
SUBDRAIN

SILTY CLAY
OR BETTER

CONDITION & EXCAVATION REQ'TS.
WHERE ADOBE CLAY & OTHER
UNSATISFACTORY MATERIALS UNDERLY
PROPOSED EMBANKMENT.

REMOVE ADOBE CLAY &
REPLACE W/ TUNNEL EXCAVATED
MATERIAL: UP TO 12' BOULDERS.
FILL & COMPACT INTERSTICES
W/ SUITABLE SMALLER PARTICLE
MATERIAL.

EMBANKMENT DETAILS



THIS WORK WAS PREPARED BY
A. FOSTER, REGISTERED PROFESSIONAL
ENGINEER, 2863-F
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RED HILL TUNNELS

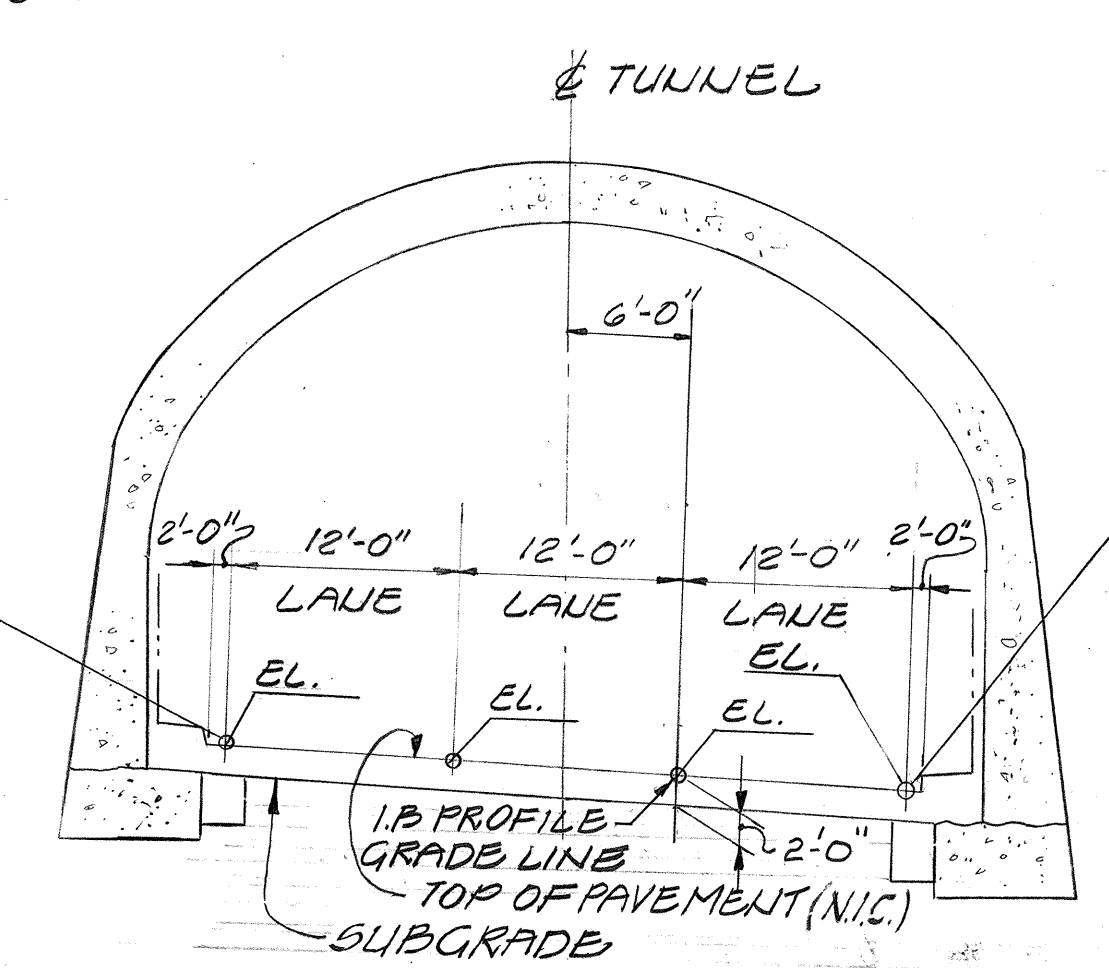
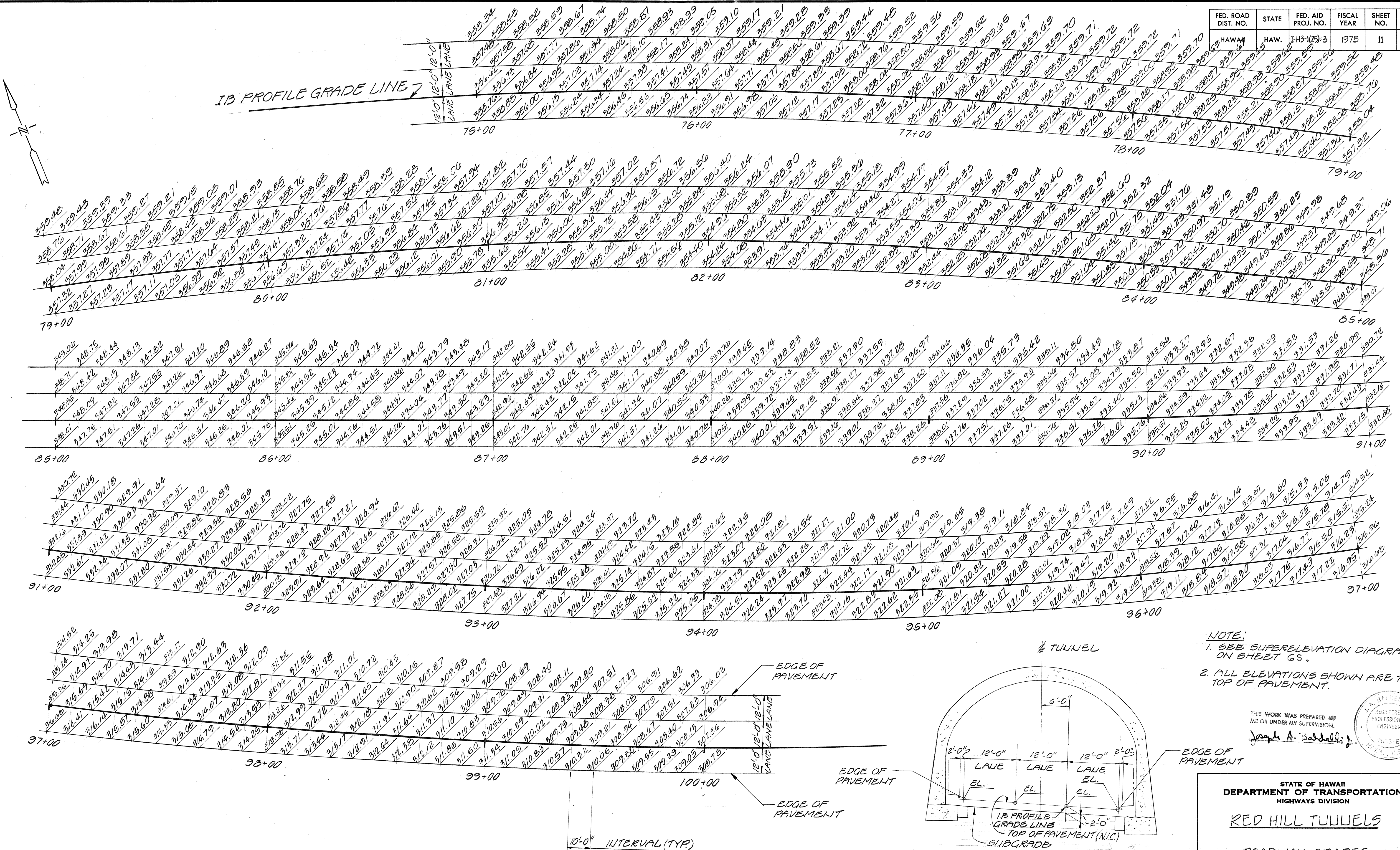
SUPERELEVATION DIAGRAMS
& ROADWAY CROSS SECTIONS

F.A.I. PROJECT NO. I-H3-1(25)-3
SCALE: AS NOTED DATE: JAN 31, 1975

SHEET No. 6S OF 8S SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1 HAWAII	HAW.	I-H3-1(25)3	1975	11	111

IB PROFILE GRADE LINE



TYPICAL TUNNEL SECTION
U.T.S.
(SHOWN SUPERELEVATED FOR CURVING RIGHT)

NOTE:
1. SEE SUPERELEVATION DIAGRAM ON SHEET GS.
2. ALL ELEVATIONS SHOWN ARE TO TOP OF PAVEMENT.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Joseph A. Baldelli, Jr.
REGISTERED PROFESSIONAL ENGINEER
10693-E
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RED HILL TUNNELS

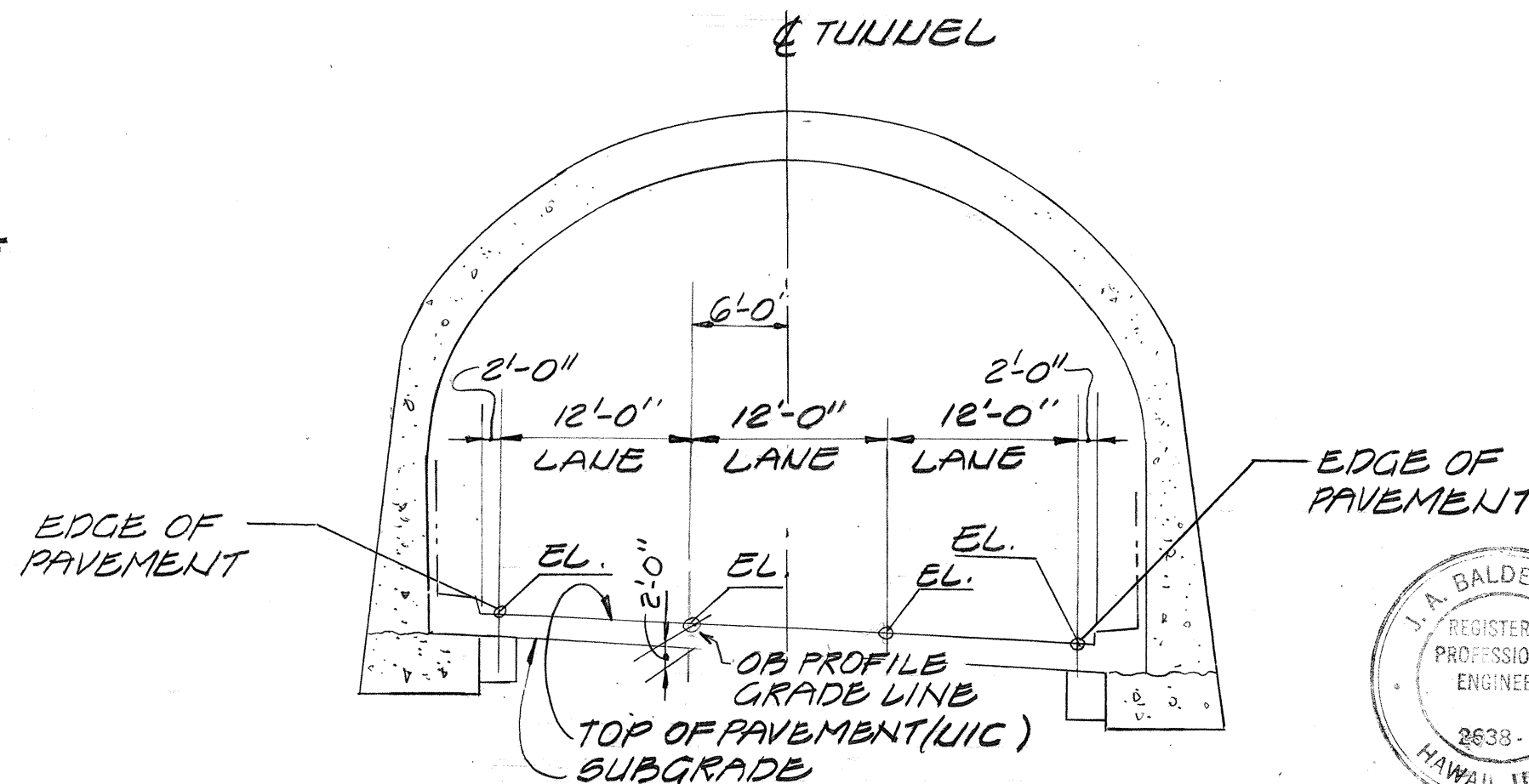
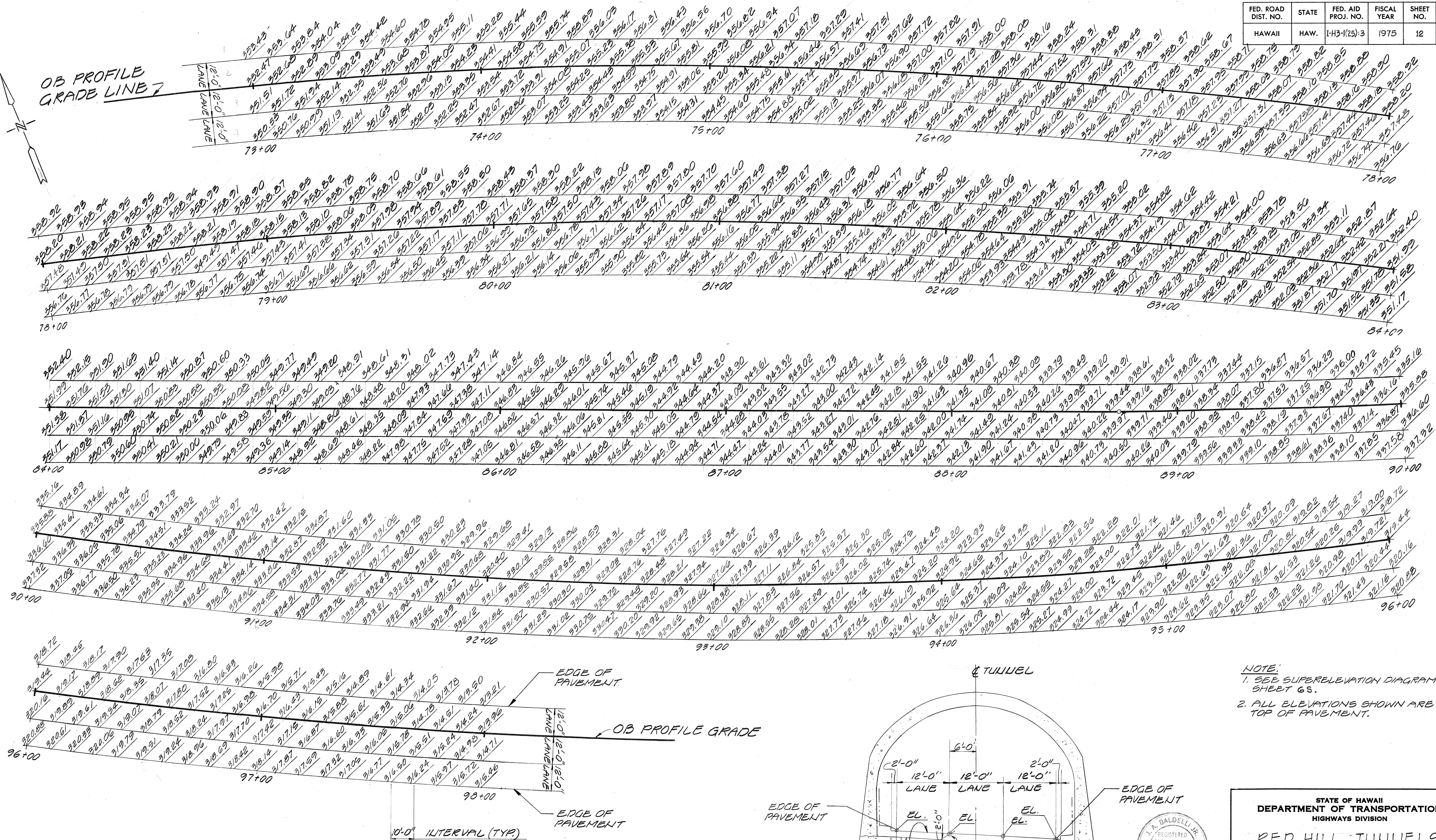
ROADWAY GRADES
INBOUND

F.A.I. PROJECT NO I-H3-1(25)3
SCALE: 1"=20' DATE: JAN 31, 1975

SHEET No. 7S OF 8S SHEETS

ORIGINAL PLAN	DATE	11/10/73
SURVEY PLOTTED BY	LIANCE	
DESIGNED BY	VIC SCLAND	11/10/73
CHECKED BY	W. BALDILLI	11/10/73
NOTE BOOK		
No.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(25):3	1975	12	111



NOTE:

- SEE SUPERELEVATION DIAGRAM ON SHEET 65.
- ALL ELEVATIONS SHOWN ARE TO TOP OF PAVEMENT.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RED HILL TUNNELS

ROADWAY GRADES
OUTBOUND

F.A.I. PROJECT N° I-H3-1(25):3
SCALE: 1" = 20' DATE: JAN 31, 1975

SHEET No. 8S OF 8S SHEETS

ORIGINAL PLAN
DESIGNED BY
CHECKED BY
DATE
JUL 17 1975
JUL 17 1975
JUL 17 1975