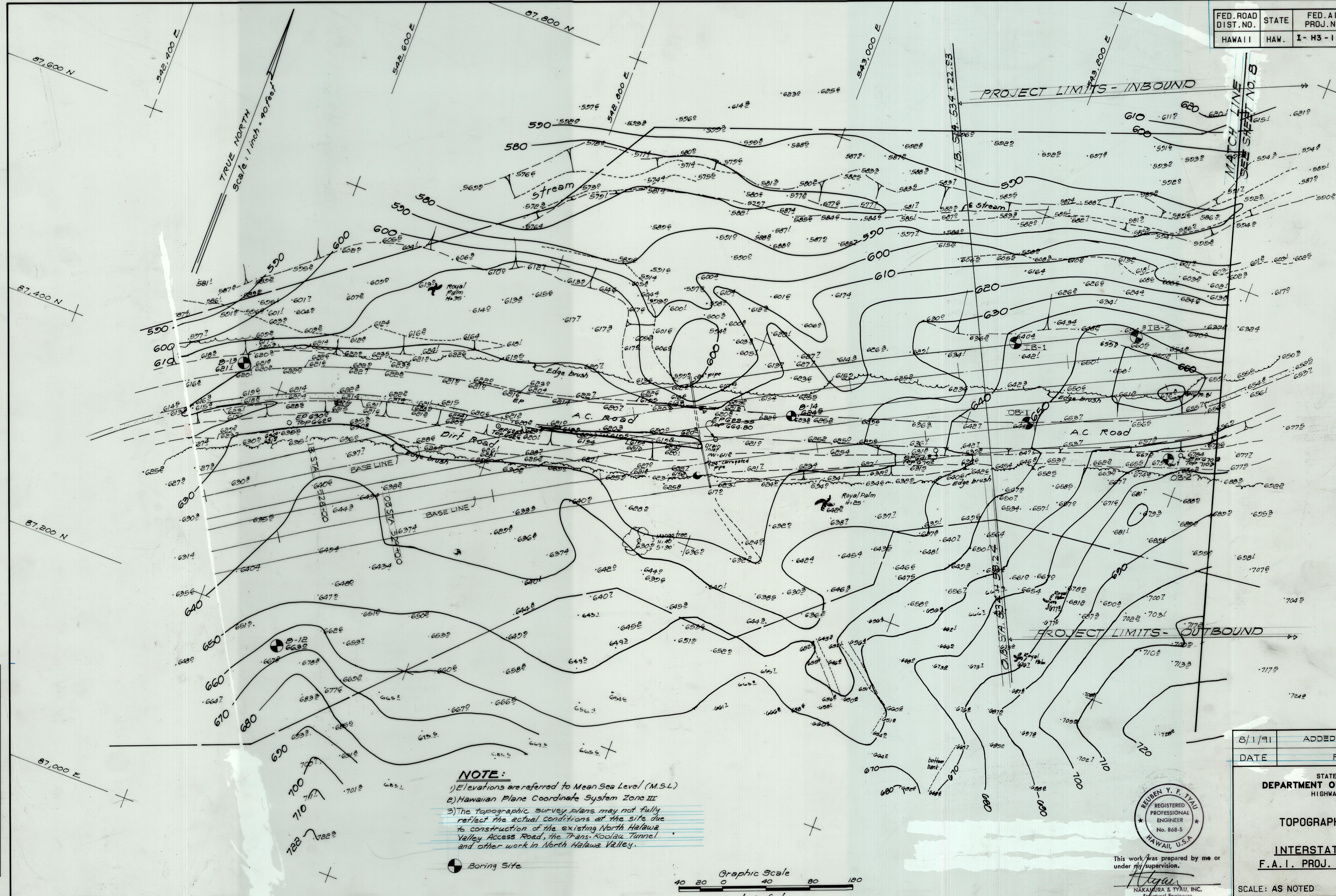
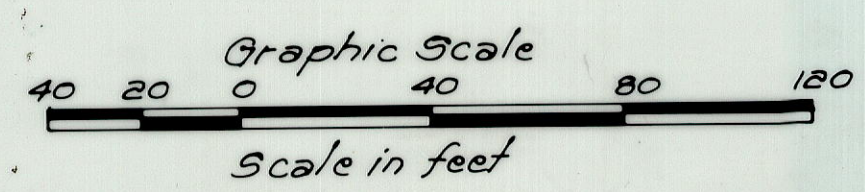


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I - H3 - I (71)	1991	407	618



NOTE:
1) Elevations are referred to Mean Sea Level (M.S.L.)
2) Hawaiian Plane Coordinate System Zone III
3) The topographic survey plans may not fully reflect the actual conditions at the site due to construction of the existing North Halawa Valley Access Road, the Trans-Koolau Tunnel and other work in North Halawa Valley.

Boring Site



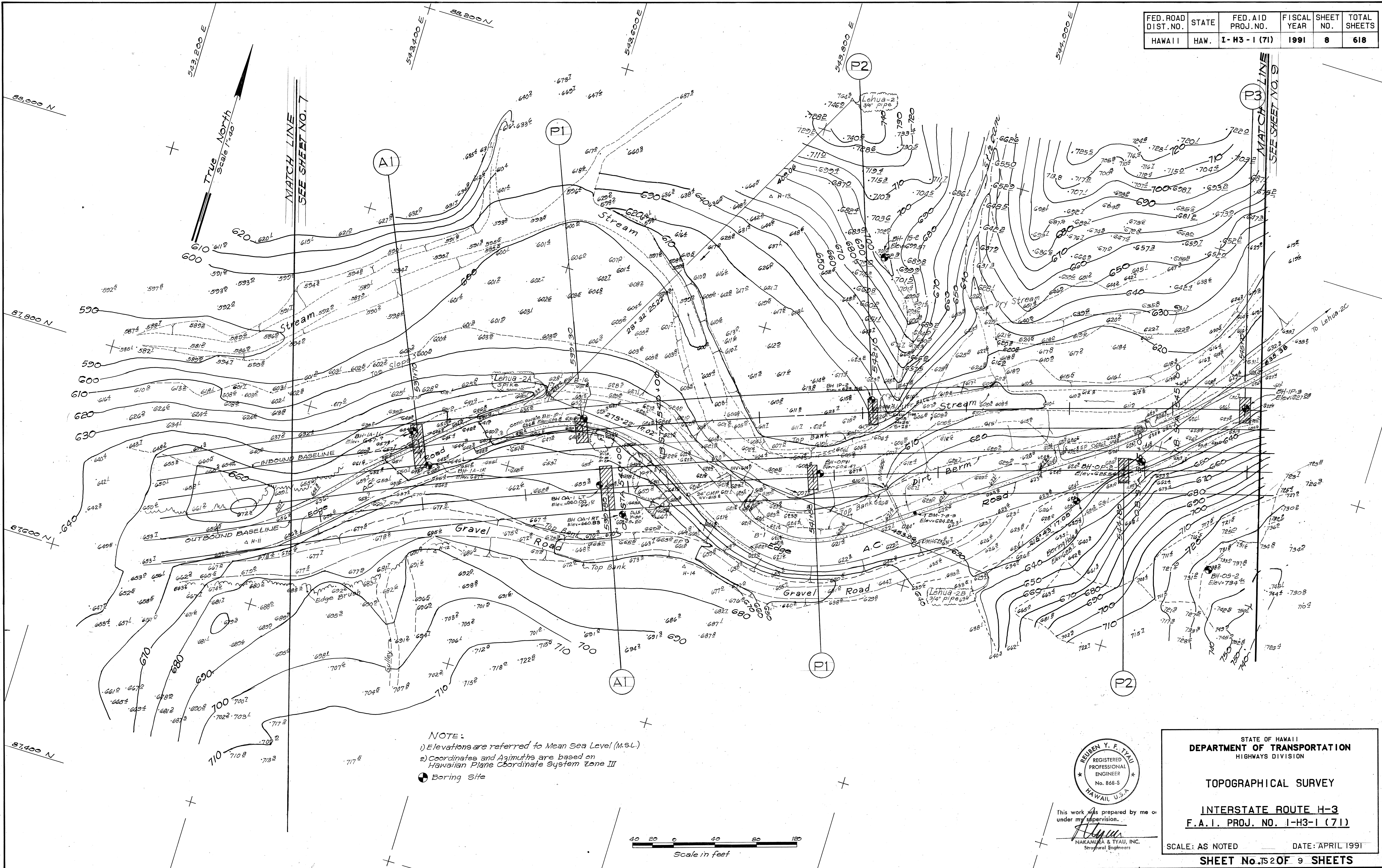
This work was prepared by me or under my supervision.
Reuben Y. F. Tyau
NAKAMURA & TYAU, INC.
Structural Engineers

8/1/91	ADDED NOTE 3
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TOPOGRAPHICAL SURVEY	
INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-I (71)	
SCALE: AS NOTED	DATE: APRIL 1991
SHEET No. 151 OF 9 SHEETS	

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	

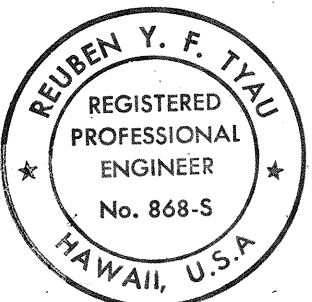
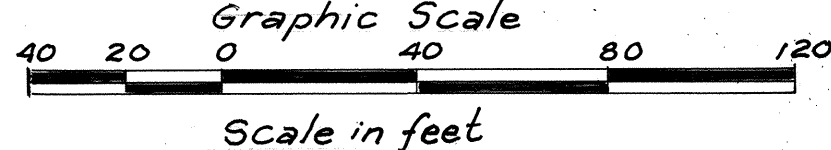
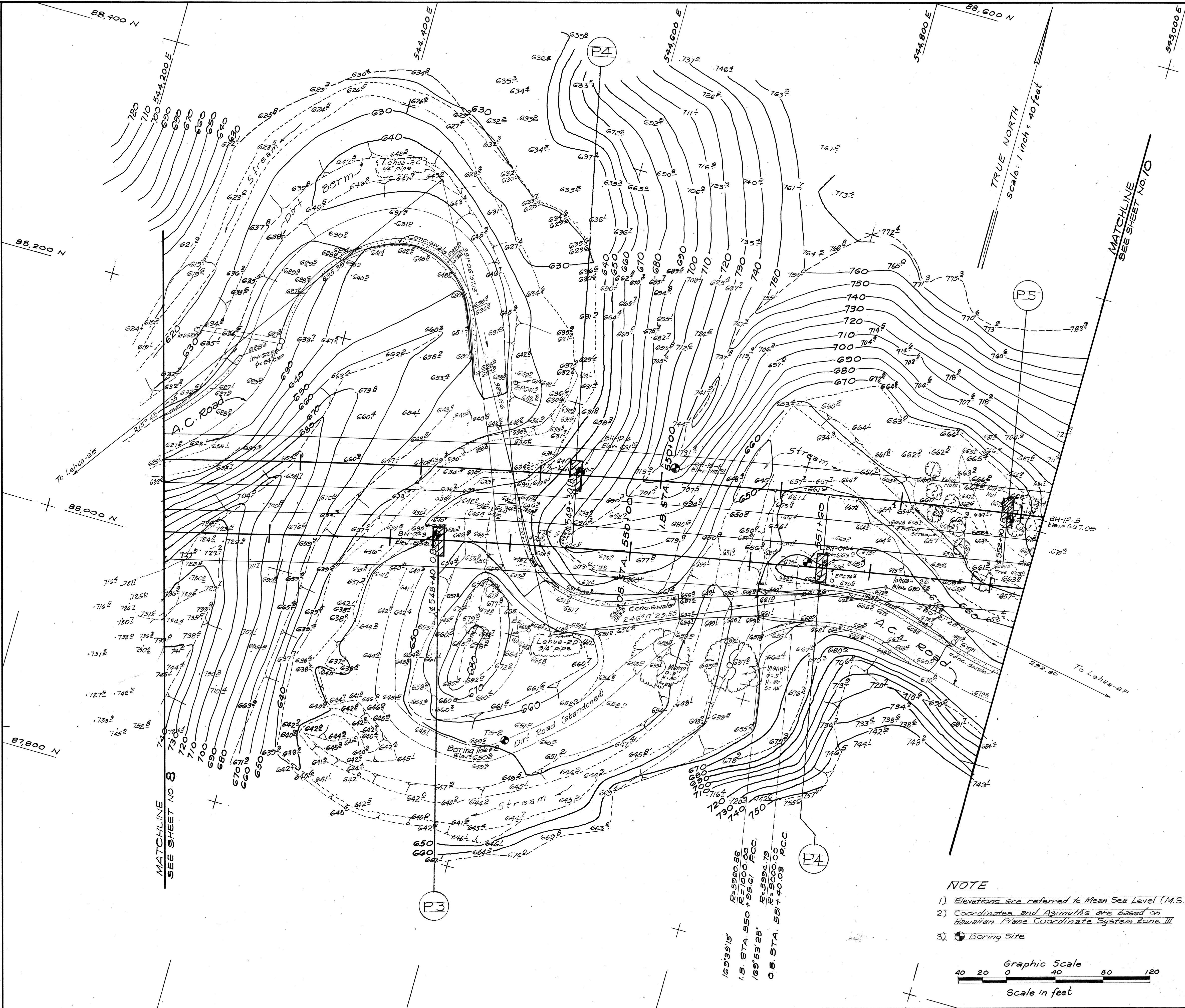
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I- H3 - 1 (71)	1991	8	618

ORIGINAL PLAN	DATE
DRAWN BY	DESIGNED BY
NOTED BY	CHECKED BY
NO.	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I- H3- I (71)	1991	9	618

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
NOTED BY		
CHECKED BY		
No.		



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R. Y. F. TIAU
NAKAMURA & TYAU, INC.
Structural Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TOPOGRAPHICAL SURVEY

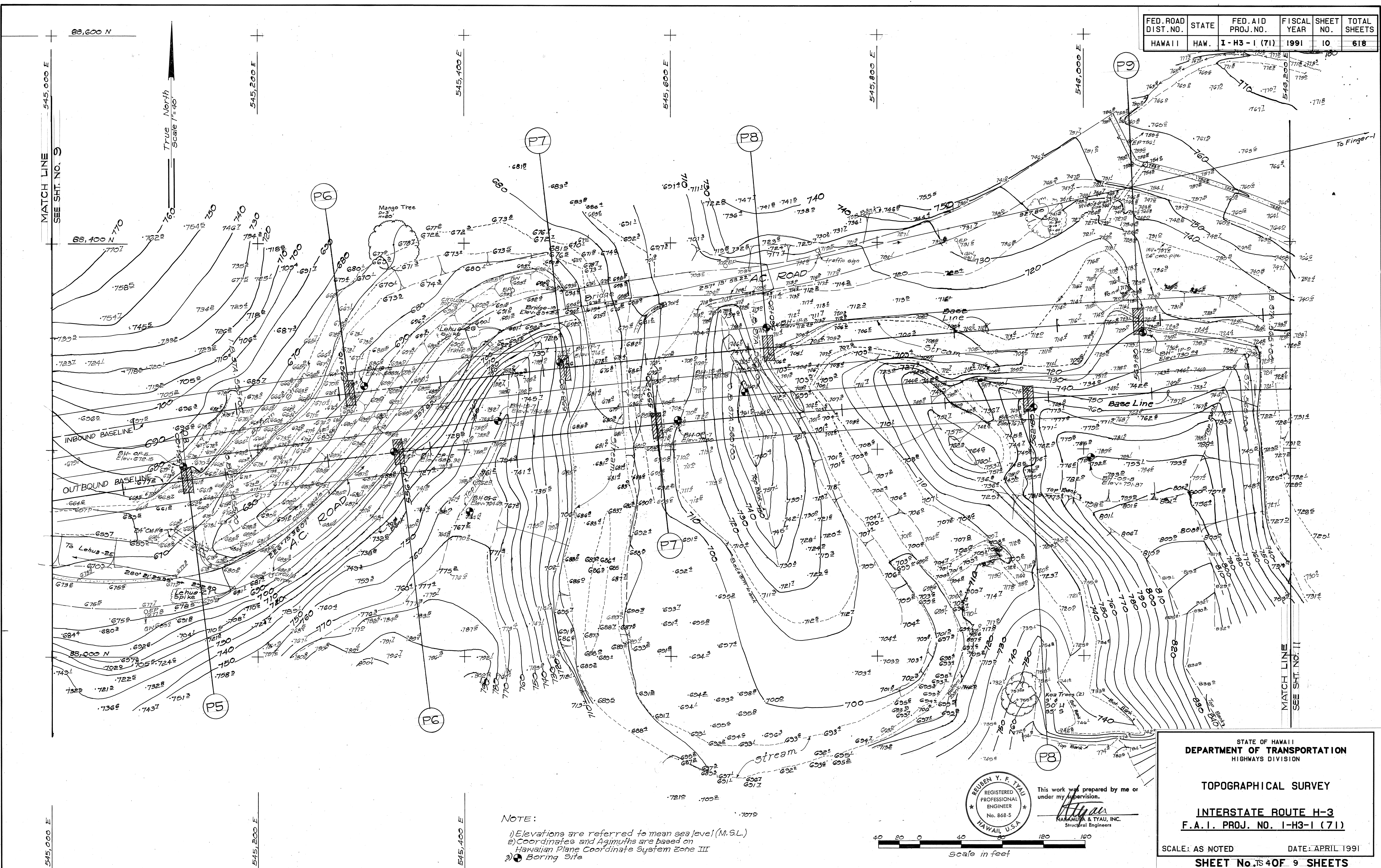
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I (71)

SCALE: AS NOTED DATE: APRIL 1991

SHEET No. 9 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I - H3 - I (71)	1991	10	618

DATE	
DESIGNED BY	
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
NO.	



NOTE:

- 1) Elevations are referred to mean sea level (M.S.L.)
- 2) Coordinates and Azimuths are based on Hawaiian Plane Coordinate System Zone III
- 3) Boring Site

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868-5
HAWAII, U.S.A.

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[Signature]
NAKAMURA & TYAU, INC.
Structural Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TOPOGRAPHICAL SURVEY

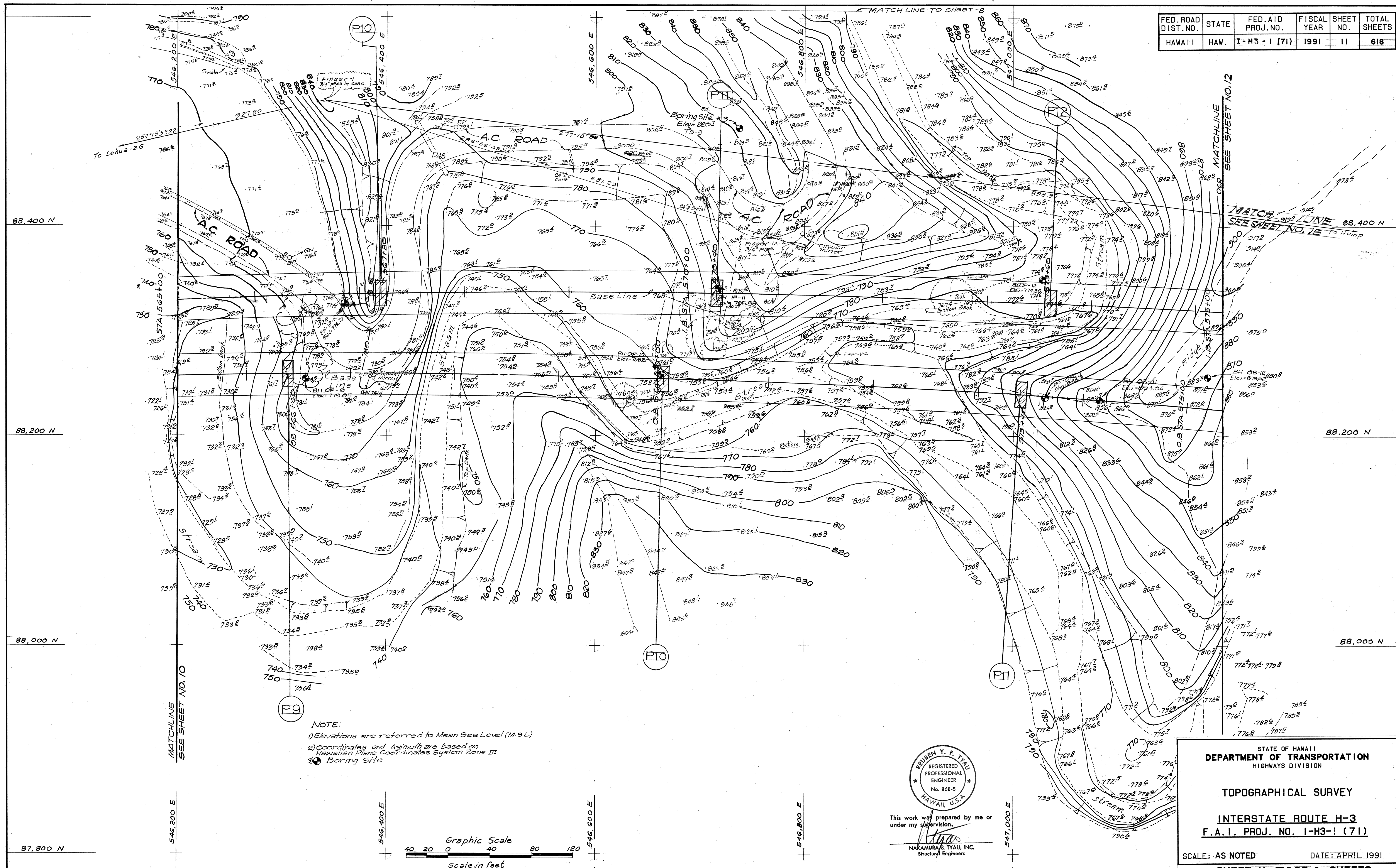
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I (71)

SCALE: AS NOTED DATE: APRIL 1991

SHEET No. 10 OF 9 SHEETS

R.M. Tokwill Corporation
Surveyors - Engineers

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (71)	1991	11	618



ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTEBOOK	DRAWN BY _____	_____
	TRACED BY _____	_____
	DESIGNED BY _____	_____
	QUANTITIES BY _____	_____
No. _____	CHECKED BY _____	_____

87,800 N

Job No 1-15363-0-S
1-15363-1-S

R.M. Towill Corporation
Surveyors-Engineers



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under my supervision.

NAKAMURA & TYAU, INC.
Structural Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TOPOGRAPHICAL SURVEY

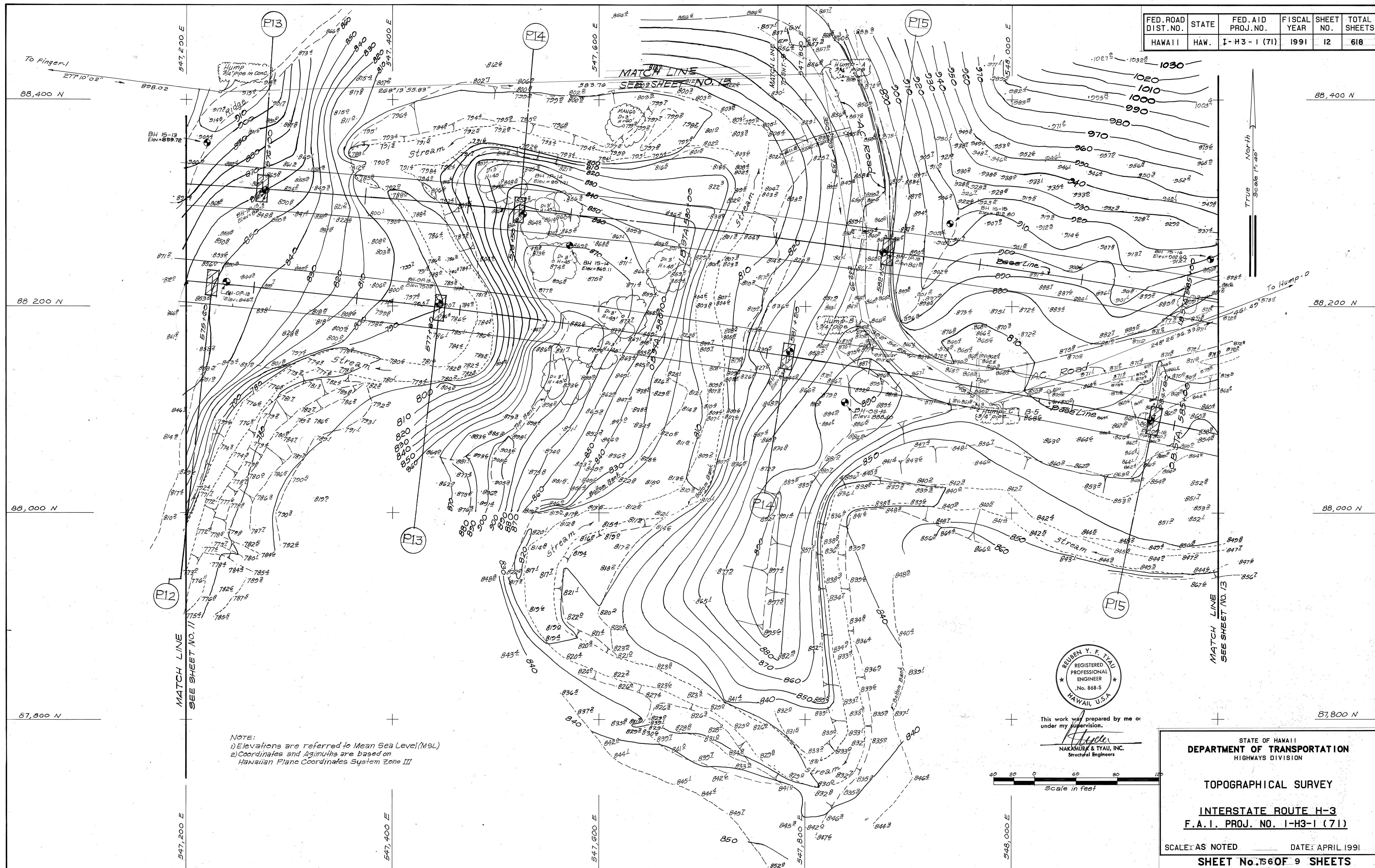
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1 (71)

SCALE: AS NOTED DATE: APRIL 1991

SHEET No. 5 OF 9 SHEETS

420 Waiakamilo Road
August 10, 1990

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (71)	1991	12	618



ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTEBOOK	DRAWN BY _____	_____
	TRACED BY _____	_____
	DESIGNED BY _____	_____
	QUANTITIES BY _____	_____
No. _____	CHECKED BY _____	_____

NOTE:
1) Elevations are referred to Mean Sea Level (MSL),
2) Coordinates and Azimuths are based on
Hawaiian Plane Coordinates System Zone III



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Structural Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

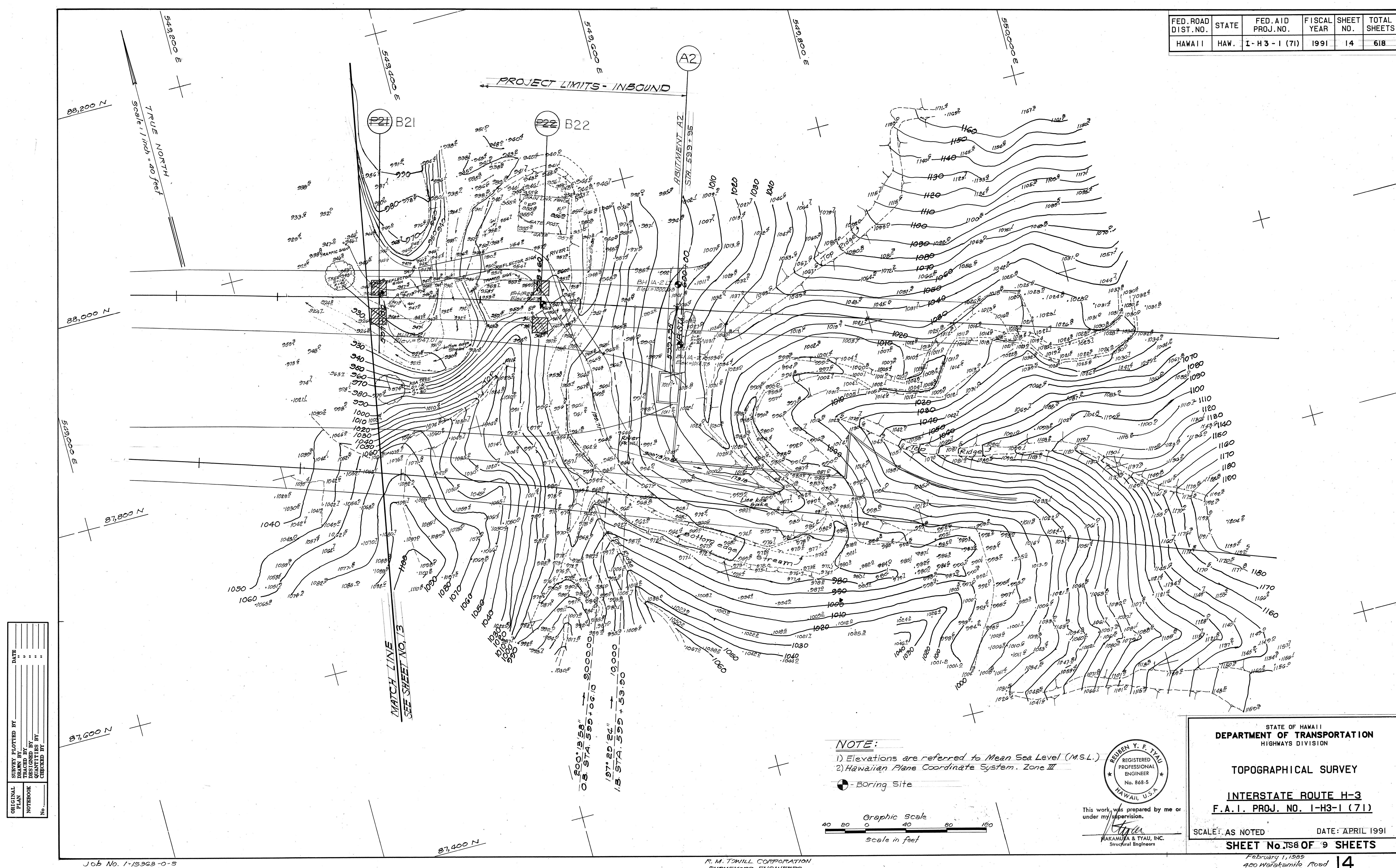
TOPOGRAPHICAL SURVEY

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. 1-H3-1 (71)

SCALE: AS NOTED _____ DATE: APRIL 1991

SHEET No. 6 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (71)	1991	14	618

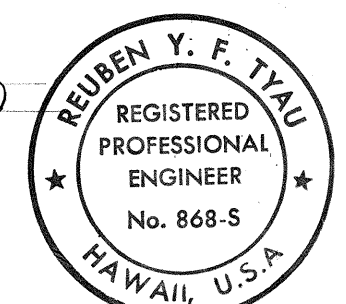
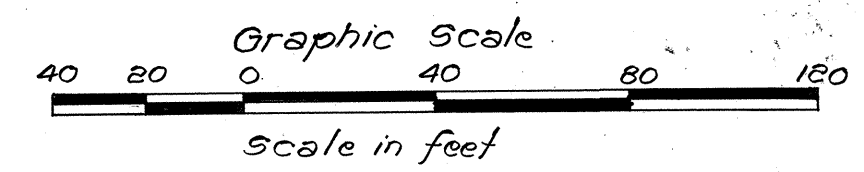


SURVEY PLOTTED BY	DATE
DRAWN BY	"
CHECKED BY	"
ORIGINAL PLAN	"
NO.	15363-0-3

NOTE:

- 1) Elevations are referred to Mean Sea Level (M.S.L.)
- 2) Hawaiian Plane Coordinate System, Zone III

● - Boring Site



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HAKAMURA & TYAU, INC.
Structural Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TOPOGRAPHICAL SURVEY

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1 (71)

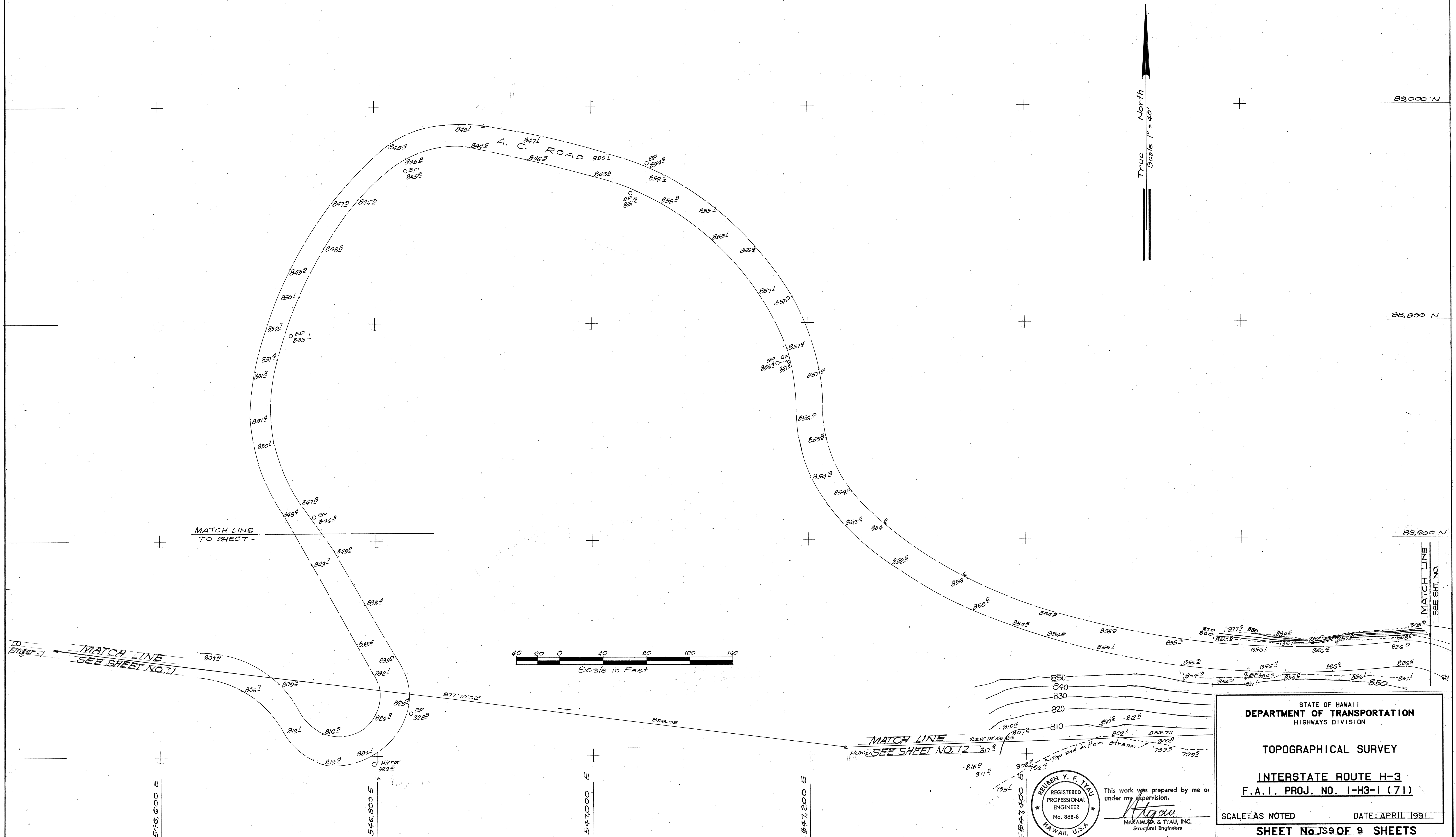
SCALE: AS NOTED DATE: APRIL 1991

SHEET No. 14 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (71)	1991	15	618

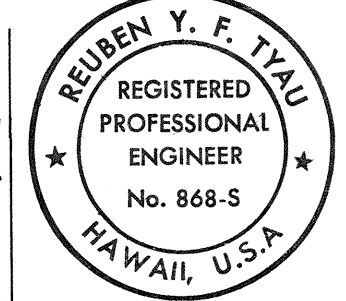
SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	No.
NOTEBOOK	



Job No. 1-15363-0-3

R.M. Towill Corporation
Surveyors - Engineers



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Reuben Y. F. Tiau
NAKAMURA & TIAU, INC.
Structural Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TOPOGRAPHICAL SURVEY

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1 (71)

SCALE: AS NOTED DATE: APRIL 1991

SHEET No. 15 OF 9 SHEETS