

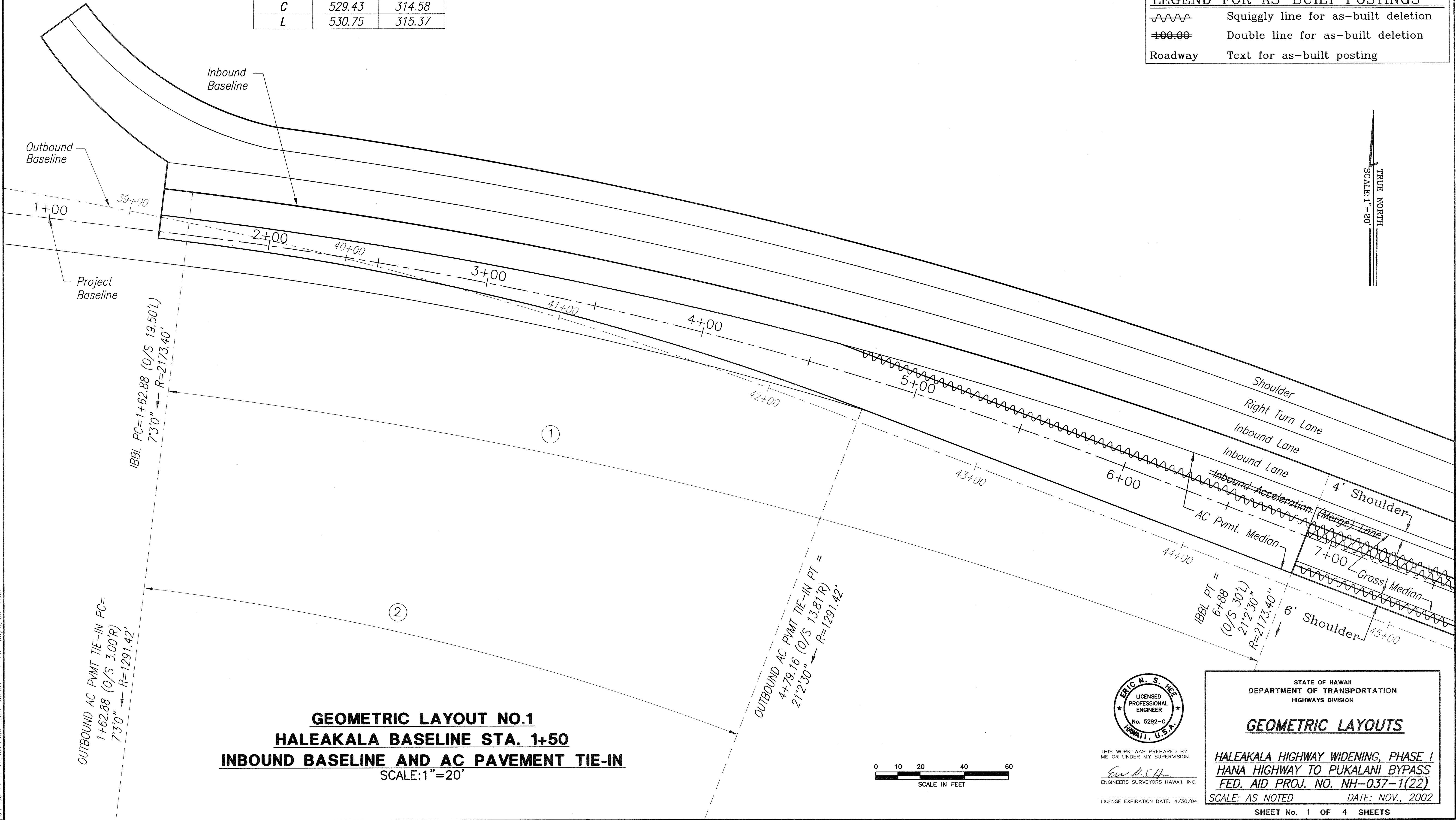
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(22)	2002	19	72

CURVE DATA		
CURVE	1	2
Δ	13°59'30"	13°59'30"
R	2173.40	1291.42
T	266.70	158.47
C	529.43	314.58
L	530.75	315.37

LEGEND FOR AS-BUILT POSTINGS

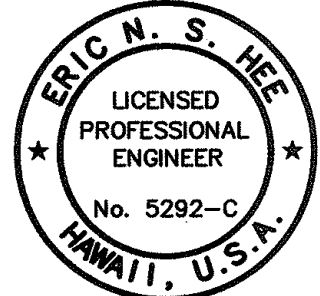
- ~~~~~ Squiggly line for as-built deletion
~~100.00~~ Double line for as-built deletion
Roadway Text for as-built posting

TRUE NORTH
SCALE: 1"=20'



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

J:\94-56 HPH1-GEOMETRICS1.DWG dESH-1 1=20 09/8/06 AMR

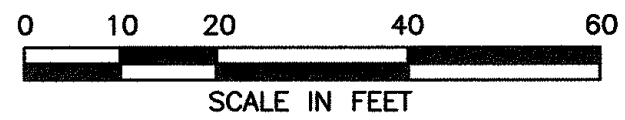


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Eric N. S. H.
ENGINEERS SURVEYORS HAWAII, INC.
LICENSE EXPIRATION DATE: 4/30/04

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

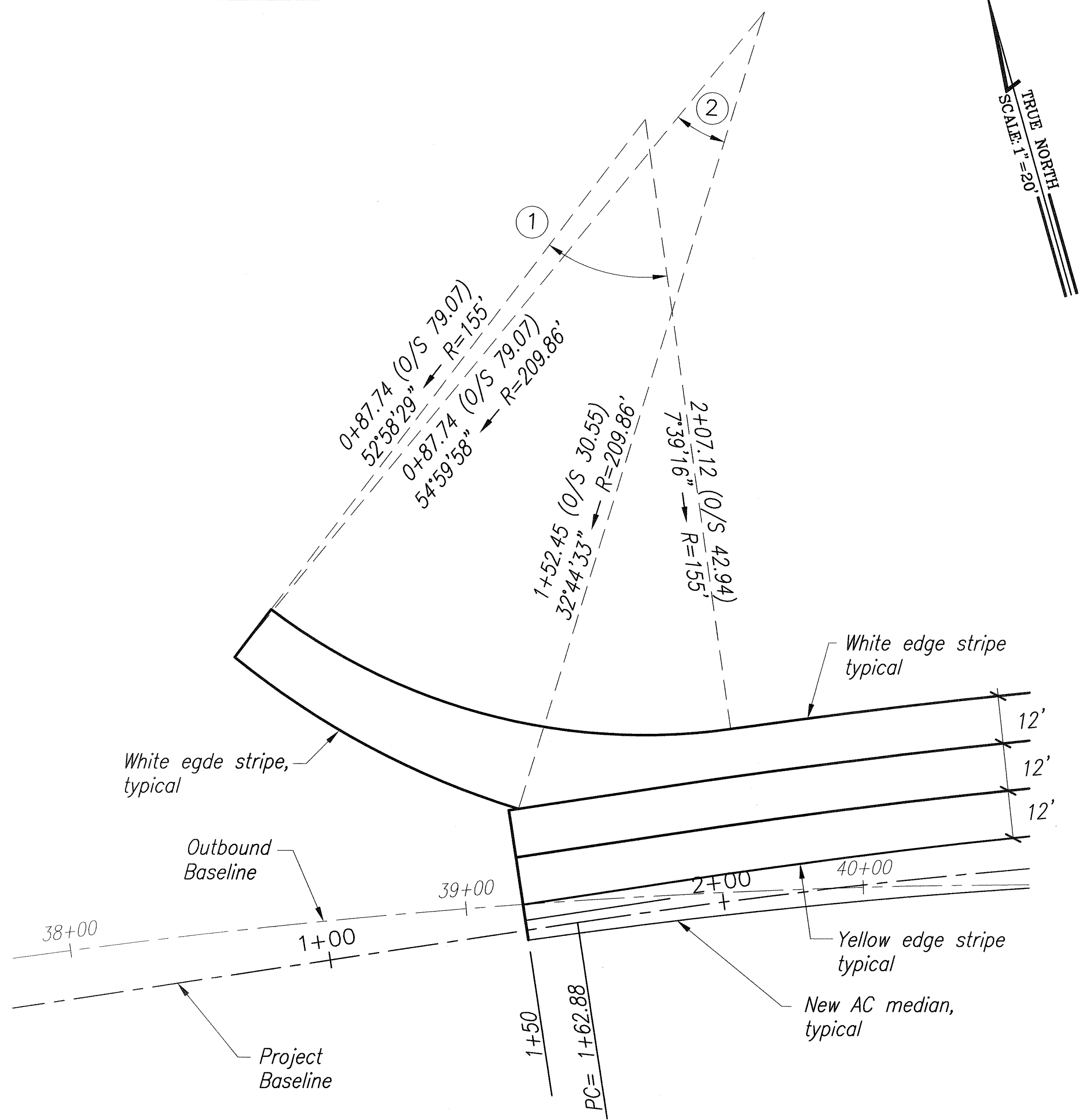
GEOMETRIC LAYOUTS

HALEAKALA HIGHWAY WIDENING, PHASE I
HANA HIGHWAY TO PUKALANI BYPASS
FED. AID PROJ. NO. NH-037-1(22)
SCALE: AS NOTED DATE: NOV., 2002



AS-BUILT

CURVE DATA		
CURVE	1	2
Δ	45°19'13"	22°15'26"
R	155.00	209.86
T	64.71	41.28
C	119.43	81.01
L	122.60	81.52



GEOMETRIC LAYOUT NO.2
HALEAKALA BASELINE STA. 1+50
RIGHT TURN LANE
 SCALE: 1"=20'

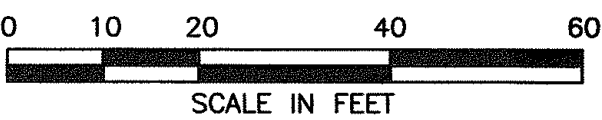


LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

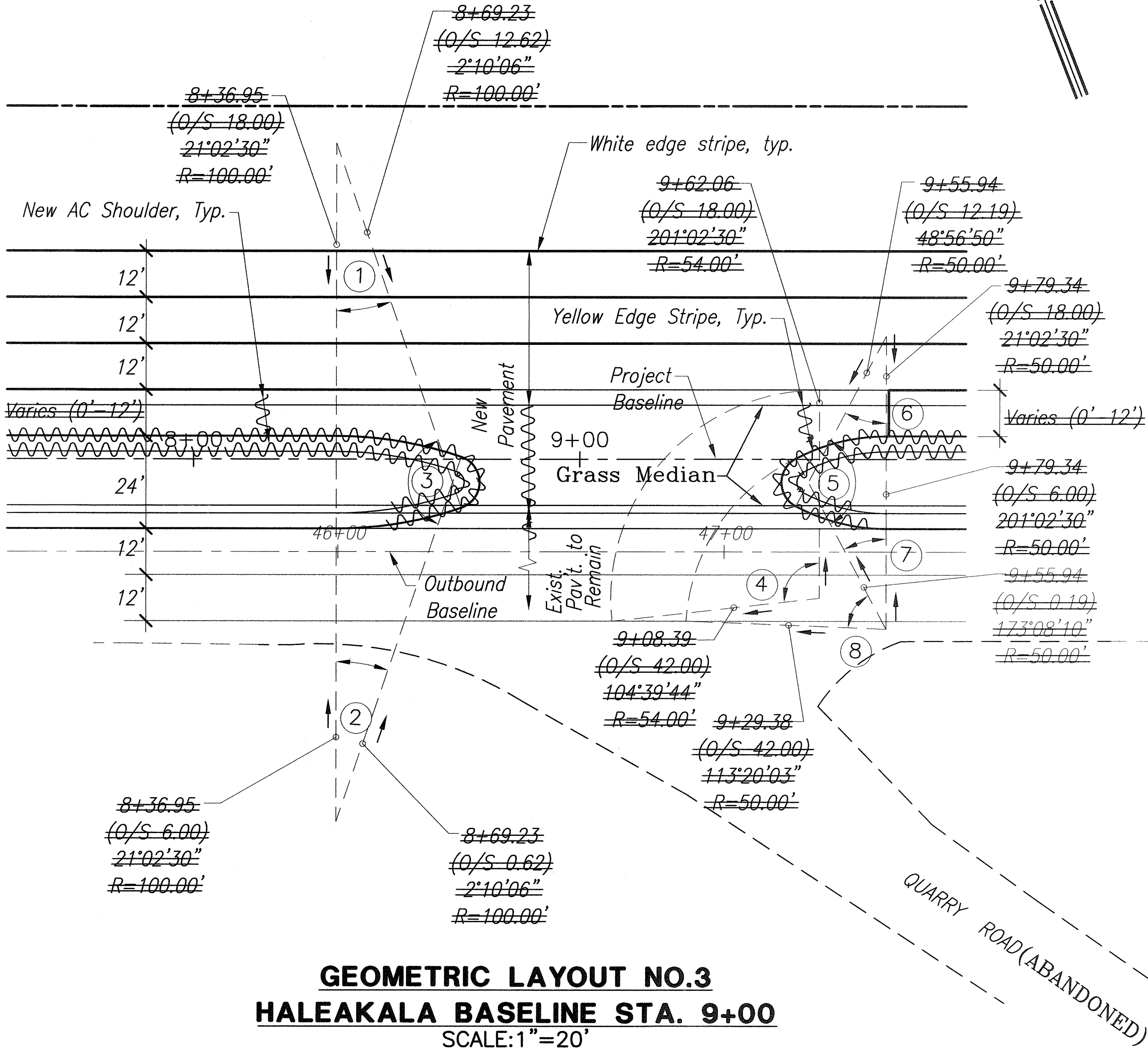
Double line for as-built deletion

Roadway Text for as-built posting

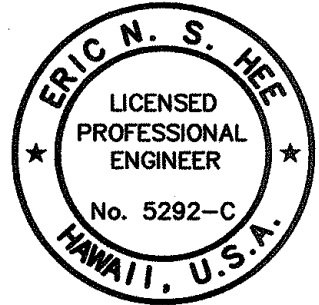


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(22)	2002	20	72

CURVE DATA								
CURVE	1	2	3	4	5	6	7	8
Δ	18°52'24"	18°52'24"	142°15'13"	96°22'46"	124°11'21"	27°54'20"	27°54'20"	59°48'08"
R	100.00	100.00	7.00	54.00	7.00	50.00	50.00	50.00
T	16.62	16.62	20.48	60.37	13.22	12.42	12.42	28.75
C	32.79	32.79	13.25	80.50	12.19	24.11	24.11	49.85
L	32.94	32.94	17.38	90.84	15.17	24.35	24.35	52.19



GEOMETRIC LAYOUT NO.3
HALEAKALA BASELINE STA. 9+00
 SCALE: 1"=20'



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 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

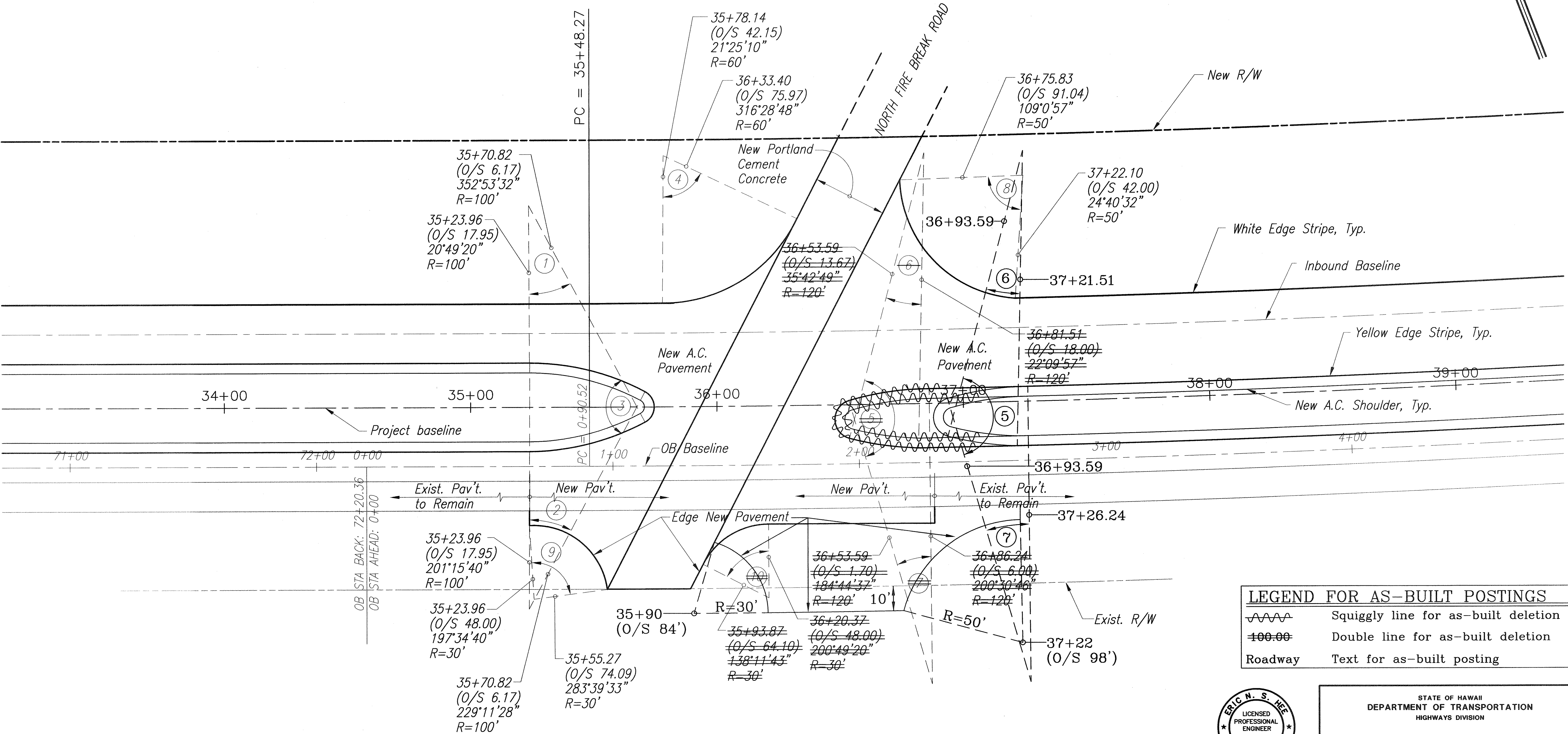
GEOMETRIC LAYOUTS

HALEAKALA HIGHWAY WIDENING, PHASE I
HANA HIGHWAY TO PUKALANI BYPASS
FED. AID PROJ. NO. NH-037-1(22)
 SCALE: AS NOTED DATE: NOV., 2002

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(22)	2002	21	72

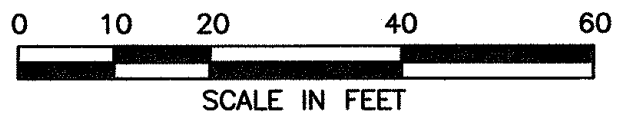
CURVE DATA										
CURVE	1	2	3	4	5	6	7	8	9	10
Δ	27°55'48"	27°55'48"	123°42'04"	64°56'22"	149°01'48"	13°32'52"	15°46'09"	84°20'25"	86°04'53"	62°37'36"
R	100.00	100.00	7.00	60.00	8.00	120.00	120.00	50.00	30.00	50.00
T	24.87	24.87	13.08	38.18	28.88	14.25	16.62	45.31	28.02	18.25
C	48.27	48.27	12.64	64.42	15.42	28.31	32.92	67.17	40.95	31.18
L	48.75	48.75	15.78	68.00	20.81	28.37	33.03	73.64	45.07	32.79

TRUE NORTH
SCALE: 1"=20'



LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

GEOMETRIC LAYOUT NO.4
HALEAKALA BASELINE STA. 36+00
AT NORTH FIRE BREAK ROAD
SCALE: 1"=20'



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LICENSE EXPIRATION DATE: 4/30/04

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GEOMETRIC LAYOUTS

HALEAKALA HIGHWAY WIDENING, PHASE I
HANA HIGHWAY TO PUKALANI BYPASS
FED. AID PROJ. NO. NH-037-1(22)

SCALE: AS NOTED DATE: NOV., 2002

SHEET No. 3 OF 4 SHEETS

AS-BUILT

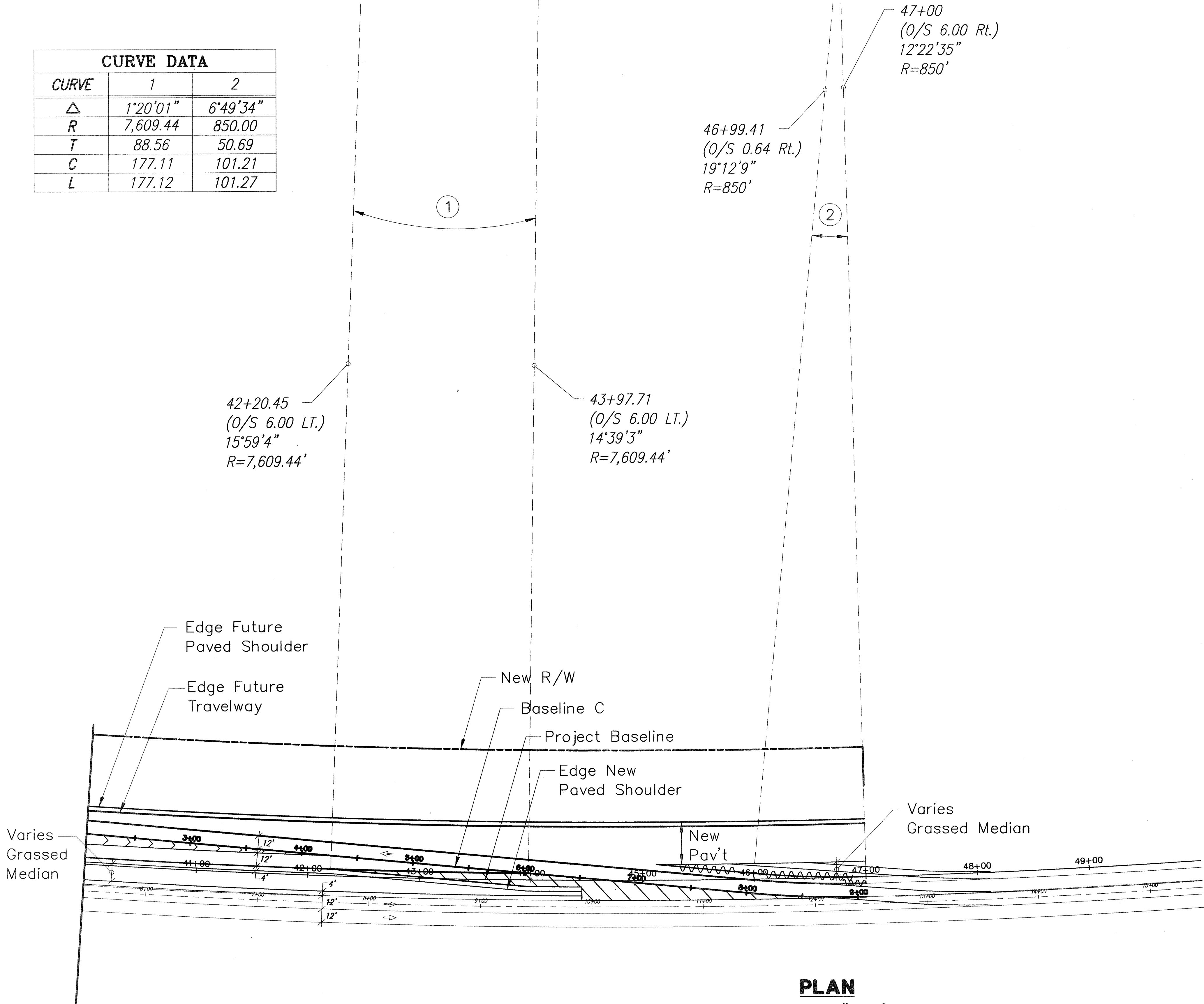
I:\esh-1\ESH\Engineering\Projects\1994\04-050 Haleakala Hwy\PHASE 1\FINAL\AS-BUILT\SP1-geometrics1.dwg, Model: 3/28/2008 11:04:36 AM, 1:20

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

194-56 (PH1)-GEOMETRICS1.DWG dESH-1 1=20 09/17/06 AMR

FED.ROAD DIST.NO.	STATE	FED.AID PROJ.NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37B-03-94	2002	22	72

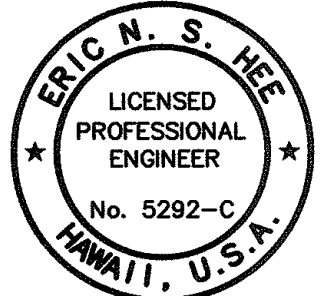
CURVE DATA		
CURVE	1	2
Δ	1°20'01"	6°49'34"
R	7,609.44	850.00
T	88.56	50.69
C	177.11	101.21
L	177.12	101.27



PLAN
SCALE: 1"=50'

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting



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ENGINEERS SURVEYORS HAWAII, INC.
LICENSE EXPIRATION DATE: 4/30/04

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GEOMETRIC LAYOUTS

HALEAKALA HIGHWAY WIDENING
PHASE 1
HANA HIGHWAY TO PUKALANI PASS

SCALE: AS NOTED DATE: NOV., 2002

SHEET No. 4 OF 4 SHEETS

AS-BUILT

22

ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DESIGNED BY _____
No. _____	CHECKED BY _____

194-56 fPH1-GEOMETRICS-C.dwg dROAD(CSH-1) 1=50 08/7/06 AMR