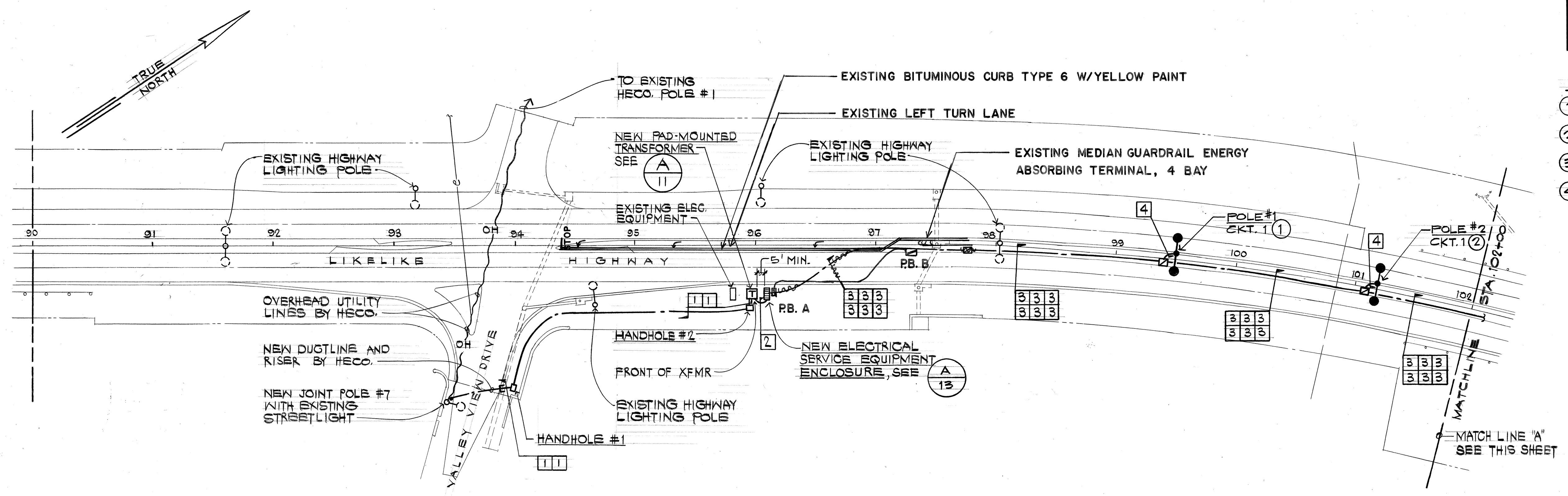
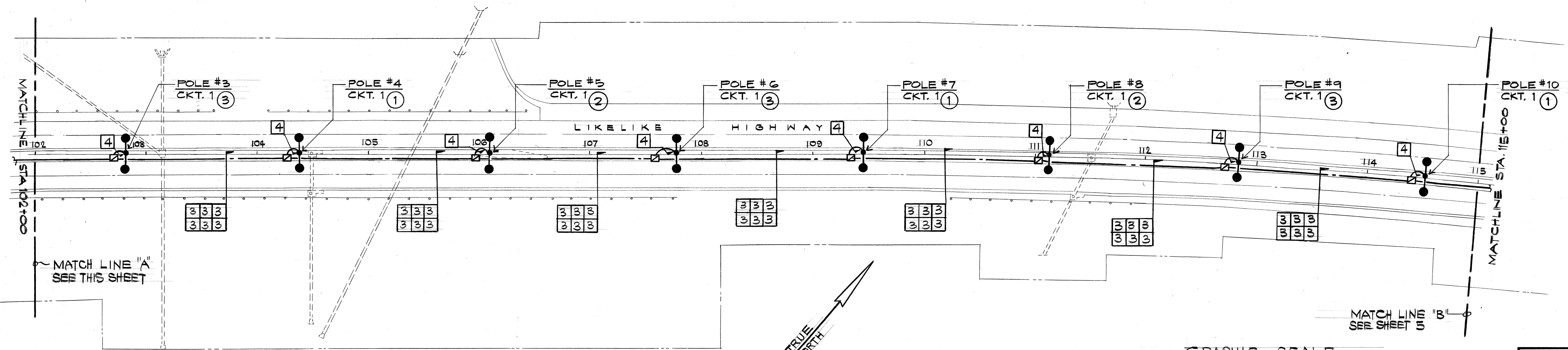


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	63A-02-90	1991	4	13

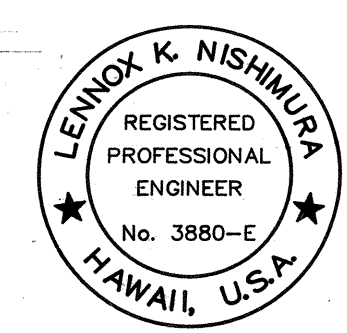
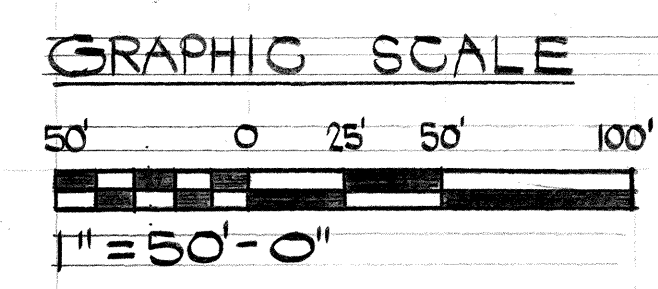
- NOTES:
- ① TAP CIRCUIT PHASES A & B.
 - ② TAP CIRCUIT PHASES C & A.
 - ③ TAP CIRCUIT PHASES B & C.
 - ④ POLE NUMBERS ARE FOR REFERENCE ONLY.



ELECTRICAL SITE PLAN #1
SCALE: 1" = 50'-0"



ELECTRICAL SITE PLAN #2
SCALE: 1" = 50'-0"



This work was prepared by me or under my supervision
ECS INC.
By *Lennox K. Nishimura*
Its PROJECT ENGINEER
Date SEPT 28, 1990

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

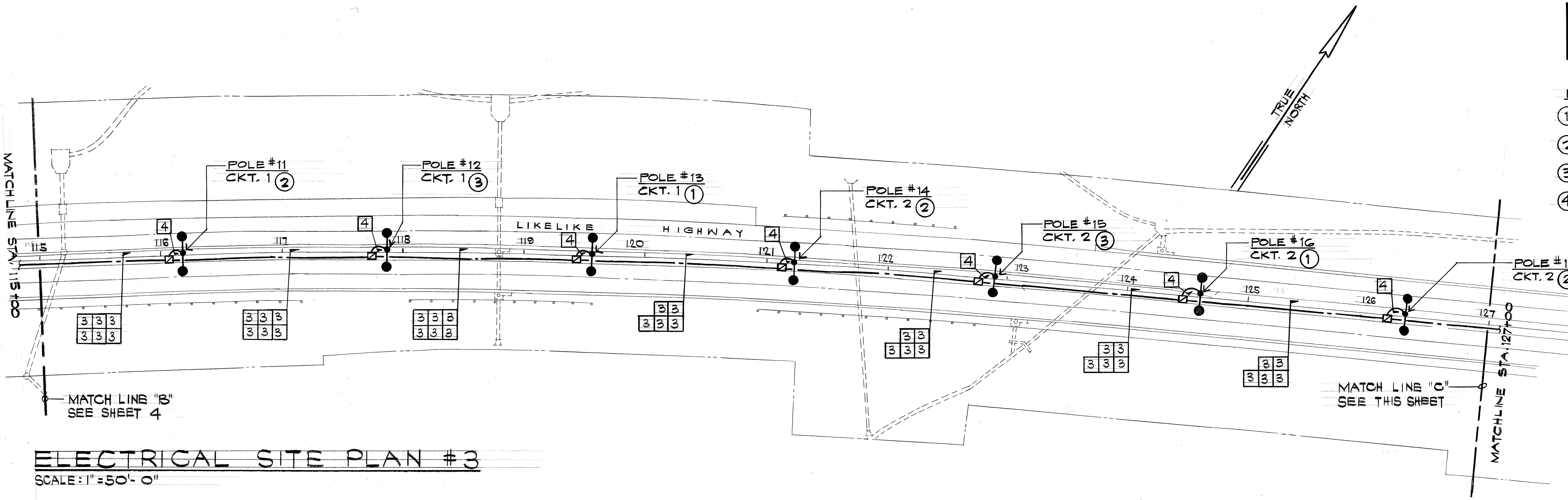
ELECTRICAL SITE PLANS #1 & #2

LIKELIKE HIGHWAY - HIGHWAY LIGHTS
WILSON TUNNEL TO VALLEY VIEW ROAD
PROJECT NO. 63A-02-90

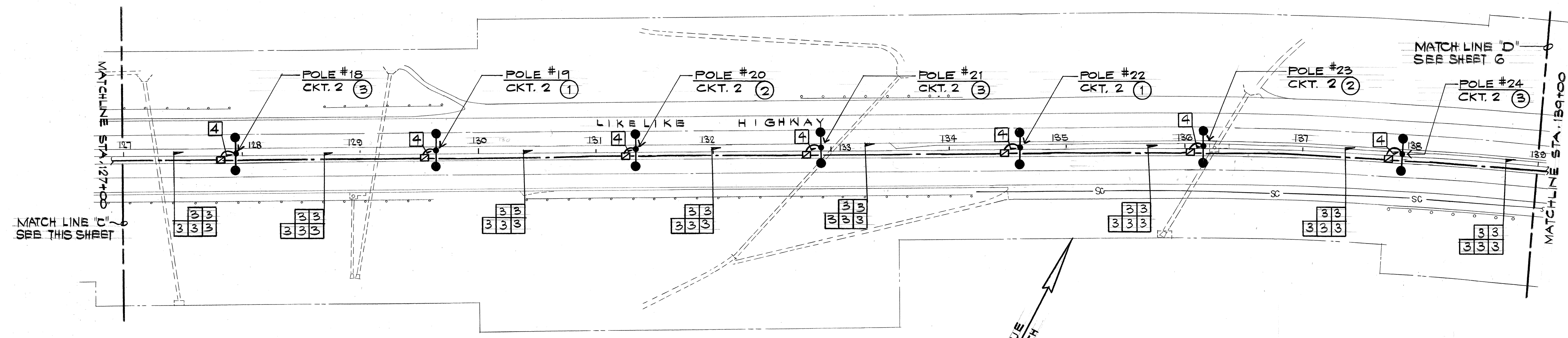
SCALE: 1" = 50'-0" DATE:
SHEET NO. 4 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	63A-02-90	1991	5	13

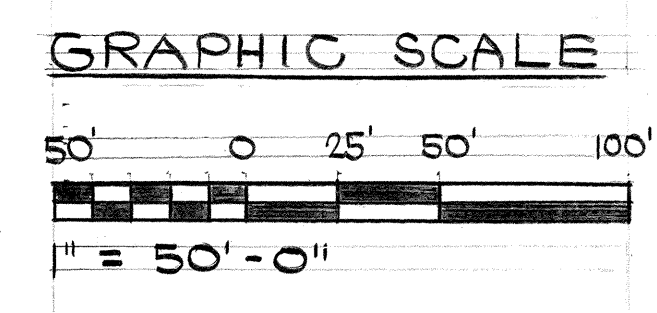
- NOTES:
- ① TAP CIRCUIT PHASES A & B.
 - ② TAP CIRCUIT PHASES C & A.
 - ③ TAP CIRCUIT PHASES B & C.
 - ④ POLE NUMBERS ARE FOR REFERENCE ONLY.



ELECTRICAL SITE PLAN #3
SCALE: 1" = 50'-0"



ELECTRICAL SITE PLAN #4
SCALE: 1" = 50'-0"



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Its PROJECT ENGINEER
Date SEPT. 28, 1990

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLANS #3 & #4

 LIKELIKE HIGHWAY - HIGHWAY LIGHTS
 WILSON TUNNEL TO VALLEY VIEW ROAD
 PROJECT NO. 63A-02-90

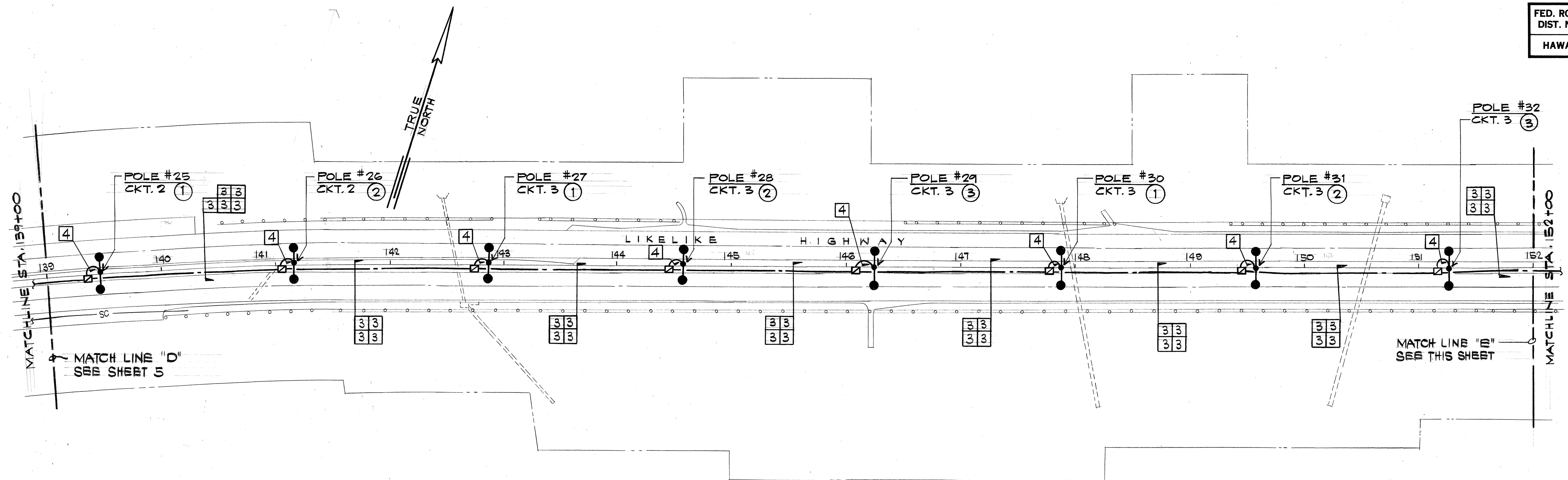
SCALE: 1" = 50'-0"
DATE:

SHEET NO. 5 OF 13 SHEETS

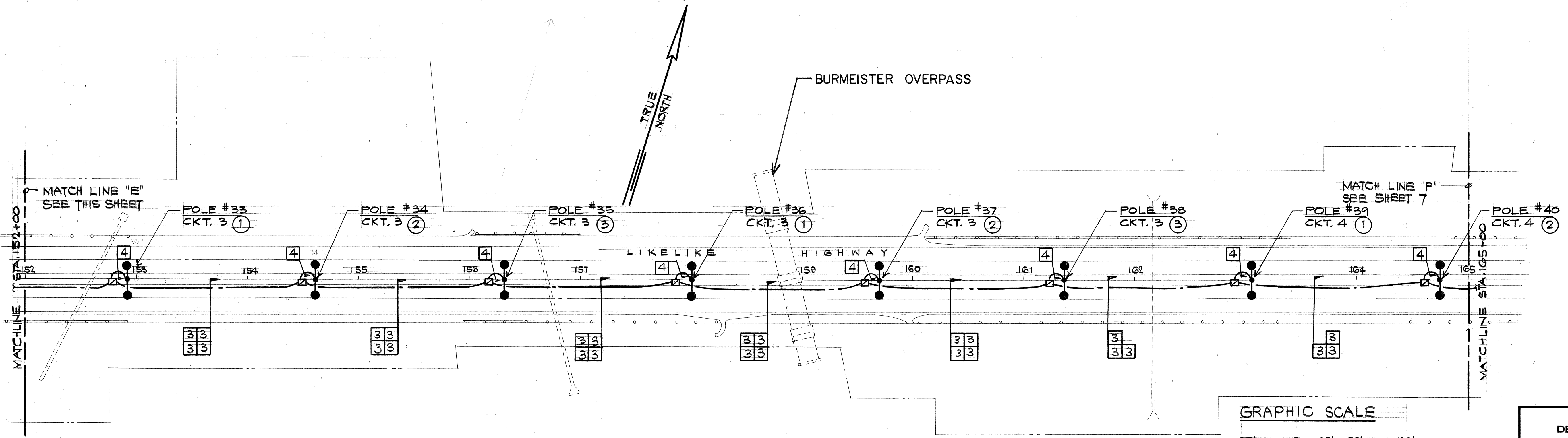
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
DESIGNED BY		
CHECKED BY		
NO.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	63A-02-90	1991	6	13

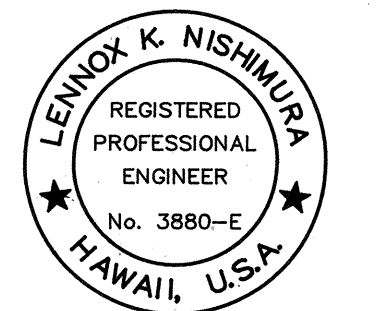
- NOTES:
- ① TAP CIRCUIT PHASES A & B.
 - ② TAP CIRCUIT PHASES C & A.
 - ③ TAP CIRCUIT PHASES B & C.
 - ④ POLE NUMBERS ARE FOR REFERENCE ONLY.



ELECTRICAL SITE PLAN #5
SCALE: 1" = 50'-0"



ELECTRICAL SITE PLAN #6
SCALE: 1" = 50'-0"



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ECS INC.
By *Lennox K. Nishimura*
Its PROJECT ENGINEER
Date SEPT. 28, 1990

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLANS #5 & #6

LIKELIKE HIGHWAY - HIGHWAY LIGHTS
WILSON TUNNEL TO VALLEY VIEW ROAD
PROJECT NO. 63A-02-90

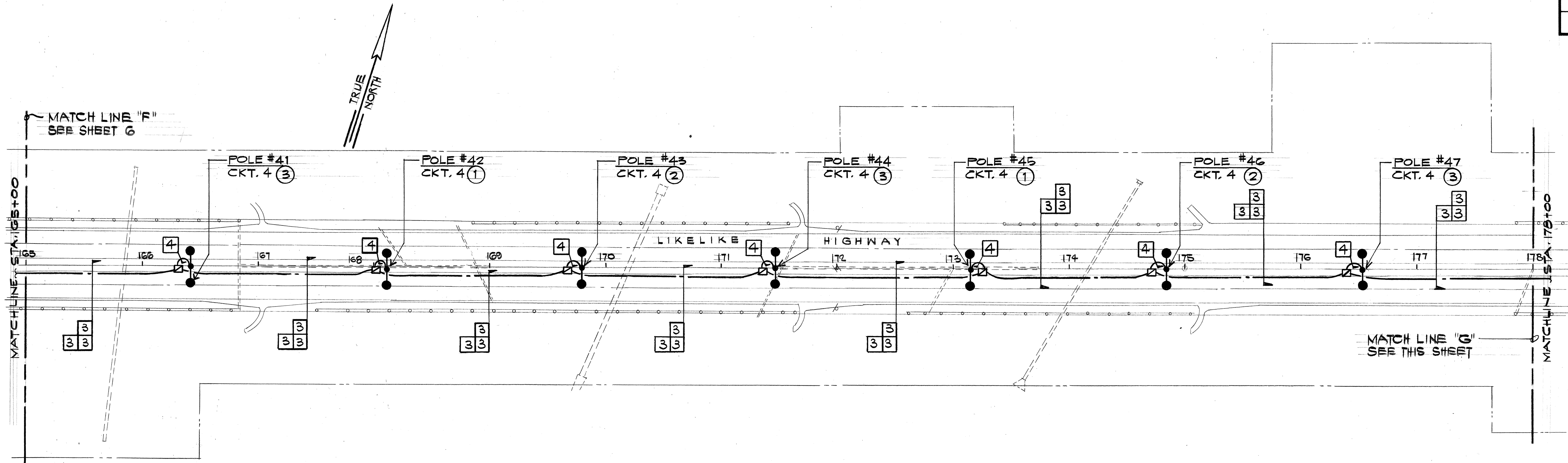
SCALE: 1" = 50'-0" DATE: SHEET No. 6 OF 13 SHEETS

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

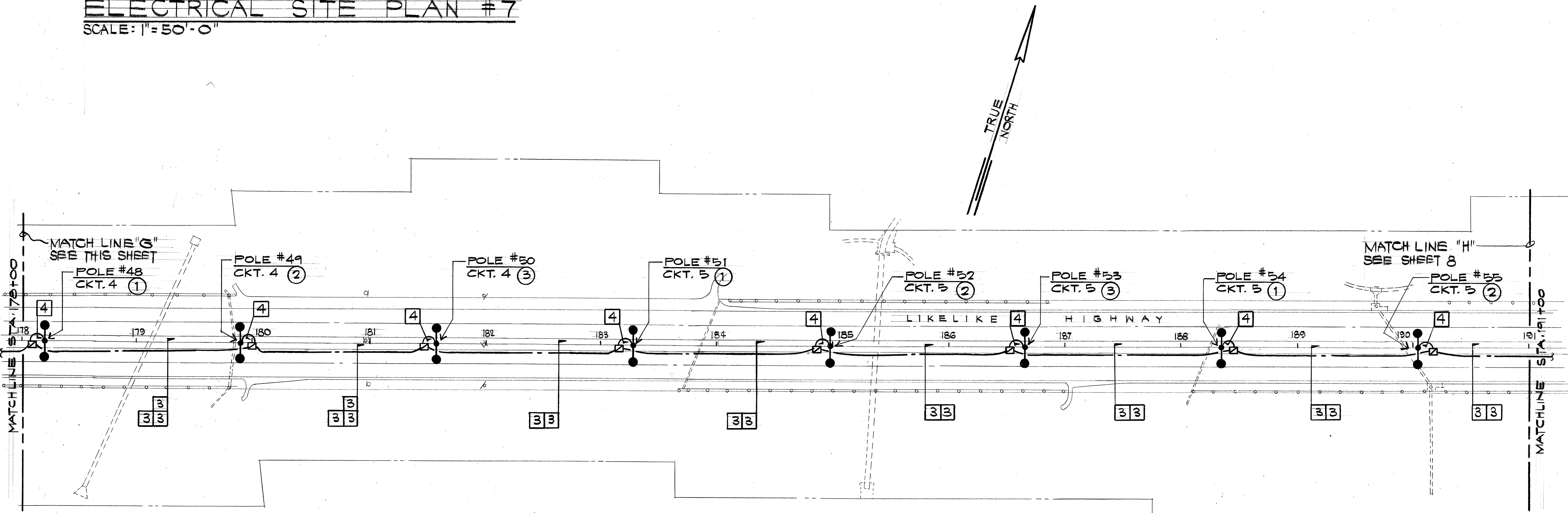
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	63A-02-90	1991	7	13

NOTES:

- ① TAP CIRCUIT PHASES A & B.
- ② TAP CIRCUIT PHASES C & A.
- ③ TAP CIRCUIT PHASES B & C.
- ④ POLE NUMBERS ARE FOR REFERENCE ONLY.

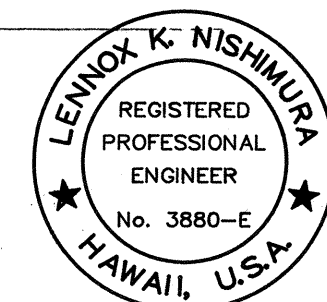
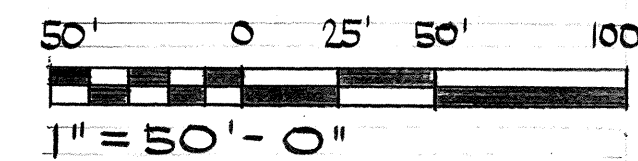


ELECTRICAL SITE PLAN #7
SCALE: 1" = 50'-0"



ELECTRICAL SITE PLAN #8
SCALE: 1" = 50'-0"

GRAPHIC SCALE



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By *Lennox K. Nishimura*
Its PROJECT ENGINEER
Date SEPT. 28, 1990

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**ELECTRICAL SITE
PLANS #7 & #8**

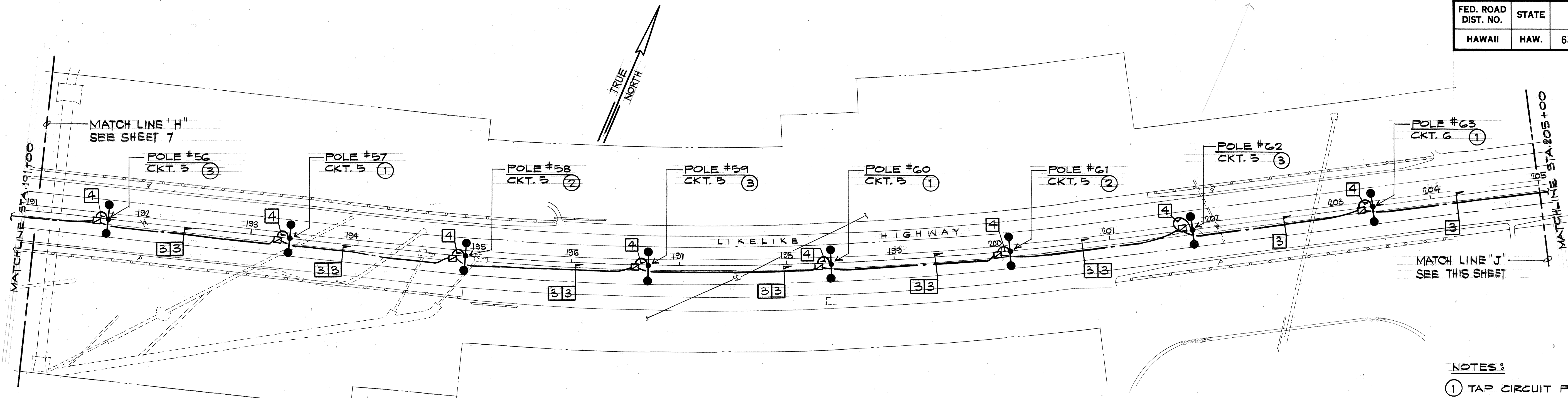
LIKELIKE HIGHWAY - HIGHWAY LIGHTS
WILSON TUNNEL TO VALLEY VIEW ROAD
PROJECT NO. 63A-02-90

SCALE: 1" = 50'-0"

DATE:

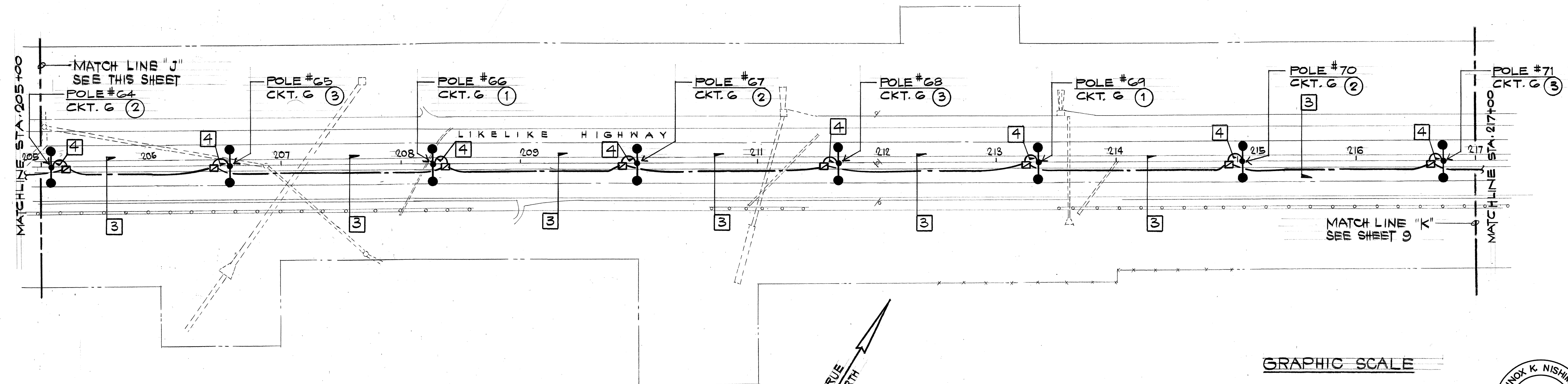
SHEET NO. 7 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	63A-02-90	1991	8	13

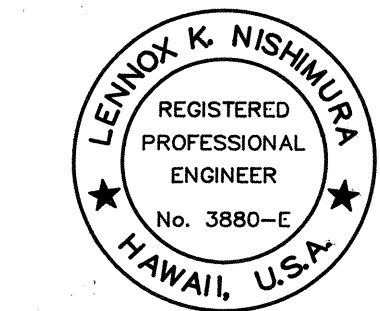
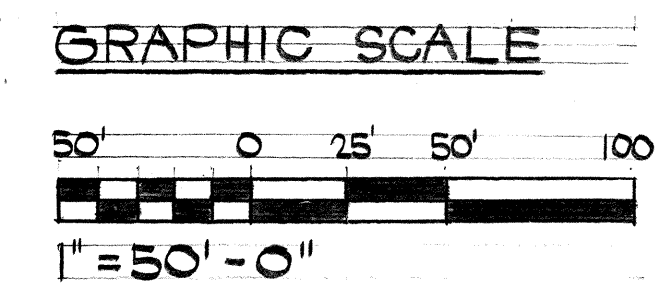


ELECTRICAL SITE PLAN #9
SCALE: 1" = 50'-0"

- NOTES:
- ① TAP CIRCUIT PHASES A & B.
 - ② TAP CIRCUIT PHASES C & A.
 - ③ TAP CIRCUIT PHASES B & C.
 - ④ POLE NUMBERS ARE FOR REFERENCE ONLY.



ELECTRICAL SITE PLAN #10
SCALE: 1" = 50'-0"



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EGS INC.
By *Lennox K. Nishimura*
Its PROJECT ENGINEER
Date SEPT. 28, 1990

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ELECTRICAL SITE PLANS #9 & #10
LIKELIKE HIGHWAY - HIGHWAY LIGHTS
WILSON TUNNEL TO VALLEY VIEW ROAD
PROJECT NO. 63A-02-90
SCALE: 1" = 50'-0" DATE:

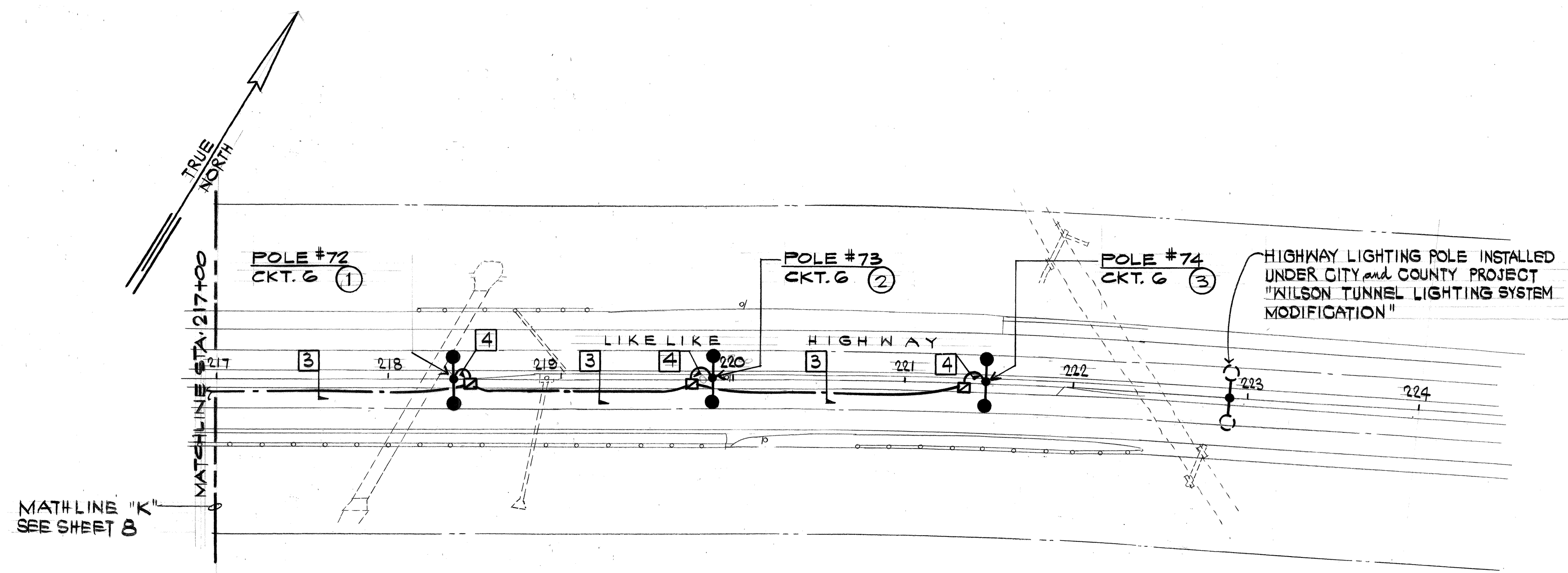
SHEET NO. 8 OF 13 SHEETS

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

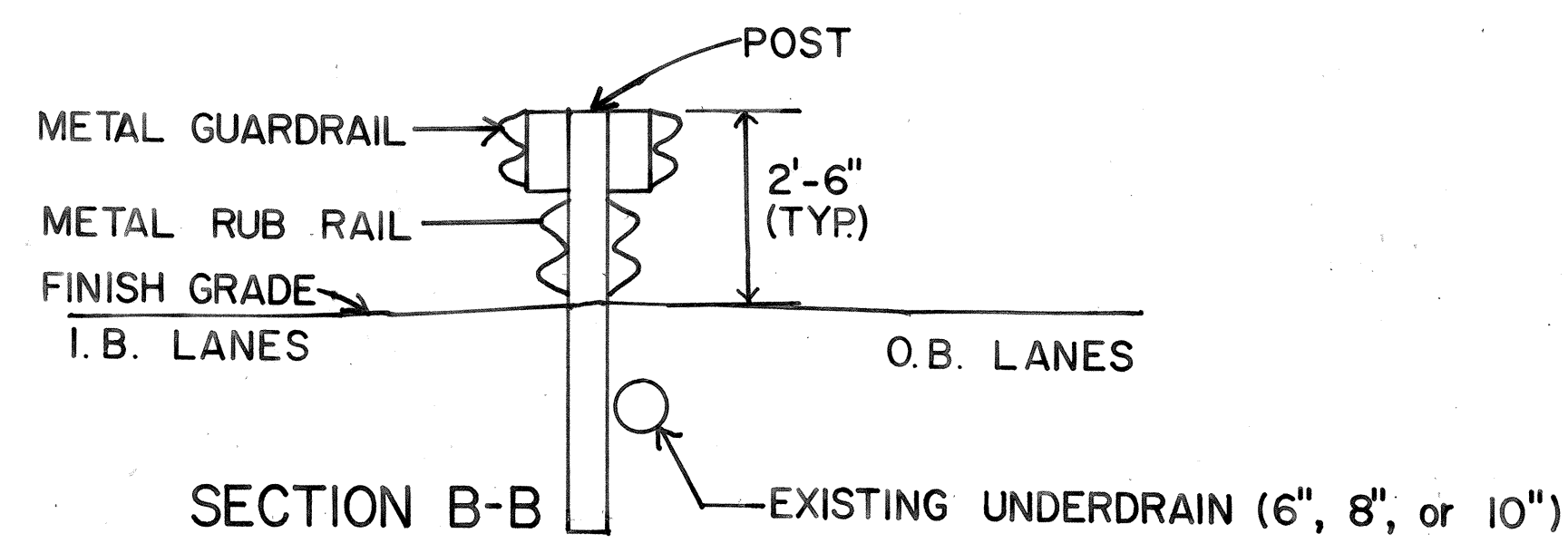
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	63A-02-90	1991	9	13

NOTES

- ① TAP CIRCUIT PHASES A & B.
- ② TAP CIRCUIT PHASES C & A.
- ③ TAP CIRCUIT PHASES B & C.
- ④ POLE NUMBERS ARE FOR REFERENCE ONLY.

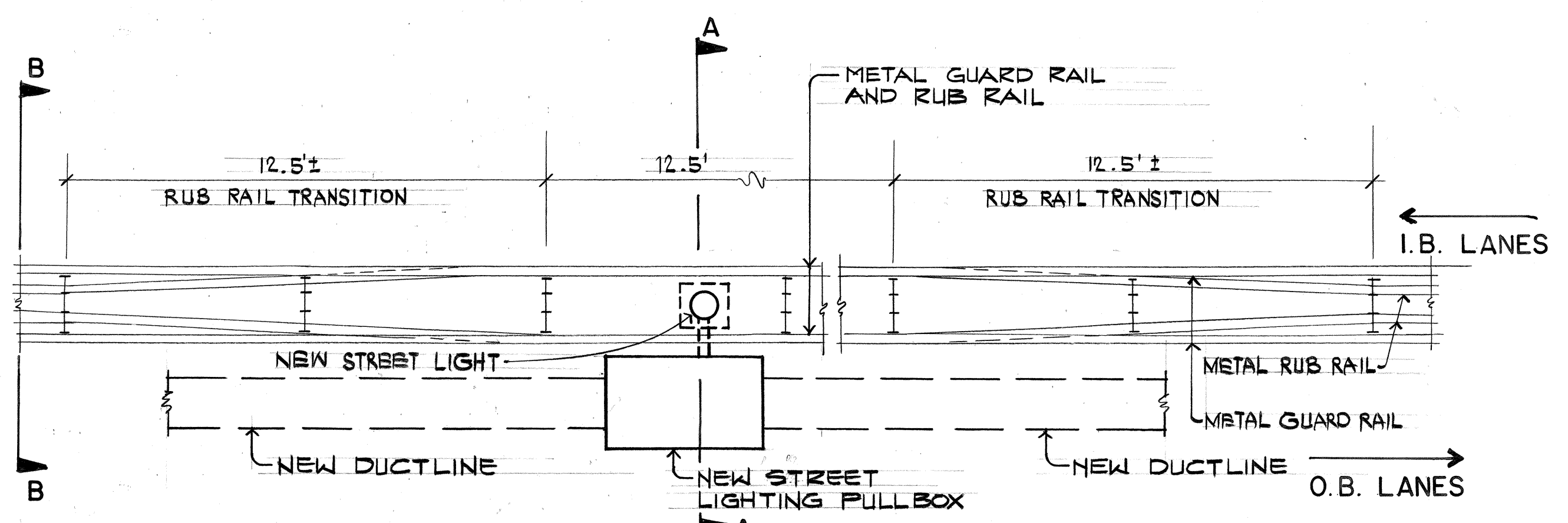


ELECTRICAL SITE PLAN #11
SCALE: 1" = 50'-0"



SECTION B-B
TYPICAL GUARDRAIL SECTION
BETWEEN NEW STREET LIGHT STANDARD
NOT TO SCALE

SKETCH C



A
TYPICAL DETAIL OF RECONSTRUCTED METAL GUARD RAIL
AT NEW STREET LIGHT STANDARD
NOT TO SCALE

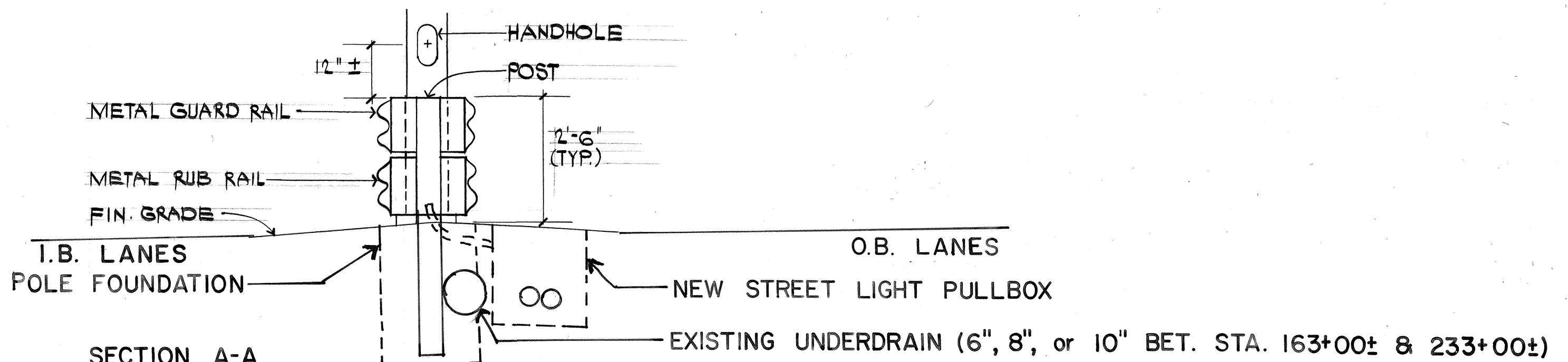
NOTES FOR RECONSTRUCTING GUARD RAILS

1. IT IS INTENDED THAT THE CONTRACTOR SHALL MAKE USE OF ALL POSTS, RAILS, SPACER BLOCKS, AND FITTINGS SALVAGED FROM THE EXISTING GUARD RAIL THAT HAVE NOT DETERIORATED, IN THE ENGINEER'S OPINION, TO AN EXTENT PRECLUDING THEIR USE IN THE RECONSTRUCTED GUARD RAIL. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL MATERIALS REQUIRED FOR THE GUARD RAIL RECONSTRUCTION. GUARD RAIL WORK SHALL CONFORM TO DOT STANDARD PLANS TE-50, TE-51, TE-52, TE-53 AND TE-54.

SKETCH A

NOTE:

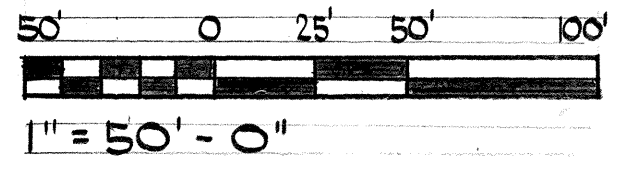
1. FOR LOCATION OF PERFORATED UNDERDRAIN (IN MEDIAN) SEE AS-BUILT FOR PROJECT NO. A-630-01-62.
2. FOR ORIGINAL MEDIAN GUARDRAIL INSTALLATION WORK SEE AS-BUILT FOR PROJECT NO. F-063-1(9).



B
TYPICAL SECTION OF RECONSTRUCTED METAL GUARD RAIL AT NEW STREET LIGHT STANDARD
NOT TO SCALE

SKETCH B

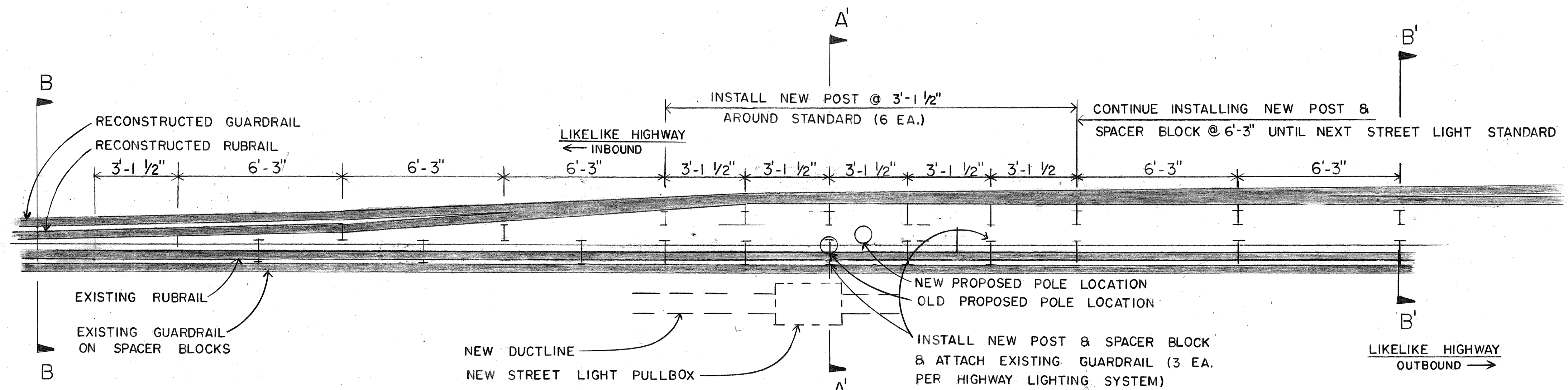
GRAPHIC SCALE



This work was prepared by me or under my supervision
ECS INC.
By *Lenox K. Nishimura*
Its PROJECT ENGINEER
Date SEPT. 28, 1990

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**ELECTRICAL SITE PLAN #11,
GUARD RAIL DETAILS**
LIKELIKE HIGHWAY - HIGHWAY LIGHTS
WILSON TUNNEL TO VALLEY VIEW ROAD
PROJECT NO. 63A-02-90
SCALE: 1" = 50'-0" DATE:
SHEET No. 9 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



(B) 9A PLAN VIEW OF RECONSTRUCTED GUARDRAIL

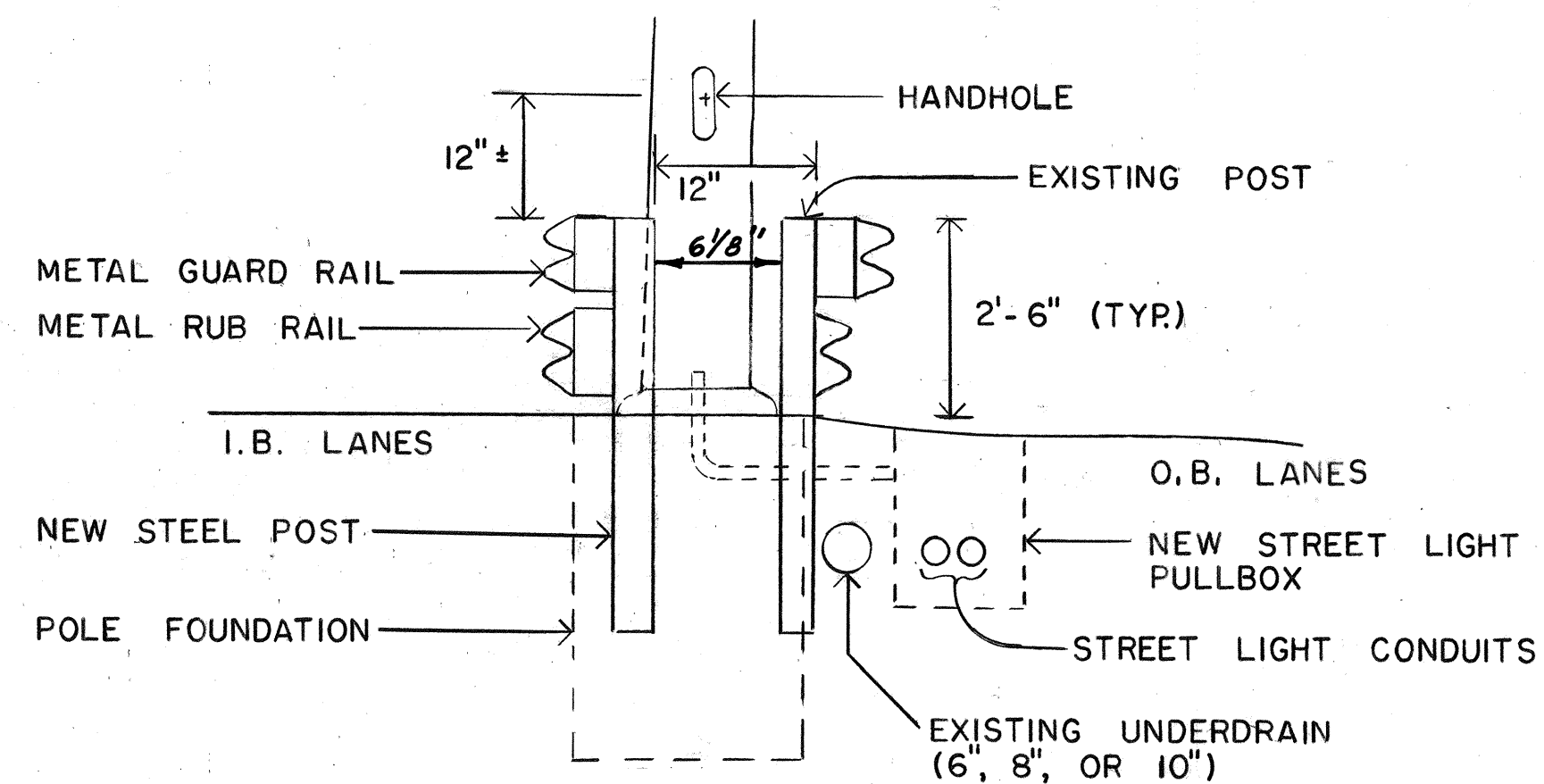
NOT TO SCALE

SKETCH D

NOTE: REPLACE EXISTING DAMAGED STEEL POSTS, GUARD RAILS, & RUBRAILS.

GENERAL NOTES:

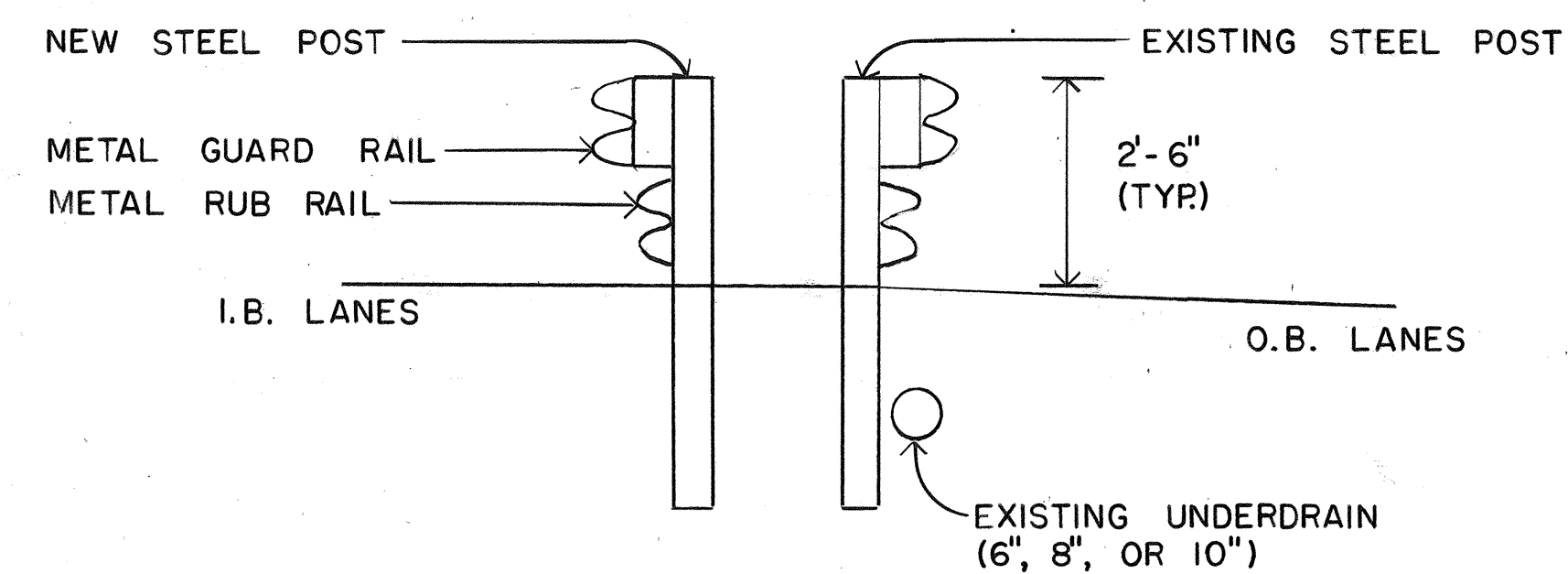
1. THE EXISTING INBOUND GUARD RAIL, SPACER BLOCK, AND RUB RAIL NEEDS TO BE TRANSFERRED ONTO THE NEW STEEL POSTS.
2. REFER TO SKETCHES A & D DETAILS ON THE TRANSITION OF THE RUB RAIL (I.B. SIDE) AROUND THE NEW LIGHT STANDARDS.
3. THE NEW LIGHT POLES SHOWN IN SKETCH D WILL HAVE ADDITIONAL STEEL POSTS FOR ADDED SUPPORT. THE POLE LOCATIONS HAD TO BE MOVED AS SHOWN.



(B) 9A SECTION A-A'
TYPICAL SECTION OF RECONSTRUCTED METAL GUARD RAIL AT NEW STREET LIGHT STANDARD

NOT TO SCALE

SKETCH E



(C) 9A SECTION B'-B'
TYPICAL GUARD RAIL SECT. BET. NEW STREET LIGHT STANDARD, STA. 163+00± TO 233+00±

NOT TO SCALE

SKETCH F

THIS SHEET ADDED DURING AS-BUILT POSTING.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GUARD RAIL
LIKELIKE HIGHWAY, HIGHWAY LIGHTS
WILSON TUNNEL TO VALLEY VIEW DRIVE
PROJECT NO. 63A-02-90

SHEET No. OF SHEETS

C.0.9S-1

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