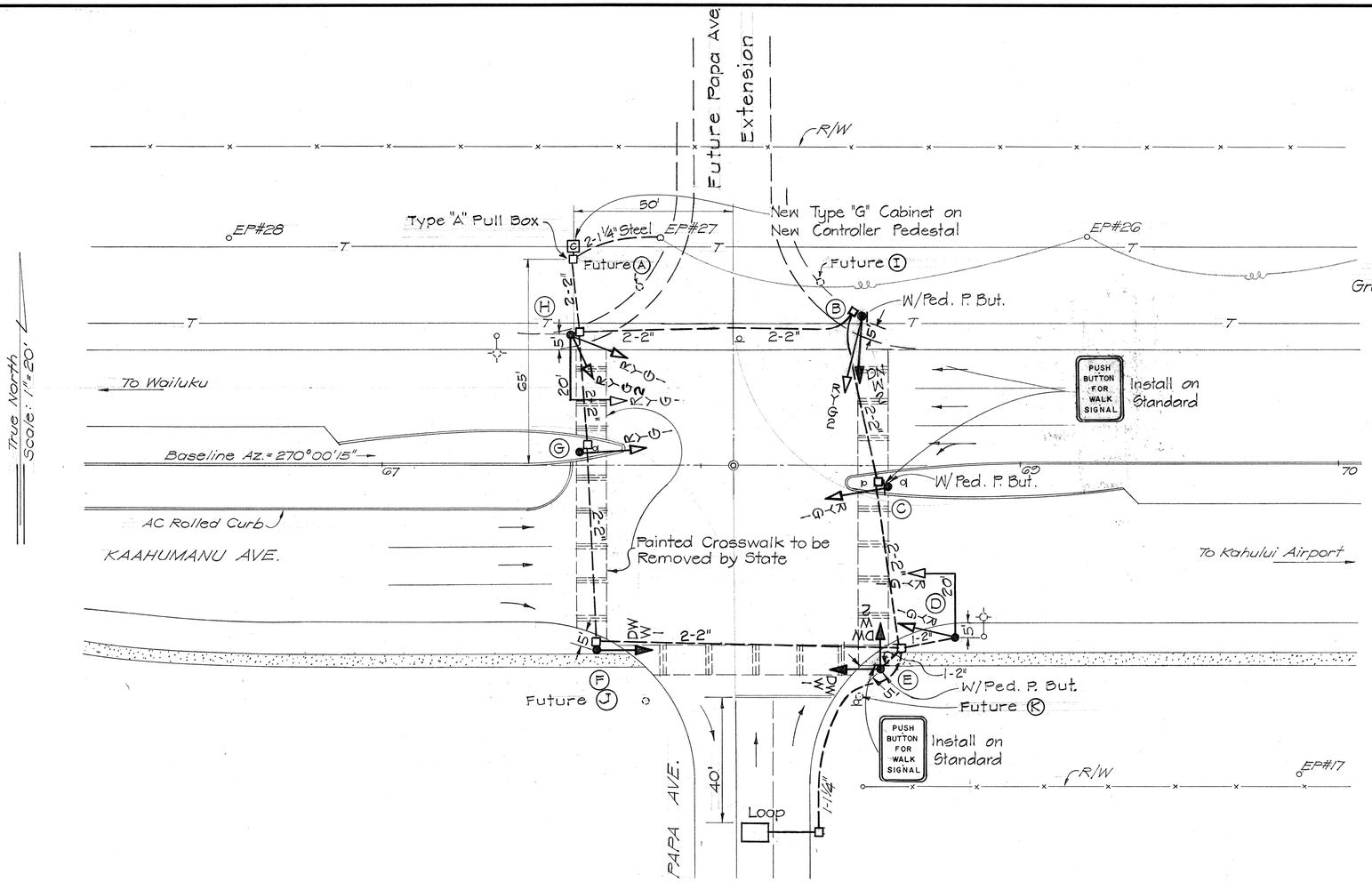
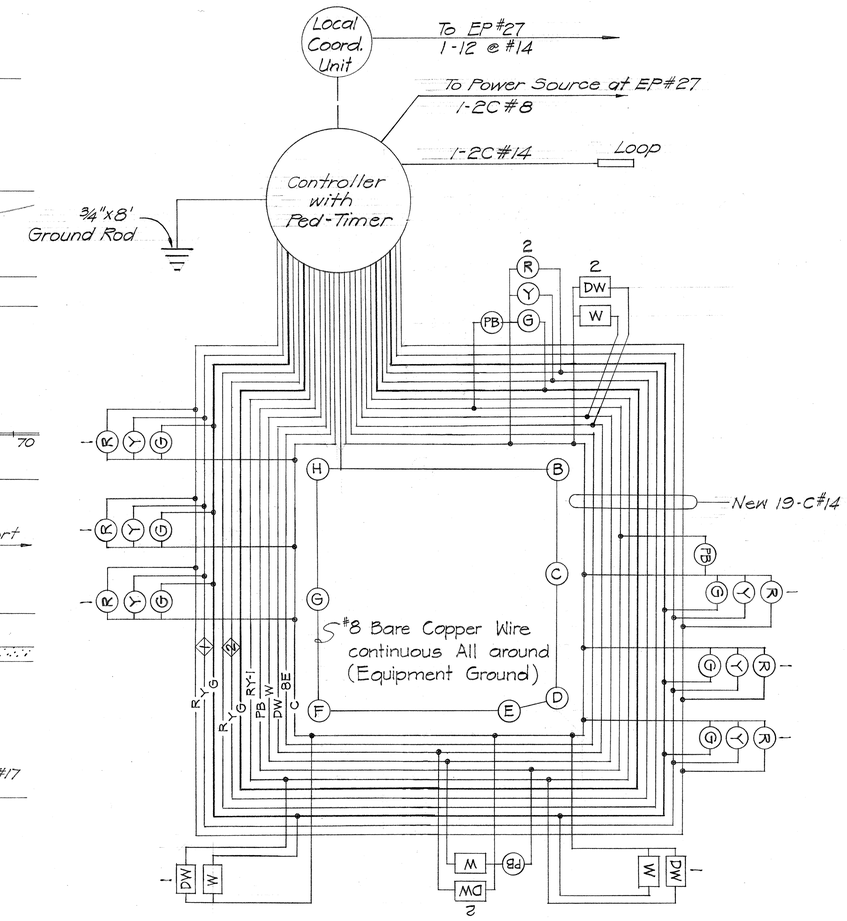
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	32A-02-70	1970	4	19



PLAN

Scale: 1" = 20'

GRAPHIC SCALE

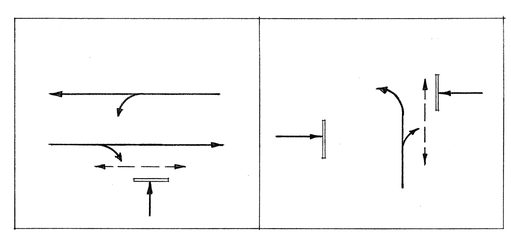


GEOGRAPHIC CIRCUIT WIRING DIAGRAM

No Scale

GENERAL WORK ITEMS:

1. Complete New Signal System as shown with all Wiring.
2. Install Type I Controller, Ped-Timer and Local Coordinating Unit in Type "G" Cabinet on New Controller Pedestal. Connect to Local Loop and Interconnect Systems. (Sh. 5)
3. All Pull Boxes are Type "B" Except as Noted.
4. Install All 12" Signals.



PHASE 1 PHASE 2

PHASE DIAGRAMS

DATE	REVISION
12/21/71	Delete Pole A, relocate Pole B, and relocate signal assembly on Pole A to Pole H due to future Papa Ave. Extension

WILLIAM C. HONG REGISTERED PROFESSIONAL ENGINEER No. 787 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

TRAFFIC SIGNAL SYSTEM AT PAPA AVENUE AND KAAHUMANU AVENUE

Project No. 32A-02-70

Scale: As Noted Date: Jan. 15, 1971

SHEET No. 1 OF 5 SHEETS

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

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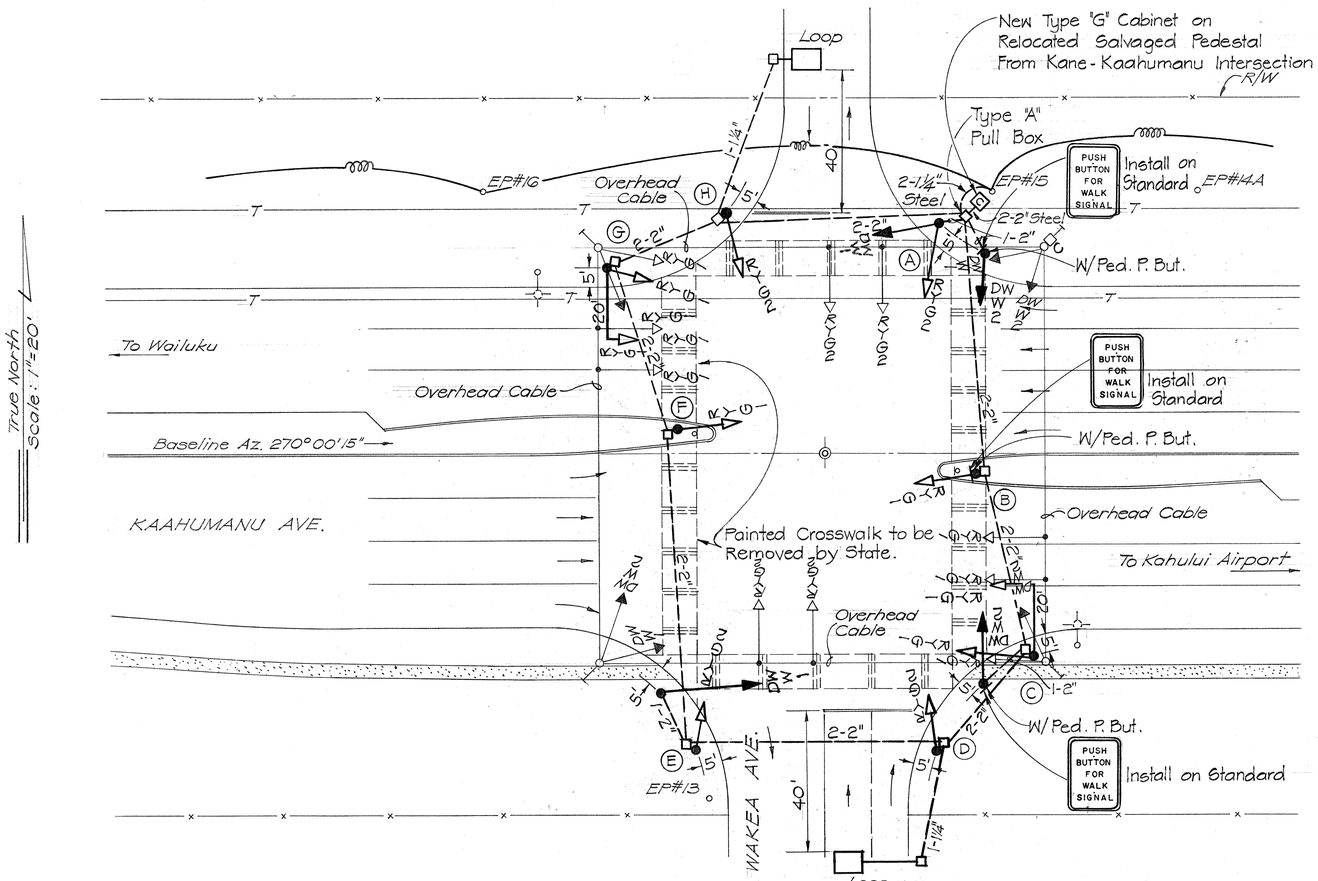
CO. 4

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	32A-02-70	1970	5	19

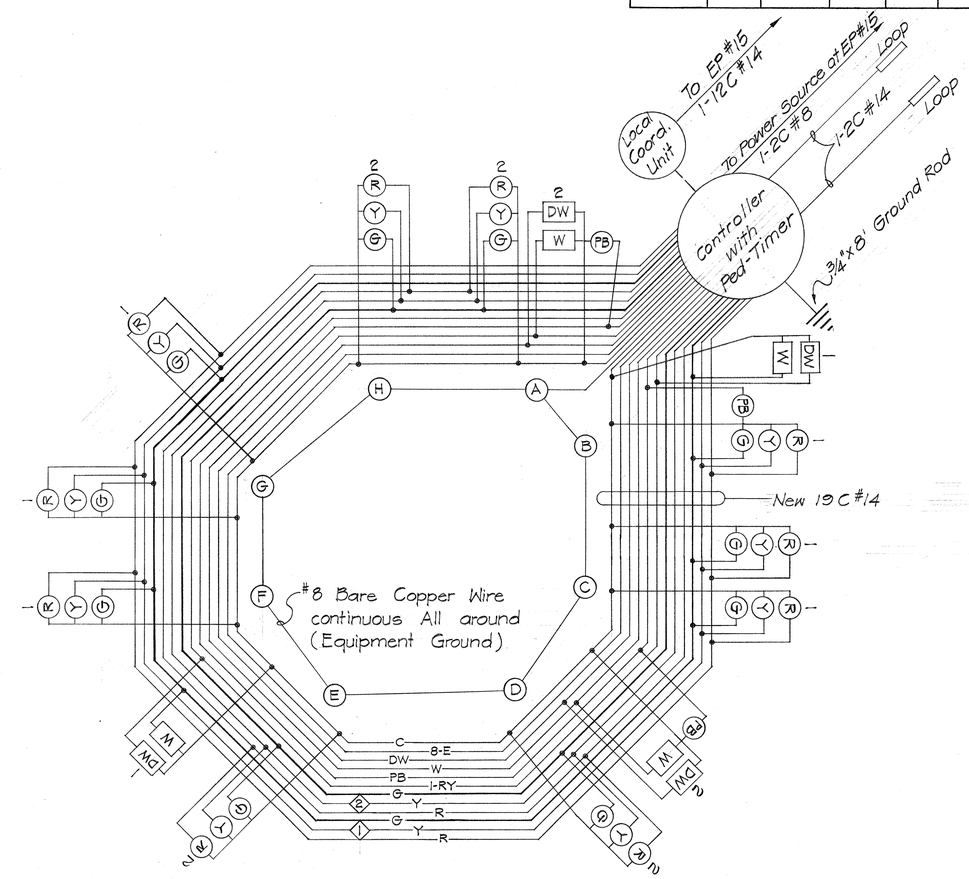


P L A N

Scale: 1" = 20'

0 10 25 50 100

GRAPHIC SCALE

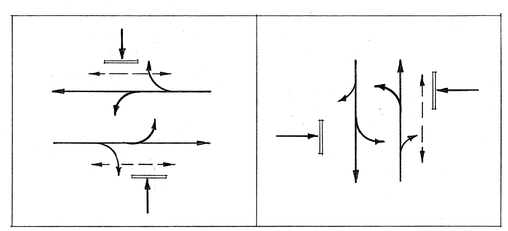


GEOGRAPHIC CIRCUIT WIRING DIAGRAM

No Scale

GENERAL WORK ITEMS:

1. Complete New Signal System as shown with All Wiring.
2. Install Type I Controller, Ped-Timer, Local Coordinating Unit and Other Elec. Equipment in Type "G" Cabinet. Connect to Local Loop and Interconnect Systems. (Sheet 9)
3. Remove and Salvage Existing Temporary Span Wire Mounted overhead Signal System. Deliver to State Base Yard as directed By Engineer.
4. All Pull Boxes are Type "B" except as Noted.
5. Reinstall 2 Signal Standards Salvaged From Puunene and Kaahumanu Intersection and 1 Signal Standard Salvaged From Kane-Kaahumanu Intersection (Total 3 each)
6. Reinstall Controller Pedestal Salvaged From Kane-Kaahumanu Intersection.
7. Install All 12" Signal.



PHASE 1 PHASE 2

PHASE DIAGRAMS

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

WILLIAM C. HONG REGISTERED PROFESSIONAL ENGINEER No. 787 HAWAII, U.S.A.

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STATE OF HAWAII
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HIGHWAYS DIVISION

DETAILS

TRAFFIC SIGNAL SYSTEM AT WAKEA AVENUE AND KAAHUMANU AVENUE

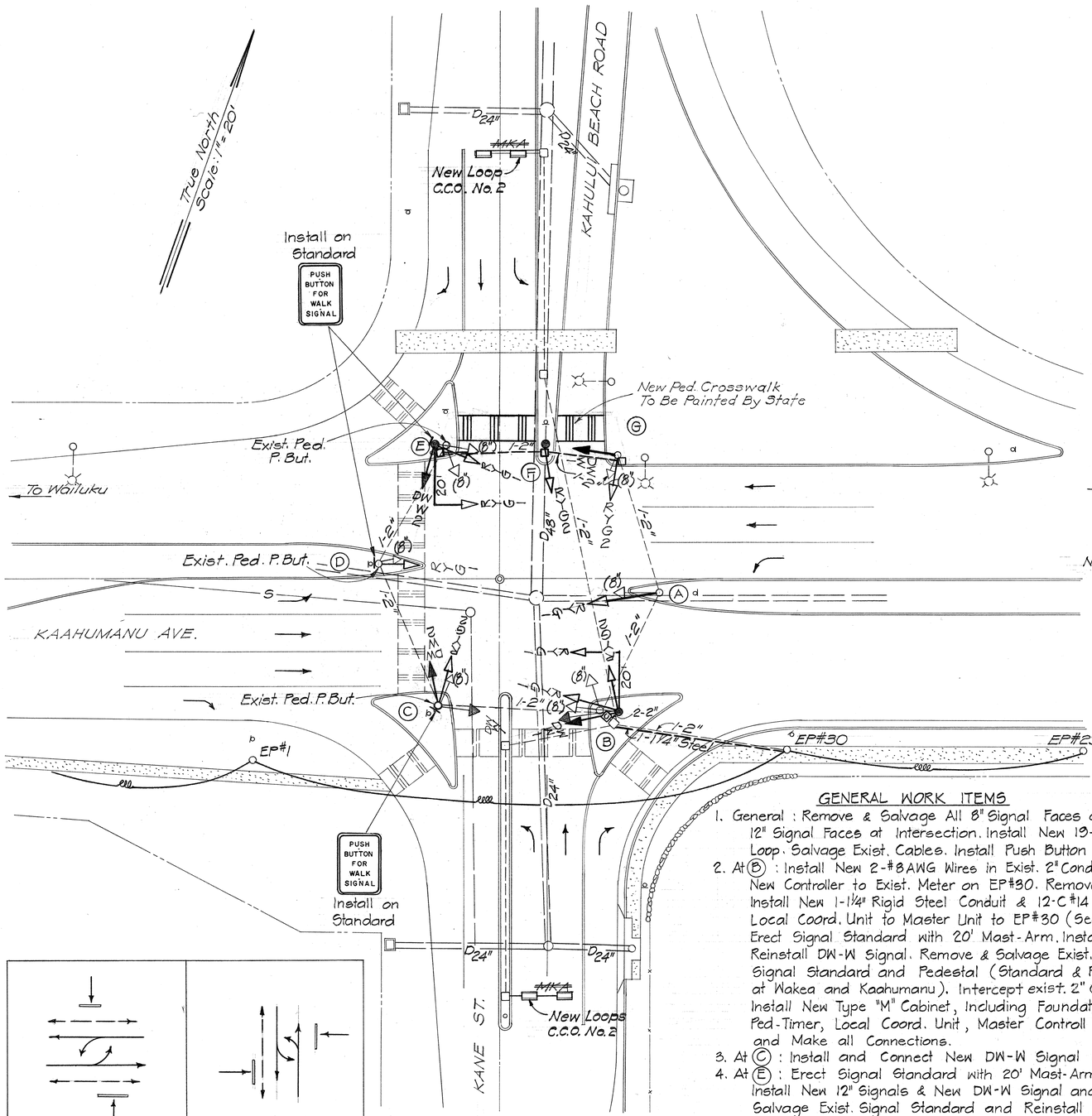
Project No. 32A-02-70

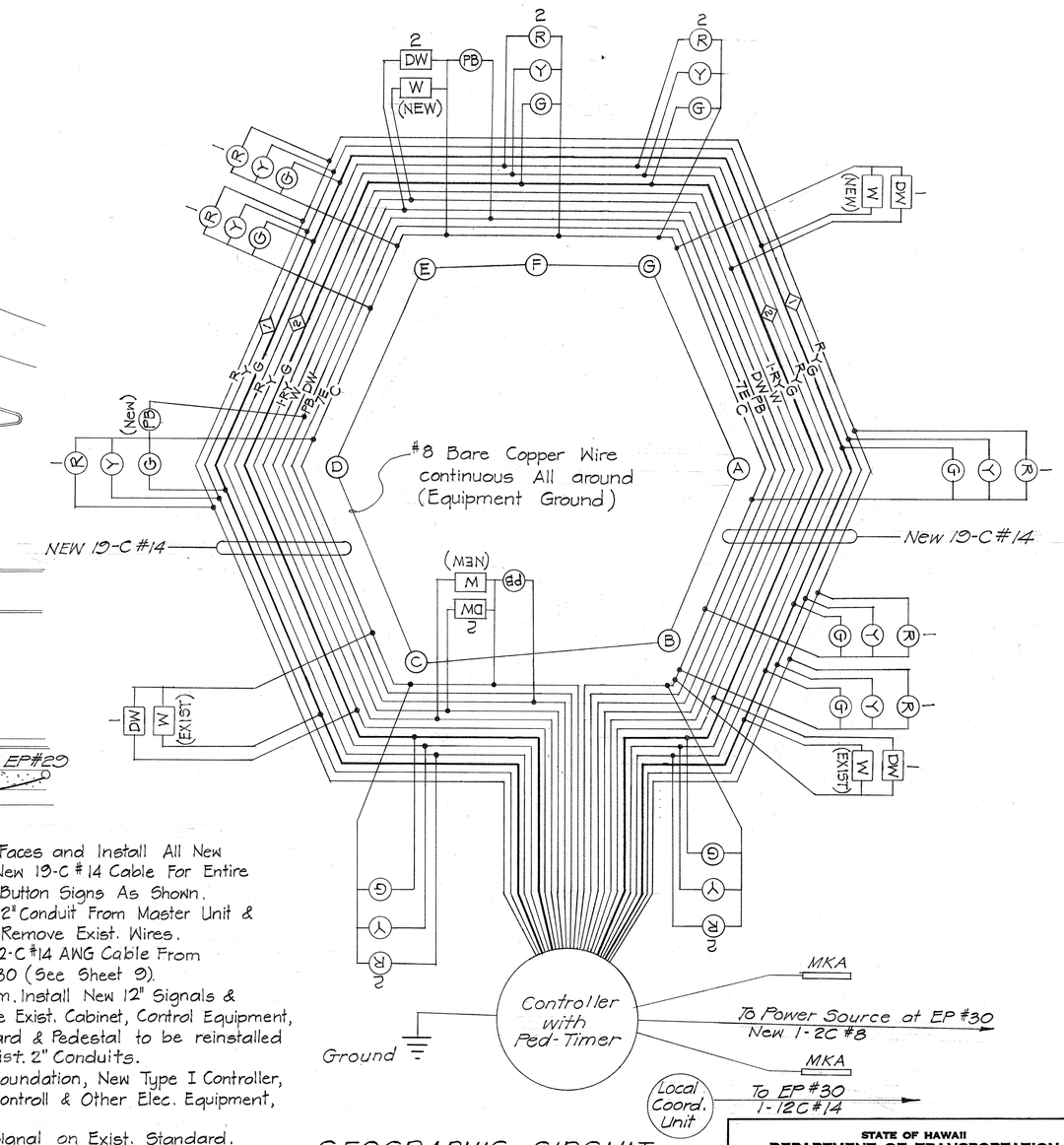
Scale: As Noted Date: Jan 15, 1971

SHEET No. 2 OF 5 SHEETS

K+E CRYSTALENE® LA 2920 TRACING PAPER

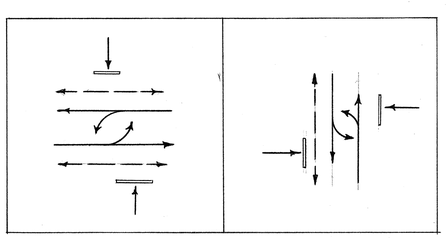
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	32A-02-70	1970	6	19





GENERAL WORK ITEMS

1. General : Remove & Salvage All 8" Signal Faces and Install All New 12" Signal Faces at Intersection. Install New 19-C #14 Cable For Entire Loop. Salvage Exist. Cables. Install Push Button Signs As Shown.
2. At (B) : Install New 2-#8AWG Wires in Exist. 2" Conduit From Master Unit & New Controller to Exist. Meter on EP#30. Remove Exist. Wires. Install New 1-1¼" Rigid Steel Conduit & 12-C #14 AWG Cable From Local Coord. Unit to Master Unit to EP#30 (See Sheet 9). Erect Signal Standard with 20' Mast-Arm. Install New 12" Signals & Reinstall DW-W Signal. Remove & Salvage Exist. Cabinet, Control Equipment, Signal Standard and Pedestal (Standard & Pedestal to be reinstalled at Wakea and Kaahumanu). Intercept exist. 2" Conduits. Install New Type "M" Cabinet, Including Foundation, New Type I Controller, Ped-Timer, Local Coord. Unit, Master Controll & Other Elec. Equipment, and Make all Connections.
3. At (C) : Install and Connect New DW-W Signal on Exist. Standard.
4. At (E) : Erect Signal Standard with 20' Mast-Arm with Type "B" Pull Box. Install New 12" Signals & New DW-W Signal and Connect. Remove & Salvage Exist. Signal Standard and Reinstall at (F) Run New 2" PVC Sched. 40 Concrete Encased Between (E) and (G) Through (F).
5. At (F) Reinstall Signal Standard From (E) and Install New 12" Signall and Type "B" Pull Box. Connect.
6. At (G) Install New DW-W Signal and Type "B" Pull Box and Connect.



PHASE DIAGRAMS

PLAN

Scale: 1" = 20'

0 10 25 50 100

GRAPHIC SCALE

GEOGRAPHIC CIRCUIT WIRING DIAGRAM

No Scale

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

TRAFFIC SIGNAL SYSTEM AT KANE ST.-KAHULUI BEACH ROAD & KAAHUMANU AVENUE

Project No. 32A-02-70

Scale: As Noted Date: Jan 15, 1971

SHEET No. 3 OF 5 SHEETS

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

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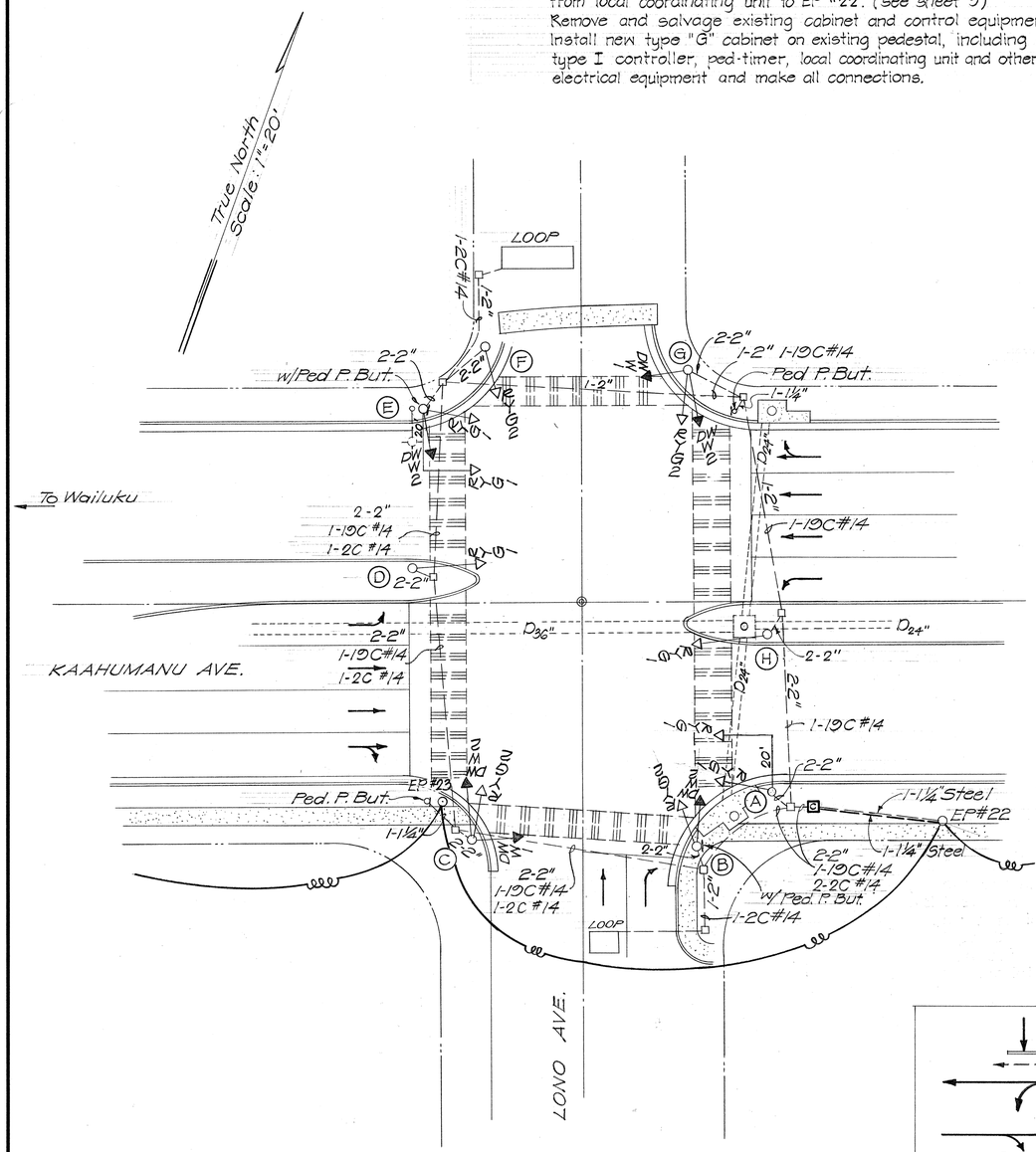
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	32A-02-70	1970	7	19

GENERAL WORK ITEMS:

1. At (A): Install new 2-#8 AWG wires in existing 1¼" conduit from new controller to existing meter on EP #22. Remove existing wires. Install new 1-1¼" rigid steel conduit and 12-C #14 AWG cable from local coordinating unit to EP #22. (see sheet 9) Remove and salvage existing cabinet and control equipment. Install new type "G" cabinet on existing pedestal, including new type I controller, ped-timer, local coordinating unit and other electrical equipment and make all connections.

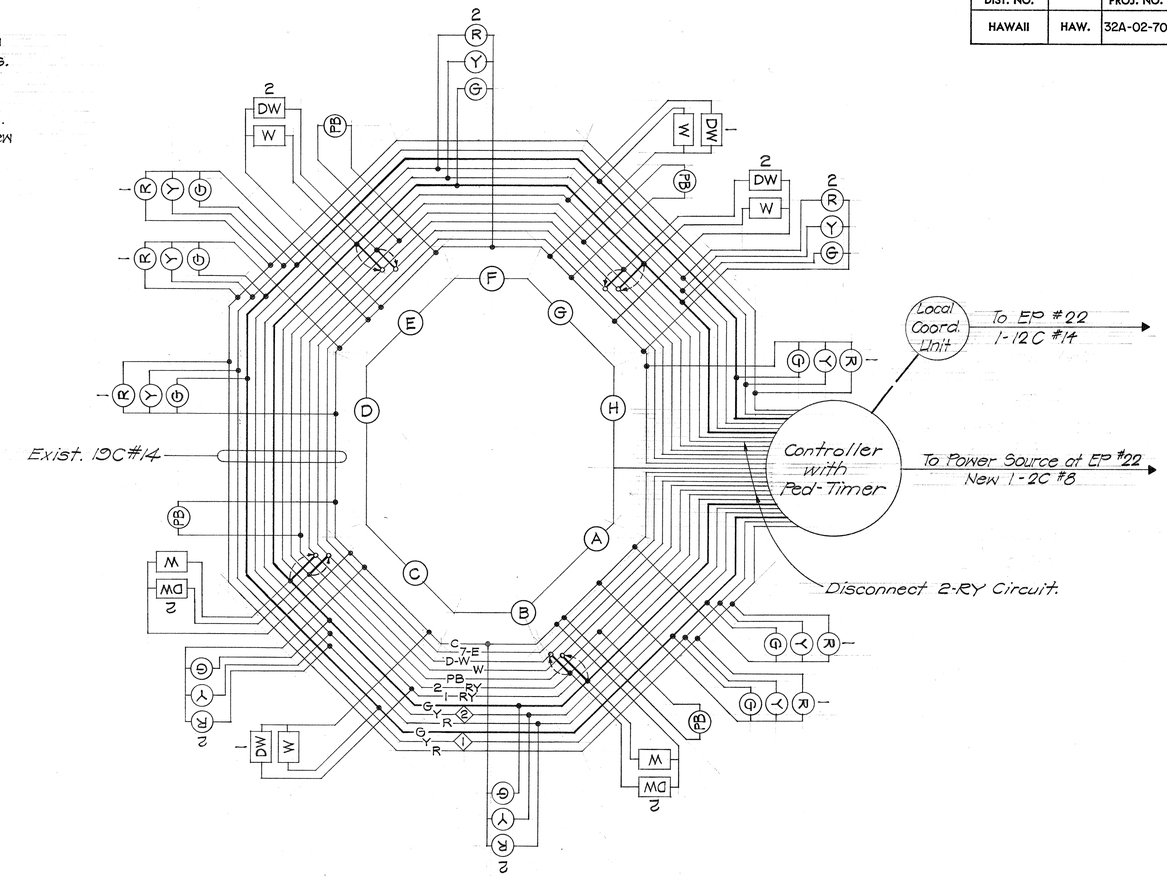


PLAN

Scale: 1" = 20'

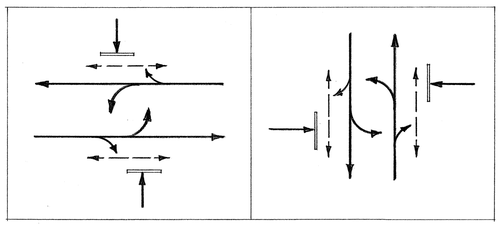
0 10 25 50 100

GRAPHIC SCALE



GEOGRAPHIC CIRCUIT WIRING DIAGRAM

No Scale



PHASE 1 PHASE 2

PHASE DIAGRAMS

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

WILLIAM C. HONG REGISTERED PROFESSIONAL ENGINEER No. 787 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

TRAFFIC SIGNAL SYSTEM AT LONO AVENUE AND KAAHUMANU AVENUE

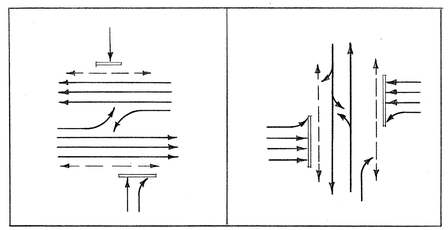
Project No. 32A-02-70

Scale: As Noted Date: Jan. 15, 1971

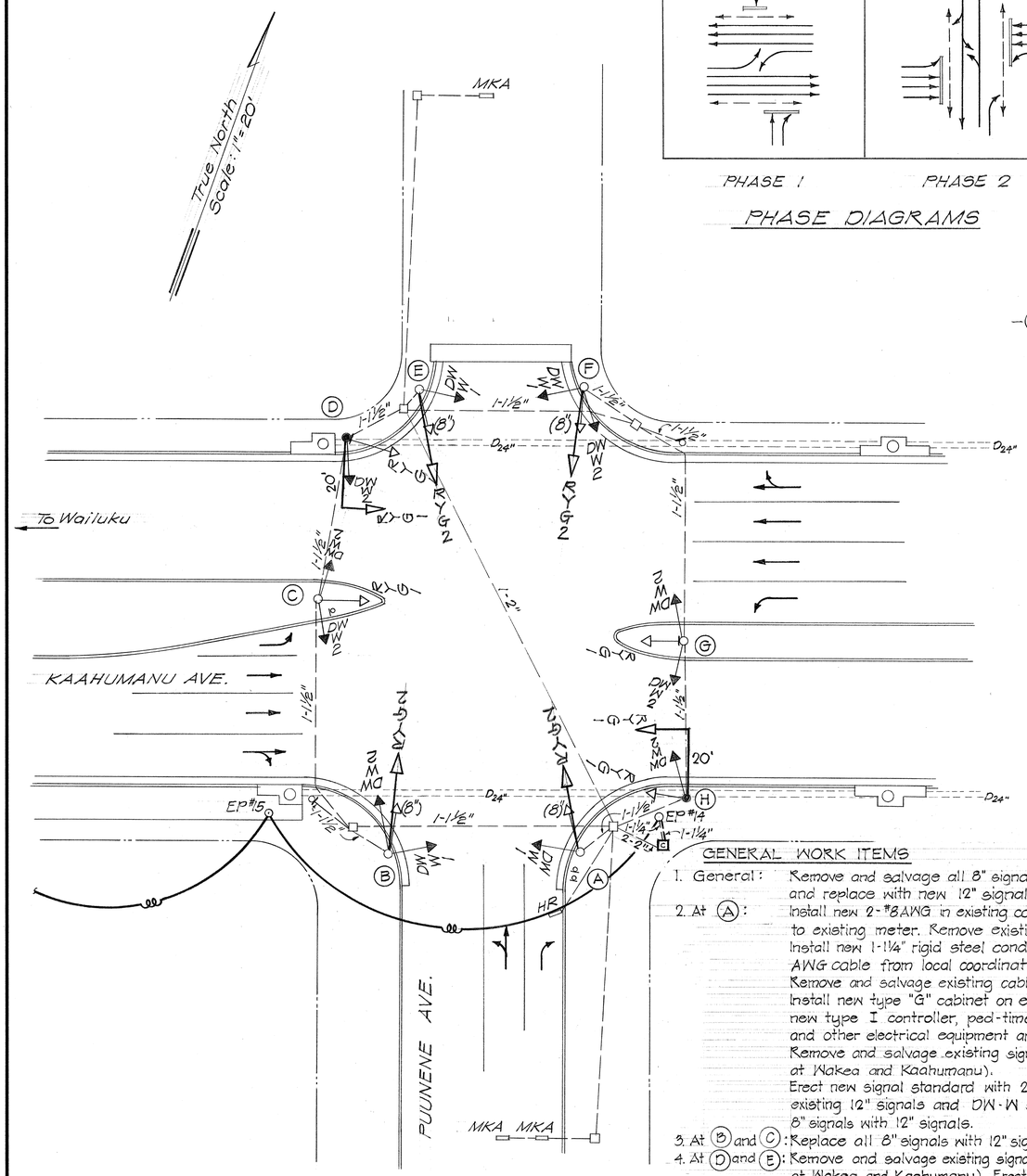
SHEET No. 4 OF 5 SHEETS

K+E CRYSTALENE® LA 2920 TRACING PAPER

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	32A-02-70	1970	8	19



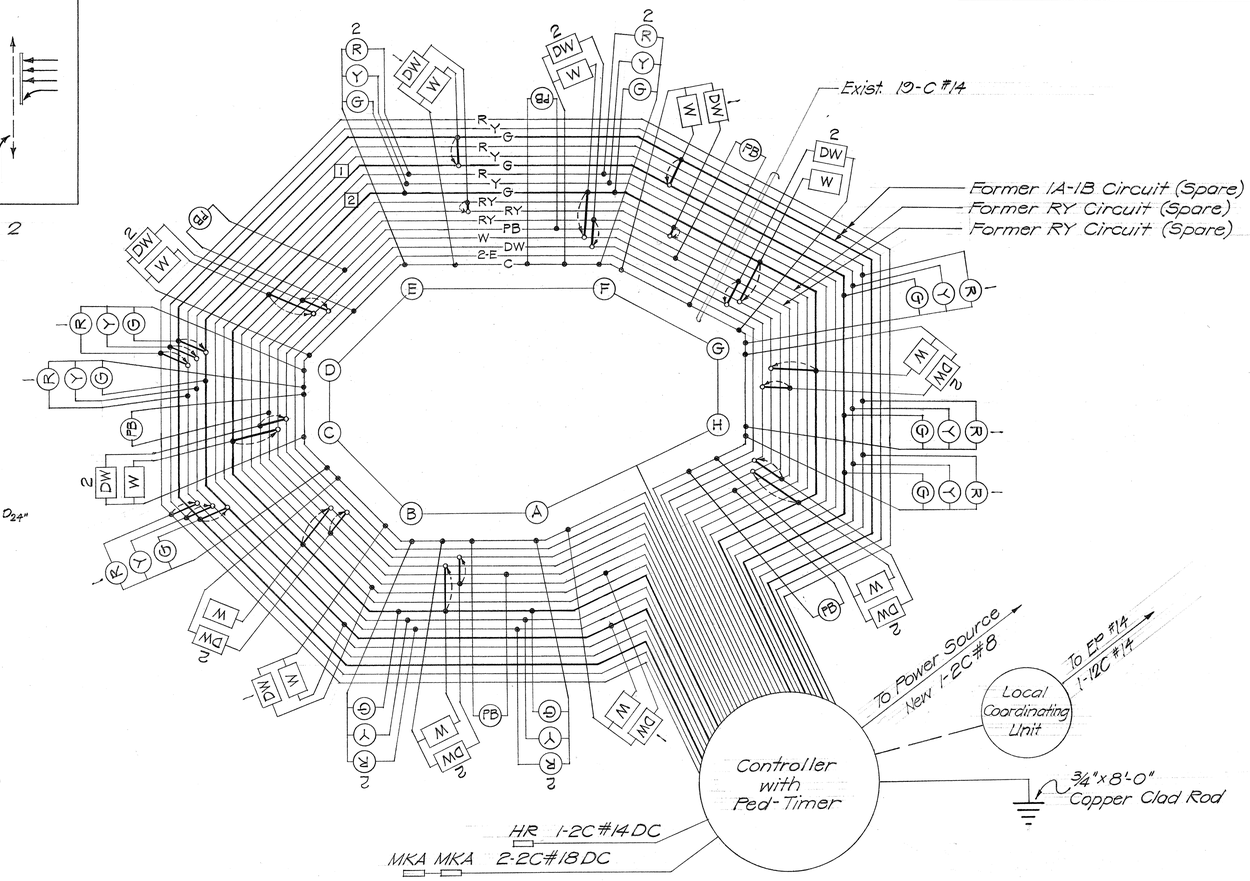
PHASE DIAGRAMS



PLAN

Scale: 1" = 20'

GRAPHIC SCALE 0 10 25 50 100



GEOGRAPHIC CIRCUIT WIRING DIAGRAM

No Scale

GENERAL WORK ITEMS

1. General: Remove and salvage all 8" signals at this intersection and replace with new 12" signals.
2. At (A): Install new 2-#8AWG in existing conduit from new controller to existing meter. Remove existing wires. Install new 1-1¼" rigid steel conduit and 12-C #14 AWG cable from local coordinating unit to EP #14 (see sht. 9). Remove and salvage existing cabinet and control equipment. Install new type "G" cabinet on existing pedestal, including new type I controller, ped-timer, local coordinating unit and other electrical equipment and make all connections. Remove and salvage existing signal standard (to be re-used at Wakea and Kaahumanu). Erect new signal standard with 20'-0" mast-arm. Reinstall existing 12" signals and DW-W signals and replace all 8" signals with 12" signals.
3. At (B) and (C): Replace all 8" signals with 12" signals.
4. At (D) and (E): Remove and salvage existing signal standard (to be re-used at Wakea and Kaahumanu). Erect new signal standard with 20'-0" mast-arm. Reinstall existing 12" signals and DW-W signals and replace all 8" signals with 12" signals.
5. At (F) and (G) Replace all 8" signals with 12" signals.

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

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JAMES J. OBERHAUSER REGISTERED PROFESSIONAL ENGINEER No. 564 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

TRAFFIC SIGNAL SYSTEM AT PUUNENE AVENUE AND KAAHUMANU AVENUE

Project No. 32A-02-70

Scale: As Noted Date: Jan. 15, 1971

SHEET No. 5 OF 5 SHEETS

K+E CRYSTALENE® LA 2920 TRACING PAPER