## SECTION 623 – TRAFFIC SIGNAL SYSTEM

Make the following amendments to said Section:

**(I)** Amend **Subsection 623.02 Materials**, by replacing lines 99 to line 131 to read as follows:

| | |
|---|---|
| "Traffic Management Center (TMC) | 770.01 |
| Signal Performance Measures (SPM) | 770.02 |
| Cellular Communications | 770.03 |
| Conflict Monitor Unit (CMU) | 770.04 |
| Video Detection System | 770.05" |

**(II)** Remove lines 188-192 in its entirety.

**(III)** Remove lines 196-327 in its entirety.

**(IV)** Remove lines 437-451 in its entirety.

**(V)** Amend **Subsection 623.03(C) Installation** by adding the following after line 451 to read as follows:

"**(15) Traffic Management Center (TMC).** Install a traffic management center in a select room at the Department of Transportation Kauai Baseyard, as directed by the Engineer. The traffic management system will consist of servers, monitors, workstations and all necessary hardware including, but not limited to, network switches, and hardwiring to operate existing Centracs software in accordance with the contract documents. Contractor to coordinate with HDOT to configure TMC software and traffic signal system communication and ensure that all components are operating accordingly.

A general layout of the TMC is shown in Figure 2 and is subject to change upon approval by the Engineer. Furniture shall be office-modular with quality similar to existing, installed to maximize space as shown in Figure 2. The Contractor shall provide a submittal layout of the TMC room to the Engineer for approval.

**(16) Signal Performance Measures (SPM).** Install a supplemental traffic data collection and analytics software for signal optimization applications.

**(17) Cellular Communications.** Install cellular communication devices connected through a priority network service to select signalized intersections as directed by the Engineer.

**(18) Conflict Monitor Unit (CMU)** Install conflict monitor units to select signalized intersections as directed by the Engineer.

**(19) Video Detection System**. Install video detection systems to select signalized intersections as directed by the Engineer."

**(VI)** Remove lines 453-465 in its entirety.

**(VII)** Amend **Subsection 623.03(G) Other Services** from line 493 to line 494 to read as follows:

"**(1)** The contractor shall perform the following upon submittal of a work plan and approval by the Engineer:"

**(VIII)** Remove line 505 in its entirety.

**(IX)** Amend **Subsection 623.03(G) Other Services** from line 507 to line 508 to read as follows:

"**(2)** Upon approval of the Engineer, the Contractor shall perform the following:"

**(X)** Amend **Subsection 623.04 Measurement** from line 578 to line 579 to read as follows:

"**623.04 Measurement.** The TMC system and SPM software will be paid per Lump Sum. Other traffic signal system items will be paid per each in accordance with the contract documents."

**(XI)** Amend **Subsection 623.05 Payment** from line 581 to line 590 to read as follows:

"**623.05 Payment.** The Engineer will pay for accepted items listed below at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

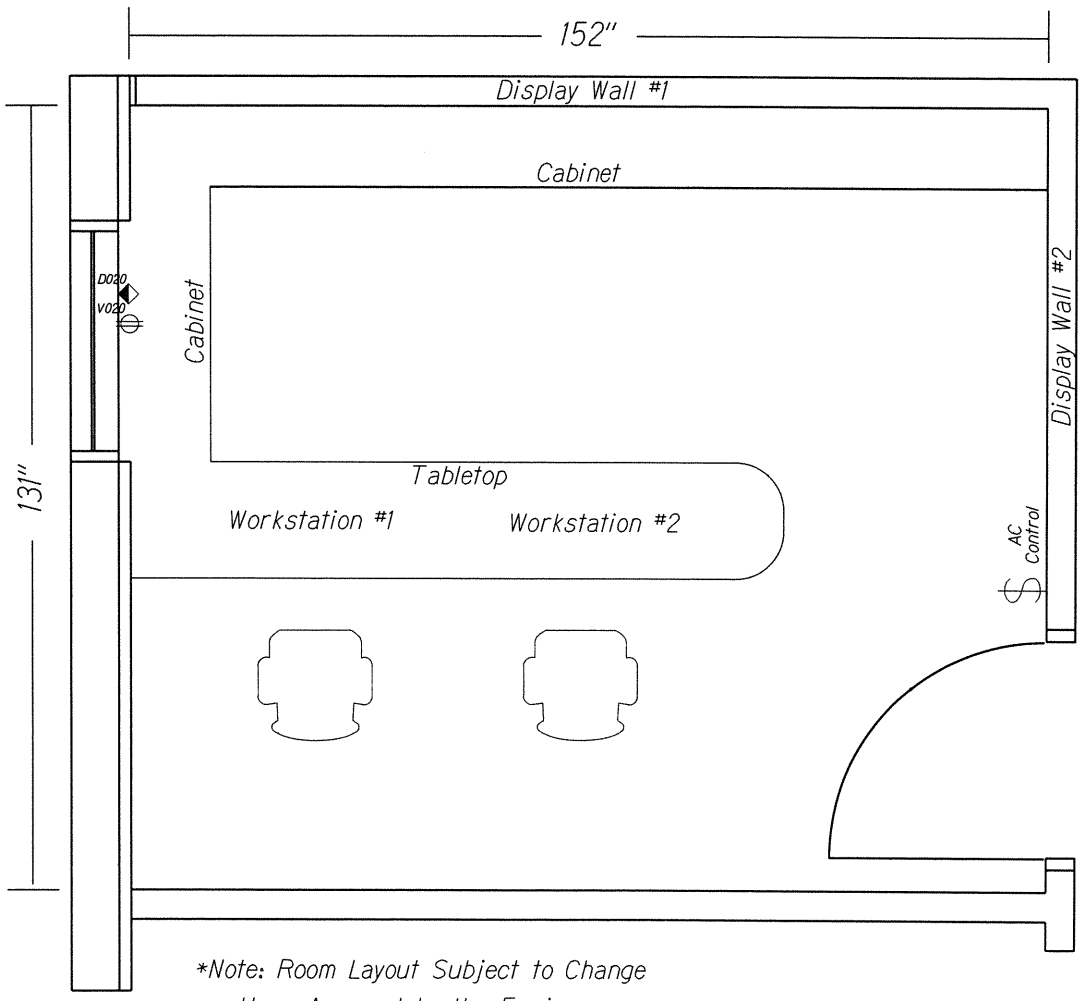
The Engineer will pay for each of the following pay items when included in the proposal schedule:

| Pay Item | | Pay Unit |
|---|---|---|
| **(A)** | Traffic Management Center (TMC) | Lump Sum |
| **(B)** | Signal Performance Measures (SPM) | Lump Sum |
| **(C)** | Cellular Communication | Each |
| **(D)** | Conflict Monitor Unit (CMU) | Each |
| **(E)** | Video Detection System – 3-Leg Intersection | Each |
| **(F)** | Video Detection System – 4-Leg Intersection | Each” |

**END OF SECTION 623**

# Traffic Management Center (TMC)

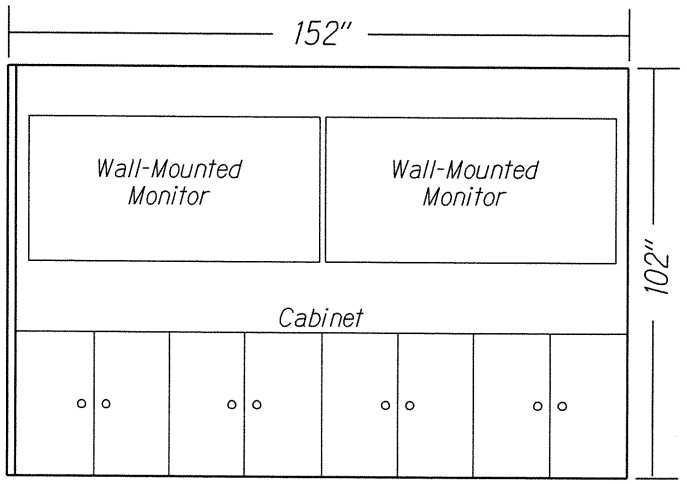
**Not to Scale**



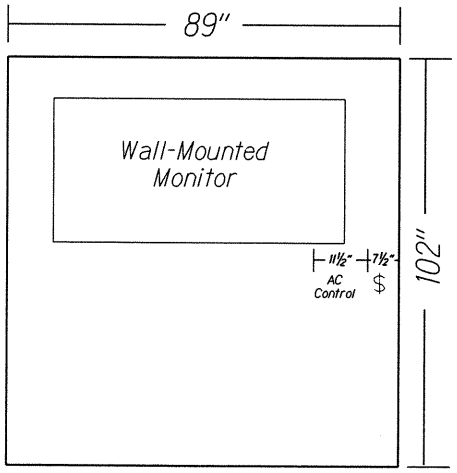

*Note: Room Layout Subject to Change Upon Approval by the Engineer.

Legend:

- Receptable, Duplex, Wall Mounted
- Tel/Data Outlet, Wall Mounted
- $ Switch, Flush Tumbler, Wall Mounted




Display Wall #1

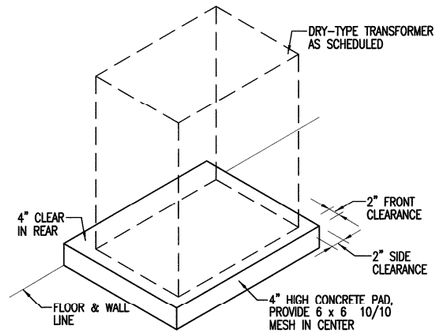



Display Wall #2

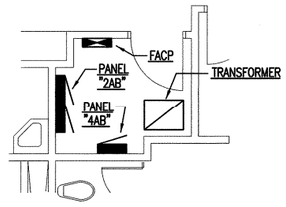
HWY-K-03-18

Figure 2

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| HAWAII | HAW. | HWY-K-03-98 | 2001 | 141 | 150 |

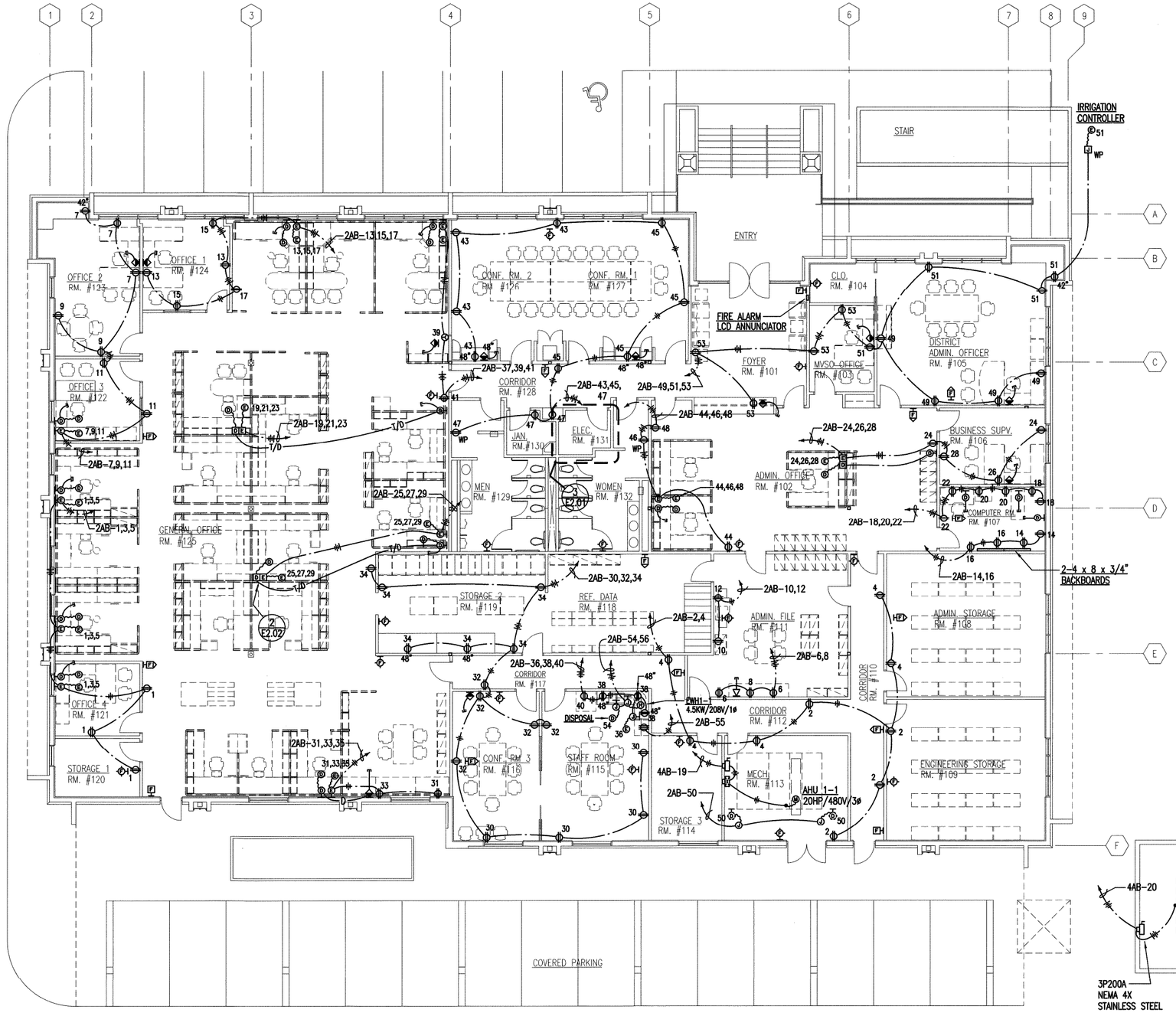



2 / E2.01 DETAIL – DRY-TYPE TRANSFORMER PAD
NOT TO SCALE




3 / E2.01 PLAN – ELECTRIC ROOM
SCALE: 1/4" = 1' – 0"

NOTE:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR INTERCONNECTION OF FIRE ALARM SYSTEM DEVICES.




NORTH

1 / E2.01 ADMINISTRATION BUILDING ELECTRICAL PLAN
SCALE: 1/8" = 1' – 0"

BRIAN T. ITOZAKI LICENSED PROFESSIONAL ENGINEER No. 9058-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

# CENTRALIZED DISTRICT OFFICE AND BASEYARD COMPLEX

LIHUE, KAUAI
PROJECT NO. HWY-K-03-98

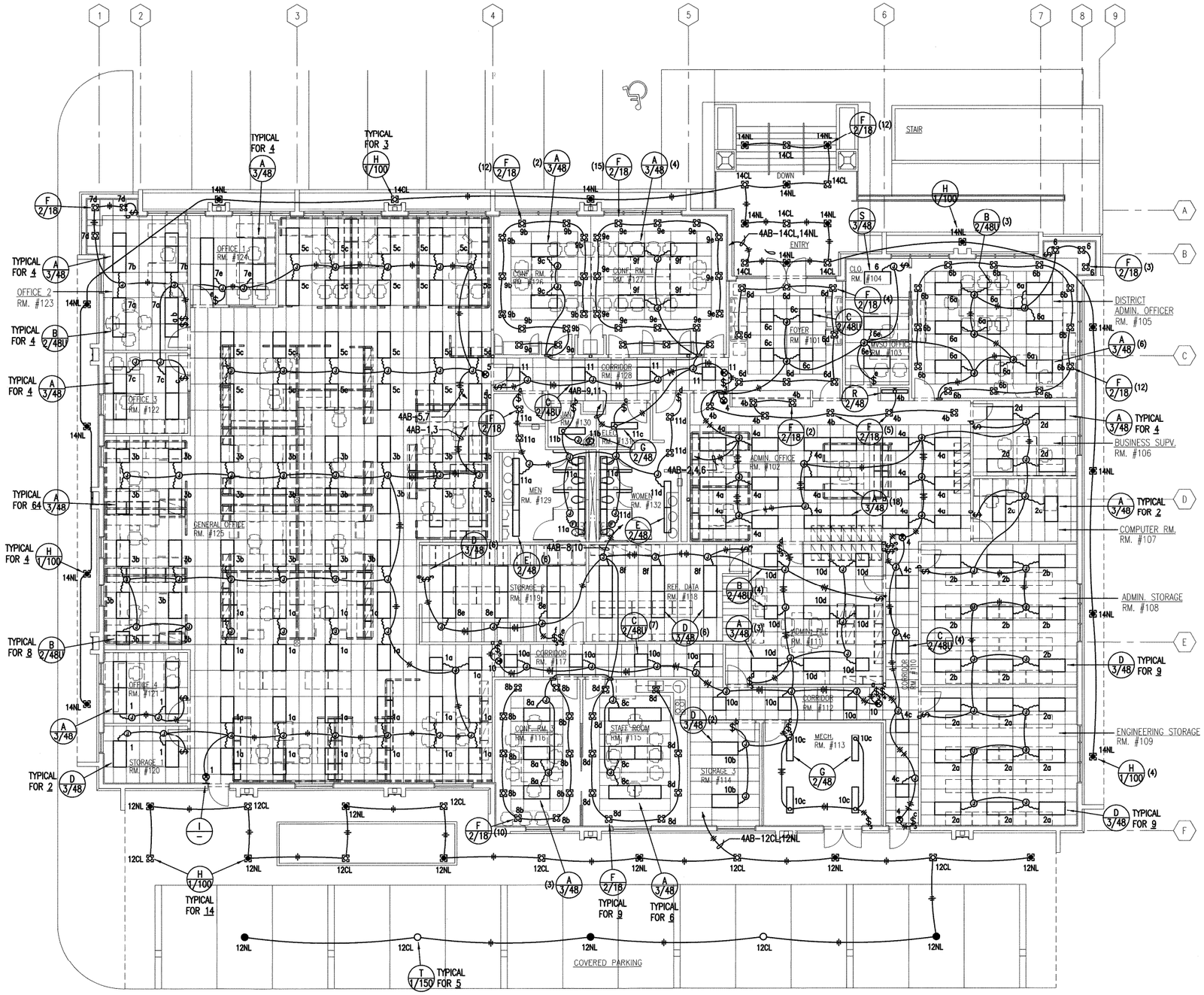
## ADMINISTRATION BUILDING ELECTRICAL PLAN

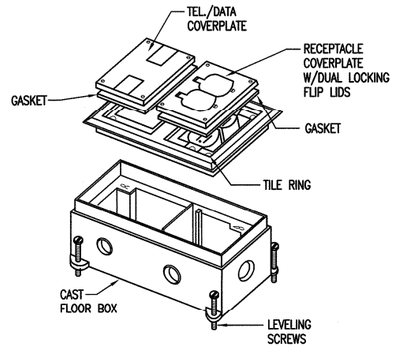
SCALE: AS SHOWN
DATE: MAR. 30, 01

SHEET NO. E2.01 OF 150 SHEETS

Z25.064

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| HAWAII | HAW. | HWY-K-03-98 | 2001 | 142 | 150 |




2-GANG SYMBOL ON PLAN: D E

MANUFACTURER:
WALKER OMNIBOX
FLOOR BOX: 880 CM2, 2 7/16"H
BRASS TILE RING: # 827T
BRASS COVERPLATE:
POWER: 828R
TEL./DATA: 829S
WALKER, STEEL CITY OR APPROVED EQUAL

2 / E2.02 FLOOR MOUNTED OUTLET BOX
NOT TO SCALE

NORTH

1 / E2.02 ADMINISTRATION BUILDING LIGHTING PLAN
SCALE: 1/8" = 1' - 0"

BRIAN T. ITOZAKI LICENSED PROFESSIONAL ENGINEER No. 9058-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

# CENTRALIZED DISTRICT OFFICE AND BASEYARD COMPLEX

LIHUE, KAUAI
PROJECT NO. HWY-K-03-98

## ADMINISTRATION BUILDING LIGHTING PLAN

SCALE: AS SHOWN DATE: MAR. 30, 01

SHEET NO. E2.02 OF 150 SHEETS

225.064

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| HAWAII | HAW. | HWY-K-03-98 | 2001 | 143 | 150 |

## PANEL "2AB" SCHEDULE
(SECTION 1)

208Y/120 VOLTS, 3 PHASES, 4 WSN
BREAKER MIN. A.I.C. 10,000
SURFACE MTG. 225A MAIN BKR.

| CKT. NO. | USE | CIRCUIT BREAKER POLES | CIRCUIT BREAKER AMPS | CONNECTED LOAD (KVA) A | B | C | WIRE SIZE |
|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 2 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 3 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 4 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 5 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 6 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 7 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 8 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 9 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 10 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 11 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 12 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 13 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 14 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 15 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 16 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 17 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 18 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 19 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 20 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 21 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 22 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 23 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 24 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 25 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 26 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 27 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 28 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 29 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 30 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 31 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 32 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 33 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 34 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 35 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 36 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 37 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 38 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 39 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 40 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 41 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 42 | RECEP. - REFRIG. | 1 | 20 | | | 1.2 | 12 |
| | TOTAL LOAD/ PHASE | | | - | - | - | |
| | TOTAL LOAD | | | KVA | | | |
| | DEMAND FACTOR | | | | | | |
| | DEMAND LOAD | | | KVA | | | |

## PANEL "2AB" SCHEDULE
(SECTION 2)

208Y/120 VOLTS, 3 PHASES, 4 WSN
BREAKER MIN. A.I.C. 10,000
SURFACE MTG. 225A MAIN BKR.

| CKT. NO. | USE | CIRCUIT BREAKER POLES | CIRCUIT BREAKER AMPS | CONNECTED LOAD (KVA) A | B | C | WIRE SIZE |
|---|---|---|---|---|---|---|---|
| 43 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 44 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 45 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 46 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 47 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 48 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 49 | RECEPTACLES | 1 | 20 | 1.2 | | | 12 |
| 50 | DUCT SMOKE DETECTORS | 1 | 20 | 1.0 | | | 12 |
| 51 | RECEPTACLES | 1 | 20 | | 1.2 | | 12 |
| 52 | SPARE | 1 | 20 | | 1.0 | | --- |
| 53 | RECEPTACLES | 1 | 20 | | | 1.2 | 12 |
| 54 | DISPOSAL | 1 | 20 | | | 1.0 | 12 |
| 55 | RANGE | 2 | 50 | 4.0 | 4.0 | | 6 |
| 56 | EWH | 2 | 30 | 2.3 | 2.3 | | 10 |
| 57 | SPARE | 2 | 30 | 1.0 | | 1.0 | --- |
| 58 | SPARE | 2 | 30 | 1.0 | | 1.0 | --- |
| 59 | SPARE | 1 | 20 | | 1.0 | | --- |
| 60 | SPARE | 1 | 20 | | 1.0 | | --- |
| 61 | SPARE | 1 | 20 | | | 1.0 | --- |
| 62 | SPARE | 1 | 20 | | | 1.0 | --- |
| 63 | SPARE | 1 | 20 | 1.0 | | | --- |
| 64 | SPARE | 1 | 20 | 1.0 | | | --- |
| 65 | SPARE | 1 | 20 | | 1.0 | | --- |
| 66 | SPARE | 1 | 20 | | 1.0 | | --- |
| 67 | SPARE | 1 | 20 | | | 1.0 | --- |
| 68 | SPARE | 1 | 20 | | | 1.0 | --- |
| 69 | PFB | 1 | 50 | --- | | | --- |
| 70 | PFB | 1 | 50 | --- | | | --- |
| 71 | PFB | 1 | 50 | | --- | | --- |
| 72 | PFB | 1 | 50 | | --- | | --- |
| 73 | PFB | 1 | 50 | | | --- | --- |
| 74 | PFB | 1 | 50 | | | --- | --- |
| 75 | PFB | 1 | 50 | --- | | | --- |
| 76 | PFB | 1 | 50 | --- | | | --- |
| 77 | PFB | 1 | 50 | | --- | | --- |
| 78 | PFB | 1 | 50 | | --- | | --- |
| 79 | PFB | 1 | 50 | | | --- | --- |
| 80 | PFB | 1 | 50 | | | --- | --- |
| | TOTAL LOAD/ PHASE | | | 31.7 | 31.7 | 27.4 | |
| | TOTAL LOAD | | | 90.8 KVA | | | |
| | DEMAND FACTOR | | | 0.75 | | | |
| | DEMAND LOAD | | | 68.1 KVA | | | |

PFB - PROVISION FOR FUTURE BREAKER

## PANEL "4AB" SCHEDULE

480Y/277 VOLTS, 3 PHASES, 4 WSN
BREAKER MIN. A.I.C. 10,000
SURFACE MTG. 225A MAIN BKR.

| CKT. NO. | USE | CIRCUIT BREAKER POLES | CIRCUIT BREAKER AMPS | CONNECTED LOAD (KVA) A | B | C | WIRE SIZE |
|---|---|---|---|---|---|---|---|
| 1 | LIGHTS | 1 | 20 | 4.1 | | | 12 |
| 2 | LIGHTS | 1 | 20 | 3.3 | | | 12 |
| 3 | LIGHTS | 1 | 20 | | 3.8 | | 12 |
| 4 | LIGHTS | 1 | 20 | | 3.5 | | 12 |
| 5 | LIGHTS | 1 | 20 | | | 3.3 | 12 |
| 6 | LIGHTS | 1 | 20 | | | 2.8 | 12 |
| 7 | LIGHTS | 1 | 20 | 2.1 | | | 12 |
| 8 | LIGHTS | 1 | 20 | 3.6 | | | 12 |
| 9 | LIGHTS | 1 | 20 | | 1.8 | | 12 |
| 10 | LIGHTS | 1 | 20 | | 2.5 | | 12 |
| 11 | LIGHTS | 1 | 20 | | | 1.5 | 12 |
| 12 | NIGHT LIGHTS, CURFEW LIGHTS | 1 | 20 | | | 1.9 | 10 |
| 13 | SPARE | 1 | 20 | 1.5 | | | --- |
| 14 | NL/CL | 1 | 20 | 2.4 | | | 10 |
| 15 | SPARE | 1 | 20 | | 1.5 | | --- |
| 16 | SPARE | 1 | 20 | | 1.5 | | --- |
| 17 | SPARE | 1 | 20 | | | 1.5 | --- |
| 18 | SPARE | 1 | 20 | | | 1.5 | --- |
| 19 | AHU 1-1 | 3 | 60 | 7.5 | 7.5 | 7.5 | 8 |
| 20 | ACCU 1-1 | 3 | 125 | 21.6 | 21.6 | 21.6 | 2 |
| 21 | PANEL "2AB" | 3 | 110 | 25.0 | 25.0 | 25.0 | 2 |
| 22 | PFB | 3 | 50 | 1.0 | 1.0 | 1.0 | --- |
| 23 | PFB | 3 | 50 | | | | --- |
| 24 | PFB | 3 | 50 | | | | --- |
| 25 | PFB | 3 | 50 | | | | --- |
| 26 | PFB | 3 | 50 | | | | --- |
| | TOTAL LOAD/ PHASE | | | 72.0 | 69.7 | 67.6 | |
| | TOTAL LOAD | | | 209.3 KVA | | | |
| | DEMAND FACTOR | | | 0.65 | | | |
| | DEMAND LOAD | | | 136.0 KVA | | | |

BRIAN T. ITOZAKI
LICENSED PROFESSIONAL ENGINEER
No. 9058-E
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

# CENTRALIZED DISTRICT OFFICE AND BASEYARD COMPLEX

LIHUE, KAUAI
PROJECT NO. HWY-K-03-98

## PANEL SCHEDULES AND DETAILS (ADMIN. BLDG.)

SCALE: AS SHOWN
DATE: MAR. 30, 01

SHEET NO. E2.03 OF 150 SHEETS

225.064