

GENERAL NOTES:

1. The scope of work for this project includes intersection improvements at Kula Highway and Omaopio Road; Work includes erosion control, traffic control, embankment widening, grade adjustment wall construction, traffic signal system installation, street light installation, electrical service connection installation, AC pavement reconstruction, signing and pavement marking, and guardrail installation.
2. The Contractor is reminded of the requirements of Subsection 105.16 - Subcontracts which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non-Compliance with this Subsection may be grounds for rejection of bid.
3. The Contractor's attention is directed to the following Sections of the Standard Specifications and the Special Provisions: Subsection 104.09 - Maintenance of Traffic; Subsection 104.11 - Utilities and Services; Subsection 105.09 - Coordination Between the Contractors; Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 107.12 - Protection of Persons and Property; and Section 645 - Work Zone Traffic Control.
4. The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data, but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall tone for the exact locations and depths of all underground facilities, either shown on or omitted from the plans, in areas where work, such as the placement of sign posts, traffic signal conduits, etc. may affect these properties. Toning shall be considered incidental to the various contract items and will not be paid for separately. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
5. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
6. All existing utilities, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. All existing utility/light poles, overhead utilities and guy poles/wires shall remain in place and operational. The Contractor shall be held liable for any damages incurred to the existing utilities as a result of his operations. All damaged portions shall be replaced in accordance with the standards and specifications of the affected utility company at no cost to the State. No delays or extensions of contract time will be allowed as a result of these required repairs.
7. The Contractor shall indemnify and be solely responsible for the protection of adjacent properties, utilities, and existing structures from damages due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
8. Existing drainage system shall be kept functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.
9. Existing facilities and/or pavement to remain which has been damaged by the Contractor shall be restored to its original condition at no cost to the State.
10. All graded areas and all grassed areas damaged by construction activities shall be planted in accordance with Specifications Section 641 - Hydro-Mulch Seeding. This work is considered incidental to the various contract items.
11. Contractor shall use Hawaii-licensed Surveyors to stake right-of-way boundaries. Use survey monuments, stake boundary corners and every 500 feet of boundary. Engineer will not pay separately for surveying and will consider the cost as incidental in the contract cost for the various contract pay items.
12. Prior to beginning work on the project, the Contractor shall request toning of utilities from One Call Center, Phone 811 or 1-866-423-7287

GENERAL NOTES, CONT':

13. Smooth riding connections shall be constructed at all limits of project or where work has occurred or both, including the beginning and end of project, connecting approaches, side streets, and driveways as shown on the plans and/or as directed by the Engineer. Walkways and driveways shall comply with Americans With Disabilities Act Accessibility Guidelines (ADAAG) and shall not have a difference in elevation between two adjoining surfaces of more than 0.25 inch. All of this work shall be considered incidental to HMA Pavement Mix No. IV or other items of work and will not be paid for separately.
14. All saw cutting work shall be considered incidental to Roadway Excavation or HMA Pavement, Mix No. IV or various contract items or their respective bid items and will not be paid for separately.
15. The Contractor shall remove and dispose of all existing raised pavement markers, thermoplastic line markings, traffic tape, and epoxy adhesives prior to the overlaying of Asphalt Concrete. This work shall be considered incidental to HMA Pavement, Mix No. IV and will not be paid for separately.
16. No material and/or equipment shall be stockpiled or otherwise stored within the State right-of-way except at locations designated in writing and approved by the Engineer. If use of location is approved by the Engineer, the Contractor shall obtain a permit to use the property within the State right-of-way from the State Highways Division at telephone no. 808-873-3535.
17. Trimming and dressing of shoulder shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. Suitable materials shall include materials from roadway excavation, including topsoil and base material therefrom, and if necessary, additional materials from borrow outside the limits of the right of way. Asphalt Concrete removed from cold planing, reconstruction and roadway excavation shall not be used for dressing of shoulder. This work shall be considered incidental to the various contract items.
18. Any work specified in the contract documents, but not listed separately in the Proposal Schedule, shall be considered incidental to the various contract items and shall not be paid for separately.
19. The contractor shall verify the location of all existing utilities, whether shown on the plans or not, and shall be responsible for the repair or replacement of the same in the event of damages due to his construction practices.
20. All dimensions and details shown on the drawings shall be checked and verified prior to the start of construction, and any discrepancies shall be immediately brought to the attention of the Engineer for clarification.
21. At the end of each day's work, the contractor shall remove all equipment and other obstructions to permit free and safe passages of public traffic.
22. Contractor shall exercise extreme caution to preserve BENCHMARKS (Survey Monuments). Whenever the center of a Survey Monument is less than three (3) feet from the edge of construction, the contractor shall retain a Licensed Land Surveyor to reference the location of said Survey Monument.
23. Benchmarks that are disturbed or destroyed shall be restored under a Licensed Land Surveyor's direction. Copies of field notes, descriptions and new values of the new benchmark shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.
24. All new reference survey monuments shall be set under a licensed land surveyor's direction. Copies of field notes, descriptions and values of the new survey monuments shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.

GENERAL NOTES, CONT':

25. The Contractor shall clean and remove any accumulation of aggregates along the roadway within 10 feet of the edge of pavement. This work shall be considered incidental to bulk of work or the various contract items and will not be paid for separately.
26. Prior to placement of new aggregate subbase course, the existing subbase shall be compacted to a relative compaction greater than or equal to 95%.
27. Provide and maintain in or near the work zone a temporary pedestrian-safe and easily accessible route or detour or both with barricades placed in accordance with the MUTCD. The temporary route or detour shall be smooth, solid, non-slip and ADAAG compliant which includes accommodations for people with vision disabilities. The temporary route or detour shall be paved with at least an inch of Hot Mix Asphalt (HMA) Pavement, Mix No. V or other non-slip material acceptable to the Engineer, e.g., steel plates or wood planks or combination of both. (The HMA paving or installation of other non-slip material is only applicable if the temporary route's or detour's existing surface is dirt or if the existing surface is non-ADA compliant.) Restore the temporary route or detour surface to pre-construction condition when no longer needed for the project's work.
28. Removal and disposal of existing asphalt concrete pavement, and any debris shall be considered incidental to their respective bid items.

ABBREVIATIONS:

AC	Asphalt Concrete	M.L.	Matchline
Az	Azimuth	o.c.	on center
⌘	Baseline	O/H	Overhead
BVC	Begin Vertical Curve	o/s	Offset
BMP	Best Management Practices	OHWM	Ordinary High Water mark
C	Chord	PC	Point of Curvature
CD	Conduit	PCC	Point of Compound Curvature
CRM	Cement Rubble Masonry	PIVC	Point of Intersection Vertical Curve
d	existing drainline	PT	Point of Tangency
Elev.	Elevation	R	Radius
EP	New Edge of Pavement	Rt.	Right of ⌘
ep	Existing Edge of Pavement	R/W	Right-of-Way
ES	New Edge of Shoulder	S	Slope
es	Existing Edge of Shoulder	SL	Street Light
EVC	End Vertical Curve	Sta.	Station along ⌘
Exist.	Existing	T	Tangent
G	Ground	TW	Top Wall Elevation
GRP	Grouted Rubble Paving	UP	Utility Pole
HMA	Hot Mix Asphalt	V.C.	Vertical Curve
Lc	Length of Curve		
Lt.	Left of ⌘		

ORIGINAL PLAN	DATE	SURVEY PLATTED BY	_____
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		CHECKED BY	_____
		QUANTITIES BY	_____
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No.	_____	_____	_____

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-02-23	2024	3	115

GERALD D. ANDRADE

LICENSED PROFESSIONAL ENGINEER

No. 10377-C

HAWAII, U.S.A.

Signature

4/30/26

EXPIRATION DATE OF THE LICENSE

THIS WORK WAS PREPARED BY ME

OR UNDER MY SUPERVISION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

GENERAL NOTES

AND ABBREVIATIONS

KULA HIGHWAY,

INTERSECTION IMPROVEMENTS

AT OMAOPIO ROAD

Project No. 37C-02-23

Scale: None

Date: April 2024

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-02-23	2024	5	115

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY, CONT':

24. Plastic marking tape: Provide plastic marking tape that is acid and alkali resistant polyethylene film 6 inches wide with minimum thickness of 0.004 inch. Provided tape with minimum strength of 1750 psi crosswise. Manufacture tape with integral wires, foil, backing or other means to enable detection by metal detector when the tape is buried up to 3 feet deep. Manufacture tape specifically for marking and locating underground utilities. Provide the metallic core of the tape encased in a protective jacket or provided with other means to protect it from corrosion. Conform to the following tape color and bear a continuous printed inscription describing the specific utility.
- | | |
|---------|---|
| Red: | Electric |
| Yellow: | Gas, Oil, Dangerous Materials |
| Orange: | Telephone, Telegraph, Police, Fire and Communications |
| Blue: | Water Systems |
| Green: | Sewer Systems |

TRAFFIC NOTES FOR TRAFFIC CONTROL PLAN FOR CONSTRUCTION WITHIN COUNTY RIGHT OF WAY

- "No Parking" signs shall be posted at a minimum of every 100ft within any work area and for the buffer and taper areas approaching to work area.
- Six (6) weeks minimum prior to start of work operations, submit for engineer's review and acceptance detailed site-specific traffic control plans for each intersection covering all phases of work such as painting of mast arms, and replacing controller, traffic control devices, signs and flagger positions shall be shown. construction work shall not proceed until the traffic control plans have been accepted by the engineer.
- The Contractor shall be responsible for obtaining permission from the County of Maui and/or, obtaining a road permit for all work within the County R/W. The contractor shall inform private property owners of the purpose and need of the project, and the specific work to take place onsite prior to work start, as applicable. This coordination work and obtaining permission and permit fee shall be considered incidental to the various contract items.

PUBLIC HEALTH, SAFETY AND CONVENIENCE NOTES:

- The Contractor shall observe and comply with all Federal, State, and Local laws required for the protection of public health and safety and environmental qualify.
- The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in accordance with the air pollution standards and regulations of the State Department of Health. The County of Maui shall require supplemental measures as necessary.
- The Contractor shall be responsible for the cleaning and removal of all silt and debris deposited and accumulated within downstream waterways, ditches and drain pipes and on public and private roadways generated by his work. The Contractor agrees to reimburse the County of Maui for all costs expended in performance of the above work if required for public health and safety, or made necessary by non-performance by the contractor.
- Temporary pedestrian routes shall be maintained in safe, passable and accessible condition complying with ADAAG 402.1.

HISTORICAL PRESERVATION NOTES:

- Should historic sites such as walls, platforms, pavements, and mounds, or remains such as artifacts, burials, concentration of charcoal or shells be encountered during construction work, work shall cease in the immediate vicinity of the find and the find shall be protected form further damage. The contractor shall immediately contact the State Historic Preservation Division ((808) 243-5169), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary. A minimum 3-meter/10-foot wide buffer zone exists around all sites in preserved sites remain undisturbed.

US FISH AND WILDLIFE GENERAL NOTES

The contractor shall comply to the following measures to avoid or minimize project impacts to threatened and endangered animals, including bats, birds, turtles, and invertebrates, in Hawaii and the Pacific Islands as described below.

HAWAIIAN HOARY BAT

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).
- Do not use barbed wire for fencing.

HAWAIIAN SEABIRDS

- Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.
- Install automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

HAWAIIAN GOOSE OR NENE

- Do not approach, feed, or disturb Hawaiian Geese.
- If Hawaiian geese are observed loafing or foraging within the project area during the breeding season (September through April), halt work and have a biologist familiar with the nesting behavior of Hawaiian geese survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
- Cease all work immediately and contact the USFWS Pacific Island Fish and Wildlife Office for further guidance if a nest is discovered within a radius of 150 ft of proposed work, or a previously undiscovered nest if found within said radius after work begins.
- In areas where Hawaiian geese are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.
- Have a biological monitor that is familiar with the species' biology present on the project site during all construction or Earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.

ORIGINAL PLAN	NO. _____	DATE _____	SURVEY PLATTED BY _____
			DRAWN BY _____
			TRACED BY _____
			QUANTITIES BY _____
NOTE BOOK	No. _____	DATE _____	CHECKED BY _____

GERALD D. ANDRADE

LICENSED PROFESSIONAL ENGINEER

No. 10377-C

HAWAII, U.S.A.

Signature

4/30/26

EXPIRATION DATE OF THE LICENSE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES-3

KULA HIGHWAY,
INTERSECTION IMPROVEMENTS
AT OMAOPIO ROAD
Project No. 37C-02-23

Scale: None Date: April 2024

SHEET No. N-4 OF 14 SHEETS

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DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-02-23	2024	6	115

HAWAIIAN TELCOM NOTES:

1. The Contractor shall procure and pay for all licenses and permits and shall give all notices necessary and incident to the due and lawful prosecution of the work.

2. The Contractor shall obtain an excavation permit and toning request from Hawaiian Telcom's Excavation Permit Section, located at 1177 Bishop Street, two weeks prior to the start of construction. Hours of business are 8:00 a.m. to 11:00 a.m. and 12:00 noon to 3:00 p.m. Monday through Friday, except holidays.

3. Prior to the excavation of the ductline, the Contractor shall request Hawaiian Telcom to locate existing ductline wherever required. For underground cable locating and marking, five (5) working days advance notice is required. Three (3) working days advance notice is required for any inspection by a designated representative.

4. The locations of existing utilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of Hawaiian Telcom facilities. The Contractor shall verify their locations and shall be liable for any damages to Hawaiian Telcom facilities. Any damages shall be reported immediately to Hawaiian Telcom's Repair Section at *611 (24 hours) or to the Excavation Permit Section at 546-7746 (normal working hours, Monday through Friday, except holidays). As a result of his operations, adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.

5. The Contractor shall take necessary precaution not to damage existing cables or ducts. A Hawaiian Telcom inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain Hawaiian Telcom facilities. Temporary cable and duct supports shall be provided wherever necessary.

6. The Contractor shall notify Hawaiian Telcom's inspector or designated representative a minimum of 72 hours prior to excavation, bracing, or backfilling of Hawaiian Telcom's structures or facilities.

7. All applicable construction work shall be done in accordance with the "Hawaiian Telcom Standard Specifications for Placing Telephone Systems" dated January 2007. All subsequent amendments and additions, and all other pertinent standards for telephone construction. Contractor shall familiarize his personnel by obtaining applicable specifications.

8. When excavation is adjacent to or beneath Hawaiian Telcom's existing structures or facilities, the Contractor shall:

a) Sheet and/or brace the excavation to prevent slides, cave-ins, or settlements to ensure no movement to Hawaiian Telcom's structures or facilities.

b) Protect existing structures and/or facilities with beams, struts, or underpinning while excavating beneath them to ensure no movement to Hawaiian Telcom's structures or facilities.

9. The Contractor shall brace all poles or light standards near the new ductline, manhole, or handhole during his operations.

10. The Contractor shall saw-cut A.C. pavement and concrete gutter wherever new manholes, handholes, or ductlines are to be placed and shall restore to existing condition or better.

11. The Contractor shall repair sidewalks in accordance with these contract documents and State Standard Plan D-15.

12. The underground pipes, cables, or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.

13. Wherever connections to existing utilities are shown on the plans, the Contractor shall expose the existing lines prior to excavation of the main trenches to verify their locations and depths.

14. The Contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The cost for supplementary measures, which will be required by the City and County, shall be borne by the Contractor.

15. The Contractor shall pump all manholes dry during final inspection.

16. The Contractor shall notify Hawaiian Telcom inspector 24 hours prior to the pouring of concrete or backfilling.

17. When connecting to manhole walls, all existing reinforcing bars shall be left intact. Ducts shall be adjusted in the field in order to clear reinforcing.

18. The Contractor shall be responsible for laying out all required lines and grades and shall preserve all benchmarks and working points necessary to lay out the work correctly. The new ductline shall be adjusted by the Contractor to suit the existing conditions and the details as described in the plans.

19. Minimum concrete strength shall be:

For ductline 2500 psi at 28 days

For manhole 3000 psi at 28 days or as specified in design notes

20. Bends in the duct alignment, due to changes in grade shall have a minimum radius of 25 feet. All 90 degree C-bends at a pole or at the building floor slab penetration shall have a bend radius of ten times the diameter of the duct or greater.

21. After ductline has been completed, a mandrel with a square front not less than 12" long and having a diameter of 1/4" less than the inside diameter of the duct, shall be pulled through each duct after which a brush with stiff bristles shall be pulled through to make certain that no particles of earth, sand, or gravel have been left inside. Ducts shall be completely dry and clean.

22. All ducts and conduits shall have an 1800# polyester mule-tape (NEPTCO, WP1800P, Hawaiian Telcom Material Code No. 571154) installed throughout its entire length. All ducts shall be capped to prevent entry of foreign material during construction and at the completion of installation.

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GERALD D. ANDRADE

LICENSED PROFESSIONAL ENGINEER

No. 10377-C

HAWAII, U.S.A.

Signature

4/30/26

EXPIRATION DATE OF THE LICENSE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAWAIIAN TELCOM NOTES

KULA HIGHWAY,
INTERSECTION IMPROVEMENTS
AT OMAOPIO ROAD
Project No. 37C-02-23

Scale: None Date: April 2024

SHEET No. N-5 OF 14 SHEETS

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DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-02-23	2024	8	115

15. Indemnity:

The Contractor shall indemnify, defend and hold harmless Hawaiian Electric from and against all losses, damages, claims, and actions, including but not limited to reasonable attorney's fees and costs based upon or arising out of damage to property or injuries to persons, or other tortious acts caused or contributed to by Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability based upon the sole negligence of Hawaiian Electric.

GUIDELINES FOR MINIMUM VERTICAL (CROSSING) CLEARANCES HAWAIIAN ELECTRIC AND OTHER UNDERGROUND DUCTLINES				
Underground Utility	Hawaiian Electric Direct Buried Cable	Hawaiian Electric Direct Buried in Conduit (no concrete encasement)	Hawaiian Electric 3" (Min.) Concrete Encasement	Applicable Notes:
Hawaiian Electric DB Conduits	6"	3"	0"	
Hawaiian Electric 3" Encasement	0"	0"	0"	
Telephone/CATV DB	12"	12"	6"	
Telephone/CATV DB Ducts	12"	12"	6"	
Telephone/CATV 3" Encasement	0"	0"	0"	3
Traffic Signal	12"	12"	6"	
Water DB (BWS Owned)	12"	12"	12"	5
Customer Owned Water Service Laterals	6"	6"	6"	
Water (Concrete Jacketed) (BWS Owned)	12"	12"	12"	5
Gas DB	12"	12"	12"	
Gas (Concrete Jacketed)	12"	12"	12"	
Sewer DB	24"	24"	24"	1
Sewer (Concrete Jacketed)	24"	24"	24"	1
Drain	12"	12"	6"	
Fuel Pipelines				2

Additional Notes When Work Involves Construction of Hawaiian Electric Facilities

Contractor shall furnish thier construction schedule six (6) months prior to starting work on Hawaiian Electric Facilities. Contractor shall give Hawaiian Electric, in writing, three (3) months Notice to Proceed with Hawaiian Electric's portion of the work.

All construction, restoration work and inspection shall be subject to whichever Governmental Agency has authority over the work.

Construction of Hawaiian Electric's underground Facilities shall be constructed in accordance with the latest revisions of Hawaiian Electric Specifications CS7001, CS7003, CS7202, CS9301, and CS9401 and applicable Hawaiian Electric Standards.

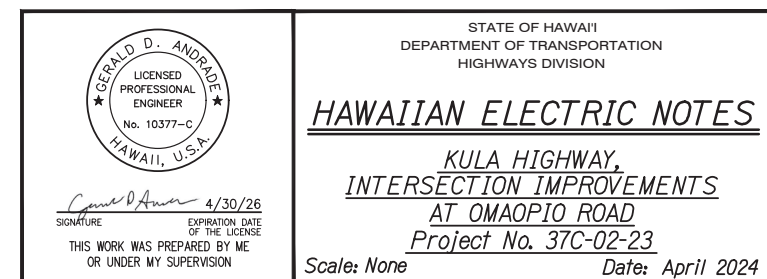
Contractor shall furnish all labor, materials, equipment, and services to properly perform and fully complete all work shown on the Contract, Drawings, and Specifications. All materials shall be new and manufactured in the United States of America. All manhole, handhole, and ductline installations shall be inspected and approved by Hawaiian Electric prior to excavation and prior to placing concrete. Contractor shall notify Hawaiian Electric's Inspection Group at 808-543-4325 at least five (5) working days prior to installing facilities or placing concrete.

Contractor to coordinate work to break into Hawaiian Electric's existing electrical facilities with Hawaiian Electric's Inspection Group at 808-543-4325 at least ten (10) working days in advance.

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	DESIGNED BY _____	_____
	QUANTITIES BY _____	_____
	CHECKED BY _____	_____
No. _____		

1. *If clearance cannot be met:*
 - *If clearance is less than 12", jacket sewer line with reinforced concrete (per Hawaiian Electric's std. 30-1030) for a distance of 5' plus pipe diameter.*
 - *If clearance is between 12" and 24", jacket sewer line with plain concrete.*
2. *All Fuel Pipeline crossings shall be reviewed and approved by the company that owns and maintains it.*
3. *For situations with 0" minimum separation, a 6" separation is recommended.*
4. *Clearances measured from outer edges or diameters of utilities. Whenever concrete jackets are involved, clearances shall be total clear distance between the concrete jacket and utility concerned.*
5. *36" clearance is required for trenchless installation work.*

The Contractor shall notify the construction manager & Hawaiian Electric of any heat sources (power cable duct bank, steamline, etc.) encountered that are not properly identified on the drawing.



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HAWAII	HAW.	37C-02-23	2024	10	115

SPECTRUM NOTES:

1. The locations of existing utilities are approximate only. The Contractor shall verify their locations and shall be responsible for any damages to these utilities as a result of his operations. Adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.

2. The underground pipes, cables, or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the areas. Wherever connections of new utilities to existing utilites are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.

3. Prior to the excavation of the ductline, the Contractor shall request that Spectrum to locate existing ductline wherever required.

4. The Contractor shall take necessary precaution not to damage existing cables or ducts. Any work involving existing cables or ducts shall be done in the presence of the Spectrum Inspector or his representative.

5. The Contractor shall notify the Spectrum Inspector 48 hours prior to the start of work on CATV infrastructure, pouring of concrete or backfilling. Spectrum's Inspector, Moki Place, can be reached at 808-625-8378.

6. Wherever connections to existing utilities are shown on the plans, the Contractor shall expose the existing lines prior to excavation of the main trenches to verify their locations and depths.

7. The location of CATV facilities shown on plans are from existing records with varying degrees or accuracy as to its actual fixed location. The Contractor shall use extreme caution when working in close proximity of CATV facilities.

8. The Contractor shall obtain excavation permit clearance from Spectrum's Engineering Section located at 200 Akamainui St., Mililani Tech Park.

9. For any field assistance or verification of CATV facilities, the Contractor shall call the Technical Operatons Center at 808-625-8378.

10. Any work required to relocate CATV facilities shall be done by Spectrum and the Contractor shall be responsible for all coordination requirements and associated costs.

11. Any damage to Spectrum's facilities shall be reported to Spectrum's repair dispatch department at 808-625-8437 or 808-625-8666.

12. All existing improvements that are disturbed during the construction phase shall be restored to its original or better condition.

13. The Contractor shall take all necessary precaution not to damage the existing cables in the pullbox. All damages to existing cables shall be repaired by Spectrum and paid for by the Contractor.

14. Coordinate all penetration of telephone pullboxes with Hawaiian Telcom Inspector.

15. Smooth finish inside wall of existing pullboxes and handholes to its original condition or better. All entrances into the pullbox shall be grouted around conduits.
16. For 3" conduits or larger, the Contractor shall install Neptco WP1800 MULETAPE or approved equal in all ductlines. Leave MULETAPE in place for future use as a pull or fish line, unless otherwise noted. Reference Verizon Material Code No. 571154. All ducts shall be capped to prevent entry of foreign material during construction and at completion of installation. Endbells are required for conduits 2" and larger.

17. For conduits less than 3", the Contractor shall place poly cord through out project, and secure in manholes, handholes, and pullboxes.

18. Penetration into pullboxes if necessary to be from factory installed opening or from bricks position. Penetration from pullbox walls is not acceptable. All conduits shall enter through the end of the pullbox at 90 degrees.

19. A minimum of (2) precast sections must be used on all 2x4 or 2x6 pullboxes.

20. Two minimum layers of bricks to be used shall always be at least one layer lower than the lowest duct entering the pullbox. At no time however, shall there be less then two layers of bricks on each installation.

21. At no time shall cement mortar, wood, or any other material be used between precast sections. Leveling or raising of boxes to grade must be done at brickwork section using cement mortar. The permanent installation of wooded wedges to accomplish this purpose will not be accepted.

22. Concrete precast base may be used as an alternative to bricks.

23. Trenching to be by hand digging near and across existing utility lines.

24. Minimum clearance between street light stand and fire hydrants shall be three feet.

25. Underground utilities shown hereon is for information only. No guarantee is made on the accuracy or completeness of said installation.

26. For underground cable location and marking, five working days advance notice is required. Three working days advance notice is required for any inspection by a designated representative. Contractor shall take necessary precaution not to damage any existing cables or ducts. Spectrum's Inspector or designated representative is required to be at any job site whenever there will be a breakage info or entry into any structure that contain Spectrum's facilities.

27. Concrete strength shall be 3000 psi in 28 days.

28. Bends in the duct alignment, due to changes in grade shall have a minimum radius of 20-feet. All 90-degree C-bends at a pole or at the building floor slab penetration, shall have a bend radius of ten times the diameter of the duct or greater.

29. After ductline has been completed, a mandrel with a square front not less than 12-inch long and having a diameter of 1/4-inch less than the inside diameter of duct, shall be pulled through each duct after which a brush with stiff bristles shall be pulled through to make certain that no particles of earth, sand, or gravel have been left inside. Ducts shall be completely dry and clean.
30. All construction must be inspected and approved by Spectrum prior to the installation of any of its facilities and the energizing of its system.

31. Contractor and/or customer shall provide Spectrum with sufficient installation time in their occupancy time table.

32. Install 4-mil thick orange color warning tape 3-inch wide, entire length of trench when placing CATV conduits. Tape should read "CAUTION BURIED CABLE LINE BELOW". Manufactured by Harris Industries, Inc., catalog number UT-43 or equivalent tape. Tape to be installed 12-inches below grade.

ORIGINAL PLAN	DATE	SURVEY PLATTED BY	_____
		DRAWN BY	_____
		CHECKED BY	_____
		DATE	_____
NOTE BOOK	No.	QUANTITIES BY	_____
		CHECKED BY	_____
		DATE	_____
		DATE	_____

GERALD D. ANDRADE

LICENSED PROFESSIONAL ENGINEER

No. 10377-C

HAWAII, U.S.A.

4/30/26

EXPIRATION DATE OF THE LICENSE

SIGNATURE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPECTRUM NOTES

KULA HIGHWAY,
INTERSECTION IMPROVEMENTS
AT OMAOPIO ROAD
Project No. 37C-02-23

Scale: None Date: April 2024

SHEET No. N-9 OF 14 SHEETS

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