

GENERAL ELECTRIC AND COMMUNICATION NOTES:

- ORIGINAL PLAN

NO.

SURVEY PLOTTED BY

DATE

DRAWN BY

DESIGNED BY

NOTED BY

QUANTITIES BY

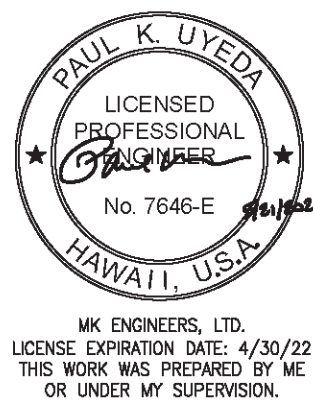
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- The Drawings do Not Reflect All the Existing Conditions that May be Encountered During Construction. Contractor/Bidder Shall Visit the Project Site and Become Familiar with the Existing Conditions, the Extent of Any Demolition Work, and the New Work Prior to Bidding and the Start of On-Site Construction Activities. Report Any Discrepancies and/or Differences Between the Existing Conditions and the Construction Documents to the Engineer Prior to Commencing Construction. Resolve All Discrepancies and Questions Prior to the Start of Work.
 - Existing Device Locations, Circuit Assignments, Wiring Connections, and Conduit Runs Indicated were Derived From Available Reference Documents and Limited Field Investigation. Field Verify All Existing Conditions and Make Any Necessary Adjustments to Satisfy the Intent of the Drawings and Specifications.
 - Re-Route All Existing Conduit, Wiring and Cabling to Remain within the Project Area as Necessary to Facilitate the Removal of Existing Equipment as Well as the Installation of All New Equipment. Remove and Re-Install Electrical Equipment, Including Lights, to Remain as Required.
 - Contact the Electric, Telephone and Cable Television Utility Companies and Coordinate All Work with Them. Pay All Utility Company Charges Related to This Project Unless Otherwise Directed. The Drawings Depict Anticipated Utility Company Requirements. Do Not Proceed with the Utility Company Related Work without Verifying Their Exact Requirements. Notify the Engineer of Any Differences Between What is Shown on the Contract Drawings and What is Required by the Utility Companies. Arrange for Periodic Inspections by the Utility Companies and Perform All Work in Accordance with the Utility Company Standards.
 - The Location of All Electrical Apparatus and Devices are Approximate and Before Installing, Study the Civil, Traffic Signal, Structural, and Landscape Details and Make Installation in the Most Logical Manner. Any Piece of Equipment/Device May be Relocated within 10' Before Installation at the Direction of the Engineer without Additional Charge to the Owner.
 - Verify All System Requirements (Electrical, Mechanical, Fire Alarm, Specialty Systems, Etc.) with the Selected System's Manufacturer or Authorized Representative Prior to Commencing with Any Work. Correct All Discrepancies so as to Provide a Complete and Operational System. Record Changes on the As-Built Drawings.
 - Contractor Shall Investigate and Tone Area Before Digging or Excavating.
 - All Equipment Shall Be Properly Mounted, Anchored, and Supported by Approved Methods for Seismic Restraint.
 - Conceal All Conduit Wherever Reasonable; Exposed Conduits are Permitted Only Where Specifically Shown on the Drawings. All Exposed Conduits in Finished Areas Shall be Installed in the Least Visible Locations. Care Shall be Taken to Install Conduit in the Most Aesthetically Pleasing Manner.
 - Provide Nylon Pullstrings in All Empty Conduits Unless Otherwise Indicated.
 - All Surface Mounted Devices Shall be Installed Utilizing Factory Painted Surface Mounting Accessories and Matching Device Boxes for the Most Aesthetically Pleasing Installation.
 - Painting of Electrical Equipment: Prime All Exposed Conduits, Boxes, Fittings, Support Channels, Mounting Hardware and Accessories with a 2-Part Epoxy Primer and Finish with 2 Coats of an Aliphatic Acrylic Urethane Paint. Paint Finish to Match the Surface on Which They are Mounted or to Match the Finish of the Adjacent Surfaces. Stainless Steel Materials Need Not be Painted.

- Should Project Conditions Require Deviations from the Construction Drawings, Mark Such Changes on the As-built Drawings. If These Changes Require Alternate Methods to Those Specified in the Contract Documents, Submit Drawings Showing the Proposed Alternate Methods to the Engineer for Review and Approval. Do Not Proceed Until Approval is Obtained from the Engineer.

HAWAIIAN TELCOM GENERAL CONSTRUCTION/DESIGN NOTES:

- 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.
- 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 8:00am to 11:00am and 12:00pm to 3:00pm Monday Through Friday, Except Holidays.
- 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.
- 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 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.
- The Contractor Shall Take Necessary Precaution Not to Damage Existing Cables or Ducfs. 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.
- 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.
- All Applicable Construction Work Shall be Done in Accordance with the "Hawaiian Telcom Standard Specifications for Placing Underground 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.
- When Excavation is Adjacent to or Beneath Hawaiian Telcom's Existing Structures or Facilities, the Contractor Shall:
 - Sheet and/or Brace the Excavation to Prevent Slides, Cave-Ins, or Settlements to Ensure No Movement to Hawaiian Telcom's Structures or Facilities.
 - 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.

- The Contractor Shall Brace All Poles or Light Standards Near the New Ductline, Manhole, or Handhole During His Operations.
- The Contractor Shall Saw-Cut AC Pavement and Concrete Gutter Wherever New Manholes, Handholes, or Ductlines Are to be Placed and Shall Restore to Existing Condition or Better.
- The Contractor Shall Comply with the Policy Adopted by County of Hawai'i, Concerning the Replacement of Concrete Sidewalks After Excavation Work.
- 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 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.
- 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.
- The Contractor, at His Own Expense, Shall Keep the Project and Surrounding Area Free from Dust Nuisance. The Cost for Supplementary Measure, Which May be Required by the County, Shall be Borne by the Contractor.
- The Contractor Shall Pump All Manholes Dry During Final Inspection.
- The Contractor Shall Notify the Hawaiian Telcom Inspector 24 Hours Prior to the Pouring of Concrete or Backfilling.
- 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.
- The Contractor Shall be Responsible for Laying Out All Required Lines and Grades and Shall Preserve All Bench Marks 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.
- 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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES (ELECTRICAL AND COMMUNICATION UTILITIES)

Kaunualii Highway Intersection Improvements at Waimea Canyon Drive and Menehune Road/Halepule Road
Project No. 50B-01-14

Scale: As Shown Date: May 2020

SHEET No. E-2 OF 11 SHEETS

HAWAIIAN TELCOM GENERAL
CONSTRUCTION/DESIGN NOTES (CONTINUED):

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 & Clean.
22. All Ducts and Conduit Shall Have an 1800# Polyester Mule-tape (Neptco, WPI800P, 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.

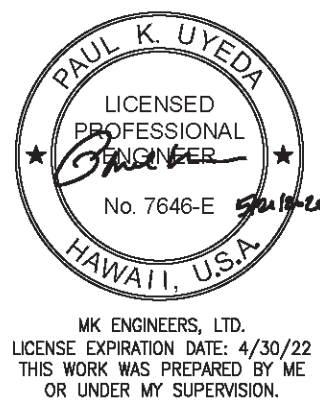
SPECTRUM CABLE GENERAL CONSTRUCTION NOTES

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 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.
3. The Contractor Shall Brace All Poles or Light Standards Near the New Ductline, Manhole, or Handhole During its Operations.
4. The Contractor Shall Saw-Cut AC Pavement and Concrete Gutter, and Concrete Sidewalk Wherever New Manholes, Handholes, Pullboxes or Ductlines are to be Placed and Shall Restore to Existing Condition or Better.
5. 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 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.
6. 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 State of Hawaii, Shall be Borne by the Contractor.
7. Prior to The Excavation of the Ductline, the Contractor Shall Request that Spectrum Cable Company Locate Existing Ductline Wherever Required.
8. 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 Cable Company Inspector or His Representative. Temporary Cable and Duct Supports Shall be Provided Wherever Necessary.
9. The Contractor Shall Notify the Spectrum Cable Company Inspector 72 Hours Prior to Pouring of Concrete or Backfilling. Contact Patrick McClusky at (808) 635-1185.

10. 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.
11. The Contractor Shall Provide All Materials and Furnish All Labor and Equipment Necessary to Install the Ductline in Place Complete.
12. The Contractor Shall be Responsible for Laying Out All Required Lines and Grades and Shall Preserve All Bench Marks 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.
13. The Contractor, at His Own Expense, Shall Keep the Project Area Free from Dust Nuisance. The Work Shall be in Conformance with the Air Pollution Control Standards and Regulations of the State of Hawaii, Department of Health.
14. The Location of CATV Facilities Shown on Plans are From Existing Records with Varying Degrees of Accuracy as to its Actual Fixed Location. The Contractor Shall Use Extreme Caution When Working in Close Proximity of CATV Facilities.
15. The Contractor Shall Obtain an Excavation Permit Clearance From Spectrum's Engineering Section Located at 200 Akamainui St., Mililani Tech Park.
16. For Verification of CATV Facilities or Toning, the Contractor Shall Call 1-866-423-7287 (One-Call Center).
17. Any Work Required to Relocate CATV Facilities Shall be Done by Spectrum Cable, and the Contractor Shall be Responsible for All Coordination Requirements and Associated Costs.
18. Any Damage to Spectrum Cable's Facilities Shall be Reported to Spectrum's Repair Dispatch Department at 625-8437.
19. The Contractor Shall Tunnel Under Existing Concrete Curb and Gutter as Necessary to Extend Conduit into Existing CATV Pullbox and into the Proposed Power Supply Pullbox.
20. All Existing Improvements that are Disturbed During the Construction Phase Shall be Restored to its Original or Better Condition at No Cost to the State in Accordance with the State's Standards.
21. At Locations Where Existing CATV Pullbox Replacement is Proposed, 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 Cable and Paid for by the Contractor.
22. Coordinate All Penetration of Telephone Pullboxes with the Hawaiian Tel Inspector.
23. Smooth Finish Inside Wall of Existing Pullboxes and Handholes to its Original Condition or Better.
24. For 2" Conduits or Larger, the Contractor Shall Install NEPCo 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 GTE 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.

25. The Contractor Shall Place Poly Chord Throughout Project, and Secure in Manholes, Handholes, and Pullboxes.
26. Penetration into Pullboxes if Necessary to be From Factory Installed Opening or From Bricks Position. Penetration From Pullbox Walls is Not Acceptable.
27. A Minimum of Two (2) Precast Sections Must be Used on All 2 x 4 or 2 x 6 Pullboxes.
28. 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 than Two Layers of Brick on Each Installation.
29. 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 Wooden Wedges to Accomplish this Purpose will Not be Accepted.
30. Concrete Precast Base May be Used as an Alternative to Bricks.
31. Provide 5/8" Dia. x 8'-0" Galvanized Ground Rod in All CATV Pullboxes Except at KIUC Xfmr, Pad Locations and in 12" x 20" Pullboxes. Ground Rod to Extend 4" Above Finish Pullbox Floor and Placed Near Corner.
32. Trenching to be by Hand Digging Near and Across Existing Utility Lines.
33. Minimum Clearance Between Street Light Stand and Fire Hydrants Shall be Three Feet.
34. Underground Utilities Shown Herein are for Information Only. No Guarantee is Made on the Accuracy or Completeness of Said Installation.
35. For Underground Cable Locating 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 into or Entry into Any Structure that Contain Oceanic's Facilities.
36. Concrete Strength Shall be 3000 PSI in 28 Days.

ORIGINAL PLAN	DATE	SURVEY PLOTTED BY	
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NOTE BOOK	No.	NOTED BY	
		QUANTITIES BY	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES (ELECTRICAL AND
COMMUNICATION UTILITIES)

Kaumualii Highway Intersection
Improvements at Waimea Canyon Drive
and Menehune Road/Halepule Road
Project No. 50B-01-14

Scale: As Shown Date: May 2020

SHEET No. E-3 OF 11 SHEETS

SPECTRUM CABLE GENERAL
CONSTRUCTION NOTES (CONTINUED)

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	50B-01-14	2020	37	44

37. 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.
38. 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 & Clean.
39. Metalic Entrance Conduits Shall be Grounded.
40. All Conduits within a Building Shall:
- a) Be Installed in the Shortest and Straightest Possible Run.
- b) Have No Section Longer Than 100 Feet Nor Contain More Than Two 90 Degree Bends. An Approved Sized Junction Box or Gutter Box Shall be Placed if this is Exceeded.
- c) All Bends Shall be Long Sweep-Radius Bends but the Inside Radius of the Bend Must Never be Less Than Ten Times the Diameter of the Conduit.
41. All Construction Must be Inspected and Approved by Spectrum Prior to the Installation of Any of its Facilities and the Energizing of its System.
42. Contractor and/or Customer Shall Provide Spectrum with Sufficient Installation Time in Their Occupancy Time Table.
43. 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.

KAUAI ELECTRIC UTILITY COOPERATIVE
UNDERGROUND CONSTRUCTION NOTES AND REQUIREMENTS

1. These Notes are Not Intended to be Used in Place of KIUC's Service Installation Manual; Please Refer to Service Installation Manual for All Service Issues.
2. Contractor Shall Contact Kauai Island Utility Cooperative's ("KIUC") Construction Coordinator/Inspector Prior to Start of Work on KIUC Facilities, and for Scheduling Site Inspections. (Westside: 246-2323; Eastside: 246-4343).
3. Contractor Shall Contact KIUC's Distribution Planning Coordinator @ 246-2373 for Design Approvals, Standard Detail Drawings, and Any Items Not Addressed in These Notes or Drawings.
4. All Contractors Entering KIUC Facilities Must be Approved by KIUC and Must have Proper Licensing and Insurance Coverage. Contact KIUC Legal Coordinator @ 246-4369 for Details.
5. All Trenches and Pullboxes Must be Inspected by KIUC Prior to Backfilling and Concrete-Encasing Operations. For Detailed Trenching and Backfilling Requirements Refer to KIUC's Service Installation Manual.

6. The Contractor Shall Provide a Poly-Line 200 lb. Test Line or Equivalent as a Pulling Wire in All 1", 2", 3" and 4" Diameter Conduits. In 5" and 6" Diameter Conduits, the Contractor Shall Install EPTCO WP1800 Muletape as a Pulling Line.
7. All Conduits, Pullboxes, Handholes, and Manholes Shall be Cleaned and Free From Objectionable Materials. Conduit Ends Shall be Adequately Covered Until the Conductor is Installed by the Electric Company. (Cover's Shall be Carlon Plug with Pull Tab Series P258 Equivalent or Better).
8. For All Conduit Other Than Services, Refer to Conduit Schedule on Drawings.
9. For All Services Where the Conductor is 1/0 or Less, the Distance from KIUC's Handhole and Customer's Meter is Less Than 125 Feet, and Not Crossing Any Driveways or Roads the Conduit Shall be 2 Inch Diameter Schedule 40 PVC. For Services Greater Than 125 Feet, Contact KIUC Planner for Field Verification and Underground Service Requirements. Any Deviations will Require KIUC Written Approval.
10. Primary and Secondary Conduits for New Line Extensions Shall be Schedule 40 PVC. (Carlon P#C Duct Type DB Equivalent or Better.) Under Driveways and Roadways, the Conduits Shall be Encased In A Minimum of 3 Inch Concrete Jacket Extending 12" Outside the Edge of Pavement.
11. Schedule 80 PVC Conduit May be Substituted for the Concrete Encased Schedule 40 PVC for Service Conduit Only Crossing Under Unpaved Private Driveways and Roadways from KIUC Pole/Handhole to Customer's Meter. If Concrete Driveway will be Built Over Service Conduit Immediately After Conduit is Installed, Than Schedule 40 PVC May be Used Provided that it Meets with Note No. 21.
12. All Primary and Secondary Conduits Which are Crossing State or County Roadways Shall be Schedule 40 PVC Encased in a Minimum 3 Inch Concrete Jacket, Which Shall Extend a Minimum of 12 Inches Outside of the Edge of Pavement.
13. Electrical Supply Ducts, When Installed Near Communication Cables, Shall be Separated from Communication Duct Systems and Buried Communication Cables for Conductors by Not Less Than 3 Inches of Concrete or 12 Inches of Earth When Paralleling or Crossing.
14. Chairs Shall be Installed and Spaced at a Maximum of 5 Feet Separation When Concrete Encasing Conduits.
15. All Conduits Enter Boxes at 90 Degree Angle, Perpendicular and Flush to the Wall with Bell Ends to Prevent Cable Damage.
16. 90 Degree Conduit Bends Shall be Factory Made with a Minimum Radius of 3 Feet in Trench Runs.
17. Conduit Bends Exceeding 90 Degrees will not be Accepted.
18. A 36 Inch Minimum Horizontal Clearance Shall be Maintained When Running KIUC Conduits Parallel to Water and Sewer Lines. If Clearance is Less Than 36 Inches, KIUC Conduit Shall be Concrete Encased.

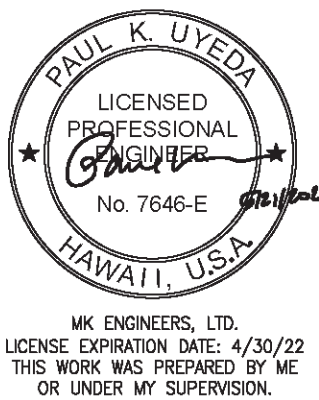
19. No Foreign Pullboxes, Handholes, Manholes, Concrete Slabs/Boxes, Structures, etc. are to be Installed Over KIUC Facilities with the Exception of HTC, CATV or Waterline Conduit Crossings. Such Crossing Must be Approved by KIUC's Service Assurance Department and KIUC Conduit to be Concrete Encased. Concrete Encasement Must be Minimum of 3 Inch Encasement and Extend a Minimum of 1 Foot Beyond Crossing Conduit or Pipe.
20. Yellow Marker Tape to be Placed 1 Foot Above Electrical Conduits in the Trench During Backfilling. (E-Z Code WBT 6 Inch Wide 4 Mil Polyethylene Protect-A-Line Warning Tape NA-0708 "Electric Line" In Yellow, Equivalent or Better).
21. Unless Otherwise Noted, the Top of All Conduits Shall be at a Depth of 24 Inches.
22. All Handholes, Pullboxes, and Manholes Shall be Walker Industries Type or Approved Equal. Contact KIUC Prior to Ordering Underground Boxes for Vendor Approval. Customer to Submit Manufacturer's Shop Drawings if Substituting from Walker Industries Type.
23. Typically, the Top of All Electrical Utility Boxes Shall be 1 Inch Above Finish Grade, Single Phase Transformer Pads Shall be 2 Inches Above Finish Grade, and Three Phase Transformer Pads Shall be 4 Inches Above Finished Grade Unless Otherwise Noted. (Special Conditions May Apply to Sidewalks, Roadways, etc. See Specific Location Notation).
24. At No Time Shall Cement Mortar, Wood or Any Other Material be Used Between Pre-cast Sections of KIUC Pullboxes, Handholes, or Manholes. The Permanent Installation of Wooden Wedges to Level or Raise the Pre-Cast Sections Shall Not be Permitted.
25. A Minimum of 6 Inches Of #3 Crushed Rock Backfill Shall be Placed Loosely Beneath the Bottom Section of Handholes and Pullboxes. Crushed Rock or Other Foreign Materials are Not to be Placed Inside Handholes and Pullboxes.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE

NOTE BOOK	DESIGNED BY	_____

No.	QUANTITIES BY	_____

	CHECKED BY	_____



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES (ELECTRICAL AND COMMUNICATION UTILITIES)

Kaumualii Highway Intersection
Improvements at Waimea Canyon Drive
and Menehune Road/Halepule Road
Project No. 50B-01-14

Scale: As Shown Date: May 2020

SHEET No. E-4 OF 11 SHEETS