



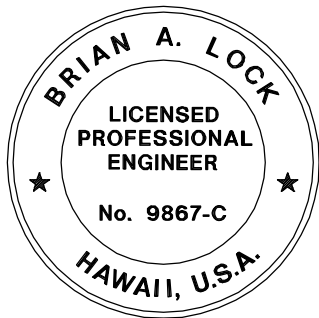
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(33)	2016	3	99

GENERAL NOTES:

- The scope of work for this project includes widening a portion of Keaau-Pahoa Road by removing the temporary northbound shoulder lane and installing an additional northbound lane; installing an additional temporary southbound shoulder lane; installing a new traffic signal at the intersection with Shower Drive; removing existing and installing new water system facilities; relocating utility poles; and installing pavement markings, striping and signing.
- The Contractor is reminded of the requirements of Subsection 105.16 (A) - Subcontract Requirements, 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.
- The Contractor's attention is directed to the following Sections of the Standard Specifications: Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 104.11 - Utilities And Services; and Section 645 - Work Zone Traffic Control.
- 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.
- The existence and location of underground utilities, manholes, monuments, buried railroad tracks, and concrete pavements, and other structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The Contractor shall make an independent check on the ground by probing and/or with the various utility companies and governmental agencies to verify the exact locations and depths of the existing utilities and obstructions. The Contractor shall exercise proper care in excavating in the area. Whenever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connection to verify their location and depth prior to excavating for the new lines. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- Existing drainage system will be functional at all times during construction. The Contractor is to furnish material, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.
- The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks and ADA access routes, and side streets and cross streets at all times. This work shall be considered incidental to the various contract items and will not be paid for separately.
- All saw cutting work shall be considered incidental to Roadway Excavation.
- Smooth riding connections shall be constructed at all times on the project, including the beginning and end of the project, connecting approaches, side streets, walkways and driveways as shown on the plans and/or as directed by the Engineer.
- The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing structures from the damages due to construction. Repairing of any damage shall be at the Contractor's own expense, to the satisfaction of the owner.
- The Contractor shall clean and remove all accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to the various contract items and will not be paid for separately.
- Removal and disposal of existing curb and gutter, curb, sidewalk and asphalt concrete pavement, curb, sidewalk and any debris shall be considered incidental to Roadway Excavation and will not be paid for separately.
- The Contractor shall provide and maintain a temporary pedestrian-safe and easily accessible route or detour with barricades in or near the work zone. This temporary route or detour shall be stable, firm and slip-resistant and shall be Americans With Disabilities Act compliant (This only applies if existing surface is non-ADA compliant). This work shall be incidental to all contract items and will not be paid for separately.

- The Contractor shall remove and dispose of all existing raised pavement markers, thermo line markings, traffic tapes, and epoxy adhesives prior to the overlaying of Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately. These work items shall be considered incidental to Roadway Excavation.
- The Contractor shall adjust flush to finish grade all manhole, valve, pullbox, and handhole frames and covers, including those not shown on the plans, if there is a change in grade due to construction of the project. If the proposal does not show a contract item, the Engineer will consider them incidental to the various contract items.
- Two lanes of traffic, one lane in each direction, shall be provided at all times. Lane closures, narrowing of lanes, or detours that slow down traffic shall not occur during peak hours 5:30 a.m. to 8:30 a.m. and 2:30 p.m. to 6:00 p.m. The Contractor shall continue to provide two Northbound lanes to weekday (Monday to Friday, excluding State holidays) traffic between 5:30 a.m. and 8:30 a.m. for the duration of construction. Night work may be permitted, and shall be at no additional cost to the State. If the Contractor elects to perform work at night, a noise variance permit shall be obtained at his cost with no additional time added to the contract.
- Drop-off at edge-of-pavement is not allowed. Provide asphalt concrete pavement taper at 6:1 slope, unless approved in writing by the Engineer.
- No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designated in writing and approved by the Engineer.
- After the project is completed, the Contractor shall restore grades and ground cover disturbed as a result of the project to a condition equal or better than existing before such damage or injury was done.
- Existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required by the Contract Documents or for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense with the approval of the affected utility company.
- The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.
- All construction work shall be done in accordance with the standards and specifications of the HDOT as amended, unless otherwise specified by the contract plans and specifications.
- Contractor shall be aware of the following Utility Agreements located in the contract documents:
 - Hawaiian Electric Light Company, Inc. (HELCO) - UA No. 2205, dated May 6, 2015
 - Hawaiian Telcom, Inc. - UA No. 2218, dated September 3, 2015
 - Department of Water Supply - UA No. 2219, dated April 11, 2016
 - Contractor shall coordinate with Oceanic Time Warner Cable for overhead cable relocation after new utility poles are installed. Utility Agreement not required.
 - The Contractor shall plan for multiple mobilization/demobilization to accommodate the Utilities' work and shall incorporate this cost in his bid. The State will not pay for additional cost for this work.
 - The number of working days in the Utility Agreements for the Utilities to do their work is only an estimate, will not necessarily be consecutive, and is included in the project contract time. The Contractor shall coordinate their work and the Utilities work with the Utility companies. Coordination and scheduling by the Contractor shall be considered incidental to various contract items.

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



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OR UNDER MY SUPERVISION.

APRIL 30, 2018
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GENERAL NOTES	
KEAAU-PAHOA ROAD, SHOULDER LANE CONVERSION, PHASE 2	
Shower Drive Intersection Improvements	
Fed. Aid Proj. No. STP-0130(33)	
Scale:	Date: March 2016

SHEET No. N-1 OF 7 SHEETS

"AS-BUILT"

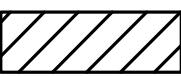







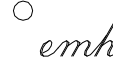








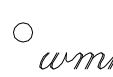
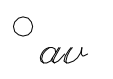
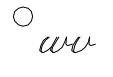


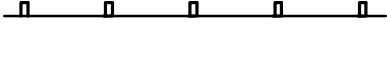
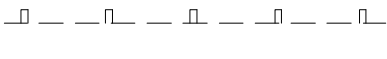
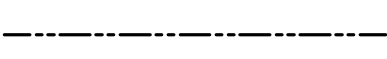



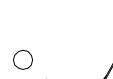
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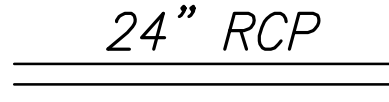




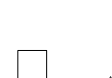





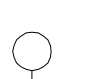




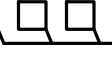
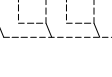
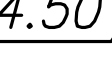
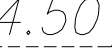
ORIGINAL PLAN	SURVEY PLOTTED BY _____		DATE _____
	DRAWN BY _____		_____
	CHECKED BY _____		_____
	QUANTITIES BY _____		_____
NOTE BOOK	No. _____		
	CHECKED BY _____		

GENERAL NOTES (Cont.)

25. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing County drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
26. Tack coat shall be incidental to the various asphalt concrete pavement items. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
27. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
28. Contractor shall notify the State construction inspector before commencement of work on any site with trees in close proximity (15'±).
29. Contractor shall comply with conditions as stated in the project NPDES Notice of General Permit Coverage (NGPC).
30. The Contractor must notify the Cadastral Section prior to removal of any State Survey Monument (Brass Disk) so that Cadastral can reference the monument prior to demolition of the existing monument. The Contractor shall bear all costs involved in restoring the State Survey Monuments which are affected by their work.
31. For lane closure and working hours see Special Provisions Sections 107-Legal Relations and Responsibility to the Public and Section 645 - Work Zone Traffic Control.
32. All necessary permits for work within the jurisdiction of the County of Hawaii shall be obtained by the Contractor at his own cost.
33. Contractor shall provide access for utility companies by constructing a gravel truck access along/under new overhead line alignment and to new utility pole locations. Contractor shall coordinate with utility companies for points of access from the highway shoulder. Work shall be considered incidental to Section 201-Clearing and Grubbing and Section 203-Excavation and Embankment, respectively. Access shall remain within State right-of-way. Utility companies shall be able to access utility poles and overhead lines at all times throughout construction. Provide Erosion Control measures in accordance with Section 209-Temporary Water Pollution, Dust, and Erosion Control.
34. Hot Mix Asphalt from cold planed material may be used for dressing of shoulders, see Section 210 - Dressing of Shoulders. Excess material shall be delivered to the Hilo baseyard (50 Makaala Street) by the Contractor.
35. Use of steel plates to cover excavated areas shall require a drawing stamped by a structural engineer licensed in the State of Hawaii and shall have a non-skid surface.

LEGEND



	Pavement Structures (See Typical Sections for Pavement Structures)
	New P.C.C.
	New Electrical Line
	Existing Electrical Line
	Relocated Joint Pole
	Existing Joint Pole
	Relocated Power Pole
	Existing Power Pole
	Existing Electrical Manhole
	Existing Telephone Line
	Existing Telephone Pole
	Existing Telephone Manhole
	New Signal Corps Line
	Existing Signal Corps Line
	Existing Cable TV Pullbox
	Existing Cable TV Line
	Existing 12" Water Line
	Existing Water Manhole
	Existing Water Air Valve
	Existing Water Valve Box
	Existing Water Meter
	Existing Fire Hydrant
	New Guard Rail
	Existing Guard Rail
	New Right-of-Way
	Existing Right-of-Way
	New 12" Sewer Line
	Existing Sewer Line And Size
	Existing Sewer Manhole

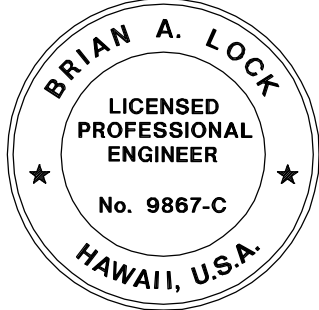
	Existing 6" Gas Line
	Existing Gas Valve Box
	Existing Gas Manhole
	New Monument
	Existing Monument
	New 24" RCP Drain Line
	Existing 24" Drain Line
	New Storm Drain Man hole Frame & Cover
	Existing Storm Drain Manhole
	New Grated Drop Inlet
	Existing Grated Drop Inlet
	New Catch Basin
	Existing Catch Basin
	New Traffic Sign
	Existing Traffic Sign
	New Highway Lighting Standard
	Existing Highway Lighting Standard
	New Traffic Signal Pullbox
	Existing Traffic Signal Pullbox
	Existing Traffic Signal Control Box
	Existing Traffic Signal Pole
	New Loop Detector
	Existing Loop Detector
	New Pavement Grade
	Existing Pavement Grade

ABBREVIATIONS

A.C., a.c.	Asphalt Concrete
B	Baseline
E.P.	New Edge Of Pavement
E.S.	New Edge Of Shoulder
E.T.W	New Edge Of Travelway
e.p.	Existing Edge Of Pavement
e.s.	Existing Edge Of Shoulder
e.t.w.	Existing Edge Of Travelway
N.B., n.b.	Northbound
P.C.	Point Of Curvature
P.C.C.	Point Of Compound Curvature
P.C.C.	Portland Cement Concrete
P.I.	Point Of Intersection
P.O.C.	Point On Curvature
P.T.	Point Of Tangency
R	Radius
S.B., s.b.	Southbound
S.E.	Superelevation

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

LEGEND FOR AS-BUILT POSTINGS	
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	Double line for as-built deletion
Roadway	Text for as-built posting



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APRIL 30, 2018
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GENERAL NOTES	
KEAAU-PAHOA ROAD, SHOULDER LANE CONVERSION, PHASE 2	
Shower Drive Intersection Improvements	
Fed. Aid Proj. No. STP-0130(33)	
Scale:	Date: March 2016

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(33)	2016	5	99

NOTES FOR GENERAL
CONSTRUCTION (COUNTY)

- All construction work is to be constructed in accordance with the publications "Hawaii Standard Specifications for Road, Bridge and Public Works Construction 2005" and its amendments and "Standard Details for Public Works Construction" and its amendments.
- No grading between 7 P.M. To 7 A.M. on any given day or on Saturdays, Sundays and Holidays without written permission from the State Department of Health.
- Construction shall start within a period of one year from the date of approval of construction plans; if construction does not commence within this one-year time from the date of approval, the construction plans will need to be resubmitted to all County of Hawaii agencies for review and approval.
- All grading, grubbing and stockpiling work shall be performed in accordance with County of Hawaii.
- During cleaning operations, the Contractor shall supply a water truck for dust control purposes until vegetation has re-established itself. Excess water, including silt and dirt shall not be allowed to run-offthe project site.

WATER NOTES

- All work shall be done according to the Water System Standards, State of Hawaii, dated 2002 as amended.
- The Contractor shall inform the Department of Water Supply (DWS) Engineer 72 hours prior to the beginning of any waterline work and two weeks prior to any connection, chlorination, shut-off or relocation work.
- The Contractor shall pay for all work, equipment and materials furnished by the DWS.
- All existing waterlines, waterline appurtenances and other utility locations shown on the plans are obtained from the latest reliable sources. The contractor shall be responsible to verify the exact location of all utilities in the field and shall bear all cost for damages done to the water system.
- All connections to existing waterlines shall be done by the DWS. Contractor shall perform all excavation, backfill, road repair, traffic control, and provide equipment necessary to complete the connection.

WATER NOTES (Cont.)

- Where water shut-off of more than 3 hours becomes necessary, the contractor, at his own expense, shall provide a temporary by-pass line. The DWS Engineer shall determine the by-pass line size. If necessary, the DWS Engineer may require a by-pass line, regardless of the expected shut-off period.
- Minimum horizontal clearance between waterline and other utilities shall be 8 feet unless otherwise specified. Minimum vertical clearance between waterlines and other utilities shall be 12" provided concrete jackets are used, and 18" if no concrete jackets are used. In all applicable instances, the waterlines shall be at a grade higher than other utilities.
- All fittings (class 250 minimum) and all gate valves (class 200) shall be ductile iron, with mechanical joints unless otherwise specified. Butterfly valves shall be class 250 with epoxy-coated interior unless otherwise specified.
- The waterline shall be tested at a minimum of 225 psi or one and a half times the static pressure at the low point, whichever is greater, under DWS supervision just prior to paving.
- The Contractor shall be responsible for the chlorination of the water system and shall bear all costs. The person(s) engaged to do the chlorination work must have the appropriate license to perform the work in the State of Hawaii.
- Existing valves, F.H. units, valve boxes, frames and covers designated "remove and salvage" shall be cleaned of all dirt, scabs, and concrete and delivered to the respective DWS baseyard. This work shall be considered incidental to the various bid items, unless specified otherwise.
- Existing waterlines, valves, fittings and appurtenances not designated "remove and salvage" shall be abandoned in place. All exposed valve boxes, valves, pipes and appurtenances shall be removed and disposed of properly at no cost to the DWS.
- Relocation of existing meters shall be done by or under DWS supervision. Relocations of customer service lines to relocated meters shall be copper and done by the contractor. All work and materials required shall be provided by the contractor and considered incidental to the relocation work. Existing meter boxes damaged by the contractor shall be replaced at the contractor's cost. A dielectric union shall be used to connect the copper pipe to the customer's G.I. Pipe (if applicable).

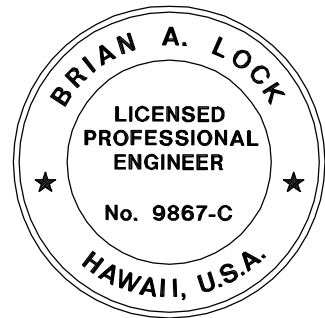
APPROVED

Manager—Chief Engineer
Department of Water Supply
County of Hawaii

Date

WATER NOTES (Cont.)

- The DWS will not assume ownership of nor grant any water service until the water system is dedicated to the DWS along with all necessary easements and documents.
- When compaction tests are required, the contractor shall be responsible to provide the DWS with proctor results of materials to be used for that portion of work requiring compaction. These results shall be certified and shall be furnished to the DWS one week prior to commencement of work. Cost for compaction tests shall be incidental to pipeline installation.
- All newly installed waterlines shall have a blue warning tape labeled "waterline" placed directly over the compacted cushion material.
- Construction projects requiring temporary water service shall be metered and paid for by the Contractor.
- The Contractor shall be responsible for record drawings (as-built drawings) and the licensed engineer shall certify the drawings as to accuracy and submit the drawings and as-built tracings to the DWS.
- All waterline 4-inch and larger shall be ductile iron class 52, and all waterlines smaller than flinch shall be soft copper type k unless otherwise specified.
- Lots requiring a Dept. of Water Supply approved backflow prevention assembly shall have one. Its installation is not required for final subdivision approval. The installation shall be the responsibility of the service owner, in accordance with DWS Standard Detail V-9. The owner shall make provisions for the water during the time the backflow is being tested or maintained. As protection to the consumer plumbing system, a suitable pressure relief valve shall be installed and maintained by the service owner.



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LEGEND FOR AS-BUILT POSTINGS	
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	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>NOTES</u>	
<u>KEAAU-PAHOA ROAD, SHOULDER</u>	
<u>LANE CONVERSION, PHASE 2</u>	
<u>Showter Drive Intersection Improvements</u>	
<u>Fed. Aid Proj. No. STP-0130(33)</u>	
Scale:	Date: March 2016
SHEET No. N-3 OF 7 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(33)	2016	6	99

CONSTRUCTION NOTES FOR
TRAFFIC CONTROL PLAN

- The permittee shall make adjustments at intersections, driveways, bridges, structures, etc. To fit field conditions.
- Cones or delineators shall be extended to a point where they are visible to approaching traffic.
- Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
- Regulatory and warnings signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon completion of the work.
- Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
- When required by the issuing office, the permittee shall install a flashing arrow signal as shown on the traffic control plans.
- Sign spacing (d), taper lengths (t) and spacing of cones or delineators shall be as shown in table 1, unless otherwise noted on the traffic control plans.
- All traffic lanes shall be a minimum of 10 feet wide.
- All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
- The backs of all signs shall be promptly removed or covered to preclude the display of inapplicable sign messages (i.e., when signs have messages on both faces), whenever the messages is not applicable or not in use.
- At the end of each day's work or as soon as the work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in reverse order of installation.
- Replace permanent pavement markings and traffic signs upon completion of each phase of work.
- Police officer/flagmen shall be present at all times.
- The Contractor shall make a flyer showing the changes in traffic patterns and estimated times of use. Sufficient copies of the flyer shall be provided to each business for distribution to its employees and guests.
- Contractor to provide access and/or directional signs to reroute pedestrian traffic. See General Notes No. 14 on sheet N-1.
- The Contractor shall comply with FHWA Final Rule on Work Zone Safety and Mobility, 23 CFR 630, Subpart J.

GRADING NOTES

- All grading work shall conform to Chapter 10 of the Hawaii County Code. Should a grading permit be required, no work shall commence until the Department of Public Works approves a grading permit.
- No contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the costs incurred for any remedial action by the County Engineer shall be payable by the contractor.
- The contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The work shall be in conformance with The Air Pollution Control Standards and Regulations of the State Department of Health.
- 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 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.
- Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.
- All slopes and exposed areas shall be hydro-mulched as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted. Plant species shall be submitted to the Engineer for approval prior to ordering, purchasing and installation.
- The county shall be informed of the location of the borrow/disposal site for the project when the application for a grading permit is made. The borrow/disposal site must also fulfill the requirements of the grading ordinance.
- Fill slope banks shall not exceed 2:1 and cut slope banks shall not exceed 1:1 unless otherwise noted.

EARTHWORK SUMMARY



Excavation = 2,402 cy
Embankment = 939 cy
Graded area = 1.55 acres

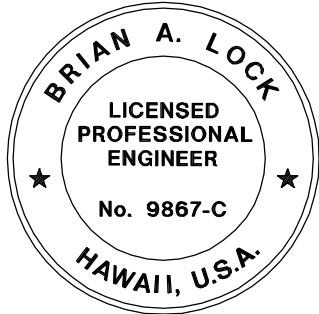
NOTES:

- Quantities are shown for permit purpose only and are not to be used for bidding purposes.
- Contractor is responsible to complete the grading work to the grades and dimension shown on the plans. Grades shown are finished grades. Contractor to coordinate with landscape drawings to allow for placement of topsoil.
- If imported materials are required to obtain finished grades, Contractor is required to import suitable material as specified at the Contractor's expense.

GRADING NOTES (Cont.)

- The Contractor shall remove all vegetation before placing fills on natural ground surface.
- Fills shall be compacted to 90 percent (90%) of the maximum density per ASTM D-1557 test.
- No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to the County of Hawaii Department of Public Works.
- The limits of the area to be graded shall be flagged before the commencement of the grading work.
- All grading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control and Water Quality Standards contained in Hawai'i Administrative Rules, Chapter 11-55, "Water Pollution Control" and Chapter 11-54, "Water Quality Standards" and the "Erosion and Sedimentation Control Standards and Guidelines" of the Department of Public Works County of Hawaii, and if applicable, the NPDES permit for the project.
- If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable state and federal requirements.
- Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. All costs incurred shall be billed to the contractor and/or grading permit applicant. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.
- The Contractor shall comply with Section 671-Protection of Endangered Species, in regards to grading and clearing and grubbing.

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Roadway	Text for as-built posting



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APRIL 30, 2018
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
NOTES	
KEAAU-PAHOA ROAD, SHOULDER LANE CONVERSION, PHASE 2	
Shower Drive Intersection Improvements	
Fed. Aid Proj. No. STP-0130(33)	
Scale:	Date: March 2016

SHEET No. N-4 OF 7 SHEETS

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

WATER POLLUTION AND EROSION CONTROL NOTES:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(33)	2016	7	99

A. GENERAL:

- See Special Provisions Section 209 - Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
- Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
- Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
- If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
- Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>.

B. WASTE DISPOSAL:

- Waste Materials**
Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.
- Hazardous Waste**

Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.
- Sanitary Waste** Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:



- For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
- For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.

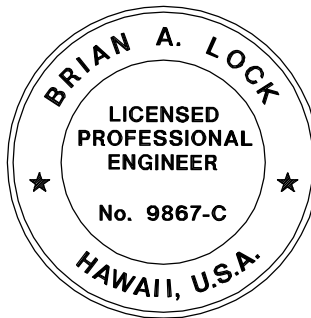
- Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.
- Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.
- Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
- Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
- Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.

*See Sht. No. N-6 for Water Pollution and Erosion Control Notes cont.

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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WATER POLLUTION AND EROSION CONTROL NOTES	
<u>KEAAU-PAHOA ROAD, SHOULDER LANE CONVERSION, PHASE 2</u>	
<u>Showder Drive Intersection Improvements</u>	
<u>Fed. Aid Proj. No. STP-0130(33)</u>	
Scale:	Date: March 2016

SHEET No. N-5 OF 7 SHEETS

"AS-BUILT"

7

