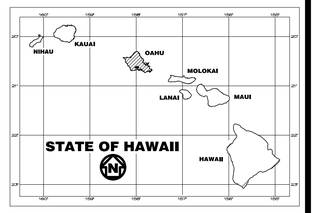
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	1	29

63



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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HONOLULU, HAWAII

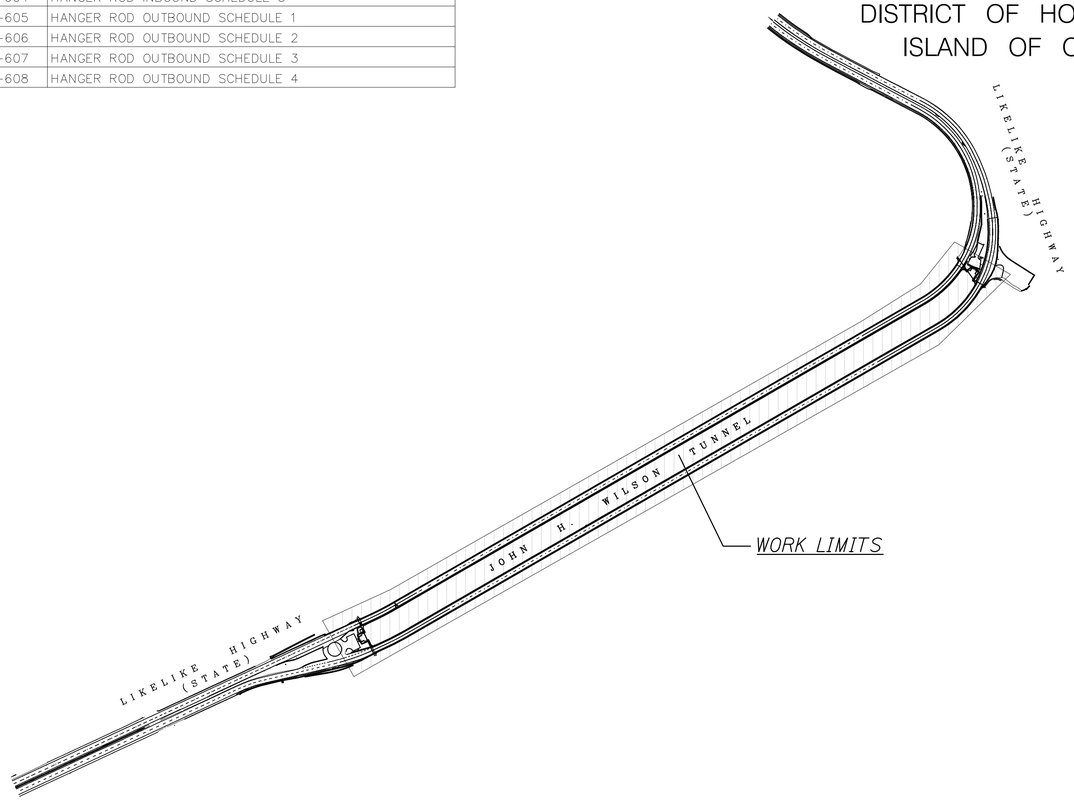
PLANS FOR

LIKELIKE HIGHWAY, WILSON TUNNEL STRUCTURAL REPAIRS

FEDERAL AID PROJECT NO. BR-063-1(028)

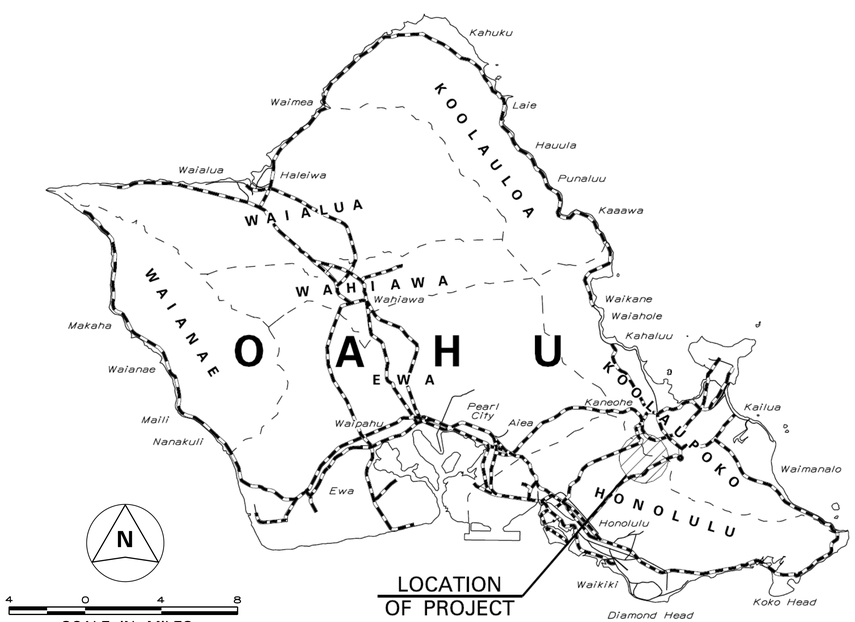
DISTRICT OF HONOLULU

ISLAND OF OAHU



LAYOUT PLAN

NOT TO SCALE



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SCALE IN MILES

MILE POST 5.72 TO MILE POST 6.29

FEDERAL AID PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

DEPARTMENT OF TRANSPORTATION STATE OF HAWAII	
APPROVED:	
DIR. OF TRANSPORTATION	Jul 19, 2024 DATE

CONSOR ENGINEERING, LLC
DESIGNED BY

HWY-DD
P. S. & E. BY

692-8438
PHONE

JULY 2024
DATE

NOTES FOR GENERAL CONSTRUCTION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	2	29

1. THE SCOPE OF WORK FOR THE PROJECT INCLUDES THE INSTALLATION OF HANGER ROD RETROFITS IN THE PLENUM OF BOTH INBOUND AND OUTBOUND WILSON TUNNEL BORES, AS WELL AS ALL NECESSARY LANE CLOSURES TO FACILITATE THE AFOREMENTIONED WORK.

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. NONCOMPLIANCE WITH THIS SUBSECTION MAY BE GROUNDS FOR REJECTION OF BID.

3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING SECTIONS OF THE SPECIAL PROVISIONS: SUBSECTION 104.09 - MAINTENANCE OF TRAFFIC; SUBSECTION 104.11 - UTILITIES AND SERVICES; SUBSECTION 107.06 - CONTRACTOR DUTY REGARDING PUBLIC CONVENIENCE; AND SUBSECTION 645 - WORK ZONE TRAFFIC CONTROL.

4. THE CONTRACTOR SHALL OBTAIN A PERMIT TO PERFORM WORK UPON STATE HIGHWAYS FROM THE OAHU DISTRICT ENGINEER, STATE HIGHWAYS, AT 727 KAKOI STREET, PRIOR TO COMMENCEMENT OF WORK WITHIN THE STATE'S HIGHWAY RIGHT-OF-WAY.

5. THE CONTRACTOR SHALL INFORM THE STATE HIGHWAY'S PERMIT OFFICE AT DOT.HWYO.Permits@hawaii.gov AT LEAST TWO (2) WEEKS PRIOR TO CLOSING ANY LANES. THE LANE CLOSURE FORM TO SUBMIT TO THE STATE HIGHWAY'S PERMIT OFFICE CAN BE FOUND AT: https://hidot.hawaii.gov/highways/home/doing-business/guide-to-permits/

6. THE CONTRACTOR SHALL NOTIFY OAHU TRANSIT SERVICES, ART AKANA, AT 852-6030 (BUS OPERATIONS) AND JOHN BLACK AT 454-5041 (PARATRANSIT OPERATIONS), AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION INFORMING THEM OF LOCATION, SCOPE OF WORK, PROPOSED CLOSURE OF ANY STREET OR TRAFFIC LANES, AND THE NEED TO RELOCATE ANY BUS STOP.

7. ALL APPLICABLE CONSTRUCTION WORK, INCLUDING LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC, SHALL BE IN ACCORDANCE WITH THE STANDARD PLANS, DATED 2008, HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005 EDITION AS AMENDED, AND THE LATEST SPECIFICATIONS FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS, OF THE STATE OF HAWAII, HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION.

8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING, TWO (2) WEEKS PRIOR TO STARTING CONSTRUCTION OPERATIONS.

9. THE CONTRACTOR SHALL VERIFY AND CHECK 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 FOR CLARIFICATION.

10. THE EXISTENCE AND LOCATION OF OVERHEAD AND UNDERGROUND UTILITIES, MANHOLES, MONUMENTS AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA. ACCURACY IS NOT GUARANTEED. THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE 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 MAY AFFECT THESE PROPERTIES. TONING SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS AND WILL NOT BE PAID FOR SEPARATELY.

11. 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 AS ABANDONED. ANY DAMAGE TO THE EXISTING UTILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.

12. UNLESS RELOCATION IS CALLED FOR ON THE PLANS, EXISTING UTILITIES SHALL REMAIN IN SERVICE AND IN PLACE AT ALL TIMES. IF RELOCATION OF THE EXISTING UTILITIES IS REQUIRED FOR THE CONTRACTOR'S CONVENIENCE, INTERRUPTION OF SERVICE SHALL BE KEPT TO A MINIMUM AND SHALL BE DONE AT THE CONTRACTOR'S EXPENSE ONLY WITH THE PRIOR WRITTEN APPROVAL OF THE AFFECTED UTILITY COMPANY AND THE ENGINEER.

13. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY TO UNDERGROUND FACILITIES AND SHALL MAINTAIN ADEQUATE CLEARANCE WHEN OPERATING EQUIPMENT WITHIN OR UNDER OVERHEAD FACILITIES. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGES INCURRED TO THE EXISTING FACILITIES AND/OR IMPROVEMENTS AS A RESULT OF ITS OPERATIONS.

14. 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.

15. THE EXISTING DRAINAGE SYSTEM WILL BE FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR IS TO FURNISH MATERIALS, EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO MAINTAIN FLOW. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS AND WILL NOT BE PAID FOR SEPARATELY.

16. REMOVAL AND DISPOSAL OF DEBRIS SHALL BE CONSIDERED INCIDENTAL TO THEIR RESPECTIVE BID ITEMS. CONTRACTOR SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS AT A STATE APPROVED DUMP SITE.

17. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN THE HIGHWAY RIGHT-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING APPROVED BY THE DISTRICT ENGINEER. IF USE OF LOCATION IS APPROVED BY THE DISTRICT ENGINEER, THE CONTRACTOR SHALL OBTAIN A PERMIT TO USE THE PROPERTY WITHIN THE HIGHWAY RIGHT-OF-WAY FROM THE OAHU DISTRICT OFFICE AT 808-831-6700.

18. THE TERM ENGINEER FOR THE UTILITY COMPANIES SHALL ALSO MEAN ITS DELEGATED REPRESENTATIVE AND/OR THE UTILITIES' INSPECTORS OF RECORD.

19. THE CONTRACTOR, AT ITS OWN EXPENSE, SHALL KEEP THE PROJECT AREA 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.

20. 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 WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTORS SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, WATER QUALITY STANDARDS AND TITLE 11, CHAPTER 55, WATER POLLUTION CONTROL, AS WELL AS CHAPTER 14 OF THE REVISED ORDINANCES OF HONOLULU, AS AMENDED. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.

22. PUBLIC NOTICE IS REQUIRED FOR ROAD CLOSURES. CONTRACTOR SHALL SUBMIT NOTICE TO THE ENGINEER FOR APPROVAL A MINIMUM OF THREE WEEKS PRIOR TO PUBLICATION. PRE-APPROVAL OF NOTICE, WITH DATES LEFT BLANK, IS PERMISSIBLE. ADVERTISEMENT SHALL BE IN ACCORDANCE WITH HSS SECTION 645.03(H).

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

MATTHEW M VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Matt Vaccione

SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES 1

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-002 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	3	29

NOTES FOR GENERAL CONSTRUCTION (CONT.)

23. PURSUANT TO SECTION 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION BRANCH (692-8015), AND THE ENGINEER.

24. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CONTACT THE STATE HISTORIC PRESERVATION DIVISION UPON UNCOVERING ANY POTENTIAL HISTORICAL ARTIFACTS OR ITEMS OF ARCHAEOLOGICAL SIGNIFICANCE. SEE SECTION 107.13 IN THE 2005 STATE STANDARD SPECIFICATIONS.

25. THE EXISTING IMPROVEMENTS ON THE PREMISES AND IN ADJACENT AREAS THAT ARE NOT TO BE REMOVED SHALL BE PRESERVED AND PROTECTED. ANY AND ALL DAMAGES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION OPERATIONS SHALL BE REPLACED AND REPAIRED TO ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE STATE.

26. WORK REQUIRED TO COMPLETE THE PROJECT BUT NOT SPECIFICALLY ITEMIZED IN THE PROPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS AND SHALL NOT BE PAID SEPARATELY.

27. DURING NIGHTTIME WORK, THE USE OF LIGHTING SHALL BE MINIMIZED, AND ALL LIGHTS SHALL BE SHIELDED (MINIMUM LIGHT SPILL TOWARDS THE SKY) AND DIRECTED INTO THE TUNNEL OR DOWNWARDS TO THE MAXIMUM EXTENT PRACTICABLE. MINIMUM REQUIREMENTS FOR LIGHTING BY HIOSH AND OSHA SHALL BE PROVIDED AND ASSURED BY THE CONTRACTOR.

28. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES, AND SHALL TAKE NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE, AND SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE ADMINISTRATIVE RULES OF HAWAII GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREET AND HIGHWAYS, ADOPTED BY THE DIRECTOR OF TRANSPORTATION, THE CURRENT US FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI - TEMPORARY TRAFFIC CONTROL, AND AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE, 2016 EDITION.

29. TRAFFIC CLOSURES SHALL CONFORM TO THE TRAFFIC CONTROL PLANS INCORPORATED INTO THESE CONSTRUCTION PLANS AND MUST BE APPROVED BY THE DIVISION PRIOR TO THE ISSUANCE OF THE PERMIT.

30. ALL SIGNS, PAVEMENT MARKINGS, STRIPING, ETC. REMOVED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

31. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO START OF WORK AT HIS OWN COST.

32. THE CONTRACTOR TO PROVIDE AS-BUILT PLANS WITHIN 14 DAYS AFTER FINAL INSPECTION.

GENERAL CONSTRUCTION PHASES

PHASE 1: TRAFFIC CONTROL AND CLOSURES

1A. THE CONSTRUCTION SHALL PROVIDE THE NECESSARY LANE CLOSURES AS REQUIRED TO COMPLETE THE HANGER ROD RETROFITS AS SHOWN IN SHEETS C-100 THROUGH C-106.

PHASE 2: HANGER ROD RETROFITS

2A. THE CONTRACTOR SHALL PERFORM HANGER ROD RETROFITS ON THE INBOUND (IB) TUNNEL FIRST AND SHALL COMPLETE THE "CLOSURE" WORK FOR THE IB TUNNEL BEFORE COMMENCING WORK ON THE OUTBOUND TUNNEL THAT REQUIRES CLOSURE.

2B. THE CONTRACTOR SHALL PERFORM HANGER ROD RETROFITS SUCH THAT ONE TUNNEL REMAINS OPEN FOR TRAFFIC AT ALL TIMES.

2C. THE CONTRACTOR SHALL COMPLETE THE HANGER ROD RETROFITS AS SHOWN IN SHEETS S-101 THROUGH S-608.

RECOMMENDED CONSTRUCTION SEQUENCING FOR EACH TUNNEL

1. NON-CLOSURE WORK:

   A. PERFORM CONCRETE SCANNING WITH A RADAR DETECTION SYSTEM, GPR, OR SIMILAR TECHNOLOGY TO LOCATE AND AVOID DAMAGING EXISTING REINFORCING. SCANNING TO BE PERFORMED ON THE LINER AND PLENUM FLOOR SLAB.

   B. DRILL CONCRETE LINER IN PREPARATION OF UNDERCUT ANCHOR INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

   C. INSTALL UNDERCUT ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.

   D. INITIATE PLENUM FLOOR SLAB DRILLING BY PREDRILLING UP TO ONE HALF OF THE SLAB THICKNESS.

   E. COAT THE UNDERCUT ANCHOR PLATE WASHERS, WASHERS, AND NUTS WITH ZINC-RICH PAINT.

2. FULL-CLOSURE WORK:

   A. COMPLETE THE PLENUM FLOOR SLAB DRILLING.

   B. INSTALL HANGER RODS, NUTS TO PREVENT ROD PLUNGING, AND SLEEVE NUTS (COUPLE).

   C. INSTALL HANGER ROD HARDWARE BENEATH PLENUM FLOOR SLAB: PLATE WASHERS, WASHERS, TWO (2) NUTS. FOUL THREADS.

   D. FILL 1.5"-DIAMETER PLENUM FLOOR SLAB HOLES WITH EPOXY GROUT.

   E. COAT THE HANGER ROD HARDWARE BENEATH PLENUM FLOOR SLAB WITH BLACK ZINC-RICH PAINT.

3. NON-CLOSURE WORK:

   A. INSTALL HANGER ROD CORROSION PREVENTION SYSTEM.

   B. LABEL HANGER RODS AS SHOWN ON SHEET S-601.

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

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES 2

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-003 OF 9 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	4	29

1. GENERAL:

   A. THE CONTRACTOR IS REMINDED OF THE REQUIREMENTS OF SECTION 209 -WATER POLLUTION AND EROSION CONTROL AND SECTION 620 -DUST CONTROL IN THE HAWAI'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005 9/32 AND ITS AMENDMENTS. SECTION 209 DESCRIBES BUT IS NOT LIMITED TO: SUBMITTAL REQUIREMENTS; SCHEDULING OF A WATER POLLUTION AND EROSION CONTROL CONFERENCE WITH THE COUNTY ENGINEER; CONSTRUCTION REQUIREMENTS; METHOD OF MEASUREMENT; AND BASIS OF PAYMENT. NO WORK SHALL COMMENCE WITHOUT A BMP PLAN APPROVED BY THE DEPARTMENT OF HEALTH.

   B. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE INTERIM BEST MANAGEMENT PRACTICES MANUAL FOR CONSTRUCTION SITE FOR COUNTY OF KAUA'I APRIL 2004 IN DEVELOPING, INSTALLING AND MAINTAINING THE BEST MANAGEMENT PRACTICES (BMP'S) FOR THE PROJECT. THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS TO THE COUNTY FOR ACCEPTANCE.

   C. THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED BMP PLAN, NOI, ETC. ON THE PROJECT SITE. THE BMP PLAN SHALL BE UPDATED TO REFLECT ANY CHANGES MADE DURING THE COURSE OF CONSTRUCTION FOR THE DURATION OF THE PROJECT.

   D. THE ENGINEER MAY ASSESS LIQUIDATED DAMAGES OF UP TO $27,500 FOR NONCOMPLIANCE OF EACH BMP REQUIREMENT AND EACH REQUIREMENT STATED IN SECTION 209, FOR EVERY DAY OF NONCOMPLIANCE. THERE IS NO MAXIMUM LIMIT ON THE AMOUNT ASSESSED PER DAY.

   E. THE ENGINEER WILL DEDUCT THE COST FROM THE PROGRESS PAYMENT FOR ALL CITATIONS RECEIVED BY THE DEPARTMENT FOR NON-COMPLIANCE, OR THE CONTRACTOR/OWNER SHALL REIMBURSE THE STATE AND/OR COUNTY FOR THE FULL AMOUNT OF THE OUTSTANDING COST INCURRED BY THE STATE AND/OR COUNTY.

   F. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND PROVIDE PHOTO DOCUMENTATION OF ANY OCCURRENCE WHERE ABOVE-AVERAGE AMOUNTS OF SEDIMENT OR POLLUTION HAS ENTERED THE STREAM TO ASSESS THE IMPACT, IF ANY.

2. WASTE DISPOSAL:

   A. WASTE MATERIALS: ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER THAT DOES NOT LEAK. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED A MINIMUM OF TWICE PER WEEK OR AS OFTEN AS IS DEEMED NECESSARY. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ONSITE. THE CONTRACTOR'S SUPERVISORY PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

   B. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIAL SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR 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.

   C. SANITARY WASTE: ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK, OR AS REQUIRED.

3. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

   A. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT OF 0.25 INCHES OR GREATER.

   B. ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER THE INSPECTION.

   C. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

   D. SILT SCREEN OF FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO VERIFY THAT THE FABRIC FENCE IS SECURELY ATTACHED TO THE FENCE POST OR CONCRETE SLAB AND TO VERIFY THAT THE FENCE POST ARE FIRMLY IN THE GROUND.

   E. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASH OUTS AND HEALTHY GROWTH.

   F. THE CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER A MAINTENANCE INSPECTION REPORT PROMPTLY AFTER EACH WEEKLY INSPECTION.

   G. THE CONTRACTOR SHALL SELECT A MINIMUM OF THREE PERSONNEL WHO SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

   H. PERSONNEL SELECTED FOR THE INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE TRAINING FROM THE CONTRACTOR. THEY SHALL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

   I. ALL SLOPES AND EXPOSED AREAS SHALL BE GRASSED AS FINAL GRADES HAVE BEEN ESTABLISHED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA IN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED OR EXPOSED FOR MORE THAN 15 DAYS SHALL BE GRASSED IN ORDER TO PREVENT DUST EMISSION, EROSION AND SILT RUNOFF. AREAS WITH IMPORTED SOILS SHALL BE GRASSED NOT MORE THAN 5 WORKING DAYS AFTER THE FINAL GRADES HAVE BEEN ESTABLISHED.

   J. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.

4. GOOD HOUSE KEEPING BEST MANAGEMENT PRACTICES:

   A. MATERIALS POLLUTION PREVENTION PLAN.

      1. APPLICABLE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION. OTHER MATERIALS AND SUBSTANCES NOT LISTED BELOW SHALL BE ADDED TO THE INVENTORY OF THE CONSTRUCTION CONTRACTOR'S SITE-SPECIFIC BMP PLAN.

CONCRETE	FERTILIZERS
DETERGENTS	PETROLEUM BASED
PAINTS (ENAMEL & LATEX)	PRODUCTS
METAL STUDS	CLEANING
SOLVENTS	WOOD
TAR	MASONRY BLOCK

      2. MATERIAL MANAGEMENT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT AS IS REQUIRED TO DO THE JOB.

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

MATTHEW M VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Matt Vaccione

SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ENVIRONMENTAL NOTES 1

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-004 OF 9 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	5	29

3. ALL MATERIALS STORED ONSITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE.

4. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURE'S LABEL.

5. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

6. A PRODUCT SHALL BE USED UP COMPLETELY BEFORE DISPOSING OF THE CONTAINER.

7. MANUFACTURER'S RECOMMENDATION FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.

8. THE CONTRACTOR SHALL CONDUCT A DAILY INSPECTION TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

B. HAZARDOUS MATERIAL POLLUTION PREVENTION PLAN:

1. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.

2. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS (MSDS) SHALL BE RETAINED AND MADE AVAILABLE TO THE COUNTY ENGINEER UPON REQUEST.

3. SURPLUS PRODUCTS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR LOCAL AND STATE RECOMMENDED REGULATIONS.

C. ONSITE AND OFFSITE PRODUCTS SPECIFIC PLANS:

THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ONSITE:

1. PETROLEUM BASED PRODUCTS: ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

2. FERTILIZERS: APPLY FERTILIZER ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, WORK FERTILIZER INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE KEPT IN A COVERED SHED. TRANSFER THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

3. PAINTS: SEAL AND STORE ALL CONTAINERS WHEN NOT REQUIRED FOR USE. DO NOT DISCHARGE EXCESS PAINT TO THE ROADWAY DRAINAGE SYSTEM. DISPOSE OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

4. CONCRETE TRUCKS: WASH OUT OR DISCHARGE CONCRETE TRUCK DRUM WASH WATER ONLY AT A DESIGNATED SITE. DO NOT DISCHARGE WATER IN ROADWAY DRAINAGE SYSTEM OR WATERS OF THE UNITED STATES. CONTACT DRINKING WATER BRANCH, DEPARTMENT OF HEALTH AT (808) 586-4258 TO RECEIVE PERMISSION TO DESIGNATE A DISPOSAL SITE. CLEAN DISPOSAL SITE AS REQUIRED OR AS REQUESTED BY THE OWNER'S REPRESENTATIVE.

D. SITE-SPECIFIC BMP REQUIREMENTS:

1. EACH BMP BELOW IS REFERENCED TO THE CORRESPONDING SECTION OF THE CURRENT HDOT CONSTRUCTION BEST MANAGEMENT PRACTICES FIELD MANUAL AND APPROPRIATE SUPPLEMENTAL SHEETS. THE MANUAL MAY BE OBTAINED FROM THE HDOT STATEWIDE STORMWATER MANAGEMENT PROGRAM WEBSITE AT: http://www.stormwaterhawaii.com/resources/contractors-and-consultants/ UNDER CONSTRUCTION BEST MANAGEMENT PRACTICES FIELD MANUAL. SUPPLEMENTAL BMP SHEETS ARE LOCATED AT: http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/ UNDER CONCRETE CURING AND IRRIGATION WATER. THE REQUIREMENTS FOR WATER POLLUTION, DUST, AND EROSION CONTROL SUBMITTALS ARE INCLUDED IN SECTION 209 OF THE HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2005 AND APPLICABLE SPECIAL PROVISIONS. A LIST OF POLLUTANT SOURCES AND CORRESPONDING BMP USED TO MITIGATE THE POLLUTANTS ARE INCLUDED IN SECTION 209 OF THE SPECIAL PROVISIONS UNDER APPENDIX A.

FOLLOW THE REQUIREMENTS BELOW:

a. PROTECT ALL DRAINAGE INLETS RECEIVING RUNOFF FROM DISTURBED AREAS (SC-1).

1. CONTAIN ON-SITE RUNOFF USING PERIMETER SEDIMENT CONTROL
2. SC-7 SILT FENCE OR FILTER FABRIC FENCE
3. SC-2 VEGETATED FILTER STRIPS AND BUFFERS
4. SC-6 COMPOST FILTER BERM/SOCK
5. SC-8 SANDBAG BARRIER
6. SC-9 BRUSH OR ROCK FILTER

b. CONTROL OFFSITE RUNOFF FROM ENTERING CONSTRUCTION AREA

1. EC-3 RUN-ON DIVERSION
2. EC-6 EARTH DIKE, SWALES, AND DITCHES

c. INCORPORATE APPLICABLE SITE MANAGEMENT BMP

1. SM-1 EMPLOYEE TRAINING
2. SM-2 MATERIAL STORAGE AND HANDLING
3. SM-3 STOCKPILE MANAGEMENT
4. SM-6 SOLID WASTE MANAGEMENT
5. SM-7 SANITARY WASTE MANAGEMENT
6. SM-9 HAZARDOUS MATERIALS AND WASTE MANAGEMENT
7. SM-10 SPILL PREVENTION AND CONTROL
8. SM-11 VEHICLE AND EQUIPMENT CLEANING
9. SM-12 VEHICLE AND EQUIPMENT MAINTENANCE
10. SM-13 VEHICLE AND EQUIPMENT REFUELING
11. SM-14 SCHEDULING
12. SM-15 LOCATION OF POTENTIAL SOURCES OF SEDIMENT
13. SM-16 STAGING AREA
14. SM-17 PRESERVATION OF EXISTING VEGETATION
15. SM-19 DUST CONTROL

d. CONTAIN POLLUTANTS WITHIN THE CONSTRUCTION STAGING/STORAGE AREA BMP WITH APPLICABLE PERIMETER SEDIMENT CONTROLS AND SITE MANAGEMENT BMP.

e. MANAGE CONCRETE WASTE INCLUDING INSTALLING A CONCRETE WASHOUT AREA (SM-4) AND PROPERLY DISPOSING OF CONCRETE CURING WATER (CALIFORNIA STORMWATER BMP HANDBOOK NS-12 CONCRETE CURING).

f. REMOVE SAW CUT SLURRY AND HYDRODEMOLITION WATER FROM THE SITE BY VACUUMING. PROVIDE STORM DRAIN PROTECTION AND/OR PERIMETER SEDIMENT CONTROLS DURING SAW CUTTING AND HYDRODEMOLITION WORK.

E. SPILL CONTROL PLAN:

1. POST A SPILL PREVENTION PLAN TO INCLUDE MEASURES TO PREVENT AND CLEAN UP EACH SPILL.

2. THE CONTRACTOR SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. DESIGNATE AT LEAST THREE SITE PERSONNEL WHO SHALL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. POST THE NAMES OF RESPONSIBLE SPILL PERSONNEL IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

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

MATTHEW M VAGNONE
LICENSED PROFESSIONAL ENGINEER
No.19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Matt Vagnone

SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ENVIRONMENTAL NOTES 2

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-005 OF 9 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	6	29

3. CLEARLY POST MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP. MAKE SITE PERSONNEL AWARE OF THE PROCEDURES AND THE LOCATION OF INFORMATION AND CLEANUP SUPPLIES.

4. KEEP MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP IN THE MATERIALS STORAGE AREA ONSITE.

5. CLEAN UP ALL SPILLS IMMEDIATELY AFTER DISCOVERY.

6. KEEP THE SPILL AREA WELL VENTILATED. PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS SUBSTANCES.

7. REPORT SPILLS OF TOXIC HAZARDOUS MATERIALS TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.

8. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.

5. PERMIT REQUIREMENTS

A. THE CALCULATED LAND DISTURBANCE AREA FOR THIS PROJECT BASED ON THE CONSTRUCTION PLANS IS 0.16 ACRES INCLUDING THE DESIGNATED CONTRACTOR STAGING AND STORAGE AREAS AS SHOWN ON THE PLANS. IF THE TOTAL OF THE DISTURBED AREA AND THE CONTRACTOR STAGING AND STORAGE AREA IS ONE ACRE OR GREATER, THE CONTRACTOR SHALL OBTAIN THE NPDES CONSTRUCTION ACTIVITIES PERMIT USING HDOT'S LATEST SWPPP TEMPLATE. SEE HAWAII ADMINISTRATIVE RULES CHAPTER 11-55, APPENDIX C FOR THE DEFINITION OF LAND DISTURBANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED NPDES CONSTRUCTION ACTIVITIES PERMIT AND COMPLYING WITH THE REQUIREMENTS OF HAR 11-55 INCLUDING BUT NOT LIMITED TO:

1. DEADLINES FOR INITIATING AND COMPLETING INITIAL STABILIZATION,
2. INCREASED INSPECTION FREQUENCY AND INSTALLATION OF RAIN GAGE IF APPLICABLE,
3. DEADLINES TO INITIATE AND COMPLETE REPAIRS TO BMPS,
4. REPORTING REQUIREMENTS AND CORRECTIVE ACTION REPORTS.

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

MATTHEW M VACCIONE
LICENSED PROFESSIONAL ENGINEER
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ENVIRONMENTAL NOTES 3

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-006 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	7	29

ABBREVIATIONS

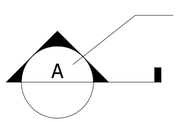
A	ALPHABETICAL HANGER ROD POSITION ID FOR NEW RODS POSITIONED BEFORE AN EXISTING ROD
B	ALPHABETICAL HANGER ROD POSITION ID FOR NEW RODS POSITIONED AFTER AN EXISTING ROD
B/W	BETWEEN
℄	CENTERLINE
ϕ	DIAMETER
EQ.	EQUAL
EXIST.	EXISTING
FT,'	FEET
GALV.	GALVANIZE
IB	INBOUND (TUNNEL TRAFFIC DIRECTION FROM KANEOHE TO HONOLULU)
IH	INBOUND HONOLULU SIDE
IK	INBOUND KANEOHE SIDE
IN,"	INCH
L	LEFT HANGER ROD POSITION ID
MAX.	MAXIMUM
MIN.	MINIMUM
#	NUMBER
OB	OUTBOUND (TUNNEL TRAFFIC DIRECTION FROM HONOLULU TO KANEOHE)
OH	OUTBOUND HONOLULU SIDE
OK	OUTBOUND KANEOHE SIDE
O.C.	ON CENTER
R	RIGHT HANGER ROD POSITION ID
THK	THICK
TYP.	TYPICAL

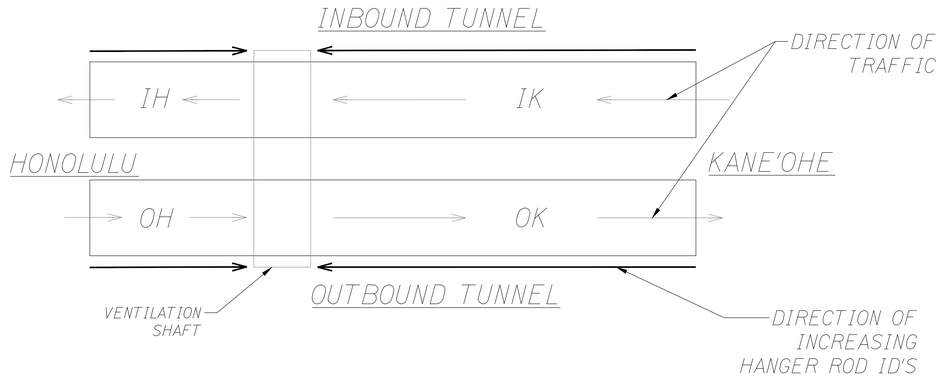
LEGEND

EXISTING HANGER RODS

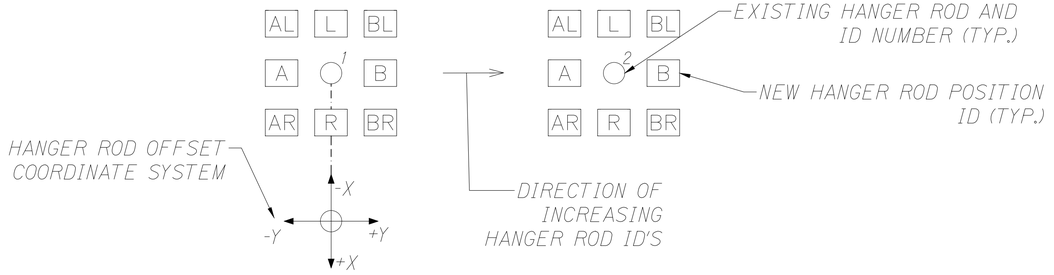
EXISTING HANGER ROD RETROFIT

NEW HANGER RODS





IH AND OH HANGER ROD ID LEGEND



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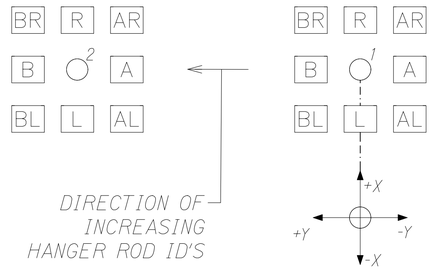

ORIGINAL PLAN	SURVEY PLOTTED BY ____ DATE
NOTE BOOK	DRAWN BY " " "
No. ____	TRACED BY " " "
	DESIGNED BY " " "
	QUANTITIES BY " " "
	CHECKED BY " " "

LICENSED PROFESSIONAL ENGINEER
MATTHEW M. VACCIONE
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE ____ EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND & ABBREVIATIONS

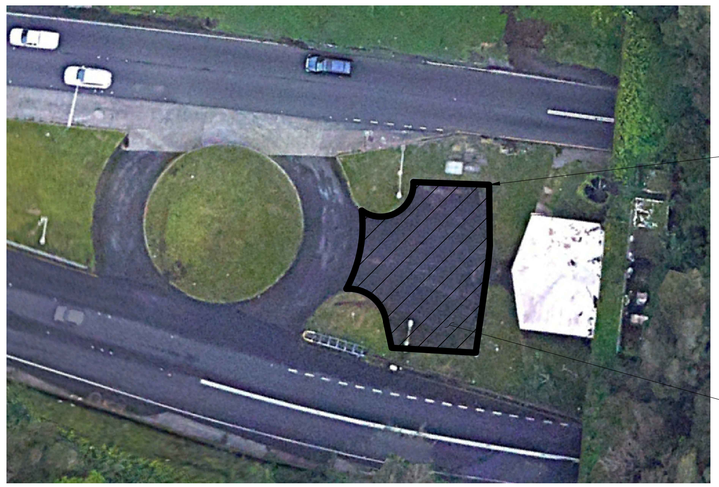
WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-007 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	8	29

SITE PLAN



LAYDOWN AREA 1
(0.050 ACRES)

BIOSOCK OR SILT CURTAIN AROUND PERIMETER OF LAYDOWN YARD

PARKING LOT

LAYDOWN AREA 2
(0.075 ACRES)

ORIGINAL PLAN
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DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
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MATTHEW M. VACCIONE
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STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

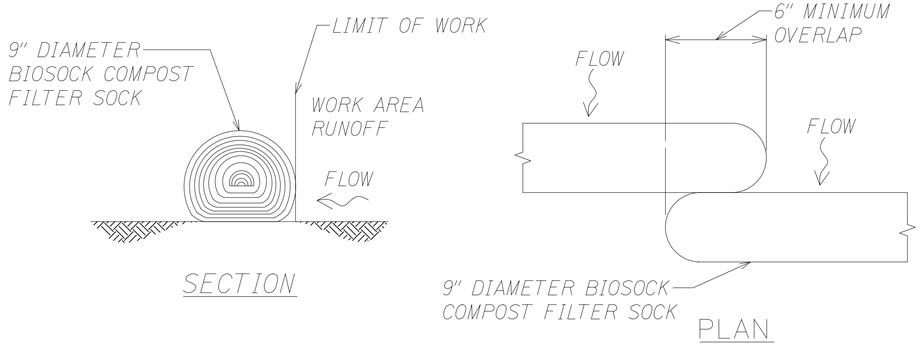
SITE, LAYDOWN, & BMP PLAN

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-008 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	9	29



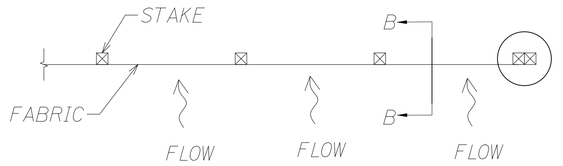
SECTION

PLAN

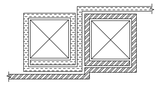
BIOSOCK COMPOST FILTER SOCK PERIMETER CONTROL DETAIL

NOT TO SCALE

STAPLE DETAIL

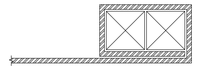


PLAN



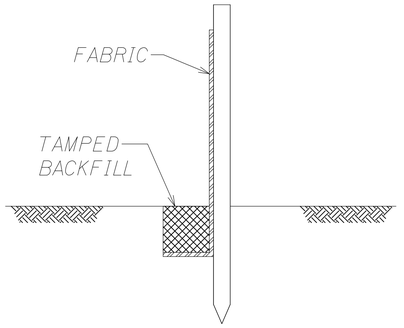
JOINING SECTION DETAIL

(PLAN VIEW)



SILT FENCE DETAIL

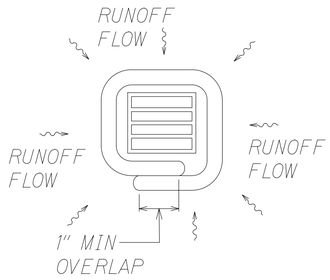
(PLAN VIEW)



SECTION B-B

SILT FENCE DETAIL

NOT TO SCALE



BIOSOCK COMPOST FILTER SOCK DRAIN INLET PROTECTION DETAIL

NOT TO SCALE

BIOSOCK COMPOST FILTER SOCK NOTES:

1. REMOVE ACCUMULATED SEDIMENT WHEN THE DEPTH REACHES $\frac{1}{3}$ OF THE BARRIER HEIGHT.
2. BIOSOCK MATERIAL AND COMPOST SHALL BE REMOVED AT THE COMPLETION OF CONSTRUCTION AND SHALL BE DISPOSED OF PROPERLY.
3. NO STAKING IS REQUIRED FOR SLOPES < 4:1.
4. COMPOST SHALL NOT CONTAIN BIOSOLIDS AND SHOULD BE CONSISTENT WITH UNITED STATES ENVIRONMENTAL PROTECTION AGENCY GUIDELINES.

GENERAL NOTES:

1. CONTRACTOR SHALL EXTEND BIOSOCK OR SILT FENCE TO COVER FULL LENGTH OF STORAGE/STAGING AREAS AT NO ADDITIONAL COST TO THE OWNER. BIOSOCKS SHOWN ON PLANS ARE MINIMUM.
2. SECURE AND PROVIDE SECONDARY CONTAINMENT FOR PORTABLE TOILETS.
3. SEDIMENT AND EROSION CONTROL BMP MEASURES SHOWN IN THE CONTRACT DOCUMENTS ARE MINIMUM BMPS REQUIREMENTS AND DO NOT CONSTITUTE AN ACCEPTABLE AND/OR COMPLETE SEDIMENT AND EROSION CONTROL PLAN. THE CONTRACTOR SHALL INCORPORATE ADDITIONAL BMPS BASED UPON THEIR MEANS AND METHODS CONSIDERING SITE CONDITIONS AND CONSTRUCTION SEQUENCE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS INCLUDING APPLICABLE PERMIT DOCUMENT REQUIREMENTS. COST SHALL BE INCLUDED IN PAY ITEM 209.0100, INSTALLATION, MAINTENANCE, MONITORING, AND REMOVAL OF BMP.

SILT FENCE NOTES:

1. STAKES SHALL BE SPACED 8" MAX AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE, OR AS SPECIFIED BY THE ENGINEER.
2. STAKE DIMENSIONS ARE NOMINAL. MATERIAL AS SPECIFIED BY ENGINEER.
3. STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE FABRIC TO STAKE WITH 4 STAPLES OR WIRE.
4. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT.
5. FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STEAKS ONE FULL TURN AND SECURED WITH 4 STABLES OR WIRE.
6. MINIMUM 4 STAPLES OR WIRE PER STAKE. DIMENSIONS SHOWN ARE TYPICAL.
7. JOINING SECTIONS SHALL NOT BE PLACED AT SLUMP LOCATIONS.

ORIGINAL PLAN
NOTE BOOK
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QUANTITIES BY
CHECKED BY
DATE

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

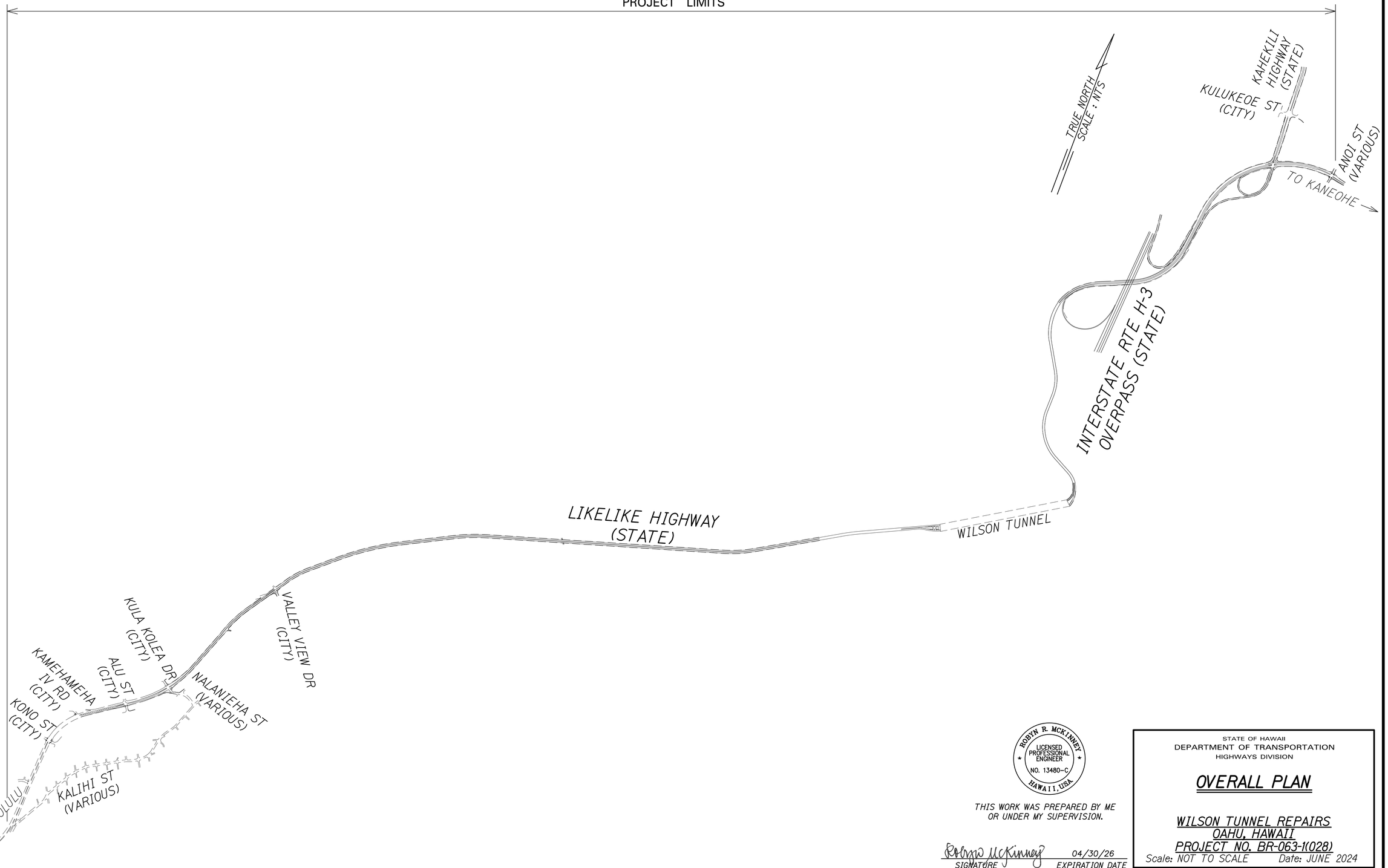
BIOSOCK & SILT FENCE DETAIL

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. G-009 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	10	29



W:_CIVIL 3D PROJECTS\2021_088.001 CONSOR WILSON TUNNEL\01 CE DWG\C-100 OVERALL PLAN.DWG 6/25/2024 7:26 AM ZTULABUT

ROBYN R. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
NO. 13480-C
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Robyn McKinney — SIGNATURE

04/30/26 — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERALL PLAN

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: NOT TO SCALE Date: JUNE 2024

SHEET No. C-100 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	11	29

GENERAL NOTES FOR TRAFFIC CONTROL PLAN (STATE):

1. THE PERMITTEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.

2. CONES OR DELINEATORS SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.

3. 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.

4. REGULATORY AND WARNING 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 WORK.

5. FLAGGERS AND/OR POLICE OFFICERS SHALL BE AT EACH CLOSURE AND IN DIRECT COMMUNICATION AT ALL TIMES. FURNISH A MINIMUM OF TWO POLICE OFFICERS FOR EACH REQUIRING WORK ZONE TRAFFIC CONTROL, IN ACCORDANCE WITH HSS SECTION 645.03.

6. WHEN REQUIRED BY THE ISSUING OFFICE, THE PERMITTEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.

7. SIGN SPACINGS (D) AND TAPER LENGTHS (T) AND SPACINGS OF CONES OR DELINEATORS SHALL BE AS SHOWN ON THE TRAFFIC CONTROL PLANS.

8. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10' WIDE.

9. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.

10. THE BACKS OF ALL SIGNS USED FOR TRAFFIC CONTROL SHALL BE APPROPRIATELY COVERED TO PRECLUDE THE DISPLAY OF INAPPLICABLE SIGN MESSAGES (I.E., WHEN SIGNS HAVE MESSAGES ON BOTH FACES).

11. 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 THE REVERSE ORDER OF INSTALLATION.

12. REPLACE EXISTING FADED OR OBLITERATED PAVEMENT MARKINGS THAT ARE NECESSARY FOR SAFE TRAFFIC FLOW IN THE CONSTRUCTION AREA WITH TEMPORARY OR PERMANENT MARKINGS BEFORE OPENING THE ROADWAY TO PUBLIC TRAFFIC EACH DAY.

13. ALL WORK ZONE TRAFFIC CONTROL DEVICES INCLUDING SIGNS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, CHANGEABLE MESSAGE SIGNS, CONES, DELINEATORS, AND MARKERS, SHALL CONFORM TO THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA), QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES AND MUTCD.

14. WORK MAY BE PERFORMED BETWEEN 10:00 AM TO 5:00 AM FOR THE INBOUND TUNNEL AND 7:00 PM TO 2:00 PM FOR THE OUTBOUND TUNNEL, MONDAY THROUGH FRIDAY. FOR WEEKEND CLOSURES, FOR THE INBOUND TUNNEL, WORK MAY BE PERFORMED 8:30 PM FRIDAY AND REMAIN IN PLACE UNTIL 4:30 AM THE FOLLOWING MONDAY; AND FOR THE OUTBOUND TUNNEL, WORK MAY BE PERFORMED 9:00 PM FRIDAY AND REMAIN IN PLACE UNTIL 5:00 AM THE FOLLOWING MONDAY.

    WRITTEN APPROVAL BY THE DISTRICT ENGINEER SHALL BE REQUIRED FOR ANY WORK OUTSIDE WHAT IS SHOWN IN THE TRAFFIC CONTROL PLANS.

    THE MAXIMUM CLOSURE PERIOD FOR THE INBOUND TUNNEL IS 30 DAYS AND 45 DAYS FOR THE OUTBOUND TUNNEL. THE CONTRACTOR SHALL INCUR LIQUIDATED DAMAGES FOR EACH CLOSURE DAY EXCEEDING THESE LIMITS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.

15. THE CONTRACTOR SHALL SUBMIT THE SITE-SPECIFIC TRAFFIC CONTROL PLAN(S) INTENDED FOR USE DURING CONSTRUCTION TO THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION'S DISTRICT ENGINEER AND/OR DESIGNATED REPRESENTATIVE, WITH THE TRAFFIC NOTIFICATION, AS STATED IN SPECIAL PROVISION SECTION 645 PRIOR TO THE SCHEDULED START OF THE ASSOCIATED CONSTRUCTION ACTIVITIES FOR REVIEW AND APPROVAL. CONSTRUCTION MAY NOT PROCEED UNTIL THE DISTRICT ENGINEER AND/OR DESIGNATED REPRESENTATIVE HAS APPROVED THE SITE-SPECIFIC TRAFFIC CONTROL PLAN(S).

16. CONTRACTOR SHALL SUBMIT REQUESTS FOR DETOUR AND LANE CLOSURES IN ACCORDANCE WITH HSS SECTION 645.03(F), LINES 290 THRU 312.

17. INCLUDE A SIGNED CERTIFICATION STATEMENT AFFIRMING THAT THE SITE-SPECIFIC TRAFFIC CONTROL PLANS SUBMITTED TO HDOT HAS BEEN PREPARED UNDER THE DIRECTION OR SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, IS IN COMPLIANCE WITH THE CURRENT HDOT AND FHWA STANDARDS, AND IS AN APPROPRIATE APPLICATION OF TRAFFIC CONTROL MEASURES FOR THE CONSTRUCTION WORK TO BE PERFORMED.

18. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE DRIVEWAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHERMORE, THE PERMITTEE SHALL CONTROL TRAFFIC GOING INTO AND OUT OF DRIVEWAYS.

19. EXISTING POSTED SPEED LIMITS ARE AS FOLLOWS:
    - LIKELIKE HIGHWAY = 35 MPH, 45 MPH
    - KAHEKILI HIGHWAY = 35 MPH

ROBYN R. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
NO. 13480-C
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Robyn McKinney
SIGNATURE

04/30/26
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN NOTES

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: N/A Date: JUNE 2024

SHEET No. C-101 OF 7 SHEETS

W:_CIVIL 3D PROJECTS\2021_088.001 CONSOR WILSON TUNNEL\01 CE DWG\C-101 TO C-102 TRAFFIC CONTROL PLAN NOTES.DWG 7/3/2024 9:25 AM ZTULABUT

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	12	29

GENERAL NOTES FOR TRAFFIC CONTROL PLAN (CITY):

1. THE PERMITTEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
2. CONES OR DELINEATORS SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
3. 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.
4. REGULATORY AND WARNING SIGNS WITHIN THE CONSTRUCTION ZONE THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE REMOVED OR COVERED.
5. FLAGGERS AND/OR POLICE OFFICERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
6. WHEN REQUIRED BY THE ISSUING OFFICE, THE PERMITTEE SHALL INSTALL A FLASHING ARROW SIGNAL.
7. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
8. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
9. THE BACKS OF ALL SIGNS USED FOR TRAFFIC CONTROL SHALL BE APPROPRIATELY COVERED TO PRECLUDE THE DISPLAY OF INAPPLICABLE SIGN MESSAGES (I.E., WHEN SIGNS HAVE MESSAGES ON BOTH FACES).
10. LANE CLOSURE SHALL BE LIMITED ONLY TO THE EXTENT OF ACCOMPLISHING EACH DAY'S WORK. AS SOON AS EACH DAY'S 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 THE REVERSE OR OF INSTALLATION. EXISTING FADED OR OBLITERATED PAVEMENT MARKINGS THAT ARE NECESSARY FOR SAFE TRAFFIC FLOW IN THE CONSTRUCTION AREA SHALL BE REPLACED WITH TEMPORARY OR PERMANENT MARKINGS BEFORE OPENING THE ROADWAY TO PUBLIC TRAFFIC EACH DAY.
11. PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL BE REPLACED UPON COMPLETION OF EACH PHASE OF WORK.
12. CONES AND DELINEATORS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 20 FEET APART. A MINIMUM OF SIX CHANNELIZING DEVICES SHALL BE USED FOR EACH TAPER LENGTH.
13. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE DRIVEWAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHER, THE PERMITTEE SHALL CONTROL TRAFFIC GOING INTO AND OUT OF DRIVEWAYS.
14. BUFFER AND TAPER AREA ON APPROACH TO ANY WORK SHALL BE KEPT CLEAR OF VEHICLES AND EQUIPMENT.
15. A HIGH LEVEL WARNING DEVICE (FLAG TREE) SHALL BE INSTALLED ON APPROACH TO ALL WORK AREAS.
16. "NO PARKING" SIGNS SHALL BE POSTED WITHIN ANY WORK AREA AND FOR THE BUFFER AND TAPER AREAS APPROACHING THE WORK AREA.
17. WHERE AN ACCESSIBLE PEDESTRIAN ROUTE IS CLOSED OR BLOCKED DURING CONSTRUCTION, CONTRACTOR TO PROVIDE TEMPORARY, ACCESSIBLE PEDESTRIAN ROUTE.

DEPARTMENT OF TRANSPORTATION SERVICES (DTS) TRANSPORTATION MOBILITY DIVISION (TMD) NOTE:

THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION SERVICES TRANSPORTATION MOBILITY DIVISION (DTS-TMD) NO LESS THAN 30 DAYS PRIOR TO THE START DATE OF WORK.

NOTIFICATION IS REQUIRED TO ALL FOLLOWING PHONE NUMBERS AND EMAILS:

DTS-TMD
808-768-8396
TheBusStop@honolulu.gov
handivan@honolulu.gov

OAHU TRANSIT SERVICES - BUS OPERATIONS
808-768-9520
808-768-4565
John.Donovan@thebus.org
jvaoalii@thebus.org
FIELD-OPS-MGR@thebus.org

OAHU TRANSIT SERVICES - PARATRANSIT OPERATIONS
808-454-5006

ROBYN R. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
NO. 13480-C
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Robyn McKinney 04/30/26
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN NOTES

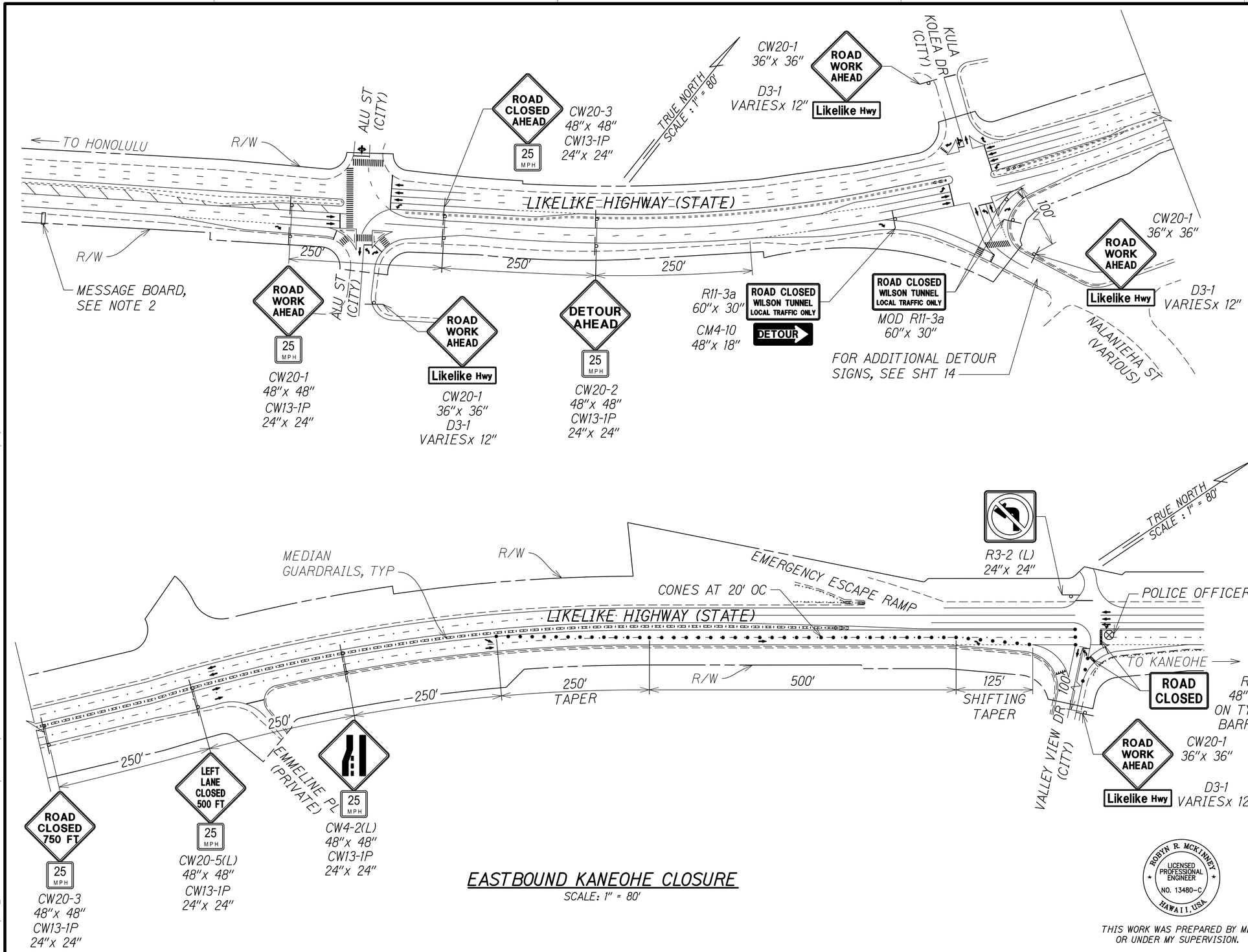
WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: N/A Date: JUNE 2024

SHEET No. C-102 OF 7 SHEETS

W:_CIVIL 3D PROJECTS\2021_088.001 CONSOR WILSON TUNNEL\01 CE DWG\C-101 TO C-102 TRAFFIC CONTROL PLAN NOTES.DWG 7/3/2024 9:25 AM ZTULABUT

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	13	29



EASTBOUND KANEOHE CLOSURE

SCALE: 1" = 80'

LEGEND:

- SIGN
- CONE OR DELINEATOR
- TYPE 3 BARRICADE
- DIRECTION OF TRAFFIC
- POLICE OFFICER
- MESSAGE BOARD

NOTES:

1. SIGNS PLACED IN THE MEDIAN SHALL BE MOUNTED ON THE CONCRETE BARRIER, IN BETWEEN MEDIAN GUARDRAILS OR IN MEDIAN SHOULDER IF WIDTH IS 6' OR MORE.
2. PROVIDE ADDITIONAL ELECTRONIC MESSAGE BOARDS AT ALL MAJOR ROADWAY APPROACHES TO ALERT DRIVERS TO USE ALTERNATE ROUTES (I.E. PALI HIGHWAY AND H-3). EXACT WORDING TO BE DETERMINED BY ENGINEER.

GRAPHIC SCALE:

80' 40' 0 80' 160'

SCALE: 1" = 80'

ROBYN R. MCKINNEY LICENSED PROFESSIONAL ENGINEER NO. 13480-C HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Robyn McKinney — SIGNATURE

04/30/26 — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

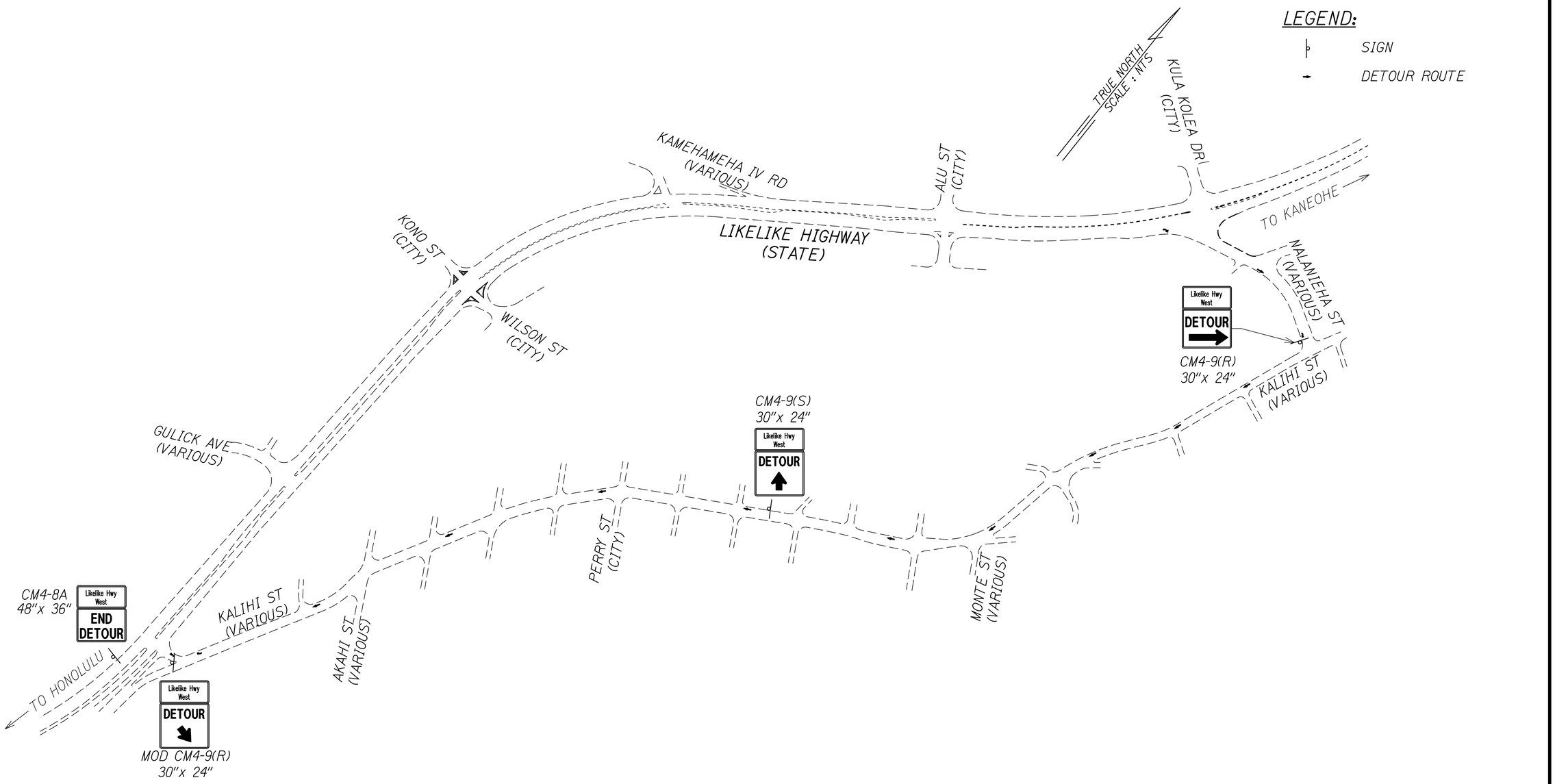
TRAFFIC CONTROL PLAN

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: 1" = 80' Date: JUNE 2024

SHEET No. C-103 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	14	29



DETOUR PLAN - EASTBOUND KANEOHE CLOSURE

NOT TO SCALE

ROBYN R. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
NO. 13480-C
HAWAII, USA

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Robyn McKinney — SIGNATURE

04/30/26 — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

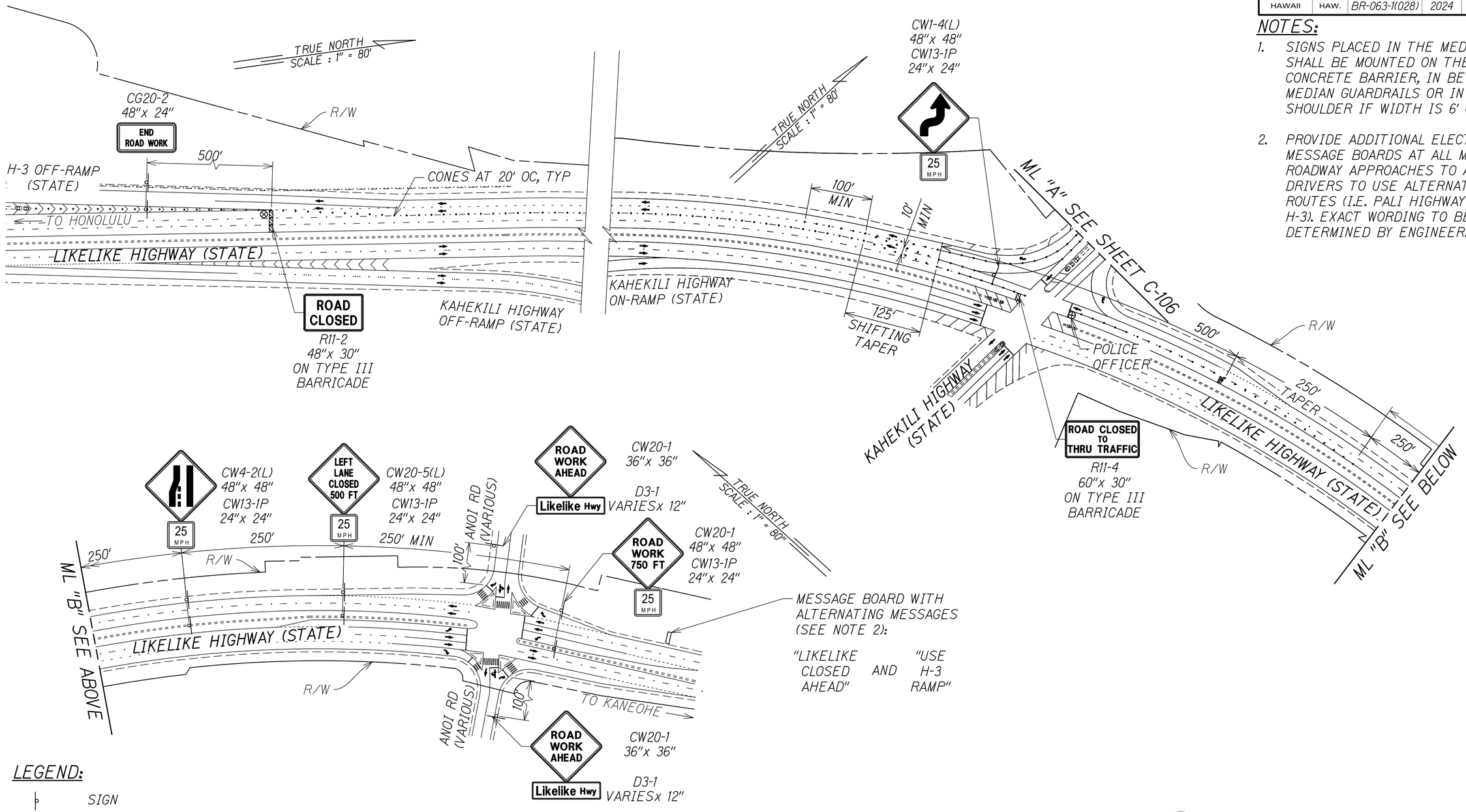
Scale: NOT TO SCALE Date: JUNE 2024

SHEET No. C-104 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	15	29

NOTES:

1. SIGNS PLACED IN THE MEDIAN SHALL BE MOUNTED ON THE CONCRETE BARRIER, IN BETWEEN MEDIAN GUARDRAILS OR IN MEDIAN SHOULDER IF WIDTH IS 6' OR MORE.
2. PROVIDE ADDITIONAL ELECTRONIC MESSAGE BOARDS AT ALL MAJOR ROADWAY APPROACHES TO ALERT DRIVERS TO USE ALTERNATE ROUTES (I.E. PALI HIGHWAY AND H-3). EXACT WORDING TO BE DETERMINED BY ENGINEER.



LEGEND:

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE
- MESSAGE BOARD
- POLICE OFFICER
- FLASHING ARROW SIGNAL

WESTBOUND KALIHI CLOSURE

GRAPHIC SCALE:

80' 40' 0 80' 160'

SCALE: 1" = 80'

ROBYN R. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
NO. 13480-C
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Robyn McKinney 04/30/26
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

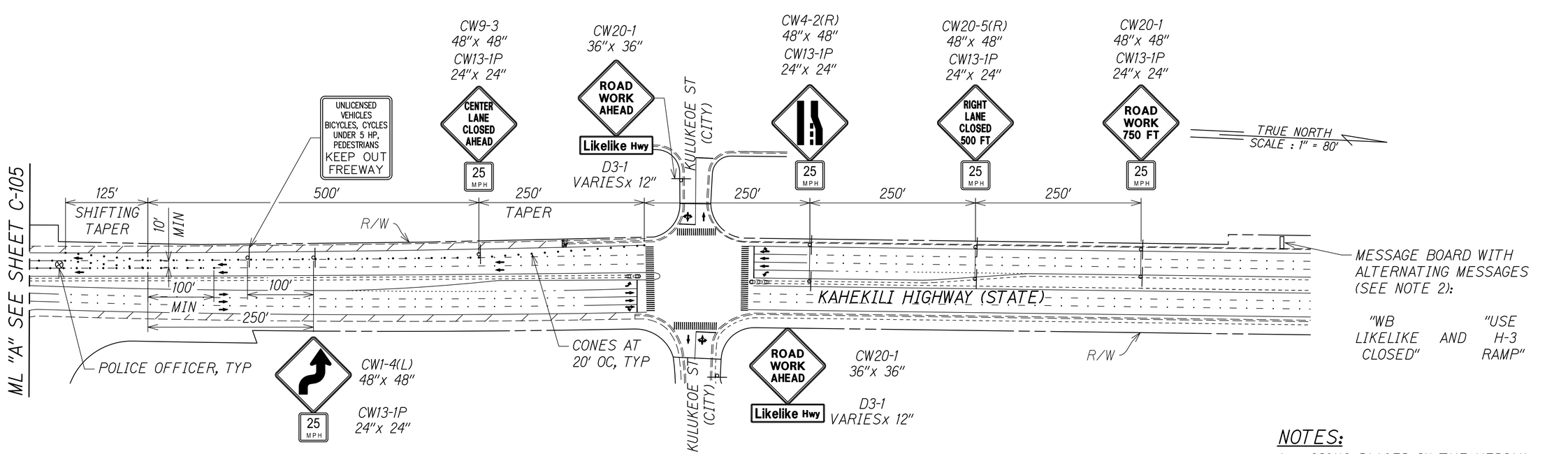
WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: 1" = 80' Date: JUNE 2024

SHEET No. C-105 OF 7 SHEETS

W:_CIVIL 3D PROJECTS\2021_088.001 CONSOR WILSON TUNNEL\01 CE DWG\C-105 TO C-106 TRAFFIC CONTROL PLAN ROAD CLOSURE TOWN BOUND.DWG 6/27/2024 1:37 PM ZTULABUT

FED. ROAD DIST. NO.	STATE	FED.-AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL SHEETS
HAWAII	HAW.	BR-063-1(028)	2024	16	29



WESTBOUND KALIHI CLOSURE

SCALE: 1" = 80'

NOTES:

1. SIGNS PLACED IN THE MEDIAN SHALL BE MOUNTED ON THE CONCRETE BARRIER, IN BETWEEN MEDIAN GUARDRAILS OR IN MEDIAN SHOULDER IF WIDTH IS 6' OR MORE.

2. PROVIDE ADDITIONAL ELECTRONIC MESSAGE BOARDS AT ALL MAJOR ROADWAY APPROACHES TO ALERT DRIVERS TO USE ALTERNATE ROUTES (I.E. PALI HIGHWAY AND H-3). EXACT WORDING TO BE DETERMINED BY ENGINEER.

LEGEND:

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- MESSAGE BOARD
- POLICE OFFICER
- FLASHING ARROW SIGNAL

GRAPHIC SCALE:

80' 40' 0 80' 160'

SCALE: 1" = 80'

ROBYN R. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
NO. 13480-C
HAWAII, USA

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Robyn McKinney
SIGNATURE

04/30/26
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: 1" = 80' Date: JUNE 2024

SHEET No. C-106 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	17	29

STRUCTURAL NOTES

1. GENERAL

   A. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING AS REQUIRED FOR THE STABILITY OF STRUCTURAL MEMBERS AND SYSTEMS.

   B. CONSTRUCTION LOADING SHALL NOT EXCEED DESIGN LIVE LOAD UNLESS SPECIAL SHORING IS PROVIDED. PERMITTED CONSTRUCTION LOADS SHALL BE PROPERLY REDUCED IN AREAS WHERE THE STRUCTURE HAS NOT ATTAINED FULL DESIGN STRENGTH INCLUDING THOSE AREAS WHERE STRENGTHENING HAS NOT YET BEEN PERMITTED.

2. CODES AND REFERENCES:

   A. CODES:

      1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020.

      2. AASHTO LRFD ROAD TUNNEL DESIGN AND CONSTRUCTION GUIDE SPECIFICATIONS, 1ST EDITION, 2017.

      3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) STEEL CONSTRUCTION MANUAL, FIFTEENTH EDITION, 2017.

      4. AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE REQUIRE FOR STRUCTURAL CONCRETE AND COMMENTARY, 2019.

      5. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) 7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES, 2016.

      6. HAWAII DEPARTMENT OF TRANSPORTATION DESIGN CRITERIA FOR BRIDGES AND STRUCTURES, AUGUST 8, 2014.

   B. REFERENCES:

      1. INBOUND TUNNEL RECORD DRAWINGS: KALIHI TUNNEL, SECTION C, JOB NO. 26-53, DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF HONOLULU, JULY 17, 1953.

      2. OUTBOUND TUNNEL RECORD DRAWINGS: WILSON TUNNEL 2ND BORE, DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF HONOLULU, AUGUST 12, 1957.

      3. PREVIOUS HANGER ROD REPAIR PLANS: LIKELIKE HIGHWAY JOHN H. WILSON TUNNELS EMERGENCY CEILING REPAIRS, DEPARTMENT OF TRANSPORTATION STATE OF HAWAII, SEPTEMBER 30, 2015.

      4. PREVIOUS HANGER ROD REPAIR PLANS: JOHN H. WILSON TUNNELS TEMPORARY HANGER ROD REPAIRS-AS-BUILT DRAWINGS, DEPARTMENT OF TRANSPORTATION STATE OF HAWAII, DECEMBER 16, 2022.

3. DESIGN CRITERIA:

   A. DEAD LOAD:

      1. EXISTING REINFORCED CONCRETE: 160 PCF

   B. LIVE LOAD (SEE DETAIL 1):

      1. PEDESTRIAN LIVE LOAD: 40 PSF

      2. TEMPORARY STORAGE LIVE LOAD: 20 PSF

   C. AIR PRESSURE (FROM VEHICULAR TRAFFIC): 10 PSF (ALTERNATING DIRECTIONS)

   D. SEISMIC (ASCE HAZARD TOOL; ASCE/SEI 7-22):

      1. SITE LOCATION: LATITUDE: 21.377743, LONGITUDE: -157.815061

      2. PEAK GROUND ACCELERATION (PGA): 0.30G

      3. SHORT-PERIOD SPECTRAL RESPONSE ACCELERATION (S_S): 0.54G

      4. 1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION (S_1): 0.16G

      5. SEISMIC DESIGN: CATEGORY D

      6. RISK CATEGORY: IV

      7. SOIL SITE CLASS: C-VERY DENSE SOIL AND SOFT ROCK.

4. MATERIALS:

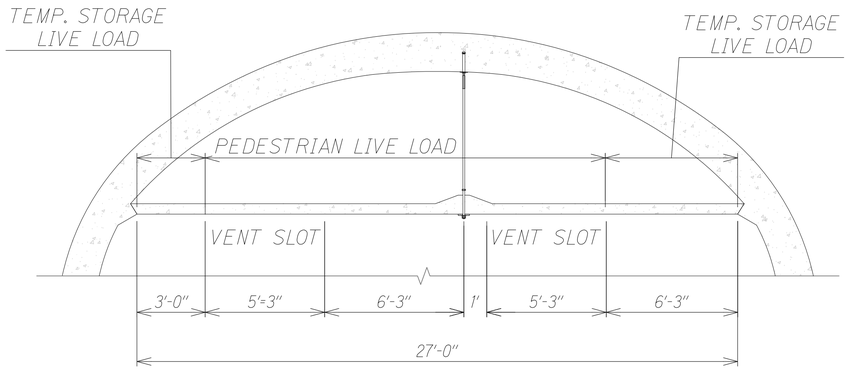
   A. EXISTING REINFORCED CONCRETE: 3,000 PSI

   B. NEW MATERIALS: FOR HANGER ROD ASSEMBLIES (I.E., UNDERCUT ANCHORS, ALL THREAD RODS, PLATE WASHERS, SLEEVE NUTS, AND HEX NUTS), DE NEEF SEALFOAM PURE, AND THE HANGER ROD CORROSION PROTECTION SYSTEM, SEE CONTRACTOR SPECIFICATIONS.

5. EXISTING CONCRETE:

   A. CONTRACTOR SHALL NOT DAMAGE, CUT, OR DRILL THROUGH EXISTING REINFORCING. IF REINFORCING IS DAMAGED, THE CONTRACTOR SHALL INFORM THE CONTRACTING OFFICER IMMEDIATELY AND SHALL BE RESPONSIBLE FOR REPAIRING THE DAMAGE AT CONTRACTOR'S SOLE EXPENSE AND TO THE SATISFACTION OF THE CONTRACTING OFFICER.

   B. PRIOR TO DRILLING OR CUTTING ANY CONCRETE SURFACE, CONTRACTOR SHALL SCAN CONCRETE WITH A RADAR DETECTION SYSTEM, GROUND-PENETRATING RADAR (GPR), OR SIMILAR TECHNOLOGY TO LOCATE AND AVOID DAMAGING EXISTING REINFORCING.



DETAIL 1 - LIVE LOAD DIAGRAM
(IB TUNNEL SHOWN, OB SIMILAR)

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

MATTHEW M VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

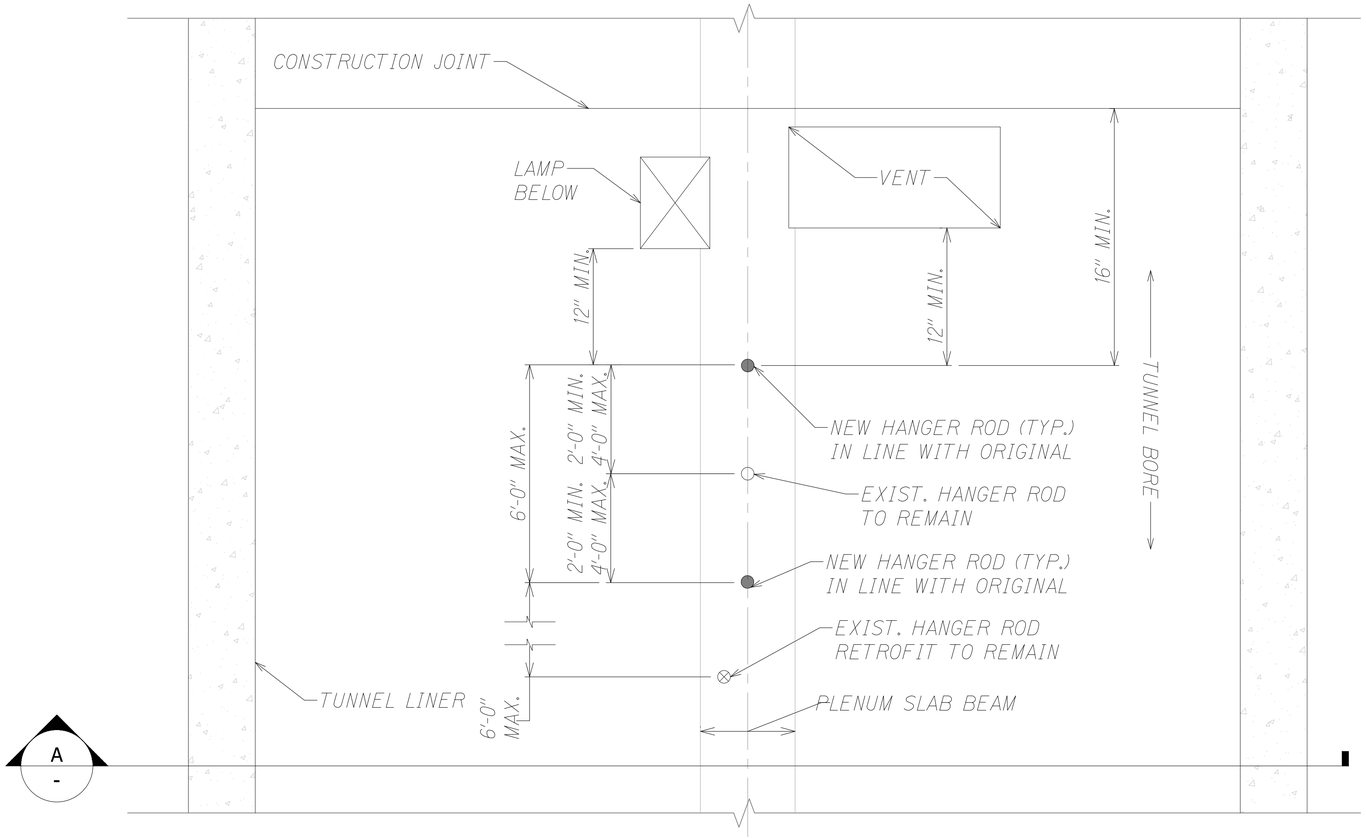
STRUCTURAL NOTES

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

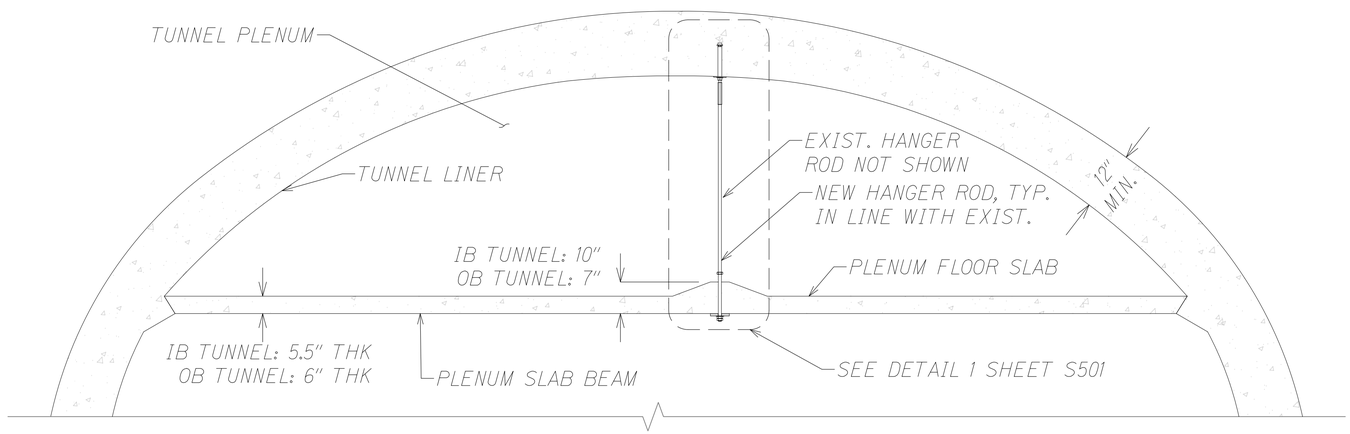
SHEET No. S-001 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	18	29



GENERAL PLAN VIEW - PLENUM FLOOR SLAB

NOT TO SCALE



SECTION A

NOT TO SCALE

NOTES:

HONOLULU BOUND TUNNEL (INBOUND) SHOWN,
KANEOHE BOUND TUNNEL (OUTBOUND) SIMILAR.

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

MATTHEW M VAGGIONE
LICENSED PROFESSIONAL ENGINEER
No.19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL PLENUM PLAN & SECTION

WILSON TUNNEL REPAIRS

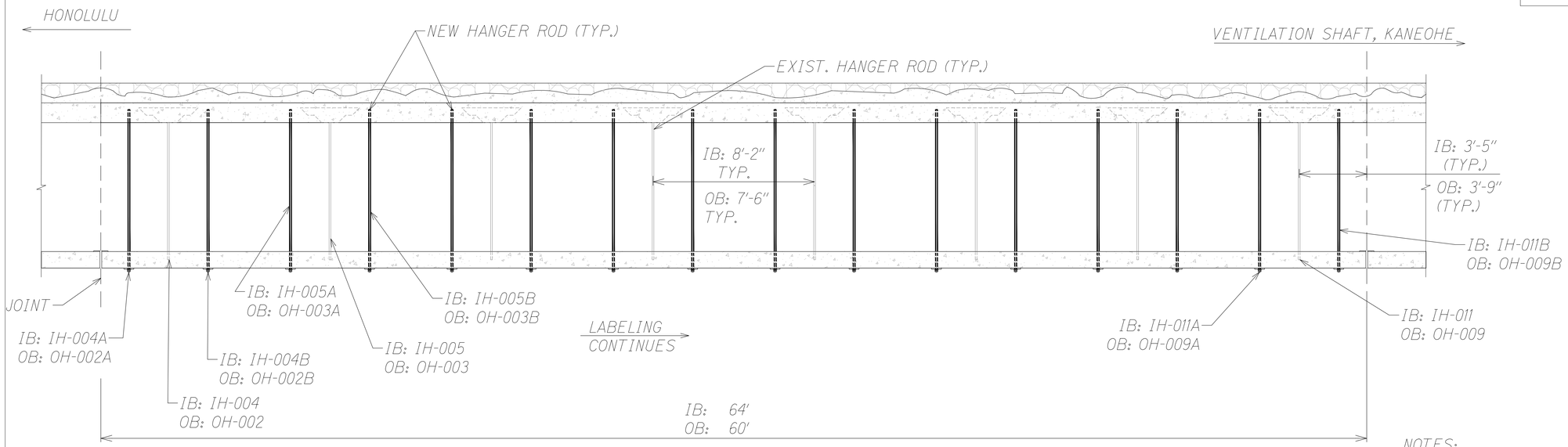
OAHU, HAWAII

PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-101 OF 13 SHEETS

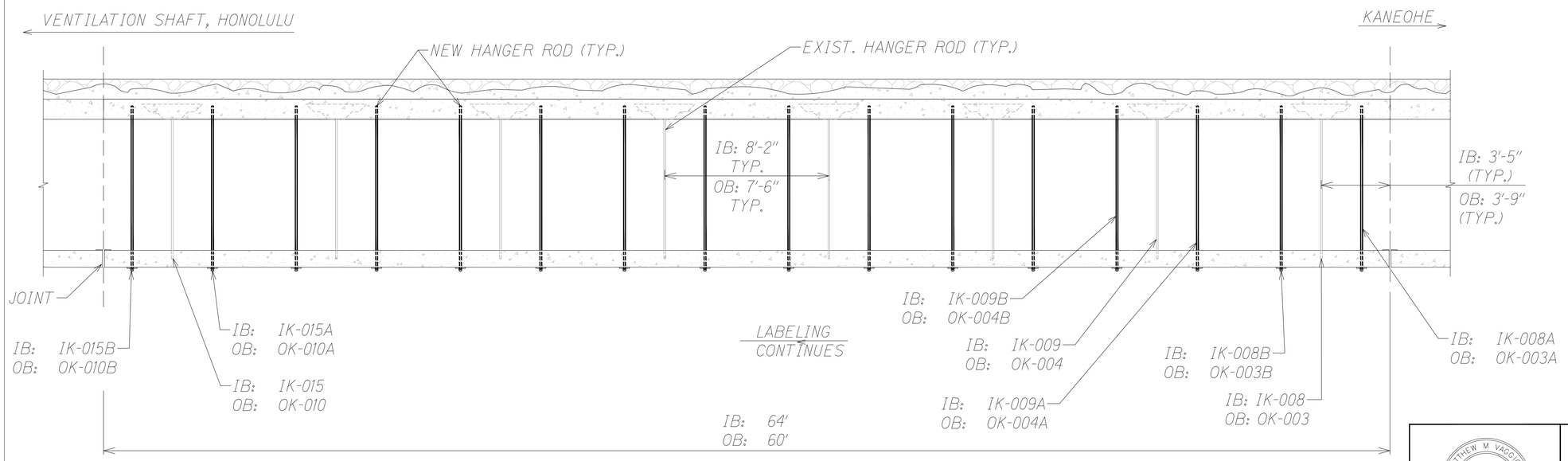
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	19	29



LONGITUDINAL SECTION - TYPICAL HONOLULU-SIDE PLENUM MODULE
(PLENUM MODULE # IH-MODULE-01 & OH-MODULE-01 SHOWN)
4" = 1'-0"

NOTES:

HONOLULU BOUND TUNNEL (INBOUND) SHOWN.
KANEOHE BOUND TUNNEL (OUTBOUND) SIMILAR.



LONGITUDINAL SECTION - TYPICAL KANEOHE-SIDE PLENUM MODULE
(PLENUM MODULE # IK-MODULE-42 & OK-MODULE-47 SHOWN)
4" = 1'-0"

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

MATTHEW M VASCONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

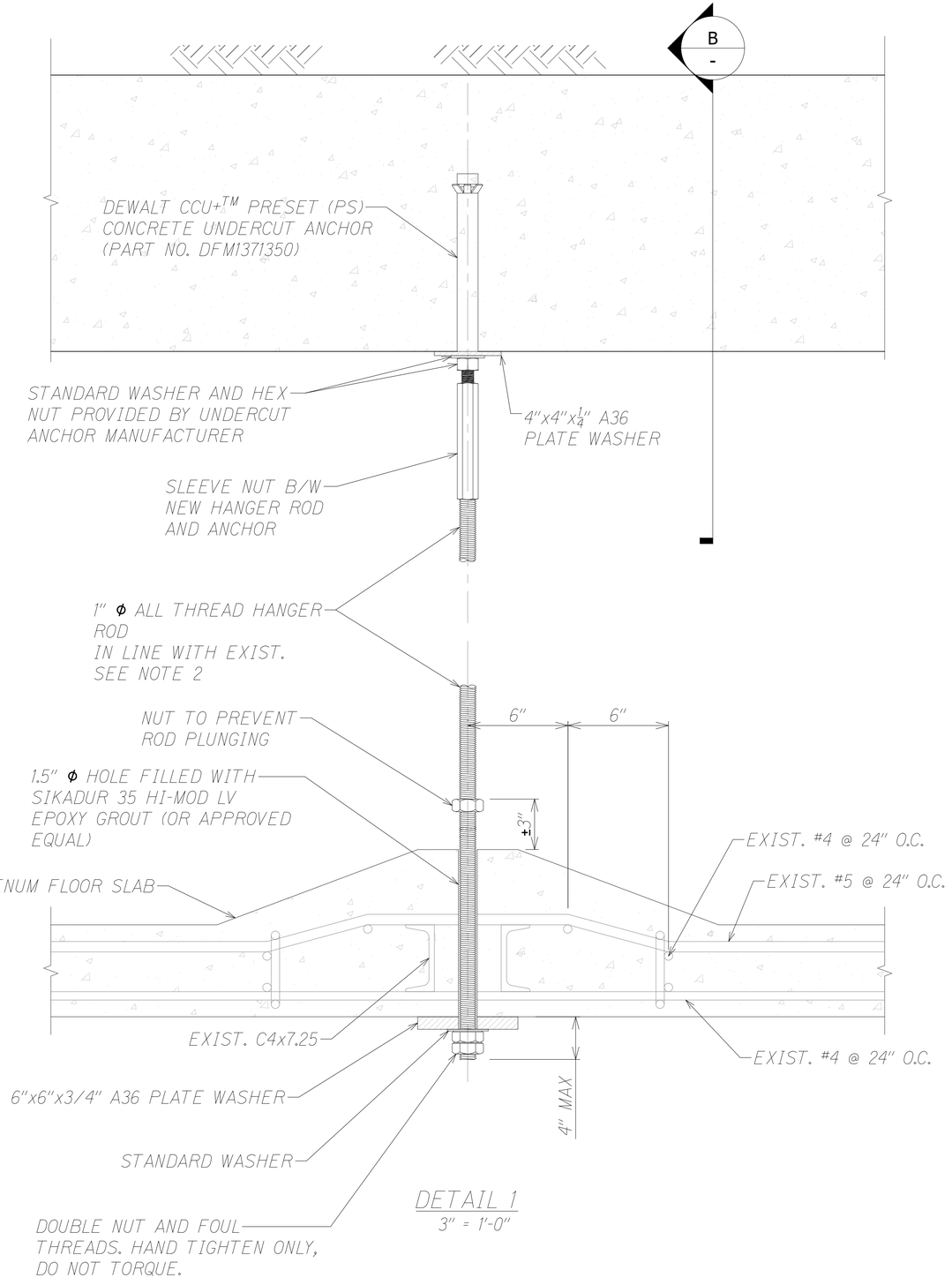
TUNNEL PLENUM LONGITUDINAL SECTIONS

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

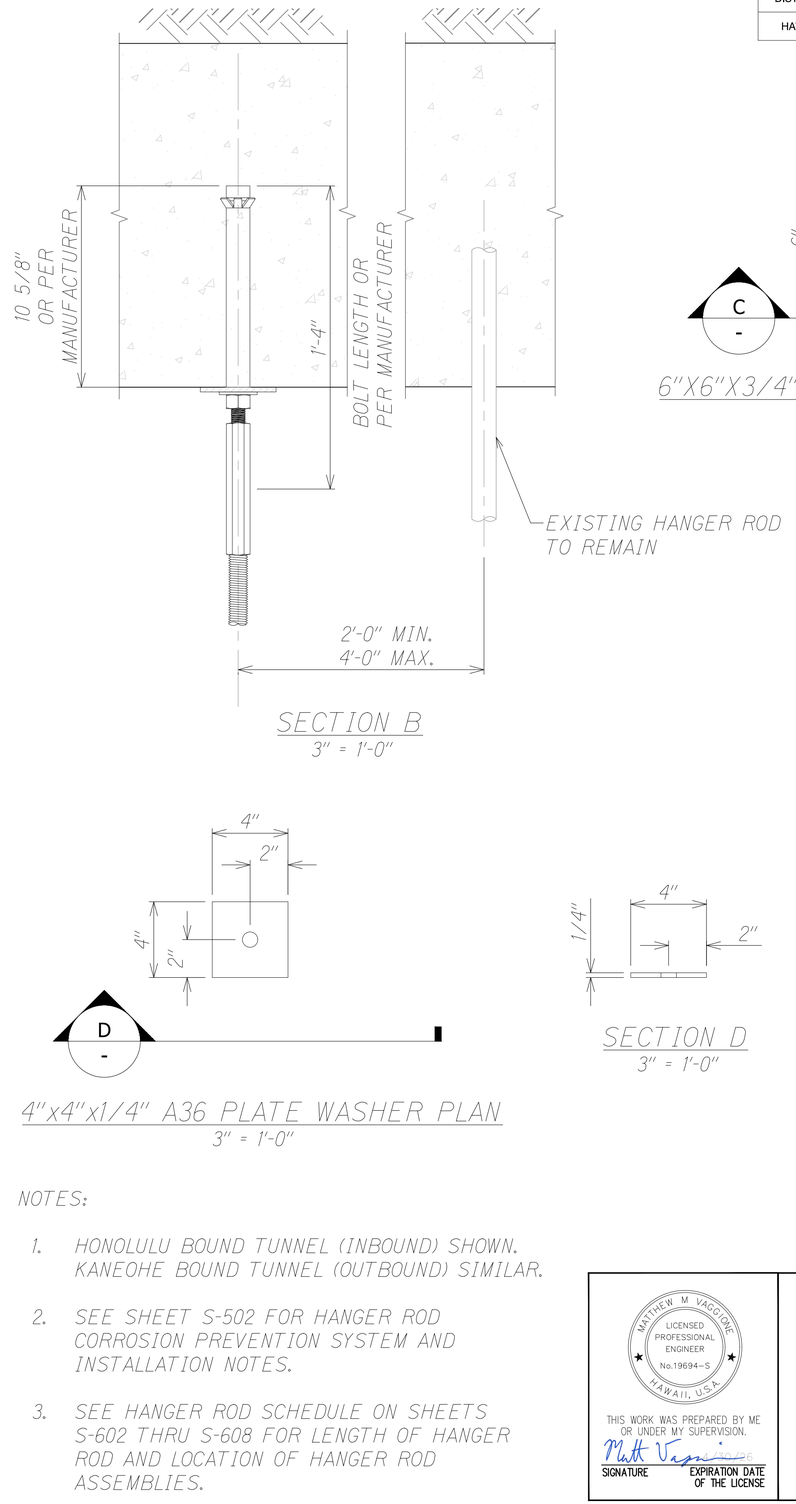
Scale: As Noted Date: JULY, 2024

SHEET No. S-302 OF 13 SHEETS

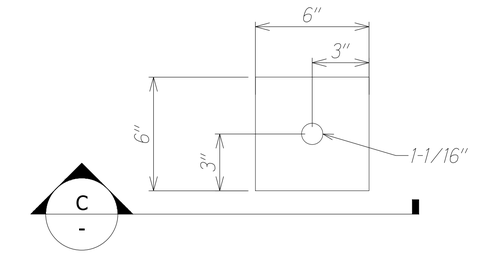
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	20	29



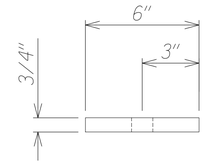
DETAIL 1
3" = 1'-0"



SECTION B
3" = 1'-0"



6"X6"X3/4" A36 PLATE WASHER - PLAN
3" = 1'-0"



SECTION C
3" = 1'-0"

4"x4"x1/4" A36 PLATE WASHER PLAN
3" = 1'-0"

SECTION D
3" = 1'-0"

NOTES:

1. HONOLULU BOUND TUNNEL (INBOUND) SHOWN. KANEOHE BOUND TUNNEL (OUTBOUND) SIMILAR.
2. SEE SHEET S-502 FOR HANGER ROD CORROSION PREVENTION SYSTEM AND INSTALLATION NOTES.
3. SEE HANGER ROD SCHEDULE ON SHEETS S-602 THRU S-608 FOR LENGTH OF HANGER ROD AND LOCATION OF HANGER ROD ASSEMBLIES.

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

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No.19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE | EXPIRATION DATE OF THE LICENSE

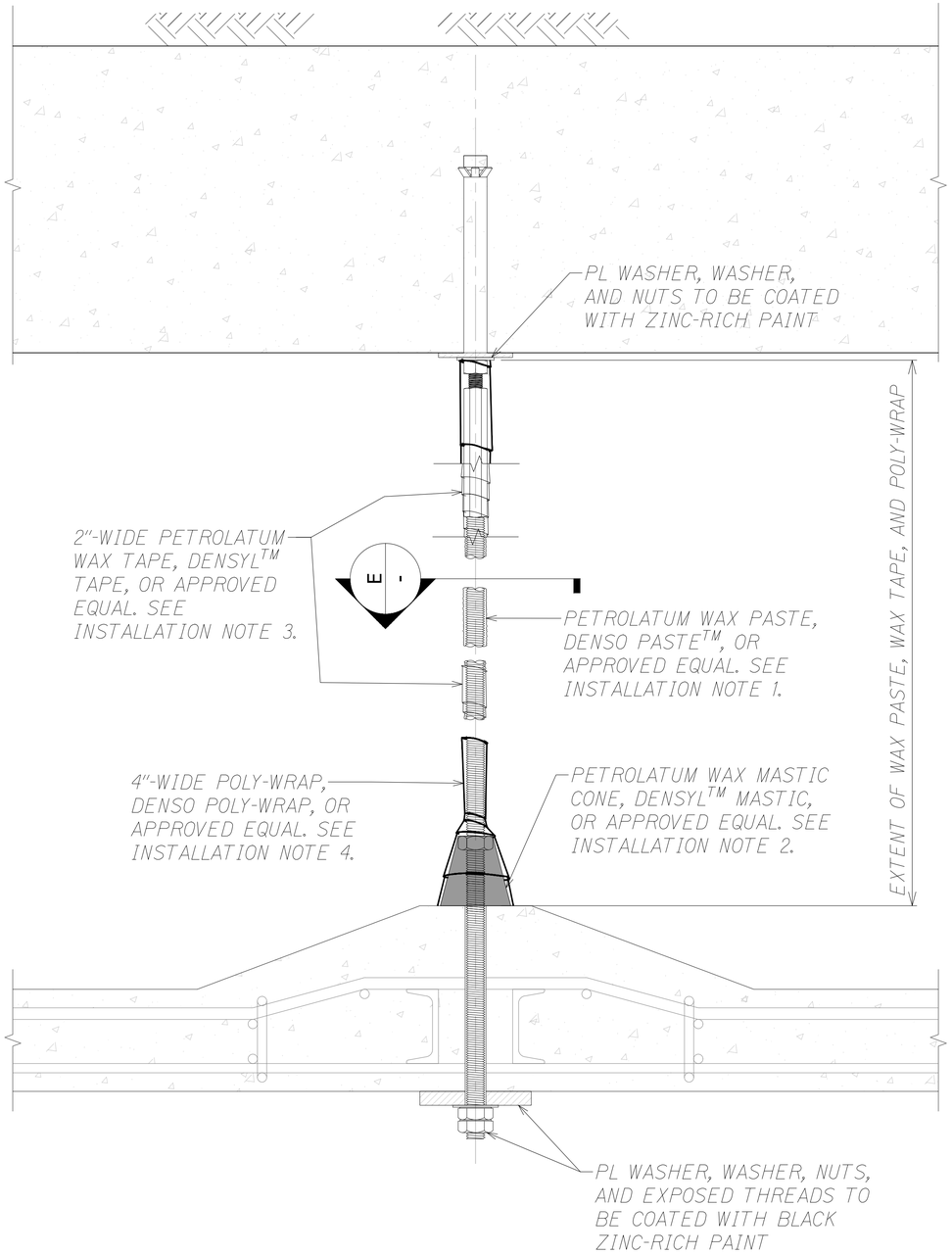
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD INSTALLATION DETAILS

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

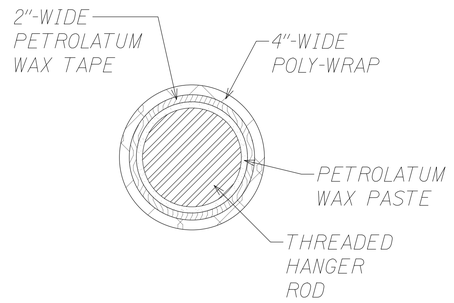
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	21	29



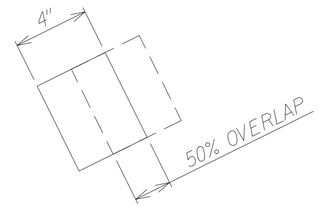
DETAIL 1
3" = 1'-0"

PETROLATED WAX CORROSION PREVENT. SYS. INSTALL NOTES:

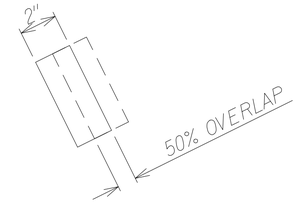
1. COAT HANGER ROD AND ASSOCIATED COMPONENTS AS SHOWN IN DETAIL 1 WITH DENSO PASTE™, OR APPROVED EQUAL PETROLATUM WAX PASTE. PASTE SHALL BE APPLIED SUCH THAT METAL SURFACES ARE COVERED INCLUDING VOIDS BETWEEN THREADS.
2. MOLD MASTIC CONE AS SHOWN IN DETAIL 1 AT ROD-PLENUM SLAB INTERFACE WITH DENSYL™ MASTIC (I.E, "PETROLATUM WAX MASTIC"), OR APPROVED EQUAL. MASTIC CONE SHALL COVER ROD AND BE SHAPED TO REPEL MOISTURE AWAY FROM CONCRETE INTERFACE AT BASE OF ROD.
3. WRAP ROD, UNDERCUT ANCHOR BOLT, AND HARDWARE WITH 2"-WIDE DENSYL™ TAPE (I.E., "PETROLATUM WAX TAPE"), OR APPROVED EQUAL, AS SHOWN IN DETAIL 1. WAX TAPE SHALL BE WRAPPED BEGINNING FROM THE BOTTOM IN AN OVERLAPPING HELICAL PATTERN WITH A MINIMUM 50% OVERLAP (SEE DETAIL). WRAPPING SHALL BE STARTED AND FINISHED WITH TWO (2) CIRCULAR WRAPS BEFORE/AFTER BEGINNING/ENDING HELICAL WRAP PATTERN. AFTER WAX TAPE IS INSTALLED, MANUALLY RUB TAPE IN A DOWNWARD MOTION TO SMOOTH WRINKLES AND SEAL TAPE LAYERS. EXCESS WAX PASTE SHALL BE REMOVED WITH A CLOTH.
4. WRAP WAX TAPE LAYER WITH 4"-WIDE DENSO POLY-WRAP, OR APPROVED EQUAL AS SHOWN IN DETAIL 1. POLY-WRAP SHALL BE WRAPPED BEGINNING FROM THE BOTTOM IN AN OVERLAPPING HELICAL PATTERN WITH A MINIMUM 50% OVERLAP (SEE DETAIL). WRAPPING SHALL BE STARTED AND FINISHED WITH THREE (3) CIRCULAR WRAPS BEFORE/AFTER BEGINNING/ENDING HELICAL WRAP PATTERN.
5. SEE EXISTING RETROFIT HANGER ROD IK-26B FOR AN EXAMPLE OF A FINISHED WAX TAPE WRAP SYSTEM.



SECTION E PLAN VIEW
NO SCALE



POLY-WRAP APPLICATION DETAIL
3" = 1'-0"



WAX TAPE APPLICATION DETAIL
3" = 1'-0"

LEGEND

- 4"-WIDE POLY-WRAP
- 2"-WIDE PETROLATUM WAX TAPE
- THREADED HANGER ROD
- PETROLATUM WAX PASTE

NOTES:

HONOLULU BOUND TUNNEL (INBOUND) SHOWN.
KANEOHE BOUND TUNNEL (OUTBOUND) SIMILAR.

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

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD CORROSION PREVENTION SYSTEM DETAILS

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-502 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	22	29

INBOUND TUNNEL				
-	NO. OF ORIGINAL HANGER RODS	NO. OF EXISITING HANGER ROD RETROFITS	NO. OF PROPOSED HANGER ROD RETROFITS	NO. OF PLENUM SLAB MODULES
IK	228	106	314	28
IH	111	14	204	15
TOTAL	339	120	518	43

OUTBOUND TUNNEL				
-	NO. OF ORIGINAL HANGER RODS	NO. OF EXISITING HANGER ROD RETROFITS	NO. OF PROPOSED HANGER ROD RETROFITS	NO. OF PLENUM SLAB MODULES
OH	124	1	246	17
OK	250	1	498	33
TOTAL	374	2	744	50

TUNNEL TOTAL				
-	NO. OF ORIGINAL HANGER RODS	NO. OF EXISITING HANGER ROD RETROFITS	NO. OF PROPOSED HANGER ROD RETROFITS	NO. OF PLENUM SLAB MODULES
-	713	122	1262	93

NOTE 2: THIS CONTRACT REQUIRES THE INSTALLATION OF 1,262 PROPOSED HANGER RODS TOTAL, 518 IN THE IB TUNNEL AND 744 IN THE OB TUNNEL.

LIST OF EXISTING RETROFIT 1.5" Ø PLENUM SLAB HOLES REQUIRING FILL				
HANGER ROD ID	MODULE ID	STATUS	X (in.)	Y (in.)
IH-068L	IH-MODULE-09	EXISTING RETROFIT ROD	2	-13
IH-068R	IH-MODULE-09	EXISTING RETROFIT ROD	1	8
IK-214R	IK-MODULE-17	EXISTING RETROFIT ROD	-8	8
IK-214L	IK-MODULE-17	EXISTING RETROFIT ROD	-8	-8
IK-209R	IK-MODULE-17	EXISTING RETROFIT ROD	-1.5	8
IK-205R	IK-MODULE-18	EXISTING RETROFIT ROD	1	8
IK-205L	IK-MODULE-18	EXISTING RETROFIT ROD	1	-8
IK-193R	IK-MODULE-19	EXISTING RETROFIT ROD	-1.5	9
IK-189R	IK-MODULE-20	EXISTING RETROFIT ROD	3	8
IK-189L	IK-MODULE-20	EXISTING RETROFIT ROD	3	-8
IK-177R	IK-MODULE-21	EXISTING RETROFIT ROD	0	8
IK-134R	IK-MODULE-27	EXISTING RETROFIT ROD	-1	9.5
IK-124R	IK-MODULE-28	EXISTING RETROFIT ROD	-3	8
IK-049R	IK-MODULE-37	EXISTING RETROFIT ROD	-16	7
IK-049L	IK-MODULE-37	EXISTING RETROFIT ROD	7	-8

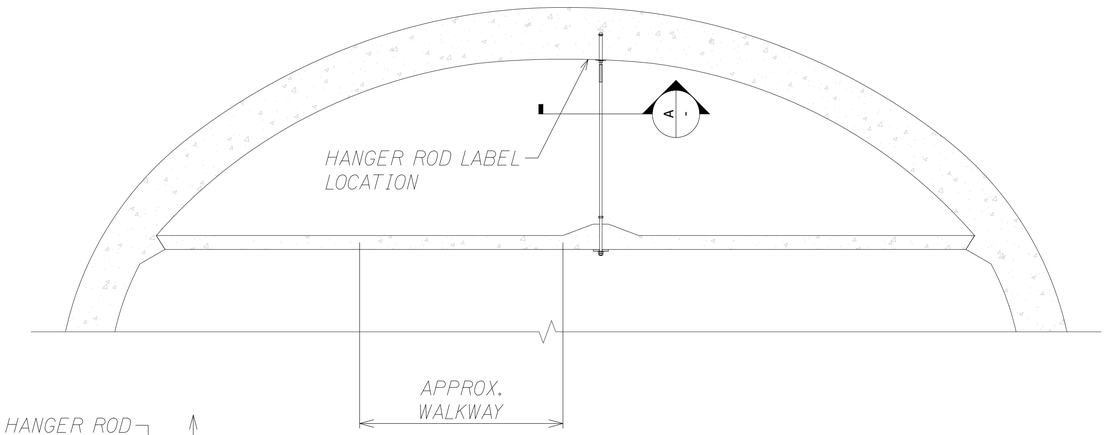
NOTE: SEE SHEET S-501 DETAIL 1 FOR DETAILS OF PLENUM SLAB HOLES REQUIRING FILL.

BILL OF HANGER ROD ASSEMBLY MATERIALS				
ITEM NO.	ITEM	TOTAL QUANTITY REQUIRED	QUANTITY PROVIDED BY THE STATE	CONTRACTOR TO PROCURE
1	UNDERCUT ANCHORS (DEWALT PART NO. DFM1371350)	1,262	1,262	–
2	ALL THREAD ROD, 1" DIAMETER, 73" LENGTH	204	204	–
3	ALL THREAD ROD, 1" DIAMETER, 78" LENGTH	740	740	–
4	ALL THREAD ROD, 1" DIAMETER, 88" LENGTH	229	229	–
5	ALL THREAD ROD, 1" DIAMETER, 91" LENGTH	85	85	–
6	ALL THREAD ROD, 1" DIAMETER, 130" LENGTH	4	4	–
7	STEEL PLATE, 4"X4"X1/4"	1,262	1,262	–
8	STEEL PLATE, 6"X6"X3/4"	1,262	1,262	–
9	SLEEVE NUTS, 1" ROD DIAMETER TO 3/4" ANCHOR BOLT DIAMETER	1,262	1,262	–
10	HEAVY HEX NUTS, 1" ROD DIAMETER	3,786	3,786	–
11	WASHER, ID: 1-1/16", OD: 2-1/2", THK: 0.165"	1,262	1,262	–
12	UNDERCUT ANCHOR INSTALLATION EQUIPMENT: UNDERCUT HOLLOW STOP BIT (DEWALT PART NO. DFX11340)	–	7	SEE NOTE 1
13	UNDERCUT ANCHOR INSTALLATION EQUIPMENT: HOLLOW UNDERCUT BIT (DEWALT PART NO. DFX21340)	–	2	SEE NOTE 1
14	UNDERCUT ANCHOR INSTALLATION EQUIPMENT: UNDERCUT BIT CUTTER BLADES (DEWALT PART NO. DFX213440)	–	14	SEE NOTE 1
15	UNDERCUT ANCHOR INSTALLATION EQUIPMENT: UNDERCUT BIT BOW JAWS (DEWALT PART NO. DFX213422)	–	5	SEE NOTE 1
16	UNDERCUT ANCHOR INSTALLATION EQUIPMENT: UNDERCUT POWERED SETTING TOOL (DEWALT PART NO. DFX313440 (SDS-MAX))	–	4	SEE NOTE 1

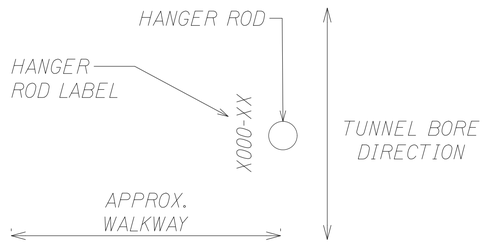
NOTE 1: THE QUANTITIES LISTED FOR UNDERCUT ANCHOR INSTALLATION EQUIPMENT ARE PROVIDED BY THE STATE TO THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE NECESSARY QUANTITY OF UNDERCUT ANCHOR INSTALLATION TOOLS, EQUIPMENT, AND PARTS ARE AVAILABLE TO COMPLETE THE WORK, AND THAT ALL APPROPRIATE INSTALLATION TOOLS, EQUIPMENT, AND PARTS MEET THE MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. ANY ADDITIONAL QUANTITY OF UNDERCUT ANCHOR INSTALLATION TOOLS, EQUIPMENT, AND PARTS THE CONTRACTOR DEEMS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN BID ITEM 660.0100.

HANGER ROD LABELING

CONTRACTOR SHALL LABEL EACH EXISTING AND NEW HANGER ROD USING FLUORESCENT YELLOW PAINT. LABEL FORMAT SHALL BE "XX-000X" AND CONSISTENT WITH THE OTHER PLAN SHEETS HEREIN. LETTERING SHALL BE 1.5 IN. HIGH AND IN STENCIL FORM. LABELS SHALL BE LOCATED ON THE PLENUM CEILING (LINER) ADJACENT TO THE HANGER ROD IN A MANNER THAT IS EASILY VIEWED FROM THE WALKING PATH (SEE DETAIL 1).



DETAIL 1



SECTION A REFLECTIVE PLAN VIEW

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
SIGNATURE
EXPIRATION DATE OF THE LICENSE

MATTHEW M. VACCIONE LICENSED PROFESSIONAL ENGINEER No.19694-S HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD SUMMARY TABLES

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-601 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	23	29

HANGER ROD INSTALLATION SCHEDULE

HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
IH-001A	IH-MODULE-HP	73		
IH-001BL	IH-MODULE-HP	EXISTING RETROFIT ROD	-12	13
IH-002A	IH-MODULE-HP	73		
IH-002B	IH-MODULE-HP	73		
IH-003A	IH-MODULE-HP	73		
IH-003B	IH-MODULE-HP	73		
IH-004A	IH-MODULE-01	73		
IH-004B	IH-MODULE-01	73		
IH-005A	IH-MODULE-01	73		
IH-005B	IH-MODULE-01	73		
IH-006A	IH-MODULE-01	73		
IH-006B	IH-MODULE-01	73		
IH-007A	IH-MODULE-01	73		
IH-007B	IH-MODULE-01	73		
IH-008A	IH-MODULE-01	73		
IH-008B	IH-MODULE-01	73		
IH-009A	IH-MODULE-01	73		
IH-009B	IH-MODULE-01	73		
IH-010A	IH-MODULE-01	73		
IH-010B	IH-MODULE-01	73		
IH-011A	IH-MODULE-01	73		
IH-011B	IH-MODULE-01	73		
IH-012A	IH-MODULE-02	EXISTING RETROFIT ROD	0	-28
IH-012B	IH-MODULE-02	73		
IH-013A	IH-MODULE-02	73		
IH-013B	IH-MODULE-02	73		
IH-014A	IH-MODULE-02	73		
IH-014B	IH-MODULE-02	73		
IH-015A	IH-MODULE-02	73		
IH-015B	IH-MODULE-02	73		
IH-016L	IH-MODULE-02	EXISTING RETROFIT ROD	-20	0
IH-016R	IH-MODULE-02	EXISTING RETROFIT ROD	8	0
IH-017A	IH-MODULE-02	73		
IH-017B	IH-MODULE-02	73		
IH-018A	IH-MODULE-02	73		
IH-018B	IH-MODULE-02	73		
IH-019A	IH-MODULE-02	73		
IH-019B	IH-MODULE-02	73		
IH-020A	IH-MODULE-03	73		
IH-020B	IH-MODULE-03	73		
IH-021L	IH-MODULE-03	EXISTING RETROFIT ROD	-15	-1
IH-021R	IH-MODULE-03	EXISTING RETROFIT ROD	8	0
IH-022A	IH-MODULE-03	73		
IH-022B	IH-MODULE-03	73		
IH-023A	IH-MODULE-03	73		
IH-023B	IH-MODULE-03	73		
IH-024A	IH-MODULE-03	73		
IH-024B	IH-MODULE-03	73		
IH-025A	IH-MODULE-03	73		
IH-025B	IH-MODULE-03	73		
IH-026A	IH-MODULE-03	73		
IH-026B	IH-MODULE-03	73		
IH-027A	IH-MODULE-03	73		
IH-027B	IH-MODULE-03	73		
IH-028A	IH-MODULE-04	73		
IH-028B	IH-MODULE-04	73		
IH-029A	IH-MODULE-04	73		
IH-029B	IH-MODULE-04	73		
IH-030A	IH-MODULE-04	73		
IH-030B	IH-MODULE-04	73		
IH-031A	IH-MODULE-04	73		
IH-031B	IH-MODULE-04	73		
IH-032A	IH-MODULE-04	73		
IH-032B	IH-MODULE-04	73		
IH-033A	IH-MODULE-04	73		
IH-033B	IH-MODULE-04	73		
IH-034A	IH-MODULE-04	73		
IH-034B	IH-MODULE-04	73		
IH-035A	IH-MODULE-04	EXISTING RETROFIT ROD	0	-26
IH-035B	IH-MODULE-04	73		
IH-036A	IH-MODULE-05	73		
IH-036B	IH-MODULE-05	73		
IH-037A	IH-MODULE-05	73		
IH-037B	IH-MODULE-05	73		
IH-038A	IH-MODULE-05	73		
IH-038B	IH-MODULE-05	EXISTING RETROFIT ROD	0	32
IH-039A	IH-MODULE-05	73		
IH-039B	IH-MODULE-05	73		
IH-040A	IH-MODULE-05	EXISTING RETROFIT ROD	7.5	-26
IH-040B	IH-MODULE-05	73		
IH-041A	IH-MODULE-05	73		
IH-041B	IH-MODULE-05	73		
IH-042A	IH-MODULE-05	73		
IH-042B	IH-MODULE-05	73		
IH-043A	IH-MODULE-05	73		
IH-043B	IH-MODULE-05	73		
IH-044L	IH-MODULE-06	EXISTING RETROFIT ROD	-16	-2
IH-044R	IH-MODULE-06	EXISTING RETROFIT ROD	8	-2
IH-045A	IH-MODULE-06	73		
IH-045B	IH-MODULE-06	73		
IH-046A	IH-MODULE-06	EXISTING RETROFIT ROD	10	-32
IH-046B	IH-MODULE-06	73		
IH-047A	IH-MODULE-06	73		
IH-047B	IH-MODULE-06	73		
IH-048A	IH-MODULE-06	73		
IH-048B	IH-MODULE-06	73		
IH-049A	IH-MODULE-06	73		
IH-049B	IH-MODULE-06	73		
IH-050A	IH-MODULE-06	73		
IH-050B	IH-MODULE-06	73		
IH-051A	IH-MODULE-06	73		
IH-051B	IH-MODULE-06	73		
IH-052A	IH-MODULE-07	73		
IH-052B	IH-MODULE-07	73		
IH-053A	IH-MODULE-07	73		
IH-053B	IH-MODULE-07	73		
IH-054A	IH-MODULE-07	73		
IH-054B	IH-MODULE-07	73		
IH-055A	IH-MODULE-07	73		
IH-055B	IH-MODULE-07	73		
IH-056A	IH-MODULE-07	73		
IH-056B	IH-MODULE-07	73		
IH-057A	IH-MODULE-07	73		
IH-057B	IH-MODULE-07	EXISTING RETROFIT ROD	0	30
IH-058A	IH-MODULE-07	73		
IH-058B	IH-MODULE-07	73		
IH-059A	IH-MODULE-07	73		
IH-059B	IH-MODULE-07	73		
IH-060A	IH-MODULE-08	73		
IH-060B	IH-MODULE-08	73		
IH-061A	IH-MODULE-08	73		
IH-061B	IH-MODULE-08	73		
IH-062A	IH-MODULE-08	73		
IH-062B	IH-MODULE-08	73		
IH-063A	IH-MODULE-08	73		
IH-063B	IH-MODULE-08	73		
IH-064A	IH-MODULE-08	73		
IH-064B	IH-MODULE-08	73		
IH-065A	IH-MODULE-08	73		
IH-065B	IH-MODULE-08	73		
IH-066A	IH-MODULE-08	73		
IH-066B	IH-MODULE-08	73		
IH-067A	IH-MODULE-08	73		
IH-067B	IH-MODULE-08	73		
IH-068L	IH-MODULE-09	EXISTING RETROFIT ROD	-13	2
IH-068R	IH-MODULE-09	EXISTING RETROFIT ROD	8	1
IH-069A	IH-MODULE-09	73		
IH-069B	IH-MODULE-09	73		
IH-070A	IH-MODULE-09	EXISTING RETROFIT ROD	8	-30
IH-070B	IH-MODULE-09	73		
IH-071A	IH-MODULE-09	73		
IH-071B	IH-MODULE-09	73		
IH-072A	IH-MODULE-09	73		
IH-072B	IH-MODULE-09	73		
IH-073A	IH-MODULE-09	73		
IH-073B	IH-MODULE-09	73		
IH-074A	IH-MODULE-09	73		
IH-074B	IH-MODULE-09	73		
IH-075A	IH-MODULE-09	73		
IH-075B	IH-MODULE-09	73		
IH-076A	IH-MODULE-10	73		
IH-076B	IH-MODULE-10	73		
IH-077A	IH-MODULE-10	73		
IH-077B	IH-MODULE-10	73		
IH-078A	IH-MODULE-10	73		
IH-078B	IH-MODULE-10	73		
IH-079A	IH-MODULE-10	73		
IH-079B	IH-MODULE-10	73		
IH-080A	IH-MODULE-10	73		
IH-080B	IH-MODULE-10	73		
IH-081A	IH-MODULE-10	73		
IH-081B	IH-MODULE-10	73		
IH-082A	IH-MODULE-10	73		
IH-082B	IH-MODULE-10	73		
IH-083A	IH-MODULE-10	73		
IH-083B	IH-MODULE-10	73		
IH-084A	IH-MODULE-11	73		
IH-084B	IH-MODULE-11	73		
IH-085A	IH-MODULE-11	73		
IH-085B	IH-MODULE-11	73		
IH-086A	IH-MODULE-11	73		
IH-086B	IH-MODULE-11	73		
IH-087A	IH-MODULE-11	73		
IH-087B	IH-MODULE-11	73		
IH-088A	IH-MODULE-11	73		
IH-088B	IH-MODULE-11	73		
IH-089A	IH-MODULE-11	EXISTING RETROFIT ROD	0	-39
IH-089B	IH-MODULE-11	73		
IH-090A	IH-MODULE-11	73		
IH-090B	IH-MODULE-11	73		
IH-091A	IH-MODULE-11	73		
IH-091B	IH-MODULE-11	73		
IH-092A	IH-MODULE-12	73		
IH-092B	IH-MODULE-12	73		
IH-093A	IH-MODULE-12	73		
IH-093B	IH-MODULE-12	73		
IH-094A	IH-MODULE-12	73		
IH-094B	IH-MODULE-12	73		
IH-095A	IH-MODULE-12	73		
IH-095B	IH-MODULE-12	73		
IH-096A	IH-MODULE-12	73		
IH-096B	IH-MODULE-12	73		
IH-097A	IH-MODULE-12	73		
IH-097B	IH-MODULE-12	73		
IH-098A	IH-MODULE-12	73		
IH-098B	IH-MODULE-12	73		
IH-099A	IH-MODULE-12	73		
IH-099B	IH-MODULE-12	73		
IH-100A	IH-MODULE-13	73		
IH-100B	IH-MODULE-13	73		
IH-101A	IH-MODULE-13	73		
IH-101B	IH-MODULE-13	73		
IH-102A	IH-MODULE-13	73		
IH-102B	IH-MODULE-13	73		
IH-103A	IH-MODULE-13	73		
IH-103B	IH-MODULE-13	73		
IH-104A	IH-MODULE-13	73		
IH-104B	IH-MODULE-13	73		
IH-105A	IH-MODULE-13	73		
IH-105B	IH-MODULE-13	73		
IH-106A	IH-MODULE-13	73		
IH-106B	IH-MODULE-13	73		
IH-107AR	IH-MODULE-13	EXISTING RETROFIT ROD	8	-7
IH-107B	IH-MODULE-13	73		
IH-108A	IH-MODULE-14	73		
IH-108B	IH-MODULE-14	73		
IH-109A	IH-MODULE-14	73		
IH-109B	IH-MODULE-14	73		
IH-110A	IH-MODULE-14	73		
IH-110B	IH-MODULE-14	73		
IH-111A	IH-MODULE-14	73		
IH-111B	IH-MODULE-14	73		
VENTILATION SHAFT				
IK-228B	IK-MODULE-15	91		
IK-228A	IK-MODULE-15	91		
IK-227B	IK-MODULE-15	91		
IK-227A	IK-MODULE-15	91		
IK-226B	IK-MODULE-15	91		

NOTES

1. LOCATION OF EXISTING RETROFIT RODS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF ORIGINAL AND EXISTING RETROFIT RODS AS AS NEEDED.
2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

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

MATTHEW M VACCIONE
LICENSED PROFESSIONAL ENGINEER
No.19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD INBOUND SCHEDULE 1

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-602 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	24	29

HANGER ROD INSTALLATION SCHEDULE

HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
IK–226A	IK–MODULE–15	91		
IK–225B	IK–MODULE–15	91		
IK–225A	IK–MODULE–15	91		
IK–224B	IK–MODULE–15	91		
IK–224A	IK–MODULE–15	91		
IK–223B	IK–MODULE–16	91		
IK–223A	IK–MODULE–16	91		
IK–222B	IK–MODULE–16	91		
IK–222A	IK–MODULE–16	91		
IK–221B	IK–MODULE–16	91		
IK–221A	IK–MODULE–16	91		
IK–220B	IK–MODULE–16	91		
IK–220A	IK–MODULE–16	91		
IK–219B	IK–MODULE–16	91		
IK–219A	IK–MODULE–16	EXISTING RETROFIT ROD	0	–38
IK–218B	IK–MODULE–16	EXISTING RETROFIT ROD	0	16
IK–218A	IK–MODULE–16	91		
IK–217B	IK–MODULE–16	91		
IK–217A	IK–MODULE–16	91		
IK–216B	IK–MODULE–16	91		
IK–216A	IK–MODULE–16	91		
IK–215B	IK–MODULE–17	91		
IK–215A	IK–MODULE–17	91		
IK–214R	IK–MODULE–17	EXISTING RETROFIT ROD	8	–8
IK–214L	IK–MODULE–17	EXISTING RETROFIT ROD	–8	–8
IK–213R	IK–MODULE–17	EXISTING RETROFIT ROD	10	1
IK–213L	IK–MODULE–17	EXISTING RETROFIT ROD	–10	1
IK–212B	IK–MODULE–17	91		
IK–212A	IK–MODULE–17	91		
IK–211B	IK–MODULE–17	91		
IK–211A	IK–MODULE–17	91		
IK–210B	IK–MODULE–17	91		
IK–210A	IK–MODULE–17	91		
IK–209R	IK–MODULE–17	EXISTING RETROFIT ROD	8	–1.5
IK–209B	IK–MODULE–17	91		
IK–208B	IK–MODULE–17	91		
IK–208A	IK–MODULE–17	91		
IK–207B	IK–MODULE–18	91		
IK–207A	IK–MODULE–18	91		
IK–206B	IK–MODULE–18	88		
IK–206A	IK–MODULE–18	88		
IK–205R	IK–MODULE–18	EXISTING RETROFIT ROD	8	1
IK–205L	IK–MODULE–18	EXISTING RETROFIT ROD	–8	1
IK–204B	IK–MODULE–18	91		
IK–204A	IK–MODULE–18	91		
IK–203B	IK–MODULE–18	88		
IK–203A	IK–MODULE–18	88		
IK–202B	IK–MODULE–18	88		
IK–202A	IK–MODULE–18	88		
IK–201B	IK–MODULE–18	EXISTING RETROFIT ROD	0	29
IK–201A	IK–MODULE–18	91		
IK–200B	IK–MODULE–18	91		
IK–200A	IK–MODULE–18	91		
IK–199B	IK–MODULE–19	88		
IK–199A	IK–MODULE–19	88		
IK–198B	IK–MODULE–19	88		
IK–198A	IK–MODULE–19	88		
IK–197B	IK–MODULE–19	88		
IK–197A	IK–MODULE–19	88		
IK–196B	IK–MODULE–19	EXISTING RETROFIT ROD	0	31
IK–196A	IK–MODULE–19	91		
IK–195B	IK–MODULE–19	91		
IK–195A	IK–MODULE–19	91		
IK–194B	IK–MODULE–19	88		
IK–194A	IK–MODULE–19	88		
IK–193R	IK–MODULE–19	EXISTING RETROFIT ROD	9	–1.5
IK–193B	IK–MODULE–19	88		
IK–192B	IK–MODULE–19	88		
IK–192A	IK–MODULE–19	EXISTING RETROFIT ROD	0	–28
IK–191B	IK–MODULE–20	88		
IK–191A	IK–MODULE–20	88		
IK–190B	IK–MODULE–20	88		
IK–190A	IK–MODULE–20	88		
IK–189R	IK–MODULE–20	EXISTING RETROFIT ROD	8	3
IK–189L	IK–MODULE–20	EXISTING RETROFIT ROD	–8	3
IK–188B	IK–MODULE–20	88		
IK–188A	IK–MODULE–20	88		
IK–187B	IK–MODULE–20	EXISTING RETROFIT ROD	0	30
IK–187A	IK–MODULE–20	88		
IK–186B	IK–MODULE–20	88		
IK–186A	IK–MODULE–20	88		
IK–185B	IK–MODULE–20	EXISTING RETROFIT ROD	0	24
IK–185A	IK–MODULE–20	88		
IK–184B	IK–MODULE–20	88		
IK–184A	IK–MODULE–20	88		
IK–183B	IK–MODULE–21	88		
IK–183A	IK–MODULE–21	88		
IK–182B	IK–MODULE–21	88		
IK–182A	IK–MODULE–21	88		
IK–181B	IK–MODULE–21	88		
IK–181A	IK–MODULE–21	88		
IK–180R	IK–MODULE–21	EXISTING RETROFIT ROD	9	0
IK–180L	IK–MODULE–21	EXISTING RETROFIT ROD	–8	0
IK–179B	IK–MODULE–21	88		
IK–179A	IK–MODULE–21	88		
IK–178B	IK–MODULE–21	88		
IK–178A	IK–MODULE–21	88		
IK–177R	IK–MODULE–21	EXISTING RETROFIT ROD	8	0
IK–177A	IK–MODULE–21	88		
IK–176B	IK–MODULE–21	88		
IK–176A	IK–MODULE–21	EXISTING RETROFIT ROD	0	–27
IK–175B	IK–MODULE–22	88		
IK–175A	IK–MODULE–22	88		
IK–174B	IK–MODULE–22	EXISTING RETROFIT ROD	0	25
IK–174A	IK–MODULE–22	88		
IK–173B	IK–MODULE–22	88		
IK–173A	IK–MODULE–22	EXISTING RETROFIT ROD	0	–30
IK–172B	IK–MODULE–22	88		
IK–172A	IK–MODULE–22	88		
IK–171B	IK–MODULE–22	88		
IK–171A	IK–MODULE–22	88		
IK–170B	IK–MODULE–22	EXISTING RETROFIT ROD	0	27
IK–170A	IK–MODULE–22	88		
IK–169B	IK–MODULE–22	88		
IK–169A	IK–MODULE–22	88		
IK–168B	IK–MODULE–22	88		
IK–168A	IK–MODULE–22	88		
IK–167R	IK–MODULE–23	EXISTING RETROFIT ROD	8	–3
IK–167L	IK–MODULE–23	EXISTING RETROFIT ROD	–8	–2
IK–166B	IK–MODULE–23	88		
IK–166A	IK–MODULE–23	88		
IK–165B	IK–MODULE–23	EXISTING RETROFIT ROD	0	28
IK–165A	IK–MODULE–23	88		
IK–164B	IK–MODULE–23	88		
IK–164A	IK–MODULE–23	88		
IK–163B	IK–MODULE–23	88		
IK–163A	IK–MODULE–23	88		
IK–162B	IK–MODULE–23	88		
IK–162A	IK–MODULE–23	88		
IK–161B	IK–MODULE–23	EXISTING RETROFIT ROD	0	34
IK–161A	IK–MODULE–23	88		
IK–160B	IK–MODULE–23	88		
IK–160R	IK–MODULE–23	EXISTING RETROFIT ROD	9	–3
IK–159B	IK–MODULE–24	88		
IK–159A	IK–MODULE–24	EXISTING RETROFIT ROD	0	–32
IK–158B	IK–MODULE–24	88		
IK–158A	IK–MODULE–24	EXISTING RETROFIT ROD	0	–27
IK–157R	IK–MODULE–24	EXISTING RETROFIT ROD	8	–3
IK–157L	IK–MODULE–24	EXISTING RETROFIT ROD	–8	–3
IK–156R	IK–MODULE–24	EXISTING RETROFIT ROD	9	–3
IK–156L	IK–MODULE–24	EXISTING RETROFIT ROD	–10	–3
IK–155B	IK–MODULE–24	88		
IK–155A	IK–MODULE–24	88		
IK–154B	IK–MODULE–24	88		
IK–154A	IK–MODULE–24	88		
IK–153B	IK–MODULE–24	88		
IK–153A	IK–MODULE–24	88		
IK–152B	IK–MODULE–24	88		
IK–152A	IK–MODULE–24	88		
IK–151B	IK–MODULE–25	88		
IK–151A	IK–MODULE–25	88		
IK–150B	IK–MODULE–25	88		
IK–150A	IK–MODULE–25	88		
IK–149B	IK–MODULE–25	88		
IK–149A	IK–MODULE–25	88		
IK–148B	IK–MODULE–25	91		
IK–148A	IK–MODULE–25	91		
IK–147B	IK–MODULE–25	88		
IK–147A	IK–MODULE–25	EXISTING RETROFIT ROD	0	–34
IK–146B	IK–MODULE–25	88		
IK–146A	IK–MODULE–25	88		
IK–145R	IK–MODULE–25	EXISTING RETROFIT ROD	8	2
IK–145L	IK–MODULE–25	EXISTING RETROFIT ROD	–9.5	2
IK–144B	IK–MODULE–25	88		
IK–144A	IK–MODULE–25	EXISTING RETROFIT ROD	0	–20
IK–143B	IK–MODULE–26	88		
IK–143A	IK–MODULE–26	88		
IK–142B	IK–MODULE–26	88		
IK–142A	IK–MODULE–26	88		
IK–141B	IK–MODULE–26	88		
IK–141A	IK–MODULE–26	88		
IK–140B	IK–MODULE–26	EXISTING RETROFIT ROD	0	28
IK–140A	IK–MODULE–26	88		
IK–139B	IK–MODULE–26	88		
IK–139AR	IK–MODULE–26	EXISTING RETROFIT ROD	9	–8
IK–138B	IK–MODULE–26	88		
IK–138A	IK–MODULE–26	88		
IK–137B	IK–MODULE–26	88		
IK–137A	IK–MODULE–26	88		
IK–136R	IK–MODULE–26	EXISTING RETROFIT ROD	12	2
IK–136L	IK–MODULE–26	EXISTING RETROFIT ROD	–8	2
IK–135B	IK–MODULE–27	88		
IK–135A	IK–MODULE–27	88		
IK–134R	IK–MODULE–27	EXISTING RETROFIT ROD	9.5	–1
IK–134A	IK–MODULE–27	88		
IK–133B	IK–MODULE–27	88		
IK–133A	IK–MODULE–27	88		
IK–132B	IK–MODULE–27	88		
IK–132A	IK–MODULE–27	88		
IK–131B	IK–MODULE–27	88		
IK–131A	IK–MODULE–27	88		
IK–130B	IK–MODULE–27	EXISTING RETROFIT ROD	0	25
IK–130A	IK–MODULE–27	88		
IK–129B	IK–MODULE–27	EXISTING RETROFIT ROD	0	33
IK–129A	IK–MODULE–27	88		
IK–128B	IK–MODULE–27	EXISTING RETROFIT ROD	0	24
IK–128A	IK–MODULE–27	88		
IK–127R	IK–MODULE–28	EXISTING RETROFIT ROD	9	–3
IK–127L	IK–MODULE–28	EXISTING RETROFIT ROD	–8	–3
IK–126R	IK–MODULE–28	EXISTING RETROFIT ROD	8	–6
IK–126B	IK–MODULE–28	88		
IK–125R	IK–MODULE–28	EXISTING RETROFIT ROD	8	–4
IK–125B	IK–MODULE–28	88		
IK–124R	IK–MODULE–28	EXISTING RETROFIT ROD	8	–3
IK–124B	IK–MODULE–28	88		
IK–123R	IK–MODULE–28	EXISTING RETROFIT ROD	9	–4
IK–123B	IK–MODULE–28	88		
IK–122B	IK–MODULE–28	88		
IK–122A	IK–MODULE–28	88		
IK–121B	IK–MODULE–28	88		
IK–121A	IK–MODULE–28	88		
IK–120R	IK–MODULE–28	EXISTING RETROFIT ROD	8	2
IK–120L	IK–MODULE–28	EXISTING RETROFIT ROD	–7	2
IK–119R	IK–MODULE–29	EXISTING RETROFIT ROD	9	–2
IK–119L	IK–MODULE–29	EXISTING RETROFIT ROD	–8	–2
IK–118B	IK–MODULE–29	88		
IK–118AR	IK–MODULE–29	EXISTING RETROFIT ROD	8	–18
IK–118AL	IK–MODULE–29	EXISTING RETROFIT ROD	–8	–18
IK–117R	IK–MODULE–29	EXISTING RETROFIT ROD	9	–2
IK–117L	IK–MODULE–29	EXISTING RETROFIT ROD	–8	–2
IK–116R	IK–MODULE–29	EXISTING RETROFIT ROD	9	–2
IK–116L	IK–MODULE–29	EXISTING RETROFIT ROD	–8	–2
IK–115R	IK–MODULE–29	EXISTING RETROFIT ROD	9	–2
IK–115L	IK–MODULE–29	EXISTING RETROFIT ROD	–8	–2
IK–114R	IK–MODULE–29	EXISTING RETROFIT ROD	9	–2
IK–114L	IK–MODULE–29	EXISTING RETROFIT ROD	–8	–2
IK–113R	IK–MODULE–29	EXISTING RETROFIT ROD	9	2
IK–113L	IK–MODULE–29	EXISTING RETROFIT ROD	–8	2

NOTES

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2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

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

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694–S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD INBOUND SCHEDULE 2

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted — Date: JULY, 2024

SHEET No. S-603 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	25	29

HANGER ROD INSTALLATION SCHEDULE

HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
IK-112R	IK-MODULE-29	EXISTING RETROFIT ROD	9	-2
IK-112L	IK-MODULE-29	EXISTING RETROFIT ROD	-8	-2
IK-111B	IK-MODULE-30	88		
IK-111AR	IK-MODULE-30	EXISTING RETROFIT ROD	8	-18
IK-111AL	IK-MODULE-30	EXISTING RETROFIT ROD	-8	-18
IK-110R	IK-MODULE-30	EXISTING RETROFIT ROD	9	-2
IK-110L	IK-MODULE-30	EXISTING RETROFIT ROD	-8	-2
IK-109R	IK-MODULE-30	EXISTING RETROFIT ROD	7	0
IK-109L	IK-MODULE-30	EXISTING RETROFIT ROD	-10	-1
IK-108R	IK-MODULE-30	EXISTING RETROFIT ROD	9	2
IK-108L	IK-MODULE-30	EXISTING RETROFIT ROD	-9	2
IK-107B	IK-MODULE-30	88		
IK-107A	IK-MODULE-30	88		
IK-106R	IK-MODULE-30	EXISTING RETROFIT ROD	8	-1
IK-106A	IK-MODULE-30	88		
IK-105B	IK-MODULE-30	88		
IK-105A	IK-MODULE-30	88		
IK-104B	IK-MODULE-30	88		
IK-104A	IK-MODULE-30	88		
IK-103B	IK-MODULE-31	88		
IK-103A	IK-MODULE-31	EXISTING RETROFIT ROD	0	-26
IK-102R	IK-MODULE-31	EXISTING RETROFIT ROD	10	0
IK-102B	IK-MODULE-31	88		
IK-101B	IK-MODULE-31	88		
IK-101A	IK-MODULE-31	88		
IK-100B	IK-MODULE-31	88		
IK-100A	IK-MODULE-31	88		
IK-099B	IK-MODULE-31	88		
IK-099A	IK-MODULE-31	88		
IK-098R	IK-MODULE-31	EXISTING RETROFIT ROD	12	-7
IK-098L	IK-MODULE-31	EXISTING RETROFIT ROD	-8	-16
IK-097B	IK-MODULE-31	88		
IK-097A	IK-MODULE-31	88		
IK-096R	IK-MODULE-31	EXISTING RETROFIT ROD	9.5	0
IK-096A	IK-MODULE-31	91		
IK-095R	IK-MODULE-32	EXISTING RETROFIT ROD	8	-2
IK-095L	IK-MODULE-32	EXISTING RETROFIT ROD	-8	-2
IK-094B	IK-MODULE-32	91		
IK-094A	IK-MODULE-32	91		
IK-093B	IK-MODULE-32	EXISTING RETROFIT ROD	0	27
IK-093A	IK-MODULE-32	91		
IK-092B	IK-MODULE-32	88		
IK-092A	IK-MODULE-32	88		
IK-091B	IK-MODULE-32	EXISTING RETROFIT ROD	0	23
IK-091A	IK-MODULE-32	88		
IK-090B	IK-MODULE-32	EXISTING RETROFIT ROD	0	27
IK-090A	IK-MODULE-32	88		
IK-089B	IK-MODULE-32	88		
IK-089A	IK-MODULE-32	88		
IK-088R	IK-MODULE-32	EXISTING RETROFIT ROD	8	-2
IK-088L	IK-MODULE-32	EXISTING RETROFIT ROD	-8	-2
IK-087B	IK-MODULE-33	91		
IK-087A	IK-MODULE-33	91		
IK-086B	IK-MODULE-33	88		
IK-086A	IK-MODULE-33	88		
IK-085B	IK-MODULE-33	88		
IK-085A	IK-MODULE-33	88		
IK-084R	IK-MODULE-33	EXISTING RETROFIT ROD	8	-2
IK-084L	IK-MODULE-33	EXISTING RETROFIT ROD	-8	-2
IK-083L	IK-MODULE-33	EXISTING RETROFIT ROD	-8	0
IK-083B	IK-MODULE-33	88		
IK-082B	IK-MODULE-33	88		
IK-082A	IK-MODULE-33	88		
IK-081R	IK-MODULE-33	EXISTING RETROFIT ROD	8	-2
IK-081L	IK-MODULE-33	EXISTING RETROFIT ROD	-9	0
IK-080B	IK-MODULE-33	91		
IK-080A	IK-MODULE-33	91		
IK-079B	IK-MODULE-34	91		
IK-079A	IK-MODULE-34	EXISTING RETROFIT ROD	0	-24
IK-078R	IK-MODULE-34	EXISTING RETROFIT ROD	8	-2
IK-078L	IK-MODULE-34	EXISTING RETROFIT ROD	-8	-2
IK-077B	IK-MODULE-34	88		
IK-077A	IK-MODULE-34	EXISTING RETROFIT ROD	0	-28
IK-076B	IK-MODULE-34	88		
IK-076A	IK-MODULE-34	EXISTING RETROFIT ROD	0	-16
IK-075B	IK-MODULE-34	88		
IK-075A	IK-MODULE-34	88		
IK-074B	IK-MODULE-34	88		
IK-074A	IK-MODULE-34	88		
IK-073B	IK-MODULE-34	EXISTING RETROFIT ROD	0	28
IK-073A	IK-MODULE-34	91		
IK-072B	IK-MODULE-34	91		
IK-072A	IK-MODULE-34	91		
IK-071B	IK-MODULE-35	91		
IK-071A	IK-MODULE-35	91		
IK-070B	IK-MODULE-35	EXISTING RETROFIT ROD	0	27
IK-070A	IK-MODULE-35	91		
IK-069B	IK-MODULE-35	91		
IK-069A	IK-MODULE-35	91		
IK-068B	IK-MODULE-35	91		
IK-068A	IK-MODULE-35	91		
IK-067R	IK-MODULE-35	EXISTING RETROFIT ROD	8	-6
IK-067L	IK-MODULE-35	EXISTING RETROFIT ROD	-8	-6
IK-066B	IK-MODULE-35	88		
IK-066A	IK-MODULE-35	88		
IK-065B	IK-MODULE-35	88		
IK-065A	IK-MODULE-35	88		
IK-064B	IK-MODULE-35	88		
IK-064A	IK-MODULE-35	EXISTING RETROFIT ROD	0	-22
IK-063R	IK-MODULE-36	EXISTING RETROFIT ROD	8	-3
IK-063L	IK-MODULE-36	EXISTING RETROFIT ROD	-8	-3
IK-063A	IK-MODULE-36	88		
IK-062R	IK-MODULE-36	EXISTING RETROFIT ROD	8	-3
IK-062L	IK-MODULE-36	EXISTING RETROFIT ROD	-8	-3
IK-061B	IK-MODULE-36	88		
IK-061A	IK-MODULE-36	EXISTING RETROFIT ROD	0	-25
IK-060B	IK-MODULE-36	88		
IK-060A	IK-MODULE-36	88		
IK-059R	IK-MODULE-36	EXISTING RETROFIT ROD	9	2
IK-059A	IK-MODULE-36	88		
IK-058B	IK-MODULE-36	EXISTING RETROFIT ROD	0	26.5
IK-058A	IK-MODULE-36	88		
IK-057R	IK-MODULE-36	EXISTING RETROFIT ROD	8	-3
IK-057A	IK-MODULE-36	88		
IK-056B	IK-MODULE-36	EXISTING RETROFIT ROD	0	20
IK-056A	IK-MODULE-36	88		
IK-055R	IK-MODULE-37	EXISTING RETROFIT ROD	8	0
IK-055L	IK-MODULE-37	EXISTING RETROFIT ROD	-8	0
IK-054B	IK-MODULE-37	88		
IK-054A	IK-MODULE-37	88		
IK-053B	IK-MODULE-37	EXISTING RETROFIT ROD	0	29
IK-053A	IK-MODULE-37	88		
IK-052B	IK-MODULE-37	88		
IK-052A	IK-MODULE-37	EXISTING RETROFIT ROD	0	-22.5
IK-051B	IK-MODULE-37	88		
IK-051A	IK-MODULE-37	88		
IK-050B	IK-MODULE-37	EXISTING RETROFIT ROD	0	34
IK-050A	IK-MODULE-37	88		
IK-049R	IK-MODULE-37	EXISTING RETROFIT ROD	7	-16
IK-049L	IK-MODULE-37	EXISTING RETROFIT ROD	-8	7
IK-048R	IK-MODULE-37	EXISTING RETROFIT ROD	8	-5
IK-048L	IK-MODULE-37	EXISTING RETROFIT ROD	-8	-5
IK-047B	IK-MODULE-38	EXISTING RETROFIT ROD	0	22
IK-047A	IK-MODULE-38	88		
IK-046B	IK-MODULE-38	EXISTING RETROFIT ROD	0	31
IK-046A	IK-MODULE-38	88		
IK-045B	IK-MODULE-38	EXISTING RETROFIT ROD	0	24
IK-045A	IK-MODULE-38	88		
IK-044B	IK-MODULE-38	EXISTING RETROFIT ROD	0	31
IK-044A	IK-MODULE-38	88		
IK-043B	IK-MODULE-38	88		
IK-043A	IK-MODULE-38	EXISTING RETROFIT ROD	0	-41
IK-042B	IK-MODULE-38	88		
IK-042A	IK-MODULE-38	88		
IK-041R	IK-MODULE-38	EXISTING RETROFIT ROD	8	0
IK-041L	IK-MODULE-38	EXISTING RETROFIT ROD	-8	0
IK-040R	IK-MODULE-38	EXISTING RETROFIT ROD	8	0
IK-040L	IK-MODULE-38	EXISTING RETROFIT ROD	-8	0
IK-039B	IK-MODULE-39	88		
IK-039A	IK-MODULE-39	88		
IK-038B	IK-MODULE-39	88		
IK-038A	IK-MODULE-39	88		
IK-037B	IK-MODULE-39	88		
IK-037A	IK-MODULE-39	88		
IK-036B	IK-MODULE-39	88		
IK-036A	IK-MODULE-39	88		
IK-035B	IK-MODULE-39	91		
IK-035A	IK-MODULE-39	91		
IK-034R	IK-MODULE-39	EXISTING RETROFIT ROD	8	0
IK-034L	IK-MODULE-39	EXISTING RETROFIT ROD	-8	0
IK-034A	IK-MODULE-39	91		
IK-033R	IK-MODULE-39	EXISTING RETROFIT ROD	8	1
IK-033A	IK-MODULE-39	91		
IK-032B	IK-MODULE-39	EXISTING RETROFIT ROD	0	21
IK-032A	IK-MODULE-39	91		
IK-031R	IK-MODULE-40	EXISTING RETROFIT ROD	8	0
IK-031L	IK-MODULE-40	EXISTING RETROFIT ROD	-8	0
IK-030B	IK-MODULE-40	EXISTING RETROFIT ROD	0	32
IK-030A	IK-MODULE-40	91		
IK-029B	IK-MODULE-40	EXISTING RETROFIT ROD	0	27
IK-029A	IK-MODULE-40	91		
IK-028B	IK-MODULE-40	EXISTING RETROFIT ROD	0	39
IK-028A	IK-MODULE-40	91		
IK-027B	IK-MODULE-40	EXISTING RETROFIT ROD	0	39
IK-027A	IK-MODULE-40	91		
IK-026B	IK-MODULE-40	EXISTING RETROFIT ROD	0	26
IK-026A	IK-MODULE-40	91		
IK-025B	IK-MODULE-40	91		
IK-025A	IK-MODULE-40	91		
IK-024B	IK-MODULE-40	91		
IK-024A	IK-MODULE-40	EXISTING RETROFIT ROD	0	-18
IK-023B	IK-MODULE-41	88		
IK-023A	IK-MODULE-41	88		
IK-022B	IK-MODULE-41	88		
IK-022A	IK-MODULE-41	88		
IK-021B	IK-MODULE-41	88		
IK-021A	IK-MODULE-41	88		
IK-020B	IK-MODULE-41	88		
IK-020A	IK-MODULE-41	88		
IK-019B	IK-MODULE-41	88		
IK-019A	IK-MODULE-41	88		
IK-018B	IK-MODULE-41	88		
IK-018A	IK-MODULE-41	88		
IK-017B	IK-MODULE-41	88		
IK-017A	IK-MODULE-41	88		
IK-016B	IK-MODULE-41	88		
IK-016A	IK-MODULE-41	88		
IK-015B	IK-MODULE-42	88		
IK-015A	IK-MODULE-42	88		
IK-014B	IK-MODULE-42	88		
IK-014A	IK-MODULE-42	88		
IK-013B	IK-MODULE-42	88		
IK-013A	IK-MODULE-42	88		
IK-012B	IK-MODULE-42	88		
IK-012A	IK-MODULE-42	88		
IK-011B	IK-MODULE-42	88		
IK-011A	IK-MODULE-42	88		
IK-010B	IK-MODULE-42	88		
IK-010A	IK-MODULE-42	88		
IK-009B	IK-MODULE-42	88		
IK-009A	IK-MODULE-42	88		
IK-008B	IK-MODULE-42	88		
IK-008A	IK-MODULE-42	88		
IK-007B	IK-MODULE-KP	88		
IK-007A	IK-MODULE-KP	88		
IK-006B	IK-MODULE-KP	91		
IK-006A	IK-MODULE-KP	91		
IK-005B	IK-MODULE-KP	88		
IK-005A	IK-MODULE-KP	88		
IK-004B	IK-MODULE-KP	88		
IK-004A	IK-MODULE-KP	88		
IK-003B	IK-MODULE-KP	88		
IK-003A	IK-MODULE-KP	88		
IK-002B	IK-MODULE-KP	91		
IK-002A	IK-MODULE-KP	91		
IK-001B	IK-MODULE-KP	91		
IK-001A	IK-MODULE-KP	91		

NOTES

1. LOCATION OF EXISTING RETROFIT RODS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF ORIGINAL AND EXISTING RETROFIT RODS AS AS NEEDED.
2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD INBOUND SCHEDULE 3

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-604 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	26	29

HANGER ROD INSTALLATION SCHEDULE

HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
OH-001A	OH-MODULE-HP	78		
OH-001B	OH-MODULE-HP	78		
OH-002A	OH-MODULE-01	78		
OH-002B	OH-MODULE-01	78		
OH-003A	OH-MODULE-01	78		
OH-003B	OH-MODULE-01	78		
OH-004A	OH-MODULE-01	78		
OH-004B	OH-MODULE-01	78		
OH-005A	OH-MODULE-01	78		
OH-005B	OH-MODULE-01	78		
OH-006A	OH-MODULE-01	78		
OH-006B	OH-MODULE-01	78		
OH-007A	OH-MODULE-01	78		
OH-007B	OH-MODULE-01	78		
OH-008A	OH-MODULE-01	78		
OH-008B	OH-MODULE-01	78		
OH-009A	OH-MODULE-01	78		
OH-009B	OH-MODULE-01	78		
OH-010A	OH-MODULE-02	78		
OH-010B	OH-MODULE-02	78		
OH-011A	OH-MODULE-02	78		
OH-011B	OH-MODULE-02	78		
OH-012A	OH-MODULE-02	78		
OH-012B	OH-MODULE-02	78		
OH-013A	OH-MODULE-02	78		
OH-013B	OH-MODULE-02	78		
OH-014A	OH-MODULE-02	78		
OH-014B	OH-MODULE-02	78		
OH-015A	OH-MODULE-02	78		
OH-015B	OH-MODULE-02	78		
OH-016A	OH-MODULE-02	78		
OH-016B	OH-MODULE-02	78		
OH-017A	OH-MODULE-02	78		
OH-017B	OH-MODULE-02	78		
OH-018A	OH-MODULE-03	78		
OH-018B	OH-MODULE-03	78		
OH-019A	OH-MODULE-03	78		
OH-019B	OH-MODULE-03	78		
OH-020A	OH-MODULE-03	78		
OH-020B	OH-MODULE-03	78		
OH-021A	OH-MODULE-03	78		
OH-021B	OH-MODULE-03	78		
OH-022A	OH-MODULE-04	78		
OH-022B	OH-MODULE-04	78		
OH-023L	OH-MODULE-04	EXISTING RETROFIT ROD	-8	-3
OH-023R	OH-MODULE-04	EXISTING RETROFIT ROD	7	-2
OH-024A	OH-MODULE-04	78		
OH-024B	OH-MODULE-04	78		
OH-025A	OH-MODULE-04	78		
OH-025B	OH-MODULE-04	78		
OH-026A	OH-MODULE-04	78		
OH-026B	OH-MODULE-04	78		
OH-027A	OH-MODULE-04	78		
OH-027B	OH-MODULE-04	78		
OH-028A	OH-MODULE-04	78		
OH-028B	OH-MODULE-04	78		
OH-029A	OH-MODULE-05	78		
OH-029B	OH-MODULE-05	78		
OH-030A	OH-MODULE-05	78		
OH-030B	OH-MODULE-05	78		
OH-031A	OH-MODULE-05	78		
OH-031B	OH-MODULE-05	78		
OH-032A	OH-MODULE-05	78		
OH-032B	OH-MODULE-05	78		
OH-033A	OH-MODULE-05	78		
OH-033B	OH-MODULE-05	78		
OH-034A	OH-MODULE-05	78		
OH-034B	OH-MODULE-05	78		
OH-035A	OH-MODULE-05	78		
OH-035B	OH-MODULE-05	78		
OH-036A	OH-MODULE-05	78		
OH-036B	OH-MODULE-05	78		
OH-037A	OH-MODULE-06	78		
OH-037B	OH-MODULE-06	78		
OH-038A	OH-MODULE-06	78		
OH-038B	OH-MODULE-06	78		
OH-039A	OH-MODULE-06	78		
OH-039B	OH-MODULE-06	78		
OH-040A	OH-MODULE-06	78		
OH-040B	OH-MODULE-06	78		
OH-041A	OH-MODULE-06	78		
OH-041B	OH-MODULE-06	78		
OH-042A	OH-MODULE-06	78		
OH-042B	OH-MODULE-06	78		
OH-043A	OH-MODULE-06	78		
OH-043B	OH-MODULE-06	78		
OH-044A	OH-MODULE-06	78		
OH-044B	OH-MODULE-06	78		
OH-045A	OH-MODULE-07	78		
OH-045B	OH-MODULE-07	78		
OH-046A	OH-MODULE-07	78		
OH-046B	OH-MODULE-07	78		
OH-047A	OH-MODULE-07	78		
OH-047B	OH-MODULE-07	78		
OH-048A	OH-MODULE-07	78		
OH-048B	OH-MODULE-07	78		
OH-049A	OH-MODULE-07	78		
OH-049B	OH-MODULE-07	78		
OH-050A	OH-MODULE-07	78		
OH-050B	OH-MODULE-07	78		
OH-051A	OH-MODULE-07	78		
OH-051B	OH-MODULE-07	78		
OH-052A	OH-MODULE-07	78		
OH-052B	OH-MODULE-07	78		
OH-053A	OH-MODULE-08	78		
OH-053B	OH-MODULE-08	78		
OH-054A	OH-MODULE-08	78		
OH-054B	OH-MODULE-08	78		
OH-055A	OH-MODULE-08	78		
OH-055B	OH-MODULE-08	78		
OH-056A	OH-MODULE-08	78		
OH-056B	OH-MODULE-08	78		
OH-057A	OH-MODULE-08	78		
OH-057B	OH-MODULE-08	78		
OH-058A	OH-MODULE-08	78		
OH-058B	OH-MODULE-08	78		
OH-059A	OH-MODULE-08	78		
OH-059B	OH-MODULE-08	78		
OH-060A	OH-MODULE-08	78		
OH-060B	OH-MODULE-08	78		
OH-061A	OH-MODULE-09	78		
OH-061B	OH-MODULE-09	78		
OH-062A	OH-MODULE-09	78		
OH-062B	OH-MODULE-09	78		
OH-063A	OH-MODULE-09	78		
OH-063B	OH-MODULE-09	78		
OH-064A	OH-MODULE-09	78		
OH-064B	OH-MODULE-09	78		
OH-065A	OH-MODULE-09	78		
OH-065B	OH-MODULE-09	78		
OH-066A	OH-MODULE-09	78		
OH-066B	OH-MODULE-09	78		
OH-067A	OH-MODULE-09	78		
OH-067B	OH-MODULE-09	78		
OH-068A	OH-MODULE-09	78		
OH-068B	OH-MODULE-09	78		
OH-069A	OH-MODULE-10	78		
OH-069B	OH-MODULE-10	78		
OH-070A	OH-MODULE-10	78		
OH-070B	OH-MODULE-10	78		
OH-071A	OH-MODULE-10	78		
OH-071B	OH-MODULE-10	78		
OH-072A	OH-MODULE-10	78		
OH-072B	OH-MODULE-10	78		
OH-073A	OH-MODULE-10	78		
OH-073B	OH-MODULE-10	78		
OH-074A	OH-MODULE-10	78		
OH-074B	OH-MODULE-10	78		
OH-075A	OH-MODULE-10	78		
OH-075B	OH-MODULE-10	78		
OH-076A	OH-MODULE-10	78		
OH-076B	OH-MODULE-10	78		
OH-077A	OH-MODULE-11	78		
OH-077B	OH-MODULE-11	78		
OH-078A	OH-MODULE-11	78		
OH-078B	OH-MODULE-11	78		
OH-079A	OH-MODULE-11	78		
OH-079B	OH-MODULE-11	78		
OH-080A	OH-MODULE-11	78		
OH-080B	OH-MODULE-11	78		
OH-081A	OH-MODULE-11	78		
OH-081B	OH-MODULE-11	78		
OH-082A	OH-MODULE-11	78		
OH-082B	OH-MODULE-11	78		
OH-083A	OH-MODULE-11	78		
OH-083B	OH-MODULE-11	78		
OH-084A	OH-MODULE-11	78		
OH-084B	OH-MODULE-11	78		
OH-085A	OH-MODULE-12	78		
OH-085B	OH-MODULE-12	78		
OH-086A	OH-MODULE-12	78		
OH-086B	OH-MODULE-12	78		
OH-087A	OH-MODULE-12	78		
OH-087B	OH-MODULE-12	78		
OH-088A	OH-MODULE-12	78		
OH-088B	OH-MODULE-12	78		
OH-089A	OH-MODULE-12	78		
OH-089B	OH-MODULE-12	78		
OH-090A	OH-MODULE-12	78		
OH-090B	OH-MODULE-12	78		
OH-091A	OH-MODULE-12	78		
OH-091B	OH-MODULE-12	78		
OH-092A	OH-MODULE-12	78		
OH-092B	OH-MODULE-12	78		
OH-093A	OH-MODULE-13	78		
OH-093B	OH-MODULE-13	78		
OH-094A	OH-MODULE-13	78		
OH-094B	OH-MODULE-13	78		
OH-095A	OH-MODULE-13	78		
OH-095B	OH-MODULE-13	78		
OH-096A	OH-MODULE-13	78		
OH-096B	OH-MODULE-13	78		
OH-097A	OH-MODULE-13	78		
OH-097B	OH-MODULE-13	78		
OH-098A	OH-MODULE-13	78		
OH-098B	OH-MODULE-13	78		
OH-099A	OH-MODULE-13	78		
OH-099B	OH-MODULE-13	78		
OH-100A	OH-MODULE-13	78		
OH-100B	OH-MODULE-13	78		
OH-101A	OH-MODULE-14	78		
OH-101B	OH-MODULE-14	78		
OH-102A	OH-MODULE-14	78		
OH-102B	OH-MODULE-14	78		
OH-103A	OH-MODULE-14	78		
OH-103B	OH-MODULE-14	78		
OH-104A	OH-MODULE-14	78		
OH-104B	OH-MODULE-14	78		
OH-105A	OH-MODULE-14	78		
OH-105B	OH-MODULE-14	78		
OH-106A	OH-MODULE-14	78		
OH-106B	OH-MODULE-14	78		
OH-107A	OH-MODULE-14	78		
OH-107B	OH-MODULE-14	78		
OH-108A	OH-MODULE-14	78		
OH-108B	OH-MODULE-14	78		
OH-109A	OH-MODULE-15	78		
OH-109B	OH-MODULE-15	78		
OH-110A	OH-MODULE-15	78		
OH-110B	OH-MODULE-15	78		
OH-111A	OH-MODULE-15	78		
OH-111B	OH-MODULE-15	78		
OH-112A	OH-MODULE-15	78		
OH-112B	OH-MODULE-15	78		
OH-113A	OH-MODULE-15	78		
OH-113B	OH-MODULE-15	78		
OH-114A	OH-MODULE-15	78		
OH-114B	OH-MODULE-15	78		
OH-115A	OH-MODULE-15	78		
OH-115B	OH-MODULE-15	78		
OH-116A	OH-MODULE-15	78		
OH-116B	OH-MODULE-15	78		

NOTES

1. LOCATION OF EXISTING RETROFIT RODS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF ORIGINAL AND EXISTING RETROFIT RODS AS AS NEEDED.
2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

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

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD OUTBOUND SCHEDULE 1

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-605 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	27	29

HANGER ROD INSTALLATION SCHEDULE				
HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
OH-117A	OH-MODULE-16	78		
OH-117B	OH-MODULE-16	78		
OH-118A	OH-MODULE-16	78		
OH-118B	OH-MODULE-16	78		
OH-119A	OH-MODULE-16	78		
OH-119B	OH-MODULE-16	78		
OH-120A	OH-MODULE-16	78		
OH-120B	OH-MODULE-16	78		
OH-121A	OH-MODULE-16	78		
OH-121B	OH-MODULE-16	78		
OH-122A	OH-MODULE-16	78		
OH-122B	OH-MODULE-16	78		
OH-123A	OH-MODULE-16	78		
OH-123B	OH-MODULE-16	78		
OH-124A	OH-MODULE-16	130		
OH-124B	OH-MODULE-16	130		
VENTILATION SHAFT				
OK-250A	OK-MODULE-17	130		
OK-249B	OK-MODULE-17	78		
OK-249A	OK-MODULE-17	78		
OK-248B	OK-MODULE-17	78		
OK-248A	OK-MODULE-17	78		
OK-247B	OK-MODULE-17	78		
OK-247A	OK-MODULE-17	78		
OK-246B	OK-MODULE-17	78		
OK-246A	OK-MODULE-17	78		
OK-245B	OK-MODULE-17	78		
OK-245A	OK-MODULE-17	78		
OK-244B	OK-MODULE-17	78		
OK-244A	OK-MODULE-17	78		
OK-243B	OK-MODULE-17	78		
OK-243A	OK-MODULE-17	78		
OK-242B	OK-MODULE-18	78		
OK-242A	OK-MODULE-18	78		
OK-241B	OK-MODULE-18	78		
OK-241A	OK-MODULE-18	78		
OK-240B	OK-MODULE-18	78		
OK-240A	OK-MODULE-18	78		
OK-239B	OK-MODULE-18	78		
OK-239A	OK-MODULE-18	78		
OK-238B	OK-MODULE-18	78		
OK-238A	OK-MODULE-18	78		
OK-237B	OK-MODULE-18	78		
OK-237A	OK-MODULE-18	78		
OK-236B	OK-MODULE-18	78		
OK-236A	OK-MODULE-18	78		
OK-235B	OK-MODULE-18	78		
OK-235A	OK-MODULE-18	78		
OK-234B	OK-MODULE-19	78		
OK-234A	OK-MODULE-19	78		
OK-233B	OK-MODULE-19	78		
OK-233A	OK-MODULE-19	78		
OK-232B	OK-MODULE-19	78		
OK-232A	OK-MODULE-19	78		
OK-231B	OK-MODULE-19	78		
OK-231A	OK-MODULE-19	78		
OK-230B	OK-MODULE-19	78		
OK-230A	OK-MODULE-19	78		
OK-229B	OK-MODULE-19	78		
OK-229A	OK-MODULE-19	78		
OK-228B	OK-MODULE-19	78		
OK-228A	OK-MODULE-19	78		
OK-227B	OK-MODULE-19	78		
OK-227A	OK-MODULE-19	78		
OK-226B	OK-MODULE-20	78		
OK-226A	OK-MODULE-20	78		
OK-225B	OK-MODULE-20	78		
OK-225A	OK-MODULE-20	78		
OK-224B	OK-MODULE-20	78		
OK-224A	OK-MODULE-20	78		
OK-223B	OK-MODULE-20	78		
OK-223A	OK-MODULE-20	78		
OK-222B	OK-MODULE-20	78		
OK-222A	OK-MODULE-20	78		
OK-221B	OK-MODULE-20	78		
OK-221A	OK-MODULE-20	78		
OK-220B	OK-MODULE-20	78		
OK-220A	OK-MODULE-20	78		
OK-219B	OK-MODULE-20	78		
OK-219A	OK-MODULE-20	78		
OK-218B	OK-MODULE-21	78		
OK-218A	OK-MODULE-21	78		
OK-217B	OK-MODULE-21	78		
OK-217A	OK-MODULE-21	78		
OK-216B	OK-MODULE-21	78		
OK-216A	OK-MODULE-21	78		
OK-215B	OK-MODULE-21	78		
OK-215A	OK-MODULE-21	78		
OK-214B	OK-MODULE-21	78		
OK-214A	OK-MODULE-21	78		
OK-213B	OK-MODULE-21	78		
OK-213A	OK-MODULE-21	78		
OK-212B	OK-MODULE-21	78		
OK-212A	OK-MODULE-21	78		
OK-211B	OK-MODULE-21	78		
OK-211A	OK-MODULE-21	78		
OK-210B	OK-MODULE-22	78		
OK-210A	OK-MODULE-22	78		
OK-209B	OK-MODULE-22	78		
OK-209A	OK-MODULE-22	78		
OK-208B	OK-MODULE-22	78		
OK-208A	OK-MODULE-22	78		
OK-207B	OK-MODULE-22	78		
OK-207A	OK-MODULE-22	78		
OK-206B	OK-MODULE-22	78		
OK-206A	OK-MODULE-22	78		
OK-205B	OK-MODULE-22	78		
OK-205A	OK-MODULE-22	78		
OK-204B	OK-MODULE-22	78		
OK-204A	OK-MODULE-22	78		
OK-203B	OK-MODULE-22	78		
OK-203A	OK-MODULE-22	78		
OK-202B	OK-MODULE-23	78		
OK-202A	OK-MODULE-23	78		
OK-201B	OK-MODULE-23	78		
OK-201A	OK-MODULE-23	78		
OK-201A	OK-MODULE-23	78		
OK-200B	OK-MODULE-23	78		
OK-200A	OK-MODULE-23	78		
OK-199B	OK-MODULE-23	78		
OK-199A	OK-MODULE-23	78		
OK-198B	OK-MODULE-23	78		
OK-198A	OK-MODULE-23	78		
OK-197B	OK-MODULE-23	78		
OK-197A	OK-MODULE-23	78		
OK-196B	OK-MODULE-23	78		
OK-196A	OK-MODULE-23	78		
OK-195B	OK-MODULE-23	78		
OK-195A	OK-MODULE-23	78		
OK-194B	OK-MODULE-24	78		
OK-194A	OK-MODULE-24	78		
OK-193B	OK-MODULE-24	78		
OK-193A	OK-MODULE-24	78		
OK-192B	OK-MODULE-24	78		
OK-192A	OK-MODULE-24	78		
OK-191B	OK-MODULE-24	78		
OK-191A	OK-MODULE-24	78		
OK-190B	OK-MODULE-24	78		
OK-190A	OK-MODULE-24	78		
OK-189B	OK-MODULE-24	78		
OK-189A	OK-MODULE-24	78		
OK-188B	OK-MODULE-24	78		
OK-188A	OK-MODULE-24	78		
OK-187B	OK-MODULE-24	78		
OK-187A	OK-MODULE-24	78		
OK-186B	OK-MODULE-25	78		
OK-186A	OK-MODULE-25	78		
OK-185B	OK-MODULE-25	78		
OK-185A	OK-MODULE-25	78		
OK-184B	OK-MODULE-25	78		
OK-184A	OK-MODULE-25	78		
OK-183B	OK-MODULE-25	78		
OK-183A	OK-MODULE-25	78		
OK-182B	OK-MODULE-25	78		
OK-182A	OK-MODULE-25	78		
OK-181B	OK-MODULE-25	78		
OK-181A	OK-MODULE-25	78		
OK-180B	OK-MODULE-25	78		
OK-180A	OK-MODULE-25	78		
OK-179B	OK-MODULE-25	78		
OK-179A	OK-MODULE-25	78		
OK-178B	OK-MODULE-26	78		
OK-178A	OK-MODULE-26	78		
OK-177B	OK-MODULE-26	78		
OK-177A	OK-MODULE-26	78		
OK-176B	OK-MODULE-26	78		
OK-176A	OK-MODULE-26	78		
OK-175B	OK-MODULE-26	78		
OK-175A	OK-MODULE-26	78		
OK-174B	OK-MODULE-26	78		
OK-174A	OK-MODULE-26	78		
OK-173B	OK-MODULE-26	78		
OK-173A	OK-MODULE-26	78		
OK-172B	OK-MODULE-26	78		
OK-172A	OK-MODULE-26	78		
OK-171B	OK-MODULE-26	78		
OK-171A	OK-MODULE-26	78		
OK-170B	OK-MODULE-27	78		
OK-170A	OK-MODULE-27	78		
OK-169B	OK-MODULE-27	78		
OK-169A	OK-MODULE-27	78		
OK-168B	OK-MODULE-27	78		
OK-168A	OK-MODULE-27	78		
OK-167B	OK-MODULE-27	78		
OK-167A	OK-MODULE-27	78		
OK-166B	OK-MODULE-27	78		
OK-166A	OK-MODULE-27	78		
OK-165B	OK-MODULE-27	78		
OK-165A	OK-MODULE-27	78		
OK-164B	OK-MODULE-27	78		
OK-164A	OK-MODULE-27	78		
OK-163B	OK-MODULE-27	78		
OK-163A	OK-MODULE-27	78		
OK-162B	OK-MODULE-28	78		
OK-162A	OK-MODULE-28	78		
OK-161B	OK-MODULE-28	78		
OK-161A	OK-MODULE-28	78		
OK-160B	OK-MODULE-28	78		
OK-160A	OK-MODULE-28	78		
OK-159B	OK-MODULE-28	78		
OK-159A	OK-MODULE-28	78		
OK-158B	OK-MODULE-28	78		
OK-158A	OK-MODULE-28	78		
OK-157B	OK-MODULE-28	78		
OK-157A	OK-MODULE-28	78		
OK-156B	OK-MODULE-28	78		
OK-156A	OK-MODULE-28	78		
OK-155B	OK-MODULE-28	78		
OK-155A	OK-MODULE-28	78		
OK-154B	OK-MODULE-29	78		
OK-154A	OK-MODULE-29	78		
OK-153B	OK-MODULE-29	78		
OK-153A	OK-MODULE-29	78		
OK-152B	OK-MODULE-29	78		
OK-152A	OK-MODULE-29	78		
OK-151B	OK-MODULE-29	78		
OK-151A	OK-MODULE-29	78		
OK-150B	OK-MODULE-29	78		
OK-150A	OK-MODULE-29	78		
OK-149B	OK-MODULE-29	78		
OK-149A	OK-MODULE-29	78		
OK-148B	OK-MODULE-29	78		
OK-148A	OK-MODULE-29	78		
OK-147B	OK-MODULE-29	78		
OK-147A	OK-MODULE-29	78		
OK-146B	OK-MODULE-30	78		
OK-146A	OK-MODULE-30	78		
OK-145B	OK-MODULE-30	78		
OK-145A	OK-MODULE-30	78		
OK-144B	OK-MODULE-30	78		
OK-144A	OK-MODULE-30	78		
OK-143B	OK-MODULE-30	78		

NOTES

1. LOCATION OF EXISTING RETROFIT RODS IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF ORIGINAL AND EXISTING RETROFIT RODS AS AS NEEDED.
2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD OUTBOUND SCHEDULE 2

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted — Date: JULY, 2024

SHEET No. S-606 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	28	29

HANGER ROD INSTALLATION SCHEDULE

HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
OK-143A	OK-MODULE-30	78		
OK-142B	OK-MODULE-30	78		
OK-142A	OK-MODULE-30	78		
OK-141B	OK-MODULE-30	78		
OK-141A	OK-MODULE-30	78		
OK-140B	OK-MODULE-30	78		
OK-140A	OK-MODULE-30	78		
OK-139B	OK-MODULE-30	78		
OK-139A	OK-MODULE-30	78		
OK-138B	OK-MODULE-31	78		
OK-138A	OK-MODULE-31	78		
OK-137B	OK-MODULE-31	78		
OK-137A	OK-MODULE-31	78		
OK-136B	OK-MODULE-31	78		
OK-136A	OK-MODULE-31	78		
OK-135B	OK-MODULE-31	78		
OK-135A	OK-MODULE-31	78		
OK-134B	OK-MODULE-31	78		
OK-134A	OK-MODULE-31	78		
OK-133B	OK-MODULE-31	78		
OK-133A	OK-MODULE-31	78		
OK-132B	OK-MODULE-31	78		
OK-132A	OK-MODULE-31	78		
OK-131B	OK-MODULE-31	78		
OK-131A	OK-MODULE-31	78		
OK-130B	OK-MODULE-32	78		
OK-130A	OK-MODULE-32	78		
OK-129B	OK-MODULE-32	78		
OK-129A	OK-MODULE-32	78		
OK-128B	OK-MODULE-32	78		
OK-128A	OK-MODULE-32	78		
OK-127B	OK-MODULE-32	78		
OK-127A	OK-MODULE-32	78		
OK-126B	OK-MODULE-32	78		
OK-126A	OK-MODULE-32	78		
OK-125B	OK-MODULE-32	78		
OK-125A	OK-MODULE-32	78		
OK-124B	OK-MODULE-32	78		
OK-124A	OK-MODULE-32	78		
OK-123B	OK-MODULE-32	78		
OK-123A	OK-MODULE-32	78		
OK-122B	OK-MODULE-33	78		
OK-122A	OK-MODULE-33	78		
OK-121B	OK-MODULE-33	78		
OK-121A	OK-MODULE-33	78		
OK-120B	OK-MODULE-33	78		
OK-120A	OK-MODULE-33	78		
OK-119B	OK-MODULE-33	78		
OK-119A	OK-MODULE-33	78		
OK-118B	OK-MODULE-33	78		
OK-118A	OK-MODULE-33	78		
OK-117B	OK-MODULE-33	78		
OK-117A	OK-MODULE-33	78		
OK-116B	OK-MODULE-33	78		
OK-116A	OK-MODULE-33	78		
OK-115B	OK-MODULE-33	78		
OK-115A	OK-MODULE-33	78		
OK-114B	OK-MODULE-34	78		
OK-114A	OK-MODULE-34	78		
OK-113B	OK-MODULE-34	78		
OK-113A	OK-MODULE-34	78		
OK-112B	OK-MODULE-34	78		
OK-112A	OK-MODULE-34	78		
OK-111B	OK-MODULE-34	78		
OK-111A	OK-MODULE-34	78		
OK-110B	OK-MODULE-34	78		
OK-110A	OK-MODULE-34	78		
OK-109B	OK-MODULE-34	78		
OK-109A	OK-MODULE-34	78		
OK-108B	OK-MODULE-34	78		
OK-108A	OK-MODULE-34	78		
OK-107B	OK-MODULE-34	78		
OK-107A	OK-MODULE-34	78		
OK-106B	OK-MODULE-35	78		
OK-106A	OK-MODULE-35	78		
OK-105B	OK-MODULE-35	78		
OK-105A	OK-MODULE-35	78		
OK-104B	OK-MODULE-35	78		
OK-104A	OK-MODULE-35	78		
OK-103B	OK-MODULE-35	78		
OK-103A	OK-MODULE-35	78		
OK-102B	OK-MODULE-35	78		
OK-102A	OK-MODULE-35	78		
OK-101B	OK-MODULE-35	78		
OK-101A	OK-MODULE-35	78		
OK-100B	OK-MODULE-35	78		
OK-100A	OK-MODULE-35	78		
OK-099B	OK-MODULE-35	78		
OK-099A	OK-MODULE-35	78		
OK-098B	OK-MODULE-36	78		
OK-098A	OK-MODULE-36	78		
OK-097B	OK-MODULE-36	78		
OK-097A	OK-MODULE-36	78		
OK-096B	OK-MODULE-36	78		
OK-096A	OK-MODULE-36	78		
OK-095B	OK-MODULE-36	78		
OK-095A	OK-MODULE-36	78		
OK-094B	OK-MODULE-36	78		
OK-094A	OK-MODULE-36	78		
OK-093B	OK-MODULE-36	78		
OK-093A	OK-MODULE-36	78		
OK-092B	OK-MODULE-36	78		
OK-092A	OK-MODULE-36	78		
OK-091B	OK-MODULE-36	78		
OK-091A	OK-MODULE-36	78		
OK-090B	OK-MODULE-37	78		
OK-090A	OK-MODULE-37	78		
OK-089B	OK-MODULE-37	78		
OK-089A	OK-MODULE-37	78		
OK-088B	OK-MODULE-37	78		
OK-088A	OK-MODULE-37	78		
OK-087B	OK-MODULE-37	78		
OK-087A	OK-MODULE-37	78		
OK-086B	OK-MODULE-37	78		
OK-086A	OK-MODULE-37	78		
OK-085B	OK-MODULE-37	78		
OK-085A	OK-MODULE-37	78		
OK-084B	OK-MODULE-37	78		
OK-084A	OK-MODULE-37	78		
OK-083B	OK-MODULE-37	78		
OK-083A	OK-MODULE-37	78		
OK-082B	OK-MODULE-38	78		
OK-082A	OK-MODULE-38	78		
OK-081B	OK-MODULE-38	78		
OK-081A	OK-MODULE-38	78		
OK-080B	OK-MODULE-38	78		
OK-080A	OK-MODULE-38	78		
OK-079B	OK-MODULE-38	78		
OK-079A	OK-MODULE-38	78		
OK-078B	OK-MODULE-38	78		
OK-078A	OK-MODULE-38	78		
OK-077B	OK-MODULE-38	78		
OK-077A	OK-MODULE-38	78		
OK-076B	OK-MODULE-38	78		
OK-076A	OK-MODULE-38	78		
OK-075B	OK-MODULE-38	78		
OK-075A	OK-MODULE-38	78		
OK-074B	OK-MODULE-39	78		
OK-074A	OK-MODULE-39	78		
OK-073B	OK-MODULE-39	78		
OK-073A	OK-MODULE-39	78		
OK-072B	OK-MODULE-39	78		
OK-072A	OK-MODULE-39	78		
OK-071B	OK-MODULE-39	78		
OK-071A	OK-MODULE-39	78		
OK-070B	OK-MODULE-39	78		
OK-070A	OK-MODULE-39	78		
OK-069B	OK-MODULE-39	78		
OK-069A	OK-MODULE-39	78		
OK-068B	OK-MODULE-39	78		
OK-068A	OK-MODULE-39	78		
OK-067B	OK-MODULE-39	78		
OK-067A	OK-MODULE-39	78		
OK-066B	OK-MODULE-40	78		
OK-066A	OK-MODULE-40	78		
OK-065B	OK-MODULE-40	78		
OK-065A	OK-MODULE-40	78		
OK-064B	OK-MODULE-40	78		
OK-064A	OK-MODULE-40	78		
OK-063B	OK-MODULE-40	78		
OK-063A	OK-MODULE-40	78		
OK-062B	OK-MODULE-40	78		
OK-062A	OK-MODULE-40	78		
OK-061B	OK-MODULE-40	78		
OK-061A	OK-MODULE-40	78		
OK-060B	OK-MODULE-40	78		
OK-060A	OK-MODULE-40	78		
OK-059B	OK-MODULE-40	78		
OK-059A	OK-MODULE-40	78		
OK-058B	OK-MODULE-41	78		
OK-058A	OK-MODULE-41	78		
OK-057B	OK-MODULE-41	78		
OK-057A	OK-MODULE-41	78		
OK-056B	OK-MODULE-41	78		
OK-056A	OK-MODULE-41	78		
OK-055B	OK-MODULE-41	78		
OK-055A	OK-MODULE-41	78		
OK-054B	OK-MODULE-41	78		
OK-054A	OK-MODULE-41	78		
OK-053B	OK-MODULE-41	78		
OK-053A	OK-MODULE-41	78		
OK-052B	OK-MODULE-41	78		
OK-052A	OK-MODULE-41	78		
OK-051B	OK-MODULE-41	78		
OK-051A	OK-MODULE-41	78		
OK-050B	OK-MODULE-42	78		
OK-050A	OK-MODULE-42	78		
OK-049B	OK-MODULE-42	78		
OK-049A	OK-MODULE-42	78		
OK-048B	OK-MODULE-42	78		
OK-048A	OK-MODULE-42	78		
OK-047B	OK-MODULE-42	78		
OK-047A	OK-MODULE-42	78		
OK-046B	OK-MODULE-42	78		
OK-046A	OK-MODULE-42	78		
OK-045B	OK-MODULE-42	78		
OK-045A	OK-MODULE-42	78		
OK-044B	OK-MODULE-42	78		
OK-044A	OK-MODULE-42	78		
OK-043B	OK-MODULE-42	78		
OK-043A	OK-MODULE-42	78		
OK-042B	OK-MODULE-43	78		
OK-042A	OK-MODULE-43	78		
OK-041B	OK-MODULE-43	78		
OK-041A	OK-MODULE-43	78		
OK-040B	OK-MODULE-43	78		
OK-040A	OK-MODULE-43	78		
OK-039B	OK-MODULE-43	78		
OK-039A	OK-MODULE-43	78		
OK-038B	OK-MODULE-43	78		
OK-038A	OK-MODULE-43	78		
OK-037B	OK-MODULE-43	78		
OK-037A	OK-MODULE-43	78		
OK-036B	OK-MODULE-43	78		
OK-036A	OK-MODULE-43	78		
OK-035B	OK-MODULE-43	78		
OK-035A	OK-MODULE-43	78		
OK-034B	OK-MODULE-44	78		
OK-034A	OK-MODULE-44	78		
OK-033B	OK-MODULE-44	78		
OK-033A	OK-MODULE-44	78		
OK-032B	OK-MODULE-44	78		
OK-032A	OK-MODULE-44	78		
OK-031B	OK-MODULE-44	78		
OK-031A	OK-MODULE-44	78		
OK-030B	OK-MODULE-44	78		
OK-030A	OK-MODULE-44	78		
OK-029B	OK-MODULE-44	78		
OK-029A	OK-MODULE-44	78		
OK-028B	OK-MODULE-44	78		
OK-028A	OK-MODULE-44	78		
OK-027B	OK-MODULE-44	78		

NOTES

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2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY ____ DATE ____
DRAWN BY " " "
TRACED BY " " "
DESIGNED BY " " "
QUANTITIES BY " " "
CHECKED BY " " "

MATTHEW M. VACCIONE
LICENSED PROFESSIONAL ENGINEER
No. 19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE ____ EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD OUTBOUND SCHEDULE 3

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-607 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	DRAWING NO.	TOTAL DWGS
HAWAII	HAW.	BR-063-1(028)	2024	29	29

HANGER ROD INSTALLATION SCHEDULE				
HANGER ROD ID	MODULE ID	THREADED ROD LENGTH (IN.)	X (IN.)	Y (IN.)
OK-027A	OK-MODULE-44	78		
OK-026B	OK-MODULE-45	78		
OK-026A	OK-MODULE-45	78		
OK-025B	OK-MODULE-45	78		
OK-025A	OK-MODULE-45	78		
OK-024B	OK-MODULE-45	78		
OK-024A	OK-MODULE-45	78		
OK-023B	OK-MODULE-45	78		
OK-023A	OK-MODULE-45	78		
OK-022B	OK-MODULE-45	78		
OK-022A	OK-MODULE-45	78		
OK-021B	OK-MODULE-45	78		
OK-021A	OK-MODULE-45	78		
OK-020B	OK-MODULE-45	78		
OK-020A	OK-MODULE-45	78		
OK-019B	OK-MODULE-45	78		
OK-019A	OK-MODULE-45	78		
OK-018L	OK-MODULE-46	EXISTING RETROFIT ROD	-19	1
OK-018R	OK-MODULE-46	EXISTING RETROFIT ROD	8.5	0
OK-017B	OK-MODULE-46	78		
OK-017A	OK-MODULE-46	78		
OK-016B	OK-MODULE-46	78		
OK-016A	OK-MODULE-46	78		
OK-015B	OK-MODULE-46	78		
OK-015A	OK-MODULE-46	78		
OK-014B	OK-MODULE-46	78		
OK-014A	OK-MODULE-46	78		
OK-013B	OK-MODULE-46	78		
OK-013A	OK-MODULE-46	78		
OK-012B	OK-MODULE-46	78		
OK-012A	OK-MODULE-46	78		
OK-011B	OK-MODULE-46	78		
OK-011A	OK-MODULE-46	78		
OK-010B	OK-MODULE-47	78		
OK-010A	OK-MODULE-47	78		
OK-009B	OK-MODULE-47	78		
OK-009A	OK-MODULE-47	78		
OK-008B	OK-MODULE-47	78		
OK-008A	OK-MODULE-47	78		
OK-007B	OK-MODULE-47	78		
OK-007A	OK-MODULE-47	78		
OK-006B	OK-MODULE-47	78		
OK-006A	OK-MODULE-47	78		
OK-005B	OK-MODULE-47	78		
OK-005A	OK-MODULE-47	78		
OK-004B	OK-MODULE-47	78		
OK-004A	OK-MODULE-47	78		
OK-003B	OK-MODULE-47	78		
OK-003A	OK-MODULE-47	78		
OK-002B	OK-MODULE-KP	78		
OK-002A	OK-MODULE-KP	78		
OK-001B	OK-MODULE-KP	78		
OK-001A	OK-MODULE-KP	78		

NOTES

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2. SEE SHEET G-005 FOR HANGER ROD ID NAMING CONVENTION AND ORIENTATION OF NEW HANGER ROD RELATIVE TO EXISTING.
3. CONTRACTOR TO PROVIDE AS-BUILT "X" AND "Y" DIMENSIONS IN TABLE FORMAT AS SHOWN ABOVE.

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

MATTHEW M VACCIONE
LICENSED PROFESSIONAL ENGINEER
No.19694-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE | EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANGER ROD OUTBOUND SCHEDULE 4

WILSON TUNNEL REPAIRS
OAHU, HAWAII
PROJECT NO. BR-063-1(028)

Scale: As Noted Date: JULY, 2024

SHEET No. S-608 OF 13 SHEETS