

STATE OF HAWAII
DEPARTMENT OF DEFENSE
HAWAII ARMY NATIONAL GUARD

JOB NO. CA-202311-C

REPAIR/REROUTE WATER DISTRIBUTION LINE AT BUILDING 300A FORT RUGER

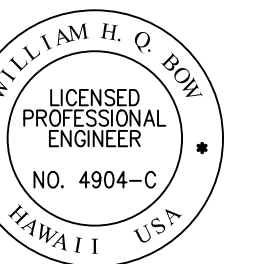
3949 DIAMOND HEAD ROAD
HONOLULU, OAHU, HAWAII
TMK: 3-1-042:040



Bow Engineering &



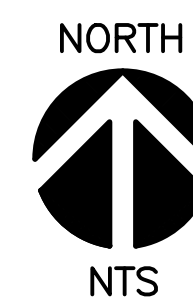
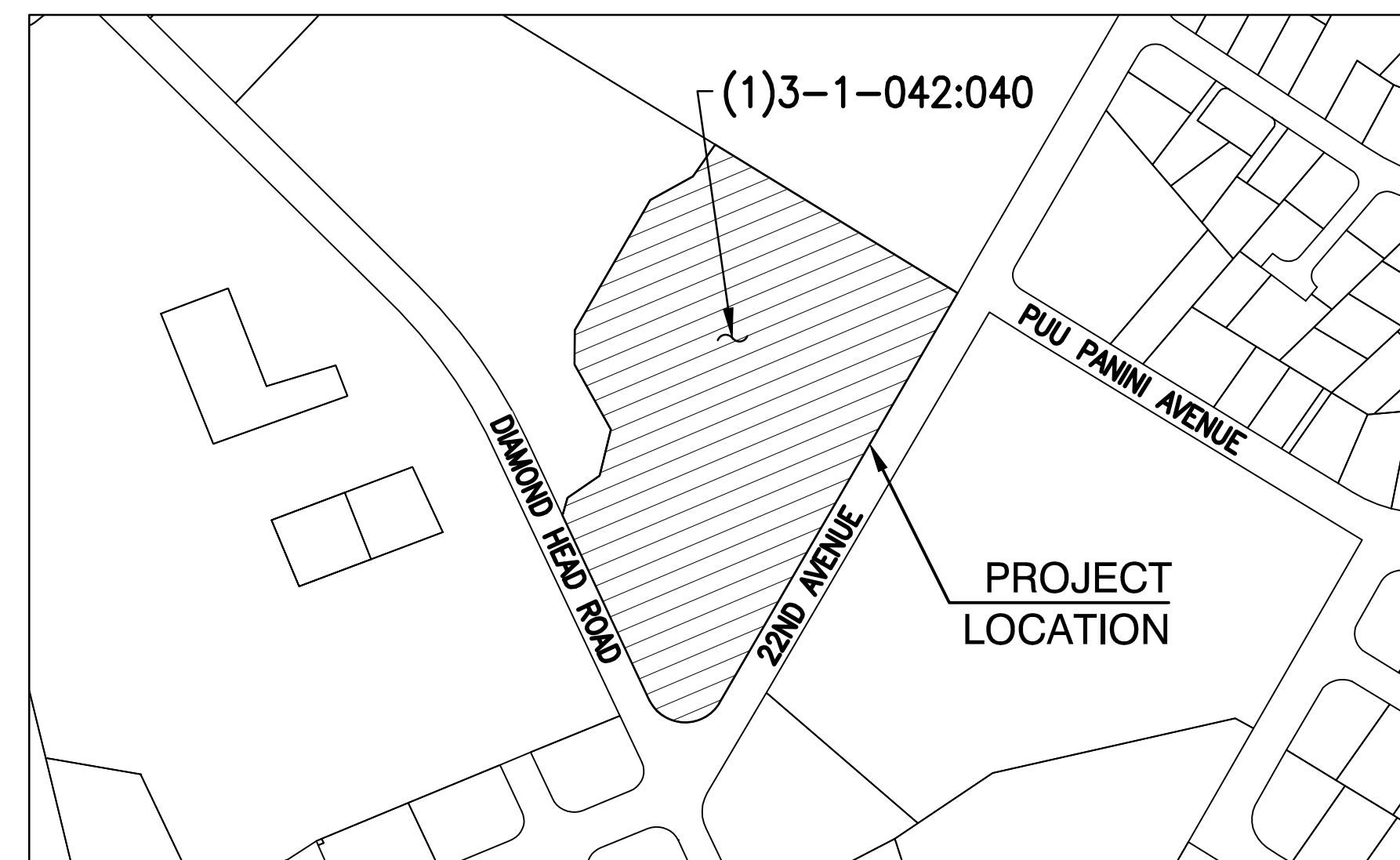
Development, Inc.
1953 S. BERETANIA STREET, PH-A
HONOLULU, HAWAII 96826
Phone: (808) 941-8853 FAX: (808) 945-9299



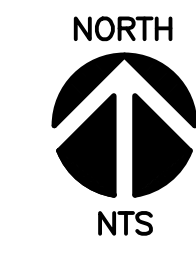
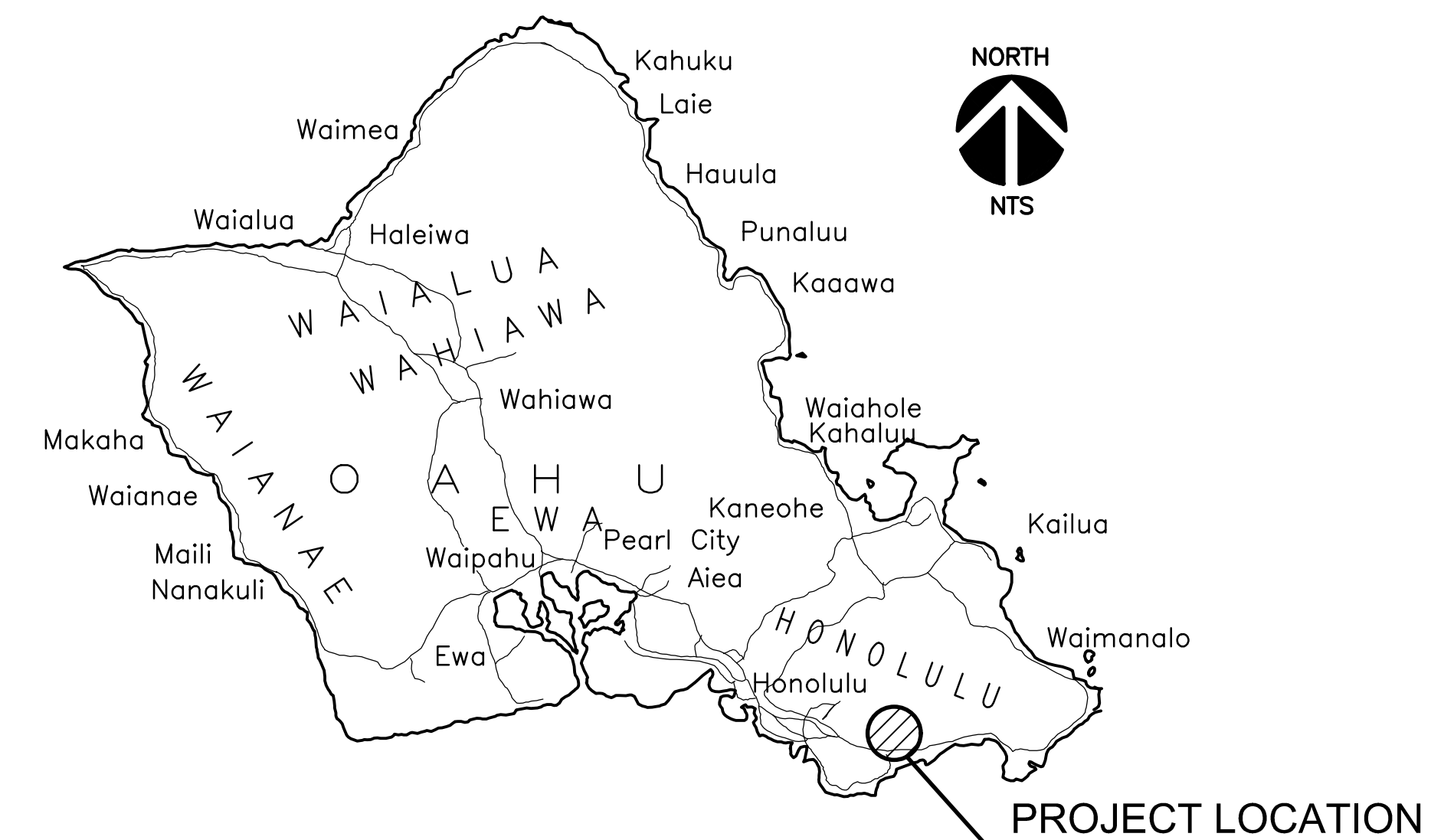
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
William H. O. Bow
EXPIRES 04-30-2024

APPR	DATE	DESCRIPTION	BY

LOCATION MAP



VICINITY MAP



PREPARED BY

Bow Engineering & Development, Inc.
CIVIL ENGINEERS  PLANNERS
1953 S. BERETANIA ST., SUITE PH-A Telephone (808) 941-8853
HONOLULU, HI 96826 Fax (808) 945-9299

INDEX OF DRAWINGS

SHEET #	SHEET TITLE
C-1.00	TITLE SHEET
C-2.00	GENERAL NOTES
C-2.10	EROSION AND SEDIMENT CONTROL PLAN NOTES
C-3.00	EROSION AND SEDIMENT CONTROL PLAN (CAT. 1B)
C-4.00	SITE AND UTILITY PLAN
C-5.00	MISCELLANEOUS DETAILS

FINAL

DATE: MAR. 2024

DES: ET DRW: GJ CHK: WB

STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
HAWAII ARMY NATIONAL GUARD
DESIGN AND PROJECT MANAGEMENT BRANCH
OAHU, HAWAII
BUILDING 300A FT. RUGER
REPAIR/REROUTE WATER DISTRIBUTION LINE
TITLE SHEET

SCALE: AS NOTED

STATE JOB NO. CA-202311-C

FEDERAL PROJECT NO.

SHEET 1 OF 6

C-1.00

Plotted: Fri, 15 Mar 2024 - 8:27am By: GJACALA
File Name: HAFY2023\23037.00 Ft. Ruger_Bldg 300 Waterline Repair\06 CAD\C-1.00 HIARNG Ft Ruger - Title Sheet.dwg

GENERAL CONSTRUCTION NOTES:

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986 AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI, AND HAWAII.
2. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
3. 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 CITY DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
 - A. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR CONFORMANCE WITH APPLICABLE PROVISIONS OF THE 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.
4. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (692-8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING (768-8084); AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES SUCH AS PORTABLE TOILETS, HAND-WASHING STATIONS, AND WATER FOR USERS WHEN WATER SUPPLY IS SHUT OFF TO THE BUILDING.
6. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) WEEKS NOTICE OF ANY SHUTDOWNS SUCH AS WATER OR ELECTRICAL TO THE FMO-PM.
7. IF EXISTING FENCING REMOVAL IS REQUIRED FOR INSTALLATION OF WATERLINE, CONTRACTOR SHALL REINSTALL CHAIN LINK FENCE AS NECESSARY TO SECURE PROTECTED AREAS PRIOR TO THE END OF EACH WORK DAY. TRENCHES CROSSING ANY FENCE, EXISTING OR PROVIDED, SHALL NOT BE LEFT OPEN DURING NON-WORK HOURS. OTHER MEASURES MAY BE UTILIZED AS APPROVED BY THE PROJECT MANAGER.

WATER NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY AND COUNTY OF HONOLULU BOARD OF WATER SUPPLY'S "WATER SYSTEM STANDARDS", DATED 2002, THE "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, DATED 1991, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
2. ALL PLANS APPROVED BY THE BOARD OF WATER SUPPLY ARE BASED SOLELY ON THE ADEQUACY OF THE WATER SUPPLY.
3. THE CONTRACTOR SHALL NOTIFY BWS CAPITAL PROJECTS DIVISION, CONSTRUCTION SECTION IN WRITING AND SUBMIT SIX (6) SETS OF APPROVED CONSTRUCTION PLANS ONE WEEK PRIOR TO COMMENCING WORK ON THE WATER SYSTEM.
4. THE CONTRACTOR SHALL CHLORINATE THE ENTIRE INSIDE SURFACE OF EACH PIPE AND FITTING WITH DISINFECTION SOLUTION OF 5 OUNCES OF SODIUM HYPOCHLORITE MIXED WITH 10 GALLONS OF WATER. (FOR CONNECTION ONLY)
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE ESPECIALLY CAREFUL WHEN EXCAVATING BEHIND WATER LINES, TEES, AND BENDS WHEREVER THERE IS A POSSIBILITY OF WATER LINE MOVEMENT DUE TO THE REMOVAL OF THE SUPPORTING EARTH BEYOND THE EXISTING REACTION BLOCKS. THE CONTRACTOR SHALL TAKE WHATEVER MEASURE NECESSARY TO PROTECT THE WATER LINES, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH BWS APPROVAL) AND/OR MODIFY HIS CONSTRUCTION METHOD.
6. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA BUT IS NOT GUARANTEED AS TO THE ACCURACY OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOT ASSUME THAT WHERE NO UTILITIES ARE SHOWN, THAT NONE EXIST.
7. CONTRACTOR SHALL CUT AND PLUG ALL EXISTING UNUSED LATERALS AT THE MAIN WHETHER OR NOT SHOWN ON THE PLANS. THE DAMAGED AREA SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION THAN THE IMMEDIATE AREA. ALL WORK SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.
8. PIPE CUSHION SHALL BE OF HIGH RESISTIVITY MATERIAL. THE CONTRACTOR SHALL SUBMIT A SOIL CERTIFICATION THAT HIGH RESISTANT CUSHION MATERIAL HAS A RESISTIVITY GREATER THAN 5,000 OHM-CM. REMAINDER OF THE BACKFILL MATERIAL SHALL CONTAIN NO HAZARDOUS SUBSTANCES ABOVE REGULATORY ACTION LEVELS INCLUDING BUT NOT LIMITED TO LEAD, ASBESTOS, MERCURY, CHROMIUM, CADMIUM, ZINC, STRONTIUM, AND POLYCHLORINATED BIPHENYLS (PCBS).
9. BALL CORP AND BALL STOP SHALL BE USED IN LIEU OF A CORPORATION STOP AND STOPCOCK, RESPECTIVELY.
10. THE CONTRACTOR SHALL FURNISH AND INSTALL POLYETHYLENE WRAP, 3 FEET MINIMUM AT ALL TAPS (FOR DI PIPE AND COPPER LATERAL COMBINATION ONLY) AND PLASTIC PIPE (PE TUBING) 3 FEET LONG AFTER METERS FOR ALL SERVICE LATERAL CONNECTIONS.

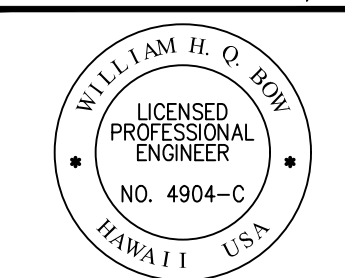
Plotted: Fri, 15 Mar 2024 - 8:27am By: GJACALA
File Name: HAFY2023\23037.00 Ft. Ruger - Bldg 300 Waterline Repair\06 CAD\C-200-210 HIARNG Ft. Ruger - General Notes & ESCP Notes.dwg



Bow Engineering &



Development, Inc.
1953 S. BERETANA STREET, PH-A
HONOLULU, HAWAII 96826
Phone: (808) 841-8853 A/E M/E



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
William H. O. Bow
EXPIRES 04-30-2024

NO.	DATE	DESCRIPTION	BY

FINAL

DATE: MAR. 2024

DES: ET DRW: GJ CHK: WB

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
OAHU, HAWAII

HAWAII ARMY NATIONAL GUARD

STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
BUILDING 300A FT. RUGER

REPAIR/REROUTE WATER DISTRIBUTION LINE

GENERAL NOTES

SCALE: AS NOTED

STATE JOB NO. CA-202311-C

FEDERAL PROJECT NO.

SHEET 2 OF 6

C-2.00

EROSION PREVENTION BMPs:

- PERMANENT STABILIZATION
 - PRIOR TO CLOSING OF ANY PERMIT(S) PERMANENT STABILIZATION MUST BE IN PLACE WHICH INCLUDES THE FOLLOWING REQUIREMENTS:
 - ALL EXPOSED DISTURBED AREAS MUST BE PERMANENTLY STABILIZED WITH GROUND COVERING SUCH AS VEGETATION, GRAVEL, OR PAVERS;
 - RAIN GUTTERS, DOWNSPOUTS, AND CHANNELIZED FLOWS MUST BE INSTALLED AND FUNCTIONING AS DESIGNED;
 - IN SEEDED AREAS, GRASS OR VEGETATION MUST COVER AT LEAST 90 PERCENT OF THE DISTURBED SOILS OR MUST BE TEMPORARILY STABILIZED WHILE IT IS GROWING;
 - TEMPORARY MEASURES, SUCH AS SEDIMENT BARRIERS, SHOULD BE REMOVED WHEN PERMANENT MEASURES ARE IN PLACE;
 - ALL PAVED SURFACES MUST BE CLEAN; AND
 - STORM DRAIN INLET FILTERS MUST BE REMOVED AFTER ALL CLEANUP ACTIVITIES HAVE BEEN COMPLETED
- TEMPORARY STABILIZATION
 - TEMPORARY STABILIZATION IS REQUIRED ON DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHEN THE DISTURBED AREA WILL NOT BE WORKED FOR 14 CONSECUTIVE DAYS OR MORE.
 - THIS PROJECT WILL USE ROLLED EROSION CONTROL PRODUCTS OR PLANTING AND VEGETATION FOR TEMPORARY STABILIZATION.

SEDIMENT CONTROL BMPs:

- PERIMETER CONTROLS
 - SEDIMENT FENCES OR BARRIERS SHALL BE USED AT THE PERIMETER OF ALL DISTURBED AREAS WHERE THERE IS POTENTIAL FOR RUNOFF TO FLOW OFF THE PROJECT SITE. BARRIERS MAY INCLUDE GRAVEL BAGS, SAND BAGS, FIBER ROLLS, SILT FENCES, COMPOST SOCKS, OR AN EQUIVALENT BMP THAT INTERCEPTS RUNOFF.
- INLET PROTECTION
 - ALL STORM DRAIN INLETS ONSITE AND THOSE OFFSITE WHICH MAY RECEIVE RUNOFF FROM THE SITE SHALL USE AN INLET PROTECTION DEVICE UNLESS THEY ARE DIRECTED TO A SEDIMENT BASIN OR TRAP.

GOOD HOUSEKEEPING BMPs:

- BMP AND SITE MAINTENANCE
 - REGULARLY INSPECT AND MAINTAIN BMPs TO ENSURE CONTINUED PERFORMANCE.
- DUST CONTROL
 - DUST FROM THE PROJECT SITE SHALL NOT BE TRANSPORTED OR DISCHARGED TO OFF-SITE AREAS.
 - THIS PROJECT WILL USE WATER TO MAINTAIN SOIL MOISTURE TO PREVENT DUST.
- CONCRETE WASTE MANAGEMENT
 - PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE OR PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
 - PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MILLIMETER POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
 - CONTAINMENT AREAS OF DEVICES SHOULD NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS.
 - WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75 PERCENT FULL.
 - ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPERSED OR AS SOLID WASTES.
- STOCKPILE MANAGEMENT
 - STOCKPILES SHALL NOT BE LOCATED IN DRAINAGE WAYS, WITHIN 50 FEET FROM AREAS OF CONCENTRATED FLOWS, AND ARE NOT ALLOWED IN THE CITY RIGHT-OF-WAY. SEDIMENT BARRIERS OR SILT FENCES SHALL BE USED AROUND THE BASE OF ALL STOCKPILES. STOCKPILES SHALL NOT EXCEED 15 FEET IN HEIGHT. STOCKPILES GREATER THAN 15 FEET IN HEIGHT SHALL REQUIRE 8-FOOT WIDE BENCHING IN ACCORDANCE WITH ROH CHAPTER 14, ARTICLE 15. STOCKPILES MUST BE COVERED WITH PLASTIC SHEETING OR A COMPARABLE MATERIAL IF THEY WILL NOT BE ACTIVELY USED WITHIN 7 DAYS.
- VEHICLE TRACKING CONTROL
 - RESTRICT VEHICLE TRAFFIC TO PROPERLY DESIGNATED AREAS AND REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXITING THE PROJECT SITE. ALL SEDIMENTS THAT ARE TRACKED OR DISCHARGED OFF-SITE MUST BE SWEEPED OR VACUUMED AT THE END OF EACH DAY.
- MATERIALS DELIVERY, STORAGE AND USE MANAGEMENT
 - MINIMIZE THE STORAGE OF POTENTIAL POLLUTANTS ONSITE. STORE MATERIALS IN A DESIGNATED AREA, AND INSTALL SECONDARY CONTAINMENT. DO NOT STORE MATERIALS IN BUFFER AREAS, NEAR AREAS OF CONCENTRATED FLOW, OR AREAS ADJACENT TO THE CITY STORM DRAINAGE SYSTEM, RECEIVING WATERS, OR DRAINAGE IMPROVEMENTS THAT DISCHARGE OFF-SITE
- SPILL PREVENTION AND CONTROL
 - KEEP AMPLE SUPPLY OF CLEANUP MATERIALS ONSITE, CLEAN UP SPILLS IMMEDIATELY, USING DRY CLEAN-UP METHODS WHERE POSSIBLE, AND DISPOSE OF USED MATERIALS PROPERLY.
- SOLID WASTE MANAGEMENT
 - PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO THE LAND, GROUNDWATER, AND IN STORM WATER FROM SOLID WASTE OR CONSTRUCTION AND DEMOLITION WASTE BY PROVIDING DESIGNATED WASTE COLLECTION AREAS, COLLECT SITE TRASH DAILY, AND ENSURING THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF ONLY AT AUTHORIZED DISPOSAL AREAS.

GOOD HOUSEKEEPING BMPs (CONT'D):

- PORTABLE TOILETS (SANITARY/SEPTIC WASTE MANAGEMENT)
 - TEMPORARY AND PORTABLE SANITARY AND SEPTIC WASTE SYSTEMS SHALL BE MOUNTED OR STAKED IN, WELL-MAINTAINED AND SCHEDULED FOR REGULAR WASTE DISPOSAL AND SERVICING. SOURCES OF SANITARY AND/OR SEPTIC WASTE SHALL NOT BE STORED NEAR THE MS4 OR RECEIVING WATERS.
- LIQUID WASTE MANAGEMENT
 - CONTAIN LIQUID WASTES IN A HOLDING PIT, SEDIMENT BASIN, ROLL-OFF BIN, OR PORTABLE TANK OF SUFFICIENT VOLUME TO CONTAIN THE LIQUID WASTES GENERATED. PLACE LIQUID WASTE MANAGEMENT WITHIN PROPERTY.
- NON-HAZARDOUS MATERIALS
 - IN THE EVENT THAT NON-HAZARDOUS MATERIALS ARE DISCHARGED TO THE MS4, THE PROPERTY OWNER OR ESCP COORDINATOR SHALL NOTIFY THE CITY DEPARTMENT OF FACILITIES MAINTENANCE BY TELEPHONE NO LATER THAN THE NEXT BUSINESS DAY. A WRITTEN REPORT DESCRIBING THE POLLUTANTS THAT WERE DISCHARGED, THE REASONS FOR THE DISCHARGE, AND THE MEASURES THAT HAVE BEEN TAKEN OR WILL BE TAKEN TO PREVENT A REOCCURRENCE OF THE DISCHARGE SHALL BE SUBMITTED TO THE DIRECTOR NO LESS THAN 3 DAYS AFTER NOTIFICATION BY PHONE.

OMITTED BMPs:

A COMPREHENSIVE LIST OF BMPs BASED ON THE DPP RULES RELATING TO WATER QUALITY AND GUIDANCE DOCUMENTS MENTIONED ABOVE, WERE REVIEWED TO COMPLETE THIS ESCP. THE FOLLOWING BMPs WERE DETERMINED TO BE NOT APPLICABLE BECAUSE THEY WOULD NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL BASED ON THE SPECIFIC SITE CONDITIONS. AS CONSTRUCTION PROGRESSES, REVISIONS MAY BE NECESSARY AND WILL BE PROVIDED TO DPP INSPECTORS.

OMITTED BMPs	RATIONALE
DEWATERING OPERATIONS	THERE WILL BE NO DEWATERING ONSITE.
CONTAMINATED SOIL MANAGEMENT	THERE ARE NO CONTAMINATED SOILS ANTICIPATED ON SITE.
HAZARDOUS MATERIALS	THERE ARE NO HAZARDOUS MATERIALS ANTICIPATED ON SITE.
SLOPE MANAGEMENT & PROTECTION	ALL WORK WILL BE ON SLOPES LESS THAN 15%.
VEHICLE AND EQUIPMENT CLEANING, FUELING, AND MAINTENANCE	THERE WILL BE NO ON-SITE CLEANING, FUELING, OR MAINTENANCE OF ANY CONSTRUCTION VEHICLES OR EQUIPMENT

SCHEDULE NOTES:

- AN ESCP COORDINATOR FOR THE PROJECT MUST BE DESIGNATED TO DPP IN WRITING BEFORE PERMIT ISSUANCE USING APPENDIX A OR B OF THE RULES RELATING TO WATER QUALITY.
- NOTIFY DPP IN WRITING TWO WEEKS PRIOR TO STARTING WORK BY EMAIL OR PHONE: 768-8132.
- MEASURES TO PREVENT AND CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTHWORK IS INITIATED.
- BEST MANAGEMENT PRACTICES (BMPs) SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS COMPLETE.
- PRACTICE GOOD HOUSEKEEPING MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- INSPECTIONS WILL BE PERFORMED MONTHLY AT A MINIMUM AND MAY BE PERFORMED MORE FREQUENTLY AS NEEDED.

PROJECT SCHEDULE:

THE FOLLOWING IS THE PLANNED SEQUENCE AND TIMELINE OF ACTIVITIES. REVISIONS MAY BE NECESSARY AND WILL BE PROVIDED TO DPP INSPECTORS.

ACTION	TIMELINE OR DATE
NOTIFY THE DEPARTMENT OF PLANNING AND PERMITTING OF PROJECT START DATE - 768-8132	2 WEEKS BEFORE STARTING WORK
INSTALL DRAIN INLET PROTECTION AND PERIMETER CONTROLS	DAY 1
PERFORM PRE-CONSTRUCTION INSPECTION	DAY 1
SITE CLEARING	3 DAYS
CONCRETE FOUNDATION	1 WEEK
VERTICAL CONSTRUCTION THROUGH FINAL STABILIZATION	5 MONTHS
DEMobilize EQUIPMENT AND MATERIALS	2 DAYS
REMOVE DRAIN INLET PROTECTION AND PERIMETER CONTROLS	1 DAY
SWEEPING AND WASTE DISPOSAL	DAILY

RAIN RESPONSE PLAN:

THE FOLLOWING WILL BE PERFORMED WHEN HEAVY RAINS, TROPICAL STORM OR HURRICANE IS IMMINENT OR IS FORECASTED IN THE NEXT 48 HOURS:

- TEMPORARILY SUSPEND LAND DISTURBING ACTIVITIES INCLUDING CLEARING, GRUBBING, GRADING, AND TRENCHING.
- INSPECT ALL BMPs AND MAINTAIN AS NEEDED.
- REINSTALL BMPs THAT WERE REMOVED DUE TO ACTIVE WORK IN THE AREA.
- IF A SEVERE STORM IS EXPECTED, REMOVE INLET PROTECTION DEVICES TO PREVENT FLOODING ON SURROUNDING STREETS.
- COVER OR RELOCATE MATERIAL STOCKPILES AND LIQUID MATERIAL CONTAINERS TO AVOID CONTACT WITH RAINWATER.
- PLACE SPILL PANS OR OIL-ONLY SPILL PADS UNDER CONSTRUCTION VEHICLES TO PREVENT RUNOFF FROM CONTACTING ANY SPILLED PETROLEUM PRODUCTS. PROPERLY DISPOSE OF ANY ACCUMULATED OILY WATER AFTER THE RAIN EVENT.
- RE-INSPECT PROJECT SITE AFTER THE RAIN EVENT AND REPLACE OR MAINTAIN BMPs AS NEEDED.

ESCP INSPECTION NOTES:

- AT LEAST TWO WEEKS BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR OR THE PERSON IN CHARGE OF CONSTRUCTION SHALL NOTIFY THE STORM WATER INSPECTOR LISTED ON THE BUILDING PERMIT.
- AFTER INSTALLING THE CONSTRUCTION BMPs AND MOBILIZING ANY CONSTRUCTION APPARATUS IN ACCORDANCE WITH THE APPROVED ESCP (OR APPENDIX B - ESCP FOR SMALL PROJECT TEMPLATE), THE CONTRACTOR OR THE PERSON IN CHARGE OF CONSTRUCTION SHALL CONTACT THE ESCP COORDINATOR LISTED ON THE BUILDING PERMIT, FOR A PRECONSTRUCTION INSPECTION.
- THE ESCP COORDINATOR SHALL SUBMIT THE PRECONSTRUCTION INSPECTION CHECKLIST TO THE STORM WATER INSPECTOR (EMAIL TO DPP.NPDES@HONOLULU.GOV) CONFIRMING THE BMPs AND GOOD HOUSEKEEPING MEASURES ARE IN COMPLIANCE.

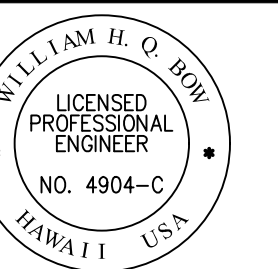


Bow Engineering &



Development, Inc.

1953 S. BERETANIA STREET, PH-A
HONOLULU, HAWAII 96826
Phone: (808) 841-8853 A/E M/E



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

W. H. O. BOW
EXPIRES 04-30-2024

NO.	DATE	DESCRIPTION	BY

FINAL

SCALE: AS NOTED

STATE JOB NO. CA-202311-C

FEDERAL PROJECT NO.

SHEET 3 OF 6

C-2.10

Plotted: Fri, 15 Mar 2024 - 8:27am By: GJACALA File Name: HAFY2023\23037.00 Ft. Ruger - Bldg 300 Waterline Repair\06 CA10D\C-200-210 HIARNG Ft. Ruger - General Notes & ESCP Notes.dwg

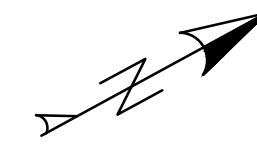
1

2

3

4

5



DISTURBED AREA: 1,983 SF

D

C

B

A

DIAMOND HEAD ROAD (CITY)

SPECIAL TROOPS' BLDG

EXIST. CONCRETE HEADWALL

TEMPORARY INLET PROTECTION. SEE DETAIL

4
C-5.00

EXISTING COLD WATERLINE UNDER BUILDING TO REMAIN

MAIN BLDG

PARKING

EXISTING COLD WATERLINE TO REMAIN

PARKING

CONCRETE WASH AREA*

STOCKPILE AREA WITH FILTER SOCK*

EXIST. CRM WALL

EXIST. CONCRETE CHANNEL

22ND AVENUE (CITY)

EROSION AND SEDIMENT CONTROL PLAN (CAT. 1B)

SCALE: 1" = 30'

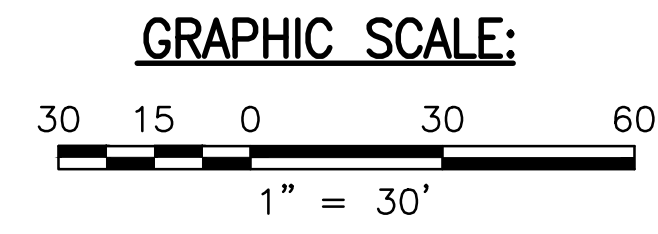
LEGEND:

- PROPERTY LINE
- LIMITS OF DISTURBED AREA
- GRASS
- COMPOST FILTER SOCK
- FLOW ARROW

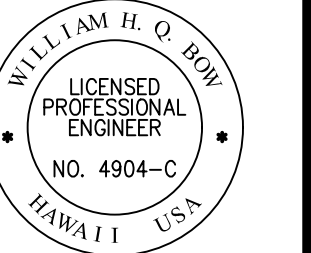
* CONTRACTOR MAY RELOCATE AS NEEDED

NOTES:

1. GRASSED AREAS AND A.C. AND CONCRETE PAVEMENT TO BE PATCHED AND REPAIRED TO EQUAL OR BETTER CONDITIONS FOLLOWING THE TRENCHING AND INSTALLATION OF NEW WATERLINE.



Bow Engineering & Development, Inc.
 1953 S. BERETANIA STREET, PH-A HONOLULU, HAWAII 96826
 Phone: (808) 841-8853 FAX: (808) 841-8853



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

W. O. BOW

NO.	DATE	DESCRIPTION	BY

FINAL

MAR. 2024

DES: ET DRW: GJ CHK: WB

DEPARTMENT OF DEFENSE

HAWAII ARMY NATIONAL GUARD

DESIGN AND PROJECT MANAGEMENT BRANCH

OAHU, HAWAII

BUILDING 300A FT. RUGER

REPAIR/REROUTE WATER DISTRIBUTION LINE

EROSION AND SEDIMENT CONTROL PLAN (CAT. 1B)

SCALE: AS NOTED

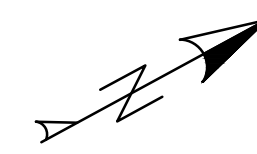
STATE JOB NO. CA-202311-C

FEDERAL PROJECT NO.

SHEET 4 OF 6

C-3.00

Plotted: Fri, 15 Mar 2024 - 8:28am By: GJACALA
 File Name: HAFY2023\23037.00 Ft. Ruger Bldg 300 Waterline Repair\06 CAD\C-300 HIRING Ft. Ruger - Demo and Erosion and Sediment Control Plandwg



DIAMOND HEAD ROAD (CITY)

SPECIAL TROOPS' BLDG

PROPERTY LINE, TYP.

MAIN BLDG

PARKING

PARKING

22ND AVENUE (CITY)

SITE AND UTILITY PLAN

SCALE: 1" = 30'

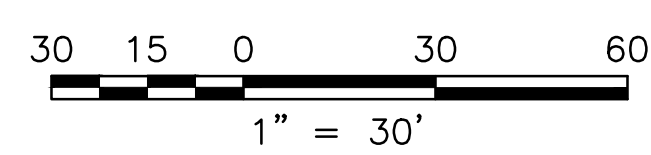
LEGEND:


- PROPERTY LINE
- GRASS

NOTES:

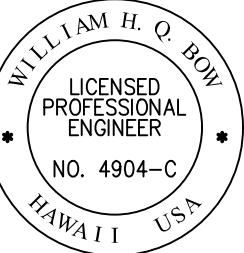
- CONTRACTOR TO VERIFY EXACT LOCATION AND CONDITION OF EXISTING WATERLINES.
- CONTRACTOR SHALL COORDINATE WITH PROJECT MANAGER FOR ACCESS TO FORT RUGER SITE PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR TO PROVIDE ALL INCIDENTAL APPURTENANCES FOR MAKING CONNECTIONS, AND CONCRETE REACTION BLOCKS AT BENDS AND TEES AS REQUIRED.
- 4-INCH PIPE SHALL BE PVC C900.
- 2-1/2 INCH PIPE AND SMALLER SHALL BE COPPER.
- LOCATION OF EXIST IRRIGATION LINES ARE UNKNOWN. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING IRRIGATION PRIOR TO CONSTRUCTION. EXISTING IRRIGATION SYSTEM TO BE PROTECTED IN PLACE.
- FOR TRENCHING CROSSING ANY FENCE, SEE GENERAL CONSTRUCTION NOTE 7 ON SHEET C-2.00.
- NEW 3" BWS-APPROVED REDUCED PRESSURE BACKFLOW PREVENTER TO BE INSTALLED AFTER THE EXISTING WATER METER PRIOR TO ANY TEES OR BRANCHES PER BWS STANDARD DETAIL V-9.
- EXISTING ELECTRICAL DUCTS ARE NOT SHOWN SINCE THE LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION AND PROTECT IN PLACE.
- EXISTING STORM DRAIN LINE IS NOT SHOWN SINCE EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION AND PROTECT IN PLACE.
- EXISTING GROUND LOOP SENSORS AT AUTOMATED GATE MAY BE AFFECTED DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING.

GRAPHIC SCALE:





Bow Engineering &
Development, Inc.
1953 S. BERETANA STREET, PH-A
HONOLULU, HAWAII 96826
Phone: (808) 841-9553 A/E M/E



WILLIAM H. O. BOW
LICENSED PROFESSIONAL ENGINEER
NO. 4904-C
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
William H. O. Bow
EXPRES-04-30-2024

DATE	DESCRIPTION

STATE OF HAWAII
FACILITY MANAGEMENT OFFICE

HAWAII ARMY NATIONAL GUARD
DESIGN AND PROJECT MANAGEMENT BRANCH
OAHU, HAWAII

BUILDING 300A FT. RUGER

REPAIR/REROUTE WATER DISTRIBUTION LINE

SITE AND UTILITY PLAN

SCALE: AS NOTED

STATE JOB NO. CA-202311-C

FEDERAL PROJECT NO.

SHEET 5 OF 6

C-4.00

Plotted: Fri, 15 Mar 2024 - 8:28am By: GJACALA
File Name: HAFY2023\23037.00 Ft. Ruger Bldg 300 Waterline Repair\06 CAD\C-4.00 HIRING Ft Ruger - Site and Utility Plan.dwg

