

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 EXCAVATIONS FOR THE NEW LINES.

3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATIONS 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.

4. 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.

THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

1. STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE(1) ACRE OR MORE, AND
2. DISCHARGES OF HYDROTESTING EFFLUENT, DEWATERING EFFLUENT, AND WELL DRILLING EFFLUENT TO STATE WATERS.

IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECT CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABLE FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT <http://health.hawaii.gov/cwb>. THE OWNER/DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING OTHER FEDERAL, STATE, OR LOCAL AUTHORIZATIONS AS REQUIRED BY LAW.

5. THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, D.P.P. AT 768-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT TWO (2) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK.

6. CONFINED SPACE

FOR ENTRY BY CITY PERSONNEL, INCLUDING INSPECTORS, INTO A PERMIT REQUIRED CONFINED SPACE AS DEFINED IN 29 CFR PART 1910.146(b), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING:

I. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

- A. ALL FULL BODY HARNESS FOR UP TO TWO PERSONNEL.
 - B. LIFELINE AND ASSOCIATED CLIPS.
 - C. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT.
 - D. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.
 - E. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION)
 - F. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.
 - G. CONTINUOUS GAS DETECTOR (CALIBRATED) TO MEASURE OXYGEN, HYDROGEN SULFIDE, CARBON MONOXIDE AND FLAMMABLES (CAPABLE OF MONITORING AT A DISTANCE AT LEAST 20-FEET AWAY).
 - H. PERSONAL MULTI-GAS DETECTOR TO BE CARRIED BY INSPECTOR.
- II. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS.
- III. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).

7. 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.

8. NOTE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

9. FOR BENCH MARK, SEE SHEET C102.

PUBLIC HEALTH, SAFETY AND CONVENIENCE NOTES

1. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.

2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND ITS SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. THE CITY SHALL REQUIRE SUPPLEMENTARY MEASURES AS REQUIRED.

3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATIONS 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.

4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.

5. THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 44B PUBLIC HEALTH REGULATIONS DEPARTMENT OF HEALTH, STATE OF HAWAII "COMMUNITY NOISE CONTROL FOR OAHU" IN WHICH MAXIMUM ALLOWABLE NOISE LEVELS HAVE BEEN SET. IF THE CONSTRUCTION ACTIVITIES FOR THIS PROJECT WILL EXCEED THE ALLOWABLE NOISE LEVELS, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A PERMIT FROM THE DIRECTOR OF THE DEPARTMENT OF PUBLIC HEALTH. THE CONTRACTOR SHALL OBTAIN A COPY OF CHAPTER 44B AND BECOME FAMILIAR WITH THE NOISE LEVEL RESTRICTIONS AND THE PROCEDURES FOR OBTAINING A PERMIT FOR CONSTRUCTION ACTIVITIES.

TRAFFIC NOTES FOR WORK ON CITY AND COUNTY STREETS

1. A PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF TRANSPORTATION SERVICES BEFORE WORK ON ANY PORTION OF A PUBLIC STREET OR HIGHWAY MAY BEGIN. CONSTRUCTION TRAFFIC CONTROL PLANS APPROVED BY THE DEPARTMENT OF TRANSPORTATION SERVICES AND/OR THE DEPARTMENT OF PLANNING AND PERMITTING MUST BE PROVIDED WHEN APPLYING FOR THE PERMIT.

2. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS AND OTHER PROTECTIVE FACILITIES, WHICH SHALL CONFORM WITH THE "HAWAII ADMINISTRATION RULES GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS" ADOPTED BY THE DIRECTOR OF TRANSPORTATION, AND THE CURRENT U.S. FEDERAL HIGHWAYS ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI-TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS."

3. WORK ON ANY CITY STREET AREA MAY BE PERFORMED ONLY BETWEEN THE HOURS OF 8:30 A.M. TO 3:30 P.M., MONDAY THROUGH FRIDAY, UNLESS OTHERWISE PERMITTED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.

4. DURING WORKING HOURS, THE CONTRACTOR SHALL PROVIDE FOR THROUGH TRAFFIC. DURING NON-WORKING HOURS, ALL TRENCHES SHALL BE COVERED WITH SAFE NON-SKID BRIDGING MATERIAL AND ALL LANES SHALL BE OPENED TO TRAFFIC.

5. AS REQUIRED BY THE DEPARTMENT OF TRANSPORTATION SERVICES, THE CONTRACTOR SHALL PROVIDE OFF-DUTY POLICE OFFICERS TO CONTROL THE FLOW OF TRAFFIC.

6. WHERE PEDESTRIAN WALKWAYS EXIST, THEY SHALL BE MAINTAINED IN PASSABLE CONDITION OR OTHER FACILITIES FOR PEDESTRIANS SHALL BE PROVIDED. PASSAGE BETWEEN WALKWAYS AT INTERSECTIONS SHALL LIKEWISE BE PROVIDED.

7. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THESE RIGHT-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY.

8. CONTRACTOR SHALL REFERENCE TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION SERVICES AND THE DEPARTMENT OF PLANNING AND PERMITTING, ALL EXISTING TRAFFIC SIGNS, POSTS AND PAVEMENT MARKINGS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNS, POSTS AND PAVEMENT MARKINGS DISTURBED BY HIS ACTIVITIES.

9. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PLANNING AND PERMITTING AT 768-8084 ONE (1) WEEK PRIOR TO ANY WORK TO BE DONE ON SIGNS, POSTS AND PAVEMENT MARKINGS, AND PROVIDE ONE SET APPROVED PLANS.

10. NO EQUIPMENT SHALL BE STORED WITHIN STREET RIGHTS-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.

11. HAWAII CITY PLAZA_LP SHALL ENSURE THAT THE CONTRACTOR INSTALLS THE CONSTRUCTION TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE MUTCD AND THE HAWAII ADMINISTRATION RULES AS SPECIFIED IN TRAFFIC NOTE #2.

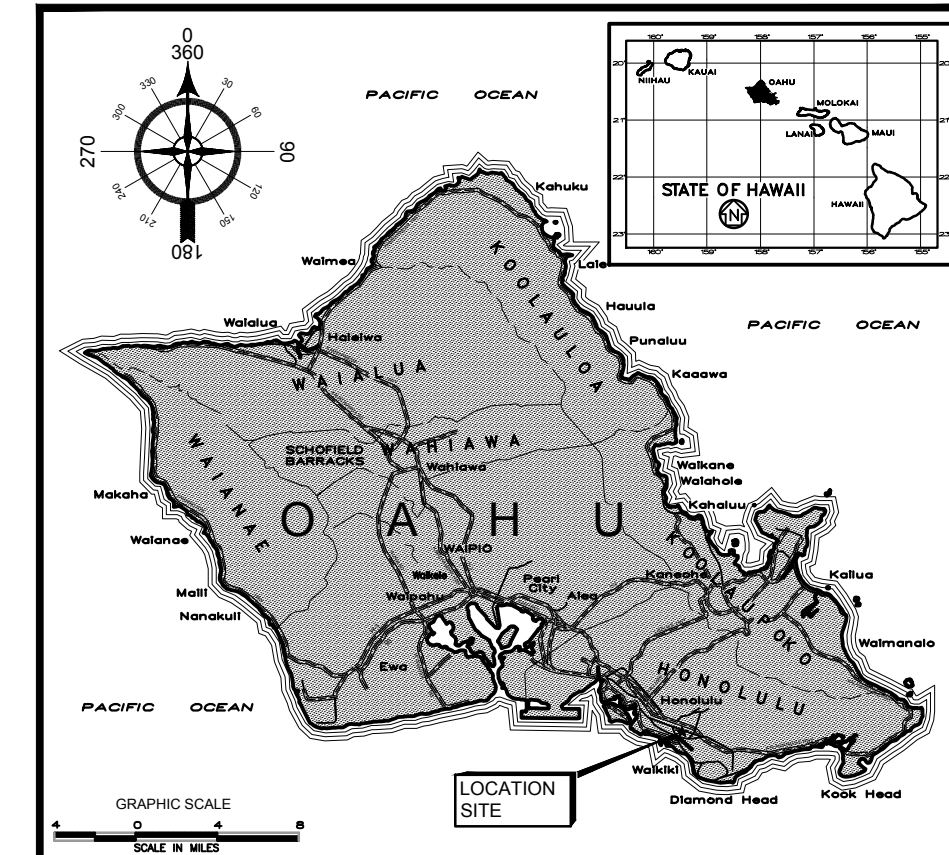
DEPARTMENT OF DESIGN & CONSTRUCTION MECHANICAL/ELECTRICAL DIVISION NOTES

1. THE CONTRACTOR SHALL NOTIFY THE MECHANICAL/ELECTRICAL DIVISION DEPARTMENT OF DESIGN AND CONSTRUCTION, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE STREET LIGHT SYSTEM. (PHONE:768-8431)

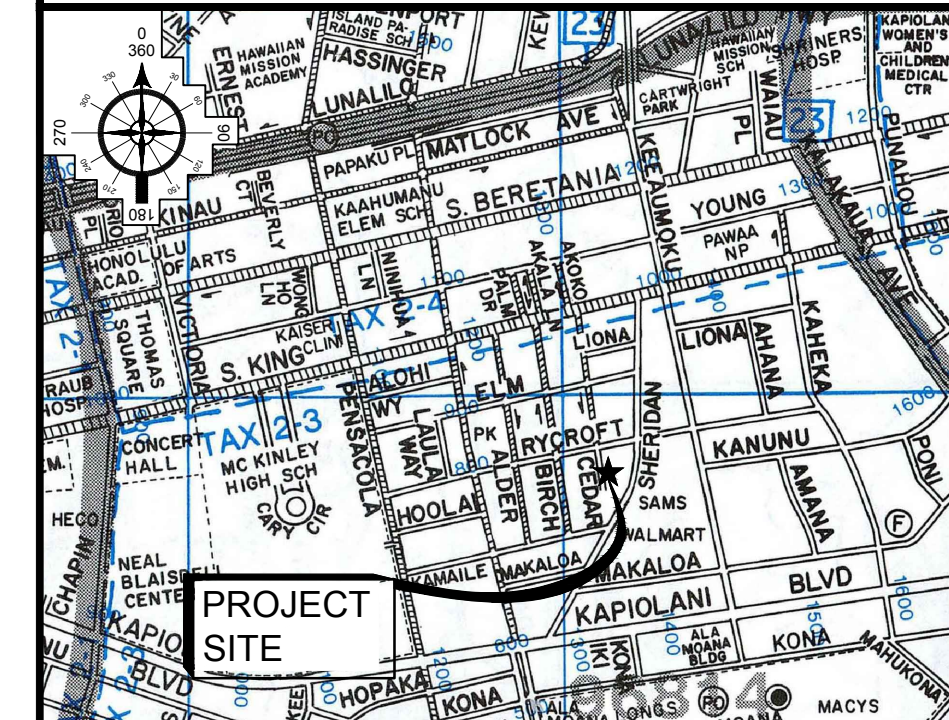
2. THE STREET LIGHTING SYSTEM SHALL BE KEPT OPERATIONAL DURING CONSTRUCTION, ANY RELOCATION REQUIRED SHALL BE APPROVED BY THE MECHANICAL/ELECTRICAL DIVISION AND PAID FOR BY THE CONTRACTOR.

3. THE LOCATIONS OF THE EXISTING UNDERGROUND STREET LIGHT FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING PLANS AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY TO THE EXISTING STREET LIGHT FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE EXISTING STREET LIGHT FACILITIES. ANY AND ALL DAMAGES TO THESE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND COUNTY OF HONOLULU.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE CITY'S EXISTING COMMUNICATIONS FIBER OPTIC CABLE SYSTEM, ANY AND ALL DAMAGES TO THESE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND COUNTY OF HONOLULU.



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE

CIVIL DRAWING INDEX

SHEET NUMBER	DESCRIPTION
C-001	NOTES, VICINITY MAP, LOCATION MAP AND DRAWING INDEX
C-002	NOTES
C-003	EROSION CONTROL PLAN NOTES AND DETAILS
C-004	EROSION CONTROL PLAN NOTES AND DETAILS
C-101	GENERAL PLAN
C-102	OFFSITE SEWER LINE PLAN
C-103	SEWER LINE PROFILE
C-201	GENERAL TRAFFIC CONTROL PLAN
C-202	TRAFFIC CONTROL PLAN-PHASE-1A
C-203	TRAFFIC CONTROL PLAN-PHASE-1B
C-204	TRAFFIC CONTROL PLAN-PHASE 2A-2B
C-501	DETAILS
C-502	DETAILS

APPROVED

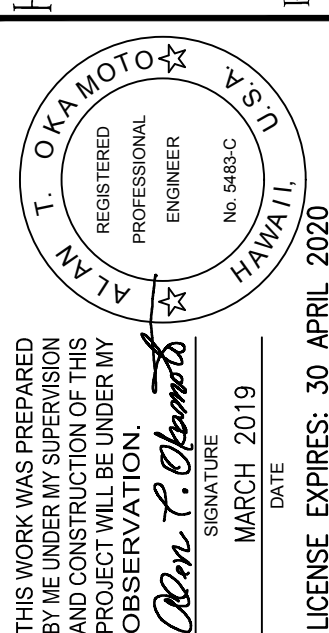
DIRECTOR, DEPARTMENT OF PLANNING & PERMITTING CITY AND COUNTY OF HONOLULU (FOR GRADING & CONSTRUCTION WITHIN CITY & COUNTY RIGHT-OF-WAY ONLY) _____ DATE _____

CHIEF, CIVIL ENGINEERING BRANCH, DPP _____ DATE _____

CHIEF, TRAFFIC REVIEW BRANCH, DPP _____ DATE _____



HDA, OKAMOTO & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS
PACIFIC GUARDIAN TOWER
1440 KAPIOLANI BOULEVARD, SUITE 1120
HONOLULU, HAWAII 96814
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HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY : 2-3-014
NOTES, VICINITY & LOCATION MAP AND CIVIL DRAWING INDEX

Rev.	Date	By	Approved

Designed: ATO
Drawn: OJP
Checked: HKH
Date: MARCH 2019
Job No.: 19-2882.1
Drawing No.
C-001
Sheet 1 of 13 Sheets

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 ADDITIONS.

2. ALL PLANS APPROVED BY THE BOARD OF WATER SUPPLY ARE BASED SOLELY ON THE ADEQUACY OF THE WATER SUPPLY.

3. 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.

4. 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 MEASURES NECESSARY TO PROTECT THE WATER LINES, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH BWS APPROVAL) AND/OR MODIFYING HIS CONSTRUCTION METHOD.

5. THE CONTRACTOR SHALL NOTIFY BWS CAPITAL PROJECTS DIVISION, CONSTRUCTION SECTION IN WRITING AND SUBMIT SIX (6) SETS OF APPROVED CONSTRUCTION PLAN ONE WEEK PRIOR TO COMMENCING WORK ON THE WATER SYSTEM.

6. RE-APPROVAL SHALL BE REQUIRED IF THIS PROJECT IS NOT UNDER CONSTRUCTION WITHIN A PERIOD OF TWO (2) YEARS.

7. PRIOR TO ANY EXCAVATING, THE CONTRACTOR SHALL VERIFY IN THE FIELD, THE LOCATION OF EXISTING WATERLINES AND APPURTENANCES.

8. ANY ADJUSTMENTS TO EXISTING WATER SYSTEM REQUIRED DURING CONSTRUCTION, TO MEET THE REQUIREMENTS OF THE BWS STANDARDS, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE DONE BY THE CONTRACTOR AT NO COST TO THE BOARD.

9. NUTS AND BOLTS FOR FLANGE CONNECTIONS WITHIN METER BOXES SHALL BE BRONZE OR STAINLESS STEEL EXCEPT COUPLING ADAPTERS WHERE "COR-TEN" (U.S. STEEL) OR "MAYARI" (BETHLEHEM STEEL) MAY BE USED. FLANGE CONNECTIONS OUTSIDE OF METER BOX MAY USE "COR-TEN" OR "MAYARI" TYPE NUTS AND BOLTS.

10. TEST PRESSURE SHALL BE ONE OF THE FOLLOWING:

A. PREVAILING LINE PRESSURE, JOINTS LEFT EXPOSED FOR 24 HOURS TO CHECK FOR LEAKS PRIOR TO BACKFILL.

B. 150 PSI. DURING THE 30-MINUTE PRESSURE TEST, THE PRESSURE SHALL NOT DROP MORE THAN 10 PSI.

11. 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)

12. ALL DUCTILE IRON PIPE, FITTINGS AND VALVES SHALL BE WRAPPED WITH TWO LAYERS OF 8 MIL. POLYETHYLENE WRAP. THE INSIDE SURFACE OF THE POLYETHYLENE WRAP TO BE IN CONTACT WITH THE PIPE EXTERIOR SHALL BE INFUSED WITH A BLEND OF AN ANTIMICROBIAL TO MITIGATE MICROBIOLOGICALLY INFLUENCED CORROSION AND A VOLATILE CORROSION INHIBITOR TO CONTROL GALVANIC CORROSION.

13. ALL DUCTILE IRON PIPE AND FITTINGS, INCLUDING SECTIONS REQUIRING REINFORCED CONCRETE JACKETING, SHALL BE DUCTILE IRON CLASS 53, AND COATED AS PER THE BWS WATER SYSTEM STANDARDS.

14. THE PROJECT SHALL PAY THE APPLICABLE WATER SYSTEM FACILITIES AND/OR ONE-TIME SERVICE CHARGE AND FOR THE METER WHICH WILL BE FURNISHED BY BWS AND INSTALLED BY THE CONTRACTOR WHEN THE LATERAL IS INSTALLED.

15. CONTRACTOR SHALL CUT AND PLUG ALL EXISTING UNUSED LATERALS AT THE MAIN WHETHER OR NOT SHOWN ON THE PLANS. METER AND VALVE BOXES TO BE OR ALREADY ABANDONED SHALL BE DEMOLISHED OR REMOVED AND PROPERLY DISPOSED OF. THE DAMAGED AREA SHALL BE REPAIRED TO AN EQUAL OR BETTER CONDITION THAN THE IMMEDIATE AREA. ALL WORK SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.

16. AFTER INSTALLATION OF TAPPING SLEEVE AND VALVE PRIOR TO ACTUAL TAPPING OPERATIONS, THE ASSEMBLY SHALL BE TESTED AT 150 PSI ON BOTH SIDES OF THE VALVE.

17. FOR METERS 3 INCHES AND LARGER (COMPOUND, F.M. AND DETECTOR CHECK), CONTRACTOR SHALL NOTIFY CUSTOMER CARE DIVISION - SERVICE ENGINEERING SECTION IN WRITING AFTER THE PLAN IS APPROVED, NO LATER THAN 120 DAYS, PRIOR TO WITHDRAWING METER FROM BWS STOREYARD. SUCH NOTICE SHALL INDICATE NUMBER, SIZE, AND TYPE OF METER (COMPOUND, F.M. OR DETECTOR CHECK) AND APPROXIMATE MONTH AND YEAR METER IS ANTICIPATED TO BE DRAWN OUT. IF THE APPROVED PLAN IS ALLOWED TO LAPSE, THE 120-DAY NOTICE WILL BE VOIDED.

18. BOARD OF WATER SUPPLY APPROVAL OF THESE PLANS DOSE NOT CONSTITUTE A WATER COMMITMENT. AVAILABILITY OF WATER WILL BE DETERMINED WHEN BUILDING PERMIT IS PRESENTED TO THE DEPARTMENT. WATER COMMITMENT WILL DEPEND UPON THE STATUS OF THE WATER SYSTEM AT THAT TIME. SHOULD WATER SERVICE BE MADE AVAILABLE, THE WATER COMMITMENT WILL BE EFFECTIVE WHEN THE PROJECT RECEIVES AN APPROVED BUILDING PERMIT FROM THE BUILDING DEPARTMENT. ALL WATER COMMITMENTS WILL BE CANCELED IN THE EVENT THE BUILDING PERMIT IS CANCELED.

19. THE PROJECT SHALL BE SUBJECT TO THE BOARD OF WATER SUPPLY'S CROSS-CONNECTION CONTROL REQUIREMENTS PRIOR TO ISSUANCE OF THE BUILDING PERMIT.

20. THE INSTALLATION, CHLORINATION AND TESTING OF THE WATER MAIN AND FACILITIES AFTER THE METER SHALL NOT BE THE RESPONSIBILITY OF THE BOARD OF WATER SUPPLY.

21. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY BOARD OF WATER SUPPLY, THE MANUFACTURER'S CERTIFICATION THAT ALL CAST IRON (GRAY OR DUCTILE) FITTINGS FOR THE PROJECT CONFORM IN ALL RESPECTS TO THE WATER SYSTEM STANDARDS, DATED 2002.

22. POLYGON SHAPE FOR MECHANICAL JOINT GLANDS AS DESCRIBED IN AWWA STANDARD C111 SHALL BE "STRAIGHT-SIDED" OR AN APPROVED EQUAL ON A JOB-TO-JOB BASIS.

23. THE BACKFLOW PREVENTER DEVICE MUST BE INSTALLED BEFORE METER IS ISSUED.

24. THE CONTRACTOR/DEVELOPER SHALL OBTAIN A NPDES PERMIT PRIOR TO CHLORINATION AND/OR DEWATERING. A COPY OF THE PERMIT SHALL BE SUBMITTED TO THE BOARD OF WATER SUPPLY, CAPITAL PROJECTS DIVISION, CONSTRUCTION SECTION.

25. 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 BE AS SPECIFIED IN THE WATER SYSTEM STANDARDS. PIPE CUSHION AND 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 (PCB).

26. THE CONTRACTOR SHALL INSTALL ELECTRONIC MARKERS TO ALL MAINS AND TEST THE ELECTRONIC MARKERS PRIOR TO INSTALLATIONS TO VERIFY PROPER OPERATION. BWS PERSONNEL SHALL VERIFY THE NUMBER AND LOCATIONS OF PLACED ELECTRONIC MARKERS BEFORE FINAL PAVING OF THE PROJECT.

27. THE CONTRACTOR SHALL FURNISH AND INSTALL POLYETHYLENE WRAP, 3 FEET MINIMUM AT ALL TAPS (FOR DI PIPE AND COPPER LATERAL COMBINATION ONLY).

28. INSTALL 4 MIL THICK, NON-METALLIC, BLUE COLORED, 6 INCHES WIDE WARNING TAPE OVER CENTERLINE OF THE PIPE AND BELOW THE BASE COURSE ALONG THE ENTIRE LENGTH OF TRENCH. TAPE SHOULD BE MARKED WITH "CAUTION WATER LINE BURIED BELOW".

SEWER NOTES

1. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY'S "STANDARD SPECIFICATIONS", SEPTEMBER 1986, THE DEPARTMENT OF ENVIRONMENTAL SERVICES "WASTEWATER SYSTEM DESIGN STANDARDS", JULY 2017, AND "WASTEWATER SYSTEM STANDARD DETAILS", JULY 2017. CURRENT CITY PRACTICES AND REVISED ORDINANCES OF HONOLULU, 1990 AS AMENDED.

2. IN THE EVENT THAT ANY CHANGE IN ALIGNMENT OR GRADE FOR THE PROPOSED SEWERS ARE REQUIRED DUE TO UNFORESEEN CONFLICT WITH OTHER UTILITIES, THE ENGINEER IN CHARGE OR THE MAKER OF THE PLANS SHALL BE RESPONSIBLE FOR THE REQUIRED CHANGES WHICH ARE TO BE PRESENTED TO THE DEPARTMENT OF PLANNING AND PERMITTING FOR APPROVAL.

3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGEMENT BRANCH, WASTEWATER ENGINEERING AND CONSTRUCTION DIVISION, ENV, AT 768-8785, 768-8769, OR 768-8755 TO ARRANGE FOR INSPECTONAL SERVICES AND SUBMIT FIVE (5) SETS OF APPROVED CONSTRUCTION PLANS TO THE WASTEWATER BRANCH, DPP SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF SEWER WORK. THE CONTRACTOR SHALL PAY FOR ALL INSPECTION COSTS.

4. CRUSHED ROCK CRADLE IS PERMITTED WHERE SOIL IS STABLE. IN AREAS OF UNSTABLE SOIL, THE MAKER OF THE PLANS AND THE CONSTRUCTION ENGINEER WILL DETERMINE THE PIPE SUPPORT REQUIRED.

5. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS RESEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES, INCLUDING AND AFFECTING SEWER LINES, IN THE PRESENCE OF THE WASTEWATER INSPECTOR AND EXERCISE PROPER CARE IN EXCAVATING THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGED UTILITIES.

6. SEWER LATERAL SHALL BE CLEAR OF AND NOT CONFLICTING WITH ANY OTHER UTILITY. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES SHALL BE STRICTLY OBSERVED AND FOLLOWED.

7. SLOPE FOR SEWER LATERALS SHALL BE 2.00% UNLESS OTHERWISE NOTED.

8. BUILDING PLUMBING FACILITIES SHALL BE CONTROLLED BY SEWER LATERAL INVERTS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SEWER SERVICE TO ALL AFFECTED AREAS DURING CONSTRUCTION.

10. THE CONSULTING ENGINEER SHALL SUBMIT TO THE WASTEWATER BRANCH, DPP "AS-BUILT" TRACINGS AND ELECTRONIC FILES OF THE CONSTRUCTION PLANS AS ACTUALLY CONSTRUCTED, SHOWING ALL CHANGES FROM THE ORIGINAL PLANS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWAGE SPILLS CAUSED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE STATE DEPARTMENT OF HEALTH AND UTILIZE APPROPRIATE SAMPLING AND ANALYZING PROCEDURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC NOTIFICATIONS AND PRESS RELEASES.

12. THE CONTRACTOR SHALL INSTALL "RAINSTOPPER" MANHOLE INSERTS IN ALL SEWER MANHOLES WITH TYPE "SA" FRAME AND COVER.

13. THE CONTRACTOR SHALL OBTAIN APPROVAL FOR ADVANCE RISER AGREEMENT AT THE DPP AND OBTAIN BUILDING PERMIT FOR PLUMBING WORK BEFORE ANY ADVANCE RISER IS MADE.

14. ALL SEWER PIPE JOINTS WITHIN EASEMENTS SHALL BE WRAPPED WITH GEOTEXTILE ROOT BARRIER.

15. S4C PIPE CRADLE SEALS SHALL BE INSTALLED 10 FEET FROM ALL SEWER MANHOLES TO PREVENT SOIL MIGRATION.

16. GEOTEXTILE FABRIC TO ENVELOPE THE PIPE CRADLE AND SELECT BACKFILL MATERIAL SHALL BE PROVIDED WHERE WATER OR UNSTABLE CONDITIONS ARE ENCOUNTERED.

17. CONFINED SPACE FOR ENTRY BY CITY PERSONNEL, INCLUDING INSPECTORS, INTO A PERMIT REQUIRED CONFINED SPACE AS DEFINED IN 29 CFR PART 1910.146(b), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING:

1. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

A. FULL BODY HARNESS FOR UP TO TWO PERSONNEL.

B. LIFELINE AND ASSOCIATED CLIPS.

C. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT.

D. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.

E. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION)

F. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.

G. CONTINUOUS GAS DETECTOR (CALIBRATED) TO MEASURE OXYGEN, HYDROGEN SULFIDE, CARBON MONOXIDE AND FLAMMABLES (CAPABLE OF MONITORING AT A DISTANCE AT LEAST 20-FEET AWAY).

H. PERSONAL MULTI-GAS DETECTOR TO BE CARRIED BY INSPECTOR.

2. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS

3. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).

18. WHEN CONNECTING TO A LIVE SEWER LINE, THE CONTRACTOR SHALL ABIDE BY ALL CONDITIONS THAT THE STATE DEPARTMENT OF HEALTH SETS FORTH TO MITIGATE ANY WASTEWATER SPILL THAT MAY OCCUR. THE CONTRACTOR SHALL INFORM THE CITY INSPECTOR FIVE (5) WORKING DAYS PRIOR TO THE ACTUAL CONNECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES AND PENALTIES DUE TO ANY SPILLS RESULTING FROM THE CONNECTION.

19. NO RUNGS SHALL BE INSTALLED INSIDE NEW SEWER MANHOLES.

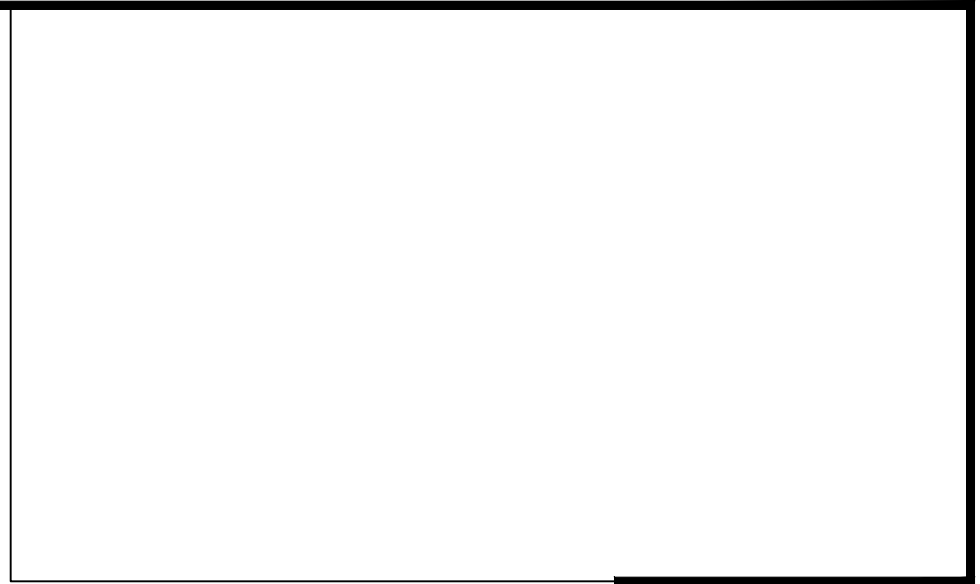
20. FOR SEWER MANHOLE ADJUSTMENTS UPWARD LESS THEN 3" SEE STD DETAIL S-28. FOR SMH ADJUSTMENTS UPWARD GREATER THEN 3" OR FOR ANY ADJUSTMENTS DOWNWARD, RECONSTRUCT SMH TOP FROM BELOW THE CONE SECTION.

21. IF CONTRACTOR ENCOUNTERS FLOW MONITORING DEVICES SUCH AS SPECIAL SEWER MANHOLE COVER EMBEDDED WITH SOLAR PANELS; NOTIFY C&C OF HONOLULU, ENV-CSM AT 768-7272 TO COORDINATE TEMPORARY REMOVAL.

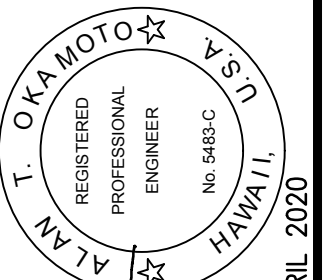
22. CONTRACTOR SHALL MAINTAIN VISIBILITY AND MAINTENANCE ACCESS TO LIVE SEWER MANHOLE LOCATIONS AT ALL TIMES, INCLUDING DURING NON-WORK HOURS AND PAVING OPERATIONS.

23. CONTRACTOR SHALL USE MANHOLE DEBRIS CATCHING DEVICE WHEN PERFORMING MANHOLE HEIGHT ADJUSTMENT WORK AND REMOVE ANY CONSTRUCTION DEBRIS THAT HAS FALLEN INTO THE MANHOLE. DISPOSAL OF CONSTRUCTION DEBRIS IN THE SEWER SYSTEM IS STRICTLY PROHIBITED.

24. FOR PRECAST SEWER MANHOLES, THE CONSULTING ENGINEER SHALL SUBMIT FOUR (4) SETS OF SHOP DRAWINGS TO THE WASTEWATER BRANCH, DPP FOR APPROVAL. AFTER THE SHOP DRAWINGS ARE APPROVED, THE MANUFACTURE SHALL NOTIFY THE CONSTRUCTION MANAGEMENT BRANCH, WASTEWATER ENGINEERING AND CONSTRUCTION DIVISION, ENV, AT 798-8785, 768-8769, OR 768-8755 TO ARRANGE FOR INSPECTION SERVICES FOR CONCRETE POURS MADE AT ITS PLANT SEVEN (7) DAYS PRIOR TO POUR.



HIDA, OKAMOTO & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS
PACIFIC GUARDIAN TOWER
1440 KAPOLANI BOULEVARD, SUITE 1120
HONOLULU, HAWAII 96814
PHONE: (808) 942-0066 FAX: (808) 947-7546



THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Alan T. Okamoto
SIGNATURE: MARCH 2019
DATE: MARCH 2019
LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY : 2-3-014
NOTES

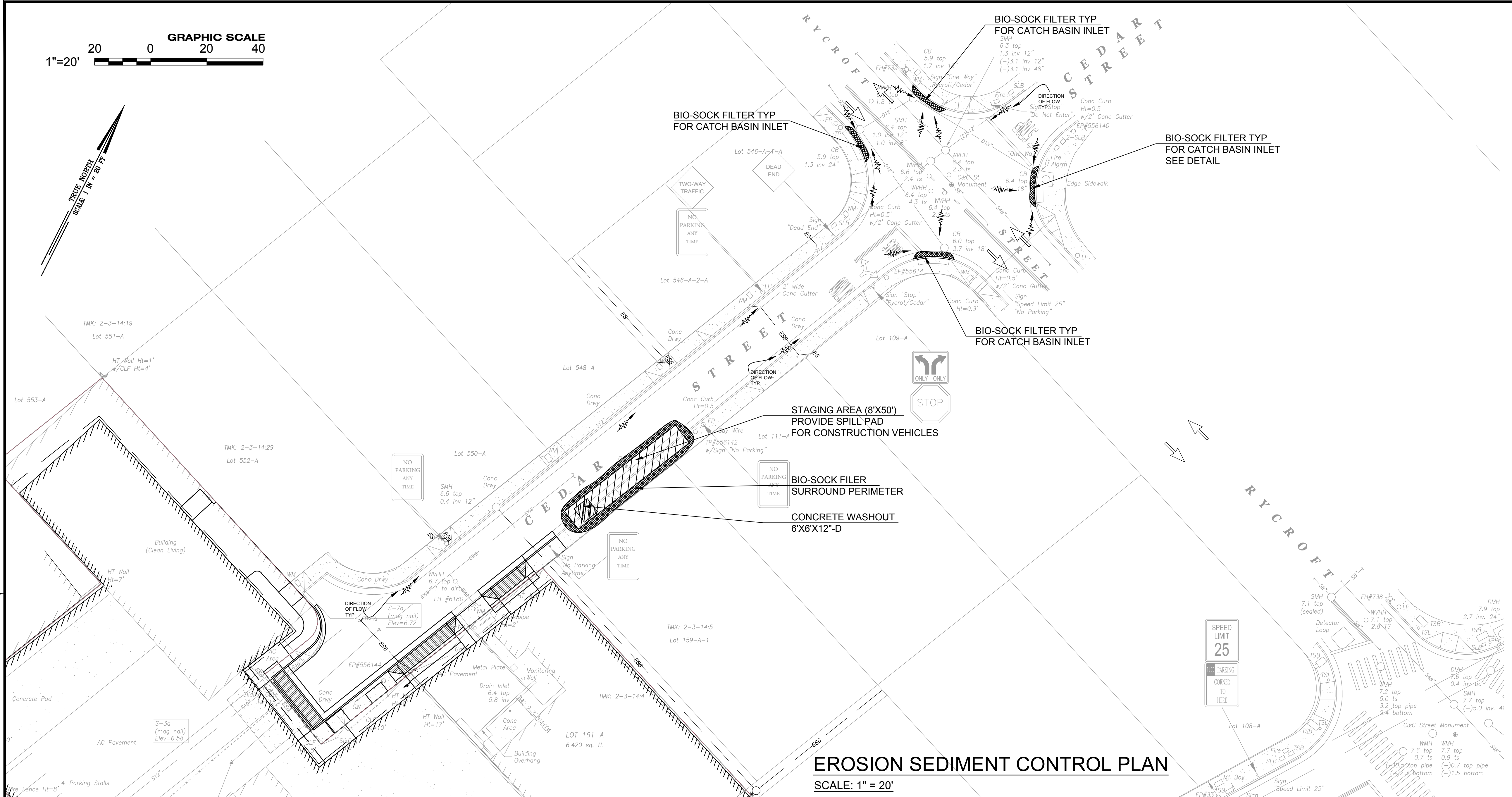
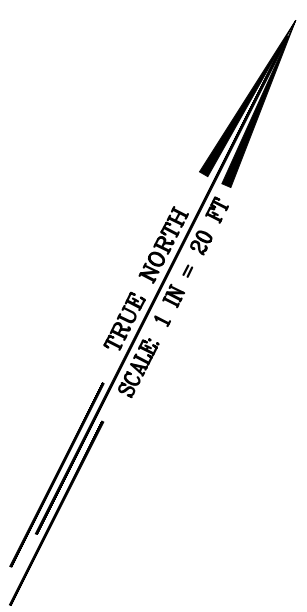
Rev.	Date	Brief	Made By	Approved

APPROVED

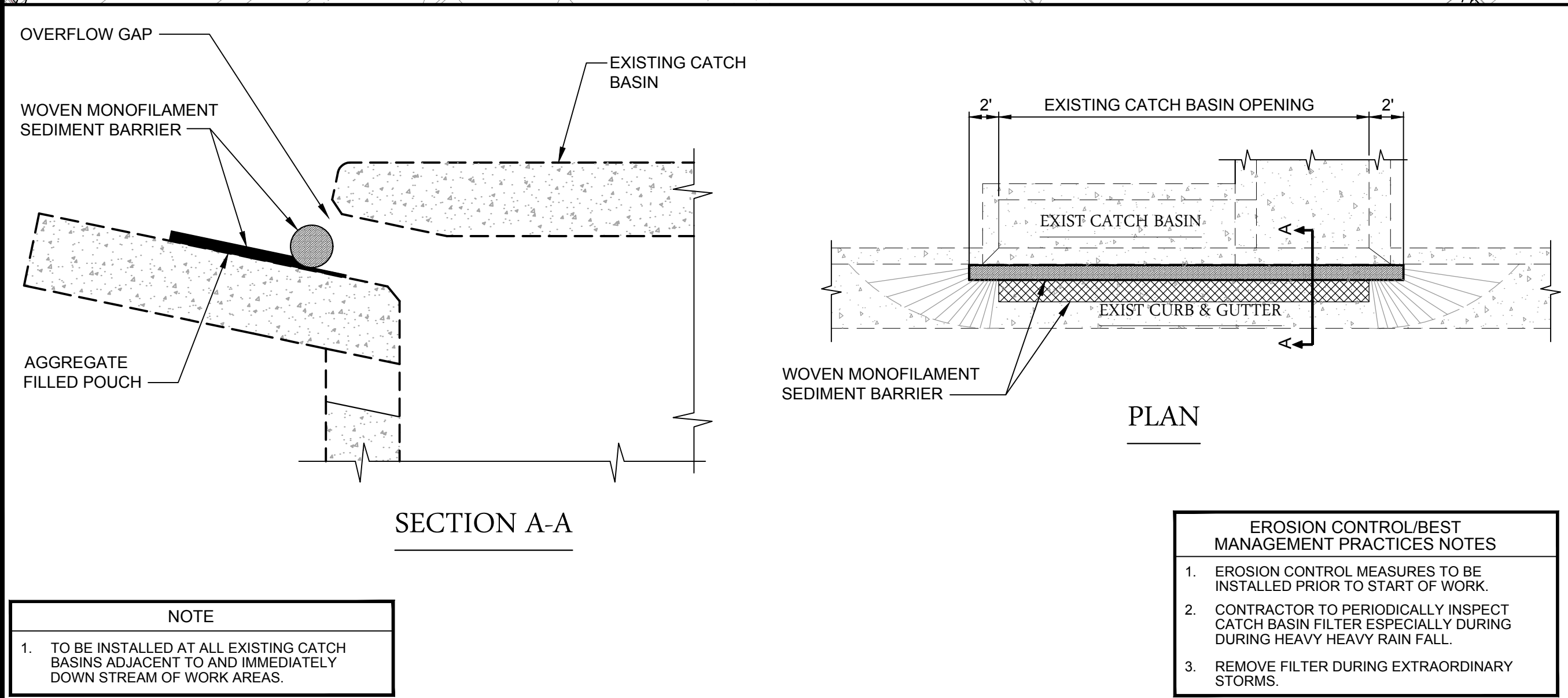
CHIEF, WASTEWATER BRANCH, DPP _____ DATE _____

MANAGER AND CHIEF ENGINEER, BWS (FOR WORK AFFECTING BWS FACILITIES IN CITY/ STATE RIGHT-OF-WAY AND BWS EASEMENTS ONLY) _____ DATE _____

Designed: ATO
Drawn: OJP
Checked: HKH
Date: MARCH 2019
Job No.: 19-2882.1
Drawing No.
C-002
Sheet 2 of 13 Sheets



EROSION SEDIMENT CONTROL PLAN
SCALE: 1" = 20'



- EROSION CONTROL/BEST MANAGEMENT PRACTICES NOTES**
1. EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO START OF WORK.
 2. CONTRACTOR TO PERIODICALLY INSPECT CATCH BASIN FILTER ESPECIALLY DURING HEAVY RAIN FALL.
 3. REMOVE FILTER DURING EXTRAORDINARY STORMS.

NOTE

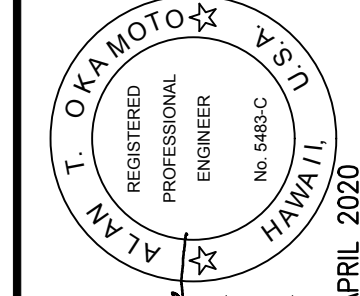
1. TO BE INSTALLED AT ALL EXISTING CATCH BASINS ADJACENT TO AND IMMEDIATELY DOWN STREAM OF WORK AREAS.

CATCH BASIN INLET FILTER

SCALE NONE 1



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PHONE: (808) 942-0066 FAX: (808) 947-7546



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SIGNATURE: *Alan T. Okamoto*
DATE: MARCH 2019
LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY: 2-3-014
EROSION SEDIMENT CONTROL PLAN

Rev.	Date	Made By	Approved

Designed: _____
Drawn: _____
Checked: _____
Date: MARCH 2019
Job No.: 19-2882.1
Drawing No. _____

EROSION PREVENTION BMPS:

1. 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, DOWNSPOUT, 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 TEMPORARY STABILIZED WHILE IT SI GROWING;
- * TEMPORARY MEASURES, SUCH AS SEDIMENT BARRIERS, SHOULD BE REMOVED WHEN PERMANENT MEASURES ARE IN PLACE;
- * ALL PAVED SURFACE MUST BE CLEANED; AND
- * STORM DRAIN INLET FILTERS MUST BE REMOVED AFTER ALL CLEANUP ACTIVITIES HAVE BEEN COMPLETED.

2. 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:

1. 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, SANDS BAGS, FIBER ROLLS, SILT FENCES, COMPOST SOCKS, OR ANY EQUIVALENT BMP THAT INTERCEPTS RUNOFF.

2. 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:

1. BMP AND SITE MAINTENANCE

- * REGULARLY INSPECT AND MAINTAIN BMPS TO ENSURE CONTINUED PERFORMANCE.

2. 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.

3. 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 OR 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 DISPOSED OF AS SOLID WASTES.

4. 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.

5. VEHICLE TRACKING CONTROL

- * RESTRICT VEHICLE TRAFFIC TO PROPERLY DESIGNATED AREAS AND REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXISTING THE PROJECT SITE. ALL SEDIMENT THAT ARE TRACKED OR DISCHARGED OFF-SITE MUST BE SWEEPED OR VACUUMED AT THE END OF EACH DAY.

6. MATERIALS DELIVERY, STORAGE AND USE MANAGEMENT

- * MINIMIZED 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 ABUTTING THE CITY STORM DRAINAGE SYSTEM, RECEIVING WATERS, OR DRAINAGE IMPROVEMENTS THAT DISCHARGE OFF-SITE.

7. 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.

8. 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: (CONTINUATION)

9. PORTABLE TOILETS (SANITARY/SEPTIC WASTE MANAGEMENT)

- * TEMPORARY AND PORTABLE SANITARY AND SEPTIC WASTE SYSTEM 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.

10. VEHICLE AND EQUIPMENT CLEANING, FUELING, AND MAINTENANCE

- * PREVENT POLLUTANTS IN STORM WATER FROM VEHICLE AND EQUIPMENT CLEANING, FUELING AND MAINTENANCE BY USING OFF-SITE FACILITIES WHEN FEASIBLE, PERFORMING WORK IN DESIGNATED AREAS ONLY, USING SPILL PADS UNDER VEHICLES AND EQUIPMENT, CHECKING FOR LEAKS AND SPILLS, AND CONTAINING AND CLEANING UP SPILLS IMMEDIATELY.

11. HAZARDOUS MATERIALS

- * PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM HAZARDOUS WASTE THROUGH PROPER MATERIAL USE AND WASTE DISPOSAL IN THE EVENT THAT HAZARDOUS MATERIALS ARE DISCHARGED TO THE MS4, THE PROPERTY OWNER OR ESCP COORDINATOR SHALL IMMEDIATELY NOTIFY THE DEPARTMENT OF FACILITIES MAINTENANCE, HONOLULU FIRE DEPARTMENT, AND HONOLULU POLICE DEPARTMENT OF THE DISCHARGE BY TELEPHONE. A WRITTEN REPORT DESCRIBING THE POLLUTANTS THAT WERE DISCHARGED, THE REASONS FOR THE DISCHARGE, AND THE MEASURE THAT HAVE BEEN TAKEN OR WILL BE TAKEN TO PREVENT A REOCCURENCE OF THE DISCHARGE SHALL BE SUBMITTED TO THE DIRECTOR NO LESS THAN 3 DAYS AFTER NOTIFICATION BY PHONE.

12. NON-HAZARDOUS MATERIALS

- * IN THE EVENT THAT NON-HAZARDOUS MATERIALS ARE DISCHARGE 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 REOCCURENCE 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 THE ESCP. THE FOLLOWING BMPS WERE DETERMINED TO BE NOT APPLICABLE BECAUSE THEY WOULD NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL BASE ON THE SPECIFIC SITE CONDITIONS. AS CONSTRUCTION PROGRESSES, REVISIONS MAY BE NECESSARY AND WILL BE PROVIDED TO DPP INSPECTORS.

OMITTED BMPS	RATIONALE
LIQUID WASTE MANAGEMENT	THERE WILL BE NO LIQUID WASTE OR NON-STORM WATER ON SITE.
SLOPE MANAGEMENT AND PROTECTION	ALL WORK WILL BE ON SLOPES LESS THAN 15%
CONTAMINATED SOIL MANAGEMENT	THERE ARE NO CONTAMINATED SOILS ANTICIPATED ON SITE.

SCHEDULE NOTES:

1. 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.
2. NOTIFY DPP IN WRITING TWO WEEKS PRIOR TO STARTING WORK BY EMAIL OR PHONE: 768-8132.
3. MEASURES TO PREVENT AND CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTHQUAKE IN INITIATED.
4. BEST MANAGEMENT PRACTICES (BMPS) SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS COMPLETE.
5. PRACTICE GOOD HOUSEKEEPING MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
6. 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 TIME LINE 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 PERIMETER CONTROLS	DAY 1
PERFORM PRE-CONSTRUCTION INSPECTION	DAY 1
CONSTRUCT SEWER LINE	6 WEEKS
DEMOBILIZE EQUIPMENT AND MATERIALS	3 DAY
REMOVE PERIMETER CONTROLS	2 DAY
SWEEPING AND WASTE DISPOSAL	DAILY

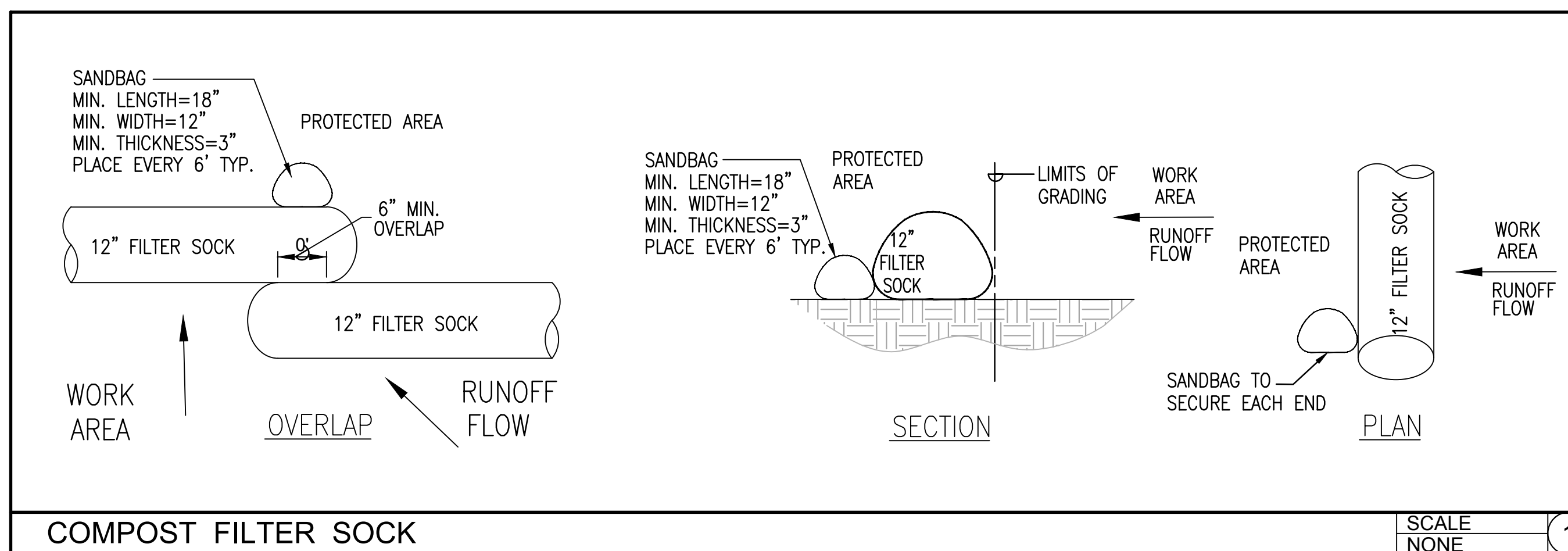
RAIN RESPONSE PLAN:

THE FOLLOWING WILL BE PERFORMED WHEN SEVERE RAIN IS IMMINENT OR IS FORECASTED IN THE NEXT 48 HOURS:

1. TEMPORARY SUSPEND LAND DISTURBING ACTIVITIES INCLUDING CLEARING, GRUBBING, GRADING AND TRENCHING.
2. INSPECT ALL BMPS AND MAINTAIN AS NEEDED.
3. REINSTALL BMPS THAT WERE REMOVED DUE TO ACTIVE WORK IN THE AREA.
4. IF A SEVERE STORM IS EXPECTED, REMOVE INLET PROTECTION DEVICES TO PREVENT FLOODING ON SURROUNDING STREETS.
5. COVER OR RELOCATE MATERIAL STOCKPILES AND LIQUID MATERIAL CONTAINERS TO AVOID CONTACT WITH RAINWATER.
6. 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.
7. RE-INSPECT PROJECT SITE AFTER THE RAIN EVENT AND REPLACE OR MAINTAIN BMPS AS NEEDED.

STREET USAGE PERMITS:

1. IF THE PROPOSED LAND DISTURBING WORK WILL BE PERFORMED IN THE CITY SIDEWALK OR RIGHT-OF-WAY AND/OR BEST MANAGEMENT PRACTICES INSTALLED IN THE SIDEWALK AREAR (AREA BETWEEN THE PROPERTY LINE AND EDGE OF PAVEMENT), THE OWNER IS RESPONSIBLE FOR OBTAINING A PERMIT FOR STREET USAGE FROM THE DEPARTMENT OF TRANSPORTATION SERVICES, 650 S. KING STREET, 2ND FLOOR, HONOLULU, HAWAII, 96813.
2. THE OWNER IS RESPONSIBLE FOR INSTALLING APPROPRIATE BARRICADES, FLASHERS, AND SIGNAGE FOR PEDESTRIAN AND VEHICULAR SAFETY, AND REMOVING THE INLET PROTECTION (S) BEFORE A STORM EVENT TO PREVENT FLOODING OF THE ROAD AND AFTER THE PROJECT SITE IS COMPLETELY STABILIZED.



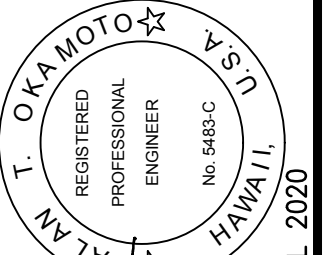
COMPOST FILTER SOCK

SCALE
NONE 1

2022: Hawaii City Plaza Office: 51, Honolulu, HI, OKAMOTO & ASSOCIATES, INC.



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CONSULTING CIVIL ENGINEERS
PACIFIC GUARDIAN TOWER
1440 KAPOLANI BOULEVARD, SUITE 1120
HONOLULU, HAWAII 96814
PHONE: (808) 942-0066 FAX: (808) 947-7546



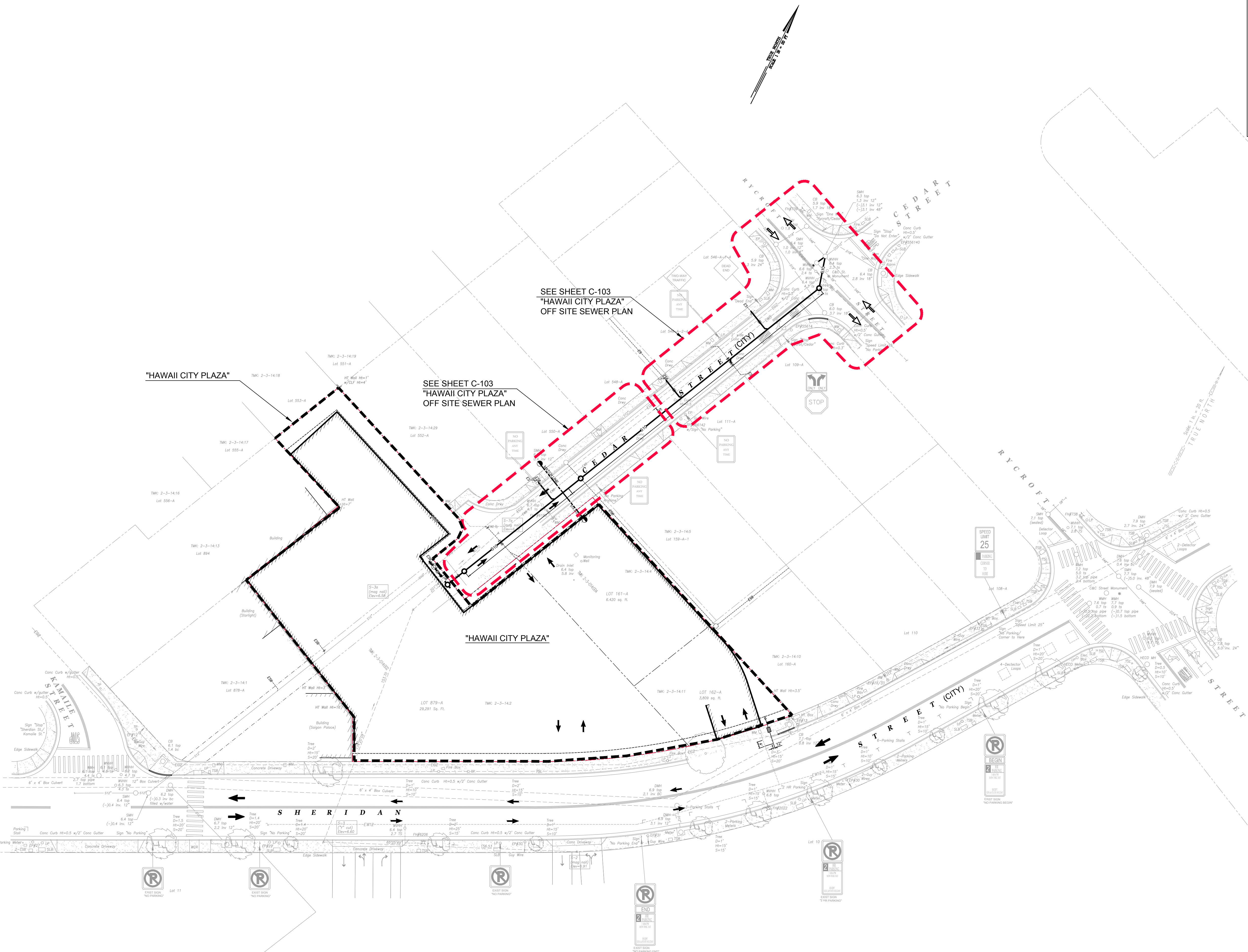
THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Signature: Alan T. Okamoto
DATE: MARCH 2019
LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY : 2-3-014
EROSION CONTROL PLAN NOTES AND DETAIL

Rev.	Date	Brief	Made By	Approved

Designed: ATO
Drawn: OJP
Checked: HKH
Date: MARCH 2019
Job No.: 19-2882.1
Drawing No.
C-004
Sheet 4 of 13 Sheets

2652: Hawaii City Plaza Offsite Sewer Line, Honolulu, HI, OKAMOTO & ASSOCIATES, INC.



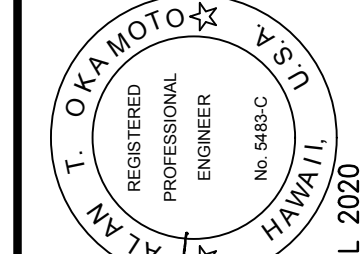
SEE SHEET C-103
"HAWAII CITY PLAZA"
OFF SITE SEWER PLAN

SEE SHEET C-103
"HAWAII CITY PLAZA"
OFF SITE SEWER PLAN

GENERAL PLAN
SCALE: 1" = 20'



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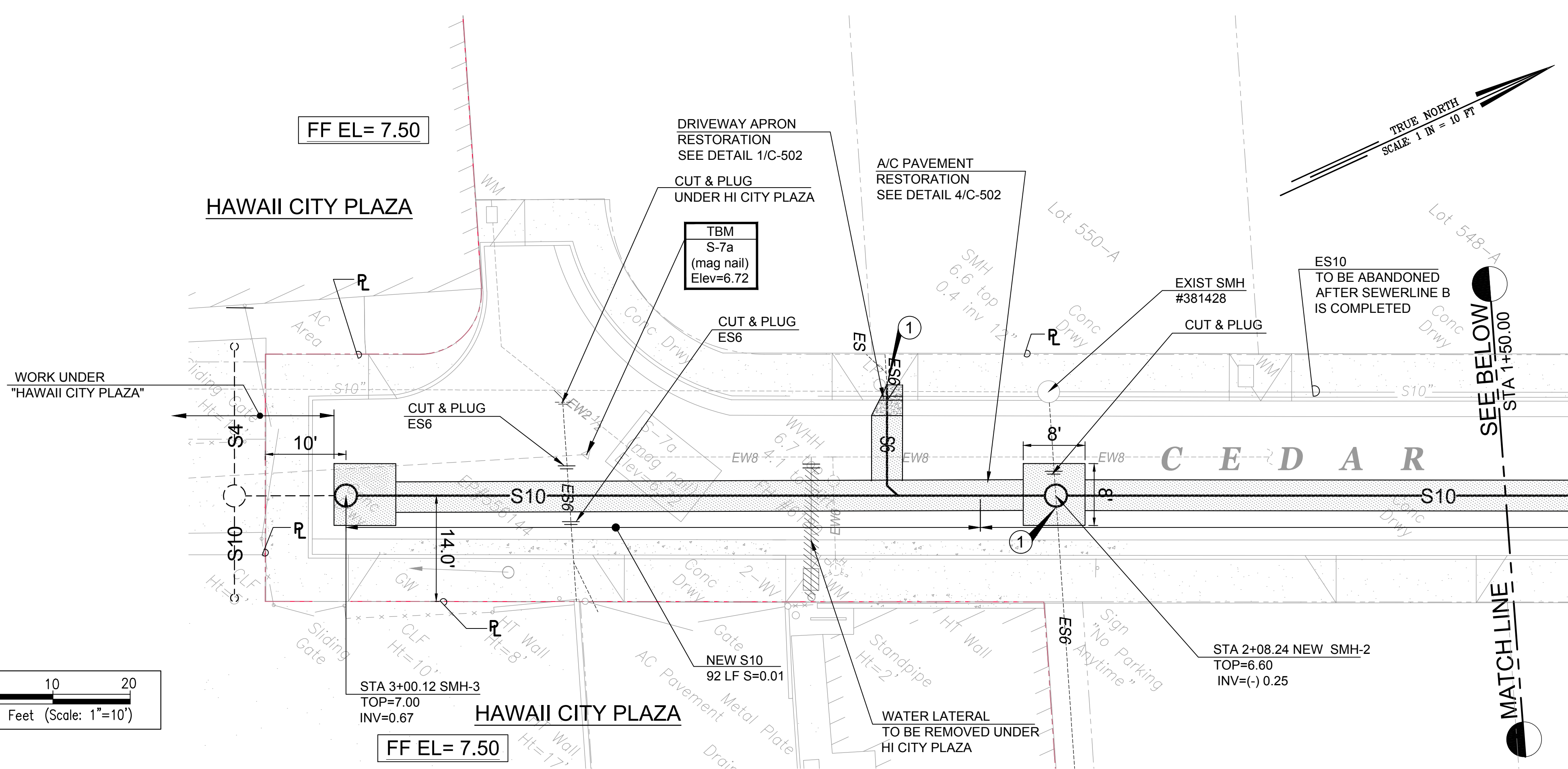


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SIGNATURE: *Alan T. Okamoto*
DATE: MARCH 2019
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**HAWAII CITY PLAZA - OFFSITE
SEWER LINE**
GENERAL PLAN
HONOLULU, Oahu, Hawaii
TAX MAP KEY: 2-3-014

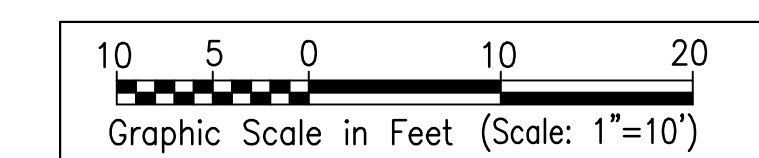
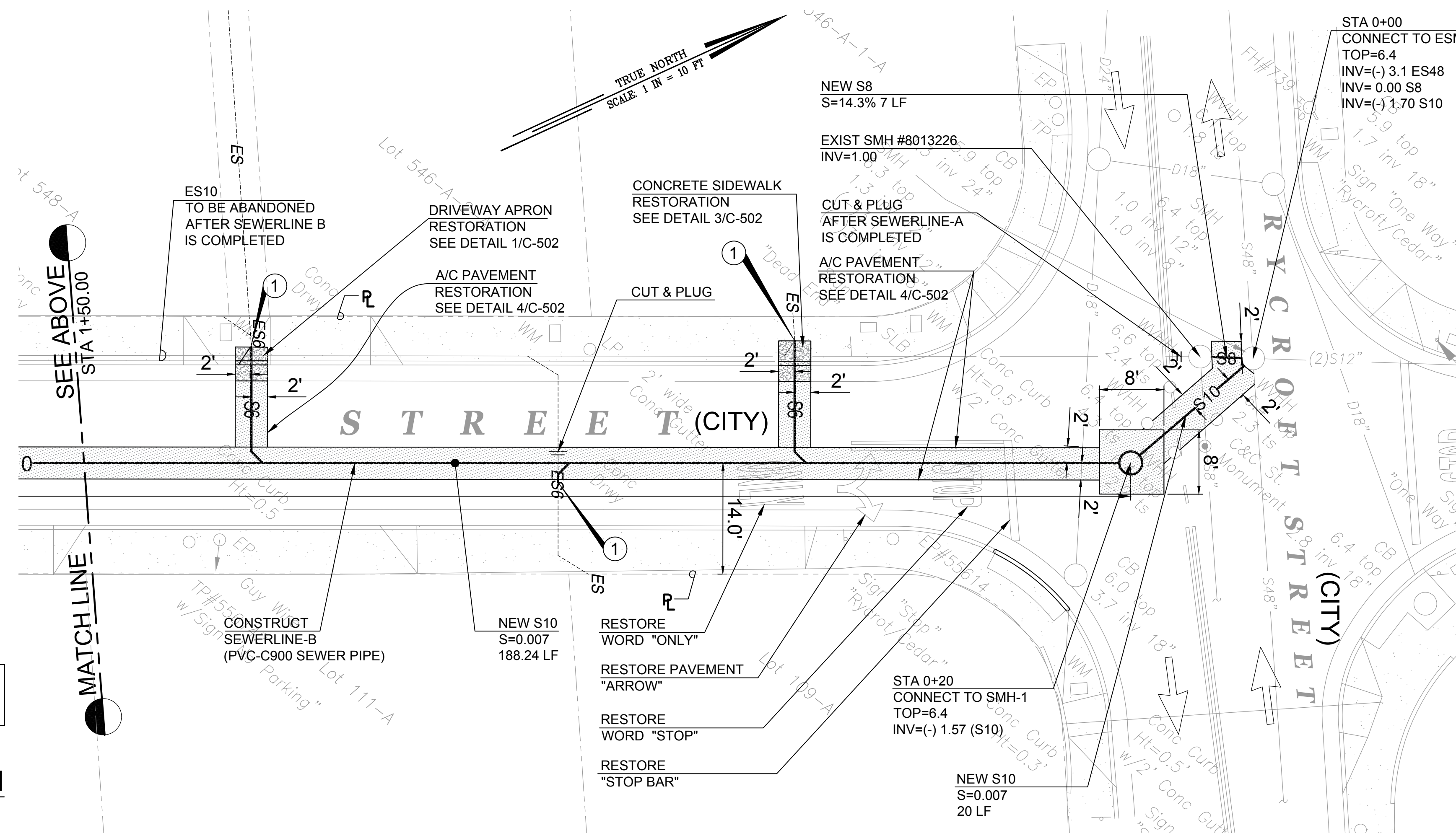
Rev.	Date	Brief	By	Approved

Designed: ATO
 Drawn: OJP
 Checked: HKH
 Date: MARCH 2019
 Job No.: 19-2882.1
 Drawing No.: C-101
 Sheet 5 of 13 Sheets



OFFSITE SEWER PLAN

SCALE: 1" = 10'



OFFSITE SEWER PLAN

SCALE: 1" = 10'

LEGEND

EXISTING	DESCRIPTION	NEW
---	PROPERTY LINE	---
---	WATER LINE	---
---	SEWER LINE	---
---	OVER HEAD	---
---	SEWER EASEMENT	---
---	AC RESTORATION	---
---	CURB/GUTTER/SIDEWALK RESTORATION	---
①	RECONNECT EXIST LATERAL; CONTRACTOR TO VERIFY LOCATION AND INVERT IN THE FIELD	

EARTH WORK QUANTITIES
(ESTIMATED FOR PERMIT PURPOSES ONLY-TRENCHING)

AREA TO BE GRADED (TRENCHING)	1307 SF	0.03 AC
AREA TO BE DISTURBED (STAGING)	400 SF	0.01 AC
TOTAL AREA TO BE GRADED & DISTURBED	1707 SF	0.04 AC
EXCAVATION	215 CY	
ENBANKMENT	62 CY	

- WORK SEQUENCE**
1. CONSTRUCT SEWERLINE-A
 2. CONSTRUCT SEWERLINE-B
 3. RECONNECT SEWER LATERALS ALONG CEDAR ST.
 4. ABANDON EXIST S10 IN CEDAR ST..

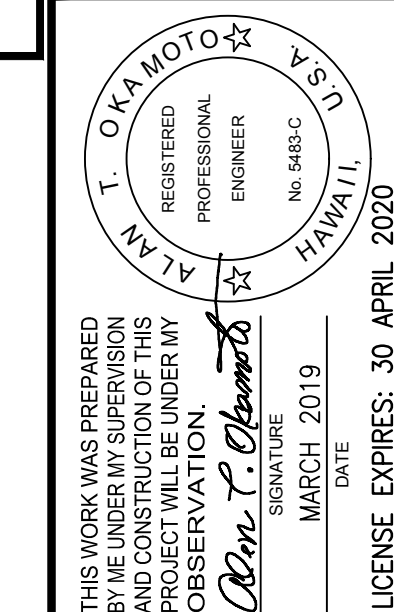
- UTILITY NOTES**
- 1) SEE SHEET C-501 FOR SEWER DETAILS
 - 2) SEE SHEET C-502 FOR TRENCH DETAILS

APPROVED

CHIEF, CIVIL ENGINEERING BRANCH, DPP	DATE
CHIEF, WASTEWATER BRANCH, DPP	DATE



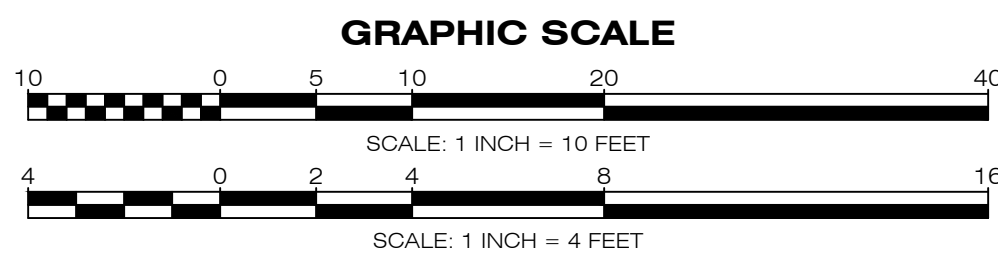
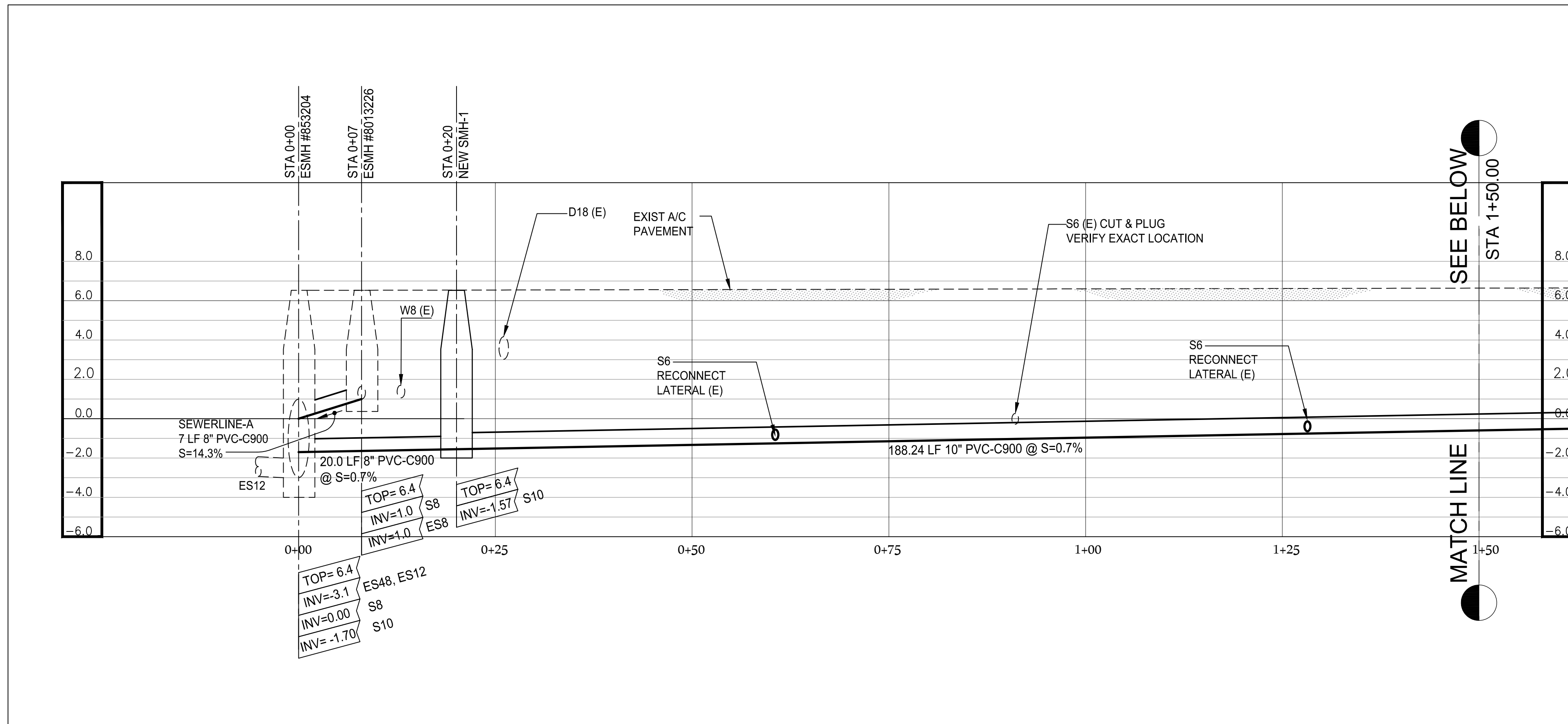
HIDA, OKAMOTO & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS
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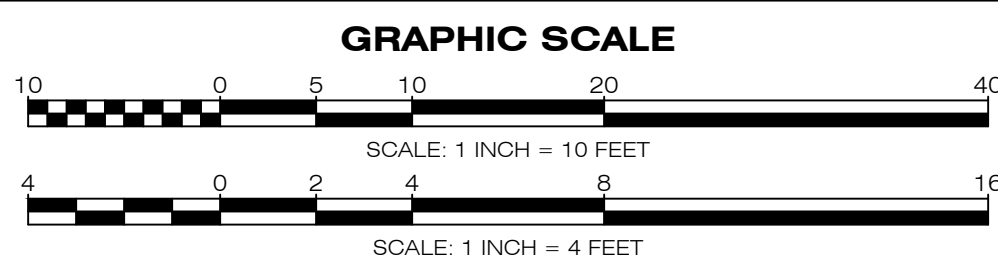
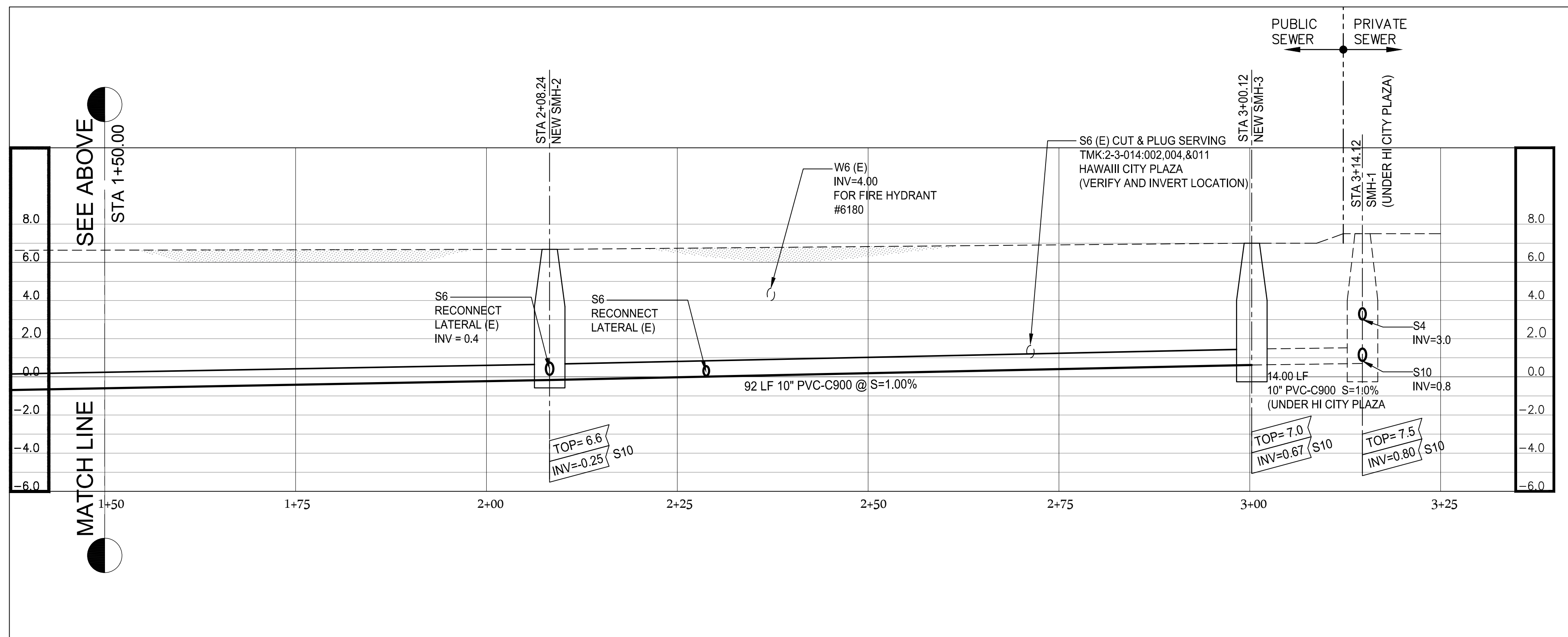
HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY : 2-3-014
OFFSITE SEWER PLAN

Rev.	Date	Brief	Made By	Approved

Designed: _____
 Drawn: _____
 Checked: _____
 Date: MARCH 2019
 Job No.: 19-2882.1
 Drawing No. _____
C-102
 Sheet 6 of 13 Sheets



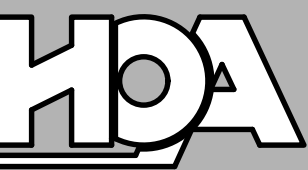
SEWER LINE PROFILE
SCALE: HORIZ. 1" = 10'
VERT. 1" = 4'



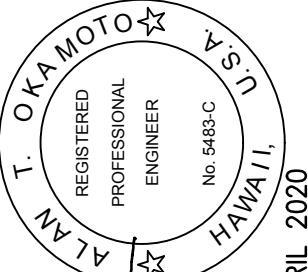
SEWER LINE PROFILE
SCALE: HORIZ. 1" = 10'
VERT. 1" = 4'

APPROVED

CHIEF, WASTEWATER BRANCH, DPP _____ DATE _____



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CONSULTING CIVIL ENGINEERS
PACIFIC GUARDIAN TOWER
1440 KAPOLANI BOULEVARD, SUITE 1120
HONOLULU, HAWAII 96814
PHONE: (808) 942-0066 FAX: (808) 947-7546



THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
SIGNATURE: *Alan T. Okamoto*
DATE: MARCH 2019
LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY : 2-3-014
SEWER LINE PROFILE

Rev.	Date	Brief	Made By	Approved

Designed: _____
Drawn: _____
Checked: _____
Date: MARCH 2019
Job No.: 19-2882.1
Drawing No. _____

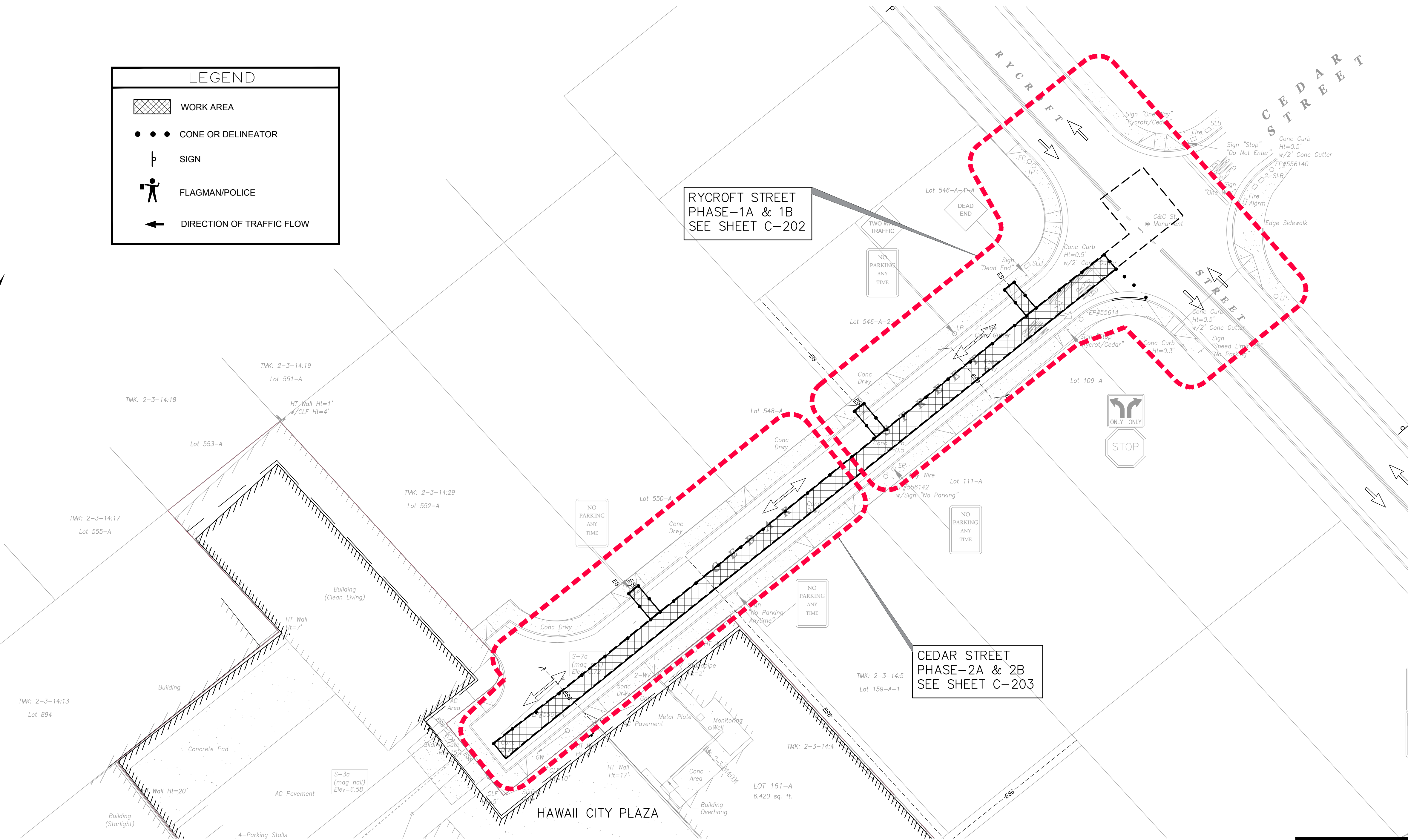
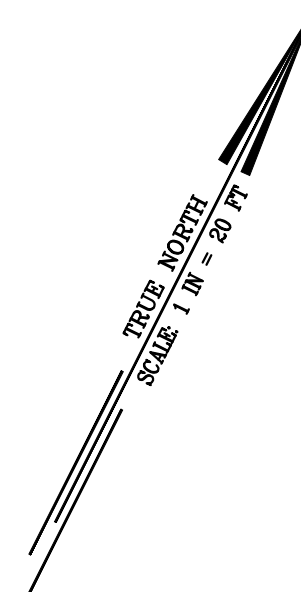
2882, Hawaii City Plaza Offsite S1, Plan/H104, OKAMOTO & ASSOCIATES, INC.

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

- THE PERMITTEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
- CONES OR DELINEATORS SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
- TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SUCH THAT THE SIGN OR DEVICE FARTHEST FROM THE WORK AREA IS PLACED FIRST. THE OTHERS SHALL THEN BE PLACED PROGRESSIVELY TOWARD THE WORK AREA.
- REGULATORY AND WARNING SIGNS WITHIN THE CONSTRUCTION ZONE THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE REMOVED OR COVERED.
- FLAGGERS AND/OR POLICE OFFICERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
- WHEN REQUIRED BY THE ISSUING OFFICE, THE PERMITTEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
- ALL TRAFFIC LANES SHALL BE A MINIMUM OF TEN (10) FEET WIDE.
- ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
- THE BACKS OF ALL SIGNS 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).
- 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 ORDER 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.
- PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL BE REPLACED UPON COMPLETION OF EACH PHASE OF WORK.
- CONES AND DELINEATORS SHALL BE SPACED AT A MAXIMUM DISTANCE OF TWENTY (20) FEET APART. A MINIMUM OF SIX (6) CHANNELIZING DEVICES SHALL BE USED FOR EACH TAPER LENGTH.
- 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 IN AND OUT OF DRIVEWAYS.
- BUFFER AND TAPER AREAS ON APPROACH TO ANY WORK AREA SHALL BE KEPT CLEAR OF VEHICLES AND EQUIPMENT.
- A HIGH LEVEL WARNING DEVICE (FLAG TREE) SHALL BE INSTALLED ON APPROACH TO ALL WORK AREAS.
- "NO PARKING" SIGNS SHALL BE POSTED WITHIN ANY WORK AREA AND FOR THE BUFFER AND TAPER AREAS APPROACHING THE WORK AREA.
- TRAFFIC CONTROL PLANS ARE APPROVED FOR WORK ON ANY CITY STREET ONLY BETWEEN THE HOURS OF 8:30 A.M. AND 3:30 P.M. (MON. - FRI.)

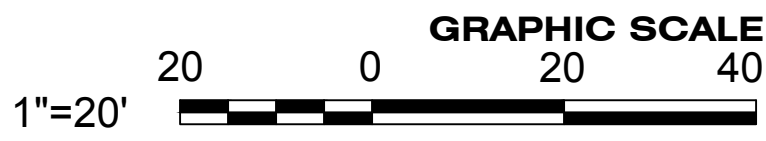
LEGEND

- WORK AREA
- CONE OR DELINEATOR
- SIGN
- FLAGMAN/POLICE
- DIRECTION OF TRAFFIC FLOW



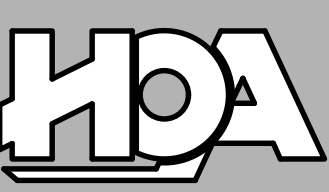
RYCROFT STREET
PHASE-1A & 1B
SEE SHEET C-202

CEDAR STREET
PHASE-2A & 2B
SEE SHEET C-203

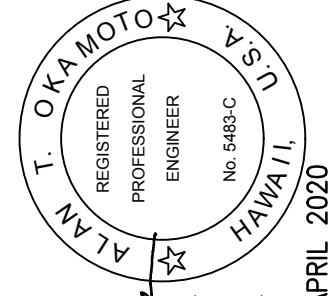


GENERAL TCP FOR OFF SITE SEWER
SCALE: 1" = 20'

APPROVED
CHIEF, TRAFFIC REVIEW BRANCH, DPP _____ DATE _____



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PACIFIC GUARDIAN TOWER
1441 KAPOLANI BOULEVARD, SUITE 1120
HONOLULU, HAWAII 96814
PHONE: (808) 942-0066 FAX: (808) 947-7546



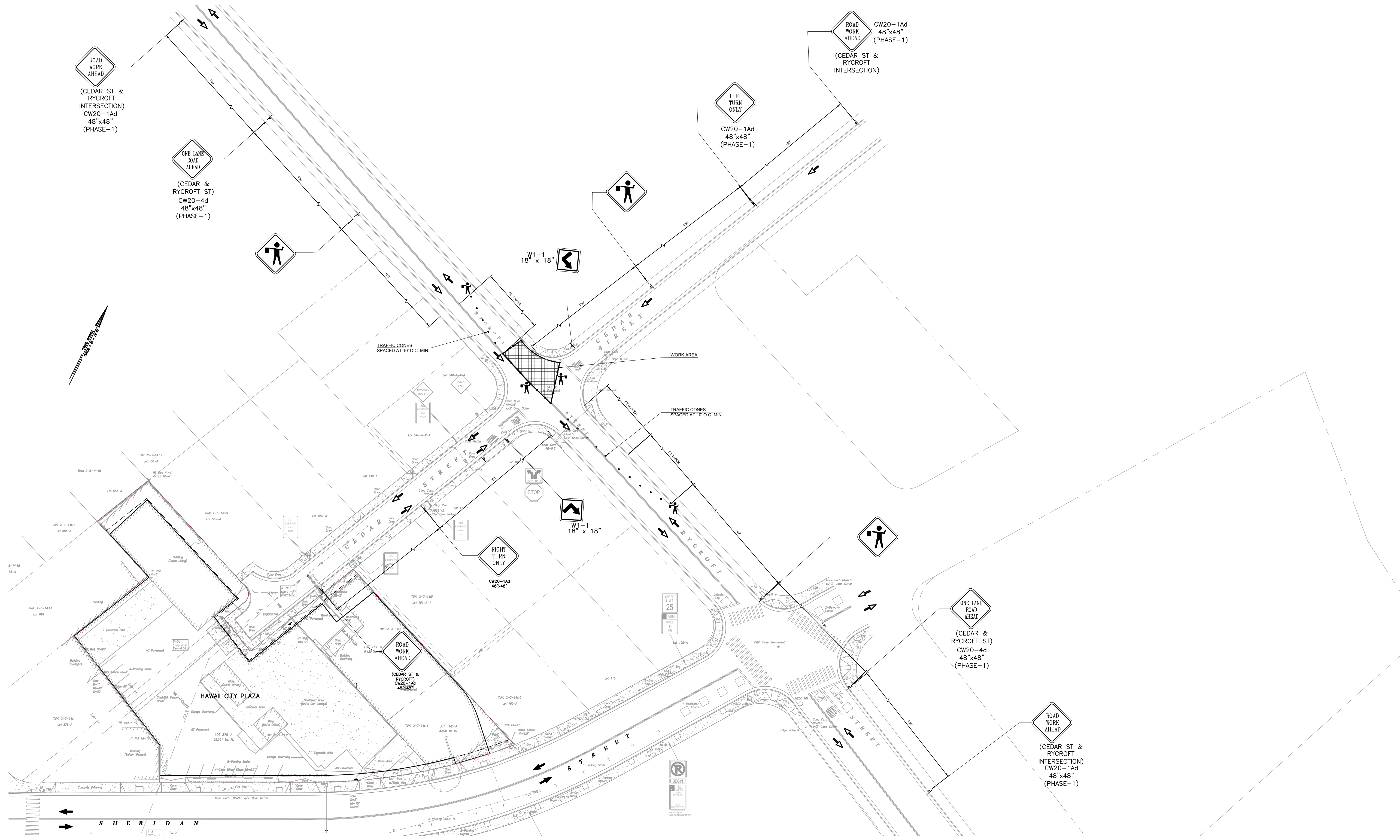
THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONTROL AND I AM A REGISTERED PROFESSIONAL ENGINEER. OBSERVATION: _____
SIGNATURE: *Alan T. Okamoto*
DATE: MARCH 2019
LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY: 2-3-014
GENERAL TCP FOR OFF SITE SEWER

Rev.	Date	Brief	Made By	Approved

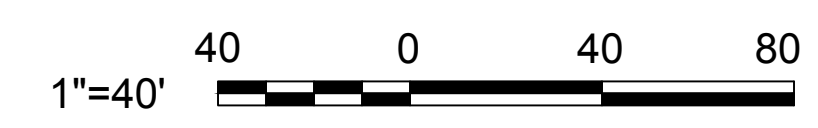
Designed: _____
Drawn: _____
Checked: _____
Date: MARCH 2019
Job No.: 19-2882.1
Drawing No.: _____
C-201
Sheet 8 of 13 Sheets

2882: Hawaii City Plaza Offsite S/W, Hawaii, HIDA, OKAMOTO & ASSOCIATES, INC.



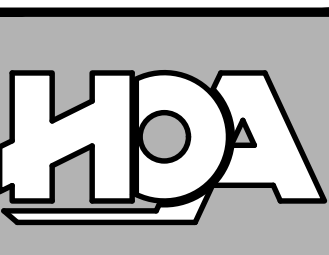
TCP-PHASE-1A FOR OFF SITE SEWER

SCALE: 1" = 40'

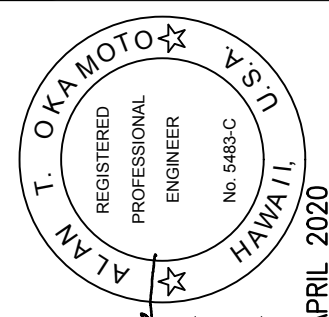


APPROVED

CHIEF, TRAFFIC REVIEW BRANCH, DPP _____ DATE _____



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 CONSULTING CIVIL ENGINEERS
 PACIFIC GUARDIAN TOWER
 1440 KAPOLANI BOULEVARD, SUITE 1120
 HONOLULU, HAWAII 96814
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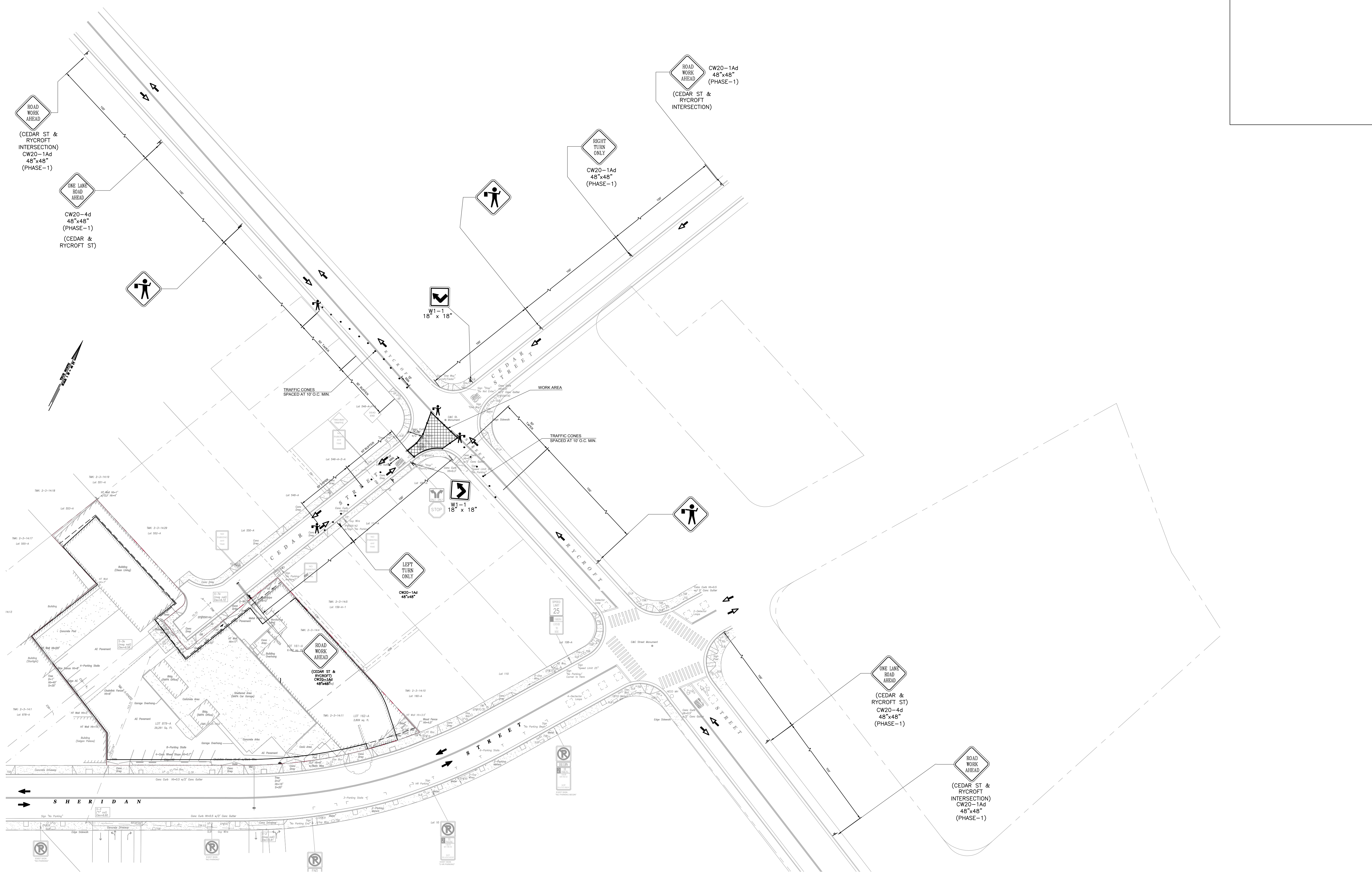


THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
 SIGNATURE: *Alan T. Okamoto*
 DATE: MARCH 2019
 LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
 HONOLULU, OAHU, HAWAII
 TAX MAP KEY: 2-3-014
 TCP-PHASE-1A FOR OFF SITE SEWER

Rev.	Date	Made By	Approved

Designed: _____
 Drawn: _____
 Checked: _____
 Date: MARCH 2019
 Job No.: 19-2882.1
 Drawing No. **C-202**
 Sheet 9 of 13 Sheets



TCP-PHASE-1B FOR OFF SITE SEWER

SCALE: 1" = 40'

1"=40' 40 0 40 80

APPROVED

CHIEF, TRAFFIC REVIEW BRANCH, DPP _____ DATE _____

HDA

HIDA, OKAMOTO & ASSOCIATES, INC.
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 PACIFIC GUARDIAN TOWER
 1440 KAPOLANI BOULEVARD, SUITE 1120
 HONOLULU, HAWAII 96814
 PHONE: (808) 942-0066 FAX: (808) 947-7546

ALAN T. OKAMOTO
 REGISTERED PROFESSIONAL ENGINEER
 No. 4885-C
 HAWAII, I.I.

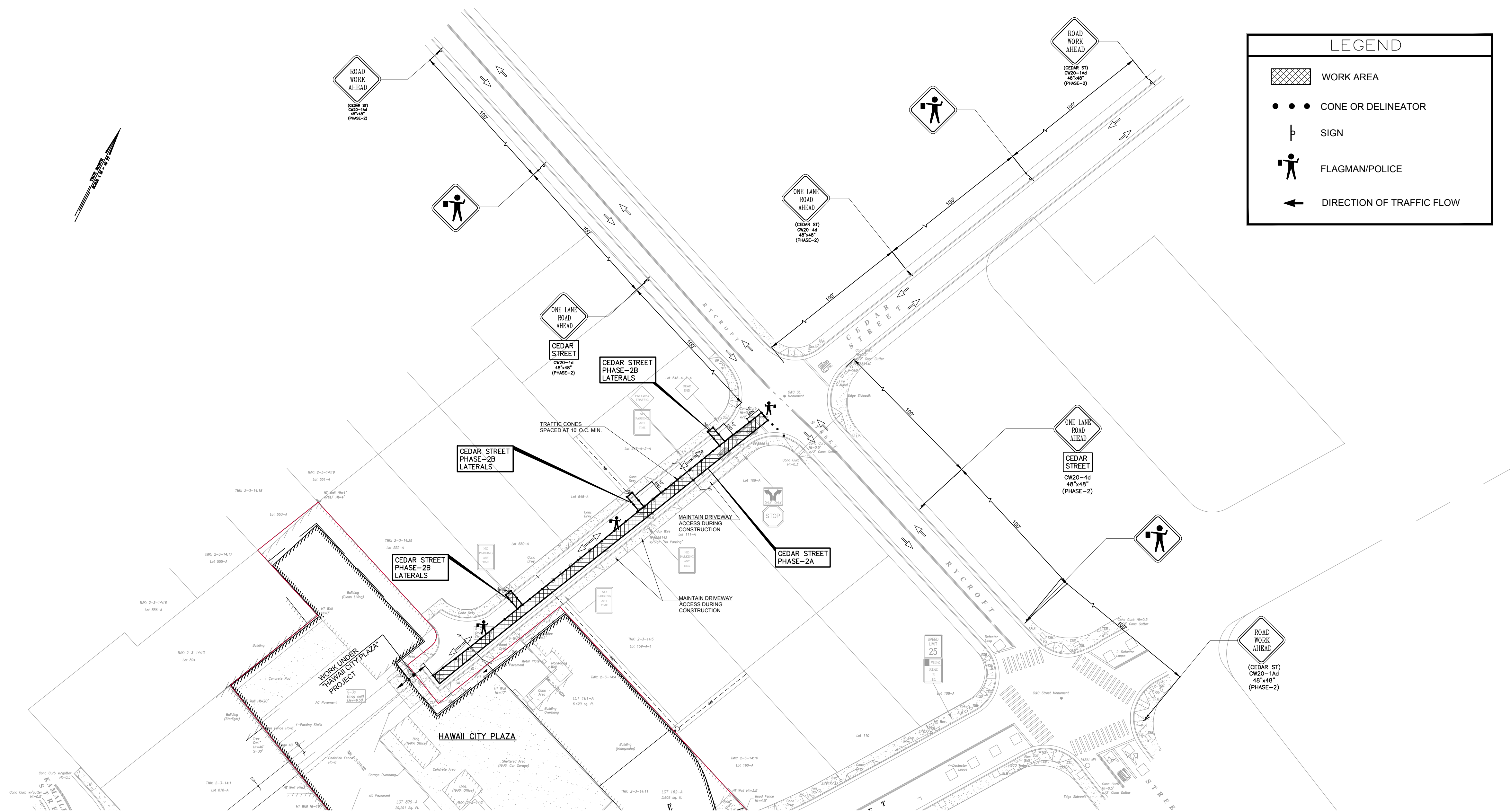
THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
 SIGNATURE: *Alan T. Okamoto* DATE: MARCH 2019
 LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
 HONOLULU, OAHU, HAWAII
 TAX MAP KEY : 2-3-014
 TCP-PHASE-1B FOR OFF SITE SEWER

Rev.	Date	Brief	Made By	Approved

Designed: _____
 Drawn: _____
 Checked: _____
 Date: MARCH 2019
 Job No.: 19-2882.1
 Drawing No. **C-203**
 Sheet 10 of 13 Sheets

2882 - Hawaii City Plaza Offsite Sewer, HIDA, OKAMOTO & ASSOCIATES, INC.



LEGEND	
	WORK AREA
	CONE OR DELINEATOR
	SIGN
	FLAGMAN/POLICE
	DIRECTION OF TRAFFIC FLOW

TCP-PHASE-2A & 2B FOR OFF SITE SEWER
 SCALE: 1" = 40'

APPROVED

CHIEF, TRAFFIC REVIEW BRANCH, DPP _____ DATE _____



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 CONSULTING CIVIL ENGINEERS
 PACIFIC GUARDIAN TOWER
 1441 KAPOLANI BOULEVARD, SUITE 1120
 HONOLULU, HAWAII 96814
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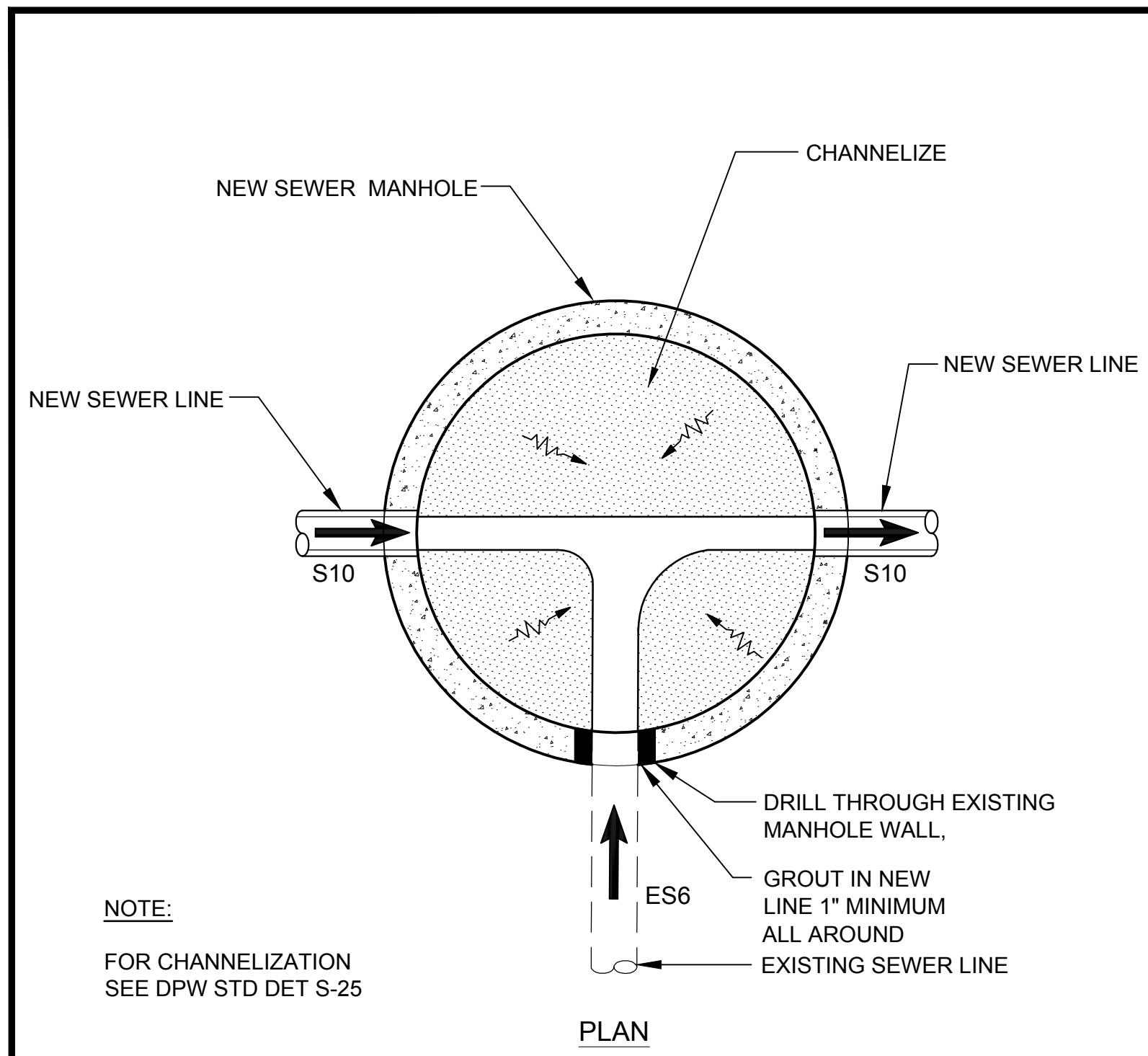
THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

OKAMOTO & ASSOCIATES, INC.
 HAWAII, HI.
 REGISTERED PROFESSIONAL ENGINEER
 No. 4865-C
 Signature: *Alan T. Okamoto*
 DATE: MARCH 2019
 LICENSE EXPIRES: 30 APRIL 2020

HAWAII CITY PLAZA - OFFSITE SEWER LINE
 HONOLULU, Oahu, Hawaii
 TAX MAP KEY : 2-3-014
 TCP-PHASE-2A & 2B FOR OFF SITE SEWER

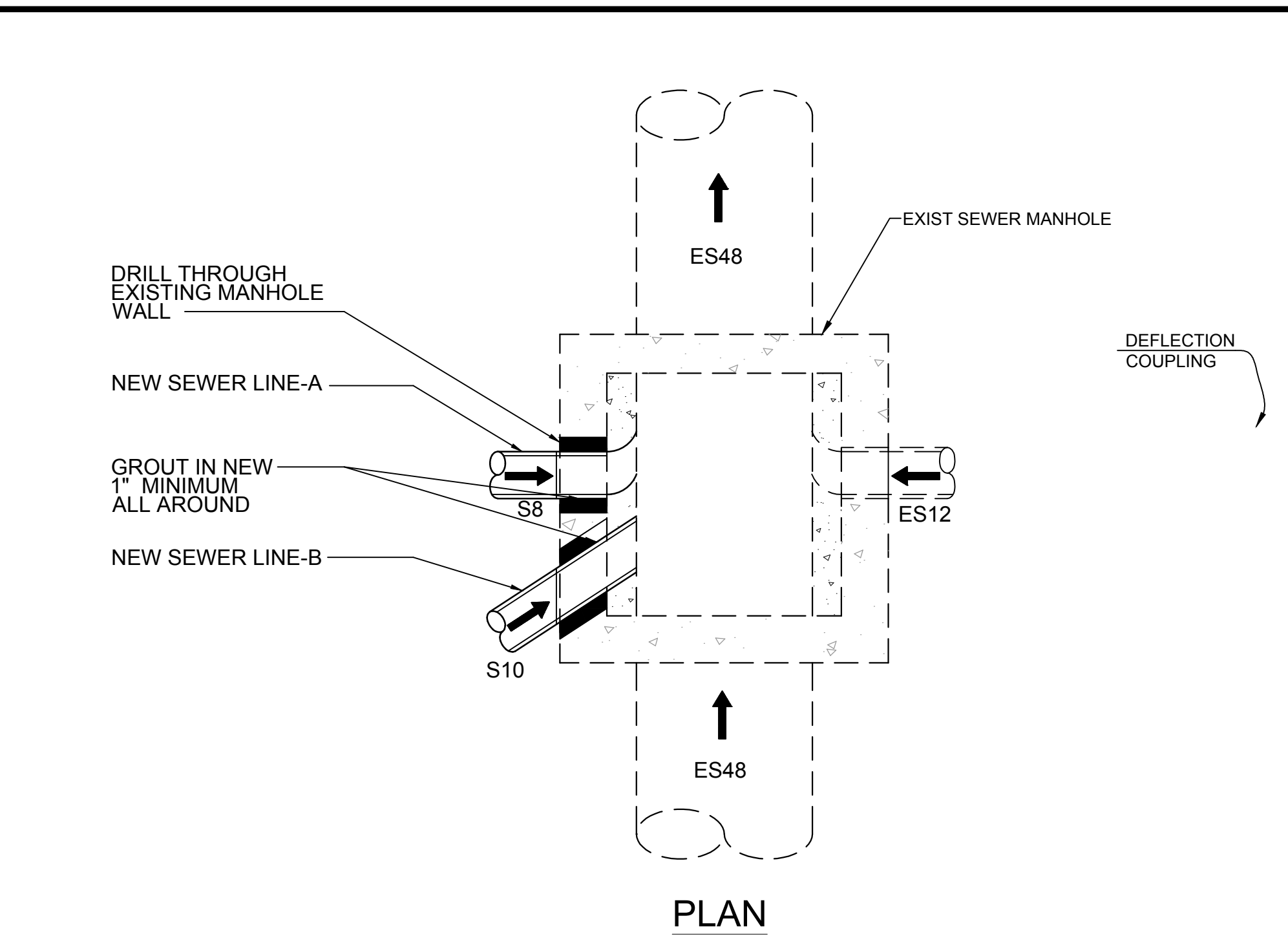
Rev.	Date	Brief	Made By	Approved

Designed: _____
 Drawn: _____
 Checked: _____
 Date: MARCH 2019
 Job No.: 19-2882.1
 Drawing No. **C-204**
 Sheet 11 of 13 Sheets



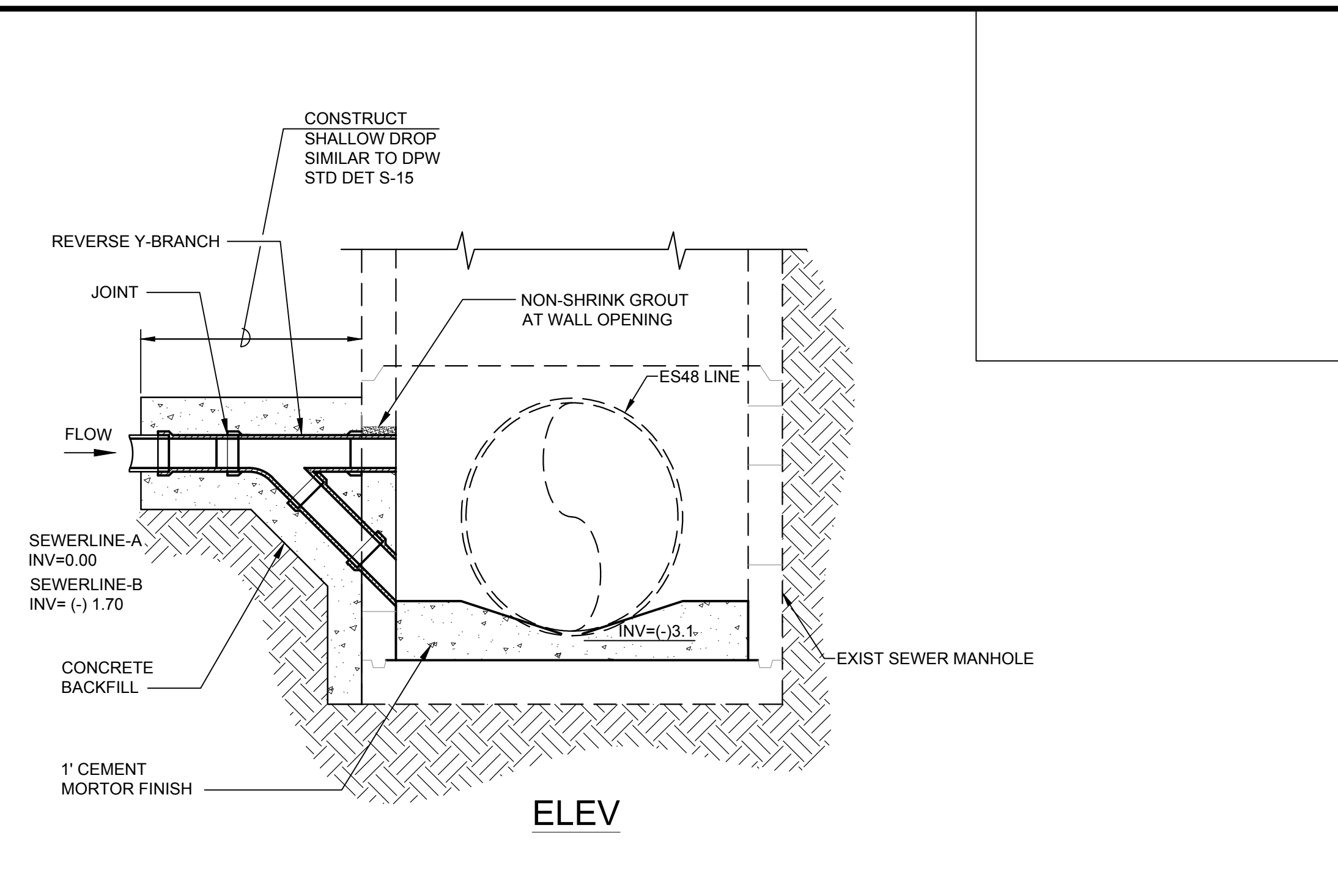
SEWER MANHOLE (SMH-2) CONNECTION

SCALE NONE 1



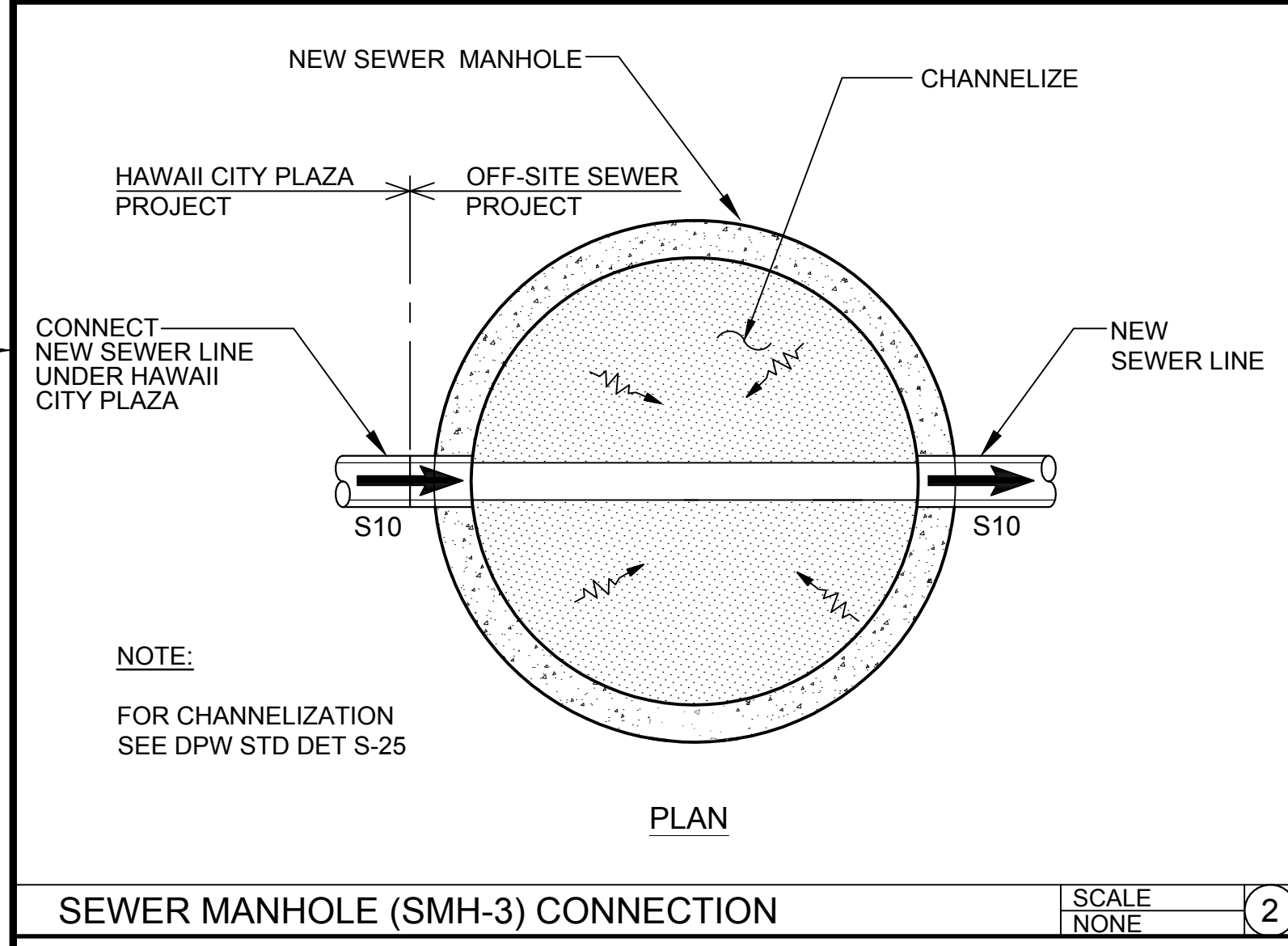
CONNECTION @ SMH #853204

SCALE NONE 3



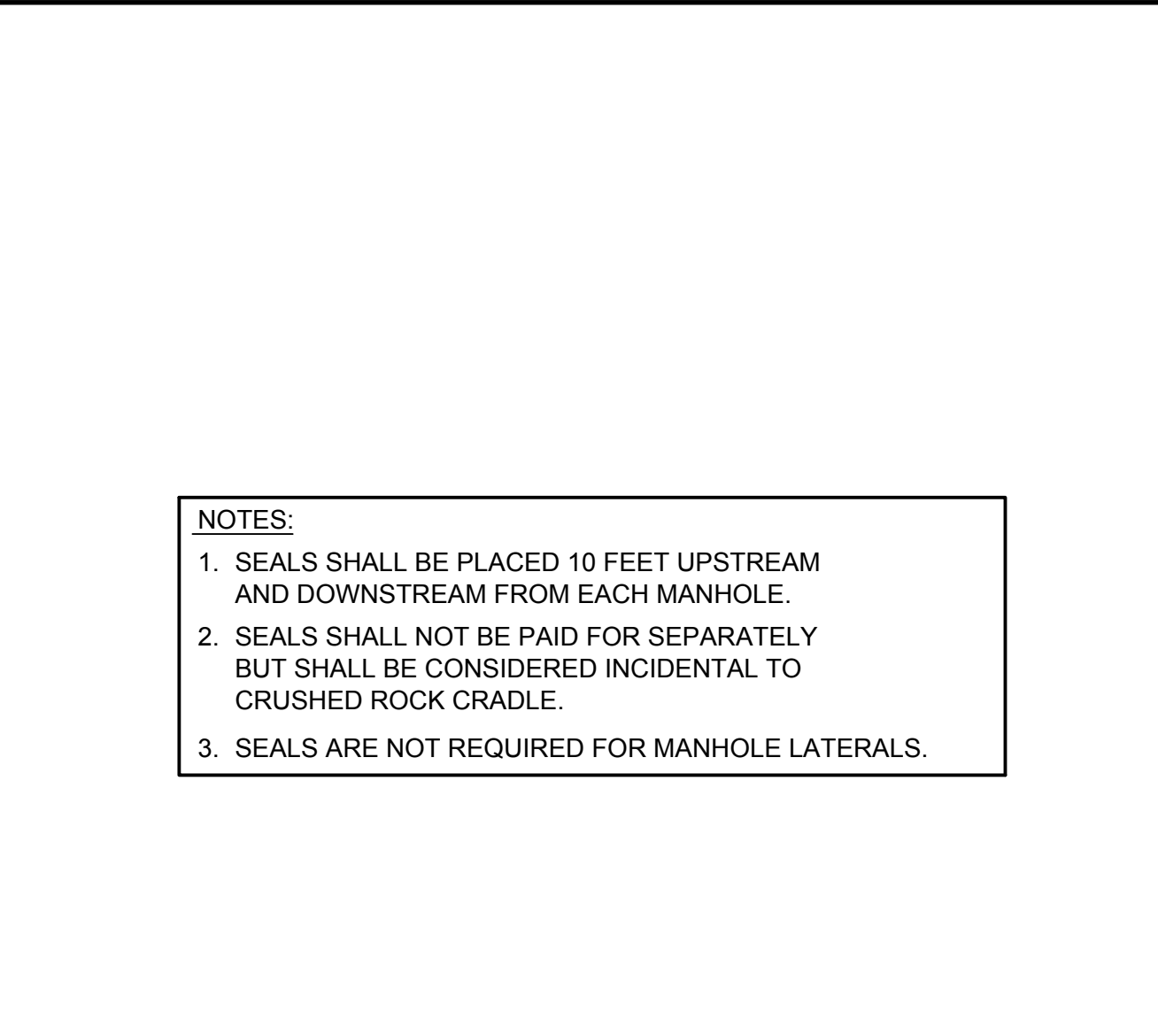
SHALLOW INSIDE MANHOLE

SCALE NONE 4



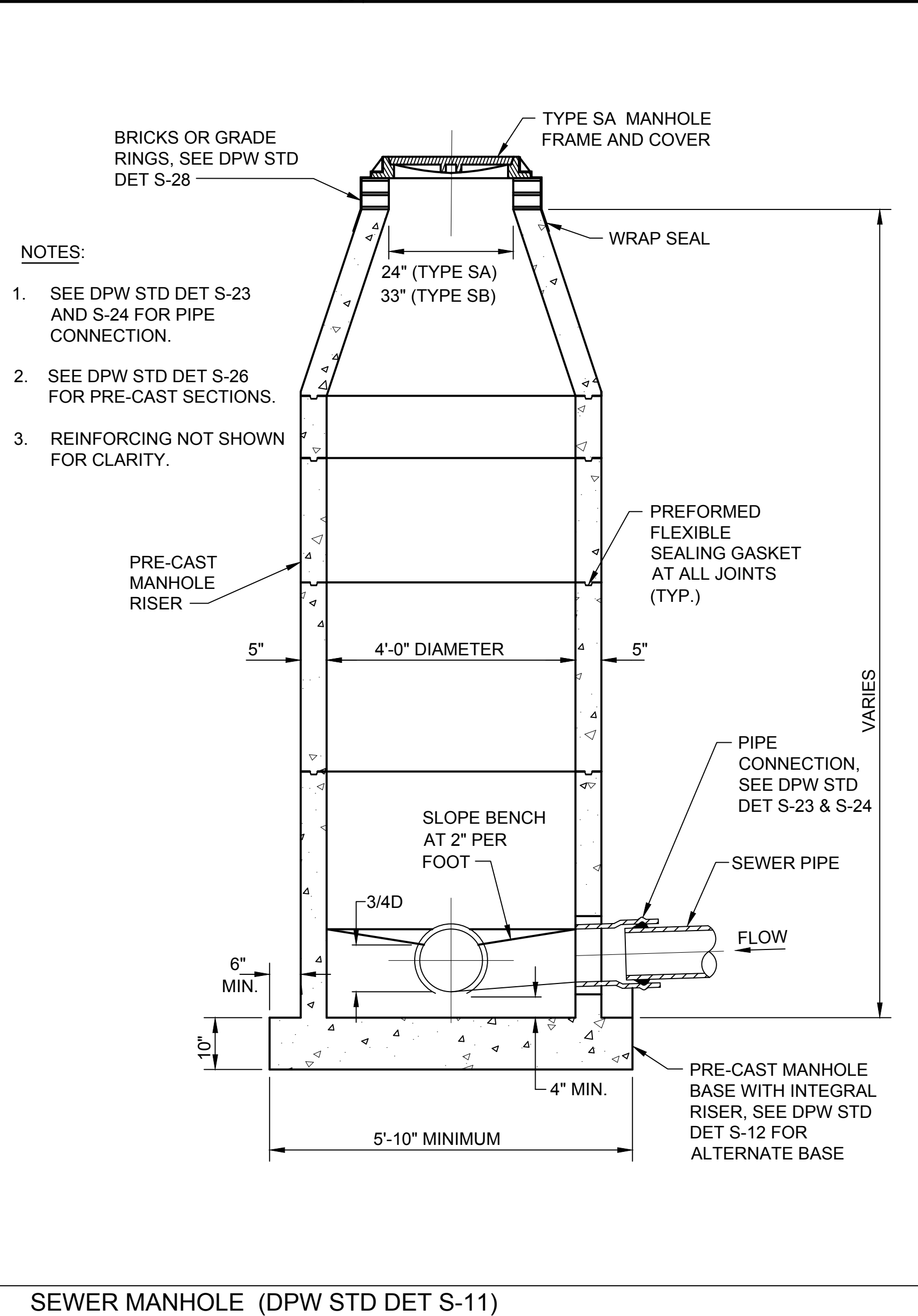
SEWER MANHOLE (SMH-3) CONNECTION

SCALE NONE 2



S4C SEAL

SCALE NONE 5



SEWER MANHOLE (DPW STD DET S-11)

APPROVED

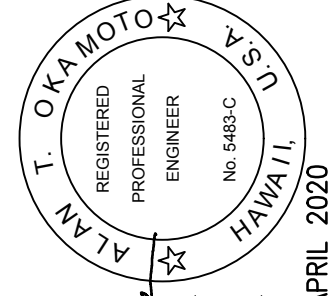
CHIEF, WASTEWATER BRANCH, DPP _____ DATE _____

- NOTES:
1. SEALS SHALL BE PLACED 10 FEET UPSTREAM AND DOWNSTREAM FROM EACH MANHOLE.
 2. SEALS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO CRUSHED ROCK CRADLE.
 3. SEALS ARE NOT REQUIRED FOR MANHOLE LATERALS.

- NOTES:
1. SEE DPW STD DET S-23 AND S-24 FOR PIPE CONNECTION.
 2. SEE DPW STD DET S-26 FOR PRE-CAST SECTIONS.
 3. REINFORCING NOT SHOWN FOR CLARITY.



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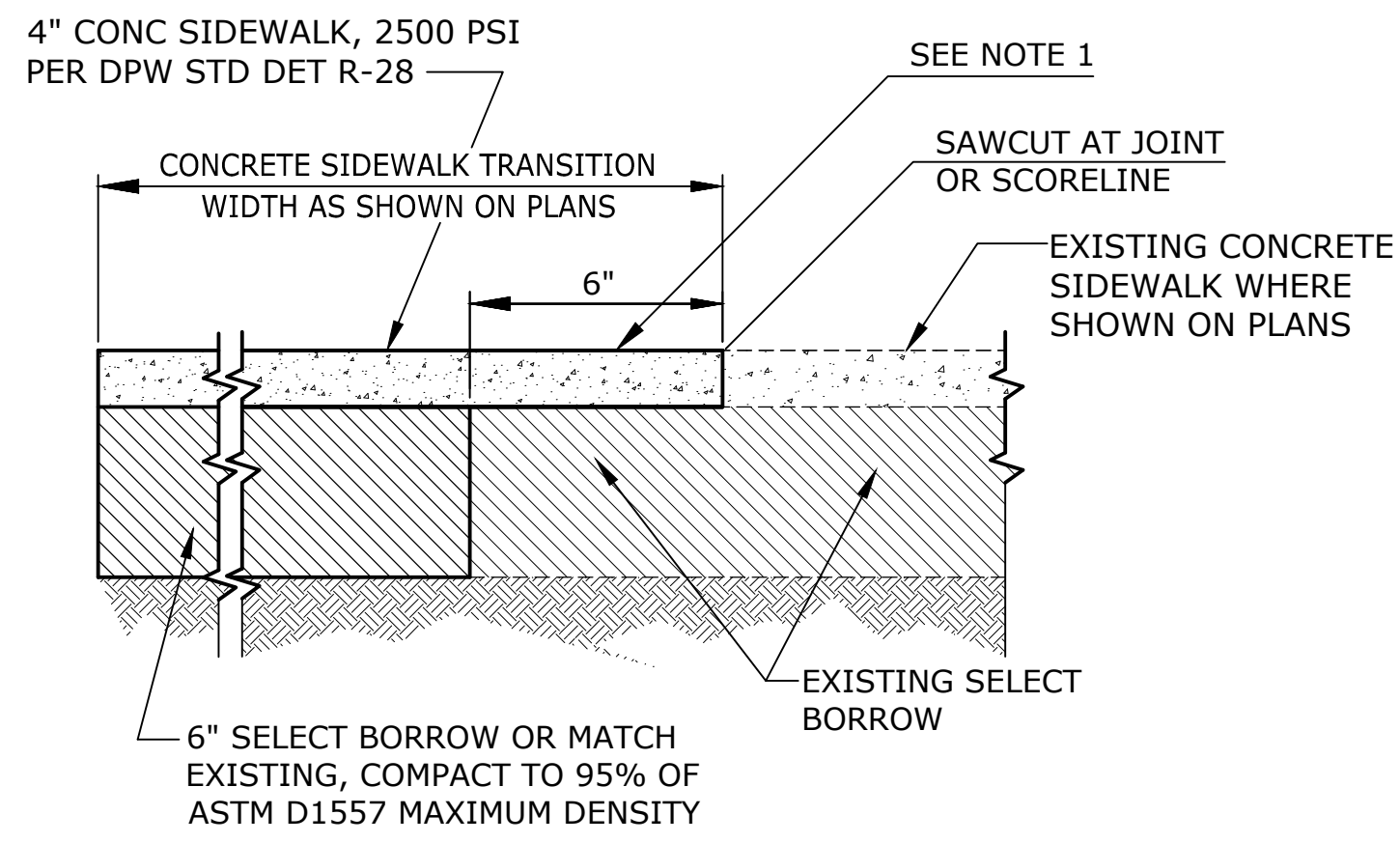
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HAWAII CITY PLAZA - OFFSITE SEWER LINE
 HONOLULU, Oahu, Hawaii
 TAX MAP KEY: 2-3-014
 DETAILS

Rev.	Date	Made By	Approved

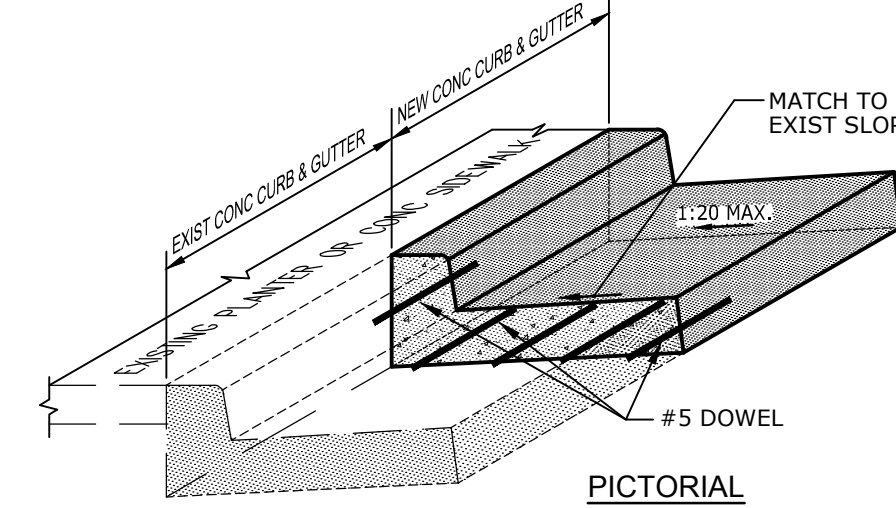
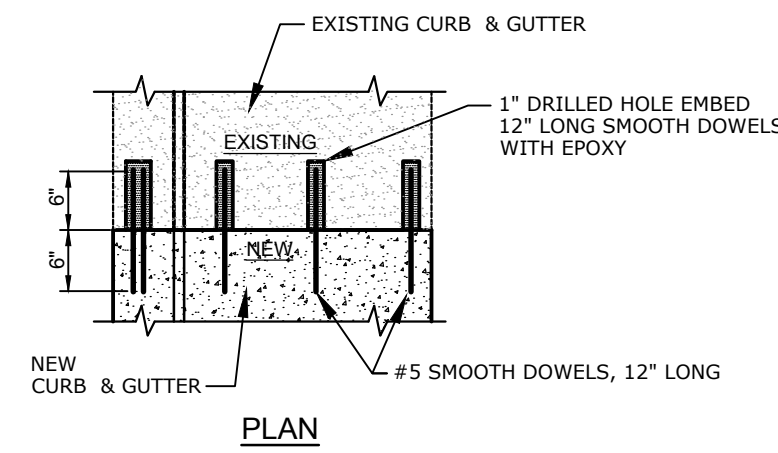
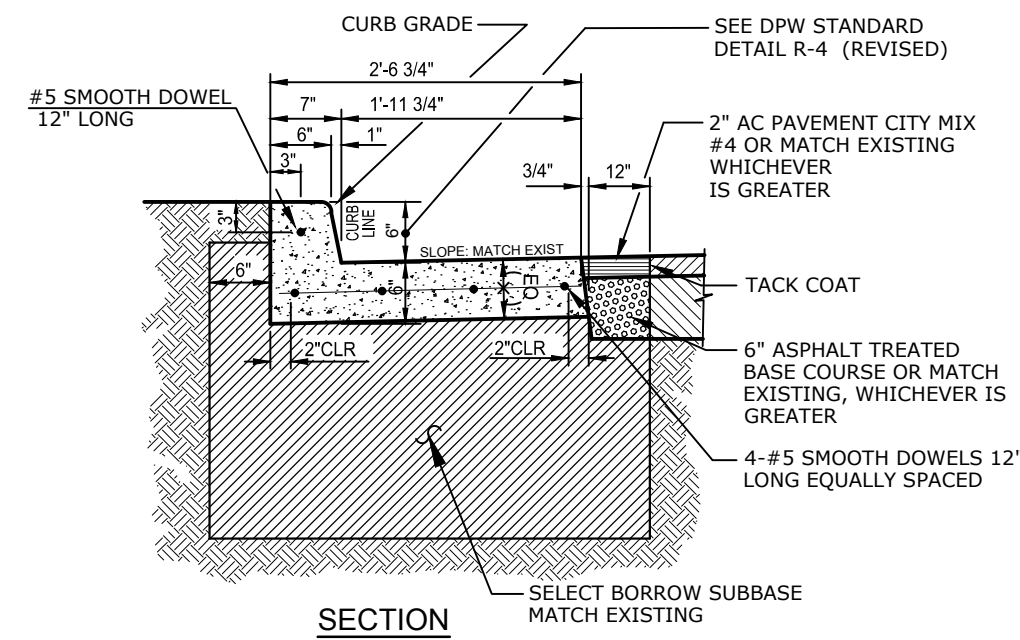
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 Drawing No. _____
C-501
 Sheet 12 of 13 Sheets

2882: Hawaii City Plaza, Office: 81, Honolulu, OKAMOTO & ASSOCIATES, INC.



NOTE:
1. REFER TO "JOINTING REQUIREMENTS FOR CONCRETE SIDEWALK & DRIVEWAYS, ENGINEERING & POLICY MEMORANDUM NO. CEB-1-09 DATED APRIL 6, 2009.

NOTES:
1. FOR ROAD GRADES 0% TO 7.99% AND PRIME COAT IS NOT AVAILABLE, NONE REQUIRED. IF PRIME COAT IS AVAILABLE USE PRIME COAT.
2. CONTRACTOR TO VERIFY CURB HEIGHT (6") IN FIELD AND MATCH NEW CURB & GUTTER HEIGHT TO MATCH EXISTING CONDITIONS.



NOTES:

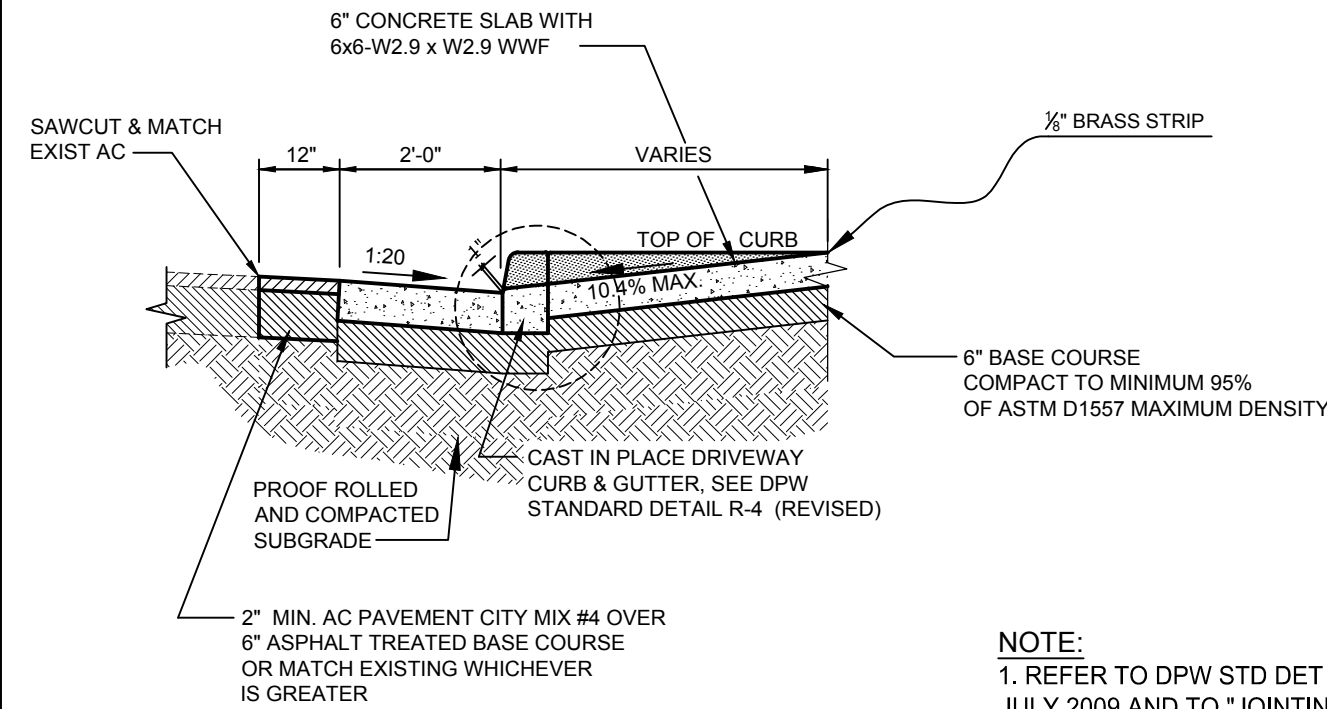
- SEE S-02 FOR PAYMENT WIDTHS AND BEDDING DIMENSIONS.
- FILTER FABRIC NOT REQUIRED FOR CLSM BEDDING.
- FOR SEWER JOINTS LOCATED 5' BEYOND ANTICIPATED DRIP LINE OF TREES AND SHRUBS, WRAP WILL BE A GEOTEXTILE FABRIC WITH HERBICIDE.

CONCRETE SIDEWALK RESTORATION

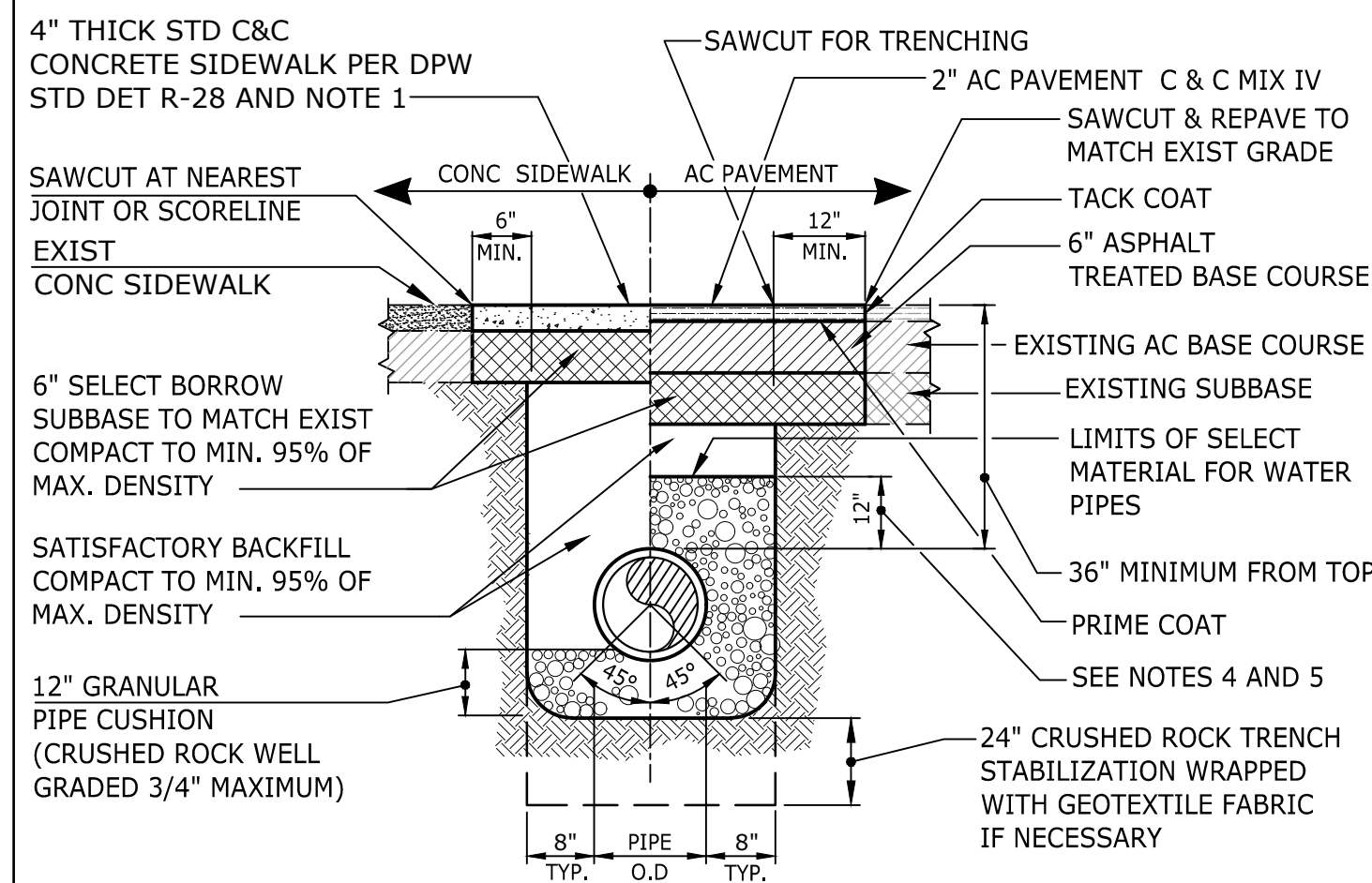
SCALE NONE 1

CURB & GUTTER RESTORATION (CITY ROW)

SCALE NONE 2



NOTE:
1. REFER TO DPW STD DET R-29A DATED JULY 2009 AND TO "JOINTING REQUIREMENTS FOR CONC SIDEWALK & DRIVEWAYS, ENGINEERING & POLICY MEMORANDUM NO. CEB-1-09 DATED APRIL 6, 2009.



- NOTES:
- REFER "JOINTING REQUIREMENTS FOR CONCRETE SIDEWALK & DRIVEWAYS, ENGINEERING & POLICY MEMORANDUM NO. CEB-1-09 DATED APRIL 6, 1009.
 - PAVEMENT STRUCTURE SHALL BE RESTORE SHALL BE RESTORED TO EQUAL OR BETTER THAN EXISTING IN THICKNESS & QUALITY.
 - THE LENGTH OF THE PAVEMENT TRENCH SHALL BE REMOVED TWO (2) FEET IN ADDED LENGTH TO EACH END OF TRENCH.
 - 12" OF CUSHION MATERIAL FOR PIPES 16" OR LARGER. 6" CUSHION MATERIAL FOR PIPES 12" OR SMALLER AT LOCATIONS WHERE INVERT IS ABOVE 4-FOOT ELEVATION.
 - 12" OF CUSHION MATERIAL FOR ALL PIPE SIZES AT LOCATIONS WHERE THE INVERT IS AT OR BELOW THE 4-FOOT ELEVATION.

DRIVEWAY APRON REPAIR

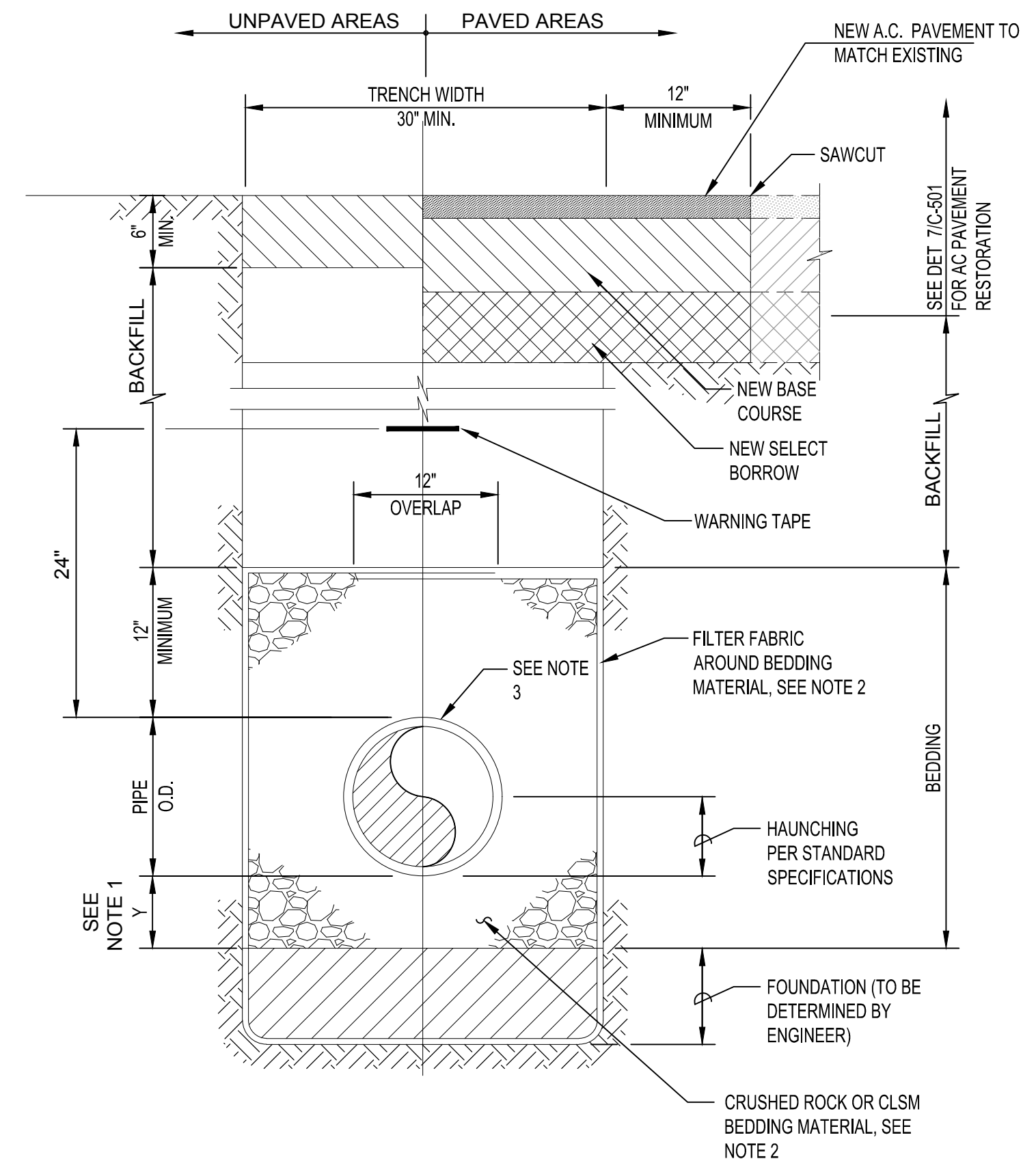
SCALE NONE 3

TYPICAL TRENCH (CITY R/W)

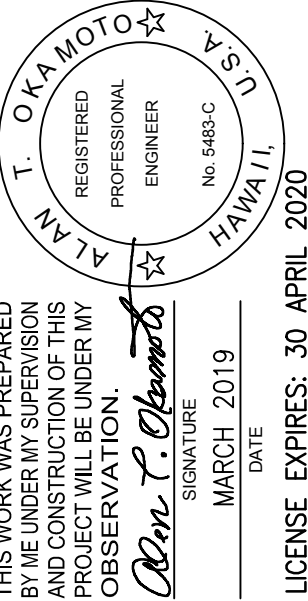
SCALE NONE 4

TYPICAL TRENCH (WWB) (CITY R.O.W.)

SCALE NONE 5



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PHONE: (808) 942-0066 FAX: (808) 947-7546



HAWAII CITY PLAZA - OFFSITE
SEWER LINE
HONOLULU, Oahu, Hawaii
TAX MAP KEY : 2-3-014
DETAILS

Rev.	Date	Brief	Made By	Approved

Designed:
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Date: MARCH 2019
Job No.: 19-2882.1
Drawing No.
C-502
Sheet 13 of 13 Sheets

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CHIEF, WASTEWATER BRANCH, DPP _____ DATE _____