FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.3	57

WATER POLLUTION AND EROSION CONTROL NOTES: 5

A. GENERAL:

1. See Special Provision Section 209 - Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.

2. Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.

3. Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.

4. The Engineer may assess liquidated damages of up to $27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.

5. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.

6. If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.

7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from http://www.stormwaterhawaii.com.

B. WASTE DISPOSAL:

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

2. Hazardous Waste
Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

3. Sanitary Waste
Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

1. For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.

2. For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.

3. Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.

4. Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.

5. Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.

6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.

7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.

8. Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold-planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. Cover dump trucks hauling material from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.

9. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.

10. Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.

11. 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.

12. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

1. Materials Pollution Prevention Plan
   a. 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.

Concrete	Detergents
Paints (enamel and latex)	Metal Studs
Tar	Fertilizers
Petroleum Based Products	Cleaning Solvents
Wood	Masonry Block
Herbicides and Pesticides	Curing Compounds
Adhesives	

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

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
6/5/2014	5 Revised Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL NOTES

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

SHEET No. G1.2 OF 61 SHEETS

ADD.3

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.4	57

WATER POLLUTION AND EROSION CONTROL NOTES: CONT. 3

b. Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.

c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.

d. Keep products in their original containers with the original manufacturer's label.

e. Do not mix substances with one another unless recommended by the manufacturer.

f. Whenever possible, use a product up completely before disposing of the container.

g. Follow manufacturer's recommendations for proper use and disposal.

h. Conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

a. Keep products in original containers unless they are not resealable.

b. Retain original labels and Safety Data Sheets (SDS) formerly Material Safety Data Sheets (MSDS).

c. Dispose of surplus products according to manufacturers' instructions and local and State regulations.

3. Onsite and Offsite Product Specific Plan
The following product specific practices shall be followed onsite:

a. Petroleum Based Products:
Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.

b. Fertilizers:
Apply fertilizers used only in the minimum amounts recommended by the manufacturer and federal, state, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an area where fertilizer will not come into contact with precipitation or stormwater. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.

c. Paints:
Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacturers' instructions and State and local regulations.

d. Concrete Trucks:
Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.

4. Spill Control Plan

a. Post a spill prevention plan to include measures to prevent and clean up each spill.

b. 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 on a weatherproof bulletin board or other accessible location acceptable to the Engineer and in the office trailer onsite.

c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.

d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.

e. Clean up all spills immediately after discovery.

f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424-8802, the Clean Water Branch during regular business hours at 586-4309, and the Hawaii State Hospital Operator at 247-2191 and the Clean Water Branch (DOH-CWB) via email at cleanwaterbranch@doh.hawaii.gov during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. The Engineer will provide this information to the DOH-CWB. The Engineer will provide information to the NRC if requested.

E. PERMIT REQUIREMENTS:

1. The calculated land disturbance area for this project based on the construction plans is 0.25 acres not including Contractor Staging and Storage areas. 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:
   a. Deadlines for initiating and completing initial stabilization
   b. Increased inspection frequency and installation of rain gage if applicable
   c. Deadlines to initiate and complete repairs to BMPs
   d. Reporting requirements and corrective action reports

F. SITE-SPECIFIC BMP REQUIREMENTS

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 under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at http://stormwaterhawaii.com/contractors/contractors_BMPmanual.aspx 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:

1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC-2).

2. Contain on-site runoff using Perimeter Sediment Controls
   a. SC-1 Silt Fence
   b. SC-5 Vegetated Filter Strips and Buffers
   c. SC-8 Compost Filter Berm
   d. SC-13 Sandbag Barrier
   e. SC-14 Brush or Rock Filter

3. Control offsite runoff from entering construction area
   a. EC-8 Run-On Diversion
   b. SC-6 Earth Dike
   c. SC-7 Temporary Drains and Swales

4. Incorporate applicable Site Management BMP
   a. SM-1 Employee Training
   b. SM-2 Material Delivery and Storage
   c. SM-3 Material Use
   d. SM-4 Protection of Stockpiles
   e. SM-6 Solid Waste Management
   f. SM-7 Sanitary/Septic Waste Management
   g. SM-9 Hazardous Waste Management
   h. SM-10 Spill Prevention and Control
   i. SM-11 Vehicle and Equipment Cleaning
   j. SM-12 Vehicle and Equipment Maintenance
   k. SM-13 Vehicle and Equipment Refueling
   l. SM-14 Scheduling
   m. SM-15 Location of Potential Sources of Sediment
   n. SM-16 Preservation of Existing Vegetation
   o. SM-18 Dust Control

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

DATE	REVISION
6/5/2014	3 Revised Notes

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL NOTES

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

SHEET No. G1.3 OF 61 SHEETS

ADD.4

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.4S-1	57

WATER POLLUTION AND EROSION CONTROL NOTES: CONT. 3

5. Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC-2) for all areas which exit onto a paved street. Restrict vehicle access to these points.

6. Manage Concrete Waste including installing a Concrete Washout Area (SM-5) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).

7. 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.

TEMPORARY UTILITY INSTALLATION REQUIREMENTS: 3

A. General: Engage Appropriate Local Utility Company To Install Temporary Service Or Connect To Existing Service Where Directed By The Engineer. Where Utility Company Provides Only Part Of The Service, Provide The Remainder With Matching, Compatible Materials And Equipment. Comply With Utility Company Recommendations.
   1. Arrange With Utility Company, The Department, And Existing Users For Time When Service Can Be Interrupted, If Necessary, To Make Connections For Temporary Services.
   2. Provide Adequate Capacity At Each Stage Of Construction. Before Temporary Utility Is Available, Provide Trucked In Services.

B. Utility Service Costs During Construction: The Contractor Shall Be Responsible For Paying The Costs For Electric, Water, And Sewer Utility Services From The Project's Construction Notice To Proceed Date Through The Project Acceptance Date. In Lieu Of Arranging With The Utility Company, For The Metering Of The Contractor's Usage Of Utility Services, Etc. As Noted In The Following Paragraphs Of This Section, The Contractor May Choose To Pay The State's Electric, Water, And Sewer Utility Bills For The Facility During The Period From Construction Notice To Proceed Date Through The Project Acceptance Date

C. Water Service: Make Arrangements With The Utility Company For Temporary Use Of Water, And Pay For All Expenses. However, At The Option Of The Contractor, A Temporary Tap Into The Facility's Existing Water System Is Allowed, Subject To The Following Conditions:
   1. Comply With The Department Of Health's And County Water Provider's Requirements When Tapping Into The Existing Water System.
   2. Meter The Tapped Line And Prior To Water Use. Notify The Engineer To Observe An Initial Meter Reading.
   3. Take Monthly Meter Readings. Pay The State, On A Monthly Basis, For Water Used At The Current Rate Per 1,000 Gallons.
   4. Payments Are To Be By Check, Made Payable To The "Director Of Finance, State Of Hawaii" And Mailed As Directed By The Engineer.
   5. Checks Shall Be Accompanied By The Following Information:
      i. Name Of Facility, Project Name And Title And Job No.
      ii. Contractor's Name.
      iii. Initial Meter Reading For The Month And Final Meter Reading For The Month.
      iv. Volume Of Water Used And The Amount Due In Payment For That Water.
   6. Upon Completion Of The Project And Just Prior To Removal Of The Water Meter, Notify The Engineer To Observe A Final Meter Reading.
   7. Should The Contractor At Any Time Fail To Comply With Any Or All Of The Above Conditions, The Department May Terminate The Use Of Water. The Contractor Shall Remove The Hookup Within 48 Hours Of Notification Of Such Termination.

D. Electric Power Service: Provide Weatherproof, Grounded Electric Power Service And Distribution System Of Sufficient Size, Capacity, And Power Characteristics During Construction Period. Include Meters, Transformers, Overload Protected Disconnecting Means, Automatic Ground Fault Interrupters, And Main Distribution Switchgear. Make Arrangements With Utility Companies For Temporary Use Of Electricity For Construction Use. Pay For All Expenses Pertaining Thereto.

E. Electric Distribution: Provide Receptacle Outlets Adequate For Connection Of Power Tools And Equipment. Protect Wiring, In Conduits Or Other, Measures When Exposed To Possible Damage Or Traffic Areas.

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

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
6/5/2014	3 Revised And Added Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

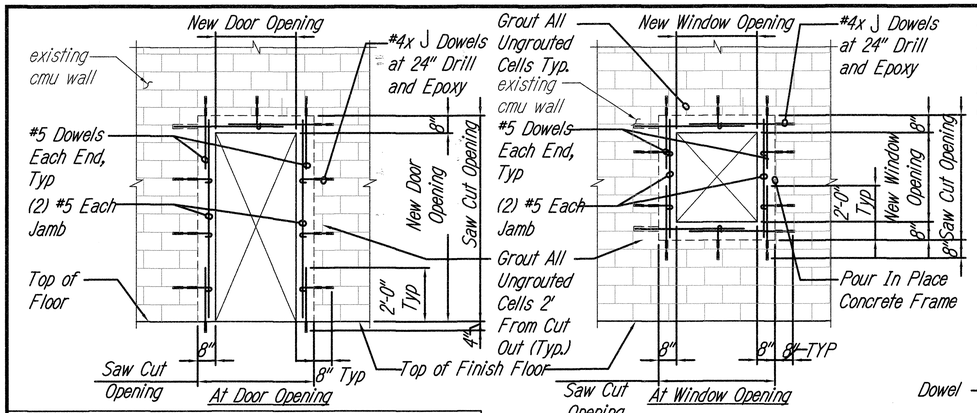
WATER POLLUTION AND EROSION CONTROL NOTES

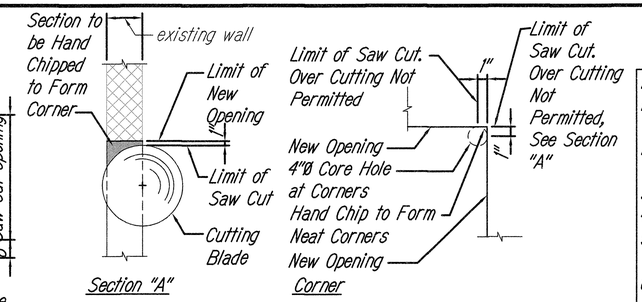
MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08
Scale: As Noted Date: APRIL, 2014

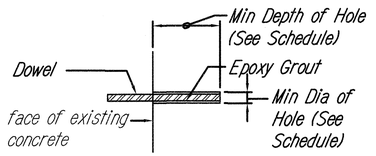
SHEET No. G1.4 OF 61 SHEETS

ADD.4S-1

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.5	57







Bar Size	Drill Bit Diameter	Minimum Depth
#3	1/2"	3 1/2"
#4	5/8"	4 1/2"
#5	3/4"	7 1/2"
#6	7/8"	10"

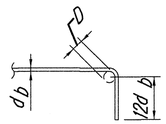
Rebar Dowel Setting Procedure:

1. Remove loose and damaged CMU block, grout all existing ungrouted cells two feet from cut out.
2. Drill Hole of Proper Diameter And Depth Using A Carbide Tipped Drill or Corning bit. Avoid cutting existing reinforcing steel by relocating hole slightly.
3. Clean thoroughly by vaccum or air pressure.
4. Make sure that hole is dry and clean before grouting.
5. Place epoxy grout in hole with caulking gun or similar equipment. Start at bottom, fill hole approximately 1/2 full.
6. Coat dowel with same epoxy and insert into hole, forcing material around the sides of the bar and completely filling all voids.
7. Provide support for dowel by tying to rebar or other element until grout has cured.
8. Epoxy Grout: "HY-150" as manufactured by Hilti Corp. (ICBO No. 5193) install in accordance with the manufacturer's printed instructions.

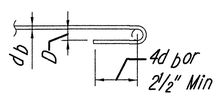
Minimum Splice and Embedment Lengths

Concrete Strength = 4,000 PSI

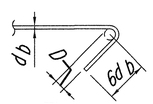
Bar Size	Lap Splice		Embedment		
			Straight		With Standard Hook
	Top Bars	Other Bars	Top Bar	Other Bars	
#3	26"	20"	20"	16"	8"
#4	34"	26"	26"	20"	10"
#5	42"	32"	32"	24"	12"
#6	50"	38"	38"	30"	16"
#7	72"	54"	54"	42"	18"
#8	82"	62"	62"	48"	20"



90° Hk Bend

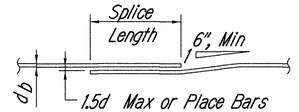


180° Hk Bend



135° Hk Bend

D = 6d for #8 and Smaller
D = 8d for #9 to #11



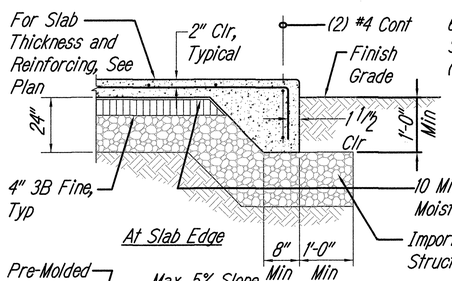
Bar Lap

TYPICAL NEW CUT OUT AND REINFORCED CONCRETE FRAME IN EXISTING CMU WALL (2 / A2.2 | A1.0)

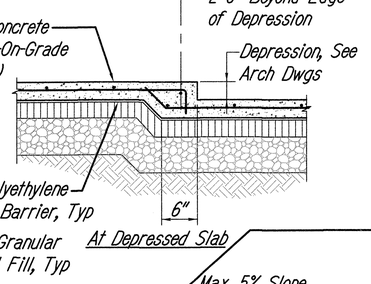
Not To Scale

Saw Cut Note:

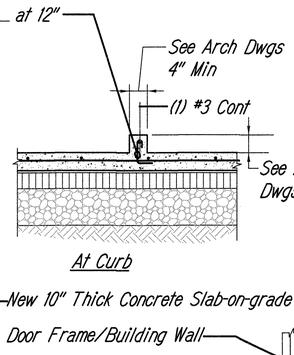
Saw Cutting Shall Occur As Soon As Concrete Surface Is Firm Enough To Not Be Torn By Cutting Blade And Before Shrinkage Cracking Occurs, But No Later Than 12 Hours After Concrete Has Been Poured.



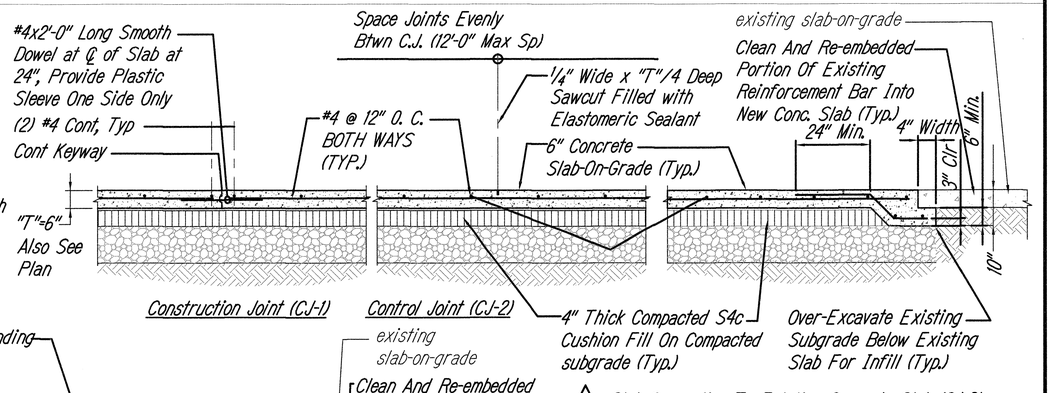
At Slab Edge



At Depressed Slab

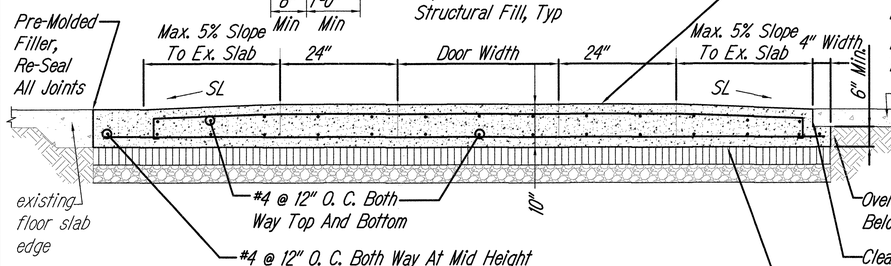


At Curb

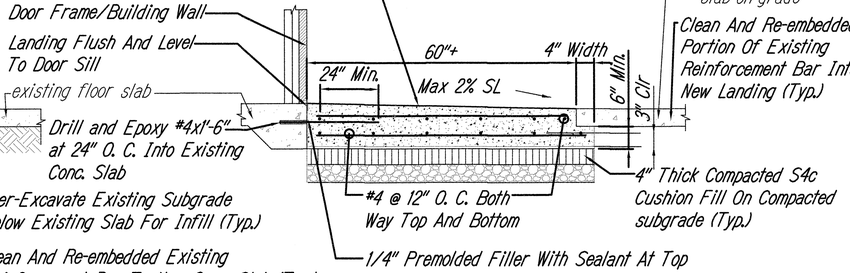


Construction Joint (CJ-1) | Control Joint (CJ-2)

3 Slab Connection To Existing Concrete Slab (CJ-3)



3 Typical Concrete Landing And Ramp Along Door Sill At Walkway



3 Typical Concrete Landing And Ramp At Door Sill

TYPICAL CONCRETE SLAB DETAIL (1 / A1.0 | A1.0)

Not To Scale

DRILL HOLE SIZE AND EPOXY FILL NOTE

Notes:

1. Length are for concrete with rebar spaced 6 bar diameters min oc. Increase bar length 25% for bars spaced less than 6 bar diameters oc.
2. "Top Bars" are horizontal bars with 12" or more of concrete cast below.

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

DATE	REVISION
6/5/2014	3 Added Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL CONCRETE SLAB AND MASONRY WALL DETAILS

MOTOR VEHICLE SAFETY OFFICE RENOVATION

Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

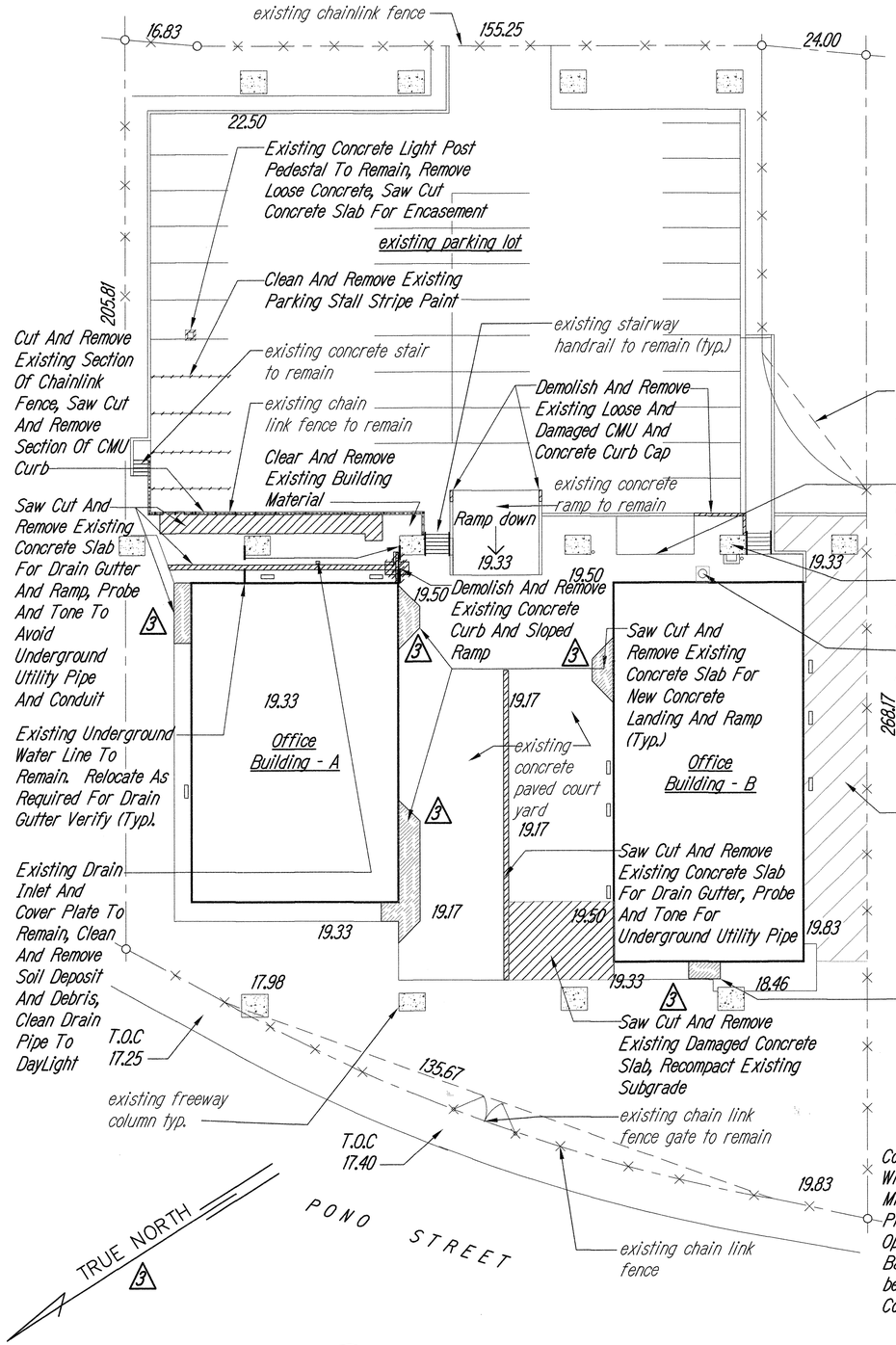
LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

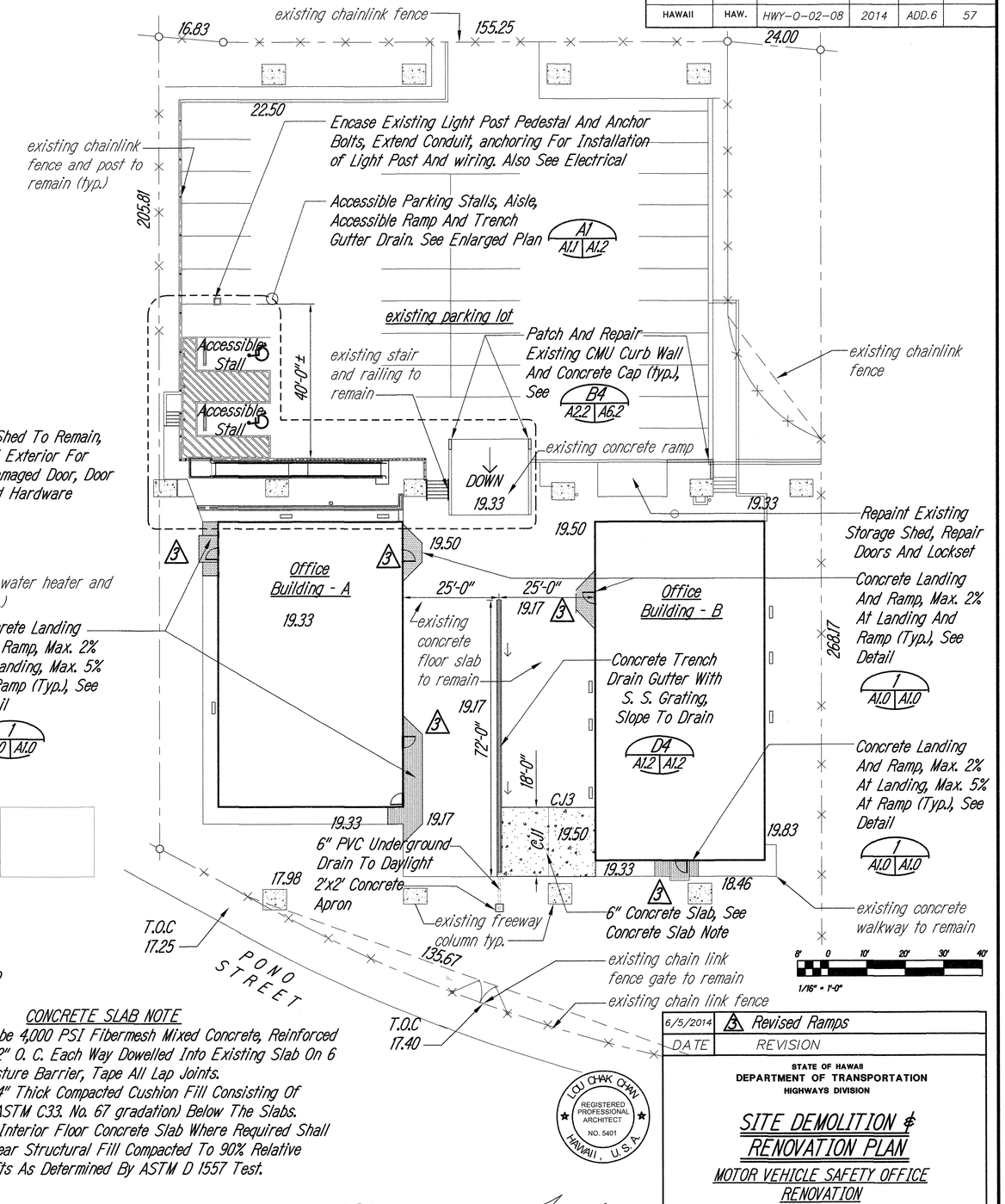
SHEET No. A1.0 OF 57 SHEETS

ADD.5

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.6	57



SITE DEMOLITION PLAN 1 A1.1 | A1.1
Scale: 1/16" = 1'-0"



SITE RENOVATION PLAN 2 A1.1 | A1.1
Scale: 1/16" = 1'-0"

8' 0 10' 20' 30' 40'
1/16" = 1'-0"

CONCRETE SLAB NOTE

Concrete Slab Shall be 4,000 PSI Fibermesh Mixed Concrete, Reinforced With 1-#4 Rebar at 12" O. C. Each Way Dowelled Into Existing Slab On 6 Mil Polyethelene Moisture Barrier, Tape All Lap Joints. Provide A Minimum 4" Thick Compacted Cushion Fill Consisting Of Open-Grade Gravel (ASTM C33. No. 67 gradation) Below The Slabs. Backfill Under New Interior Floor Concrete Slab Where Required Shall be Non-Expansive Clear Structural Fill Compacted To 90% Relative Compaction In 8" Lifts As Determined By ASTM D 1557 Test.

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

DATE	REVISION
6/5/2014	3 Revised Ramps

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE DEMOLITION & RENOVATION PLAN

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

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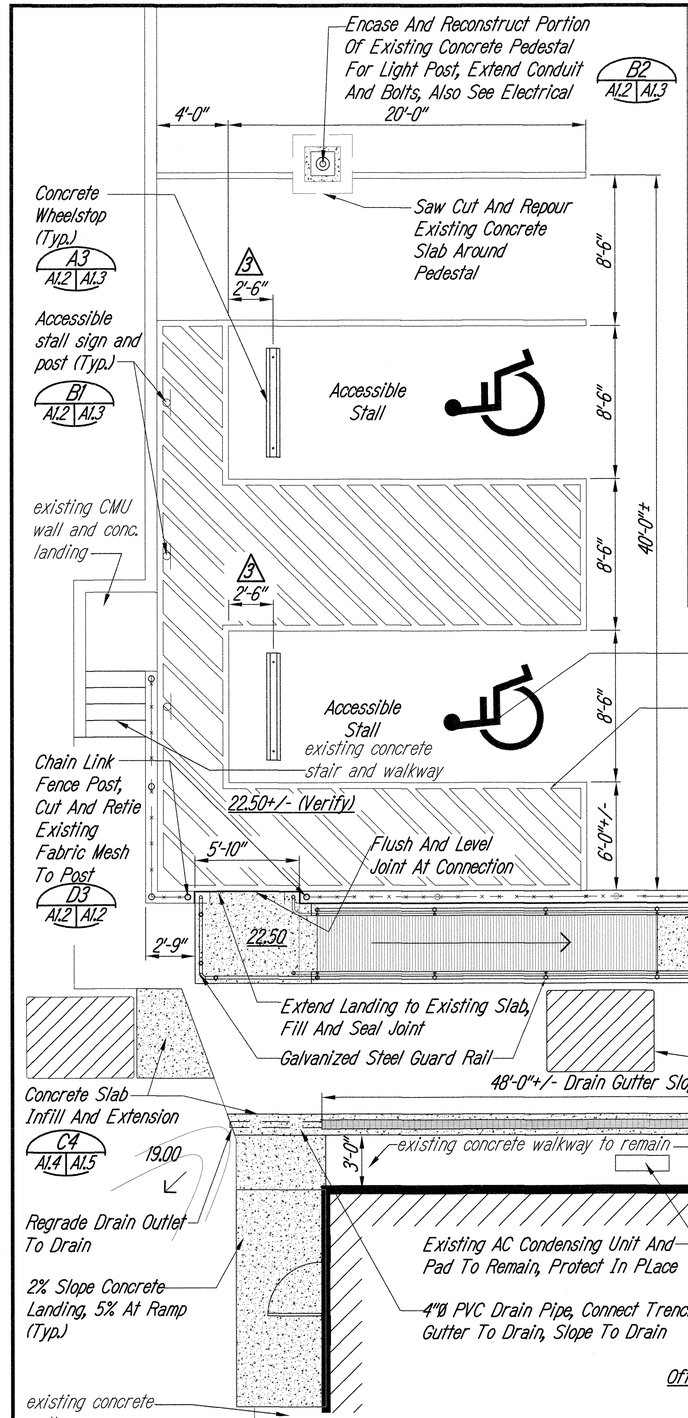
SHEET No. A1.1 OF 57 SHEETS

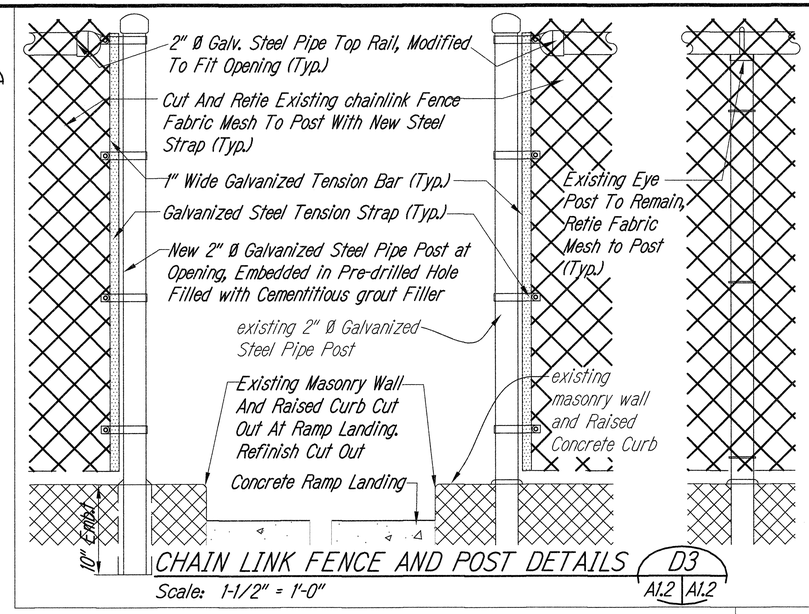
ADD.6

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.7	57



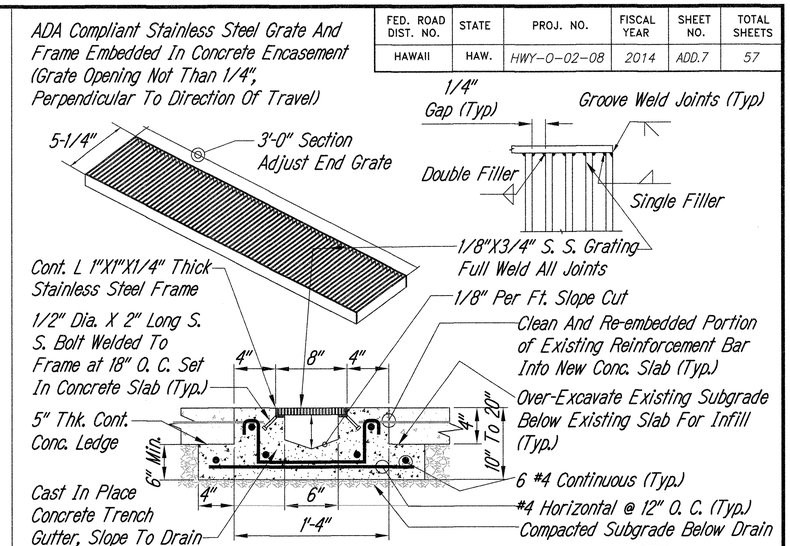
ENLARGED PARKING STALL, RAMP AND TRENCH GUTTER DRAIN PLAN A1 A1.1 A1.2 3

Scale: 1/4" = 1'-0"



CHAIN LINK FENCE AND POST DETAILS D3 A1.2 A1.2

Scale: 1-1/2" = 1'-0"



FLOOR DRAIN GUTTER AND GRATING DETAILS D4 A1.2 A1.2 3

Scale: 1-1/2" = 1'-0"

Cleaning Note:
Contractor Shall Clear And Remove All Construction Material And Debris, Abandoned Furniture, Bird Dropping And Moss, Sitting Water, Vegetation From Concrete Pavement And Building Exterior Surfaces.

DATE	REVISION
6/5/2014	3 Added Dimensions

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ENLARGED ACCESSIBLE RAMP AND PARKING PLAN

MOTOR VEHICLE SAFETY OFFICE RENOVATION

Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
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HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
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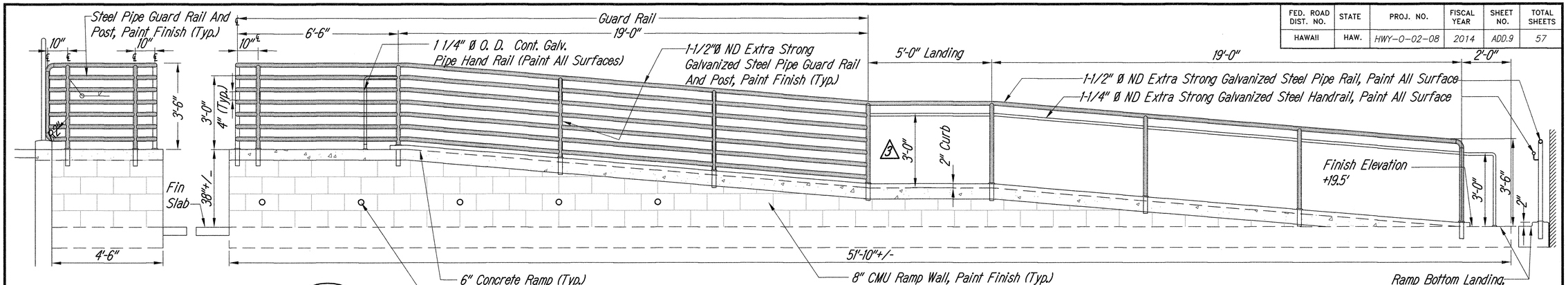
ORIGINAL PLAN
NOTE BOOK No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

SHEET No. A1.2 OF 57 SHEETS

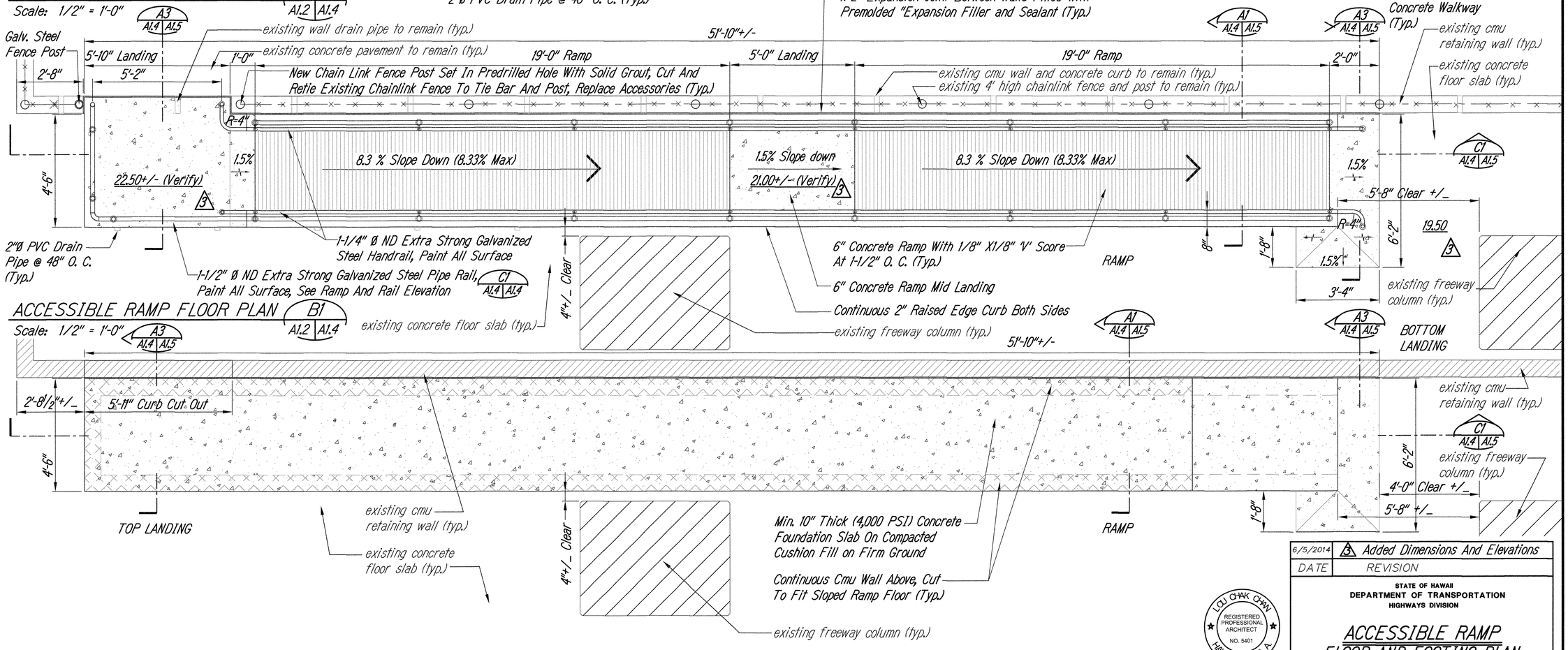
ADD.7

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.9	57



ACCESSIBLE RAMP ELEVATION C1 (A1.2 | A1.4)

Scale: 1/2" = 1'-0"



ACCESSIBLE RAMP FLOOR PLAN B1 (A1.2 | A1.4)

Scale: 1/2" = 1'-0"

ACCESSIBLE RAMP FOUNDATION PLAN A1 (A1.2 | A1.4)

Scale: 1/2" = 1'-0"

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

DATE	REVISION
6/5/2014	3 Added Dimensions And Elevations

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ACCESSIBLE RAMP FLOOR AND FOOTING PLAN

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
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HAWAII, U.S.A.

1" 6" 0 1' 2' 3' 4' 5'
1/2" = 1'-0"

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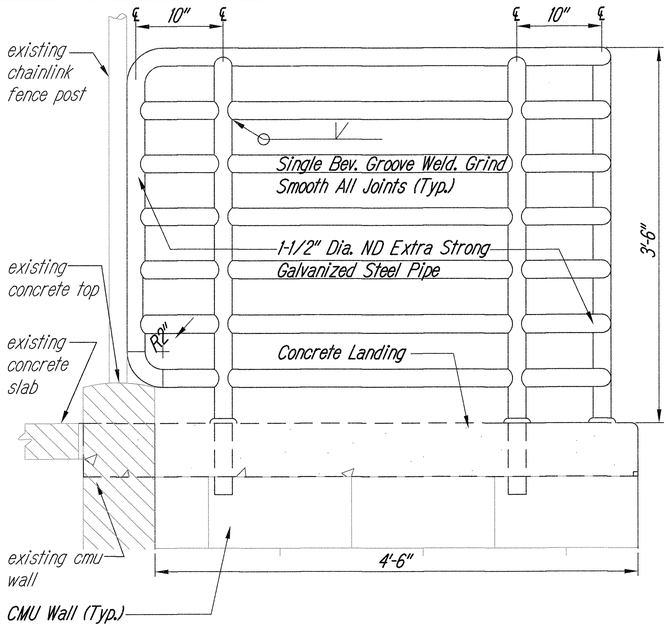
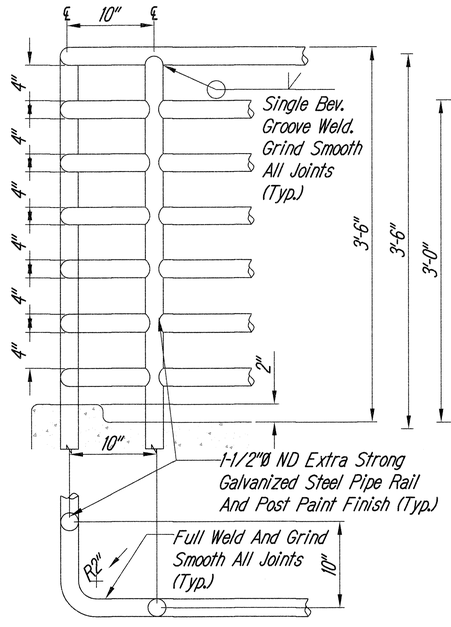
SHEET No. A1.4 OF 57 SHEETS

ADD.9

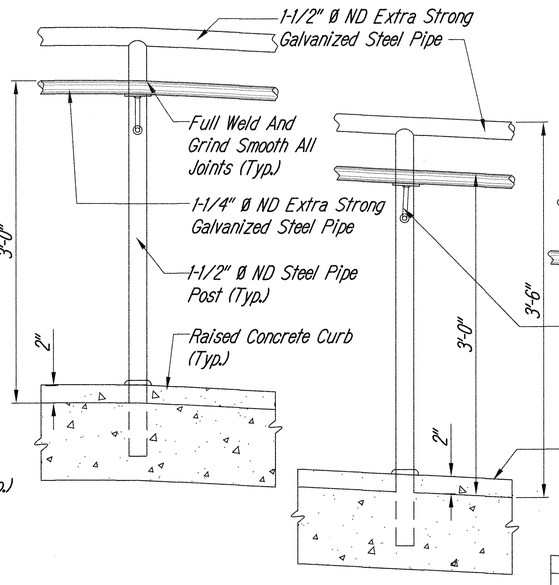
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.11	57



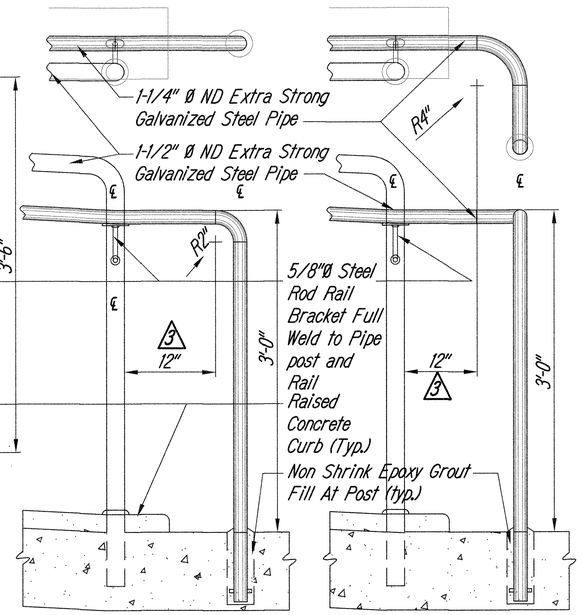
GUARDRAIL AT TOP LANDING SIDEWAY



GUARDRAIL AT TOP LANDING CORNER



TOP RAIL AND HANDRAIL AT RAMP CURB



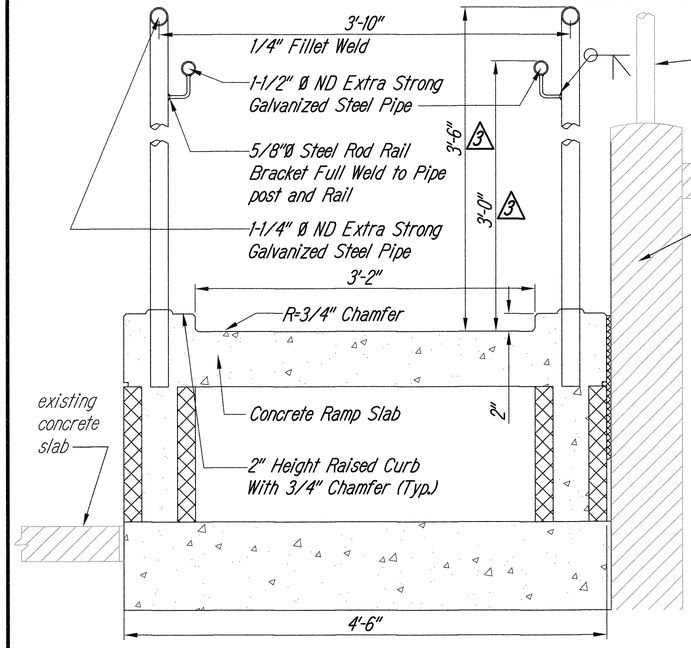
STRAIGHT HANDRAIL AT LANDING

TURNED HANDRAIL AT LANDING

ACCESSIBLE RAMP GUARD RAIL AND HANDRAIL ELEVATIONS AND DETAILS

C1 | A1.4 | A1.6

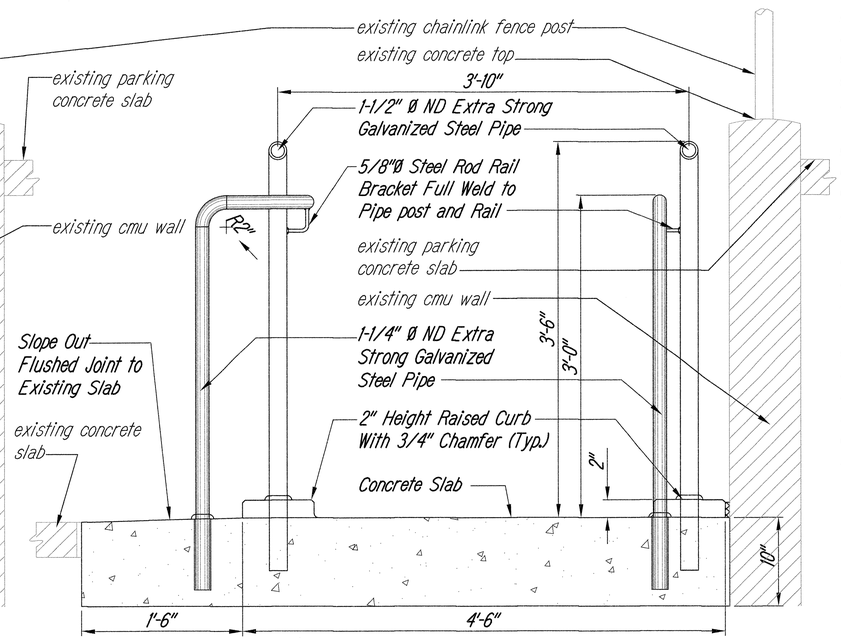
Scale 1 1/2"=1'-0"



PIPE RAIL AND POST AT MID LANDING

A1 | A1.4 | A1.6

Scale 1 1/2"=1'-0"



PIPE RAIL AND POST AT BOTTOM LANDING

A2 | A1.4 | A1.6

Scale 1 1/2"=1'-0"

1' 6" 0 1' 2' 3' 4' 5'

1/2" = 1'-0"

STEEL PIPE RAIL AND POST

Railing For Ramp Railing Shall Be A36 Steel, 1-1/2"Ø ND (Nominal Diameter) Schedule 80 For Guard And Top Rail, Post, 1-1/4"Ø ND For Handrail And Handrail End Post, Grind Smooth All Cut and Welding Joints. Hot Dipped Galvanized After Fabrication, Field Weld To Fill Gaps and Plug Holes. Apply Zinc Rich Primer Before Painting.

WELDING

Welding Symbols May Not Shown In All Drawings For Clarity. All Pipe Rail And Post Connections Except As Noted Shall Be Shop Welded Fillet Or Butt Welds At Full Thickness And Along All Contacting Surfaces Whichever Is Applicable. Field Weld Allow Only If Shop Weld Is Not Practical And Shall Be Kept To Minimum. All Welding Shall Be Performed By Certified Welder(s). Welds Shall Develop Full Strength Of The Connecting Members. Contractors Shall Hire And Pay For Certified Welding Inspector For All Special Welding Inspection To Certified All Welding As Required By The County Building Inspector And/Or Building Code.

RAIL POST EMBEDDED TO CONCRETE

Provide Removable Block Out For Rail Post Prior To Pouring Of Concrete Slab. Rail Post Embedded Into Existing Concrete Slab And Grout Shall Be Pre-Drilled And Cored Out To Provide a Minimum 8" Deep Embedment. Fill Gap Space With Non-Shrink Adhesive Epoxy Grout, Construct A minimum 1/2" Height Raised Built-Up Concave Crown Around Each Post After Setting Of Rail Post To Shed Off Water.

DATE	REVISION
6/5/2014	3 Added And Revised Dimensions

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ACCESSIBLE RAMP AND WALKWAY SECTIONS

MOTOR VEHICLE SAFETY OFFICE RENOVATION

Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
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ORIGINAL PLAN
SURVEY PLOTTED BY
DRAWN BY
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NOTE BOOK
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
No.

SHEET No. A1.6 OF 57 SHEETS

ADD.11

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.12	57

3 *Work for Restroom Renovations At Both Buildings:*
1. After Removal of Existing Plumbing Fixtures, Cut And Cap Existing Wall Water Lines And Valve, Fill Voids And Holes, Patch And Refinish Wall And Floor.
2. Demolish And Remove Existing Wall and Floor Ceramic Tile/Mortar Bed System. Replace With New. Reconstruct Plumbing Walls and Chases.
3. Remove, Salvage and Reinstall Existing Plumbing Fixtures and Toilet Partitions To Remain.

existing freeway column to remain, protect in place (typ.)

Demolish And Remove Existing Wall Mounted Bracket, See Wall Surface Note

existing plywood and wood frame window infilled to remain, reseal all joints (typ.)

existing downspout to remain, protect in place (typ.)

existing 8x8x8 and single score 8x8x16 cmu block wall to remain, remove Wall Mounted fixture and bracket, loose and damaged block (typ.)

48'-0" | 50'-0" | 44'-0"

Demolish And Remove Portion of Existing Storage.

existing jalousie window and security screen to remain

existing water heater to remain, see mech. (typ.)

Dismantle And Remove Existing Window, Mounted AC Unit

Cut And Remove Existing Floor Water Line And Waste Drain Line, Cap And Seal Existing Water Line And Drain Line Below Finish Floor (Typ.)

Demolish And Remove Existing Door, Door Frame, Threshold Caulking And Sealant To Original Bare Masonry Wall

Demolish And Remove Loose And Damaged CMU Door Header, Install Temporary Shoring At Opening

Demolish And Remove Existing Water Closet And Partition, Grab Bar, Porcelain Floor, Waterproof Membrane, Concrete Slab And Masonry Wall (Typ.)

Demolish And Remove Existing Window, Sealant, caulking, Security Screen And Frame

Saw Cut And Remove Section Of Existing CMU Wall For Roll Up Counter Door Opening — 2 / A2.2 | A1.0

Demolish And Remove Existing Laminated Flooring, All previously Installed Flooring And Wall Base To Bare Concrete Surface (Typ.)

Demolish And Remove Existing Window, Plywood And Wood Frame Infill (Typ.)

Demolish And Remove Existing Stud Wall Partition (Typ.)

88'-0"

Demolish And Remove Existing Window And Frame, Sealant And Caulking, Security Screen And Frame, Portion Of Masonry Block Window Sill For New Window

Demolish And Remove Existing Carpet, Padding, All Previously Installed Resilient Tile Flooring And Wall Base To Bare Concrete surface (Typ.)

Dismantle And Remove Existing Window, Mounted AC Unit

Demolish And Remove Existing Window And Frame, Security Screen, Masonry Sill Block, Grout And Mortar Joint To Masonry Wall Opening For New Masonry Block Infill (Typ.)

Demolish And Remove Existing Wall Mounted Bracket, See Wall Surface Note

Demolish And Remove Existing Custodian Sink

Demolish And Remove Existing Door, Door Frame, Sealant, Caulking

Demolish And Remove Existing Window, Sealant, caulking, Security Screen And Frame

Demolish And Remove Existing Door, Door Frame, Screen Door And Frame (Typ.)

Demolish And Remove Existing Plywood And Wood Frame Window Infill (Typ.)

Demolish And Remove Existing Laminated Flooring, All previously Installed Flooring And Wall Base To Bare Concrete Surface (Typ.)

Demolish And Remove Existing Window, Frame, Masonry Sill Block, Grout And Mortar Joint (Typ.)

Demolish And Remove Existing Plywood, Gypsum Board And Wood Frame Window Infill, Masonry Sill Block, Grout And Mortar (Typ.)

Sta. | Sta. | (WH)

existing lavatory to remain (typ.)

existing floor mounted urinal to remain (typ.)

6'-6" | 6'-0"

Demolish And Remove Existing Counters And Cabinets

Demolish And Remove Damaged CMU For Repair

Cut And Cap Drain And Water Line Where Occur (Typ.)

Saw Cut And Remove Existing Concrete Slab For Concrete New Landing And Ramp At Entrance (Typ.)

existing downspout to remain, protect in place (typ.)

Demolish And Remove Existing Door, Door Frame, Security Screen Door And Frame, Threshold

Demolish And Remove Existing Plywood And Wood Frame Door Infill (Typ.)

Demolish And Remove Existing Wood Laminated Flooring, Nailer All Previously Installed Flooring System, Mastic And Wall Base To Original Bare Concrete Floor (Typ.)

existing wall to remain

Demolish And Remove Existing Porcelain Floor Tile And Marble Threshold

Saw Cut And Remove Existing Concrete Slab (Typ.)

Demolish And Remove Existing Gypsum Board 2x4 Stud Wall, Wiremesh Screen

existing window to remain (typ.)

Demolish And Remove Existing Door, Door Frame, Sealant, Caulking And Header Frame

Demolish And Remove Existing Plywood And Wood Frame Door Infill (Typ.)

Demolish And Remove Existing Door, And Frame (Typ.)

Demolish And Remove Existing Door And Door Frame, Threshold

Demolish And Remove Existing Window And Frame, Security Screen, Masonry Sill Block, Grout And Mortar Joint (Typ.)

Remove Existing Water Closet

Remove Existing Lavatory

Saw Cut Ex. CMU For Window Opening — 2 / A2.2 | A1.0

existing cmu low wall to remain, fill and patch void

Demolish And Remove Existing Gypsum Board, Door And Frame, Wall, Wall Base, Ceramic Wall Tile Wall And Floor, Mortar Bed And Grout, Saw Cut And Remove Existing Slab (Typ.)

Demolish And Remove Existing Ceramic Tile, Water Proofing Membrane, Coating And Concrete Wall Liner To Existing Bare CMU Wall And Bare Ground (Typ.)

Demolish And Remove Existing Plywood And Wood Frame Door Infill (Typ.)

Demolish And Remove Existing Steel Hand Rail And Reinforced Concrete Stair And Steps At Both Side And Front Of Stage (Typ.)

Demolish And Remove Existing Stage Wood Laminated Flooring, Nailer, Raised Reinforced Concrete Stage, Wall, Floor Slab And Footing, Crushed BackFill Existing Toilet Room Concrete Floor To Bare Ground Below Finish Floor Grade (Typ.)

Saw Cut, Chip, Demolish And Remove Existing Reinforced Concrete Stair, Steps, Floor Slab, Footing And Wall, Cushion Back Fill To Bare Ground Below Finish Floor Grade (Typ.)

Demolish And Remove Existing Wall Mounted Steel Hand Rail And Mounting Bracket (Typ.)

Demolish And Remove Existing Window And Frame, Security Screen, Masonry Sill Block, Grout And Mortar Joint (Typ.)

Demolish And Remove Existing Wood Laminated Flooring, Nailer All Previously Installed Flooring System, Mastic, Trim (Typ.)

Demolish And Remove Existing Gypsum Board And Stud Wall (Typ.)

Demolish And Remove Existing Plywood And Wood Frame Door, window Infill (Typ.)

existing window, frame, window sill and Steel security screen to remain, remove and reinstall screen and frame for cleaning and painting (typ.)

74'-0"

4' 0 5' 10' 15' 20'
1/8" = 1'-0"

BUILDING A DEMOLITION PLAN — 1 / A2.1 | A2.1
Scale: 1/8" = 1'-0"

BUILDING B DEMOLITION PLAN — 2 / A2.1 | A2.1
Scale: 1/8" = 1'-0"

Wall Surface Note:
Remove All Wall Surface Mounted And Recessed Objects Including Brackets, Fastens, Hooks, Hangers, Boxes, Wirings And Conduits Not Required For New Construction, Fill And Patch All Voids And Holes

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

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
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DATE	REVISION
6/5/2014	3 Revised Restrooms And Ramps

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

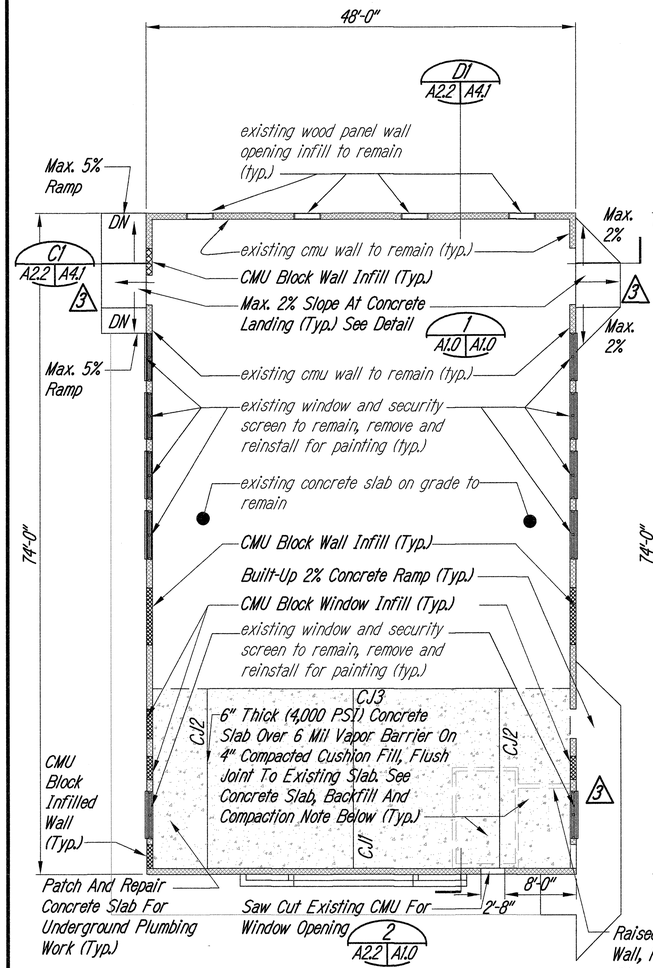
BUILDING A & B
FLOOR DEMOLITION PLANS
MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

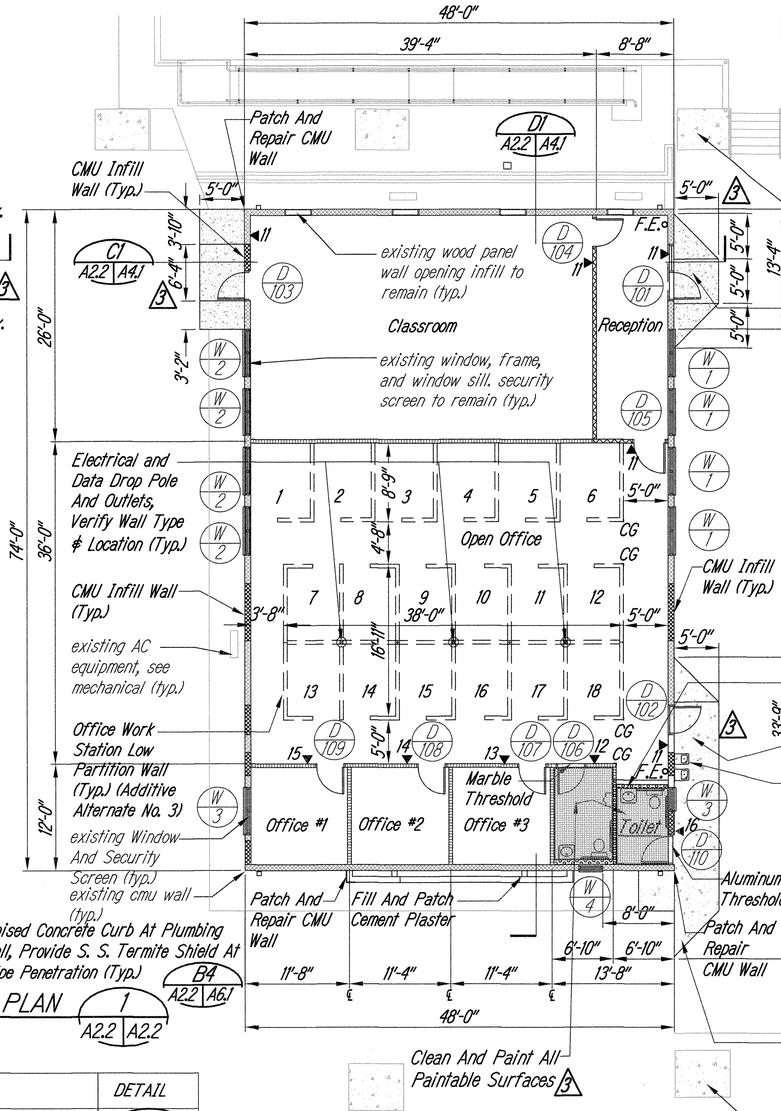
Scale: As Noted Date: APRIL, 2014

SHEET No. A2.1 OF 57 SHEETS

ADD.12

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD13	57



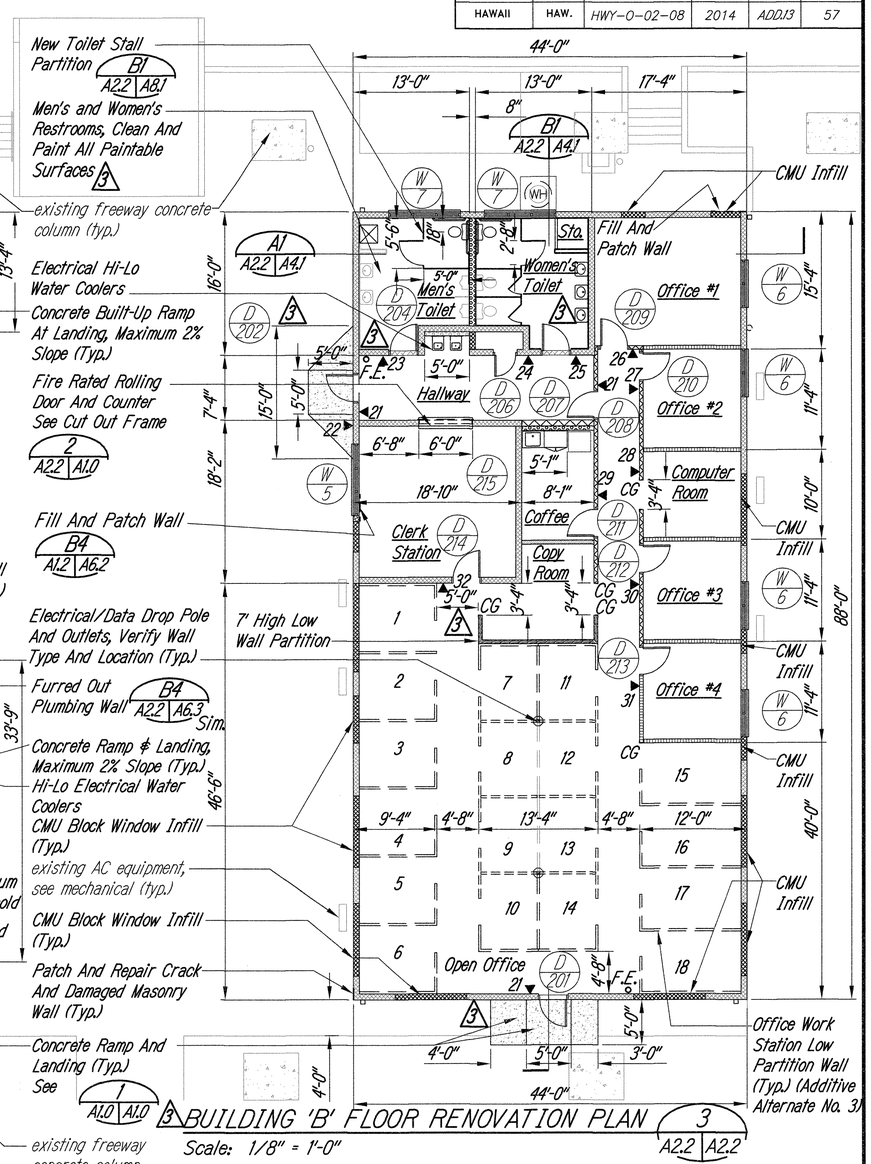


BUILDING 'A' FLOOR SLAB AND WALL RENOVATION PLAN 1 A2.2 A2.2

Scale: 1/8" = 1'-0"

BUILDING 'A' FLOOR RENOVATION PLAN 2 A2.2 A2.2

Scale: 1/8" = 1'-0"



BUILDING 'B' FLOOR RENOVATION PLAN 3 A2.2 A2.2

Scale: 1/8" = 1'-0"

SYMBOL	WORK DESCRIPTION	DETAIL
	Existing Exterior CMU Wall, Remove Plywood And Wood Frame Window And Door Infill, Threshold And Sill Block, Infill And Grout Opening With CMU	A1 A2.2 A6.2
	Existing CMU Wall To Remain, Patch Cracks And Damages. Saw Cut And Infill Wall Where Indicated	B4 A2.2 A6.2
	Corridor Fire Rated Full Height Gypsum Board Wall	A1 A2.2 A6.3
	Full Height Gypsum Board Partition Wall	A2 A2.2 A6.3
	Ceiling Height Gypsum Board Wall	A3 A2.2 A6.3
	Gypsum Board Furred Out Plumbing Wall	B4 A2.2 A6.3
	7' High Top Open Wall Partition Office Work Station Low Wall Partition (Additive Alternate No. 3)	A2 A2.2 A6.4
▲ 12 Sign With Number, See Signage Schedule	CG 4' In Length Corner Guard	B1 A7.3 A7.3

CONCRETE SLAB, BACKFILL AND COMPACTION NOTE:

Concrete Slab Shall be 4,000 PSI Fibermesh Mixed Concrete, Reinforced With 1-#4 Rebar at 12" O. C. Each Way Dowelled Into Existing Slab On 6 Mil Polyethelene Moisture Barrier, Tape All Lap Joints. Provide A Minimum 4" Thick Compacted Cushion Fill Consisting Of Open-Grade Gravel (ASTM C33. No. 67 gradation) Below The Slabs. Backfill Under New Interior Floor Concrete Slab Where Required Shall be Non-Expansive Clear Structural Fill Compacted To 90% Relative Compaction In 8" Lifts As Determined By ASTM D 1557 Test.

TRUE NORTH

INT ELEV

4' 0 5' 10' 15' 20'

1/8" = 1'-0"

LOU CHAK CHAN REGISTERED PROFESSIONAL ARCHITECT NO. 5401 HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016

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DATE	REVISION
6/5/2014	3 Revised Restrooms And Ramps

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A & B FLOOR RENOVATION PLANS

MOTOR VEHICLE SAFETY OFFICE RENOVATION

Project No. HWY-0-02-08

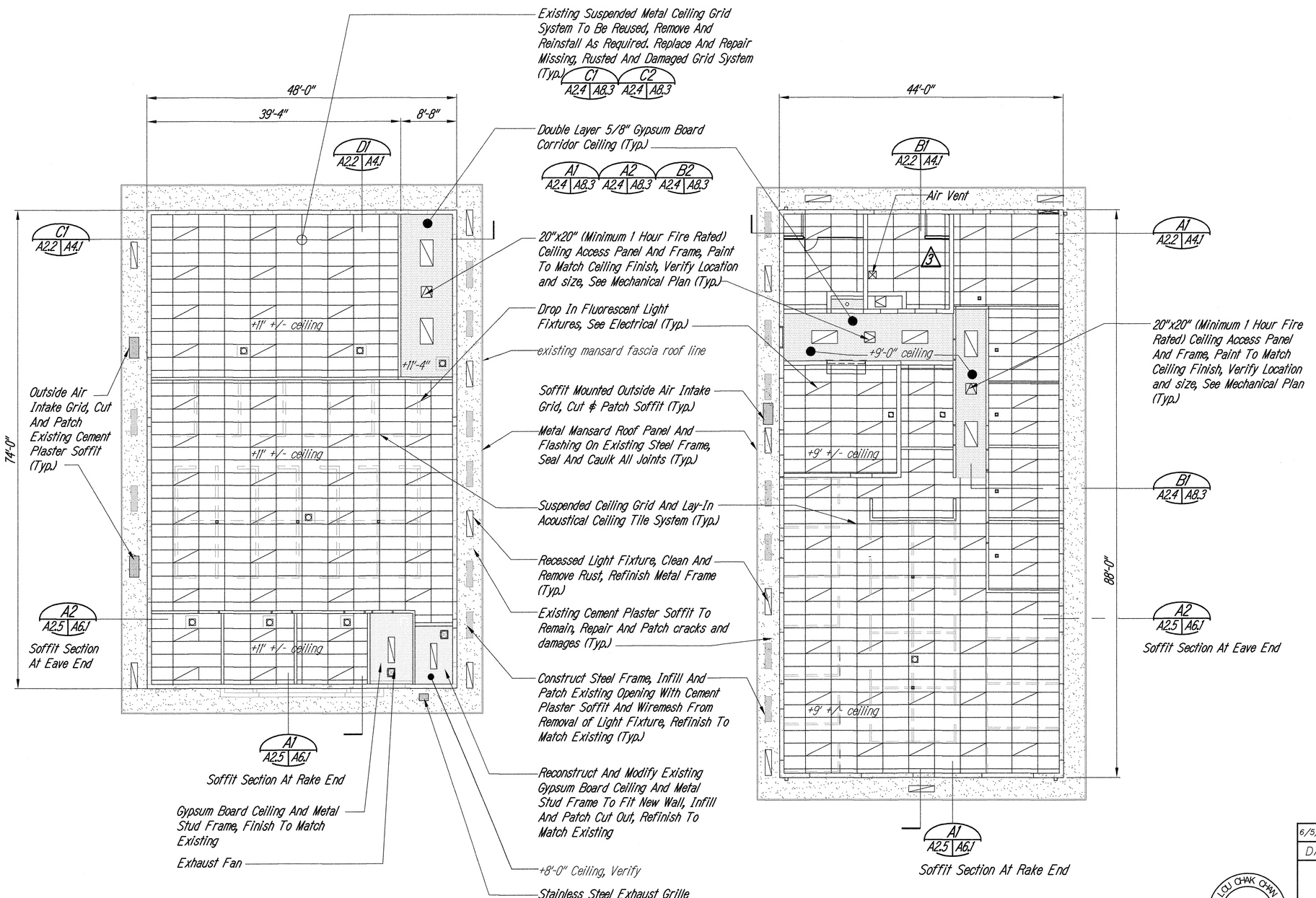
Scale: As Noted Date: APRIL, 2014

SHEET No. A2.2 OF 57 SHEETS

ADD13

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.15	57



BUILDING 'A' CEILING RENOVATION PLAN 1 (A2.4 | A2.4)
Scale: 1/8" = 1'-0"

BUILDING 'B' CEILING RENOVATION PLAN 2 (A2.4 | A2.4)
Scale: 1/8" = 1'-0"

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

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
6/5/2014	3 Revised Restroom Ceiling

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A & B CEILING RENOVATION PLANS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08
Scale: As Noted Date: APRIL, 2014

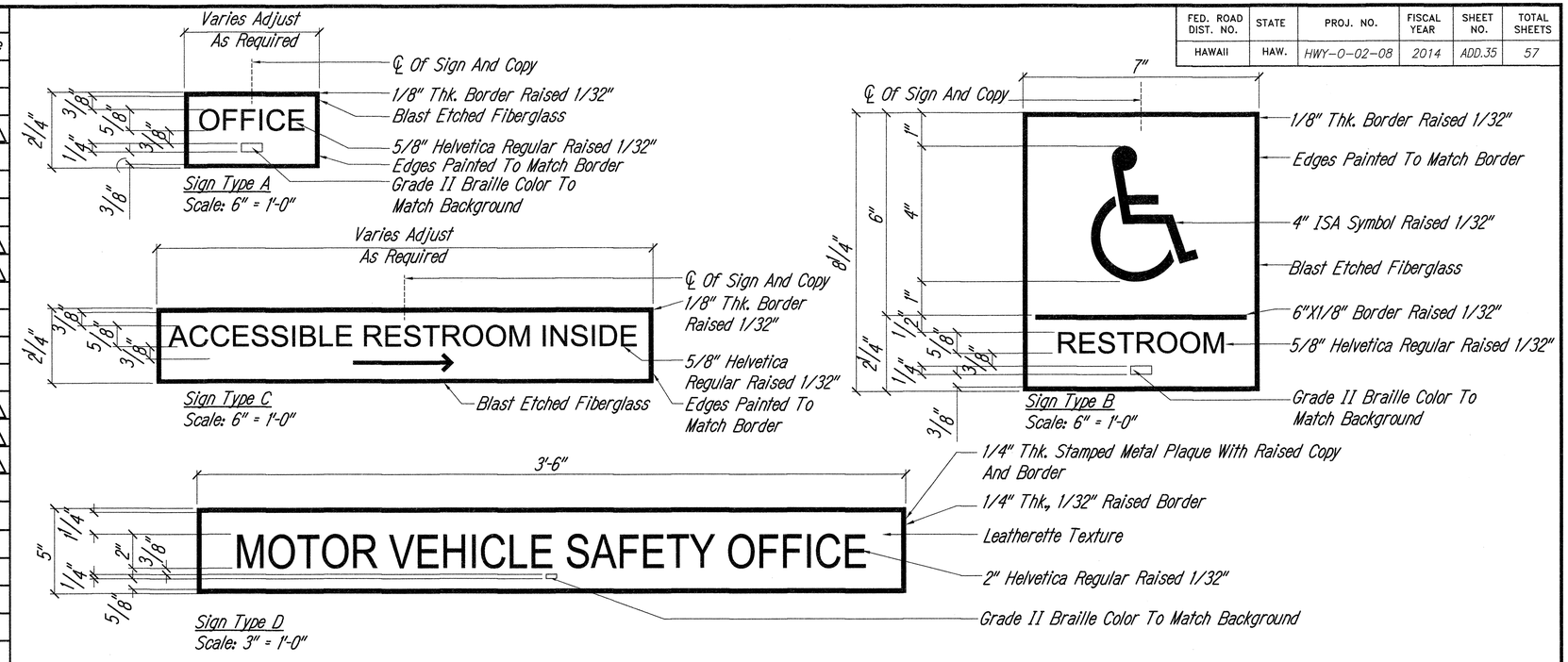
SHEET No. A2.4 OF 57 SHEETS

ADD.15

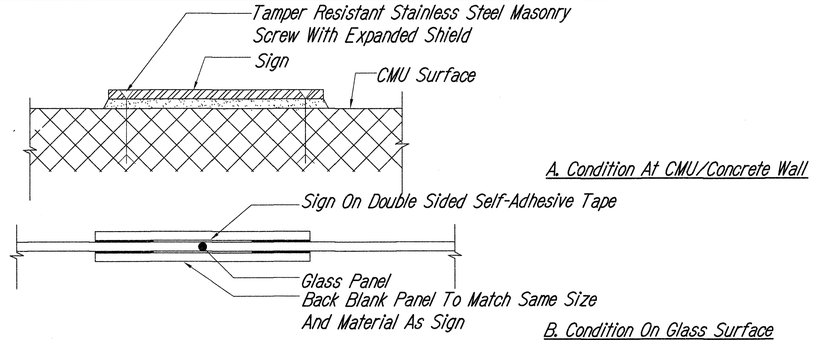
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.35	57

Sign Schedule

Sign No.	Sign Message	Sign Type
	BUILDING 'A'	
11	EXIT	A
12	RESTROOM 3	B 3
13	OFFICE 3	A
14	OFFICE 2	A
15	OFFICE 1	A
16	RESTROOM	B 3
		3
	BUILDING 'B'	
21	EXIT	A
22	MOTOR VEHICLE SAFETY OFFICE	D
23	MEN	B 3
24	STORAGE 3	A 3
25	WOMEN	B 3
26	OFFICE 1	A
27	OFFICE 2	A
28	COMPUTER ROOM	A
29	LOUNGE	A
30	OFFICE 3	A
31	OFFICE 4	A
32	CLERK	A



SIGN TYPES
Scale: 6" = 1'-0"

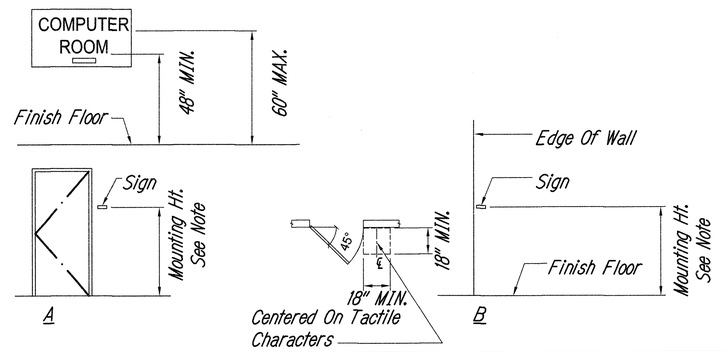


MOUNTING DETAILS
Scale: 6" = 1'-0"

Notes:

1. For All Signs, The Mounting Height Shall Be 48" Minimum Above The Finish Floor To The Baseline Of The Lowest Tactile Characters And 60" Maximum Above The Finish Floor To The Baseline Of The Highest Tactile Characters.

2. Where A Tactile Sign Is Provided At At Door, The Sign Shall Be Located Alongside The Door At The Latch Side. Where A Tactile Sign Is Provided At Double Door With One Active Leaf, The Sign Shall Be Located On The Inactive Leaf. Where A Tactile Sign Is Provided At Double Doors With Two Active Leafs, The Sign Shall Be Located To The Right Of The Right Hand Door. Where There Is No Wall Space At The Latch Side Of A Single Door Or At The Right Side Of Double Doors, Signs Shall Be Located On The Nearest Adjacent Wall.



TYPICAL SIGN MOUNTING LOCATIONS
Scale: 1/4" = 1'-0"

DATE	REVISION
6/5/2014	3 Revised Sign Schedule

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGN SCHEDULE TYPES AND DETAILS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

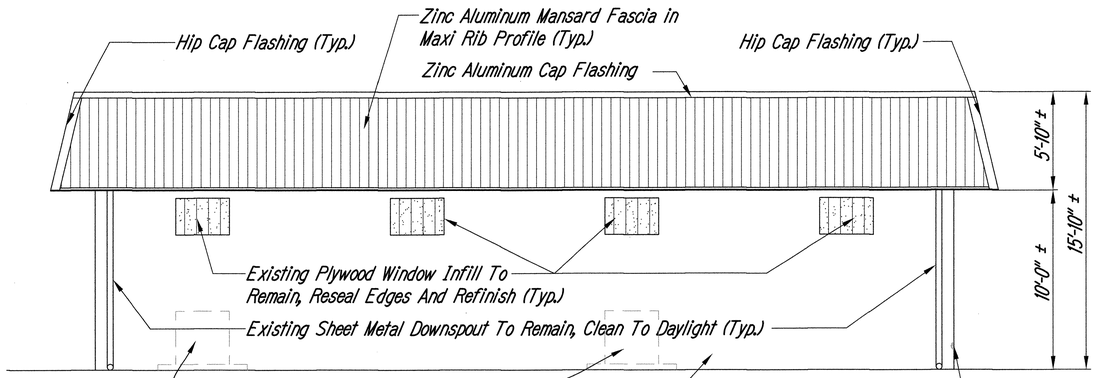
EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A7.4 OF 57 SHEETS

ADD.35

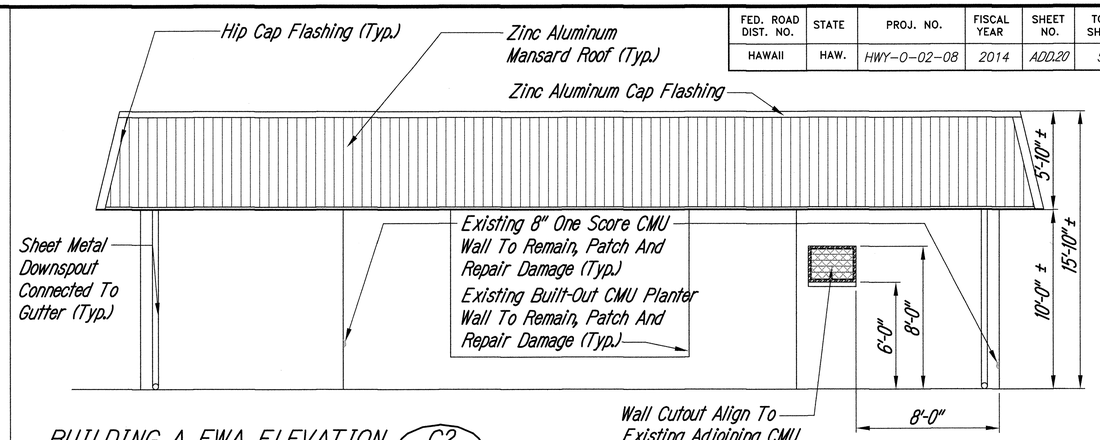
ORIGINAL PLAN | NOTE BOOK | No. | DATE
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.20	57



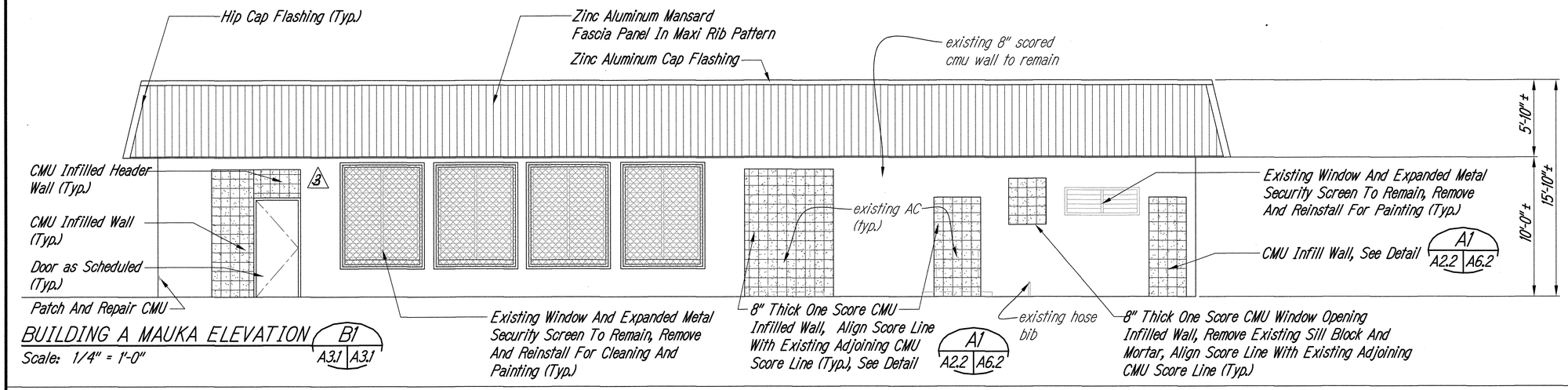
BUILDING A DIAMOND HEAD ELEVATION C1 (A3.1 | A3.1)

Scale: 1/4" = 1'-0"



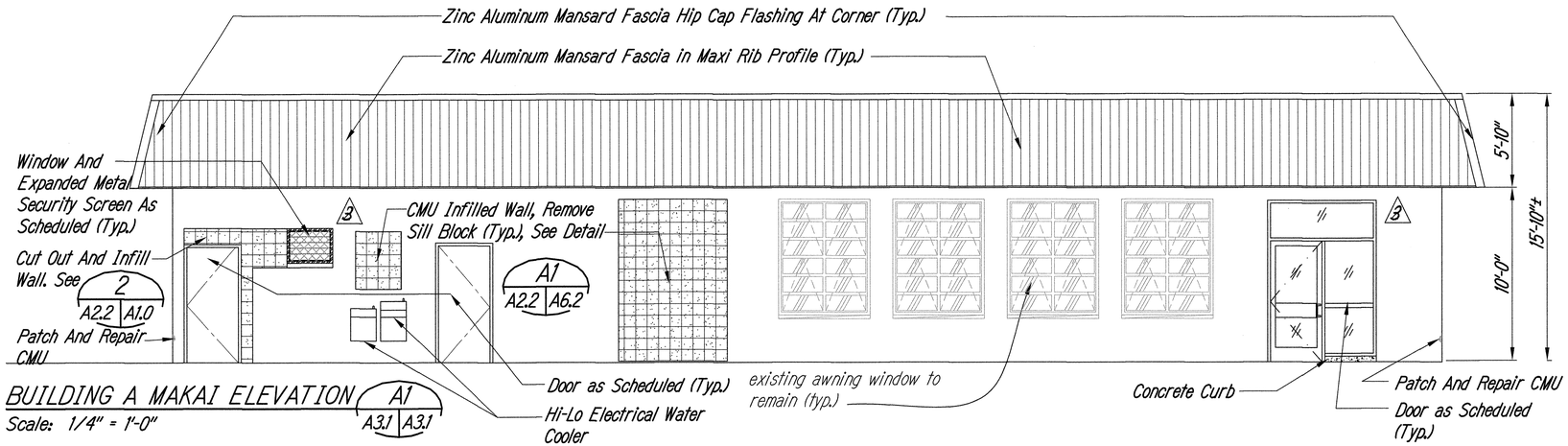
BUILDING A EWA ELEVATION C2 (A3.1 | A3.1)

Scale: 1/4" = 1'-0"



BUILDING A MAUKA ELEVATION B1 (A3.1 | A3.1)

Scale: 1/4" = 1'-0"



BUILDING A MAKAI ELEVATION A1 (A3.1 | A3.1)

Scale: 1/4" = 1'-0"

EXTERIOR WALL AND SOFFIT NOTE:
Patch And Repair All Damage, Fill And Reseal All Voids And Openings, Paint All Exterior Paintable Surfaces, Complete.

2' 0 5' 10'
1/4" = 1'-0"

DATE	REVISION
6/5/2014	3 Revised Doors And Windows

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A EXTERIOR ELEVATIONS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LCU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

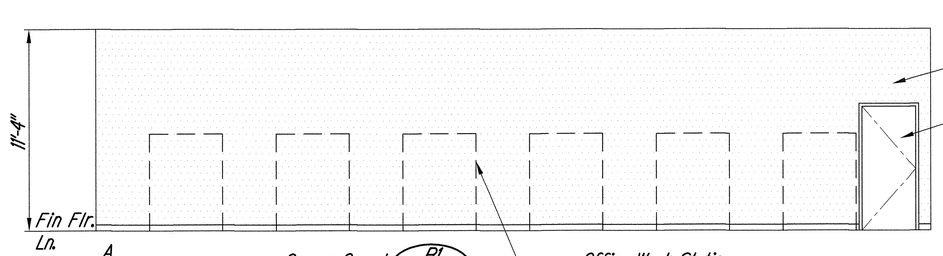
EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A3.1 OF 57 SHEETS

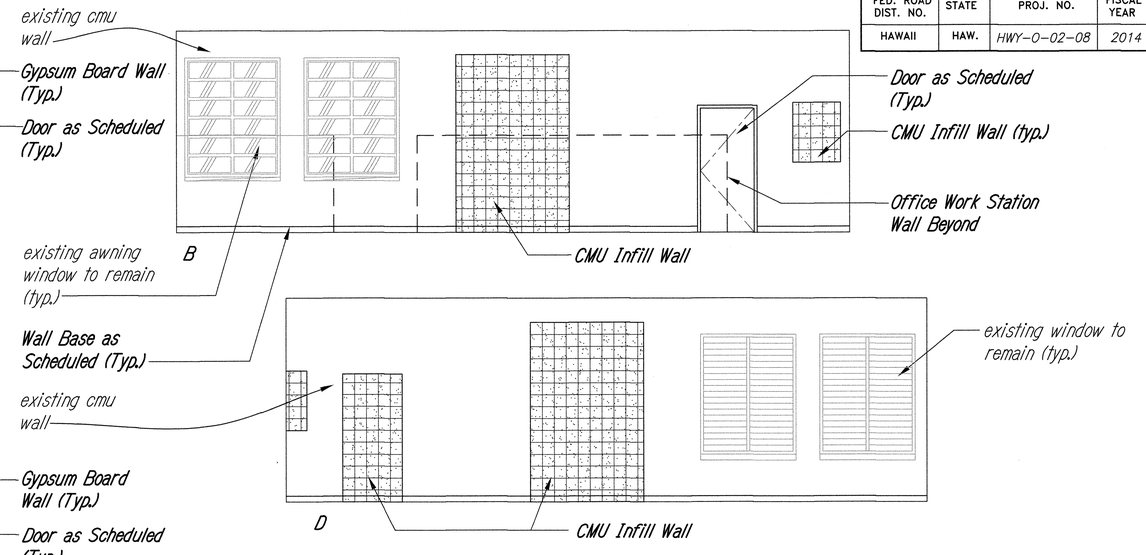
ADD.20

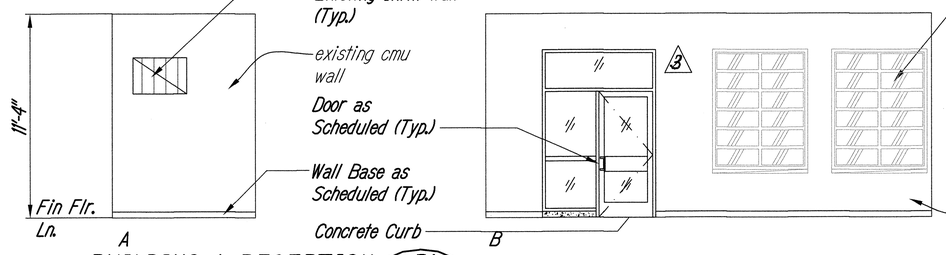
ORIGINAL PLAN
NOTE BOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.23	57

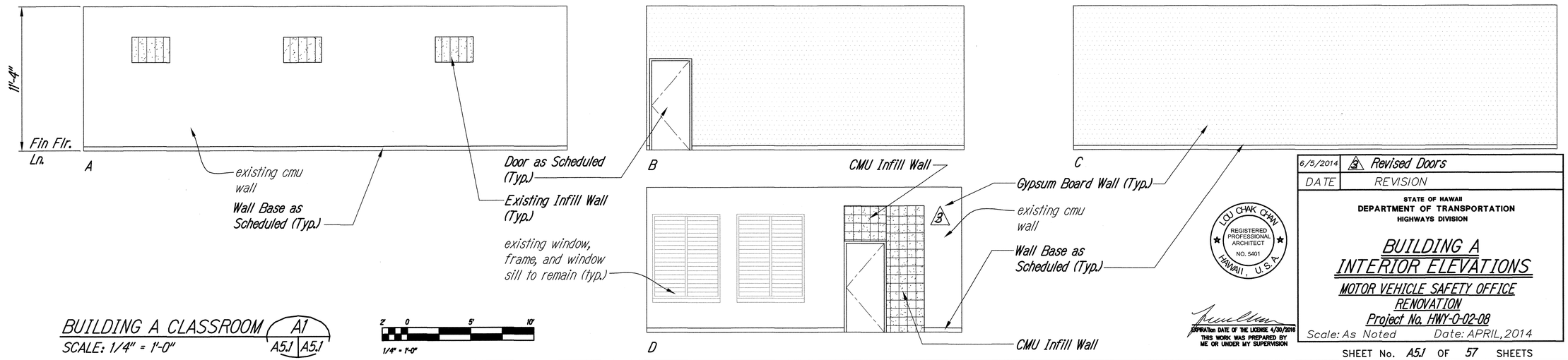


BUILDING A OPEN OFFICE C1
A5.1 A5.1
SCALE: 1/4" = 1'-0"





BUILDING A RECEPTION B1
A5.1 A5.1
SCALE: 1/4" = 1'-0"



BUILDING A CLASSROOM A1
A5.1 A5.1
SCALE: 1/4" = 1'-0"

2' 0 5' 10'
1/4" = 1'-0"

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

6/5/2014	2	Revised Doors
DATE		REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A INTERIOR ELEVATIONS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
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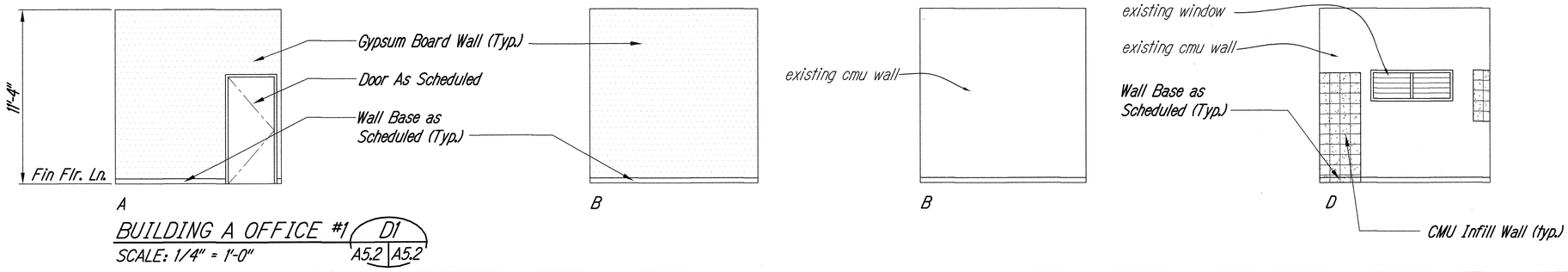
SHEET No. A5.1 OF 57 SHEETS

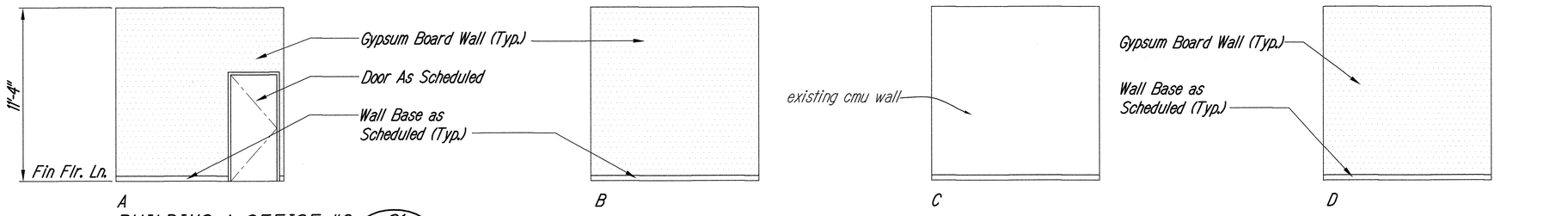
ADD.23

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.24	57



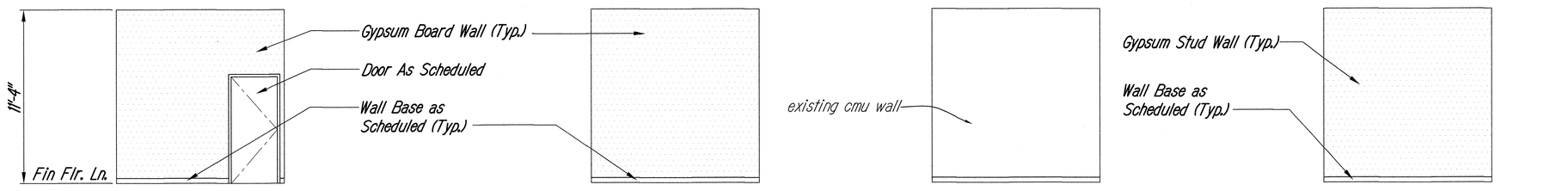
BUILDING A OFFICE #1 (D1) — A5.2 | A5.2

SCALE: 1/4" = 1'-0"



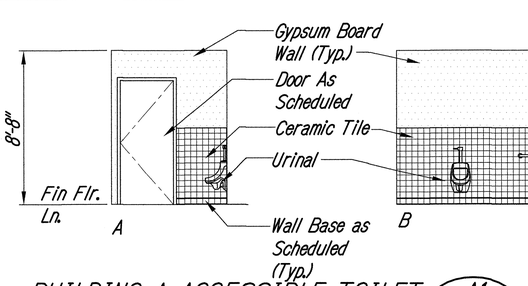
BUILDING A OFFICE #2 (C1) — A5.2 | A5.2

SCALE: 1/4" = 1'-0"



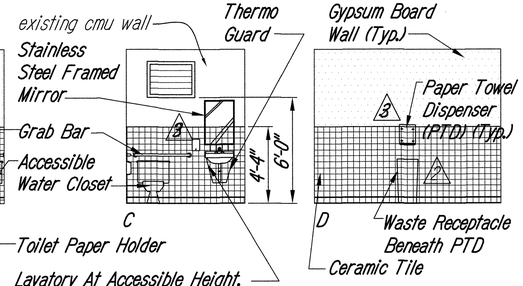
BUILDING A OFFICE #3 (B1) — A5.2 | A5.2

SCALE: 1/4" = 1'-0"

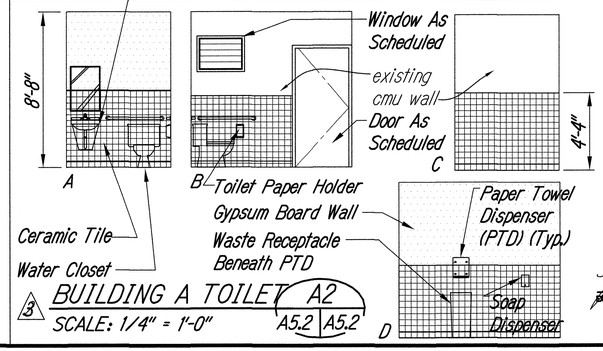


BUILDING A ACCESSIBLE TOILET (A1) — A5.2 | A5.2

SCALE: 1/4" = 1'-0"



Lavatory At Accessible Height. Provide Rigid PVC P-trap And Water Line Thermal Guard Cover Below Lavatory. See Detail (A1) — A2.2 | A8.2



3 BUILDING A TOILET (A2) — A5.2 | A5.2

SCALE: 1/4" = 1'-0"

2' 0 5' 10'

1/4" = 1'-0"

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

ORIGINAL PLAN
NOTE BOOK
No.

LCU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
6/5/2014	3 Revised Restrooms

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A INTERIOR ELEVATIONS

MOTOR VEHICLE SAFETY OFFICE RENOVATION

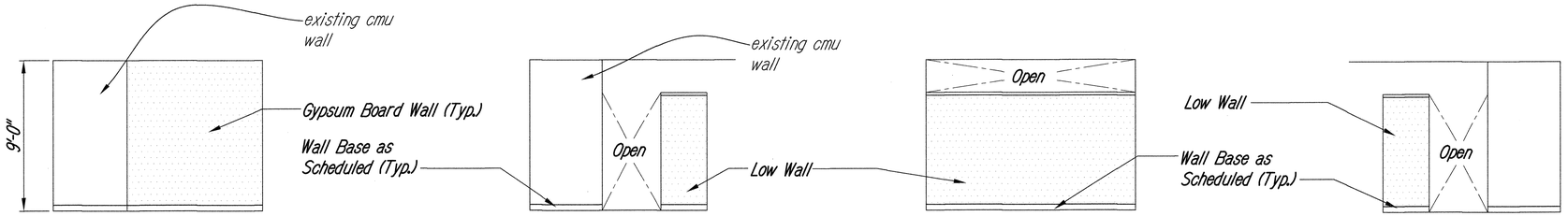
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

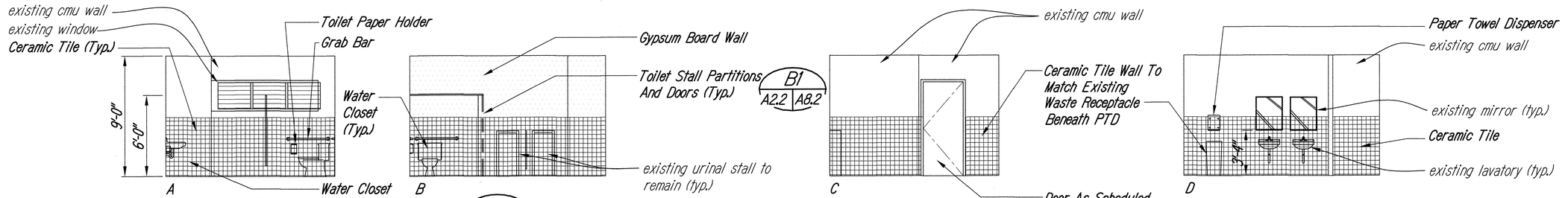
SHEET No. A5.2 OF 57 SHEETS

ADD.24

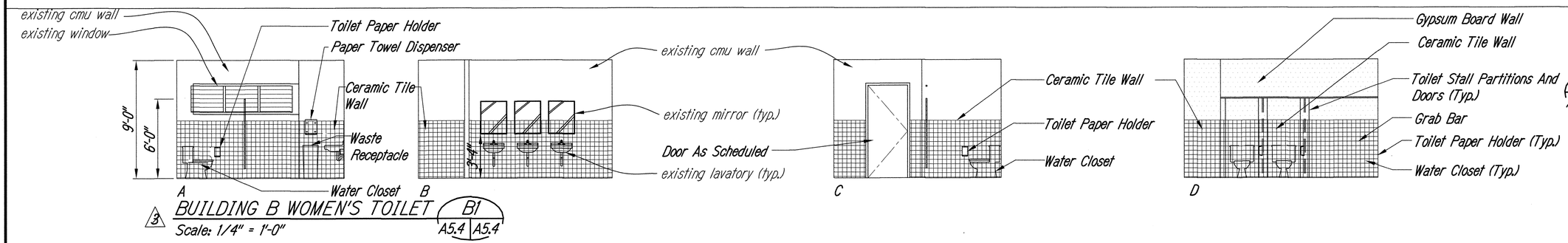
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.26	57



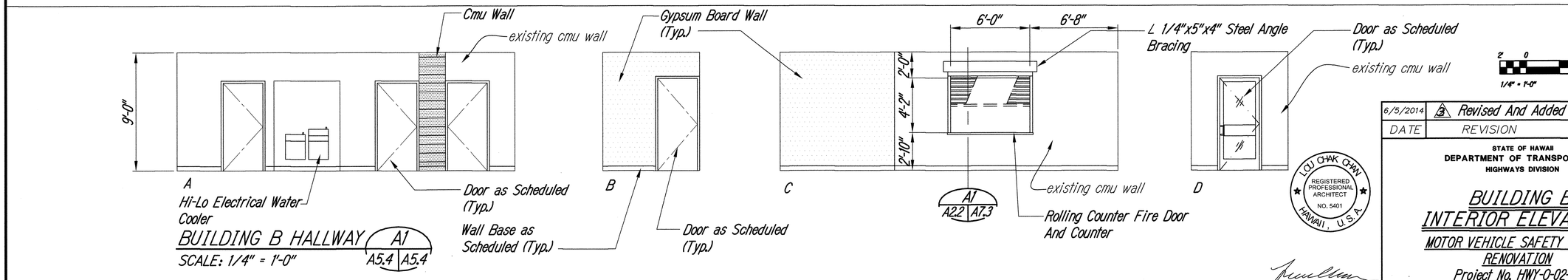
3 BUILDING B COPY ROOM — C1 (A5.4 | A5.4)
SCALE: 1/4" = 1'-0"



3 BUILDING B MEN'S TOILET — C1 (A5.4 | A5.4)
Scale: 1/4" = 1'-0"



3 BUILDING B WOMEN'S TOILET — B1 (A5.4 | A5.4)
Scale: 1/4" = 1'-0"



3 BUILDING B HALLWAY — A1 (A5.4 | A5.4)
SCALE: 1/4" = 1'-0"

2' 0 5' 10'
1/4" = 1'-0"

DATE	REVISION
6/5/2014	3 Revised And Added Elevations

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING B INTERIOR ELEVATIONS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

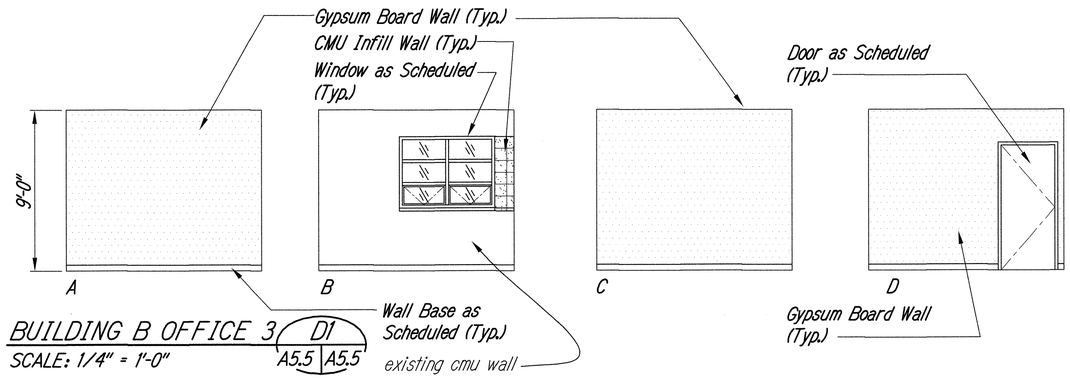
EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A5.4 OF 57 SHEETS

ADD.26

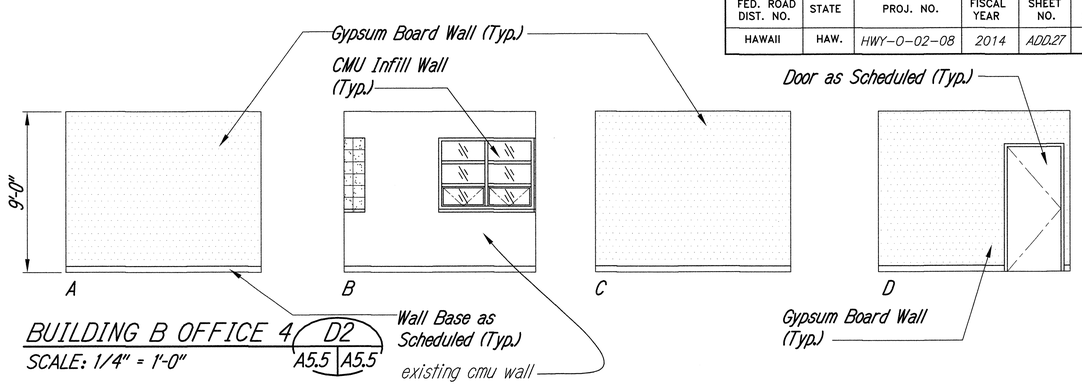
ORIGINAL PLAN
NOTE BOOK No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.27	57



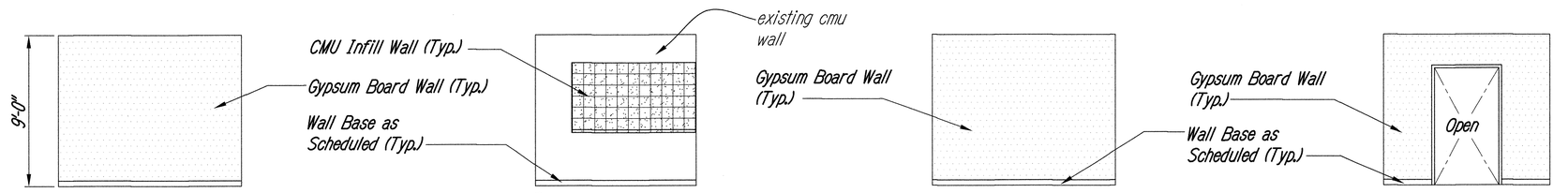
BUILDING B OFFICE 3 D1 (A5.5 | A5.5)

SCALE: 1/4" = 1'-0"



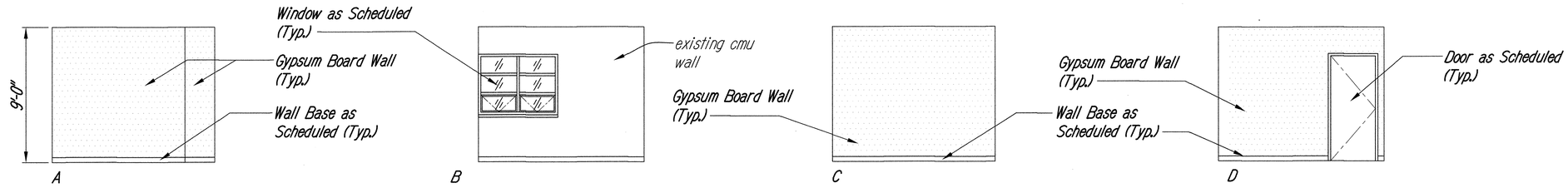
BUILDING B OFFICE 4 D2 (A5.5 | A5.5)

SCALE: 1/4" = 1'-0"



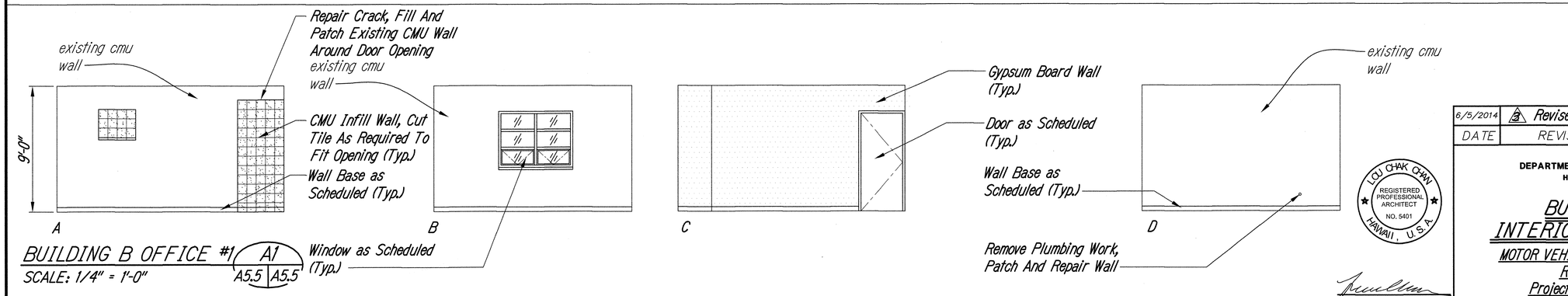
3 BUILDING B COMPUTER ROOM C1 (A5.5 | A5.5)

SCALE: 1/4" = 1'-0"



BUILDING B OFFICE #2 B1 (A5.5 | A5.5)

SCALE: 1/4" = 1'-0"



BUILDING B OFFICE #1 A1 (A5.5 | A5.5)

SCALE: 1/4" = 1'-0"

2' 0 5' 10'

1/4" = 1'-0"

DATE	REVISION
6/5/2014	2 Revised Elevation Title

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING B INTERIOR ELEVATIONS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
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NO. 5401
HAWAII, U.S.A.

Expiration DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A5.5 OF 57 SHEETS

ADD.27

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

Door Schedule

Door (D/101) Number	Location	New/ Existing	Type	Material: Door Panel	Material: Door Frame	Finish	Vision Panel	Door Width	Door Height	Thk.	Fire Rating	Detail	Hardware Group	Remarks
	Building A													
101	Reception	New	C	Aluminum / Glass	Aluminum	Clear Anodized	9/16" Tinted Laminated	3'-0"	7'-0"	See Specs	--	A3,A4/A7.2	001	Alum. Threshold
102	Open Office	New	A	Galvanized Steel	Galvanized Steel	Paint		3'-0" Verify	6'-8" Verify	1-3/4"	--	A2/A7.2	002	Alum. Threshold
103	Classroom	New	A	Galvanized Steel	Galvanized Steel	Paint		3'-0"	6'-8"	1-3/4"	--	A2/A7.2	002	Alum. Threshold
104	Classroom	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	003	
105	Reception	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	004	
106	Accessible Toilet	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	005	Marble Threshold
107	Office #3	New	A	Wood	Galvanized Steel	Paint		3 3'-0"	7'-0"	1-3/4"	--	A1/A7.2	006	
108	Office #2	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	006	
109	Office #1	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	006	
110	Toilet	New	A	Galvanized Steel	Galvanized Steel	Paint		3 3'-0"	6'-8" Verify	1-3/4"	--	A2/A7.2	014	Alum. Threshold
	Building B													
201	Open Office	New	A	Galvanized Steel	Galvanized Steel	Paint		3'-0" Verify	6'-8" Verify	1-3/4"	--	A2/A7.2	013	Alum. Threshold
202	Hallway	New	D	Aluminum / Glass	Aluminum	Clear Anodized	9/16" Tinted Laminated	3'-0" Verify	6'-8" Verify	See Specs	--	A4/A7.2	001	Alum. Threshold
204	Men's Toilet	New	A	Wood	Galvanized Steel	Paint		3'-0"	6'-8"	1-3/4"	20 Min.	A2/A7.2	010	Marble Threshold
206	Accessible Toilet	New	A	Wood	Galvanized Steel	Paint		3'-0"	6'-8"	1-3/4"	20 Min.	A2/A7.2	011	Marble Threshold
207	Women's Toilet	New	A	Wood	Galvanized Steel	Paint		3'-0"	6'-8"	1-3/4"	20 Min.	A2/A7.2	010	Marble Threshold
208	Hallway	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	008	
209	Office #1	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	20 Min.	A1/A7.2	012	
210	Office #2	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	20 Min.	A1/A7.2	012	
211	Lounge	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	20 Min.	A1/A7.2	007	
212	Office #3	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	006	
213	Office #4	New	A	Wood	Galvanized Steel	Paint		3'-0"	7'-0"	1-3/4"	--	A1/A7.2	006	
214	Clerk's Station	New	A	Wood	Galvanized Steel	Paint		3'-0"	6'-8" Verify	1-3/4"	--	A2/A7.2	006	
215	Clerk's Station	New	B	Stainless Steel	Stainless Steel	See Specs		6'-0"	4'-2"	See Specs	1 1/2 Hr.	A1/A7.3	-	

Notes:

1. Door Dimensions And Conditions Shown In Door Schedule And Details Are Only Approximate, Contractor Shall Be Fully Responsible For Measurement And Verification Of All Door Openings, Sizes, Conditions Of Wall And Threshold, Submit Shop Drawing Based On Actual Dimensions And Conditions Per Contractor's Field Measurement, Obtain Approval Prior To Any Ordering Of Materials.
2. All Locksets, Unless Specified Otherwise, Shall Be Mounted At 3'-0" Height Above Finish Floor. All Pre-Existing Cutouts, Notches, Corings In Existing Door, If Not Used By New Hardware, Shall Be Filled, Patched, Refinished, Provide Offset Cover Plate For Mounting Of New Lockset.

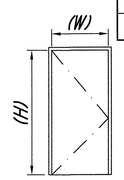
Window Schedule

Window (W/1) Number	Location	New/ Existing	Type	Frame Material	Frame Finish	Glazing	Window Opening: Width (W)	Window Opening: Height (H)	Screen & Frame	Remarks
1	Building A Reception And Open Office	Existing	A	Aluminum	Clear Anodized	Existing	5'-4" ±	6'-8" ±	---	
2	Building A Classroom And Open Office	Existing	B	Aluminum	Clear Anodized	Existing	5'-4" ±	6'-8" ±	Security Screen and Frame	Repaint Security Screen and Frame
3	Building A Existing Toilet, Office #1	New 3	3 G	Aluminum	Clear Anodized	3 Obscure	2'-8"	2'-0"	Galvanized Metal L1/4"x2"x2" Steel Frame And Expanded Metal Screen 3	Paint Security Screen and Frame 2
4	Building A Existing Toilet, Office #1	New	G	Aluminum	Clear Anodized	Obscure	2'-8"	2'-0"		Paint Security Screen and Frame
5	Building B Clerk's Station	New	D	Aluminum	Clear Anodized	9/16" Tinted Laminated	8'-0" ±	4'-0" ±	Insect Screen and Frame	
6	Building B Office #1, #2, #3 And #4	New	E	Aluminum	Clear Anodized	9/16" Tinted Laminated	5'-4" ±	4'-0" ±	Insect Screen and Frame	
7	Building B Men's And Women's Toilet	Existing	F	Aluminum	Clear Anodized	Existing	8'-0" ±	2'-0" ±	Security Screen and Frame	Repaint Security Screen and Frame

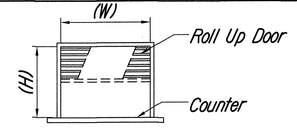
Notes:

1. Dimensions And Conditions Shown Are Only For Reference. Contractor Shall Field Measure And Verify Dimensions Of All Window Openings To Ensure Fitting Of The Windows. Contractor Shall Be Solely Responsible For Any Replacement Or Retro-Fit Work. Contractor To Submit Shop Drawings Based On Actual Window Opening Sizes And Obtain Approval Prior To Any Fabrication.

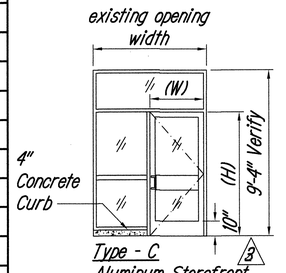
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.32	57



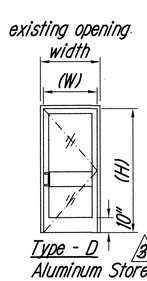
Type - A
Single door



Type - B
Rolling Counter Fire Door



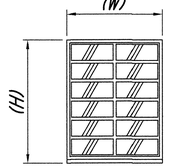
Type - C
Aluminum Storefront 3



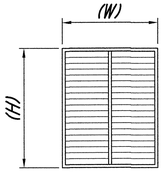
Type - D
Aluminum Storefront 3

DOOR TYPES

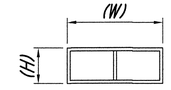
Scale: 1/4" = 1'-0"



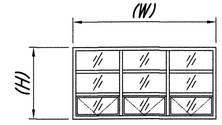
A
Aluminum Awning Window



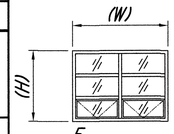
B
Aluminum Jalousie Window



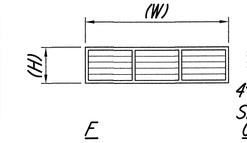
C
Aluminum Jalousie Window



D
Aluminum Fixed And Project-In Window



E
Aluminum Fixed And Project-In Window



E
Aluminum Jalousie Window

G
Aluminum Jalousie Window

WINDOW TYPES

Scale: 1/4" = 1'-0"

DATE	REVISION
6/5/2014	3 Revised Dimensions

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DOOR AND WINDOW SCHEDULES AND TYPES

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

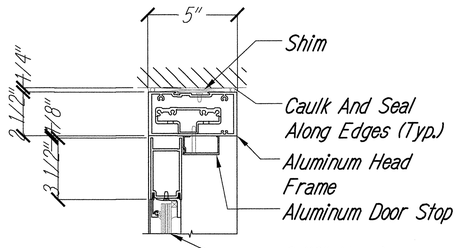
EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A7.1 OF 57 SHEETS

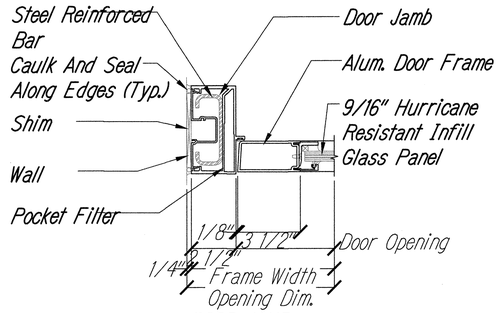
ADD.32

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

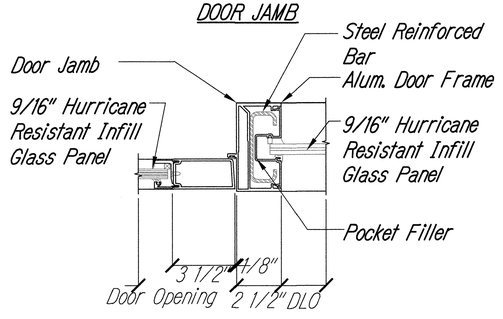
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.33	57



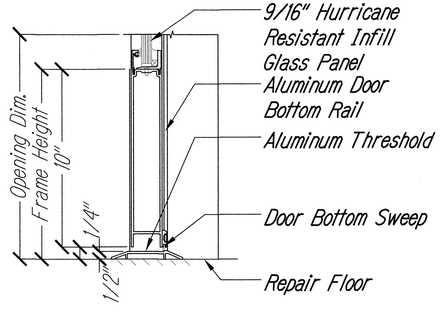
HEAD/HEAD



DOOR JAMB



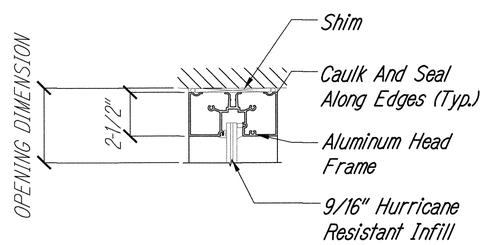
DOOR JAMB/FIXED PANEL



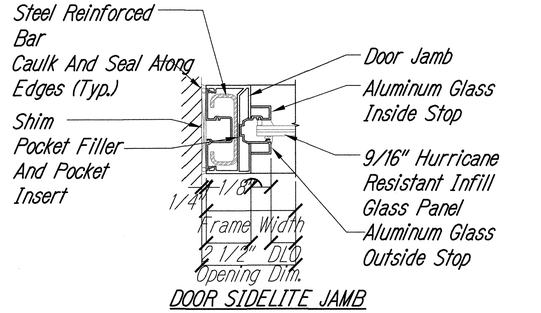
DOOR BOTTOM RAIL

ALUMINUM DOOR DETAIL — A4 (A7.1 | A7.2)

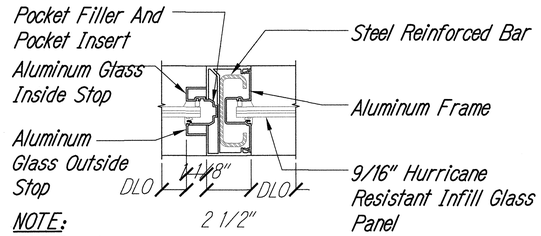
3"=1'-0"



DOOR SIDELITE HEAD

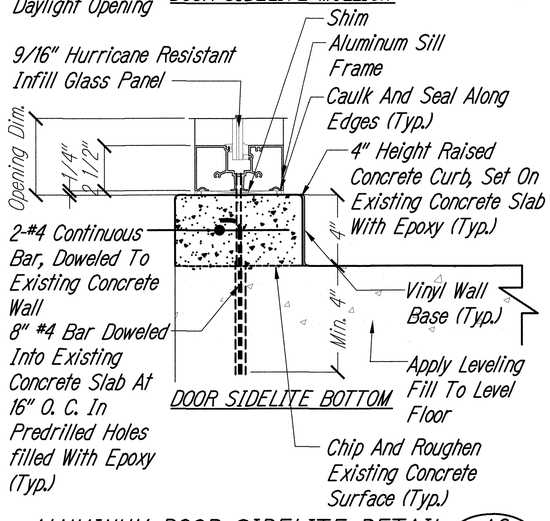


DOOR SIDELITE JAMB



NOTE:
DLO Denotes Daylight Opening

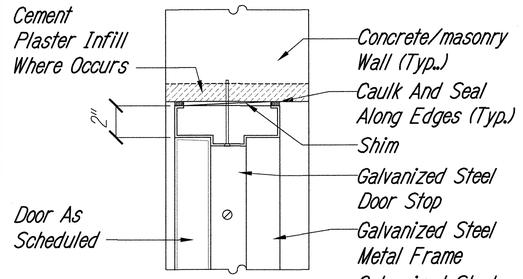
DOOR SIDELITE MULLION



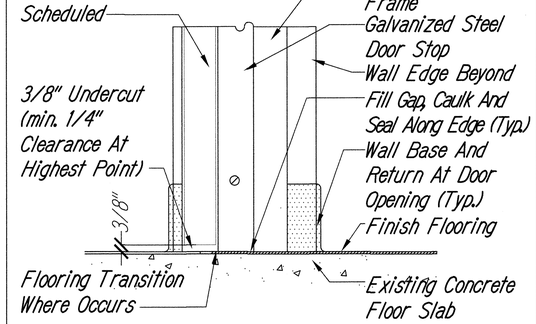
DOOR SIDELITE BOTTOM

ALUMINUM DOOR SIDELITE DETAIL — A3 (A7.1 | A7.2)

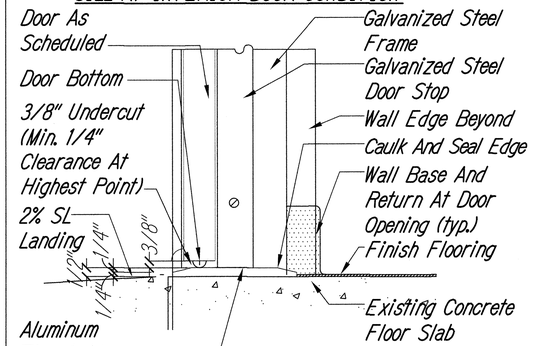
3"=1'-0"



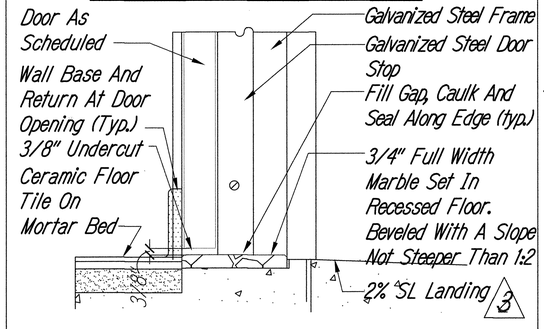
HEAD/JAMB



SILL AT INTERIOR DOOR CONDITION



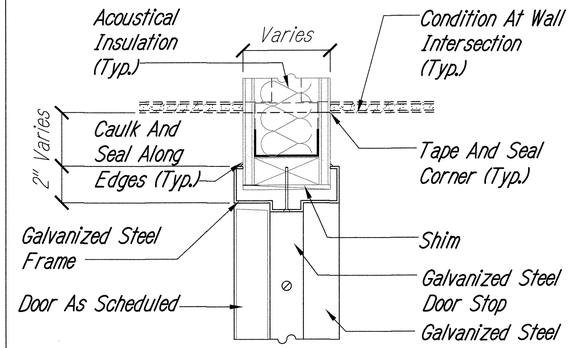
SILL AT EXTERIOR DOOR CONDITION



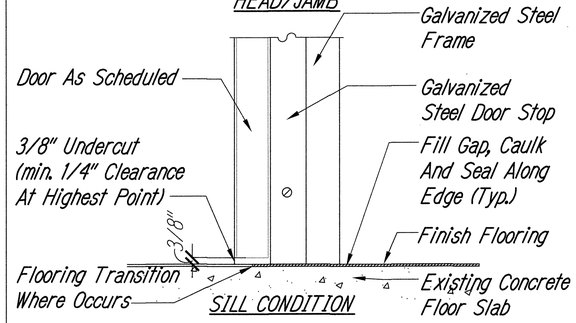
SILL CONDITION AT TOILET ROOM

DOOR DETAILS AT CMU WALLS — A2 (A7.1 | A7.2)

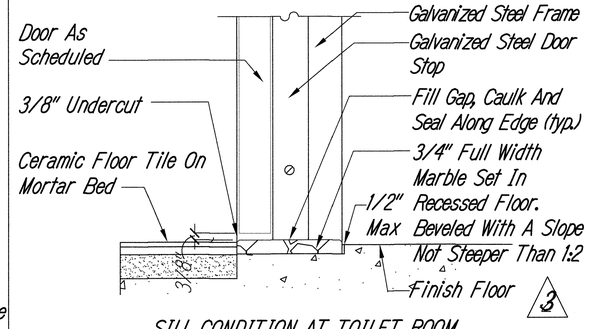
3"=1'-0"



HEAD/JAMB



SILL CONDITION



SILL CONDITION AT TOILET ROOM

DOOR DETAIL AT GYPSUM B'D WALLS — A1 (A7.1 | A7.2)

3"=1'-0"

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

DATE	REVISION
6/5/2014	3 Revised Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

DOOR DETAILS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

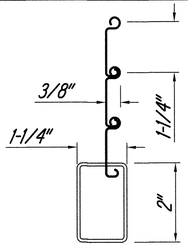
Scale: As Noted Date: APRIL, 2014

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

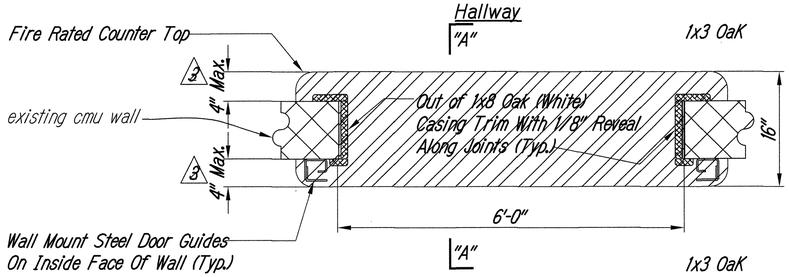
SHEET No. A7.2 OF 57 SHEETS

ADD.33

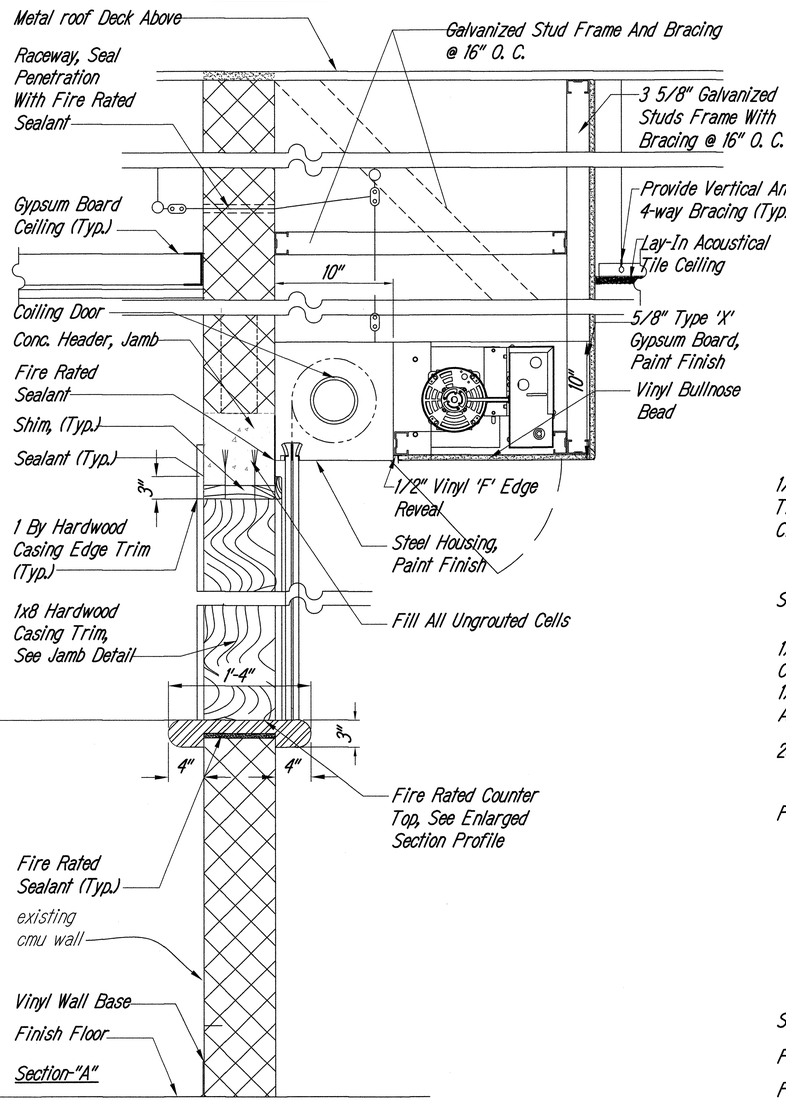
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.34	57



Bottom Bar And Slat Detail

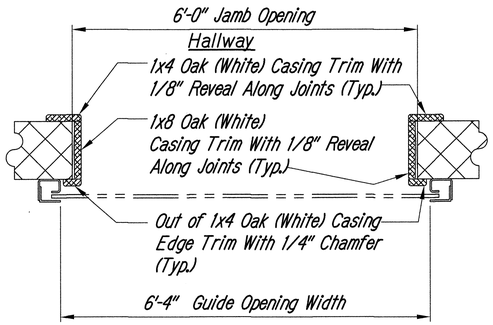


Plan

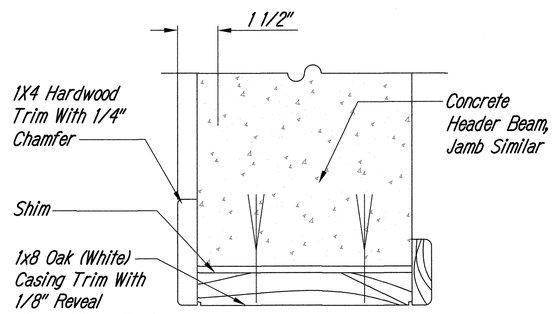


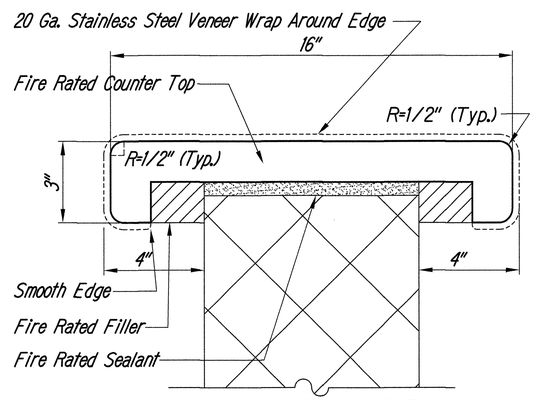
RECEPTION COUNTER AND ROLLING COUNTER FIRE DOOR DETAILS — A1 (A2.2 | A7.3)

Scale: 1 1/2" = 1'-0"

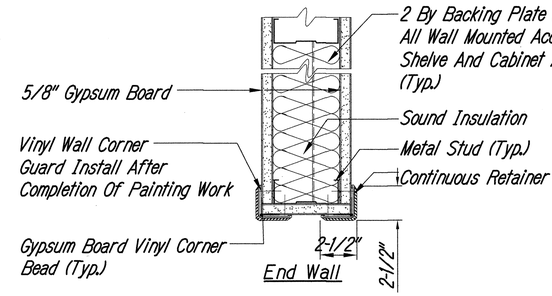


Jamb Opening

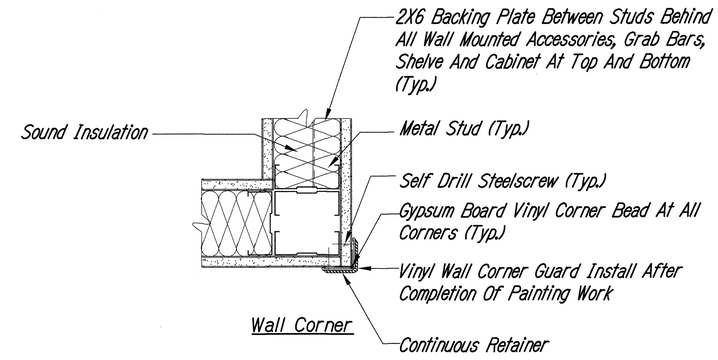




ENLARGED COUNTER TOP SECTION PROFILE



End Wall



Wall Corner

CORNER GUARD AND BACKING — B1 (A2.2 | A7.3)

Scale: 3"=1'-0"

DATE	REVISION
6/5/2014	3 Revised Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROLLING COUNTER FIRE DOOR DETAILS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOU CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

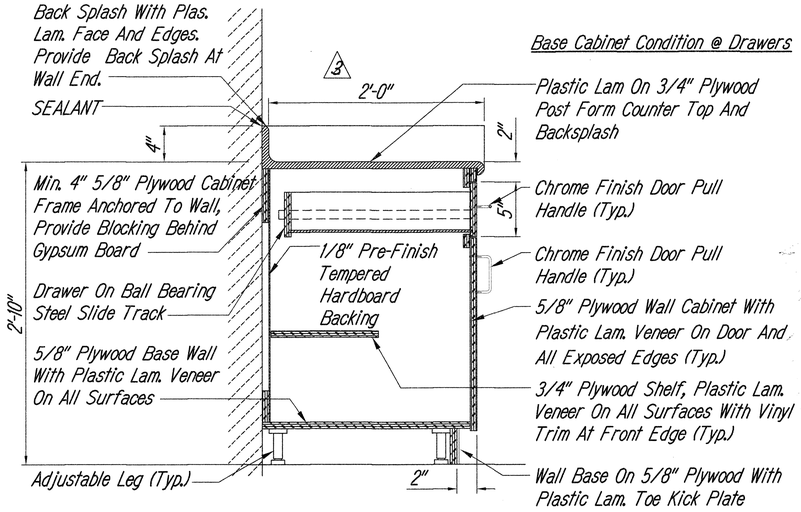
EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A7.3 OF 57 SHEETS

ADD.34

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.37	57

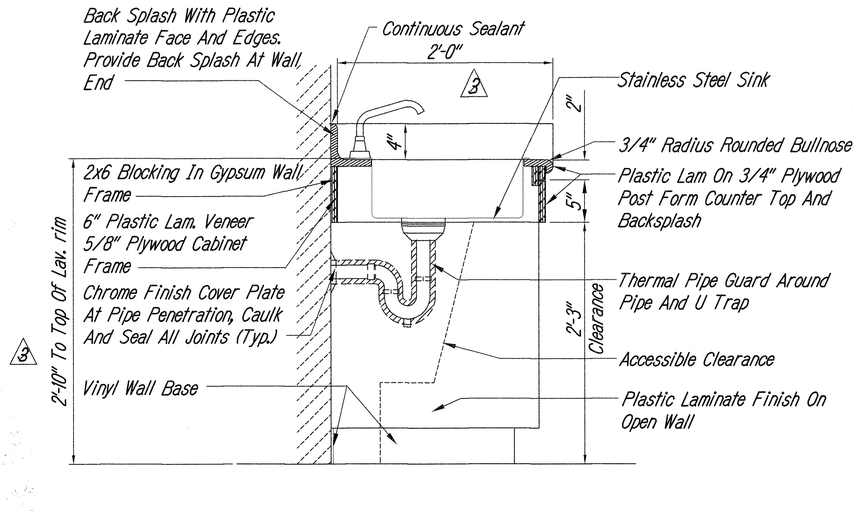


Base Cabinet Condition @ Drawers

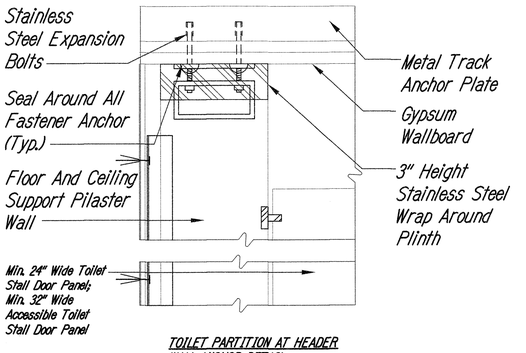
COUNTER AND BASE CABINET SECTION (C1)

NOT TO SCALE

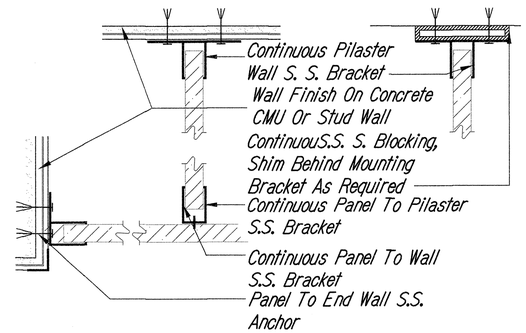
A5.3 | A8.2



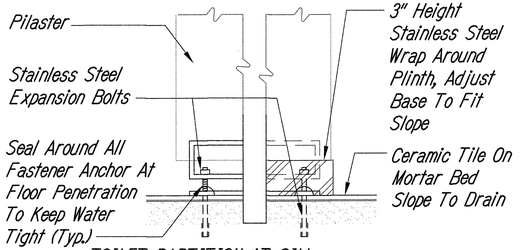
Base Cabinet Condition @ Sink



TOILET PARTITION AT HEADER WALL ANCHOR DETAIL



TOILET PARTITION AT JAMB, WALL AND PARTITION ANCHOR DETAIL

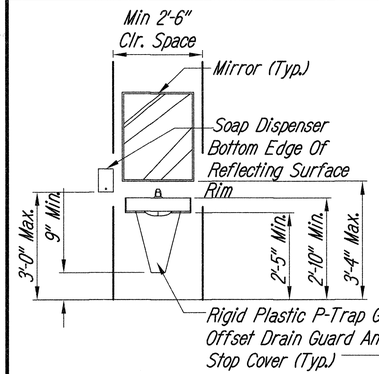


TOILET PARTITION AT SILL FLOOR ANCHOR DETAIL (HEAD SIMILAR)

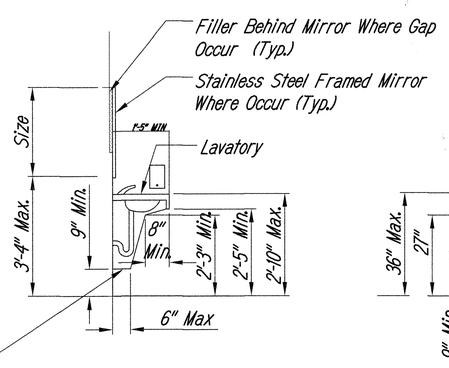
TOILET PARTITION DETAILS (B1)

NOT TO SCALE

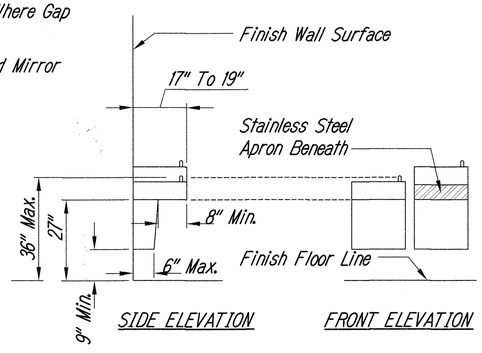
A2.2 | A8.2



FRONT ELEVATION LAVATORY WITH STAINLESS STEEL FRAMED MIRROR AND SOAP DISPENSER



SIDE ELEVATION LAVATORY WITH STAINLESS STEEL FRAMED MIRROR AND SOAP DISPENSER



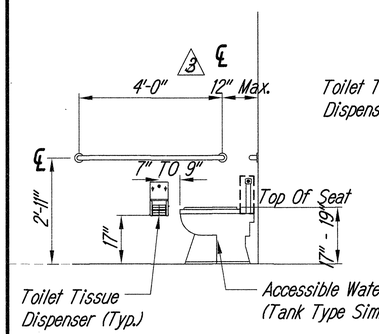
SIDE ELEVATION FRONT ELEVATION

DRINKING FOUNTAIN AND ELECTRICAL WATER COOLER

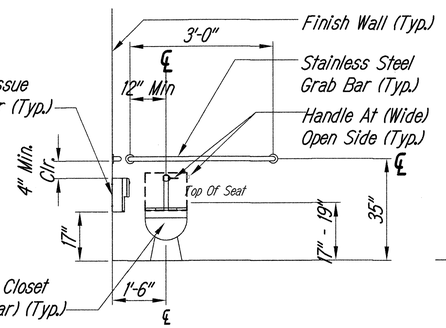
NOTES:

Mounting Position Shown In The Plan Is For General Reference Of Bath Accessories. The Height And Location Shown Do Not Reflect The Actual Design And Layout, Left Or Right Position, Contractor Shall Field Verify And Confirm The Location With Actual Layout And Construction.

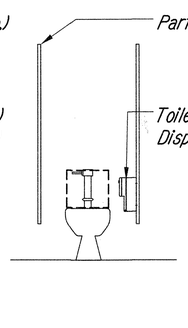
Provide Solid Blocking, Mounting And Nailer Plate Inside Stud Wall For The Mounting Of Wall Mounted Bath Accessories, Provide Access Panel With Finish Surface For Access To Conceal Bath Accessories Control Valve, Sensor Control, Electrical Power And Water Supply Controls And Connections.



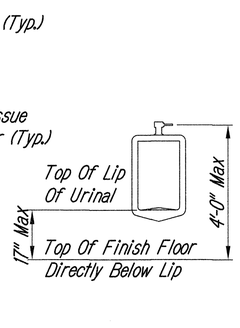
ACCESSIBLE WATER CLOSET, GRAB BAR, AND TOILET PAPER HOLDER



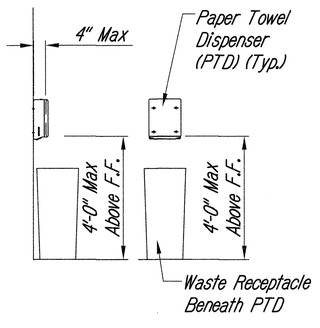
ACCESSIBLE WATER CLOSET, AND GRAB BARS



WATER CLOSET STALL



ACCESSIBLE URINAL STALL



SURFACE MOUNTED PAPER TOWEL DISPENSER AND FREE STANDING WASTE RECEPTACLE

TYPICAL TOILET ACCESSORIES MOUNTING DETAILS (A1)

SCALE: 1/2" = 1'-0"

A8.2 | A8.2

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

6/5/2014	2 Revised Dimensions
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MILLWORK, TOILET PARTITION AND ACCESSORY DETAILS

MOTOR VEHICLE SAFETY OFFICE RENOVATION

Project No. HWY-0-02-08

Scale: As Noted Date: APRIL, 2014

LOI CHAK CHAN
REGISTERED PROFESSIONAL ARCHITECT
NO. 5401
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHEET No. A8.2 OF 57 SHEETS

ADD.37

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-08	2014	ADD.40	57

EQUIPMENT SCHEDULE

Inverter Air Conditioning System

Fan Coil Unit: Horizontal Ceiling Concealed

Factory Assembled Ceiling Concealed Horizontal Ducted Unit, Direct Expansion Type With Anti-Corrosion Cooling Coil Of Copper Coils and Aluminum Fins, Corrosion Protected Casing with Finish, Microprocessor Control With Self Diagnosing and 24-Hour Timer, Mounting Brackets, Built-in Condensate, Anti-Microbial Filter, Auto Restart, Motor, 3-Speed Centrifugal Fans, and Wired Standard Thermostat. See Specifications For Additional Requirements.

Fan Coil UNit: Wall Mounted

Factory Assembled Unit, Wall Mounted Direct Expansion Type With Anti-Corrosion Cooling Coil Of Copper Coils and Aluminum Fins, Corrosion Protected Casing with Finish, Microprocessor Control With Self-Diagnosing and 24-Hour Timer, Mounting Brackets, Built-in Condensate Pump, Anti-Microbial Filter, Auto Restart Air Sweep and Louver Control, 5-Speed Centrifugal Fans, and Wired Standard Thermostat. See Specifications For Additional Requirements.

Condensing Units:

Air Cooled Condensing Unit Complete With Variable Speed DC Inverter Scroll Compressors, Galvanized Steel With Powder Coated Cabinet, Direct Driven Propeller Horizontal Discharge Condenser Fan, PVC Coated Wire Guard, Copper Tube With Aluminum Fins Condenser Coil, Puron R410A Refrigerant, Internal Overloads, TXV Valve, And Support Feet With Isolation Pads. See Specifications For Additional Requirements. Provide Corrosion Protection For Condenser Coil. Protect Finned Tubes With Blygold Poulal Coating, Cabinet Surfaces For Air Condtioning Unit Shall Be Coated With Ameron PSX 700. Replace All Hardware With Stainless Steel Hardware.

Note: Fan Coil Units Power From Respective Condensing Units; Disconnects Required At Fan Coil Unit.

Fcu No.	Tbtuh	Sbtuh	Sa Cfm	Oa Cfm	Ent Air		Amb Air F	System Units			Volt/Ph/Cyc	Fcu/Cu Model or Approved Equal	Remarks
					Fdb	Fwb		Fla	Watts	MOCP			
1	17,100	—	650	—	80	67	95	7.5	1650	20	208-230/1/60	Panasonic CS-S18NKU-1 Panasonic CU-S18NKU-1	New, 26.0/115.0 Lbs, 17.5 Seer
2	11,900	—	425	—	80	67	95	5.1	1000	15	208-230/1/60	Panasonic CS-S12NKUW-1 Panasonic CU-S12NKUW-1	New, 20.0/82.0 Lbs, 17.5 Seer
3	18,000	—	425	—	80	67	95	9.0	—	20	208-230/1/60	Fujitsu ASU18CL Fujitsu AOU18CL	(E), 20.0/88.0 Lbs, 19.0 SEER
4a	12,000	—	330	—	80	67	95	0.19	22	—	208-230/1/60	Fujitsu ASU12RLF	(E), 21.0 Lbs
4b	12,000	—	330	—	80	67	95	0.19	22	—	208-230/1/60	Fujitsu ASU12RLF	(E), 21.0 Lbs
5	24,000		650	—	80	67	95	10.4	—	20	208-230/1/60	Fujitsu ASU24CL Fujitsu AOU24CL1	(E), 31.0/88.0 Lbs, 17.5 Seer
6	24,000	—	650	—	80	67	95	11.9	2840	25	208-230/1/60	Panasonic CS-S24NKUA Panasonic CU-S24NKUA	New, 26.0/132.0 Lbs, 17.5 Seer
7	24,000		650	—	80	67	95	10.4	—	20	208-230/1/60	Fujitsu ASU24CL Fujitsu AOU24CL1	(E), 31.0/88.0 Lbs, 17.5 Seer
8	9,000		330	—	80	67	95	6.2	—	15	208-230/1/60	Mitsubishi MSYGE09NA Mitsubishi MUYGE09NA	(E), 22.0/66.0 Lbs, 21.0 Seer
9	12,000	—	330	—	80	67	95	—	—	—	208-230/1/60	Fujitsu ASU12CL Fujitsu AOU12CL	Existing, 21.0 Lbs
10	17,100	—	650	—	80	67	95	7.5	1650	20	208-230/1/60	Panasonic CS-S18NKU-1 Panasonic CU-S18NKU-1	New, 26.0/115.0 Lbs, 17.5 Seer
11	33,000	—	700	—	80	67	95	17.3	—	30	208-230/1/60	Fujitsu ASU36CLX1 Fujitsu AOU36CLX1	(E), 31.0/150 Lbs, 15.5 Seer
12	33,000	— (3)	700	—	80	67	95	17.3	—	30	208-230/1/60	Fujitsu ASU36CLX1 Fujitsu AOU36CLX1	(E), 31.0/150 Lbs, 15.5 Seer
13	33,000	—	700	—	80	67	95	17.3	—	30	208-230/1/60	Fujitsu ASU36CLX1 Fujitsu AOU36CLX1	(E), 31.0/150 Lbs, 15.5 Seer
14	34,000	—	630	—	80	67	95	21.9	4000	45	208-230/1/60	Panasonic CS-KS36NKU Panasonic CU-KS36NKU	New, 32.0/183.0 Lbs, 16.0 Seer
15	34,000	—	630	—	80	67	95	21.9	4000	45	208-230/1/60	Panasonic CS-KS36NKU Panasonic CU-KS36NKU	New, 32.0/183.0 Lbs, 16.0 Seer
16a	12,000	—	280	—	80	67	95	0.17	35	—	208-230/1/60	Panasonic CS-MKS12NKU	New, 19.8 Lbs
16b	12,000	—	280	—	80	67	95	0.17	35	—	208-230/1/60	Panasonic CS-MKS12NKU	New, 19.8 Lbs
16c	12,000	—	280	—	80	67	95	0.17	35	—	208-230/1/60	Panasonic CS-MKS12NKU	New, 19.8 Lbs
OA-A1	24,000	—	670	—	80	67	95	15.0	2600	Fcu-15 Cu-30	208-230/1/60	Panasonic S-26PF1U6 Panasonic U-26PF1U6	New, 71.0/128.0 Lbs, 14.0 Seer
OA-A1	24,000	—	670	—	80	67	95	15.0	2600	Fcu-15 Cu-30	208-230/1/60	Panasonic S-26PF1U6 Panasonic U-26PF1U6	New, 71.0/128.0 Lbs, 14.0 Seer
OA-A1	24,000	—	670	—	80	67	95	15.0	2600	Fcu-15 Cu-30	208-230/1/60	Panasonic S-26PF1U6 Panasonic U-26PF1U6	New, 71.0/128.0 Lbs, 14.0 Seer

EQUIPMENT SCHEDULE - CONTINUE

Condensing Units:

CU NO.	TBTUH	ENT AIR		AMB	COMP		PWR SUP			VOLT/PH/CYC	CU MODEL OR APPROVED EQUAL	REMARKS
		FDB	FWB	AIR F	RLA	LRA	RLA	Watt	MOCP			
Cu-4	24,000	80	67	95	—	—	13.7	1760	25	208-230/1/60	Fujitsu AOU24RL	17.0 Seer, 124 LBS.
Cu-16	28,600	80	67	95	—	—	12.6	2600	20	208-230/1/60	Panasonic CU-4KS31NBU	17.6 Seer, 175 LBS.

Exhaust Fan:

Ceiling Fan Shall Be Direct Driven Centrigugal Type With Galvanized Steel Housing With Acoustic Insulation, Motor Vibration Isolators, Integral Wiring Box, Disconnect Receptacle, Convertible Discharge, Backdraft Damper, Mounting Bracket, Speed Controller, NonOverloading Open Drip Motor With Built-In Thermal Protection And Non-yellowing High Impact Styrene Molded Grille.

EF NO.	CFM	SP	RPM	Watts	VOLT/PH/CYC	WT., LBS	Remarks
1	150	0.25	1365	75	120-1-60	275	Loren Cook GC-320 Or Approved Equal

(3)

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

ARNALDO E. PREPOSE
LICENSED PROFESSIONAL ENGINEER
No. 4764-M
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISIONS
6/5/14	(3) Revised Fcu Cfm & Delete Ef-2

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

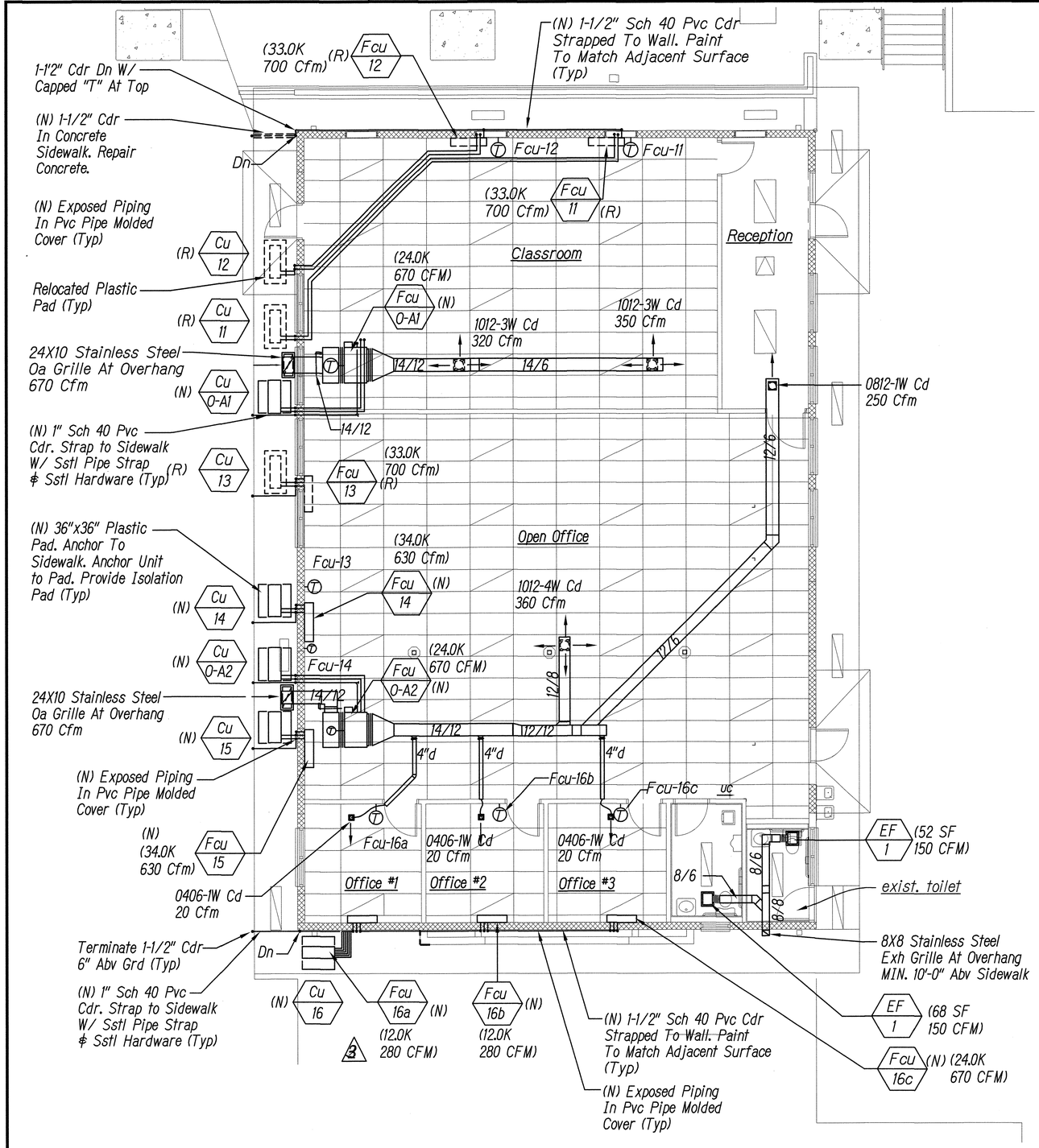
EQUIPMENT SCHEDULE

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-O-02-08

Scale: As Noted   Date: April 2014

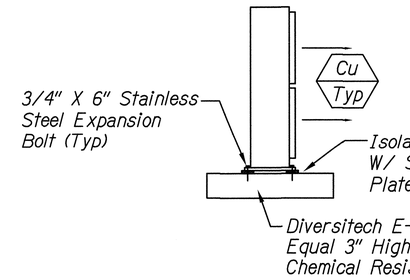
SHEET No. M1.2 OF 57 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.42	57



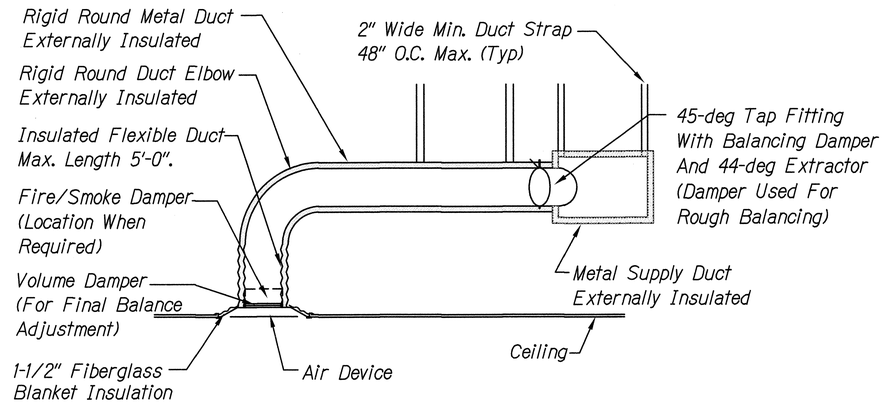
AIR CONDITIONING PLAN - BUILDING A

SCALE: 3/16" = 1'-0"



CONDENSING UNIT MOUNTING DETAIL

NO SCALE



AIR DEVICE DETAIL

NO SCALE

NOTES:

1. Existing Fcu Units And Piping Shall Be Removed And Re-installed after Wall In-Fill Work Is Completed. Re-Use Or Replace Existing Refrigerant Piping. Provide New Condensate Piping.
2. Provide PVC Molded Pipe Covers Over Both Exterior and Interior Exposed Piping. Paint To Match Adjacent Wall.
3. Provide Annual Maintenance Service On Existing Air Conditioning Units Which Shall Include:
   a. Oil & Lubricate
   b. Wash Down Evaporator And Condensing Coils
   c. Check And Add Refrigerant and Oil
   d. Provide New Thermostats, Wired or Remote Controllers For All Existing Air Conditioning Units

DATE	REVISIONS
6/5/14	3 Revised Restrooms For ADA Requirements Corrected Fcu Notes

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

ORIGINAL PLAN
NOTE BOOK
No.

SCALE 4' 0 4' 8' 12'
3/16" = 1'-0"

ARNALDO E. FREPOSE LICENSED PROFESSIONAL ENGINEER No. 4764-H HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

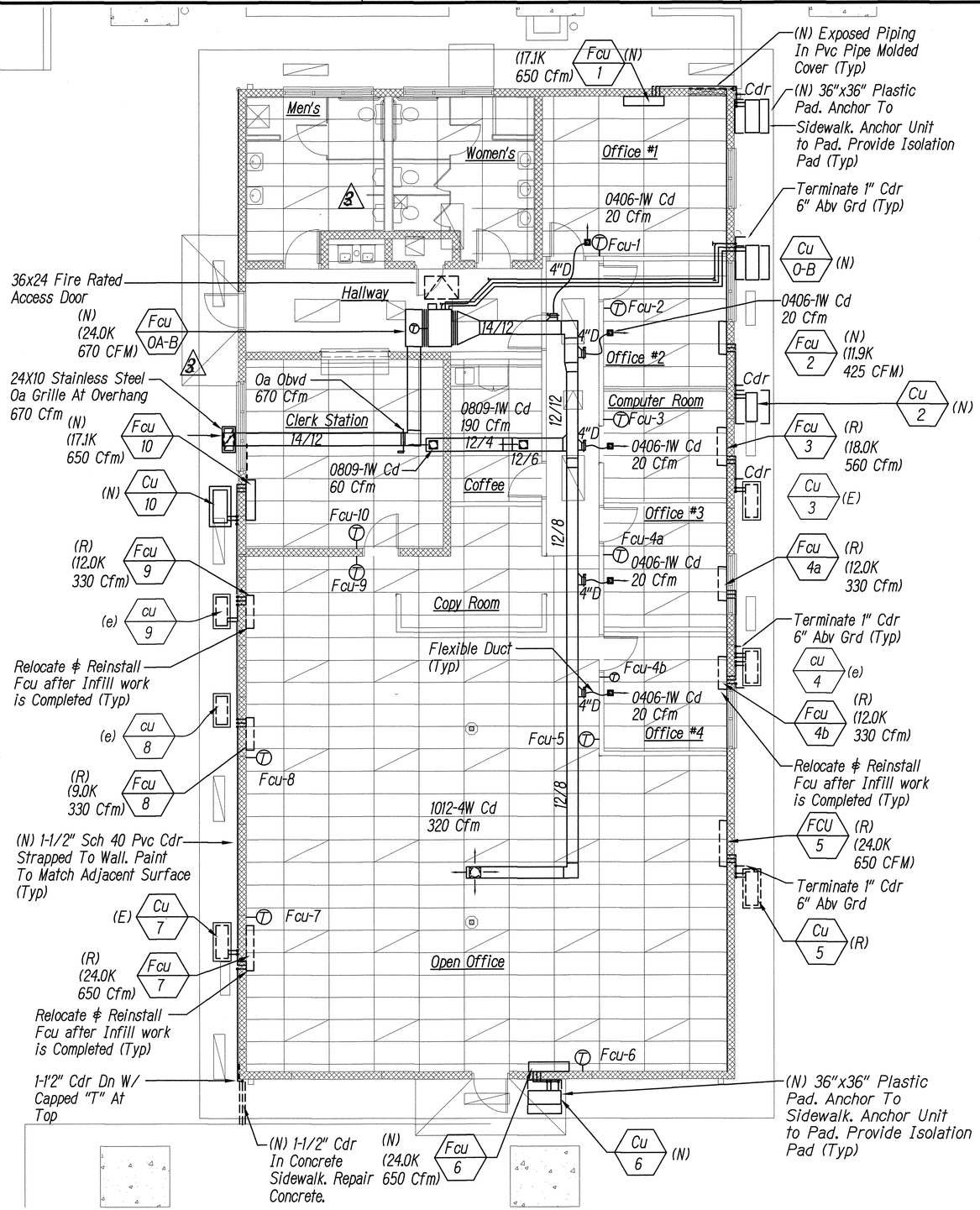
BUILDING A
AIR CONDITIONING PLAN

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale:As Noted Date: April 2014

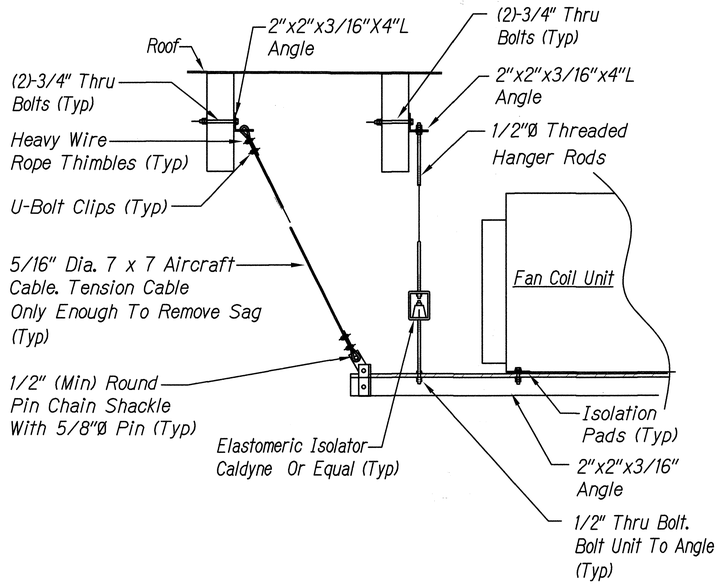
SHEET No. M2.2 OF 57 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.43	57



AIR CONDITIONING PLAN - BUILDING B

SCALE: 3/16" = 1'-0"



FAN COIL MOUNTING DETAIL

NO SCALE

NOTES:

1. Existing Fcu Units And Piping Shall Be Removed And Re-installed after Wall In-Fill Work Is Completed. Re-Use Or Replace Existing Refrigerant Piping. Provide New Condensate Piping.
2. Provide PVC Molded Pipe Covers Over Both Exterior and Interior Exposed Piping. Paint To Match Adjacent Wall.
3. Provide Annual Maintenance Service On Existing Air Conditioning Units Which Shall Include:
   a. Oil & Lubricate
   b. Wash Down Evaporator And Condensing Coils
   c. Check And Add Refrigerant and Oil
   d. Provide New Thermostats, Wired or Remote Controllers For All Existing Air Conditioning Units

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

NORTH

SCALE 4' 0 4' 8' 12'

3/16" = 1'-0"

ARNALDO E. PREPOSE LICENSED PROFESSIONAL ENGINEER No. 4764-H HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISIONS
6/5/14	3 Revised Restrooms For ADA Requirements Delete Ef-2 & Corrected Fcu Label

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

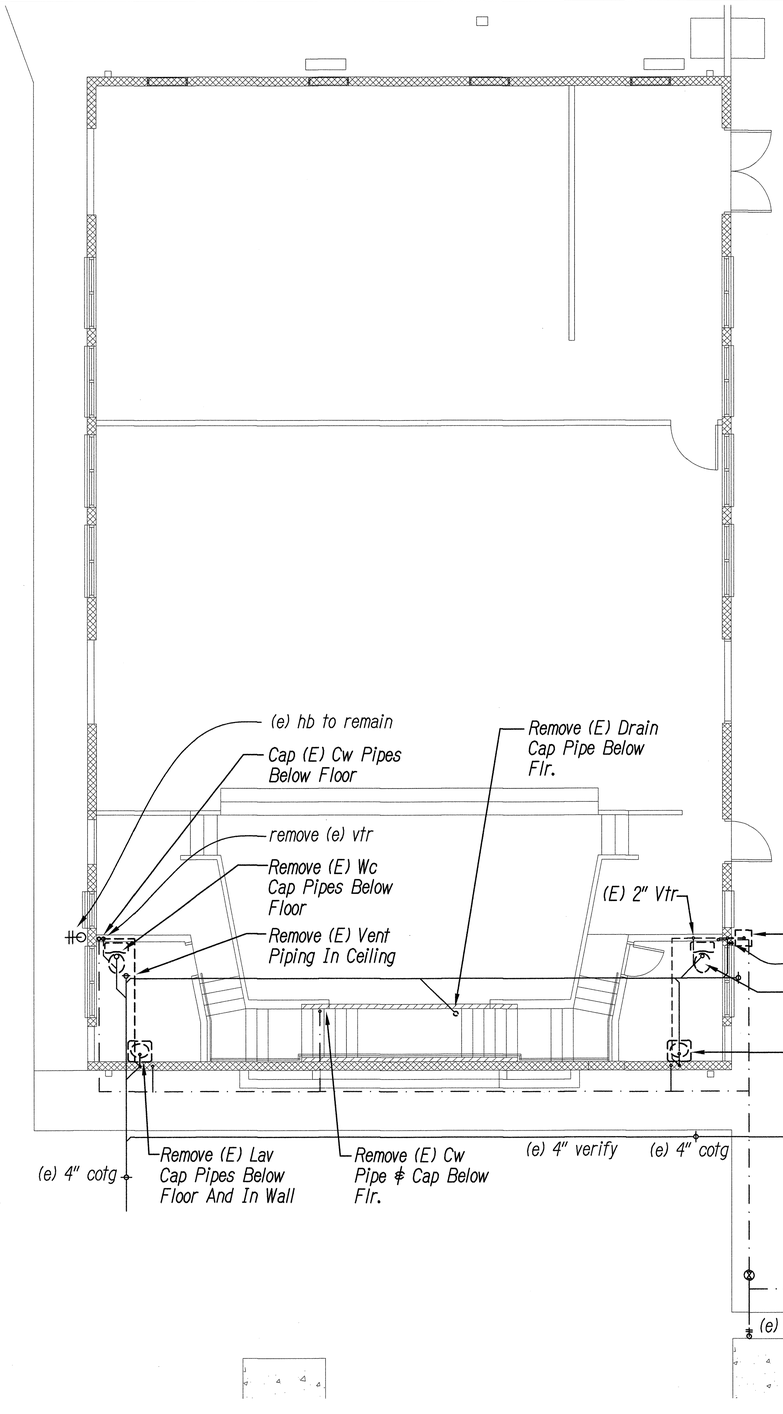
BUILDING B
AIR CONDITIONING PLAN

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale:As Noted Date: April 2014

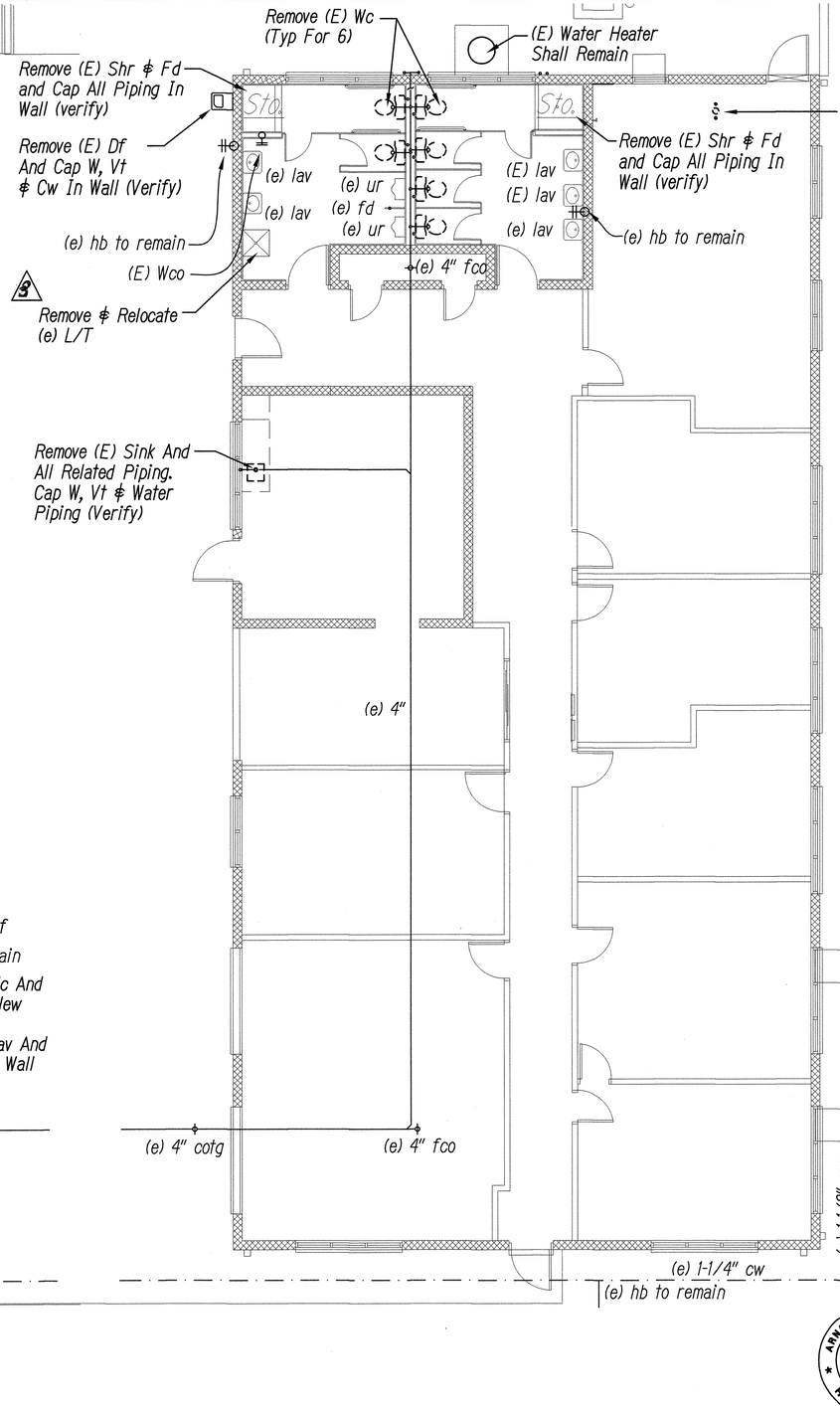
SHEET No. M2.3 OF 57 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.44	57



PLUMBING REMOVAL - BUILDING A

SCALE: 3/16" = 1'-0"



PLUMBING REMOVAL - BUILDING B

SCALE: 3/16" = 1'-0"

PLUMBING GENERAL NOTES:

1. Router All Existing Waste Piping And Check for Proper Waste Flow. Provide Camera Work To Video The Main 4" Waste Pipe. Contractor Shall Notify Engineer Of Any Bad Waste Piping.
2. Flush Out Existing Water Water Pipes And Hot Water Heater Of Sediments.
3. Replace All Urinal Flush Valves.
4. Replace All Water Closet Flushing Mechanisms In Tanks And Replace All Supply Valves and Risers.
5. Clean Existing Lavatory Aerators.
6. Clean And Polish All Existing Plumbing Fixtures, Faucets and Trims.

NORTH

SCALE 4' 0 4' 8' 12'

3/16" = 1'-0"

DATE	REVISIONS
6/5/14	3 Revised Restrooms For ADA Requirements

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A AND B
PLUMBING REMOVAL PLANS

MOTOR VEHICLE SAFETY OFFICE
RENOVATION
Project No. HWY-0-02-08

Scale:As Noted Date: April 2014

SHEET No. M3.1 OF 57 SHEETS

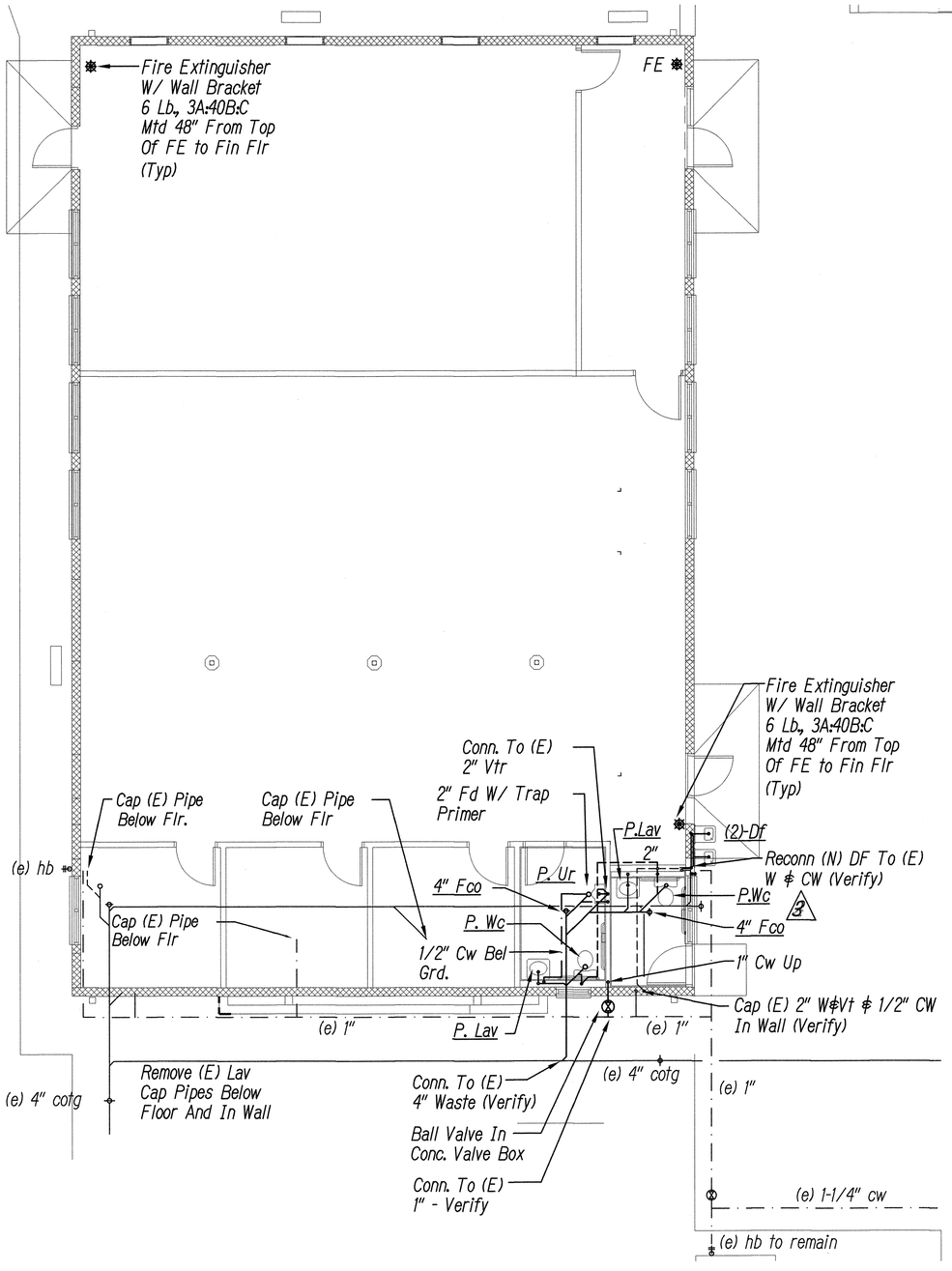
ARNALDO E. FREPOSE
LICENSED PROFESSIONAL ENGINEER
No. 4764-H
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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

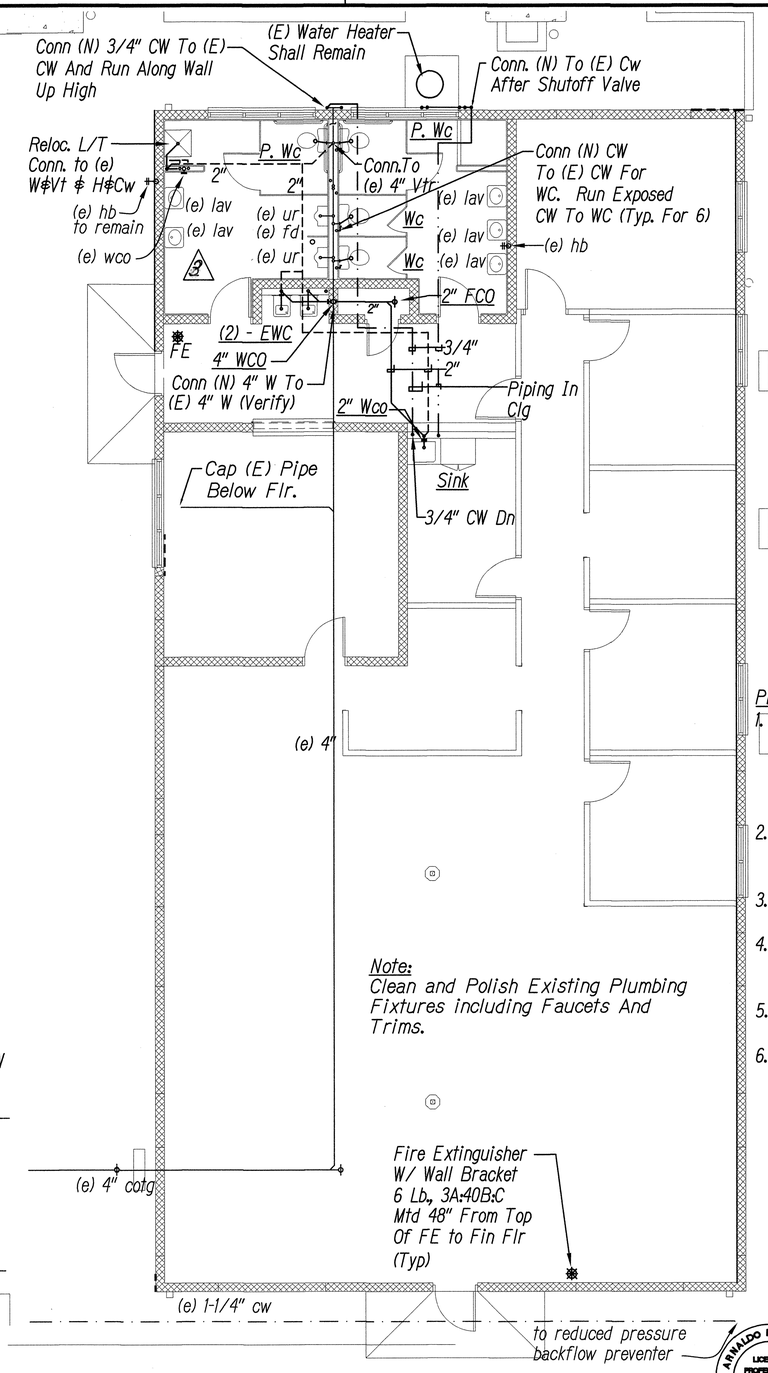
ADD.44

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.45	57



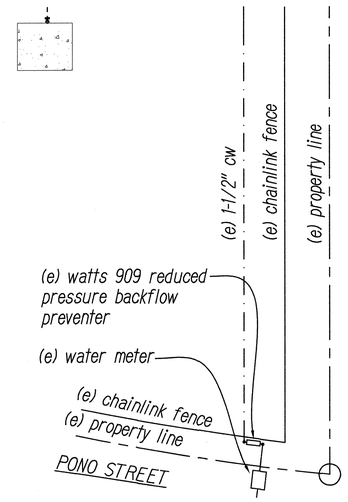
PLUMBING PLAN - BUILDING A

SCALE: 3/16" = 1'-0"



PLUMBING PLAN - BUILDING B

SCALE: 3/16" = 1'-0"



RPBP LOCATION

SCALE: 1/8" = 1'-0"

PLUMBING GENERAL NOTES:

1. Router All Existing Waste Piping And Check for Proper Waste Flow. Provide Camera Work To Video The Main 4" Waste Pipe. Contractor Shall Notify Engineer Of Any Bad Waste Piping.
2. Flush Out Existing Water Water Pipes And Hot Water Heater Of Sediments.
3. Replace All Urinal Flush Valves.
4. Replace All Water Closet Flushing Mechanisms In Tanks And Replace All Supply Valves and Risers.
5. Clean Existing Lavatory Aerators.
6. Clean And Polish All Existing Plumbing Fixtures, Faucets and Trims.

NORTH

SCALE 1/8" = 1'-0": 4' 0 5' 10' 15' 20'

SCALE 3/16" = 1'-0": 4' 0 4' 8' 12'

DATE	REVISIONS
6/5/14	3 Revised Restrooms For ADA Requirements

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A AND B PLUMBING PLANS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale:As Noted Date: April 2014

ARNALDO E. FREIRE LICENSED PROFESSIONAL ENGINEER No. 4764-H HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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

SHEET No. M3.2 OF 57 SHEETS

ADD.45

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-08	2014	ADD.46	57

BWS FLOW REQUIREMENTS

98-339 Pono St.
Aiea, HI 96821
TMK: 9-8-026:064

Premise Number:
Meter Number: 1162310412

	F.U	GPM	GPD
A. Proposed Domestic Total	17.0	12.5	350
B. Irrigation*	N/A		
C. Other	N/A		
D. Total Proposed	17.0	12.5	350
E. Removed Fixtures	15.9	12.0	320
F. Net Change (D - E)	1.1	2.0	20
G. Existing To Remain	17.3	12.5	345
H. Grand Total (D + G)	34.3	22.5	695

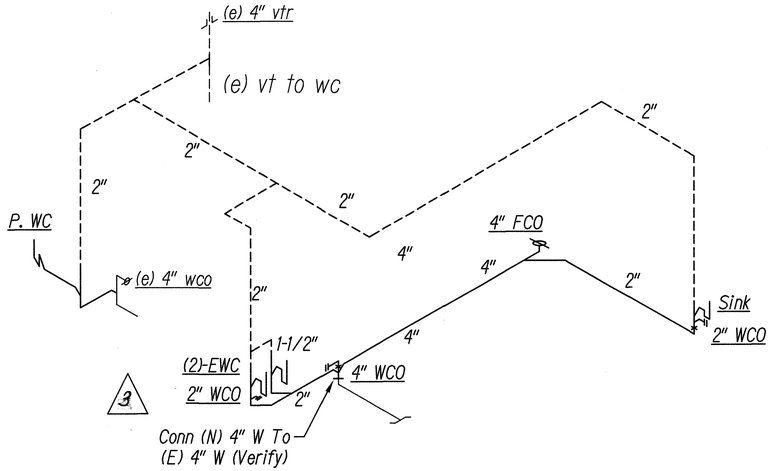
Notes:

1. There Is No Irrigation For ThisProject.
2. A/C Work Will Not Affect Water Demand.
3. There Is No Fire Sprinkler System In This Project.

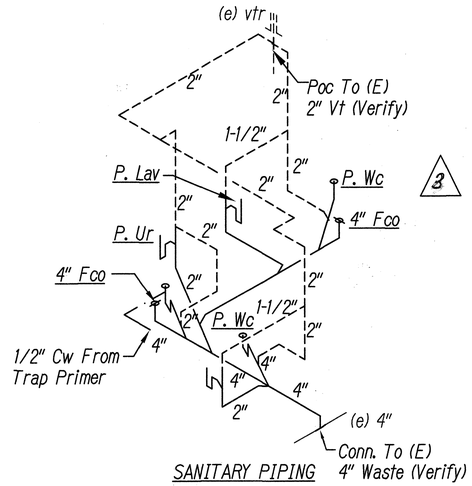
New Fixtures	QTY	F.U.	TOTAL F.U.
Water Closet	5	1.7	8.5
Lavatory	2	0.6	1.2
Urinal	1	1.7	1.7
Sink	1	1.6	1.6
Drinking Fountain	4	1.0	4.0
			17.0 FU, 12.5 GPM

Fixtures to be Removed	QTY	F.U.	TOTAL F.U.
Water Closet	5	1.7	8.5
Lavatory	1	0.6	0.6
Sink	1	1.6	1.6
Drinking Fountain	2	1.0	2.0
Shower	2	1.6	3.2
			15.9 FU, 12.0 GPM

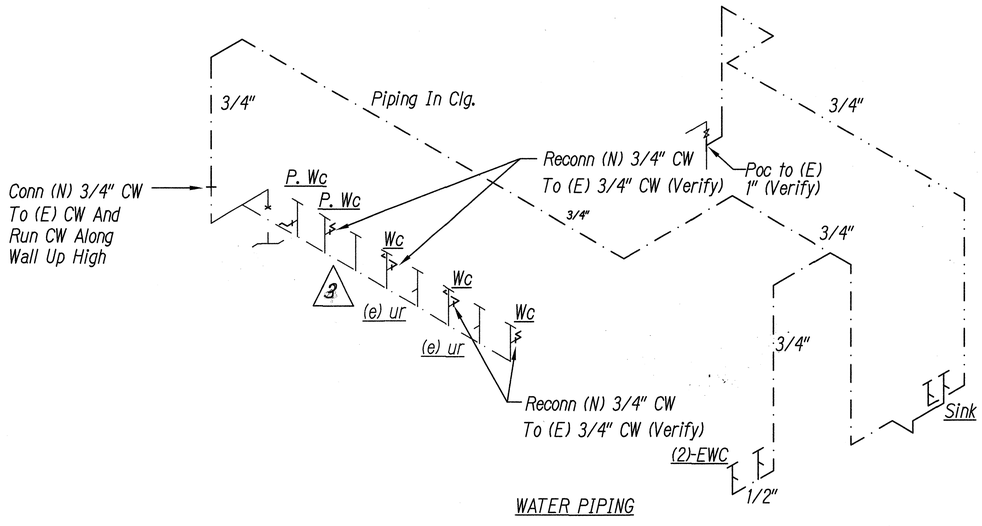
Fixtures to be Remain	QTY	F.U.	TOTAL F.U.
Water Closet	2	1.7	3.4
Lavatory	5	0.6	3.0
Urinal	2	1.7	3.4
Hose Bibb	1	2.5	2.5
Hose Bibb	5	1.0	5.0
			17.3 FU, 12.5 GPM



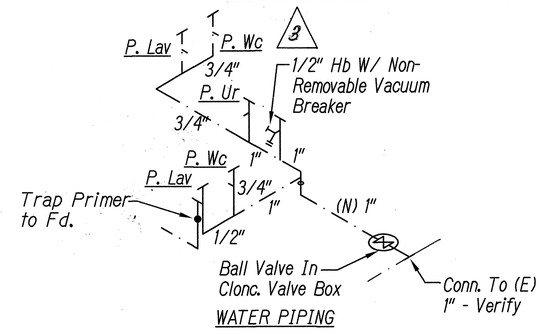
SANITARY PIPING



SANITARY PIPING



WATER PIPING



WATER PIPING

PLUMBING DIAGRAMS - BUILDING A — D2 / M3.3 | M3.3
NO SCALE

PLUMBING DIAGRAMS - BUILDING B — A2 / M3.3 | M3.3
NO SCALE

DATE	REVISIONS
6/5/14	3 Revised Restrooms For ADA Requirements

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BUILDING A AND B PLUMBING DIAGRAMS

MOTOR VEHICLE SAFETY OFFICE RENOVATION
Project No. HWY-0-02-08

Scale:As Noted Date: April 2014

ARNALDO E. PREPOSE
LICENSED PROFESSIONAL ENGINEER
No. 4764-H
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2016
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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

SHEET No. M3.3 OF 57 SHEETS

ADD.46