

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-08	2010	22	34

GENERAL NOTES:

A. General:

- All work shall conform to the Building Code of the City and County of Honolulu and Special Provisions and Hawaii Standard Specifications for Road and Bridge Construction, 2005
- The contractor is responsible for all means and methods of construction.
- The contractor is responsible for job site safety and shall use safe construction methods and procedures.
- The contractor shall verify all dimensions and conditions for the existing site prior to start of the job and notify the engineer of any discrepancy.
- Features of construction shown are typical and they shall apply generally throughout for similar conditions, modify typical details as directed to meet special conditions.
- Specific notes and details shall take precedence over general notes and typical details.
- The contractor shall provide temporary erection bracings and shoring for all structural members as required for structural stability during all phases of construction.
- Modification to drawings, the general contractor and his sub-contractors must submit in writing any request for modifications to the plans and specifications. Shop drawings that are submitted to the design professional for his review do not constitute in writing in any event, changes to the plans and specifications by means of shop drawings becomes the responsibility of the party initiating such changes.

B. Design Data:

- Dead Load.....160 pcf is used for concrete unit weight
- Live Load HL93
- Seismic Load..... See Note E.3

C. Concrete:

- All work shall conform to ACI 301
- Verify locations and dimensions of slots, anchors, duct, etc. relating to mechanical, electrical, and civil work before pouring of concrete.
- All inserts, anchor bolts, plates, etc., embedded in concrete shall be hot dipped galvanized unless noted otherwise.
- The 28 day compression strength of concrete and maximum aggregate size shall be as follows;

	Strength (psi)	Max. Agg. Size
Slab-on-grade, Footing.....	4,000.....	1"
Concrete Wall.....	4,000.....	3/4"
- Unless shown otherwise on Civil Drawings, slab-on-grade concrete finish shall conform to Special Provisions Section 503.03(M)(3)(b).

D. Reinforcing Steel:

- All reinforcing steel shall be high strength deformed bars conforming to ASTM A-615, Grade 60.
- Concrete coverage for reinforcing bars shall be as follow;

Concrete cast against earth.....	3"
Concrete exposed to earth or weather;	
Wall And Pedestal Primary Reinforcing.....	2'
Pedestal Ties.....	2'
- Splices shall be staggered where possible.
- Welded wire fabric shall be made of cold drawn wire and shall conform to ASTM A-185, galvanized.
- Bends not dimensioned shall be standards hooks.
- Bars noted "cont." shall have a minimum lap splice of 48 bar diameters but not less than 24 inches.

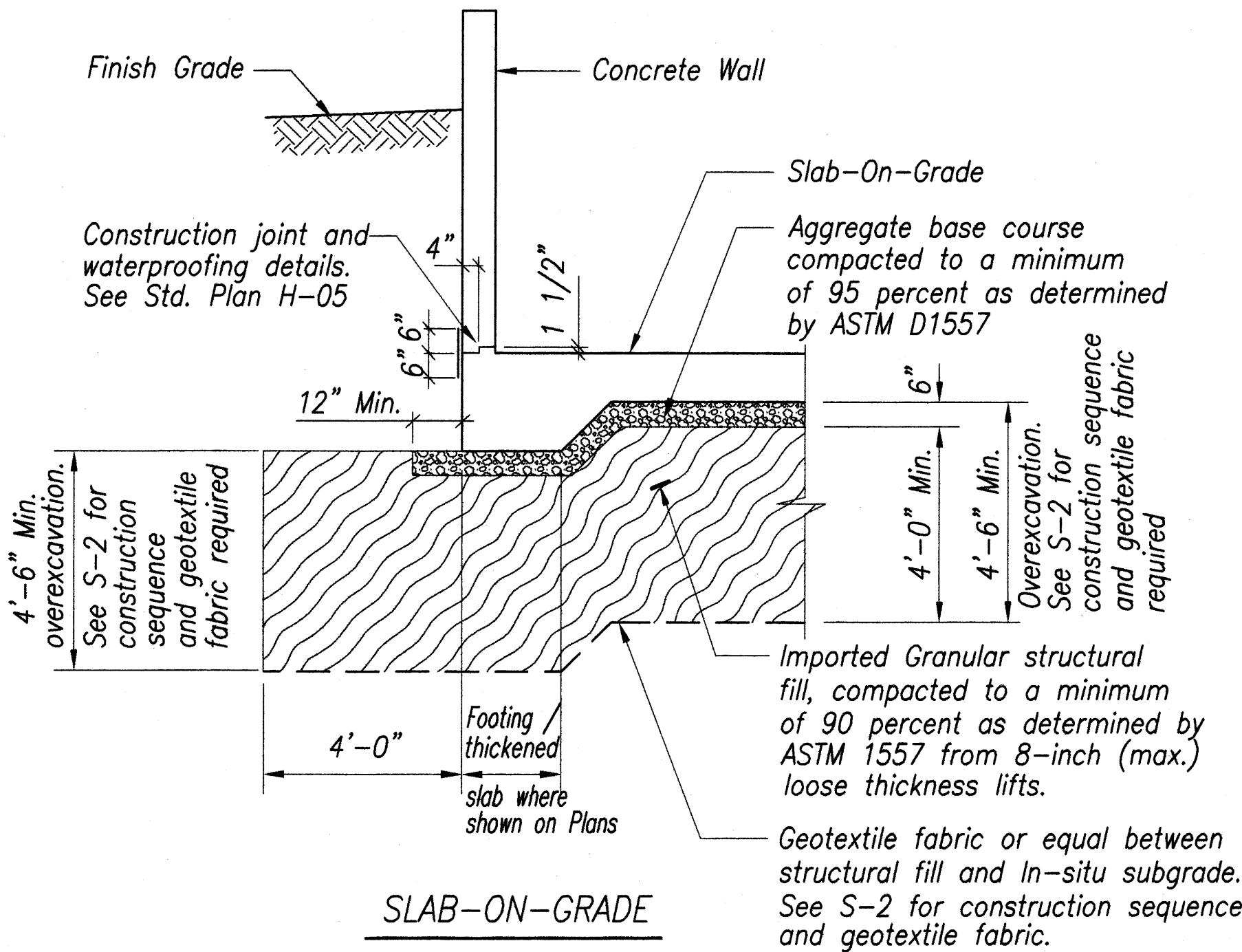
E. Foundation Notes:

- The foundation design is based on the recommendation in report no. W.O. 09-4723 titled, "Foundation Investigation, Pearl City Dewatering Facility, 820 2nd Street, Pearl City, Oahu, Hawaii, by By Hirata and Assocpates, Inc., dated December 7, 2009 and Addendum 01 dated December 9, 2009 and 5/11/10 email regarding Dynamic Lateral Earth Pressures.
- All footings and concrete slabs-on-grade shall be underlain by a minimum (overexcavation) of 54 inches of imported granular structural fill. For concrete slab-on-grade, the upper 6-inches of this material shall be aggregate base course and shall be compacted to a minimum of 95 percent compaction as determined by ASTM D1157, and the remainder shall be imported granular, structural fill consisting of 36-inches of imported granular structural fill compacted to a minimum 90 percent compaction as determined by ASTM D1557 from 8-inch (maximum) loose thickness lifts over 2 -9 inch layers of #2 coarse aggregate (compaction not required). See S-2 for geotextile fabric required on the subgrade, over the 2 -9 inch layers of #2 coarse aggregate, and over the first 8-inch loose lift (6 inch compacted thickness) of compacted (90 percent) imported granular structural fill. Overexcavation as required shall extend a minimum of 48 inches beyond the edge of footings and thickened slabs.
- Design Criteria

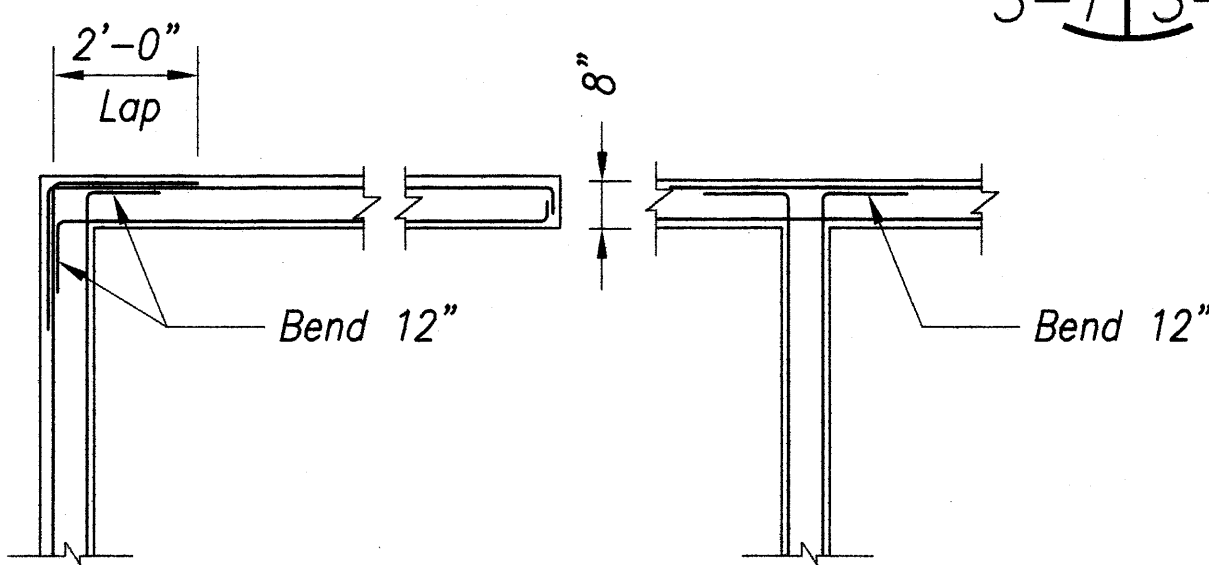
Bearing Pressure.....	3000 psf
Retaining Wall:	
Active Pressure	
Unrestrained.....	85 pcf (No subdrains and weepholes)
Restrained.....	100 pcf (No subdrains and weepholes)
Coef. of Friction.....	0.4
Passive Pressure.....	300 pcf
Dynamic; Seismic Lateral Earth Pressure	
Active Condition;	
Level Backfil	8H psf (rectangular distribution)

F. Method of Measurement; Basis of Payment for CONCRETE FACILITY STRUCTURE:

- The concrete structures will be paid under Specifications Section 503 - CONCRETE STRUCTURES on a lump sum basis. Measurement for payment will not apply.
- The Engineer will pay for the accepted concrete structures, both Facilities 1 and 2, on a contract lump sum basis. Payment will be full compensation for the work on both facilities that includes:
 - Demolition; saw cutting; disposing of existing materials;
 - Furnishing and installing reinforcing steel;
 - Furnishing and installing concrete foundations, site cast sample slabs, concrete slabs on grade and concrete retaining walls;
 - Concrete expansion joint materials;
 - Construction joints;
 - Stop log system;
 - Steel plates;
 - All filters bed materials (sand, gravel, geotextile fabrics);
 - Bollards;
 - Rain stops;
 - Platforms;
 - And furnishing labor, materials, equipment, tools and incidentals necessary to complete the work.
- For payment for the above items 1 and 2; refer to PROPOSAL SCHEDULE: ITEM NO. 503.1000 CONCRETE FOR FACILITY STRUCTURE.
- The Engineer will pay for excavation and backfill for foundations in accordance with and under Specifications SECTION 205 - EXCAVATION AND BACKFILL FOR BRIDGE AND RETAINING STRUCTURES.

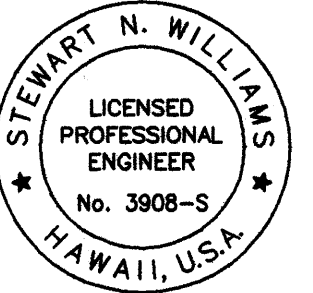


TYPICAL FOUNDATION DETAIL 1
NTS S-1 S-1



AT CORNERS AND
DISCONTINUOUS ENDS AT INTERSECTION

TYPICAL CONCRETE WALL DETAIL 2
NTS S-1 S-1

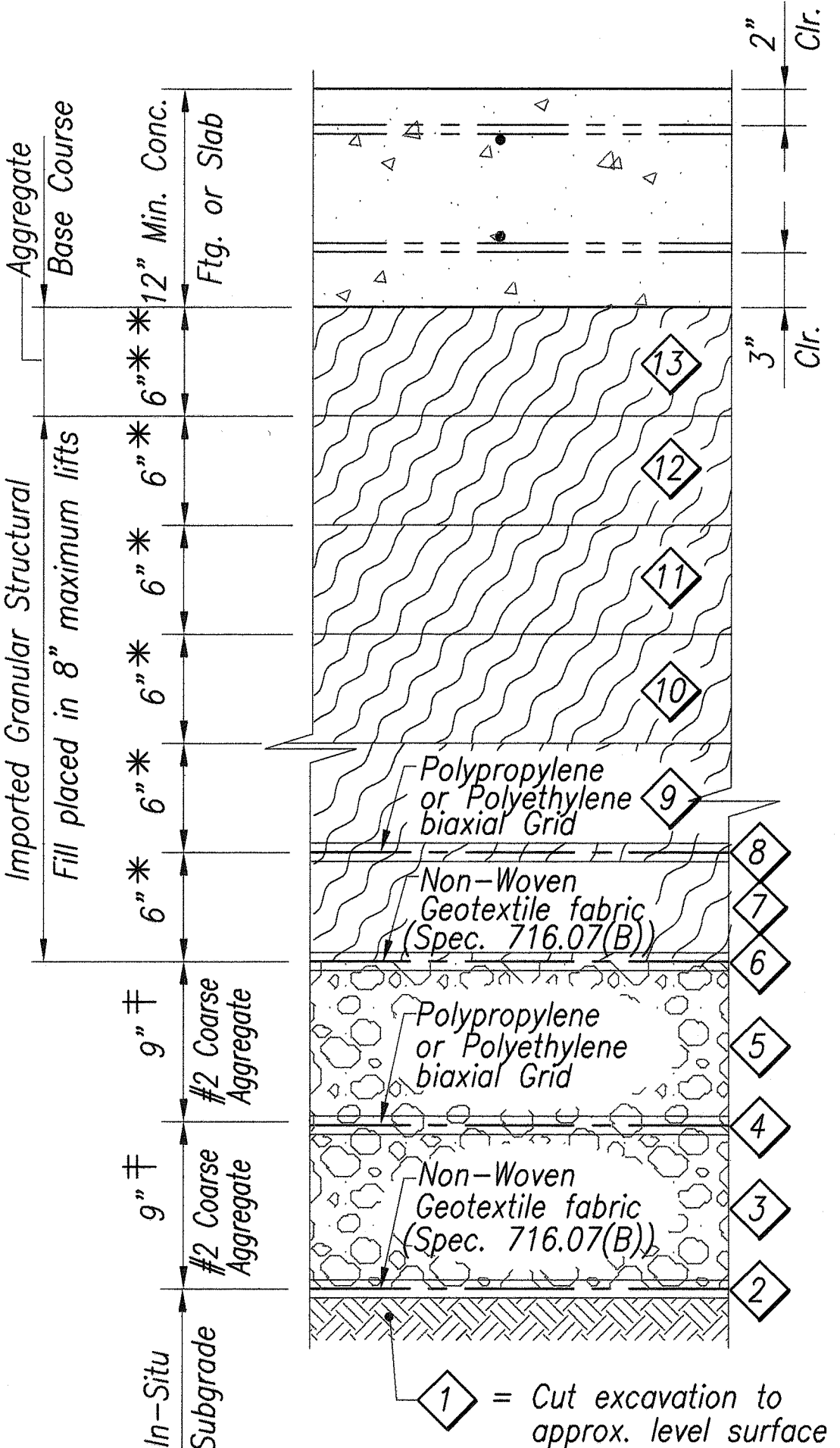


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Stewart N. Williams
4/30/2012
MITSUNAGA & ASSOCIATES, INC. EXP. DATE
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**GENERAL NOTES AND
TYPICAL DETAILS**
PEARL CITY DRYING BED FACILITY
Project No. HWY-0-01-08
Scale: As Noted Date: May 2010
SHEET No. S-1 OF 6 SHEETS

ORIGINAL PLAN	DATE
QUANTITY PREPARED BY	MITSUNAGA & ASSOCIATES
DRAWN BY	MITSUNAGA & ASSOCIATES
DESIGNED BY	MITSUNAGA & ASSOCIATES
QUANTITIES BY	MITSUNAGA & ASSOCIATES
CHECKED BY	
NOTE BOOK	
No.	

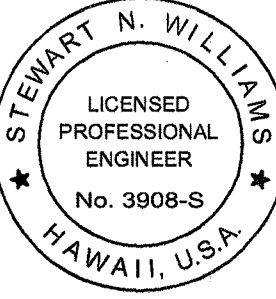
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-08	2010	C.O.ADD.23	34



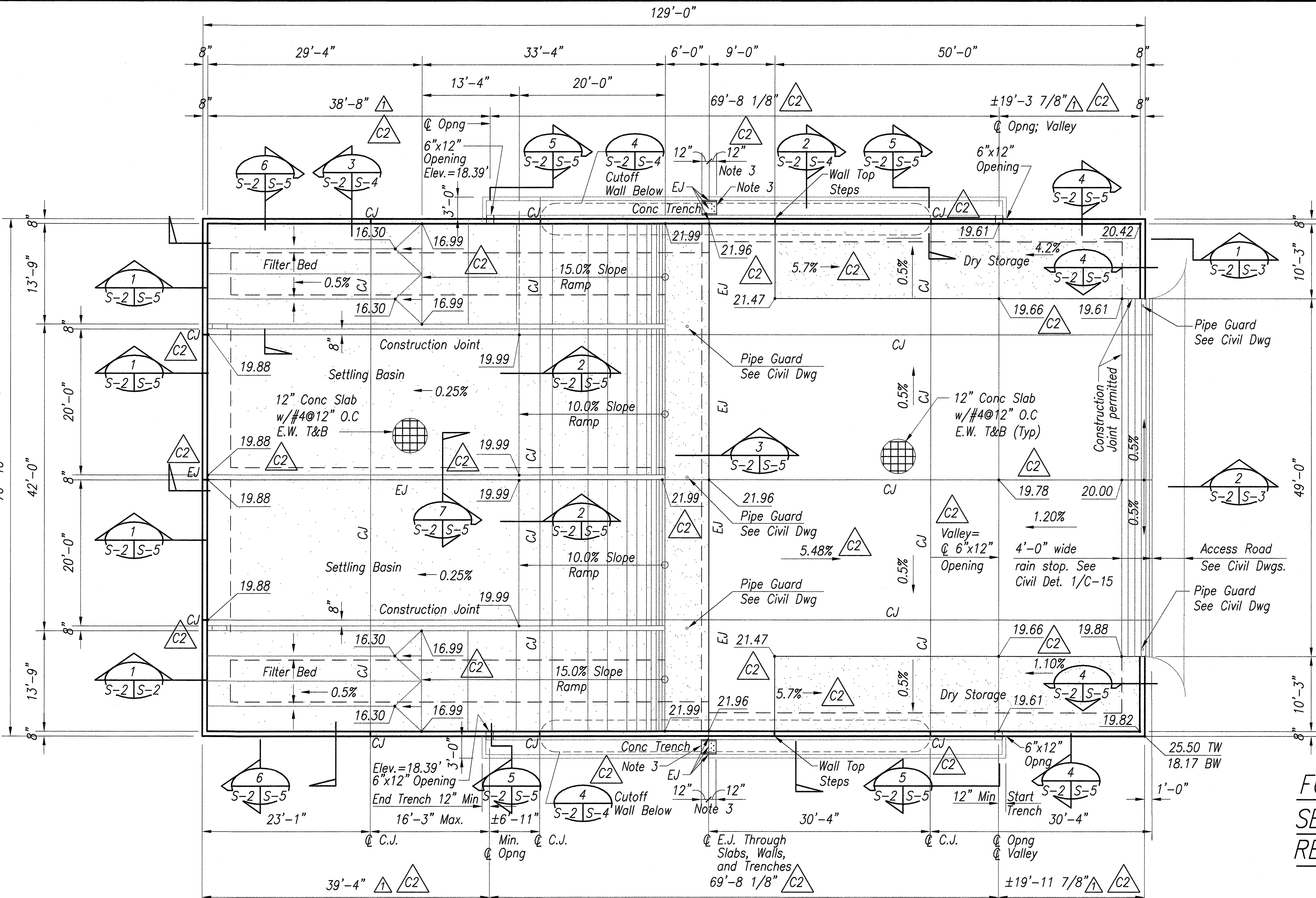
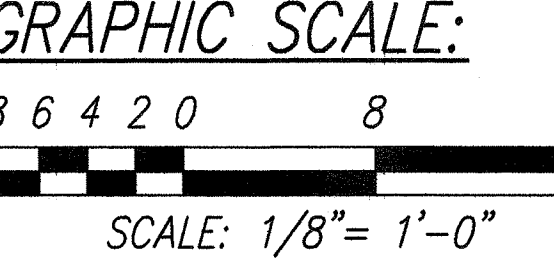
- Legends:**
- ① = Sequence
 - † = Compaction not required
 - * = Compacted lifts thickness / 90%
 - ** = Compacted lifts thickness / 95%

FOUNDATION CONSTRUCTION
SEQUENCE GEOTEXTILE FABRIC
REQUIRED Scale: 1 1/2" = 1'-0"

6/29/11	Coordinate Structural with Civil C2 Rev. 4/19/11
6/11/10	Corrected Trench location per Civil Sheet C-13.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DRYING BED FOUNDATION PLAN FACILITY NO. 1 PEARL CITY DRYING BED FACILITY Project No. HWY-0-01-08 Scale: As Noted Date: May 2010 SHEET No. S-2 OF 6 SHEETS	



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 MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2012
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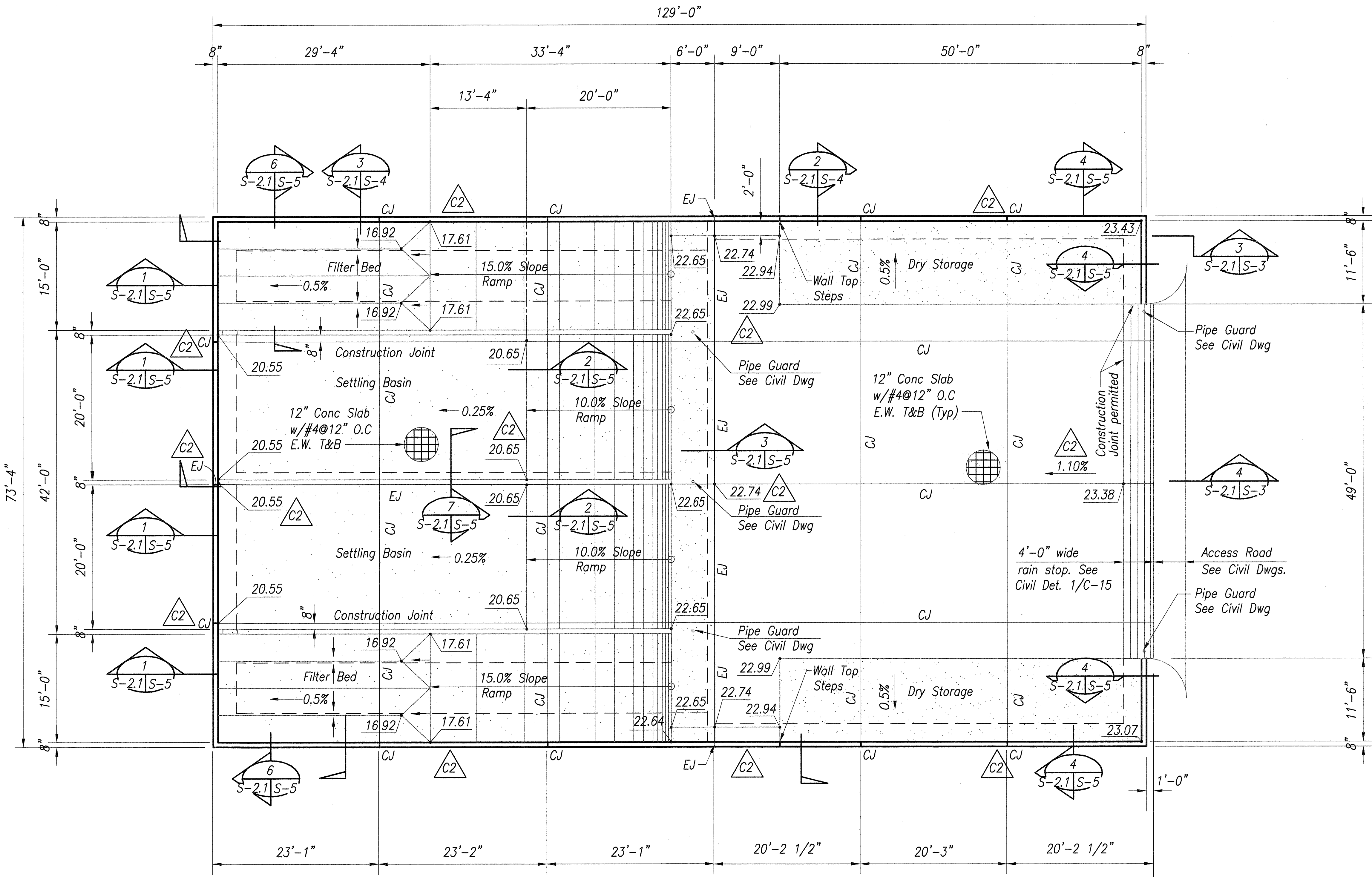


DRYING BED FOUNDATION PLAN - FACILITY NO. 1
 Scale: 1/8" = 1'-0"

- Note:**
- For Finished Floor and Wall Elevations, See Civil Dwg. Sht. C-7
 - For Foundation Construction Sequence, See S-2.
 - Conc. Trench Expansion Joint Cover Shall be Stainless Steel Min 1/8" thick x 1/4" x 2'-0" Long and centered on the Expansion Joint. Set in 1/4" Trench Recesses. Provide Min Stainless Flat head screws @ 6" o.c. at upstream Side of Joint. Screws shall be at Walls and trench bottom.
 - At trench joints - provide 1/2" x 1'-6" long Epoxy Coated Smooth Dowels.
- Legends:**
- CJ : Control Joint - See 9 S-2 S-5 and Note. 4.
 - EJ : Expansion Joint - See 3 S-2 S-5 & 7 S-2 S-5 and Note. 4.
 - At Wall CJ; EJ : See Standard Plan B-01

SURVEY PLOTTED BY	DATE
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ORIGINAL PLAN	
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No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-08	2010	C.O.24	34



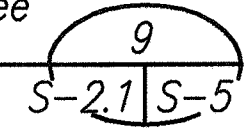
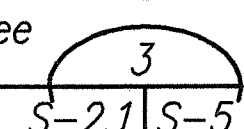
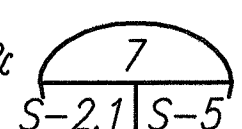
DRYING BED FOUNDATION PLAN – FACILITY NO. 2

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

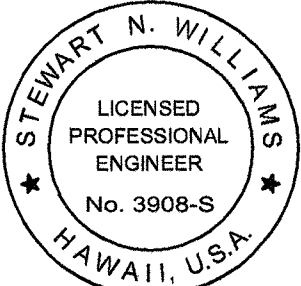
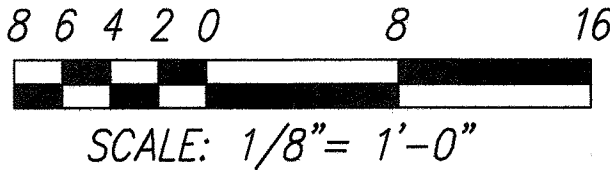
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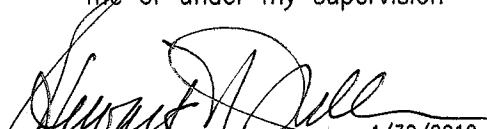
- For Finished Floor and Wall Elevations, See Civil Dwg's, Sht. C-7
- For Foundation Construction Sequence, See 1/S-2.

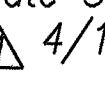
Legends:

CJ : Control Joint – See 
EJ : Expansion Joint – See  & 
 At Walls – See Std Plan B-01

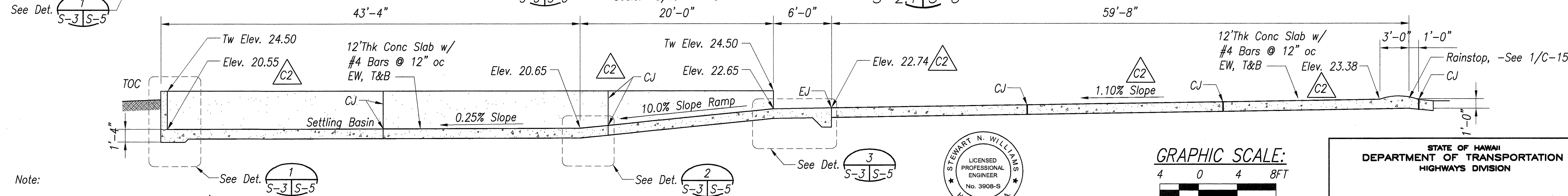
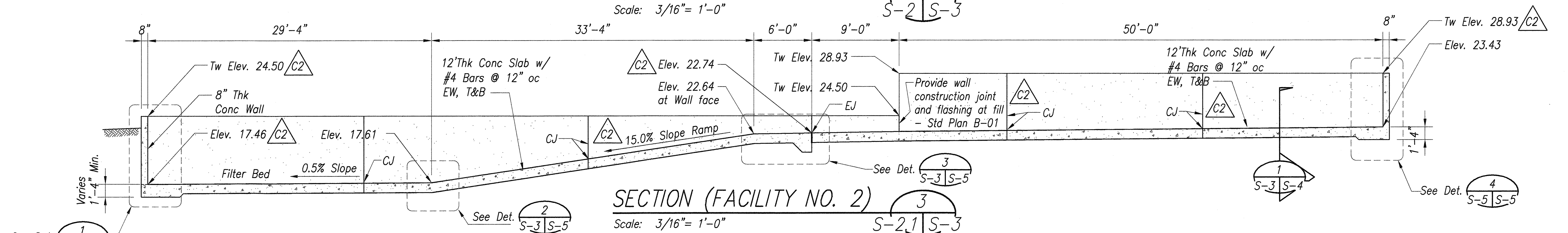
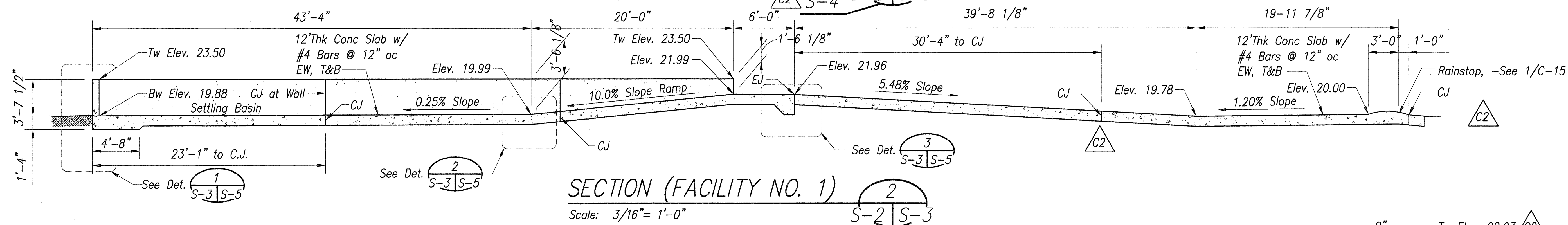
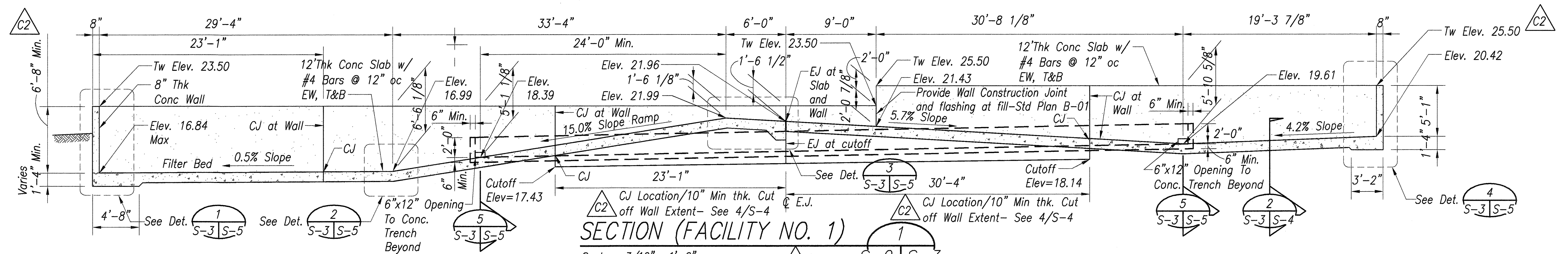
GRAPHIC SCALE:



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MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2012
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

6/29/11	 Coordinate Structural with Civil Rev.  4/19/11
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRYING BED FOUNDATION PLAN FACILITY NO. 2	
PEARL CITY DRYING BED FACILITY Project No. HWY-0-01-08	
Scale: As Noted	Date: May 2010
SHEET No. S-2.1 OF 6 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-08	2010	C.0.25	34



Note:

- See Note E.2 on Sht. S-1 and 1/S-2 For Over Excavation Required For Imported Granular Structural Fill.
- For Finished Floor and Wall Elevations, See Civil Dwg. Sht. C-7
- For Foundation Construction Sequence, See 1/S-2.

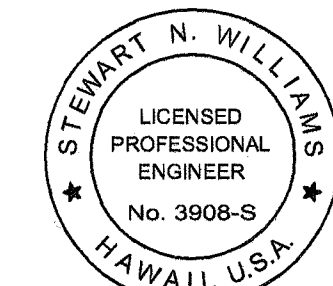
Legends:

CJ : Control Joint - See 9 S-3 S-5

EJ : Expansion Joint - See 3 S-3 S-5 & 7 S-3 S-5

Wall CJ; EJ : Std Plan B-01

SECTION (FACILITY NO. 2)
Scale: 3/16" = 1'-0"



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4/30/2012
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

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GRAPHIC SCALE:

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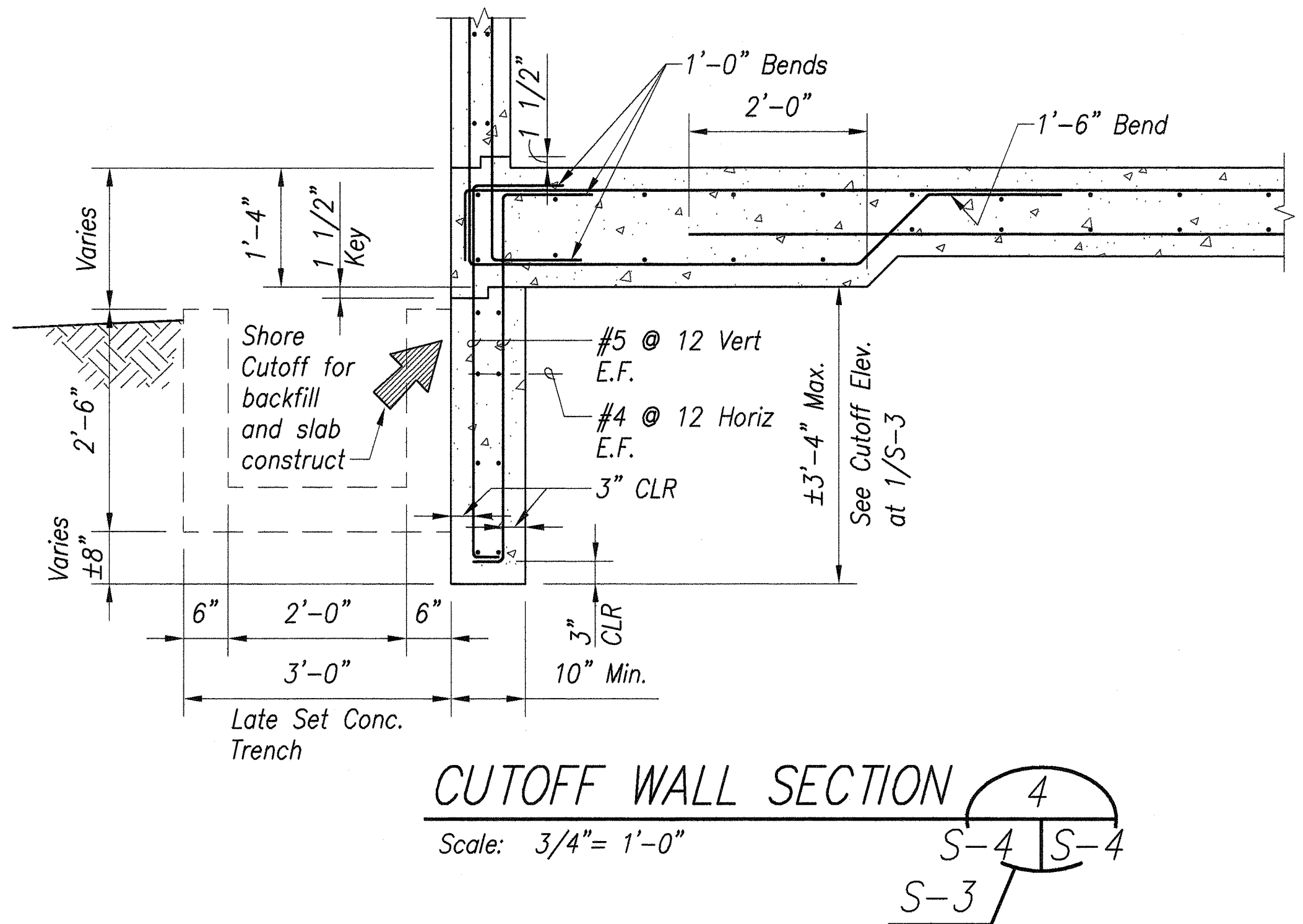
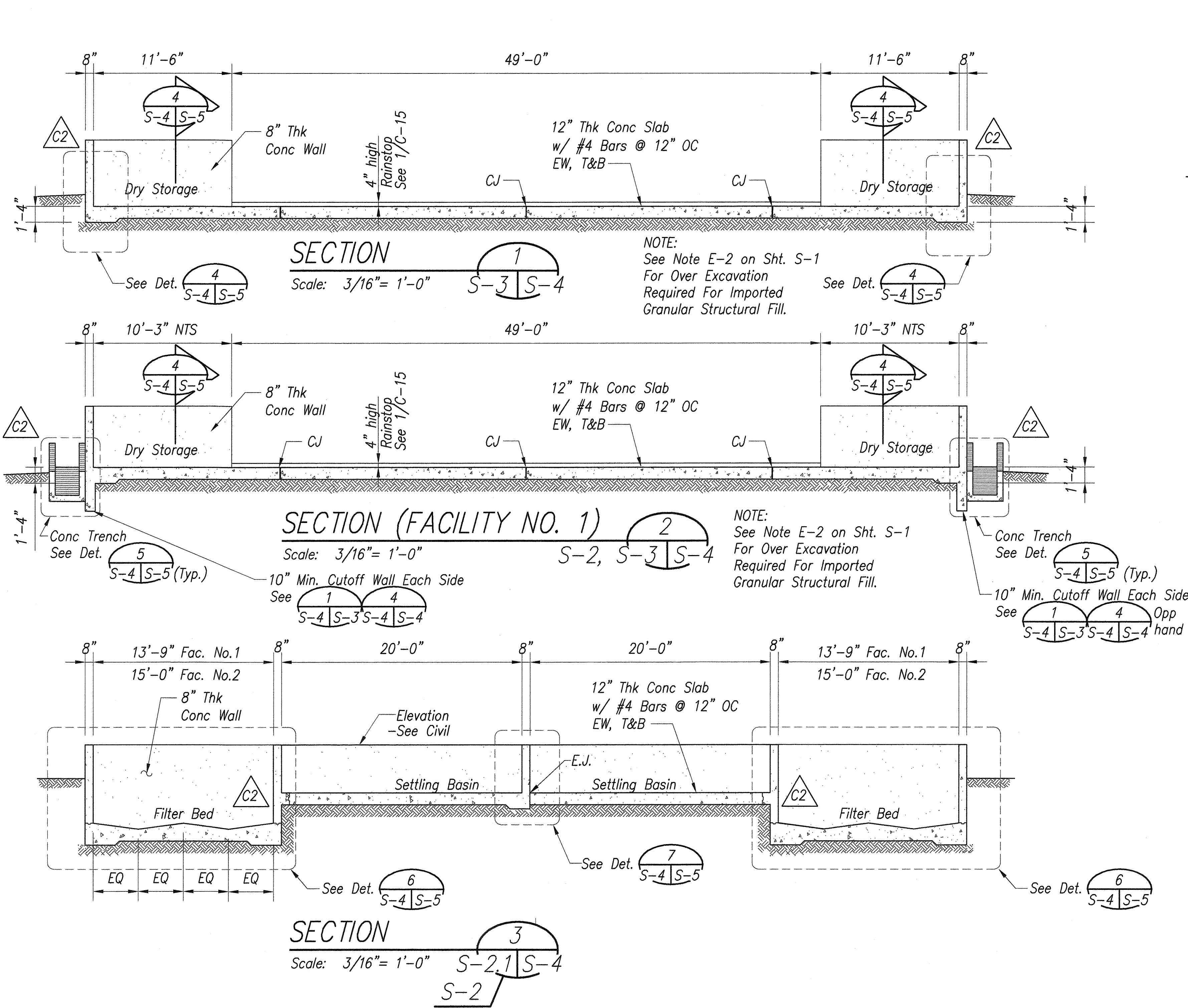
SCALE: 3/16" = 1'-0"

6/29/11	Coordinate Structural with Civil
DATE	REVISION
	Rev. 4/19/11

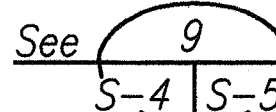
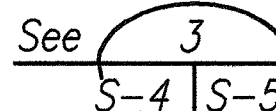
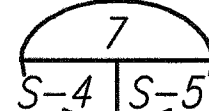
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
SECTIONS
PEARL CITY DRYING BED FACILITY
Project No. HWY-0-01-08
Scale: As Noted Date: May 2010
SHEET No. S-3 OF 6 SHEETS

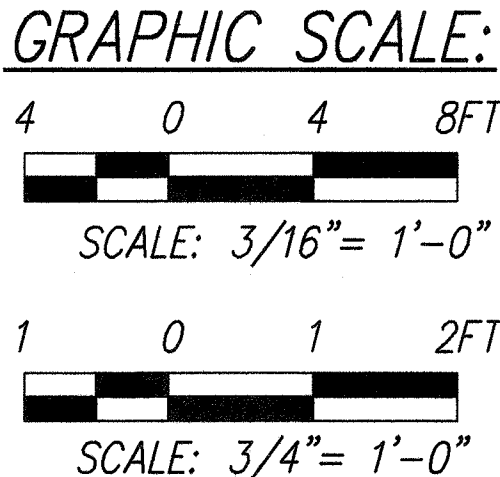
C.0.25

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-08	2010	C.O.26	34



- Note:
- See Note E-2 on Sheet S-1 For Over Excavation Required For Imported Granular Structural Fill.
 - For Finished Floor and Wall Elevations, See Civil Dwgs, Sht. C-7
 - For Foundation Construction Sequence, See 1/S-2.

- Legends:
- CJ : Control Joint - See 
- EJ : Expansion Joint - See  & 



STEVEN N. WILLIAMS
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HAWAII, U.S.A.

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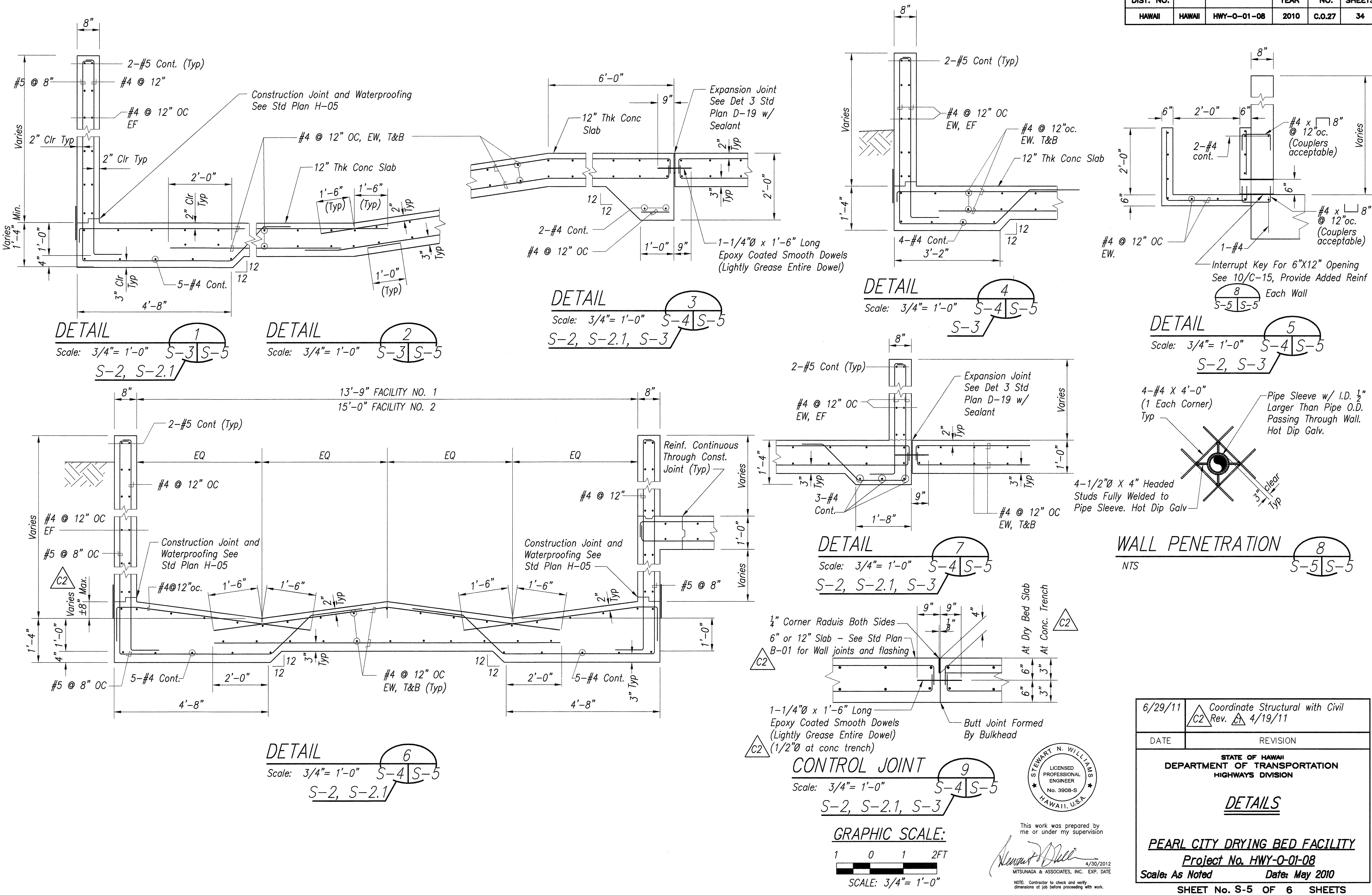
4/30/2012
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

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6/29/11	 Coordinate Structural with Civil Rev.  4/19/11
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>SECTIONS</u>	
PEARL CITY DRYING BED FACILITY Project No. HWY-0-01-08 Scale: As Noted Date: May 2010	
SHEET No. S-4 OF 6 SHEETS	

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-0-01-08	2010	C.O.27	34



SURVEY PLOTTED BY	DATE
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