

DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII

FOR THE
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS
H.C. 10836

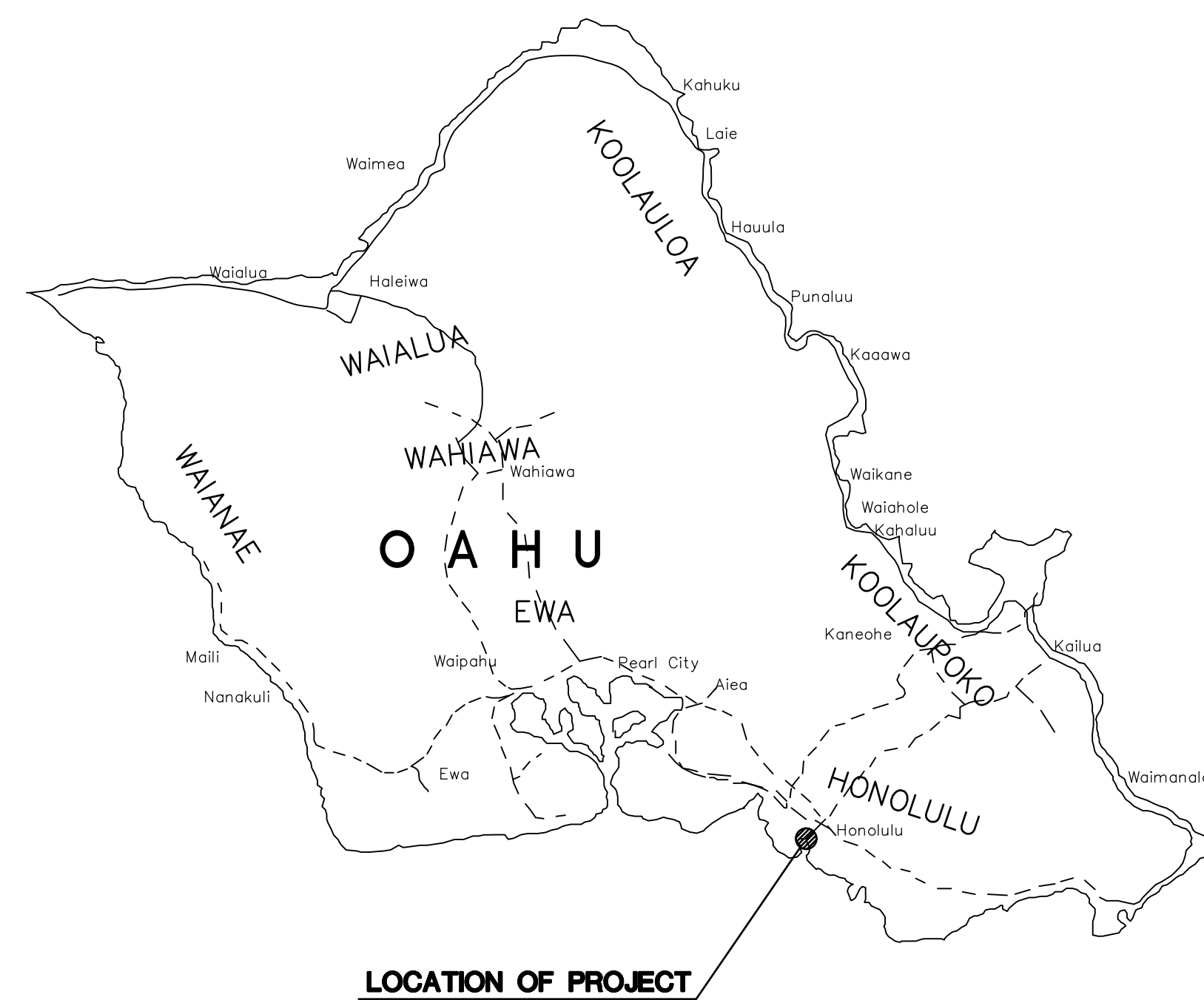
CONSULTANTS:

MKE ASSOCIATES LLC
STRUCTURAL ENGINEER

ECS, INC.
ELECTRICAL ENGINEER

ELEMENT ENVIRONMENTAL LLC
ENVIRONMENTAL ENGINEER

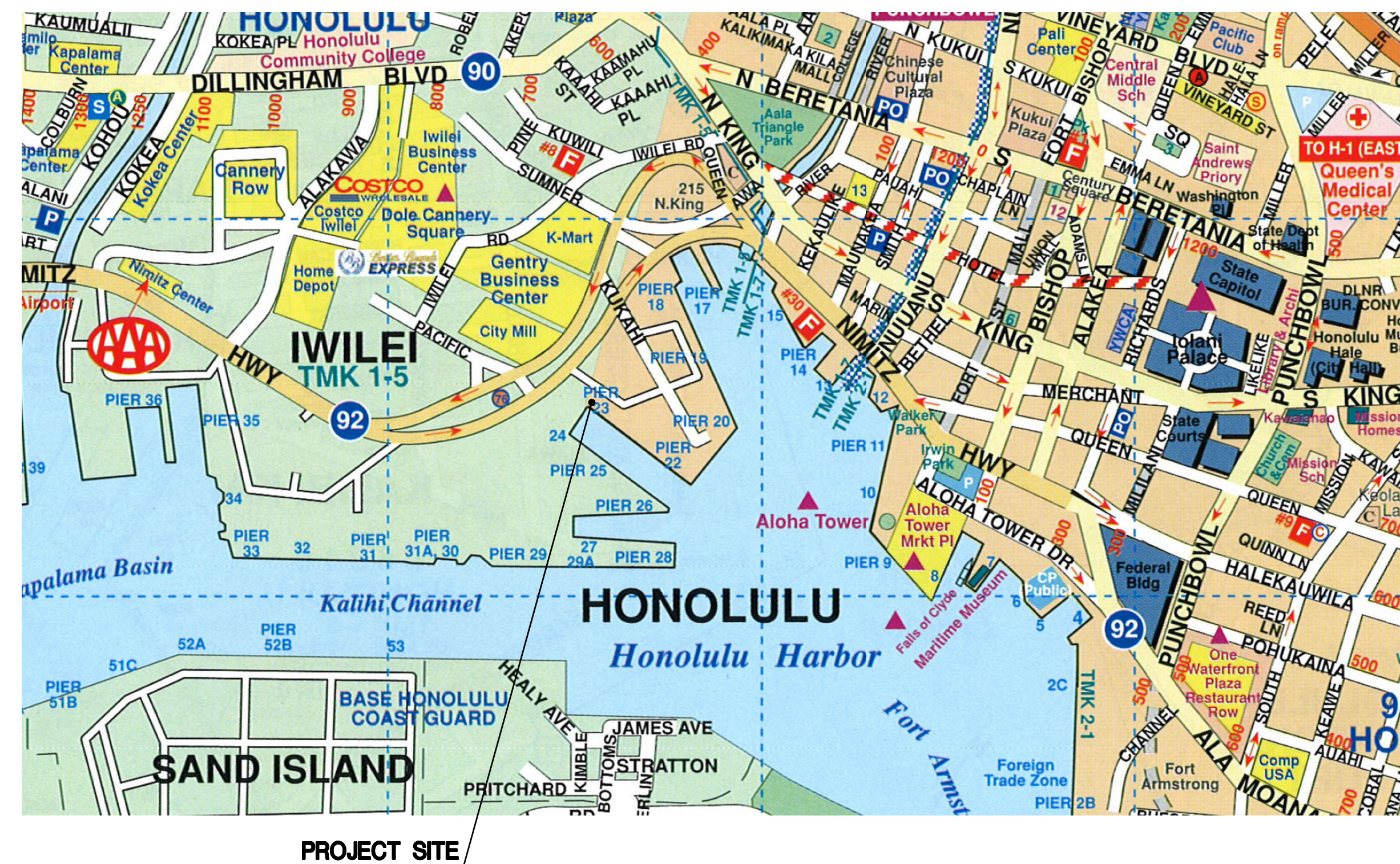
FUNG ASSOCIATES, INC.
HISTORIC ARCHITECT



ISLAND OF OAHU

LOCATION MAP

NOT TO SCALE



PROJECT SITE

VICINITY MAP

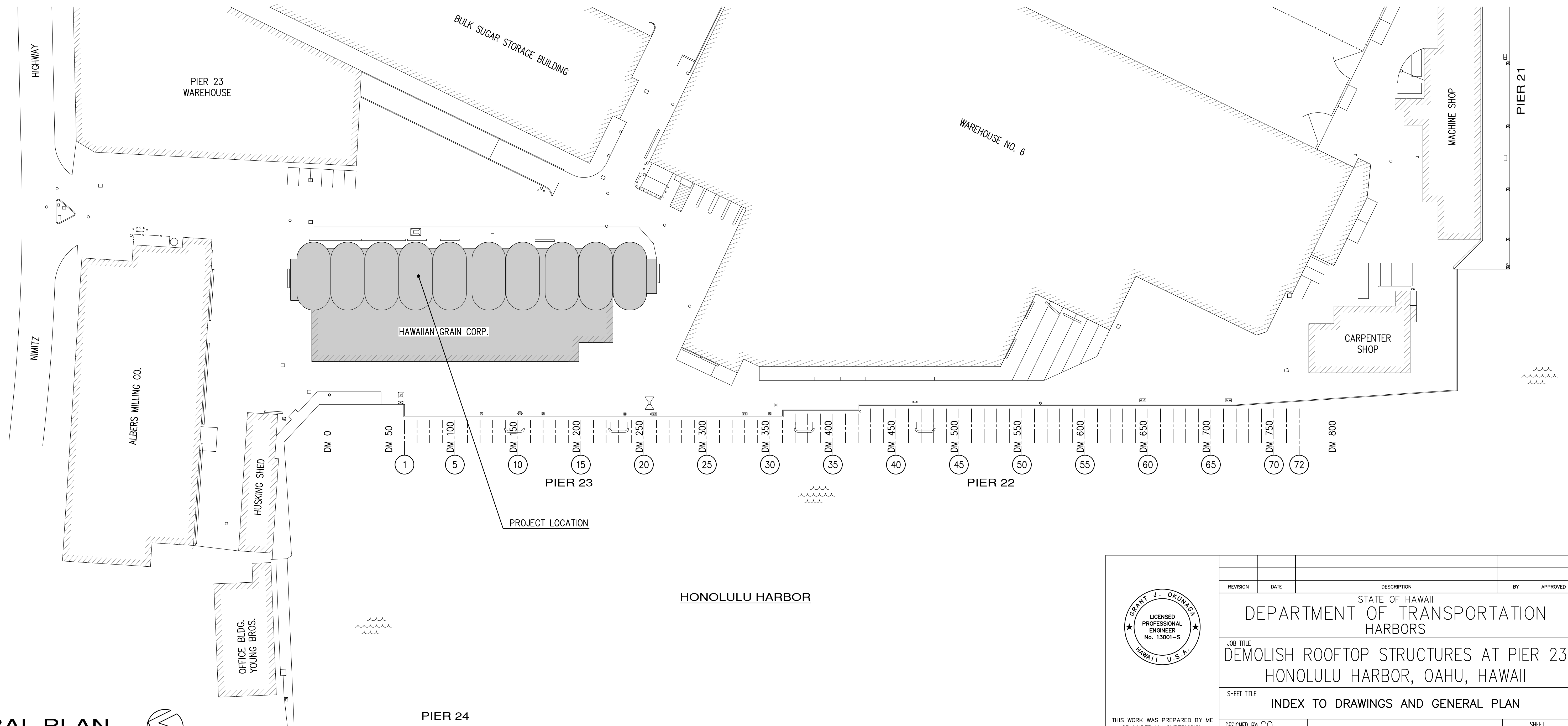
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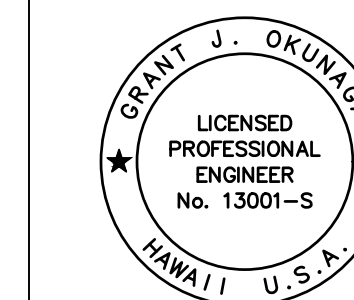
DEPARTMENT OF TRANSPORTATION STATE OF HAWAII		SHEET T-1
APPROVED BY: (A)	<i>April Johnson</i>	Jan 11, 2024
FOR DIRECTOR OF TRANSPORTATION		DATE 1 of 22 SHS

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GENERAL PLAN
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MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE INDEX TO DRAWINGS AND GENERAL PLAN				
DESIGNED BY: GO	JOB NUMBER		SHEET	
DRAWN BY: DL	H.C. 10836		T-2	
CHECKED BY: GM				
DATE: 12/2023				
SCALE: AS SHOWN	2 of 22 SHTS.			

STRUCTURAL NOTES:

GENERAL:

- WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE HAWAII STATE BUILDING CODE (AMENDED IBC, 2018 EDITION) AND THE HAWAII STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2005, FOR THE STATE OF HAWAII, UNLESS OTHERWISE INDICATED. HOWEVER, SHOULD THERE BE CONFLICTS, OR WHERE REFERENCE IS MADE TO PERFORMANCE CONFORMING TO OTHER STANDARDS THE MORE STRINGENT SHALL APPLY.
- THE CONTRACTOR SHALL COMPARE PLANS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS WITH EACH OTHER AND REPORT IN WRITING TO THE HARBORS CONSTRUCTION ENGINEER ALL INCONSISTENCIES AND OMISSIONS.
- THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND VERIFY FIELD CONDITIONS AND SHALL COMPARE SUCH FIELD MEASUREMENTS AND CONDITIONS WITH THE DRAWINGS BEFORE COMMENCING WORK. REPORT IN WRITING TO THE HARBORS CONSTRUCTION ENGINEER ALL INCONSISTENCIES AND OMISSIONS.
- CONTRACTOR SHALL RESOLVE ANY DISCREPANCIES AND QUESTIONS PRIOR TO THE START OF WORK. NO EXTRA PAYMENT SHALL BE ALLOWED ON ACCOUNT OF WORK MADE NECESSARY BY CONTRACTORS FAILURE TO VISIT THE SITE AND/OR FAILURE TO RESOLVE DISCREPANCIES AND QUESTIONS.
- THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND STRUCTURES IN AND ADJACENT TO THE PROJECT SITE. ANY DAMAGE TO THEM SHALL BE REPAIRED TO THE SATISFACTION OF THE HARBORS CONSTRUCTION ENGINEER AND PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE HARBORS OAHU DISTRICT MANAGER AND CONSTRUCTION ENGINEER FOR AN APPROVED STAGING AND STORAGE AREA AND FOR RESTRICTIONS OF HARBORS OPERATIONS OVER REPAIR AREAS.
- THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM HIS WORK AS REQUIRED FOR PUBLIC HEALTH AND SAFETY AND TO THE SATISFACTION OF THE HARBORS CONSTRUCTION ENGINEER. SHOULD THE STATE PERFORM ANY OF THE ABOVE WORK DUE TO NON-PERFORMANCE BY THE CONTRACTOR, THE CONTRACTOR AGREES TO REIMBURSE THE STATE FOR ALL COSTS INCURRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS OF CONSTRUCTION, WORKMANSHIP AND JOB SAFETY. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING AS REQUIRED FOR STABILITY OF STRUCTURAL MEMBERS AND SYSTEMS.
- ALL WORK SPECIFIED IN THE CONTRACT BUT NOT LISTED SEPARATELY SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.
- NOTES AND DETAILS ON THE PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. SHOULD THERE BE CONFLICTS BETWEEN THE REQUIREMENTS OF THE PLANS OR SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
- THE CONTRACTOR SHALL COMPLY WITH THE CLEAN WATER ACT AND THE STATE HARBORS STORMWATER MANAGEMENT PROGRAM. NO POLLUTANT IS ALLOWED TO BE DISCHARGED DIRECTLY OR INDIRECTLY THROUGH THE HARBORS SMALL MS4 OR OTHER POTENTIAL PATHWAY INTO HARBORS WATERS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR REGULATORY FINES OR PENALTIES THAT MAY BE IMPOSED BY ENVIRONMENTAL REGULATORY AGENCIES (EPA AND/OR STATE DOH) IN THE EVENT OF VIOLATIONS.
- HARBOR OPERATIONS TAKE PRECEDENCE OVER CONSTRUCTION ACTIVITY. THE CONTRACTOR MUST WORK AROUND THESE OPERATIONS SO THAT THE ADJACENT PIERS WILL REMAIN OPERATIONAL. WEEKEND WORK MAY BE REQUIRED.
- THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC BEST MANAGEMENT PRACTICE PLAN AND HEALTH AND SAFETY PLAN TO HARBORS THE HARBORS ENGINEERING BRANCH PRIOR TO THE START OF ANY CONSTRUCTION WORK. THE SITE SPECIFIC BMP PLAN SHALL COMPLY WITH ENVIRONMENTAL PROTECTION AND TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL ARTICLES IN THE SPECIFICATIONS AND PROPOSAL.
- IN CASE OF RELEASE OF HAZARDOUS SUBSTANCE, OIL, OR ENCOUNTER OF CONTAMINATED SOIL, THE CONTRACTOR SHALL NOTIFY APPROPRIATE FACILITY PERSONNEL, EMERGENCY RESPONSE AGENCIES, AND REGULATORY AGENCIES FOLLOWING NOTIFICATION PROCEDURES, AND SHALL NOTIFY THE HARBORS CONSTRUCTION ENGINEER IMMEDIATELY (I.E. WITHIN 24-HOURS). CONTACT INFORMATION MUST BE IN LOCATIONS THAT ARE READILY ACCESSIBLE AND AVAILABLE.

DESIGN CRITERIA:

- DESIGN LIVE LOADS
 - ROOF 20 PSF
- WIND
 - BASIC WIND SPEED=130 MPH
 - EXPOSURE D
 - TOPOGRAPHIC FACTOR $K_{zt}=1.0$
 - DIRECTIONALITY FACTOR $K_d=1.00$
 - RISK CATEGORY I
- SEISMIC
 - $S_s=0.576$
 - $S_1=0.168$
 - SITE CLASS D
 - RISK CATEGORY I
 - IMPORTANCE FACTOR $I=1.0$
 - SEISMIC DESIGN CATEGORY C

DEMOLITION NOTES:

- THE CONTRACTOR SHALL PLACE SEDIMENT CONTROL DEVICES, BOOMS, TARPULINS, STAGING, SCREENS AND OTHER DEVICES AS NECESSARY TO PREVENT AIR BORNE MATERIALS FROM LEAVING THE IMMEDIATE VICINITY OF THE SITE. THE CONTRACTOR SHALL CAPTURE AND DISPOSE OF ALL NEW GENERATED WASTES.
- THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL PROTECTION STANDARDS, LAWS AND REGULATIONS. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INCLUDING NOISE PERMIT, AS REQUIRED.
- CONTRACTOR SHALL ENSURE THAT DEMOLITION DEBRIS MEETS LANDFILL REQUIREMENTS FOR EXAMPLE:
 - CONCRETE DEBRIS SHALL HAVE ALL PROTRUDING REBAR TRIMMED.
 - LONGER ITEMS SHALL BE CUT INTO MANAGEABLE LENGTHS.
- PROTECT EXISTING WORK THAT IS TO REMAIN IN PLACE. REPAIR ITEMS THAT ARE DAMAGED TO THEIR ORIGINAL CONDITION OR BETTER.
- CONTRACTOR SHALL SUBMIT A BEST MANAGEMENT PLAN (BMP) FOR REVIEW AND APPROVAL BY THE HARBORS CONSTRUCTION ENGINEER. THE BMP PROCEDURES SHALL INCLUDE A DESCRIPTION OF METHODS AND PROCEDURES THAT WILL BE FOLLOWED FOR ENVIRONMENTAL PROTECTION AND SOLID WASTE MANAGEMENT.
- LEAD-BASED PAINT (LBP) AND ASBESTOS HAVE BEEN DETECTED IN THE EXISTING STRUCTURES. SEE HAZARDOUS MATERIAL REPORT TITLED, "LIMITED HAZARDOUS MATERIALS SURVEY, STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION, HARBORS DIVISION, DEMOLISH STORAGE SHED AND ASSOCIATED STRUCTURES AT PIER 23, HONOLULU HARBOR, OAHU, HAWAII," DATED OCTOBER 2022 BY ELEMENT ENVIRONMENTAL LLC. CONTRACTOR SHALL VERIFY LOCATION AND EXTENT OF ANY HAZARDOUS MATERIALS AND VERIFY APPROPRIATE METHOD FOR DEMOLITION PRIOR TO START OF WORK.
- THE DISTURBANCE OR DISLOCATION OF LEAD-CONTAINING OR ASBESTOS MATERIALS MAY CAUSE HAZARDOUS DUST TO BE RELEASED INTO THE ATMOSPHERE, THEREBY CREATING A POTENTIAL HEALTH HAZARD TO WORKERS AND NEIGHBORING OCCUPANTS. APPRISE ALL WORKERS, SUPERVISORY PERSONNEL, SUBCONTRACTORS, AND CONSULTANTS WHO WILL BE AT THE JOB SITE OF THE SERIOUSNESS OF THE HAZARD AND OF THE PROPER WORK PROCEDURES WHICH MUST BE FOLLOWED.
- PROVIDE BARRIERS WHERE APPROPRIATE TO SAFEGUARD WORKERS AND NEIGHBORING OCCUPANTS FROM EXPOSURE TO HAZARDOUS MATERIAL, AIRBORNE, OR OTHERWISE. SUCH MEASURES SHALL INCLUDE THE PROCEDURES AND METHODS DESCRIBED IN THE SPECIFICATIONS AND COMPLIANCE WITH REGULATIONS OF APPLICABLE FEDERAL, STATE AND LOCAL AGENCIES.

CONCRETE:

- CONCRETE SHALL BE REGULAR WEIGHT HARD ROCK CONCRETE AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- MAXIMUM WATER TO CEMENTITIOUS MATERIALS RATIO SHALL BE 0.40.
- CONCRETE DELIVERY TICKETS SHALL RECORD ALL FREE WATER IN THE MIX: AT BATCHING BY PLANT, FOR CONSISTENCY BY DRIVER, AND ANY ADDITIONAL REQUEST BY CONTRACTOR IF PERMITTED BY THE MIX DESIGN.
- ALL INSERTS, ANCHOR BOLTS, PLATES, AND OTHER ITEMS TO BE CAST IN THE CONCRETE SHALL BE HOT-DIPPED GALVANIZED UNLESS OTHERWISE NOTED.
- REINFORCING BARS, ANCHOR BOLTS, INSERTS, AND OTHER ITEMS TO BE CAST IN THE CONCRETE SHALL BE SECURED IN POSITION PRIOR TO PLACEMENT OF CONCRETE.
- THE CONTRACTOR SHALL LOCATE CONSTRUCTION JOINTS SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE AND TO MINIMIZE SHRINKAGE STRESSES. SUBMIT LOCATION OF CONSTRUCTION JOINTS TO THE ARCHITECT FOR APPROVAL, UNLESS OTHERWISE NOTED.
- NON-SHRINK GROUT SHALL BE A PREMIXED NON-METALLIC FORMULA, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 1 DAY AND 5,000 PSI IN 28 DAYS.

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615/A615M, GRADE 60.
- CLEAR CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
 - WALLS
 - FACES EXPOSED TO EARTH OR WEATHER 1-1/2"
 - INTERIOR FACES 1"
 - STRUCTURAL SLABS
 - FACES EXPOSED TO EARTH OR WEATHER 1-1/2"
 - INTERIOR FACES 1"
- REINFORCING STEEL SHALL BE SPLICED WHERE INDICATED ON PLANS. PROVIDE LAP SPlice LENGTH OF 48 BAR DIAMETERS, UNLESS OTHERWISE NOTED.
- MECHANICAL SPlice CONNECTORS SHALL DEVELOP IN TENSION 125 PERCENT OF THE SPECIFIED MINIMUM YIELD STRENGTH OF REINFORCING BARS.
- BAR BENDS AND HOOKS SHALL BE "STANDARD HOOKS" IN ACCORDANCE WITH ACI 318.
- EPOXY SHALL BE SIMPSON SET-3G HIGH STRENGTH EPOXY ADHESIVE AS MANUFACTURED BY SIMPSON STRONG TIE CO., INC. OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

STRUCTURAL STEEL:

- FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL OF STEEL CONSTRUCTION, FOURTEENTH EDITION.
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A36/A36M UNLESS OTHERWISE NOTED.
- ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 36, GALVANIZED.
- WELDS AND WELDING PROCEDURES SHALL CONFORM TO THE STRUCTURAL WELDING CODE AWS D1.1 OF THE AMERICAN WELDING SOCIETY.
- WELDING SHALL BE PERFORMED BY WELDERS PREQUALIFIED FOR WELDING PROCEDURES TO BE USED.
- WELDING ELECTRODES SHALL BE E70XX.
- ALL STEEL SHALL BE PRIME PAINTED IN THE SHOP.

STEEL DECK:

- STEEL DECK AND ACCESSORIES SHALL BE OF THE TYPE AND GAGE CALLED FOR ON THE DRAWINGS.
- STEEL DECK AND ACCESSORIES SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A653/A653M SS GRADE 50 WITH G60 [690] GALVANIZED COATING.
- MINIMUM BEARING OF DECKING ON SUPPORTS SHALL BE 2 INCHES.
- WELDING OF METAL DECK SHALL BE PERFORMED BY CERTIFIED LIGHT GAGE STEEL WELDERS.

CONCRETE REPAIR MATERIALS:

- PATCHING COMPOUND FOR REPAIRING TOP SURFACE SPALLS SHALL BE SIKACRETE 211 SCC PLUS, OR APPROVED EQUAL.
- PATCHING COMPOUND FOR REPAIRING VERTICAL AND SOFFIT SPALLS IN LIFTS SHALL BE SIKAQUICK VOH WITH LATEX R, OR APPROVED EQUAL.
- REPAIR MORTAR FOR SLOPED ROOF OVERLAY SHALL BE SIKAQUICK VOH WITH LATEX R, OR APPROVED EQUAL.
- ANTI-CORROSION COATING WITH A MINIMUM 7 DAY OPEN TIME FOR EMBEDDED BARE STEEL AND NON-FACTORY COATED REINFORCING STEEL SHALL BE SIKA ARMATEC 110 EPOCEM, OR APPROVED EQUAL. PATCHING COMPOUND AND ANTI-CORROSION COATING SHALL BE FROM THE SAME MANUFACTURER.
- SNAP TIES, TIE WIRES AND INSERTS SHALL BE PLASTIC OR STAINLESS STEEL.

PREPARATION OF SUBSTRATE AND REINFORCING STEEL FOR SPALL REPAIRS:

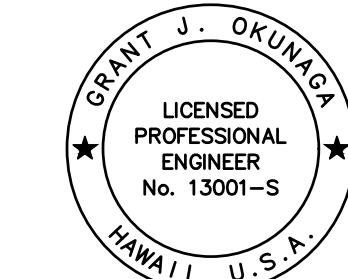
- SURFACE PREPARATION FOR SPALL REPAIRS SHALL FOLLOW THE INTERNATIONAL CONCRETE REPAIR INSTITUTE (ICRI) GUIDELINE NO. 310.1R-2008.
- ANY ELEMENT BEING REPAIRED SHALL NOT BE SUBJECTED TO LIVE LOADS DURING THE PERIOD STARTING FROM THE REMOVAL OF EXISTING CONCRETE UNTIL THE REPAIR CONCRETE HAS BEEN ALLOWED TO CURE FOR 7 DAYS OR OBTAINED A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.
- THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES IN THE VICINITY OF REMOVAL WORK TO IDENTIFY SPALLS AND DELAMINATIONS.
- PREPARATION OF SUBSTRATE AND REINFORCING STEEL FOR SPALL REPAIRS SHALL BE PERFORMED IN THE ORDER LISTED BELOW.
- THE SPALLED AND DELAMINATED CONCRETE SHALL BE COMPLETELY REMOVED TO SOUND SUBSTRATE AND BEYOND THE EXTENT OF THE CORRODED REINFORCING. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO AVOID DAMAGING THE UNDERLYING SOUND CONCRETE.
- THE SPALLED AND DELAMINATED EDGES SHALL BE SQUARED BY SAW-CUTTING AND CHIPPING THE CONCRETE AT THE PERIMETER BEYOND THE REMOVAL AREA AS NECESSARY TO ATTAIN A MINIMUM DEPTH OF 3/4 IN. AND TO PREVENT FEATHER EDGE CONDITIONS. EXERCISE GREAT CARE TO AVOID CUTTING OR DAMAGING ANY EXISTING EMBEDDED REINFORCING STEEL. ANGLES BETWEEN ADJACENT SAW-CUTS AROUND THE PERIMETER SHALL NOT BE LESS THAN 90 DEGREES AND THE SHAPE OF EACH PATCH SHALL NOT BE IRREGULAR.
- FOR ANY EXPOSED REINFORCEMENT WITHIN THE REPAIR AREA, ADDITIONAL CONCRETE SHALL BE REMOVED FOR A MINIMUM 3/4 IN. CLEAR SPACE MEASURED RADIALLY AROUND THE BARS.
- EXISTING CONCRETE SURFACES WITHIN THE REPAIR AREAS SHALL BE ROUGHENED TO ENSURE PROPER ADHESION WITH REPAIR CONCRETE.
- ALL EXPOSED CONCRETE SURFACES AND REINFORCING BARS IN THE REPAIR AREA SHALL BE SANDBLASTED OR NEEDLE GUNNED TO REMOVE ALL SCALE, LOOSE RUST, DEBRIS AND DETERIORATED CONCRETE. ANY AREAS NOT PATCHED MORE THAN 48 HOURS AFTER SANDBLASTING SHALL BE RECLEANED.
- ANY REINFORCEMENT WHICH HAS LOST MORE THAN 20 PERCENT OF ITS CROSS-SECTIONAL AREA SHALL BE CALLED TO THE ATTENTION OF THE HARBORS CONSTRUCTION ENGINEER.
- REINFORCING BARS, INSERTS, AND OTHER ITEMS TO BE CAST IN THE CONCRETE SHALL BE SECURED IN POSITION PRIOR TO PLACEMENT OF CONCRETE.
- THE PATCH AREA SHALL BE CLEANED OF ALL DUST AND DEBRIS JUST PRIOR TO PATCHING WITH HIGH PRESSURE, OIL-FREE COMPRESSED AIR.

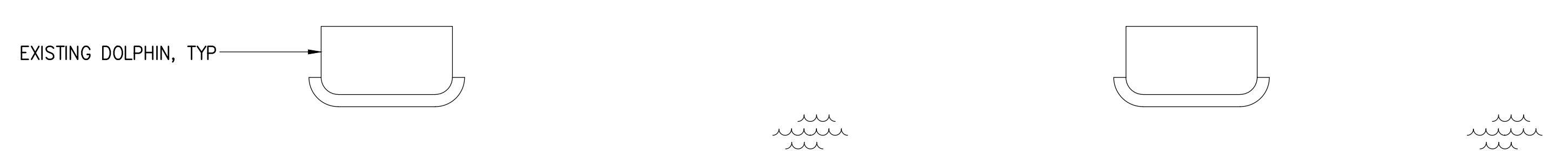
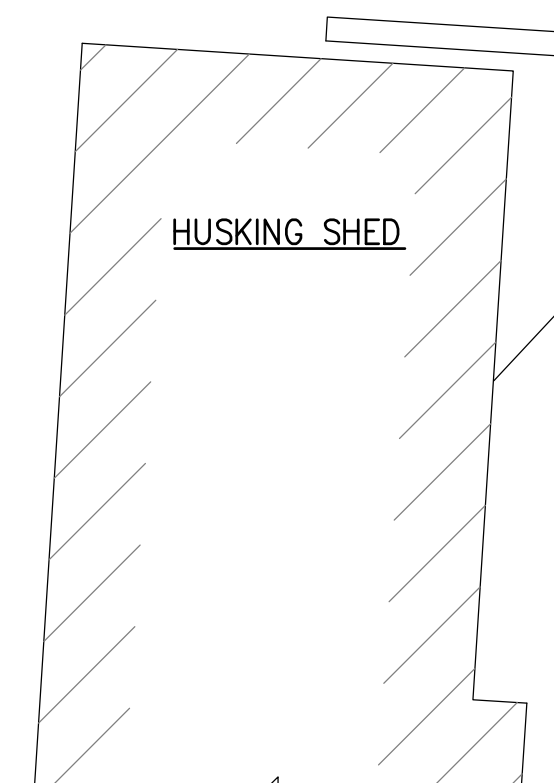
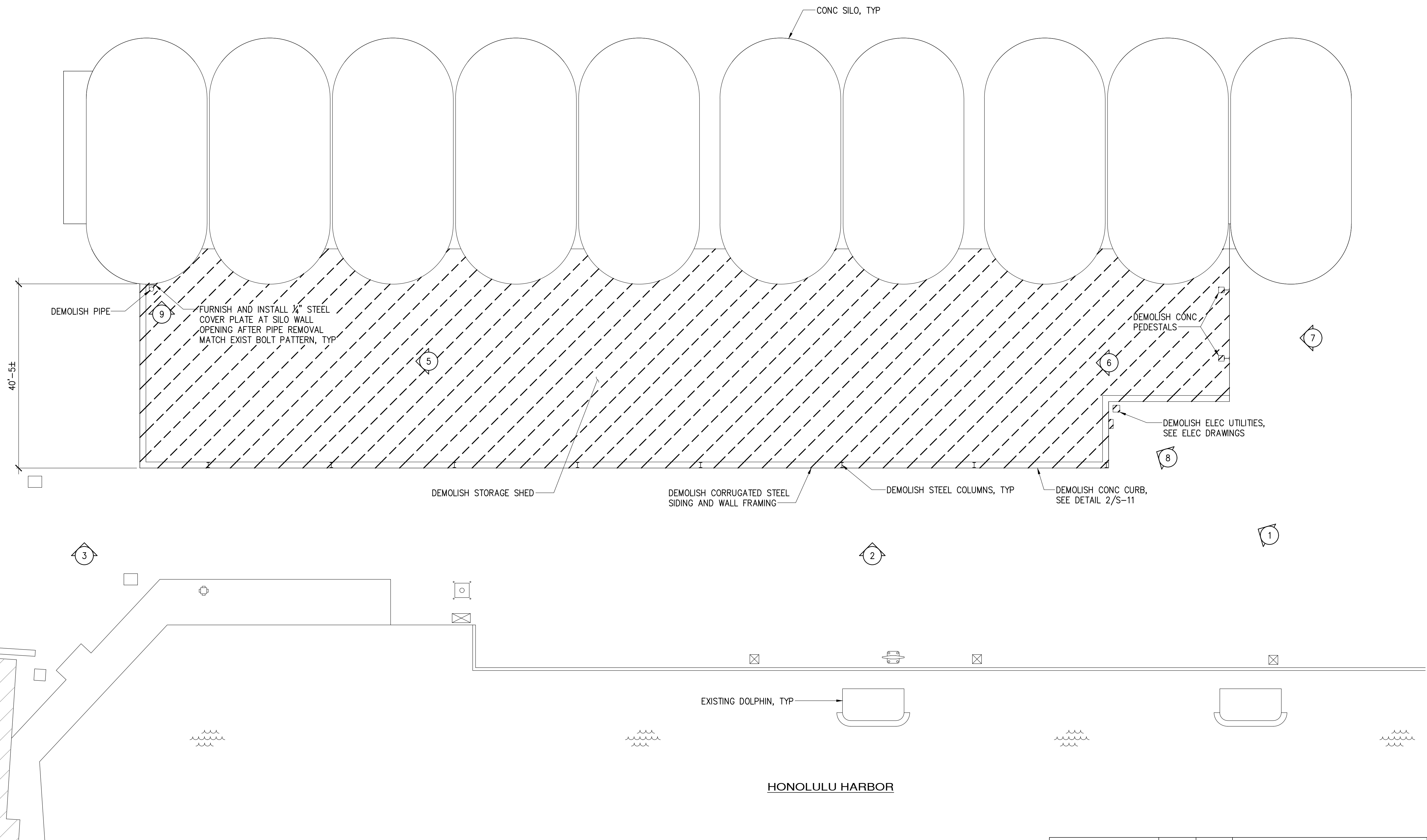
WATERPROOFING:

- ROOF WATERPROOFING SYSTEM SHALL BE SIKALASTIC-641 LO-VOC ROOFING SYSTEM OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, INCLUDING PREPARATION OF SUBSTRATES WITH CRACKS AND JOINTS.
- EXPANSION JOINT SHALL BE ROOFJOINT BY SIKA EMSEAL OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

ROOF HATCH:

- ROOF HATCH SHALL BE AN ALUMINUM SECURITY ROOF HATCH BY BABCOCK-DAVIS, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

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	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
	JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
	SHEET TITLE STRUCTURAL NOTES				
DESIGNED BY: GO	JOB NUMBER			SHEET	
DRAWN BY: DL	H.C. 10836			S-1	
CHECKED BY: GM	DATE: 12/2023			3 of 22 SHTS.	
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LEGEND:

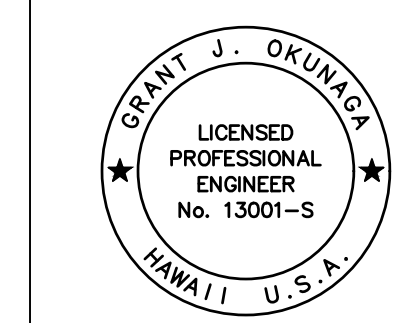
PHOTOGRAPH LOCATIONS, SEE SHEET S-15 FOR PHOTOGRAPHS

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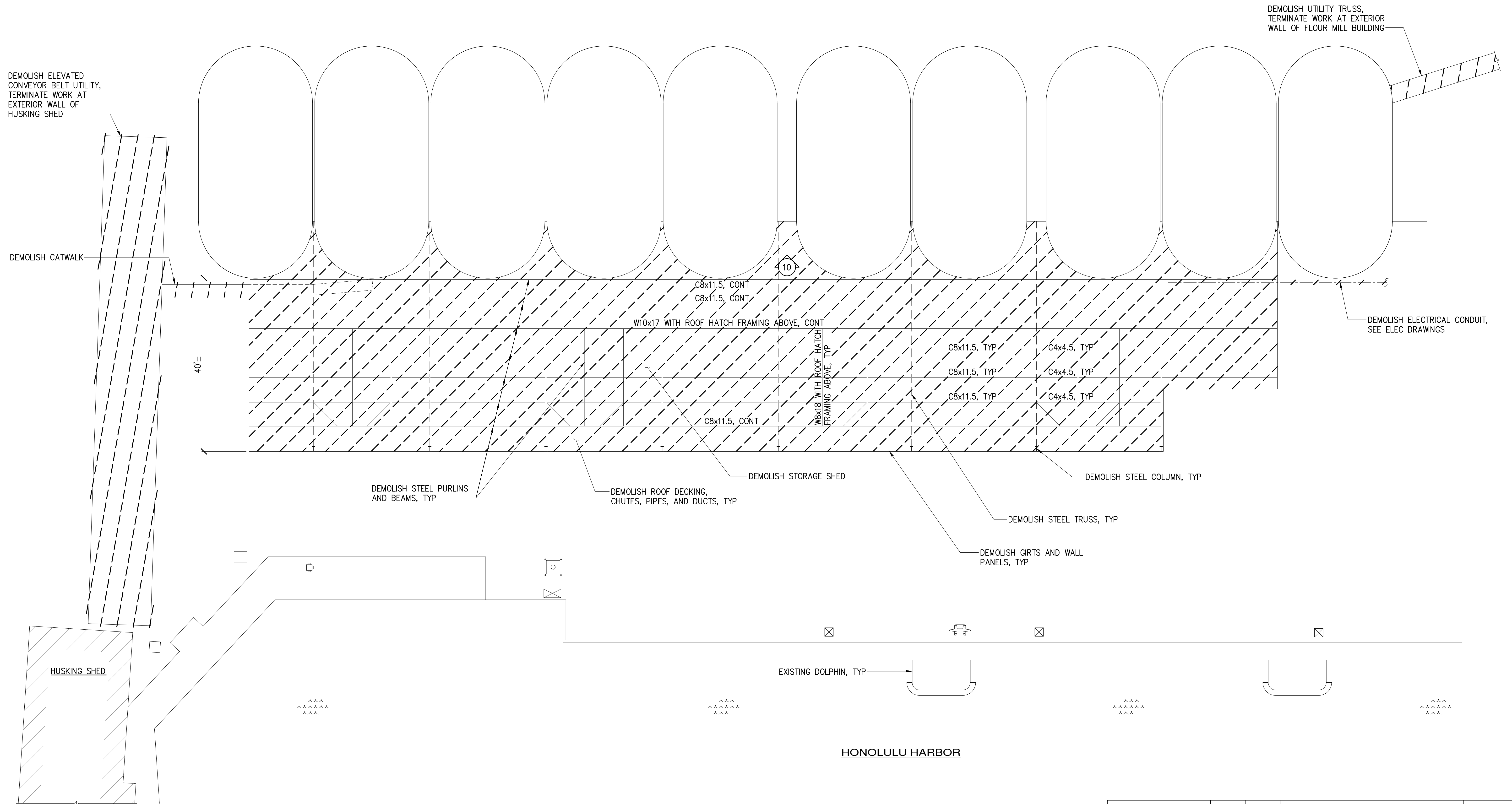
GROUND FLOOR DEMOLITION PLAN

SCALE: 3/32" = 1'-0"



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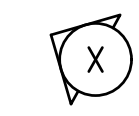
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SHEET TITLE GROUND FLOOR DEMOLITION PLAN				
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DRAWN BY: DL				JOB NUMBER H.C. 10836
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SCALE: AS SHOWN				4 OF 22 SHEETS



SHED ROOF DEMOLITION PLAN
SCALE: 3/32" = 1'-0"

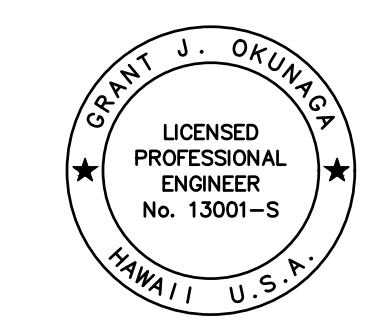


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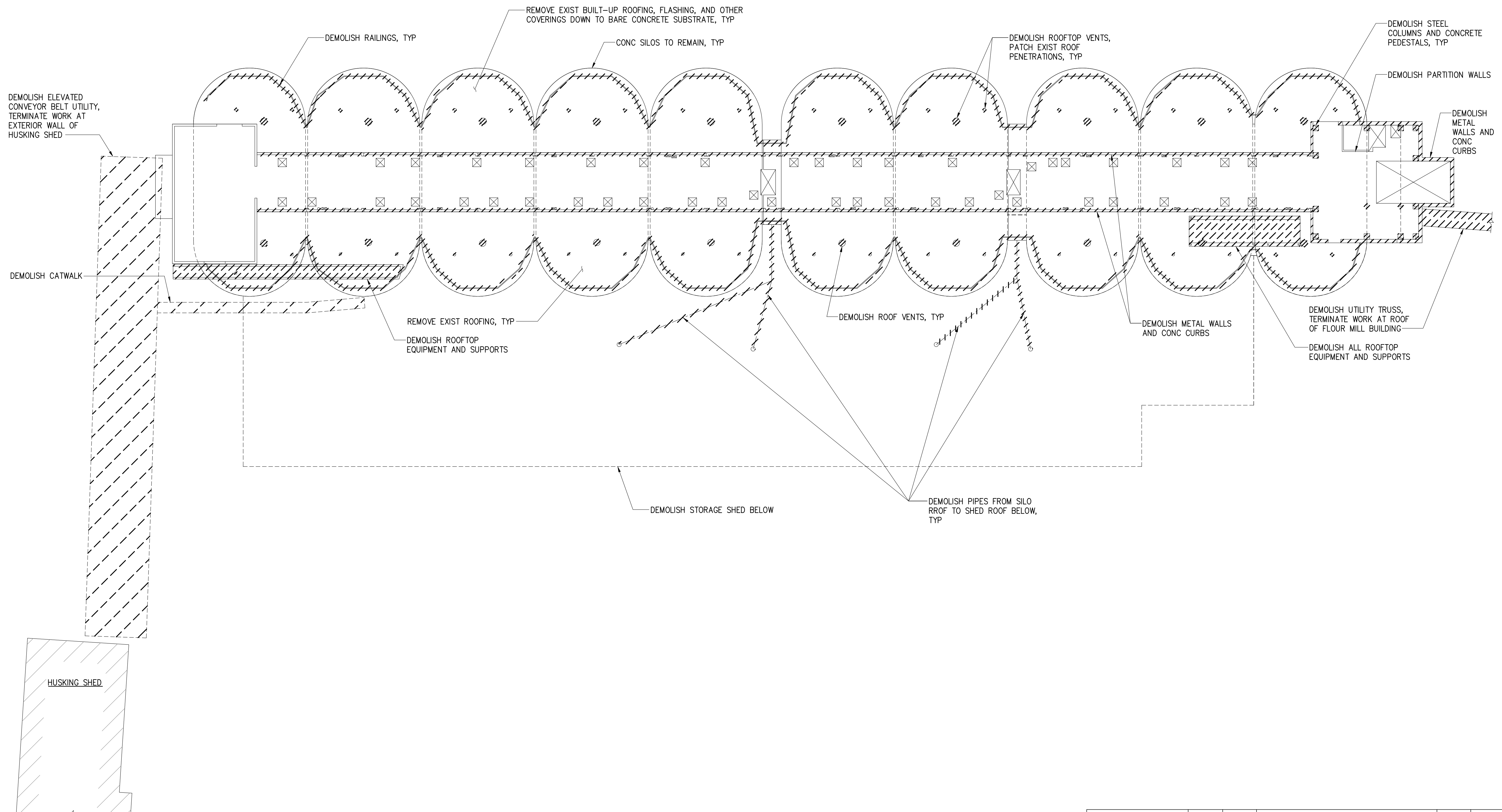
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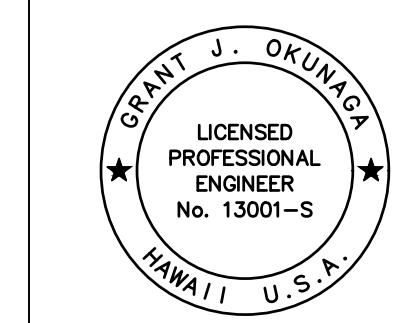


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SHEET TITLE SHED ROOF DEMOLITION PLAN				
DESIGNED BY: GO				SHEET S-3
DRAWN BY: DL				JOB NUMBER H.C. 10836
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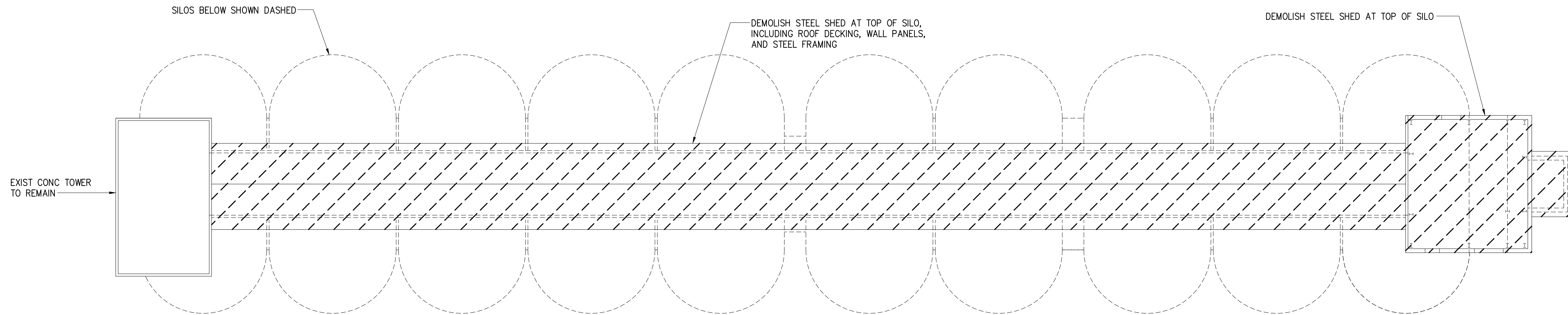


SILO ROOF – FLOOR DEMOLITION PLAN
 SCALE: 3/32" = 1'-0"

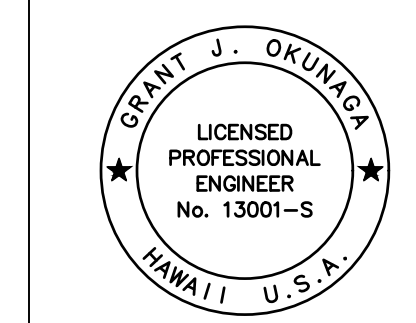


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				SHEET S-4 6 of 22 SHTS.

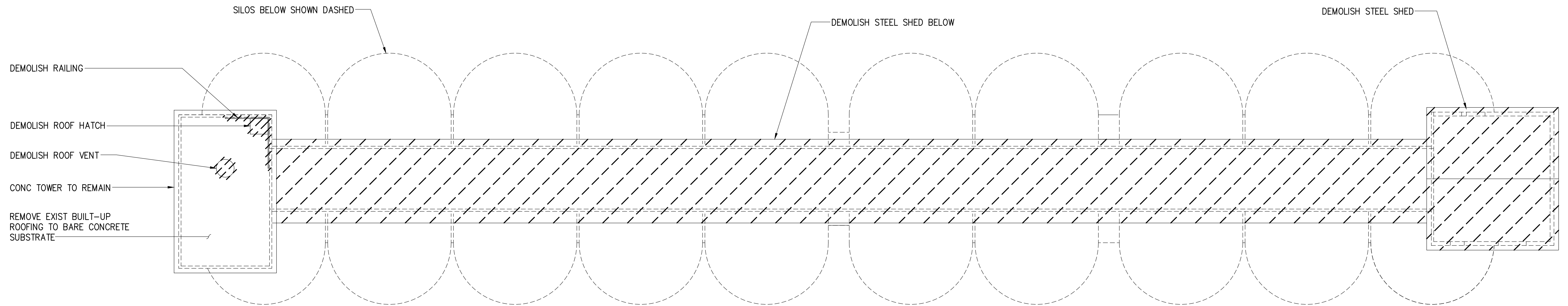


SILO ROOF – LOWER ROOF DEMOLITION PLAN
 SCALE: 3/32" = 1'-0"



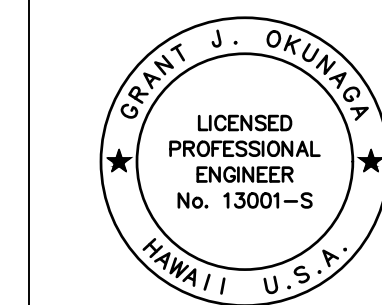
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 OR UNDER MY SUPERVISION
 EXP. 4-30-24
Grant J. Okuniga
 MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE SILO ROOF – LOWER ROOF DEMOLITION PLAN				
DESIGNED BY: GO				SHEET S-5
DRAWN BY: DL				JOB NUMBER H.C. 10836
CHECKED BY: GM				
DATE: 12/2023				
SCALE: AS SHOWN				7 of 22 SHTS.



SILO ROOF – UPPER ROOF DEMOLITION PLAN

SCALE: 3/32" = 1'-0"



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EXP. 4-30-24
Grant J. Okuniga
MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE SILO ROOF – UPPER ROOF DEMOLITION PLAN				
DESIGNED BY: GO				SHEET
DRAWN BY: DL				S-6
CHECKED BY: GM	JOB NUMBER			
DATE: 12/2023	H.C. 10836			
SCALE: AS SHOWN				8 of 22 SHEETS

REPLACE ROOF ACCESS HATCH, SEE DETAIL 5/S-14

CONC INFILL WALL AT EXIST DOOR OPENING, SEE DETAIL 3/S-13

CONC INFILL AT ROOF OPENING, SEE DETAIL 2/S-13, SIM

INSTALL ROOF WATERPROOFING SYSTEM

CONC SILOS TO REMAIN, TYP

INSTALL EXPANSION JOINT, SEE DETAIL 6/S-14

APPLY ROOF WATERPROOFING SYSTEM

CONC INFILL AT SLAB OPENING, SEE DETAIL 2/S-13, TYP

CONC INFILL AT SLAB OPENING, SEE DETAIL 1/S-13

METAL DECK BELOW

ADD SLOPED OVERLAY AT SHEEL SHED FOOTPRINT, SEE DETAIL 3/S-12

CONC INFILL AT SLAB OPENING, SEE DETAIL 4/S-13, TYP

CONC INFILL AT SLAB OPENING, SEE DETAIL 2/S-13, TYP

SILO ROOF - FLOOR PLAN

SCALE: 3/32" = 1'-0"

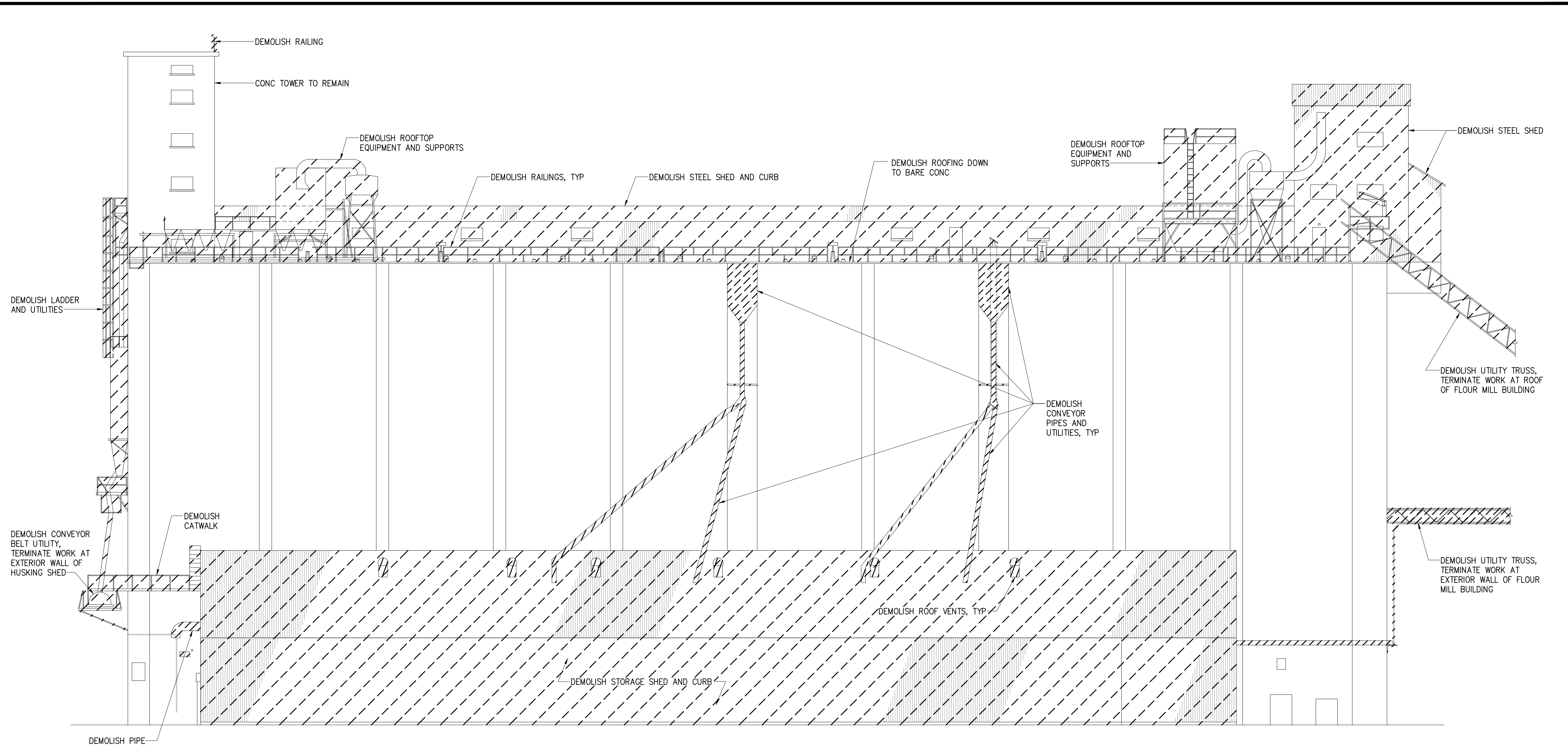


NORTH

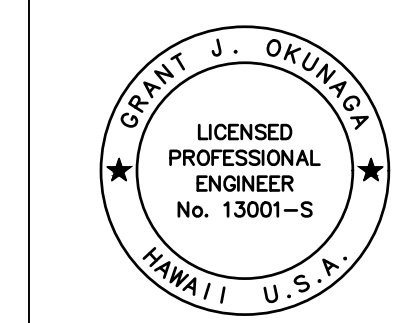
REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE SILO ROOF - FLOOR PLAN				
DESIGNED BY: GO			SHEET S-7	
DRAWN BY: DL			JOB NUMBER H.C. 10836	
CHECKED BY: GM				
DATE: 12/2023				
SCALE: AS SHOWN			9 OF 22 SHEETS	

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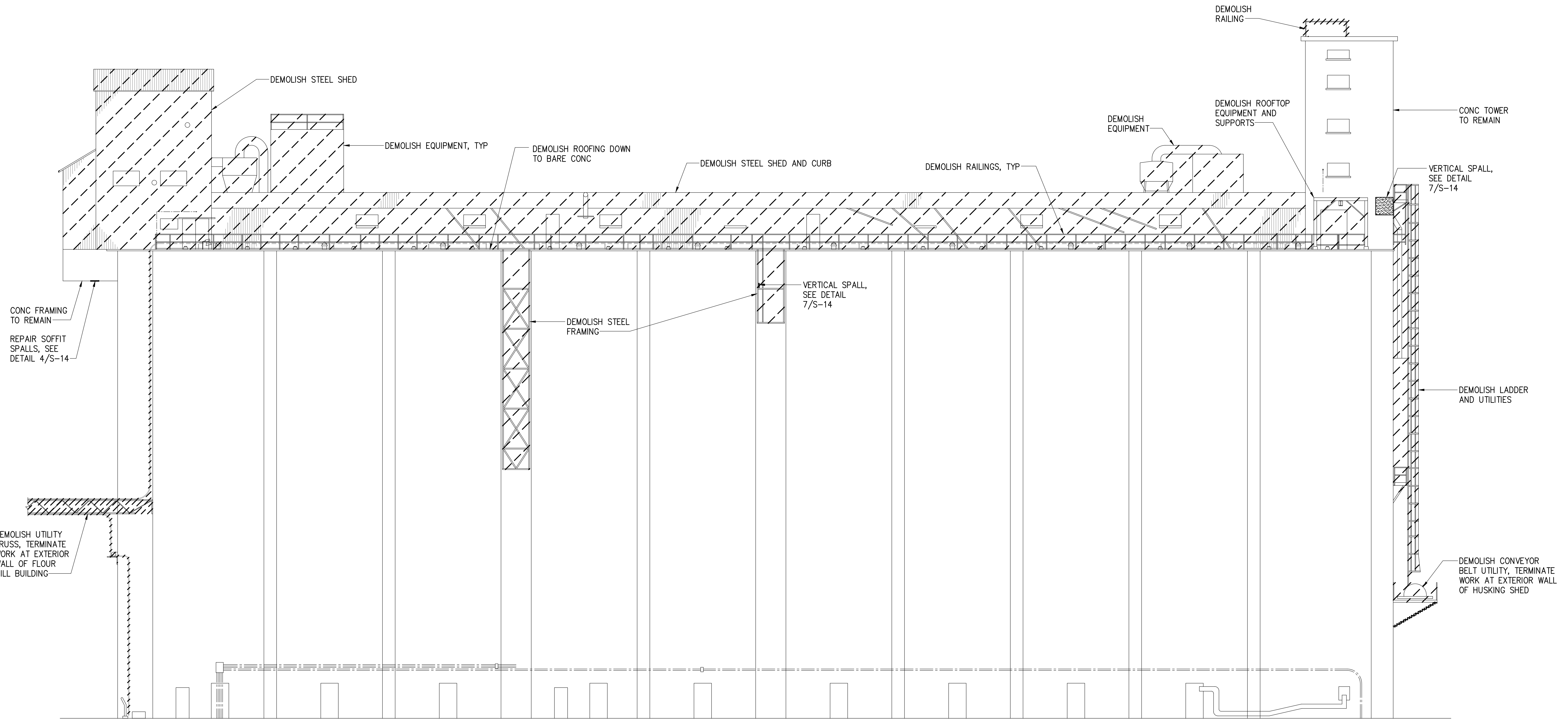


EXIST WEST ELEVATION
SCALE: 3/32" = 1'-0"



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EXP. 4-30-24
Grant J. Okunaga
MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE ELEVATION				
DESIGNED BY: GO	DRAWN BY: DL			CHECKED BY: GM
DATE: 12/2023	JOB NUMBER: H.C. 10836			SCALE: AS SHOWN
				SHEET S-8 10 of 22 SHTS.



SPALL REPAIR LEGEND:

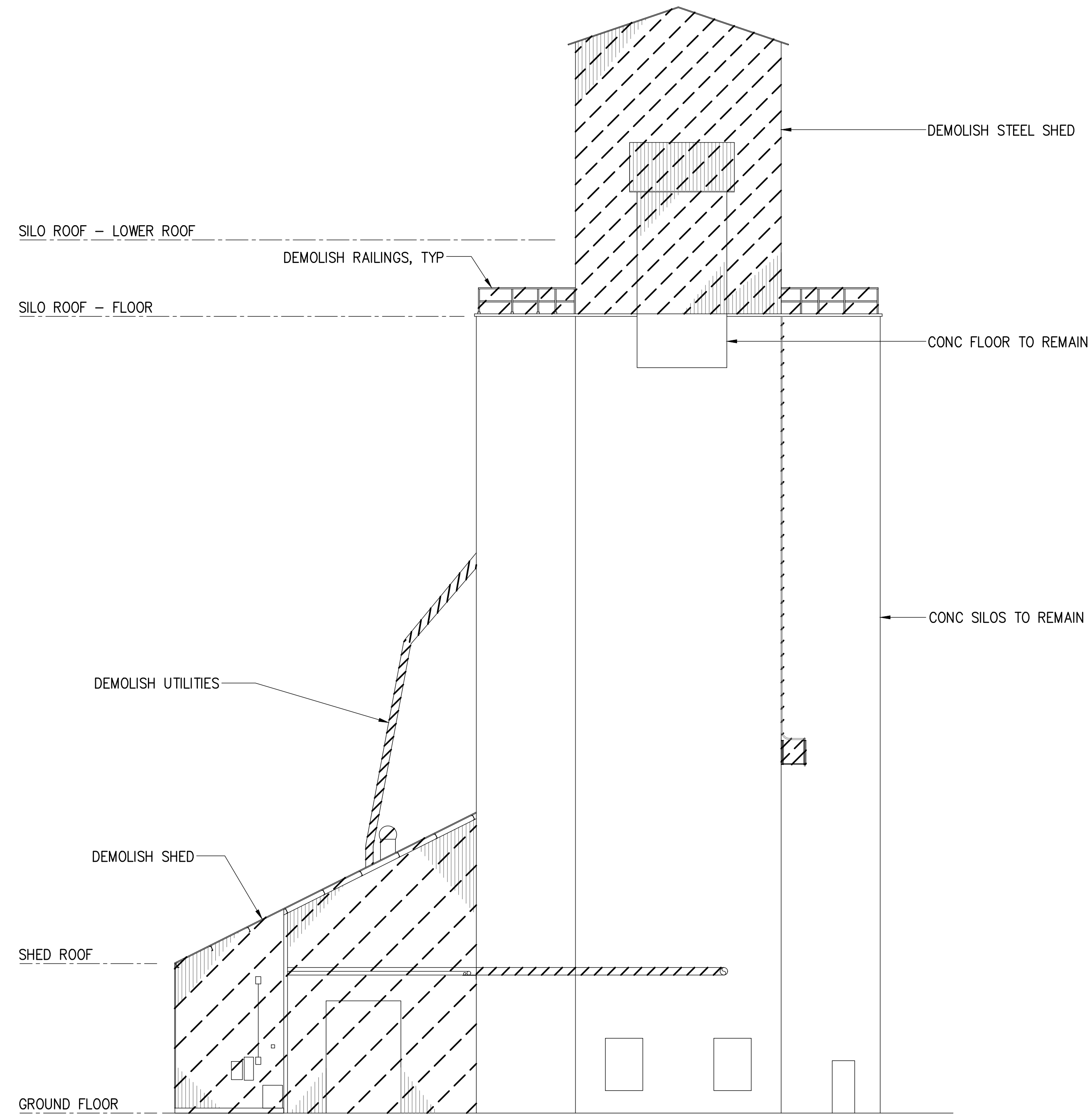
- SOFFIT SPALL REPAIR, SEE DETAIL 4/S-14
- | VERTICAL SPALL REPAIR, SEE DETAIL 7/S-14
- ▒ VERTICAL SPALL REPAIR, SEE DETAIL 7/S-14

EXIST EAST ELEVATION
SCALE: 3/32" = 1'-0"

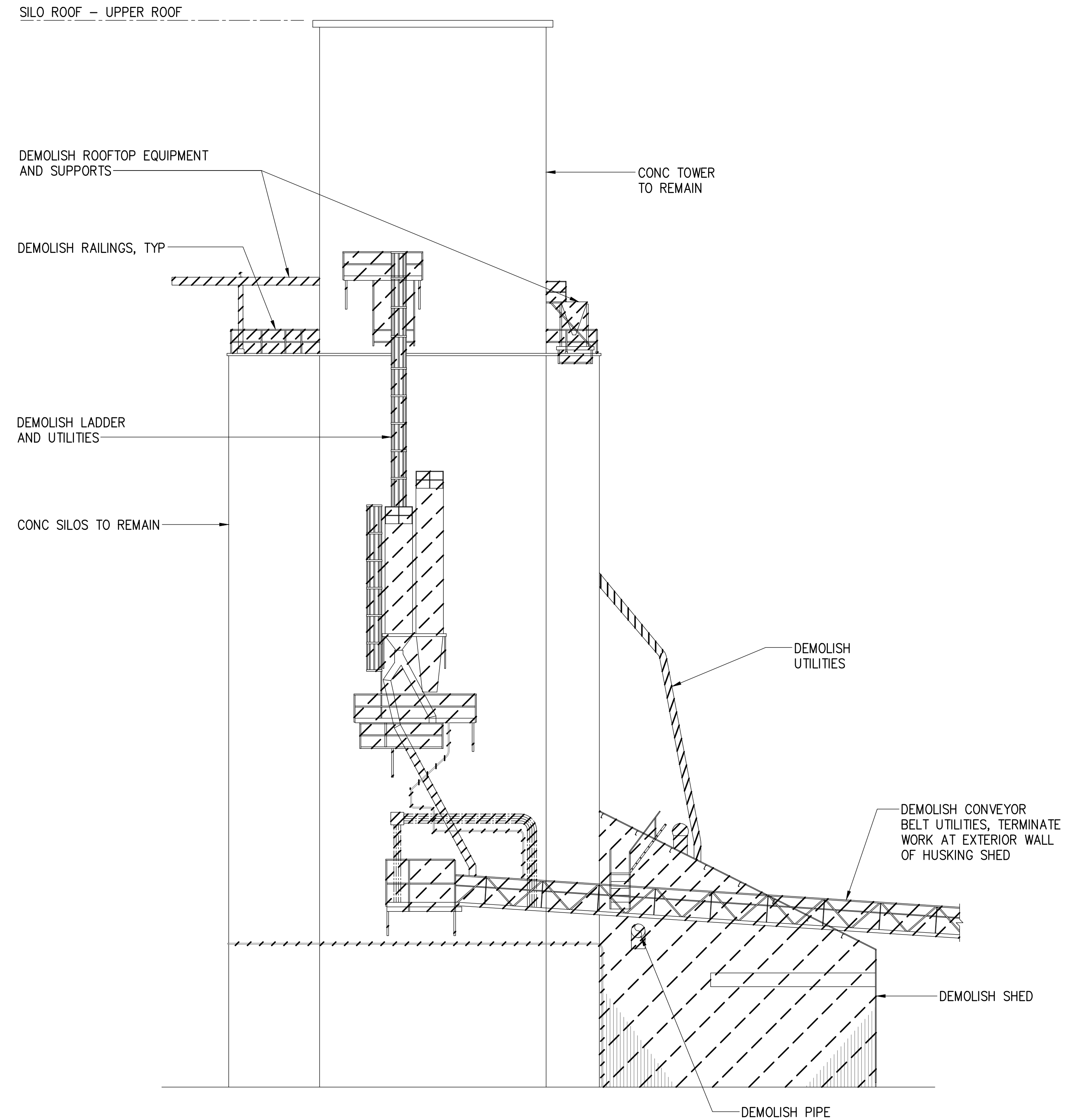
GRANT J. OKUNIGA
LICENSED PROFESSIONAL ENGINEER
No. 13001-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP. 4-30-24
Grant Okuniga
MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE ELEVATION				
DESIGNED BY: GO				SHEET
DRAWN BY: DL				S-9
CHECKED BY: GM				
DATE: 12/2023	JOB NUMBER			
SCALE: AS SHOWN	H.C. 10836			11 of 22 SHTS.



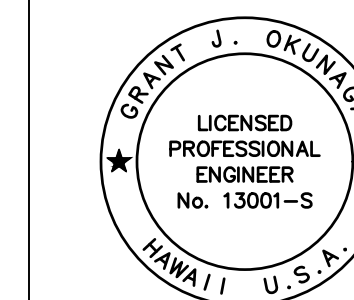
SOUTH ELEVATION



NORTH ELEVATION

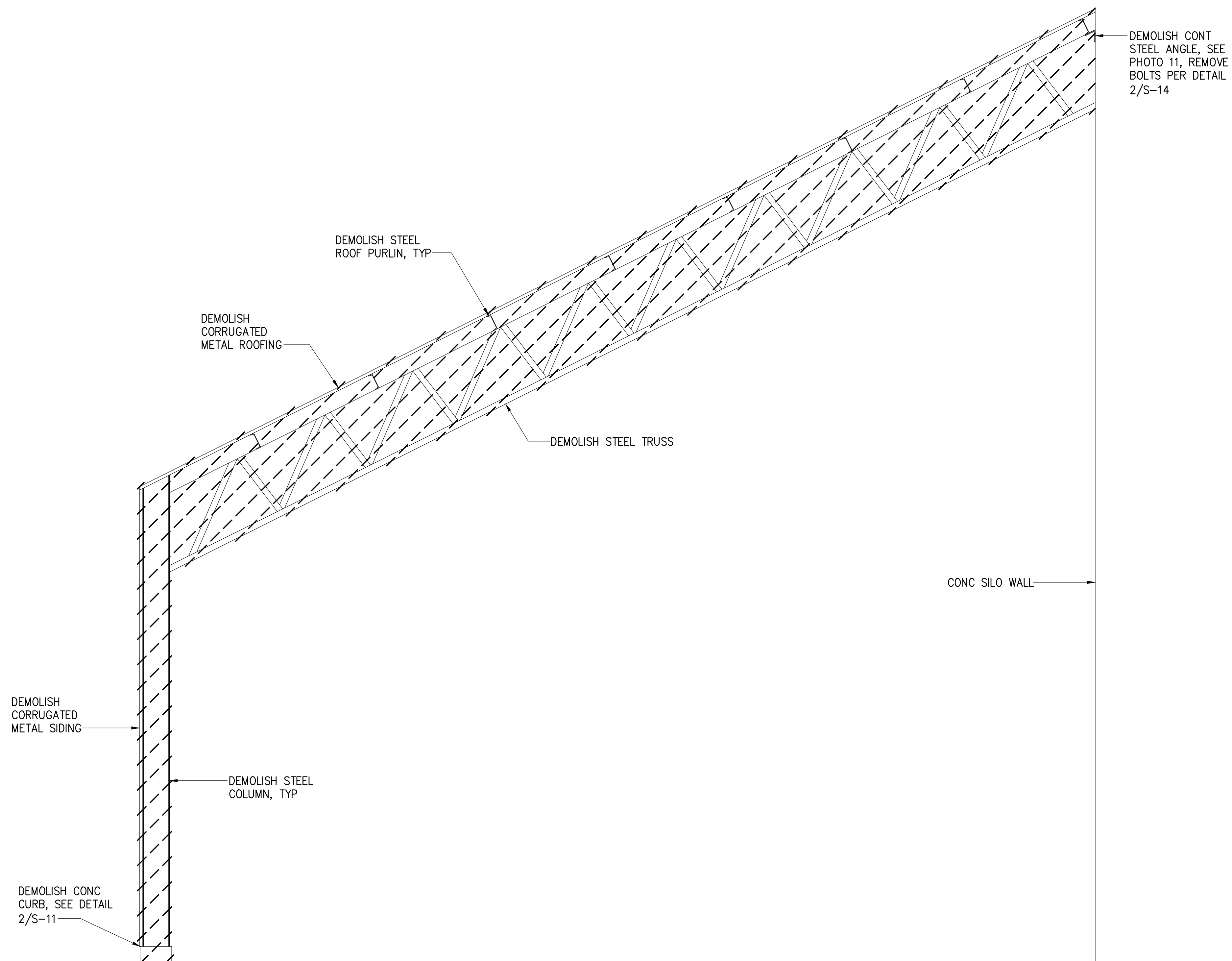
EXIST ELEVATIONS

SCALE: 3/32" = 1'-0"

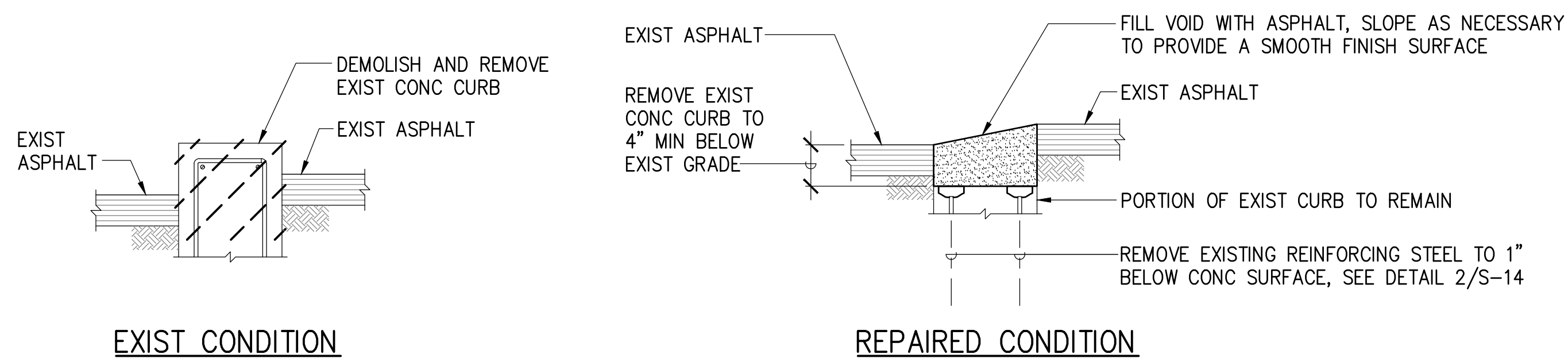


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 EXP. 4-30-24
Grant J. Okunaga
 MKE ASSOCIATES LLC

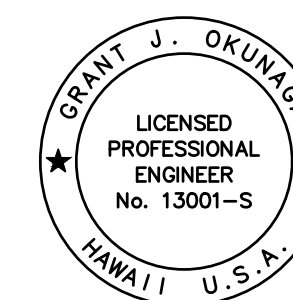
REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE ELEVATIONS				
DESIGNED BY: GO	DRAWN BY: DL			CHECKED BY: GM
DATE: 12/2023	JOB NUMBER: H.C. 10836			SCALE: AS SHOWN
				SHEET S-10 12 of 22 SHTS.



1 STORAGE SHED TYPICAL SECTION
 S-11 SCALE: 3/8" = 1'-0"

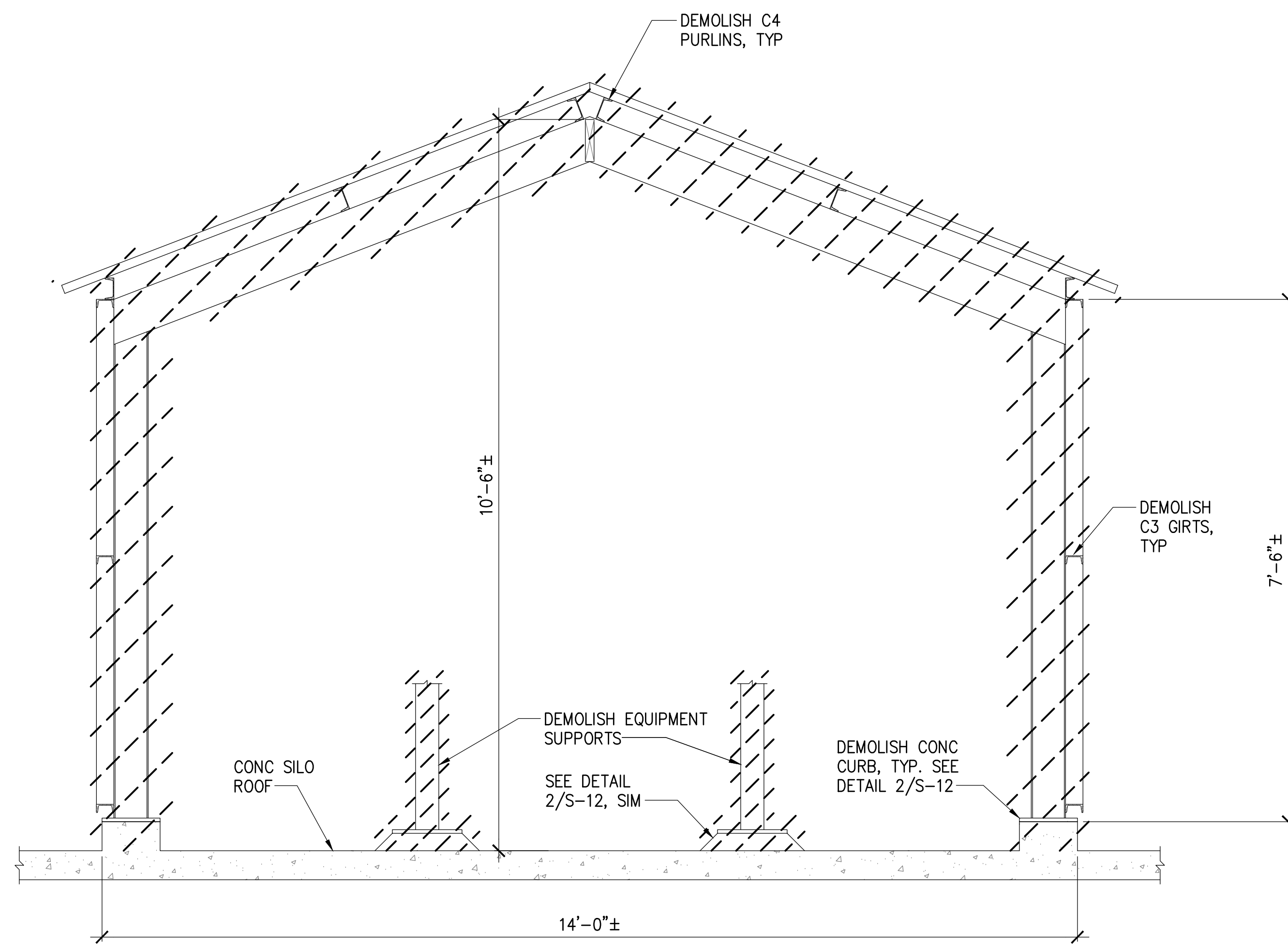


2 GROUND CURB REMOVAL DETAIL
 S-11 NOT TO SCALE



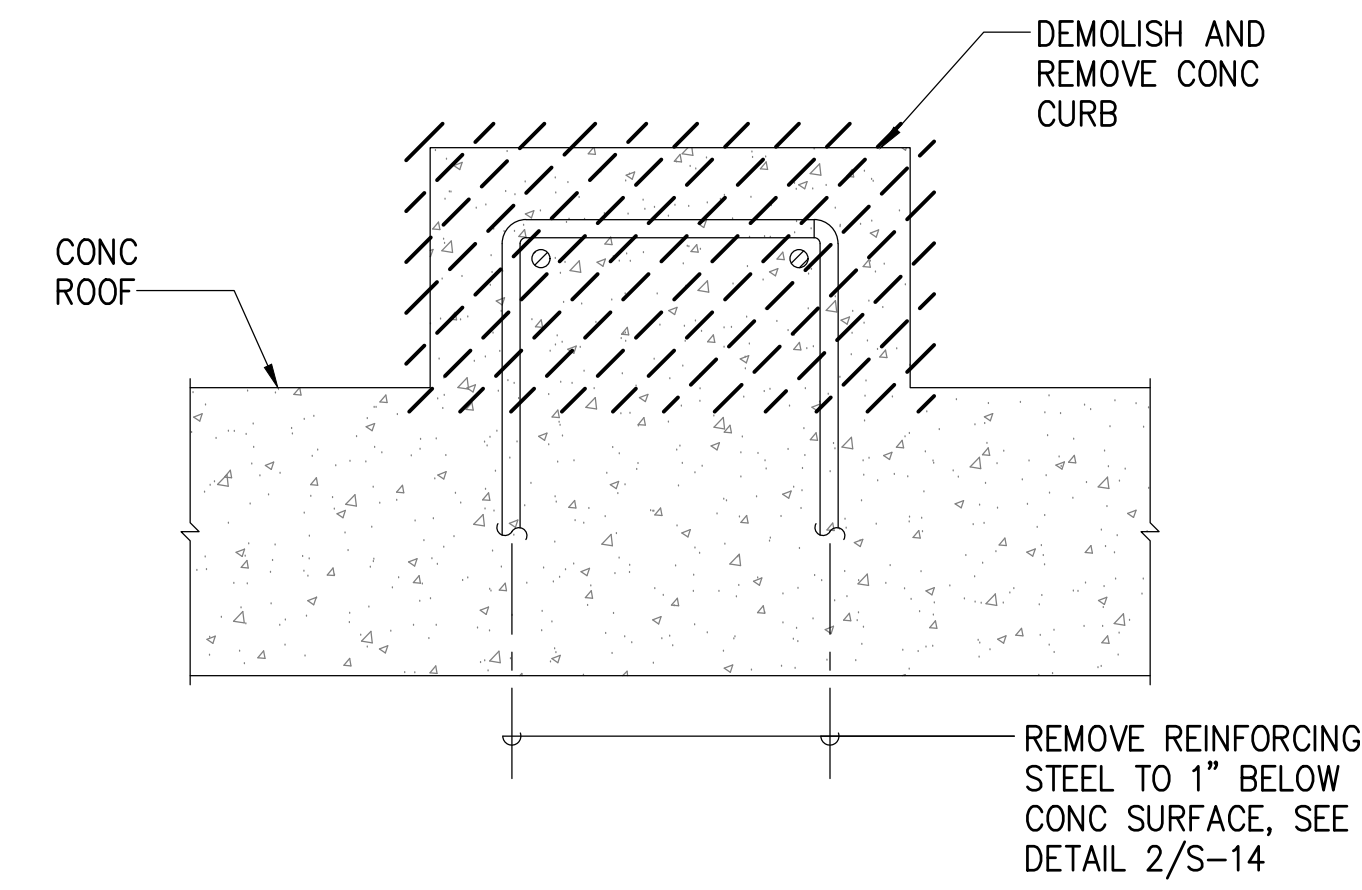
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 EXP. 4-30-24
 MKE ASSOCIATES LLC

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE STORAGE SHED SECTION AND REPAIR DETAIL				
DESIGNED BY: GO				SHEET S-11
DRAWN BY: DL				JOB NUMBER H.C. 10836
CHECKED BY: GM				
DATE: 12/2023				
SCALE: AS SHOWN				13 OF 22 SHEETS

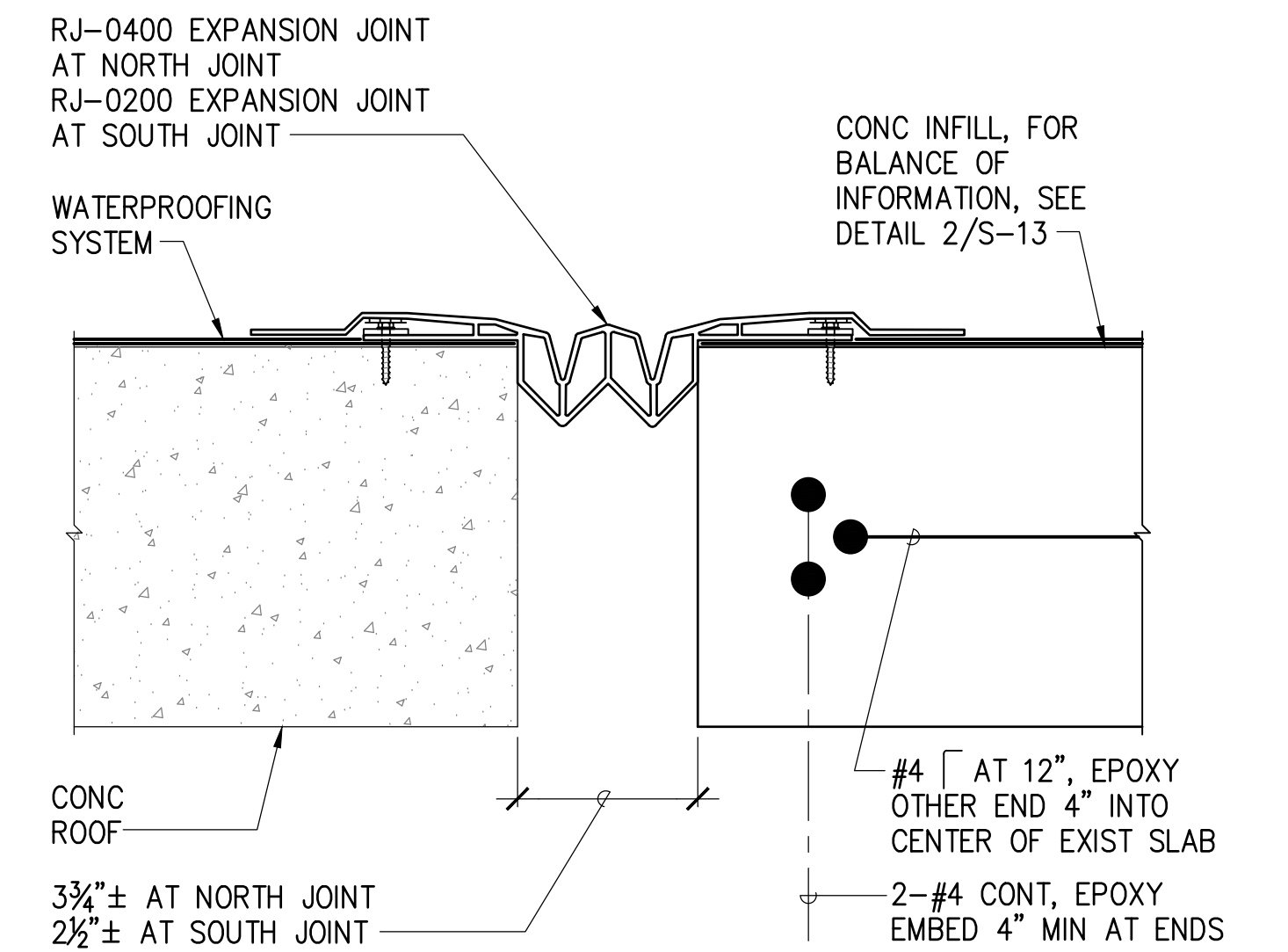


EXIST CONDITION

1 ROOFTOP SHED SECTION
S-12 NOT TO SCALE

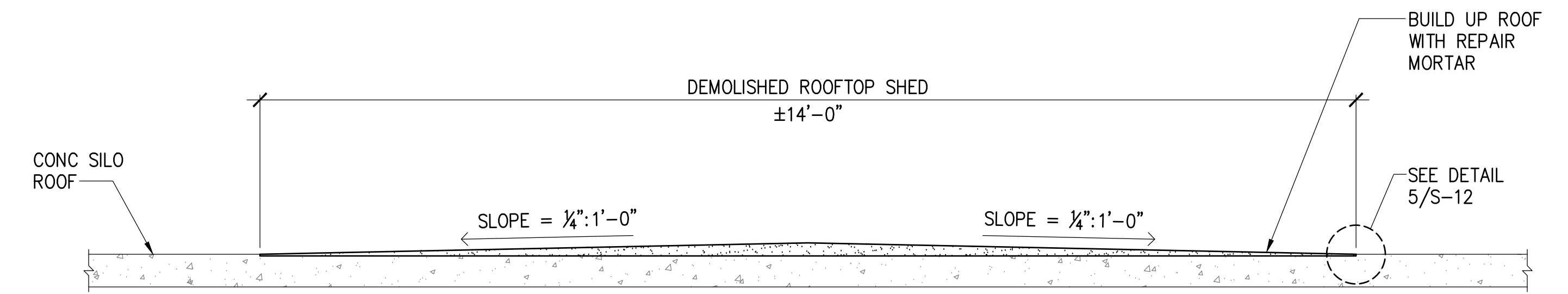


2 ROOFTOP CURB REMOVAL DETAIL
S-12 NOT TO SCALE



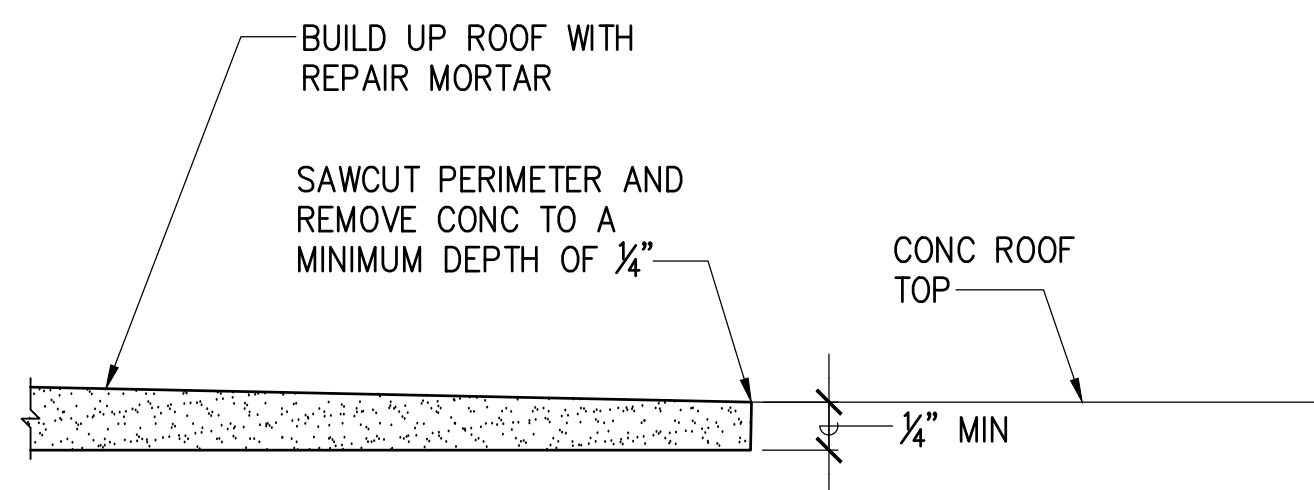
3 EXPANSION JOINT DETAIL
S-12 NOT TO SCALE

NOTE:
CONDITION SHOWN AT
CONCRETE INFILL, DETAIL
SIMILAR ELSEWHERE.

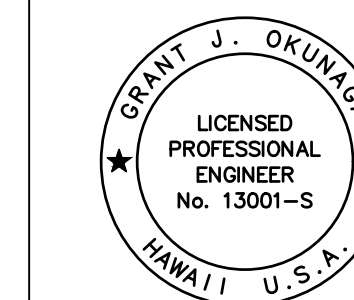


REPAIRED CONDITION

4 ROOFTOP SHED
S-12 NOT TO SCALE

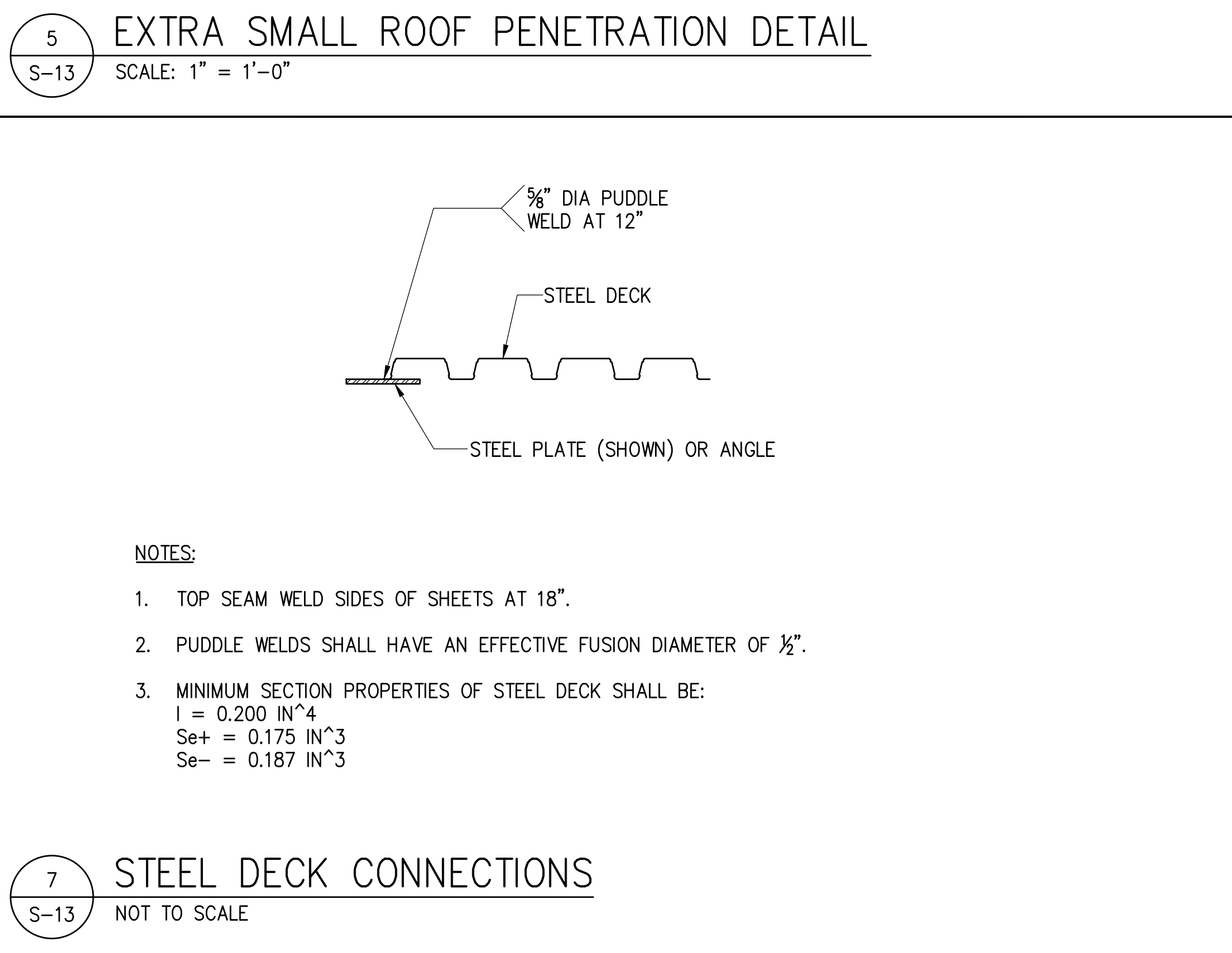
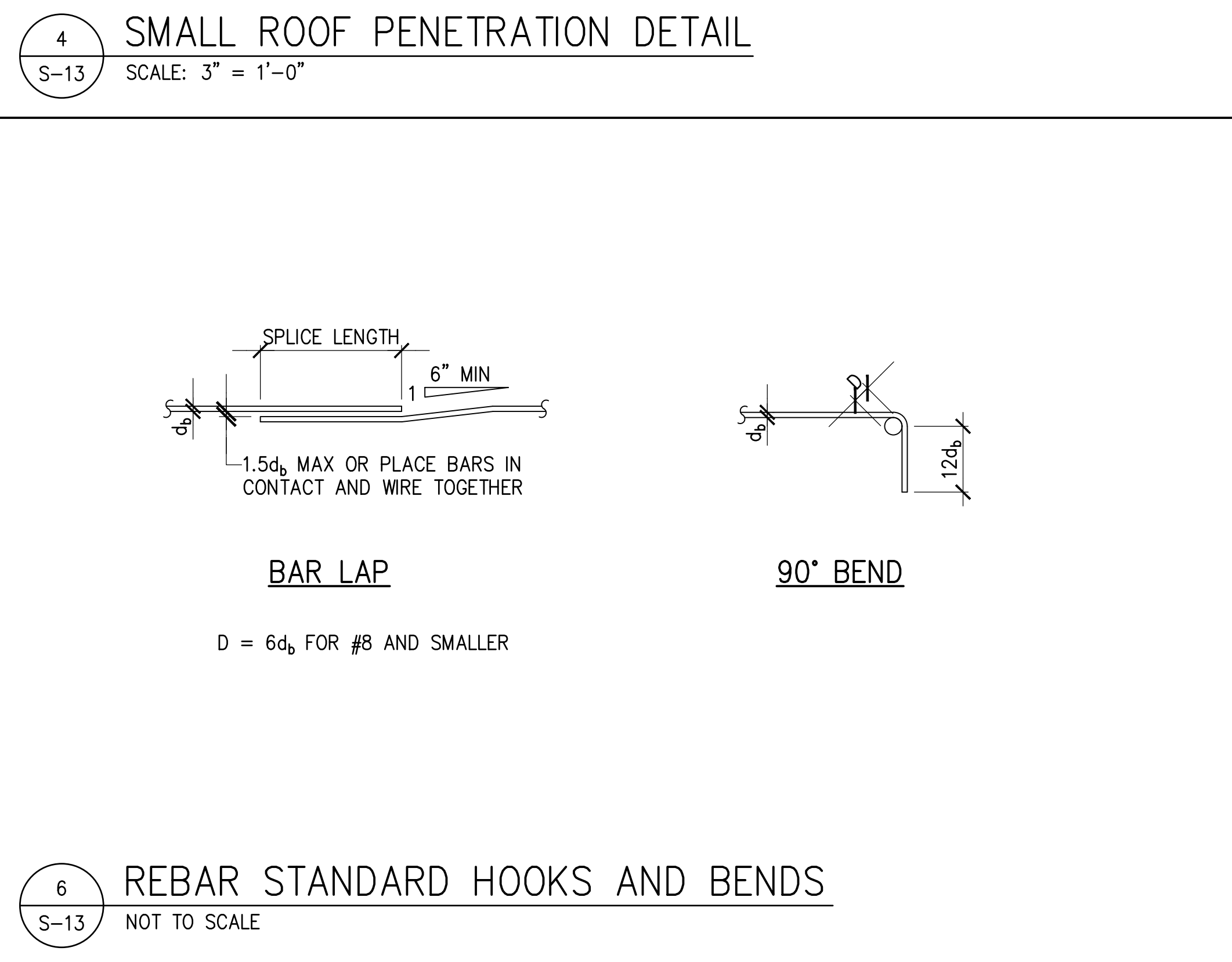
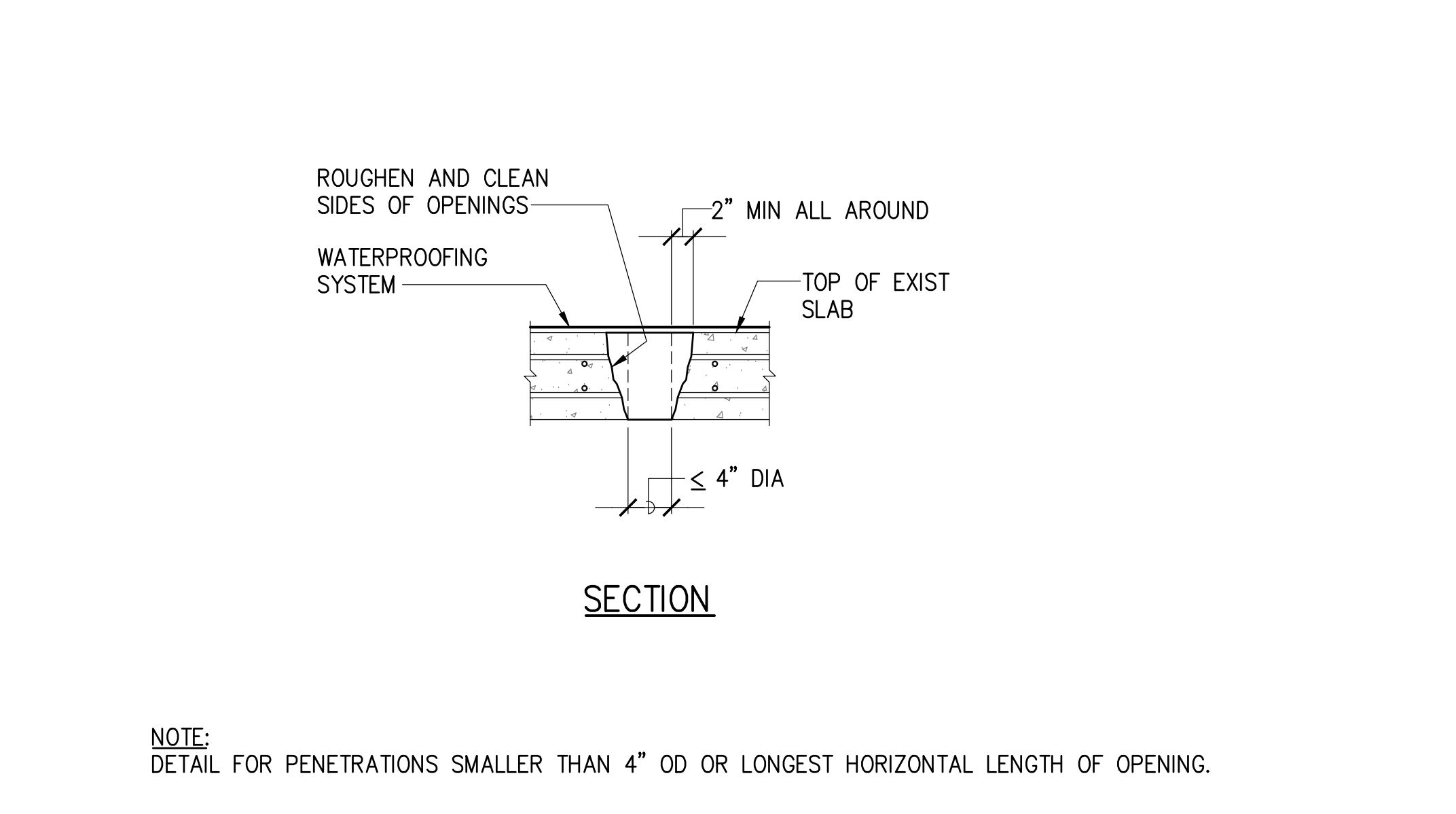
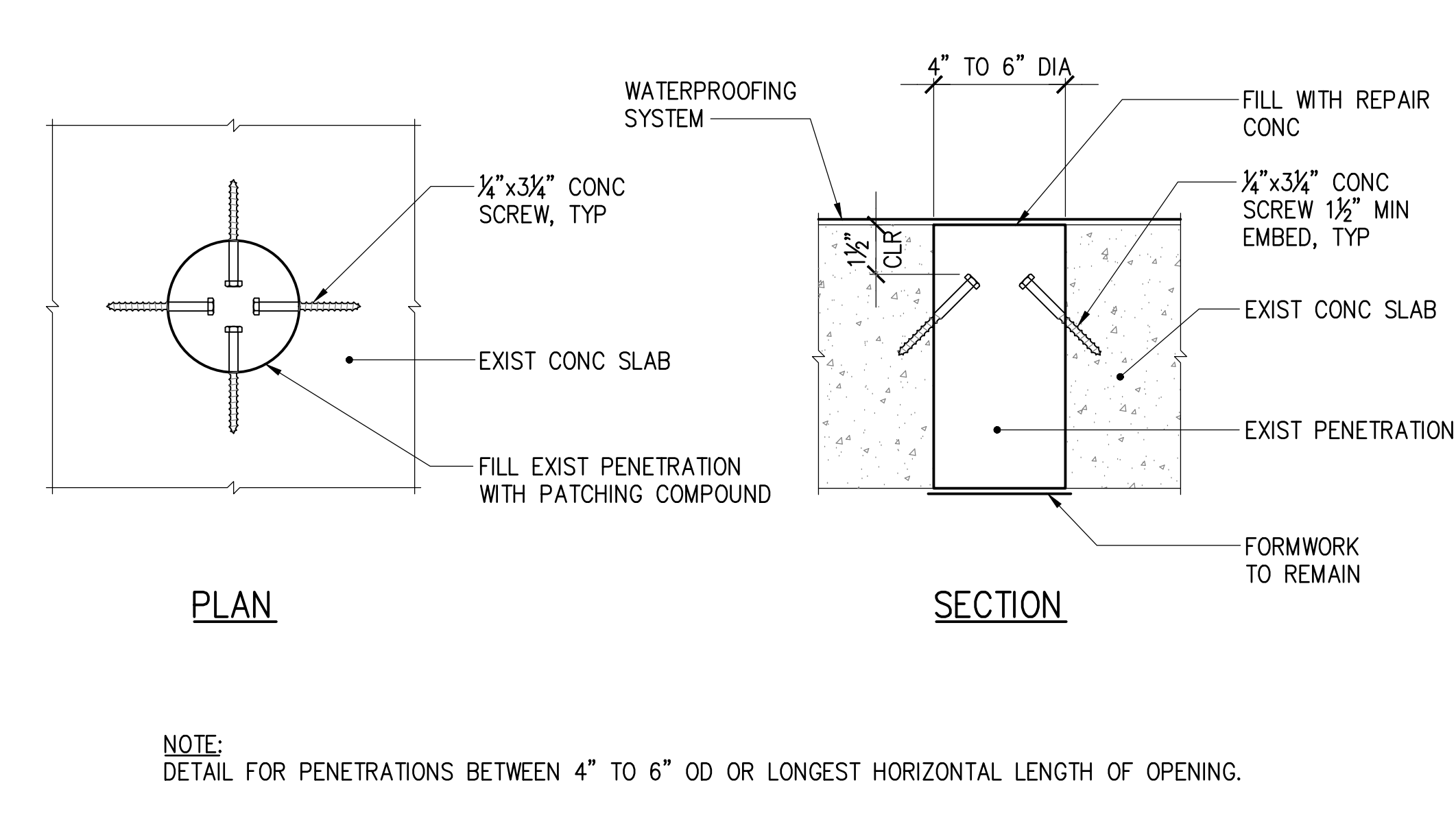
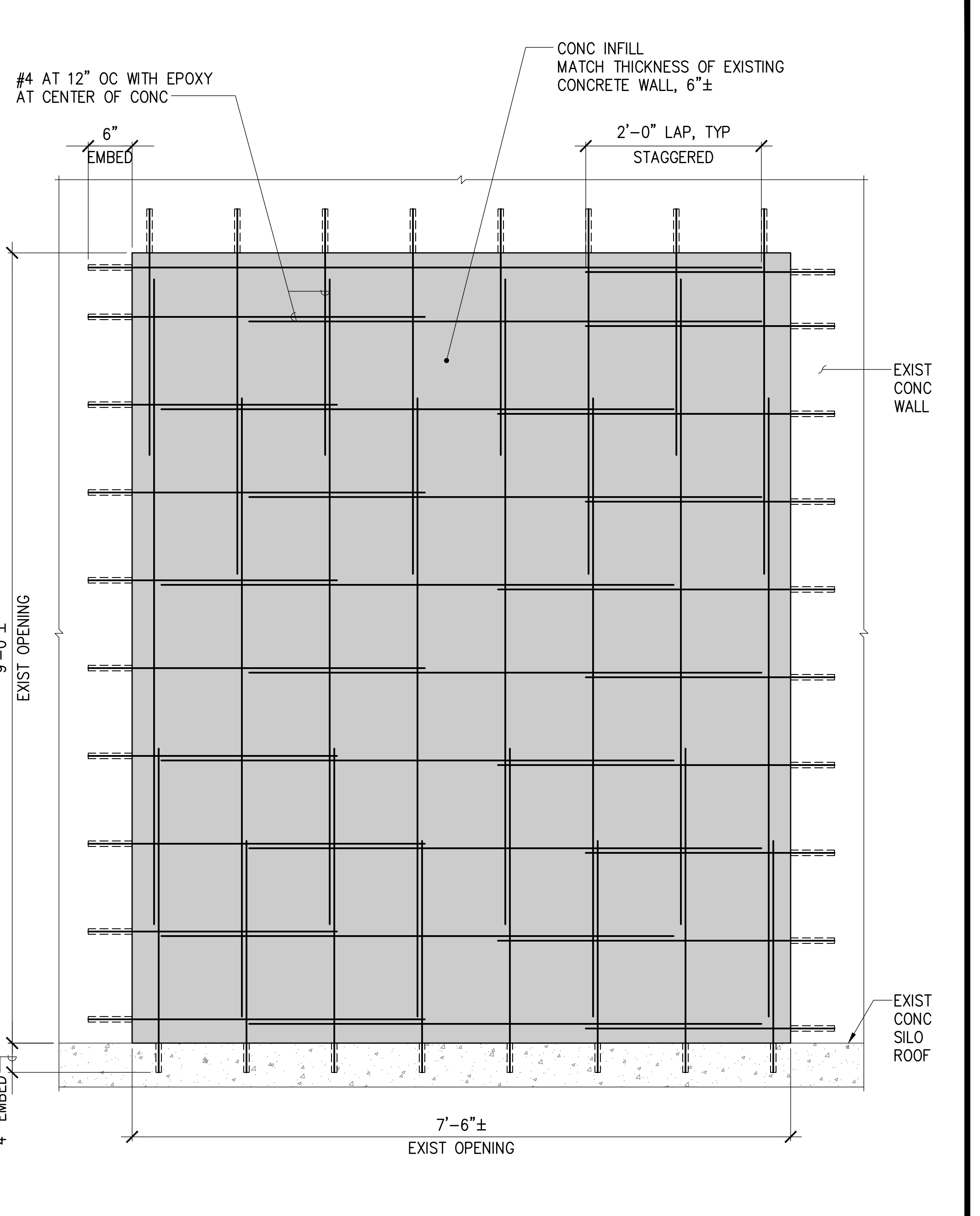
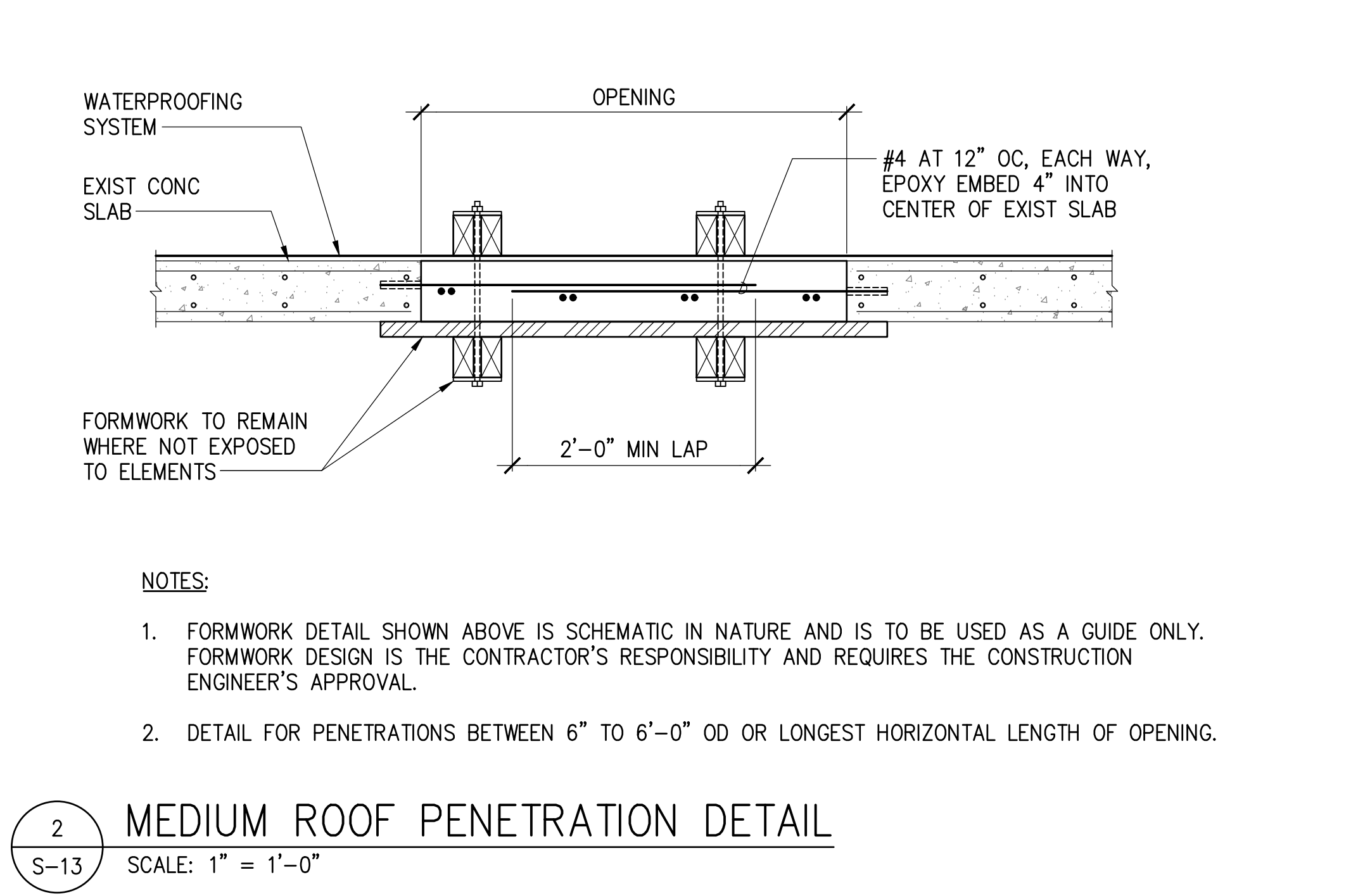
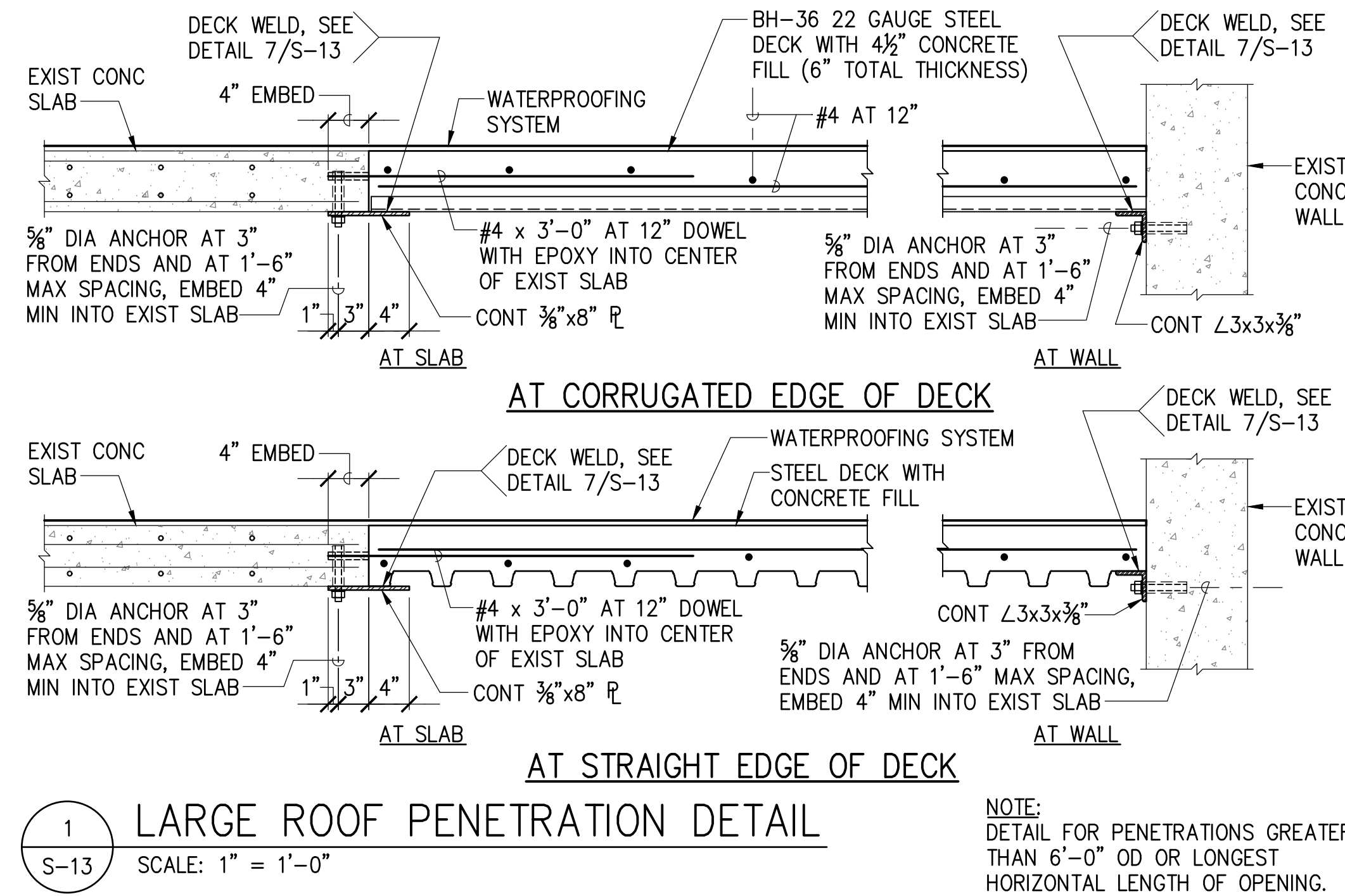


5 SAWCUT DETAIL
S-12 NOT TO SCALE

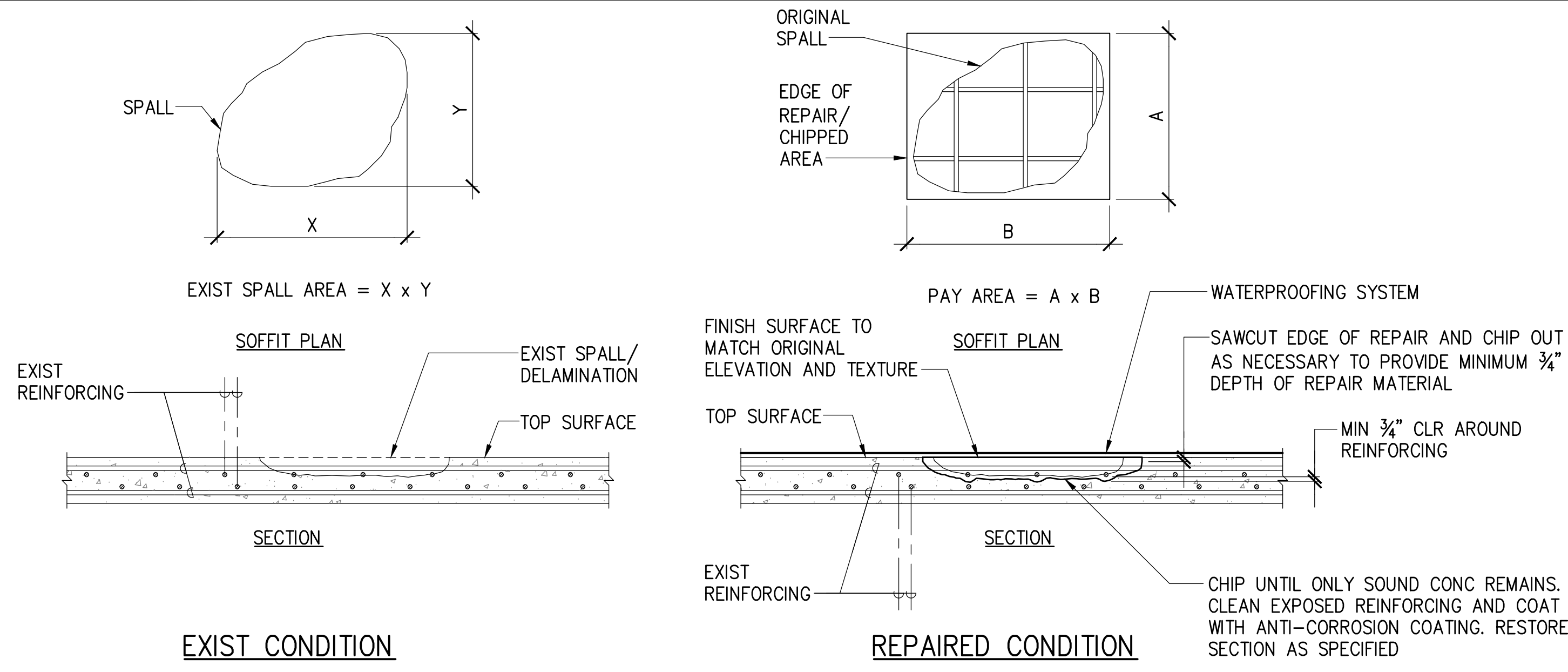


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MKE ASSOCIATES LLC

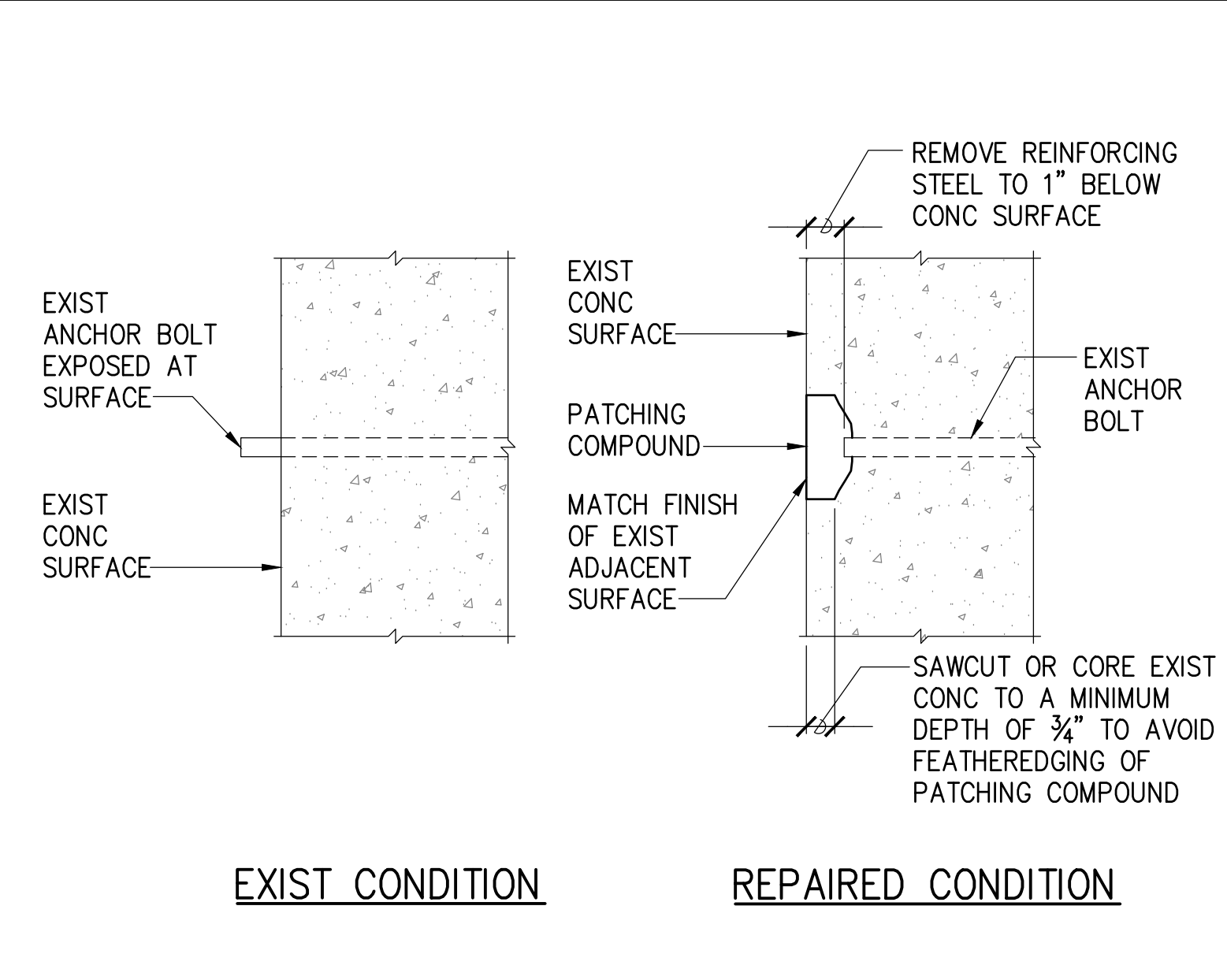
REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE ROOFTOP SHED DETAILS				
DESIGNED BY: GO	DRAWN BY: DL			CHECKED BY: GM
DATE: 12/2023	JOB NUMBER: H.C. 10836			SCALE: AS SHOWN
				SHEET S-12 14 of 22 SHTS.



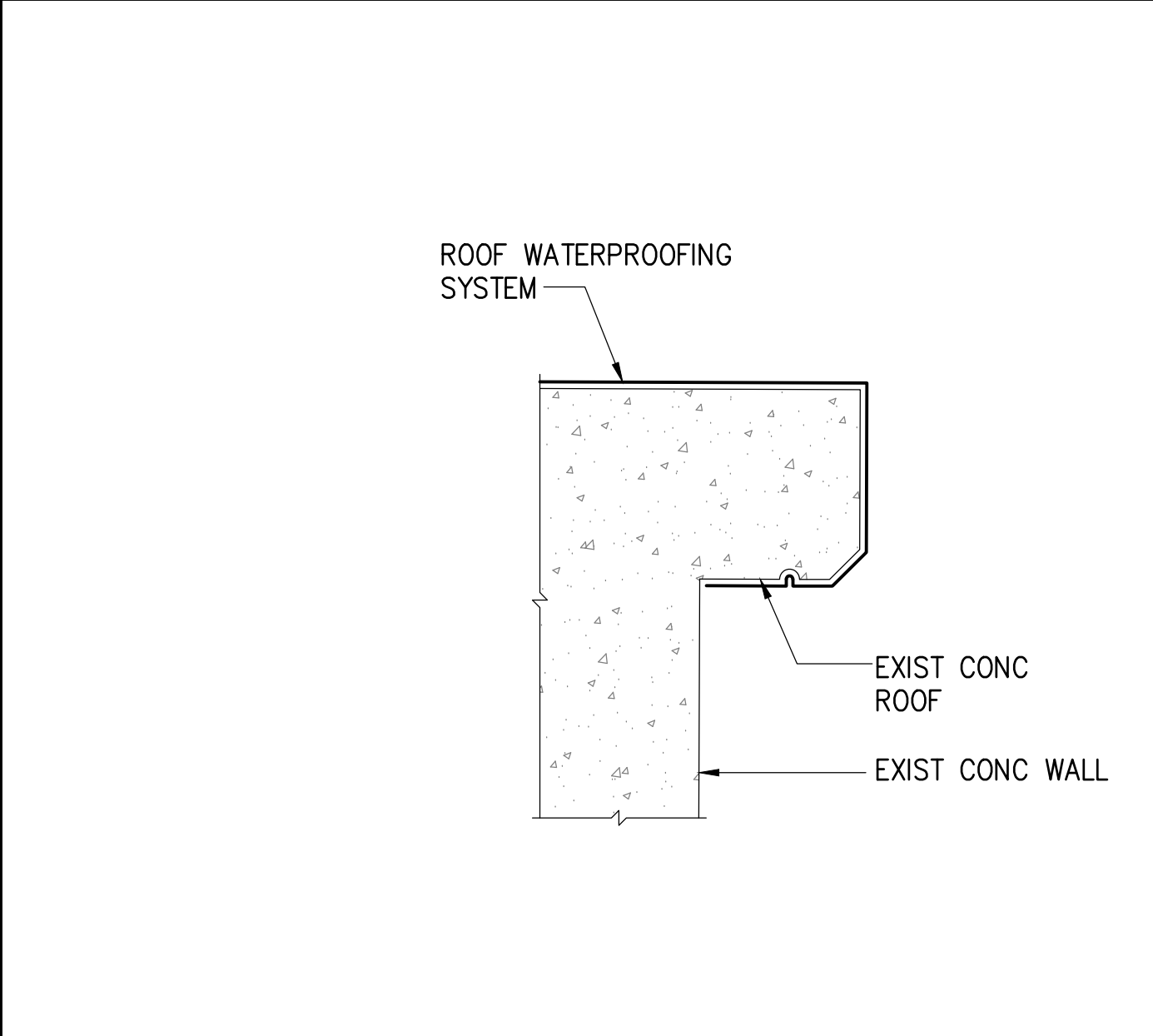
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS			
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII			
SHEET TITLE SILO ROOFTOP REPAIR DETAILS			
DESIGNED BY: GO	CHECKED BY: GM	DATE: 12/2023	SCALE: AS SHOWN
DRAWN BY: DL MKE ASSOCIATES LLC		JOB NUMBER H.C. 10836	SHEET S-13 15 of 22 SHTS



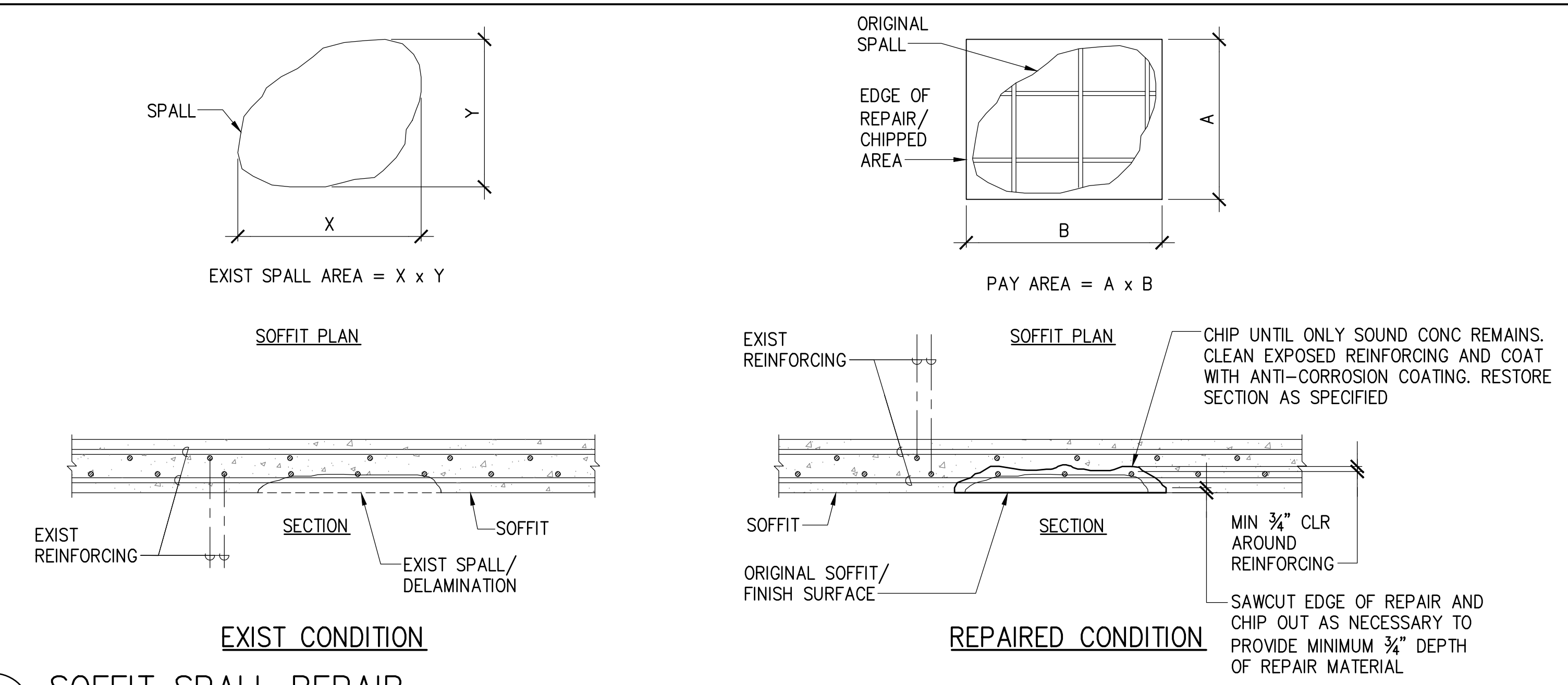
1 TOP SURFACE SPALL REPAIR
S-14 NOT TO SCALE



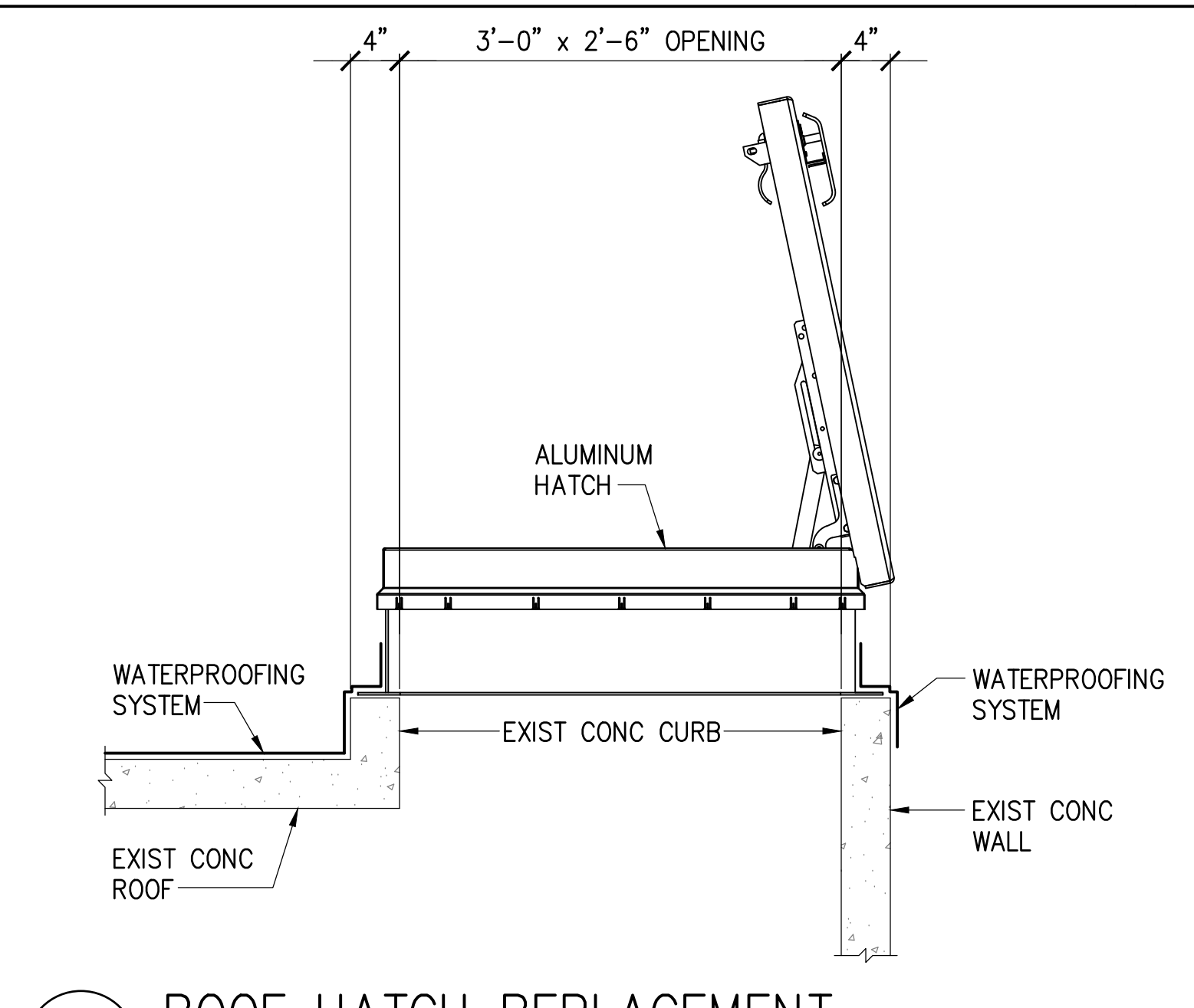
2 EXPOSED ANCHOR BOLT REPAIR
S-14 NOT TO SCALE



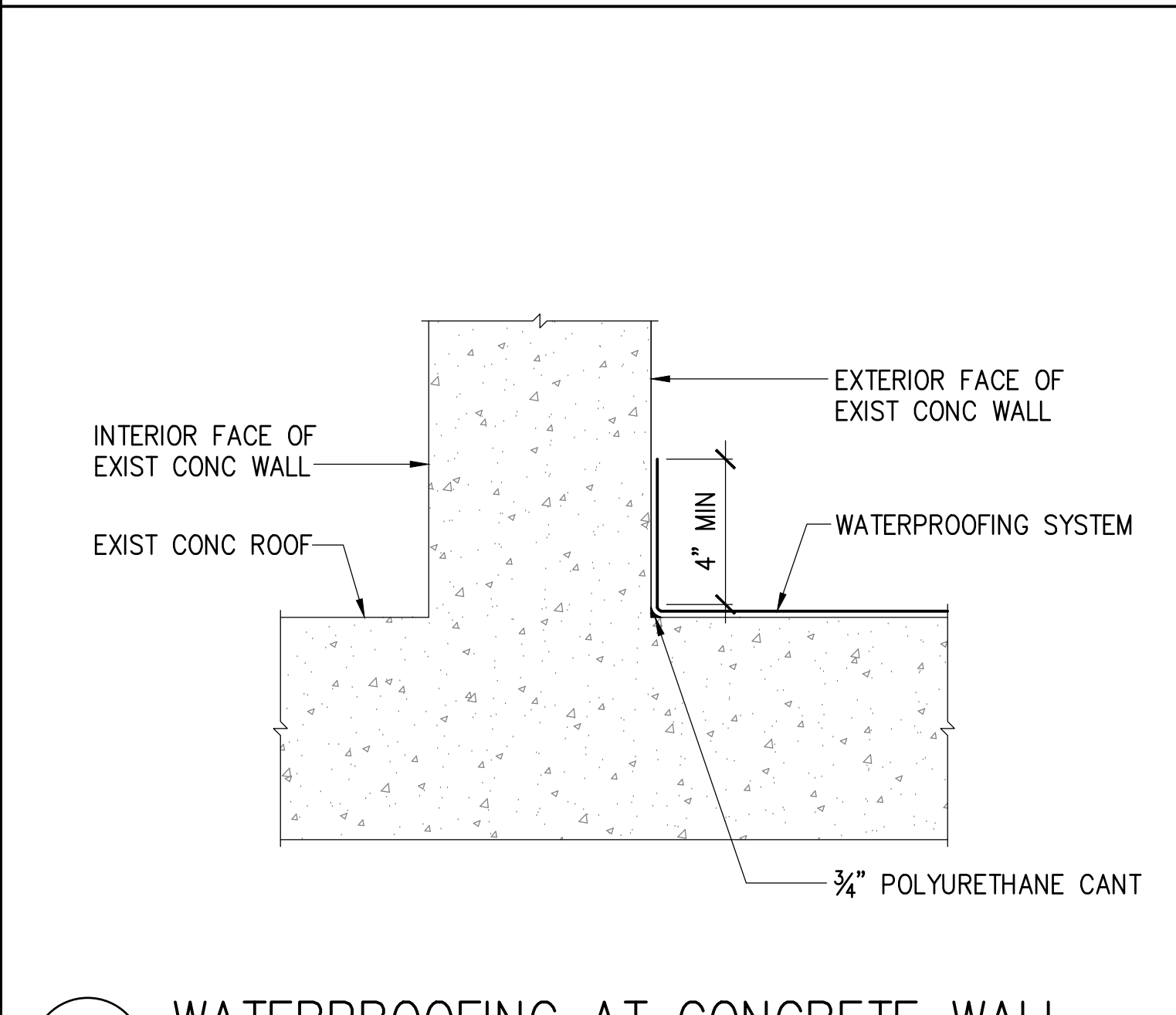
3 WATERPROOFING AT ROOF EDGE
S-14 NOT TO SCALE



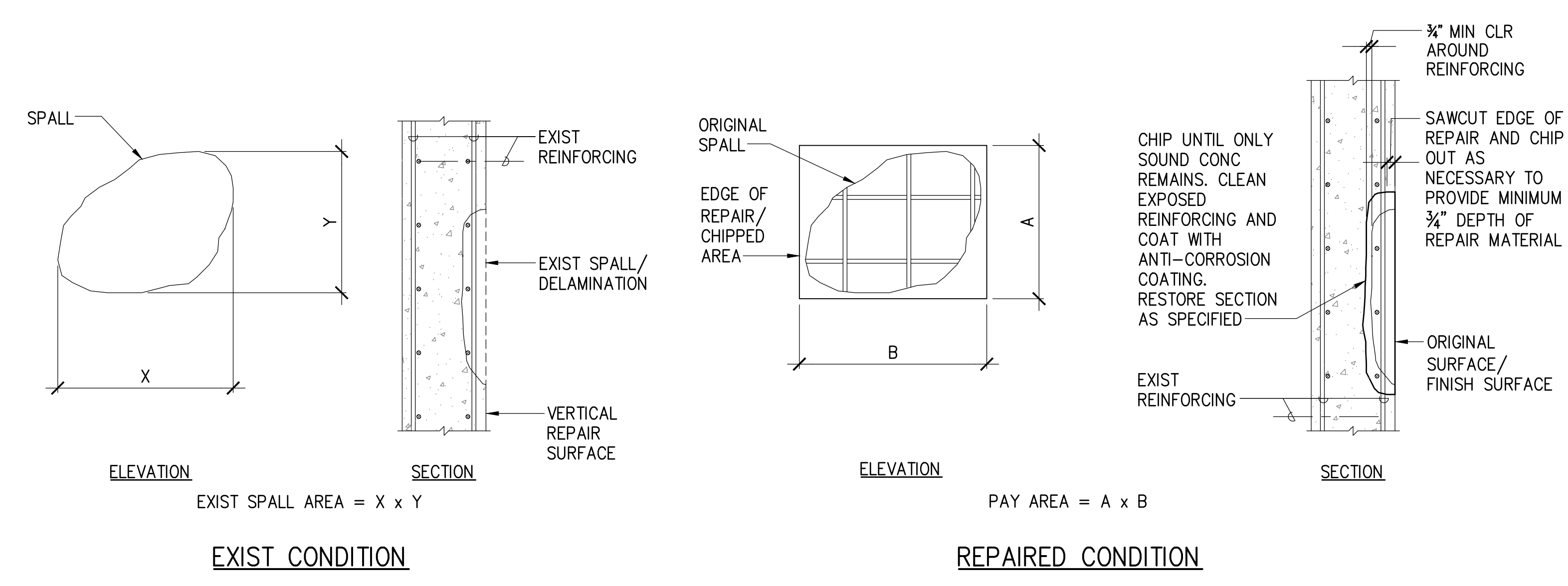
4 SOFFIT SPALL REPAIR
S-14 NOT TO SCALE



5 ROOF HATCH REPLACEMENT
S-14 NOT TO SCALE



6 WATERPROOFING AT CONCRETE WALL
S-14 NOT TO SCALE



7 VERTICAL SPALL REPAIR
S-14 NOT TO SCALE

		REVISION DATE DESCRIPTION BY APPROVED	
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS			
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII			
SHEET TITLE TYPICAL DETAILS			
DESIGNED BY: GO DRAWN BY: DL CHECKED BY: GM DATE: 12/2023 SCALE: AS SHOWN	JOB NUMBER H.C. 10836	SHEET S-14 16 of 22 SHTS.	

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 EXP. 4-30-24
 MKE ASSOCIATES LLC



PHOTO 1



PHOTO 2



PHOTO 3



PHOTO 4



PHOTO 5



PHOTO 6



PHOTO 7



PHOTO 8



PHOTO 9

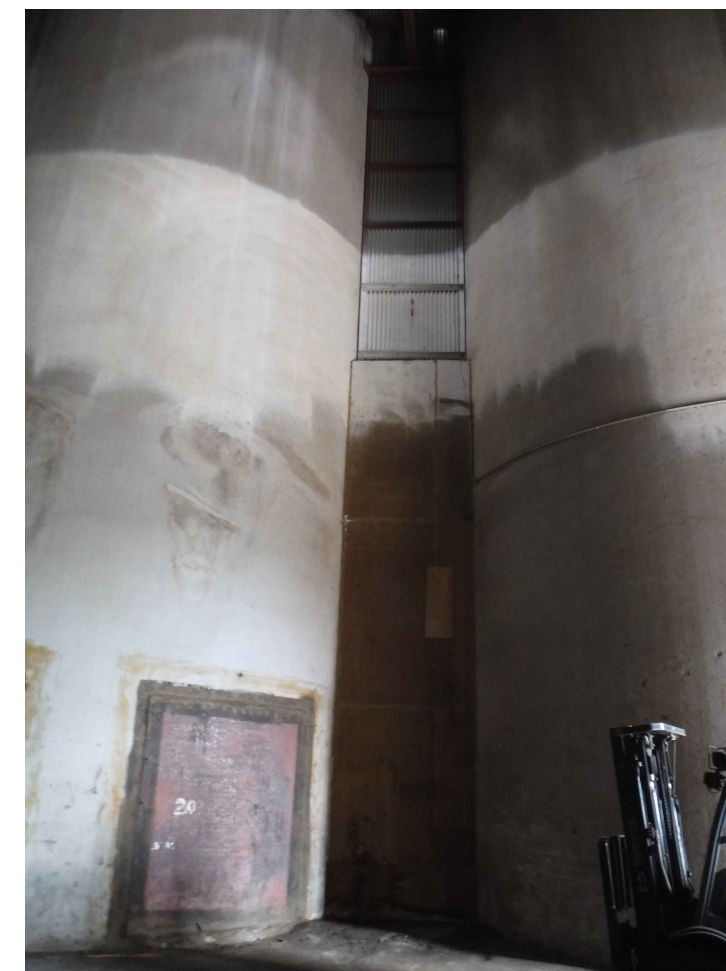


PHOTO 10

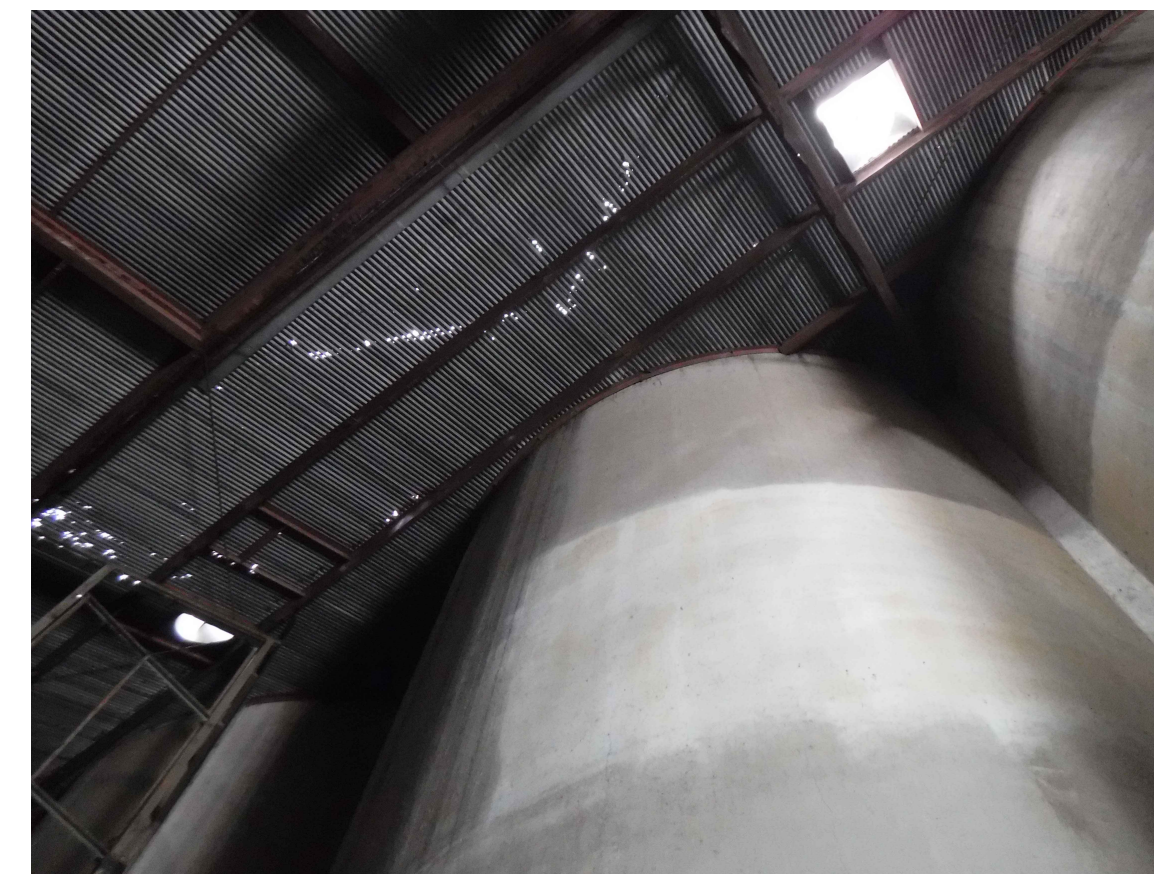
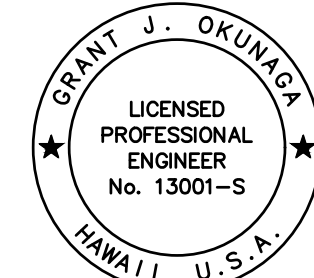
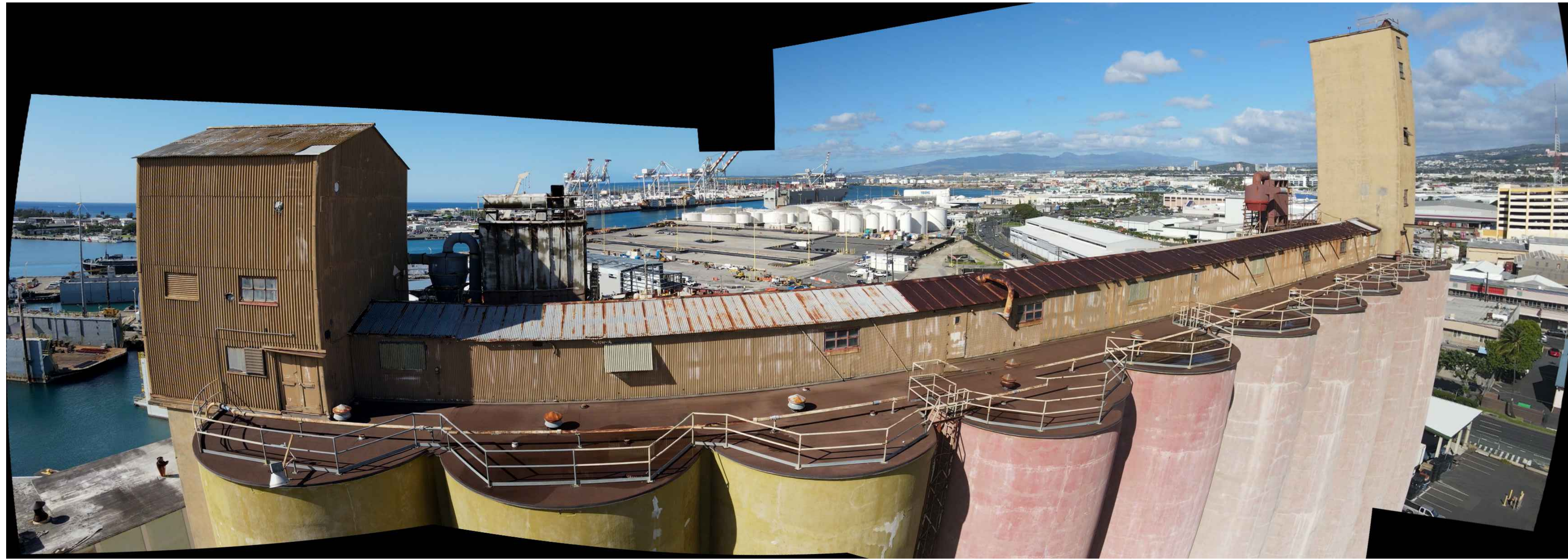


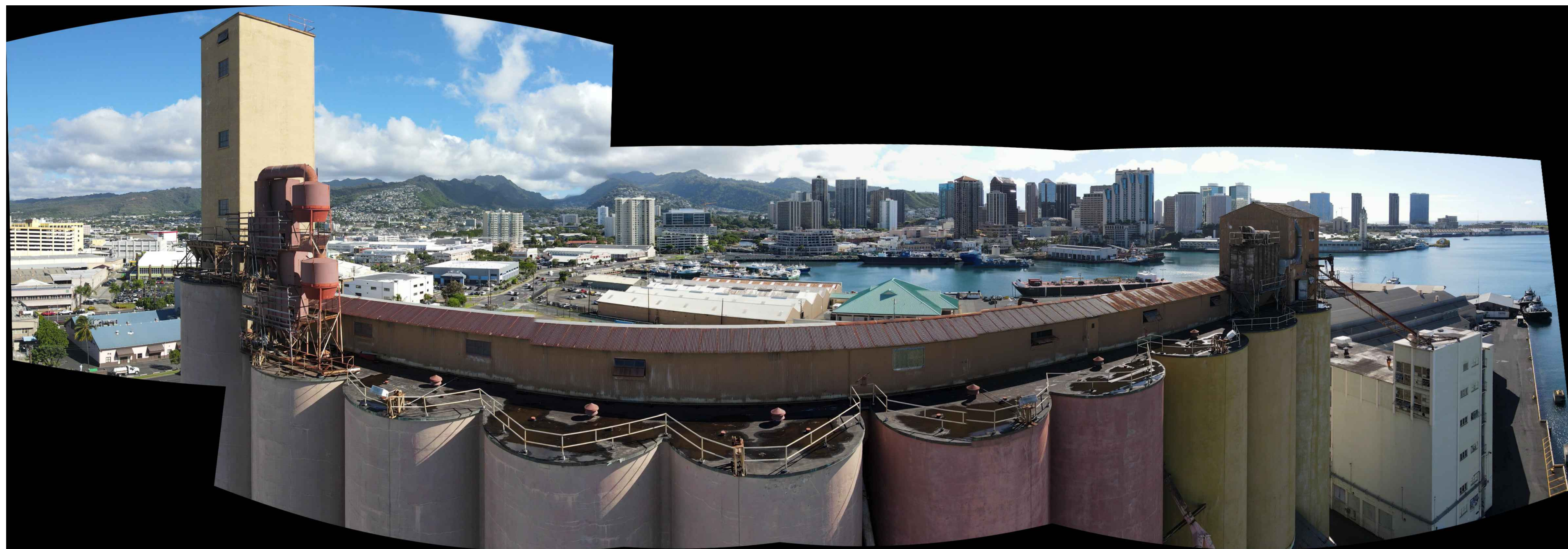
PHOTO 11

 <p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION EXP. 4-30-24 <i>Grant Okunaka</i> MKE ASSOCIATES LLC</p>	REVISION	DATE	DESCRIPTION	BY	APPROVED
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS				
	JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
	SHEET TITLE PHOTOGRAPHS				
	DESIGNED BY: GO	JOB NUMBER			SHEET
DRAWN BY: DL	H.C. 10836			S-15	
CHECKED BY: GM					
DATE: 12/2023					
SCALE: AS SHOWN	17 of 22 SHTS.				

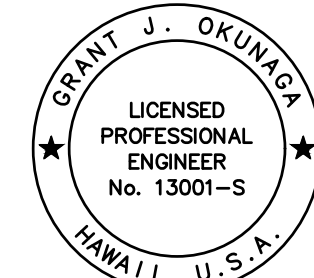
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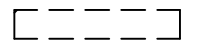

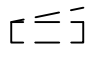
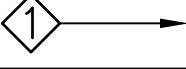
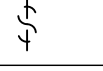
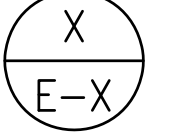
EAST ELEVATION



WEST ELEVATION

 <p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION EXP. 4-30-24 <i>Grant J. Okuniga</i> MKE ASSOCIATES LLC</p>	REVISION		DATE	DESCRIPTION	BY	APPROVED
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS					
	JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII					
	SHEET TITLE PHOTOGRAPHS					
DESIGNED BY: GO	JOB NUMBER H.C. 10836				SHEET S-16 18 of 22 SHTS.	
DRAWN BY: DL						
CHECKED BY: GM						
DATE: 12/2023						
SCALE: AS SHOWN						

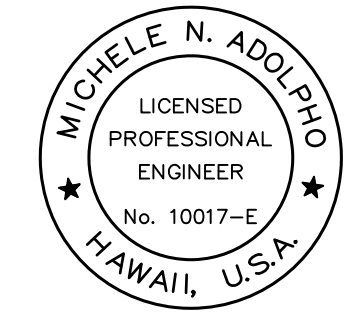
ELECTRICAL SYMBOL LIST

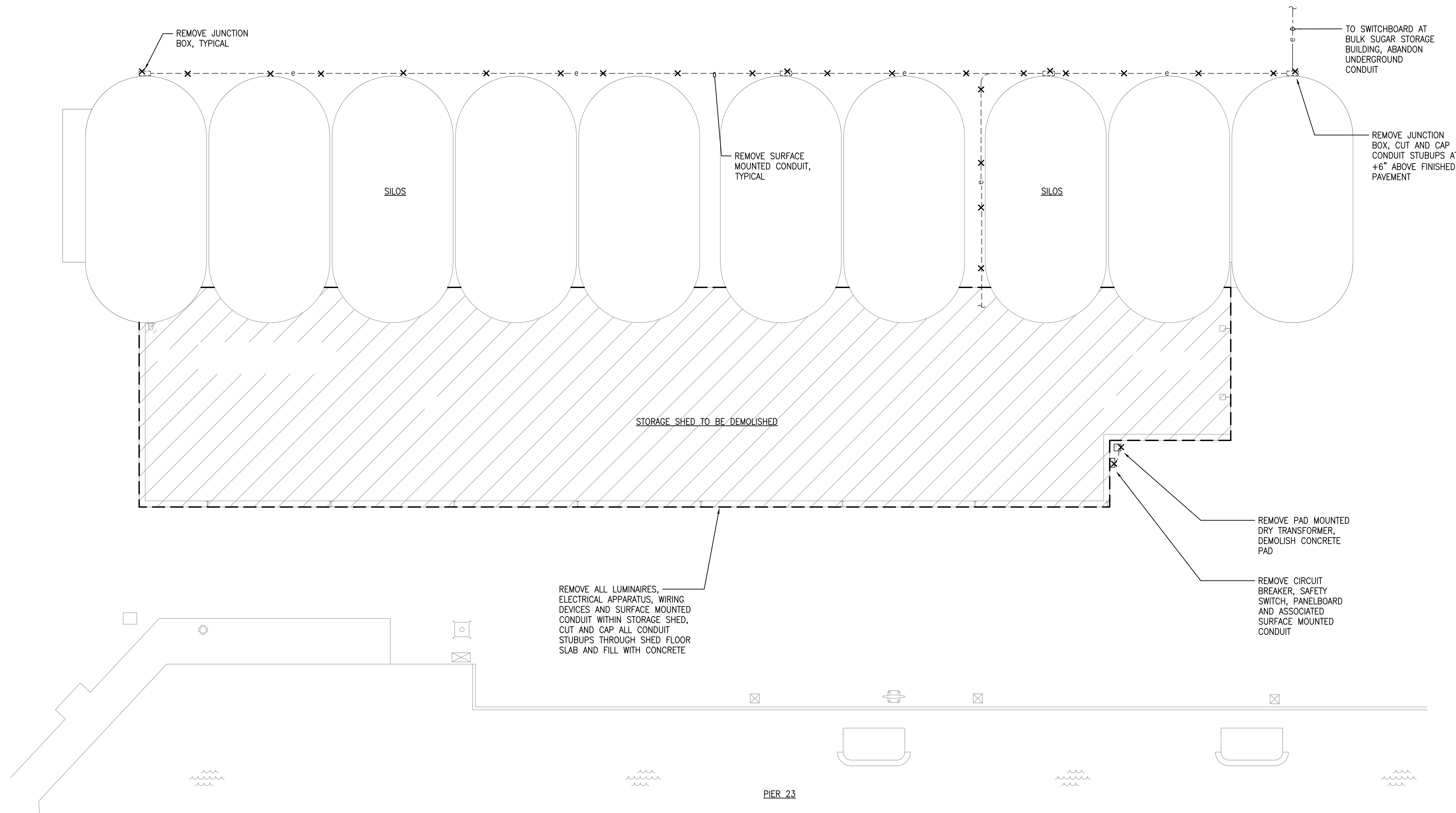
SYMBOL		DESCRIPTION
EXISTING	NEW	
		LUMINAIRE, WALL OR YOKE MOUNTED
		ELECTRICAL EQUIPMENT
		JUNCTION BOX, WALL MOUNTED
--- e ---		SURFACE MOUNTED CONDUIT
--- e ---		UNDERGROUND CONDUIT
o P3		JOINT UTILITY POLE, POLE 3 INDICATED
		PANELBOARD
		NOTE INDICATOR
E ---		CONDUIT STUB
		TOGGLE SWITCH
		DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER
	X	DENOTES DEMOLITION/REMOVAL
	+42"	DENOTES 42" ABOVE FINISHED FLOOR OR GRADE
	ELEC	ELECTRICAL
	EQ	EQUIDISTANT
	GRS	GALVANIZED RIGID STEEL
	GND	GROUND
	HH	HANDHOLE
	HT	HAWAIIAN TELCOM
	HECO	HAWAIIAN ELECTRIC
	KW	KILOWATT
	PVC	POLYVINYL CHLORIDE
	SS	STAINLESS STEEL
	WP	WEATHERPROOF
	XFMR	TRANSFORMER

GENERAL NOTES:

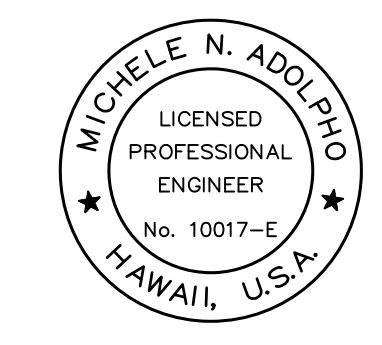
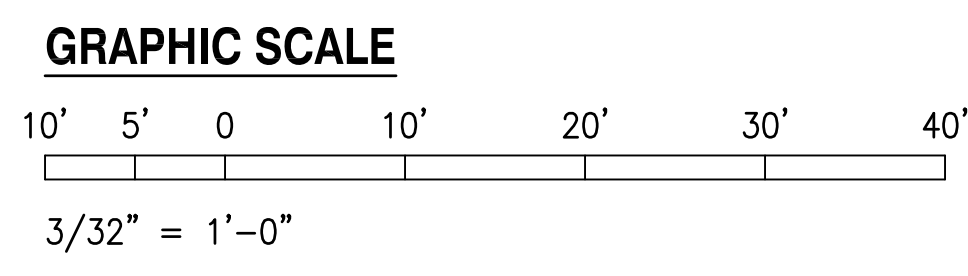
1. ALL WORK SHOWN ON ELECTRICAL DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
3. THE CONSTRUCTION WORK SCHEDULE SHALL BE COORDINATED WITH USERS, HARBORS DIVISION CONSTRUCTION ENGINEER AND HARBORS DIVISION OAHU DISTRICT MANAGER.
4. THE CONTRACTOR SHALL SCHEDULE ALL WORK TO MINIMIZE DISRUPTION OF USERS' OPERATIONS.
5. ALL EXISTING LUMINAIRES NOT SCHEDULED FOR DEMOLITION OR TEMPORARY REMOVAL SHALL BE OPERATIONAL DURING THE HOURS OF DARKNESS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY POWER SOURCE (E.G. PORTABLE GENERATOR, ETC.) FOR EXISTING LUMINAIRES TO REMAIN AT NO ADDITIONAL COST TO THE STATE.
6. ALL EXISTING ELECTRICAL EQUIPMENT AND FACILITIES NOT SCHEDULED FOR DEMOLITION SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. CONTRACTOR TO MINIMIZE OUTAGES AND COORDINATE WITH THE HARBORS DIVISION CONSTRUCTION ENGINEER, HARBORS DIVISION OAHU DISTRICT, AND ALL USERS AND TENANTS AT LEAST TWO WEEKS PRIOR TO ALL OUTAGES.
7. CONTRACTOR SHALL SCHEDULE IN WRITING ALL DEMOLITION WORK WITH USERS AND HARBORS DIVISION CONSTRUCTION ENGINEER. MINIMUM OF 14 CALENDAR DAYS ADVANCE NOTICE SHALL BE GIVEN.
8. REMOVE AND DISPOSE OF ALL ELECTRICAL EQUIPMENT AND CONDUCTORS INDICATED FOR DEMOLITION. CONCEALED CONDUIT SHALL BE ABANDONED IN-PLACE UNLESS OTHERWISE INDICATED.

12/19/23-15:33 Y:\044\044-093 Honolulu Harbor Pier 23\044-093 E-1.dwg

 <p style="font-size: small;">THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION EXP 4-30-24</p> <p style="font-size: x-small;">Michele N. Adolp ECS, INC.</p>	STATE OF HAWAII				
	DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
	JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
	SHEET TITLE ELECTRICAL SYMBOL LIST AND GENERAL NOTES				
DESIGNED BY: MA		DATE: 12/2023	JOB NUMBER: H.C. 10836	SHEET: E-1	
DRAWN BY: OL		SCALE: AS SHOWN			19 OF 22 SHEETS
CHECKED BY: MA					



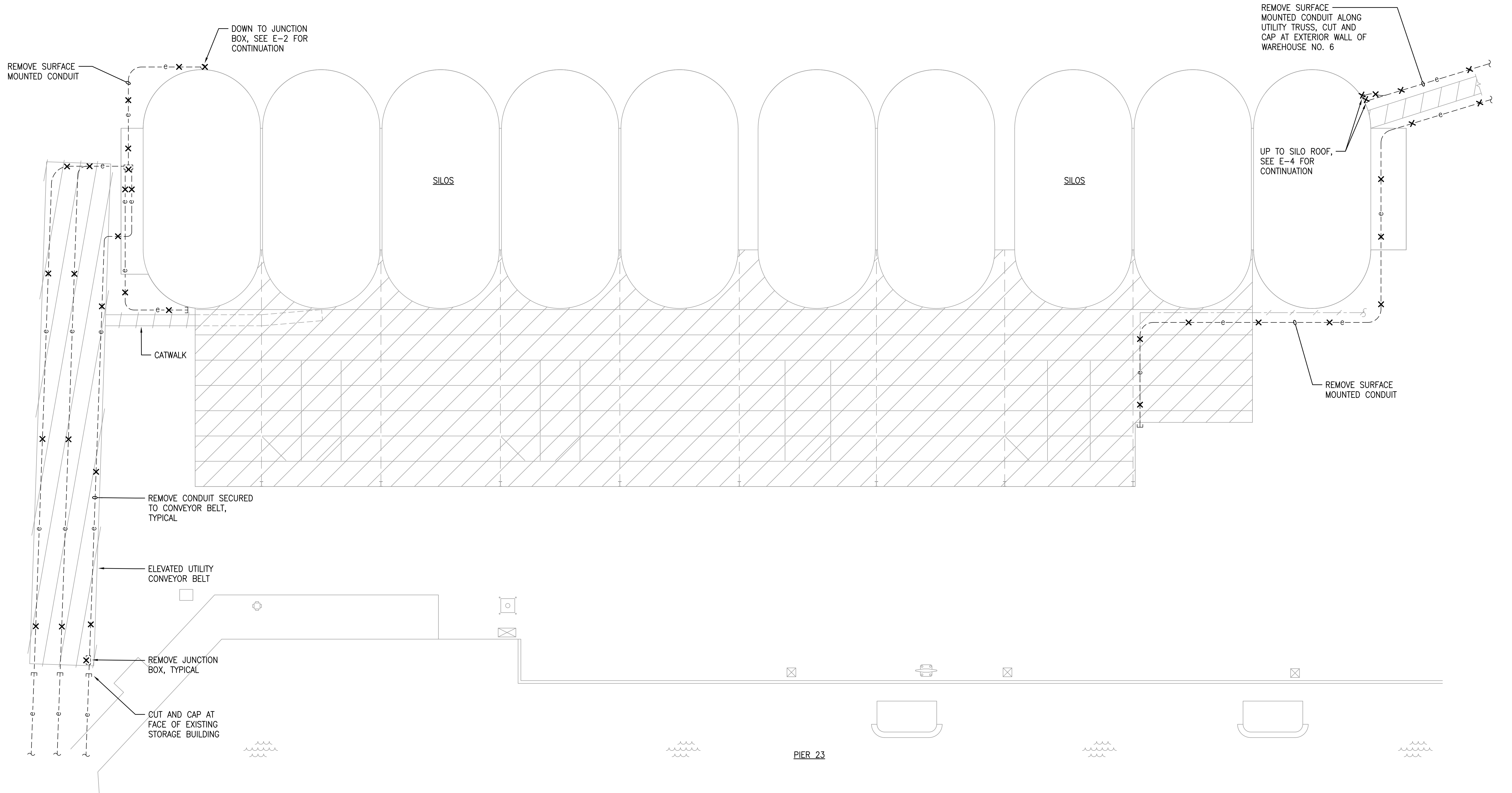
STORAGE SHED AND SILO ELECTRICAL DEMOLITION PLAN
 SCALE: 3/32" = 1'-0"



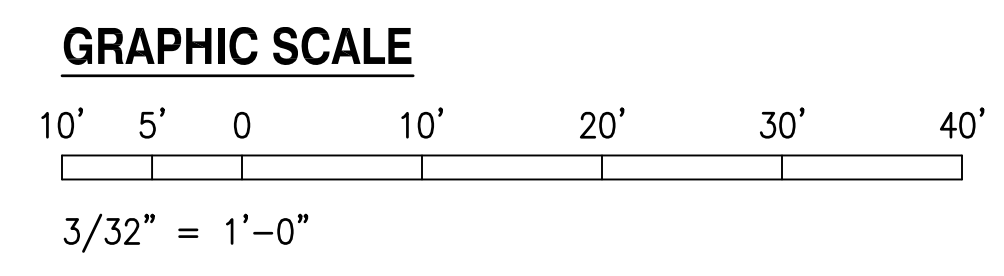
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
 EXP 4-30-24
Michele N. Adolp
 ECS, INC.

REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE SHED AND SILO ELECTRICAL DEMOLITION PLAN				
DESIGNED BY: MA				SHEET
DRAWN BY: OL				E-2
CHECKED BY: MA				
DATE: 12/2023	JOB NUMBER			
SCALE: AS SHOWN	H.C. 10836			20 OF 22 SHEETS

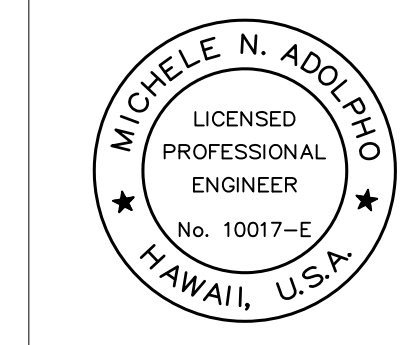
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SHED ROOF ELECTRICAL DEMOLITION PLAN
 SCALE: 3/32" = 1'-0"



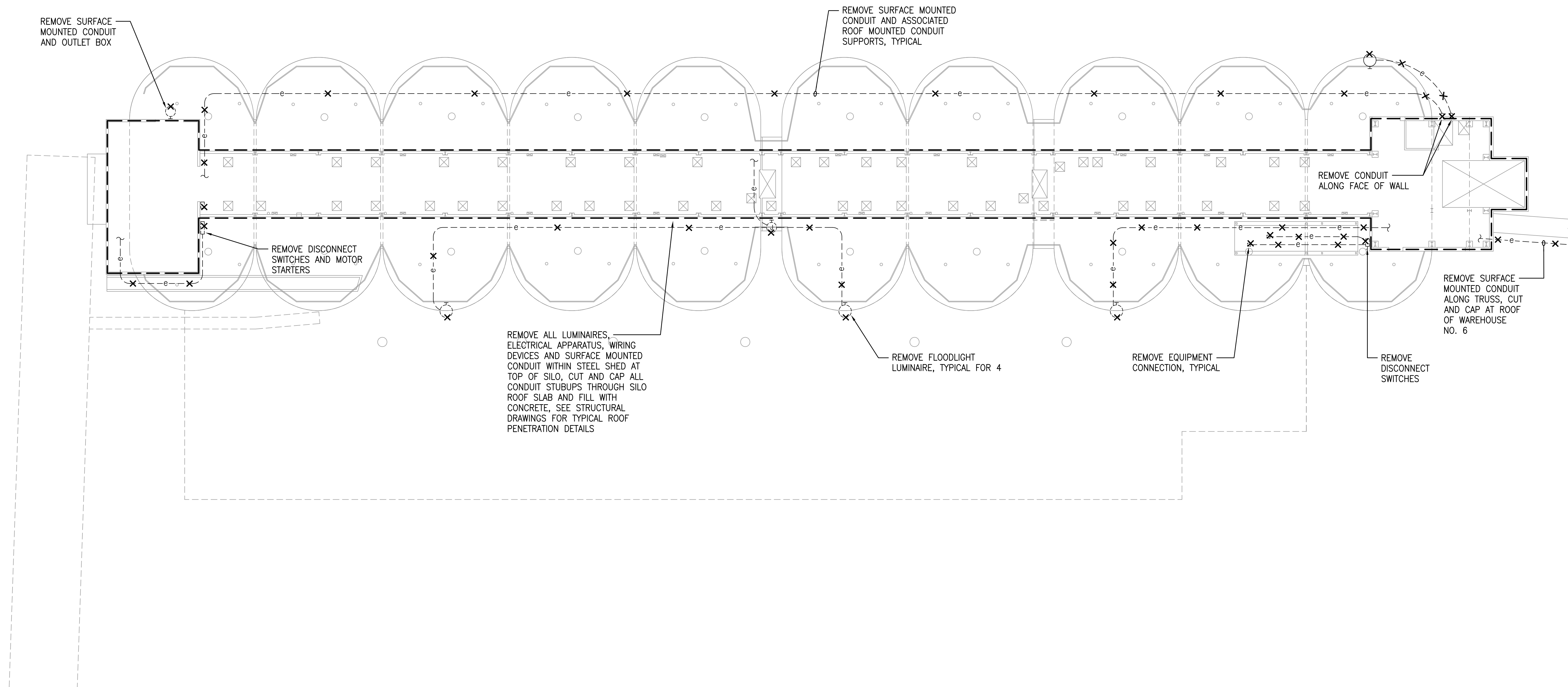
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REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE SHED ROOF ELECTRICAL PLAN				
DESIGNED BY: MA				SHEET
DRAWN BY: OL				E-3
CHECKED BY: MA				JOB NUMBER
DATE: 12/2023	H.C. 10836			21 OF 22 SHEETS
SCALE: AS SHOWN				

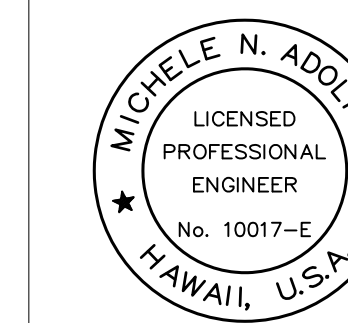
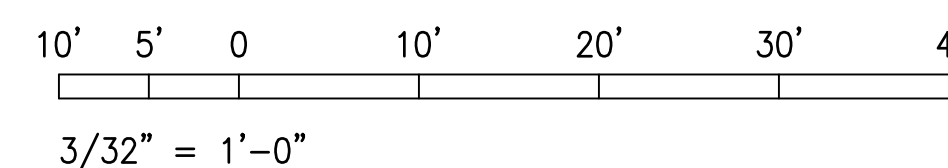
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SILO ROOF ELECTRICAL DEMOLITION PLAN
 SCALE: 3/32" = 1'-0"



GRAPHIC SCALE



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REVISION	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE DEMOLISH ROOFTOP STRUCTURES AT PIER 23 HONOLULU HARBOR, OAHU, HAWAII				
SHEET TITLE SILO ROOF ELECTRICAL DEMOLITION PLAN				
DESIGNED BY: MA				SHEET
DRAWN BY: OL				E-4
CHECKED BY: MA				
DATE: 12/2023	JOB NUMBER H.C. 10836			
SCALE: AS SHOWN				22 OF 22 SHEETS