

MALUHIA, A LONG TERM HEALTH CARE FACILITY
HAWAII HEALTH SYSTEMS CORPORATION

1027 Hala Drive ■ Honolulu, Hawaii 96817 ■ Telephone: (808) 832-6124 ■ Secure Fax: (808) 832-3897

April 4, 2022

TO: Interested Bidders

FROM: Scott Kawai *Scott Kawai*
Contracts Department

SUBJECT: Addendum No. 1
IFB No. 22M-0324 Maluhia – Dayroom Projects

Addendum No. 1 provides clarifications for the subject solicitation. Please see attached.

Addendum No. 1

From: Curtis K. Miyamura
CKM Architects, LLC
Date: April 4, 2022
Re: Drawings and Specifications for Maluhia – Hospital Dayroom Projects
1027 Hala Drive
Honolulu, Oahu, Hawaii
TMK: 1-6-009:004

The following items are in response to RFI's or in response to items in drawings and specifications dated February 2022 that need clarifications.

1. No building permits will be applied for.
2. Reference 1st Floor Reroofing Area:
 - a. Does the gutter remain or will it be replaced? **Gutter and downspout will remain.**
 - b. Please provide roofing composition of existing roof system scheduled for removal. **Don't know except for what you see on the surface.**
 - c. Please clarify required thickness of new rigid insulation? **EPS shall be min. 2".**
 - d. Is the existing roof deck sloped or will the new insulation tapered to gutter? **We don't know.**
 - e. Section 07560, paragraph 2.01A states: "Min. ½" Plywood Deck." Please confirm that the intent is the existing plywood deck to remain? **Intent for existing deck to remain.**
3. Please provide photos:
 - a. Interior locations where door and walls are scheduled for removal? **Refer to Sheet A-1 for demolition plans for Dayroom projects.**
 - b. Interior locations (ceiling, flooring) where new walls are scheduled? **Refer to Sheet A-2 for new walls and ceiling work. Regarding flooring: Existing 9 x 9 VAT was intended to remain but Addendum 1 purposes plumbing that will require ground work and disturbance of some areas of removal of VAT.**
 - c. All electrical and fire alarm noted for demolition per sheet E3.0? **Follow what is shown on E3.0.**
 - d. Existing electrical Panel A? **No response. Don't understand the question.**
 - e. Existing roof area scheduled for re-roofing? **No response. Don't understand the question.**

4. Reference interior renovated area:
 - a. Please identify existing wall types. **3½” metal studs @ 24” o.c. with ½” type X gyp. board both sides.**
 - b. Please clarify if the intent is to completely remove all existing electrical devices, outlets, fixtures, conduit and wiring and provide a completely new electrical system, or if existing conduit may be reused if homeruns are maintained. **Intent to provide new electrical devices, outlets, fixtures, conduits, and wiring.**
 - c. Please clarify if intent is to provide surface mounted conduit; or cut and patch the existing walls to run new conduit with the existing walls. **Cut and patch existing walls to run new conduit within the existing walls.**
 - d. Please provide ceiling tile specifications for replacement upon removal of HVAC devices, modifications for lighting, fire sprinkler, etc. **The hospital uses a standard tile and this should be used.**
 - e. Please provide hardware schedule for new doors. **Follow hospital hardware schedule.**
 - f. Please clarify extent of new painting required. New walls only, or all walls. **Only new walls to match existing.**
 - g. Please clarify if any flooring modifications are required to accommodate the new all layout. If so, please provide flooring and base specifications. **Flooring shall be 12 x 12 Armstrong VCT and Burke rubber base to match existing.**
 - h. If there are existing fire alarm devices, please identify and indicate location. **Follow Electrical drawings.**
5. Please identify existing fire alarm panel manufacturer/model and current service provider. **This can be found in a site visit.**
6. Reference new covered deck area: **Drawings in Addendum 1 addresses the questions for items 6a – 6e.**
 - a. Please provide details for new concrete (footing, slab, columns, beams, suspended roof deck) work (dimensions, reinforcing, etc.)
 - b. Please provide subgrade preparation requirements. Noted that the footprint area beneath the new covered deck has a slope concrete ramp, an existing CMU retaining wall and an asphalt parking area.
 - c. Is there a tied connection between the new concrete roof and existing concrete deck? Noted that there is an existing gutter and downspout along the face of the existing concrete deck.
 - d. Along the existing building side (west side), the area below the new slab is open to structure below. Please provide details for infilling the open area if the area beneath the new slab is to be filled and tamped per A/A-4.
 - e. Please clarify extent of new painting required. All exterior concrete, including underside of new concrete deck? New fire sprinkler piping, guardrails?
7. Reference Details 3, 4, 5/A-5.
 - a. Please clarify what is the “water proofing membrane” between the ½” dens deck and rigid insulation? **Follow specifications**

- b. Please clarify dens deck thickness. Details indicate $\frac{5}{8}$ " thickness. Section 07560 indicates $\frac{1}{2}$ " dens deck. **Follow specifications**
8. Please confirm the hazardous materials are not expected to be encountered during the performance of the project scope of work. If otherwise, please provide survey. **There is per Addendum 1.**

Drawings:

The following previously issued drawings dated February 2022 are reissued as Delta 1 dated March 21, 2022:

- A-1 Partial exist. & demolition floor plan, partial exist. & demolition reflected ceiling plan, partial exist. & demolition roof plan.
- A-2 Partial exist. & new floor plan. Enlarged partial exist. & new floor plan and new reflected ceiling plan.
- A-4 Cross section, Exterior Elevations.

The following new drawings are being issued.

- S-1 Structural general notes
- S-2 Foundation plan. First floor framing plan and roof framing plan
- S-3 Sections
- S-4 Typical Details
- S-5 Typical Details
- S-6 Details

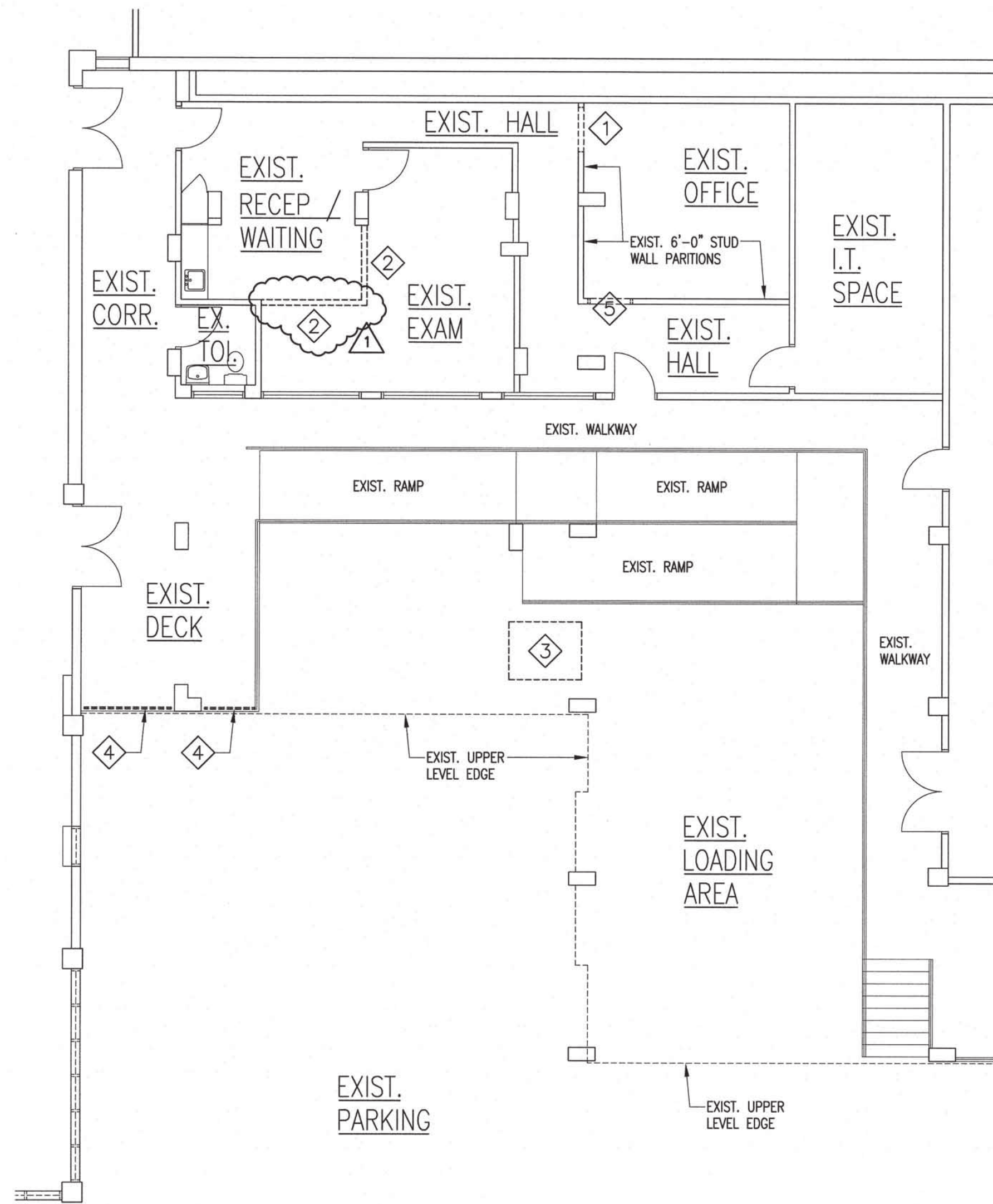
Additive Alternate No. 1

This Additive Alternate No. 1 is in response to HHSC wish to add a second exam room that is included in Sheet A-2 of this Addendum No. 1.

- | | | |
|----|---|----------|
| 1. | Walls, doors, cabinet and counter, flooring | \$ 5,000 |
| 2. | Floor coring, hazardous materials remediation | \$20,000 |
| 3. | Mechanical and Plumbing work | \$15,000 |

Additive Alternate No. 1	\$40,000
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End of Addendum No. 1

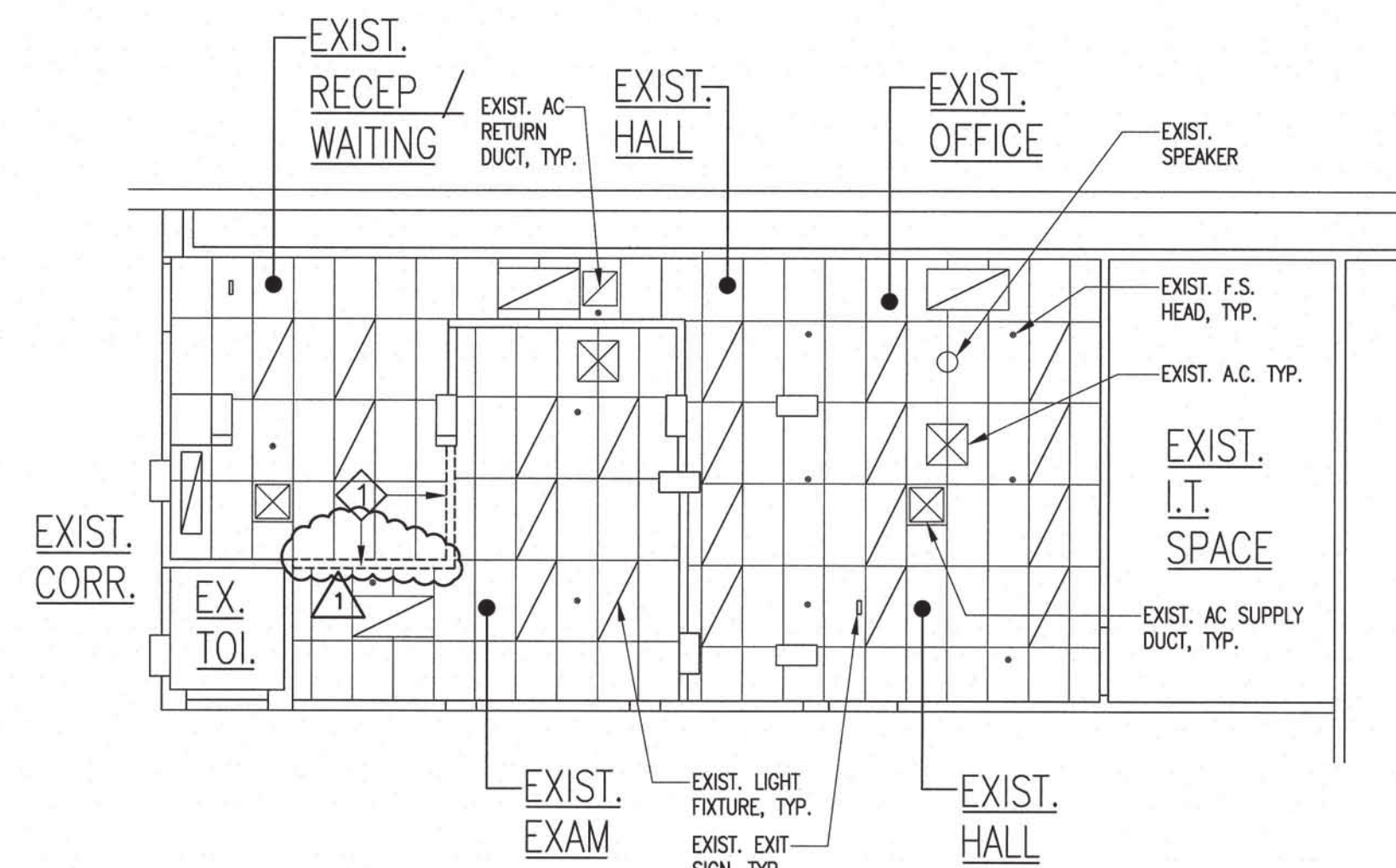


PARTIAL EXISTING AND DEMOLITION FLOOR PLAN
SCALE: 1/8"=1'-0"



REMOVAL WORK NOTES:

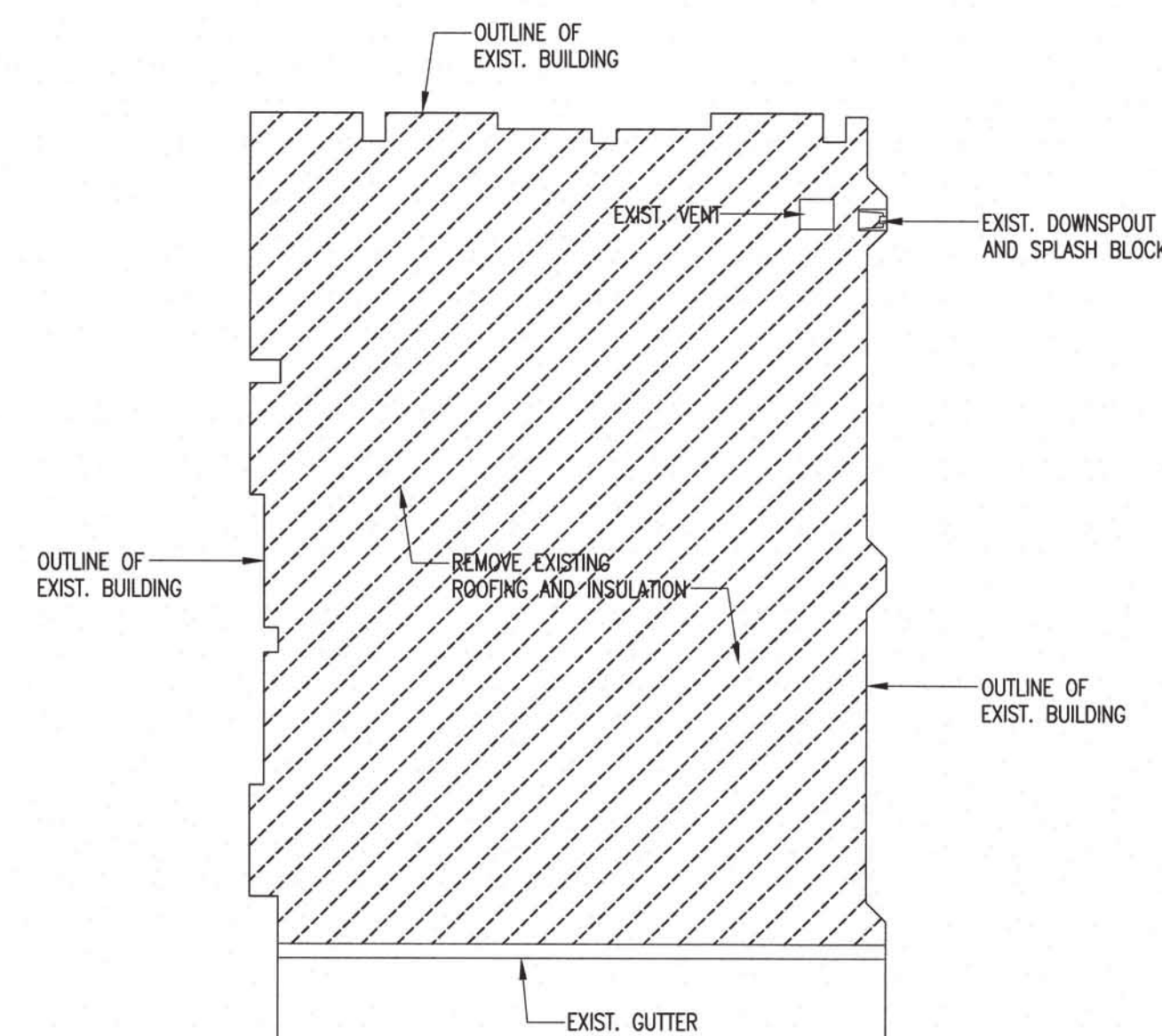
- 1 REMOVE PORTION OF EXISTING WALL FOR NEW DOOR AND FRAMES.
- 2 REMOVE EXIST. WALL.
- 3 REMOVE A.C. EQUIPMENT
- 4 REMOVE EXIST. PORTION OF EXIST. RAILING.
- 5 REMOVE EXIST. DOOR AND FRAMES.



PARTIAL EXISTING AND DEMOLITION REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"

REMOVAL WORK NOTES:

- 1 REMOVE EXIST. WALL.



PARTIAL EXISTING AND DEMOLITION ROOF PLAN
SCALE: 1/8"=1'-0"



SEC. 18-5.2 RETENTION OF PLANS
ONE SET OF APPROVED PLANS, SPECIFICATIONS, AND COMPUTATIONS SHALL BE RETAINED BY THE BUILDING OFFICIAL FOR A PERIOD OF NOT LESS THAN 90 DAYS FROM DATE OF COMPLETION OF THE WORK COVERED THEREIN, AND ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE APPLICANT, AND SAID SET SHALL BE KEPT ON THE SITE OF THE BUILDING OR WORK AT ALL TIMES DURING WHICH THE WORK AUTHORIZED THEREBY IS IN PROGRESS. (S.C. 18-5.2 R.O. 1978 (1983 ED.); AM. ORD. 93-59)



WALL LEGEND

- A SEE SHEET 1/A-5, WALL DETAIL
- B SEE SHEET 2/A-5, WALL DETAIL



98-829 Leialii Street
Aiea, Hawaii 96701
Tel.: 808-741-1577
Email: cmiyamur@hawaii.rr.com



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

Cathy K. Mueggenberg

Signature _____ Expiration Date _____

1	3-21-22	OWNER REVISIONS
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**NEW FIRST FLOOR ROOF, DAYROOM COVERED
LANAI, DAYROOM EXAM/WAITING/DR OFFICE
HHSO MAIL ROOM**

PARTIAL EXIST. & NEW FLOOR PLAN, ENLARGED PARTIAL EXIST. & NEW FLOOR PLAN, ENLARGED PARTIAL EXIST. & NEW REFLECTED CEILING PLAN

DATE: FEB. 2022

SCALE: AS NOTED

CHECKED BY: CM

DRAWN BY: DM

JOB NO:

SHEET NUMBER

A-2

SEC. 18-5.2 RETENTION OF PLANS
ONE SET OF APPROVED PLANS, SPECIFICATIONS, AND COMPUTATIONS SHALL
BE RETAINED BY THE BUILDING OFFICIAL FOR A PERIOD OF NOT LESS
THAN 90 DAYS FROM DATE OF COMPLETION OF THE WORK COVERED
THEREIN, AND ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE
APPLICANT, AND SAID SET SHALL BE KEPT ON THE SITE OF THE BUILDING
OR WORK AT ALL TIMES DURING WHICH THE WORK AUTHORIZED THEREBY
IS IN PROGRESS. (SEC. 18-5.2 R.O. 1978 (1983 ED.); AM. ORD. 93-59)



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THIS WORK WAS PREPARED BY ME OR UNDER
MY SUPERVISION. CONSTRUCTION OF THIS
PROJECT WILL BE UNDER MY OBSERVATION.
Curtis K. Miyamura
Signature Expiration Date
April 30, 2022

3-21-22 OWNER REVISIONS

NEW FIRST FLOOR ROOF, DAYROOM COVERED
LANAI, DAYROOM EXAM/WAITING/DR OFFICE
HHSC MALUHIA

ADDRESS: 1027 HALA DRIVE
TMK: 1 - 6 - 009 : 004
HONOLULU, HAWAII 96817

CROSS SECTION, EXTERIOR ELEVATIONS

DATE: FEB. 2022

SCALE: AS NOTED

CHECKED BY: CM

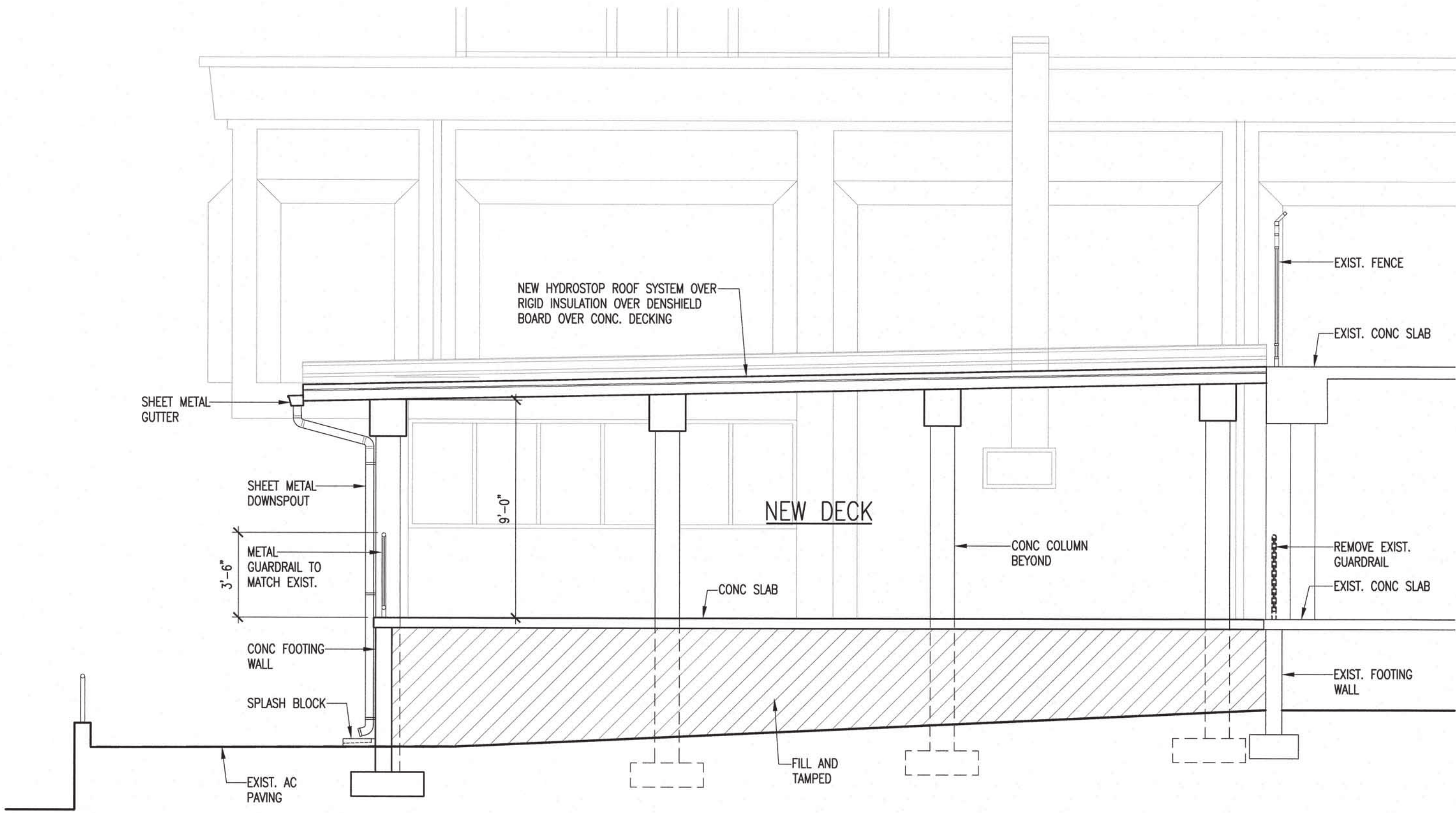
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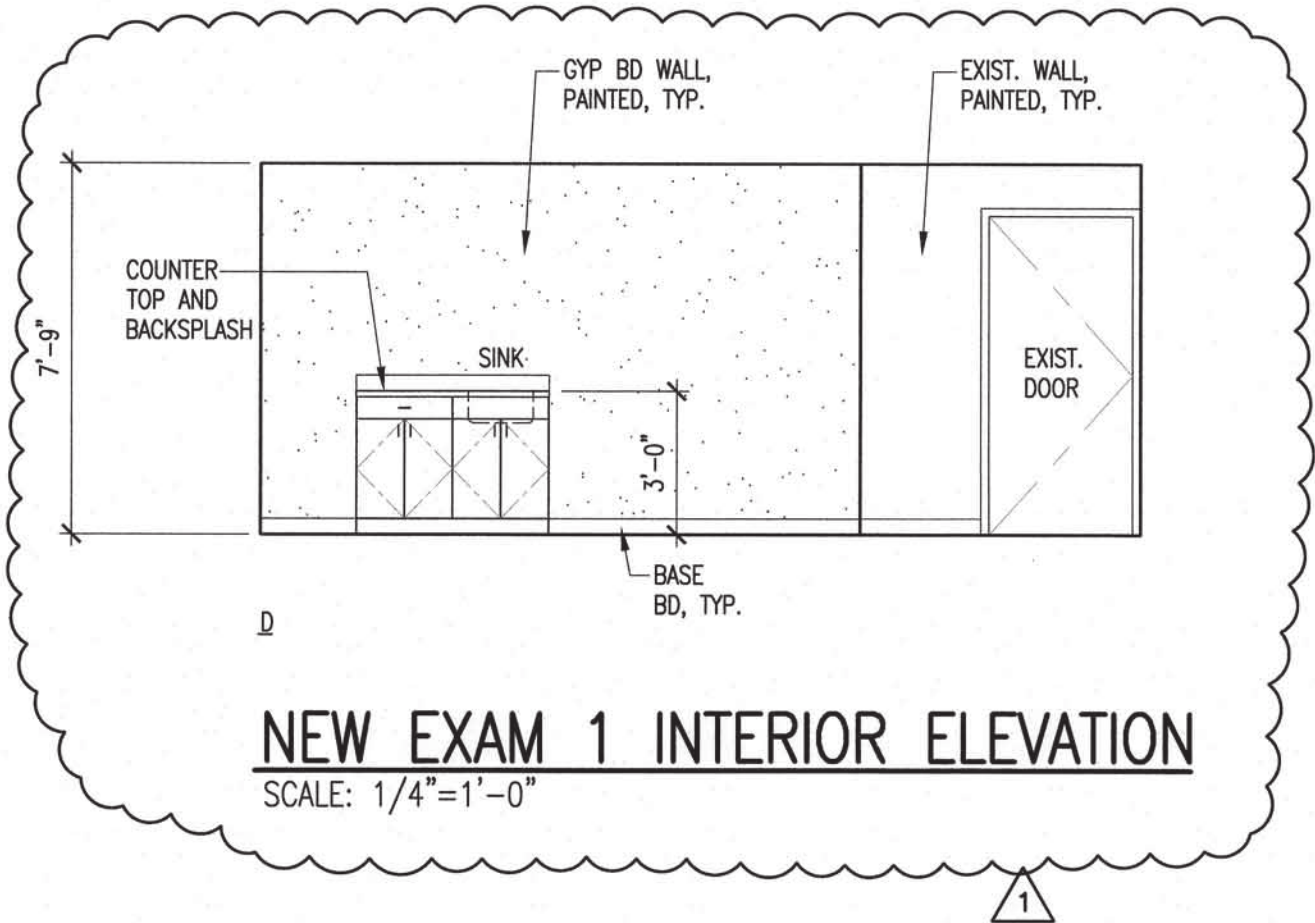
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A-4

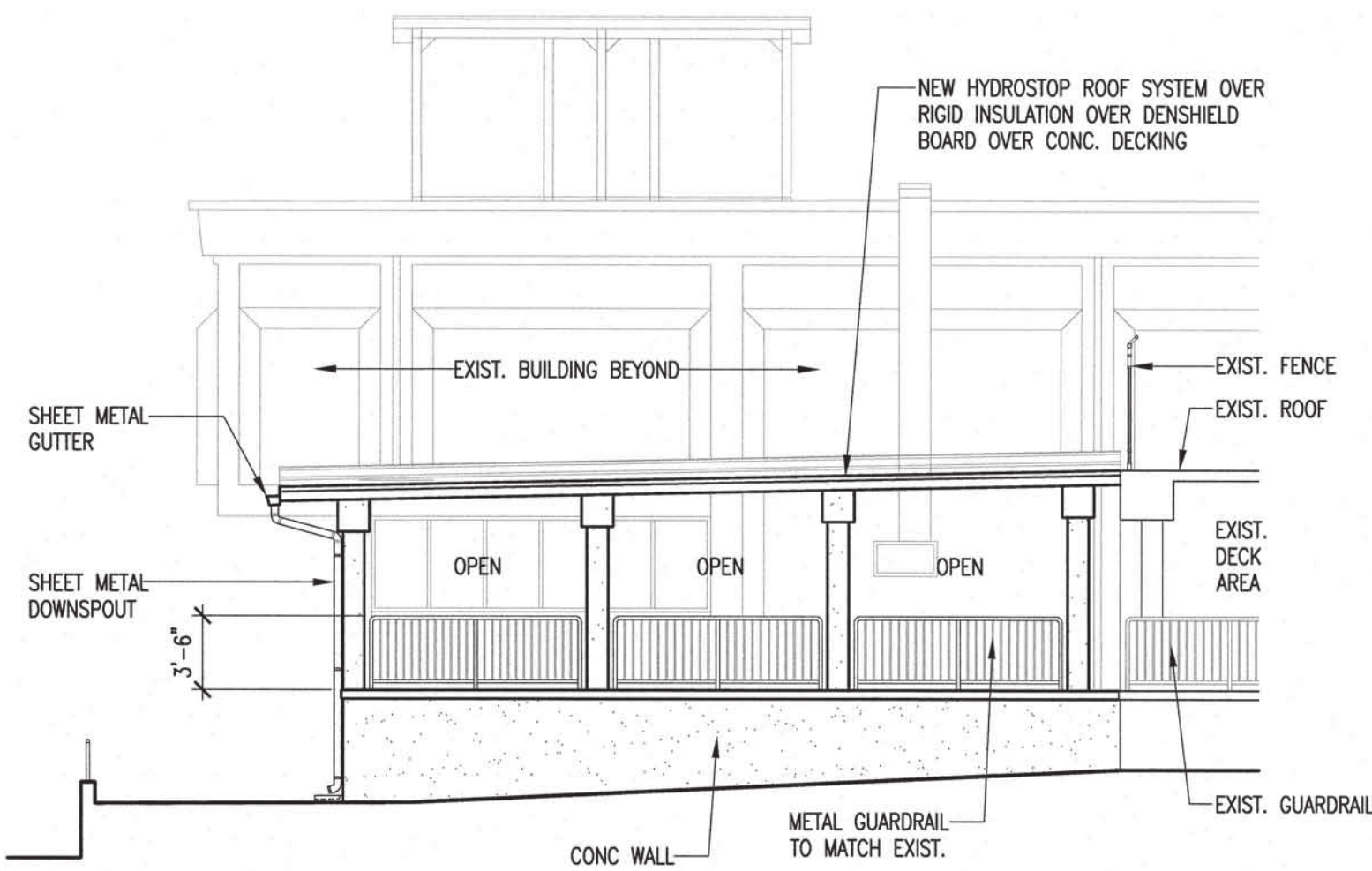
4 OF 24 SHEETS



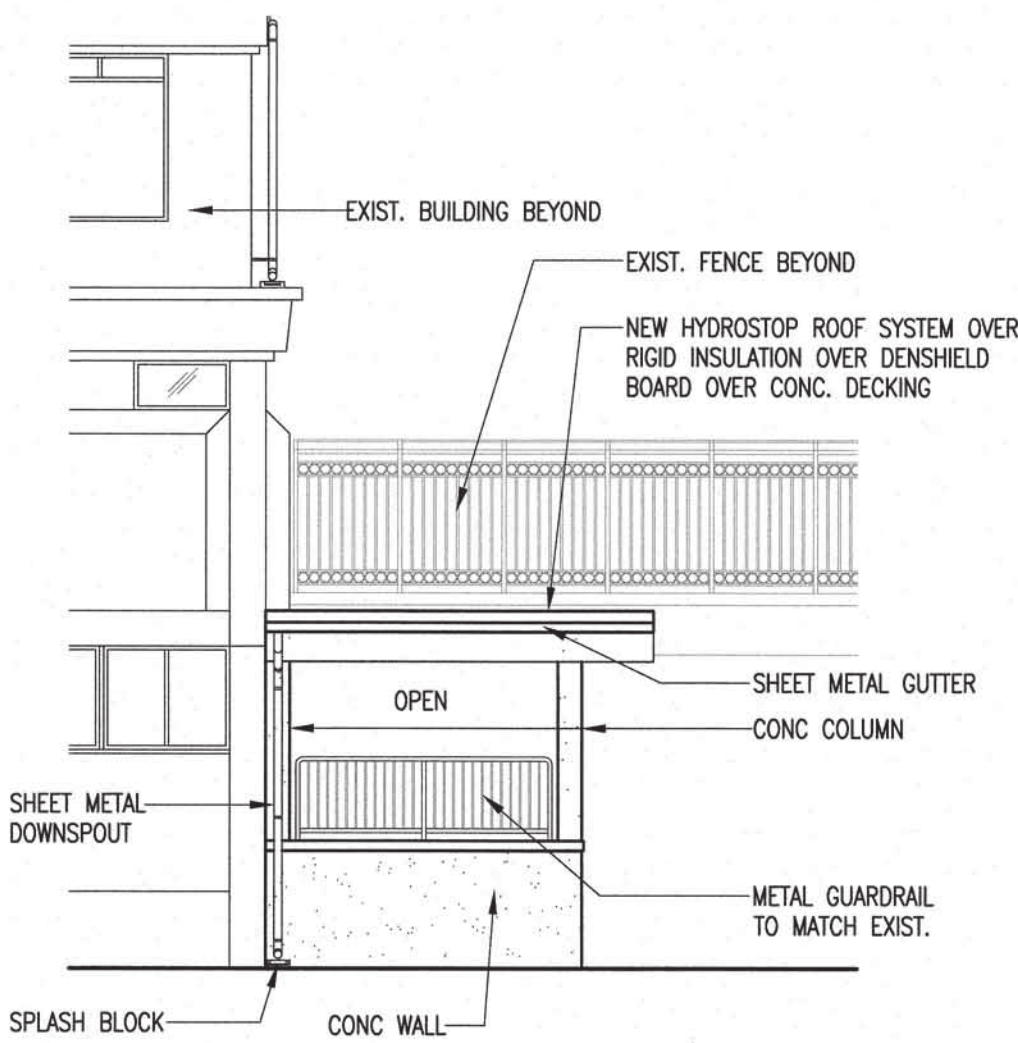
A WALL FLASHING DETAIL
A-4 SCALE: 1/4"=1'-0"



NEW EXAM 1 INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



EAST EXTERIOR ELEVATION AT NEW DECK
SCALE: 1/8"=1'-0"



SOUTH EXTERIOR ELEVATION AT NEW DECK
SCALE: 1/8"=1'-0"

GENERAL NOTES

1.

THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, WIND, SEISMIC, ETC.
2.

VERIFY ALL REPAIR QUANTITIES WITH THE CONTRACTING OFFICER BEFORE PROCEEDING WITH THE REPAIR WORK.
3.

VERIFY ALL FIELD DIMENSIONS, EXISTING ELEVATIONS AND CONDITIONS AGAINST THE PROJECT DRAWINGS PRIOR TO STARTING WORK. ALL DISCREPANCIES SHALL BE REPORTED TO THE CONTRACTING OFFICER.
4.

CONTRACTOR MUST BE RESPONSIBLE FOR JOBSITE SAFETY AND ASSUME RESPONSIBILITY FOR THE DESIGN AND PROVISION OF ALL TEMPORARY BRACING, SHORING, GUYS, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
5.

ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS MUST BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER BEFORE STARTING ANY WORK.
6.

ALL WORK MUST CONFORM TO APPLICABLE PORTIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPT. 1986, OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPT. 1984, AS AMENDED OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI, UNLESS OTHERWISE INDICATED.
7.

SHOULD THERE BE CONFLICTS BETWEEN THE REQUIREMENTS IN THE DRAWINGS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
8.

IT SHALL BE THE CONTRACTOR’S RESPONSIBILITY TO PROVIDE A LEVEL TOP SURFACE OF ALL SLABS IN ACCORDANCE WITH THE LEVELNESS TOLERANCE REQUIRED FOR ALL FINISHES, PARTITIONS, BUILT-IN CABINETS AND COUNTERS, ETC.

A.

ALL SLABS AND BEAMS ARE EXPECTED TO DEFLECT AFTER SHORES ARE REMOVED. IT SHALL BE THE CONTRACTOR’S RESPONSIBILITY TO PROVIDE A LEVEL FINISH SURFACE BY FILLING ALL LOW CONCRETE SURFACE AREAS WITH A CEMENTITIOUS GROUT THAT WILL BOND TO THE CONCRETE SURFACE AND THAT IS COMPATIBLE WITH THE SPECIFIED FLOOR FINISHES.

B.

THE CONTRACTOR SHALL ALLOW FOR CHIPPING AND/OR FILLING THE FLOORS TO SATISFY THE REQUIREMENT FOR A "LEVEL" FLOOR. IN NO CASE SHALL THE TOP OF THE FLOOR BE CHIPPED MORE THAN 1/4 INCH WITHIN A 10 FEET x 10 FEET AREA TO ACHIEVE THIS.

9.

SHORING:

A.

SHORING FOR CONCRETE FLOOR SYSTEMS SHALL REMAIN IN PLACE FOR 3 CONSECUTIVE STORIES SO THAT AT LEAST THREE FLOORS ARE SUPPORTING THE NEWEST POUR. THE BOTTOM–MOST SHORING SHALL REMAIN IN PLACE FOR AT LEAST TEN DAYS AFTER THE NEWEST POUR OR UNTIL THE NEWEST POUR HAS ATTAINED A COMPRESSIVE STRENGTH OF 0.85 x f’c, WHICHEVER OCCURS LATER.

B.

SHORES FOR ALL FLOORS SHALL BE ALIGNED FROM STORY TO STORY WITH CORRECT CAMBER IN FORMS FOR EACH FLOOR.

C.

SHORES SHALL BE ARRANGED IN SUCH A WAY THAT THEY REMAIN UNDISTURBED EVEN IF BEAM FORMS ARE REMOVED.

10.

FORM AND SHORE REMOVAL:

A.

SEQUENCE SHALL ALWAYS BE FROM MIDSPAN TO SUPPORTS, AND FROM SLAB TO JOISTS TO GIRDERS.

B.

MINIMUM TIME BEFORE REMOVAL OF FORMS:

1)

SIDE FORMS OF BEAMS, COLUMNS & WALLS: 5 DAYS (48 HOURS IF MOIST CURED FOR 7 DAYS OR SEALED WITH CURING COMPOUND)

2)

SLABS EXCEPT CANTILEVERS:

a.

SPANS 8 FEET OR LESS: 8 DAYS

b.

SPANS GREATER THAN 8 FEET: 8 DAYS PLUS 1 DAY FOR EACH FOOT GREATER THAN 8 FEET

c.

SLAB CANTILEVERS, BEAMS AND GIRDER SOFFITS: 21 DAYS

C.

SEE ARCHITECTURAL DRAWINGS FOR CHAMFERS, EDGE RADII, DRIPS, REGLETS, FINISHES, AND OTHER NON–STRUCTURAL ITEMS NOT SHOWN OR SPECIFIED NO STRUCTURAL DRAWINGS.

DESIGN DATA

1.

CODES:

A.

IBC 2018

B.

ASCE 7–16

C.

ACI 318–11

2.

LIVE LOADS:

ROOF

= 20 PSF

FLOOR

= 100 PSF

INSPECTION REQUIREMENTS

1.

ALL SPECIAL INSPECTIONS MUST BE DONE PER INTERNATIONAL BUILDING CODE SPECIAL INSPECTION PROVISIONS OF SECTION 1704.

HIRE AND PAY FOR INSPECTION AND TESTING SERVICES. SITE OBSERVATION VISITS PROVIDED BY THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND TO PROVIDE SAFETY ON SITE.

2.

THE WORK ITEMS THAT WILL REQUIRE INSPECTION BY SPECIAL INSPECTOR MUST BE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:

A.

CONCRETE

B.

REINFORCING STEEL

C.

EPOXY EMBEDS

NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO THE ABOVE INSPECTION.

FOUNDATION

1.

NO GEOTECHNICAL INVESTIGATION HAS BEEN PERFORMED FOR THIS PROJECT, THEREFORE, DESIGN VALUES FOR THE FOUNDATION WERE ASSUMED, BASED ON THE EVALUATION OF PROVIDED AVAILABLE SOILS DATA FOR AREAS ADJACENT TO THE PROJECT SITE.

2.

FOUNDATION DESIGN VALUES (ASSUMED):

A.

ALLOWABLE SOIL BEARING PRESSURE = 1,500 PSF (DL + LONG TERM LL) ONE THIRD WIND/SEISMIC INCREASE ALLOWED. BASED ON FOOTINGS BEARING ON RECOMPACTED IN–SITU GRANULAR SOILS AND/OR DENSE CORAL FORMATION.

3.

FOUNDATION MUST NOT BE PLACED IN STANDING WATER. IF GROUNDWATER IS ENCOUNTERED, IMMEDIATELY NOTIFY THE OWNER’S REPRESENTATIVE AND PROCEED WITH THE AFFECTED WORK IN ACCORDANCE WITH INSTRUCTIONS PROVIDED BY THE ENGINEER.

4.

FOR FOOTINGS BEARING ON THE IN–SITU GRANULAR SOILS, THE BOTTOM OF THE FOOTING EXCAVATIONS MUST BE RECOMPACTED TO A MINIMUM OF 95 PERCENT RELATIVE COMPACTION PRIOR TO PLACEMENT OF REINFORCING STEEL OR CONCRETE. FOR FOOTINGS BEARING ON THE DENSE/HARD CORAL, THE BOTTOM OF THE CORAL MUST BE CLEAN AND FREE OF LOOSE MATERIAL. IF SOFT AND/OR LOOSE MATERIALS ARE ENCOUNTERED DURING FOOTING EXCAVATIONS, THEY MUST BE OVER–EXCAVATED TO EXPOSE THE UNDERLYING FIRM/ DENSE MATERIALS. THE OVER–EXCAVATION MUST BE BACKFILLED WITH LEAN CONCRETE OR SELECT GRANULAR MATERIAL COMPACTED TO A MINIMUM OF 95 PERCENT RELATIVE COMPACTION.

5.

IMPORTED MATERIALS CONSISTS OF NON–EXPANSIVE MATERIAL, SUCH AS CRUSHED CORAL, MUD ROCK, BASALT OR CINDER SAND. THE MATERIAL SHOULD BE WELL–GRADED FROM COARSE TO FINE WITH NO PARTICLES LARGER THAN 3/8 INCHES IN LARGEST DIMENSION AND SHOULD CONTAIN BETWEEN 10 AND 30 PERCENT PARTICLES PASSING THE NO. 200 SIEVE. THE MATERIAL SHOULD HAVE A LABORATORY CBR VALUE OF 12 OR MORE AND SHOULD HAVE A MAXIMUM SWELL OF 1 PERCENT OF LESS.

6.

THE FILL AND BACKFILL MATERIALS SHOULD BE PLACED IN LEVEL LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, MOISTURE–CONDITIONED TO 2 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION.

EPOXY MATERIAL

1.

REFER TO DRAWINGS FOR AREAS WHICH REQUIRE EPOXY EMBEDDED BOLTS AND DOWELS.

2.

EPOXY ADHESIVE PRODUCTS FOR NON–OVERHEAD APPLICATIONS INTO SOLID MATERIAL SHALL BE AS NOTED IN THE FOLLOWING OR APPROVED EQUAL:

A.

HILTI HIT HY200 BY HILTI CORPORATION

B.

SIKADUR HI–MOD BY SIKA CORPORATION

C.

SIMPSON SET XP BY SIMPSON STRONG–TIE.

3.

LOCATE EXISTING STEEL REINFORCING BY NON–DESTRUCTIVE TESTING PRIOR TO DRILLING ALL HOLES FOR EPOXY EMBED CONNECTIONS. EXISTING REINFORCING SHALL NOT BE CUT OR DAMAGED.

4.

CLEAN HOLES WITH MOTOR DRIVEN COMPRESSED AIR AND WIRE BRUSH OF ALL DUST PRIOR TO EPOXY INSTALLATION.

5.

ALL EPOXY EMBEDDED DOWELS MUST HAVE PERIODIC SPECIAL INSPECTION.

6.

INSTALLATION OF POST INSTALLED ANCHOR AND REBAR DOWELS MUST BE IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

7.

ADHESIVE ANCHORS MUST MEET THE REQUIREMENTS OF ACI 308.4 "ACCEPTANCE CRITERIA FOR QUALIFICATION OF POST–INSTALLED ADHESIVE ANCHORS IN CONCRETE AND COMMENTARY".

8.

ALL POST INSTALLED ANCHORS MUST BE INSTALLED BY TRAINED AND/OR CERTIFIED INSTALLERS AND CONTINUALLY INSPECTED DURING INSTALLATION BY AN INSPECTOR APPROVED BY THE BUILDING OFFICIAL OR THE ENGINEER.

CONCRETE

1.

ALL CONCRETE SHALL DEVELOP THE FOLLOWING MINIMUM ULTIMATE COMPRESSIVE STRENGTHS, WITH CORRESPONDING MAXIMUM SIZE OF AGGREGATES AND WATER/CEMENT (W/C) RATIO AS FOLLOWS UNLESS INDICATED ELSEWHERE:

ELEMENT	28 DAY STRENGTH (PSI)	MAXIMUM SIZE AGGREGATE	W/C	EXPOSURE CLASS
CONCRETE	5,000	3/4"	0.40	C2

2.

ADMIXTURES:

A.

USE WATER REDUCING AND RETARDING ADMIXTURE AS REQUIRED.

B.

SUPERPLASTICIZING ADMIXTURES CONFORMING TO ASTM C494 TO BE USED AT CONTRACTOR'S OPTION, BUT SUBJECT TO ENGINEER’S APPROVAL.

3.

CONCRETE JOINTS INDICATED ARE DIAGRAMMATIC AND DO NOT REPRESENT ALL OF THE JOINTS REQUIRED FOR CONSTRUCTION. COORDINATE JOINT LOCATION WITH CONSTRUCTION SEQUENCING AND CIVIL REQUIREMENTS. UNLESS OTHERWISE SHOWN, CONSTRUCTION JOINTS MUST BE LOCATED BY THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ENGINEER. THEY MUST BE LOCATED TO IMPAIR THE STRENGTH OF THE STRUCTURE AT THE LEAST AND TO MINIMIZE SHRINKAGE STRESSES. PROVIDE DOWELS AS DIRECTED AND THOROUGHLY CLEAN AND ROUGHEN SURFACES BEFORE PROCEEDING WITH NEXT POUR.

4.

COAT ALL CONCRETE JOINTS WITH BONDING AGENT.

5.

THE USE OF ANY CALCIUM CHLORIDE IN ANY CONCRETE IS PROHIBITED.

6.

USE CEMENT TYPE II.

7.

CHAMFER ALL EXPOSED CONCRETE EDGES 3/4", UNLESS OTHERWISE NOTED.

REINFORCING STEEL

1.

STRENGTHS – ALL REINFORCING BARS MUST BE ASTM A615, GRADE 60.

2.

CONCRETE CLEAR COVER UNLESS OTHERWISE INDICATED:

A.

CONCRETE CAST AGAINST EARTH & PERMANENTLY EXPOSED TO EARTH 3"

B.

CONCRETE CAST AGAINST FORMS & EXPOSED TO EARTH OR WEATHER 2"

3.

BAR BENDS, HOOKS, AND OFFSETS MUST BE IN ACCORDANCE WITH THE ACI RECOMMENDATIONS UNLESS OTHERWISE SHOWN.

4.

SPECIAL SPACER CHAIRS: SPACER "CHAIRS" MUST BE USED TO MAINTAIN REQUIRED MINIMUM CONCRETE CLEAR COVER FOR REINFORCING AT FACES EXPOSED TO WEATHER AND GROUND.

5.

DOWELS MUST BE SAME SIZE AND SPACING AND MUST BE IN THE SAME PLANE AS THE BARS TO WHICH THEY ARE SPLICED UNLESS OTHERWISE INDICATED.

ABBREVIATIONS

ARCH	ARCHITECTURAL
(B), BOT	BOTTOM
CL	CENTERLINE
CLR	CLEAR
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
DEG	DEGREE
DIAG	DIAGONAL
DWG(S)	DRAWING(S)
(E), EXST	EXISTING
EA	EACH
EF	EACH FACE
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
FIN	FINISH
FNDN	FOUNDATION
FTG	FOOTING
HORIZ	HORIZONTAL
MANUF	MANUFACTURER
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
OC	ON CENTER
OPNG	OPENING
REINF	REINFORCING
REQD	REQUIRED
SOG	SLAB ON GRADE
(T)	TOP
T&B	TOP AND BOTTOM
THK	THICK
TYP	TYPICAL
VERT	VERTICAL
W/	WITH

ckm

architects, LLC

98-829 Leialii Street
Aiea, Hawaii 96701
Tel: 808-741-1577
Email: cmiamur@hawaii.rr.com

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

Signature _____ Expiration Date
April 30, 2024

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NEW FIRST FLOOR ROOF, DAYROOM COVERED
LANAI, DAYROOM EXAM/WAITING/DR OFFICE
HHSC MALUHIA

ADDRESS: 1027 HALA DRIVE
TMK: 1 – 6 – 009 : 004
HONOLULU, HAWAII 96817

STRUCTURAL GENERAL NOTES

DATE: FEB. 2022

SCALE: AS NOTED

CHECKED BY: CM

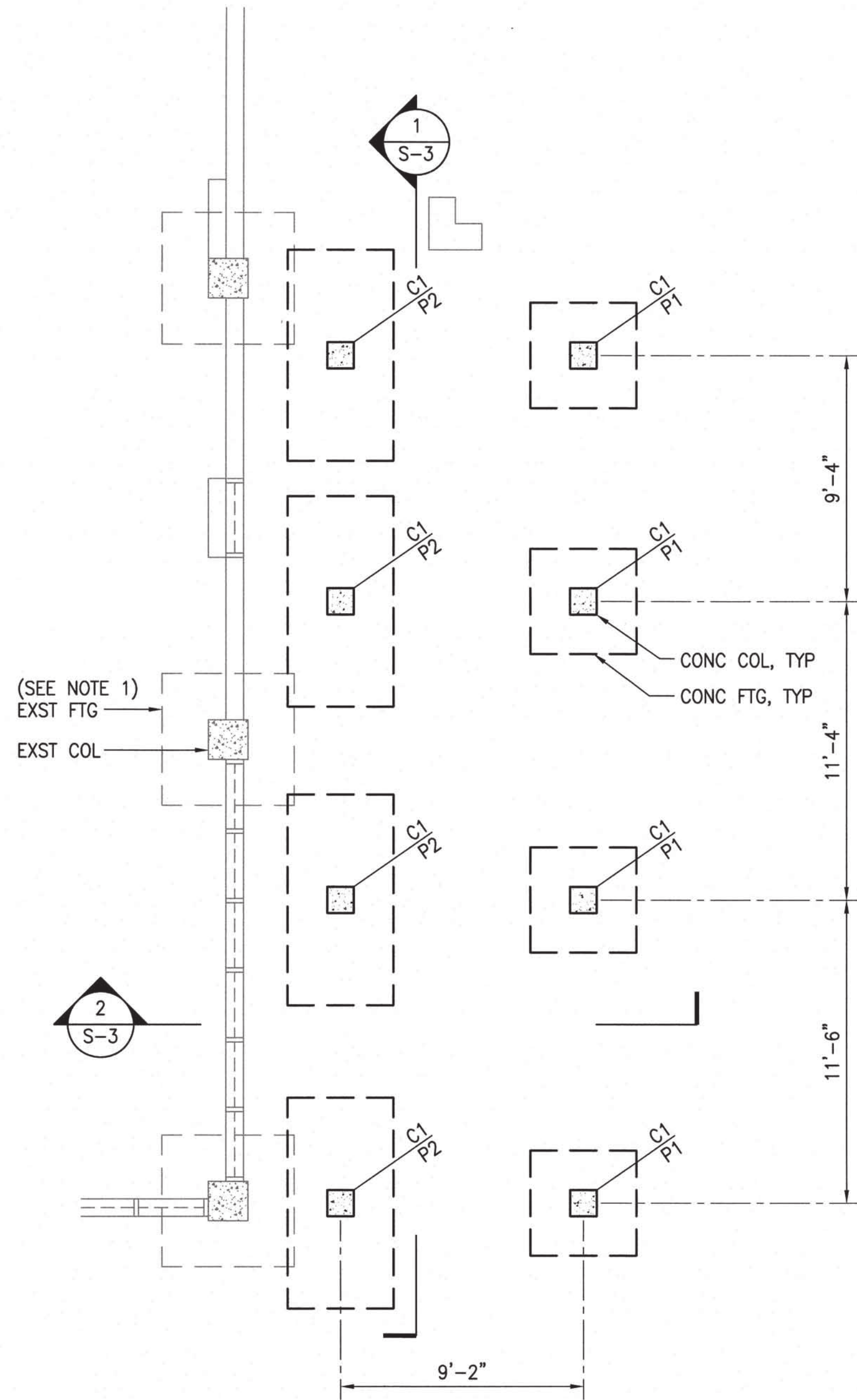
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JOB NO:

SHEET NUMBER

S-1

19 OF 24 SHEETS



1

FOUNDATION PLAN

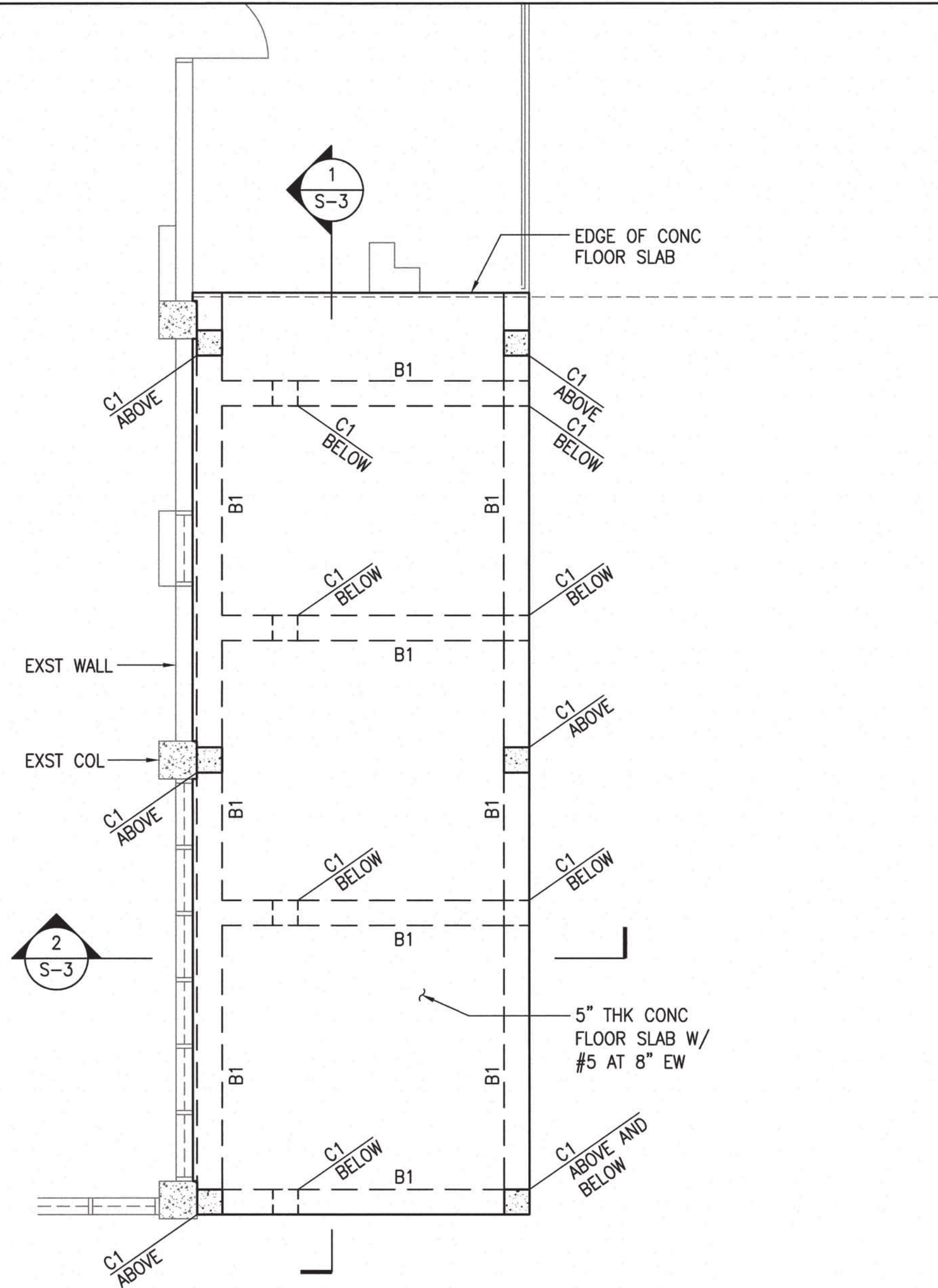
SCALE: 1/4" = 1'-0"

P1 - 48"x48"x12" THK CONC FTG W/ (6) #6 BARS EW

P2 - 48"x96"x12" THK CONC FTG W/ #6 AT 8" EW

NOTE

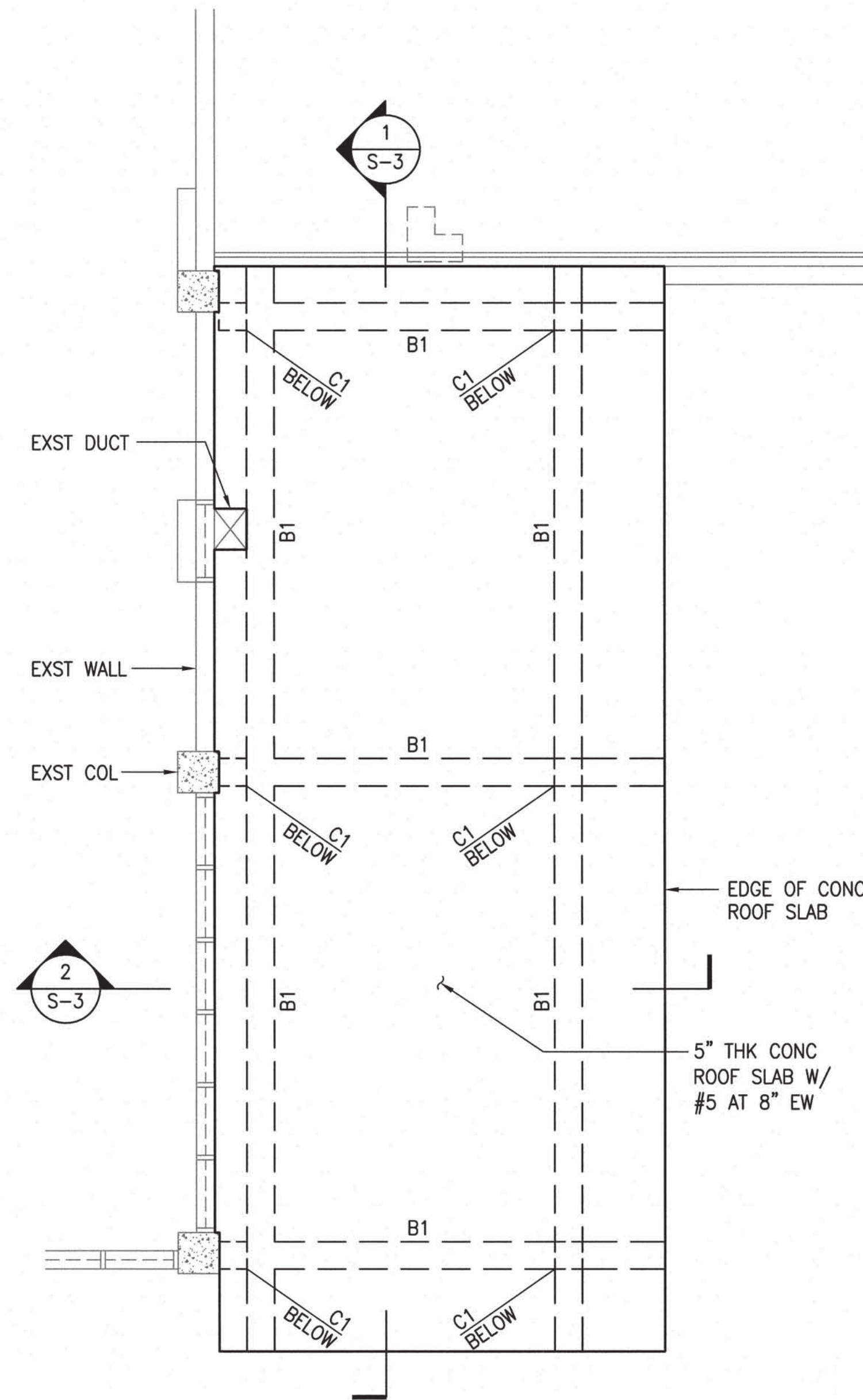
1. EXISTING FOOTING IS UNKNOWN. CONTACT ENGINEER IF NEW FOOTING INTERFERES WITH EXISTING FOOTING.



2

FLOOR FRAMING PLAN

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



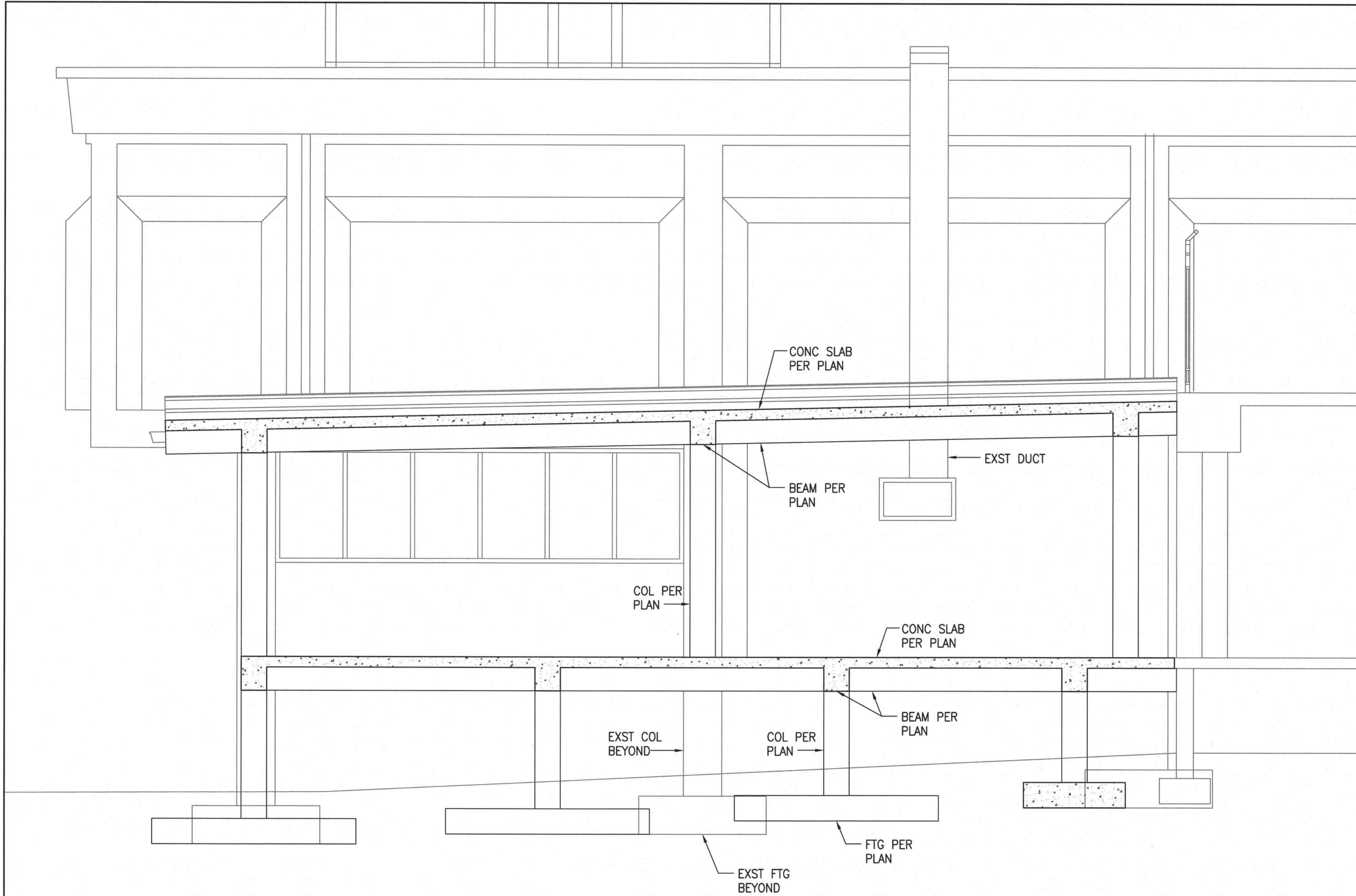
3

ROOF FRAMING PLAN

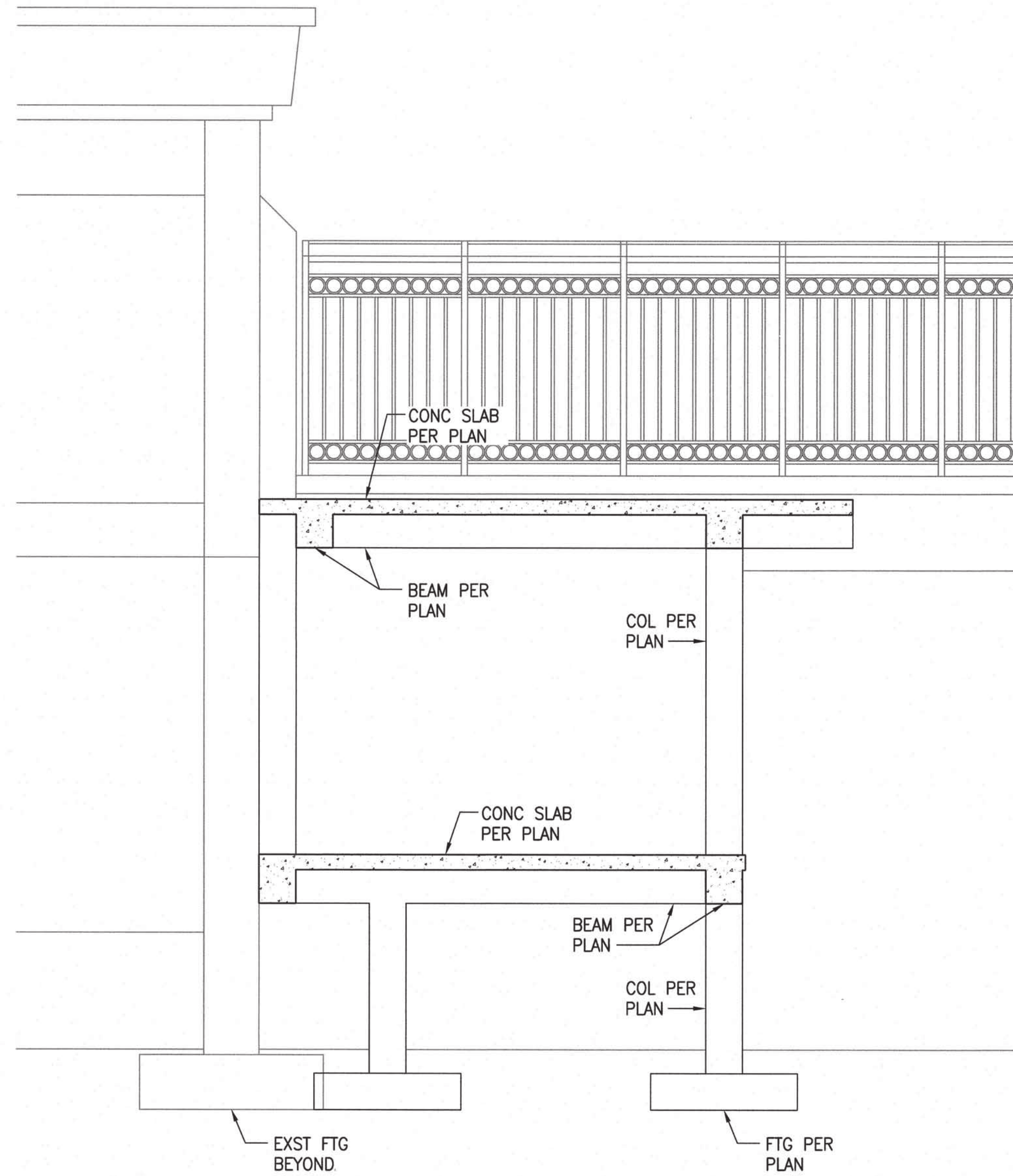
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE



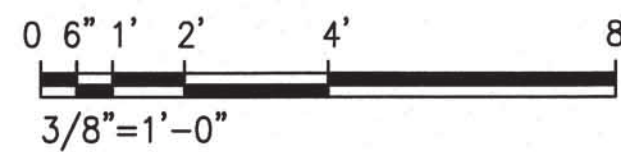


1 SECTION
SCALE: 3/8" = 1'-0"



2 SECTION
SCALE: 3/8" = 1'-0"

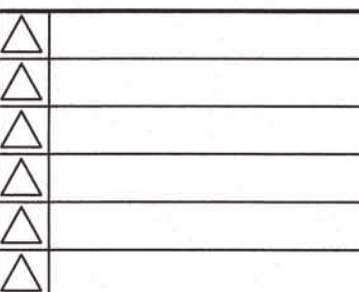
GRAPHIC SCALE



98-829 Leialii Street
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Email: cmlyamur@hawaii.rr.com

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

Signature: _____ Expiration Date: April 30, 2024



**NEW FIRST FLOOR ROOF, DAYROOM COVERED
LANAI, DAYROOM EXAM/WAITING/DR OFFICE
HHSC MALUHIA**
ADDRESS: 1027 HALA DRIVE
TWK: 16009 : 004
HONOLULU, HAWAII 96817

SECTIONS

DATE: FEB. 2022

SCALE: AS NOTED

CHECKED BY: CM

DRAWN BY: DM

JOB NO:

SHEET NUMBER

S-3

21 OF 24 SHEETS

SLAB SPLICE LENGTHS (IN INCHES)					GRADE 60
f'c	3000 PSI		4000 PSI		
BAR SIZE	OTHER BAR	TOP BAR	OTHER BAR	BAR	
#3	13	17	12	16	
#4	21	28	18	24	
#5	31	41	27	35	
#6	43	56	37	48	
#7	69	90	60	78	
#8	85	111	74	96	
#9	103	134	90	116	
#10	124	162	108	140	
#11	146	190	126	164	

NOTES

- TOP BARS ARE HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW THE SPLICE.
- SPLICES BASED ON 3/4" MIN COVER.

TYP SLAB AND WALL
BAR SPLICE TABLE

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

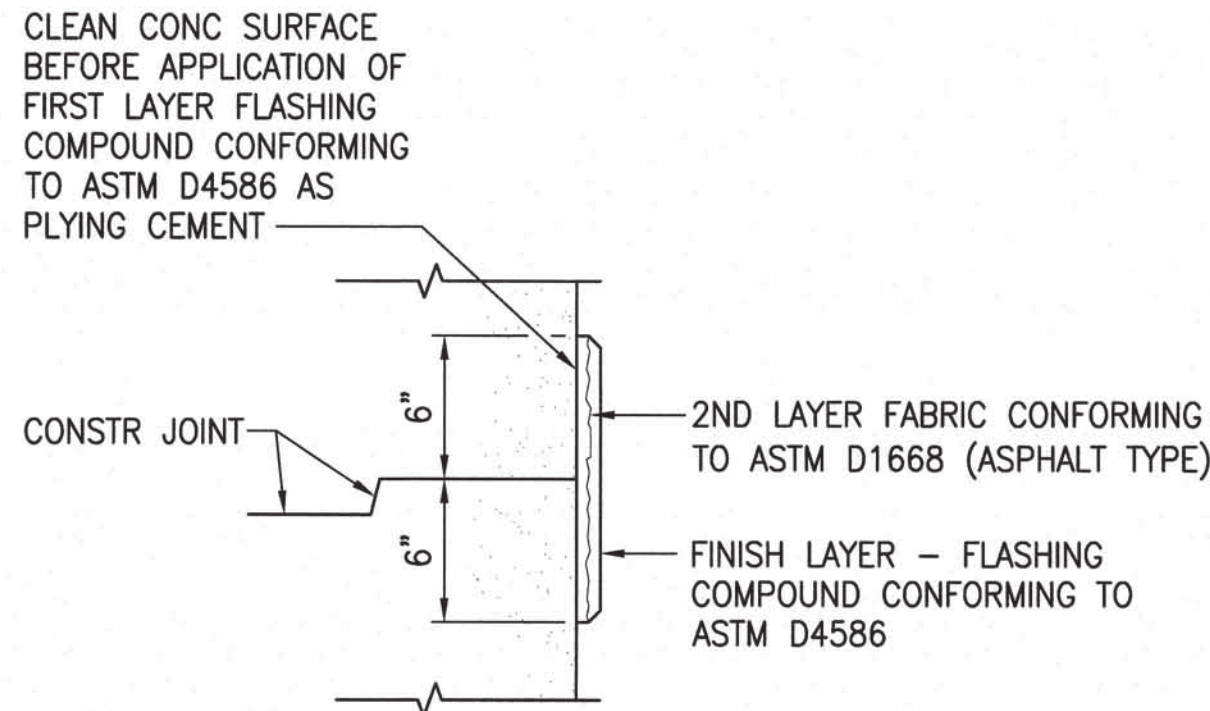
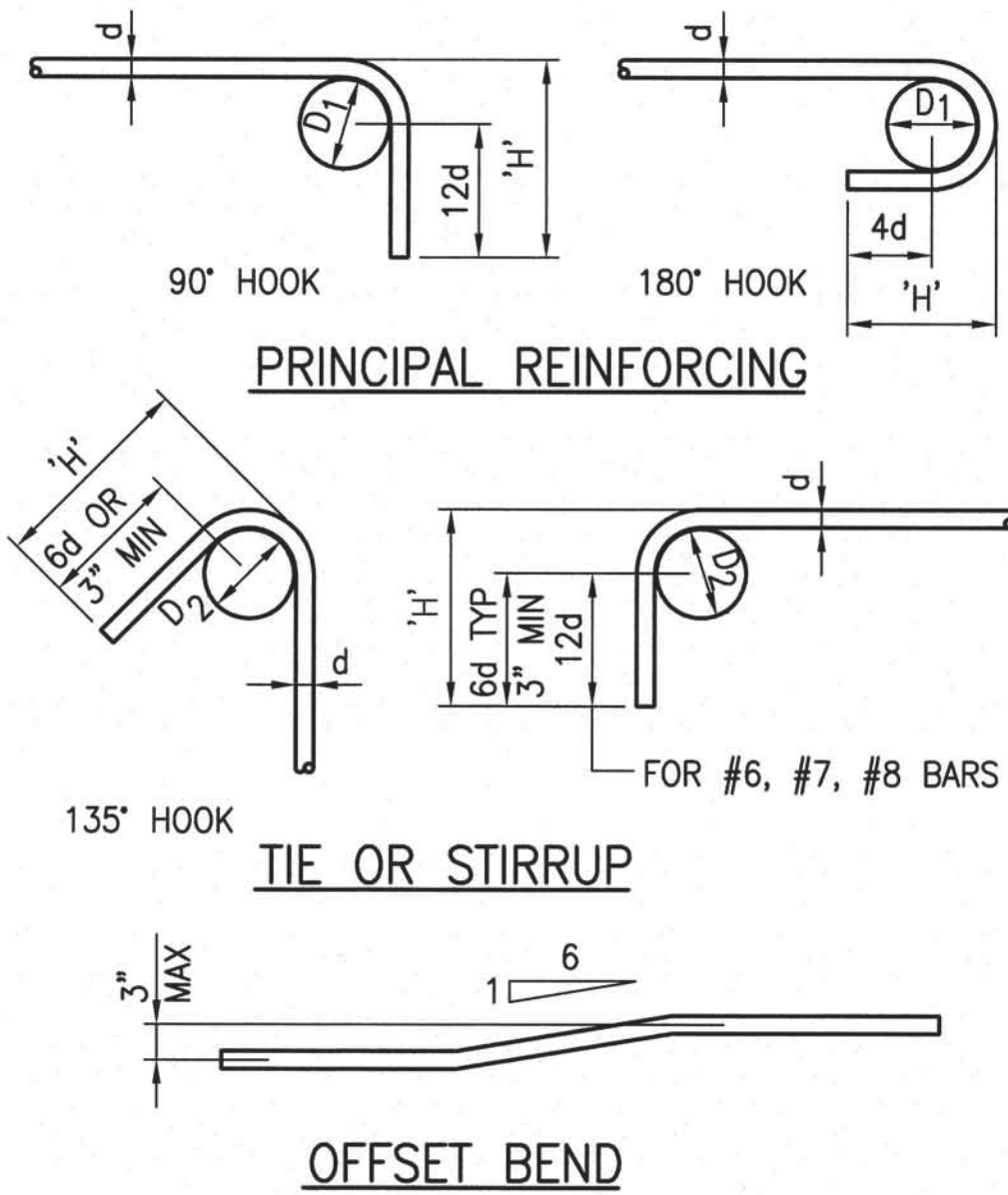
HOOK LENGTHS (H) (IN INCHES)						
BAR SIZE	STANDARD HOOKS		STIRRUP OR TIE HOOK			
	90° HOOK	180° HOOK	90° HOOK	135° HOOK	D 2	D 1
#3	6	4	3-1/2	4	1-1/2	2-1/4
#4	8	4-1/2	4-1/2	4-1/2	2	3
#5	10	5	5-1/2	5-1/2	2-1/2	3-3/4
#6	12	6	12	7-1/2	4-1/2	4-1/2
#7	14	7	14	9	-	5-1/2
#8	16	8	-	-	-	6
#9	19	10	-	-	-	9
#10	22	11-1/2	-	-	-	10
#11	24	13	-	-	-	11-1/4

NOTES:

- ALL BENDS SHALL BE MADE COLD.

2 BAR BENDS AND HOOKS

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

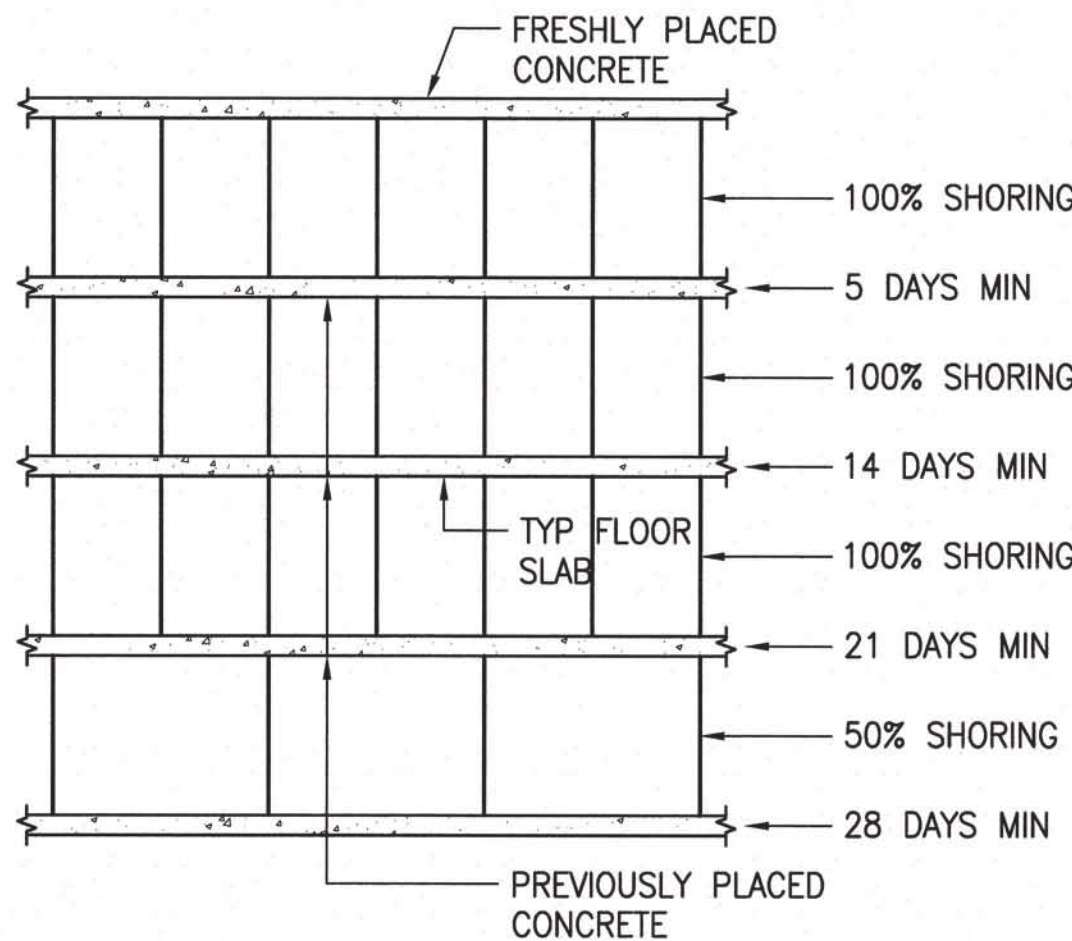
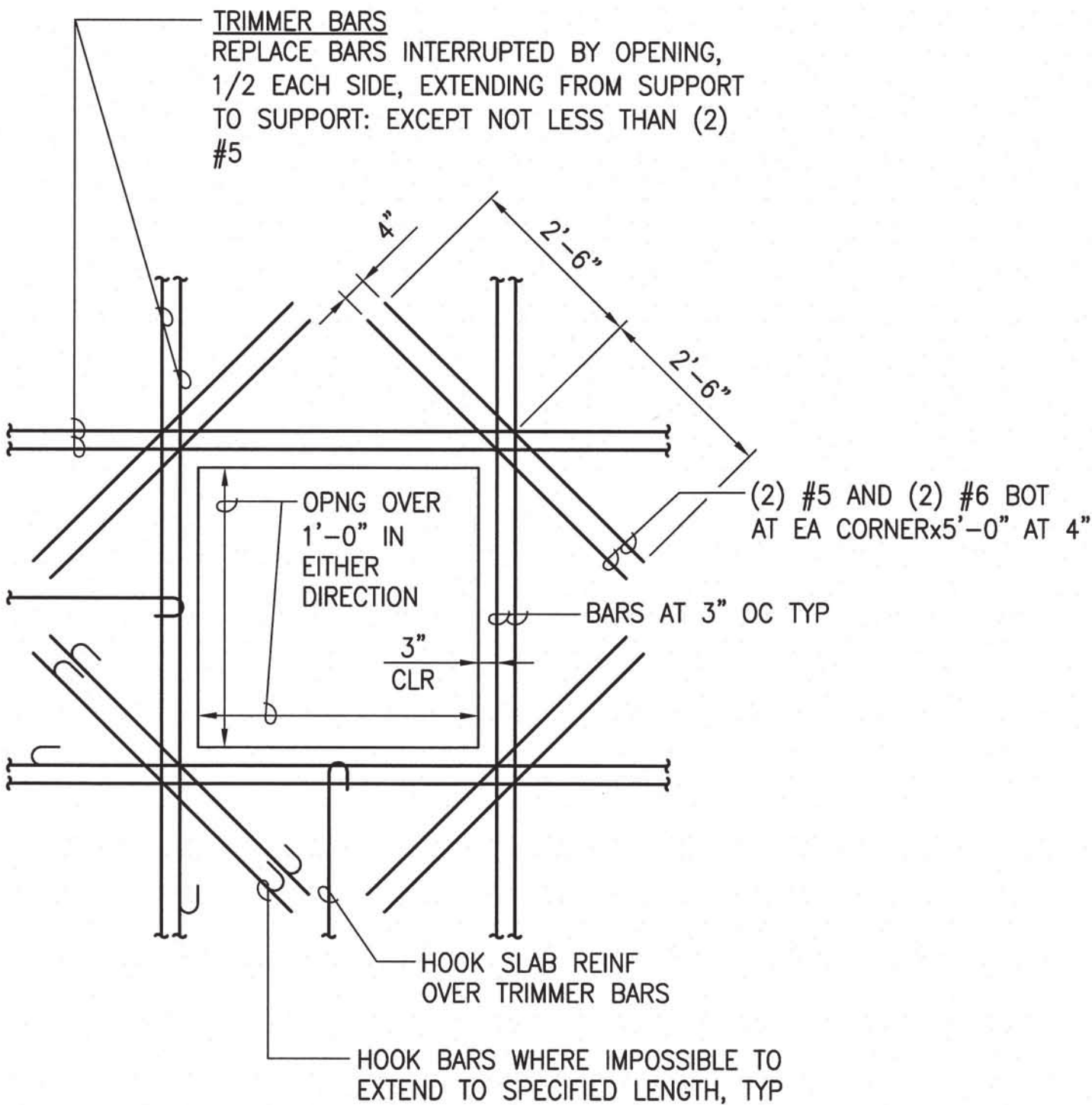


TYP FLASHING COMPOUND
WATERPROOFING DETAIL

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

SLAB OPENING NOTES AND DETAILS:

- ADDITIONAL REINFORCING BARS ARE NOT REQUIRED FOR SLAB OPENINGS WHOSE LONGER DIMENSION IS 12" OR LESS, BUT THE INTERRUPTED BAR OR BARS SHALL BE DEFLECTED AROUND THE OPENINGS.
- ALL OPENINGS HAVING A SIDE DIMENSION OF MORE THAN 12" SHALL HAVE ADDITIONAL BARS ON ALL SIDES AND DIAGONAL BARS AT EACH CORNER OF THE SLAB AS INDICATED FOR TYPICAL SLAB OPENINGS.
- ADDITIONAL REINFORCING BARS ARE NOT REQUIRED WHEN PIPE SLEEVES ARE PLACED NOT CLOSER THAN 6" CLEAR OF EACH OTHER NOR CLOSER THAN 3 DIAMETERS ON CENTER: OR WHEN PIPE SLEEVES OCCUR IN GROUPS AND THE LARGER SIDE OF THE ENCLOSING RECTANGLE IS 12" OR LESS. SLAB REINFORCING BARS SHALL BE DEFLECTED AROUND PIPE SLEEVES OR PASS BETWEEN SLEEVES. WHERE THE LARGER SIDE IS GREATER THAN 12", ADDITIONAL REINFORCING SHALL BE PROVIDED AS SHOWN FOR TYPICAL SLAB OPENINGS.
- REINFORCING BARS SHALL BE PLACED 1 1/2" CLEAR FROM EDGE OF OPENINGS OR PIPE SLEEVES AND SHALL BE SPACED NOT LESS THAN 3" ON CENTER.
- CIRCULAR OPENINGS HAVING A DIAMETER OF 12" OR MORE SHALL BE REINFORCED SAME AS FOR RECTANGULAR OPENINGS. THE BARS CORRESPONDING TO THE CORNER DIAGONAL BARS FOR RECTANGULAR OPENINGS SHALL BE 60" LONG AND PLACED AT FOUR SIDES OF OPENINGS. THEY SHALL BE PLACED AT 45° TO THE MAIN REINFORCING BARS.
- SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZE OF OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS.



NOTE:
ALL SHORING AND RE-SHORING MUST BE DONE IN ACCORDANCE WITH ACI STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI-347)

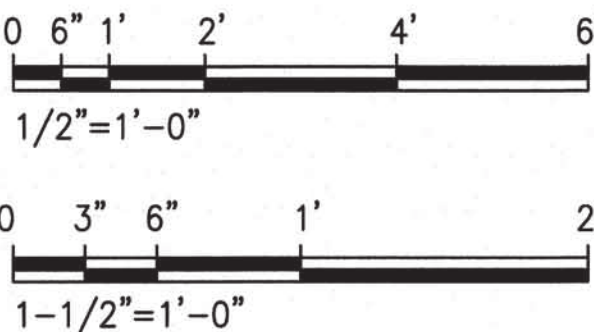
5 MIN SHORING REQ'D BELOW FRESHLY POURED CONC

NOT TO SCALE

4 TYP REINFORCING AT SLAB OPENINGS

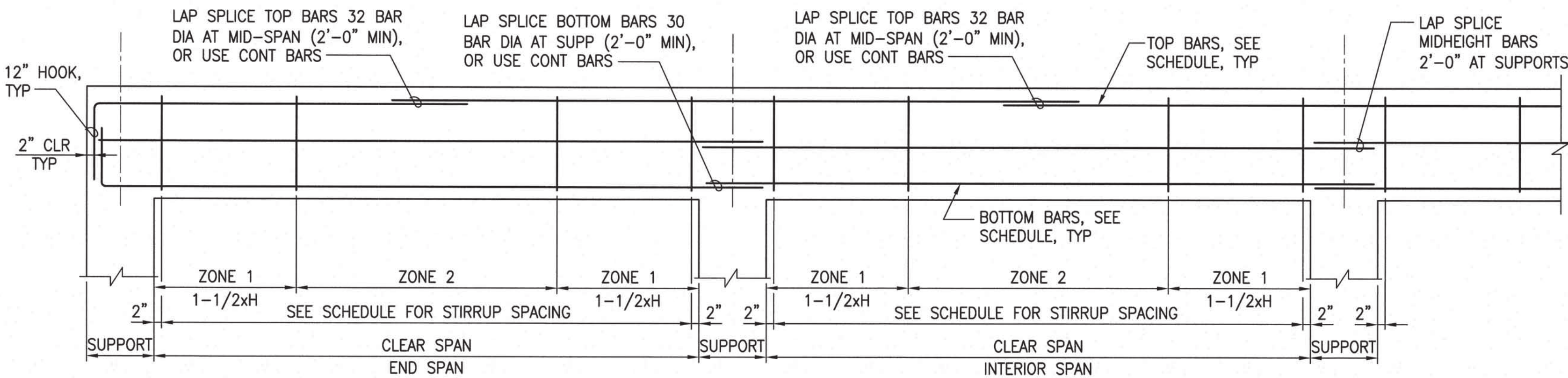
SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

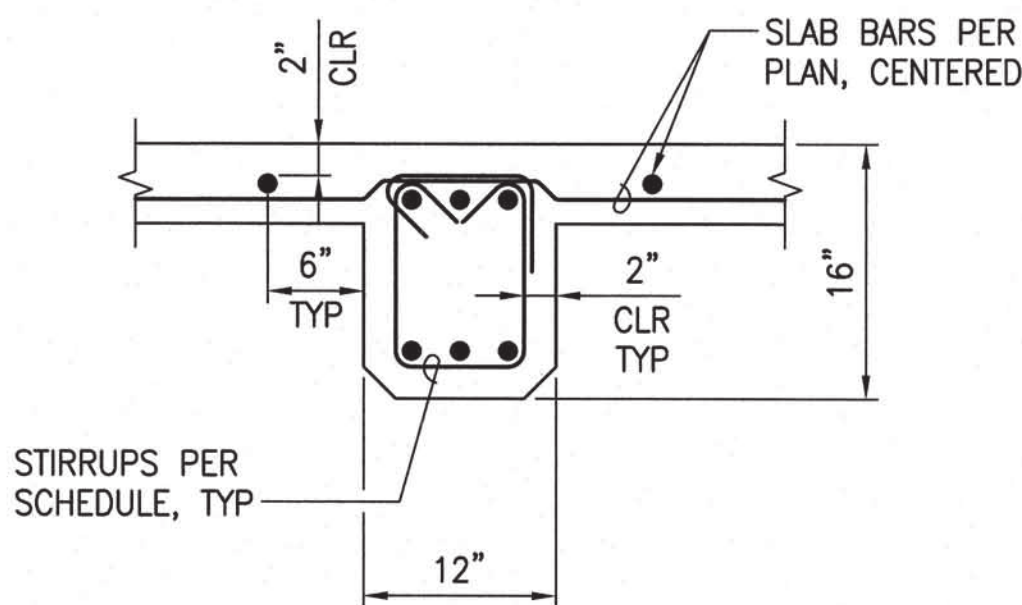


CONCRETE BEAM SCHEDULE						
BM NO.	BEAM SIZE	TIE & STIRRUP SPACING		REINFORCING		
		TYPE	ZONE 1	CL SUPPORT	CL BEAM	CL SUPPORT
			ZONE 2			
B1			#4 AT 3"		(3) #5	
			#4 AT 6"		(3) #5	
B2			#4 AT 3"		(3) #5	
			#4 AT 6"		(3) #5	
						CAMBER
						DETAIL

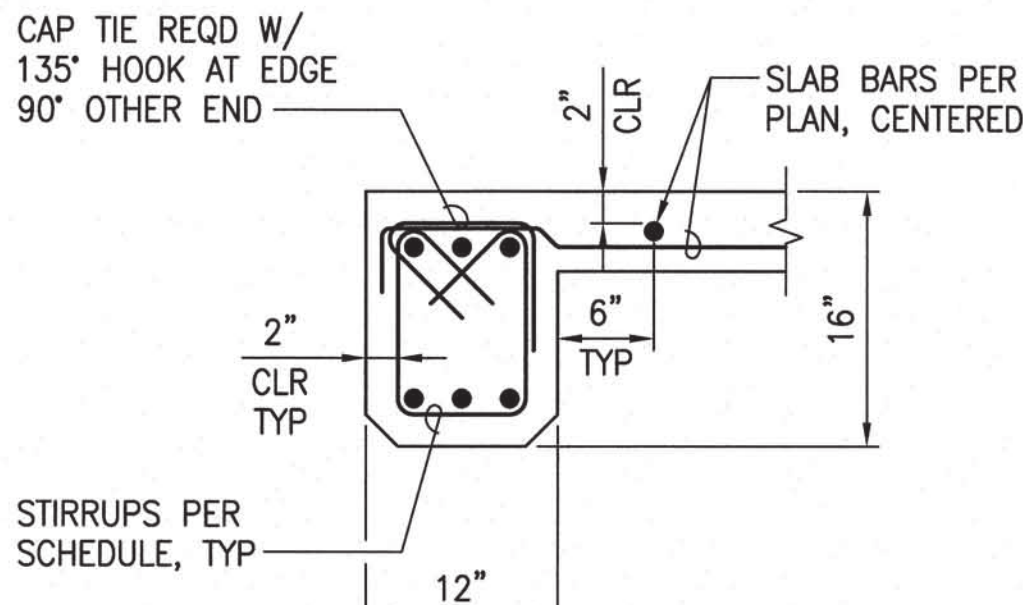
1 CONCRETE BEAM SCHEDULE
SCALE: 1/2"=1'-0"



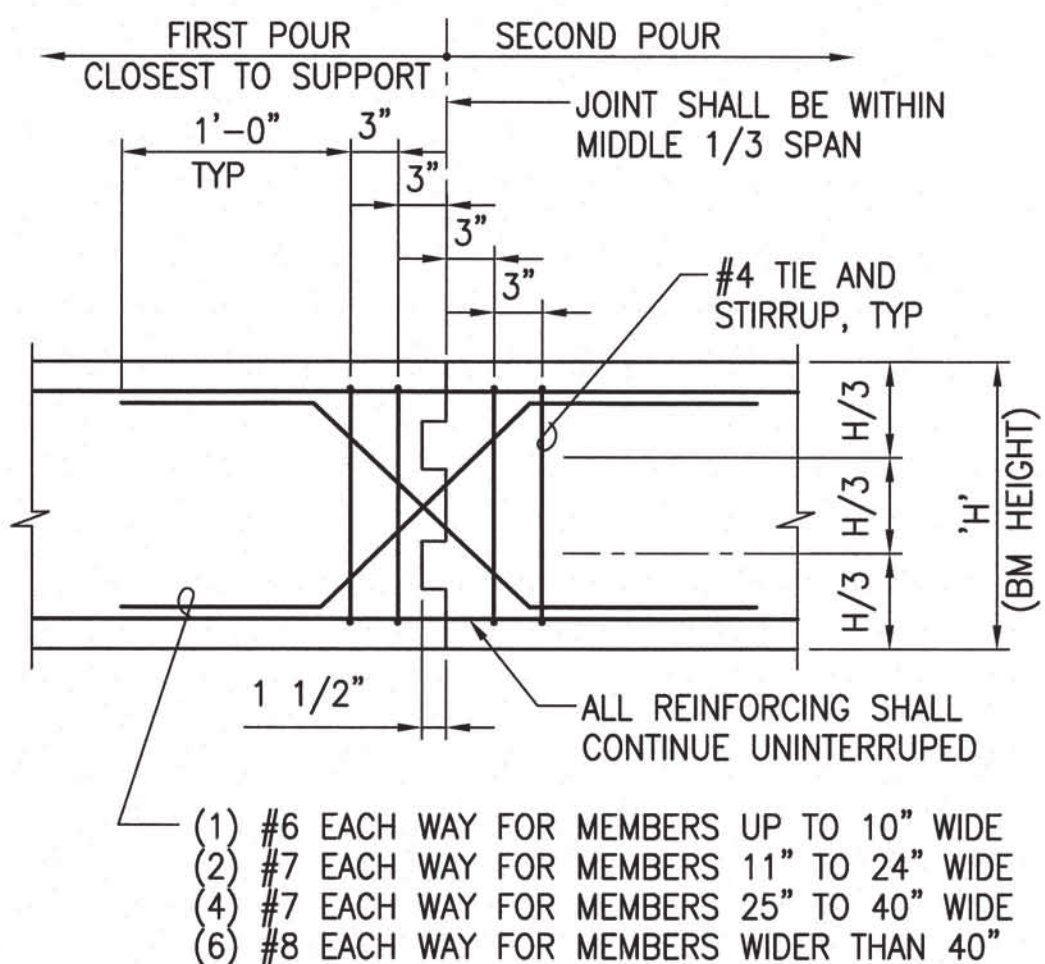
2 CONCRETE BEAM ELEVATION
SCALE: 1/2"=1'-0"



3 TYPICAL BEAM (B1) SECTION
SCALE: 1"=1'-0"



4 TYPICAL EDGE BEAM (B2) SECTION
SCALE: 1"=1'-0"

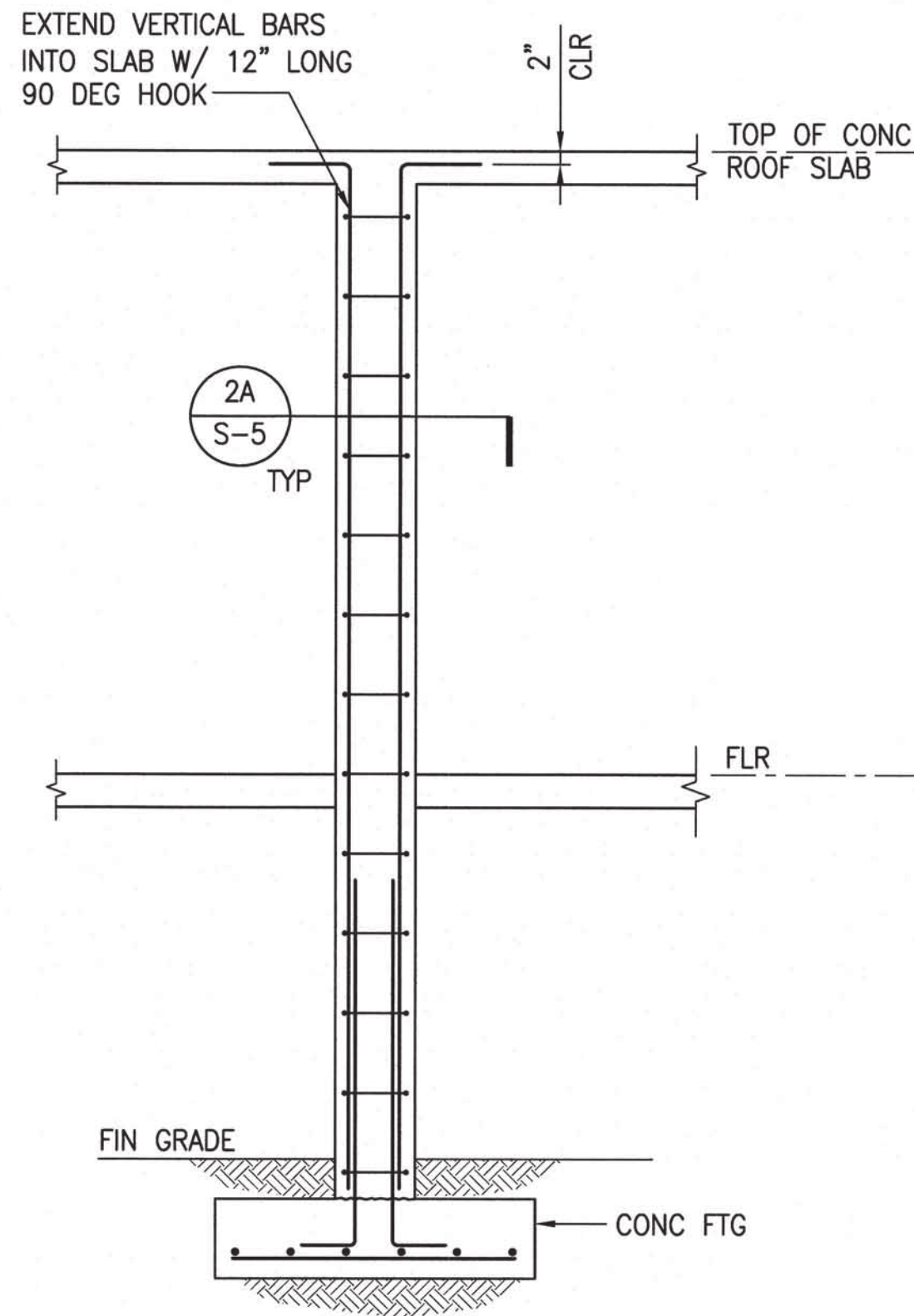


5 TYPICAL BEAM CONSTRUCTION JOINT
MIDDLE 1/3 OF SPAN
SCALE: 1"=1'-0"

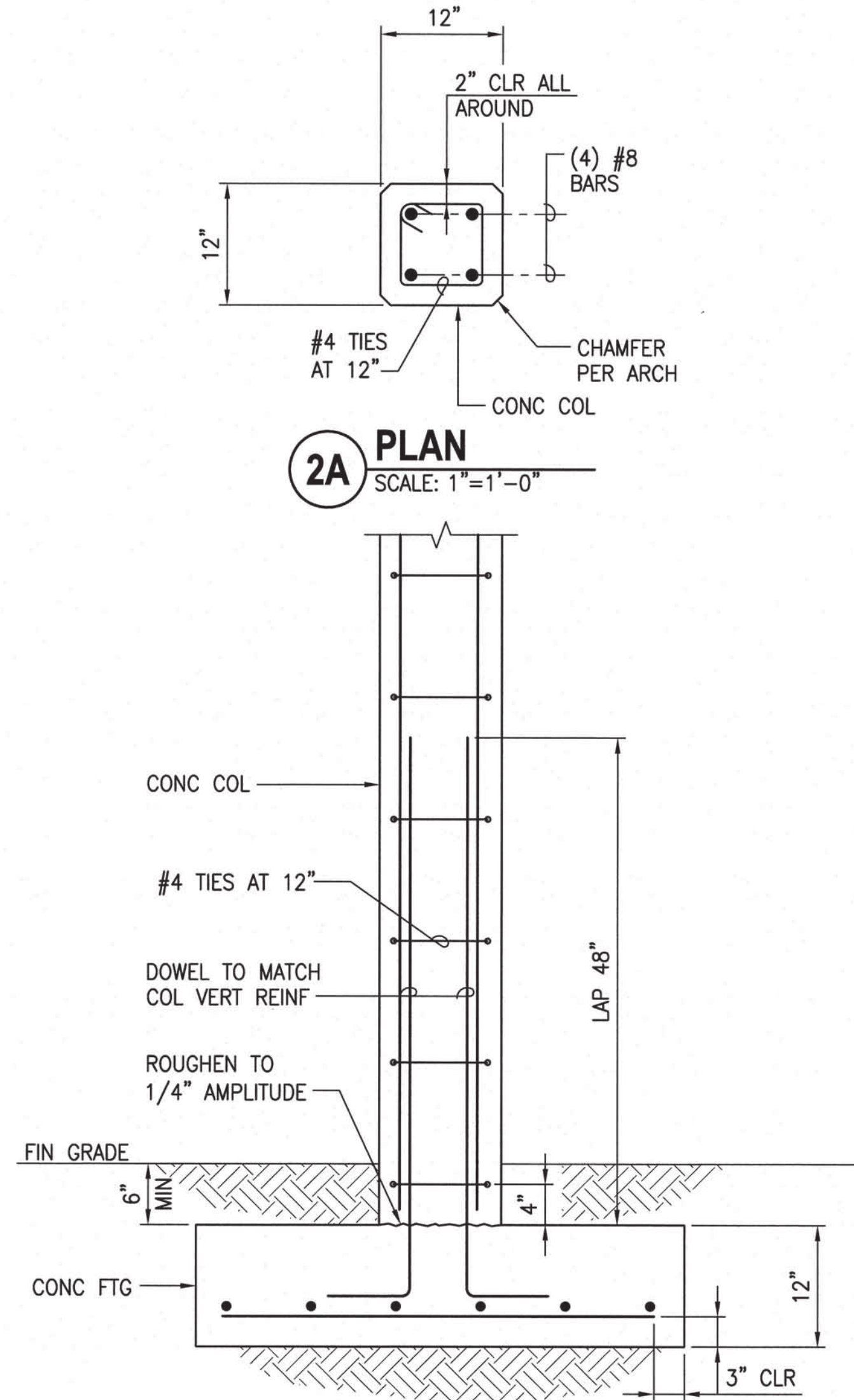
GRAPHIC SCALE

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

0 3" 6" 1' 2' 3'
1"=1'-0"



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

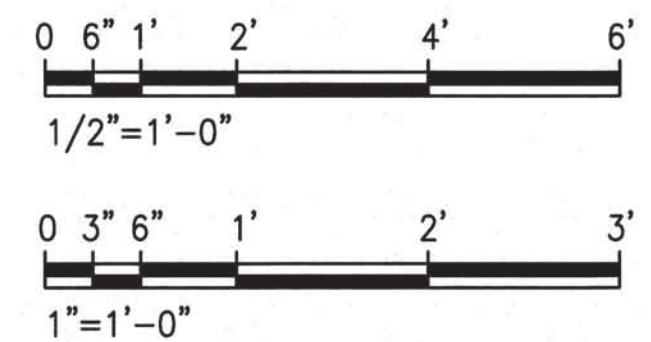


2A PLAN
SCALE: 1"=1'-0"

2B SECTION
SCALE: 1"=1'-0"

2 ISOLATED FOOTING DETAIL
SCALE: AS NOTED

GRAPHIC SCALE



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Signature: _____ Expiration Date: April 30, 2024

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**NEW FIRST FLOOR ROOF, DAYROOM COVERED
LANAI, DAYROOM EXAMWAITING/DR OFFICE
HHSC MALUHIA**
ADDRESS: 1027 HALA DRIVE
TMK: 1 - 6 - 009 : 004
HONOLULU, HAWAII 96817

DETAILS

DATE: FEB. 2022

SCALE: AS NOTED

CHECKED BY: CM

DRAWN BY: DM

JOB NO:

SHEET NUMBER

S-6

24 OF 24 SHEETS