

808 SW CAMPUS DR

DFS-01 FA10-119854

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MICROFILMED

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#10-119854



CITY OF PORTLAND, OREGON - BUREAU OF DEVELOPMENT SERVICES

1900 SW Fourth Avenue • Portland, Oregon 97201 • www.portlandonline.com/bds • 503-823-0652 • FAX 503-823-7425



Facilities Permit Plan Intake Form

FOR INTAKE, STAFF USE ONLY

Date Received _____

Building/Mechanical _____

TOM

Building Registration # _____

Electrical _____

Fixed Bid _____

Plumbing _____

Bin # _____

B3

Fire _____

GARY

Building Permit # _____

10-119854 DFS OI FA

Planning _____

Mechanical # _____

BES _____

Plumbing Permit # _____

PDOT _____

Electrical Permit # _____

Structural _____

ERIC

Other _____

APPLICANT: Complete all sections below that apply to the project. Please print legibly.

Print Name DHSU

Sign Name _____

Street Address 3181 SW SAM JACKSON PARK RDCity PORTLANDState ORZip Code 97239Day Phone (503) 494-3729FAX (503) 494-4256

email _____

Plans / perm's available for pick up at 1900 SW 4th Avenue, 5th floor between 8:00 am to 5:00 pm

Contact Name for plan/permit pick up JIM KNEES - PKA ARCHITECTSDay Phone (503) 962-6800email jim@pkarchitects.comProject Building Name / # DHSU KOHLER DAVILIONProject Address or Location 3181 SW SAM JACKSON PARK RDProject Name and Description 6th FLOOR - OR #24* DFS CEILING & SOFFIT FRAMING *

Total Project Value _____

SUSPENDED CEILING

Project Reference # _____

Building Contractor ANDERSEN CONSTRUCTIONCCB # 63053

Mechanical Contractor _____

CCB # _____

Electrical Contractor _____

CCB# _____

License # _____

Plumbing Contractor _____

CCB# _____

License # _____

☐ Building Permit

[Y] [N] Alarms Required

No. of Stories _____

[Y] [N] Smoke Det. Req'd

Const. Type _____

[Y] [N] Sprinklers Req'd

[Y] [N] Struct. Eng / Calcs Submitted

☐ Electrical Permit

Please provide a completed standard electrical permit application form. You may mail or deliver it to 1900 SW 4th Avenue, Portland, Oregon 97201 or FAX to 503-823-7425.

☐ Plumbing Permit

Number of Fixtures _____

Back Flow Devices _____

Water Service (# of Feet) _____

Medical Gas _____

Other _____

☐ Mechanical Permit

Mechanical Valuation _____

Description _____

GENERAL NOTES

- 1.) THE DRAWINGS/DETAILS CONTAINED HEREIN COVER THE MOST TYPICAL CONDITIONS IN THE FRAMING. MINOR VARIANCES SHALL BE FRAMED SIMILARLY. VERIFY WITH ENGINEER/DETAILER FOR ALL OTHER CONDITIONS.
- 2.) THE CONTRACTOR SHALL VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION.
- 3.) ALL METHODS, MATERIALS, AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE BUILDING GENERAL STRUCTURAL NOTES AND THE PROJECT SPECIFICATIONS.
- 4.) ALL ITEMS NOTED B.O. (BY OTHERS) INCLUDE INSTALLATION OF THE B.O. ITEMS.

LIGHT GAUGE STEEL

- 1.) GAUGE MATERIALS SHALL BE FORMED FROM GALVANIZED ASTM A653, GRADE 50, CLASS 1 STEEL FOR 12, 14, AND 16 GAUGE MATERIALS WITH A MINIMUM YIELD OF 50 KSI AND ASTM A653, GRADE 33 FOR 18 GAUGE AND LIGHTER WITH A MINIMUM YIELD OF 33 KSI. ALL EXTERIOR MEMBERS SHALL BE GALVANIZED WITH A 660 (MIN.) COATING MEETING THE REQUIREMENTS OF ASTM A525 UNLESS NOTED OTHERWISE.
- 2.) ALL MEMBERS SHALL HAVE THE MINIMUM EFFECTIVE PHYSICAL AND STRUCTURAL PROPERTIES AS INDICATED IN THE SSMA (STEEL STUD MANUFACTURERS ASSOCIATION) I.C.B.O. ER-4943P.

FASTENERS

- 1.) ALL SCREWS REFERRED TO IN THESE DRAWINGS SHALL BE AS FOLLOWS:
 - A.) ALL #10 SCREWS NOTED IN THE DRAWINGS SHALL BE ZINC COATED AND MANUFACTURED BY GRABBER, OR APPROVED EQUAL. #10 SCREWS SHALL BE #10-18 SELF DRILLING #3 POINT SCREWS.
 - B.) ALL #8 SCREWS NOTED IN THE DRAWINGS SHALL BE ZINC COATED AND MANUFACTURED BY GRABBER, OR APPROVED EQUAL. #8 SCREWS SHALL BE #8-18 SELF DRILLING #2 POINT SCREWS.
- 2.) FOR FASTENING LIGHT GAUGE MEMBERS TO STRUCTURAL STEEL OR TO CONCRETE, POWER DRIVEN OR PNEUMATIC FASTENERS SHALL BE ZINC PLATED AND SHALL BE MANUFACTURED BY HILTI, RAMSET, POWERS, OR EQUAL AS INDICATED IN THE DRAWINGS. WHEN FASTENING TO STRUCTURAL STEEL, THE FASTENERS SHALL BE OF SUFFICIENT LENGTH SO THAT THE TAPERED TIP COMPLETELY PENETRATES THE STEEL. CONSULT W/ ENGINEER IF THIS CANNOT BE ACHIEVED.
- 3.) ALL MECHANICAL CONCRETE ANCHORS, I.E. EXPANSION ANCHORS, SCREW ANCHORS, ETC., SHALL BE OF THE BE OF THE TYPE AND SIZE AS NOTED IN THE DRAWINGS AND INSTALLED PER THE STRICT REQUIREMENTS OF THE MANUFACTURER.

-CONT.-

GENERAL NOTES - CONTINUED

DESIGN CRITERIA

2006 INTERNATIONAL BUILDING CODE W/ OREGON AMENDMENTS (2007 OBOC)

LATERAL FORCES:

MIN. LATERAL FORCE = 5 PSF (REF: 2007 OBOC 1607.13)

SEISMIC: SEE LATERAL FORCE CALCULATIONS

GRAVITY FORCES:

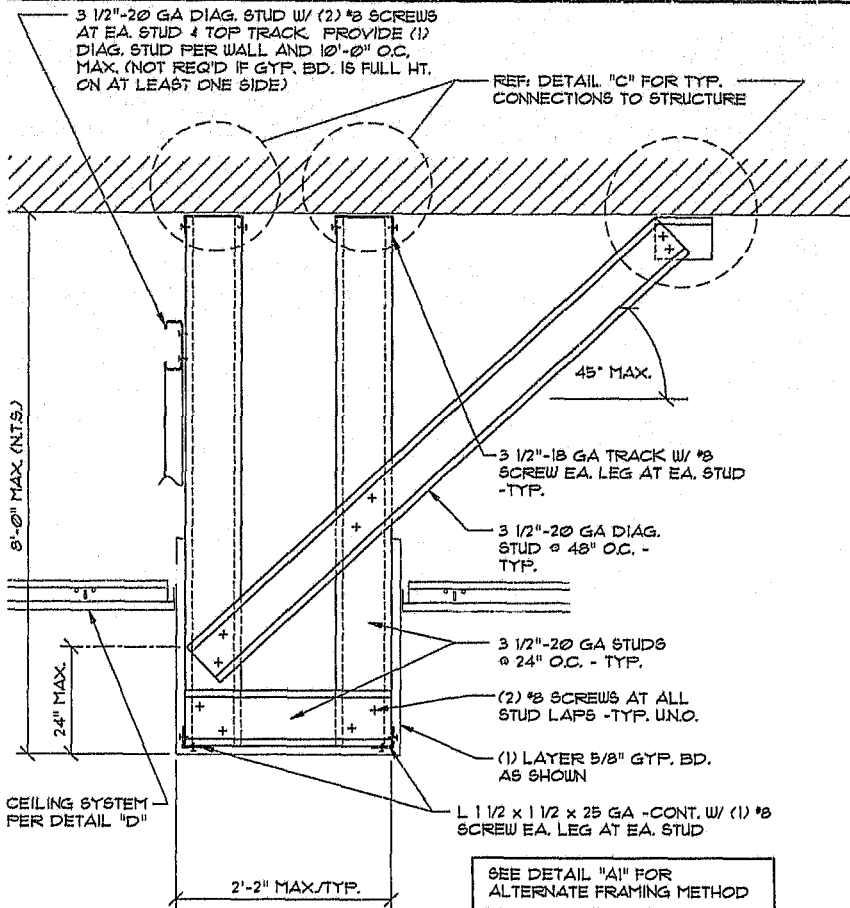
DEAD LOAD = 3 PSF (MAX. (1) LAYER 5/8" GYP. BOARD + GRID/FRAMING)

OTHER:

CONCRETE STRENGTH = 3000 psi, ASSUMED (CONCRETE OVER METAL DECK)

STATEMENT OF SPECIAL INSPECTIONS:

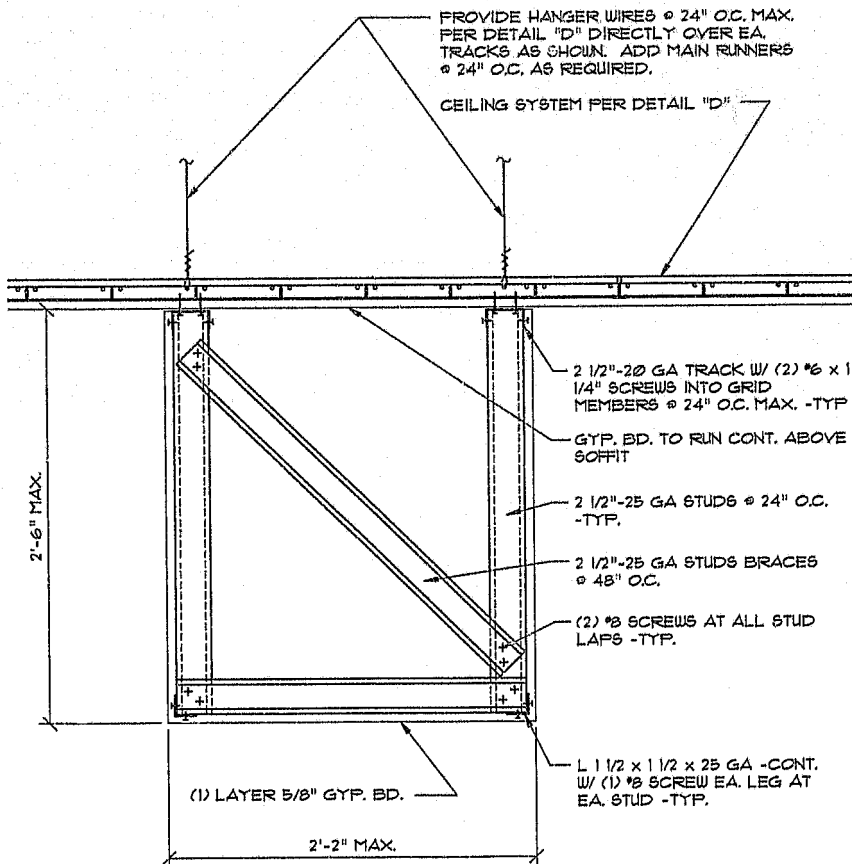
- 1.) WHERE REQUIRED AS NOTED IN THE DRAWINGS, THESE NOTES, OR THE CONTRACT DOCUMENTS, SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 11 OF THE IBC.
- 2.) PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE POWERS WEDGE BOLT+ SCREW ANCHORS NOTED IN THESE DRAWINGS. REF: ICC ESR-2526.
- 3.) SPECIAL INSPECTION IS REQUIRED FOR POWER DRIVEN FASTENERS INSTALLED IN CONCRETE OVER METAL DECKING APPLICATIONS, AS NOTED IN DETAIL "A". THIS INSPECTION SHALL BE IN THE FORM OF FULL TESTING AS DESCRIBED IN SECTION V-G OF THE OREGON STATEWIDE CODE INTERPRETATION NO. 2007 OBOC SECTION 1613.1.
- 4.) PERIODIC SHALL BE DEFINED AS FOLLOWS: INSPECTION BY THE SPECIAL INSPECTOR OF THE SPECIFIED MATERIAL AND/OR SYSTEM DESCRIBED ABOVE PRIOR TO COMMENCEMENT OF THE WORK, AT SOME POINT DURING INSTALLATION, AND UPON COMPLETION OF THE WORK. THESE INTERVALS SHALL APPLY TO EACH BUILDING LEVEL AND/OR DIFFERING APPLICATION AS DEFINED BY DIFFERING DETAILS WITHIN THE DRAWINGS. ALL NON-CONFORMING WORK SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING THE SUBJECT WORK.
- 5.) THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO HAS DEMONSTRATED COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF EACH OF THE SPECIFIED MATERIALS AND/OR SYSTEMS DESCRIBED ABOVE.



A

TYP. INTERIOR SOFFIT FRAMING

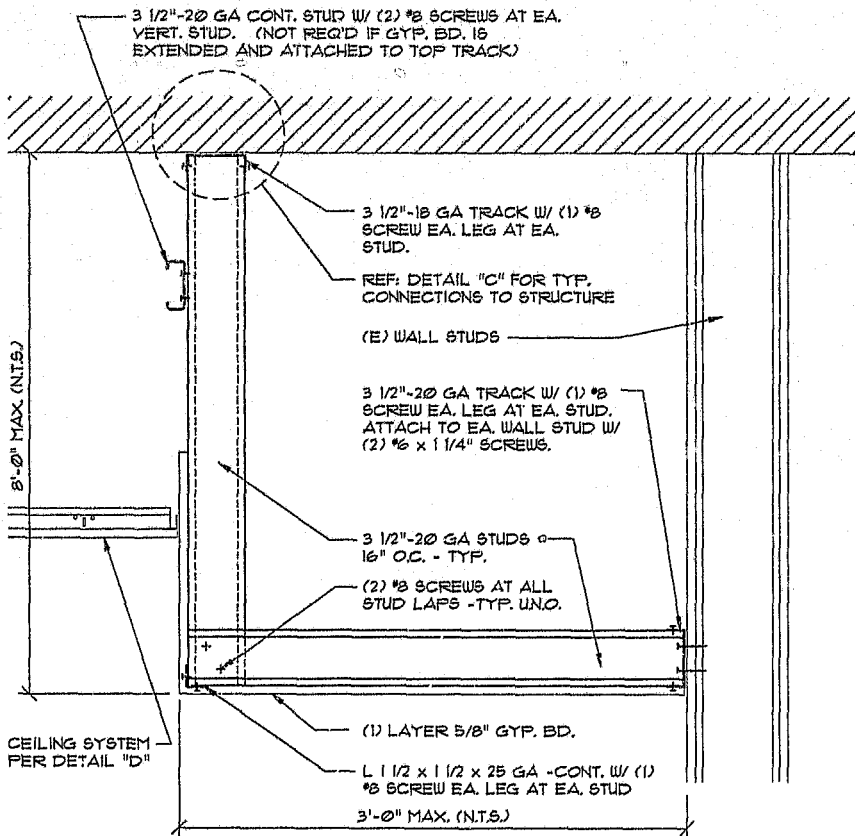
1 1/2" = 1'-0"



A1

ALTERNATE INTERIOR SOFFIT FRAMING

1 1/2" = 1'-0"



SEE DETAIL "B1" FOR
ALTERNATE FRAMING
METHOD



INTERIOR SOFFIT FRAMING ALONG FULL HEIGHT WALLS

1 1/2" = 1'-0"

PROVIDE HANGER WIRES @ 24" O.C. MAX.
PER DETAIL "D" DIRECTLY OVER EA.
TRACKS AS SHOWN. ADD MAIN RUNNERS
@ 24" O.C. AS REQUIRED.

CEILING SYSTEM PER DETAIL "D"

PERIMETER CONNECTION
PER DETAIL "E"
(E) WALL STUDS

2 1/2"-25 GA STUDS
@ 24" O.C. -TYP.

2'-6" MAX.

GYP. BD. TO RUN CONT.
ABOVE SOFFIT

2 1/2"-20 GA TRACK W/ (2) #6 x 1
1/4" SCREWS INTO GRID
MEMBERS @ 24" O.C. MAX. -TYP

3 1/2"-20 GA TRACK W/ (1) #8
SCREW EA. LEG AT EA. STUD.
ATTACH TO EA. WALL STUD W/
(2) #6 x 1 1/4" SCREWS.

(2) #8 SCREWS AT
ALL STUD LAPS
-TYP.

L 1 1/2 x 1 1/2 x 25 GA -CONT.
W/ (1) #8 SCREW EA. LEG AT
EA. STUD -TYP.

(1) LAYER 5/8" GYP. BD.

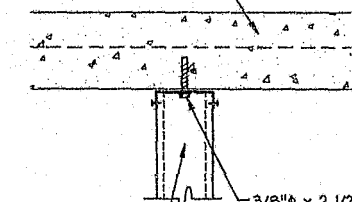
2'-2" MAX.

B1

ALTERNATE INTERIOR SOFFIT FRAMING ALONG FULL HEIGHT WALLS

1 1/2" = 1'-0"

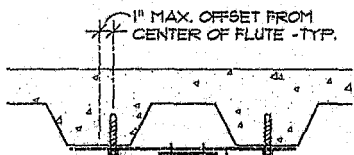
CONC. OVER METAL
DECK



REF. DETAIL "A"

3/8" ϕ x 2 1/2" POWERS
WEDGE BOLT + SCREW
ANCHOR ϕ 24" O.C.
(ESR-2526) LOCATE 1"
MAX. FROM ϕ OF DECK
FLUTE

AT CONC. OVER METAL DECK
PERPENDICULAR TO FLUTES



(2) 3/8" ϕ x 2 1/2" POWERS
WEDGE BOLT + SCREW
ANCHOR (ESR-2526) ϕ EA. 12

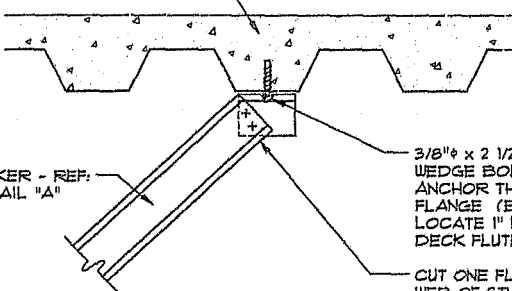
16 GA x 6" x
16" ϕ 24" O.C.
(2) 1/8" SCREWS
 ϕ EA. 12

REF. DETAIL "A"

NOTE: WHEN WALL IS UNDER
FLUTE USE DETAIL AT LEFT

AT CONC. OVER METAL DECK
PARALLEL TO FLUTES

CONC. OVER METAL
DECK



KICKER - REF.
DETAIL "A"

3/8" ϕ x 2 1/2" POWERS
WEDGE BOLT + SCREW
ANCHOR THRU STUD
FLANGE (ESR-2526)
LOCATE 1" MAX. FROM ϕ OF
DECK FLUTE

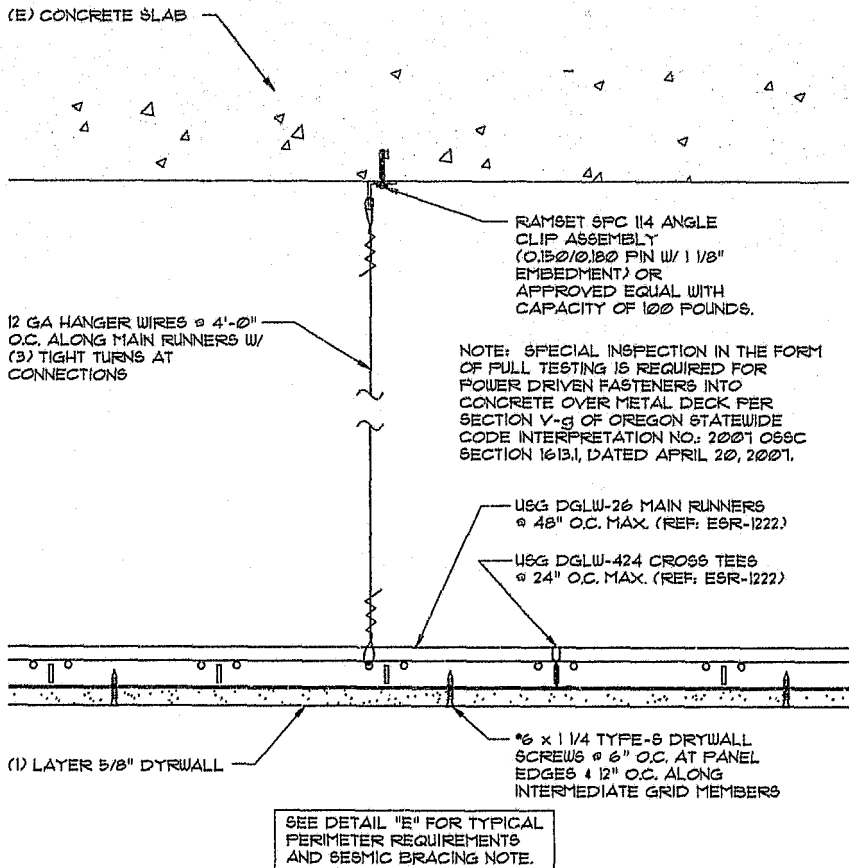
CUT ONE FLANGE AND THE
WEB OF STUD AND BEND
AT REMAINING FLANGE AS
SHOWN. PROVIDE (2) 1/8"
SCREWS AT WEB LAP.

KICKER CONNECTION

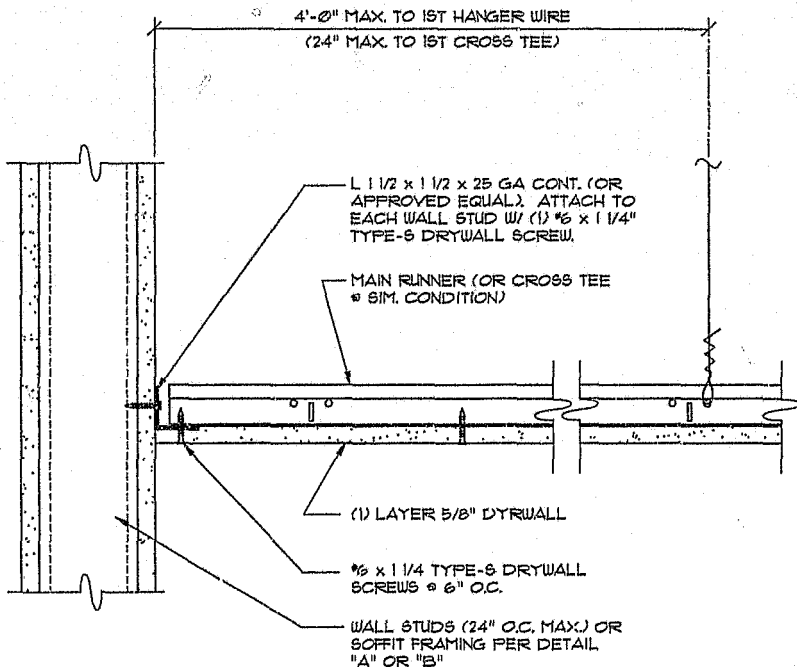


SOFFIT FRAMING CONN. TO STRUCTURE

1 1/2" = 1'-0"



D TYP. CEILING CONSTRUCTION



SEISMIC BRACING NOTE:
SEISMIC BRACING IN THE FORM OF STRUTS AND SPLAYS IS NOT REQUIRED IN ROOMS UP TO 35 FEET WIDE PROVIDED THE ABOVE DETAIL IS USED AT THE PERIMETER.



TYP. PERIMETER DETAIL

LATERAL FORCE:

REF: ASCE 7-05, SECTION 13.3

Using ASD load combination including 0.7E, where $E = Q_e = F_p$

$a_p =$	1.00		Ref:
$S_{ps} =$	0.728	From project specifications or calculated using USGS Seismic Ground Motion Calculator with assumed Site Class = D	[T13.5-1]
$W_p =$	4.00 psf	(MIN. CODE REQ'D)	[13.5.6-1]
$I_p =$	1.50		[13.1-3]
$R_p =$	2.50	For bracing components except anchors in concrete.	[T13.5-1]
$R_p =$	1.50	For anchors in concrete not governed by the strength of a ductile steel element or not complying w/ ACI 355.2.	[13.4.2]
$z =$	0.50 ft	3 6TH FLOOR AT APPROX. MID-HEIGHT OF STRUCTURE $\therefore z/h = 0.50$	
$h =$	1.00 ft		

For all bracing components except anchors in concrete:

$$F_p = (0.7)(0.4)a_p S_{ps} W_p (1/R_p I_p) (1+2(z/h)) = 0.98 \text{ psf} \quad [13.3-1]$$

For anchors in concrete not governed by the strength of a ductile steel element or not complying w/ ACI 355.2:

$$F_{ps} = (0.7)(1.3)(0.4)a_p S_{ps} W_p (1/R_p I_p) (1+2(z/h)) = 2.12 \text{ psf} \quad [13.3-1], [13.4.2]$$

$$F_{pMAX} = (0.7)1.6S_{ps} I_p W_p = 4.89 \text{ psf} \quad [13.3-2]$$

$$F_{pMIN} = (0.7)0.3S_{ps} I_p W_p = 0.92 \text{ psf} \quad [13.3-3]$$

$$\text{USE } F_p = 0.98 \text{ psf} \quad \checkmark$$

$$\text{USE } F_{ps} = 2.12 \text{ psf}$$

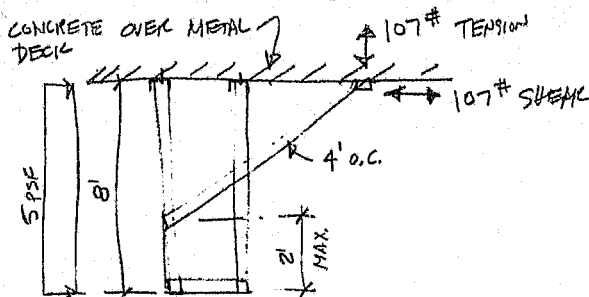
PERIMETER SHEAR IN CEILINGS UP TO 35 FEET WIDE:

$$V = \frac{35}{2} (0.98 \text{ psf}) = 17 \text{ \#/L.F.}$$

* SHEAR RESISTED BY WALL ANGLE TO WALL/SOFFIT CONNECTION, OK BY INSPECTION

CHECK $\frac{3}{8}$ " & POWER WEDGE BOLT + :

WORST CASE OCCURS AT DETAIL "A"
AT KICKER CONNECTION :



ANCHOR CAPACITY (REF: ESR-2526) :

TENSION (3000 PSI CRACKED CONC. OVER METAL DECK)

BY INSPECTION, PULLOUT STRENGTH GOVERNS

$$P_a = \phi_{seis} \phi N_{p,deck,cr} \left(\frac{f'_c}{3000} \right)^{1/2} \left(\frac{1}{K} \right)$$

$K = 1.6$, CONSERVATIVELY FOR ASD CONVERSION

$$P_a = (0.75)(0.65)(1425) \left(\frac{3000}{3000} \right)^{1/2} \left(\frac{1}{1.6} \right) = \underline{434\#}$$

SHEAR

BY INSPECTION, STEEL STRENGTH GOVERNS

$$V_a = \phi_{seis} \phi V_{sa,deck} \left(\frac{1}{K} \right)$$

$$V_a = (0.75)(0.60)(1694) \left(\frac{1}{1.6} \right) = \underline{461\#}$$

$$\text{CHECK COMBINED LOADING} = \frac{107}{434} + \frac{107}{461} = 0.49 \leq 1.00$$

CHECK USG DGLW-26 MAIN RUNNERS:

$$W = 3 \text{ PSF} \left(\frac{4^0}{T_2} \right) = 12^{\#}/\text{L.F.}$$

$$W_a = 16^{\#}/\text{L.F.} \quad \text{REF: ESR-1222} \quad 16^{\#}/\text{L.F.} > 12^{\#}/\text{L.F.} \quad \text{OK}$$

CHECK USG DGLW-424 CROSS TEES:

$$W = 3 \text{ PSF} \left(\frac{2^0}{T_2} \right) = 6^{\#}/\text{L.F.}$$

$$W_a = 12.1^{\#}/\text{L.F.} \quad \text{REF: ESR-1222}$$

$$12.1^{\#}/\text{L.F.} > 6^{\#}/\text{L.F.} \quad \text{OK}$$

* FOR SCREW CONNECTIONS TO GRID, GRID
MATERIAL = 25 GA THICKNESS

$$\text{o.o. Pa FOR } \#6 \text{ SCREW} = \underline{33^{\#}}/\text{SCREW}$$

REF: FR-4943 P

Fasteners (Screws and Welds)

Screw Table Notes

1. Screw spacing and edge distance shall not be less than $3 \times d$. (d = Nominal screw diameter)
2. The allowable loads are based on the steel properties of the members being connected, per AISI section E4.
3. When connecting materials of different steel thicknesses or tensile strength (F_u), the lowest applicable values should be used.
4. The nominal strength of the screw must be at least 3.75 times the allowable loads.
5. Values include a 3.0 factor of safety.
6. Applied loads may be multiplied by 0.75 for seismic or wind loading, per AISI A 5.1.3.
7. Penetration of screws through joined materials should not be less than 3 exposed threads. Screws should be installed and tightened in accordance with screw manufacturer's recommendations.

Allowable Loads for Screw Connections (lbs/screw)

Steel Mils	Thickness Design (in)	Steel Properties Fy (ksi) Fu (ksi)		No. 12 Dia. = 0.216 (in)		No. 10 Dia. = 0.190 (in)		No. 8 Dia. = 0.164 (in)		No. 6 Dia. = 0.138 (in)	
				Shear	Pullout	Shear	Pullout	Shear	Pullout	Shear	Pullout
10	0.0188	33	45					66	39	80	33
27	0.0283	33	45					121	69	111	50
30	0.0312	33	45			151	76	141	65	129	55
33	0.0348	33	45			177	84	164	72	161	81
43	0.0451	33	45	289	124	263	109	244	94	224	78
54	0.0568	33	45	364	158	370	137	344	118		
66	0.0713	33	45	527	193	523	173				

25 GA →
20 GA →

Weld Table Notes

1. Weld capacities based on AISI, section E2
2. When connecting materials of different steel thicknesses or tensile strength (F_u), the lowest applicable values should be used.
3. Values include a 2.5 factor of safety.
4. Based on the minimum allowance load for fillet or flare groove welds, longitudinal or transverse loads.
5. Allowable loads based on E60xx electrodes.
6. For material less than or equal to .1242" thick, drawings show nominal weld size. For such material, the effective throat of the weld shall not be less than the thickness of the thinnest connected part.

Allowable Loads for Fillet Welds and Flare Groove Welds

Steel Mils	Thickness Design (in)	Steel Properties Fy (ksi) Fu (ksi)		Nominal Weld Size	Allowable Load (lb/in)
43	0.0451	33	45	1/16	629
54	0.0568	33	45	3/32	764
66	0.0713	33	45	1/8	963
97	0.1017	33	45	1/8	1373
118	0.1242	33	45	1/8	1677
54	0.0568	60	65	3/32	1104
66	0.0713	60	65	1/8	1350
97	0.1017	60	65	1/8	1983
118	0.1242	60	65	1/8	2422