## DESIGN CODES AND LOADING:

2021 INTERNATIONAL BUILDING CODE
2021 WASHINGTON STATE BUILDING CODE

LATERAL LOADS:
SEISMIC: Ss= 1.263, S1= 0.436, Sds= 1.010, Sd1= N/A
RISK CATEGORY II
SEISMIC SOIL SITE CLASS D (DEFAULT)
SEISMIC DESIGN CATEGORY D
CABINET FIXTURES: Rp = 2.5, ap = 1.0
COMPONENT IMPORTANCE FACTOR:
TYPICAL: - Ip = 1.0

## GENERAL:

THE INTERNATIONAL BUILDING CODE AND STANDARDS SHALL GOVERN ALL MATERIALS AND WORKMANSHIP.

ALL TEMPORARY SHORING OR BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DRAWINGS REFLECT THE FINAL FINISHED CONDITION OF THE STRUCTURE.

THESE DRAWINGS ARE NOT INTENDED TO SHOW EACH AND EVERY CONDITION, BUT INDICATE THE GENERAL CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY DETAILED, SIMILAR CONDITIONS SHALL BE USED AT THE DISCRETION AND APPROVAL OF THE ARCHITECT AND ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR ALL JOB SITE SAFETY AS WELL AS ALL MEANS, METHODS, AND SEQUENCES OF CONSTRUCTION TO SAFELY PERFORM THE WORK. AUE ENGINEERS HAS NO EXPERTISE IN NOR HAS BEEN RETAINED TO PROVIDE REVIEW OF THE CONTRACTORS SAFETY PRECAUTIONS AS THEY RELATE TO THE CONSTRUCTION OF THIS PROJECT.

IF ANY ERROR OR OMISSION APPEARS IN THESE DRAWINGS, SPECIFICATIONS, OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF SUCH OMISSION OR ERROR BEFORE PROCEEDING WITH THE WORK, OR ACCEPT FULL RESPONSIBILITY FOR THE COST TO RECTIFY SAME. VERIFY AND COORDINATE OPENINGS IN FLOORS, WALLS AND ROOF WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.

THE ARCHITECTURAL DRAWINGS SHALL BE REFERENCED FOR WALLS, FINISHES AND DIMENSIONS. DIMENSIONS PROVIDED ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY AND SHALL BE VERIFIED BY THE ARCHITECTURAL DRAWINGS.

DRAWINGS ARE NOT TO BE SCALED.

## POST INSTALLED ANCHORS:

MANUFACTURER'S RECOMMENDATIONS AND ICC REPORT SHALL BE FOLLOWED DURING THE PREPARATION AND INSTALLATION OF ALL POST INSTALLED ANCHORS.

NO REINFORCING SHALL BE CUT TO INSTALL ANCHORS. DEFECTIVE OR ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT THAT AS A MINIMUM MATCHES THE ADJACENT CONCRETE/MASONRY STRENGTH.

SPECIAL INSPECTION IS REQUIRED FOR INSTALLATION OF ALL POST INSTALLED ANCHORS.

**CONCRETE INSTALLATION:**
HILTI KB-TZ2 ANCHOR (ICC ESR-4266) OR APPROVED EQUAL SHALL BE USED WHERE EXPANSION BOLTS ARE SPECIFIED IN CONCRETE SUBSTRATE.

KB-TZ2 REQUIRED INSTALLATION TORQUE PER ESR-4266
3/8" DIA KB-TZ2 - 30 FT-LB
1/2" DIA KB-TZ2 - 50 FT-LB
5/8" DIA KB-TZ2 - 40 FT-LB
3/4" DIA KB-TZ2 - 110 FT-LB

**MASONRY INSTALLATION:**
HILTI KB-TZ2 ANCHOR (ICC ESR-4561) OR APPROVED EQUAL SHALL BE USED FOR ANCHORS SPECIFIED IN MASONRY SUBSTRATE.

KB-TZ2 REQUIRED INSTALLATION TORQUE PER ESR-4561
3/8" DIA KB-TZ2 - 15 FT-LB
1/2" DIA KB-TZ2 - 25 FT-LB
5/8" DIA KB-TZ2 - 30 FT-LB

INSTALLATION SHALL BE IN GROUTED CELLS ONLY. IF EMBEDMENT MUST BE PROVIDED IN AN UNGROUTED CELL, NEW GROUT SHALL BE ADDED AT THAT CELL EXTENDING TO THE HORIZONTAL BOND BEAM BELOW. ONE EMBEDDED ITEM ONLY PER GROUTED CELL IS ALLOWED AND NO EMBEDDED ITEMS ARE ALLOWED WITHIN 8" OF A FREE EDGE. ANCHORS MUST BE INSTALLED A MINIMUM OF 1 3/8" FROM ANY VERTICAL MORTAR JOINT.

## SPECIAL INSPECTIONS:

**GENERAL REQUIREMENTS:**
ALL SPECIAL INSPECTIONS SHALL MEET THE REQUIREMENTS OF THE 2021 IBC, CHAPTER 17.

ALL INSPECTIONS AS REQUIRED BY SECTION 110 OF THE 2021 INTERNATIONAL BUILDING CODE ARE REQUIRED. INSPECTIONS SPECIFIED IN THESE NOTES ARE IN ADDITION TO THESE INSPECTIONS.

CITY INSPECTION IS NOT A SUBSTITUTE FOR SPECIAL INSPECTION.

ANY WORK WHICH HAS BEEN COVERED BUT NOT PROPERLY INSPECTED BY THE SPECIAL INSPECTOR AND/OR THE CITY INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.

WHERE SPECIFICALLY REQUIRED, CONTINUOUS INSPECTION IS REQUIRED DURING THE PERFORMANCE OF THE WORK. THIS MAY BE A REQUIREMENT OF THE BUILDING CODE / LOCAL JURISDICTION OR THE MANUFACTURER.

THE SPECIAL INSPECTOR MUST BE CERTIFIED TO PERFORM THE TYPES OF INSPECTION SPECIFIED AND SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL.

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND INFORMING THE SPECIAL INSPECTOR OR CITY INSPECTOR AT LEAST ONE WORKING DAY BEFORE THE WORK IS TO BE PERFORMED UNLESS OTHER CONDITIONS ARE AGREED UPON.

**REQUIREMENTS OF THE SPECIAL INSPECTOR:**
THE SPECIAL INSPECTOR MUST WORK UNDER THE SUPERVISION OF A WASHINGTON STATE LICENSED CIVIL ENGINEER.

THE SPECIAL INSPECTOR MUST PERSONALLY BE FAMILIAR WITH THE DRAWINGS AND MUST PERSONALLY OBSERVE ALL OF THE WORK REPORTED ON.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING DEPARTMENT AND ENGINEER. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF NOT CORRECTED, TO THE BUILDING DEPARTMENT AND ENGINEER.
THE FINAL REPORT SHALL BE SIGNED BY A WASHINGTON LICENSED CIVIL ENGINEER AND SHALL STATE THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF IBC.

**SPECIFIC SPECIAL INSPECTIONS REQUIRED:**
ALL EXPANSION BOLTS, POST INSTALLED ANCHORS IN CONCRETE OR MASONRY

**DISCLAIMER:**
THESE DOCUMENTS AND THE DESIGN ARE SPECIFIC TO THIS PROJECT ONLY AND MAY NOT BE REUSED IN ANY WAY WITHOUT WRITTEN APPROVAL OF ARMOUR UNSDERFER ENGINEERING. IT IS OUR INTENT THAT THIS DESIGN MEETS THE NORMAL STANDARD OF CARE WITHIN THIS INDUSTRY. NO OTHER WARRANTY IS PROVIDED OR IMPLIED.

Approval of submitted plans is not an approval of omissions or oversights by this office or non compliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

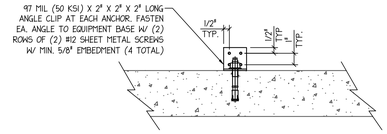
**Full sized legible color plans** are required to be provided by the permitee on site for inspection.

Separate Electrical Permit is required with the Washington State Department of Labor & Industries.
https://lni.wa.gov/licensing-permits/electrical/electrical-permits-fees-and-inspections
or call for Licensing Information:
1-800-647-0982

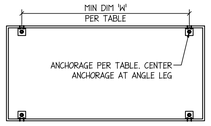
City of Puyallup
Building
REVIEWED FOR COMPLIANCE
SKinnear
01/29/2025
8:44:44 AM

| FIXTURE ANCHORAGE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE | FIXTURE DESIGNATION | MAX HEIGHT | MAX WIDTH | MAX DEPTH | MAX HEIGHT | MIN 'W' | MIN 'D' | ANCHORAGE | MIN. CONCRETE SLAB THICKNESS |
| FIXTURE | W-3F | 425 lb | 36" | 15" | 90" | 24" | - | (4) 3/8" DIA HILTI KB-TZ2 EFFECTIVE EMBED 2", NOMINAL EMBED 2 1/2" | 4" |
| FIXTURE | W-3FE | 425 lb | 36" | 15" | 90" | 24" | - | (4) 3/8" DIA HILTI KB-TZ2 EFFECTIVE EMBED 2", NOMINAL EMBED 2 1/2" | 4" |

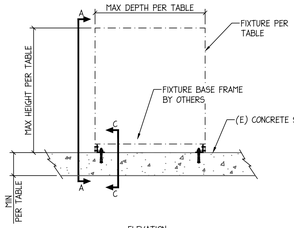
NOTES:
1. CONCRETE SLAB HAS NOT BEEN EVALUATED TO DETERMINE IF IT IS ADEQUATE TO CARRY LOADS. BUILDING EOR SHOULD REVIEW SLAB CAPACITY FOR FIXTURE SUPPORT PRIOR TO INSTALLATION
2. FIXTURE HAS NOT BEEN EVALUATED FOR LOAD TRANSFER. IT IS THE MANUFACTURERS RESPONSIBILITY TO DETERMINE CAPACITY ADEQUACY OF FIXTURE TO TRANSFER LOADS TO ATTACHMENT POINTS.
3. MINIMUM DISTANCE OF 6" FROM ANCHOR TO EDGE OF CONCRETE.
4. WHERE SPECIFIED ANCHOR DIAMETER IS SMALLER THAN HOLE PROVIDED IN UNIT. USE STEEL BUSHINGS TO PROVIDE FULL BEARING.



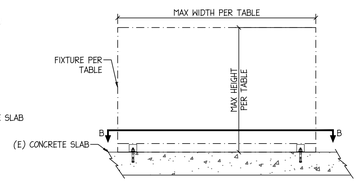

SECTION C-C
N.T.S.




EQUIPMENT ANCHORAGE ASSEMBLY
SECTION B-B




ELEVATION




SECTION A-A

## 3 FIXTURE ANCHORAGE TO CONCRETE SLAB

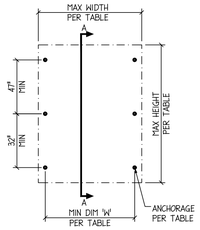
ESK-000

SCALE: N.T.S.

| SWITCH AND PANEL BOARD ANCHORAGE ASSEMBLY | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE | FIXTURE DESIGNATION | MAX HEIGHT | MAX WIDTH | MAX DEPTH | MAX HEIGHT | MIN 'W' | LAYERS OF MIN. 5/8" GWB | METAL STUD WALL ANCHORAGE | GRAVITY SUPPORT |
| FIXTURE | W-3, NOOK/INFO LOOK-UP | 500 lb | 36" | 15" | 98" | 16" | 1 | (2) #10 SCREWS PER LOCATION, (12) TOTAL | FLOOR SUPPORTED |

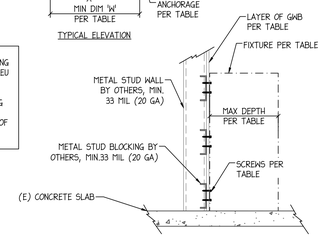
TABLE A NOTES:
1. WALL HAS NOT BEEN EVALUATED TO DETERMINE IF IT IS ADEQUATE TO CARRY LOADS. BUILDING EOR SHOULD REVIEW WALL CAPACITY FOR FIXTURE SUPPORT PRIOR TO INSTALLATION
2. METAL STUD
   2.1. SCREW MUST FULLY PENETRATE INTO METAL STUD,
   2.2. MAXIMUM 1" SPACING BETWEEN SCREWS AND 1/2" EDGE DISTANCE.
3. ALL WEIGHTS ARE ASSUMED AND SHOULD BE VERIFIED THEY WILL BE LESS THAN THE MAX LISTED IN THE TABLE PRIOR TO INSTALLATION

NOTE: WHERE TABLE SHOWS GRAVITY SUPPORT AS FLOOR BEARING PANEL MUST BE SUPPORTED VERTICALLY BY FLOOR SLAB. NOTIFY EOR IF UNIT IS HUNG FROM WALL




TYPICAL ELEVATION

NOTES:
- AT CONTRACTORS OPTION FASTENING MAY BE TO VERTICAL STUDS IN LIEU OF THE BLOCKING.
- WHERE CONNECTIONS ARE MADE DIRECTLY TO THE STUDS BLOCKING MAY BE OMITTED
- NO OPINION AS TO THE CAPACITY OF THE WALL IS PROVIDED IN THIS DETAIL OR IN AUE'S SCOPE




SECTION A-A - METAL STUD ANCHORAGE

## 1 GENERAL NOTES

ESK-000

SCALE: N.T.S.

**DRAWING INDEX:**

| | |
|---|---|
| ESK-000 | -GENERAL NOTES, SCOPE, INDEX, AND EQUIPMENT ANCHORAGE DETAILS |

**PROJECT SCOPE:**
THIS PROJECT IS FOR THE DESIGN AND DETAILS FOR THE SEISMIC BRACING AND ANCHORAGE FOR FIXTURES FOR BARNES AND NOBLE south hill mall. THE DESIGN ASSUMES ANCHORAGE WILL BE TO METAL STUD WALL AND CONCRETE SLAB. NO OPINION AS TO THE STRUCTURAL CAPACITY OF THE EXISTING BUILDING STRUCTURE TO SUPPORT THE LOADS HAS BEEN INCLUDED IN THIS DESIGN.

## 11 PROJECT SCOPE

ESK-000

SCALE: N.T.S.

## 12 INDEX

ESK-000

SCALE: N.T.S.

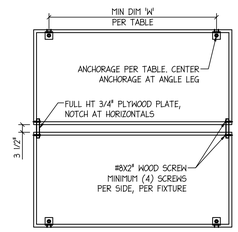
## 8 FIXTURE ANCHORAGE TO METAL STUD WALL

ESK-000

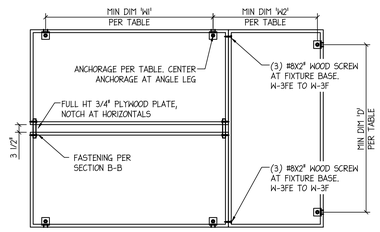
SCALE: N.T.S.

| FIXTURE ANCHORAGE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE | FIXTURE DESIGNATION | MAX HEIGHT | MAX WIDTH | MAX DEPTH | MAX HEIGHT | MIN 'W' | MIN 'W2' | MIN 'D' | ANCHORAGE | BASE SECTION | MIN. CONCRETE SLAB THICKNESS |
| FIXTURE | W-3F BTB | 900 lb | 36" | 36" | 90" | 24" | - | - | (4) 3/8" DIA HILTI KB-TZ2 EFFECTIVE EMBED 2", NOMINAL EMBED 2-1/2" | B-B | 4" |
| FIXTURE | W-3F BTB W/ MSFE | 1400 lb | 50" | 36" | 90" | 24" | 18" | 24" | (4) 3/8" DIA HILTI KB-TZ2 EFFECTIVE EMBED 2", NOMINAL EMBED 2-1/2" | C-C | 4" |

NOTES:
1. CONCRETE SLAB HAS NOT BEEN EVALUATED TO DETERMINE IF IT IS ADEQUATE TO CARRY LOADS. BUILDING EOR SHOULD REVIEW SLAB CAPACITY FOR FIXTURE SUPPORT PRIOR TO INSTALLATION
2. FIXTURE HAS NOT BEEN EVALUATED FOR LOAD TRANSFER. IT IS THE MANUFACTURERS RESPONSIBILITY TO DETERMINE CAPACITY ADEQUACY OF FIXTURE TO TRANSFER LOADS TO ATTACHMENT POINTS.
3. MINIMUM DISTANCE OF 6" FROM ANCHOR TO EDGE OF CONCRETE.
4. WHERE SPECIFIED ANCHOR DIAMETER IS SMALLER THAN HOLE PROVIDED IN UNIT. USE STEEL BUSHINGS TO PROVIDE FULL BEARING.




EQUIPMENT ANCHORAGE ASSEMBLY
SECTION B-B

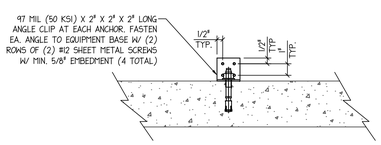



EQUIPMENT ANCHORAGE ASSEMBLY
SECTION C-C

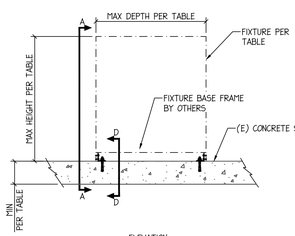
## 10 NOT USED

ESK-000

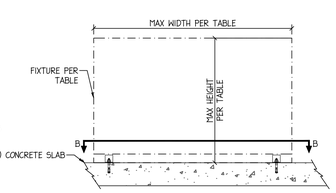
SCALE: N.T.S.




SECTION D-D
N.T.S.




ELEVATION




SECTION A-A

## 13 COMBINED FIXTURE ANCHORAGE TO CONCRETE SLAB

ESK-000

SCALE: N.T.S.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

VisualCreations

SHAWN DAVID PROVANCHA — STATE OF WASHINGTON — 20173 — PROFESSIONAL ENGINEER
12/13/2024

AUE
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REDMOND, WA 98052
425.644.0949 / INFO@AU-ENG.COM
JOB NO. 24424

PRCTI20250011

BARNES AND NOBLE PUYALLUP
3500 S. MERIDIAN ST.
PUYALLUP, WA 98373

| ISSUED / REVISIONS | DATE |
|---|---|
| SUBMITTAL | 12/13/2024 |

ESK-000