Bradley Heights Apartments

A 236-Unit Apartment Development Puyallup, Washington

Bradley Heights SS LLC

PROJECT TEAM

Bradley Heights SS LLC Owner/Developer 614 Boylston Ave E

Seattle, WA 98102 (206) 557-7236

Architect: Milbrandt Architects, Inc., P.S. 25 Central Way, Suite 210

Kirkland, WA 98033 (425) 454-7130

Structural Engineer Solutions 4 Structure, Inc 11605 135th St Ct E

Puyallup, WA 98374 (253) 268-2923

Civil Engineer Azure Green Consultants 409 East Pioneer

Puyallup, WA 98372 (253) 770-3144

Landscape Architect Nature By Design 1320 Alameda Avenue, Suite B Fircrest, WA 98466

> (253) 460-6067 Robison Engineering Inc.

19401 40th Avenue W, Suite 302 Lynnwood, WA 98036 (206) 364-3343

PROIECT INFORMATION

MEP Engineer

/2\ 206 27th Ave SE, Puyallup, WA 98374

Construction of 236 wood framed apartment units in eight **Project Description:**

stacked flat buildings along with a leasing amenity building.

7.785 acres (+/- 339,107 SQ. FT.)

Tax Parcel Number:1 419036006

Occupancy Type: All Apartment Buildings are R2 occupancy

All Apartment Buildings are Type V-B construction Type of Construction with NFPA 13R automatic sprinklers

Applicable Codes:

2018 International Building Code 2018 Uniform Plumbing Code 2018 Washington State Energy Code 2018 International Mechanical code

2018 International Fire Code 2022 National Electrical Code ICC/ANSI A117.1-2009 Standard

Washington State Amendments as modified and adopted by the local jurisdiction.

RATED ASSEMBLIES

Rated assemblies shall be provided in accordance with IBC section 420

Assembly	Fire Rating	Detail
Common walls separating dwelling units:	1-hour	4/D1
Exterior walls:	non-rated	1/D1
Interior bearing walls:	non-rated	2/D1
Interior non-bearing walls:	non-rated	2/D1
Corridor-to-unit walls:	1-hour	3/D1
Floor/ceiling:	1-hour	13/D1
Roof/ceiling:	1-hour	17/D1
Penetrations (firestopping)	Per situation	17/D8
		D9
Stair fire barrier wall:	1-hour @ 3-story 2-hour @ 4-story	3/D1 7/D1

Fire Alarm systems and smoke alarms shall be provided in accordance with IBC section 420.5 Refer to unit plan sheets for smoke detector locations and requirements.

GENERAL NOTES

1. Comply with 2018 IBC and all applicable codes and ordinances of the local jurisdiction and the State of Washington.

2. Do not scale drawings. 3. Verify all rough-in dimensions for equipment provided in this contract or by

All rough-ins shall be approved and fireblocking shall be installed prior to

4. Verify size and location of and provide all openings through floors and walls, furring, anchors, inserts, rough bucks and backing for surface mounted items.

5. Provide furring as required to conceal mechanical and electrical work in all 6. All swinging doors not located by dimensions on plans, interior elevations, or

details shall be 3" from face of stud to edge of rough openings or centered between room partitions as shown.

7. Plans are drawn assuming the following rough openings: Swinging doors: Nominal size +2". Bi-Fold doors: Nominal size +1-1/2". Bi-Pass doors: Nominal size +0". Windows: Nominal size +0".

Sliding glass doors: Nominal size +0". 8. Fill where required with earth free from organic material. Compact fill in

12" lavers maximum.

9. "Finish Floor" refers to the top of concrete slab or top of wood floor

10. Exterior walls shall be 2x6 studs at 16" o.c. and interior walls shall be 2x4 studs at 16" o.c., unless noted otherwise. 11. Unless otherwise noted, plan dimensions are to face of studs and face of

concrete walls. 12. Refer to interior elevations for cabinet and counter lengths, dimensions, countertop materials and detail reference. Verify all existing dimensions

13. Provide caulking between sole plates and subfloor and between rim joists at both top plate and subfloor.

14. Hydrants shall be in service prior to start of framing. 15. Through penetrations and membrane penetrations of rated wall or

floor/ceiling assembly will require firestopping per 2018 IBC Section 714. See detail sheets for diagram of specifics. 16. Shall be no asbestos used on this project. 17. All Tub-Shower valves installed shall conform to UPC 408.3 & ASSE 1016

or ASME A112.18.1 18. Milbrandt Architects is not responsible for construction means, methods, techniques or procedures, or for the safety precautions and programs in connection with the work, and is not responsible for the failure of any contractor or subcontractor to carry out the work in accordance with the various contract documents and or governing jurisdiction, regardless of what

FEDERALLY DECLARED SAFE HARBOR

Declared Safe Harbor: HUD Fair Housing Accessibility Guidelines published on March 6, 1991 and the Supplemental Notice to Fair Housing Accessibility Guidelines: Questions and Answers about the Guidelines, published on June 28, 1994.

ACCESSIBILITY

is shown on these drawings.

Design is based on the 2018 IBC Chapter 11 which has been amended by the State of Washington, & 2009 ICC A117.1 Accessible & Useable Buildings & Facilities. None of the buildings are an elevator type building.

There are a total of 84 one-story dwelling units at ground level. All ground floor units are 1 or 2-bed unit designs. Provided total 84 accessible units: 12 Type A and 72 Type B units. Type A units meet the requirements for Type B units.

The 12 Type A units are proportioned as follows (see Site Plan):

• (7) 1-Bed units (1 BR) in each of Buildings A, C, D, E, F & G- for a total of 7. • (5) 2-Bed units (2 BR) in Buildings A, D, E, F & G - for a total of 5.

Section 1106.2 IBC requires 2% of each proposed parking stall type to be accessible. Of the 354 total open stalls, 12 are accessible, including 5 van stalls. Each accessible open stall is indicated by the wheelchair symbol on the site plan and further designated by the detail symbols 10/A3.

VENTILATION NOTES

- 1. Design Criteria: 2018 International Mechanical Code with Washington State
- 2. System Type: Balanced whole house fan system with energy recovery
- 3. Use: Group R occupancy.
- 4. Specifics: See mechanical plans by others.

ENERGY NOTES

Chapter 4 using climate zone catagory 5 & marine 4 for

All residential units shall comply with the Requirements By Component Table 402.1.1 Including but not limited to the following: Associated Notes/Details **Showing Compliance**

See Insul. Notes on sheets U1, Window U-Factor U2, U3, U4, U5 Ceiling R-Value 13 / D1 Wood Frame Wall R-Value R-21 int. 1, 3, 4, 7 & 8 / D1 Floor R-Value N/A

R-10, 2ft 1, 3, 5 & 6/ D2 Slab R-Value & Depth "int." (intermediate framing) denotes standard framing 16" o.c. with headers insulated with a min. of R-10 (see 6/D6)

All units need to have a certificate posted within 3 feet of the electrical distribution panel listing the following information: R-values, U-values, duct air leakage test results, building envelope air leakage test results, types and efficiencies of heating, cooling and service water heating equipment per R401.3

All insulation shall comply with table R402.4.1.1 WSEC Hot water piping shall be insulated to a minimum of R-3 per R403.5.2

Water heaters in unheated spaces, or on concrete floors shall be placed on minimum of R-10 incompressible insulated surface per R403.5.5 Mechanical ventilation shall be provided per R403.6

A minimum of 90% of all permanently installed lamps in lighting fixtures shall be high-efficacy lamps per R404.1 See Insulation Notes on the Unit Plans, and Insulation and Energy Notes on sheet D7.

 $\frac{1}{2}$ Energy Credits used (see 2018 WSEC table 406.3 for all requirements): Fuel Normalization Credit System Type 4 0.0 CREDITS Option 2.1 Air Leakage Control 1.0 CREDITS 2.0 CREDITS Option 3.4 Ductless Mini-Split Heat Pump System Option 7.1 Appliance Package 1.5 CREDITS TOTAL PROVIDED 4.5 CREDITS

FIRE SYSTEMS

Buildings shall have an NFPA 13R sprinkler system installed throughout per 2018 IBC Section 903.3.1.2 which shall include a notification appliance which is activated upon sprinkler flow. Any alarms, bells or lights required due to the design of the sprinkler system or integral with the sprinkler system shall be considered part of the sprinkler system. The sprinkler system design, therefore, needs to include any and all integrated alarms.

Plans and specifications for sprinklers shall be submitted to the city of Puyallup as a separate permit for review and approval before installation.

DESIGN LOADS See structural notes. Sheet S1.0

DEFERRED SUBMITTALS

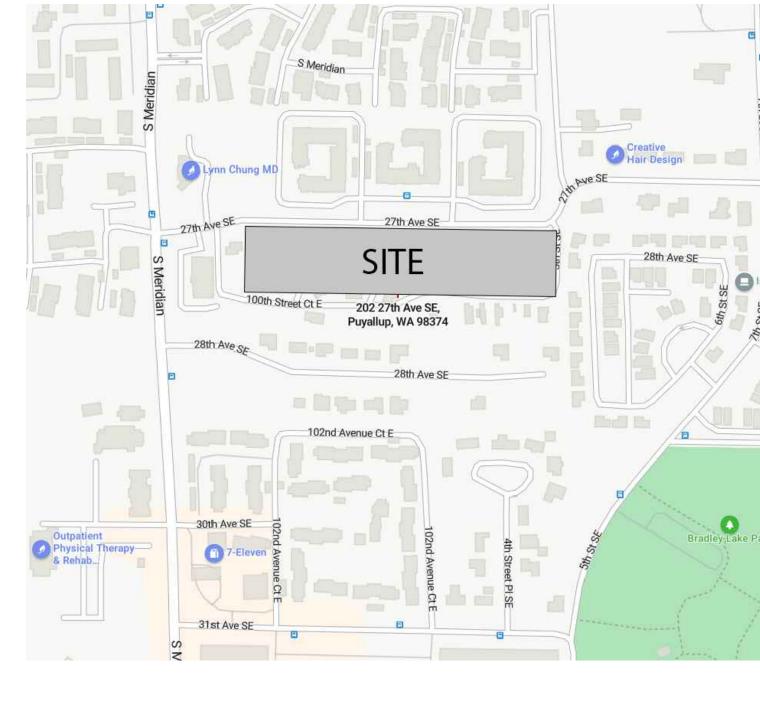
Shop drawings and calculations are required for:

1. Firestopping details. Firestopping methods and materials shall be determined by the Contractor except where details or notes are indicated in these drawings. Firestopping locations are indicated in part by detail sheet D9. Contractor shall submit UL assembly details and product cuts of all relevant situations to the Architect for conformance to the building design. Upon the Architect's approval, they shall be submitted to the Building Official for approval. Firestopping shall not be installed without City approval.

SEPARATE PERMITS

The following required permits will be submitted separately: 1. Automatic Fire Sprinkler System (See fire systems note, this sheet).

2. Fire Alarm System.



VICINITY MAP

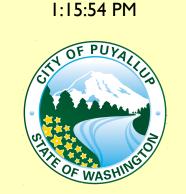


The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

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

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.

City of Puyallup Building **REVIEWED FOR** COMPLIANCE SKinnear 05/14/2025



25 Central Way, Suite 210 Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208 Web: www.milbrandtarch.com

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Bradley Heights **Apartments**

Puyallup,

Timberlane **Partners**

Revisions No. Date Description

8-30-24 Owner Changes/ **Permit Corrections**



Initial Publish Date: Date Plotted:

5-6-25 Job No.: Drawn By: 23-06 TMK/HDM/APT Sheet No.:

Bradley Heights Apartments



Building DPuyallup, Washington

Bradley Heights SS LLC

Bradley Heights Building Areas

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S4.0 Details - Building D S4.1 Details - Building D

S5.0 Details - Building D

All buildings are Type V-B construction; all occupancies are R-2; all have NFPA 13R sprinkler systems throughout

a. Misc. Areas include SF of sprinkler riser rooms and basement storage rooms.

c. Base Area allowed is 7000SF per floor for Type V-B construction (Table 506.2). See area increase diagrams on sheet A4 for total area allowed.

Unit Area Summary

Unit		Unit SF	Patio/Deck SF							
1-Bed-End	1BR/1BA	712	67							
1-Bed-End-Alt	1BR/1BA	625	78							
1-Bed-Int-1	1BR/1BA	684	61							
1-Bed-Int-2	1BR/1BA	684	71							
1-Bed-Int-Alt-1	1BR/1BA	634	74							
1-Bed-Int-Alt-2	1BR/1BA	634	86							
2-Bed	2BR/2BA	1019	66/60							
2-Bed-Alt	2BR/2BA	980	60	1						
2-Bed-2	2BR/2BA	1115	62							
1-Bed-Int-3	1BR/1BA	795	57							
1-Bed-Int-4	1BŘ/1BŘ	795	59							

SINGLE EXITS Per IBC 1006.3.2 section 5, Individual single-story or multistory dwelling units shall be permitted to have a single exit or access to a single exit provided that the dwelling unit has a maximum occupant load of 20, is equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1 or 903.3.1.2, is provided with emergency escape and rescue openings in accordance with section 1030, and the common path of egress travel does not exceed 125'.

LIST OF DRAWINGS

Α	Cover Sheet
A1	Building Areas and Statistics
A2	Site Plan
A3	Site Standards
A4	Area Increase Diagram
A5	Grade Plane Calculations
B5	Building D - Basement & 1st Level Building Plans
В6	Building D - 2nd & 3rd Level Building Plans
U1	1-Bed-Int Unit - Basement & 1st Level Floor Plan
U2	1-Bed-Int Unit - 2nd & 3rd Level Floor Plans
$\int_{1} \left(U \tilde{2}.1 \right)$	1-Bed-Int Alt Unit - 3rd Level Floor Plans
	2-Bed Unit - Basement & 1st Level Floor Plans
U5	2-Bed Unit - 2nd & 3rd Level Floor Plans
U6	Interior Elevations - 1-Bed-Int-1, 1-Bed-Int-2, -
1-Bed-	Int-Alt-1, & 1-Bed-Int-Alt-2
(U9)	Interior Elevations - 2-Bed & 2-Bed-Alt
> U11	Accessibility Standards
\ U12	Stair 1 - Floor Plans
(U13	Stair 2 - Floor Plans
1 U14	Door Schedule
F6	Building D - Partial Architectural Foundation Plan
F7	Building D - Partial Architectural Foundation Plan
R4	Building D - Roof Plan
E8	Building D - Exterior Elevations
E9	Building D - Exterior Elevations & Building Section
E9.1	Building D - Building Section

S1.0 Structural Notes - Building D

S1.2 Shear Wall Notes - Building D

S1.3 Shear Wall Notes - Building D

S2.8 Foundation Plans - Building D

S2.10 Roof Framing Plans - Building D

S3.0 Details - Building D

S3.1 Details - Building D

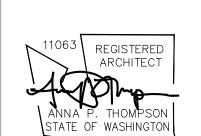
S1.1 Structural Notes & Tables - Building D

S2.9 2nd & 3rd Floor Framing Plans - Building D

S5.1 Details - Building D D1 Details D2 Details D3 Details Details D5 Details D6 Details Details <u>/1</u> / D8 Details Details BE1 **Building Envelope Details** BE2 Building Envelope Details BE3 **Building Envelope Details** BE4 Building Envelope Details BE5 Building Envelope Details M0.0 Legend, General Notes & Drawing Index M0.1 Project Notes M0.2 Tables & Calculations M0.3 Mechanical Schedules & WSEC Forms M2.0 Basement & 1st Floor HVAC Plans M2.1 2nd & 3rd Level HVAC Plans M3.0 HVAC Enlarged Plan M3.1 HVAC Enlarged Plan E0.00 Electrical Cover Sheet E0.01 Electrical Cover Sheet E0.10 Power Site Plan E0.11 Power Site Plan E0.12 Lighting Site Plan E0.13 Lighting Site Plan E1.01 1st Floor Lighting Plan E1.02 2nd & 3rd Floor Lighting Plan E1.50 Lighting Notes E3.00 1st & 2nd Floor Power Plans E3.01 3rd Floor & Roof Power Plans E5.00 Unit Plan Notes E5.01 Unit Electrical Plans E5.02 Unit Electrical Plans E6.00 One-Line Diagram & Notes E6.01 Panel Schedule

POD.00 Plumbing - Legend, General Notes & Drawing Index P0D.01 Plumbing Notes & Tables P0D.02 Plumbing Calculations P0D.03 Plumbing Schedules P2D.00 Underslab Waste & Vent Plan P2D.01 Basement Waste & Vent Plan P2D.02 1st Floor Waste & Vent Plan P2D.03 2nd Floor Waste & Vent Plan P2D.04 3rd Floor Waste & Vent Plan P2D.05 Roof Waste & Vent Plan P3D.01 Basement Plumbing Supply Plan P3D.02 1st Floor Plumbing Supply Plan P3D.03 2nd Floor Plumbing Supply Plan P3D.04 3rd Floor Plumbing Supply Plan P7D.00 Details P7D.01 Details

Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208



Bradley Heights **Apartments**

Puyallup,

Timberlane Partners

Revisions

No. Date Description 8-30-24 Owner Changes/ Permit Corrections



Initial Publish Date: Date Plotted:

5-6-25 Drawn By: Job No.: 23-06 TMK/HDM/APT

Sheet No.:

4-24-25 Permit Corrections

CITY OF PUYALLUP

Planning Division Approved Site Plan

(253) 864-4165 MINIMUM SETBACK REQUIREMENTS

Front Yard: 10ft Rear Yard: 0ft

Additional Conditions/Comments

Street Side Yard: N/A

Staff: RNBrown Date: 03/24/2025

Zoning District: RM-Core

Interior Side Yard: Left: Oft Right: Oft

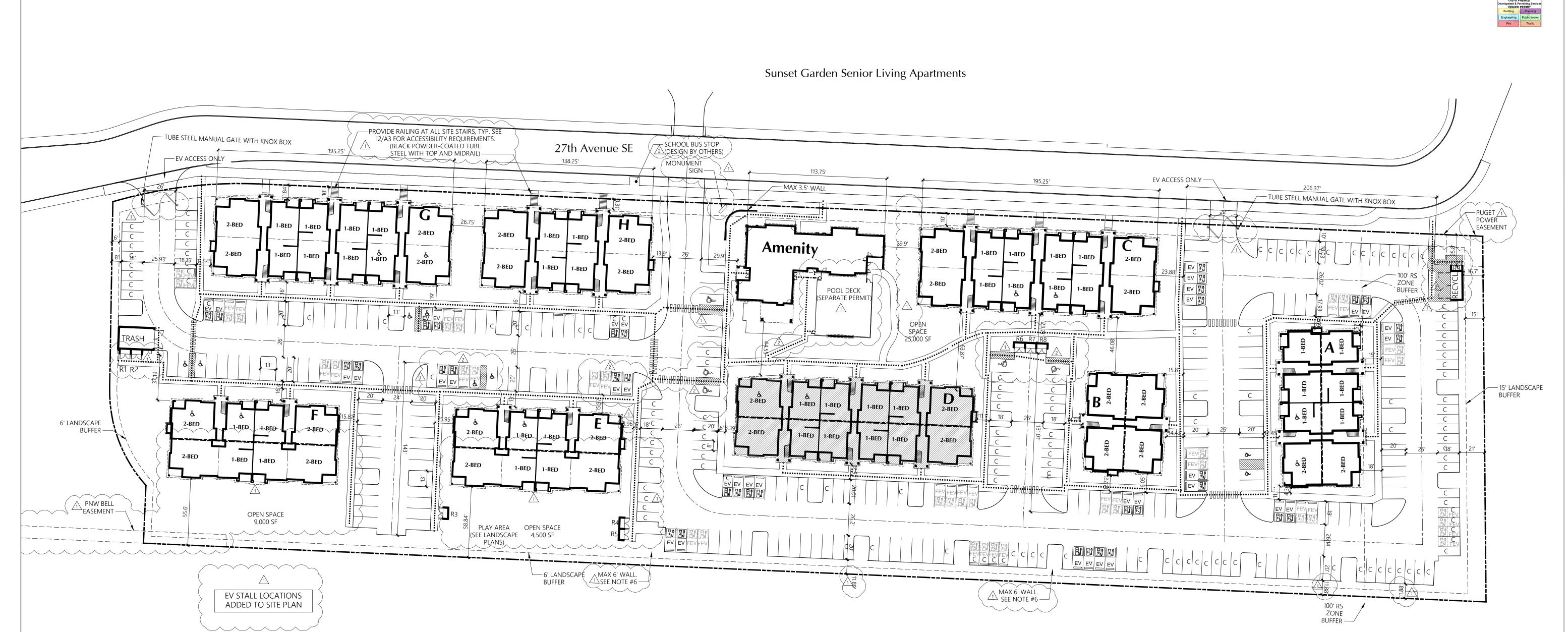
Front, rear, and side yard property lines shall be marked with string from surveying pins prior to footing

20240283

Initial Publish Date:

Date Plotted: 5-6-25 Job No.: Drawn By: 23-06 APT/HDM

Sheet No.:





236 UNITS

SITE INFORMATION

SITE ADDRESS: Puyallup, WA

PARCEL #: 419036006 SITE AREA: 339,107 SF (7.785 Acres)

ZONE: RM-CORE SETBACKS: NORTH/FRONT: 10 FT setback to buildings

WEST/SIDE : 0 FT Building setback - 6 FT landscape buffer SOUTH/REAR : 0 FT Building setback - 6 FT landscape buffer EAST/SIDE: 25 FT Building setback - 15 ft landscape buffer

BUILDING HEIGHT: 50' Max

DENSITY: Min 16 units per acre (125 units) no Max density

LOT COVERAGE: Max 90%

LANDSCAPE AREA: Min 10% of net lot area (33,910 SF) OPEN SPACE: 10% of net lot area (33,910 SF)

38,500 SF provided

PRIVATE OPEN SPACE: 60 SF per ground floor unit 10' x 6' per upper story unit

PARKING:	1.5 PARKING SPACES PER UI Required Parking: 354 Stalls Provided Parking: 354 Stalls
EASEMENTS:	no existing easements on sit

PARKING	SUMMAR	Y	
Parking Stalls Required	354		
Standard Stalls	125		
Compact Stalls 41.5%	99		
Parallel Stalls	0		
Carport Stalls	117		
Attached Garage Stalls	0		
Detached Garage Stalls	0		
Accessible Standard Stalls	6		
Accessible Van Stalls	4	2	
Accessible Parallel Stalls	0		
Accessible Carport Stalls	2	2	
Accessible Garage Stalls	0,		
Tandem Stalls	0		
Tandem Garage Stalls	0		
Subtotal	353	1.50 Stalls / D.U.	
Aprons	0		
Total Parking Stalls Provided	353	1.50 Stalls / D.U.	

JNIT COUN	ΙΤ	
1 BED		
2 BED	99 (42%)	
TOTAL	236	
EV STALL CO	OUNT /2	
	cle Charging stations	
Provid	ded: 36 Stalls (10% of provided parking)	
Kequii	red: 0 Stalls^	
- - - - - - - - - - - - - - - - - - -	ric Vehicle Stall Infrastructure	
Provid	ded: 36 Stalls (10%of provided parking)	
Requi	red: 36 Stalls (10% of provided parking)^	
Electrical par	nels sized to accommodate 72 EV Stalls	
	vided parking)^	
, D .	. (
	ents from section 429 of 2018 IBC State Amendment.	
vvasi ii i gtori	State Amendment.	

PERMIT BLDG NAME	
А	206 27TH AVE SE, BLDG J
В	206 27TH AVE SE, BLDG H
С	206 27TH AVE SE, BLDG G
D	206 27TH AVE SE, BLDG E
Е	206 27TH AVE SE, BLDG C
F	206 27TH AVE SE, BLDG A
G	206 27TH AVE SE, BLDG B
Н	206 27TH AVE SE, BLDG D
CLUBHOUSE	206 27TH AVE SE, BLDG F

PERMIT BLDG NAME		
Α	206 27TH AVE SE, BLDG J	$\left\langle \right\rangle$
В	206 27TH AVE SE, BLDG H	
С	206 27TH AVE SE, BLDG G	$\left\langle \right\rangle$
D	206 27TH AVE SE, BLDG E	{
E	206 27TH AVE SE, BLDG C	\langle
F	206 27TH AVE SE, BLDG A	$\left\langle \right\rangle$
G	206 27TH AVE SE, BLDG B	$\left\langle \right\rangle$
Н	206 27TH AVE SE, BLDG D	$\left\langle \right\rangle$
CLUBHOUSE	206 27TH AVE SE, BLDG F	\langle

AMENDMENT SECTION 1101.2.1	20' 18' 1
SEE SHEET A3 FOR SITE ACCESSIBILITY STANDARDS	TYPICAL TYPICAL CARPORT
SEE CIVIL SITE PLAN PERMIT DRAWINGS FOR SPECIFIC UTILITY, ROAD AND GRADING INFORMATION	STALL STALL LOCATION
POOL TO BE UNDER SEPARATE PERMIT	ACCESSIBLE ROUTE OF TRAVEL (A.R. RUNNING SLOPE NOT TO EXCEED 1:20 CROSS SLOPE NOT TO EXCEED 1:48
ANY WALLS 4' OR HIGHER REQUIRE A SEPARATE CITY BUILDING PERMIT. SEE CIVIL PLAN SET FOR SITE WALL DETAILS.	RAMPS NOT TO EXCEED 1:12 FIRE HYDRANT LOCATIONS
	EV FUETENS VEHICLE GUARDING A
	ELECTRIC VEHICLE CHARGING 1 STALL*
	FUTURE ELECTRIC VEHICLE CHARGIN STALL INFRASTRUCTURE
_	

SITE NOTES

2) A MINIMUM CLEAR WIDTH OF 44" IS

ROUTES PER WASHINGTON STATE

REQUIRED FOR ALL EXTERIOR ACCESSIBLE

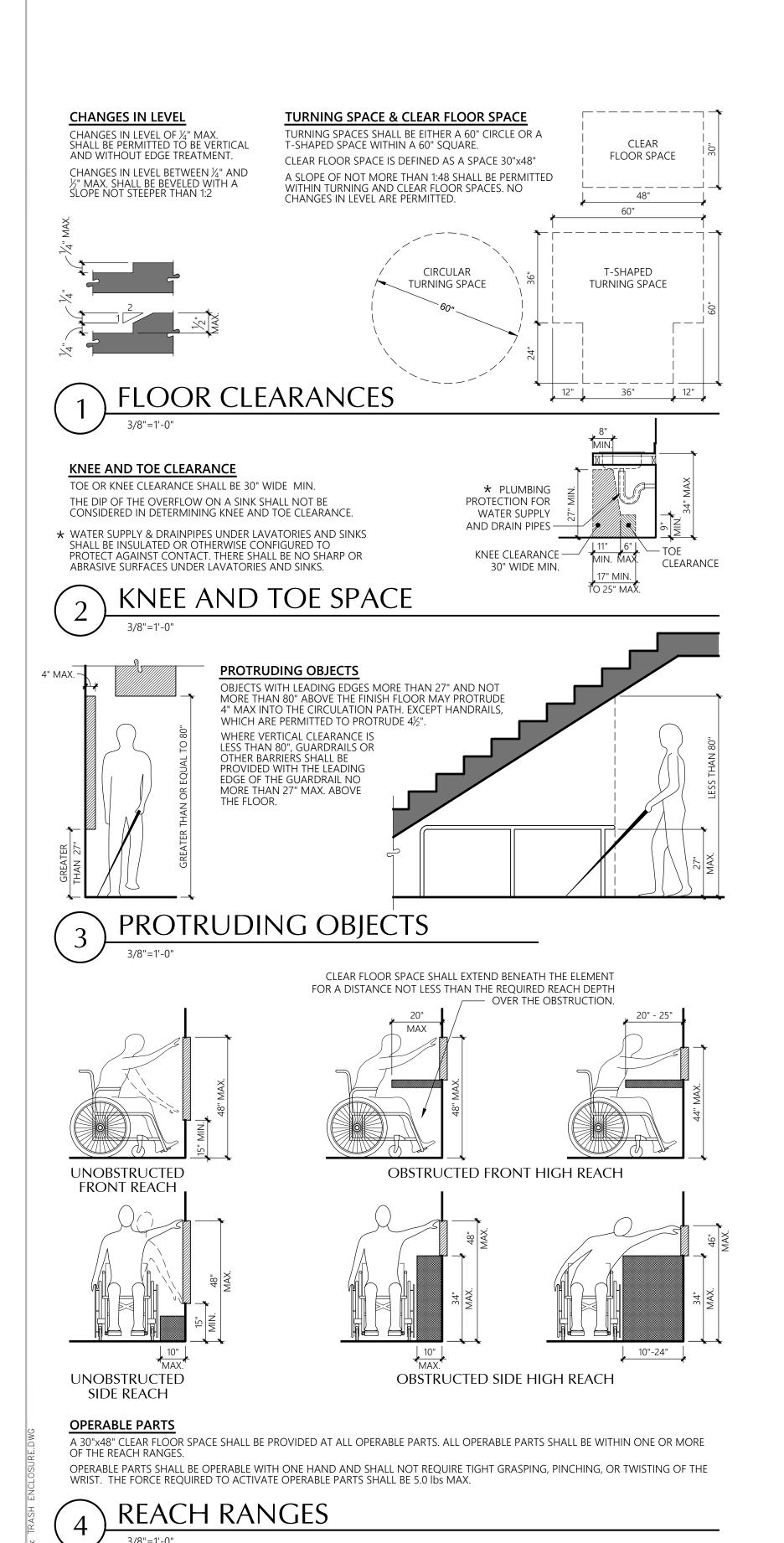
1) TYPICAL SIDEWALK WIDTH IS 6'

* Future electric vehicle stalls shall provide conduit from the electrical panel to either a pull box in the vicinity of the designated future electric vehicle charging locations or stub above grade in the vicinity of the designated future electric vehicle charging locations, protected from vehicles by a wheel stop.

SITE KEY

2'-6" STEP LOCATION





BUILDING BLOCKS

CHAPTER 3

ACCESSIBLE ROUTE (PER IBC SECTION 1104) AT LEAST ONE ACCESSIBLE ROUTE WITHIN THE SITE SHALL BE PROVIDED FROM PUBLIC Transportation Stops, accessible parking, accessible passenger loading zones, AND PUBLIC STREETS OR SIDEWALKS TO THE ACCESSIBLE BUILDING ENTRANCES SERVED. when a building or portion of a building is required to be accessible, at least ONE ACCESSIBLE ROUTE SHALL BE PROVIDED TO EACH PORTION OF THE BUILDING, TO ACCESSIBLE BUILDING ENTRANCES CONNECTING ACCESSIBLE WALKWAYS AND TO THE

ACCESSIBLE ROUTES SHALL COINCIDE WITH OR BE LOCATED IN THE SAME AREAS AS A GENERAL CIRCULATION PATH. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING

COMPONENTS: WALKING SURFACES WITH A SLOPE NOT STEEPER THAN 1:20, DOORS & DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS.

★ ADDITIONAL CLEARANCE

IF DOOR HAS BOTH

CLOSER AND LATCH

WALKING SURFACES

SLOPE: THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF A WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48.

CHANGES IN LEVEL: CHANGES IN LEVEL SHALL COMPLY WITH SECTION 303 (see detail 1 ACC sheets) CLEAR WIDTH: THE WIDTH OF AN ACCESSIBLE ROUTE SHALL BE 36" MIN. THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32" MIN. FOR A LENGTH OF 24" MAX. PROVIDED

THE REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48" MIN. IN LENGTH AND 36" MIN. IN WIDTH. FOR EXTERIOR ROUTES OF TRAVEL, THE CLEAR WIDTH PASSING SPACE: AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60" SHALL PROVIDE PASSING SPACES AT MAXIMUM INTERVALS OF 200 FEET. PASSING SPACES SHALL BE EITHER A 60"x60" MIN. SPACE, OR AN INTERSECTION OF WALKING SURFACES WITH A

SHAPED TURNING SPACE (See detail 1 ACC sheets), PROVIDED THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND 48" MIN. BEYOND THE INTERSECTION. CESSIBLE ROUTE

HINGE APPROACH LATCH APPROACH FRONT APPROACH

DOOR TO THE STOP WITH THE DOOR OPEN 90° THRESHOLDS: IF PROVIDED, THRESHOLDS SHALL BE ½" MAX. IN HEIGHT & SHALL COMPLY WITH SECTIONS 302 & 303. (See detail 1 ACC sheets)

DOOR HARDWARE: HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON SIRLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34" MIN. AND 48" MAX. ABOVE

CLOSING SPEED: DOORS WITH CLOSERS SHALL BE ADJUSTED SO THAT FROM A 90° OPEN POSITION, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12° FROM THE LATCH IS 5 SECONDS MIN. DOORS WITH A SPRING HINGE SHALL BE ADJUSTED SO THAT FROM A 70° OPEN POSITION

AT LEAST AS WIDE -

LANDING

AS RAMP RUN

THE TIME REQUIRED TO MOVE THE DOOR TO A CLOSED POSITION IS 1.5 SECONDS MIN. DOOR OPENING FORCE: HINGED, SLIDING OR FOLDING DOORS OTHER THAN FIRE DOORS SHALL HAVE AN OPENING FORCE AS FOLLOWS: INTERIOR DOORS: 5 lbs. MAX. EXTERIOR DOORS: 10 lbs. MAX.

DOORS

MANEUVERING CLEARANCES

SHALL HAVE A SLOPE NOT GREATER THAN 1:48

MIN. MANEUVERING CLEARANCES SHALL COMPLY WITH THESE

DIAGRAMS AND SHALL NOT INCLUDE KNEE & TOE CLEARANCE. THE FLOOR SURFACE WITHIN THE MANEUVERING CLEARANCE

DOORWAY CLEAR WIDTH: DOOR OPENINGS SHALL PROVIDE A

CLEAR WIDTH OF 32" MIN. CLEAR OPENING OF DOORWAYS WITH

SWINGING DOORS SHALL BE MEASURED FROM THE FACE OF THE

GENERAL: RAMP RUNS SHALL HAVE A RUNNING SLOPE GREATER THAN 1:20 AND NOT STEEPER THAN 1:12. THE MAX. CROSS SLOPE OF A RAMP SHALL BE 1:48. THE MAX. RISE FOR ANY RAMP RUN SHALL BE 30". LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE ACCUMULATION OF WATER.

CHANGES IN LEVEL: CHANGES IN LEVEL SHALL COMPLY WITH SECTION 303 (See detail 1 ACC sheets)

CLEAR WIDTH: THE CLEAR WIDTH SHALL BE 36" MIN. FOR EXTERIOR ROUTES OF TRAVEL THE CLEAR WIDTH SHALL BE 44" MIN. THE HANDRAILS SHALL NOT PROJECT INTO THE REQUIRED 60" MIN. CLEAR WIDTH OF THE RAMP RUN.

DIRECTION AT THE LANDING SHALL BE SIZED TO PROVIDE A TURNING SPACE (See detail 1 ACC sheets) HANDRAILS: RAMP RUNS WITH A RISE GREATER THAN 6" SHALL HAVE HANDRAILS

EDGE PROTECTION: THE FLOOR SURFACE OF THE RAMP RUN OR LANDING SHALL EXTEND 12" BEYOND THE INSIDE FACE OF A RAILING OR THERE SHALL BE A 4" MIN. HEIGHT CURB OR A BARRIER AT THE EDGE OF THE RAMP OR LANDING CONSTRUCTED SO THAT IT PREVENTS THE PASSAGE OF A 4" DIAMETER SPHERE

The Curb ramp shall have a max. Slope of 1:12 with a max. Cross slope of 1 :48.

CURB RAMPS SHALL BE LOCATED OR PROTECTED TO

PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES

CURB RAMP 1:12 MAX. SLOPE

- Flared Sides 1:10 Max. Slope

— CURB RAMP FLARES PAINTED IF

ADJACENT CURB IS PAINTED

LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT THE

LANDINGS: RAMPS SHALL HAVE LANDINGS AT THE BOTTOM & TOP OF EACH RAMP RUN WITH A MAX. SLOPE OF 1.48. CLEAR WIDTH OF LANDINGS SHALL BE AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING AND A MIN. CLEAR LENGTH OF 60". RAMPS THAT CHANGE 36" CLR. BARRIER SHALL PREVENT -

RAMP RUN

LANDING

60" MIN. **EXTENDED SURFACE-**AT SAME LEVEL AS RAMP SURFACE

CHANGE IN

DIRECTION

RUN

EXTENDED FLOOR SURFACE RAMP EDGE PROTECTION

ACCUMULATION OF WATER.

DETECTABLE WARNING

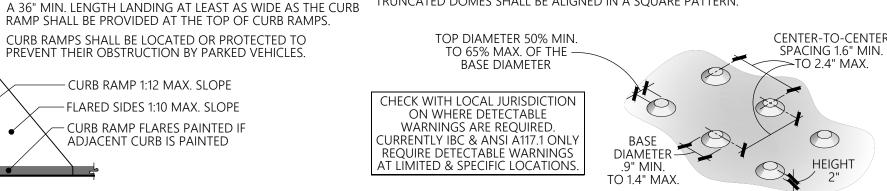
(IF PROVIDED)

DETECTABLE WARNINGS

PASSAGE OF 4" SPHERE

THE MIN. WIDTH OF CURB RAMPS SHALL BE 36". ALL ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20.

DETECTABLE WARNINGS SHALL CONTRACTOR OF CURB RAMP SHALL NOT BE STEEPER THAN 1:20. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJACENT SURFACES, EITHER DETECTABLE WARNING SURFACES IN INTERIOR LOCATIONS SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT TRUNCATED DOMES SHALL BE ALIGNED IN A SQUARE PATTERN.



CURB RAMPS AND DETECTABLE WARNINGS

ACCESSIBLE ROUTES **CHAPTER 4**

ACCESSIBLE PARKING SPACES

LOCATION: PER IBC SECTION 1106.6. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE. WHERE PRACTICAL THE ACCESSIBLE ROUTE SHALL NOT CROSS LANES OF TRAFFIC. WHERE CROSSING TRAFFIC LANES IS NECESSARY, THE ROUTE SHALL BE DESIGNATED AND MARKED AS A CROSSWALK.

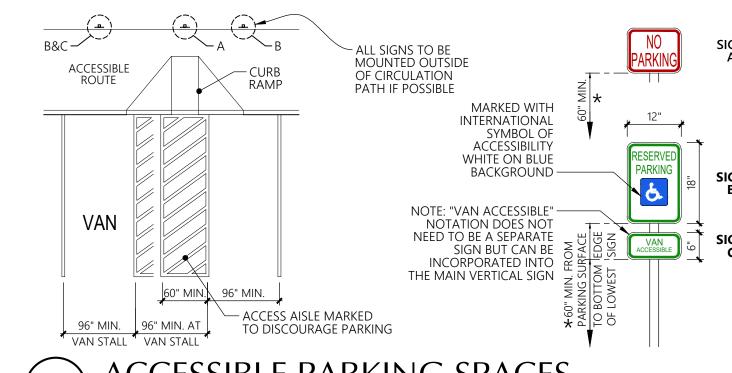
PARKING STALL SIZE: CAR AND VAN PARKING SPACES SHALL BE 96" MIN. WIDTH. ACCESS AISLES SERVING CAR PARKING SPACES SHALL BE 60" MIN. IN WIDTH. ACCESS AISLES SERVING VAN PARKING SPACES SHALL BE 96" MIN. IN WIDTH. ACCESS AISLE: CAR AND VAN PARKING SPACES SHALL HAVE AN ADJACENT ACCESS AISLE ON EITHER SIDE OF THE PARKING SPACE. THE ACCESS AISLES SHALL BE 60" MIN. IN WIDTH FOR CAR STALLS AND 96" MIN. IN WIDTH FOR VAN STALLS AND EXTEND THE FULL LENGTH OF AND AT THE SAME LEVEL AS THE PARKING SPACE THEY SERVE. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM

FLOOR SURFACES: PARKING STALLS & ADJACENT ACCESS AISLES SHALL HAVE A SURFACE SLOPE NOT GREATER THAN 1:48. VERTICAL CLEARANCE: ACCESSIBLE VAN PARKING STALLS, ACCESS AISLES SERVING THEM, & VEHICULAR ROUTES SERVING THE VAN SPACE SHALL HAVE A VERTICAL CLEARANCE OF 98" MIN.

IDENTIFICATION: ACCESSIBLE PARKING SPACES SHALL BE INDICATED BY A VERTICAL SIGN. SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY THAT IS WHITE WITH A BLUE BACKGROUND. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE". A VERTICAL "NO PARKING" SIGN SHALL BE ERECTED AT THE HEAD OF EACH ACCESS AISLE LOCATED ADJACENT TO AN ACCESSIBLE PARKING SPACE. THESE SIGNS MAY INCLUDE ADDITIONAL LANGUAGE SUCH AS, BUT NOT LIMITED TO, AN INDICATION OF THE AMOUNT OF THE MONETARY PENALTY FOR PARKING IN THE SPACE WITHOUT A VALID PERMIT OR THE ACCESS AISLE. THESE SIGNS SHALL BE 60" MIN. ABOVE THE FLOOR OF THE PARKING SPACE MEASURED TO THE BOTTOM OF THE SIGN.

SIGN MOUNTING: SIGNS ARE TO BE MOUNTED COMPLETELY OUTSIDE OF CIRCULATION PATHS WHEREVER POSSIBLE WHERE MOUNTING IS NECESSARY WITHIN A PATH OF CIRCULATION, SIGNS SHALL MEET THE REQUIREMENTS OF IBC **SECTION 1003.3** FOR PROTRUDING OBJECTS AND POST-MOUNTED OBJECTS.

★ SIGNS MOUNTED ON POSTS WITHIN A CIRCULATION PATH SHALL BE INSTALLED WITH A VERTICAL CLEARANCE OF 80" MIN. FROM THE LOWEST POINT OF THE SIGN(S) TO THE WALKING SURFACE. IF A POST MOUNTED SIGN IS SIZED SUCH THAT IT PROTRUDES 4" MAX. FROM THE MOUNTING POST, THEN THE MOUNTING HEIGHT SHALL BE MOUNTED AT 60" MIN. ABOVE THE PARKING SURFACE SO AS TO NOT BE OBSTRUCTED BY ANY PARKED VEHICLES.

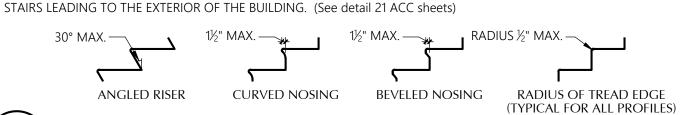


ACCESSIBLE PARKING SPACES

ACCESSIBLE STAIR REQUIREMENTS

ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS AND UNIFORM TREAD DEPTHS. RISERS SHALL BE 4" HIGH MIN. AND 7" HIGH MAX. TREADS SHALL BE 11" DEEP MIN. OPEN RISERS ARE NOT PERMITTED & TREADS SHALL HAVE A SLOPE NOT MORE THAN 1:48.

STAIR NOSINGS SHALL CONFORM TO THE DIAGRAMS SHOWN HERE AND THE LEADING 2" OF THE TREAD SHALL HAVE VISUAL CONTRAST OF DARK-ON-LIGHT OR LIGHT-ON-DARK FROM THE REMAINDER OF THE TREAD. STAIR TREADS & LANDINGS SUBJECT TO WET CONDITIONS SHALL BE DESIGNED TO PREVENT ACCUMULATION OF WATER. FLOOR IDENTIFICATION SIGNS SHALL BE LOCATED AT EACH FLOOR LANDING ADJACENT TO THE STAIRWELL DOOR LEADING INTO THE CORRIDOR. SIGNS SHALL BE IN RAISED CHARACTERS & BRAILLE. "EXIT" SIGNS SHALL BE LOCATED AT

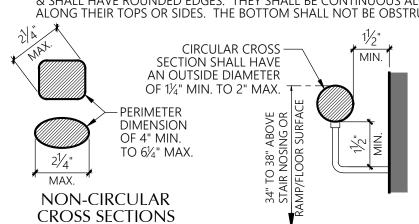


ACCESSIBLE STAIRS

HANDRAILS

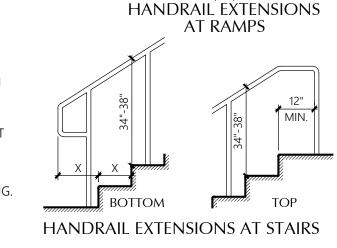
HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF STAIRS & RAMPS. THEY SHALL BE CONTINUOUS FOR THE FULL LENGTH OF EACH STAIR FLIGHT OR RAMP RUN. INSIDE HANDRAILS ON SWITCHBACKS SHALL BE CONTINUOUS BETWEEN

HANDRAIL GRIPPING SURFACES & ANY SURFACES ADJACENT TO THEM SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS & SHALL HAVE ROUNDED EDGES. THEY SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOPS OR SIDES. THE BOTTOM SHALL NOT BE OBSTRUCTED FOR MORE THAN 20% OF IT'S LENGTH



HANDRAIL EXTENSIONS EXTENSIONS SHALL EXTEND BEYOND AND IN THE SAME DIRECTION OF A STAIR FLIGHT OR RAMP RUN EXCEPT FOR THE INSIDE CONTINUOUS HANDRAIL AT SWITCHBACK STAIRS OR RAMPS HANDRAILS SHALL RETURN TO A WALL, GUARD OR THE LANDING SURFACE, OR BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT

STAIR FLIGHT OR RAMP RUN. AT THE BOTTOM OF A STAIR FLIGHT THE HANDRAIL SHALL EXTEND AT THE SLOPE OF THE STAIR FLIGHT FOR A HORIZONTAL DISTANCE EQUAL TO ONE TREAD DEPTH BEYOND THE BOTTOM TREAD NOSING



HANDRAILS

GENERAL SITE & BLDG. ELEMENTS CHAPTER 5

25 Central Way, Suite 210 Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208 Web: www.milbrandtarch.com

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Bradley Heights **Apartments**

Puyallup,

Timberlane **Partners**

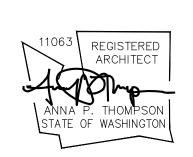
Revisions No. Date Description



Initial Publish Date:

Date Plotted: 5-1-25 Job No.: Drawn By: APT/DJV/JLL

Sheet No.:



Puyallup, Wa

Timberlane **Partners**

Revisions No. Date Description

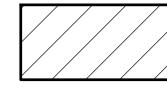
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Sheet No.:

5-6-25 Job No.: Drawn By: 23-06

LEGEND



= Portion of perimeter with 30 feet of open space

FRONTAGE INCREASE TO BUILDING AREA

Per IBC Section 506.3 buildings that adjoin or have access to a public way or qualifying green space for more than 25% of their total perimeter are eligible for an area factor increase based

To qualify for an area factor increase based on frontage, the public way or open space adjacent to the building perimeter shall have a minimum distance (W) of 20 feet, and only the first 30 feet shall be considered in the calculation. The measurement shall be to the nearest lot line, the entire width of a street, alley or public way, or the exterior face of an adjacent building on the

For purposes of simplifying this calculation only those portions of perimeter fronting right of way or green space with a dimension of 30 feet or more are considered. Those portions of perimeter that front areas that may qualify (are more than 20 feet, but are less than 30 feet) are not included in the frontage calculation.

Frontage Area increase calculation: $I_f = [F/P-0.25]W/30$

 I_f = area of increase due to frontage

F = Building perimeter that fronts on a public way or open space

P = Full building perimeter

W = Width of public way or open space (max of 30')

For Building D F = 528.18'

P = 528.18'

W = 30' $I_f = [528.18'/528.18'-0.25]30'/30' = 0.75$ factor of increase due to frontage

ALLOWABLE BUILDING AREA

Per IBC Table 506.2: Buildings of R-2 occupancy with VB construction type are allowed to have an area of 7,000 square feet per floor. With the area factor increase from above this

allowable area per floor is increased as follows: $7,000 \text{ s.f.} + (7,000 \text{ s.f. } \times 0.75) = 12,250 \text{ square feet per floor allowed}$

Proposed floor area for Building D

5,958 s.f. Floor 1: 11,633 s.f. Floor 2: 11,570 s.f. Floor 3: 11,540 s.f. BUILDING D

1" = 20'

AREA INCREASE DIAGRAM

132' (25% OF BUILDING PERIMETER)

REQUIRED LENGTH OF AAAR

Revisions

Sheet No.:

Job No.: Drawn By: **23-06 TMK**

5-6-25

A5

IBC SECTION 202 DEFINITIONS

BASEMENT. A STORY THAT IS NOT A STORY ABOVE GRADE PLANE (SEE "STORY ABOVE GRADE PLANE"). THIS DEFINITION OF "BASEMENT" DOES NOT APPLY TO THE PROVISIONS OF SECTION 1612 FOR FLOOD LOADS.

STORY ABOVE GRADE PLANE. ANY STORY HAVING ITS FINISHED FLOOR SURFACE ENTIRELY ABOVE GRADE PLANE, OR IN WHICH THE FINISHED SURFACE OF THE FLOOR NEXT ABOVE IS:

 MORE THAN 6 FEET (1829 MM) ABOVE GRADE PLANE; OR
 MORE THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL AT ANY POINT

GRADE PLANE. A REFERENCE PLANE REPRESENTING THE AVERAGE OF FINISHED GROUND LEVEL ADJOINING THE BUILDING AT EXTERIOR WALLS. WHERE THE FINISHED GROUND LEVEL SLOPES AWAY FROM THE EXTERIOR WALLS, THE REFERENCE PLANE SHALL BE ESTABLISHED BY THE LOWEST POINTS WITHIN THE AREA BETWEEN THE BUILDING AND THE LOT LINE OR, WHERE THE LOT LINE IS MORE THAN 6 FEET (1829 MM) FROM THE BUILDING, BETWEEN THE BUILDING AND A POINT 6 FEET (1829 MM) FROM THE BUILDING.

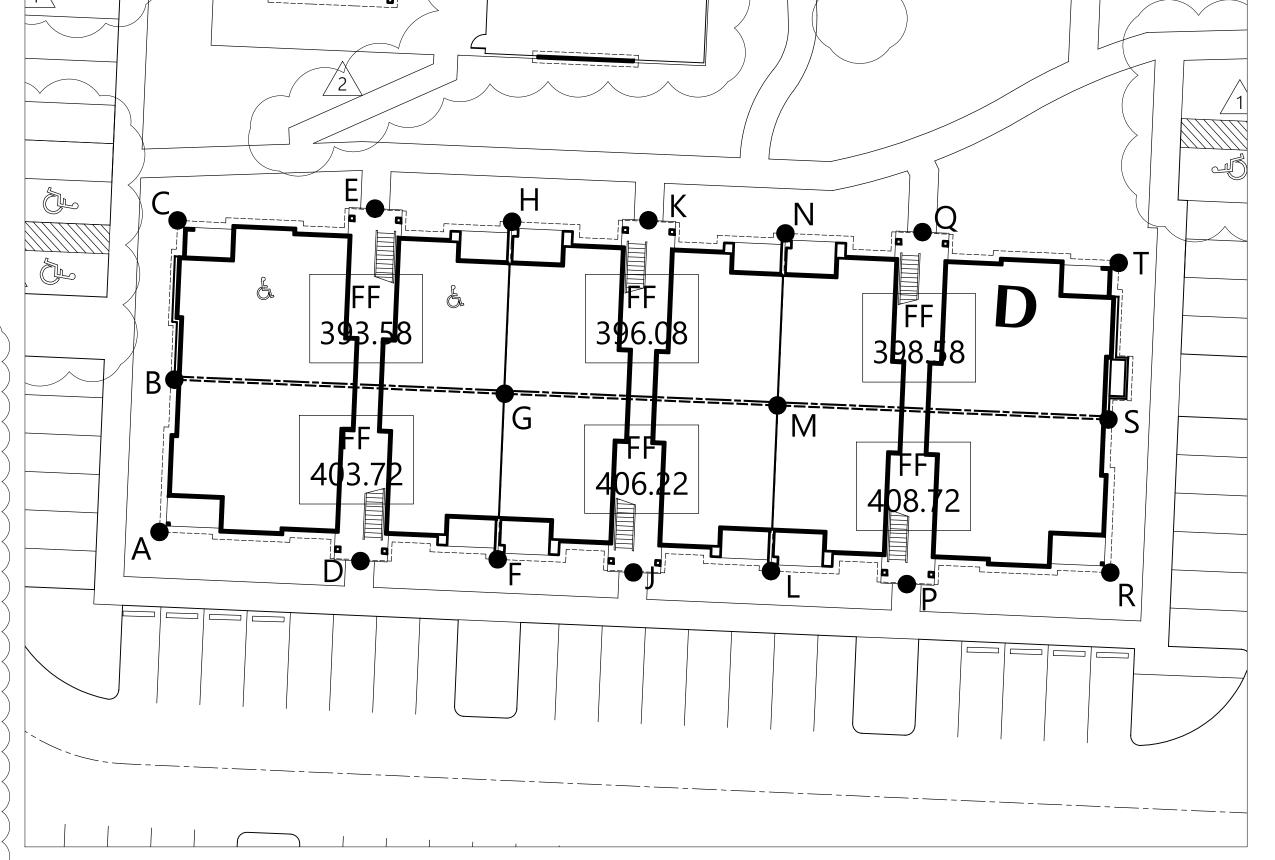
			2	2				
	SEG	MENT 1	SEGI	MENT 2	SEG	MENT 3		
	Α	403.05	F	405.55	L	408.05		
	В	398.22	G	399.90	М	402.40		
	C	392.91	Н	395.41	Ν	397.91		
	D	403.14	J	405.64	Р	408.14		
	Е	393.00	K	395.50	Q	398.00		
	F	405.55	L	408.05	R	408.05		
	G	399.90	М	402.40	S	402.29		
	Н	395.41	N	397.91	Т	401.75		
CALCULATED AVERAGE GRADE PLANE:	39	98.90	4	01.30	4(03.32		
1ST LEVEL FINISH FLOOR:	4	03.72	4(06.22	408.72			
DIST. FROM AVERAGE GRADE PLANE TO 1ST LEVEL FINISH FLOOR:		4.82	2	4.93	5.40			
	GRADE PLANE: 1ST LEVEL FINISH FLOOR: DIST. FROM AVERAGE GRADE PLANE TO 1ST	A B C D E F G H CALCULATED AVERAGE GRADE PLANE: 1ST LEVEL FINISH FLOOR: 4 DIST. FROM AVERAGE GRADE PLANE TO 1ST	B 398.22 C 392.91 D 403.14 E 393.00 F 405.55 G 399.90 H 395.41 CALCULATED AVERAGE GRADE PLANE: 1ST LEVEL FINISH FLOOR: 403.72 DIST. FROM AVERAGE GRADE PLANE TO 1ST 4.82	SEGMENT 1 SEGI	A 403.05 F 405.55 B 398.22 G 399.90 C 392.91 H 395.41 D 403.14 J 405.64 E 393.00 K 395.50 F 405.55 L 408.05 G 399.90 M 402.40 H 395.41 N 397.91 CALCULATED AVERAGE GRADE PLANE: DIST. FROM AVERAGE GRADE PLANE TO 1ST 4.82 4.93	SEGMENT 1 SEGMENT 2 SEGMENT 2 SEGMENT 2 SEGMENT 1 SEGMENT 2 SEGMEN		

FOR SEGMENT 1, THE FIRST FLOOR (FLOOR NEXT ABOVE GRADE PLANE) IS LESS THAN 6-FEET (ACTUAL 4.82 FEET) BELOW FIRST FLOOR FINISHED FLOOR ELEVATION OF 403.72.

FOR SEGMENT 2, THE FIRST FLOOR (FLOOR NEXT ABOVE GRADE PLANE) IS LESS THAN 6-FEET (ACTUAL 4.93 FEET) BELOW FIRST FLOOR FINISHED FLOOR ELEVATION OF 406.22.

FOR SEGMENT 3, THE FIRST FLOOR (FLOOR NEXT ABOVE GRADE PLANE) IS LESS THAN 6-FEET (ACTUAL 5.40 FEET) BELOW FIRST FLOOR FINISHED FLOOR ELEVATION OF 408.72.

BUILDING D QUALIFIES AS 3-STORY OVER BASEMENT



BUILDING D

1" = 20'

AVERAGE GRADE CALCULATIONS

AVERAGE GRADE PLANE
SPOT ELEVATIONS AND
CALCULATIONS UPDATED PER
CURRENT CIVIL DRAWINGS

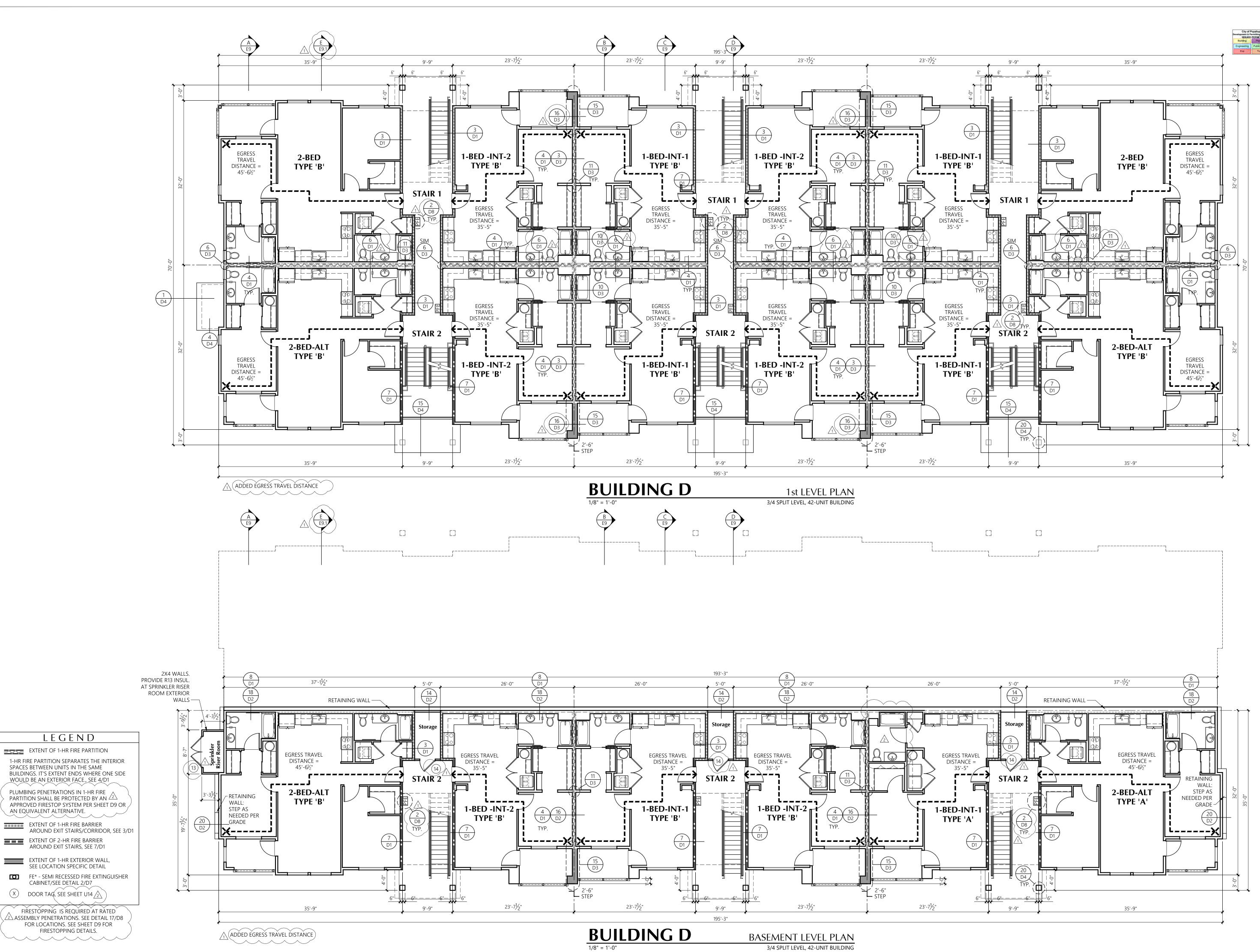
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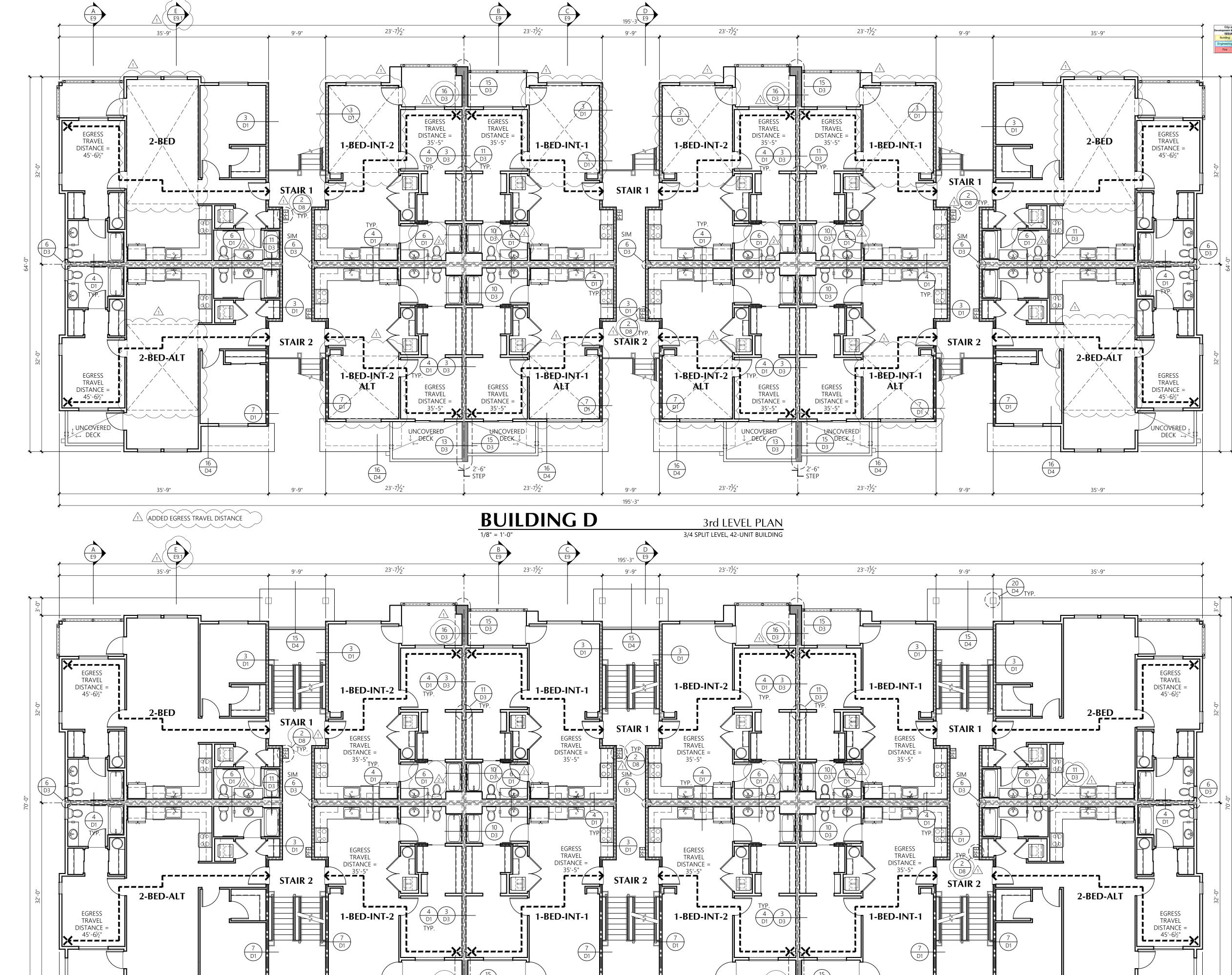
Revisions

Permit Corrections

5-6-25

Drawn By:

B6



EXTENT OF 1-HR FIRE PARTITION 1-HR FIRE PARTITION SEPARATES THE INTERIOR SPACES BETWEEN UNITS IN THE SAME

BUILDINGS. IT'S EXTENT ENDS WHERE ONE SIDE

WOULD BE AN EXTERIOR FACE., SEE 4/D1

LEGEND

PLUMBING PENETRATIONS IN 1-HR FIRE PARTITION SHALL BE PROTECTED BY AN 2 APPROVED FIRESTOP SYSTEM PER SHEET D9 OR AN EQUIVALENT ALTERNATIVE.

EXTENT OF 1-HR FIRE BARRIER AROUND EXIT STAIRS/CORRIDOR, SEE 3/D1

EXTENT OF 2-HR FIRE BARRIER AROUND EXIT STAIRS, SEE 7/D1

EXTENT OF 1-HR EXTERIOR WALL, SEE LOCATION SPECIFIC DETAIL FE* - SEMI RECESSED FIRE EXTINGUISHER CABINET/SEE DETAIL 2/D7

, L______,

(AĎDED EGREŠS TŘAVEL DISTÁNCE

35'-9"

23'-7¹/2"

9'-9"

23'-71/2"

BUILDING D

23'-7¹/2"

2nd LEVEL PLAN

3/4 SPLIT LEVEL, 42-UNIT BUILDING

9'-9"

195'-3"

23'-71/2"

35'-9"

X) DOOR TAG, SEE SHEET U14 2

FIŘESTOPPING IS ŘEQUIRED AT RATED ASSEMBLY PENETRATIONS. SEE DETAIL 17/D8 FOR LOCATIONS. SEE SHEET D9 FOR FIRESTOPPING DETAILS.

Initial Publish Date: Date Plotted:

Sheet No.:

5-1-25 Job No.: Drawn By: 23-06 APT/HDM/TMK

OF CABINETS -SHELVES -- COUNTER DEPTH FRIDGE ZZ **RADIUS** ~ 8 & B\ SEE 1/A3 BUILT-IN ^{/2}\SHELVES; SEE U6 FOR INT. ELEV. — SOFFIT TO SD +8'-3" A.F.F. — DOOR MANEUVERING CLEARANCE PER 6/A3 Patio 4'-10" 10'-11¹/5" PROVIDE RAILING AT GROUND FLOOR UNIT WHERE GRADE DROPS MORE THAN 30" BELOW PATIO TYPE 'A' ACCESSIBLE 1-BED-INT-1 UNIT BASEMENT & 1st LEVEL FLOOR PLAN 1/4" = 1'-0"

AREA SUMMARY						
		Heated SF	Patio/Deck SF			
Total SF		684	61			
		•	-			

UNIT PLAN NOTES

2x6'S AT EXTERIOR WALLS FRAMING: 2x4'S AT INTERIOR WALLS UNLESS NOTED OTHERWISE.

R-21 BATT INSULATION U.N.O. ---- R-13 BATT INSULATION 3½" ACOUSTICAL INSULATION BOTH SIDES OF PARTYWALL, U.N.O. LOCATION OF SOFFIT FOR VENT

RUNS. SOFFIT HEIGHT +8'-0" A.F.F. U.N.O. ON PLANS; SEE DETAIL 1/D8

SMOKE DETECTOR

CONCEALED SPACES SHALL BE FIRESTOPPED IN BOTH DIRECTIONS AT 10'-0" ON CENTER AND AT FLOORS. TYPICAL.

CARBON MONOXIDE/SMOKE DETECTOR

ALL ESCAPE OR RESCUE WINDOWS FROM SLEEPING ROOMS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. THE MINIMUM CLEAR OPENING HEIGHT DIMENSION SHALL BE 24". MINIMUM CLEAR OPENING WIDTH DIMENSION SHALL BE 20". EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE THE BOTTOM OF CLEAR OPENING NOT GREATER THAN 44 INCHES MEASURED FROM THE FLOOR.

WHERE THE OPENING OF THE SILL PORTION OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE AT A HEIGHT NOT LESS THAN 36 INCHES ABOVE THE FINISHED FLOOR SURFACE OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 36 INCHES OF THE FINISHED FLOOR.

ALL GLAZING SHALL CONFORM TO THE 2018 IBC, CHAPTER 24, SEC. 2406, SAFETY GLAZING. GLAZING IN ALL DOORS SHALL BE SAFETY TYPE AND ALL GLAZING WITHIN A 24" ARC OF EITHER VERTICAL EDGE SHALL BE SAFETY TYPE.

PROVIDE %" TYPE 'X' (MIN.) GYPSUM SHEATHING ON WALLS BEHIND TUB/SHOWERS TO SATISFY FIRE REQUIREMENTS AT PARTYWALL CONDITION. PROVIDE $^3\!4$ " PLYWOOD UNDER TUB IN PLACE OF THE GYPCRETE, SEE DETAIL 14/D1

PROVIDE WATER RESISTANT GYPSUM WALLBOARD BEHIND TUB AND SHOWER ENCLOSURE MATERIALS TO A HEIGHT OF 70" MINIMUM ABOVE THE DRAIN INLET.

ALL BEDROOM AND BATHROOM DOORS SHALL BE UNDERCUT A MINIMUM OF 1/2" ABOVE THE ADJACENT FLOOR COVERING.

THE FRONT DOOR SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. IT MAY BE PROVIDED WITH A NIGHT LATCH, DEAD BOLT OR SECURITY CHAIN, PROVIDED SUCH DEVICES ARE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR TOOL, AND MOUNTED NOT TO EXCEED 48" ABOVE THE FINISHED FLOOR.

GYPSUM WALLBOARD SCHEDULE except where noted otherwise, 5/8" type 'X' gypsum WALLBOARD SHALL BE USED THROUGHOUT; ON INTERIOR NON-RATED WALLS, EXTERIOR WALLS, CORRIDOR WALLS, AND 1-HOUR AND 2-HOUR FIRE-RATED

STANDARD PLATE HEIGHT: 9'-1" SEE ELEVATION SHEETS FOR

FLOOR TO FLOOR HEIGHTS WINDOW HDR IS 8'-0"

SEE SHEET U6 FOR INTERIOR ELEVATIONS

UNLESS NOTED OTHERWISE

DOOR KEY:

X DOOR TAG. SEE SHEET U14 FOR SCHEDULE

WINDOW KEY:

FIX = FIXED/PICTURE SL = SLIDERSH = SINGLE HUNG SGD = SLIDING GLASS DOOR

INSULATION

FOUNDATION PERIMETER - R-10 RIGID INSULATION TO A DEPTH OF 24" OR TO TOP OF FOOTING AT HEATED PERIMETER

EXTERIOR WALLS: FIBERGLASS BATTS OR BLANKETS 2x6 WALLS - R21

FLOORS OVER UNHEATED SPACES - R30 ATTICS AND ROOF ASSEMBLIES - R-49 FULL HEIGHT OF UNCOMPRESSED INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES

EXTERIOR DOORS: MAIN ENTRY U=0.20 ALL OTHERS U=0.40

WINDOWS: MILGARD VINYL TYPE (VINYL) MODEL U-VALUE 6110 ARGON/LoE 0.24 or BETTER FIXED 6310 ARGON/LoE 0.24 or BETTER SINGLE HUNG 6210 ARGON/LoE 0.24 or BETTER DBL. SLIDER 8125 ARGON/LoE 0.24 or BETTER 6610 ARGON/LoE 0.24 or BETTER

NOTE: ALL CONCEALED OR EXPOSED INSULATION SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450

ACCESSIBILITY NOTES:

BY CHAPTER 11 OF THE 2018 IBC.

ACCESSIBILITY REQUIREMENTS.

ALL GROUND FLOOR UNITS IN THIS PROJECT MUST MEET THE ACCESSIBILITY REQUIREMENTS OF 'TYPE B' ACCESSIBLE UNITS AS REQUIRED

INCLUDED IN THE ABOVE GROUND FLOOR UNITS 5% OF ALL UNITS NEED TO MEET THE ACCESSIBILITY REQUIREMENTS OF 'TYPE A' ACCESSIBLE UNITS AS REQUIRED BY CHAPTER 11 OF THE 2018 IBC.

SEE BUILDING PLANS FOR LOCATION OF 'TYPE A' UNITS SEE SHEET U11 & U11.1 FOR SPECIFIC ADAPTABILITY STANDARD FOR BOTH TYPE A' AND 'TYPE B' ACCESSIBLE UNITS. SEE INTERIOR ELEVATION SHEETS FOR ADDITIONAL

LIGHTING CONTROLS, ELECTRICAL SWITCHES, ENVIRONMENTAL CONTROLS, OPERATING HARDWARE FOR DOORS AND WINDOWS, AND PLUMBING FIXTURE CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. EXCEPT FOR OPERABLE DOOR HARDWARE, SUCH ITEMS SHALL BE 15" MINIMUM AND 44" MAXIMUM ABOVE THE FLOOR (48" FOR WINDOWS).

OPERABLE ENTRY DOOR HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR.

OPENING FORCES FOR ENTRY DOOR SHALL BE: 15 POUNDS TO RELEASE THE LATCH 30 POUNDS TO SET DOOR IN MOTION 15 POUNDS TO OPEN DOOR TO FULL 90° FORCE MEASURED AT LATCH SIDE OF DOOR.

THE DOOR CLOSER ON THE ENTRY DOOR SHALL BE ADJUSTED TO CLOSE FROM AN OPEN POSITION OF 90° TO AN OPEN POSITION OF 12° IN NOT LESS THAN 5 SECONDS.

OPENING FORCE OF ALL SWINGING INTERIOR DOORS AND THE SLIDING GLASS DOOR SHALL NOT EXCEED 5 POUNDS APPLIED TO THE LATCH SIDE OF THE DOOR.

THE FORCE REQUIRED TO ACTIVATE ALL OTHER OPERABLE ITEMS LISTED ABOVE SHALL BE

*BIFOLD DOOR HARDWARE AT LAUNDRY TO BE

'FULL ACCESS HARDWARE'.

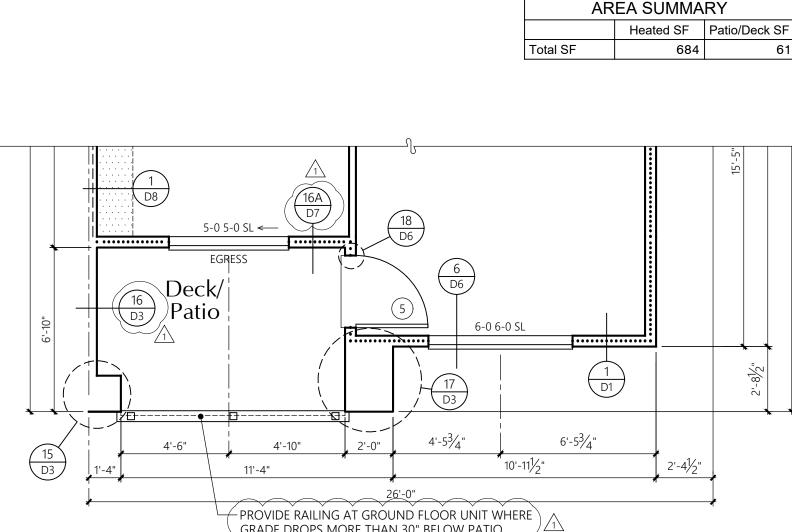
_____ THE 30"x48" CLEAR FLOOR 30X48 SPACE IS REQUIRED AT EACH FIXTURE OR LOCATION SHOWN ON THE FLOOR PLAN.

1/4" = 1'-0"

GRADE DROPS MORE THAN 30" BELOW PATIO

SEE 1-BED-INT-1 UNIT TYPE 'A' OR
1-BED-1-INT TYPE 'B' FOR
REMAINDER OF UNIT

AR	EA SUMMA	RY
	Heated SF	Patio/Deck SF
Total SF	684	71



PROVIDE RAILING AT GROUND FLOOR UNIT WHERE GRADE DROPS MORE THAN 30" BELOW PATIO

1-BED-INT-2 UNIT

1-BED-INT-1 UNIT

3'-1¹/₄"

7'-8³/₄"

^+8'-3" A.F.F.

Bedroom

15'-2"

— SOFFIT TO TOP OF CABINET -

BLDG E & -

2 BUILT-IN SHELVES;

SEE U6 FOR INT. ELEV. 7

Living

6'-5³/₄"

BASEMENT & 1st LEVEL FLOOR PLAN

− SOFFIT TO +8'-3" A.F.F.

TYPE 'A' & 'B' ACCESSIBLE BASEMENT & 1st LEVEL FLOOR PLAN

TYPE 'B' ACCESSIBLE

Initial Publish Date: Date Plotted: 5-1-25 Job No.: Drawn By:

UNIT PLAN NOTES

FRAMING: 2x6'S AT EXTERIOR WALLS 2x4'S AT INTERIOR WALLS UNLESS NOTED OTHERWISE. R-21 BATT INSULATION U.N.O. $^{\prime}$ R-13 Batt insulation $^{\prime}$ $^{\prime}$ 3½" ACOUSTICAL INSULATION BOTH SIDES OF PARTYWALL, U.N.O. LOCATION OF SOFFIT FOR VENT RUNS. SOFFIT HEIGHT +8'-0" A.F.F. U.N.O. ON PLANS; SEE DETAIL (1/D8)

SMOKE DETECTOR

CONCEALED SPACES SHALL BE FIRESTOPPED IN BOTH

DIRECTIONS AT 10'-0" ON CENTER AND AT FLOORS. TYPICAL.

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PROVIDE 5/8" TYPE 'X' (MIN.) GYPSUM SHEATHING ON WALLS BEHIND TUB/SHOWERS TO SATISFY FIRE REQUIREMENTS AT PARTYWALL CONDITION. PROVIDE $^3\!4$ " PLYWOOD UNDER TUB IN PLACE OF THE GYPCRETE, SEE DETAIL 14/D1

INSULATION

FOUNDATION PERIMETER - R-10 RIGID INSULATION TO A DEPTH OF 24" OR TO TOP OF FOOTING AT HEATED PERIMETER

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FLOORS OVER UNHEATED SPACES - R30 ATTICS AND ROOF ASSEMBLIES - R-49 FULL HEIGHT OF UNCOMPRESSED INSULATION EXTENDS OVER THE WALL TOP PLATE AT

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WINDOWS: MILGARD VINYL MODEL U-VALUE TYPE (VINYL) 0.24 or BETTER 6110 ARGON/LoE 6310 ARGON/LoE 0.24 or BETTER SINGLE HUNG 6210 ARGON/LoE 0.24 or BETTER DBL. SLIDER 8125 ARGON/LoE 0.24 or BETTER 6610 ARGON/LoE 0.24 or BETTER

NOTE: ALL CONCEALED OR EXPOSED INSULATION SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450

> STANDARD PLATE HEIGHT: 9'-1"

FLOOR TO FLOOR HEIGHTS

WINDOW HDR IS 8'-0"

SEE ELEVATION SHEETS FOR

UNLESS NOTED OTHERWISE SEE SHEET U6 FOR INTERIOR ELEVATIONS PROVIDE WATER RESISTANT GYPSUM WALLBOARD BEHIND TUB AND SHOWER ENCLOSURE MATERIALS TO A HEIGHT OF 70" MINIMUM ABOVE THE DRAIN INLET.

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(x) DOOR TAG. SEE SHEET U14 FOR SCHEDULE

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SEE SHEET U11 & U11.1/FOR SPECIFIC ADAPTABILITY STANDARD FOR BOTH 'TYPE A' AND 'TYPE B' ACCESSIBLE UNITS. SEE INTERIOR ELEVATION SHEETS FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS.

LIGHTING CONTROLS, ELECTRICAL SWITCHES, ENVIRONMENTAL CONTROLS, OPERATING HARDWARE FOR DOORS AND WINDOWS, AND PLUMBING FIXTURE CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. EXCEPT FOR OPERABLE DOOR HARDWARE, SUCH ITEMS SHALL BE 15" MINIMUM AND 44" MAXIMUM ABOVE THE FLOOR (48" FOR WINDOWS).

OPERABLE ENTRY DOOR HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR.

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THE DOOR CLOSER ON THE ENTRY DOOR SHALL BE ADJUSTED TO CLOSE FROM AN OPEN POSITION OF 90° TO AN OPEN POSITION OF 12° IN NOT LESS THAN 5 SECONDS.

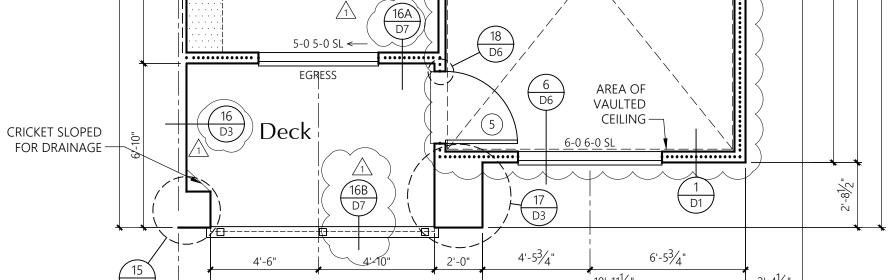
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*BIFOLD DOOR HARDWARE AT LAUNDRY TO BE 'FULL ACCESS HARDWARE'.

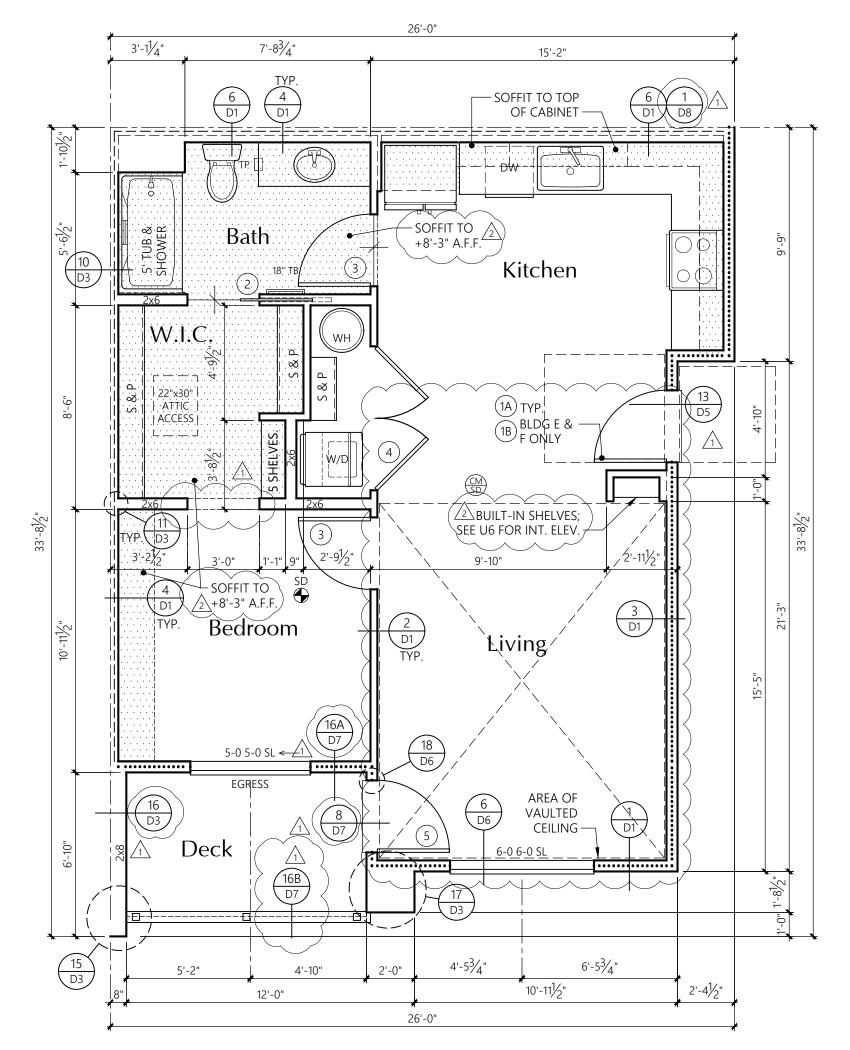
30X48

THE 30"x48" CLEAR FLOOR SPACE IS REQUIRED AT EACH FIXTURE OR LOCATION SHOWN ON THE FLOOR PLAN.



1-BED-INT-2 UNIT

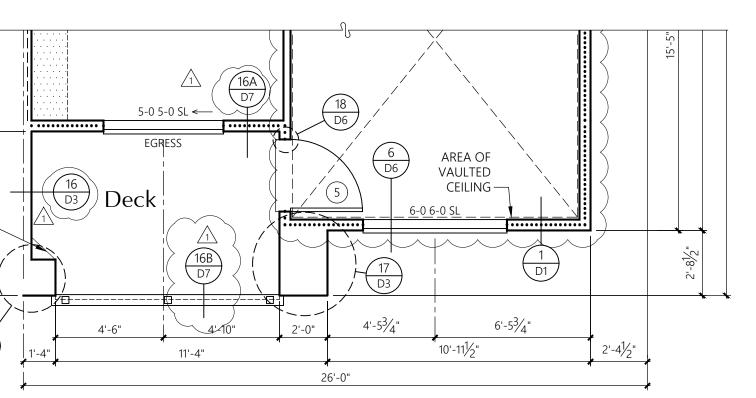
AREA SUMMARY				
Heated SF Patio/Deck SF				
Total SF 684 71				
* Side of exterior walls to which area was measured				



1-BED-INT-1 UNIT

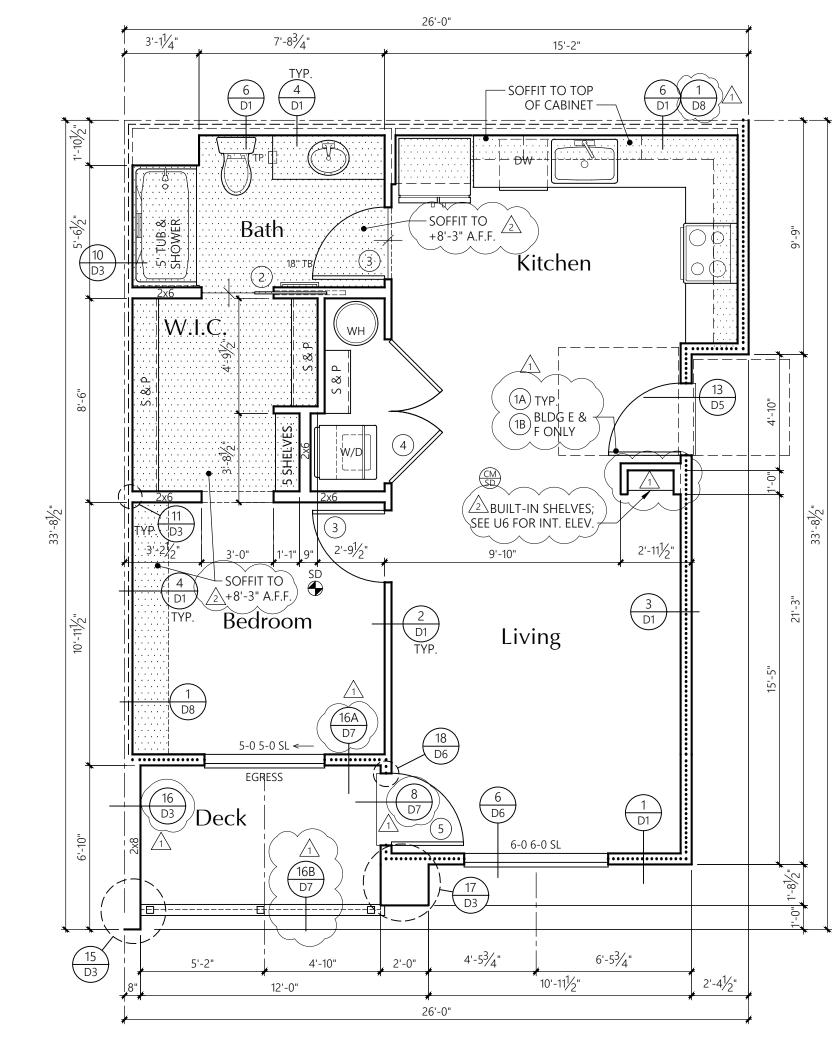
NON-ACCESSIBLE 3rd LEVEL FLOOR PLAN

AREA SUMMARY					
Heated SF Patio/Deck SI					
Total SF	684	61			
* Side of exterior walls to which area was measured					



NON-ACCESSIBLE 3rd LEVEL FLOOR PLAN

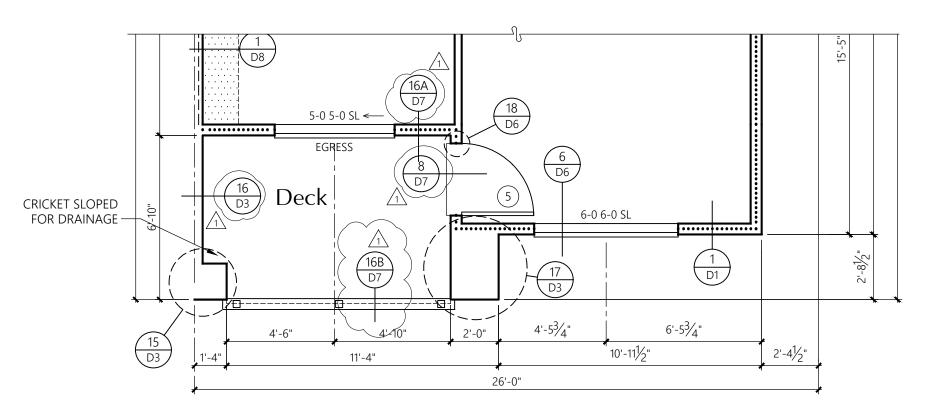
AREA SUMMARY					
	Heated SF	Patio/Deck SF			
otal SF	684	71			



1-BED-INT-1 UNIT

NON-ACCESSIBLE 2nd LEVEL FLOOR PLAN

AREA SUMMARY					
Heated SF Patio/Deck SF					
Total SF 684					
* Side of exterior walls to which area was measured					



1-BED-INT-2 UNIT

NON-ACCESSIBLE 2nd LEVEL FLOOR PLAN

	AREA SUMMARY						
	Heated SF Patio/Deck S						
Total SF	Total SF 684						
* Side of exte	* Side of exterior walls to which area was measured						

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Sheet No.:

23-06 APT/HDM/TMK

Puyallup,

Initial Publish Date: Date Plotted:

5-1-25 Job No.: Drawn By: 23-06 APT/HDM/TMK Sheet No.:

U2.1

UNIT PLAN NOTES

FRAMING: 2x6'S AT EXTERIOR WALLS 2x4'S AT INTERIOR WALLS UNLESS NOTED OTHERWISE. R-21 BATT INSULATION U.N.O. $\sqrt{R-13}$ BATT INSULATION $\sqrt{2}$ 3½" ACOUSTICAL INSULATION BOTH SIDES OF PARTYWALL, U.N.O. LOCATION OF SOFFIT FOR VENT RUNS. SOFFIT HEIGHT +8'-0" A.F.F. U.N.O. ON PLANS; SEE DETAIL (1/D8)

SMOKE DETECTOR

CONCEALED SPACES SHALL BE FIRESTOPPED IN BOTH DIRECTIONS AT 10'-0" ON CENTER AND AT FLOORS. TYPICAL.

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INSULATION

FOUNDATION PERIMETER - R-10 RIGID INSULATION TO A DEPTH OF 24" OR TO TOP OF FOOTING AT HEATED PERIMETER

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EXTERIOR DOORS: MAIN ENTRY U=0.20

ALL OTHERS U=0.40 WINDOWS: MILGARD VINYL TYPE (VINYL) MODEL U-VALUE 6110 ARGON/LoE 0.24 or BETTER 6310 ARGON/LoE 0.24 or BETTER SINGLE HUNG 6210 ARGON/LoE 0.24 or BETTER DBL. SLIDER 8125 ARGON/LoE 0.24 or BETTER 6610 ARGON/LoE 0.24 or BETTER

NOTE: ALL CONCEALED OR EXPOSED INSULATION Shall have a flame spread index of not MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450

> STANDARD PLATE HEIGHT: 9'-1"

FLOOR TO FLOOR HEIGHTS WINDOW HDR IS 8'-0"

SEE ELEVATION SHEETS FOR

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UNLESS NOTED OTHERWISE

PROVIDE WATER RESISTANT GYPSUM WALLBOARD BEHIND TUB AND SHOWER ENCLOSURE MATERIALS TO A HEIGHT OF 70" MINIMUM ABOVE THE DRAIN INLET.

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DOOR KEY:

(x) DOOR TAG. SEE SHEET U14 FOR SCHEDULE

WINDOW KEY:

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ACCESSIBILITY NOTES:

ALL GROUND FLOOR UNITS IN THIS PROJECT MUST MEET THE ACCESSIBILITY REQUIREMENTS OF 'TYPE B' ACCESSIBLE UNITS AS REQUIRED

INCLUDED IN THE ABOVE GROUND FLOOR UNITS 5% OF ALL UNITS NEED TO MEET THE ACCESSIBILITY

SEE SHEET U11 & U11.1 FOR SPECIFIC ADAPTABILITY STANDARD FOR BOTH TYPE A' AND 'TYPE B' ACCESSIBLE UNITS.

LIGHTING CONTROLS, ELECTRICAL SWITCHES, FOR DOORS AND WINDOWS, AND PLUMBING FIXTURE CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. EXCEPT FOR OPERABLE DOOR HARDWARE, SUCH ITEMS SHALL BE 15" MINIMUM

OPERABLE ENTRY DOOR HARDWARE SHALL BE

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SHALL BE ADJUSTED TO CLOSE FROM AN OPEN IN NOT LESS THAN 5 SECONDS.

OPENING FORCE OF ALL SWINGING INTERIOR

THE 30"x48" CLEAR FLOOR SPACE IS REQUIRED AT EACH

30X48

BY CHAPTER 11 OF THE 2018 IBC.

REQUIREMENTS OF 'TYPE A' ACCESSIBLE UNITS AS REQUIRED BY CHAPTER 11 OF THE 2018 IBC. SEE BUILDING PLANS FOR LOCATION OF 'TYPE A' UNITS

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OPENING FORCES FOR ENTRY DOOR SHALL BE:

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*BIFOLD DOOR HARDWARE AT LAUNDRY TO BE 'FULL ACCESS HARDWARE'.

_____ FIXTURE OR LOCATION SHOWN ON THE FLOOR PLAN.

— SOFFIT TO TOP OF CABINET — *·* – SOFFIT TO +8'-3" A.F.F. Kitchen W.I.C _____**__**__ | 22"x30" | ATTIC | I ACCESS I BLDG E & -∠2\BUILT-IN SHELVES; SEE U6 FOR INT. ELEV. 7 9'-10" L SOFFIT TO +8'-3" A.F.F. Bedroom - AREA OF VAULTED CEILING 6 Uncovered & Deck SCUPPER & DOWN CRICKET SPOUT TO LOW ROOF SLOPED FOR DRAINAGE **GUTTER BELOW** —LOW WALL +42" A.F.F. D4 6'-5³/₄" 10'-11\frac{1}{5}" 12'-0" 26'-0"

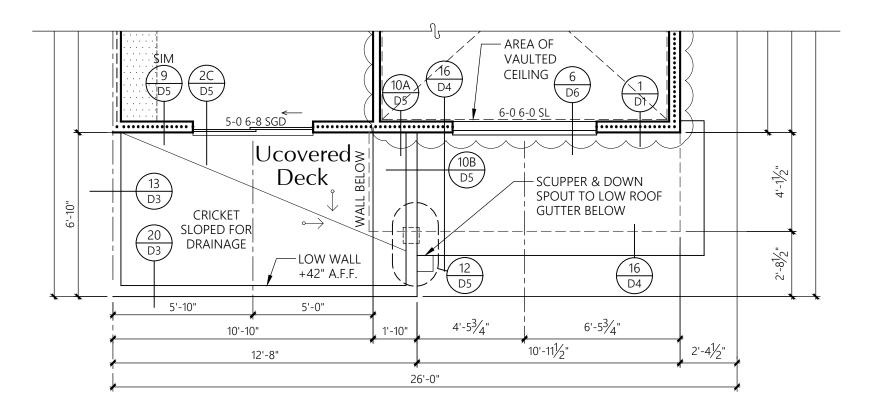
15'-2"

7'-8³/₄"

1-BED-INT-ALT-1

ALTERNATE 3rd LEVEL FLOOR PLAN

AREA SUMMARY Heated SF Deck/Patio SF Total SF 634



1-BED-INT-ALT-2

ALTERNATE 3rd LEVEL FLOOR PLAN

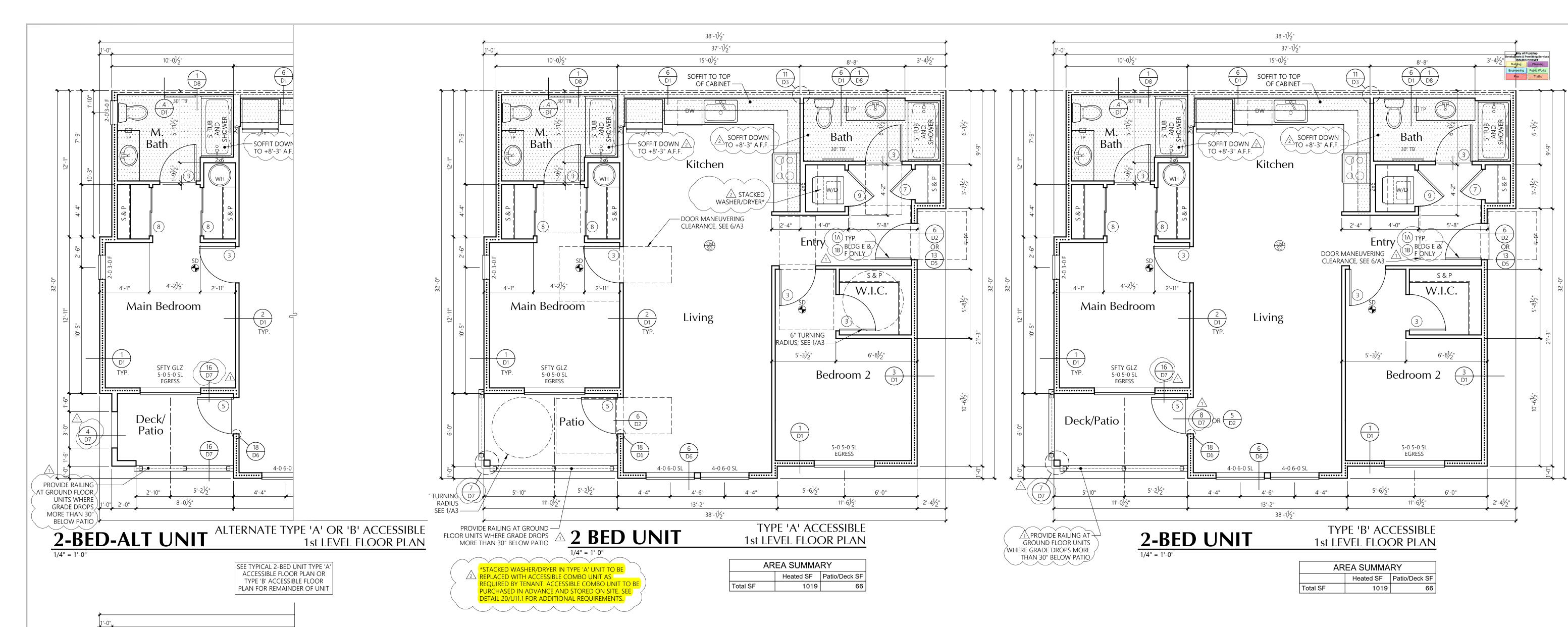
А	AREA SUMMARY						
	Heated SF Deck/Patio SF						
Total SF	634	86					

Permit Corrections

Initial Publish Date:

Date Plotted: 5-1-25 Job No.: Drawn By: 23-06 APT/HDM/TMK

Sheet No.:





• • • • • • • • • • • • • • • • • • • •	R-21 BATT INSULATION U.N.O.
(R-13 BATT INSULATION 2 3½" ACOUSTICAL INSULATION BOTH SIDES OF PARTYWALL, U.N.O. LOCATION OF SOFFIT FOR VENT RUNS. SOFFIT HEIGHT +8'-0" A.F.F.
[] SD ⊕	U.N.O. ON PLANS; SEE DETAIL 1/D8
(CM SD)	CARBON MONOXIDE/SMOKE DETECTOR

2x6'S AT EXTERIOR WALLS

2x4'S AT INTERIOR WALLS

UNLESS NOTED OTHERWISE.

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PROVIDE %" TYPE 'X' (MIN.) GYPSUM SHEATHING ON WALLS BEHIND TUB/SHOWERS TO SATISFY FIRE REQUIREMENTS AT PARTYWALL CONDITION. PROVIDE $^3\!4$ " PLYWOOD UNDER TUB IN PLACE OF THE GYPCRETE, SEE DETAIL 14/D1

PROVIDE WATER RESISTANT GYPSUM WALLBOARD BEHIND TUB AND SHOWER ENCLOSURE MATERIALS TO A HEIGHT OF 70" MINIMUM ABOVE THE DRAIN INLET.

ALL BEDROOM AND BATHROOM DOORS SHALL BE UNDERCUT A MINIMUM OF 1/2" ABOVE THE ADJACENT FLOOR COVERING.

THE FRONT DOOR SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. IT MAY BE PROVIDED WITH A NIGHT LATCH, DEAD BOLT OR SECURITY CHAIN, PROVIDED SUCH DEVICES ARE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR TOOL, AND MOUNTED NOT TO EXCEED 48" ABOVE THE FINISHED FLOOR.

GYPSUM WALLBOARD SCHEDULE EXCEPT WHERE NOTED OTHERWISE, 5/8" TYPE 'X' GYPSUM WALLBOARD SHALL BE USED THROUGHOUT; ON INTERIOR NON-RATED WALLS, EXTERIOR WALLS, CORRIDOR WALLS, AND 1-HOUR AND 2-HOUR FIRE-RATE

STANDARD PLATE HEIGHT: 9'-1" SEE ELEVATION SHEETS FOR FLOOR TO FLOOR HEIGHTS

WINDOW HDR IS 8'-0" UNLESS NOTED OTHERWISE

SEE SHEET U9 FOR INTERIOR ELEVATIONS

DOOR KEY:

(X) DOOR TAG. SEE SHEET U14 FOR SCHEDULE

WINDOW KEY:

FIX = FIXED/PICTURE SL = SLIDERSH = SINGLE HUNG SGD = SLIDING GLASS DOOR

INSULATION

FOUNDATION PERIMETER - R-10 RIGID INSULATION TO A DEPTH OF 24" OR TO TOP OF FOOTING AT HEATED PERIMETER

EXTERIOR WALLS: FIBERGLASS BATTS OR BLANKETS 2x6 WALLS - R21

FLOORS OVER UNHEATED SPACES - R30 ATTICS AND ROOF ASSEMBLIES - R-49 FULL HEIGHT OF UNCOMPRESSED INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES

EXTERIOR DOORS: MAIN ENTRY U=0.20 ALL OTHERS U=0.40

WINDOWS: MILGARD VINYL TYPE (VINYL) MODEL U-VALUE SLIDING 6110 ARGON/LoE 0.24 or BETTER FIXED 6310 ARGON/LoE 0.24 or BETTER SINGLE HUNG 6210 ARGON/LoE 0.24 or BETTER DBL. SLIDER 8125 ARGON/LoE 0.24 or BETTER 6610 ARGON/LoE 0.24 or BETTER

NOTE: ALL CONCEALED OR EXPOSED INSULATION SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450

BY CHAPTER 11 OF THE 2018 IBC. INCLUDED IN THE ABOVE GROUND FLOOR UNITS

5% OF ALL UNITS NEED TO MEET THE ACCESSIBILITY REQUIREMENTS OF 'TYPE A' ACCESSIBLE UNITS AS REQUIRED BY CHAPTER 11 OF THE 2018 IBC. SEE BUILDING PLANS FOR LOCATION OF 'TYPE A' UNITS

ACCESSIBILITY NOTES:

MEET THE ACCESSIBILITY REQUIREMENTS OF

'TYPE B' ACCESSIBLE UNITS AS REQUIRED

ALL GROUND FLOOR UNITS IN THIS PROJECT MUST

SEE SHEET U11 & U11.1 FOR SPECIFIC ADAPTABILITY STANDARD FOR BOTH TYPE A' AND 'TYPE B' ACCESSIBLE UNITS. SEE INTERIOR ELEVATION SHEETS FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS.

LIGHTING CONTROLS, ELECTRICAL SWITCHES, ENVIRONMENTAL CONTROLS, OPERATING HARDWARE FOR DOORS AND WINDOWS, AND PLUMBING FIXTURE CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. EXCEPT FOR OPERABLE DOOR HARDWARE, SUCH ITEMS SHALL BE 15" MINIMUM AND 44" MAXIMUM ABOVE THE FLOOR (48" FOR WINDOWS).

OPERABLE ENTRY DOOR HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR.

OPENING FORCES FOR ENTRY DOOR SHALL BE: 15 POUNDS TO RELEASE THE LATCH 30 POUNDS TO SET DOOR IN MOTION 15 POUNDS TO OPEN DOOR TO FULL 90° FORCE MEASURED AT LATCH SIDE OF DOOR.

THE DOOR CLOSER ON THE ENTRY DOOR SHALL BE ADJUSTED TO CLOSE FROM AN OPEN POSITION OF 90° TO AN OPEN POSITION OF 12° IN NOT LESS THAN 5 SECONDS.

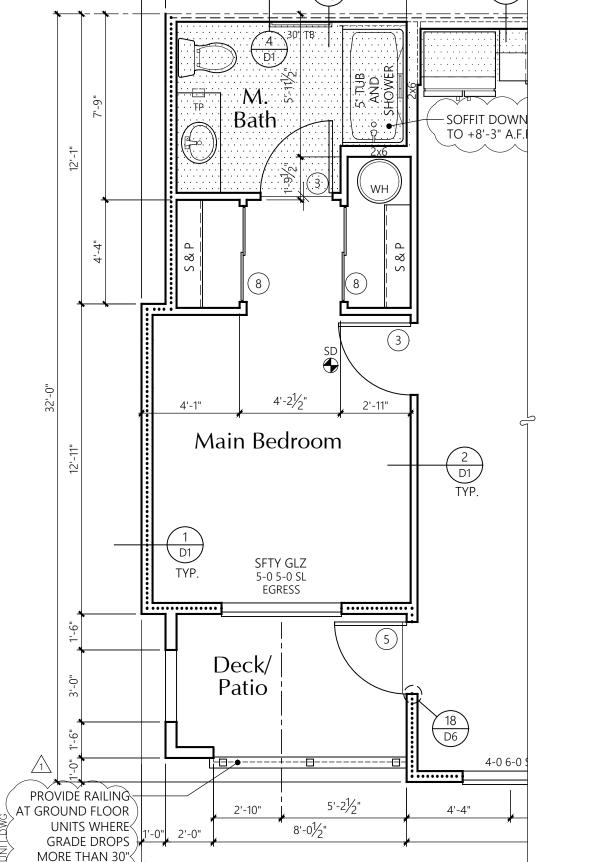
OPENING FORCE OF ALL SWINGING INTERIOR DOORS AND THE SLIDING GLASS DOOR SHALL NOT EXCEED 5 POUNDS APPLIED TO THE LATCH SIDE OF THE DOOR.

THE FORCE REQUIRED TO ACTIVATE ALL OTHER OPERABLE ITEMS LISTED ABOVE SHALL BE 5 POUNDS.

*BIFOLD DOOR HARDWARE AT LAUNDRY TO BE 'FULL ACCESS HARDWARE'.

_____ THE 30"x48" CLEAR FLOOR 30X48 SPACE IS REQUIRED AT EACH FIXTURE OR LOCATION SHOWN

ON THE FLOOR PLAN.



BELOW PATIO

10'-0¹/₂"

2-BED-ALT UNIT ALT. 'A' OR 'B' ACCESSIBLE RASEMENT DI ANI SEE TYPICAL 2-BED UNIT TYPE 'A" ACCESSIBLE FLOOR PLAN OR TYPE 'B' ACCESSIBLE FLOOR PLAN FOR REMAINDER OF UNIT



Bradley Heights **Apartments**

Puyallup,

Timberlane Partners

Revisions No. Date Description 8-30-24 Owner Changes/ Permit Corrections

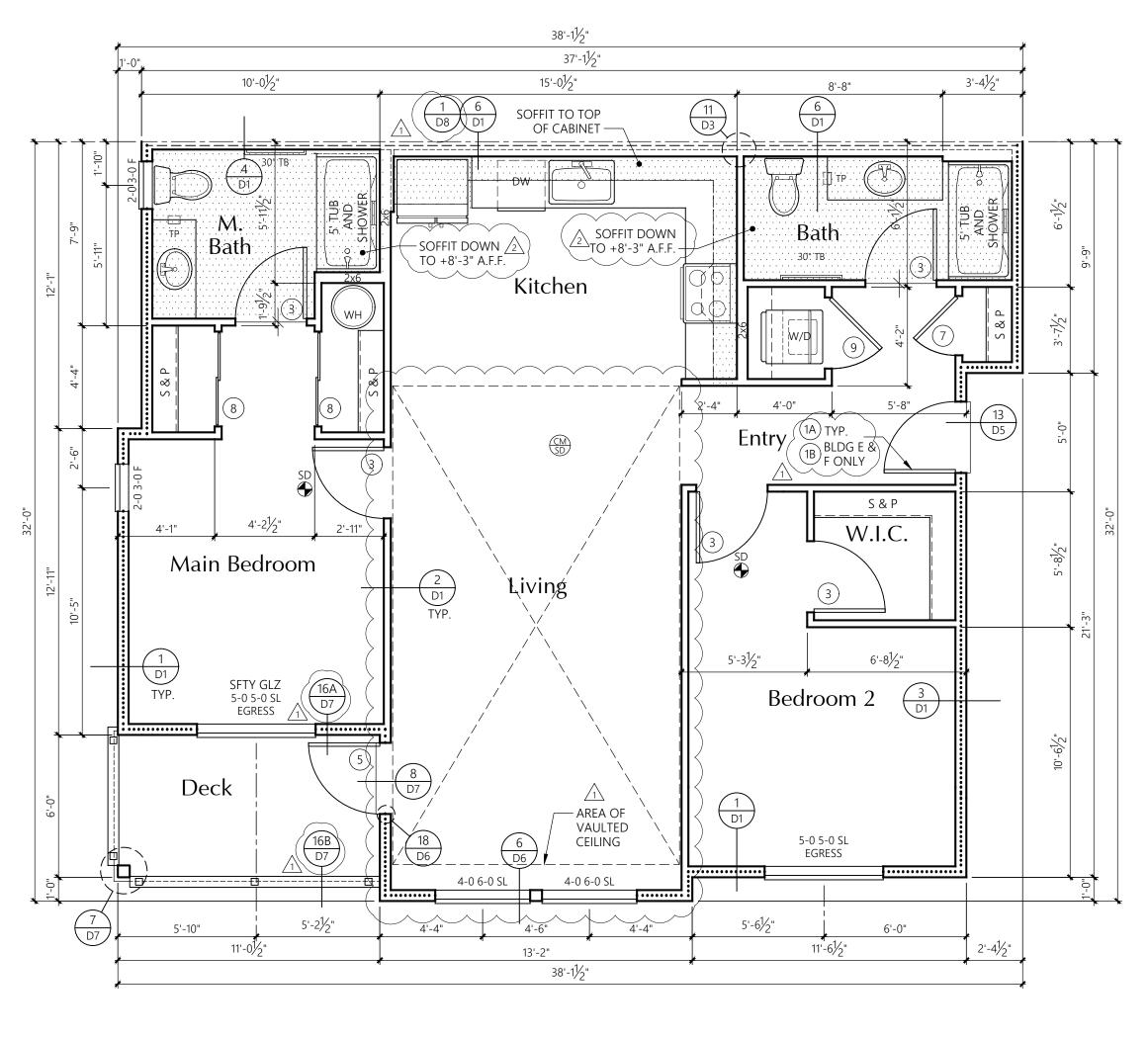
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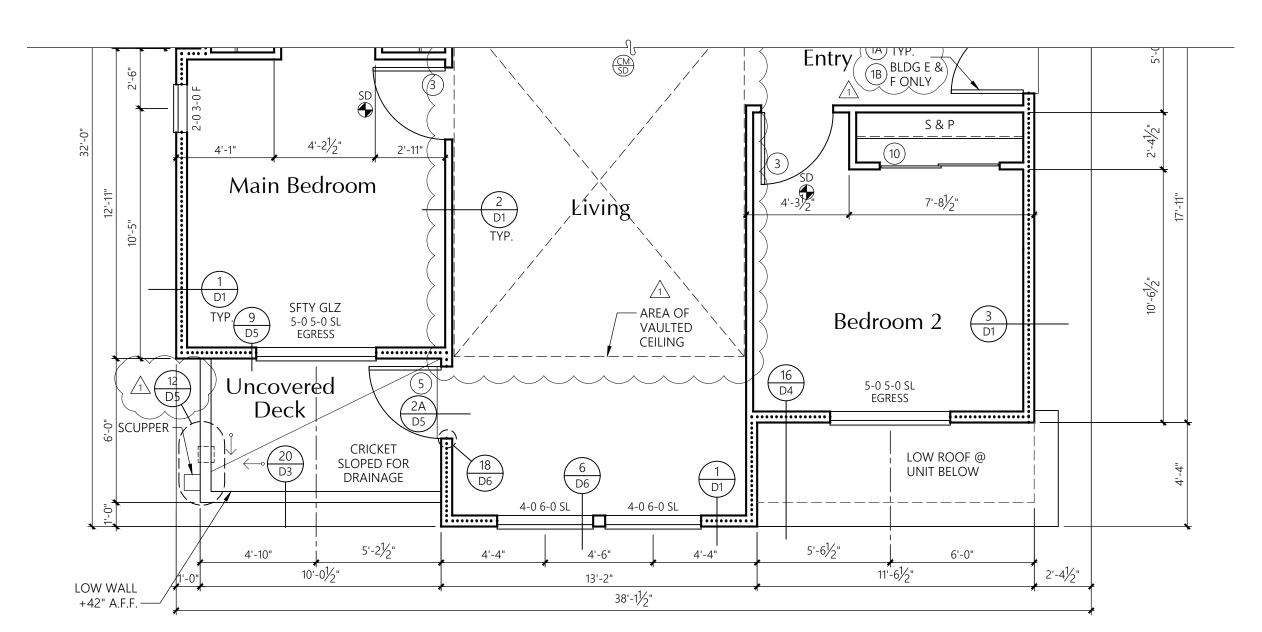
U5



2-BED UNIT

NON-ACCESSIBLE 3rd LEVEL FLOOR PLAN

AREA SUMMARY Heated SF | Patio/Deck SF | Total SF 1019



2-BED-ALT UNIT

ALTERNATE 3rd LEVEL FLOOR PLAN

AREA SUMMARY						
Heated SF Patio/Deck SF						
Total SF 980 60						
* Side of exterior walls to which area was measured						

2-BED UNIT

AREA SUMMARY Heated SF Patio/Deck SF 1019

UNIT PLAN NOTES

Bath

Main Bedroom

SFTY GLZ 5-0 5-0 SL EGRESS

Deck

2x6'S AT EXTERIOR WALLS FRAMING: 2x4'S AT INTERIOR WALLS UNLESS NOTED OTHERWISE. R-21 BATT INSULATION U.N.O.

---- R-13 BATT INSULATION 2 3½" ACOUSTICAL INSULATION BOTH SIDES OF PARTYWALL, U.N.O. LOCATION OF SOFFIT FOR VENT RUNS. SOFFIT HEIGHT +8'-0" A.F.F. U.N.O. ON PLANS; SEE DETAIL 1/D8

SMOKE DETECTOR

CARBON MONOXIDE/SMOKE DETECTOR

DIRECTIONS AT 10'-0" ON CENTER AND AT FLOORS. TYPICAL. ALL ESCAPE OR RESCUE WINDOWS FROM SLEEPING ROOMS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. THE MINIMUM CLEAR OPENING HEIGHT DIMENSION SHALL BE 24". MINIMUM CLEAR OPENING WIDTH DIMENSION SHALL BE 20". EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE THE BOTTOM OF CLEAR OPENING NOT GREATER THAN 44 INCHES MEASURED FROM THE FLOOR.

CONCEALED SPACES SHALL BE FIRESTOPPED IN BOTH

WHERE THE OPENING OF THE SILL PORTION OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE AT A HEIGHT NOT LESS THAN 36 INCHES ABOVE THE FINISHED FLOOR SURFACE OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 36 INCHES OF THE FINISHED FLOOR.

ALL GLAZING SHALL CONFORM TO THE 2018 IBC, CHAPTER 24, SEC. 2406, SAFETY GLAZING. GLAZING IN ALL DOORS SHALL BE SAFETY TYPE AND ALL GLAZING WITHIN A 24" ARC OF EITHER VERTICAL EDGE SHALL BE SAFETY TYPE.

PROVIDE % " Type 'X' (MIN.) Gypsum sheathing on walls behind tub/showers to satisfy fire requirements at PARTYWALL CONDITION. PROVIDE $^3\!4$ " PLYWOOD UNDER TUB IN PLACE OF THE GYPCRETE, SEE DETAIL 14/D1

PROVIDE WATER RESISTANT GYPSUM WALLBOARD BEHIND TUB AND SHOWER ENCLOSURE MATERIALS TO A HEIGHT OF 70" MINIMUM ABOVE THE DRAIN INLET.

4-0 6-0 SL

4-0 6-0 SL

13'-2"

38'-11/5"

38'-11/5"

15'-01/2"

SOFFIT TO TOP

CM SD

Living

OF CABINET —

SOFFIT DOWN

√2`TO +8'-3" A.F.F. −

4'-0"

BLDG E & FONLY

Bedroom 2

5-0 5-0 SL

11'-6¹/5"

EGRESS

W.I.C

6'-81/5"

6'-0"

NON-ACCESSIBLE

2nd LEVEL FLOOR PLAN

Entry/

37'-1¹/5"

ALL BEDROOM AND BATHROOM DOORS SHALL BE UNDERCUT A MINIMUM OF 1/2" ABOVE THE ADJACENT FLOOR COVERING.

THE FRONT DOOR SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. IT MAY BE PROVIDED WITH A NIGHT LATCH, DEAD BOLT OR SECURITY CHAIN, PROVIDED SUCH DEVICES ARE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR TOOL, AND MOUNTED NOT TO EXCEED 48" ABOVE THE FINISHED FLOOR.

GYPSUM WALLBOARD SCHEDULE (CEPT WHERE NOTED OTHERWISE, \(\frac{\pi}{8} \)" TYPE 'X' GYPSUM WALLBOARD SHALL BE USED THROUGHOUT; ON INTERIOR NON-RATED WALLS, EXTERIOR WALLS, ORRIDOR WALLS, AND 1-HOUR AND 2-HOUR FIRE-RATED

STANDARD PLATE HEIGHT: 9'-1" SEE ELEVATION SHEETS FOR FLOOR TO FLOOR HEIGHTS

UNLESS NOTED OTHERWISE SEE SHEET U9 FOR INTERIOR ELEVATIONS

WINDOW HDR IS 8'-0"

DOOR KEY:

(X) DOOR TAG. SEE SHEET U14 FOR SCHEDULE WINDOW KEY:

FIX = FIXED/PICTURE SL = SLIDERSH = SINGLE HUNG SGD = SLIDING GLASS DOOR

INSULATION

FOUNDATION PERIMETER - R-10 RIGID INSULATION TO A DEPTH OF 24" OR TO TOP OF FOOTING AT HEATED PERIMETER EXTERIOR WALLS: FIBERGLASS BATTS OR BLANKETS 2x6 WALLS - R21

FLOORS OVER UNHEATED SPACES - R30 ATTICS AND ROOF ASSEMBLIES - R-49 FULL HEIGHT OF UNCOMPRESSED INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES

EXTERIOR DOORS: MAIN ENTRY U=0.20 ALL OTHERS U=0.40 WINDOWS: MILGARD VINYL MODEL TYPE (VINYL) U-VALUE 6110 ARGON/LoE 0.24 or BETTER SLIDING 6310 ARGON/LoE 0.24 or BETTER SINGLE HUNG 6210 ARGON/LoE 0.24 or BETTER

6610 ARGON/LoE 0.24 or BETTER NOTE: ALL CONCEALED OR EXPOSED INSULATION SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450

DBL. SLIDER 8125 ARGON/LoE 0.24 or BETTER

OPEN

LIVING ROOM

BUILT-IN SHELVING

FRAMING-

1-BED-INT-1

& 1-BED-INT-2

MDF SHELVES

LIVING ROOM

BUILT-IN SHELVING

SEE DETAIL 20 ON SHEET U11.1 FOR TYPE 'A' ACCESSIBLE LAUNDRY

MACHINE REQUIREMENTS

TYPE 'A' & 'B'

LAUNDRY PLAN,

1-BED-INT-1

& 1-BED-INT-2

Timberlane ADDITIONAL Partners ACCESSIBILITY STANDARDS Revisions

- 30"x48" CLEAR FLOOR SPACE CENTERED ON SINK

- 30x48 CLEAR FLOOR SPACE AT STOVE.

D 60" DIAMETER TURNING CIRCLE OR T-SHAPE TURNING SPACE AA 30x48 CLEAR FLOOR SPACE AT STOVE.

CC 30x48 CLEAR FLOOR SPACE AT SINK.

30x48 CLEAR FLOOR SPACE AT OVEN.

(DD) 30x48 CLEAR FLOOR SPACE AT DISHWASHER.

(EE) 30x48 CLEAR FLOOR SPACE AT REFRIGERATOR.

(FF) 30x48 CLEAR FLOOR SPACE AT WORK SURFACE

(GG) 30x48 CLEAR FLOOR SPACE AT WASHER/DRYER

- 30x48 CLEAR FLOOR SPACE AT OVEN.
- 30x48 CLEAR FLOOR SPACE AT SINK.
- 30x48 CLEAR FLOOR SPACE AT DISHWASHER.
- 30x48 CLEAR FLOOR SPACE AT REFRIGERATOR.
- (GG) 30x48 CLEAR FLOOR SPACE AT WASHER/DRYER

30"x48" CLEAR FLOOR SPACE BEYOND ARC OF DOOR.

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Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208

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Inter

Bradley Heights

Apartments

Puyallup,

No. Date Description

8-30-24 Owner Changes/ Permit Corrections

Sheet No.: U6



NOTE: STACKED

WASHER/DRYER IN TYPE 'A'
UNIT TO BE REPLACED

WITH ACCESSIBLE COMBO

UNIT AS REQUIRED BY TENANT. ACCESSIBLE

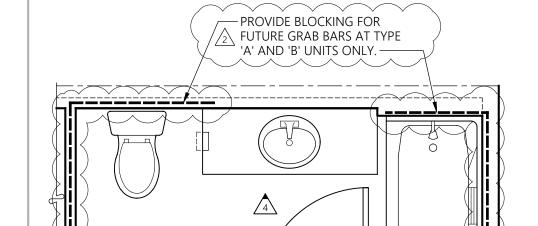
PURCHASED IN ADVANCE

SEE DETAIL 20 ON SHEET

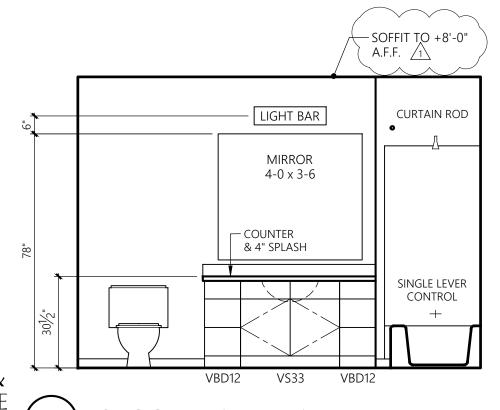
U11.1 FOR TYPE 'A' **ACCESSIBLE LAUNDRY** MACHINE REQUIREMENTS

AND STORED ON SITE.

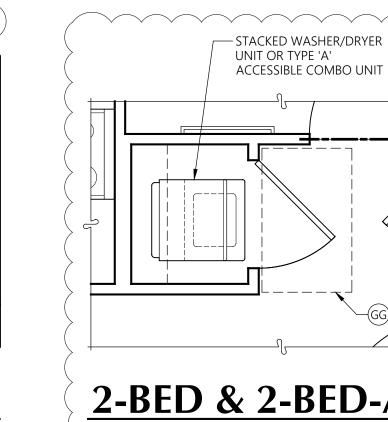
COMBO UNIT TO BE



TYPE 'A' & 'B' & 2-BED & 2-BED-ALT SECONDARY BATH PLAN



SECONDARY BATH



CLEAR FLOOR SPACE LEGEND TYPE A UNIT

- (A) 60x66 CLEAR FLOOR SPACE AT TOILET.
- (B) 30x60 CLEAR FLOOR SPACE AT TUB.
- 30"x48" CLEAR FLOOR SPACE CENTERED ON SINK
- 60" DIAMETER TURNING CIRCLE
- OR T-SHAPE TURNING SPACE AA) 30x48 CLEAR FLOOR SPACE AT STOVE.
- 30x48 CLEAR FLOOR SPACE AT OVEN.
- CC 30x48 CLEAR FLOOR SPACE AT SINK.
- DD 30x48 CLEAR FLOOR SPACE AT DISHWASHER.
- (EE) 30x48 CLEAR FLOOR SPACE AT REFRIGERATOR.
- 30x48 CLEAR FLOOR SPACE AT WORK SURFACE.
- GG 30x48 CLEAR FLOOR SPACE AT WASHER/DRYER

CLEAR FLOOR SPACE LEGEND TYPE B UNIT

- (A) 48x56 CLEAR FLOOR SPACE AT TOILET.
- 30x48 CLEAR FLOOR SPACE AT TUB.
- 30"x48" CLEAR FLOOR SPACE CENTERED ON SINK
- 30"x48" CLEAR FLOOR SPACE BEYOND ARC OF DOOR.
- (AA) 30x48 CLEAR FLOOR SPACE AT STOVE.
- 30x48 CLEAR FLOOR SPACE AT OVEN.
- 30x48 CLEAR FLOOR SPACE AT SINK.
- 30x48 CLEAR FLOOR SPACE AT DISHWASHER.
- (EE) 30x48 CLEAR FLOOR SPACE AT REFRIGERATOR.
- (GG) 30x48 CLEAR FLOOR SPACE AT WASHER/DRYER

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Inter

Bradley Heights

Apartments

Puyallup,

Timberlane

Partners

Revisions

PRMU20240283

APT/HDM/TMK U9

Puyallup,

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5-1-25

NUMBER OF TYPE A UNITS IN GROUP R-2 OCCUPANCIES CONTAINING MORE THAN 10 DWELLING UNITS OR SLEEPING UNITS AT LEAST 5% BUT NOT LESS THAN ONE OF THE UNITS HALL BE A TYPE A UNIT. ALL UNITS ON THE SITE SHALL BE CONSIDERED TO DETERMINE THE TOTAL NUMBER OF UNITS AND THE REQUIRED NUMBER OF TYPE A UNITS. EXISTING STRUCTURES ON A SITE SHALL NOT CONTRIBUTE TO THE TOTAL NUMBER OF UNITS ON A SITE. TYPE A UNITS SHALL BE DISPERSED AMONG THE VARIOUS CLASSES OF UNITS. THE NUMBER OF TYPE A UNITS IS PERMITTED TO BE REDUCED IN ACCORDANCE WITH CONDITIONS

DEFINED IN SECTION 1107.7 OF THE IBC. **ACCESSIBLE ROUTE**

TURNING SPACE & CLEAR FLOOR SPACE

AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ALL SPACES AND ELEMENTS THAT ARE PART OF THE UNIT. ACCESSIBLE ROUTES SHALL COINCIDE WITH OR BE LOCATED IN THE SAME AREA AS THE GENERAL CIRCULATION PATH. (See detail 5 sheet A3)

ALL ROOMS SERVED BY AN ACCESSIBLE ROUTE SHALL PROVIDE A TURNING SPACE EXCEPT FOR BATHROOMS THAT ARE NOT REQUIRED TO MEET ACCESSIBILITY STANDARDS, OR CLOSETS OR PANTRIES THAT ARE 48" MAX (See detail 1 sheet A3)

NOTE: BALCONIES AND CORRIDORS ARE NOT ROOMS AND AS SUCH DO NOT NEED TO HAVE A TURNING SPACE DOORS AND DOORWAYS

THE PRIMARY ENTRANCE DOOR AND ALL DOORS INTENDED FOR USER PASSAGE, SHALL COMPLY WITH SECTION 404. (See detail 6 sheet A3) BALCONY DOORS: THRESHOLDS AT EXTERIOR SLIDING DOORS SHALL BE PERMITTED TO BE 3/4" MAX. IN HEIGHT PROVIDED THEY ARE BEVELED WITH

WHERE EXTERIOR SPACE DIMENSIONS OF BALCONIES ARE LESS THAN THE REQUIRED MANEUVERING CLEARANCE, DOOR MANEUVERING CLEARANCES ARE NOT REQUIRED ON THE EXTERIOR SIDE OF THE DOOR. BATHROOM DOORS: BATHROOMS NOT REQUIRED TO BE ACCESSIBLE

ONLY NEED TO PROVIDE DOOR MANEUVERING CLEARANCE ON THE OUTSIDE OF THE DOOR. BATHROOM DOORS MAY SWING INTO THE BATHROOM AND INTO THE REQUIRED CLEAR FLOOR SPACE AT ANY FIXTURE WHEN A CLEAR FLOOR SPACE OF AT LEAST 30"x48" IS PROVIDED WITHIN THE ROOM BEYOND THE ARC OF THE DOOR SWING.

OPERABLE PARTS LIGHTING CONTROLS, ELECTRICAL PANELBOARDS, ELECTRICAL SWITCHES & RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, APPLIANCE CONTROLS, OPERATING HARDWARE FOR OPERABLE WINDOWS, PLUMBING FIXTURE CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS SHALL COMPLY WITH SECTION 309. (See detail 4 sheet A3)

EXCEPTIONS: . Receptacle outlets serving a dedicated use. 2. Where two or more receptacle outlets are provided in a kitchen above a counter top that is uninterrupted by a sink or appliance, one receptacle outlet shall not be required to comply with Section 309. 3. Floor receptacle outlets.

4. HVAC diffusers. Controls mounted on ceiling fans. 6. Where redundant controls other than light switches are provided for a single element, one control shall not be required to be accessible.

 Reset buttons & shut-offs serving appliances, piping & plumbing fixtures. 8. Electrical panelboards shall not be required to comply with Section 309.4. **WINDOWS** ONLY WINDOWS REQUIRED TO BE OPERABLE FOR NATURAL VENTILATION OR

GENERAL TYPE A UNIT NOTES

★ CABINETRY PERMITTED UNDER

THE LAVATORY PROVIDED IT IS

| removable without need for

THE LAVATORY. FLOOR FINISH

SHALL EXTEND UNDERNEATH

AND THE WALLS BEHIND AND

SURROUNDING THE CABINETRY

SHALL BE FINISHED.

BLOCKING FOR -

BARS AT SIDE

PLAN

FUTURE GRAB

AND REAR

WALLS

ı MIN.

A LAVATORY

COMPLYING WITH

PERMITTED WITHIN L

WATER CLOSET ——

CLEAR FLOOR SPACE

IF THE CLEAR FLOOR

SPACE IS INCREASED

AT WATER CLOSET

COUNTER TOP:

ALLOWED AT

ONE END OF

CLEARANCE *

★ COUNTER TOP⁷ & CABINET MUST

WALL FINISHES EXTENDED

BELOW & BEHIND CABINET

BE REMOVABLE WITH FLOOR &

AND CABINET

TUB/SHOWER PLAN

TO 66" IN DEPTH

30x48 CLEAR

| FLOOR SPACE

FORWARD APPROACH

PLAN

FAUCET CONTROLS SHALL MEET THE

REQUIREMENTS FOR OPERABLE PARTS.

LAUNDRY EQUIPMENT

WASHING MACHINES AND CLOTHES DRYERS SHALL COMPLY WITH SECTION 611 (See detail 20 sheet U11.1) **TOILET AND BATHING FACILITIES**

AT LEAST ONE TOILET AND BATHING FACILITY SHALL CONTAIN: ONE LAVATORY ONE WATER CLOSET AND EITHER A BATHTUB OR SHOWER WITHIN THE UNIT THAT MEETS THE REQUIREMENTS DETAILED FOR TYPE A FIXTURES (See details 23 thru 28 this sheet). THE ACCESSIBLE TOILET AND BATHING FIXTURES SHALL BE IN A SINGLE TOILET/BATHING AREA SUCH THAT TRAVEL BETWEEN FIXTURES DOES NOT REQUIRE TRAVEL THROUGH OTHER PARTS OF THE UNIT ALL TOILET & BATHING FACILITIES WITHIN A TYPE A UNIT SHALL PROVIDE REINFORCEMENT FOR THE **FUTURE INSTALLATION** OF GRAB BARS AT WATER CLOSETS, BATHTUBS AND SHOWER SEATS. REINFORCEMENT IS NOT REQUIRED

IN A ROOM CONTAINING ONLY A LAVATORY AND A WATER CLOSET, PROVIDED

THE ROOM DOES NOT CONTAIN THE ONLY LAVATORY OR WATER CLOSET ON

THE ACCESSIBLE LEVEL OF THE DWELLING UNIT.

ACCESSIBLE AUDIBLE AND VISIBLE ALARMS AND NOTIFICATION APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72 LISTED IN SECTION 105.2.2, BE POWERED BY A COMMERCIAL LIGHT AND POWER SOUCE, BE PERMANENTLY CONNECTED TO THE WIRING OF THE PREMISES ELECTRIC SYSTEM, AND BE PERMANENTLY INSTALLED.

VISIBLE NOTIFICATION APPLIANCES

IN GROUP R-2 OCCUPANCIES REQUIRED TO HAVE A FIRE ALARM SYSTEM, EACH STORY THAT CONTAINS DWELLING UNITS & SLEEPING UNITS SHALL BE PROVIDED WITH THE CAPABILITY TO SUPPORT VISIBLE ALARM NOTIFICATION APPLIANCES. Such capability shall accommodate wired or wireless equipment. The FUTURE CAPABILITY SHALL INCLUDE ONE OF THE FOLLOWING:

The interconnection of the building fire alarm system with the unit smoke alarms. Replacement of audible appliances with combination audible/visible appliances. The future extension of the existing wiring from the unit smoke alarm location to required locations for visible appliances.

VISIBLE NOTIFICATION APPLIANCES, WHERE PROVIDED AS PART OF THE UNIT SMOKE DETECTION SYSTEM OR BUILDING FIRE ALARM SYSTEM, SHALL BE ACTIVATED UPON SMOKE DETECTION OR WITH ACTIVATION OF THE BUILDING FIRE ALARM. THE SAME VISIBLE NOTIFICATION APPLIANCE CAN BE USED FOR BOTH SMOKE DETECTION AND FIRE ALARM ACTIVATION, BUT SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHIN THE UNIT.

UNIT PRIMARY ENTRANCE

MIRROR

FRONT

FRONT

THIS MUST

OBSTRUCT

- Grab bar u

BLOCKING

GRAB BAR

CONTROLS

WITHIN THIS

MUST BE

NOTE: ALL DIMENSIONS

ARE MEASURED TO FACE

OF FINISHED SURFACE

REINFORCEMENT FOR

WHERE REAR GRAR -

A 24" GRAB BAR

CENTERED ON THE

OILET IS PERMISSIBLE 💳

CONTROL ON

OPEN SIDE

BAR WOULD OVERLAP

WITH A LAVATORY

REINFORCEMENT FOR

ROD

4" MAX.

FROM FRONT

EDGE OF TUB -

GRAB BAR

18" MIN.

BATHTUB & TUB / SHOWER COMBO

UTURE VERTICAL

FUTURE 36" GRAB ———

THE ACCESSIBLE PRIMARY ENTRANCE SHALL BE ON AN ACCESSIBLE ROUTE FROM PUBLIC AND COMMON AREAS.

COMMUNICATION FEATURES SHALL BE PROVIDED AT THE UNIT PRIMARY INTRANCE. A HARD-WIRED ELECTRIC DOORBELL SHALL BE PROVIDED. A BUTTON OR SWITCH SHALL BE PROVIDED ON THE PUBLIC SIDE OF THE UNIT PRIMARY FNTRANCE WHERE A SYSTEM PERMITTING VOICE COMMUNICATION BETWEEN A VISITOR AND THE OCCUPANT OF THE UNIT IS PROVIDED AT A LOCATION OTHER THAN THE UNIT ENTRY DOOR, THE SYSTEM SHALL INCLUDE THE CAPABILITY OF SUPPORTING VOICE AND TTY COMMUNICATION WITH THE UNIT INTERFACE. A MEANS FOR VISUALLY IDENTIFYING A VISITOR WITHOUT OPENING THE UNIT TO PROVIDE AN EMERGENCY ESCAPE AND RESCUE OPENING NEED TO HAVE ENTRY DOOR SHALL BE PROVIDED. PEEPHOLES, WHERE USED SHALL PROVIDE A OPERABLE PARTS COMPLYING WITH SECTION 309. (See detail 4 sheet A3) MINIMUM 180-DEGREE RANGE OF VIEW. PEEPHOLES SHALL BE PLACED AT A STANDARD HEIGHT FOR BOTH STANDING PERSONS AND WHEELCHAIR USERS.

TOP OF COUNTER OR RIM OF

COUNTER OR INSTALL BRACE

INTERFERE W/ CABINET REMOVA

54" MIN.

42" GRAB BAR

B) SIDE

CURTAIN —

GRAB BAR -

ROD 🔪

WITHIN CARINFT - CANNOT

— (See detail 2 ACC sheets)

-FINISHED END PANEL

PROVIDE KNEE &

TOE CLEARANCE

BLOCKING

— GRAB BARS

BLOCKING-

SOLID

- SINK WHICHEVER IS HIGHER

CONTROLS AND CURTAIN → 4" MAX. FROM SHOWER MUST B HAND SHOWER ROD FRONT FDGE MUST BE WITHIN THIS AREA - VERTICAL PROVIDE GRAE GRAB BAI BAR ALONG 18" MIN. CONTROL WALL PROVIDE BLOCKING AS NECESSARY FOR ALL GRAB BARS SIDE (D) BACK WALL B) BACK WALL C) WALL STANDARD LAYOUT ALTERNATE LAYOUT OPTIONS TRANSFER SHOWER **ROLL-IN SHOWER CONTROL WALL OPTIONS** CONTROL WALL

ALIGNED WITH

TOP OF SHELF

OR TOWFI BAR

ALL UNITS

WALL FIXTURES

IN BATHROOMS

MOUNTED ON WALL OR

FROM EDGE OF TOILET

ALL OTHER UNITS TYPE A UNITS

TOILET PAPER

DISPENSER

CONDITIONS ALLOW. MAX 9"

FROM EDGE

OR SHOWER —

EDGE OF TUB

ALL UNITS

SHOWER

CURTAIN

WHERE PROVIDED

ENTRY DOOR

PEEPHOLES

. ACCESSORY & FIXTURE MOUNTING HEIGHTS

ALIGN GRAB BAR END WITH 6"MAX. BACK WALL FEDGE OF SEAT -BACK WALL 6", MAX 6" MAX. **NOTE**: INSIDE FINISHED DIMENSIONS ARE MEASURED AT THE **CENTER POINTS OF** OPPOSING SIDES OF SHOWER COMPARTMENT FOLD-UP 36" MIN. SEAT **LAVATORY CLEAR FLOOR SPACE** PERMITTED IN ALIGNED WITH CLEAR FLOOR CONTROL WALL ARFA OPPOSIT FOLDING OR FIXED Seat Wall 🛧 SEAT TO BE ★ COUNTER TOP & CABINET MUST BE INSTALLED OPPOSITE REMOVABLE WITH FLOOR & WALL FINISHES CONTROL WALL EXTENDED BELOW & BEHIND CABINET. **STANDARD ALTERNATE** TRANSFER TYPE SHOWER PLAN ROLL-IN TYPE SHOWER PLAN

SHOWER COMPARTMENTS

A SINK AT 34" MAX. HEIGHT WITH CLEAR FLOOR SPACE SHALL BE PROVIDED FOR A FORWARD APPROACH (NOT NECESSARILY CENTERED ON THE SINK)

ONLY NEEDS TO APPLY TO ONE BOWL OF A MULTI-BOWL SINK. CABINETRY SHALL BE PERMITTED UNDER THE SINK PROVIDED IT IS

WITH KNEE AND TOE CLEARANCE. NOTE: THE KNEE & TOE CLEARANCE REMOVABLE AND THE FLOOR AN WALL FINISH IS EXTENDED UNDER AND BEHIND THE REMOVABLE CABINETS. **APPLIANCES**

DISHWASHER: A CLEAR FLOOR SPACE SHALL BE POSITIONED ADJACENT TO THE DISHWASHER DOOR SO THAT THE DOOR IN THE OPEN POSITION DOESN'T OBSTRUCT THE CLEAR FLOOR SPACE. COOKTOP: A CLEAR FLOOR SPACE SHALL BE PROVIDED FOR A PARALLEL APPROACH CENTERED ON THE APPLIANCE. THE LOCATION OF CONTROLS SHALL NOT REQUIRE REACHING ACROSS BURNERS. **OVEN:** A CLEAR FLOOR SPACE SHALL BE POSITIONED ADJACENT TO THE OVEN DOOR SUCH THAT THE DOOR IN THE OPEN POSITION DOES NOT OBSTRUCT THE CLEAR FLOOR SPACE. A COUNTERTOP SHALL BE LOCATED ADJACENT TO ONE SIDE OF THE OVEN. THE LOCATION OF CONTROLS SHALL NOT REQUIRE REACHING ACROSS BURNERS. REFRIGERATOR/FREEZER: A CLEAR FLOOR SPACE SHALL BE PROVIDED FOR A PARALLEL APPROACH OFFSET 24" MAX. FROM THE CENTERLINE OF THE APPLIANCE. COMBINATION REFRIGERATORS AND FREEZERS SHALL HAVE AT LEAST 50% OF THE FREEZER COMPARTMENT SHELVES

CLEARANCE BETWEEN OPPOSING BASE CABINETS, COUNTER TOPS, APPLIANCES, OR WALLS IN KITCHEN WORK AREAS HALL BE 40" MIN. OR 60" MIN. AT U-SHAPED KITCHENS. INCLUDING THE BOTTOM OF THE FREEZER 54" MAX. ABOVE THE FLOOR WHEN THE SHELVES ARE INSTALLED AT THE MAX. HEIGHT POSSIBLE IN LINEAR KITCHEN

WORK SURFACE

BEHIND THE REMOVABLE CABINETS.

GALLEY KITCHEN U-SHAPED KITCHEN

ADJUSTABLE COUNTERTOP ALTERNATIVE SINK AND COUNTER THAT IS ADJUSTABLE TO VARIABLE HEIGHTS 29" MIN. AND 36" MAX. OR THAT CAN BE RELOCATED WITHIN THAT RANGE WITHOUT CUTTING THE

AS AN ALTERNATIVE TO 34" HIGH COUNTERTOPS FOR WORK SURFACE AND SINK, A 📗 ★ NOTE: THE 30" WIDE CLEARANCE FOR FORWARD APPROACH AND KNEE CLEARANCE DOES NOT NEED TO BE CENTERED ON THE SINK. IF IT IS PROVIDED AT ONLY ONE BOWL OF A MULTI-BOWL COUNTER OR DAMAGING ADJACENT CABINETS, WALLS, DOORS AND STRUCTURAL SINK, ENSURE THE 30" CLEARANCE IS PROVIDED UNDER THE BOWL ELEMENTS IS PERMITTED, PROVIDED ROUGH-IN PLUMBING PERMITS CONNECTIONS AND TO THE SIDE ADJACENT TO THE BOWL

AT LEAST ONE SECTION OF COUNTER SHALL PROVIDE A WORK SURFACE

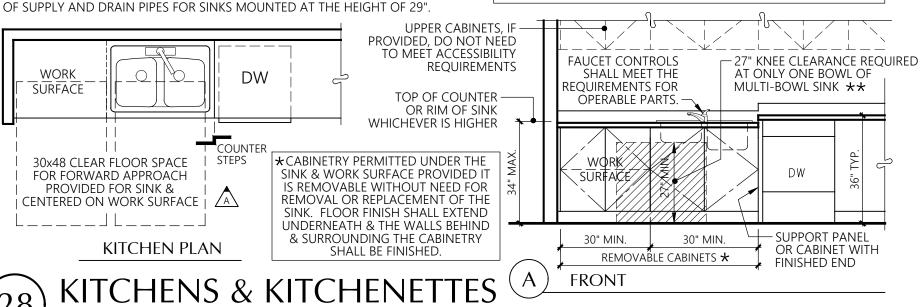
30" MIN. IN LENGTH AND 34" MAX. IN HEIGHT. PROVIDE A CLEAR FLOOR

Cabinetry shall be permitted under the work surface provided it

IS REMOVABLE AND THE FLOOR AN WALL FINISH IS EXTENDED UNDER AND

SPACE FOR A FORWARD APPROACH WITH KNEE AND TOE CLEARANCE.

MINIMUM CLEARANCES



THE COMPARTMENT.

TYPE A DWELLING UNITS **CHAPTER 10 SECTION 1003**

NUMBER OF TYPE B UNITS

SINGLE STRUCTURE, EVERY DWELLING UNIT AND SLEEPING UNIT SHALL BE A TYPE B UNIT. THE NUMBER OF TYPE B UNITS IS PERMITTED TO BE REDUCED IN ACCORDANCE WITH CONDITIONS DEFINED IN SECTION 1107.7 OF THE IBC. THIS REDUCTION OF TYPE B UNITS IS TYPICALLY FOR UNITS THAT ARE ON UPPER STORIES OF A MULTISTORY BUILDING WITHOUT ELEVATOR SERVICE OR MULTI-STORY DWELLING UNITS (SEE IBC FOR SPECIFIC CONDITIONS ALLOWING REDUCTION OF TYPE B UNITS).

IN GROUP R-2 OCCUPANCIES WHERE THERE ARE 4 OR MORE DWELLING UNITS OR SLEEPING UNITS INTENDED TO BE OCCUPIED AS A RESIDENCE IN A

UNIT PRIMARY ENTRANCE

SAME REQUIREMENTS AS FOR TYPE A UNITS EXCEPT THAT ONLY A SINGLE PEEPHOLE NEED BE PROVIDED AT A STANDARD HEIGHT FOR STANDING PERSONS. **ACCESSIBLE ROUTE**

STORAGE

SAME REOUIREMENTS AS FOR TYPE A UNITS EXCEPT YOU ARE PERMITTED TO HAVE ONE OF THE FOLLOWING: A RAISED / SUNKEN FLOOR AREA IN A LIVING, DINING OR SLEEPING ROOM OR A MEZZANINE THAT IS NOT ENCLOSED AND DOES NOT HAVE PLUMBING FIXTURES.

CHANGES IN LEVEL SAME REQUIREMENTS AS FOR TYPE A UNITS EXCEPT WHERE EXTERIOR DECK, PATIO OR BALCONY SURFACE MATERIALS ARE IMPERVIOUS, TH IMPERVIOUS SURFACE SHALL BE 4" MAX. BELOW THE

INTERIOR FLOOR LEVEL.

HALL BE INSTALLED WITHIN |

OF STORAGE AREA FIXTURES

ACCESSIBLE REACH RANGES.

ALL UNITS

SWITCHES, AND OUTLETS

ELECTRICAL CONTROLS

(15" MIN. - 48" MAX.)

SANS SERIF -

TO 2" IN HEIGH

BRAILLE TO BE

WHERE PROVIDED

TACTILE SIGNS

AT DOORS

SAME REQUIREMENTS AS FOR TYPE A UNITS EXCEPT DOORS INTENDED FOR USER PASSAGE SHALL HAVE A CLEAR OPENING WIDTH OF 313/4" MIN. MEASURED BETWEEN THE FACE OF THE DOOR & THE STOP WITH THE DOOR OPENED 90°.

BATHROOM DOORS: BATHROOM DOORS MAY SWING INTO THE REQUIRED CLEAR FLOOR SPACE AT ANY FIXTURE WHEN A CLEAR FLOOR SPACE OF AT LEAST 30"x48" IS PROVIDED WITHIN THE ROOM BEYOND THE ARC OF THE DOOR SWING.

LOCATIONS

SAME REQUIREMENTS AS FOR TYPE A UNITS EXCEPT FOR THESE ADDITIONAL EXCEPTIONS: . Controls or switches mounted on appliances.

NOTE: OPERABLE CONTROLS FOR ALL APPLIANCES

PROVIDED INCLUDING THOSE NOT DEPICTED

HERE (INCLUDING LINT SCREENS, DETERGENT

COMPARTMENTS, WATER/ICE DISPENSERS, RANGE

EXHAUST FANS ETC.) MUST BE WITHIN REACH

RANGES PER ICC A117.1 SECTION 308.

LOCATION OF CONTROLS SHALL NOT

require reaching across burners –

LAUNDRY

Plumbing fixture controls.

10. Within kitchens & bathrooms, lighting controls, electrical switches & receptacle outlets are permitted to be located over cabinets with countertops 36" max. in height & 25½" max. in depth.

RANGES & COOKTOPS REFRIGERATOR

TYPE A UNITS ONLY

APPLIANCES & CONTROLS

LAUNDRY EQUIPMENT

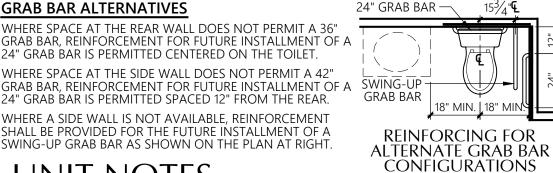
A 30"x48" CLEAR FLOOR SPACE SHALL BE PROVIDED. A PARALLEL APPROACH SHALL BE PROVIDED FOR TOP LOADING MACHINES. A FORWARD OR PARALLEL APPROACH SHALL BE PROVIDED FOR FRONT LOADING MACHINES.

TOILET AND BATHING FACILITIES

REINFORCEMENT FOR FUTURE GRAB BAR INSTALLATION SHALL BE PROVIDED FOR ALL TOILET & BATHING FACILITIES (Regardless of the option chosen for the fixture clearances). REINFORCEMENT SHALL BE THE SAME AS FOR TYPE A UNITS (See detail 23 this sheet) EXCEPT REINFORCEMENT IS NOT REQUIRED FOR SHOWER SEATS IN SHOWERS THAT ARE LARGER THAN 36"x36" AND REINFORCEMENT AT WATER CLOSETS CAN BE MODIFIED FOR ALTERNATE GRAB BAR CONFIGURATIONS DETAILED BELOW.

GRAB BAR ALTERNATIVES

WHERE SPACE AT THE REAR WALL DOES NOT PERMIT A 36" GRAB BAR, REINFORCEMENT FOR FUTURE INSTALLMENT OF A 24" GRAB BAR IS PERMITTED CENTERED ON THE TOILET. WHERE SPACE AT THE SIDE WALL DOES NOT PERMIT A 42" GRAB BAR, REINFORCEMENT FOR FUTURE INSTALLMENT OF A 24" GRAB BAR IS PERMITTED SPACED 12" FROM THE REAR. WHERE A SIDE WALL IS NOT AVAILABLE, REINFORCEMENT SHALL BE PROVIDED FOR THE FUTURE INSTALLMENT OF A



GENERAL **type b** unit notes

ALL UNITS SELECT LOCATIONS 'ALL OTHER

IN TYPE A UNITS

SHELVES COAT & BEDROOM CLOSETS

WITH TOILET AND BATHING AREAS WITHIN TYPE B UNITS EITHER ALL TOILET AND BATHING AREAS PROVIDED SHALL COMPLY WITH OPTION A OR ONE TOILET AND BATHING AREA SHALL COMPLY WITH OPTION B.

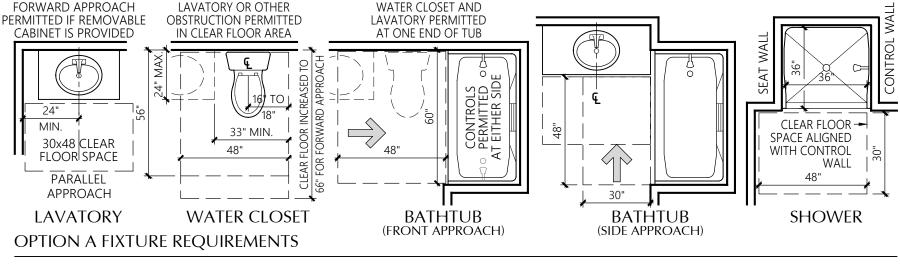
EVERY FIXTURE PROVIDED IN ALL TOILET AND BATHING AREAS SHALL COMPLY WITH THE REQUIREMENTS LISTED ONE OF EACH TYPE OF FIXTURE PROVIDED SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS AND BE LOCATED IN A SINGLE OPTION B



COMMON OPTION A **BATHROOM CONFIGURATION**



COMMON OPTION B BATHROOM CONFIGURATION



LAVATORY: SAME REQUIREMENTS AS FOR OPTION A EXCEPT THAT THE HEIGHT OF THE LAVATORY SHALL BE 34" MAX. ABOVE THE FLOOR. **WATER CLOSET:** SAME REQUIREMENTS AS FOR OPTION A BATHING FIXTURES: THE ACCESSIBLE BATHING FIXTURE SHALL BE A BATHTUB WITH A CLEARANCE OF 30"x48" ALIGNED WITH THE Control end of the tub or a shower compartment with the SAME REQUIREMENTS AS THE OPTION A SHOWER. OPTION B FIXTURE REQUIREMENTS LAVATORY HEIGHT

TYPE B - TOILET & BATHING FIXTURES

MIN. AT U-SHAPED KITCHENS. SEE MINIMUM CLEARANCE DIAGRAMS FOR TYPE A UNITS (Detail 28 this sheet).

1/4"=1'-0" MINIMUM CLEARANCES

APPROACH CENTERED ON THE APPLIANCE.

SINK: A CLEAR FLOOR SPACE OF 30"x48" POSITIONED FOR A PARALLEL APPROACH SHALL BE PROVIDED CENTERED ON THE SINK BOWL. NOTE: ON A MULTI-BOWL SINK THE CLEAR FLOOR SPACE SHALL BE

CENTERED ON THE WHOLE SINK PLUMBING FIXTURE **DISHWASHER:** A CLEAR FLOOR SPACE SHALL BE POSITIONED ADJACENT TO THE DISHWASHER DOOR SUCH THAT THE DOOR IN THE OPEN POSITION DOES NOT OBSTRUCT THE CLEAR FLOOR SPACE. **COOKTOP:** A CLEAR FLOOR SPACE SHALL BE PROVIDED FOR A PARALLEL

OVEN: A CLEAR FLOOR SPACE SHALL BE POSITIONED ADJACENT TO THE OVEN DOOR SUCH THAT THE DOOR IN THE OPEN POSITION DOES NOT OBSTRUCT THE CLEAR FLOOR SPACE. REFRIGERATOR/FREEZER: A CLEAR FLOOR SPACE SHALL BE PROVIDED FOR A PARALLEL APPROACH OFFSET 24" MAX. FROM THE CENTERLINE OF THE

BATHTUB

NOTE: NOTHING PERMITTEÏ

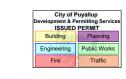
WITHIN FIXTURE CLEARANCE

trash compactor: A clear floor space positioned for a parallel OR FORWARD APPROACH SHALL BE PROVIDED.

KITCHENS AND KITCHENETTES

TYPE B DWELLING UNITS **CHAPTER 10 SECTION 1004**

CLEARANCE BETWEEN ALL OPPOSING BASE CABINETS, COUNTER TOPS, APPLIANCES, OR WALLS WITHIN KITCHEN WORK AREAS SHALL BE 40" MIN. OR 60"





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Bradley Heights **Apartments**

Puyallup,

Timberlane Partners

Revisions

No. Date Description 8-30-24 Owner Changes/ Permit Corrections

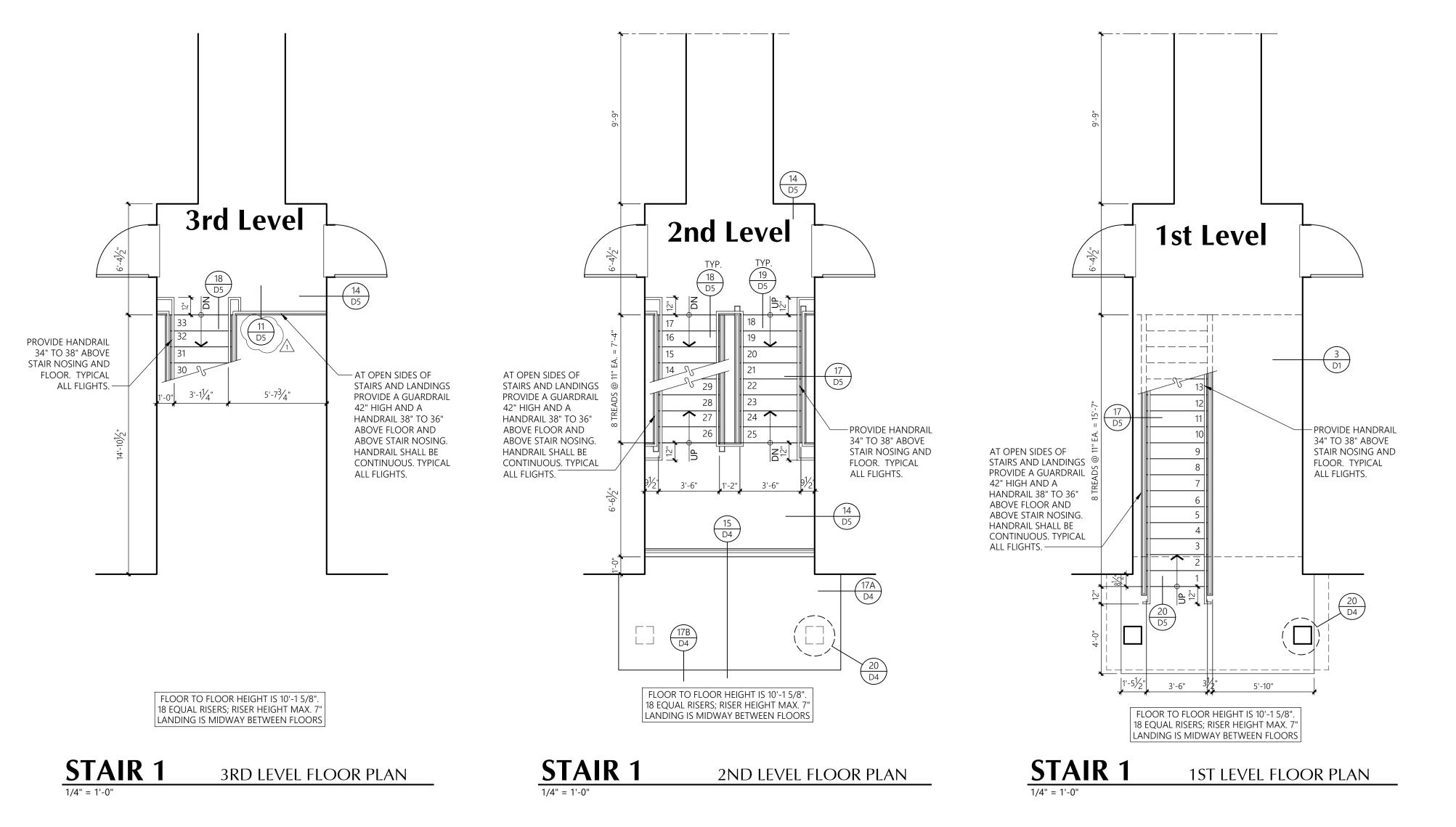
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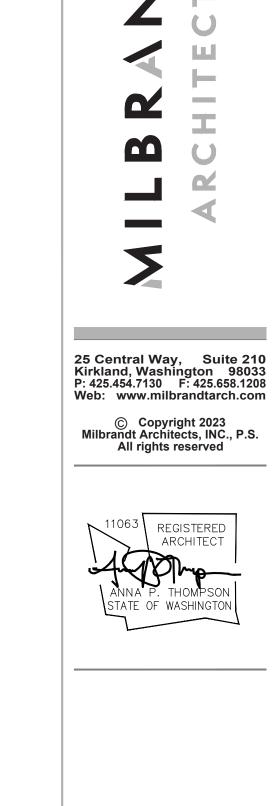
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5-1-25

Job No.: Drawn By: 23-06 APT/HDM/TMK

WASHING MACHINES AND CLOTHES DRYERS -CLEAR FLOOR SPACE: A 30"X48" CLEAR FLOOR SPACE FOR A PARALLEL APPROACH SHALL BE 30"x48" CLEAR FLOOR SPACE CENTERED ON I PROVIDED. FOR TOP LOADING MACHINES, THE CLEAR FLOOR SPACE SHALL BE CENTERED ON THE APPLIANCE. FOR FRONT LOADING MACHINES, THE CENTERLINE OF THE CLEAR FLOOR OFFSET UP TO 24" SPACE SHALL BE OFFSET 24" MAX. FROM THE CENTERLINE OF THE DOOR OPENING. **OPERABLE PARTS:** OPERABLE PARTS INCLUDING DOORS, LINT SCREENS, DETERGENT & BLEACH COMPARTMENTS, SHALL BE WITHIN ACCESSIBLE REACH RANGES & MEET THE REQUIREMENTS FOR OPERABLE PARTS. (See detail 4 sheet A3 & 32 sheet U11) **HEIGHT:** TOP LOADING MACHINES SHALL HAVE THE DOOR TO THE LAUNDRY COMPARTMENT 36" MAX. ABOVE THE FLOOR. FRONT LOADING MACHINES SHALL HAVE THE BOTTOM OF THE OPENING TO THE LAUNDRY COMPARTMENT 15" MIN. & 36" MAX. ABOVE THE FLOOR FRONT LOAD APPLIANCE TOP LOAD APPLIANCE





Stair i Floor Plans

Bradley Heights Apartments

> Puyallup, Wa

Timberlane Partners

Revisions

No. Date Description

A 8-30-24 Owner Changes/
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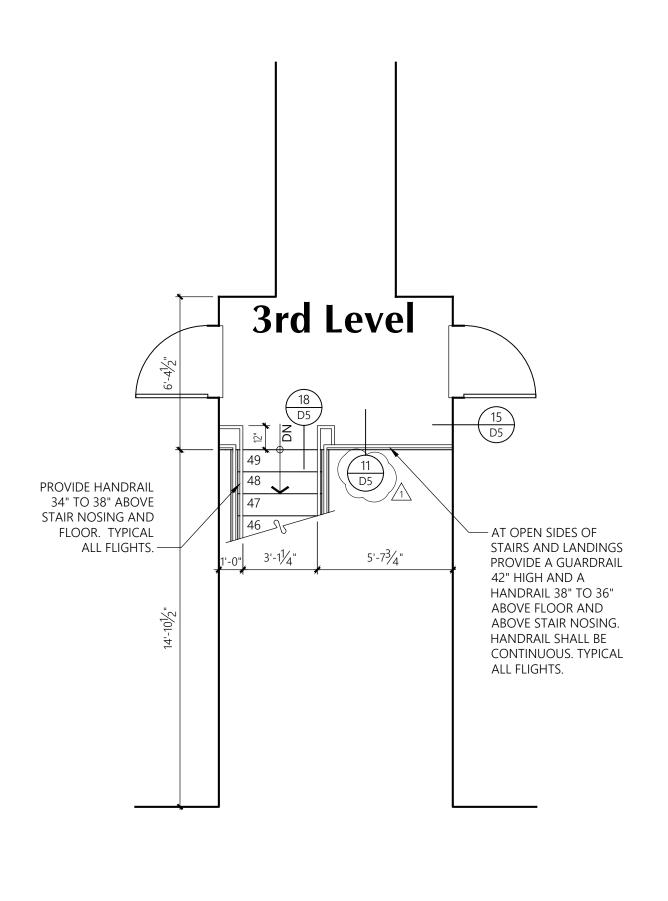


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Date Plotted: 5-1-25

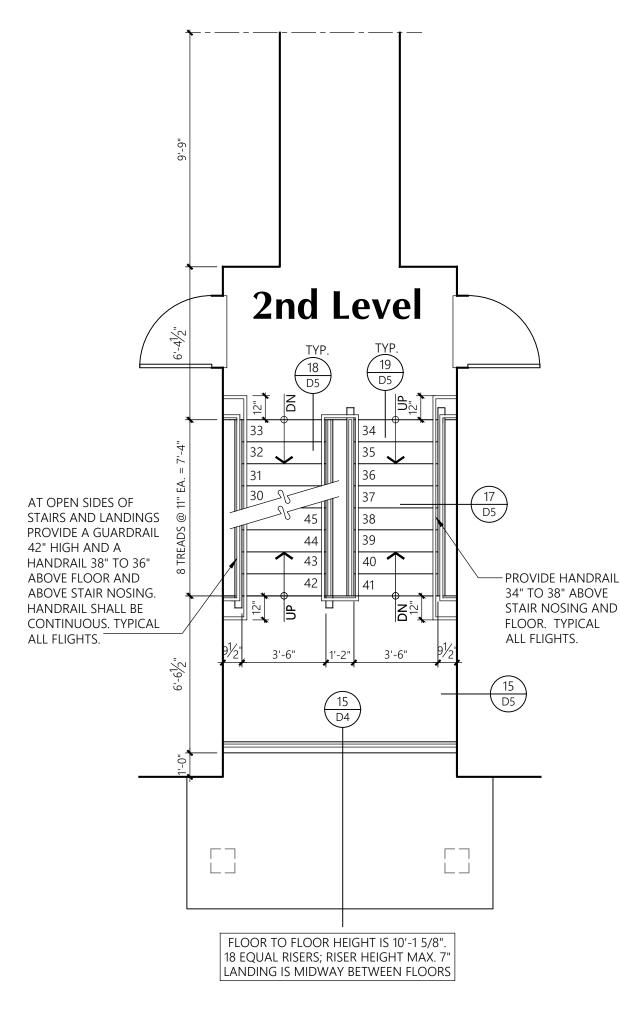
Job No.: Drawn By:

23-06 APT/HDM/TMK
Sheet No.:



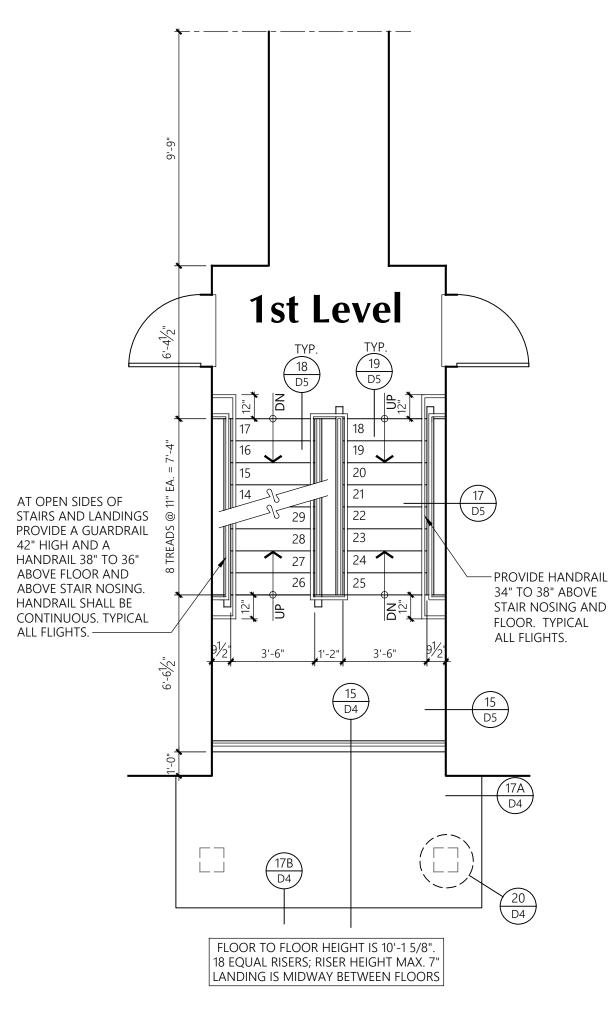
FLOOR TO FLOOR HEIGHT IS 10'-1 5/8". 18 EQUAL RISERS; RISER HEIGHT MAX. 7" LANDING IS MIDWAY BETWEEN FLOORS

STAIR 2 3RD LEVEL FLOOR PLAN

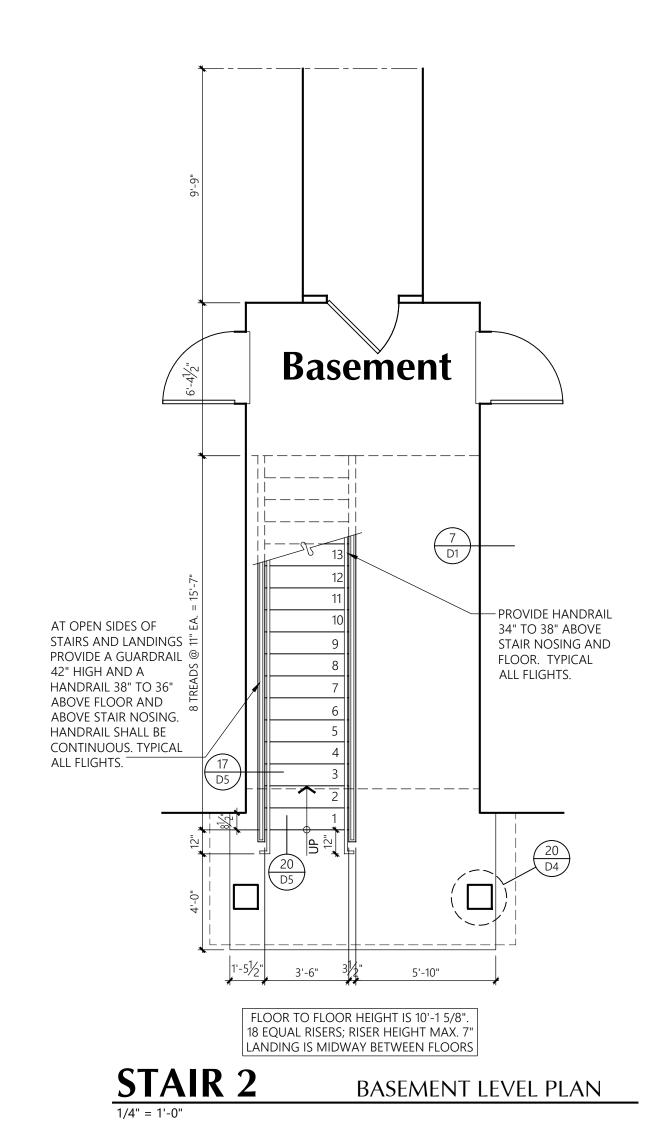


STAIR 2 2ND LEVEL FLOOR PLAN

1/4" = 1'-0"



STAIR 2 1ST LEVEL FLOOR PLAN



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U13



Schedule

Bradley Heights Apartments

> Puyallup, Wa

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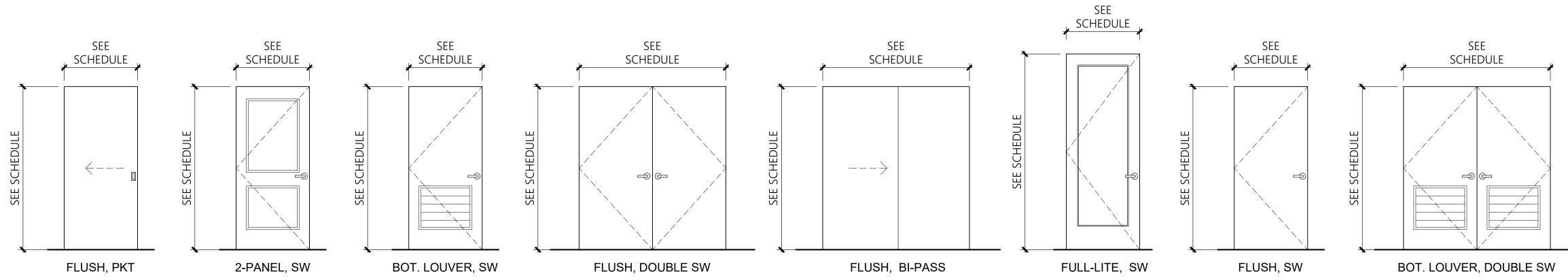
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U14



Door No.	Туре	Size	Thickness	Construct	Finish	Fire Rating	Frame or Head/Jamb		Frame or Head/Jamb		Frame or Head/Jamb		Frame or Head/Jamb	Frame or Head/Jamb Remarks		Min. U	Max.
							Construct.	Finish		Factor	SHGC						
1A	2-Panel, SW	3'-0" x 8'-0"	1-3/4"	INSUL MTL	PP	20 min.	Wood	PP	Keylock, Dead Bolt w/Thumb, Self Closure/Smoke Seal, Flush Threshold, Weatherstrip, Ext. Grade Door, Peep Sight, Self Closing	0.24	-						
1B	2-Panel, SW	3'-0" x 8'-0"	1-3/4"	INSUL MTL	PP	90 min.	MTL	PP	Keylock, Dead Bolt w/Thumb, Self Closure/Smoke Seal, Flush Threshold, Weatherstrip, Ext. Grade Door, Peep Sight, Self Closing	0.24	-						
2	2-Panel, PKT	3'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP	Privacy Lock @ Bath	-	-						
3	2-Panel, SW	3'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP	Privacy Lock @ Bath	-	-						
4	Bot. Louver Dbl, SW	6'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-						
5	Full-Lite, SW	3'-0" x 8'-0"	1-3/4" (INSUL FBGL	PP		Wood	PP	Keylock, Safety Glass, Flush Threshold, Weatherstrip, Ext. Grade Door	0.24	0.61						
6	2-Panel, SW	2'-4" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-						
7	2-Panel, SW	2'-6" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-						
8	ВР	4'-0" x 6'-8"	1-3/8"	HCW	PP		GWB	PP		-	-						
9	Bot. Louver, SW	3'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-						
10	ВР	5'-0" x 6'-8"	1-3/8"	HCW	PP		GWB	PP		-	-						
11	2-Panel, SW	2'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-						
12	Flush, SW	3'-0" x 8'-0"	1-3/8"	MTL	PP	90 min.	Wood	PP	Lockable from outside, Ext. Grade Door	-	-						
13	Flush, Dbl SW	6'-0" x 6'-8"	1-3/8"	INSUL MTL	PP		MTL	PP	Lockable from outside, Ext. Grade Door	0.24	-						
14	Flush, SW	3'-0" x 8'-0"	1-3/8"	MTL	PP	20 min.	$MTL \stackrel{2}{\longrightarrow}$	PP	Lockable from outside, Ext. Grade Door	-	_						

TYPE:

SCW = SOLID CORE WOOD

HCW = HOLLOW CORE WOOD

MTL = METAL

FBGL = FIBERGLASS

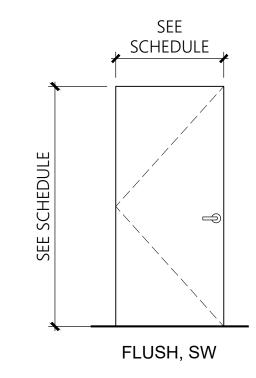
SW = SWING

DBL SW = DOUBLE SWING

SOHD = SECTIONAL OVERHEAD DOOR

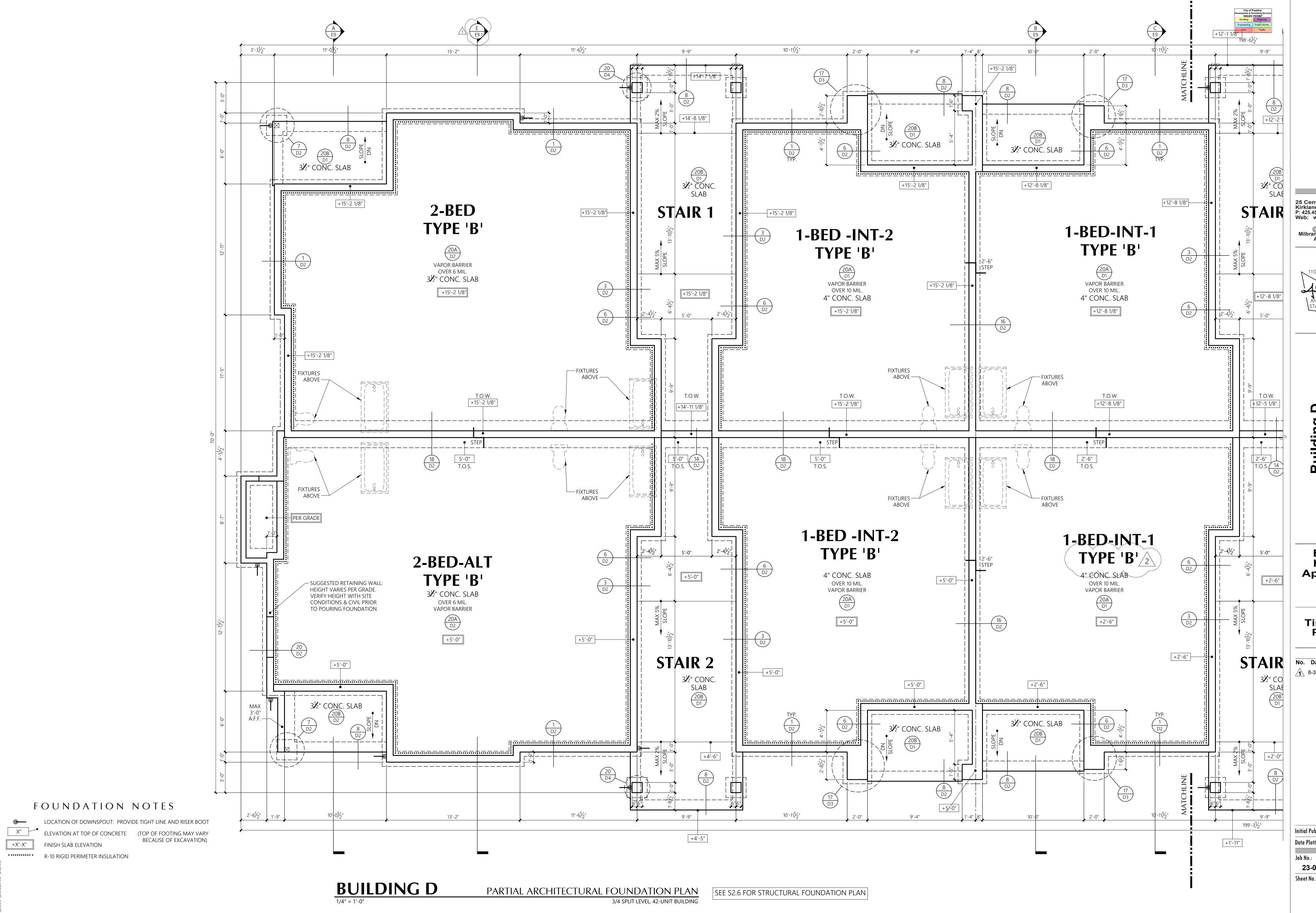
PP = PRIME & PAINT

FF = FACTORY FINISH



Door Scl	nedule - Units					_					
Door No. Type	Size	Thickness	Construct	Finish	Fire Rating	Frame or He	ead/Jamb	Remarks	Min. U	Max.	
							Construct.	Finish		Factor	SHGC
1A	2-Panel, SW	3'-0" x 8'-0"	1-3/4"	INSUL MTL	PP	20 min.	Wood	PP	Keylock, Dead Bolt w/Thumb, Self Closure/Smoke Seal, Flush Threshold, Weatherstrip, Ext. Grade Door, Peep Sight, Self Closing	0.24	-
1B	2-Panel, SW	3'-0" x 8'-0"	1-3/4"	INSUL MTL	PP	90 min.	MTL) PP	Keylock, Dead Bolt w/Thumb, Self Closure/Smoke Seal, Flush Threshold, Weatherstrip, Ext. Grade Door, Peep Sight, Self Closing	0.24	-
2	2-Panel, PKT	3'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP	Privacy Lock @ Bath	-	-
3	2-Panel, SW	3'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP	Privacy Lock @ Bath	-	-
4	Bot. Louver Dbl, SW	6'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-
5	Full-Lite, SW	3'-0" x 8'-0"	1-3/4" (INSUL FBGL	2 PP		Wood	PP	Keylock, Safety Glass, Flush Threshold, Weatherstrip, Ext. Grade Door	0.24	0.61
6	2-Panel, SW	2'-4" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-
7	2-Panel, SW	2'-6" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-
8	ВР	4'-0" x 6'-8"	1-3/8"	HCW	PP		GWB	PP		-	-
9	Bot. Louver, SW	3'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		-	-
10	ВР	5'-0" x 6'-8"	1-3/8"	HCW	PP		GWB	PP		-	-
11	2-Panel, SW	2'-0" x 6'-8"	1-3/8"	HCW	PP		Wood	PP		_	-
10	Fluch SM/	יין אין אין אין אין אין	1 2/0"	NATI	DD	00 min	Mood	DD	Lockable from outside Ext. Grade Door		

DOOR KEY:



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Building D

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Puyallup,

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F6

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Building D

al Architectural Foundation Plan

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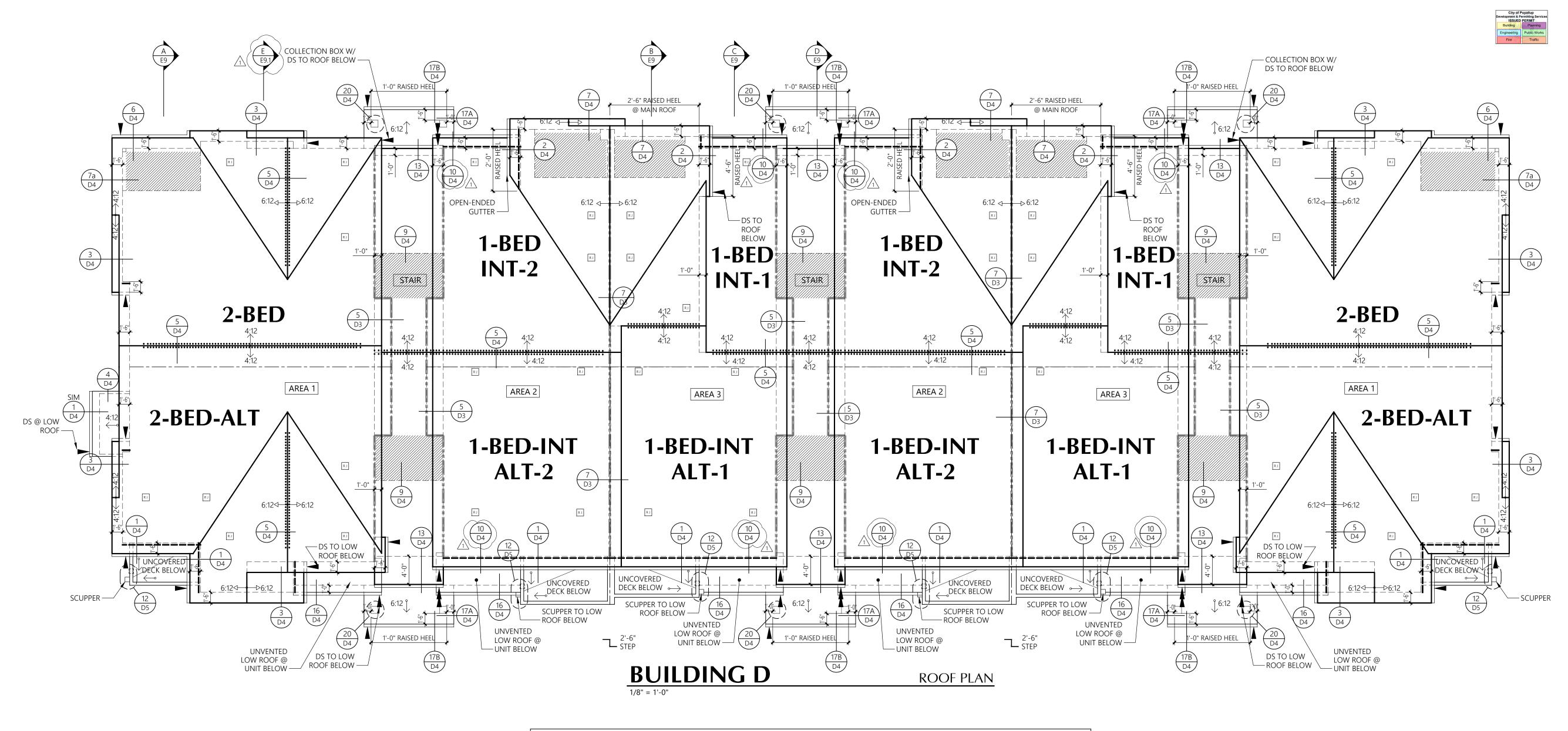
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R4



	ROOF VENTING CALCULATIONS															
Area Description	Attic Area (SF)	Venting Ratio		Required Venting	Low Eave Vent (LF)	Low Jacks (Qty)	High Jacks (Qty)	Vented Soffit (SF)	Ridge Vent (LF)		Ver	nting Provi	ded (SI)	* %	of req'd	
Description	inpuon (SF)	(01)	Пс	aliO	(SI)	2.4	50.0	50.0	5.9	12.0	Lower	%	Upper	%	Total	%*
AREA 1	2,160	1/	300	1,037	20	8	0	58	64	790	51%	768	49%	1,558	150%	
AREA 2	1,448	1/	300	695	40	3	4	63	24	618	56%	488	44%	1,106	159%	
AREA 3	1,435	1/	300	689	32	3	5	53	20	540	52%	490	48%	1,030	150%	
STAIR	462	1/	150	444	0	0	0	124	5	732	92%	60	8%	792	179%	

CONTRACTOR NOTE

Attic spaces will be draft stopped per 2021 Washington State Building Code, Section 708.4.2.

In Group R-2 occupancies up to and including four stories in height in buildings not exceeding 60 feet (18 288 mm) in height above grade plane, the attic space shall be subdivided by draftstops into areas not exceeding 3,000 square feet (279 m2) or above every two dwelling units, whichever is smaller.

ROOF LEGEND

- ROOF JACK 50 SQ.IN. NET FREE AREA
- ←→ 4:12 SLOPE INDICATOR U.N.O. ← 6:12 SLOPE INDICATOR U.N.O.
- ---- BUILDING OUTLINE **EAVE VENTING** 2.4 SQ.IN./LF. NET FREE AREA RIDGE VENTING 12 SQ.IN./LF. NET FREE AREA
- UNIT SEPARATION AND DRAFT STOPPING LOCATIONS AT ATTIC GUTTER (DOUBLE LINE)
- DOWNSPOUT LOCATION VENTED FIBER CEMENT SOFFIT



Building

RAILS AND BALUSTERS SHALL BE SPACED SUCH THAT A 4" DIAMETER SPHERE CANNOT PASS BETWEEN THEM. THEY SHALL MEET THE STRUCTURAL REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE.

Bradley Heights **Apartments**

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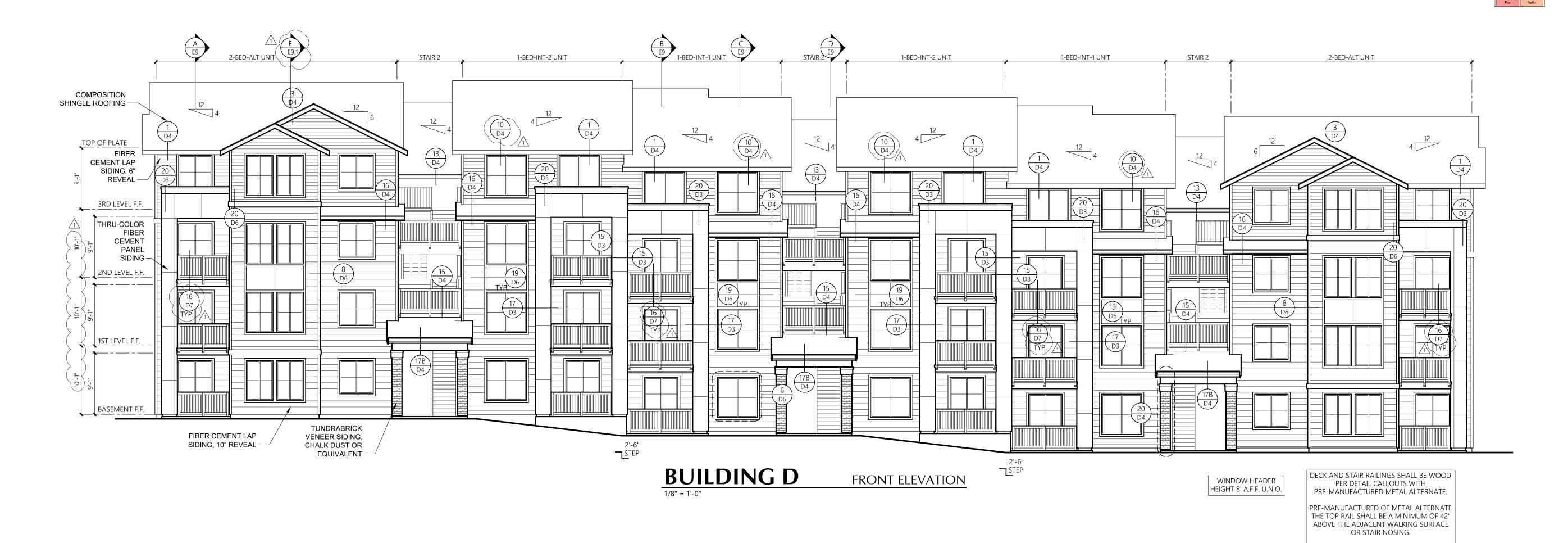
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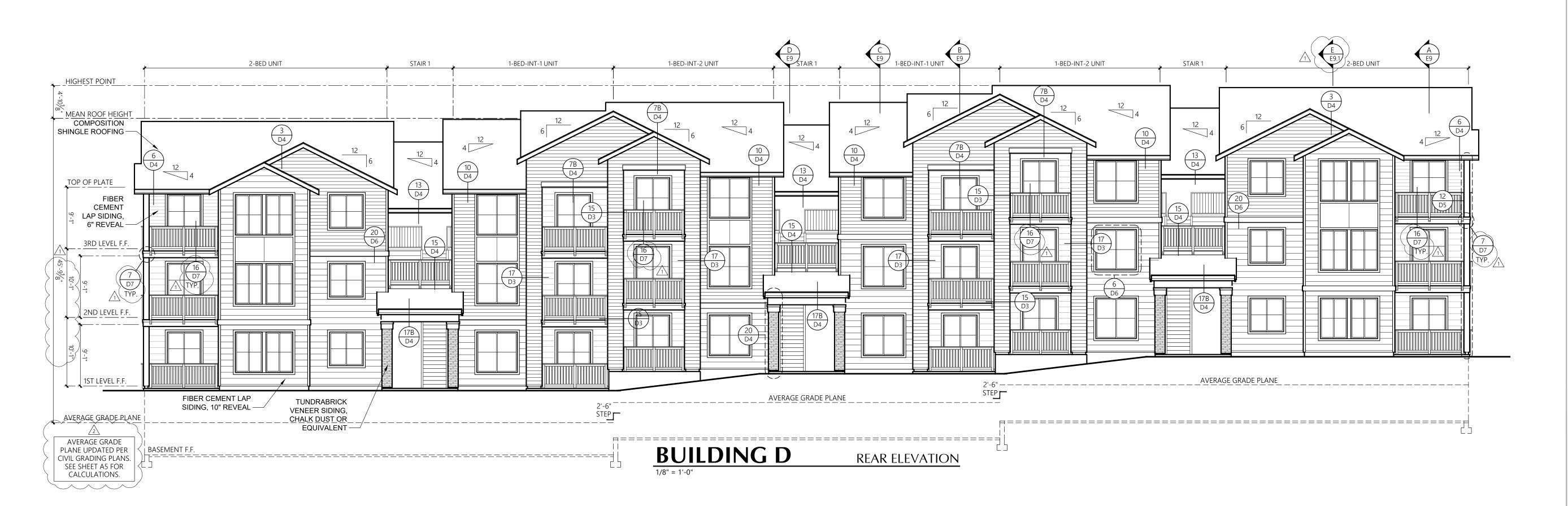
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MILBRANDT ARCHITECTS

25 Central Way, Suite 210 Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208 Web: www.milbrandtarch.com

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ANNA P. THOMPSON STATE OF WASHINGTON

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Bradley Heights Apartments

Puyallup,

Timberlane Partners

Revisions

No. Date Description

A 8-30-24 Owner Changes/
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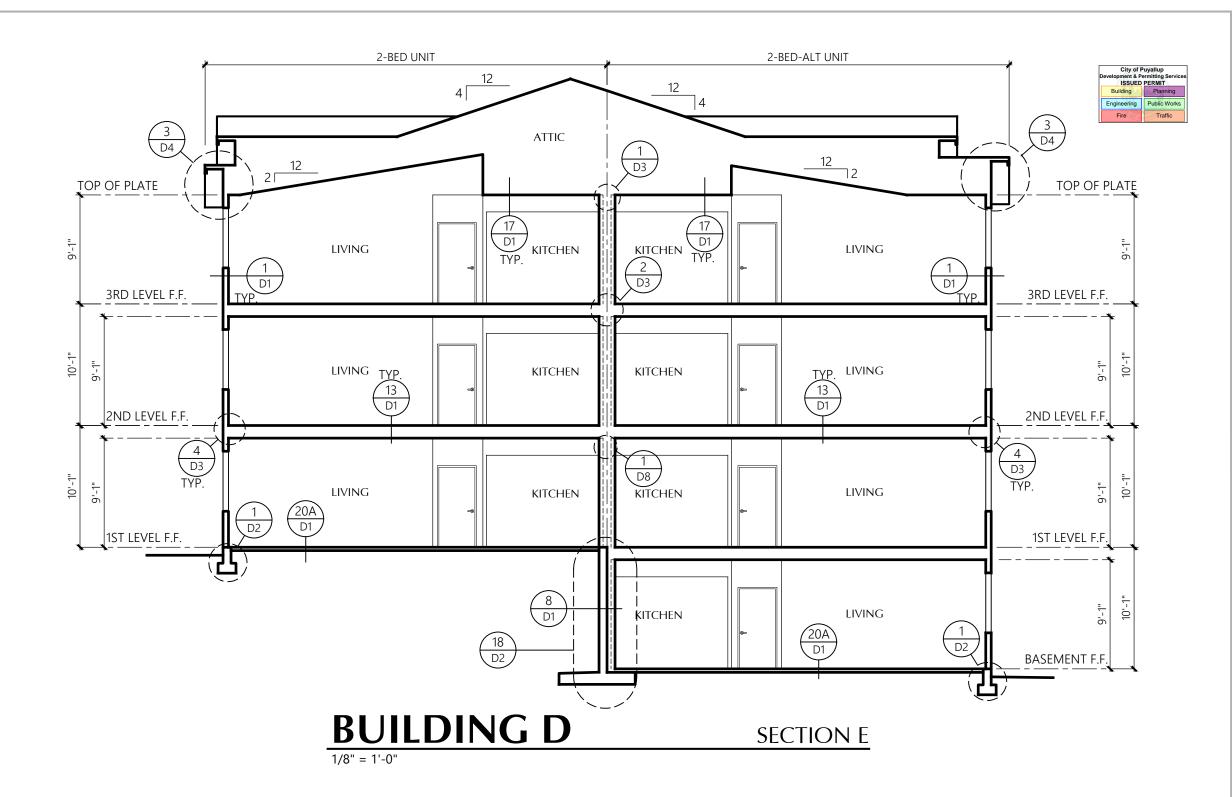
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E9

WINDOW HEADER HEIGHT 8' A.F.F. U.N.O.



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E9.1

1.1 CODES

ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED AND ADOPTED BY THE STATE OF WASHINGTON; A.C.I. 318-14; A.I.S.C. 14TH EDITION; AWS D1.1-06; A.I.T.C. 2ND EDITION; NDS 2018 WITH 2018 WIND & SEISMIC PROVISIONS AND A.I.S.I 2012 EDITION

THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION.

1.2 DESIGN CRITERIA

A. VERTICAL LOADS

LIVE LOADS

ROOF (SNOW) Is $= 1.0$	25 PSF
FLOORS (RESIDENTIAL)	40 PSF
DECKS (RESIDENTIAL POST/BM SUPPORT)	60 PSF
STAIRS/EXITS	100 PSF

DEAD LOADS

ROOF	22 PSF
FLOORS (RESIDENTIAL)	26 PSF
DECKS	47 PSF
BREEZEWAY	47 PSF

B. LATERAL LOADS:

LATERAL FORCES ARE TRANSMITTED BY DIAPHRAGM ACTION OF THE FLOORS TO SHEAR WALLS. LOADS ARE THEN TRANSFERRED TO THE FOOTINGS, WHERE ULTIMATE DISPLACEMENT IS RESISTED BY PASSIVE PRESSURE OF EARTH AND SLIDING FRICTION OF EARTH. OVERTURNING IS RESISTED BY THE DEAD LOAD OF THE STRUCTURE.

EXPOSURE B ELEVATION = 386 FEET

BASIC WIND SPEED = 97 M.P.H. (3 SECOND GUST, ULTIMATE). IMPORTANCE FACTOR, Iw = 1.0SIMPLE DIAPHRAGM BUILDING, ENCLOSED Kzt = 1.0

SFISMIC:

IMPORTANCE FACTOR, IE = 1.0 OCCUPANCY CATEGORY II MAPPED SPECTRAL RESPONSE COEFFICIENTS, Ss = 1.263 AND SOIL SITE CLASS = C

SPECTRAL RESPONSE COEFFICIENTS, SDs = 1.010 AND SD1 = 0.435 SEISMIC DESIGN CATEGORY = D SEISMIC RESPONSE COEFFICIENT Cs = 0.2021 (ULTIMATE STRENGTH) RESPONSE MODIFICATION FACTOR R = 6.5

1.3 SHOP DRAWINGS

SUBMIT SUFFICIENT COPIES OF SHOP DRAWINGS TO ARCHITECT/ENGINEER FOR THE FOLLOWING:

- REINFORCING STEEL (CONCRETE / MASONRY) CONCRETE / GROUT MIX DESIGNS (CONCRETE / MASONRY)
- COMPOSITE FLOOR/ROOF JOISTS P.E. ROOF/FLOOR TRUSSES
- GLUE—LAMINATED MEMBERS

DO NOT FABRICATE PRIOR TO ARCHITECT'S/ENGINEER'S APPROVAL. ALL SHOP DRAWINGS SUBMITTED TO THE ENGINEER SHALL BEAR THE STAMPED APPROVAL OF THE CONTRACTOR. SHOP DRAWING APPROVAL BY ANDERSONCHASE STRUCTURAL ENGINEERS SHALL NOT IMPLY THAT THE PROJECT MAY BE BUILT FROM THE SHOP DRAWINGS RATHER THE PROJECT PLANS SHALL BE USED FOR CONSTRUCTION. ALL PERMANENT BRACING FOR TRUSSES SHALL BE DETAILED AND DESIGNED BY THE TRUSS SUPPLIER. CONTRACTOR SHALL REVIEW SHOP DRAWINGS AND STAMP INDICATING THIS PRIOR TO REVIEW BY ENGINEER OF RECORD.

2.0 SITE WORK

2.1 SOIL DATA (PER GEOTECHNICAL REPORT DATED FEBRUARY 10, 2022 PREPARED BY GEO RESOURCES #0419036006

FOR LOCATIONS SEE SOILS REPORT. SOIL BEARING @ CONT. SPREAD FOOTINGS = 2000 PSF. ACTIVE AND PASSIVE PRESSURES ARE 35 PCF AND 300 PCF RESPECTIVELY. WHERE GEOTECHNICAL REPORT HAS NOT BEEN PROVIDED, THE ABOVE VALUES ARE ASSUMED AND THESE VALUES SHALL BE FIELD VERIFIED.

2.2 EXCAVATION

EXCAVATE PER GEOTECH REPORT, PROOFROLL SUBGRADES TO ATLEAST 92% MDD PER ASTM D1557 TEST METHOD FOR FOOTINGS DOWN TO DEPTH SHOWN ON DRAWINGS OR TO FIRM UNDISTURBED MATERIAL. AREAS OVER-EXCAVATED SHALL BE BACKFILLED WITH LEAN CONCRETE (f'c = 2000 PSI), OR BE STRUCTURALLY FILLED PER SECTION 2.3 AND SHALL BE AT THE CONTRACTOR'S EXPENSE.

2.3 BACKFILL AND COMPACTION

BACKFILL SHALL NOT BE PLACED UNTIL AFTER THE REMOVAL OF ALL FORMS, SCREEDS, OTHER WOOD DEBRIS AND MATERIAL SUBJECT TO ROT OR CORROSION. USE ONLY MATERIALS APPROVED FOR BACKFILL. IN AREAS UNDER SLABS OR FOOTINGS, MATERIAL SHOULD BE GRANULAR IN NATURE, PLACED IN 6-INCH LIFTS AND COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO COMPACTION TEST, PROCEDURE T-180. THE FILL SHOULD BE LIMITED TO CLEAN, GRANULAR MATERIAL.

3.0 CONCRETE

3.1 GENERAL

NORMAL WEIGHT CONCRETE MEETING THE REQUIREMENTS OF ACI 301-05 ESTABLISH PROPORTIONS OF CEMENT, COARSE AND FINE AGGREGATES, WATER, AND ADMIXTURES TO PRODUCE THE PROPERTIES SPECIFIED FOR EACH CONCRETE MIX TYPE PER ACI-301 ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL BATCHES. USE ADMIXTURES IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. USE AMOUNTS OF WATER-REDUCING ADMIXTURE THAT WILL PERMIT PLACING WITHOUT SEGREGATION, HONEYCOMBING OR ROCK POCKETS. THE SLUMPS SPECIFIED ARE THE SLUMPS REQUIRED AT THE POINT OF PLACEMENT INTO THE STRUCTURE. USE INTERIOR MECHANICAL VIBRATORS WITH 7000 RPM MINIMUM FREQUENCY. DO NOT OVER-VIBRATE. DO NOT MOVE THE CONCRETE HORIZONTALLY USING THE VIBRATOR. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR CONTROL JOINTS. PROTECT ALL FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES FOR SEVEN DAYS AFTER POURING. PROVIDE ENGINEER WITH PROPOSED CONSTRUCTION OR CONTROL JOINT LOCATIONS FOR HIS APPROVAL, OR USE JOINTS AS SHOWN ON THE DRAWINGS. ALL REINFORCEMENT TIE WIRES AND FORM ANCHORS SHALL BE CUT OFF FLUSH WITH THE SURFACE; SURFACES WHERE EXPOSED SHALL BE SMOOTH AND FREE FROM IRREGULARITIES.

3.2 STRENGTH

DESIGN MIXES TO PROVIDE NORMAL WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:

APPLICATION	W/C RATIO	DESIGN STRENGTH F'c (PSI)	F'c PER ACI
FOOTINGS	.45	2500	4500²
FOUNDATION WALLS	.45	2500	4500°
EXT. SLABS ON GRADE	.45	2500	4500°
INT. SLABS ON GRADE	.50	2500	3000

- 1. CONCRETE EXPOSED TO WEATHER FOR EXPOSURE CLASS F2 AND SLABS ON GRADE
- SHALL HAVE A MIN F'C PER TABLE AND HAVE 5% AIR ENTRAINMENT. 2. DESIGN STRENGTH F'c (USED IN DESIGN). F'c PER ACI TABLE 19.3.2.1 FOR F2
- 3. PER IBC 1705.3 SPECIAL INSPECTION STRENGTH TESTS NOT REQUIRED FOR CONCRETE f'c>2500 WHERE STRENGTH IS INCREASED FOR DURABILITY.

3.3 MATERIAL - CEMENT, WATER & AGGREGATES PER ACI 301

- A. CEMENT MUST CONFORM TO ASTM C-150, TYPE I OR TYPE II. ENGINEER'S APPROVAL IS REQUIRED FOR USE OF TYPE III CEMENT.
- B. WATER TO BE CLEAN AND POTABLE.
- C. COARSE AND FINE AGGREGATES TO CONFORM TO ASTM-C33.

3.4 MATERIALS

- A. WATER REDUCING ADMIXTURES: CONCRETE USING POZZOLITH ADMIXTURES TO PRODUCE FLOWABLE CONCRETE MAY BE USED WITH THE ENGINEER'S APPROVAL AND MUST CONFORM TO ASTM-C494, POZZOLITH POLYHEED, POZZOLITH 100XR, OR POZZUTECH 20. POZZOLITH SHALL BE INCORPORATED INTO ALL CONCRETE IN EXACT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ADMIXTURES AND DOSAGES WILL VARY DEPENDING ON CLIMATIC CONDITIONS AND THE CONTRACTOR'S JOBSITE REQUIREMENTS. MAXIMUM SLUMP FOR SUCH CONCRETE SHALL NOT EXCEED 8" WITH A MINIMUM OF 10 OUNCES OF POLYHEED PER 100 OUNCES OF CEMENT. USE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- B. AIR ENTRAINMENT: CONFORM TO ASTM-C260 AND ASTM-C494, MBVR OR MICRO-AIR BY MASTER BUILDER. NO AIR ENTRAINMENT IN COLUMNS WITHOUT PRIOR WRITTEN PERMISSION BY ENGINEER OF RECORD. ENTRAIN 5% +/- 1% AIR BY VOLUME IN ALL EXPOSED CONCRETE.
- C. OTHER ADMIXTURE: NO OTHER ADMIXTURES PERMITTED UNLESS PRIOR APPROVAL IS GIVEN BY THE ENGINEER. NO ADMIXTURES CONTAINING CHLORIDES ARE PERMITTED.

3.5 REINFORCING STEEL

DETAIL, FABRICATE AND PLACE PER ACI-315 AND ACI-318. SUPPORT REINFORCEMENT WITH APPROVED CHAIRS, SPACERS, OR TIES.

- A. STEEL REINFORCEMENT SHALL BE NEW, DEFORMED BILLET STEEL, MEETING ASTM STANDARD A-615, A-706 AT BOUNDARY ELEMENTS: GRADE 60 FOR #3 AND LARGER BARS UNLESS NOTED OTHERWISE ON THE PLANS. SHOP DRAWINGS SHALL BE MARKED ACCORDINGLY AND SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. GRADE 60 REBARS SHALL NOT BE BENT IN FIELD AFTER CONCRETE PLACEMENT. ALL BEND SHALL BE PER ACI.
- B. REINFORCEMENT IN ALL WALLS, SLABS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS OR CORNER BARS PROVIDED, BOTH VERTICAL AND HORIZONTAL.
- C. LAPS: ALL TENSION SPLICES ARE ACCORDING TO ACI 318, CLASS B AND ALL COMPRESSION SPLICES ARE 30 DIAMETERS FOR I'C GREATER THAN 3000 PSI AND ARE 40 DIAMETERS FOR I'C WHICH IS LESS THAN 3000 PSI, UNLESS NOTED OTHERWISE. SEE DETAIL 17/S3.0 FOR TYPICAL SPLICE AMOUNTS BASE ON BAR SIZE.
- D. TRIM REINFORCING: AROUND ALL OPENINGS SHALL BE A MINIMUM 1-#5 TOP AND BOTTOM, EXTENDING 2'-6" BEYOND OPENING AT EACH CORNER. SEE TYPICAL DETAILS.
- WELDING: TACK WELDING OF REBAR IS NOT PERMITTED UNLESS CALLED FOR AND APPROVED BY THE ENGINEER.
- MINIMUM REINFORCING: WHERE REINFORCEMENT IS NOT SHOWN ON THE DRAWINGS, THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) SHALL BE REFERRED TO FOR PROPER REINFORCEMENT.
- G. REBAR COVER: PROVIDE CONCRETE PROTECTION FOR REINFORCEMENT AS FOLLOWS:

COVER	CONDITION
3"	CONCRETE DEPOSITED AGAINST EARTH
2"	CONCRETE DEPOSITED AGAINST FORMS BUT
	EXPOSED TO EARTH
1-1/2"	MAIN REINFORCING IN BEAMS
1-1/2"	TO TIES IN COLUMNS, AND TIED REBAR IN WALLS
1-1/2"	FOR BARS IN SLABS ON GROUND
3/4"	FOR BARS IN SLABS ON FORMS

- H. WELDED WIRE FABRIC: ASTM-A185 AND ASTM-A82
- I. DEFORMED BAR ANCHORS: ASTM-A496
- K. FIBREMESH: PROVIDE FIBREMESH STRANDS WITHIN CONCRETE PER THE MANUFACTURERS SPECIFICATION (1.5#/CU. YARD TYPICALLY) WHERE REQUIRED BY THE OWNER IN LIEU OF UTILIZING WELDED WIRE FABRIC WITHIN SLABS ON GRADE.

3.6 EPOXY DOWELED REINFORCEMENT

- A. ALL REINFORCEMENT WHICH IS TO BE DOWELED INTO EXISTING CONCRETE SHALL BE INSTALLED USING THE SIMPSON SET-XP ADHESIVE ANCHORING SYSTEM PER ICC REPORT ESR-2508 OR APPROVED EQUAL. ADHESIVE ANCHORS SHALL BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS OR APPROVED EQUAL.
- B. EPOXY SHALL BE MIXED. APPLIED, AND CURED IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES. REINFORCEMENT AND CONCRETE SHALL BE CLEAN AND FREE OF IRREGULARITY. EPOXY SHALL NOT BE MIXED OR CURED IN AIR AND OR CONCRETE TEMPERATURES BELOW MINIMUM PER MANUFACTURER'S SPECIFICATIONS.
- C. EPOXY DOWELING OF REINFORCEMENT IN OVERHEAD APPLICATIONS SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.

4.0 METALS

- A. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE" & D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL."
- B. ALL WELDING SHALL BE DONE BY AWS/WABO (WASHINGTON STATE ASSOCIATION OF BUILDING OFFICIALS) CERTIFIED WELDERS. FOR ALL MOMENT FRAMES WELDERS SHALL HAVE ADDITIONAL CERTIFICATION SHOWING QUALIFIED IN ACCORDANCE WITH AWS D1.8, SECTION 5, WELDER QUALIFICATION, THE SUPPLEMENTAL WELDER QUALIFICATION FOR RESTRICTED ACCESS WELDING.

5.0 STRUCTURAL STEEL

A. ALL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION." STEEL SHALL CONFORM TO THE FOLLOWING, UNO:

ASTM A572, GRADE 50, A447,

ASTM A992.

Fy = 50 KSI OR A588 Fy = 50 KSI ONLY WPRIOR APPROVAL OF ENGINEER OF RECORD.

ASTM A36, Fy = 36 ksi

CHANNELS, EMBEDMENTS IN CONCRETE AND MISC. METALS, UNO

ALL STEEL, UNO

ANGLES.

ASTM A36, Fy = 36 ksi OR STEEL TYPES LISTED UNDER "ALL STEEL" ASTM A500, GRADE B, Fy = 46 ksi

SQUARE AND RECTANGULAR

STRUCTURAL TUBES STEEL PIPE DIAMETER LESS

ASTM A53, TYPE E OR S, THAN OR EQUAL TO 12" NOM GRADE B, Fy = 35 ksi

B. ALL WORK SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATION. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER BEFORE COMMENCING FABRICATION. ALL STEEL ANCHORS AND TIES AND OTHER MEMBERS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED. DIMENSIONAL TOLERANCE FOR BUILD-UP MEMBERS SHALL BE PER AWS D1.1. GENERAL NOTES FOR STEEL CONNECTIONS SHALL APPLY TO ALL STEEL CONNECTIONS, UNO.

CONNECTIONS SHALL BE A TWO-BOLT CONNECTION USING 7/8-INCH DIAMETER A325 BOLTS IN SINGLE SHEAR. OPTIONAL TO USE F1554 BOLTS WITH PRIOR APPROVAL OF ENGINEER OF RECORD. ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED. TIGHTENED AND INPSECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. THE CRITERIA FOR SLIP-CRITICAL CONNECTIONS SHALL APPLY TO ALL CONNECTIONS

UNLESS SPECIFICALLY NOTED AS SNUG TIGHT ON THE STRUCTURAL DRAWINGS. WHERE CONNECTIONS ARE NOTED SNUG TIGHT THE CONTRACTOR MAY INSTALL PER CRITERIA FOR SNUG TIGHT BOLTS. SLIP CRITICAL CONNECTIONS SHALL USE LOAD INDICATOR WASHERS OR TENSION CONTROL BOLTS. ALL ASTM A307 BOLTS SHALL BE PROVIDED WITH LOCK WASHERS UNDER NUTS OR SELF-LOCKING NUTS. ALL BOLT HOLES SHALL BE STANDARD SIZE, UNO.

C. STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSIONAL POINTS. MINIMUM

- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS THAT INCLUDE, BUT ARE NOT LIMITED TO: ERECTION ANGLES; LIFT HOLES, AND OTHER AIDS.
- METAL PROTECTION ALL MISCELLANEOUS STEEL AND HARDWARE EXPOSED TO VIEW OR IN UNHEATED PORTION OF BUILDING SHALL BE GALVANIZED PER ASTM A-123 WITH 1.25 OZ OF ZINC SPELTER PER SQUARE FOOT OF SURFACE AREA. ALL OTHER STEEL SURFACES TO BE SHOP PAINTED AFTER FABRICATION.
- F. ALL STEEL BEAM COPING SHALL CONFORM TO AISC STANDARD PRACTICE.
- G. GROUT FOR BEARING PLATES SHALL BE NON-SHRINK EMBECO BY MASTER BUILDERS, INC. OR APPROVED EQUAL.

ALL EXPOSED STRUCTURAL MATERIALS OR MATERIAL IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED (SEE SECTION 7.10).

6.0 LIGHT GAUGE STEEL

Structural Notes

7.0 CARPENTRY

7.1 ROUGH CARPENTRY

ALL 2x FRAMING LUMBER SHALL BE STUD GRADE HEM-FIR FOR STUDS AND STANDARD OR BETTER FOR PLATES UNLESS OTHERWISE NOTED ON THE DRAWINGS OR BELOW. ALL 2" LUMBER SHALL BE KILN DRIED (KD) OR SURFACE DRIED (SD). EACH PIECE OF LUMBER SHALL BEAR THE STAMP OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) SHOWING GRADE MARK OR APPROVED EQUAL. OTHER MATERIALS SHALL BE AS SHOWN BELOW:

MEMBER	SPECIES
2x & 3x STUDS	STUD GRADE HEM FIR
2x JOISTS	#2 HEM FIR
4x HEADERS	#2 HEM FIR
6x HEADERS	#2 DOUGLAS FIR
4x COLUMNS	#2 HEM FIR
6x COLUMNS	#2 DOUGLAS FIR

ALL EXPOSED STRUCTURAL MATERIALS OR MATERIAL IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED (SEE SECTION 7.10).

7.3 PRE-ENGINEERED ROOF TRUSSES

ALL PREFABRICATED WOOD ROOF AND FLOOR TRUSSES SHALL BE DESIGNED BE OR UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE STRUCTURE IS LOCATED. THE TRUSS SHOP DRAWINGS SHALL BEAR THE STAMP OF THAT ENGINEER. ALL NECESSARY BRIDGING, BLOCKING, PRE-NOTCHED PLATES, HANGERS, ETC. SHALL BE DETAILED OR SPECIFIED, AND FURNISHED BY THE MANUFACTURER. ALL PERMANENT BRACING FOR TRUSSES SHALL BE DETAILED AND DESIGNED BY THE TRUSS SUPPLIER. THE TRUSS MANUFACTURER SHALL VERIFY ALL SETBACKS, DIMENSIONS, AND BEARING POINTS PRIOR TO FABRICATION. MAXIMUM ALLOWABLE DEFLECTIONS SHALL BE AS FOLLOWS:

ROOF TOTAL LOAD SPAN/240 OR 1.5" ROOF LIVE LOAD SPAN/360 OR 1"

TRUSSES SHALL BE DESIGNED FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ADDITIONAL CONCENTRATED LOADS FROM MECHANICAL UNITS, AND MISCELLANEOUS EQUIPMENT, ETC. SHALL BE ACCOUNTED FOR/COORDINATED WITH THE SUB-CONTRACTORS, ARCHITECT AND TRUSS ENGINEER, ALTERATION OF THE TRUSS LAYOUT INDICATED ON THE PLANS MAY REQUIRE SUPPORTING STRUCTURAL AND FOUNDATION CHANGES, THEREFORE PRIOR APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER IS REQUIRED. TRUSSES SHALL NOT BE FIELD ALTERED PRIOR TO WRITTEN APPROVAL OF THE ENGINEER OF RECORD DESIGNING THE TRUSSES.

TRUSS CONNECTIONS TO NON-LOAD BEARING WALLS SHALL BE PER THE TYPICAL DETAILS. SLIDE CLIPS SHALL NOT BE USED UNLESS APPROVED BY THE ENGINEER.

7.4 CARPENTRY HARDWARE

- A. BOLTS SHALL BE ASTM A-307.
- B. WASHERS SHALL BE STANDARD CUT WASHERS OR MALLEABLE IRON WASHERS.
- C. ALL NAILS SHALL BE COMMON WIRE NAILS OR EQUIVALENT PNEUMATICALLY DRIVEN NAILS (P-NAILS), AMERICAN OR CANADIAN MANUFACTURER ONLY AS INDICATED BELOW. P-NAILS SHALL BE INSTALLED PER THE MANUFACTURERS GUIDELINES.

COMMON WIRE NAIL	PNEUMATIC NAIL	MINIMUM NAIL LENGTH	NAIL APPLICATION
16d COMMON	0.162" P-NAIL	3-1/2"	FRAMING
12d COMMON	0.148" P-NAIL	3-1/4"	FRAMING
N/A	0.131" P-NAIL	3 [*]	FRAMING
10d COMMON	0.148" P-NAIL	2-1/2"	SHEATHING
8d COMMON	0.131" P-NAIL	2-1/2"	SHEATHING

- D. LAG SCREWS, SHEAR PLATES
- E. ANCHORS AND CONNECTORS SHALL BE SIMPSON, USP, OR OTHER ICBO APPROVED.
- F. HARDWARE EXPOSED TO WEATHER OR TO VIEW SHALL BE GALVANIZED OR PROTECTED WITH OTHER APPROVED MEANS OF CORROSION PROTECTION. FOR ADDITIONAL REQUIREMENTS REGARDING HARDWARE IN EXPOSED CONDITIONS SEE SECTION 7.10.

7.5 MINIMUM NAILING — PER IBC TABLE 2304.9.1. — SEE SHEET S1.1

7.6 ANCHOR BOLTS

FOUNDATION PLATE OR SILL BOLTING SHALL BE PER IBC CHAPTER 23. PER IBC 2308.6 & 2304.3.1 ALL FOUNDATION PLATES OR SILLS SHALL BE BOLTED TO CONCRETE OR MASONRY WITH MINIMUM 1/2" NOMINAL DIAMETER ANCHOR BOLTS EMBEDDED AT LEAST 7" AND SPACED NOT MORE THAN 6 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES OR LESS THAN 4 INCHES FROM EACH FND OF FACH PIFCE. 3" x 3" x 0.229" WASHERS ARE REQUIRED AT ALL ANCHOR BOLTS PER AF&PA SDPWS-2008 SECTION 4.3.6.4.3 THE PLATE WASHER ARE PERMITTED TO HAVE A DIAGONAL SLOT. FOR SHEAR WALL TYPES W3 AND GREATER THE PLATE WASHER MUST EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON SIDE(S) WITH SHEATHING.

7.7 PLYWOOD/OSB SHEATHING

EACH SHEET SHALL BEAR THE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. ALL GRADING AND INSTALLATION SHALL CONFORM TO MOST CURRENT VERSION OF PS2 FOR OSB. USE THICKNESS AND NAILING AS SHOWN ON THE DRAWINGS. SHEATHING SHALL HAVE EXPOSURE RATING AS APPROPRIATE PER THE CONTRACTOR'S CONSTRUCTION AND WEATHER CONDITIONS SPECIFIED BY CONTRACTOR. EXCEPT AS OTHERWISE SHOWN OR NOTED, PROVIDE 0.131" DIA P-NAILS OR 8d COMMON NAILS AT 6" ON CENTER @ SUPPORTED PANEL EDGES AND 0.131" DIA P-NAILS OR 8d COMMON NAILS AT 12" ON CENTER ON OTHER SUPPORTING MEMBERS FOR WALLS AND ROOFS. FOR FLOORS, USE THE SAME SPACING PATTERN AS STATED FOR WALLS OR ROOF EXCEPT USE 0.148" DIA P-NAILS OR 10d COMMON NAILS.

NOTE: EQUIVALENT RATED PLYWOOD MAY BE USED IN LIEU OF OSB CALLED OUT. ALL THICKNESS AND GRADING SHALL CONFORM TO PS1 OR PS2. SHEATHING SHALL HAVE EXPOSURE RATING AS APPROPRIATE PER THE CONTRACTOR'S CONSTRUCTION AND WEATHER CONDITIONS SPECIFIED BY CONTRACTOR.

8d COMMON NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND AT 12" O.C. AT FIELD TYPICAL UNLESS NOTED OTHERWISE ON PLAN. WHERE REQUIRED, USE PLY-CLIPS INSTALLED PER MANUFACTURER'S GUIDELINES AND APA GUIDELINES. FLOOR DIAPHRAGM: 3/4" TONGUE AND GROOVE OSB (MIN PANEL INDEX = 32/16), WITH 0.148" DIA P-NAILS OR 10d COMMON NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND

AT 12" O.C. AT FIELD TYPICAL UNLESS NOTED OTHERWISE ON PLAN. SHEATHING SHALL BE

GLUE-NAILED TO FRAMING WITH APPROVED ADHESIVE PER THE ARCHITECT. FIELD NAILING SHALL BE 6" O.C. AT ALL INTERIOR SHEARWALL LOCATIONS INSTEAD OF TYPICAL 12" O.C.

ROOF DIAPHRAGM: 1/2" MIN OSB (MIN PANEL INDEX = 24/16), WITH 0.131" DIA P-NAILS OR

7.8 MANUFACTURED TIMBER BEAMS

A. GLULAMINATED TIMBER BEAMS (GLULAM BEAMS)

ALL STRUCTURAL GLUE-LAMINATED TIMBER, MATERIALS, MANUFACTURE AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH VOLUNTARY PRODUCT STANDARD P.S.56 "STRUCTURAL GLUED LAMINATED TIMBER". AND ALL MEMBERS SHALL BE MARKED WITH A QUALITY MARK THEREOF. ALL PLY LAYOUTS SHALL BE PER P.S. 56. CAMBERS ARE AS SHOWN ON THE DRAWINGS. ALL MEMBERS SHALL BE EITHER COMBINATION 24F-V4 (SIMPLE SPAN) OR 24F-V8 (CANTILEVERED OR CONTINUOUS SPAN) AS APPLICABLE. ALL MEMBERS SHALL BE ARCHITECTURAL APPEARANCE AND SHALL BE GLUED WITH WATERPROOF ADHESIVE PER P.S. 56. ARCHES SHALL BE COMBINATION 24F-V8 AND HAVE EXTERIOR GLUE, ARCHITECTURAL GRADE.

7.9 SHRINKAGE

WOOD MEMBERS WERE EVALUATED USING KILN DRIED (KD) OR SURFACE DRIED (SD) LUMBER (HEM-FIR WITH MOISTURE CONTENT = 19% OR LESS). THE FLOOR TO FLOOR COMPRESSION OF SUCH WOOD MEMBERS (PLATES AND JOISTS TOTALING 15.25") DUE TO A MOISTURE CONTENT CHANGE OF 10% WILL BE APPROXIMATELY 3/8 INCHES PER FLOOR. ADDITIONAL FLOOR TO FLOOR COMPRESSION OF WOOD STUDS DUE TO FULL COMPRESSIVE LOAD WILL BE APPROXIMATELY 1/32 INCHES PER FLOOR. ADDITIONAL COMPRESSION OF WOOD FRAMING MAY OCCUR DUE TO FRAMING TECHNIQUES AND LOCAL STRESS CONCENTRATIONS. ALL FULL BUILDING HEIGHT ELECTRICAL, MECHANICAL, AND PLUMBING SYSTEMS AS WELL AS EXTERIOR FINISHES SHOULD BE DESIGNED TO ACCOMMODATE THESE MOVEMENTS. USE OF WOOD STUDS, PLATES & JOISTS WHICH WILL HAVE MOISTURE CONTENT CHANGES GREATER THAN 10% WILL EXPERIENCE GREATER MOVEMENT. FLOOR ASSEMBLIES UTILIZING DEPTHS GREATER THAN THOSE ASSUMED ABOVE MAY EXPERIENCE GREATER MOVEMENTS. LOCALIZED HEADERS MAY EXPERIENCE SIMILAR SHRINKAGE AS DESCRIBED ABOVE.

7.10 PRESERVATIVE TREATMENT

A. PRESERVATIVE TREATMENTS

SEE ARCH FOR ALL PRESERVATIVE TREATED REQUIREMENTS AND FINISHES OF EXPOSED TIMBER MEMBERS AND AT EXTERIOR CONDITIONS.

ALL EXPOSED FRAMING LUMBER, PLYWOOD AND DECK MATERIALS SHALL BE PRESSURE TREATED PER AWPA SPECIFICATION P-5 OR OTHER APPROVED TREATMENT. ALL CUTTING AND BORING AFTER PRESSURE TREATMENT SHALL BE CARED FOR IN ACCORDANCE WITH AWPA SPECIFICATION M-4.

ACZA PRESERVATIVE TREATMENT SHALL NOT BE PERMITTED EXCEPT WHERE HARDWARE (INCLUDING NAILS) IN CONTACT WITH THE TREATED PRODUCT IS COMPOSED ENTIRELY OF STAINLESS STEEL MATERIAL. STAINLESS STEEL HARDWARE SUBSTITUTED FOR HDG PRODUCTS SHALL MEET OR EXCEED THE STRENGTH AND PERFORMANCE OF THE SUBSTITUTED HDG PRODUCT ORIGINALLY SPECIFIED.

B. GALVANIZATION OF HARDWARE (EXPOSED OR IN CONTACT WITH PRESERVATIVE TREATED WOOD)

PROTECTED ENVIRONMENT

ALL HARDWARE (HANGERS, NAILS, BOLTS, LAG SCREWS, FLASHING ETC ...) SHALL BE HOT-DIP GALVANIZED (HDG) TO A MINIMUM COATING LEVEL OF G185 (1.85 oz/ft2 OF ZINC) WHEN IN CONTACT WITH PRESERVATIVE TREATED WOOD CONTAINING PRODUCTS SUCH AS, BUT NOT LIMITED TO; CCA, ACQ, OR CBA. HDG PRODUCTS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS AS APPLICABLE; ASTM A653, ASTM A123, AND ASTM A153. WHEN USING STAINLESS STEEL OR HOT-DIP GALVANIZED CONNECTORS, THE CONNECTORS AND FASTENERS SHALL BE OF THE SAME MATERIAL.

EXPOSED ENVIRONMENT

ALL HARDWARE (INCLUDING CONNECTORS) IN CONTACT WITH PRESSURE TREATED WOOD IN AN EXPOSED OR POTENTIAL TO BE EXPOSED ENVIRONMENT (HAVING POTENTIAL FOR WIND BLOWN RAIN TO REACH) SHALL BE STAINLESS STEEL.

8.0 MECHANICAL AND EPOXY FASTENERS

A. MECHANICAL FASTENERS (PRE-DRILLED ANCHORS)

- 1. TYPICAL MECHANICAL ANCHORS WHICH ARE INSTALLED IN CONCRETE SHALL BE AS MANUFACTURED BY THE SIMPSON, INC. AND SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURERS GUIDELINES AND PER ICC REPORT ESR-1771 FOR WEDGE ANCHORS OR PER ICC REPORT ESR-2713 FOR SCREW TYPE ANCHORS OR APPROVED EQUALS.
- 2. SPECIAL CARE SHALL BE TAKEN DURING THE DRILLING / INSTALLATION OF FASTENERS WITHIN POST-TENSIONED CONCRETE. ANCHORS SHALL BE INSTALLED IN SUCH A MANNER SO AS NOT TO INTERFERE WITH / DAMAGE REINFORCEMENT.

B. EPOXY CONNECTIONS (PRE-DRILLED ANCHORS)

- 1. ADHESIVE ANCHORS SHALL BE OF THE SIZE AND LENGTH AS CALLED OUT ON THE PLANS USING THE SIMPSON SET-XP ADHESIVE ANCHORING SYSTEM PER ICC RFPORT ESR-2508 OR APPROVED EQUAL. ADHESIVE ANCHORS SHALL BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS.
- 2. ALL EPOXY ANCHORS OR FASTENERS REQUIRE SPECIAL INSPECTION.
- 3. ANCHORS SHALL BE INSTALLED IN SUCH A MANNER SO AS NOT TO INTERFERE WITH / DAMAGE REINFORCEMENT.

9.0 SPECIAL INSPECTIONS:

SPECIAL INSPECTIONS SHALL CONFORM TO SECTION 1704 OF THE 2018 IBC AND ARE REQUIRED DURING THE FOLLOWING:

- A. THE EXCAVATION OF FOOTINGS PRIOR TO CONCRETE PLACEMENT,
- B. THE TAKING OF CONCRETE TEST SPECIMENS. SEE PARAGRAPH 3.2, NOTE 4 FOR EXCEPTION WITH I'C GREATER THAN 2500 PSI.

C. THE PLACEMENT OF REINFORCING STEEL OF ALL STRUCTURAL FOOTINGS, COLUMNS,

WALLS, SLABS AND APPENDAGES, D. THE CONSTRUCTION OF THE LATERAL WOOD SYSTEM TO VERIFY APPROPRIATE ELEMENTS,

NAILING, HARDWARE & CONNECTIONS PRIOR TO FINAL APPROVAL. E. ALL EPOXY DOWELED APPLICATIONS.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE A SCHEDULE OF REQUIRED INSPECTIONS AND SHALL SUBMIT THIS SCHEDULE TO THE ARCHITECT AND ENGINEER FOR APPROVAL.

INSPECTION IS INSPECTION PERFORMED BY THE BUILDING OFFICIAL AT VARIOUS STAGES OF A PROJECT AS OUTLINED IN IBC SECTION 109 TO ENSURE COMPLIANCE TO THE BUILDING CODE. SPECIAL INSPECTION SHALL BE DONE BY AN INDEPENDENT 3RD PARTY INSPECTOR BY OWNER. WHERE IBC CHAPTER 17 (REF SECTION 1704) REQUIRES SPECIAL EXPERTISE TO ENSURE COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

STRUCTURAL OBSERVATION SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AS DEFINED IN IBC SECTION 1702. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTION AS REQUIRED BY IBC.

10.0 MISCELLANEOUS

VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO PROCEEDING. PROVIDE ERECTION BRACING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFNESS ARE INSTALLED. REFER TO ARCHITECTURAL PLANS FOR WALL OPENING, ARCHITECTURAL TREATMENT AND DIMENSIONS NOT SHOWN. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SIZE AND LOCATION OF ALL OPENINGS FOR DUCTS, PIPES, CONDUITS, ETC., NOT SHOWN.

Special Inspection required per Chapter 17 of the 2018 IBC - SUBMIT REPORTS TO INSPECTORS WITH THE CITY OF PUYALLUP

Abbreviations

AB.	ANCHOR BOLT	F.D.	FLOOR DRAIN	P.L.	PROPERTY LINE
AGGR.	AGGREGATE	FDN.	FOUNDATION	PLYWD.	PLYW00D
ALT.	ALTERNATE	F.F.	FINSH FLOOR	R.D.	ROOF DRAIN
APPROX.	APPROXIMATE	FIN.	FINISH	RE:	REFER TO
ARCH.	ARCHITECTURAL	FLR.	FLOOR	REINF.	REINFORCED
BD.	BOARD	FND.	FOUNDATION	REQ'D.	REQUIRED
BLDG.	BUILDING	F.O.B.	FACE OF BRICK	RM	ROOM
BLK	BLOCK	F.O.C.	FACE OF CONCRETE	R.O.	ROUGH OPENING
BLK'G.	BLOCKING	F.S.	FULL SIZE	SCHED.	SCHEDULE
BM.	BEAM	FT.	FOOT OR FEET	SECT.	SECTION
BOT.	BOTTOM	FTG.	FOOTING	SER	STRUCTURAL
BTWN.	BETWEEN	FURR.	FURRING	52.1	ENGINEER OR RECOR
C.J.	CONTROL JT.	GA.	GAUGE	S.F.	SQUARE FOOT
CLR.	CLEAR	GALV.	GALVINIZED	SHT.	SHEET
C.M.U.	CONCRETE	GR. GYP.	GRADE	SIM.	SIMILAR
	MASONRY	GYP. BD.	GYPSUM GYPSUM BOARD	SPEC.	SPECIFICATION
COL.	APRIMU			SQ.	SQUARE
CONC.	CONCRETE	HT.	HEIGHT HEATING, VENT AND	S.S.	STAINLESS STEEL
CONN.	CONNECTION	HVAC	AIR CONDITIONING	STAGG.	STAGGERED
CONSTR.	CONSTRUCTION	I.D.	INSIDE DIAMETER	STD.	STANDARD
CONT.	CONTINUOUS	INSUL.	INSULATION	STIFF	STIFFENER
CSE	COMPONENTS STRUCTURAL ENGR	INJUL. INT.	INTERIOR	STL.	STEEL
DEC				STRUC.	STRUCTURAL
DEG. DET./DTL.	DEGREE	JNT.	JOINT	TR	TREAD
,		JST.	JOIST	T & B	TOP AND BOTTOM
DIAG. DIA. ø	DIAGONAL DIAMETER	MAX.	MAXIMUM	T & G	TONGUE & GROOVE
DIA. Ø	DOWN	MFR.	MANUFACTURER	THK.	THICK
DN. DWG.	DRAWING	MIN.	MINIMUM	T/	TOP OF
(E)	EXISTING	MISC.	MISCELLANEOUS	, TYP.	TYPICAL
EA.	EACH	M.O.	MASONRY OPENING	U.N.O.	UNLESS NOTED
E.J.	EXPANSION JOINT	MTL.	METAL		OTHERWISE
E.I.F.S.	EXTERIOR INSULATION	NO.	NUMBER	VER	VERIFY
2.1.1 .0.	AND FINISH SYSTEM	N.T.S.	NOT TO SCALE	VERT.	VERTICAL
EL. ELEV.	ELEVATION	O.C.	ON CENTER	W/	WITH
ELEV.	ELEVATION	O.D.	OUTSIDE DIAMETER	w/o	WITHOUT
EQ.	EQUAL	OH.	OVERHEAD	Q.	CENTERLINE
EQUIP.	EQUIPMENT	OPG.	OPENING	PL	PLATE
E.W.	EACH WAY	OPP.	OPPOSITE		
EXP.	EXPANSION	PCT.	PRE-CAST		
EXT.	EXTERIOR				

Sheet Index

Revisions*

Sheet Contents

Foundation & Basement Floor Framing Plans - Bldg A

Foundation & Basement Floor Framing Plans - Bldg B

Foundation & Basement Floor Framing Plans - Bldg D

Foundation & Basement Floor Framing Plans - Bldg E

Foundation & Basement Floor Framing Plans - Bldg F

Foundation & 2nd Floor Framing Plans - Bldg G

Foundation & 2nd Floor Framing Plans - Bldg H

Foundation Plans - Trash Enclosure & Recycle Centers

TOTAL NUMBER OF SHEETS

* LATEST INDIVIDUAL SHEET REVISION ISSUED

3rd Floor & Roof Framing Plans - Bldg G

Sheet

S1.0

S2.6

S2.7

S3.0

S4.0

S5.0

Structural Notes

Holdown Details

Special Inspection Tables

Shearwall & Holdown Tables & Details

2nd & 3rd Floor Framing Plans - Bldg A

2nd & 3rd Floor Framing Plans - Bldg B

3rd Floor & Roof Framing Plans - Bldg C

2nd & 3rd Floor Framing Plans - Bldg D

Roof Framing Plan & Notes - Bldg D

S2.12 2nd & 3rd Floor Framing Plans - Bldg E

S2.13 | Roof Framing Plan & Notes - Bldg E

S2.15 2nd & 3rd Floor Framing Plans - Bldg F

S2.20 3rd Floor & Roof Framing Plans - Bldg H

Concrete Details

Concrete Details

raming Details

raming Details

Framing Details

Framing Details

Foundation Plan - Recreation Building

Roof Framing Plan - Recreation Building

S2.16 | Roof Framing Plan & Notes - Bldg F

Foundation & 2nd Floor Framing Plans - Bldg C

Roof Framing Plan & Notes - Bldg B

Roof Framing Plan & Notes - Bldg A

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-20 20

SUBMITTAL SET ONLY NOT FOR CONSTRUCTION THESE DRAWINGS ARE SUBJECT TO REVISIONS PENDING LOCAL JURISDICTIONAL REVIEW.

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WIND PRESSURE TABLE FOR

COMPONENTS & CLADDING (ASD)

2018 International Building Code — Statement of Special Inspection

AL/ TYPE PECTION	IBC CODE	REFERENCE	FRE	QUENCY APPLICA	DLE	
PECTION	DECEDENCE			ACTION AND FIGH	NDLE	
ECTION		STANDARD		to this projec	Γ	SCOPE OF SERVICE
	REFERENCE	STAINDAND	CONT.	PERIODIC	REQUIRED	SCOPE OF SERVICE
reparation reparation	Table 1705.6 Item 5	1	-	Х	N/A	Inspection to determine that the site has been prepared in accordance with the approved soils or geotechnical report.
	Table 1705.6 Item 4	-	X	-	YES	Inspection to determine that the materials being used and maximum lift thicknesses comply with the approved report as specified in Section 1804.2.
in-place Density	Table 1705.6 Item 3	-		X	YES	Tests to determine, at the approved frequency, that the in-place dry density of the compacted fill complies with the approved report.
nd Foundations	1805.1 - 1805.9 Table 1705.6 Item 1	-	_	X	YES	Confirm soils suitable for the design allowable soil bearing pressure are present at bearing grade. Confirm the footing dimensions are as specified on the project plans.
ition Depth	Table 1705.6 Table 1705.6 Item 2	-	-	Х	YES	Confirm excavation are extended to proper depth and have reached proper materials.
	Fill — During reparation in—place Density nd Foundations ation Depth	Fill - During reparation Table 1705.6 Item 4 in-place Density Table 1705.6 Item 3 1805.1 - 1805.9 Table 1705.6 Item 1 Table 1705.6 Item 1	Fill — During reparation Table 1705.6 Item 4 — in—place Density Table 1705.6 Item 3 — nd Foundations 1805.1 — 1805.9 Table 1705.6 Item 1 — Table 1705.6 — Table 1705.6	Fill - During reparation	Fill - During reparation	Fill - During reparation Table 1705.6 Item 4 - X - YES in-place Density Table 1705.6 Item 3 - X YES nd Foundations 1805.1 - 1805.9 Table 1705.6 Item 1 - - X YES

2018 International Building Code - Statement of Special Inspection CONCRETE CONSTRUCTION

MATERIAL/ TYPE	IBC CODE	REFERENCE	FR	REQUENCY APPLICATO THIS PROJECT		SCOPE OF SERVICE
INSPECTION	REFERENCE	STANDARD	CONT.	PERIODIC	REQUIRED	
Materials	1705.3.1, Table 1705.3 Item 1	Applicable ASTM material spec.; AISC 360, Section A3.3	-	X	YES	Manufacturer's Certificates of Compliance or Tests per Chapter 3 of ACI 318, per ASTM A 706, and per 1705.3.1
Installation of Reinforcing Steel	1910.4 Table 1705.3 Item 1	ACI 318:3.5; 7.1 – 7.7	-	X	YES	Inspection to confirm compliance with details shown on approved Construction Documents, Shop Drawings, ACI 318 and Code Section 1910.4
Welding of Reinforcing Steel	Table 1705.3 Item 2	AWS D1.4, ACI 318:3.5.2	-	-	N/A	Observation of reinforcing steel welding in accordance with Table 1705.2.2, Item 2, (see attached steel construction table).
Bolt Installation	1908.5, 1901.1 Table 1705.3 Item 3	ACI 318: 8.1.3, 21.2.8	X	-	YES	Observation of anchor bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.
Formwork	Table 1705.3 Item 12	ACI 318:6.1.1	ı	X	YES	Inspection for compliance with ACI 318, Section 6.1, 6.2, for shape, location and dimensions of concrete member being formed.
Concrete Strength	1910.10, Table 1705.3 Item 6	ASTM C 172, ASTM C 31, ACI 318:5.6, 5.8	-	X	NO	Evaluation of Concrete strength in accordance with ACI 318, Section 5.6 and in accordance with the requirements of IBC 1905.6.
Concrete Mixes	1904.2, 1910.2, 1910.3 Table 1705.3 Item 5	ACI 318: 4, 5.2-5.4	-	X	YES	Inspection for use of proper mix proportions and techniques, ACI 318, Chapter 4, Sections 5.2 — 5.4.
-	-		-	-	-	-
Concrete Sampling	1910.10 Table 1705.3 Item 6	ASTM C 172, ASTM C 31, ACI 318:5.6, 5.8	Х	-	MO	
Concrete Placement	1910.6, 1910.7, 1910.8, Table 1705.3 Item 7	ACI 318:5.9, 5.10	Х	-	YES	Inspection for proper application techniques; ACI 318, Sections 5.9 and 5.10
Curing Temperatures and Techniques	1910.9 Table 1705.3 Item 8	ACI 318: 5.11-5.13	-	X	NO	Inspection for maintenance of curing temperatures and techniques; ACI 318, Sections 5.11, 5.12 and 5.13.
Prestressed Concrete: Application Prestressing Forces	Table 1705.3 Item 9a	ACI 318: 18.20, ACI 18.18.4	Х	-	NO	Field inspections of precast concrete members in accordance with ACI 318, Section 18.20.
Prestressed Concrete: Grouting of unbonded prestressing tendons in seismic—force—resisting system	Table 1705.3 Item 9b	ACI 318: 18.20, ACI 18.18.4	Х	-	NO	Field inspections of precast concrete members in accordance with ACI 318, Chapter 18.18.4.
Manufacture of Precast Concrete	1704.2.1	-	-	Х	NO	Certificate from Independent Agency and current agreement for periodic (minimum 6 month intervals) in—plant quality assurance inspections.
Erection of Precast Concrete	Table 1705.3 Item 10	ACI 318: 16	-	Х	NO	Field inspections of precast concrete members in accordance with ACI 318, Chapter 16.
Post Tensioning	Table 1705.3 Item 11	ACI 318: 6.2	-	Х	NO	Verification of in—situ concrete strength, prior to stressing of tendons in post—tensioned concrete and prior to removal of shores and forms for beams and structural slabs in accordance with ACI 318, Section, 6.2.
Post Installed Anchors	1909.1, Table 1705.3 Item 11	ACI 318: 3.8.6, 8.1.3, 21.1.8	-	Х	YES	Verification of anchors post installed in hardened concrete members.

OUD CONSTRUCTION										
MATERIAL/ TYPE INSPECTION	IBC CODE REFERENCE	REFERENCE STANDARD		EQUENCY APPLICA TO THIS PROJECT		SCOPE OF SERVICE				
INSFECTION	NEI ENENGE STANDAND		CONT.	PERIODIC	REQUIRED					
Fabrication — Inspection of Fabricator's Quality Control Procedures	1704.2.5	-	-	X		Certificate from Independent Agency and current agreement for periodic (minimum 6 month intervals) in—plant quality assurance inspections.				

2018 International Building Code — Statement of Special Inspection

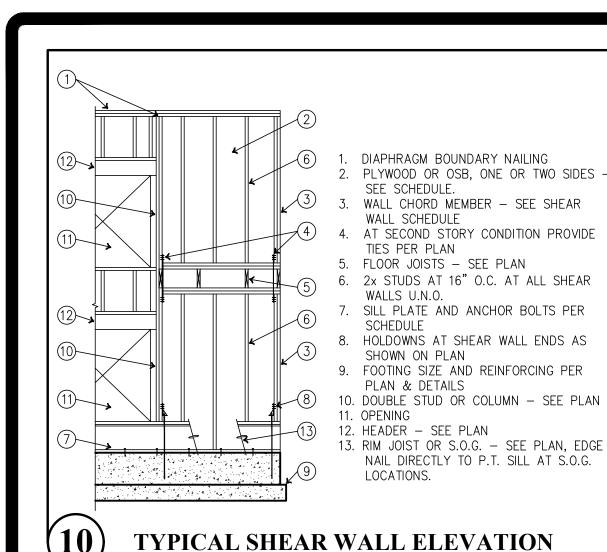
MATERIAL/ TYPE INSPECTION	IBC CODE REFERENCE	REFERENCE STANDARD	FREQUENCY APPLICABLE TO THIS PROJECT			SCOPE OF SERVICE	
INSPECTION	REFERENCE	STANDARD	CONT.	PERIODIC	REQUIRED		
Structural Steel	1705.11.1	AISC 341	Х	-	N/A	Observation of structural welding in accordance with AISC Seismic. Not required for 5/16" single pass fillet welds or welding of metal deck.	
Structural Wood: Inspection of field gluing operations of elements of the seismic force resisting system.	1705.11.2	-	Х	-	N/A	Inspection of field gluing operations of elements of the seismic force resisting system.	
Structural Wood: Inspection of nailing, bolting, anchoring and other fastening components the seismic force resisting system, including drag struts, braces and hold—downs.	1705.11.2	-	-	Χ	YES	Inspection of nailing, bolting, anchoring and other fastening components within the seismic force resisting system, including drag struts, braces and hold—downs. Not required for nailing o.c. spacing greater that 4" o.c	
Cold—formed Steel Framing	1705.11.3	-	-	Х	NO	Inspection of welding operations of elements of the seismic force resisting system.	
Cold—formed Steel Framing	1705.11.3	-	-	X	NO	Inspection of screw attachments, bolting, anchoring and other fastening components within the seismic force resisting system, including struts, braces and hold—downs.	

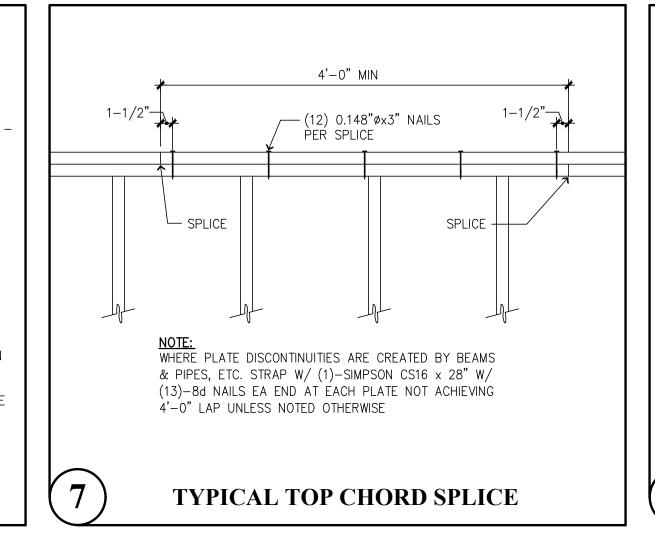
International	Building	Code	_	Statement	of	Special	Inspection	
TUDAL ADOL	DIVITIONIC							

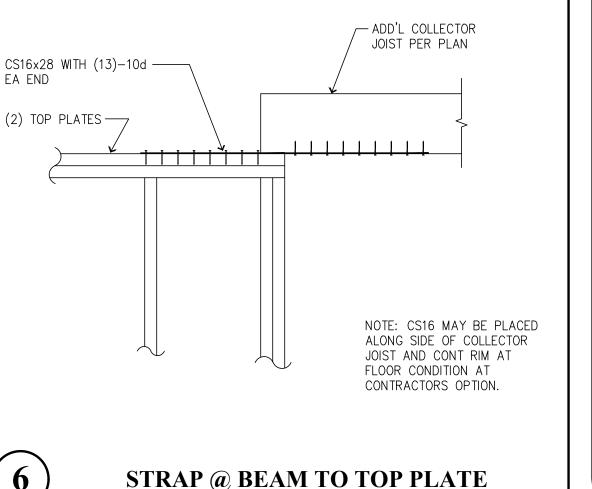
STRUCTURAL: OBSERVATIONS							
MATERIAL/ TYPE INSPECTION	IBC CODE REFERENCE	REFERENCE STANDARD	FREQUENCY APPLICABLE TO THIS PROJECT			SCOPE OF SERVICE	
INSI ECITOR	NEI ENENOE		CONT.	PERIODIC	REQUIRED		
Strucutral Observations	1704.5	-	-	X		Structural observations to be preformed to observe general conformance to the construction documents.	
			-				

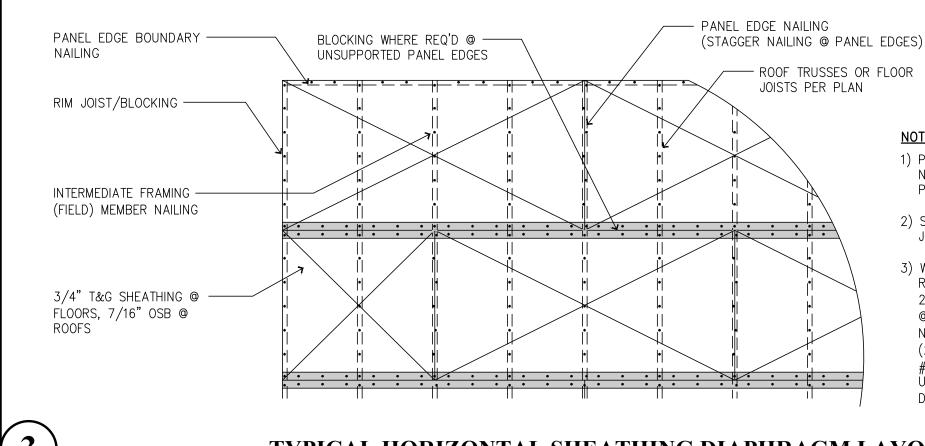
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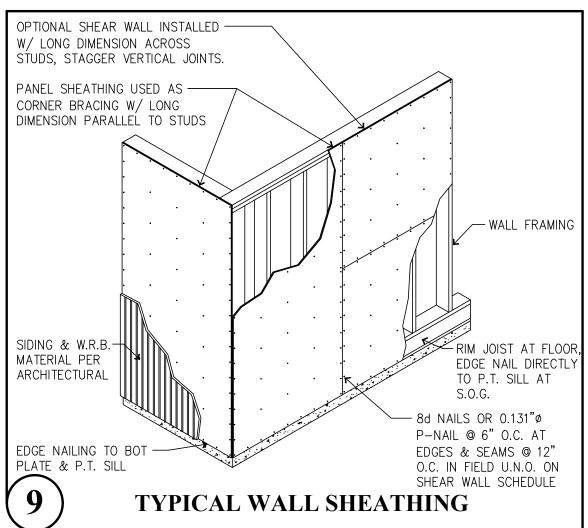


1) PROVIDE APA APPROVED GLUE, NAIL ALL SHEATHING TO JOISTS PER GENERAL NOTES ON S1.0.

2) STAGGER PANELS TO OFFSET JOINTS AS SHOWN.

3) WHERE BLOCKED DIAPHRAGM IS REQUIRED, PROVIDE TIMBER BLKG 2x4 FLAT (MIN) BELOW SHEATHING @ UNSUPPORTED EDGES W/ EDGE NAILING OR PROVIDE 3" x 27mil (22GA) x CONT STEEL STRAP W/ #8 SCREWS @ 6" O.C. TO EA UNSUPPORTED PANEL EDGE PER DETAIL 7/S1.3.

TYPICAL HORIZONTAL SHEATHING DIAPHRAGM LAYOUT



EA SIDE

SINGLE STRAP CONNECTION

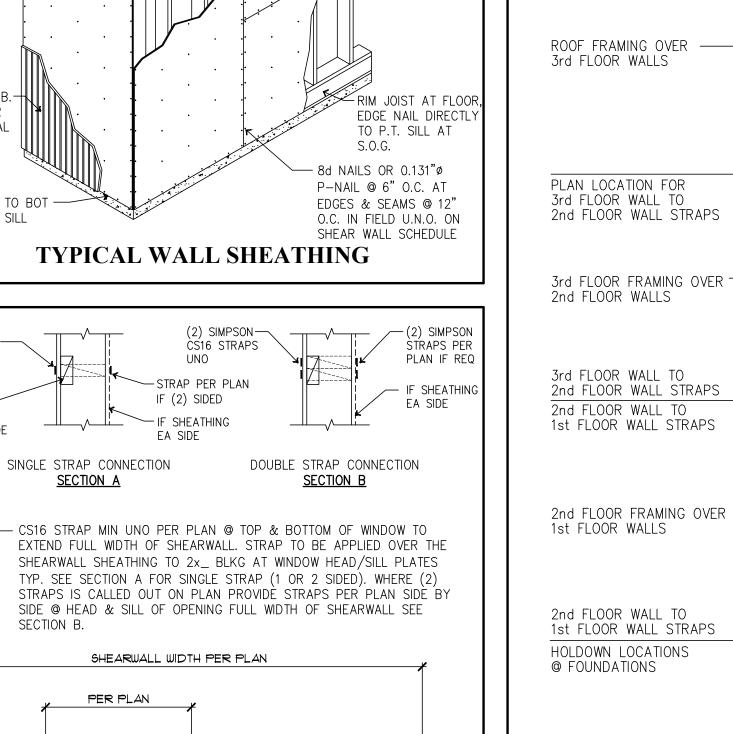
SECTION A

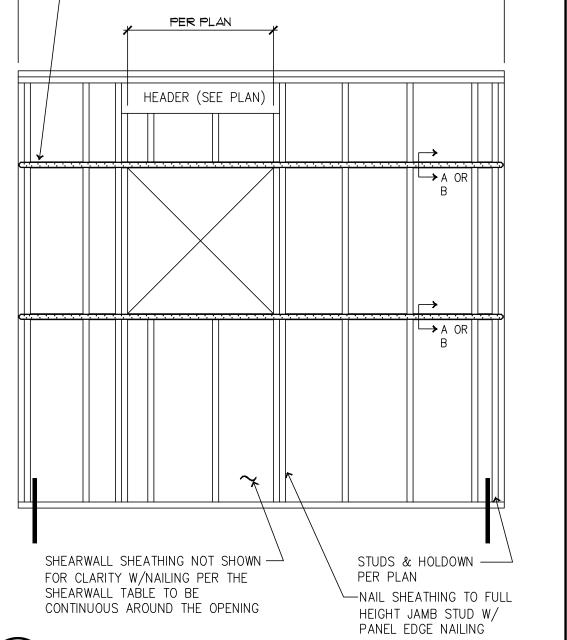
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STRAP PER

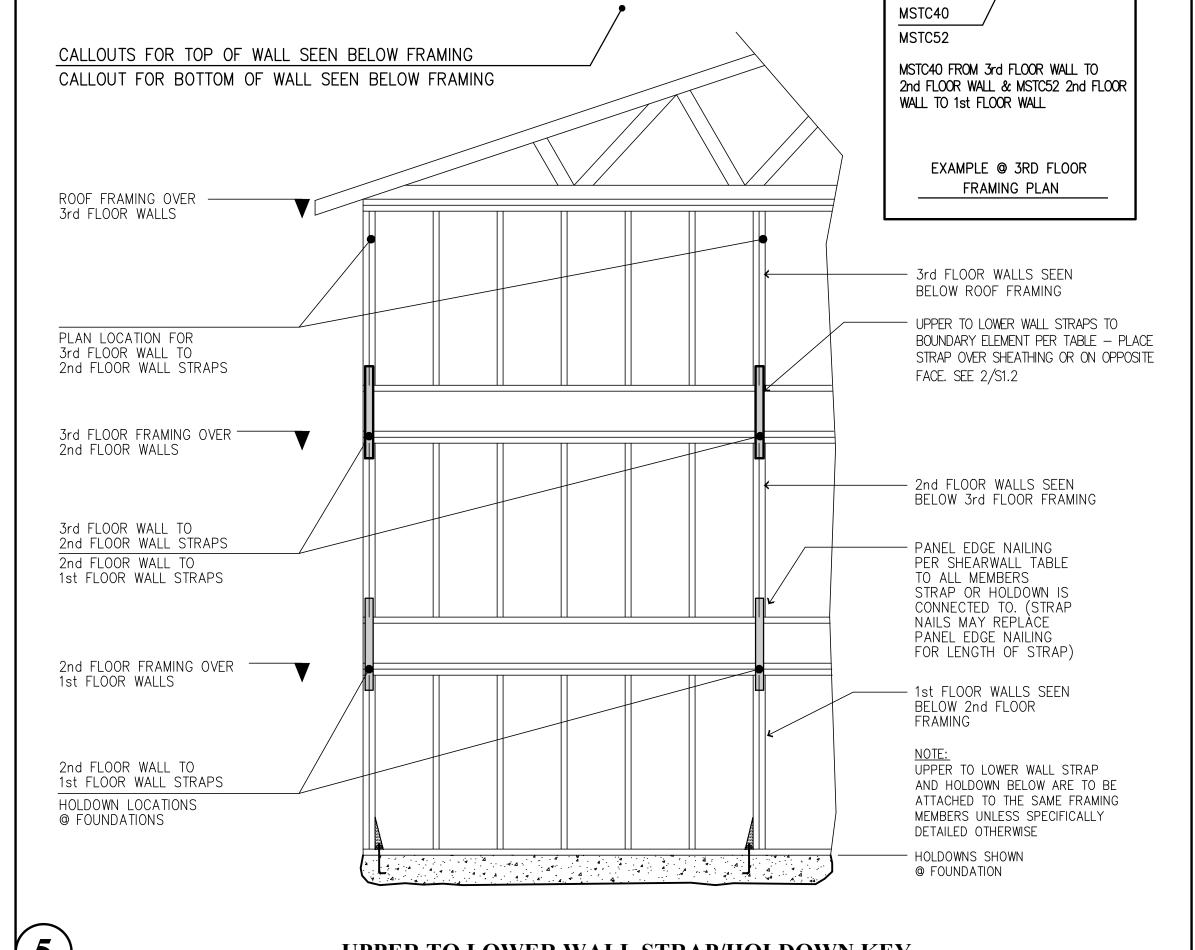
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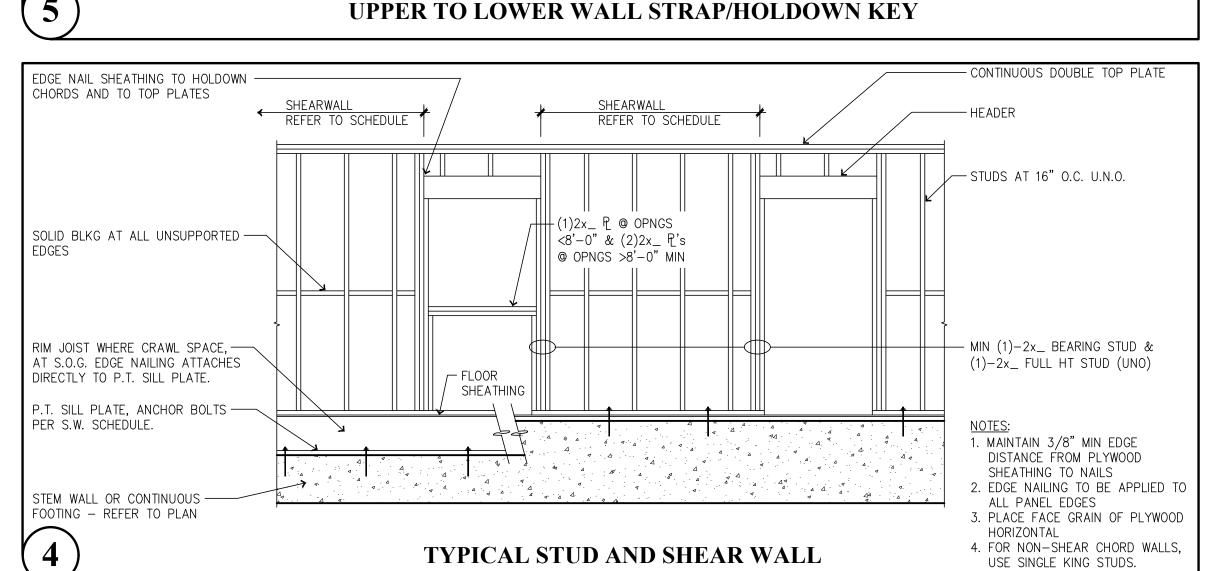
IF SHTG EA SIDE





SPECIAL SHEARWALL WITH OPENINGS





MARK	BOUNDAR` 2x4 WALL	Zx6 WALL	TOTAL FASTENERS	ANCHOR DIAMETER	ANCHOR EMBEDMENT	MIN EDGE DISTANCE WITHOUT ADD'L REINF
MST37	4x4 #2 HF	4x6 #2 HF	(20) 16d	N/A	N/A	N/A
MST48	4x4 #2 HF	4x6 #2 HF	(32) 16d	N/A	N/A	N/A
(2)MST48	4x6 #2 HF	6x6 #2 DF	(46) 16d	N/A	N/A	N/A
MST60	4x6 #2 HF	4x6 #2 HF	(64) 16d	N/A	N/A	N/A
(2)MST60	4x6 #2 HF	6x6 #2 DF	PER MFR	N/A	N/A	N/A
HDU2	4x4 #2 HF	4x6 #2 HF	PER MFR	5/8"	8"	4"
HDU4	4x4 #2 HF	4x6 #2 HF	PER MFR	5/8"	8"	4"
HDU5	4x6 #2 HF	4x6 #2 HF	PER MFR	5/8"	8"	8"
HDU8	4x6 #2 DF	6x6 #2 DF	PER MFR	7/8"	12"	8"
HDU11	4x6 #2 DF	6x6 #2 DF	PER MFR	1"	12"	12"
HDU14	4x8 #2 DF	6x6 #2 DF	PER MFR	1"	12"	16"

1) STRAP HOLDOWNS MAY BE APPLIED DIRECTLY TO BOUNDARY MEMBER ON OPPOSITE SIDE OF SHEATHING OR APPLIED DIRECTLY OVER PWD/OSB SHEATHING. DO NOT LOCATE STRAPS UNDER WOOD SHEATHING OF ANY TYPE OR OVER GYPSUM SHEATHING. (DO NOT INSTALL MSTC TYPE STRAPS OVER SHEATHING, SEE 4/S1.3) 2) NAIL SHEATHING PER SHEARWALL TABLE TO EACH BOUNDARY ELEMENT PER TABLE ABOVE.

3) ALIGN FLOOR TO FLOOR STRAPS WITH HOLDOWNS AT FOUNDATION, TYP. (SEE DETAIL 5/S1.2)

- 4) HOLDOWNS/STRAPS MUST BE ATTACHED TO FULL HEIGHT MEMBERS UNLESS NOTED OTHERWISE. BOUNDARY ELEMENTS ARE IN ADDITION TO TRIMMER/BEARING STUDS CALLED OUT ON PLAN. (SEE DETAILS 1,2 & 3/S1.3)
- 5) ANCHOR BOLTS SHALL BE CAST IN PLACE AND ALL ANCHORS EXCEPT HDU2 AND HDU4 REQUIRE ADDITIONAL REBAR IF EMBEDDED IN STEMWALLS OR IF MIN EDGE DISTANCE IS LESS THAN AS NOTED USE A STANDARD WASHER WITH A STANDARD NUT ON EACH SIDE AT BOTTOM OF ANCHOR. ADDITIONAL REINFORCEMENT SHALL BE PER DETAILS

6) THREADED RODS/ANCHORS ARE ASTM A307 OR ASTM F1554 U.N.O.

7) STRAPS/HOLDOWNS SHALL BE INSTALLED WITH THE FASTENERS SPECIFIED BY THE MANUFACTURER TO ACHIEVE THE MAXIMUM TABULATED LOAD & AS INDICATED IN THE

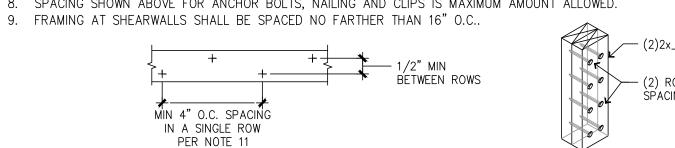
8) INSTALL HALF OF SPECIFIED FASTENERS EACH END OF STRAPS PER SIMPSON STRONGTIE.

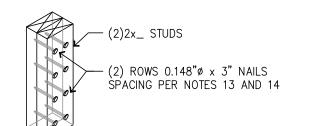
9) SEE DETAIL 4/S1.3 FOR MSTC - HOLDOWN STRAPS FROM SHEARWALL TO BEAM & DETAIL 6/S1.3 FOR MSTC - HOLDOWN STRAPS @ END OF BEAM TO POST/COLUMN. (*) SYMBOL AT END OF MSTC STRAP CALLOUT (i.e. (2)MSTC48B3*) INDICATES STRAP IS INVERTED AND ATTACHES END OF BEAM TO POST BELOW PER

SHEARWALL COMPONENT TABLE										
MARK	14 MARK	COMPONENTS	1/2" A.B. PL TO CONCRETE SPACING (IN)	5/8" A.B. PL TO CONCRETE SPACING (IN)	10d COMMON PL TO PL SPACING (IN)	SIMPSON A35 CLIP ANGLE SPACING (IN)	SIMPSON LTP4 CLIP ANGLE SPACING (IN)			
	W1P	7/16" PWD OR OSB, BLOCKED, W/ 8d NAILS @ 6" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD.	47" O.C.	68" O.C.	8.1" O.C.	30" O.C.	29" O.C.			
W2	W2P	7/16" PWD OR OSB, BLOCKED, W/ 8d NAILS @ 4" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD.	32" O.C.	47" O.C.	5.5" O.C.	20" O.C.	20" O.C.			
	W3P	7/16" PWD OR OSB, BLOCKED, W/ 8d NAILS @ 3" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD. SEE NOTE 2	25" O.C.	36" O.C.	4.3" O.C.	16" O.C.	15" O.C.			
W4	W4P	7/16" PWD OR OSB, BLOCKED, W/ 8d NAILS @ 2" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD. SEE NOTE 2	19" O.C.	28" O.C.	6.6" (2) ROWS 6.6" O.C. EA ROW	12" O.C.	12" O.C.			
W5	W5P	7/16" PWD OR OSB, BLOCKED, W/ 10d NAILS @ 2" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD. SEE NOTE 2.	16" O.C.	23" O.C.	(2) ROWS 5.6" O.C. EA ROW	10" O.C.	10" O.C.			
W6	W7P	15/32" PWD OR OSB, (2) LAYERS (ONE EACH SIDE), BLOCKED, W/ 10d NAILS @ 3" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD. SEE NOTE 2. 3 & 15	12" O.C.	18" O.C.	(2) ROWS 4.3" O.C. EA ROW	8" O.C.	8" O.C.			
W7\	W7P	15/32" PWD OR OSB, (2) LAYERS (ONE EACH SIDE), BLOCKED, W/ 10d NAILS @ 2" O.C. @ PANEL EDGES AND @ 12" O.C. @ FIELD. SEE NOTE 2, 3, & 15	9" O.C.	14" O.C.	(2) ROWS 3" O.C. EA ROW STAGGERED	5" O.C.	5" O.C.			

- 1. ALL NAILING PER ANSI/AF & PA SDPWS 2018 TABLE 4.3A
- . USE 3x_ STUDS AT ALL ABUTTING PANEL EDGES. NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED AT 2"O.C.. IF CALLOUT REQUIRES BLOCKING, SHEATHING MAY BE PLACED WITH THE LONGITUDINAL DIRECTION VERTICAL. STUDS AND PLATES WILL BE CONSIDERED TO ACT AS BLOCKING.
- 4. WALL SHEATHING CALLED OUT SHALL EXTEND FOR ENTIRE WALL LENGTH AT THAT ELEVATION AND SHALL BE CONTINUOUS AROUND OPENINGS TYPICALLY.
- 5. 8d NAILS ARE TO BE .131"Ø AND 2-1/2" IN LENGTH. 10d NAILS ARE TO BE .148"Ø AND A MINIMUM OF 3" IN LENGTH. 16d NAILS ARE TO BE .162"Ø AND 3-1/4" IN LENGTH. NAILS SHALL BE INSTALLED SO AS TO NOT SPLIT THE TIMBER FRAMING.
- 6. SIMPSON A35 OR LTP4 CLIP ANGLES SHALL BE INSTALLED WITH THE APPROPRIATE FASTENERS PER THE MANUFACTURER'S SPECIFICATIONS
- 7. USE 3"x3"x0.229" PLATE WASHERS AT ALL ANCHOR BOLTS PER SECTION 4.3.6.4.3

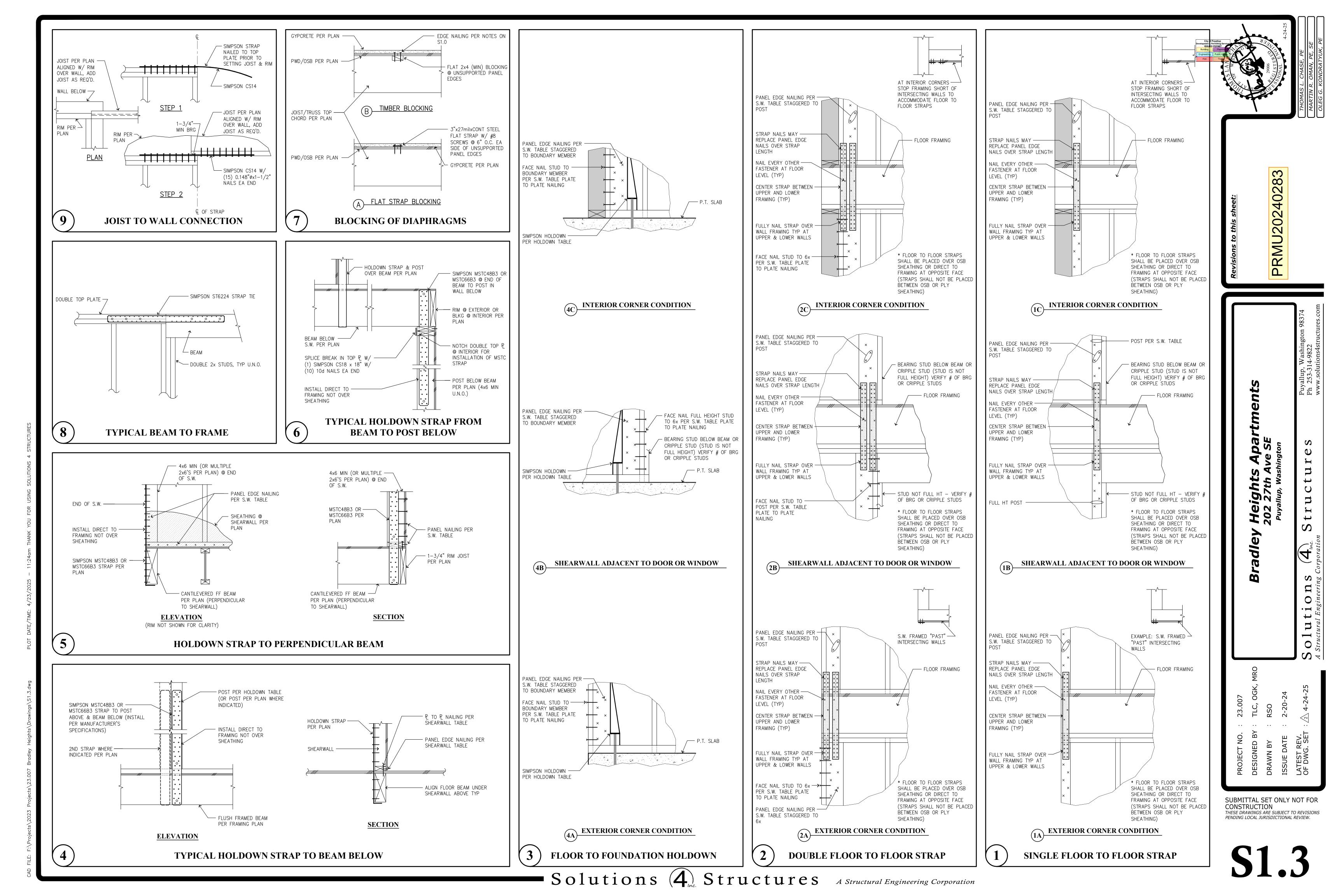
8. SPACING SHOWN ABOVE FOR ANCHOR BOLTS, NAILING AND CLIPS IS MAXIMUM AMOUNT ALLOWED.

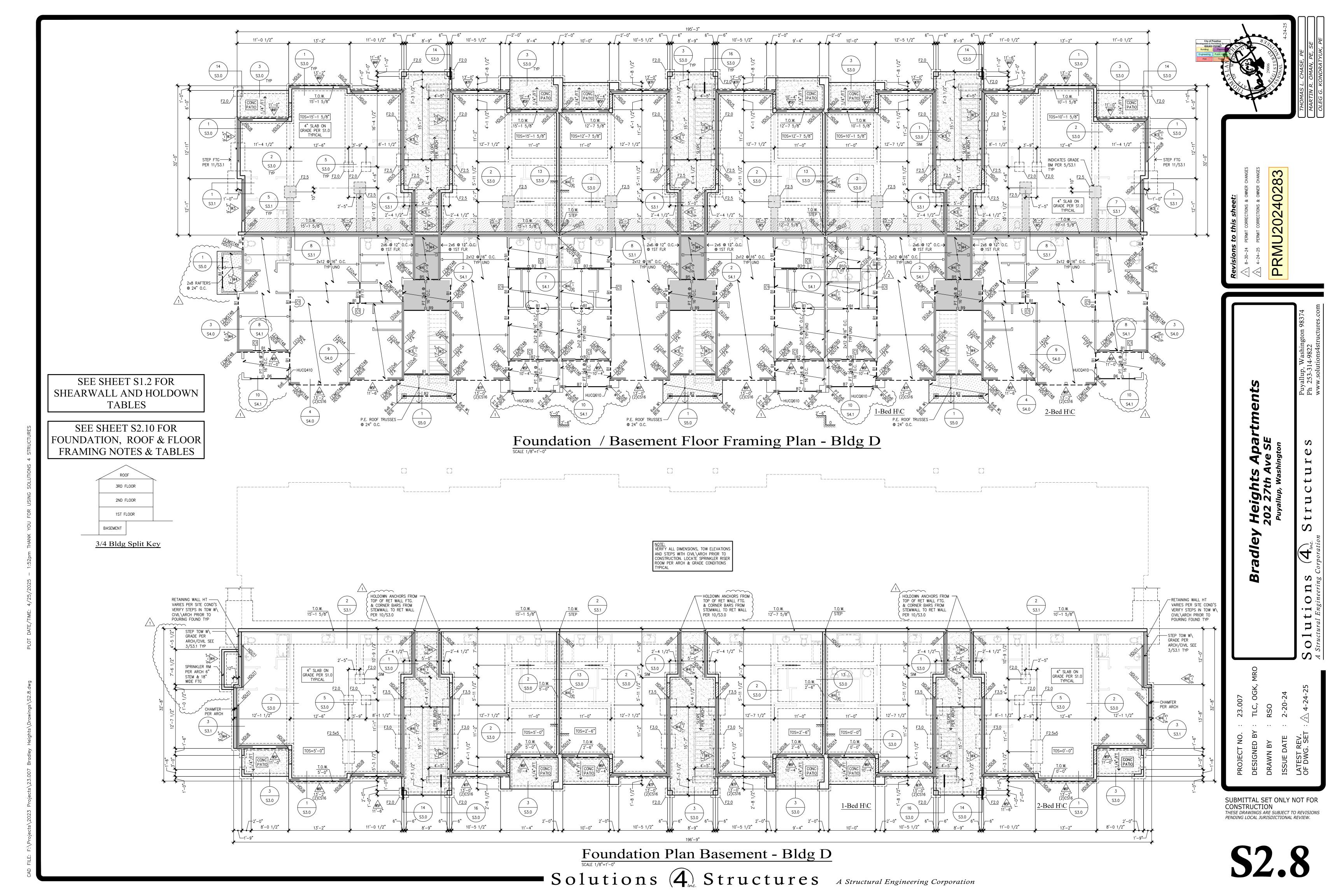


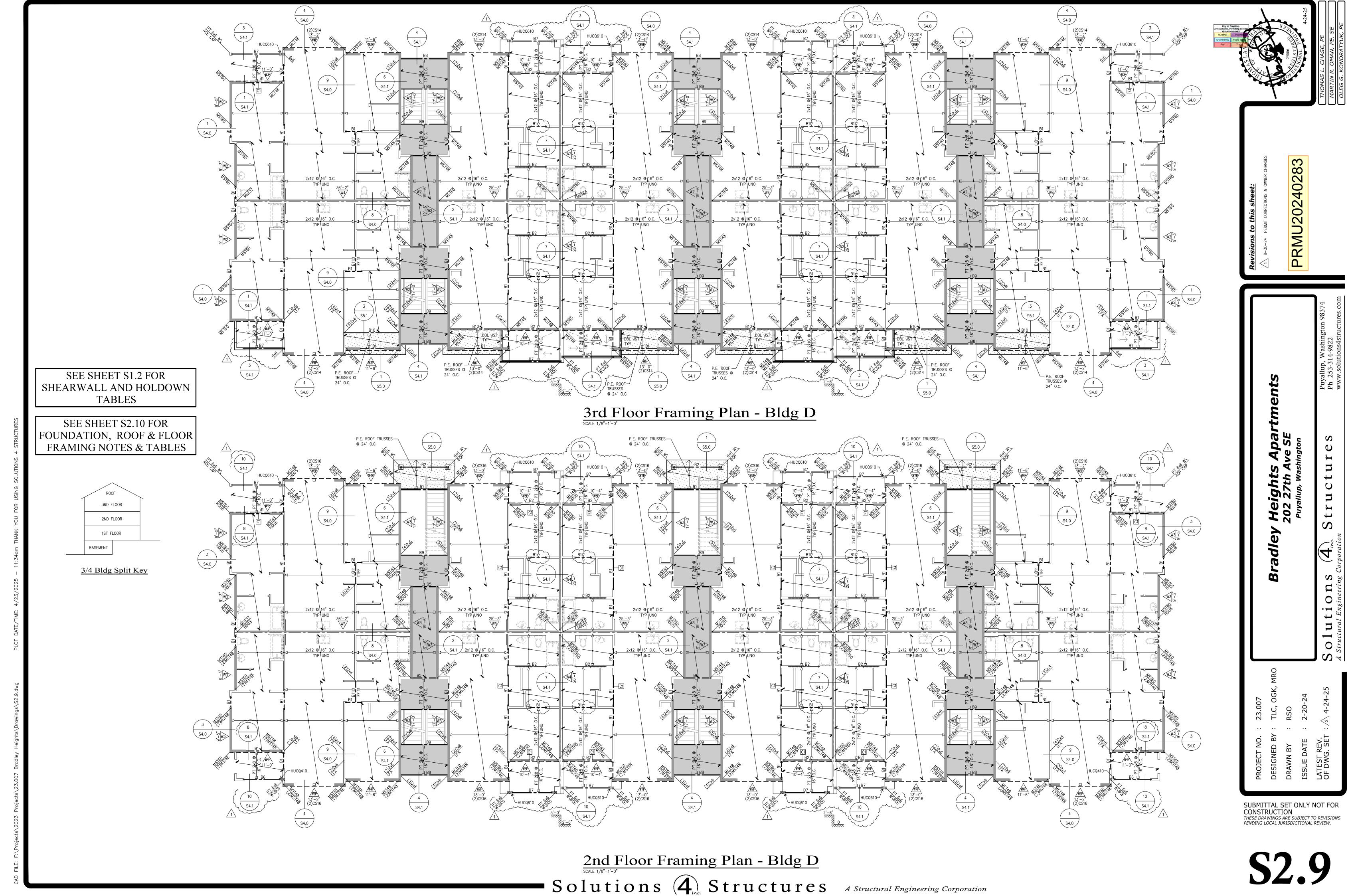


- 10. MINIMUM NAIL SPACING IN A SINGLE ROW SHALL BE 4 INCHES ON CENTER. USE (2) ROWS IF SPACING LESS THAN THIS. USE 2ND RIM BOARD, RIM JOIST OR BLOCKING WHERE THREE ROWS OF NAILING CALLED OUT.
- 11. EXTEND SHEATHING UP TO DOUBLE TOP PLATES AND INSTALL NAILS THROUGH SHEATHING INTO UPPER TOP PLATE PER TYPICAL DETAILS. NO PLATE TO PLATE NAILING REQUIRED IN DOUBLE TOP PLATES WITH THIS CONFIGURATION.
- 12. OPTIONAL TO USE (2) 2x's IN PLACE OF SINGLE 3x IN SHEARWALLS W3, W4 AND W5 W/ STITCH NAILING. 13. (2) ROWS OF 0.148" x 3" STITCH NAILING (2)2x_ STUDS TOGETHER @ 10" O.C. FOR W3 SHW, 8" O.C. FOR W4 SHW & 6" O.C. FOR W5 SHW PER SECTION 4.37 NOTE 4. 14. THE "W_P" INDICATES SHEAR WALL TYPE WITH OPENINGS. PROVIDE SHEATHING AROUND ALL OPENINGS AND ABOVE AND BELOW ALL OPENINGS. PROVIDE HORIZONTAL STRAPS & NAILING AT OPENINGS PER 8/S1.2

SUBMITTAL SET ONLY NOT FOR CONSTRUCTION THESE DRAWINGS ARE SUBJECT TO REVISIONS PENDING LOCAL JURISDICTIONAL REVIEW.







- FOR ALL UNIT TYPES SEE WALL STUD SCHEDULE FOR BEARING WALL STUD REQUIREMENTS. ALL OTHER NON-BEARING 2x4 & 2x6 WALLS ARE AT 16" O.C.
- THE TRUSS AND JOIST MANUFACTURER SHALL VERIFY BEARING COMPATIBILITY (CRUSHING) WITH THE PLATE MATERIAL. TYPICALLY, COMPOSITE BEAMS SHALL BE FULLY BEARING ON 2x_ WALLS. I.E. BREAK RIM OR BLOCKING TO ALLOW FULL BEARING OVER PLATES.
- PLACE LONG DIRECTION OF ALL OSB SHEETS PERPENDICULAR TO TRUSS/RAFTER OR JOIST DIRECTION, SEE DETAIL 3/S1.2. FLOOR SHEATHING IS TO BE CONTINUOUS FROM UNIT TO UNIT. TYPICAL NAILING AT FLOOR AND ROOF DIAPHRAGMS IS PROVIDED IN THE GENERAL STRUCTURAL NOTES ON SHEETS S1.0.
- W-DENOTES THE SHEARWALL TYPE, SEE THE SHEARWALL TABLE ON SHEET S1.2 INDICATES SHEARWALL LOCATION, THE CALLOUTS ON THE SHEARWALL TABLE APPLY ONLY ALONG THE LENGTH OF WALL SHOWN SHADED. PROVIDE SOLID BLOCKING IN FLOOR SPACE BELOW PERPENDICULAR SHEARWALLS. W_P INDICATES SHEAR WALL TYPE WITH OPENINGS. PROVIDE SHEATHING AROUND ALL OPENINGS AND ABOVE AND BELOW ALL OPENINGS. PROVIDE

HORIZONTAL STRAPS & NAILING AT OPENINGS PER 8/S1.2

- THE DOUBLE TOP PLATE IS TO BE CONTINUOUS ALONG ALL EXTERIOR WALLS AND AT ALL WALL LINES CONTAINING SHEARWALLS. TYPICAL WALL TOP PLATE SPLICES SHALL BE PER DETAIL 7/S1.2 TYP.
- WHERE COMPOSITE JOISTS AND BEAMS ARE USED AS DRAG STRUTS THE MANUFACTURER SHALL PROVIDE THE FRAMING MEMBERS WITH THE CAPACITY CALLED OUT ON THE PLANS.
- TYPICAL FLOOR JOISTS SHALL BE 2x12 HF#2 MIN @ 16" O.C. TYP U.N.O. THE MANUFACTURER SHALL BE RESPONSIBLE FOR ALL JOIST AND BEAM HANGERS. WEB STIFFENERS, SOLID BLOCKING, AND ADDITIONAL RIM OR JOIST MATERIAL TO ACCOMMODATE FLUSH-FRAMED CONDITIONS (F.F.), CANTILEVERED CONDITIONS, CONCENTRATED BEARING LOADS AND NAILING FROM SHEARWALLS ABOVE AND
- F.F. = FLUSH-FRAMED BEAM. VERIFY FLUSH OR DROPPED BEAM CONDITION PER ARCHITECT.
- 10. ALL BEAMS PER SCHEDULE U.N.O. ALL NON BEARING BEAMS SHALL BE A MIN OF (2)2x8 U.N.O. ALL OTHER BEAMS ARE AS MARKED ON PLANS.

ROOF

3RD FLOOR

2ND FLOOR

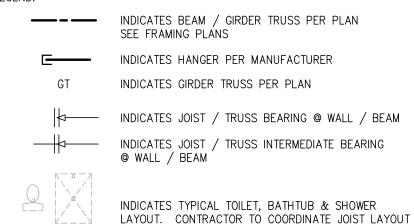
1ST FLOOR

3/4 Bldg Split Key

Floor & Roof Framing Notes

- 11. AT ALL BEAM BEARING/JAMB LOCATIONS, AT MINIMUM PROVIDE BEARING (TRIMMER) STUDS AND FULL HEIGHT (KING) STUDS PER THE JAMB STUD SCHEDULE FOR EACH BUILDING. IF NO CALLOUT, PROVIDE (1) 2X_ BEARING AND (1) 2X_ FULL HEIGHT STUD MINIMUM.
- 12. EXPOSED FRAMING SHALL BE PRESSURE TREATED (P.T.) VERTICAL & HORIZONTAL FRAMING @ WATERPROOFED WALKWAYS AND PRIVATE DECKS. ALL EXPOSED BEAM HANGERS SHALL BE POST HOT-DIPPED GALVANIZED AND HAVE CONCEALED FLANGES, VERIFY W/ ARCHITECT. SEE NOTE ON SHEET S1.0
- 13. FOR TYPICAL HOLDOWN ASSEMBLIES SEE THE HOLDOWN TABLE ON 2/S1.2 AND DETAILS ON SHEET S3.0.
- 14. SEE ARCHITECTURAL PLANS FOR STAIR FRAMING DETAILS & STAIR FRAMING DETAILS AND NOTES, CONTROL JOINTS IN CONCRETE FLOORING AND ROOF VENTILATION REQUIREMENTS AND DETAILS.
- 15. SEE CIVIL AND ARCHITECTURAL PLANS FOR TOP OF WALL HEIGHTS AND ELEVATIONS. SEE ARCHITECTURAL PLANS FOR DIMENSIONS. WHERE DIMENSIONS ARE SHOWN ON THE STRUCTURAL PLANS, CONTRACTOR SHALL VERIFY COMPATIBILITY W/ ARCHITECTURAL PLANS. WHERE DISCREPANCY EXISTS, CONTRACTOR SHALL NOTIFY BOTH THE ENGINEER AND ARCHITECT FOR
- 6. WINDOW SUPPLIER TO VERIFY THAT WINDOW AND WINDOW FRAMES TRANSFER WIND LOADS EVENLY TO STRUCTURAL FRAMING ON ALL 4 SIDES OF WINDOW. WINDOW SUPPLIER TO VERIFY MINIMUM .005*H STORY DRIFT TOLERANCE IN PLANE OF ALL WINDOWS AND ALLOW FOR L/240 DEFLECTION (PERPENDICULAR) AT WINDOW MULLIONS.

17. SEE GENERAL STRUCTURAL NOTES ON S1.0 TO S1.3 FOR ADDITIONAL INFORMATION. 18. LEGEND:



FRAMING CONFLICTS.

WITH FIXTURE LOCATIONS TO AVOID PLUMBING &

INDICATES ROOF OVERFRAMING - SEE DETAILS 5/S5.0

20. PROVIDE WALL FIREBLOCKING @ DROPPED SOFFITS SHOWN ON ARCH.

I. PROVIDE WALL BLOCKING FOR ALL WALL MOUNTED EQUIPMENT (SUCH AS TOWEL BARS, GRAB BARS, TOILET PAPER HOLDERS, DOOR STOPS, ETC.).

22. LFA INDICATES - LOAD FROM ABOVE 23. FF INDICATES FLUSH FRAMED BEAM

~~~~

COND U.N.O.

U.N.O. @ DECKS

P.T. 2x8 JOISTS @ 16" O.C. TYP

P.T. 2x10 JOISTS @ 16" O.C. TYP

U.N.O. @ STAIR LANDINGS

JOIST (CONTINUOUS) OVER -

BEARING WALL/HEADER

24. NDICATES STRAP HOLDOWN, SEE SHEET 2/S1.2 FOR HOLDOWN TABLE % UPPER TO LOWER WALL STRAP/HOLDOWN KEY.

26. SIMPSON STRONG TIE PRODUCTS ARE CALLED OUT ON THE DRAWINGS. HOWEVER, EITHER SIMPSON OR KC METALS PRODUCTS MAY BE USED PROVIDED IT HAS SAME OR GREATER CAPACITY.

Framing Key

#### В3 6x10 DF #2 B4 $3-1/8 \times 10-1/2$ GLB 25. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FLOOR ELEVATIONS. P.T. 4x8 B5 P.T. 4x10 В6 P.T. 6x10 HF#1 В7 В8 P.T. $3-1/8 \times 10-1/2$ GLB В9 P.T. 5-1/8 x 10-1/2 GLB 5-1/8x10-1/2 GLB OR 5-1/4x11-7/8 PSL B10 4x12 OR 3-1/2x11-7/8 LSL B11 ~~~~~ ALL JOISTS ARE 2x12 HF#2 MIN ALL MULTIPLE 2x HEADERS HF #2 U.N.O. @ 16" O.C. TYPICAL U.N.O. USE ALL 4x HEADERS HF #2 U.N.O. FACE MOUNT HANGER @ F.F. ALL 6x HEADERS/BEAMS D.F.#2 U.N.O.

ALL EXPOSED 6x BEAM / POSTS H.F. #1

- INDICATES CANTILEVER

HANGER @ FLUSH

FRAMED BEAM OR

JOISTS STOP & START

(NOT CONTINUOUS)

LEDGER

P.T. HEM-FIR TREATED PER ARCH.

MARK

B1

B2

|                          | J   | amb | Stuc | l Sch | edul | e   |   |   |
|--------------------------|-----|-----|------|-------|------|-----|---|---|
| TYPE                     | C1  | C2  | С3   | C4    | C5   | C6  | - | - |
| BEARING/FULL HT<br>STUDS | 1/2 | 1/3 | 2/1  | 2/2   | 2/3  | 2/4 | - | _ |

SEE SHEET S1.2 FOR SHEARWALL

AND HOLDOWN TABLES

Beam Schedule

BEAM SIZE

4x8

4x10

|                  | Wall Stud Schedule |                |                              |                          |                                 |  |  |  |  |
|------------------|--------------------|----------------|------------------------------|--------------------------|---------------------------------|--|--|--|--|
| FRAMING<br>LEVEL | 2x6 EXTERIOR       |                | 2x6 BRG INT @<br>PARTY WALLS | 2x4 BRG ©<br>Single Wall | 2x4 BRG <b>©</b><br>Party Walls |  |  |  |  |
| R00F             | 2x6 @ 16" O.C.     | 2x6 @ 16" O.C. | 2x6 @ 16" O.C.               | 2x4 HF#2 @ 16" O.C.      | 2x4 HF#2 @ 16" O.C              |  |  |  |  |
| 3RD              | 2x6 @ 16" O.C.     | 2x6 @ 16" O.C. | 2x6 @ 16" O.C.               | 2x4 HF#2 @ 16" O.C.      | 2x4 HF#2 @ 16" O.C              |  |  |  |  |
| 2ND              | 2x6 @ 16" O.C.     | 2x6 @ 16" O.C. | 2x6 @ 16" O.C.               | (2)2x4 HF#2 @ 16" O.C.   | 2x4 HF#2 @ 16" O.C              |  |  |  |  |
| BASEMENT         | 2x6 @ 16" O.C.     | 2x6 @ 12" O.C. | 2x6 @ 16" O.C.               | (2)2x4 HF#2 @ 12" O.C.   | 2x4 HF#2 @ 16" O.C              |  |  |  |  |
| NOTES:           |                    |                |                              |                          |                                 |  |  |  |  |

ALL STUD MATERIAL SHALL BE HEM FIR STUD GRADE OR BETTER UNLESS NOTED OTHERWISE AND PLATE MATERIAL SHALL BE HEM FIR STANDARD OR BETTER UNLESS NOTED OTHERWISE. STUDS CALLED OUT IN THIS SCHEDULE ARE FOR WALL SUPPORTING THE FRAMING LEVEL INDICATED, THAT IS WALLS BELOW THE FRAMING LEVEL SHOWN. THIS SCHEDULE COVERS BUILDING UNITS 3 STORIES IN HEIGHT. FIRST, DETERMINE THE NUMBER OF STORIES FOR THE UNIT, SECOND, DETERMINE THE FRAMING LEVEL, THIRD, READ SCHEDULE HORIZONTALLY FOR THE WALL LOCATION.

#### Foundation Notes

16. TYPICAL PERIMETER FOOTING SHALL BE LOCATED A MIN. 18" BELOW TYPICAL DIMENSIONS ARE TO FACE OF WALL OR TO CENTERLINE OF COLUMN OR FOOTING. VERIFY ALL DIMENSIONS & ELEVATIONS WITH THE ARCHITECT. GRADE OR AS REQUIRED BY LOCAL JURISDICTION.

PROVIDE FOOTING SUBSTRATE PREPARATION PER THE SOILS REPORT.

6. F-.- INDICATES ISOLATED FOOTING TYPICAL ISOLATED FTG SHALL BE

EXTEND ALL CONTINUOUS FOOTINGS AT END WALLS 1'-0" MIN. BEYOND

FOOTING W/ STEEL REINFORCING 3" CLR. OF SOIL UNLESS NOTED OTHERWISE

END OF ALL BEARING WALLS & SHEARWALLS. (TYPICAL) UNO

ADD STRIP DRAINS AT FACE OF BUILDINGS WHEN WALKS SLOPE

REINFORCEMENT IN STEMWALLS AND FOOTINGS. (TYPICAL)

PROVIDE #4-24" x 24" CORNER BARS TO MATCH ALL HORIZONTAL

FLOOR SLABS - 4" CONC. SLAB ON GRADE 6x6 - W1.2xW1.2 WWF @

10. PATIO SLABS - 4" CONC. W/ THICKENED EDGES. SLOPE AWAY FROM

CENTER-LINE OR FIBER MESH PER MANUFACTURER OVER SUBSTRATE PER SOILS

ENGINEER, USE WWF WHERE INDICATED. PROVIDE CONTROL JOINTS PER DETAIL

. ALL THICKENED SLABS FOR BEARING WALLS AND PARTY WALLS SHALL BE 18"

WIDE x 12" DEEP W/ (2) #4 BARS CONTINUOUS UNLESS NOTED OTHERWISE.

DEEPEN LOCALLY AT HOLDOWNS TO OBTAIN EMBEDMENT DEPTH +3" MIN.

. ALL THICKENED EDGE SLABS SHALL BE 8" WIDE  $\times$  8" DEEP W/ (1) #4 BAR

CONTINUOUS (3" FROM BOTTOM) UNLESS NOTED OTHERWISE. SEE 3/S3.0.

13.  $\frac{\sqrt{W-\lambda}}{W}$  DENOTES THE SHEARWALL TYPE, SEE THE SHEARWALL TABLE ON SHEET

S1.2 INDICATES SHEARWALL LOCATION, THE CALLOUTS ON THE

SHEARWALL TABLE APPLY ONLY ALONG THE LENGTH OF WALL SHOWN SHADED.

PROVIDE SOLID BLOCKING IN FLOOR SPACE BELOW PERPENDICULAR SHEARWALLS

/W\_P\ INDICATES SHEAR WALL TYPE WITH OPENINGS. PROVIDE SHEATHING

INDICATES HOLDOWN, SEE 2/S1.2 FOR HOLDOWN TABLE & UPPER

AROUND ALL OPENINGS AND ABOVE AND BELOW ALL OPENINGS. PROVIDE

HORIZONTAL STRAPS & NAILING AT OPENINGS PER 8/S1.2

15. VERIFY ALL TOP OF SLAB ELEVATIONS AND BUILDING STEPS WITH

TO LOWER WALL STRAPS HOLDOWN/KEY.

ARCH/CIVIL PLANS TYPICAL..

CONSTRUCTED PER FOOTING SCHEDULE 5/S3.0.

TOWARD BUILDING, CONNECT TO TIGHTLINE.

15/S3.0 AT THE DIRECTION OF THE ARCHITECT.

9. ENTRY SLABS - 4" CONC. SLAB (BROOM FINISH)

BUILDING AT 1/4"/FT. SEE 3/S3.0

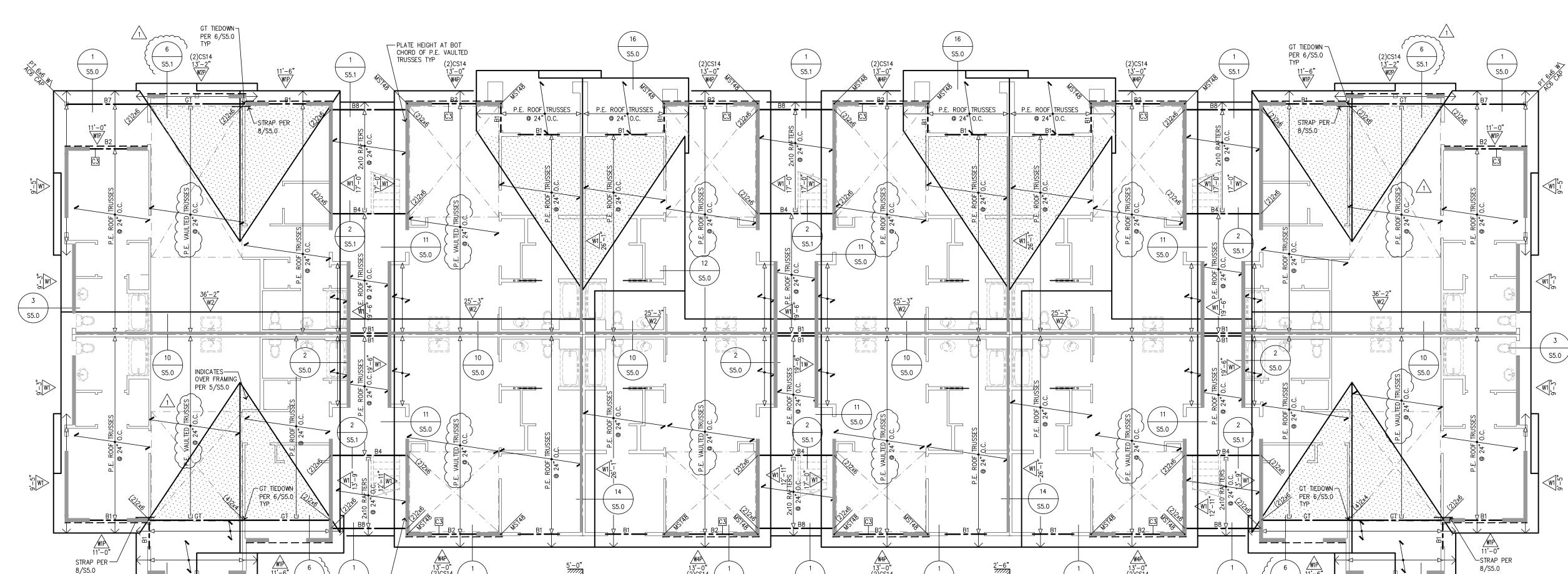
- 17. SEE DETAILS FOR TYPICAL STEMWALL/FOOTING & THICKENED SLAB CONSTRUCTION.
- 18. T.O.W. = TOP OF STEMWALL T.O.F. = TOP OF FOOTINGT.O.S. = TOP OF SLAB
- 19. SEE THE GENERAL STRUCTURAL NOTES ON SHEET S1.0 FOR ADDITIONAL INFORMATION. . ALL EXTERIOR WALLS SHALL HAVE AN 8" STEMWALL AND A 18" WIDE x 8" DEEP
  - 20. VERIFY WITH CIVIL GRADING PLAN FOR GARAGE SLAB ELEVATION @ GARAGE
  - 21. DEEPEN FOOTINGS AS NECESSARY TO MAINTAIN MINIMUM COVER. COORDINATE WITH CIVIL GRADING PLAN FOR GRADE CONDITIONS.
  - 22. INDICATES DEPRESSED TOP OF STEMWALL AT DOORWAY. POUR SLAB OVER SEE 4/S3.0.
  - 23. ALL INTERSECTING FOOTINGS / STEM WALLS SHALL HAVE CORNER BARS TO MATCH HORIZ REINFORCEMENT SEE 10/S3.0

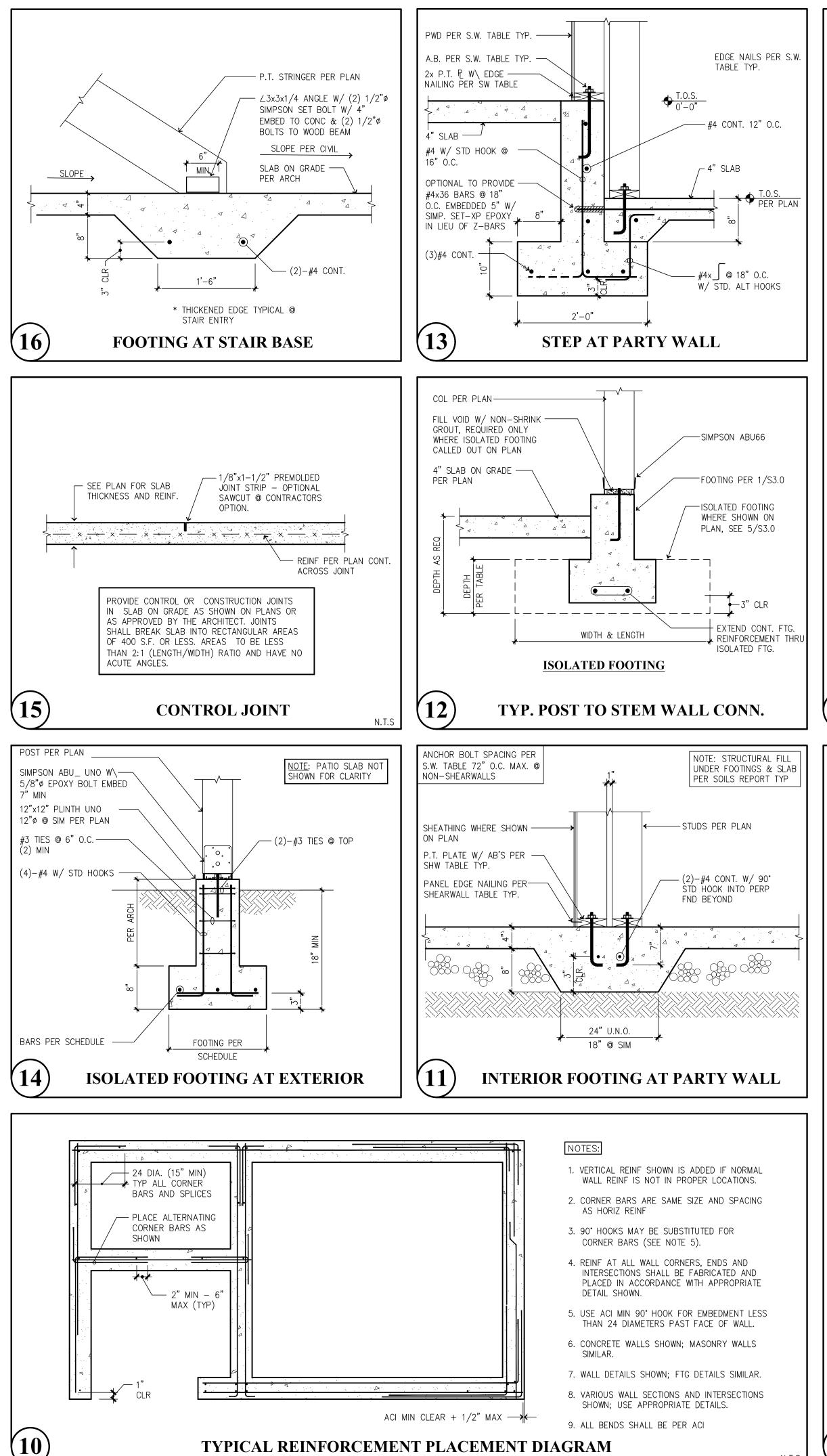
SUBMITTAL SET ONLY NOT CONSTRUCTION HESE DRAWINGS ARE SUBJECT TO REVISION PENDING LOCAL JURISDICTIONAL REVIEW

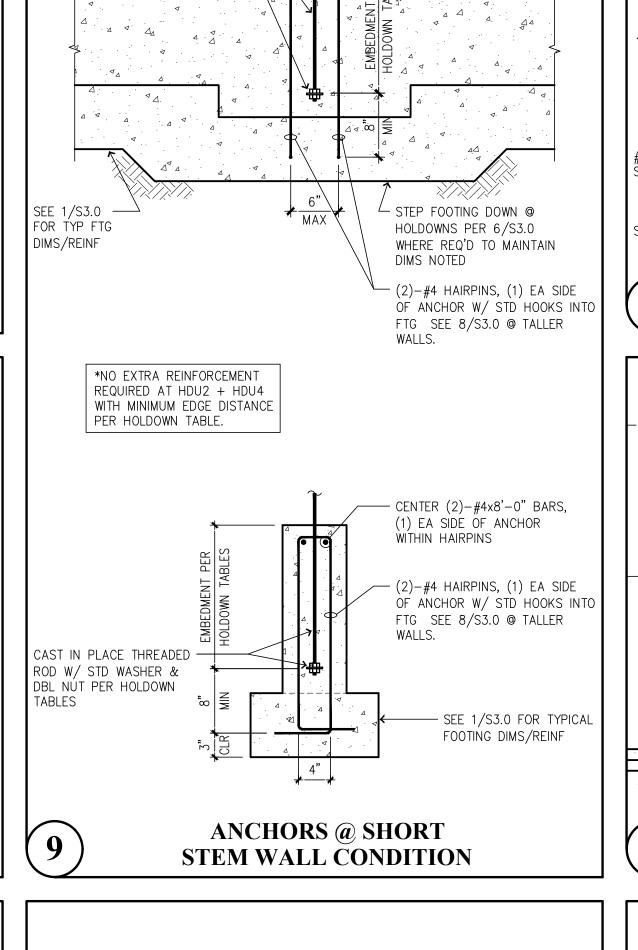
Roof Framing Plan - Bldg D

Solutions 4. Structures A Structural Engineering Corporation

S2.10







— CENTER (2)-#4x8'-0"

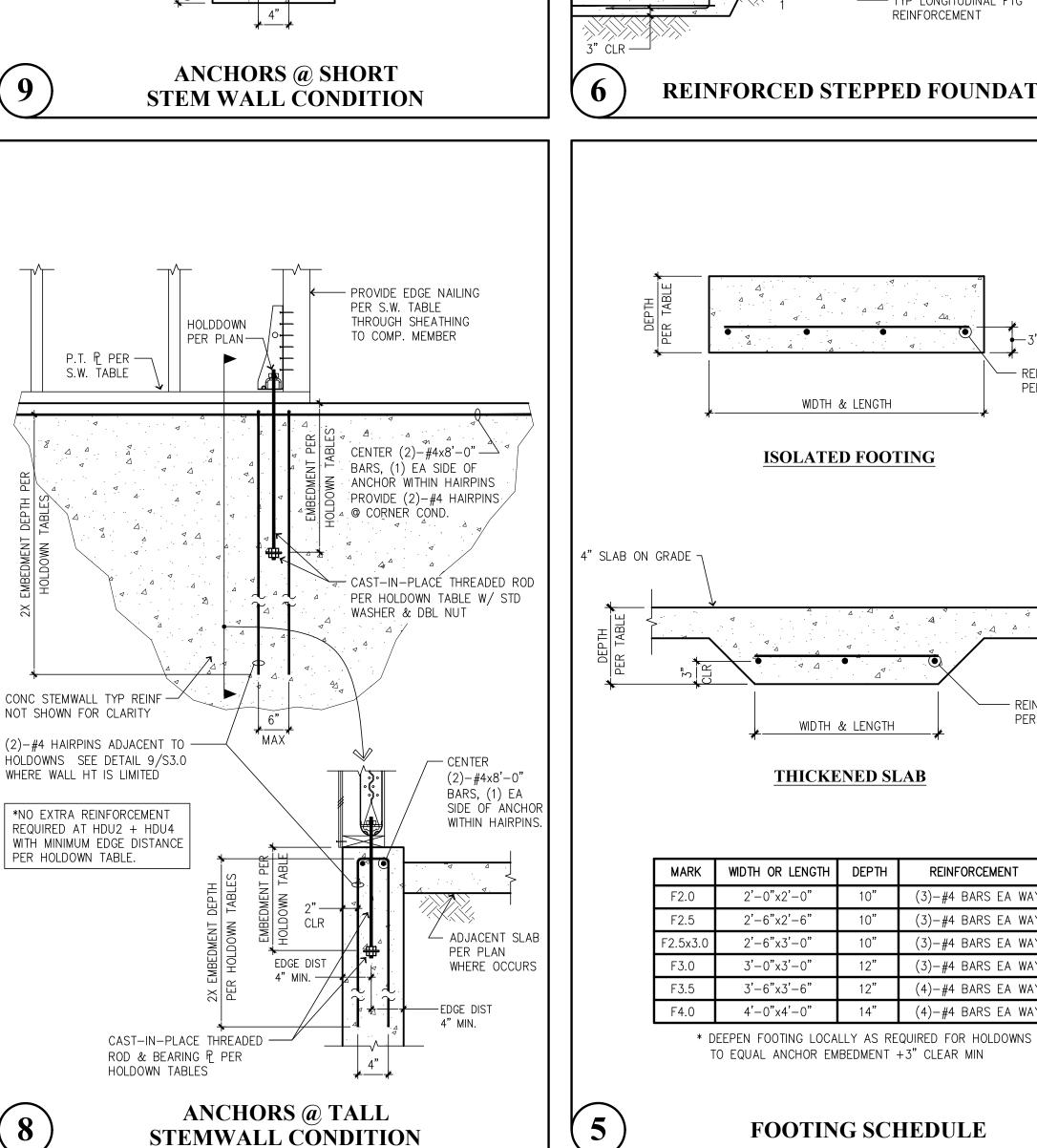
BARS, (1) EA SIDE OF

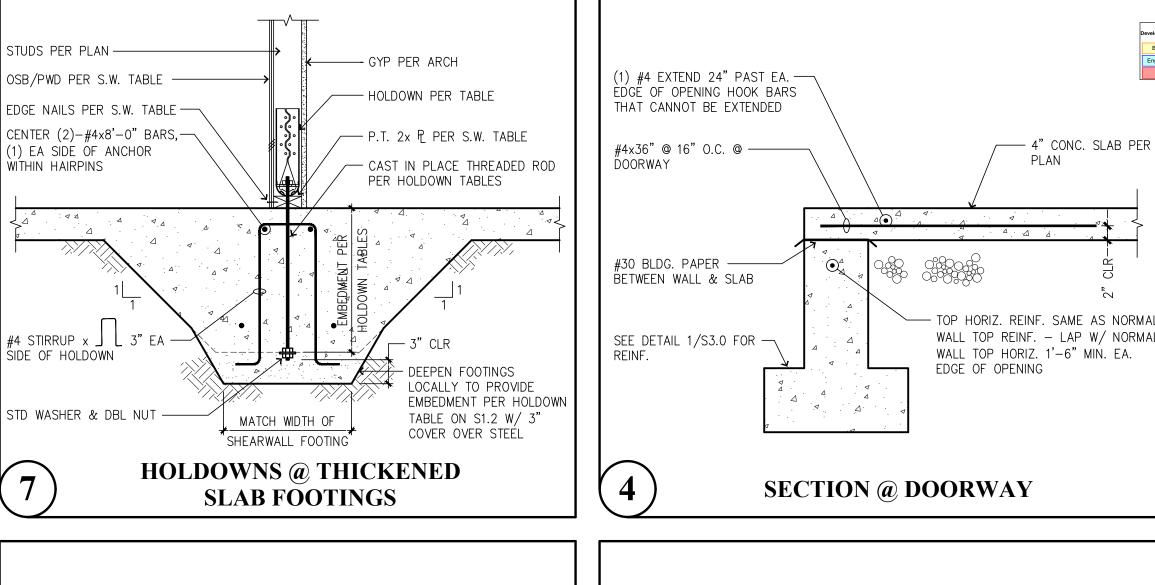
ANCHOR WITHIN HAIRPINS

CAST IN PLACE THREADED  $-\!-\!$ 

ROD W/ STD WASHER & DBL

NUT PÉR HOLDOWN TABLE





 REINFORCEMENT PER TABLE

REINFORCEMENT

PER TABLE

REINFORCEMENT

(3)-#4 BARS EA WAY

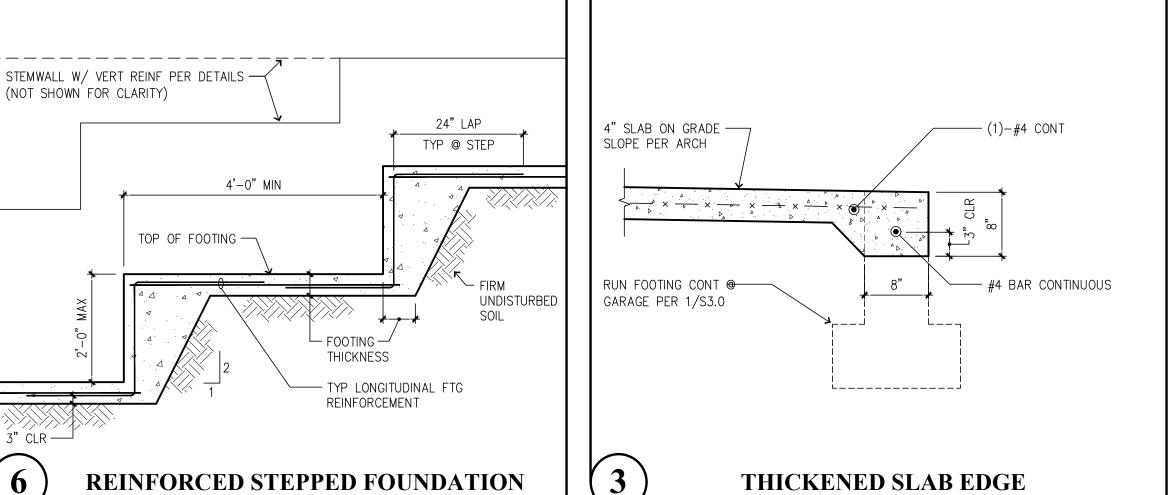
(3)-#4 BARS EA WAY

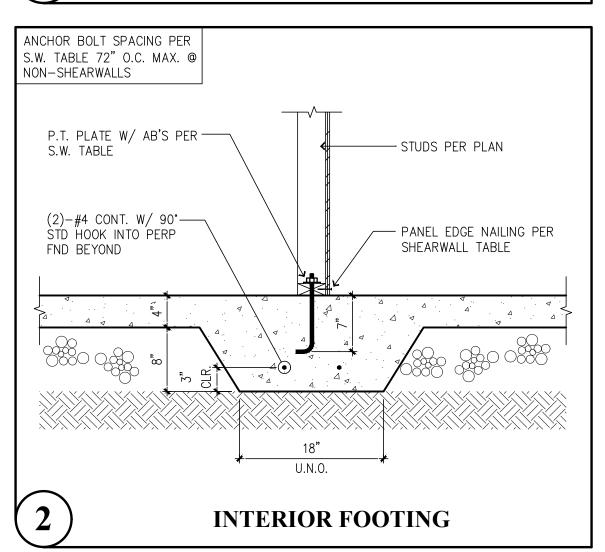
(3)-#4 BARS EA WAY

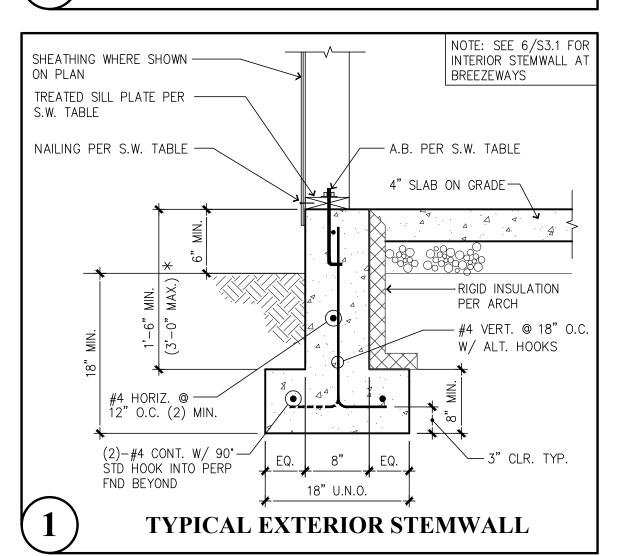
(3)-#4 BARS EA WAY

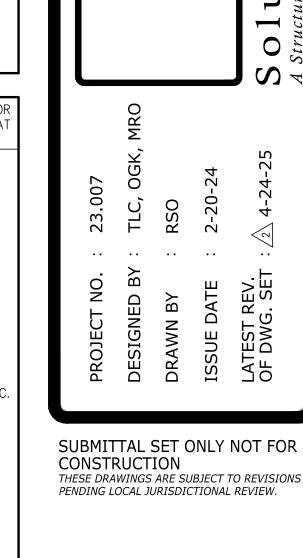
(4)-#4 BARS EA WAY

(4)-#4 BARS EA WAY





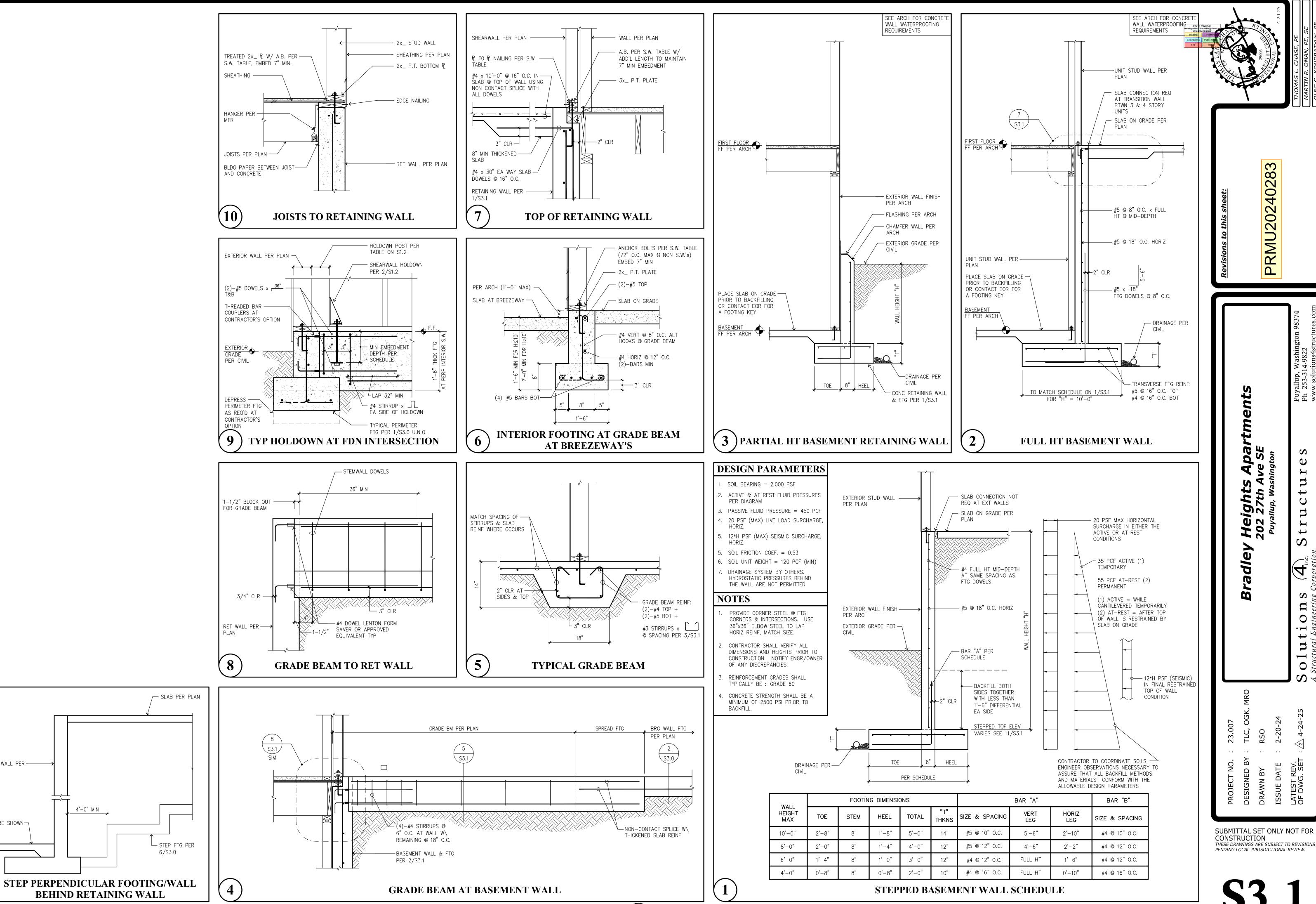




Heights
202 27th Av

 $\overline{\phantom{a}}$ 

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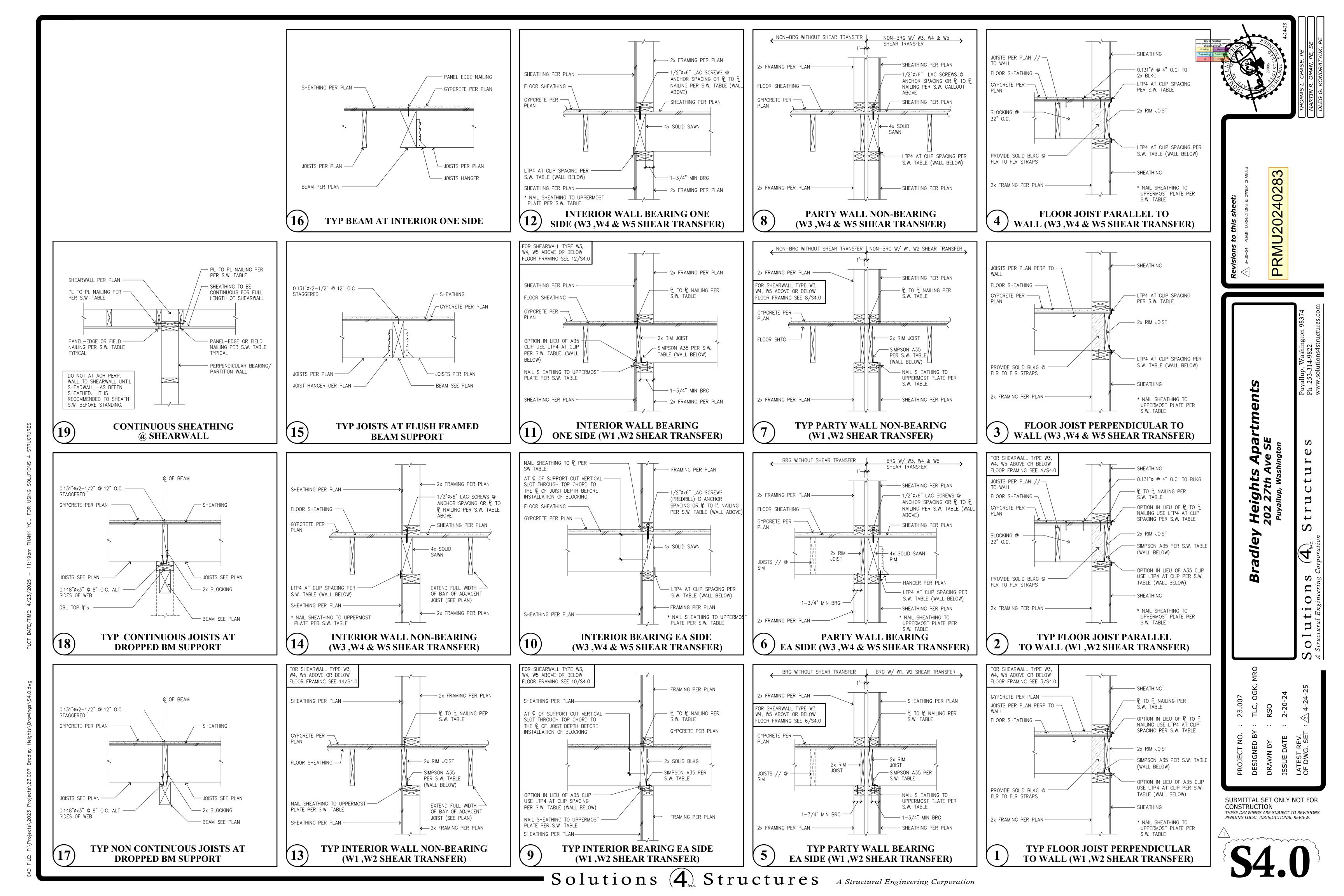
Solutions (4) Structures A Structural Engineering Corporation

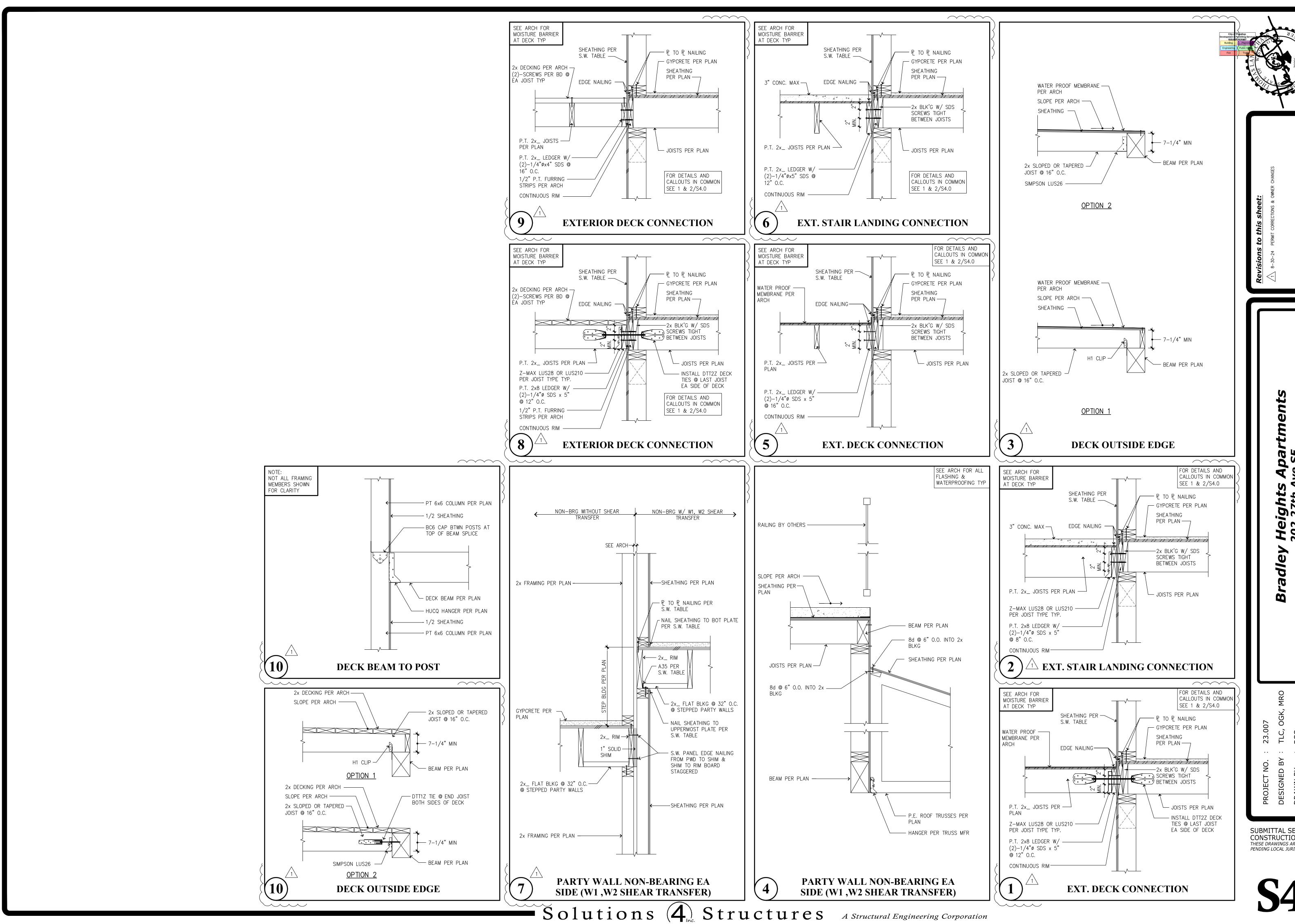
RETAINING WALL PER ---

SLAB WHERE SHOWN -

ON PLAN

4'-0" MIN

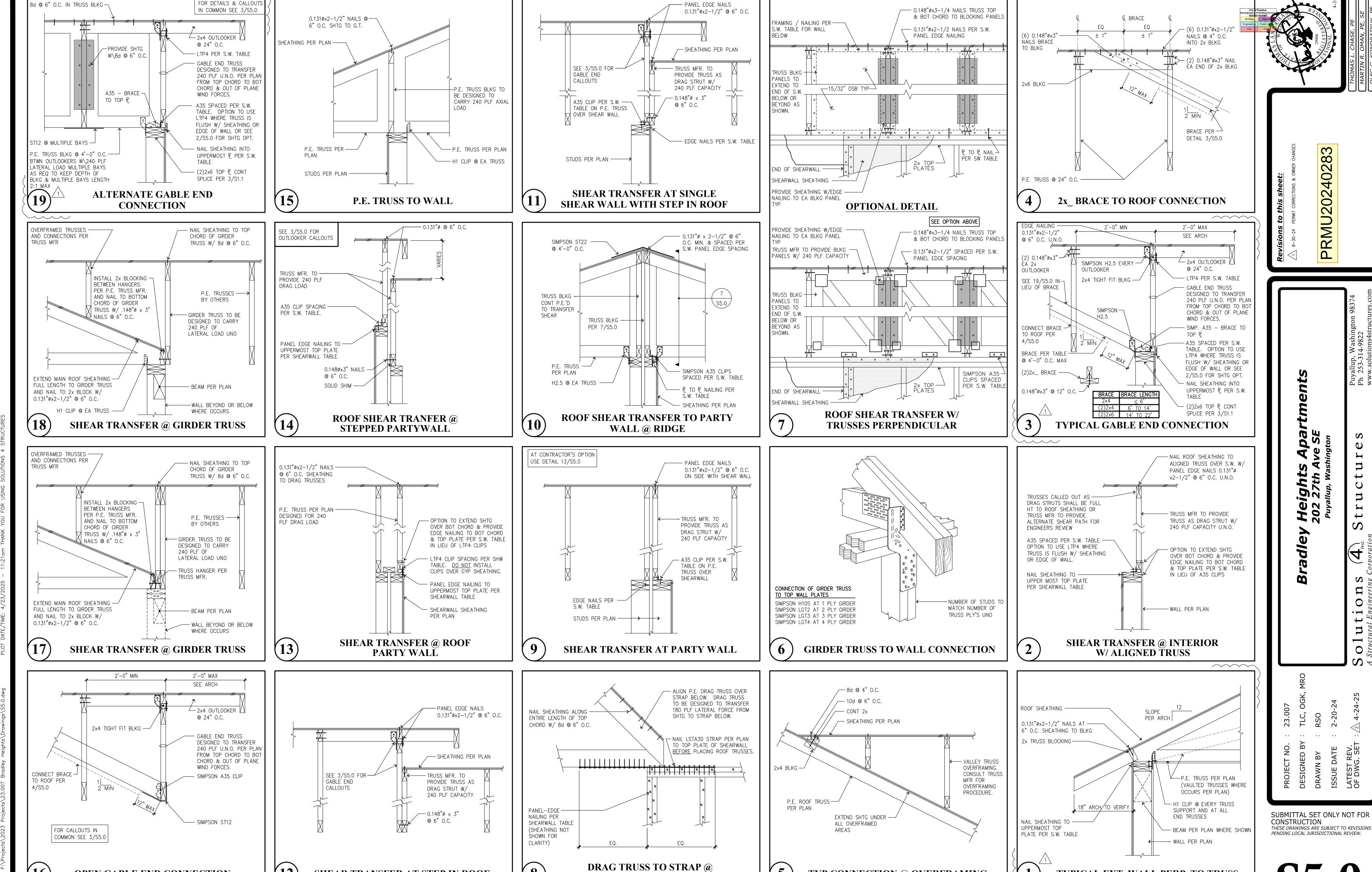




01

RSO

SUBMITTAL SET ONLY NOT FOR CONSTRUCTION THESE DRAWINGS ARE SUBJECT TO REVISIONS PENDING LOCAL JURISDICTIONAL REVIEW.



SHEARWALL TOP PLATE

TYP CONNECTION @ OVERFRAMING

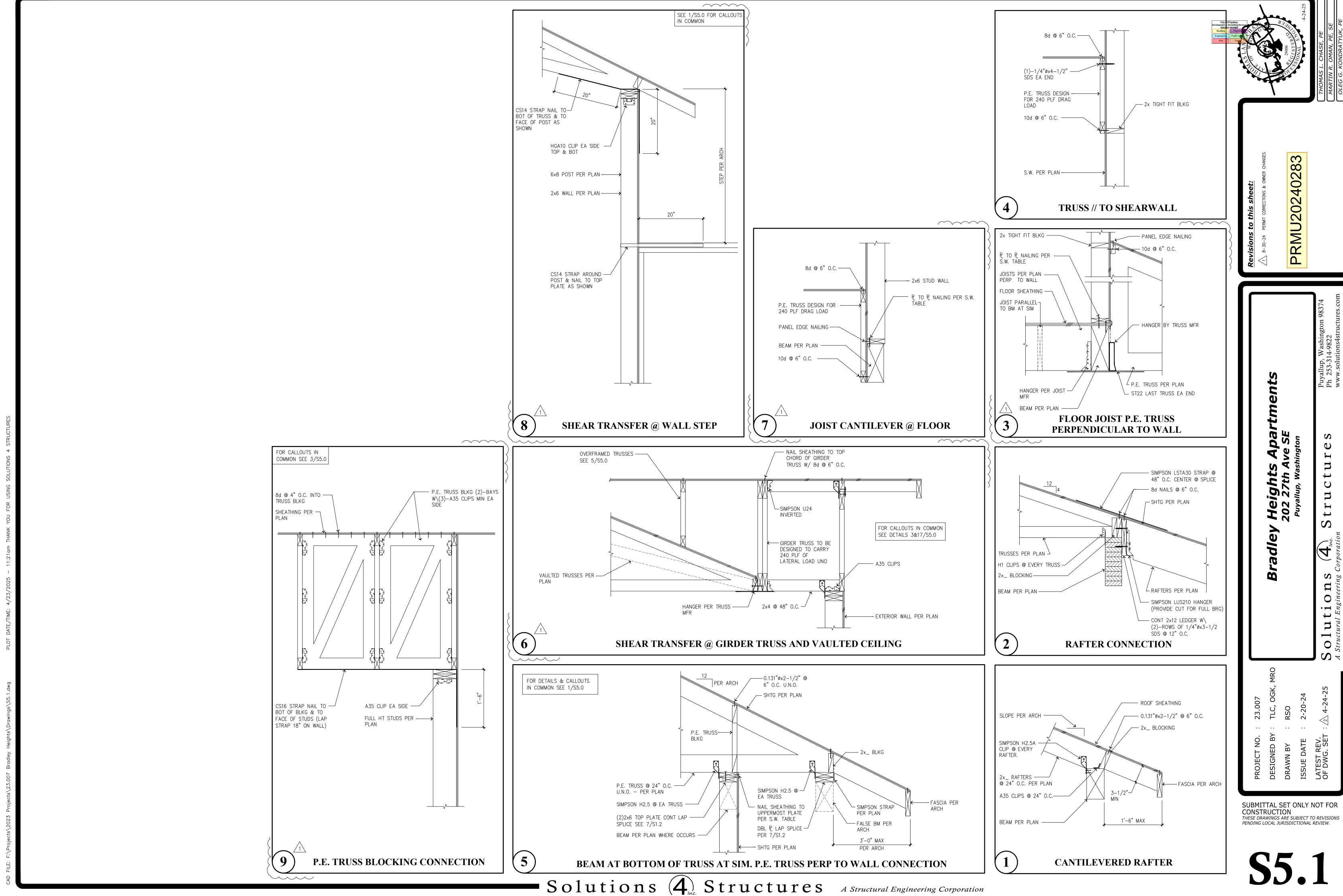
- Solutions (4) Structures A Structural Engineering Corporation

**OPEN GABLE END CONNECTION** 

SHEAR TRANSFER AT STEP IN ROOF

**S5.0** 

TYPICAL EXT. WALL PERP. TO TRUSS





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11063 \ REGISTERE

**Bradley** Heights **Apartments** 

Puyallup,

Timberlane **Partners** 

Revisions

No. Date Description /1 8-30-24 Owner Changes/ Permit Corrections

RMU20240283

Initial Publish Date: Date Plotted: Job No.: Drawn By:

5-6-25 23-06 Sheet No.:

APT/HDM

1" GYPCRETE (1 1/4" GYPCRETE AT CARPET) OVER 1 HR. UL L514 SYSTEM 9 1/4" SOUND MAT OVER 15/32" MIN. PLYWOOD SUBFLOOR OVER

SECTION

CORRIDOR CEILING

MUST MEET CLASS

C FLAME SPREAD

INSULATION

Finish Flooring - Floor Topping Mixture\* - Min. 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design. Formulated Materials LLC - Types FR-25, FR-30 and SiteMix Vapor Barrier - (Optional) Commercial asphalt saturated felt 0.030 in. thick.

Sub-flooring - 15/32 in thick plywood min grade "C-D" of Sheathing. Face grain of plywood to be perpendicular to joists with joints staggered. Alternate Floor Mat Material\* - (Optional) Floor mat material nominal 2-9.5 mm thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in. Formulated Materials LLC - Types M1, M2, M3, Elite, Duo, R1 and R2

2. Wood Joists - Min. 2 by 10, spaced 16 in. OC, firestopped 3. Cross Bridging - 1 by 3 in. or min. 2x10 solid blocking 5. Resilient Channels - Formed of 25 MSG galv steel, spaced 24 in. OC perpendicular to joists. Channels overlapped at splices 4 in. and fastened to each joist with 1 1/4 in. long furring channel screw. 6B. Gypsum Board\* - Nom.5%" in. thick, 4 ft wide, installed with long dimension

perpendicular to resilient channels and the side edges of the board located between joists. Fastened to resilient channels with 1 in. long Type S bugle head screws spaced 8 in. OC. End joints of wallboard similarly fastened to additional pieces of resilient channel to extend a min of 3 in. beyond ends of butt joint. Screw located 3/4 in min distance from sides and 1/2 in. min from ends of wallboard sheets. 7. Finish System - Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire

3½" THICK GLASS FIBER INSULATION 5/8" TYPE 'X' GWB SOUND TEST USED GENERIC CUSHIONED OVER 1/2" RESILIENT VINYL AND CARPET W/ PAD CHANNELS AT 24" OC ALTERNATIVES TO THE SPEC'D MANUFACTURES BELOW ALLOWED. SOUND

2X12 AT 16" O.C. -

VINYL PLANK

**SECTION** 

60 STC R-TL 81-16 CARPET & PAD - ASCEND BY DWELLINGS 55 IIC R-IN 81-1 CUSHIONED VINYL MOHAWK VESSEL PAD 56 IIC R-IN 81-6 CARPET & PAD\* VINYL PLANK - CYRUS BY MSI

\*TEST WAS DONE WITHOUT GLASS FIBER INSULATION. ADDITION WILL INCREASE THE IIC VALUE.

TYPICAL FLOOR

surface of gypsum board.

ISO-STEP UNDERLAYMENT (42 IIC + 19 IIC))

SELF-ADHERED

MEMBRANE

WATERPROOFING

FLOOR BENEATH TUB

3" CONCRETE

W/ BROOM FINISH

OVER 3/4" EXTERIOR

GRADE PLYWOOD

FRAMING PER STRUCTURAL

PLAN CORRIDOR \_\_\_\_(2) LAYERS ½" TYPE 'X' GWB OVER 2x STUDS AT 16" O.C. TYP. EACH SIDE SIDING PER ELV. OVER W.R.B. NOTE: 2x6 STUDS U.N.O. ON PLANS - ADD SHEAR PANEL WHERE INDICATED ON SHEAR PLANS. EXTEND SHEAR PANEL TO NEAREST BATT/INSULATION WHERE INDICATED ON PLANS RESILIENT CHANNEL AT DWELLING UNIT TO ACHIEVE REQUIRED SOUND RATING

FURRED PLUMBING WALL

%" TYPE 'X' GWB OVER

2x STUDS AT 16" O.C.

COMMON OR CORRIDOR WALL

CONTINUOUS BEHIND

PLAN

- GYP TO BE ∠2\

FURRED 2X WALL

2-HR GA File No. WP4136 STC 50 (TL-93-103) Base layer ½" type X gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 2 x 4 wood studs 16" o.c. with 1 1/4" Type W drywall screws 12" o.c. Face layer 1/8" type X gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side with 1 1/8" Type W drywall screws 12" o.c. and offset 6" from screws in base layer. Joints staggered 16" each layer and side. At shear walls, increase fastener length by the thickness of the shear panel.

Add resilient channel and 3" insulation to achieve sound rating TYP. 2-HR FIRE BARRIER WALI AT EXIT CORRIDOR

NO SPRAY-ON OR SHEET-TYPE VAPOR BARRIER AT INTERIOR SIDE. PAINT W/ LATEX PAINT ONLY.

BASEMENT RETAINING WALL PLAN

SYSTEM △ CONC. RETAINING WALL < PROVIDE VERTICAL AND HORIZONTAL (SEE STRUCT. FOR SIZE & REINF.) DRAFTSTOPS AT 10'-0" MAX. O.C. FIBERGLASS INSUL. FIRMLY ATTACHED -R-21 HIGH DENSITY INSULATION 5/8" TYPE 'X' GWB; PROVIDE PVA WALL **INTERIOR** PRIMER (with perm rating not exceeding 1.0) AS CLASS II VAPOR RETARDER ON INSIDE FACE OF GWB — CONCRETE WALL SHALL BE DRY TO THE TOUCH AND CAVITY SHALL BE CLEAN OF DEBRIS BEFORE INSTALLING

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

Concrete wall @ exterior wall PLAN

3/4" PLYWOOD FINISH FLOOR O/ 1/4" ISO-STEP FLOOR UNDERLAYMENT O/ 3/4" PLYWOOD SUB FLOOR — 1 HR. GA File No. FC5538 1/2" type X gypsum wallboard or veneer base applied at right angles to resilient furring channels 24" o.c. with 1" Type S drywall screws 8" o.c. at ends and 12" o.c. at intermediate furring channels. Gypsum board end joints located midway between continuous channels and attached to additional pieces of channel 64" long with screws 8" o.c. Resilient channels applied at right angles to 2 x 10 wood joists 16" o.c. with 6d coated nails 1\%" long, .085 shank, 1/4" heads, two per joist. Wood GWB OVER 1/2" joists supporting %" interior plywood with exterior RESILIENT CHANNELS AT glue subfloor and \( \frac{3}{8} \)" particle board, 1.5 psf. 3\( \frac{1}{2} \)" glass fiber insulation batts, .7 pcf, friction fit in joist 24" OC cavities supported alternately every 12" by wire rods and resilient channels. SOUND 51 STC TL 03-061a 61 IIC (BASED ON ENGINEERING ANALYSIS OF TL 03-027 WITH THE ADDITION OF  $\frac{1}{4}$ "

WATERPROOF MEMBRANE (60 MIL WATERPROOF MEMBRANE (60 MIL VINYL DECK MEMBRANE, GRAY VINYL DECK MEMBRANE, GRAY DURADECK OR SIMILAR) OVER DURADECK OR SIMILAR) OVER 1/2" & 3/4" EXT. GRADE PLYWOOD — 1/2" & 3/4" EXT. GRADE PLYWOOD — FRAMING PER STRUCTURAL — \_\_\_\_\_ - VENTED FIBER - VENTED FIBER

**CEMENT SOFFIT** 

VENTED FIBER CEMENT SOFFIT O/ FURR STRIPS

SECTIONS 705.2.2 & 705.2.3 WHERE

SPRINKLER PROTECTION EXTENDS TO THE

AT DECK/CORRIDOR

**SECTION** 

INSULATION

AT UNIT

AT 24" O.C. PROVIDE PVA WALL PRIMER (with

perm rating not exceeding 1.0) AS CLASS II

VAPOR RETARDER ON INSIDÉ FACE OF GWB

Ceiling provides one hour fire resistance protection for trusses.

- (2) LAYERS %" TYPE 'X' GWB ATTACHED TO UNDERSIDE OF MANUFACTURED ROOF TRUSSES ALLOWED TO BE NON-RATED PER IBC

1-HR GA File No. RC 2602

with  $1\frac{1}{4}$ " Type W or S drywall screws 24" o.c. **Face** layer  $\frac{5}{8}$ " type X gypsum wallboard or gypsum veneer base applied at right angles to trusses with  $\frac{1}{8}$ " Type W or S drywall screws 12" o.c. at

joints and intermediate trusses and 1½" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood trusses supporting ½" wood

TYPICAL 1-HR ROOF/CEILING

structural panels applied at right angles to trusses with 8d nails. Appropriate roof covering.

SPACE DECKING -

P.T. FRAMING

P.T. FRAMING

PER STRUCTURAL

SPACE DECKING -

PER STRUCTURAL

Base layer %" type X gypsum wallboard applied at right angles to wood roof trusses 24" o.c.

ASSEMBLY ALLOWED TO BE NON-RATED PER OSSC SECTIONS 705.2.2 AND 705.2.3 WITH FIRE SPRINKLERS PROTECTING DECK

**CEMENT SOFFIT** 

WATERPROOF DECK FLOOR

**SECTION** 

FLOOR AT CORRIDOR/LANDING

FIBER CEMENT VENTED

SOFFIT BOARD

4" CONCRETE SLAB O/ 10 MIL VAPOR BARRIER O/ 3.5" CONCRETE SLAB O/ 4" FREE DRAINING MATERIAL O/ 4" FREE DRAINING MATERIAL O/ COMPACTED FILL COMPACTED FILL **EXTERIOR CORRIDORS** LIVING UNITS

- WATERPROOFING △ CONC. RETAINING WALL < (SEE STRUCT. FOR SIZE & REINF.) SPACE -EXTERIOR SHEATHING PER STRUCTURAL 5/8" TYPE 'X' GWB; PROVIDE PVA WALL -R-21 HIGH DENSITY INTERIOR PRIMER (with perm rating not exceeding INSULATION 1.0) AS CLASS II VAPOR RETARDER ON INSIDE FACE OF GWB — CONCRETE WALL SHALL BE DRY TO THE TOUCH AND NO SPRAY-ON OR SHEET-TYPE CAVITY SHALL BE CLEAN OF VAPOR BARRIER AT INTERIOR SIDE. DEBRIS BEFORE INSTALLING PAINT W/ LATEX PAINT ONLY. INSULATION AND GWB.

EARTH SIDE

EARTH SIDE - WATERPROOFING SPACE

INSULATION AND GWB.

UNIT Sound STC 59 STC (W-28-69)

**EXTERIOR SIDING** 

PER STRUCTURAL

**EXTERIOR SHEATHING -**

1 TYVEK COMMERCIAL W.R.B. —

INTERIOR

NOTE: SHEAR DIAPHRAGM

<sup>5</sup>/<sub>8</sub>" GWB OVER 2x STUDS AT 16" OC. ─

CORRIDOR

MAY OCCUR ON EITHER

SIDE OF THE WALL OR

ON BOTH SIDES.

SEE ELEVATIONS -

EXTERIOR

Thermal insulation

NHERE (ND)(CATED ON PLANS)

 $-\frac{5}{8}$ " Type 'X' GWB OVER 2x6 STUDS AT 16" O.C.

TYPICAL EXTERIOR WALL

 $^{-}\%$ " GWB OVER 2x STUDS AT 16" OC

TYP. INTERIOR WALL

GWB INSTALLED OVER SHEAR PANEL

AT SHEAR WALLS‡, SEE SHEAR PLANS -

CONTINUE SHEAR PANEL

INSULATION

between studs. 3" mineral or glass fiber insulation in stud space.

TO THE NEAREST CORNER

PROVIDE PVA WALL PRIMER (with perm rating not exceeding 1.0)

2X6 STUDS AT EXTERIOR

WALL U.N.O. ON PLANS

−%" GWB OVER SHEAR PANELS

WHERE INDICATED

ON SHEAR PLANS

%" TYPE 'X' GWB OVER 2x STUDS AT 16" O.C.

OVER W.R.B

── 5/4" TYPE 'X' GWB OVER RESILIENT CHANNELS AT

24" O.C. OVER 2x STUDS AT 16" O.C.

1-HR GA File No. WP3243 50-54 STC Sound

Resilient channels 24" o.c. attached at right angles to ONE SIDE of 2x4\* wood studs 24" o.c. with 11/4"

OPPOSITE SIDE - One layer \( \frac{5}{8} \)" Type X gypsum wallboard or or gypsum veneer base applied parallel

or at right angles to studs with 6d cement coated nails 1%" long, 0.0915" shank, 1%4" heads, 7" o.c. Vertical joints staggered 24" on opposite sides. (LOAD-BEARING)

\* Per general note 16 greater stud sizes are permitted than those specified.

(see plans for actual stud size)

‡ At shear walls, increase fastener length by the thickness of the shear panel

TYP. 1-HR CORRIDOR WALL

Type S drywall screws. One layer \(^{\%}\)" Type X gypsum wallboard or gypsum veneer base applied at right angles to channels with 1" Type S drywall screws 8" o.c. with vertical joints located midway

PLAN

PLAN

PLAN

PLAN

FIN.#1: (1) LAYERS %" TYPE 'X' GWB

TYP. EACH SIDE OF DOUBLE 2x4 WALL

At shear walls, increase fastener length

by the thickness of the shear panel

PROVIDE HORIZONTAL FIREBLOCKING

AT 10'-0" MAX. O.C. USING FIBERGLASS

(NO INSULATION AT SIMILAR COND.)

CONTINUE EITHER FIN.#1 OR FIN.#2

TO THE NEAREST CORNER BEFORE

ON SEPARATE PLATES W/ 1" AIR SPACE

OVER 2x4 STUDS AT 16" O.C.

INSUL. FIRMLY ATTACHED

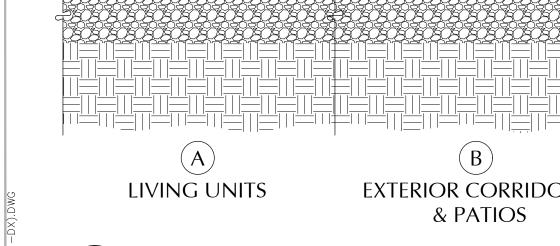
 $-3\frac{1}{2}$ " Insulation both sides

TRANSITION

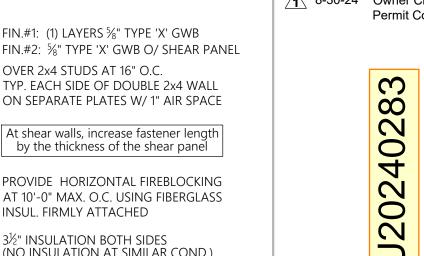
AS CLASS II VAPOR RETARDER ON INSIDE FACE OF GWB

1-HR Using Calculated Fire Resistance Method Using IBC Section 722, Tables 722.6.2(1) and 722.6.2(2), <sup>5</sup>/<sub>8</sub>" Type 'X' GWB (40 min.) and studs at 16" o.c. (20 min.) provide 60 minutes of protection

DETAIL SIMILAR WHERE UNIT SEPARATION WALL CONTINUES DOWN TO GARAGES TYP. 1-HR COMMON WALL SEPARATING DWELLING UNITS



yp. slab-on-grade



SLOPE GRADE

AWAY FROM

4" FTG. DRAIN

**SECTION** 

**SECTION** 

EXT. STAIR

— %" TYPE 'X'
EXTERIOR GYP.
— SIDING SEE
ELEVATIONS
— FLASHING

D1

─½" EXPANSION

**SECTION** 

TYP. EXTERIOR WALL FOOTING

INTERIOR

CONC. SLAB

- FIRM BEARING

BUILDING

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etails 



Puyallup,

**Timberlane Partners** 

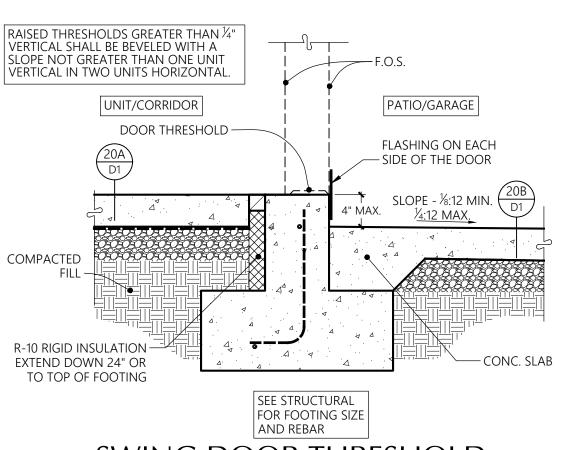
Revisions No. Date Description 8-30-24 Owner Changes/ Permit Corrections

PRMU20240283

Initial Publish Date: Date Plotted: 5-1-25

Job No.: Drawn By: 23-06 APT/HDM Sheet No.:

**D2** 



INTERIOR

SEE STRUCTURAL

AND REBAR

FOR FOOTING SIZE

R-10 RIGID INSULATION -EXTEND DOWN 24" OR

TO TOP OF FOOTING

INTERIOR

UNIT

RIGID INSULATION

DOWN 24" OR TO TOP OF FOOTING. -

SEE STRUCTURAL

AND REBAR

FOR FOOTING SIZE

P.T. PLATE –

SEE STRUCTURAL

AND REBAR

SEE UNIT

PLANS FOR LOCATION THIN

%" TYPE 'X' GWB ─ RESILIENT CHANNEL -

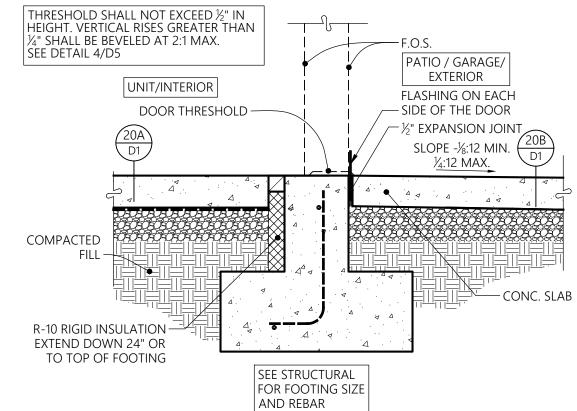
FOR FOOTING SIZE

INTERIOR WALL FOOTING

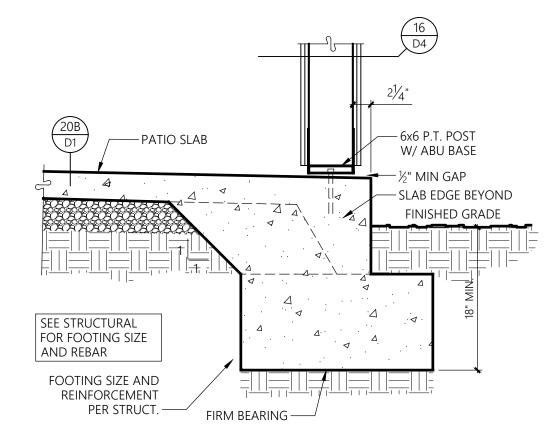
TYP. STAIR WALL FOOTING

SWING DOOR THRESHOLD AT PATIO OR GARAGE

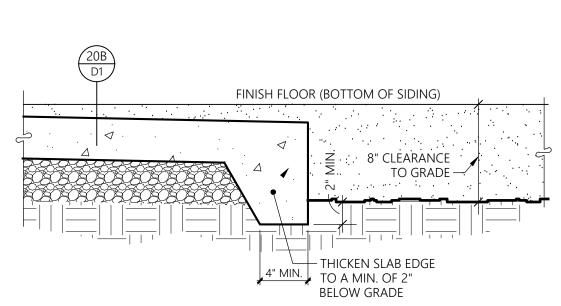
SECTION



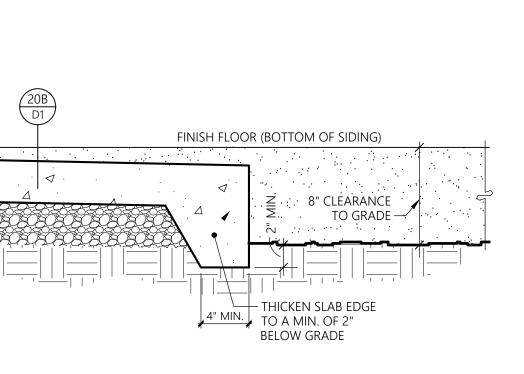
SWING DOOR THRESHOLD

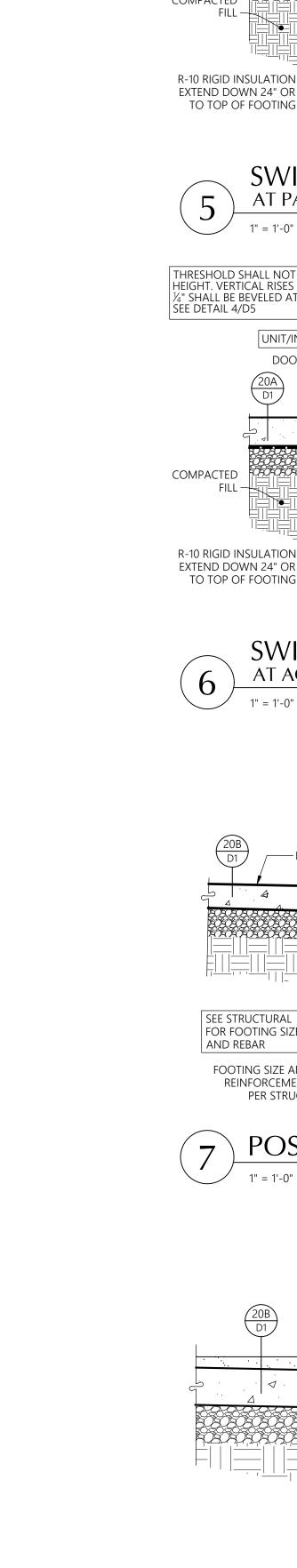


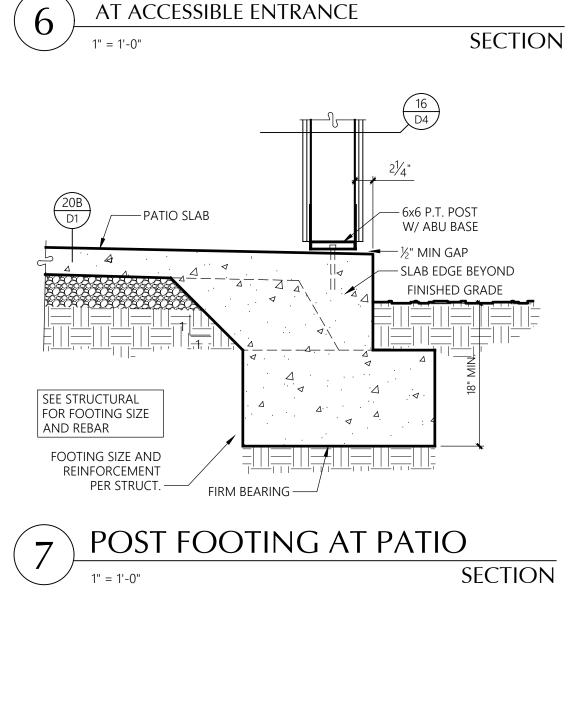
POST FOOTING AT PATIO

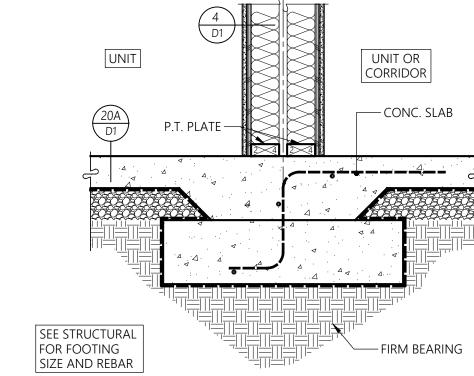


THICIKENED CONC. SLAB EDGE AT PORCH / PATIO SECTION

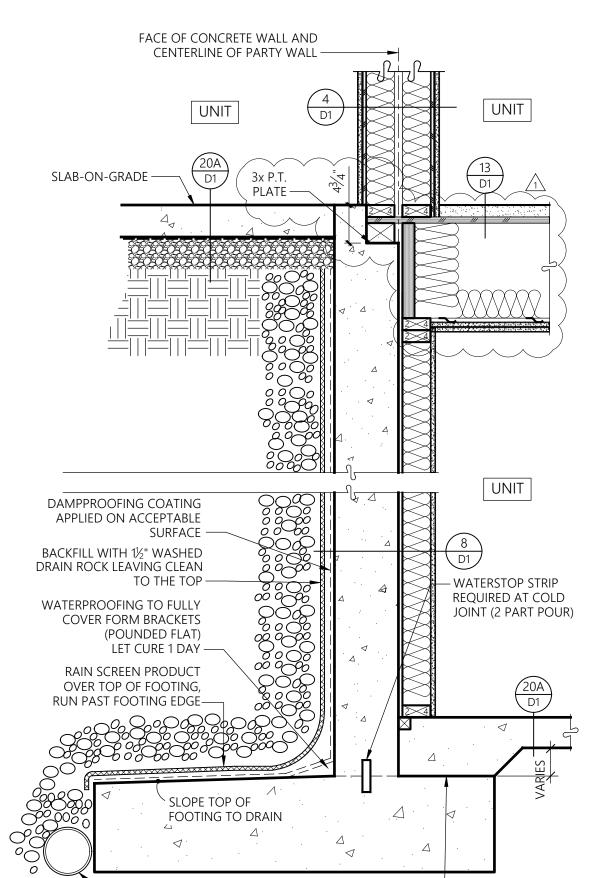


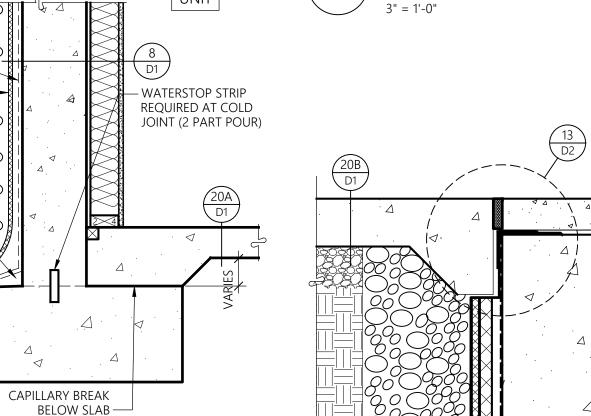






COMMON WALL FOUNDATION SECTION





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

SEE I SHEETS

FOR RETAINING WALL

3/4" FIBER BOARD

**EXPANSION JOINT -**

WATERPROOFING



CONTINUOS 6" PERFORATED

DRAIN PIPE AS SPECIFIED

BY SOILS REPORT.

¾" AIR SPACE

PLACE SLAB ON

TO BACKFILLING

OR CONTACT

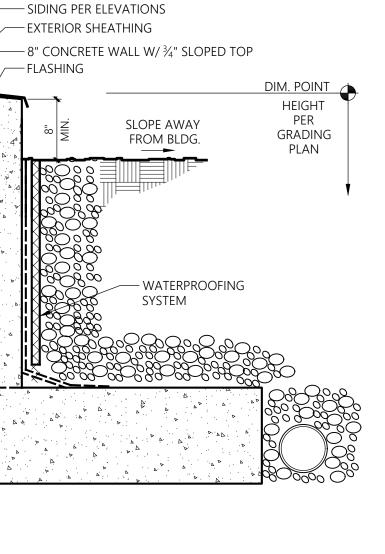
E.O.R. FOR A

FOOTING KEY -

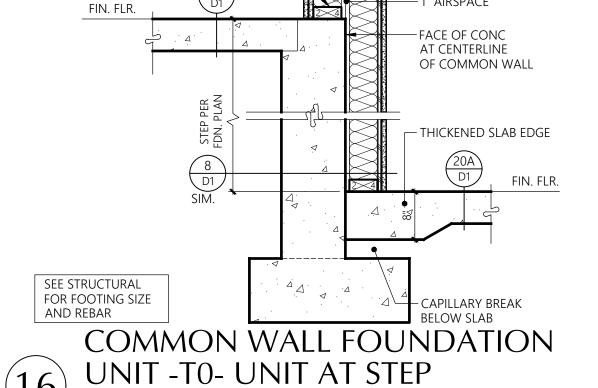
CAPILLARY BREAK

BELOW SLAB ----

GRADE PRIOR







THE INSTALLATION OF ANY

INSTRUCTIONS.

CORRIDOR / SLAB FLASHING

WATERPROOFING DECK SYSTEM

SHALL BE PER MANUFACTURERS

- WATER PROOFING

LAP OVER VERTICAL

FLASHING 6" MIN. -FLASHING OVER DAMPPROOFING,

FIBERBOARD AND RAIN SCREEN

- DAMPPROOFING

– "TUFF-N-DRY"

**FIBERBOARD** 

-RAIN SCREEN

THE INSTALLATION OF ANY

-P.T. FRAMING & SPACING PER

STRUCTURAL

EXTERIOR

CORRIDOR

INSTRUCTIONS.

EXTERIOR

CORRIDOR

CORRIDOR / SLAB TRANSITION

WATERPROOFING DECK SYSTEM

SHALL BE PER MANUFACTURERS

TYP. FLOOR D1 AT CORRIDOR/STAIR

**SECTION** 

**SECTION** 

SECTION

TOP ANGLE FLASHING

MEMBRANE



25 Central Way, Suite 210 Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208 Web: www.milbrandtarch.com © Copyright 2023 Milbrandt Architects, INC., P.S.

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**Bradley** Heights **Apartments** 

**Timberlane Partners** 

Puyallup,

Revisions

No. Date Description 8-30-24 Owner Changes/ **Permit Corrections** 

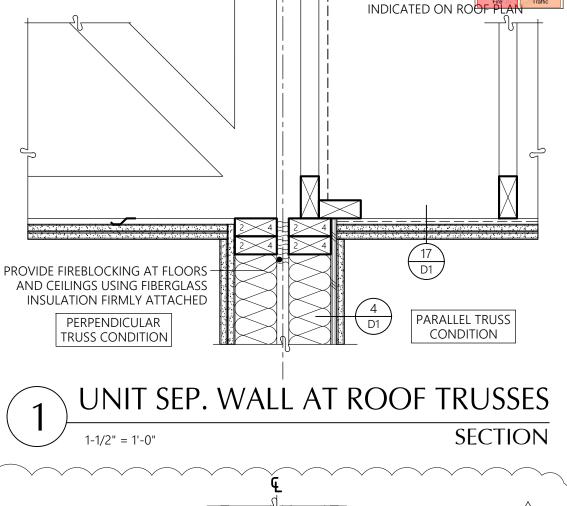
PRMU20240283

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Date Plotted: Job No.: Drawn By: 23-06 APT/HDM

Sheet No.:

**D3** 



2" GYP. SHEATHING OR: 30 PUMBOD STRUC. PANEL OR PAR ISSUED FERMIT

— BOARD OVER GABLE Pultring S Planning

WHERE DRAFT- STOFFICE TO THE S

- Typical floor ( D1

BETWEEN UNITS

- RIM JOISTS

- BLOCKING PER STRUC. AND

UNIT SEPAR. AT FLOOR

FRAMING PLANS

BEARING

SITUATION

FLOOR FRAMING

— FIRE-SAFING INSUL.

AS FIREBLOCK, TYP

COMMON

COMMON WALL AT STEPPED FLOOR

FLOOR FRAMING

PER PLANS

EXTERIOR WALL AT FLOOR

PER PLANS

**SECTION** 

NON-BEARING

SITUATION

**SECTION** 

FIN. FLOOR

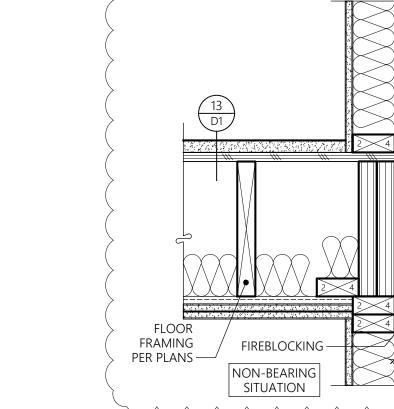
- LVL RIM JOIST

→ SIDING,

— WALL BATT INSUL.

SEE ELEVATIONS

**SECTION** 



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

3½" ACOUST. BATT INSUL. -

FLOOR FRAMING

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

PER PLANS

VERTICAL ROOF TRUSS

📈 2×8 ceďar řake řasciá

- COMP. ROOFING

OF ROOF SHEATHING

FIBER CEMENT VENTED

SOFFIT BOARD

— SOLID STUD GROUPINGS

TO EXTERIOR FACE

EXTERIOR

UNIT SEP. WALL AT EXT. WALL

EXTEND 1-HR FIRE RATING

EXIT STAIR/CORRIDOR

(1) LAYER %" TYPE 'X' EA. SIDE CONTINUOUS TO UNDERSIDE

\_\_\_\_\_\_\_

**SECTION** 

PER ROOF

PLANS

1-HR STAIR WALL AT ROOF

**EXTERIOR GYP** 

ASSEMBLY

UNIT

UNIT

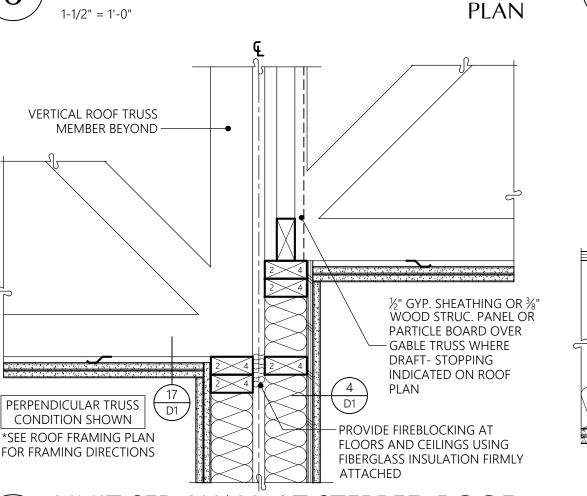
DIFFERENT SHEAR PANEL

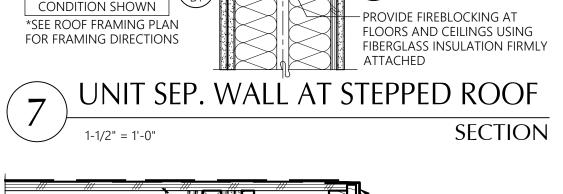
CONFIGURATION MAY BE

REQUIRED. SEE SHEAR PLANS.

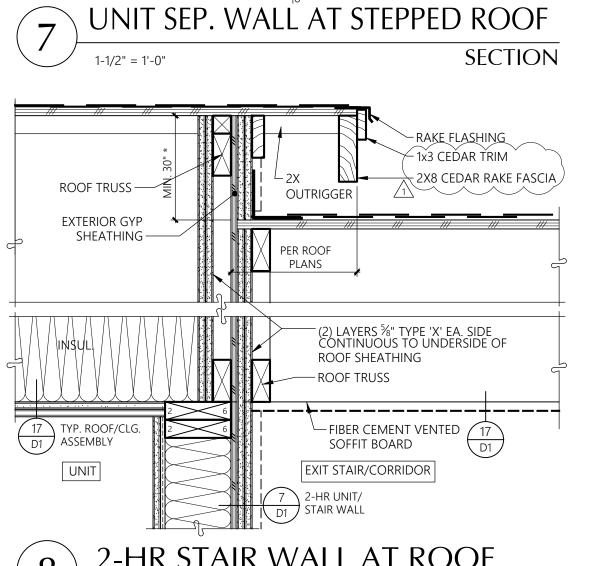
SHEATHING —

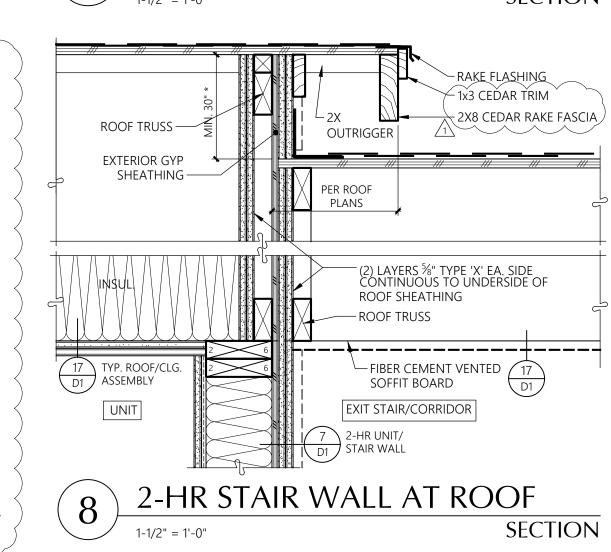
MEMBER BEYOND -



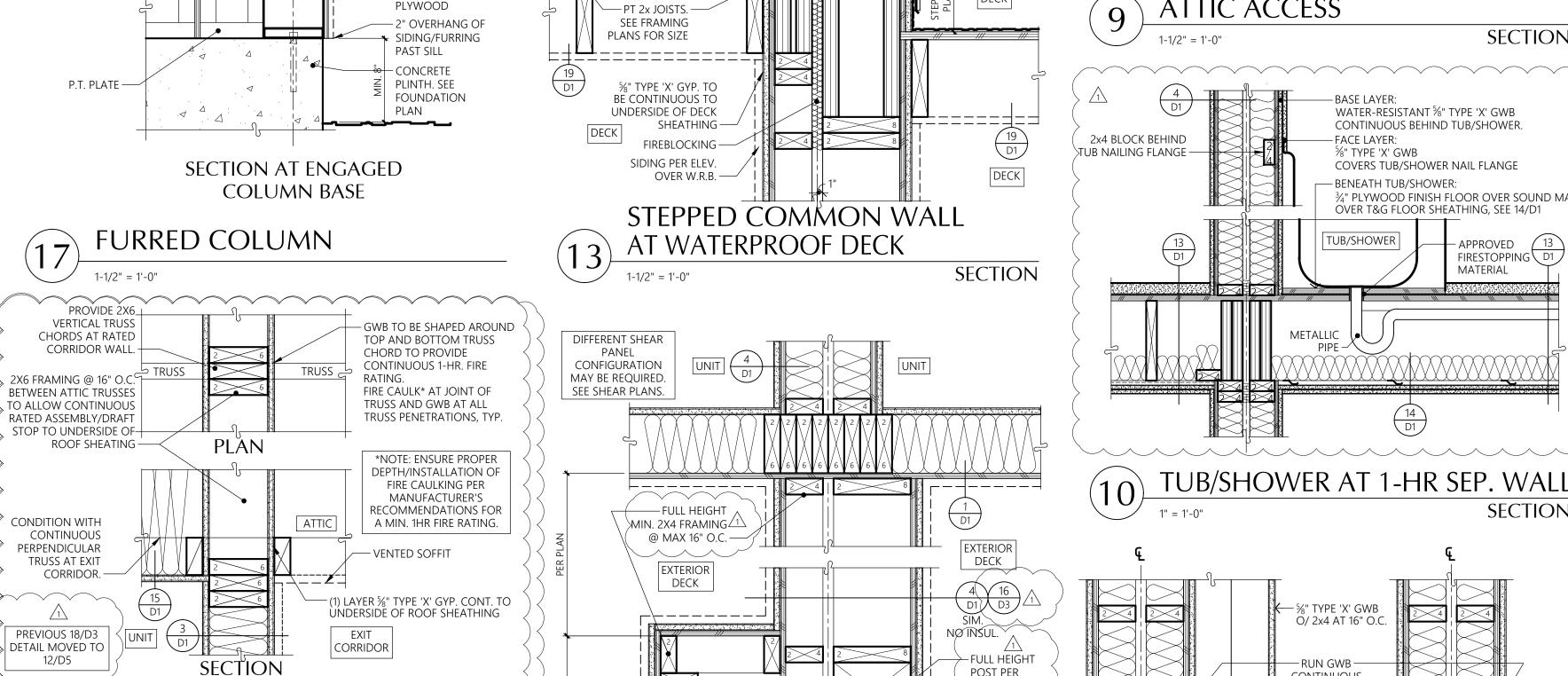












1-BED-INT-2

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

DECK

SPACED DECKING -

%" TYPE 'X' GYP. TO

BE CONTINUOUS

FIREBLOCKING -

FRAMING PER

STRUCTURAL —

WRAP W.R.B.

WALL -

OVER TOP OF

IDING PER ELEV.

OVER W.R.B. -

**EXTERIOR** 

SIDING PER ELEV,

OVER W.R.B.

SHEATHING

PLYWOOD

P.T. PLATE —

FRAMED

WALL -

EXTERIOR

COLUMN

PLAN

POST

-FULL HEIGHT P.T. POST PER /

STRUCTURAL;

SEE 18D/D7

SIDING OVER

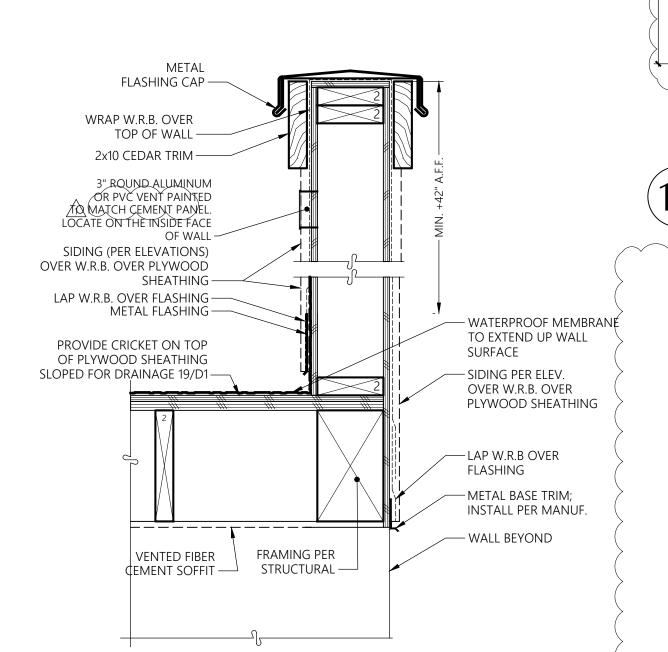
**GWB OVER** 

SHEATHING

- P.T. POST PER STRUCTURE

- ⅓"P.T.

**OVER EXTERIOR** 

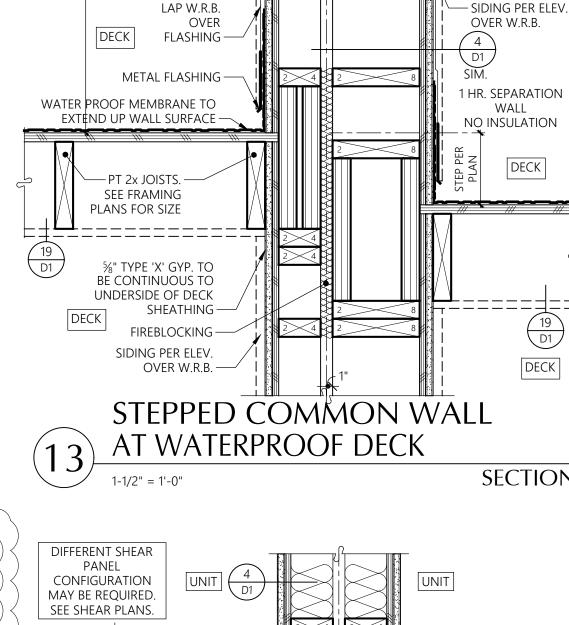


ATTIC SEPARATION @ CONT. PERP.

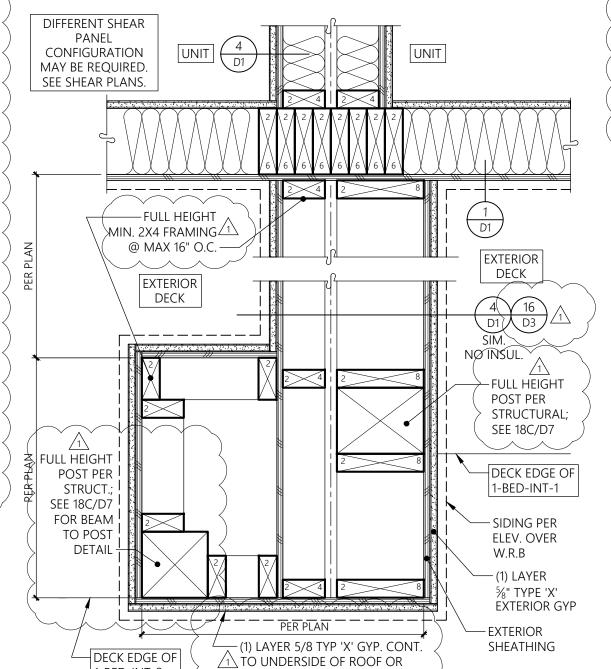
RUSS @ RATED CORRIDOR WALL

PLAN/SECTION





Wall cap at uncovered decks



DECK SHEATHING

STEPPED COMMON WALL

@ SPACED DECKING

NO INSUL.

DECK FRAMING

PER STRUCT. —

**SECTION** 

- DECK



PROVIDE A MINIMUM OF 30" HEADROOM

ROOF TRUSS—

BLOCKING

- GWB CEILING HATCH

BASE LAYER:

FACE LAYER:

METALLIC (\*

− ¾" TYPE 'X' GWB

- RUN GWB -

CONTINUOUS

THROUGH WALL

INTERSECTION

O/ 2x4 AT 16" O.C.

¾" TYPE 'X' GWB

BENEATH TUB/SHOWER:

WATER-RESISTANT %" TYPE 'X' GWB

CONTINUOUS BEHIND TUB/SHOWER.

COVERS TUB/SHOWER NAIL FLANGE

3/4" PLYWOOD FINISH FLOOR OVER SOUND MAT

– APPROVED FIRESTOPPING D1

MATERIAL

**SECTION** 

OVER T&G FLOOR SHEATHING, SEE 14/D1

**SECTION** 

-(2) LAYERS 5/8" TYPE 'X' GWB CEILING

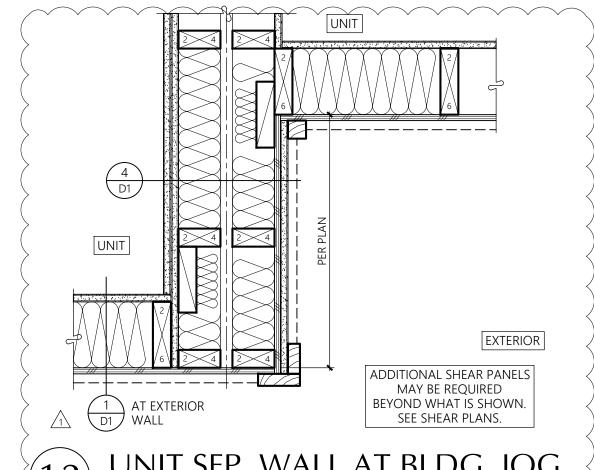
CLEARANCE

GYP. CONTINUOUS

EA. SIDE

-EXTERIOR

SHEATHING



UNIT SEP. WALL AT BLDG. JOG









**Timberlane** 

**Partners** Revisions

No. Date Description 1 8-30-24 Owner Changes/ Permit Corrections

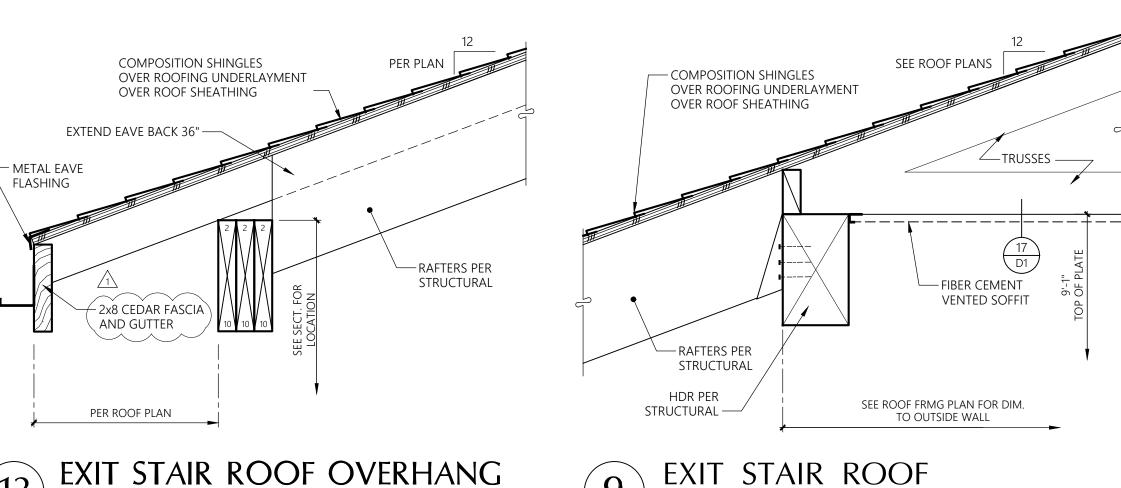
PRMU20240283

Initial Publish Date:

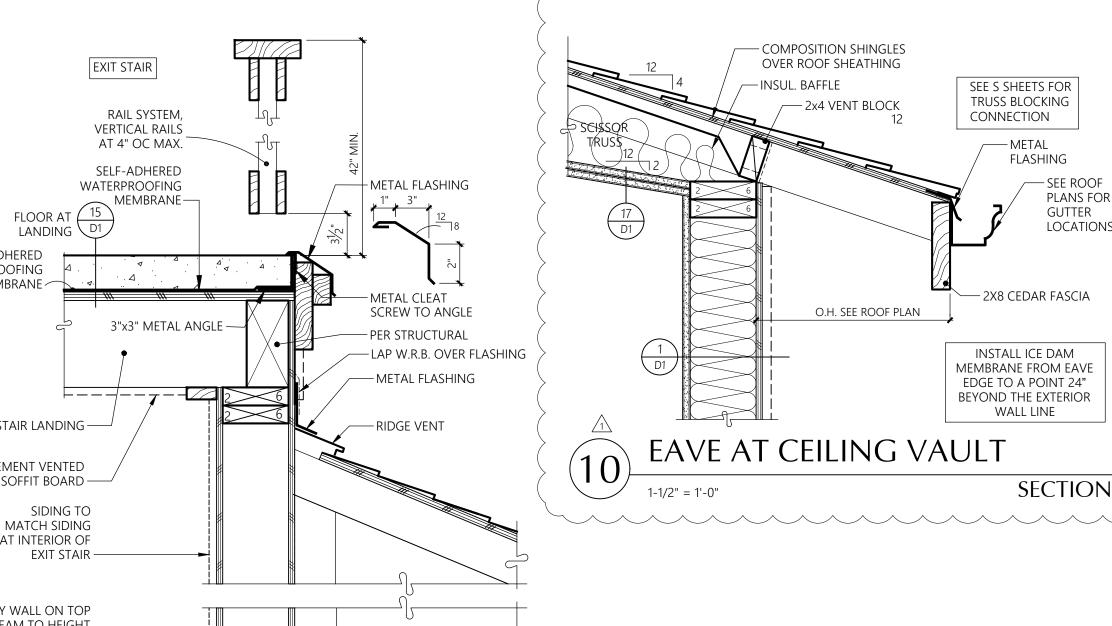
Date Plotted: 5-1-25 Job No.: Drawn By: 23-06 APT/HDM

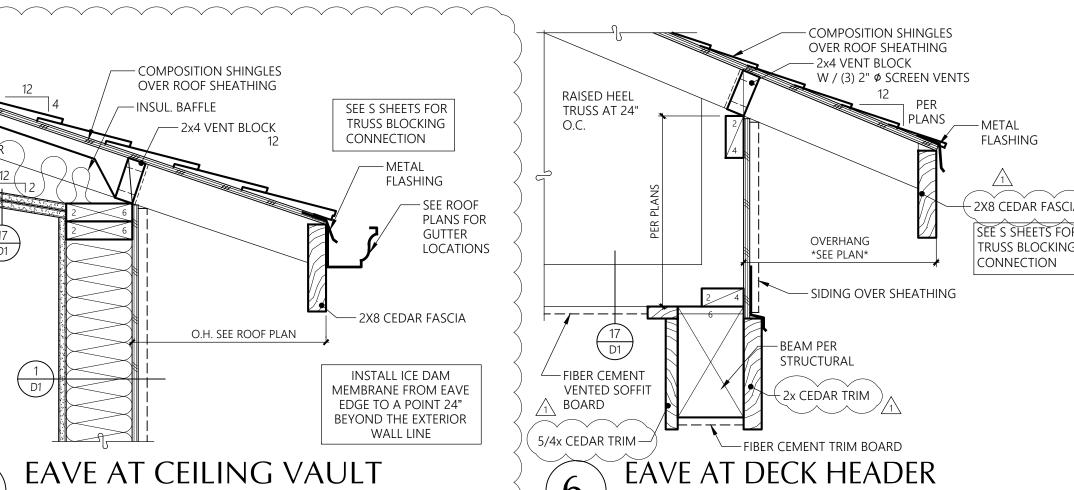
Sheet No.:

**D4** 









**SECTION** 

DIAPHRAGM BLOCKING

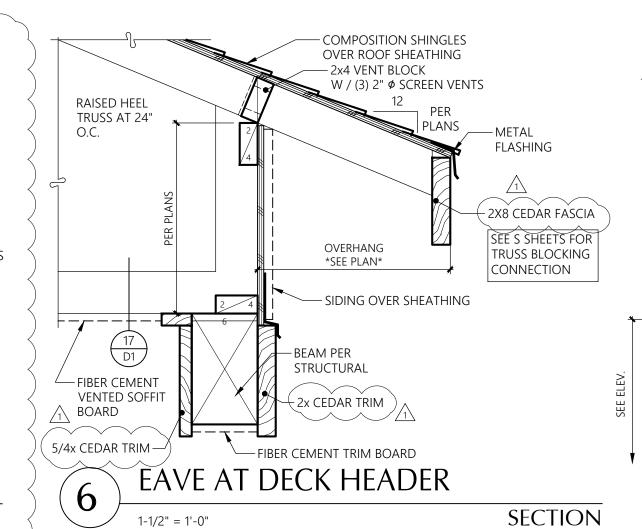
REQ'D WHEN RIDGE

SUPPORTING WALL

IS IN LINE WITH

— ROOF FRAMING

RIDGE VENT



— PREFABRICATED RIDGE VENT

OPENING

**REGARDLESS OF** 

SEE ROOF PLANS

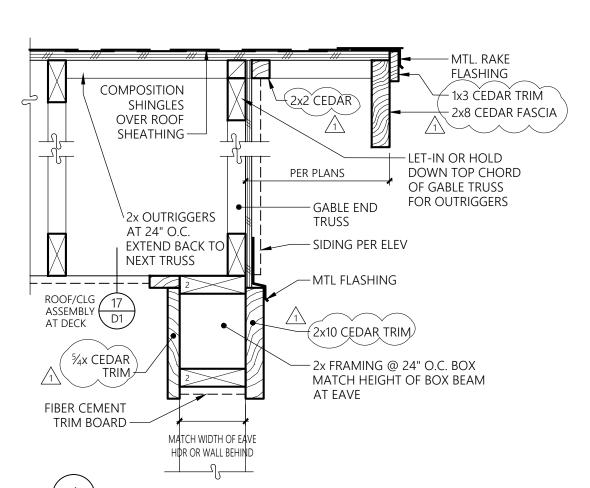
**SECTION** 

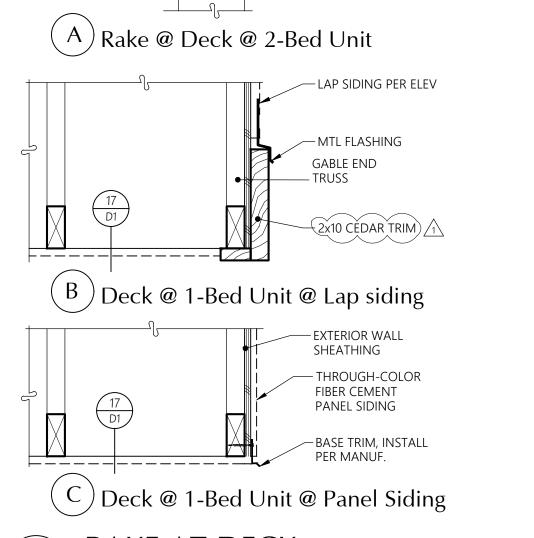
TOP PLAT SEE ELEV

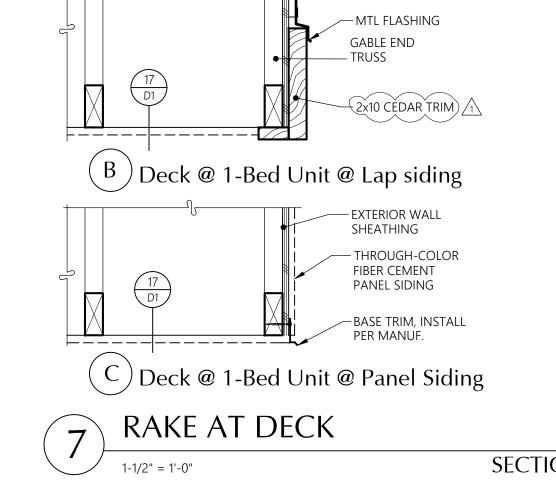
RAISED HEEL

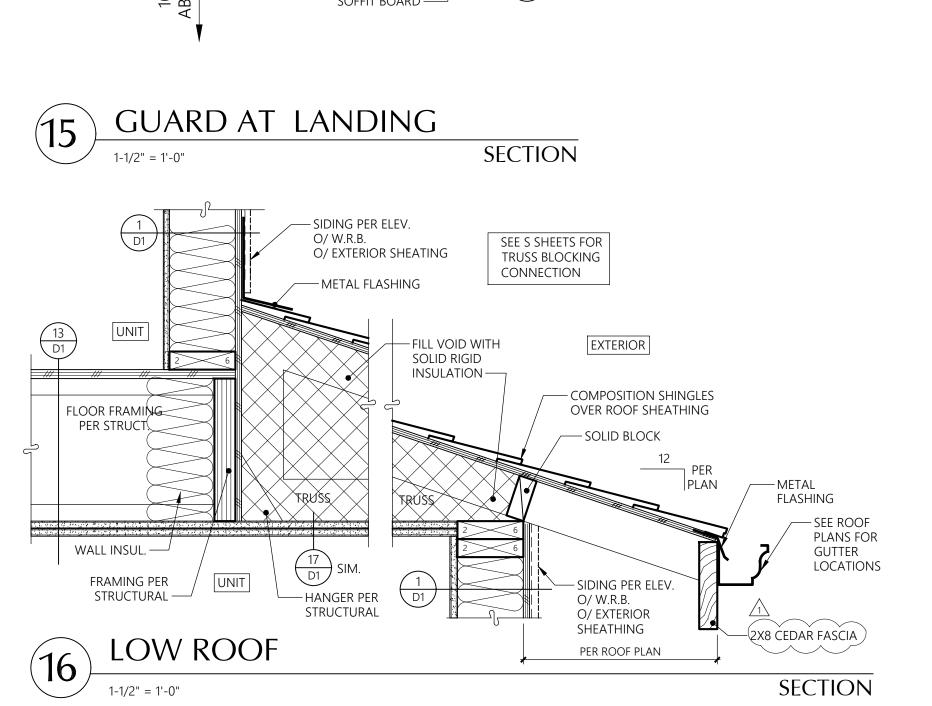
TRUSSES AT

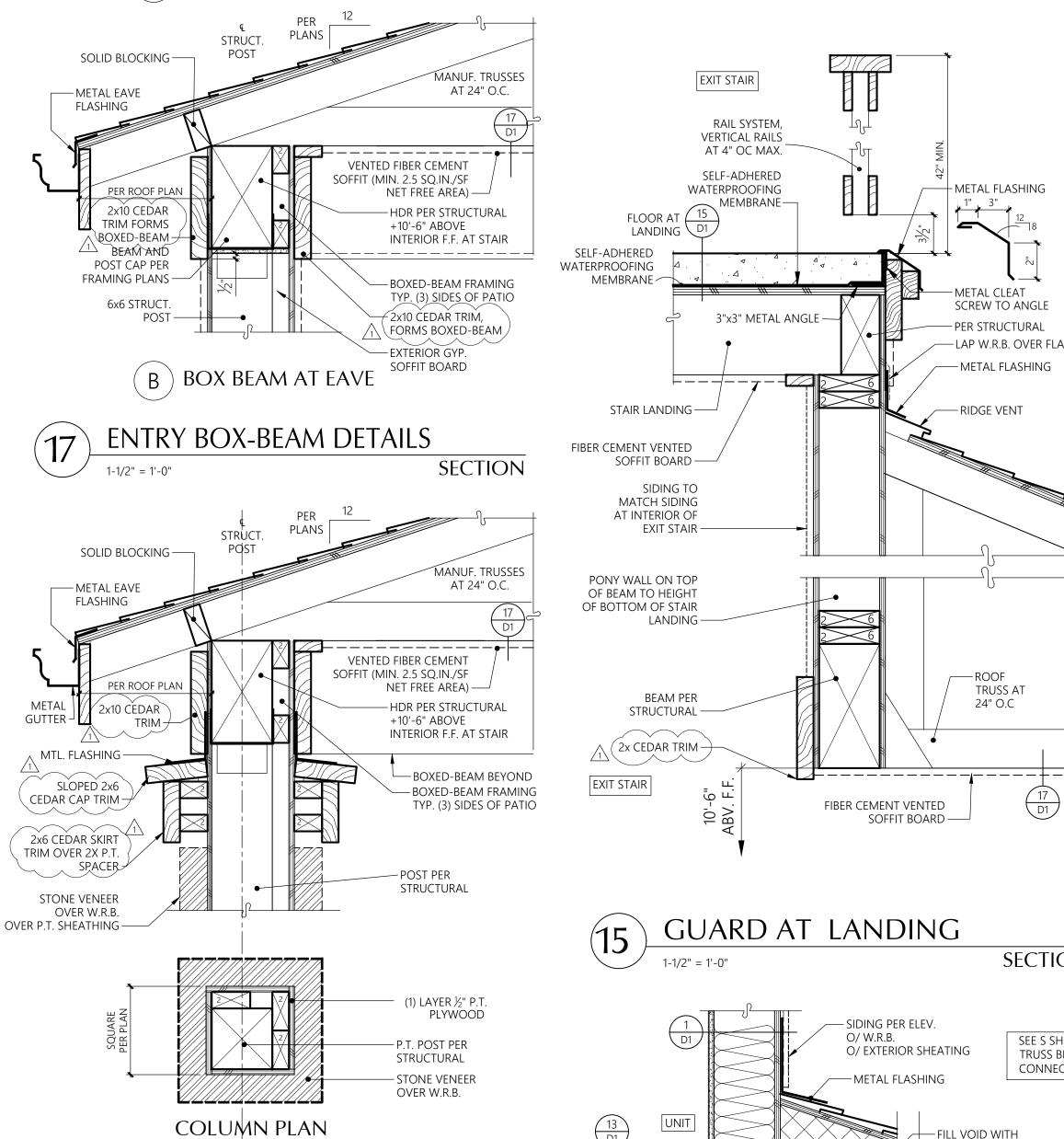
24" O.C.











- STONE VENEER

SEE STRUCTURAL SHEETS

FOR FOOTING DETAIL AND

POST BASE ATTACHMENT

/-----<del>-</del>

ENTRY COLUMN AND LOW ROOF

POST

**ELASHING** 

1x3 CEDAR -

2x8 CEDAR

FASCIA –

TRIM

STONE

VENEER -

SLAB EDGE —

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

COMPOSITION SHINGLES

SHEATHING -

FLASHING

2x10 ČEDAŘ

TRIM FORMS

BOXED-BEAM-

SHEATHING -

(  $\mathsf{A}$  ) box beam at rake

FIBER CEMENT

OR EXTERIOR GYP.

OVER #15 FELT OVER ROOF

MANUF. TRUSS @

24" O.C.

**CEMENT SOFFIT** 

SQ.IN./SF NET

(MIN. 2.5

FREE AREA) —

-BOXED-BEAM

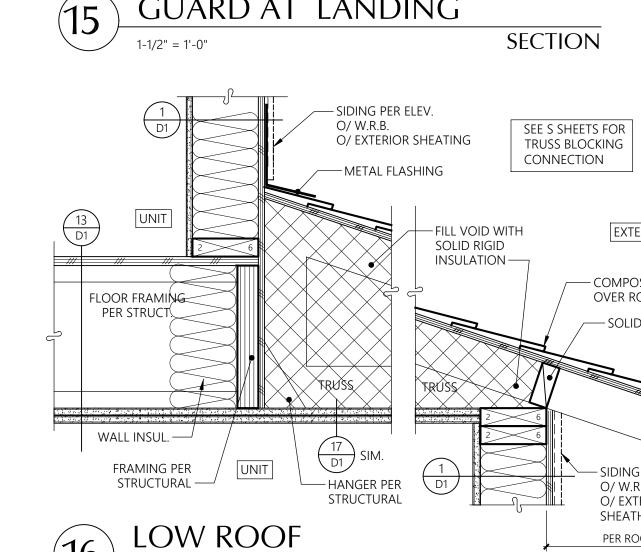
TYP. (3) SIDES

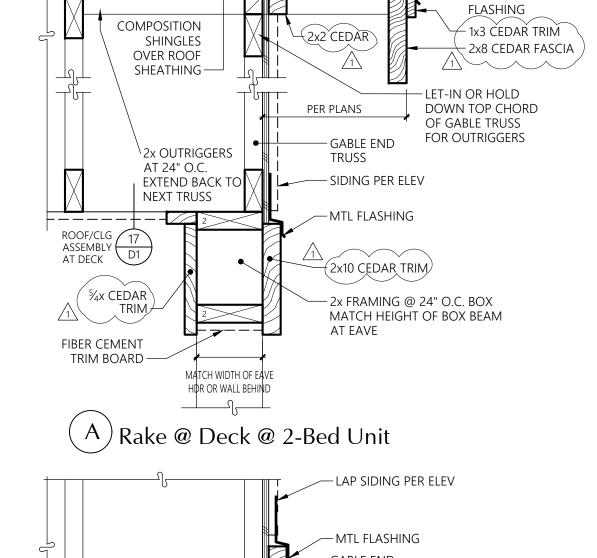
FRAMING

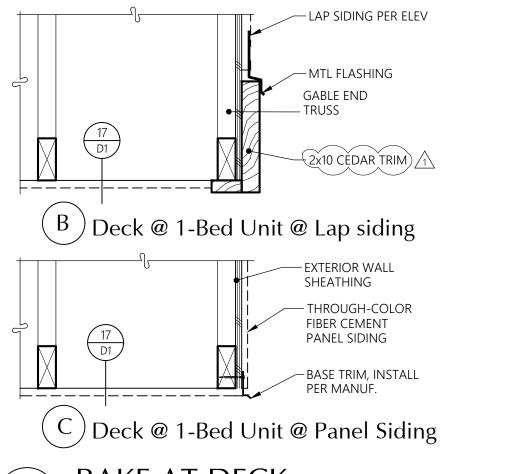
OF PATIO

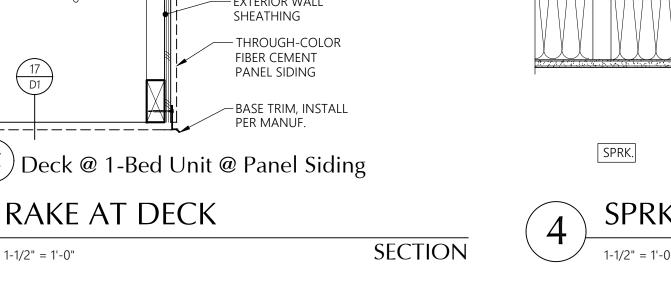
- 2x10 CEDAR TRIM,

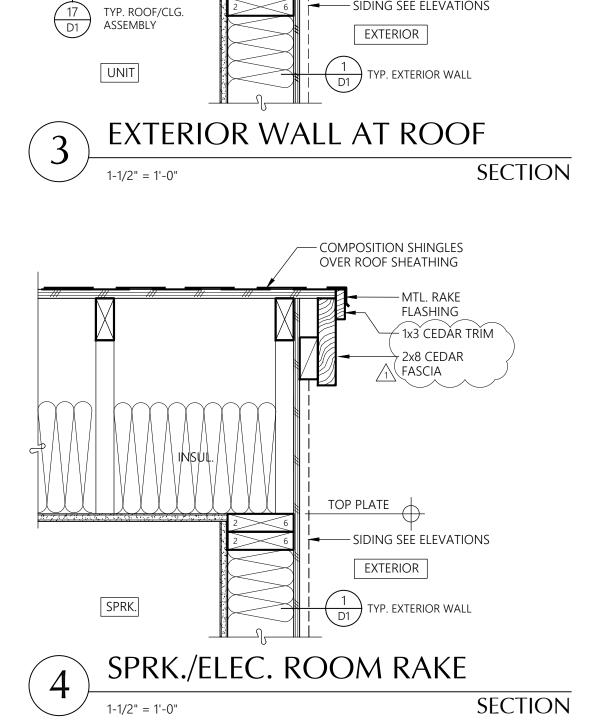
FORMS BOXED-BEAM











- COMPOSITION SHINGLES

OVER ROOF SHEATHING

O.H. SEE ROOF PLAN

- COMPOSITION SHINGLES

**OVER ROOF SHEATHING** 

- 2x4 VENT BLOCK

- SIDING OVER

SHEATHING

OVERHANG W/ RAISED HEEL

- 2x OUTRIGGERS

EXTEND BACK TO

AT 24" O.C.

**NEXT TRUSS** 

- COMPOSITION SHINGLES

– GABLE END

— SIDING SEE ELEVATIONS

TOP PLATE

OVER ROOF SHEATHING

SEE S SHEETS FOR

– METAL

FLASHING

(2X8 ČEDĂR FAŠCIA)

INSTALL ICE DAM

MEMBRANE FROM EAVE

EDGE TO A POINT 24"

BEYOND THE EXTERIOR

SEE S SHEETS FOR

TRUSS BLOCKING

FLASHING

2x8 CEDAR FASCIA

AND GUTTER

INSTALL ICE DAM

MEMBRANE FROM EAVE

EDGE TO A POINT 24"

BEYOND THE EXTERIOR

WALL LINE

**SECTION** 

∠1x3 ČEDAR

2x8 CEDAR

FASCIA

 $\angle 1$   $\rangle$  TRIM

- LET-IN OR HOLD

DOWN TOP CHORD

OF GABLE TRUSS

FOR OUTRIGGERS

CONNECTION

WALL LINE

**SECTION** 

- SEE ROOF

**GUTTER** 

PLANS FOR

LOCATIONS

TRUSS BLOCKING

CONNECTION

PLAN

-INSUL. BAFFLE

EAVE OVERHANG



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11063 \ REGISTEREF ARCHITEC1

**Bradley** Heights **Apartments** 

Wa

Puyallup,

**Timberlane Partners** 

Revisions No. Date Description 1 8-30-24 Owner Changes Permit Corrections

**SECTION** 

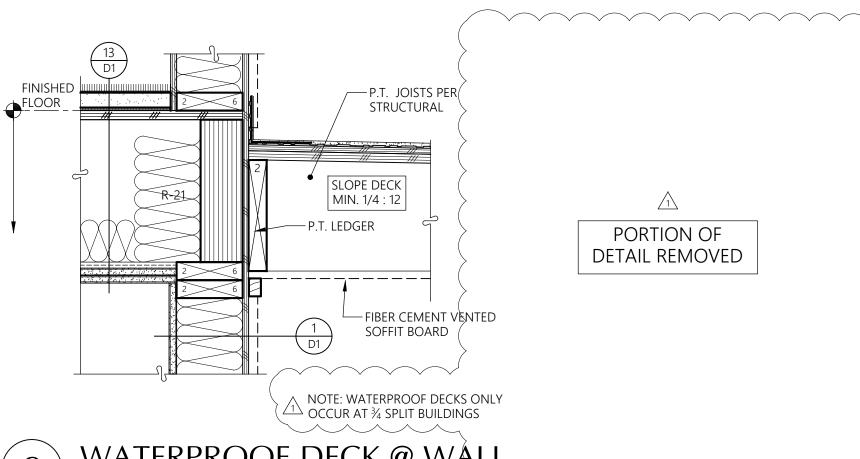
SECTION

RMU20240283

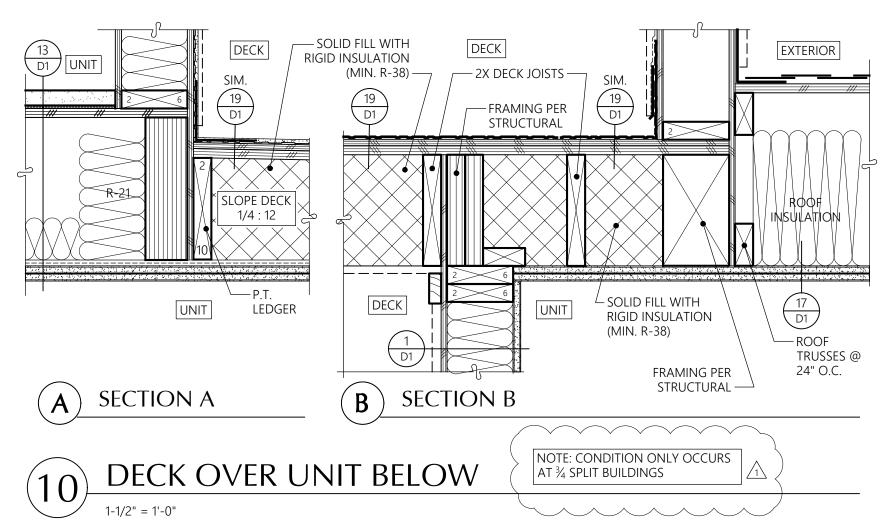
Initial Publish Date: Date Plotted: 5-1-25

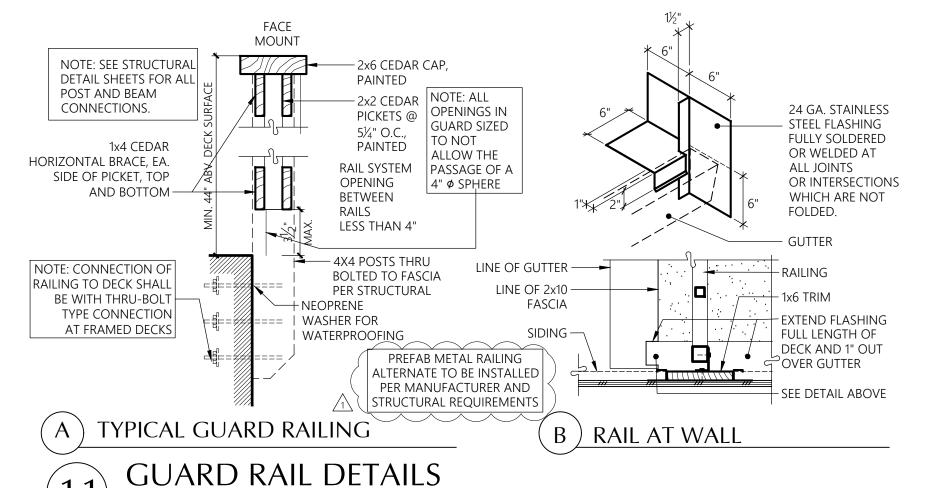
Job No.: Drawn By: 23-06 APT/HDM Sheet No.:

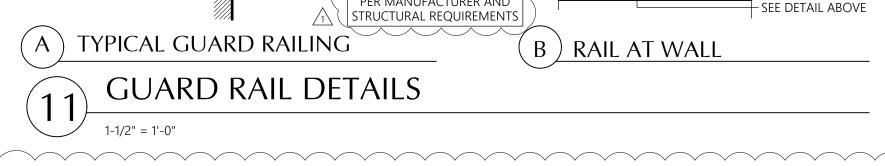
**D5** 

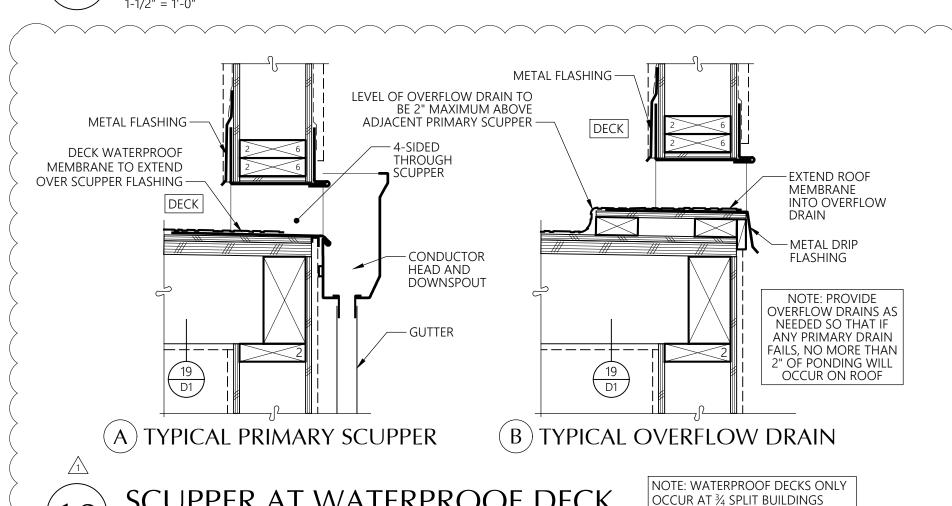


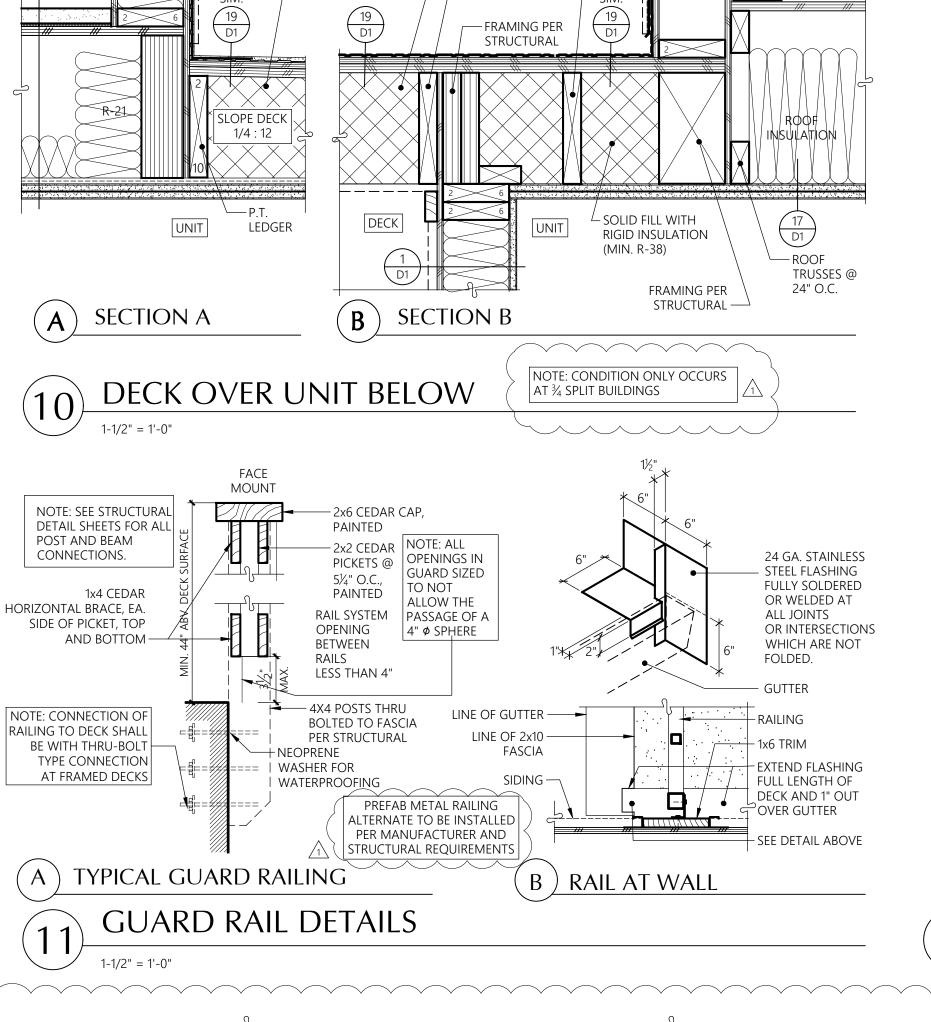


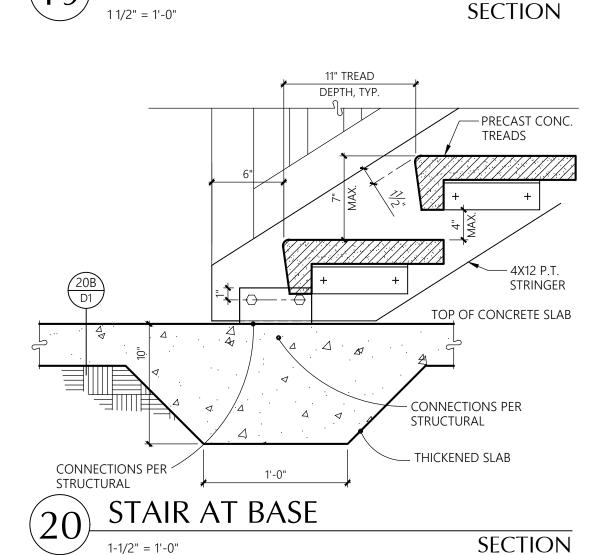












**UPPER FLOOR STAIR DETAIL** 

STRIP VENT PERP.

TO JOISTS

- SEE DETAIL 17/D4 FOR RAILING DESIGN.

-1½" ROUND CEDAR

HANDGRIP

FIBER CEMENT

STRINGER/RAILING AT WALI

UPPER FLOOR STAIR DETAIL

PRECAST

— T-BAR ∧

EXTERIOR

- BEAM PER STRUCTURAL

SEE STAIR FRAMING PLANS

ALL EXTERIOR

TRIM TO BE 5/4

FIBER CEMENT

U.N.O.

MEMBRANE

CONCRETE TREAD —

T-BAR. CUT AROUND

STRUCTURAL BRACKETS —

CONNECTIONS PER

4X12 P.T.

STRINGER -

PRECAST

CONC. TREADS

STRUCTURAL

CONNECTIONS

PER STRUCTURAL

STAIR

FIBER CEMENT

WATERPROOF MEMBRANE —

-LAG SCREW INTO

SOLID 2x BLOCKING

- 6x6x1.5 BLOCK AT

UNIT-TO-CORRIDOR WALL

PREFAB METAL

**RAILING ALTERNATE** 

TO BE INSTALLED PER

MANUFACTURER

AND STRUCTURAL

REQUIREMENTS

SECTION

STAIR

FACE OF STUD

− WATERPROOF (15 \ FLOOR AT

— BEAM PER STRUCTURAL SEE STAIR FRAMING PLANS

CORRIDOR

D1 CORRIODR

– STRIP VENT

` 4x12 P.T.

STRINGER

ALL EXTERIOR

TRIM TO BE

FIBER CEMENT

U.N.O.

PERP. TO JOISTS

4'-0" O.C. TRIMMED

CAPABLE OF

**SUPPORTING** 

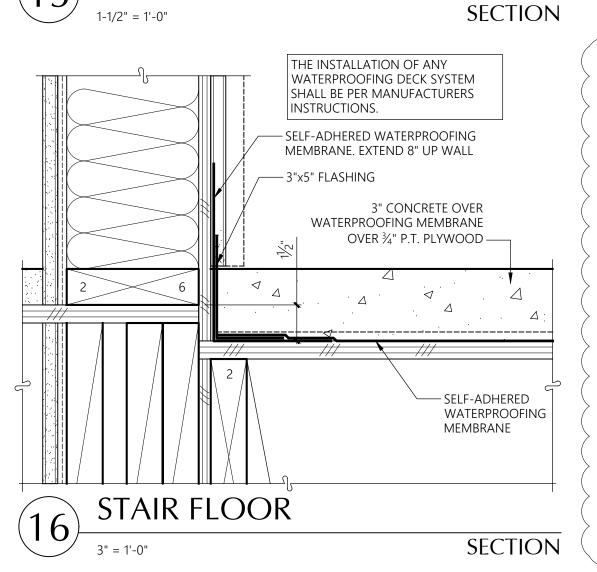
200 POUNDS

OUTPULL

AS REQD.

J-MOLD

STUD OR BLOCKING



2-HR STAIR WALL AT FLOOR

UNIT

METAL INSULATED DOOR

INSTALLED PER MANUF.

RECOMENDATIONS

TYP. FLOOR/CLG. -

CONSTRUCTION

UNIT

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

UNIT

(2) LAYERS <sup>5</sup>/<sub>8</sub>" TYPE 'X' GWB−

TYP. FLOOR/CLG.

CONSTRUCTION

RESILIENT

CHANNELS —

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

UNIT

UNIT

(2) LAYERS %" TYPE 'X' GWB—

TYP. FLOOR/CLG.

CHANNELS —

CONSTRUCTION -

RESILIENT

**CHANNELS** 

— THRESHOLD TO TERMINATE

EXIT STAIR/CORRIDOR

15 TYP. FLOOR

D1 AT EXIT STAIR

OVER TRANSITION.

SEE STRUCTURAL

FOR CONNECTION

FIBER CEMENT

BOARD

ENTRY DOOR THRESHOLD

STAIR WALL AT FLOOR

RESILIENT CHANNEL 7 2-HR UNIT/

- 3 TYP. UNIT/

D1 EXIT STAIR WALL

x LEDGER.

∕SEE STRUCTURAL

FOR LEDGER/BEARING

WALL CONNECTION.

SOFFIT BOARD

フEXIT STAIR WALL

— 2́х LEDGER.

SEE STRUCTURAL FOR LEDGER/BEARING

WALL CONNECTION.

- FIBER CEMENT

SOFFIT BOARD

EXIT STAIR/CORRIDOR

D1 AT STAIR

EXIT STAIR/CORRIDOR

**SECTION** 

EXIT STAIR/CORRIDOR

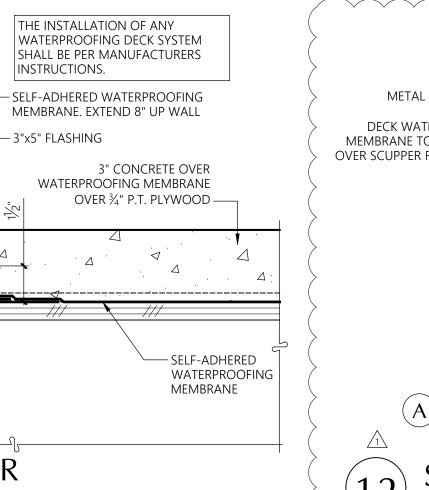
- FIBER CEMENT VENTED

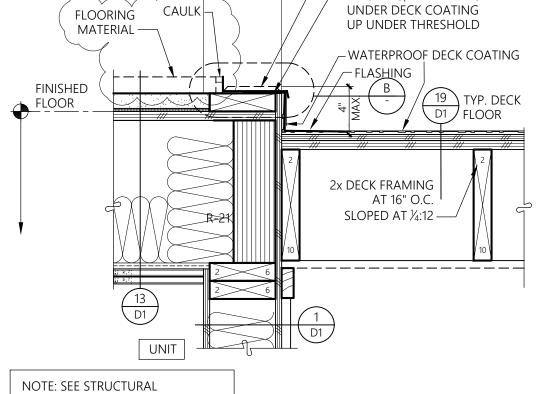
**VENTED SOFFIT** 

EXIT STAIR/CORRIDOR

EXIT STAIR/CORRIDOR

D1 AT STAIR





DECK

- FLASHING, EXTEND FROM

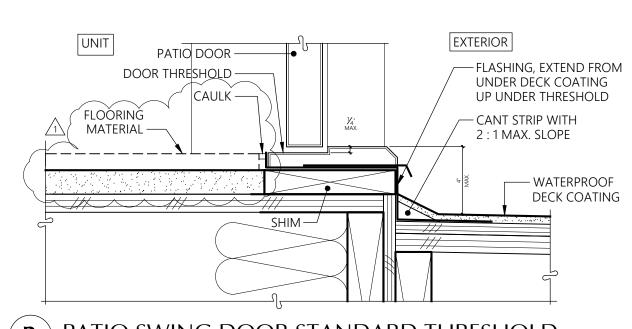
UNDER DECK COATING

- DOOR THRESHOLD

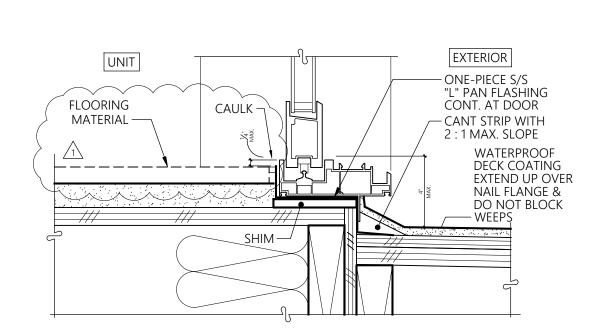
NOTE: SEE STRUCTURAL DETAIL SHEETS FOR ALL POST AND BEAM CONNECTIONS.

UNIT

## ( **A** ) PATIO SWING DOOR STANDARD THRESHOLD

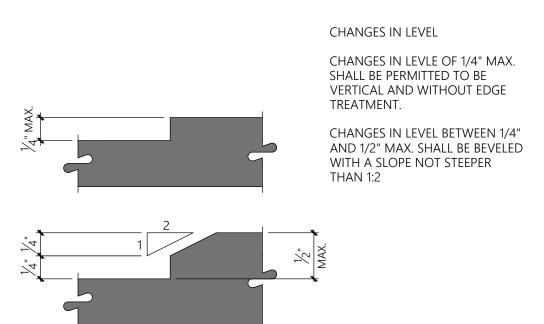


(  ${f B}$  ) patio swing door standard threshold

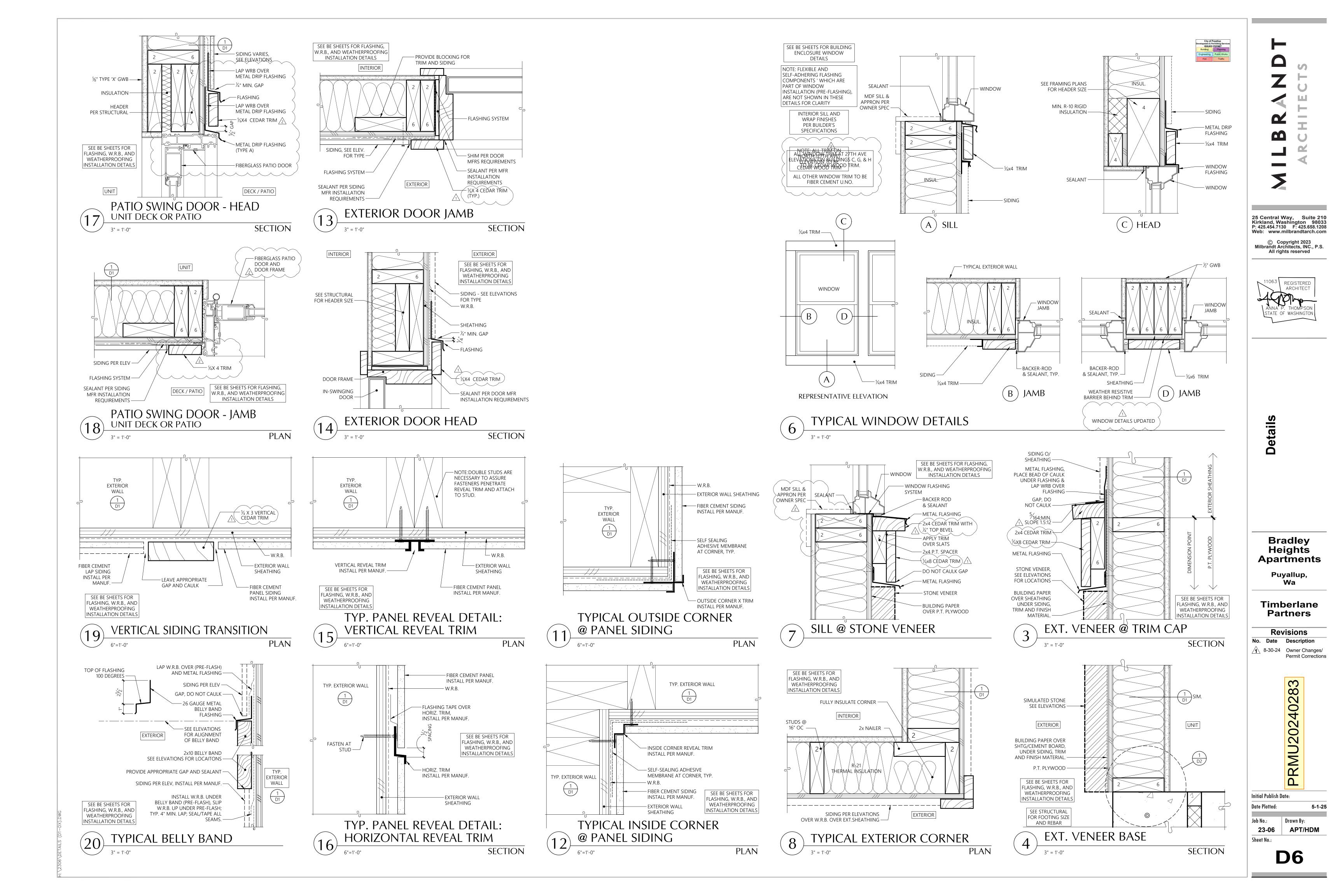


SLIDING GLASS DOOR STANDARD CONDITION





DOOR CHANGES IN LEVEL



— FULL HEIGHT POST PER STRUCTURAL

— W.R.B.

—— SIDING PER ELEVATIONS

— SAM "BOOT" FLASHING AT

AND SEAL BOTTOM EDGE

BEAM TO WALL CONNECTION

— METAL FLASHING OVER LEDGER

— SAM FLASHING OVER LEDGER

--1/2" gap; do not caulk

P.T. BEAM PER

HANGER PER STRUCT.

ATTACHMENT PER STRUCT.

--- W.R.B OR PRE-FLASHING (RUN UP TO

— W.R.B. (SLIP UNDER PRE-FLASHING)

TOP OF METAL FLASHING LEG ABOVE)

STRUCT.

— 2x P.T. LEDGER AND

- LAP W.R.B. OVER METAL FLASHING

— SAM FLASHING OVER BEAM/BOOT FLASHING

SEE DETAIL 20/D7 FOR

BEAM TO WALL FLASHING

INSTALLATION

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**SECTION** 

**Bradley** Heights **Apartments** Puyallup,

Timberlane

**Partners** Revisions

No. Date Description 1 8-30-24 Owner Changes Permit Corrections

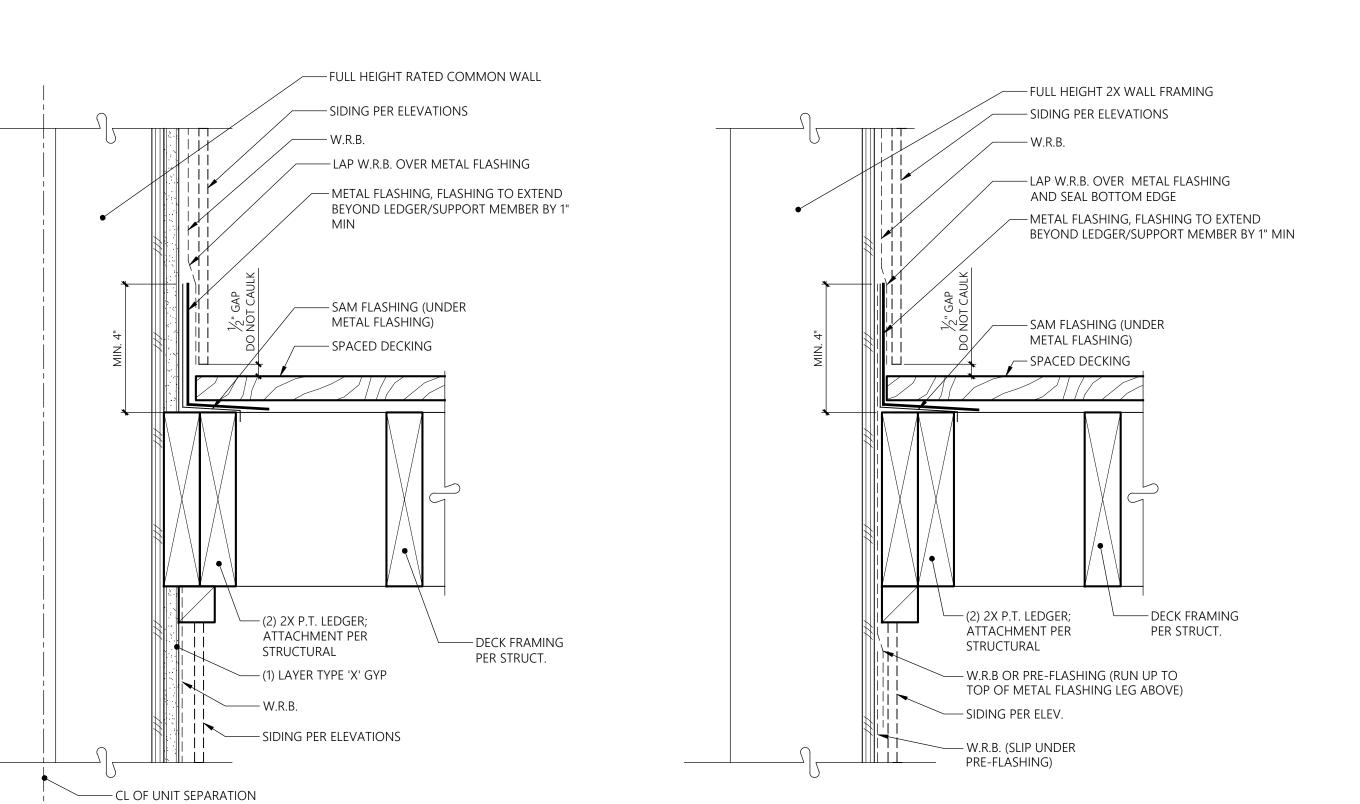
PRMU20240283

Initial Publish Date:

Date Plotted: 5-1-25 Job No.: Drawn By: 23-06

SECTION

APT/HDM Sheet No.:



DECK AT UN-RATED WALL

— FULL HEIGHT POST PER STRUCTURAL — SIDING PER ELEVATIONS — SAM "BOOT" FLASHING AT BEAM TO WALL CONNECTION -LAP W.R.B. OVER METAL FLASHING AND SEAL BOTTOM EDGE - METAL FLASHING OVER LEDGER — SAM FLASHING OVER LEDGER  $-\frac{1}{2}$ " GAP; DO NOT CAULK — SAM FLASHING OVER BEAM/BOOT FLASHING SEE DETAIL 20/D7 FOR BEAM TO WALL FLASHING INSTALLATION P.T. BEAM PER STRUCT. —— HANGER PER STRUCT. – (2) 2x P.T. LEDGER AND ATTACHMENT PER STRUCT. - (1) LAYER TYPE 'X' GYP - SIDING PER ELEVATIONS

6x6 P.T. POST —

— 1/2" CEDAR SPACERS

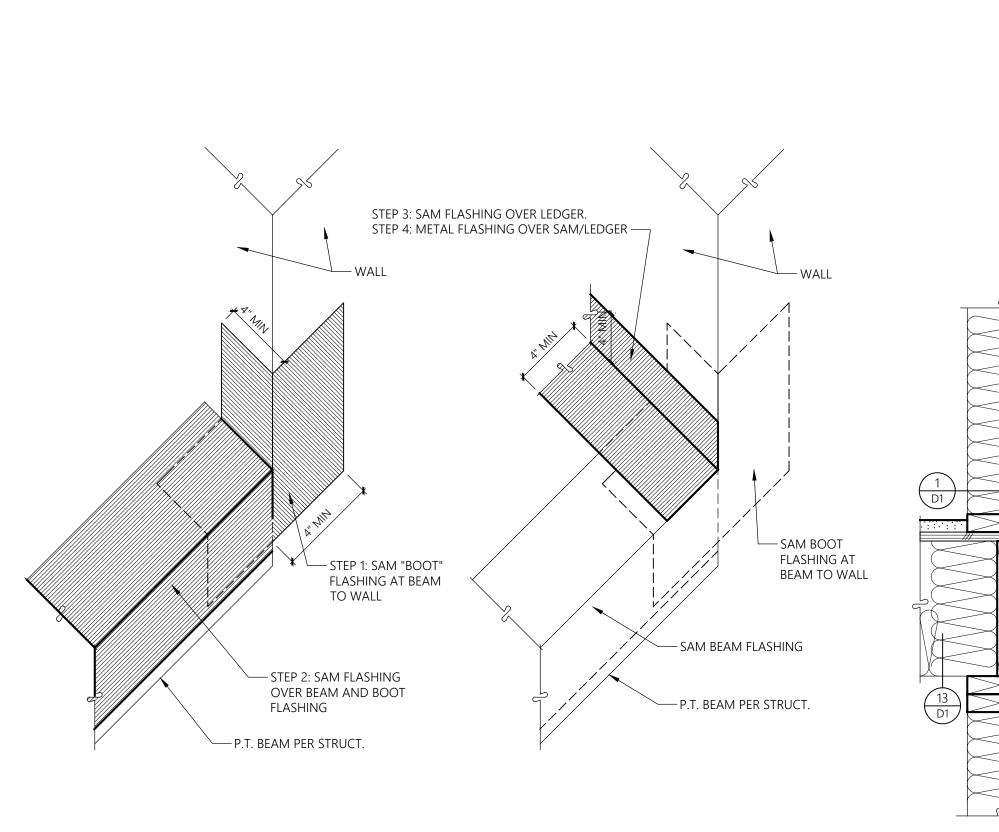
BEAM AT RATED COLUMN

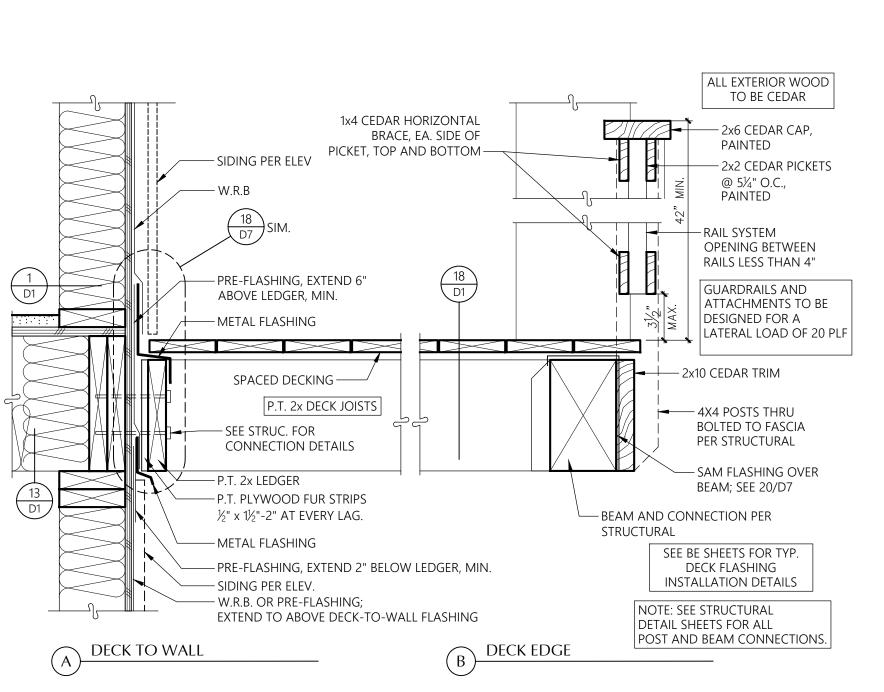
BEAM AT UN-RATED COLUMN



DECK AT RATED WALL

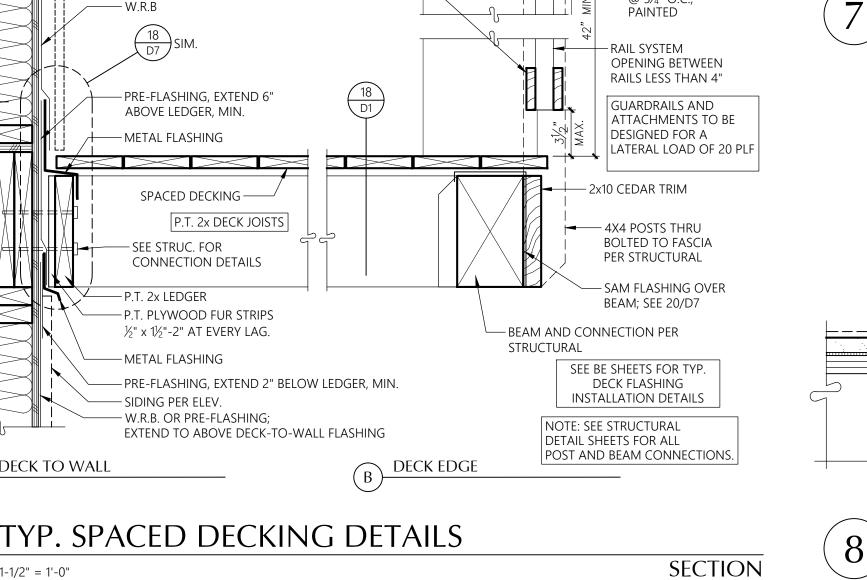
BEAM TO WALL FLASHING

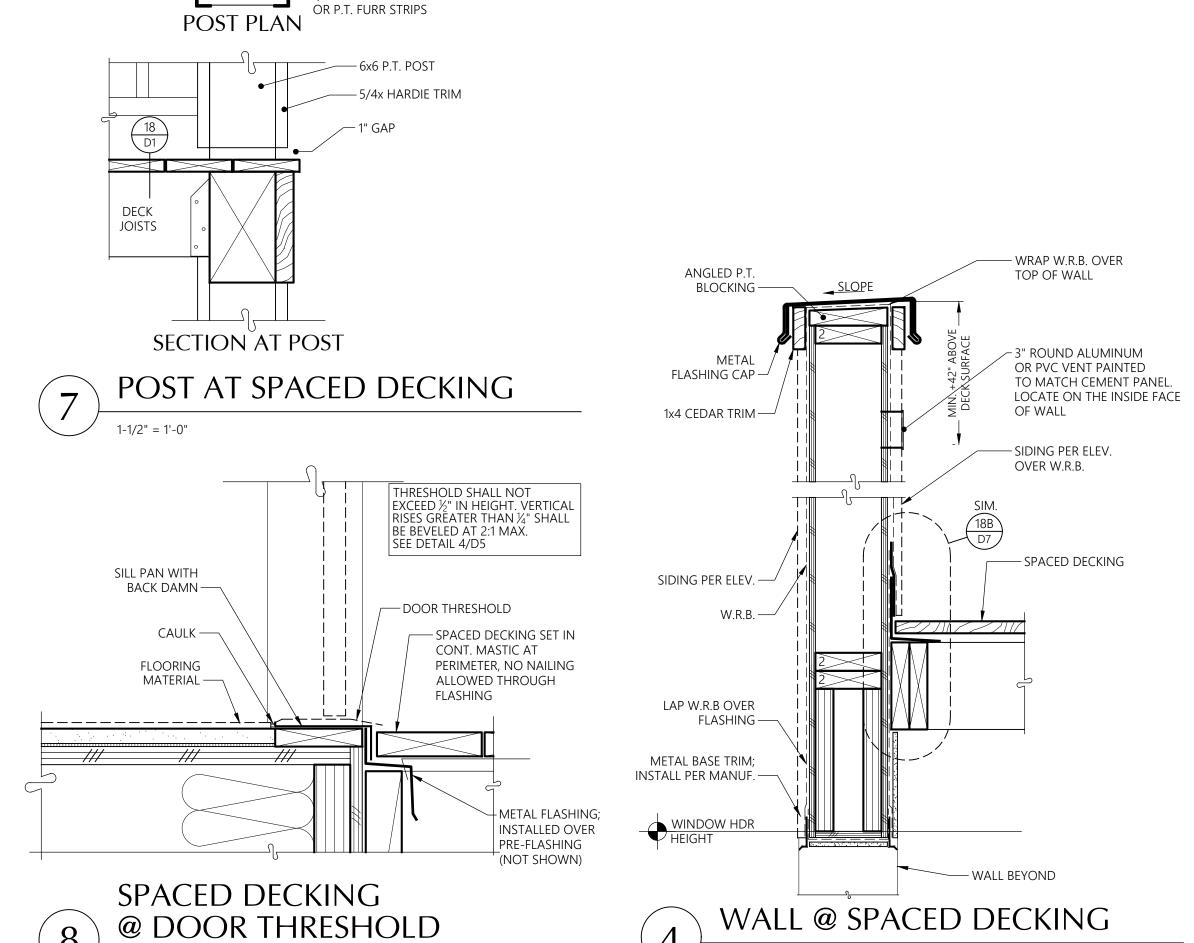




SHEET ADDED WITH

SPACED DECKING DETAILS





THE PURPOSE OF THIS DETAIL IS TO INDICATE TYPES OF LOCATIONS OF WALL, CEILING AND FLOOR PENETRATIONS THAT NEED TO BE FIRESTOPPED IN ACCORDANCE WITH 706, 708, 711, 713, 714 AND 717 OF THE 2018 INTERNATIONAL BUILDING CODE. THE THICK LINES IN THE DETAIL INDICATE A PENETRATION BY A PIPE, CONDUIT, VENT, ETC., WHETHER PLASTIC (COMBUSTIBLE) OR

NON-COMBUSTIBLE.
IN GENERAL THESE PENETRATIONS (OR THE ANNULAR SPACE AROUND THEM) WOULD COMPROMISE THE INTEGRITY OF THE FIRE-RATED ASSEMBLY UNLESS IT WERE CLOSED OFF AND PROTECTED DURING A FIRE. COMMON WALLS BETWEEN UNITS ARE FIRE-RATED WALLS. UNRATED WALLS WITHIN UNITS (EVEN THOUGH THEY MAY HAVE RATED WALLBOARD) NEED NOT BE PROTECTED. HOWEVER, PENETRATION OF THE TOP

AND BOTTOM PLATES OF UNRATED WALLS INTO THE RATED FLOOR ASSEMBLY NEEDS TO BE FIRESTOPPED.

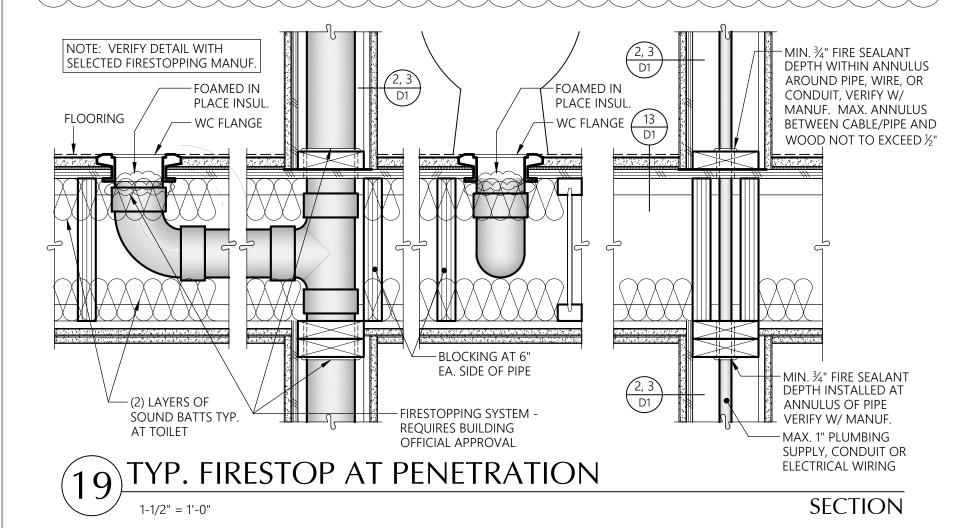
THE CONTRACTOR SHALL DETERMINE FIRESTOPPING FOR EACH SITUATION, AND TESTED ASSEMBLIES SHALL BE SUBMITTED TO THE ARCHITECT AND THE CITY IN ACCORDANCE WITH THE "DEFERRED"

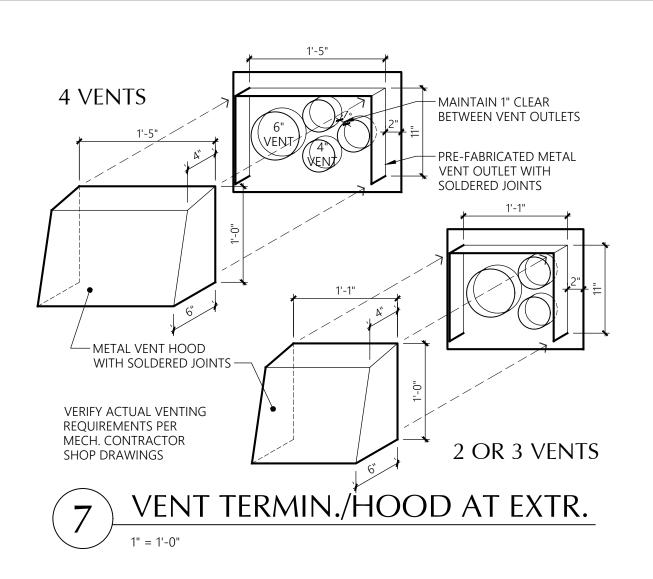
SUBMITTALS" SECTION ON THE COVER SHEET

PENETRATION LOCATIONS FOR FIRESTOPPING

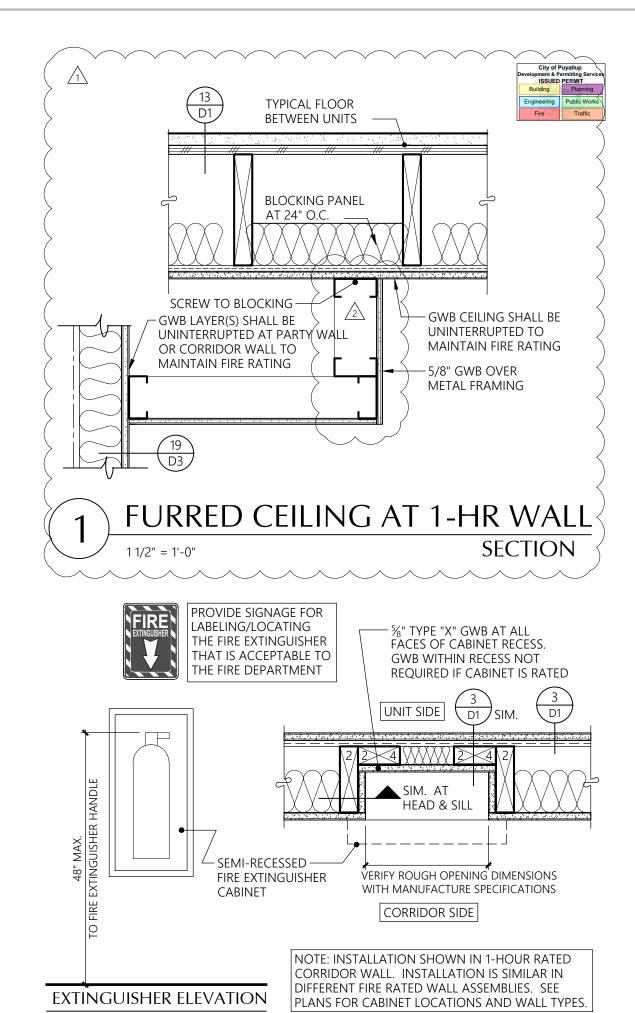
SEC

DETAIL 18/D8 REMOVED











#### INSULATION AND ENERGY NOTES

#### Insulation - General

All insulation materials shall be installed according to the manufacturer's instructions to achieve proper densities, and maintain uniform R-values. Substantial contact of the insulation with the surface being insulated is required.

Where required, insulation shall be installed with clearances according to manufacturer's specifications. Insulation shall be installed so that required ventilation is unobstructed. For blown or poured loose fill insulation clearances shall be maintained through installation of a permanent retainer.

#### Slab on Grade

R-10 slab on grade insulation shall be installed inside the foundation wall.

#### Insulated Floors

Floor insulation shall be installed in a permanent manner in substantial contact with the surface being insulated. Insulation supports shall be installed so spacing is no more than twenty-four inches on center.

Floors separating conditioned space from unconditioned space shall have a vapor barrier installed. Vapor barrier shall be installed on the warm side of the insulation. The vapor barrier shall have a one perm dry cup rating or less (i.e. four mil. polyethylene or kraft faced material). The floor sheathing may be used as the vapor barrier if rated (and so stamped) at one perm (max.) Otherwise place vapor barrier on top of joists before placing sheathing.

#### Exterior Walls

All wall insulation shall fill the entire cavity. Exterior wall cavities isolated during framing shall be fully insulated to the levels of the surrounding walls. All faced insulation shall be face stapled to avoid compression.

Walls separating conditioned space from unconditioned space shall have a vapor barrier installed. Faced batt insulation shall be face stapled. Vapor barrier shall be installed on the warm side of the insulation.

#### Air Leakage

These air leakage notes apply to those locations separating outdoor ambient conditions from interior spaces that are heated or mechanically cooled.

Exterior joints around windows and door frames, between wall cavities and window or door frames, openings between walls and foundation, between walls and roof and wall panels; openings at penetrations of utility services through walls, floors and roof; and all other openings in the building envelope shall be sealed, caulked, gasketed, or weatherstripped to limit air leakage in a manner approved by the building official.

## INERGY NOTES

Doors

All exterior doors or doors serving as access to an enclosed unheated area shall be weatherstripped to limit leakage around their perimeter when in a closed position.

The thermal transfer characteristics of insulated doors shall be determined per NFRC 100-91.

#### Windows:

Glazing U-values shall be determined in accordance with

NFRC 100-91.

Windows and SGD shall be double glazed vinyl type with the U-values indicated on the unit plans.

Windows shall be furnished with outdoor air inlets as indicated on the Unit Electrical plans. Inlets shall have a controllable and secure opening and be capable of a total opening area of not less than four (4) square inches and tested by a nationally recognized standard or approved agency and located to avoid drafts. Inlets shall be screened or otherwise protected from entry by insects, leaves, or other material.

#### Roof/Ceilings:

Roof/Ceiling insulation: Open-Blown or poured loose fill insulation may be used in attic spaces where the slope of the ceiling is more than 4 in 12 and there is at least 44 inches of clear distance from the top of the bottom chord of the truss or ceiling joist to the underside of the sheathing. When eave vents are installed, baffling of the vent openings shall be provided so as to deflect the incoming air above the surface of the insulation. Baffles shall be rigid material, resistant to wind driven moisture. When feasible, the baffles shall be installed from the top of the outside of the exterior wall, extending inward, to a point six inches vertically above the height of noncompressed insulation, and twelve inches vertically above loose fill insulation. Baffles shall be in place at the time of framing inspection.

Where the ventilation space above the insulation is less than an average of twelve inches roof ceiling assemblies shall be provided with a vapor barrier having a 0.5 perm cup rating or less. Faced batt insulation where used as a vapor barrier shall be face stapled.

where used as a vapor barrier shall be face stapled.

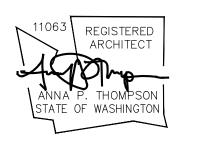
Vapor barriers shall not be required in roof/ceiling assemblies where the ventilation space above the insulation averages twelve inches or greater.

Vapor barriers shall be installed on the warm side of the ulation.

# MILBRANDT

25 Central Way, Suite 210 Kirkland, Washington 98033 P: 425.454.7130 F: 425.658.1208 Web: www.milbrandtarch.com

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Details

#### Bradley Heights Apartments

Puyallup, Wa

#### Timberlane Partners

# Partners

Revisions

No. Date Description

1 8-30-24 Owner Changes/

Permit Corrections

PRMU20240283

Initial Publish Date:

Date Plotted: 5-6-25

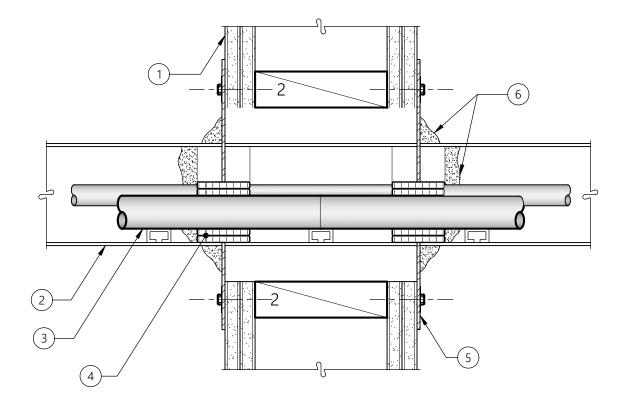
Job No.: Drawn By:
23-06 APT/HDM

Sheet No.:

- (1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET DI FOR DETAILS
- 2 METALLIC SLEEVE OPTIONAL SEE MANUFACTURER INFORMATION FOR ACCEPTABLE METALLIC SLEEVES
- (3) ONE NONMETALLIC PIPE WITHIN FIRESTOP SYSTEM. PIPE MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45 DEGREES FROM PERPENDICULAR. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE SPACE BETWEEN THE PIPE AND PERIPHERY OF THE OPENING SHALL BE MIN.  $\frac{1}{4}$ " TO MAX  $\frac{1}{16}$ ". SEE MANUFACTURER INFORMATION FOR ACCEPTABLE PIPE TYPES AND SIZES.
- (4) FOR 1 HR F RATING, MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF THE WALL. FOR 2 HOUR F RATING, MIN 1-1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. HILTI FS-ONE OR FS-ONE MAX INTMESCENT SEALANT



**SECTION** 

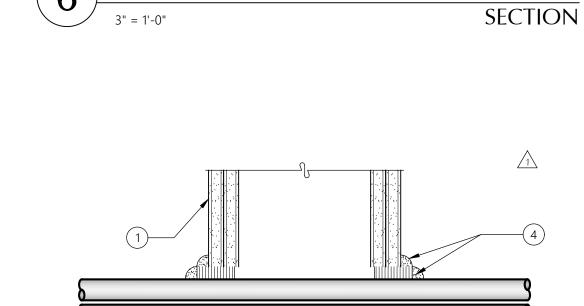


- (1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET D1 FOR DETAILS
- ( 2 ) MAX 24" WIDE BY MAX 4" DEEP OPEN LADDER STEEL OR ALUMINUM CABLE TRAY. CABLE TRAY TO CONSIST OF CHANNEL-SHAPED SIDE-RAILS WITH BOXED CHANNEL RUNGS SPACED 9" O.C. CABLE TRAY CENTERED IN FRAMED OPENING AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- (3) AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN CABLE TRAY NOT TO EXCEED 32% OF THE CROSS-SECTIONAL AREA OF THE CABLE TRAY BASED ON A MAX 3" CABLE LOADING DEPTH WITHIN THE CABLE TRAY. ACCEPTABLE TYPES AND SIZES OF CABLE AS NOTED BY
- (4) RIGID ALUMINUM FOIL-FACED SHEET WITH GALV. STEEL SHEET BACKER. SHEETS CUT TO TIGHTLY FOLLOW THE CONTOURS OF THE CABLES AROUND THE ENTIRE PERIMETER OF THE CABLE TRAY AND CABLE FILL. SHEETS CUT TO LAP A MIN. OF 2" ON THE WALL ON ALL SIDES OF THE OPENING ON BOTH SIDES OF THE WALL.
- (5) MIN. 2" WIDE STRIP OF MIN 0.020" THICK (26 GAUGE) GALV. STEEL CENTERED OVER ENTIRE LENGTH OF EACH BUTTED SEAM OR SLIT MADE IN THE INTUMESCENT SHEET. INSTALL PER
- (6) ONE LAYER OF  $\frac{1}{2}$ " x  $\frac{1}{16}$ " ADHESIVE BACKED GRAPHITE INTUMESCENT SEAL POSITIONED UNDER INTUMESCENT SHEET AROUND ENTIRE PERIMETER OF THROUGH OPENING OR MIN.  $\frac{1}{4}$ " DIAM. CONTINUOUS BEAD OF CAULK OR PUTTY APPLIED TO EDGE OF INTUMESCENT SHEET AT ITS INTERFACE WITH SURFACE OF FLOOR OR WALL AROUND ENTIRE PERIMETER OF THROUGH OPENING. CAULK APPLIED TO FILL ALL INTERSTICES BETWEEN CABLES AND BETWEEN CABLES AND WRAP STRIP (ITEM 4). CAULK DEPTH TO BE MIN. 2" WITHIN CONFINES OF WRAP STRIP ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. GENEROUS APPLICATION OF CAULK TO BE APPLIED AROUND THE BASE OF THE CABLE TRAY SIDE-RAILS AND CONTOUR APPLIED WRAP STRIPS AT THEIR EGRESS FROM THE INTUMESCENT SHEET ON BOTH SIDES OF THE WALL ASSEMBLY. CAULK ALSO APPLIED TO COVER ALL EXPOSED EDGES OF WRAP STRIPS TO A MIN. THICKNESS OF 1/8"

SEE MANUF. INFORMATION FOR USE OF PUTTY AS CAULKING ALTERNATIVE.



**SECTION** 



(1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET D1 FOR DETAILS

OF DUCT AND SPACED A MAX OF 6" OC.

( 2 ) NOM. 36" x 30" (OR SMALLER) NO. 24 GAUGE (OR HEAVIER) GALV. STEEL DUCT TO BE

ANNULAR SPACE OF MIN 0" TO MAX 2" IS REQUIRED WITHIN THE FIRESTOP SYSTEM.

(3) PACKING MATERIAL (OPTIONAL) – POLYETHYLENE BACKER ROD, MINERAL WOOL BATT

(4) MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH

(5) MIN. 16 GAUGE GALV. STEEL ANGLES SIZED TO LAP DUCT A MIN OF 2" AND LAP WALL

WALLBOARD, A MIN  $\frac{1}{4}$ " DIAM. BEAD OF SEALANT SHALL BE APPLIED AT THE

WALLBOARD/DUCT INTERFACE ON BOTH SURFACES OF WALL ASSEMBLY.

INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. AN

INSULATION OR FIBERGLASS BATT INSULATION FRICTION-FIT INTO ANNULAR SPACE FOR 2

SURFACES OF WALL TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL (ITEM

SURFACES OF WALL ASSEMBLY. AT THE POINT CONTACT LOCATION BETWEEN DUCT AND

SURFACES OF A MIN OF 1". ANGLES ATTACHED TO DUCT ON BOTH SIDES OF WALL WITH MIN

½" LONG, NO. 10 (OR LARGER) SHEET METAL SCREWS SPACED A MAX OF 1" FROM EACH END

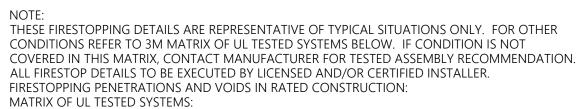
HR RATED WALL ASSEMBLIES ONLY. PACKING MATERIAL TO BE RECESSED FROM BOTH

- (1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET D1 FOR DETAILS
- (2) CABLES MAX 4 IN. DIAM TIGHT BUNDLE OF CABLES CENTERED IN CIRCULAR CUTOUTS IN GWB AND RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. SEE MANUFACTURER INFORMATION FOR ACCEPTABLE TYPES AND SIZES CABLES.
- (3) WRAP STRIP NOM ¼" THICK INTUMESCENT MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN NOM 2 IN. WIDE STRIP TIGHTLY WRAPPED AROUND CABLE BUNDLE (FOIL SIDE OUT) WITH SEEM BUTTED. WRAP STRIP SECURELY BOUND WITH STEEL WIRE TIE AND SLID INTO ANGULAR SPACE APPROX. 1-1/4" SUCH THAT APPROX 3/4" OF THE WRAP WIDTH PROTRUDES FROM WALL SURFACE ON EACH SIDE OF ASSEMBLY
- MIN. ½" THICKNESS DIAM OF MOLDABLE PUTTY APPLIED TO THE WRAP STIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF WRAP STRIP APPROX 3/4" FROM WALL SURFACE ON EITHER SIDE OF ASSEMBLY. PUTTY TO BE FORCED INTO INTERSTICES OF CABLE BUNDLE TO MAX EXTENT POSSIBLE WITHIN CONFINES OF THE WRAP STRIP EACH SIDE OF ASSEMBLY



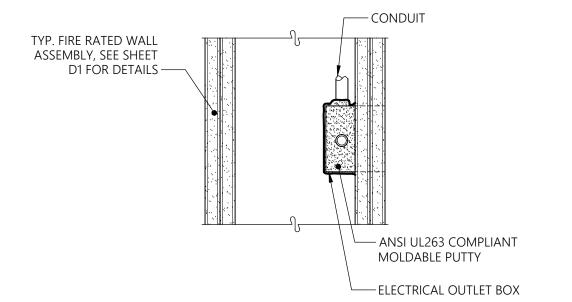
WL3030

**SECTION** 

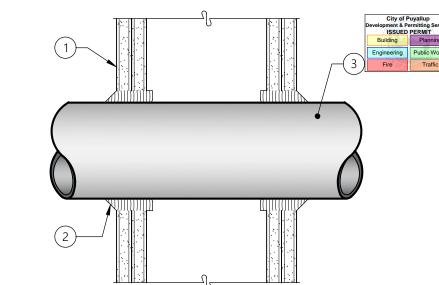


| PENETRATING ITEM   | FIRE<br>ASSEMBLY | RATING   | SYSTEM     | PROD              | ASSOCIATED DETAIL |   |
|--------------------|------------------|----------|------------|-------------------|-------------------|---|
| METAL PIPE/CONDUIT | GYP. WALLS       | 1,2&3 HR | WL1001     | CP25WB+           | 1/D9 <u>2</u>     |   |
| MULTIPLE METAL     | GYP. WALLS       | 1&2 HR   | WL1016     | CP25WB+           | 2/D9 <u>2</u>     |   |
| INSULATED PIPE     | GYP. WALLS       | 1&2 HR   | WL5039     | CP25WB+           | 4/D9 <u>2</u>     |   |
| HVAC DUCTS         | GYP. WALLS       | 1&2 HR   | WL7008     | CP25WB+           | 6/D9 <u>2</u>     |   |
| BUND CABLES        | GYP. WALLS       | 1&2 HR   | WL3031     | MOLDABLE<br>PUTTY | 7/D9 <u>2</u>     |   |
| ELEC. OUTLET BOXES | GYP. WALLS       | 1&2 HR   | ANSI UL263 | MOLDABLE<br>PUTTY | 8/D9 <u>2</u>     |   |
| CABLE TRAYS        | GYP. WALLS       | 1&2 HR   | WL4004     | CP25WB+<br>CS195+ | 10/D9/2           | } |

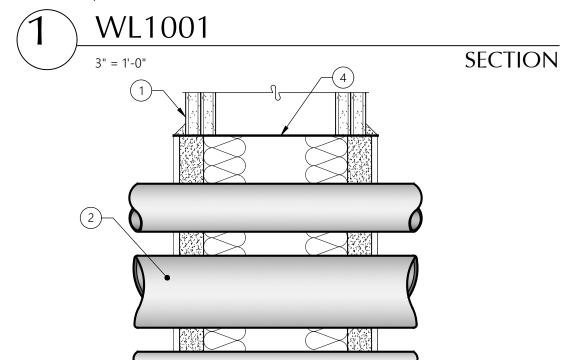
MATRIX OF UL TESTED SYSTEMS FOR FIRESTOPPING



SECTION



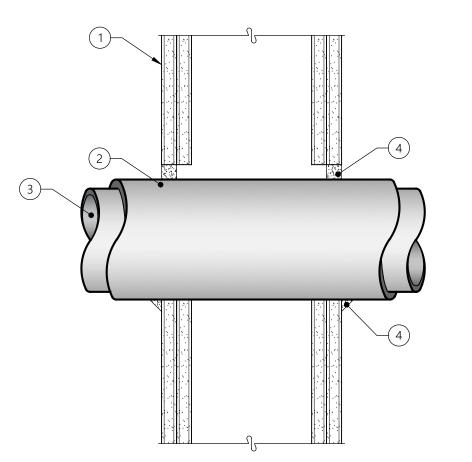
- (1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET D1 FOR DETAILS
- (2) MIN. 5/8", 11/4", 17/8" THICKNESS OF CAULK FOR 1, 2, 3 HOUR, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN ¼" DIA. BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL.
- (3) METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 2 IN.



- (1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET D1 FOR DETAILS
- (2) NOM 3 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, STEEL CONDUIT OR STEEL ELECTRICAL METALLIC TUBING. MULTIPLE PIPES AND/OR CONDUIT PERMITTED IN SLEEVED OPENING PROVIDED A MIN SEPARATION OF 1/4" IS MAINTAINED BETWEEN PIPES OR
- MIN. 1" THICKNESS OF RIGID GLASS FIBER INSULATION OR MINERAL WOOL BATT (3) INSULATION FIRMLY PACKED INTO STEEL SLEEVE ON BOTH SIDES OF WALL ASSEMBLY AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED MIN. %" FROM SURFACE OF WALL ON BOTH SIDES OF WALL ASSEMBLY.
- 4 NO 28 GALIGE GALV SHEET STEEL FORMED INTO MAX 12 IN DIA OR MAX 12 IN BY 9 IN SLEEVE WITH NOM 2 IN. OVERLAP AT SEAM. LENGTH OF SLEEVE TO BE APPROX. 1 IN. GREATER THAN OVERALL THICKNESS OF WALL ASSEMBLY, SUCH THAT, WHEN INSTALLED, THE ENDS OF THE SLEEVE WILL PROJECT APPROX. 1/2 IN. BEYOND THE SURFACE OF THE WALL ON BOTH SIDES OF THE WALL ASSEMBLY.
- (5) CAULK OR SEALANT APPLIED TO FILL THE STEEL SLEEVE TO A MIN. DEPTH OF 1" ON BOTH SIDES OF WALL ASSEMBLY. A NOM. ½" DIA. CONTINUOUS BEAD OF CAULK SHALL BE APPLIED AROUND THE CIRCUMFERENCE OF THE STEEL SLEEVE AT ITS EGRESS FROM THE GYPSUM WALLBOARD LAYERS ON BOTH SIDES OF THE WALL ASSEMBLY.

WL1016

**SECTION** 



- 1) TYP. FIRE RATED WALL ASSEMBLY, SEE SHEET D1 FOR DETAILS
- ( 2 ) NOM. ½" TO 2" THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS FOR 1 HR RATED ASSEMBLIES, NOM ½" TO 1½" THICK CYLINDRICAL HEAVY DENSITY GLASS FIBER UNITS FOR 2 HR RATED ASSEMBLIES, JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. THE ANNULAR SPACE BETWEEN THE INSULATED PIPE AND THE EDGE OF THE THROUGH OPENING SHALL BE MIN 0" TO MAX. 11/4"
- (3) ONE METALLIC PIPE OR TUBE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL
- (4) MIN. %" THICKNESS OF CAULK APPLIED WITHIN ANNULAR SPACE FLUSH WITH EACH SURFACE OF WALL. A MIN. ½" DIAM. BEAD OF CAULK SHALL BE APPLIED TO THE PIPE INSULATION/ WALLBOARD INTERFACE AT THE POINT CONTACT LOCATION ON BOTH SIDES OF WALL.



WL5039

**SECTION** 

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**Bradley** Heights **Apartments** 

Puyallup,

**Timberlane Partners** 

Revisions No. Date Description

/1\ 8-30-24 Owner Changes/

Permit Corrections

RMU20240283

Initial Publish Date:

Date Plotted: 5-1-25 Drawn By:

Job No.: 23-06 APT/HDM Sheet No.:

NOTE: ALL DETAILS ON THIS SHEET ARE RECOMMENDED FIRE RATED PENETRATION DETAILS BASED ON PRODUCTS LISTED IN 12/D9. OTHER PRODUCTS MEETING THE SAME LEVEL OF ASSEMBLY SHALL BE DEEMED ACCEPTABLE.

Puyallup,

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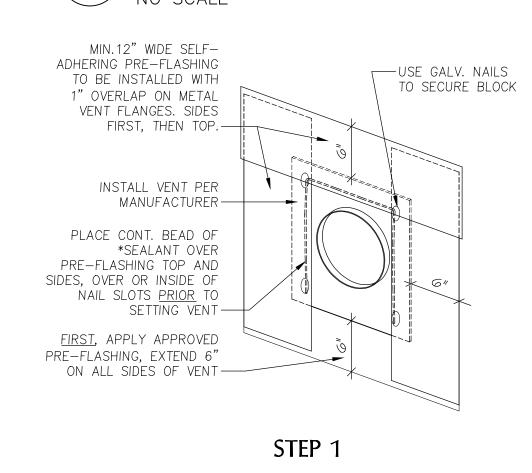
Date Plotted: 5-1-25 Drawn By: **REW/DJV** 

Job No.: 23-06 Sheet No.:

BE1



BUILDING PAPER INSTALLATION



AIR VENT (8" OR LARGER)

NOTE FOR ALL STYLES: UP-TURNED END DAMS TO BE USED AT EVERY TERMINATION POINT AT ALL LOCATIONS

100 DEGREES

100 DEGREES

FLASHING TYPE A

END DAM-

AREAS OF USE:

-Garage wraps

AREAS OF USE:

-Column base shoe

kick-out could be

-Anywhere  $\frac{1}{4}$ " kick-out

would not be acceptable or at locations where

dangerous for homeowners.

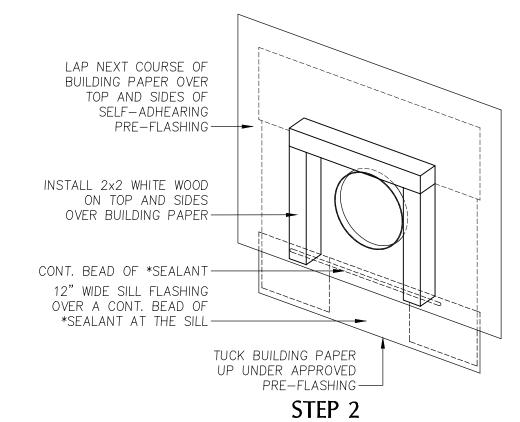
-All exterior doors

-Non-vinyl penetration

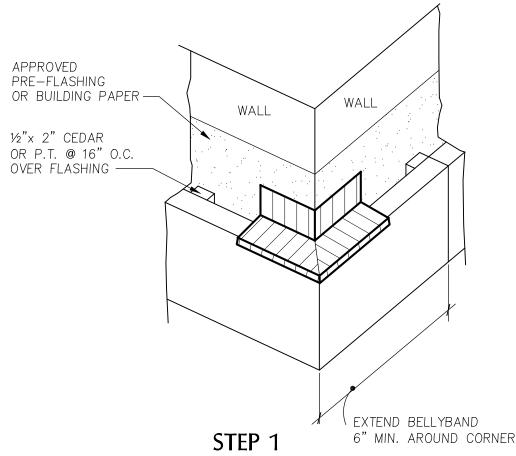
-Bellybands

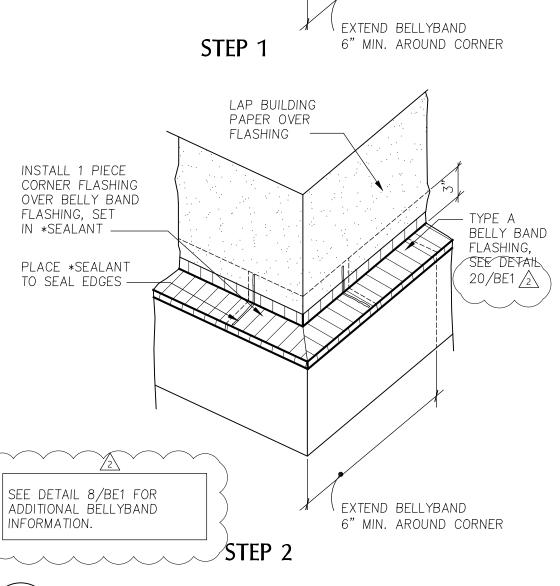
-Windows

blocks

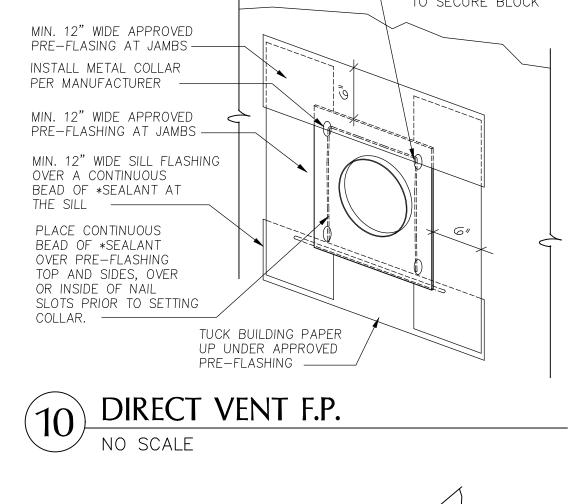


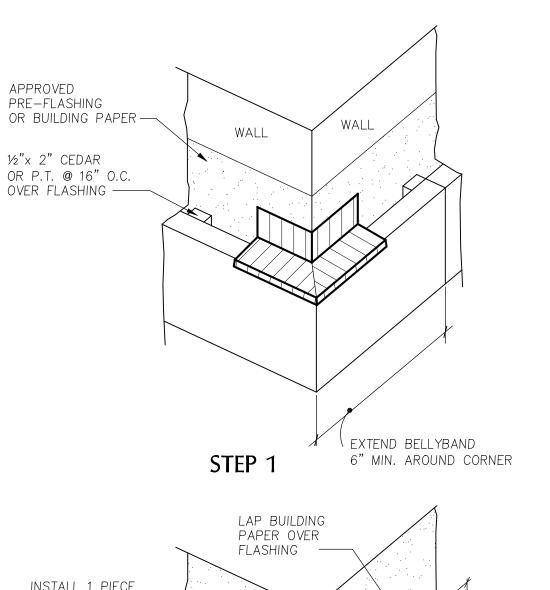
— USE GALV. NAILS TO SECURE BLOCK MIN. 12" WIDE APPROVED PRE-FLASING AT JAMBS INSTALL METAL COLLAR PER MANUFACTURER MIN. 12" WIDE APPROVED PRE-FLASHING AT JAMBS — MIN. 12" WIDE SILL FLASHING OVER A CONTINUOUS BEAD OF \*SEALANT AT THE SILL —— PLACE CONTINUOUS BEAD OF \*SEALANT OVER PRE-FLASHING TOP AND SIDES, OVER OR INSIDE OF NAIL SLOTS PRIOR TO SETTING COLLAR. — TUCK BUILDING PAPER UP UNDER APPROVED PRE-FLASHING ----

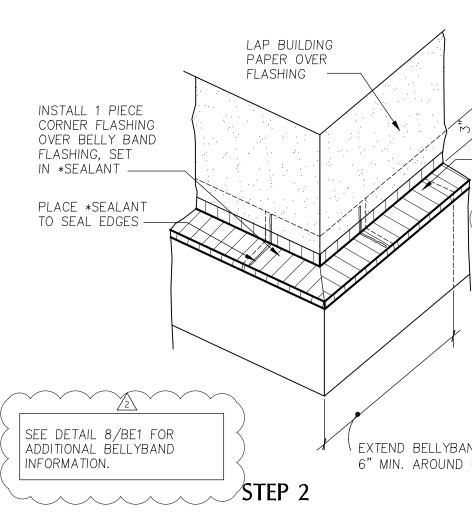




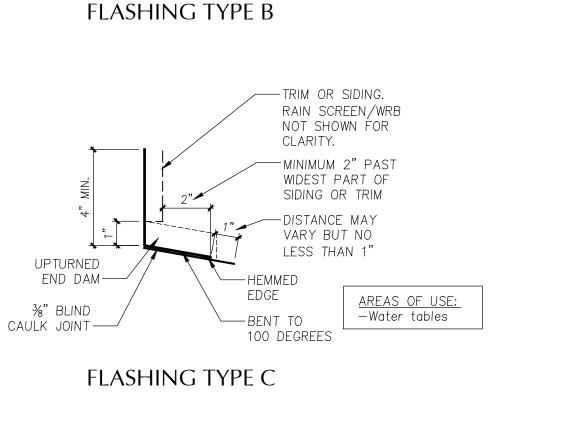






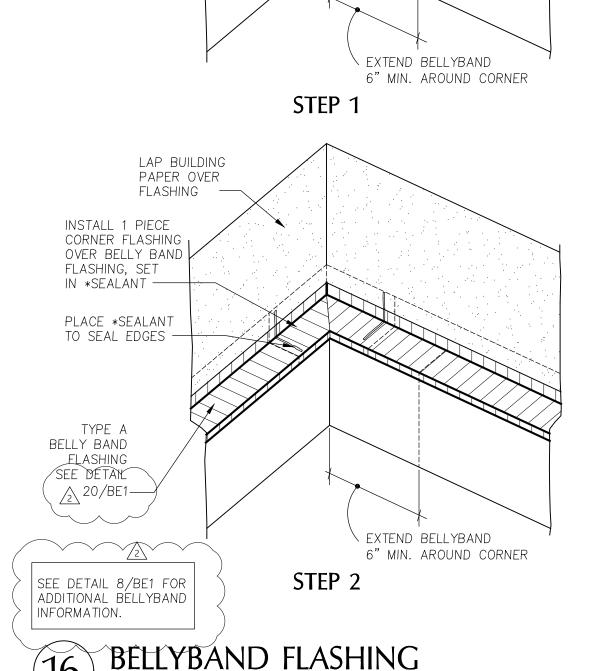


WALL WALL APPROVED PRE-FLASHING OR BUILDING PAPER-½"x 2" CEDAR OR P.T. @ 16" O.C. OVER FLASHING OR BUILDING PAPER



HEAD FLASHING TYPES

SECTION



TUCK BUILDING PAPER UP UNDER APPROVED PRE-FLASHING -ATTACH BLOCK WITH HOT-DIPPED GALVANIZED SCREWS OR DECK SCREWS-\*SEALANT ON TOP AND SIDES-PENETRATION DETAIL BEVEL TOP OF BELLY BAND 100 DEGREES— TYPE A FLASHING SEE HEAD FLASHING DETAIL 20/BE1 1/4"x2 CEDAR OR P.T. @ 16" O.C. OVER APPROVED PRE-FLASHING 5/4x10 BEVEL BOTTOM OF BELLY BAND 100 DEGREES — BUG SCREEN-EXTEND BUILDING WHERE REQUIRED PAPER OVER METAL FLASHING — — OVERLAP FLASHING 6" AND SEAL WITH SEALANT. INSTALL ENAMELED - STEEL TYPE A FLASHING OVER

NO SCALE

ADD UPTURNED DAMS

EXCEPT FOR HOSE BIBS

WITH CAULK END DAMS

WHICH HAVE DOWN TURN

INSTALL ENAMELED STEEL

TYPE A, DRIP FLASHING

OVER ALL WOOD BLOCKS.

SEE HEAD FLASHING

DETAIL (20/BE1./2)

LAP NEXT COURSE

FLASHING AND DOWN

SIDES OF BLOCK. CUT

PAPER TIGHT TO BOCK .-

OF PAPER OVER

PLACE PRE PRIMED OR NON-PRIMED

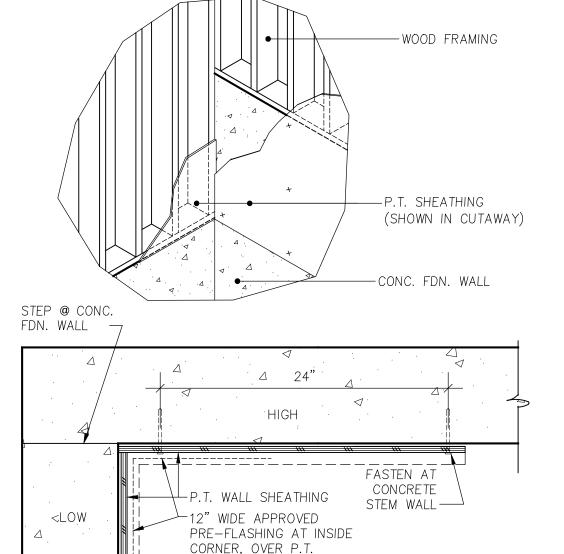
CEDAR WOOD BLOCK OVER APPROVED

PRE-FLASHING, EXTEND 6" BEYOND

BLOCK ON ALL SIDES.

BELLY BAND. SEE DETAL 20/BE1 🛕 −¼"x2 CEDAR OR P.T. @ 16" O.C. OVER PAPER SLIP BUILDING PAPER UP UNDER APPROVED PRE-FLASHING OR BUILDING PAPER A MINIMUM OF 2" ---BUG SCREEN — WHERE REQUIRED

INSTALL 60 MIN. GRADE D BUILDING PAPER WEATHERBOARD FASHION STARTING FROM THE BOTTOM. BELLY BAND

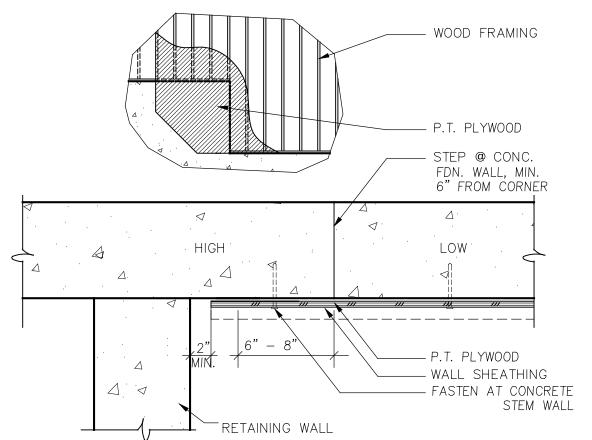


SHEATHING, PRIOR TO BUILDING

PAPER, EXTEND 6" ABOVE TOP

OF HIGH CONCRETE WALL







**BE-Sheet Disclaimer** 

The details in the BE-Sheets are intended to meet or exceed all manufacturer recommended installation instructions, any letters of approval provided by a manufacturer to the Contractor, local codes, standards set by specific associations, best practices set by the industry or any other group or organization as acknowledged by the industry.

All manufacturer recommendations should be followed when installing specific materials. If a Subcontractor or installer finds a situation where the BE-Sheet details

conflict or fall below any standards set forth by the organizations mentioned above, it will be the responsibility of the Subcontractor to seek appropriate and written clarification from the Contractor before proceeding. The Contractor reserves its right to add, change, modify or update any of the details at any time. \*All components, sealants, fasteners, or materials shall be approved for specific use or application described by the designs, and shall be compatible with all material with which each component comes in contact

with.

VALLEY FLASHING

\_VALLEY FLASHING

- LAP VALLEY FLASHING AT RIDGE AND ROOF

PLAN VIEW

CRICKET DETAIL

PROVIDE 2" GAP BETWEEN
ALL TRIM AND ROOFING

ROOF SEPARATION

NO SCALE

ALL END CUTS TO BE PRIMERED

CENTER OF VALLEY TO BE 3"
MIN. FROM CORNER OF WALL

ENAMELED STEEL

METAL FLASHING CAP-

ADD 2 GASKETED

SCREWS EACH SIDE TO

PREFABRICATED

BRACE/CORBEL

NO SCALE

DECORATIVE

SECURE TO CORBEL

DECORATIVE CORBEL/BRACE

Bradley Heights Apartments

uilding

 $\mathbf{\Omega}$ 

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11063 \ REGISTEREI

ARCHITEC1

Puyallup, Wa

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Revisions

Date Description

No. Date Description

PRMU20240283

AT SECOND COURSE

APPROVED
PRE-FLASHING

FASCIA

ROOF DIVERTER

MIN. 6" ALL SIDES. SEE DETAIL 1/BE2 2 If a Subcontractor or installer finds a

situation where the BE-Sheet details

conflict or fall below any standards set

forth by the organizations mentioned above, it will be the responsibility of

the Subcontractor to seek appropriate

and written clarification from the

details at any time.

with.

Contractor before proceeding. The

Contractor reserves its right to add

change, modify or update any of the

\*All components, sealants, fasteners,

specific use or application described

compatible with all material with which

or materials shall be approved for

each component comes in contact

by the designs, and shall be

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Job No.: Drawn By:

BE2

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DETAIL REMOVED

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All manufacturer recommendations should be

followed when installing specific materials.

standards set by specific associations, best practices set by the industry

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or materials shall be approved for

each component comes in contact

by the designs, and shall be

the Subcontractor to seek appropriate

conflict or fall below any standards set

Puyallup,

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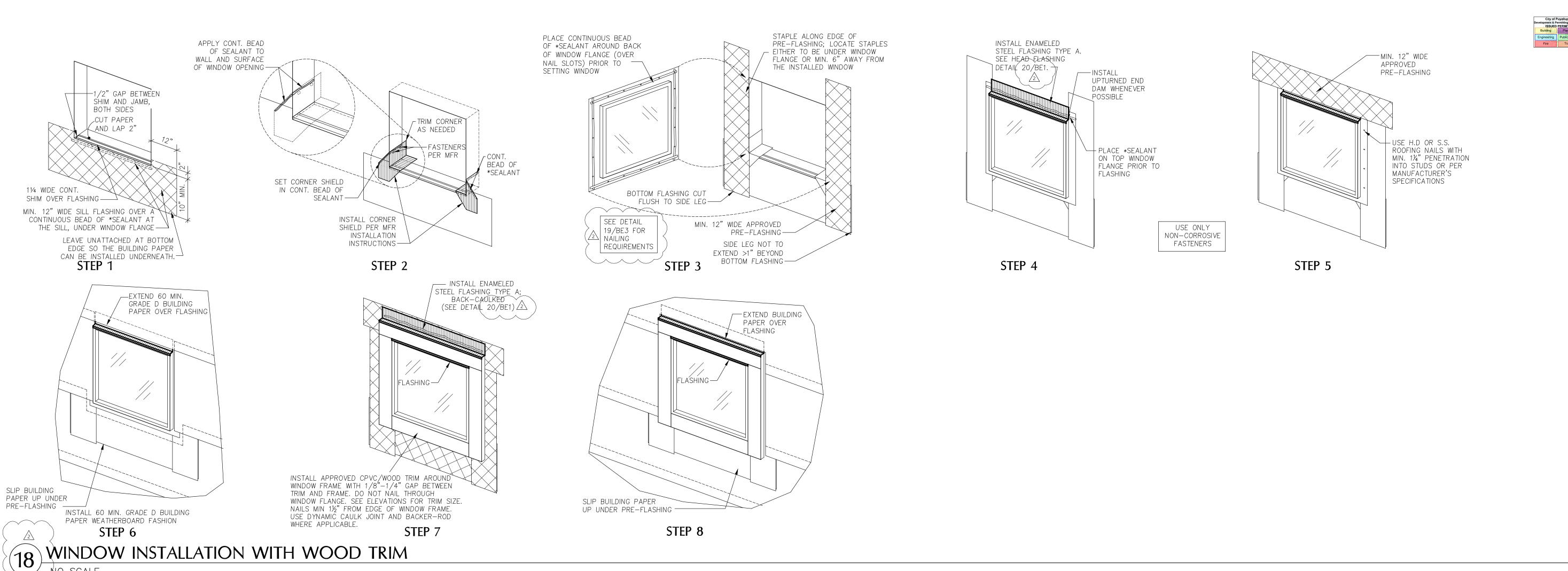
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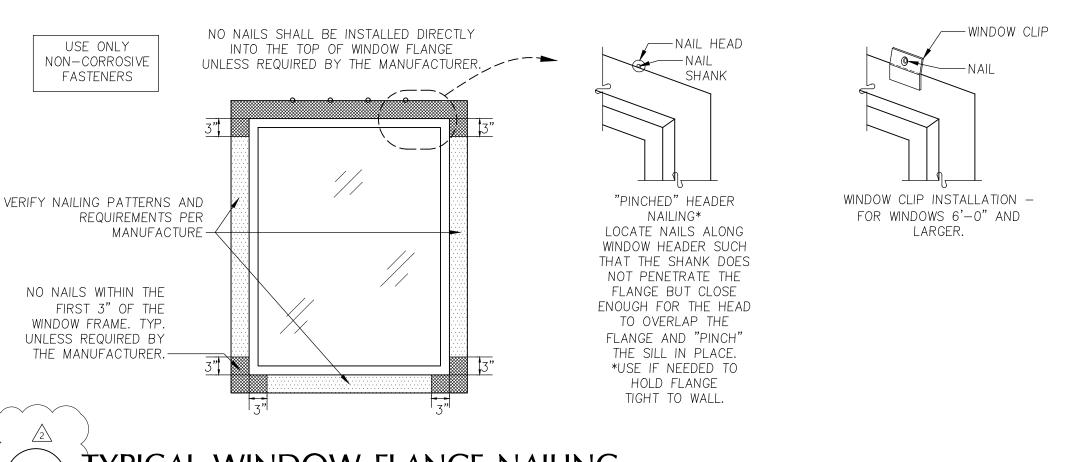
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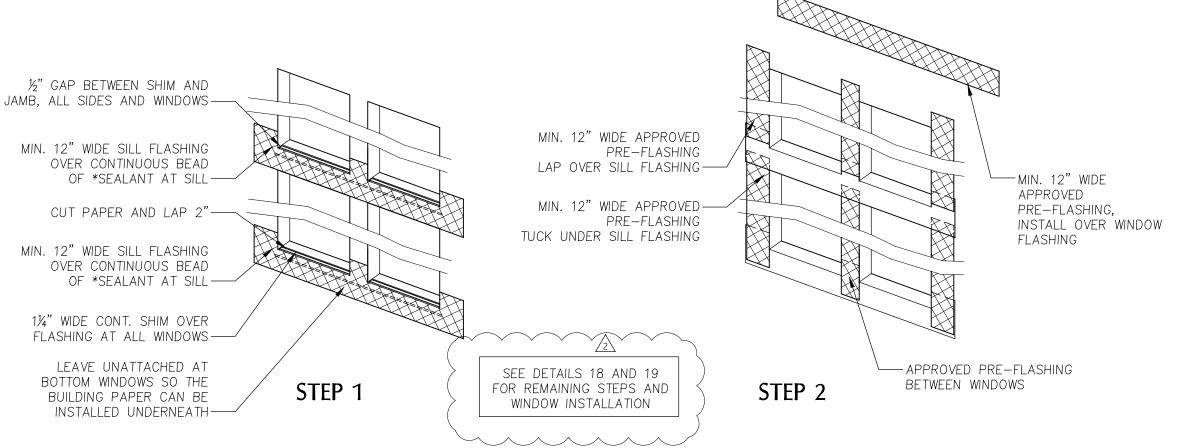
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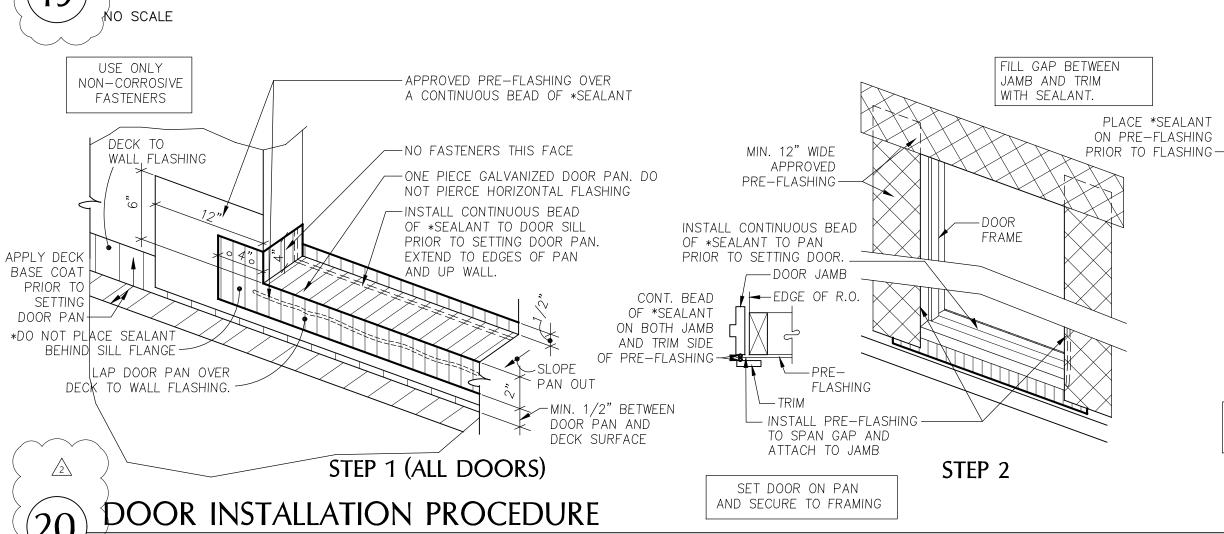
BE3

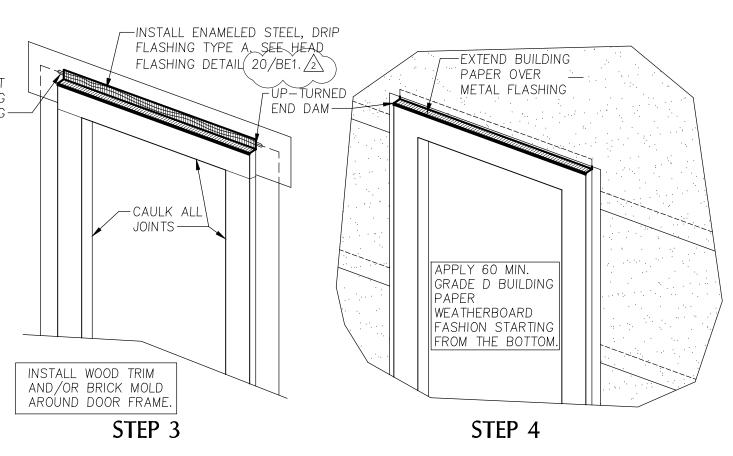






TYPICAL WINDOW FLANGE NAILING





**MULTI-WINDOW** 

-BUILDING PAPER

- SEE STRUC. FOR CONNECTION DETAILS

— P.T. PLYWOOD FUR STRIPS  $\frac{1}{2}$ " x  $\frac{1}{2}$ "-2" AT EVERY LAG.

— P.T. 2x LEDGER

— TYPE A FLASHING

SEE DETAIL 19/BE5

DECK TO WALL FLASHING

SPACED DECKING

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

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above, it will be the responsibility of the Subcontractor to seek appropriate

and written clarification from the

details at any time.

Contractor before proceeding. The Contractor reserves its right to add,

change, modify or update any of the

\*All components, sealants, fasteners,

specific use or application described

compatible with all material with which

each component comes in contact

or materials shall be approved for

by the designs, and shall be

The details in the BE-Sheets are intended to meet or exceed all manufacturer recommended installation instructions, any letters of

followed when installing specific materials.

approval provided by a manufacturer to the Contractor, local codes,

standards set by specific associations, best practices set by the industry or any other group or organization as acknowledged by the industry.

All manufacturer recommendations should be

PRE-FLASHING, EXTEND 6" ABOVE LEDGER, MIN.

METAL Z-FLASHING,
TYPE B, SEE DETAIL 20/BE1 2

P.T. 2x JOISTS

— PRE-FLASHING, EXTEND 2" BELOW LEDGER, MIN.

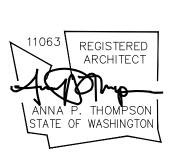
EXTEND TO ABOVE DECK-TO-WALL FLASHING

SECTION

— BUILDING PAPER OR PRE-FLASHING;

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etails Building

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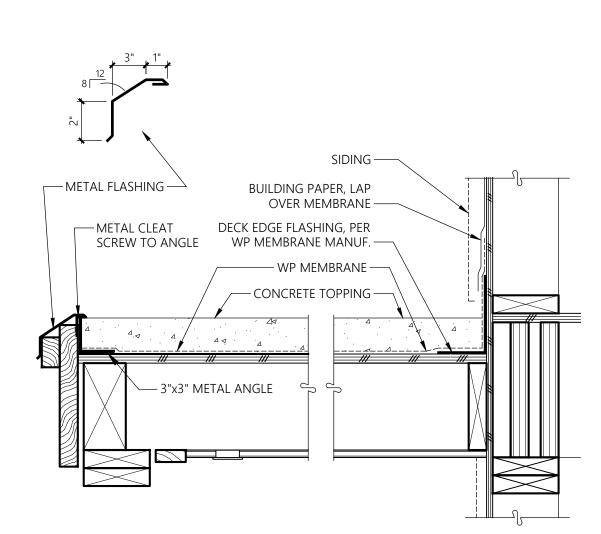
Date Plotted: 5-1-25 Job No.: Drawn By: REW/DJV

23-06 Sheet No.:

BE4

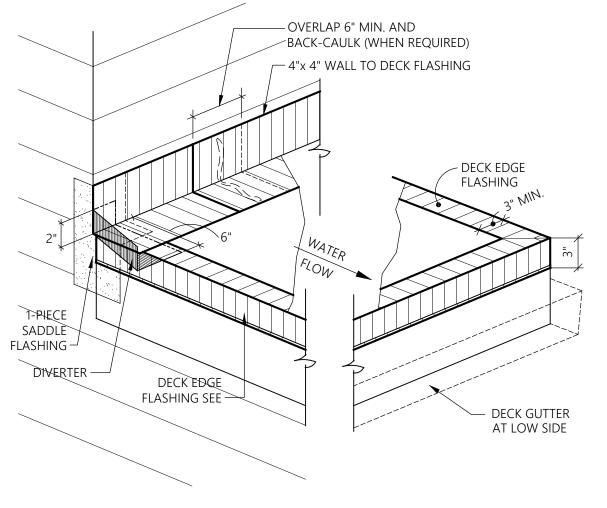
DECK SHEATHING 1-PIECE SADDLE FLASHING

CLEAN AND PREPARE SURFACES PRIOR TO COATING, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR BEST PRACTICES.

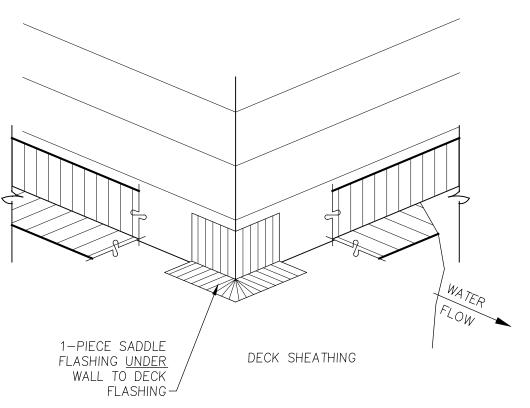


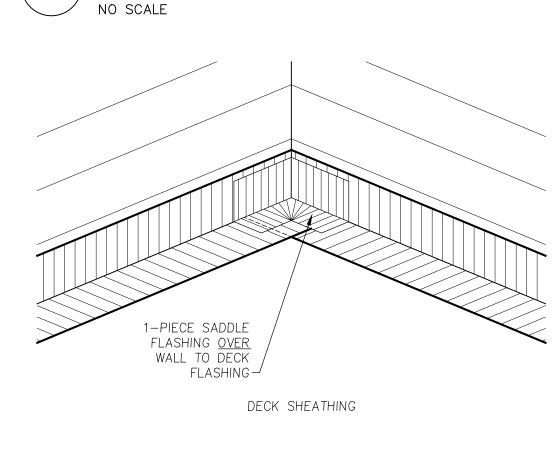
# 1-PIECE DECK SADDLE FLASHING

DECK FLASHING - INSIDE CORNER

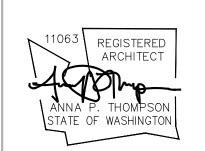


DECK DETAILS





# 16 DECK FLASHING - OUTSIDE CORNER



uildin

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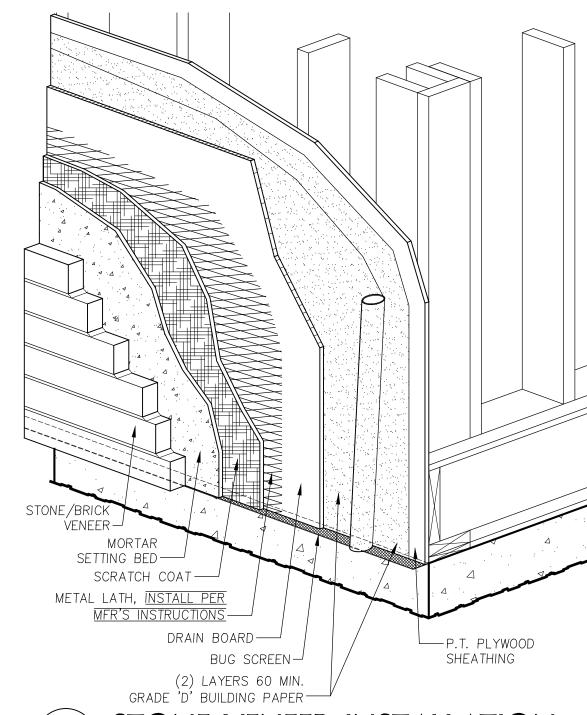
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**REW/DJV** 

23-06 Sheet No.:

BE5



SIMULATED STONE BRICK VENEER SCRATCH COAT-MORTAR JOINT WHERE REQUIRED -2 LAYES OF 60 MIN. GRADE D BUILDING PAPED-P.T. PLYWOOD — VERICAL FURRING BEYOND -3" VENT AT BOTTOM OF COLUMN — PREPARE SETTING BED PER VENEER MANUFACTURER'S INSTALLATION INSTRUCTIONS ½" CLEARANCE AT BASE — INSTALL BUG SCREEN -BOTTOM OF COLUMNS TO BE WRAPPED W/ 12" PRE-FLASHING. BUILDING PAPER TO START 6" ABOVE SURFACE—

STONE VENEER INSTALLATION NO SCALE

PLYWOOD TO BE

USE ONLY

NON-CORROSIVE

**FASTENERS** 

EXTEND 1" PAST TOP OF CONCRETE

TO FINISHED

1/2" TO CONCRETE

PRESSURE-TREATED

PREPARE SETTING BED PER

INSTALLATION INSTRUCTIONS

VENEER MANUFACTURER'S

SIMULATED STONE /

BRICK VENEÉR

MORTAR JOINT

WHERE REQUIRED-

MORTAR SETTING BED -

COMBED SCRATCH COAT -

K-LATH: ATTACH PER

MANUF. INSTALLATION

(2) LAYERS 60 MIN.

INSTALL BUG SCREEN-

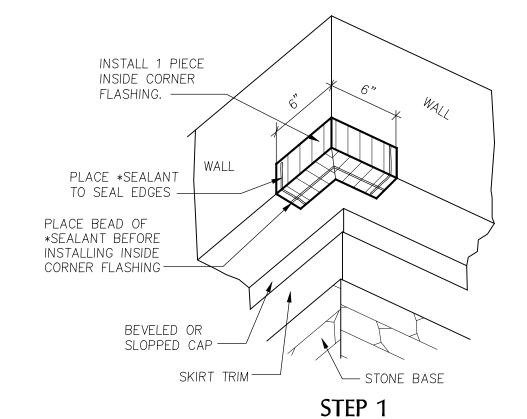
GRADE 'D' BUILDING PAPER ---

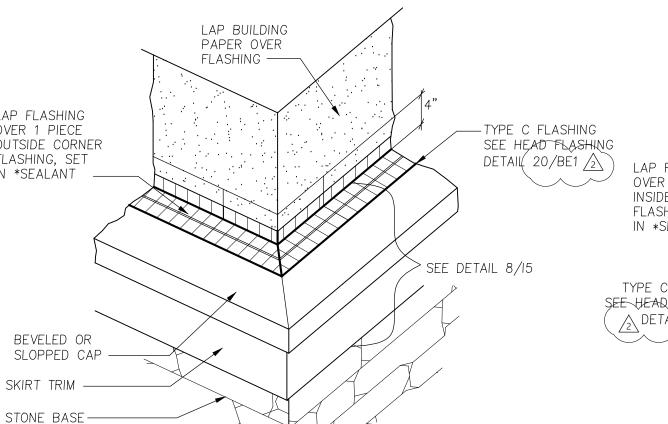
INSTRUCTIONS -

DRAIN BOARD-

INSTALL 1 PIECE OUTSIDE CORNER FLASHING. PLACE \*SEALANT TO SEAL EDGES PLACE BEAD OF \*SEALANT BEFORE INSTALLING OUTSIDE CORNER FLASHING -BEVELED OR SLOPPED CAP SKIRT TRIM-STONE BASE-STEP 1

BRICK VENEER AT COLUMN BASE





LAP BUILDING PAPER OVER FLASHING LAP FLASHING OVER 1 PIECE INSIDE CORNER FLASHING, SET IN \*SEALANT TYPE C FLASHING 4 SEE HEAD FLASHING

DETAIL 20/BE1 SLOPPED CAP-SKIRT TRIM-

STEP 2

INSIDE CORNER

**BE-Sheet Disclaimer** 

If a Subcontractor or installer finds a

situation where the BE-Sheet details

conflict or fall below any standards set

forth by the organizations mentioned

the Subcontractor to seek appropriate

above, it will be the responsibility of

and written clarification from the

details at any time.

Contractor before proceeding. The

Contractor reserves its right to add,

change, modify or update any of the

\*All components, sealants, fasteners,

specific use or application described

compatible with all material with which

each component comes in contact

or materials shall be approved for

by the designs, and shall be

The details in the BE-Sheets are intended to meet or exceed all

manufacturer recommended installation instructions, any letters of

approval provided by a manufacturer to the Contractor, local codes,

or any other group or organization as acknowledged by the industry.

All manufacturer recommendations should be

followed when installing specific materials.

standards set by specific associations, best practices set by the industry

**OUTSIDE CORNER** 

STONE WATERTABLE ON FRAMING

NOTE: COMPONENT SPACING EXAGGERATED FOR CLARITY

PLYWOOD TO BE PRESSURE-TREATED

USE ONLY NON-CORROSIVE

FASTENERS

BUILDING PAPER

OVER METAL FLASHING-

METAL FLASHING TYPE C

(SEE HEAD FLASHING

SLOPED WOOD/CPVC CAP-

WOOD BLOCK AND TRIM OVER (2) LAYERS 60 MIN. GRADE

PREPARE SETTING BED PER VENEER MANUFACTURER'S

INSTALLATION INSTRUCTIONS

BUILDING PAPER OVER METAL

METAL FLASHING TYPE C

(SEE HEAD FLASHING

SLOPED WOOD/CPVC

SIMULATED STONE /

BRICK VENEER

MORTAR JOINT

WHERE REQUIRED

MORTAR SETTING BED-

PREPARE SETTING BED PER

VENEER MANUFACTURER'S

COMBED SCRATCH COAT -

K-LATH: ATTACH PER

MANUF. INSTALLATION

(2) LAYERS 60 MIN.

INSTALL BUG SCREEN.

GRADE 'D' BUILDING PAPER-

INSTRUCTIONS -

DRAIN BOARD

INSTALLATION

INSTRUCTIONS

DETAI( 20/BE1)

BEVELED OR

FLASHING -

DETAIL 20/BE1-

BEVELED OR

'D' BLDG PAPER-

2" MIN.

SIMULATED STONE -

DRAIN BOARD.-

TYPICAL WATERTABLE TRIM

— EXTERIOR

SHEATHING

P.T. PLYWOOD

WOOD BLOCK AND TRIM

USE ONLY

NON-CORROSIVE

**FASTENERS** 

EXTEND 1" PAST TOP OF CONCRETE

TO FINISHED

1/2" TO CONCRETE

GRADE OR

OVER 2 LAYERS

OF BUILDING PAPER

MORTAR SETTING BED -

COMBED SCRATCH COAT -

K-LATH: ATTACH PER MANUF.

MORTAR JOINT WHERE REQUIRED-

INSTALLATION INSTRUCTIONS -

STONE ON FRAMING (FULL-HEIGHT) SECTION

NO SCALE

LAP FLASHING OVER 1 PIECE OUTSIDE CORNER FLASHING, SET IN \*SEALANT \_

STEP 2

12) STONE TRIM FLASHING (WATER TABLE TRIM)

## **GENERAL NOTES**

#### GENERAL NOTES - MECHANICAL

- REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY).
- ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC. OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
- CODES: COMPLETE INSTALLATION OF THE MECHANICAL SYSTEM SHALL BE PER THE APPLICABLE BUILDING MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL AHJ.
- PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL DUCTWORK, DAMPERS, EQUIPMENT, PIPING, ETC. A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH
- STRUCTURAL B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING, AND
- OTHER TRADES WORK C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COMPLETE OPERATING MECHANICAL
- D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
- MECHANICAL CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITHIN THE STRUCTURE.
- ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
- RATED PENETRATION: DUCT PENETRATIONS THROUGH RATED ENCLOSURES SHALL BE FIRE/SMOKE DAMPERED PER THE LATEST EDITION OF THE UNDERWRITERS LABORATORIES(UL) FIRE RESISTANCE WITH HOURLY RATINGS FOR THROUGH-PENETRATION FIRE STOPS SYSTEM VOLUME #2, OR SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S UL LISTINGS (3M OR EQUIVALENT). DETERMINE REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO BID.
- EXHAUST OUTLETS: SOURCE-SPECIFIC FANS SHALL BE VENTED TO OUTDOORS WITH A MINIMUM 3' CLEARANCE BETWEEN VENT OUTLETS AND BUILDING OPENINGS, AND 10' MINIMUM BETWEEN VENT OUTLETS AND MECHANICAL AIR
- ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP. ROOF CURB. ROOF DRAIN. AND VTR DETAILS.
- 10. EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.
- 11. PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.
- 12. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.
- 13. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
- 14. MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.
- 15. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.

#### COORDINATION REQUIREMENTS

- PIPING: COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT THE SITE PRIOR AND DURING THE CONSTRUCTION.
- DUCTWORK: LOCATE AND COORDINATE THE EXACT LOCATION OF DUCTWORK WITH STRUCTURAL PLANS AND WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION OF ANY STRUCTURE OR EQUIPMENT. COORDINATE WITH FRAMING CONTRACTOR TO ASSURE JOIST SPACES LINE UP WHEN DUCTWORK MUST PASS THROUGH DIFFERENT JOIST SPACES.
- ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.
- APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.
- FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA AND LOCAL CODES. PROVIDE DESIGN, PERMITS, MATERIALS, INSTALLATION, TESTING AND ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES.

#### PIPING NOTES

- 1. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT. COILS. TRAPS. CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
- REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
- 3. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
- DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
- 5. REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.

#### INSULATION/LINING NOTES

- 1. ENERGY CODE: AS A MINIMUM. COMPLY WITH THICKNESSES AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.
- EXTENT OF INTERNAL DUCT LINING: A. GRILLE AND DIFFUSER BOXES AND BOOTS. . TRANSFER DUCTS. C. THE FIRST 10 FEET OF SUPPLY AND RETURN DUCTWORK

FROM THE AIR HANDLER.

- EXTENT OF EXTERNAL DUCT INSULATION: A. SUPPLY AND RETURN AIR IN UNCONDITIONED SPACES. MECHANICAL ROOMS, ELECTRICAL ROOMS, AND EQUIPMENT ROOMS NOT SPECIFIED TO BE INTERNALLY
- B. SUPPLY AIR ABOVE CEILINGS OR EXPOSED NOT SPECIFIED TO BE INTERNALLY LINED. C. OUTDOOR AIR INTAKE.
- MISCELLANEOUS DUCT FITTINGS (CONICAL TAKEOFFS, ETC.): WRAP WITH INSULATION FOR CONDENSATION CONTROL.

#### <u>PLAN NOTES</u>

- 1. DUCTWORK SHALL BE METALLIC DUCTWORK
- 2. TEST AND BALANCE WORK SHALL BE PERFORMED BY AN INDEPENDENT TEST AND BALANCE AGENCY. PROVIDE (3) COPIES OF TEST AND BALANCE REPORT TO OWNER.
- 3. COORDINATE DUCTWORK WITH MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.
- 4. RESTROOM EXHAUST SHALL BE A MINIMUM OF 10' FROM ANY MECHANICAL OUTSIDE AIR INTAKES.
- 5. ROUTE DUCTWORK UNDERNEATH JOISTS UON.
- 6. TRANSITION DUCT UNDER BEAMS AND DUCTS. FIELD VERIFY AVAILABLE CEILING CAVITY DIMENSIONS.
- 7. COORDINATE MOUNTING HEIGHT OF DIFFUSERS WITH ARCHITECTURAL PLANS.

#### SHEET METAL NOTES

- REFERENCE: SMACNA HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, CURRENT EDITION.
- 2. CLEARANCE: COORDINATE DUCTWORK WITH MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.
- ROUND ELBOWS AND OFFSETS: FULL RADIUS (R/D = 1.5), 5-PIECE SEGMENTED OR STAMPED. REFER TO SMACNA HVAC FIG 2-7, 3-3. DO NOT USE ANGLED OFFSET (TYPE 1). MITERED OFFSET (TYPE 2) MAY BE USED UP TO 30 DEGREE OFFSET ANGLE.
- ROUND TEES AND LATERALS: CONICAL TEE PER SMACNA HVAC FIG 3-5; DO NOT USE STRAIGHT TEE; DO NOT USE CONICAL SADDLE TAP FOR EXPOSED DUCTWORK IN FINISHED SPACES. 90-DEGREE TEE WITH OVAL TO ROUND TAP, LATERAL, AND 45-DEGREE RECTANGULAR LEAD-IN PER SMACNA HVAC FIG 3-4.
- 5. RECTANGULAR ELBOWS AND OFFSETS: FULL RADIUS WHERE SPACE PERMITS, R/W = 1.5; OTHERWISE USE SQUARE CORNER ELBOW WITH TURNING VANES.
- RECTANGULAR DIVIDED FLOW FITTINGS: USE GENERALLY, EXCEPT BRANCHES TO TERMINALS; SMACNA HVAC FIG 2-5, TYPES 1, 2, 4A, AND 4B. DO NOT USE TYPE 3.
- TURNING VANES: H.E.P. MANUFACTURER OR APPROVED HIGH EFFICIENCY PROFILE AIRFOIL TYPE FOR RECTANGULAR SQUARE THROAT ELBOWS. ACOUSTICAL TYPE FOR RETURN AIR MITERED ELBOWS.
- 8. TAKEOFFS TO OPENINGS: CONICAL TYPE WITH VOLUME DAMPER FOR ROUND DUCT BRANCHES PER SMACNA HVAC FIG 2-6, MINIMUM INLET DIAMETER 2 INCHES LARGER THAN DUCT SIZE. 45 DEGREE ENTRY FITTING FOR RECTANGULAR DUCT BRANCHES PER SMACNA HVAC FIG 2-6.
- FLEXIBLE CONNECTIONS: PROVIDE AT EACH DUCT CONNECTION TO FANS, PACKAGED HVAC EQUIPMENT, EXTERNALLY ISOLATED AIR HANDLING UNITS, FAN COIL UNITS, AND SIMILAR EQUIPMENT. EXCEPTION: EQUIPMENT IN CORRIDOR CEILING SPACES WHERE FIRE RATING IS REQUIRED.
- 10. ALL DUCT WORK SHALL BE CLASSIFIED FOR LOW PRESSURE SYSTEMS PER IMC SECTION 603.
- 11. ALL DUCTS AND JOINTS SHALL BE SEALED PER IMC SECTION 603.

#### HVAC NOTES

1. ATTACHMENTS: AIR DISTRIBUTION OUTLETS AND LOUVERS

SHALL HAVE ALL REQUIRED ACCESSORIES AND ATTACHMENTS FOR A COMPLETE CONNECTION TO THE SPECIFIC TYPE OF STRUCTURE THAT THEY ARE BEING ATTACHED TO. THIS INCLUDES, BUT IS NOT LIMITED TO EXTERIOR BRICKS, GWB WALLS, GWB CEILING, ETC.

- DUCTWORK: DUCTWORK SHALL BE SMOOTH SHEET METAL (CLASS-1). DUCTWORK THROUGH FIRE RATED STRUCTURE AND FLOOR SHALL BE MIN. 26 GA. STEEL. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- SEISMIC: PROVIDE SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK PER SMACNA AND LOCAL REGULATIONS.
- FILTER CLEARANCE: PROVIDE ADEQUATE CLEARANCE FOR CHANGING AIR FILTERS
- DUCTWORK AND PIPING OUTSIDE OF MECHANICAL ROOMS SHALL BE CONCEALED, COORDINATE WITH THE GENERAL CONTRACTOR TO FUR-OUT AS REQUIRED.
- FIRE RATINGS: RATED FLOOR/CEILING JOINT SPACES HAVING DUCTWORK INSIDE THEM SHALL BE FIRE/SMOKE PROTECTED TO MAINTAIN THE 1-HOUR FLOOR/CEILING RATING PER LOCAL JURISDICTIONS. EXHAUST DUCTWORK PENETRATING THE 1-HOUR ROOF/CEILING OR FLOOR/CEILING ASSEMBLY SHALL HAVE ACCESSIBLE CEILING FIRE DAMPERS. ALTERNATIVELY, THE EXHAUST DUCTWORK SHALL BE ROUTED INSIDE A RATED SHAFT TO PROTECT THE CEILING/ROOF RATING PER THE LOCAL JURISDICTIONS
- 7. FIRESTOP: PIPE, DUCT AND CONDUIT PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRE AND SMOKE STOPPED PER CODE.
- DUCTWORK: DUCTWORK SHALL BE SMOOTH SHEET METAL (CLASS-1). DUCTWORK THROUGH FIRE RATED STRUCTURE AND FLOOR SHALL BE MIN. 26 GA. STEEL. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0" UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- VOLUME DAMPERS: PROVIDE AN ACCESSIBLE MANUAL VOLUME DAMPER FOR EACH SUPPLY, RETURN, OSA AND EXHAUST OPENING, LOCATED AS FAR UPSTREAM AS POSSIBLE FROM THE OPENING. PROVIDE A MANUAL VOLUME DAMPER FOR BRANCH MAINS SERVING MORE THAN ONE OPENING. VOLUME DAMPERS IN NON-ACCESSIBLE CEILING SHALL HAVE A CONTROL ARM EXTENDED TO AN ACCESSIBLE LOCATION. PROVIDE "YOUNG" REGULATOR OR EQUAL. EXACT LOCATION OF CONTROL DEVICES VISIBLE IN FINISHED SPACES SHALL BE COORDINATED WITH THE
- 10. CORRIDOR THERMOSTAT: PROVIDE TAMPERPROOF THERMOSTATS IN CORRIDORS, DO NOT PROVIDE PLASTIC GUARDS TO MAKE THE THERMOSTATS TAMPERPROOF PROVIDE BLANK SECURABLE THERMOSTAT COVERS.

#### APPLICABLE CODE

#### **BUILDING CODE:**

- 2018 WASHINGTON STATE ENERGY CODE-RESIDENTIAL BY WASHINGTON ADMINSTRATIVE CODE CHAP 51-50 (WSEC)
- 2018 INTERNATIONAL RESIDENTIAL CODE WITH ADMINISTRATIVE CODE CHAP 51-51 (WSRC)
- 2018 INTERNATIONAL MECHANICAL CODE WITH ADMINISTRATIVE CODE CHAP 51-52 (WSMC)

DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S

STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

#### PRE-CON MEETING NOTES

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS.AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL 4 HOURS 4 HOURS PLUMBING/PIPING ELECTRICAL 4 HOURS 2 HOURS SPRINKLER GENERAL CONTRACTOR ALL SESSIONS

# **ANNOTATIONS**

AIR CONDITIONING UNIT ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AIR HANDLING UNIT BDD BACKDRAFT DAMPER BHP BRAKE HORSEPOWER BTUH BRITISH THERMAL UNIT PER HOUR COMMON CAP CAPACITY CC COOLING COIL CD CFILING DIFFUSER CFM CUBIC FEET PER MINUTE CLG CEILING, COOLING CO CLEANOUT COMB COMBUSTION CONT CONTINUE. CONTROL CONTR CONTRACTOR COP COEFFICIENT OF PERFORMANCE CHILLED WATER SUPPLY CWS CHILLED WATER RETURN CWR DIAMETER DB DRY BULB. DECIBEL DEG DEGREE DIM DIMENSION DISCH DISCHARGE DN DOWN EXHAUST AIR ENTERING AIR TEMPERATURE EER ENERGY EFFICIENCY RATIO EXHAUST FAN EFFICIENCY EXHAUST GRILLE. ENGINE **GENERATOR** ELEC ELECTRIC EQUIV **EQUIVALENT** ESP EXTERNAL STATIC PRESSURE EXH **EXHAUST** EXT EXTERIOR. EXTERNAL **FAHRENHEIT** FD FIRE DAMPER FCU FAN COIL UNIT FLR FLOOR FPM FEET PER MINUTE FPS FEET PER SECOND FSD FIRE/SMOKE DAMPER GRD GRILLES, REGISTERS, AND DIFFUSERS GWB GYPSUM WALLBOARD HORIZ HORIZONTAL HORSEPOWER, HEAT PUMP HRU HEAT RECOVERY UNIT HEATING, VENTILATING, AND AIR HVAC CONDITIONING HEATING AND VENTILATION UNIT HIGH WALL RETURN, HOT WATER HWR RETURN HIGH WALL SUPPLY, HOT WATER HWS SUPPLY HEAT EXCHANGER НΧ ID INDIRECT DRAIN, INSIDE DIAMETER

 $\mathsf{KW}$ KILOWATT LONG, LENGTH POUND LOW WALL RETURN LWR LOW WALL SUPPLY LWS THOUSAND BTU PER HOUR MBH MECH

MECHANICAL MINIMUM CIRCUIT AMPACITY MCA MAXIMUM OVER CURRENT MOCP PROTECTION MTD MOUNTED OSA OUTDOOR AIR OBD OPPOSED BLADE DAMPER

OUTSIDE DIMENSION OR DIAMETER OD OPNG OPENING PD PRESSURE DROP POINT OF CONNECTION POC PRV PRESSURE REDUCING VALVE PSIG POUNDS PER SQUARE INCH GAUGE RA RETURN AIR

REF REFERENCE RELIEF FAN RG RETURN GRILLE REVOLUTIONS PER MINUTE RPM SUPPLY AIR

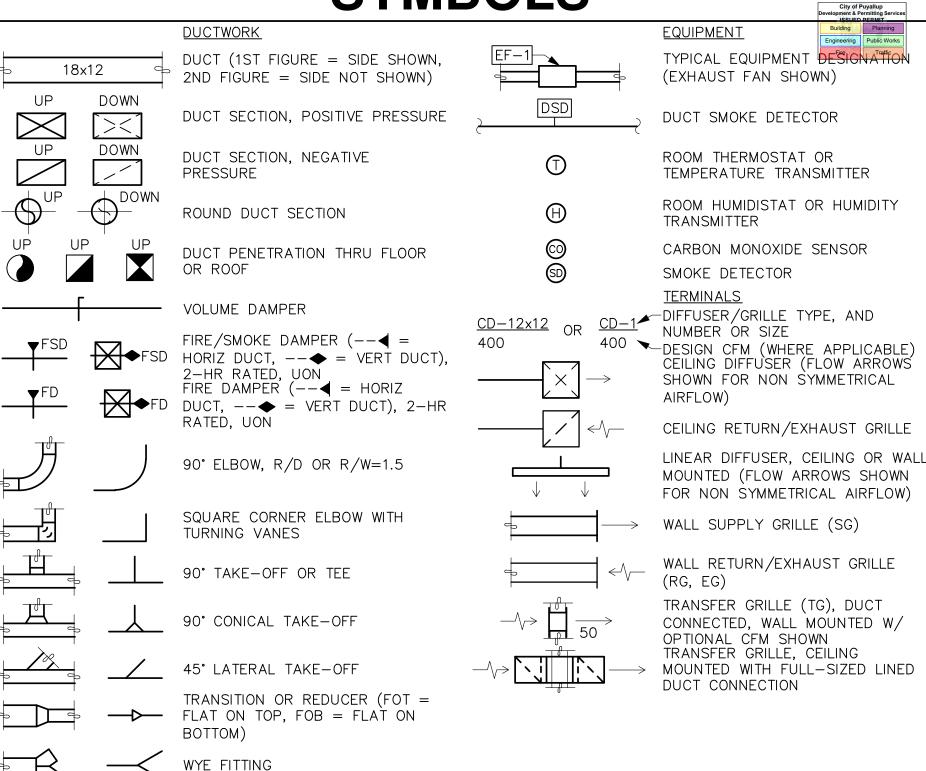
SCH SCHEDULE SUPPLY FAN, SQUARE FOOT SENS SENSIBLE SUPPLY GRILLE SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS

NATIONAL ASSOCIATION SCREENED OPENING STATIC PRESSURE SS STAINLESS STEEL, SANITARY SFWFR SQUARE

TRANSFER GRILLE

TYP TYPICAL UNIT HEATER UH UON UNLESS OTHERWISE NOTED VENT VENTILATION, VENTILATOR VTR VENT THRU ROOF WASTE, WATT, WIDE WET BULB (TEMPERATURE)

# **SYMBOLS**



# **DRAWING INDEX**

90° RECTANGULAR TAKE-OFF WITH

90° DIVERGING RECTANGULAR TEE,

EITHER RADIUS OR TURNING VANES

CONNECTION, EITHER RADIUS OR

PARALLEL FLOW BRANCH

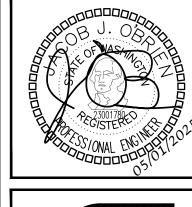
ROUND DUCT INDICATOR

TURNING VANES

FLEXIBLE DUCT

45° TAPER

| Sheet Number | Sheet Title                           | PERMIT SET<br>02/15/2024 | BID SET<br>09/04/2024 | PERMIT RESUBMITTAL SET 02/04/2025 | PERMIT RESUBMITTAL 2 SET 5/2/2025 |
|--------------|---------------------------------------|--------------------------|-----------------------|-----------------------------------|-----------------------------------|
| M0.0         | LEGEND, GENRAL NOTES, & DRAWING INDEX | X                        | Х                     | Х                                 | Х                                 |
| MO.1         | PROJECT NOTES & CALCULATIONS          | X                        | X                     | Х                                 | X                                 |
| M0.2         | DETAILS                               | X                        | X                     | X                                 | X                                 |
| M0.3         | MECHANICAL SCHEDULES & WSEC FORMS     | X                        | X                     | Х                                 | Х                                 |
| M2.0         | HVAC PLAN - BASEMENT & 1ST LEVEL      | X                        | Х                     | Х                                 | Х                                 |
| M2.1         | HVAC PLAN - 2ND & 3RD LEVEL           | X                        | Х                     | Х                                 | Х                                 |
| M3.0         | HVAC ENLARGED PLANS                   | X                        | Х                     | Х                                 | Х                                 |
| M3.1         | HVAC ENLARGED PLANS                   | X                        | X                     | X                                 | X                                 |





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05/01/2025

LEGEND, GENRAL NOTES, & DRAWING INDEX

### **ENERGY CODE NOTES**

## WHOLE HOUSE VENTILATION NOTES

WASHINGTON STATE ENERGY CODE

1. HVAC THERMOSTATS SHALL BE SET TO MAINTAIN A MINIMUM DEADBAND OF 5°F IN AREAS SERVED AS REQUIRED PER WSEC C403.2.4.2.

2. PER WSEC, ALL DUCTS SHALL BE INSULATED AS FOLLOWS:

|                               |                          | DUCT INSULATION SCHEDULE                                                                                                                                                                                                                                                                           |                         |                                |
|-------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------|
| CODE                          | DUCT SYSTEM              | DUCT LOCATION AND USE (1)(2)(3)                                                                                                                                                                                                                                                                    | MATERIAL                | R-VALUE<br>(MIN.<br>INSTALLED) |
|                               |                          | >= 2800 CFM INSIDE CONDITION SPACE AND UPSTREAM OF AUTOMATIC SHUTOFF DAMPER                                                                                                                                                                                                                        | MINERAL-WOOL<br>BLANKET | 16.0                           |
| <b>WSEC</b> TABLE C403.10.1.1 | OUTSIDE AIR (4)          | >= 2800 CFM INSIDE CONDITION SPACE AND DOWNSTREAM OF AUTOMATIC SHUTOFF DAMPER TO HVAC UNIT UNIT OR ROOM                                                                                                                                                                                            | MINERAL-WOOL<br>BLANKET | 8.0                            |
|                               |                          | < 2800 CFM INSIDE CONDITION SPACE                                                                                                                                                                                                                                                                  | MINERAL-WOOL<br>BLANKET | 7.0                            |
|                               |                          | OUTSIDE THE BUILDING (OUTDOOR AND EXPOSED TO WEATHER) WHICH INCLUDE ATTICS ABOVE INSULATION CEILINGS, PARKING GARAGE AND CRAWL SPACE                                                                                                                                                               | MINERAL-WOOL<br>BLANKET | 8.0                            |
|                               | SUPPLY AIR &             | UNCONDITIONED SPACE (ENCLOSED BUT NOT IN THE BUILDING CONDITIONED ENVELOPE)                                                                                                                                                                                                                        | MINERAL-WOOL<br>BLANKET | 6.0                            |
|                               | RETURN AIR (4)           | UNCONDITIONED SPACE WHERE THE DUCT CONVEYS AIR THAT IS WITHIN 15°F OF THE AIR TEMPERATURE OF THE SURROUNDING UNCONDITIONED SPACE (5)                                                                                                                                                               | MINERAL-WOOL<br>BLANKET | 3.3                            |
|                               |                          | WHERE LOCATED IN THE BUILDING ENVELOPE ASSEMBLY                                                                                                                                                                                                                                                    | MINERAL-WOOL<br>BLANKET | 16.0                           |
| <b>WSEC</b> TABLE C403.10.1.2 | SUPPLY AIR (4)           | WITHIN CONDITIONED SPACE WHERE SUPPLY DUCT CONVEYS AIR <55°F OR >105°F                                                                                                                                                                                                                             | MINERAL-WOOL<br>BLANKET | 3.3                            |
|                               |                          | WITHIN CONDITIONED SPACE THAT THE DUCT DIRECTLY SERVES WHERE SUPPLY DUCT CONVEYS AIR <55°F OR >105°F                                                                                                                                                                                               | MINERAL-WOOL<br>BLANKET | 0.0                            |
|                               |                          | WITHIN CONDITIONED SPACE WHERE SUPPLY DUCT CONVEYS AIR >55°F OR <105°F                                                                                                                                                                                                                             | MINERAL-WOOL<br>BLANKET | 0.0                            |
|                               | RETURN OR<br>EXHAUST AIR | WITHIN CONDITION SPACE, DOWNSTREAM OF AN ENERGY RECOVERY MEDIA, UPSTREAM OF AUTOMATIC SHUTOFF DAMPER                                                                                                                                                                                               | MINERAL-WOOL<br>BLANKET | 8.0                            |
|                               | RELIEF OR<br>EXHAUST AIR | CONDITION SPACE AND DOWNSTREAM OF AN AUTOMATIC SHUTOFF DAMPER                                                                                                                                                                                                                                      | MINERAL-WOOL<br>BLANKET | 16                             |
|                               |                          | NOTES (1) DUCT INSULATION SHALL COMPLY WITH WSEC (2) INSULATION SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 25 INDEX OF 50 PER WSEC 604.3 (3) EXTERAL DUCT INSULATION IS IDENTIFIABLE PER WSEC 604.7 (4) VAPOR RETARDER IS INSTALLED ON SUPPLY AND OUTSIDE AIR DUCTONDENSATION CONTROL FOR DUCTWORK |                         | E DEVELOPED                    |

MOTORIZED DAMPERS: PER WSEC C403.7.8.1 PROVIDE MOTORIZED DAMPERS ON ALL OUTSIDE AIR INTAKES, EXHAUST OUTLETS AND RELIEF OUTLETS SERVING CONDITIONED SPACES WHICH CLOSE AUTOMATICALLY WHEN THE SYSTEM IS OFF. RETURN AIR DAMPERS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS. SEE WSEC C402.4.5.2 FOR EXCEPTIONS AND ADDITIONAL REQUIREMENTS.

#### RESIDENTIAL ENERGY CODE

- 1. WHOLE-HOUSE FAN EFFICACY PER TABLE R403.6.1.
- 2. EQUIPMENT AND APPLIANCE SIZING PER R403.7. HEATING AND COOLING EQUIPMENT AND APPLIANCES SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S OR OTHER APPROVED SIZING METHODOLOGIES BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES
- ELECTRIC RESISTANCE ZONE PER R403.7.1, ELECTRIC ZONAL HEATING AS PRIMARY HEAT SOURCE SHALL INSTALL DUCTLESS MINI-SPLIT HEAT PUMP IN THE LARGEST ZONE IN THE DWELLING UNLESS TOTAL INSTALLED HEATING CAPACITY OF 2 KW PER DWELLING OR LESS.
- PROVIDED ONE THERMOSTAT FOR EACH HEATING AND COOLING SYSTEM PER R403.1
- PER R403.3.6, SUPPLY AND RETURN DUCTS IN CEILING INSULATION SHALL HAVE MIN R-8 INSULATION ALL AROUND. THE SUM OF THE CEILING INSULATION OF THE TOP AND BELOW OF THE DUCT SHALL BE MIN R-19. EXCLUDING THE R-VALUE OF THE DUCT INSULATION
- MECHANICAL SYSTEM PIPING CARRYING FLUIDS ABOVE 105F OR BELOW 55F SHALL BE INSULATED WITH MIN R-6 PER R403.4. INSULATION SHALL BE PROTECTED FROM DAMAGE AND SHALL PROVIDE SHIELDING FROM SOLAR RADIATION. ADHESIVE TAPE SHALL NOT

OUTSIDE AIR TO EACH RESIDENTIAL UNIT IS PROVIDED BY THE WHOLE HOUSE VENTILATION FAN (BEF-1). RATES WERE OBTAINED FROM TABLE 403.8.1. AIR PROVIDED THROUGH OPERABLE OPENINGS INSTALLED WITHIN THE WINDOW SYSTEM (TRICKLE VENTS). THE QUANTITY OF 4 SQUARE INCH TRICKLE VENTS ARE IDENTIFIED IN THE WHOLE HOUSE VENTILATION CRITERIA SCHEDULE. TRICKLE VENTS MAY BE COMBINED INTO LARGER VENT OF EQUIVALENT AREA. EACH EXTERIOR OCCUPIABLE LIVING SPACE SHALL BE PROVIDED WITH WITH AT LEAST ONE TRICKLE VENT.

THE BATHROOM EXHAUST FAN SHALL BE USED AS THE WHOLE HOUSE EXHAUST FAN. WHOLE HOUSE FAN TO BE EQUIPPED WITH AN ECM MOTOR AND 2-SPEED MOTOR. FAN TO RUN CONTINUOUSLY ON LOW SPEED AND HIGH SPEED SHALL BE ACTIVATED BY A FACTORY MOUNTED MOTION SENSOR. WHOLE HOUSE VENTILATION FANS SHALL OPERATE CONTINUOUSLY.

EXHAUST FAN ONLY VENTILATION SYSTEMS SHALL BE PROVIDED WITH OUTDOOR AIR TO EACH OCCUPIED SPACE, AND OR ANY SPACE THAT CAN BE OCCUPIED THROUGH ONE OF THE FOLLOWING METHODS: OUTDOOR AIR MAY BE DRAWN THROUGH AIR INLETS INSTALLED IN EXTERIOR WALLS OR WINDOWS. THE

- AIR INLETS SHALL COMPLY WITH ALL OF THE FOLLOWING: IMC W/WASHINGTON AMENDMENTS 403.8.6.1 1. INLETS SHALL HAVE CONTROLLABLE, SECURE OPENINGS AND SHALL BE DESIGNED TO NOT
- COMPROMISE THE THERMAL PROPERTIES OF THE BUILDING ENVELOPES. 2. INLETS SHALL BE ACCESSIBLE TO OCCUPANTS INCLUDING COMPLIANCE WITH THE BARRIER FREE
- 3. INLETS SHALL BE SCREENED OR OTHERWISE PROTECTED FROM ENTRY BY INSECTS, LEAVES OR
- OTHER MATERIAL. 4. INLETS SHALL PROVIDE NOT LESS THAN 4 SQUARE INCHES OF NET FREE AREA FOR EACH 10
- CFM OF OUTDOOR AIR REQUIRED. 5. ANY INLET WHICH PROVIDES 10 CFM AT 10 PASCALS AS IN ACCORDANCE WITH HVI 916 HOME VENTILATION INSTITUTE AIR FLOW TEST PROCEDURE, AND HVI 920 HOME VENTILATION INSTITUTE PRODUCT PERFORMANCE CERTIFICATION PROCEDURE ARE DEEMED EQUIVALENT TO 4 SQUARE INCHES OF NET FREE AREA.
- 6. EACH OCCUPIABLE SPACE SHALL HAVE A MINIMUM OF ONE AIR INLET THAT HAS A MINIMUM OF 4 SQUARE INCHES OF NET FREE AREA.

(2) MINIMUM OSA FOR CONTINUOUSLY OPERATING FAN(S).

\_\_\_\_\_\_

# CALCULATIONS

|           |                                     | RES                      | IDENTIAL VENTILA | TION CALC             | JLATIONS         |                            |                                              |                              |
|-----------|-------------------------------------|--------------------------|------------------|-----------------------|------------------|----------------------------|----------------------------------------------|------------------------------|
|           |                                     |                          | 2018 IN          | MC CRITERIA (1)       |                  | VENTILATION QUALITY        | MINIMUM WHOLE HOUSE                          | TOTAL CFM PROVIDED           |
| UNIT TYPE | UNIT SQUARE FOOTAGE                 | NUMBER OF BEDROOMS       | FLOOR AREA, SQFT | NUMBER OF<br>BEDROOMS | REQUIRED CFM (2) | ADJUSTMENT COEFFICIENT (3) | MINIMUM WHOLE HOUSE<br>VENTILATION RATE, CFM | BY WHOLE HOUSE FAN<br>SYSTEM |
| 1 BEDROOM | 660                                 | 1                        | 500 — 1,000      | 1                     | 30               | 1.5                        | 45                                           | 55                           |
| 2 BEDROOM | 1000                                | 2                        | 500 - 1,000      | 2                     | 35               | 1.5                        | 53                                           | 55                           |
| NOTE:     | (1) VENTILATION CRITERIA IS PER THE | 2018 IMC, TABLE 403.4.2. |                  | •                     |                  |                            |                                              |                              |

(3) ADJUSTMENT COEFFICIENT IS PER 2018 IMC, TABLE 403.4.3 FOR A BALANCED, AND DISTRIBUTED WHOLE HOUSE VENTILATION SYSTEM.

# RANGE HOOD VENTILATION NOTES

RESIDENTIAL UNIT NOTES:

- PENETRATIONS OF THE RATED WALL ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH IBC SECTION 717. REFER TO ARCHITECTURAL PLANS FOR PENETRATION DETAILS.
- PER OWNER, THE FOLLOWING RANGE HOODS ARE BEING INSTALLED: STANDARD UNITS (MICRO/HOOD COMBO): WHIRLPOOL WMH31017H PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, DUCT CONNECTION TO HOODS ARE 6Ø. MINIMUM SIZE ROUND DUCT FOR HOOD VENTING SHALL BE

STANDARD HOOD: WHIRLPOOL WMH31017H

MAXIMUM LENGTH (FT)

|                 | HOOD VENT LENGTH CALCULATION |                                 |                        |                        |          |              |  |  |  |  |  |
|-----------------|------------------------------|---------------------------------|------------------------|------------------------|----------|--------------|--|--|--|--|--|
| UNIT TYPE       | DRYER VENT<br>LENGTH         | RECTANGULAR TO ROUND TRANSITION | NUMBER OF 45<br>ELBOWS | NUMBER OF 90<br>ELBOWS | WALL CAP | TOTAL LENGTH |  |  |  |  |  |
| 1-BED-END       | 30                           | 1                               | 0                      | 2                      | 1        | 95           |  |  |  |  |  |
| 1-BED-INT-2     | 55                           | 1                               | 0                      | 3                      | 1        | 130          |  |  |  |  |  |
| 2-BED           | 33                           | 1                               | 2                      | 2                      | 1        | 108          |  |  |  |  |  |
| -BED (BLDG E&F) | 14                           | 1                               | 0                      | 2                      | 1        | 79           |  |  |  |  |  |

(1) PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS EQUIVALENT LENGTH OF DUCT FITTINGS ARE AS FOLLOWS:

| STANDARD                           | FITTINGS                       |  |
|------------------------------------|--------------------------------|--|
| FITTING                            | EQUIVALENT VENT<br>LENGTH (FT) |  |
| RECTANGULAR TO<br>ROUND TRANSITION | 5                              |  |
| 90 ELBOW                           | 10                             |  |
| 45 ELBOW                           | 5                              |  |
| WALL CAP                           | 40                             |  |

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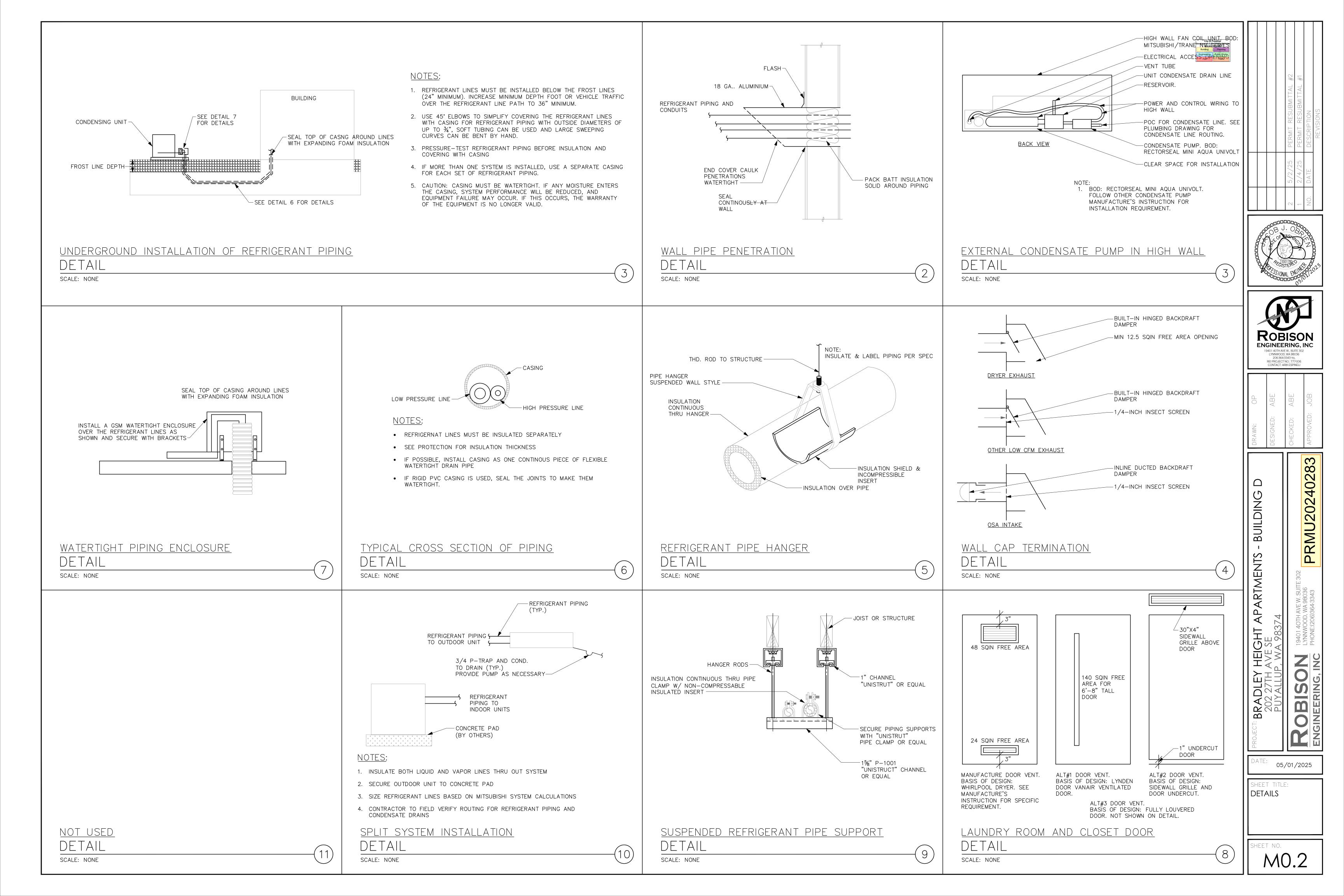
CALCULATIONS

BUILDING **APARTMENTS** 

**ENGINEERING, INC** 

HEIGHT AVE SE

BRA



# MECHANICAL SCHEDULES



|           | ELECTRIC HEATERS |                     |         |            |                     |  |  |  |  |  |  |  |
|-----------|------------------|---------------------|---------|------------|---------------------|--|--|--|--|--|--|--|
| EQUIP NO. | SERVICE          | MOUNTING/ DISCHARGE | HEATING | ELECTRICAL | BASIS OF DESIGN (3) |  |  |  |  |  |  |  |
| EQUIF NO. | SERVICE          | MOUNTING/ DISCHARGE | KW      | VOLTAGE    | DAGIS OF DESIGN (5) |  |  |  |  |  |  |  |
| EWH-1     | APARTMENT UNIT   | WALL                | 1.0     | 208V/1P    | (1)(2)              |  |  |  |  |  |  |  |
| EWH-2     | APARTMENT UNIT   | WALL                | 1.5     | 208V/1P    | (1)(2)              |  |  |  |  |  |  |  |

NOTES: (1) BROAN, KING, CADET OR EQUIVALENT.

(2) PROVIDE REMOTE THERMOSTAT. COORDINATE FINAL LOCATION WITH ELECTRICAL DRAWINGS.

(3) ALL ELECTRIC HEATERS TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

|           | FAN SCHEDULE |                 |          |                |         |               |            |              |                          |  |  |  |  |
|-----------|--------------|-----------------|----------|----------------|---------|---------------|------------|--------------|--------------------------|--|--|--|--|
| EQUIP NO. | SERVICE      | TYPE            | AIRFLOW, | ESP. IN WG     | ELECTR  | ELECTRICAL    |            | WEIGHT, LBS  | BASIS OF DESIGN          |  |  |  |  |
| LQUII NO. | SERVICE      | IIIE            | CFM      | 231 : 114 44 6 | VOLTAGE | HP            | OPERATION  | WLIGITI, LD3 | (1)(2)(3)                |  |  |  |  |
| BEF-1     | RESTROOM     | CEILING MOUNTED | 55/80    | 0.5            | 115V/1P | 115V/1P FHP C |            | 10           | GREENHECK SP-AP0511W (4) |  |  |  |  |
| BEF-2     | RESTROOM     | CEILING MOUNTED | 50       | 0.5            | 115V/1P | FHP           | (2)        | 10           | GREENHECK SP-AP0511W     |  |  |  |  |
| KEF-1     | KITCHEN      | CEILING MOUNTED | 30       | 0.5            | 115V/1P | FHP           | CONTINUOUS | 10           | GREENHECK SP-AP0511W     |  |  |  |  |

PROVIDE BACKDRAFT DAMPERS ON EXHAUST FANS.

VIBRATION ISOLATION: FANS < 125 LBS RUBBER ISOLATORS, FANS > 125 LBS SPRING ISOLATORS

FAN SHALL BE 2-SPEED: 35 CFM CONTINUOUS LOW SETTING AND 80 CFM HIGH SPEED ACTIVATED BY INTEGRAL OCCUPANCY SENSOR ON GRILLE.

|           | SPLIT SYSTEM HEAT PUMP SCHEDULE - INDOOR UNIT |                            |              |            |         |          |      |                    |                   |  |  |  |
|-----------|-----------------------------------------------|----------------------------|--------------|------------|---------|----------|------|--------------------|-------------------|--|--|--|
|           |                                               | MOUNTING/                  | FA           | N          | EL      | ECTRICAL |      | BASIS OF DESIGN    | CONNECTED OUTDOOR |  |  |  |
| EQUIP NO. | SERVICE                                       |                            | AIRFLOW, CFM | ESP. IN WG | VOLTAGE | MCA      | МОСР | (1)(2)(4)          | UNIT              |  |  |  |
| FCU-1-X   | RES. UNIT                                     | HIGH WALL                  | 473          | N/A        | (3)     | (3)      | (3)  | DAIKIN FTXB12BXVJU | HP-1-X            |  |  |  |
| FCU-2-X   | RES. UNIT                                     | HIGH WALL                  | 716          | N/A        | (3)     | (3)      | (3)  | DAIKIN FTXB18BXVJU | HP-2-X            |  |  |  |
| NOTES     | /1) INICTALL INLACCORD ANICE WITH MANUE       | A OTHER DIC INICT ALL ATIO |              | ITC        |         |          |      |                    |                   |  |  |  |

(1) INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS.

(2) PROVIDE MANUFACTURER'S OPTIONAL CONDENSATE PUMP WITH RESERVOIR AND SENSOR.

(3) INDOOR UNIT POWERED FROM OUTDOOR UNIT.

(4) "X" DENOTES THE UNIT BEING SERVED.

|                   | SPLIT SYSTEM HEAT PUMP SCHEDULE - OUTDOOR UNIT |                     |                         |                                 |                |     |         |       |         |                 |                    |           |  |
|-------------------|------------------------------------------------|---------------------|-------------------------|---------------------------------|----------------|-----|---------|-------|---------|-----------------|--------------------|-----------|--|
| EQUIP NO. SERVICE | CAPACITY,                                      | TOTAL COOLING       | SEER2                   | TOTAL HEATING<br>CAPACITY, BTUH | HSPF2          | ELE | CTRICAL |       | WEIGHT, | BASIS OF DESIGN | CONNECTED FAN      |           |  |
|                   |                                                | TONS                | CAPACITY, BTUH          |                                 | CAFACIIT, BIUR |     | VOLTAGE | MCA   | MOCP    | LBS             | (1)(2)(3)(4)(5)(6) | COIL UNIT |  |
| HP-1-X            | RES. UNIT                                      | 1.0                 | 11,000                  | 18.0                            | 11,300         | 9.0 | 208V/1P | 12.40 | 15      | 62              | DAIKIN RXB12BXVJU  | FCU-1     |  |
| HP-2-X            | RES. UNIT                                      | 1.5                 | 18,000                  | 18.0                            | 17,900         | 8.5 | 208V/1P | 16.55 | 20      | 97              | DAIKIN RXB18BXVJU  | FCU-1     |  |
|                   | /1\  \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \       | A A A A LUIE A CTUI | DEDIC INICTALL ATION DE | OLUDEA AENI                     | TC.            |     |         |       | •       | •               |                    | -         |  |

(1) INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS.

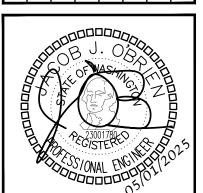
(2) ARI LISTED WITH ALL STANDARD FEATURES, INSTALLATION ACCESSORIES AND COMPRESSOR SHORT CYCLING PROTECTION. FILTER DRIVER, REFRIGERANT LINE FILTER, LIQUID SOLENOID

VALVE, AND SAFETY PRESSURE SWITCHES. INSTALL REFRIGERANT TUBING AND LENGTH IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(4) ROUTING OF REFRIGERANT LINES FROM INDOOR TO OUTDOOR UNITS NOT SHOWN ON PLANS. CONTRACTOR TO FIELD COORDINATE ROUTING.

(5) REFRIGERANT SHALL BE R-410A.

(6) "X" DENOTES THE UNIT BEING SERVED.





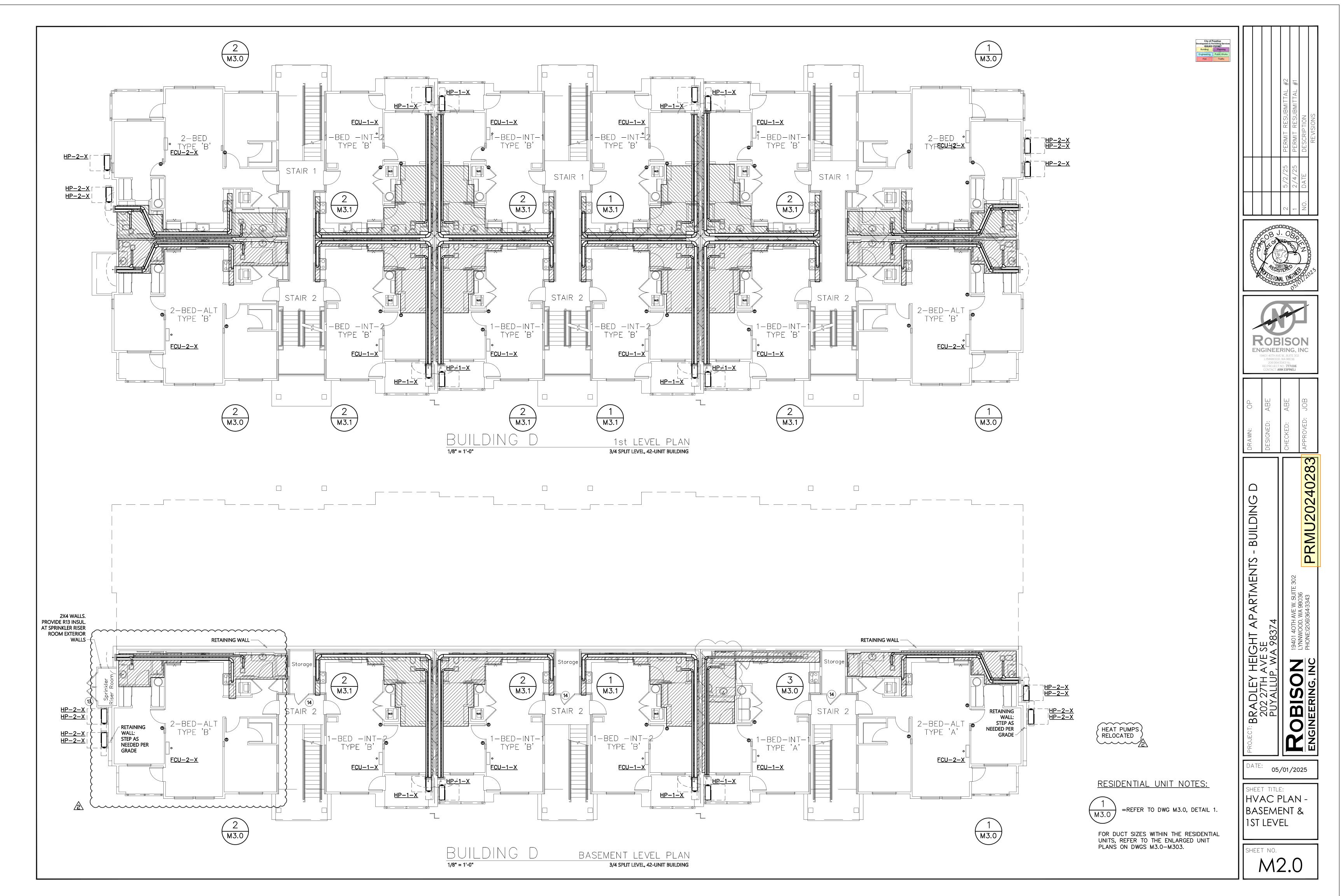
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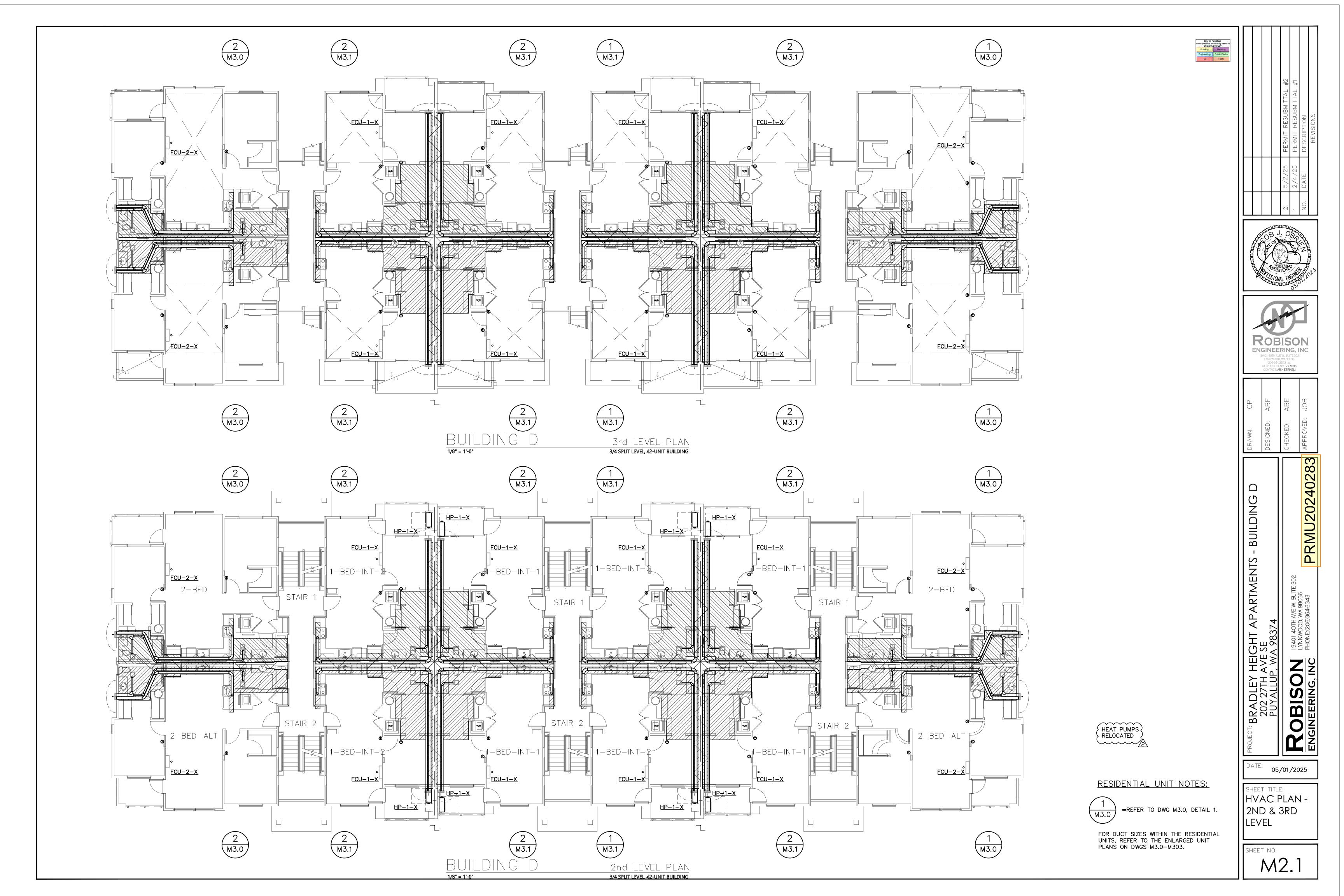
BUILDING

HEIGHT APARTMENTS AVE SE WA 98374 BRADLEY 202 27TH /

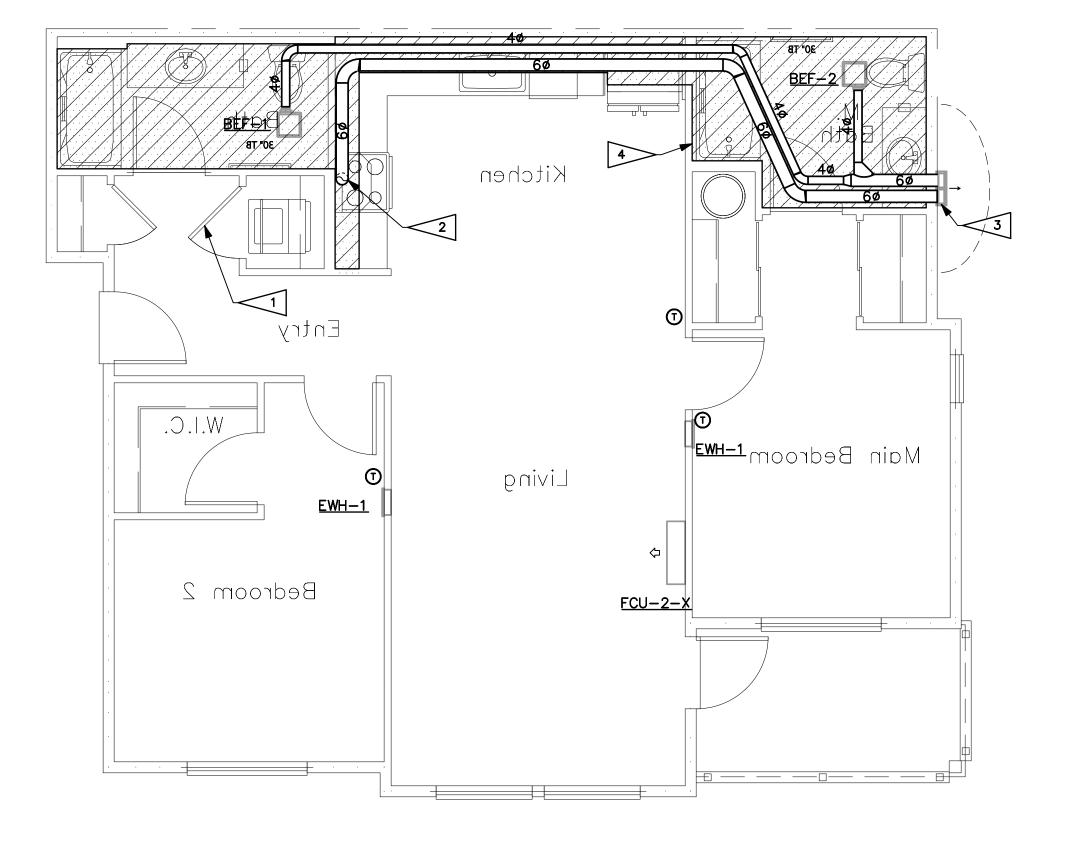
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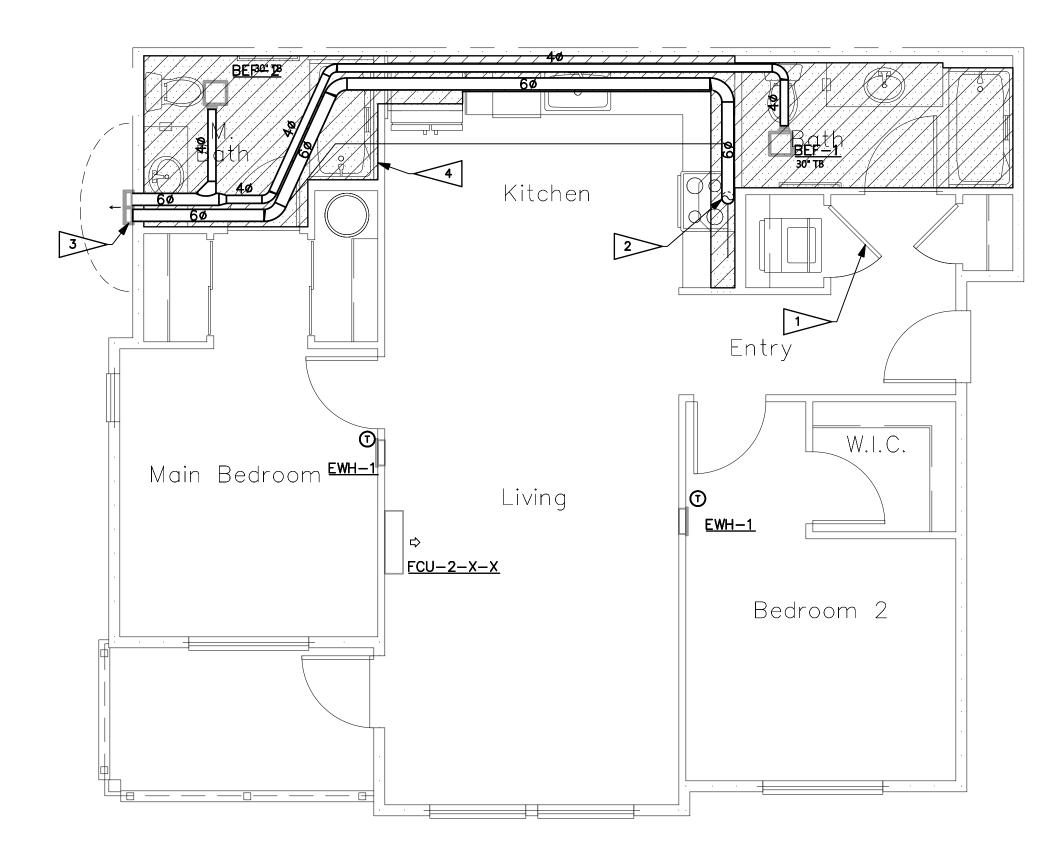
MECHANICAL SCHEDULES &

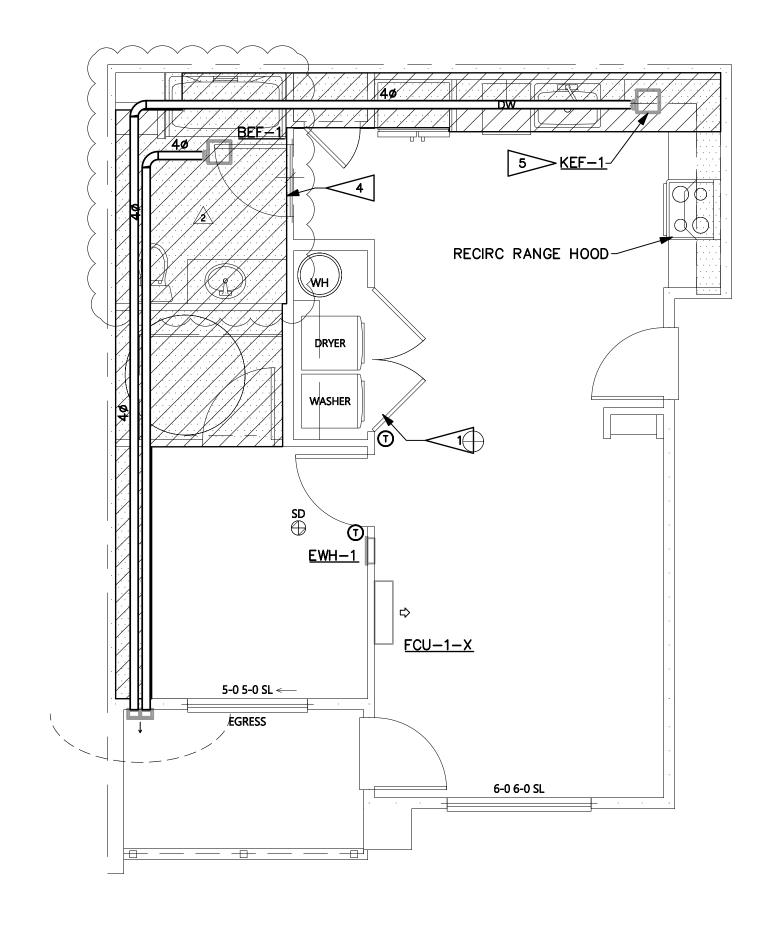












HVAC ENLARGED PLANS

2-BED MIRROR

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



HVAC FNLARGED PLANS

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

(M3.0)

HVAC FNLARGED PLANS

1-BED-INT ACCESSIBLE

(M3.0)

#### GENERAL NOTES:

- 1. ENVIRONMENTAL EXHAUST TERMINATIONS: MAINTAIN 3 FOOT SEPARATION FROM PROPERTY LINES AND OPERABLE OPENINGS INTO BUILDING, 10 FEET FROM MECHANICAL AIR INTAKES.
- 2. MOUNT REMOTE THERMOSTATS 48" AFF. PER WSEC C403.4.9, AT LEAST ONE THERMOSTAT SHALL BE PROGRAMMABLE ON A 5-2 SCHEDULE.
- 3. UNDERCUT ALL BATHROOM DOORS BY MINIMUM 1/2" TO ALLOW TRANSFER OF MAKEUP AIR FOR BATHROOM EXHAUST.
- 4. ELECTRIC WALL HEATERS SHALL BE RECESSED IN WALL UNLESS FIRE RATED OR EXTERIOR WALL. FOR HEATERS MOUNTED ON SUCH WALL, PROVIDE SURFACE-MOUNT WALL CAN.
- 5. PROVIDE ACCESSIBLE MANUAL VOLUME DAMPERS AT BRANCHES OR OPPOSED-BLADE DAMPERS AT GRILLES FOR AIR BALANCING PER VOLUME DAMPERS NOTE ON SHEET MO.OO.

#### FLAG NOTES: #

CLOSETS CONTAINING DRYERS SHALL BE PROVIDED WITH LOUVERED DOOR OR 100 SQ. IN FREE-AREA OPENING ABOVE DOOR. OPENING PROVIDES PATH FOR EXHAUST AIR DURING WASHER OPERATION PER WSMC TABLE 403.3.1.1 NOTE (i) AND MAKEUP AIR DURING DRYER OPERATION PER 504.6.

- 2. POC TO DOMESTIC KITCHEN RANGE HOOD. SEE PLANS FOR SIZE. DUCT SHALL REMAIN SEPARATE FROM OTHER EXHAUST SYSTEMS UP TO TERMINATION.
- 3. DOMESTIC KITCHEN RANGE HOOD EXHAUST TERMINATION WALL CAP WITH SCREEN. PROVIDE BACKDRAFT DAMPER AT TERMINATION. CLEARANCES PER GENERAL NOTE 1

- 4. LOWERED SOFFIT FOR MECHANICAL EQUIPMENT.
- 5. KEF-1 TO OPERATE CONTINUOUSLY TO PROVIDE GENERAL EXHAUST TO KITCHEN PER WSMC 403.4.7. KITCHEN RANGE HOOD SHALL BE SET TO RECIRIC MODE.

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



BRADLEY HEIGHT APARTMENTS 202 27TH AVE SE PUYALLUP, WA 98374 05/01/2025 SHEET TITLE: HVAC

BUILDING

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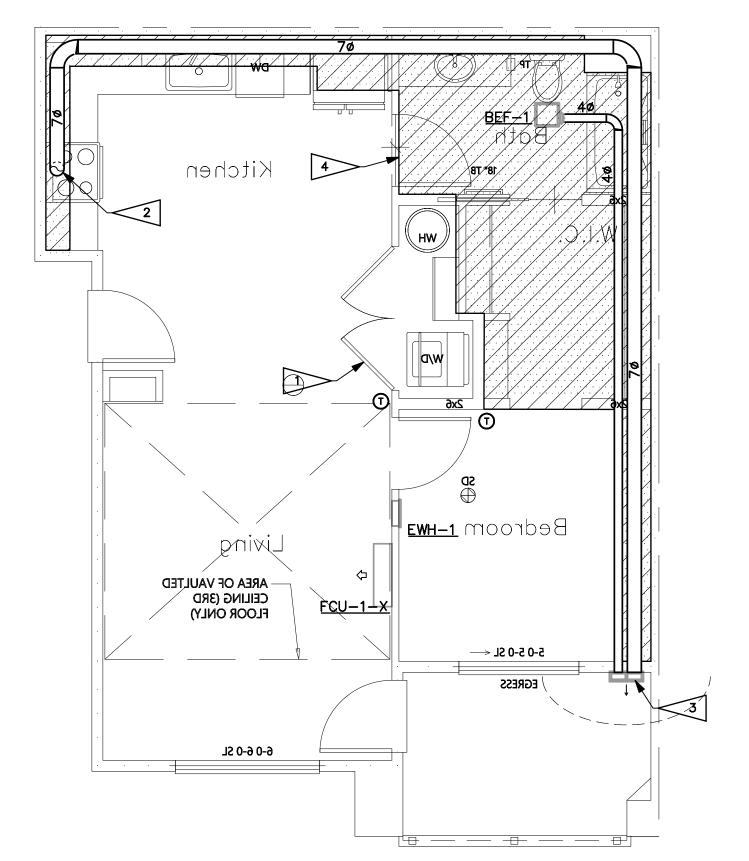
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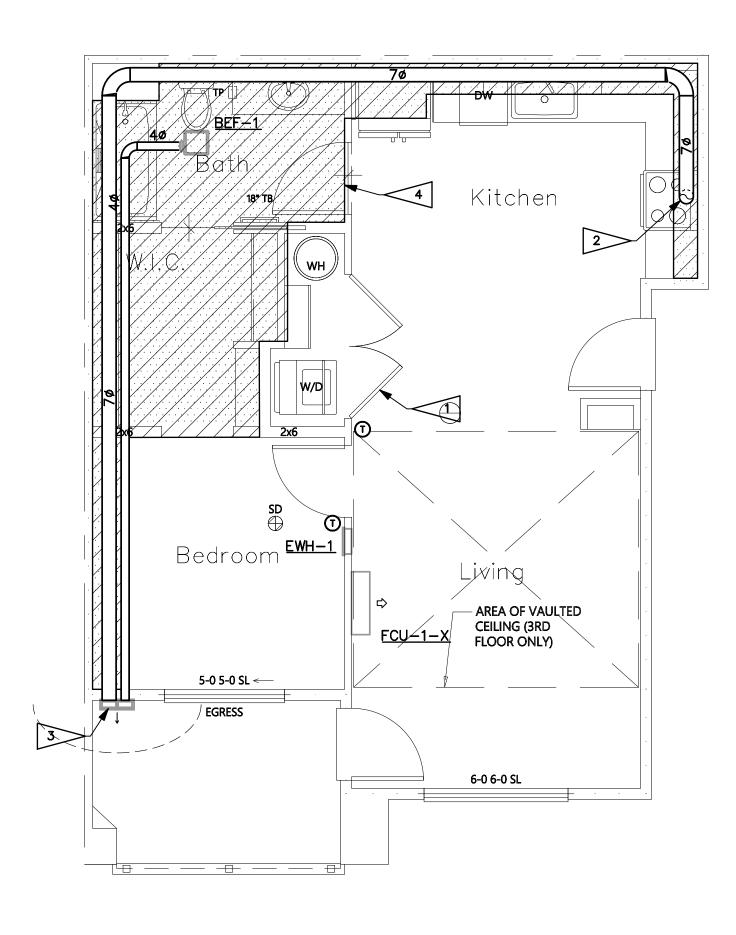
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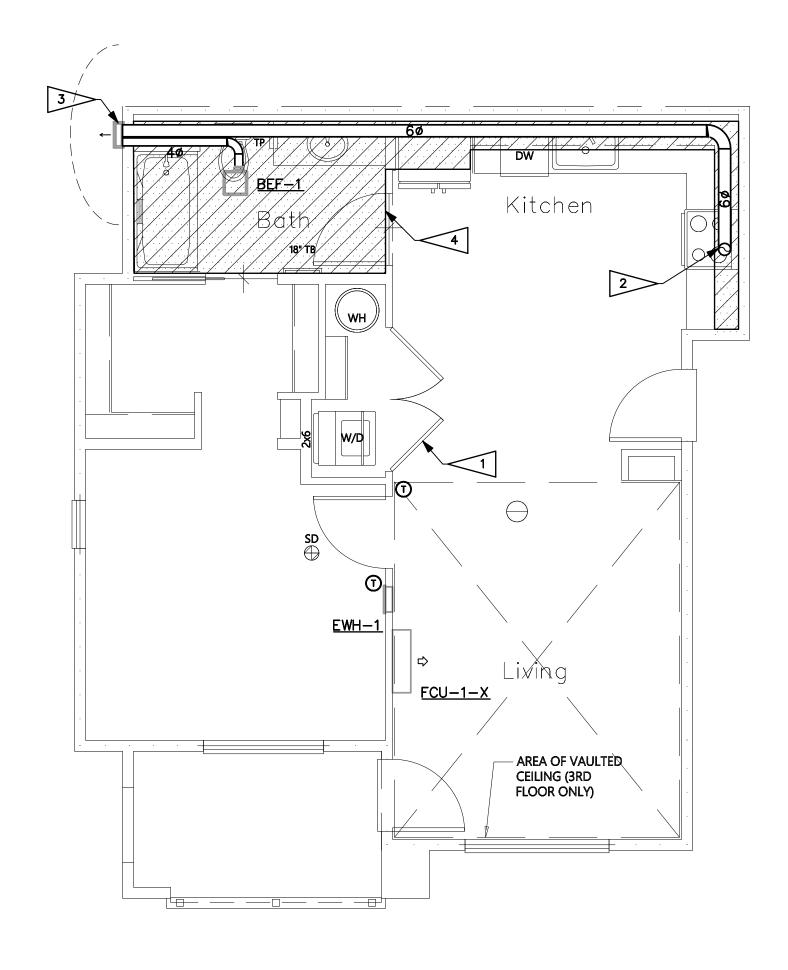
ENLARGED

PLANS









#### HVAC ENLARGED PLANS

1-BED-INT-2-MIRROR SCALE: 1/4" = 1'-0"

M3.1

#### HVAC ENLARGED PLANS

1-BED-INT-2 SCALE: 1/4" = 1'-0"

2 M3.1

#### HVAC ENLARGED PLANS

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

M3.1

#### GENERAL NOTES:

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4. LOWERED SOFFIT FOR MECHANICAL EQUIPMENT.





BUILDING

Y HEIGHT APARTMENTS -H AVE SE JP, WA 98374

BRADLEY 202 27TH , PUYALLUP

05/01/2025

SHEET TITLE: HVAC ENLARGED PLANS

(ENTIRE SHEET HAS )
BEEN UPDATED 

|                                |                 | SYMBOLS                                                                                                             |                 | ABBREVIATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GENERA                         | <u>\L</u>       |                                                                                                                     | A<br>AC         | AMPERE ALTERNATING CURRENT, ABOVE COUNTER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 | LIGHT LINE INDICATES NON—ELECTRICAL OR BACKGROUND (THIS IS NOT CONTRACTUAL DEFINITION OF WORK)                      | AFF<br>AIC      | ABOVE FINISHED FLOOR  AMPS INTERRUPTING CAPACITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <u>GENERAL</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                |                 | HEAVY LINE INDICATES NEW WORK (THIS IS NOT                                                                          | AL<br>AMP       | ALUMINUM<br>AMPERE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1. PROVIDE ELECTRICAL INSTALLATION IN AC ELECTRICAL CODE, LOCAL CODES, ORDINA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DETAIL IDENITI                 |                 | CONTRACTUAL DEFINITION OF WORK)                                                                                     | AWG<br>BKR      | AMERICAN WIRE GAUGE<br>BREAKER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COMPANIES FURNISHING SERVICES TO INST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <u>DETAIL IDENTIF</u><br>SYMBO |                 | NAME                                                                                                                | BLDG<br>C       | BUILDING COIL or CONDUIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2. PROVIDE ALL WORK AND ITEMS NECESSAF ELECTRICAL SYSTEMS. THE ELECTRICAL D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                | _               | FLAG NOTE                                                                                                           | CKT             | CIRCUIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NOT NECESSARILY SHOW EVERY CONDUIT, FOR A COMPLETE INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ^                              |                 |                                                                                                                     | CO<br>CT        | CONDUIT/RACEWAY ONLY CURRENT TRANSFORMER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3. THE CONTRACTOR SHALL VISIT THE SITE I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| $\sim$                         |                 | REVISION NOTE                                                                                                       | Cu<br>CW        | COPPER<br>COOL WHITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CONDITIONS WHICH MAY AFFECT BID. AN BE BROUGHT TO THE ATTENTION OF THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                | )               | REVISION DEFINITION, AREA ENCIRCLED CONTAINS DRAWING<br>CHANGES MADE SUBSEQUENT TO PREVIOUS ISSUE                   | D<br>DED        | DIMMER<br>DEDICATED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4. "REF" INDICATIONS DENOTE WORK COVERE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                |                 |                                                                                                                     | EC<br>EF        | ELECTRICAL CONTRACTOR EXHAUST FAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | STRUCTURAL, OR MECHANICAL).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                |                 |                                                                                                                     | ELEC<br>EMT     | ELECTRICAL ELECTRICAL METALLIC TUBING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5. REFERENCE ARCHITECTURAL DRAWING FOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                |                 |                                                                                                                     | EQUIP<br>EXIST  | EQUIPMENT<br>EXISTING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | QUESTIONS CONCERNING THE LOCATION O<br>DIRECTED TO THE ARCHITECT. FAILURE TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                |                 |                                                                                                                     | FAA<br>FACP     | FIRE ALARM ANNUNCIATOR FIRE ALARM CONTROL PANEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NO WAY RESULT IN ADDITIONAL COMPENS CONTRACTOR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <u>SWITCHE</u><br>\$a          | <u>ES</u>       | SWITCH, SINGLE POLE; WITH SWITCHING SUBSCRIPT                                                                       | FLUOR<br>GC     | FLUORESCENT GENERAL CONRACTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 6. WHEREVER THE WORD "PROVIDE" IS USED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| \$0S                           |                 | OCCUPANCY SENSOR SWITCH                                                                                             | GFCI<br>GND     | GROUND FAULT CIRCUIT INTERRUPTER GROUND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | COMPLETE AND READY FOR USE."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Ф                              |                 | SWITCH, SINGLE POLE; WITH SWITCHING SUBSCRIPT "D" INDICATES WALLBOX DIMMER                                          | GRS             | GALVANIZED RIGID STEEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7. COORDINATE LOCATION OF ELECTRICAL WI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>©</b>                       |                 | CEILING MOUNTED OCCUPANCY SENSOR                                                                                    | HID<br>HP       | HIGH INTENSITY DISCHARGE<br>HORSEPOWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 8. REFER TO EQUIPMENT DRAWINGS FOR MED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| \$⊺<br>\$3                     |                 | SWITCH, TIMER.                                                                                                      | IG<br>KCMIL     | ISOLATED GROUND<br>THOUSAND CIRCULAR MILLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LOCATION, ETC.) OF MECHANICAL EQUIPME<br>COORDINATE INSTALLATION AND LOCATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Φ3                             |                 | SWITCH, THREE WAY.                                                                                                  | KVA<br>KW       | KILOVOLT AMPERES<br>KILOWATT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CONTRACTOR. VERIFY ALL FUSE RATINGS, PRIOR TO INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                |                 |                                                                                                                     | LTG<br>LV       | LIGHTING<br>LOW VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 |                                                                                                                     | MFR<br>MIN      | MANUFACTURER<br>MINIMUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MATERIALS AND METHODS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RECEPTAC                       | <u>CLES</u>     |                                                                                                                     | MLO<br>N        | MAIN LUGS ONLY<br>NEUTRAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ol> <li>PROVIDE RACEWAY AND WIRING ROUTED OF<br/>WHERE POSSIBLE. WHERE RACEWAY CANN</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ф                              |                 | SINGLE RECEPTACLE                                                                                                   | NEC<br>NEMA     | NATIONAL ELECTRICAL CODE (NFPA-70) NATIONAL ELECTRICAL MANUFACTURERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | INSTALLED PER PROJECT MANAGER'S DIRE INSTALLED IN NEAT SYMMETRICAL LINES H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Ф<br><b>Ф</b> а                |                 | DUPLEX RECEPTACLE: WALL MOUNTED, +18" AFF  CONTROLLED AND NON CONTROLLED DUPLEX RECEPTACLE (SPLIT WIRED RECEPTACLE) | NTS             | ASSOCIATION NOT TO SCALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | BUILDING COLUMNS AND ROOF LINES. CON<br>SUPPORTS WHEREVER POSSIBLE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\Theta$                       |                 | DUPLEX RECEPTACLE — ABOVE COUNTER                                                                                   | PNL<br>POC      | PANEL POINT OF CONNECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| GFCI                           |                 | DUPLEX GFCI ABOVE COUNTER                                                                                           | PT<br>PVC       | POTENTIAL TRANSFORMER POLYVINYL CLORIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2. EXPOSED CONDUIT ROUTING: CONDUITS N MECHANICAL AND ELECTRICAL ROOMS ONL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Ф</b> GFCI<br><b>Ф</b> +42' |                 | DUPLEX GFCI DUPLEX RECEPTACLE, WITH HEIGHT ABOVE FINISHED FLOOR INDICATED                                           | PWR             | POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SECURED A MINIMUM OF 6" ABOVE FLOOF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\overline{\Diamond}$          |                 | CEILING MOUNTED DUPLEX RECEPTACLE                                                                                   | QTY<br>RECEPT   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3. OUTDOOR EXPOSED CONDUIT ROUTING: COND |
| <del> </del>                   |                 | DOUBLE DUPLEX RECEPTACLE: WALL MOUNTED, +18" AFF                                                                    | REF<br>RI       | REFERENCE<br>ROUGH—IN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CONNECTIONS AND FITTINGS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                |                 | FLOOR BOX ONE DUPLEX RECEPTACLE                                                                                     | RM<br>RO        | ROOM<br>RACEWAY ONLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4. CLEARANCES: VERIFY PHYSICAL DIMENSION ACCESS CLEARANCES CAN BE MET.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                |                 | FLOOR BOX ONE DUPLEX RECEPTACLE + ONE DATA                                                                          | SHT<br>SPEC     | SHEET<br>SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5. CONNECTIONS: PROVIDE GRS, METALLIC I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                |                 | FLOOR BOX ONE DUPLEX RECEPTACLE + ONE DATA + ONE VOICE                                                              | SW<br>SWBD      | SWITCH<br>SWITCHBOARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FOR CONNECTIONS TO MOTORS OR MOTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>♡</b><br>MISCELLANE         | <u>EOUS</u>     | SPECIAL PURPOSE RECEPTACLE, AS NOTED                                                                                | SWGR<br>TYP     | SWITCHGEAR<br>TYPICAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6. WIRING: PROVIDE MINIMUM #12 AWG WIRE MINIMUM IS TO BE 1/2". FLEXIBLE COND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 0                              |                 | JUNCTION BOX: 4SQ MOUNTED                                                                                           | UG<br>UL        | UNDERGROUND<br>UNDERWRITERS LABORATORIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | THROUGHOUT THE BUILDING.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                |                 | JUNCTION BOX: 4SQ WALL MOUNTED  JUNCTION BOX: 4SQ TRACK                                                             | UON<br>V        | UNLESS OTHERWISE NOTED VOLTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ©                              |                 | CONNECTION FOR LIGHTED MIRROR COORDINATE LOCATION AND                                                               | W<br>WW         | WATTS<br>WARM WHITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 | ELEVATION WITH ARCHITECT PRIOR TO ROUGH—IN                                                                          | WP<br>W/        | WEATHERPROOF<br>WITH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| $\odot$                        |                 | THERMOSTAT                                                                                                          | W/O<br>XFMR     | WITHOUT<br>TRANSFORMER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| SIGNAL/COMMU<br>—              | <u>NICATION</u> |                                                                                                                     | XFR<br>Z        | TRANSFER IMPEDANCE OR ZONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ▽<br>▼                         |                 | DATA OUTLET: WALL MOUNTED @ +18" AFF U.O.N. TELEPHONE/DATA OUTLET: WALL MOUNTED @ +18" AFF U.O.N.                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 望                              |                 | TELEVISION OUTLET: WALL MOUNTED @ +18" AFF U.O.N.                                                                   |                 | GENERAL REQU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | IREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| POWER                          |                 |                                                                                                                     | 1               | DRAWINGS ARE DIAGRAMMATIC, SHOWING THE G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ENERAL LOCATION TYPE LAYOUT AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 | PANELBOARD                                                                                                          |                 | EQUIPMENT REQUIRED.  THE DRAWINGS SHALL NOT BE SCALED FOR EX.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| □ <sub>WP</sub>                |                 | NON-FUSED DISCONNECT SWITCH (WP = NEMA 3R WHERE APPROPRIATE )                                                       | 3.              | . REFER TO ARCHITECTURAL DRAWINGS FOR DIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | NSIONS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| ď                              |                 | FUSED DISCONNECT SWITCH                                                                                             |                 | <ul> <li>REFER TO MANUFACTURER'S STANDARD INSTALL<br/>AND INSTALLATION REQUIREMENTS.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Ø</b> MAU-                  | -1,5HP,480,3    | MOTOR CONNECTION (EQUIPMENT NAME, HORSEPOWER, VOLTAGE, AND PHASE                                                    | 5.              | <ul> <li>PROVIDE CONNECTIONS, ACCESSORIES, OFFSETS<br/>SYSTEM.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | , AND MATERIALS NECESSARY FOR A COMPLETE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                |                 | INDICATED)                                                                                                          |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>⊕</b> EF−1                  | ,12KVA,208,1    | EQUIPMENT CONNECTION (EQUIPMENT NAME, LOAD, VOLTAGE, AND PHASE INDICATED)                                           |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| T                              |                 | TRANSFORMER, DRY TYPE, SHOWN TO SCALE                                                                               |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| М                              |                 | KW METER AND BASE                                                                                                   |                 | CONTRACTOR SUBSTI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | IUTIONS & REVISIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                |                 |                                                                                                                     | 1.              | PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | REVISIONS FOR REVIEW AND APPROVAL PRIOR TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                | FACP            | FIRE ALARM SYSTEM CONTROL PANEL                                                                                     | 2.              | ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                | P               | FIRE ALARM SYSTEM PULL STATION                                                                                      |                 | MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFI SPECIFICATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 | FIRE ALARM SYSTEM STROBE/SPEAKER                                                                                    | 3.              | ENGINEERING COSTS FOR REVISING MEP PLANS SHAL SUBSTITUTION PROPOSAL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 | FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR AND SPEAKER.                                                                | 4.              | CONTRACTOR TO COORDINATE WITH ENGINEER AND COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTOR SHALL |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PART OF THE 🗸                  |                 | THE MEMBER THOTOLLEGIBLE SWOKE BETEGION MAD SI EMBER.                                                               |                 | RESULTING FROM SUBSTITUTIONS OR REVISIONS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DESIGN/BUILD                   | <b>31</b>       | FIRE ALARM COMBINATION PHOTOELECTRIC SMOKE DETECTOR, CARBON MONOXIDE DETECTOR, AND SPEAKER, GUESTROOM.              |                 | PRE-CON MEETIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | IG NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| FIRE ALARM<br>SYSTEM           | ©               | CARBON MONOXIDE DETECTOR, AND SPEAKER, GUESTROOM.  CARBON MONOXIDE DETECTOR.                                        |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                | <b>⊙</b> H      | ELECTRO-MAGNETIC DOOR HOLDER                                                                                        | PUF             | NTRACTORS SHALL ATTEND A PRE—CONSTRUCTION RPOSE OF REVIEWING THE WORK PRIOR TO ORDERI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NG ANY EQUIPMENT OR PERFORMING ANY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                |                 |                                                                                                                     | MU <sup>-</sup> | RK. THE MEETING SHALL BE LOCATED AT THE PROTUCTION OF THE MEETING WILL BE A WORKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | S SESSION. THE MEETING WILL BE FACILITATED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                | DSD             | DUCT SMOKE DETECTOR                                                                                                 | SPE             | THE ENGINEER AND THE AGENDA WILL INCLUDE A<br>ECIFICATIONS, CROSS CHECK WITH OTHER TRADES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FOR COORDINATION ISSUES, REVIEW OF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                |                 |                                                                                                                     |                 | DPOSED PRODUCTS, REVIEW OF PLANNED MEANS A<br>LD CONDITIONS RELATIVE TO EXISTING CONDITIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 |                                                                                                                     | SPE             | ENDING THE MEETING SHALL BE KNOWLEDGEABLE CIFIC PERSONS INTENDED TO CONTINUE WITH THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROJECT THROUGH TO COMPLETION. IF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                |                 |                                                                                                                     | REC<br>PRI      | QUIRED, REVISED PLANS WILL BE ISSUED THROUGH<br>CE WILL BE DISCUSSED, BUT NO CHANGE ORDERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | OFFICIAL CHANNELS. CHANGES IN THE BID WILL BE ISSUED UNLESS PROCESSED THOUGH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                |                 |                                                                                                                     | OFF             | ICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT<br>UE CHANGE ORDERS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 |                                                                                                                     |                 | FOLLOWING TRADES SHALL BE REPRESENTED FO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | R THE MINIMUM TIME INDICATED:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                |                 |                                                                                                                     |                 | CHANICAL SHEET METAL 4 HOURS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                |                 |                                                                                                                     | PLU             | JMBING/PIPING 4 HOURS ICTRICAL 4 HOURS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**GENERAL NOTES** 

#### ALTERNATING CURRENT, ABOVE COUNTER **GENERAL**

PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE GOVERNING ELECTRICAL CODE, LOCAL CODES, ORDINANCES AND REQUIREMENTS OF UTILITY COMPANIES FURNISHING SERVICES TO INSTALLATION.

PROVIDE ALL WORK AND ITEMS NECESSARY FOR COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS

FOR A COMPLETE INSTALLATION. 3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND DETERMINE

BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING. 4. "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL,

DIRECTED TO THE ARCHITECT. FAILURE TO COORDINATE REQUIREMENTS SHALL IN

STRUCTURAL, OR MECHANICAL). 5. REFERENCE ARCHITECTURAL DRAWING FOR EXACT LOCATION OF DEVICES. QUESTIONS CONCERNING THE LOCATION OF DEVICES AND EQUIPMENT SHALL BE

NO WAY RESULT IN ADDITIONAL COMPENSATION BEING PROVIDED TO THE CONTRACTOR. 6. WHEREVER THE WORD "PROVIDE" IS USED, IT MEANS, "FURNISH AND INSTALL

7. COORDINATE LOCATION OF ELECTRICAL WITH OTHER TRADES.

8. REFER TO EQUIPMENT DRAWINGS FOR MECHANICAL CHARACTERISTICS (SIZE, LOCATION, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED. COORDINATE INSTALLATION AND LOCATION OF ALL EQUIPMENT WITH MECHANICAL CONTRACTOR. VERIFY ALL FUSE RATINGS, WIRE SIZES AND DISCONNECT SIZES PRIOR TO INSTALLATION.

#### MATERIALS AND METHODS

PROVIDE RACEWAY AND WIRING ROUTED CONCEALED WITHIN BUILDING STRUCTURE WHERE POSSIBLE. WHERE RACEWAY CANNOT BE CONCEALED, IT SHALL BE INSTALLED PER PROJECT MANAGER'S DIRECTION. ALL CONDUIT SHALL BE INSTALLED IN NEAT SYMMETRICAL LINES HORIZONTAL OR PERPENDICULAR TO BUILDING COLUMNS AND ROOF LINES. CONDUITS SHALL BE GROUPED ON COMMON SUPPORTS WHEREVER POSSIBLE.

2. EXPOSED CONDUIT ROUTING: CONDUITS MAY BE ROUTED EXPOSED IN MECHANICAL AND ELECTRICAL ROOMS ONLY. EXPOSED CONDUITS SHALL BE SECURED A MINIMUM OF 6" ABOVE FLOOR.

3. OUTDOOR EXPOSED CONDUIT ROUTING: CONDUITS ROUTED ON ROOF OR EXPOSED TO WEATHER SHALL BE GRC, PVC OR LIQUID-TIGHT FLEX. PROVIDE WATER-TIGHT CONNECTIONS AND FITTINGS.

4. CLEARANCES: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET.

5. CONNECTIONS: PROVIDE GRS, METALLIC FLEX, OR LIQUIDTITE FLEX CONDUITS FOR CONNECTIONS TO MOTORS OR MOTORIZED EQUIPMENT.

6. WIRING: PROVIDE MINIMUM #12 AWG WIRE SIZE. IF CONDUIT IS TO BE USED MINIMUM IS TO BE 1/2". FLEXIBLE CONDUIT AND FLEXIBLE CABLE IS PERMISSIBLE THROUGHOUT THE BUILDING.

7. WIRING: PROVIDE MINIMUM #10 AWG COPPER CONDUCTOR SIZE IN 120V BRANCI CIRCUIT RUNS OVER 75' IN LENGTH.

#### SITE ELECTRICAL

1. TRENCHING: COORDINATE ALL TRENCHING WORK WITH OTHER UTILITY LOCATIONS AND DRAINAGE TRENCHES.

2. UNDERGROUND CONDUITS: PROVIDE PVC, SCHEDULE 40, 3/4" MINIMUM. PROVIDE GRC CONDUIT TRANSITION ELBOW WHEN TURNING UP TO ABOVE GRADE.

CONDITIONS WHICH MAY AFFECT BID. ANY ITEMS NOT FULLY UNDERSTOOD SHALL 3. DIRECT-BURIED CONDUITS: CONDUIT FOR BRANCH CIRCUITS OUTSIDE BUILDINGS NOT BENEATH DRIVEWAYS OR PARKING AREAS SHALL BE DIRECTLY BURIED WITHOUT CONCRETE ENCASEMENT. THE DEPTH TO THE TOP OF BURIED CONDUITS SHALL BE 36". PROVIDE MARKER TAPE 12" BELOW GRADE.

> 4. BELOW SLAB: CONDUIT ROUTED BELOW ON-GRADE FLOOR SLABS SHALL BE INSTALLED PRIOR TO FLOOR SLAB POUR. ROUTE CONDUITS BELOW SLAB AS STRAIGHT AS POSSIBLE TO MINIMIZE BENDS.

5. ALL CONDUITS PENETRATING THE BUILDING ENVELOPE BELOW GRADE SHALL FOLLOW WATERPROOFING REQUIREMENTS IN THE ARCHITECTURAL DRAWINGS.

#### **NEUTRALS**

1. AT CONTRACTORS OPTION. NEUTRALS MAY BE SHARED ON COMBINED HOMERUNS UNLESS THE CIRCUIT HAS A GFCI BREAKER, AN ISOLATED GROUND, OR IS FROM A PANEL WITH TVSS PROTECTION. ANY NEUTRAL DOWNSTREAM FROM A DIMMER SHALL BE DEDICATED TO THE DIMMED LOAD.

NEUTRAL WIRES SHOWN FOR TWO AND THREE POLE MECHANICAL AND KITCHEN EQUIPMENT MAY BE OMITTED UPON VERIFICATION THAT THEY ARE NOT REQUIRED EITHER FOR OPERATION OR CONTROL CIRCUITS PER MANUFACTURER'S SPECIFICATIONS.

#### <u>LIGHTING</u>

PROVIDE LIGHT FIXTURES WITH PROPER FITTING FLANGES, MOUNTING SUPPORTS. AND ACCESSORY ITEMS, UL LISTED FOR CONDITIONS OF USE.

#### LOW VOLTAGE LIGHTING

1. PROVIDE LOW VOLTAGE TRANSFORMERS IN NEARBY ACCESSIBLE CEILING SPACE.

2. PROVIDE LOW VOLTAGE CONDUCTORS SIZED PER MANUFACTURER'S GUIDELINES MINIMIZE VOLTAGE DROP.

#### LIGHTING CONTROL

THE MAXIMUM LIGHTING POWER THAT MAY BE CONTROLLED FROM A SINGLE SWITCH OR AUTOMATIC CONTROL SHALL NOT EXCEED THAT WHICH IS PROVIDED BY A TWENTY AMPERE CIRCUIT LOADED TO NOT MORE THAN EIGHTY PERCENT. A MASTER CONTROL MAY BE INSTALLED PROVIDED THE INDIVIDUAL SWITCHES RETAIN THEIR CAPABILITY TO FUNCTION INDEPENDENTLY.

AN UNSWITCHED LEG OF THE DESIGNATED CIRCUIT.

# 05/02/202

ROBISON

ENGINEERING, INC

19401 40TH AVE W., SUITE 302

REI PROJECT NO.: 1219-001

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2

INCLUDED IN SET

2. EMERGENCY FIXTURES: EMERGENCY BATTERY/CHARGER SHALL BE CONNECTED TO

## DRAWING INDEX

| DWG                              | DESCRIPTION                                                                                                                                              | PÉRMIT REVIEW<br>SET<br>10/06/23                 | PERMIT SET<br>02/15/24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROGRESS SET<br>08/16/2024 | OWNER<br>CHANGES/PERMIT<br>CORRECTIONS<br>08/30/24 | CHANGES/PERMIT<br>CORRECTIONS<br>05/01/25 |   |  |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------------|-------------------------------------------|---|--|
| E0.00                            | LEGEND, GENERAL NOTES, DRAWING INDEX                                                                                                                     | X                                                | Χ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X                          | X                                                  | X                                         |   |  |
| E0.01                            | PROJECT NOTES                                                                                                                                            | X                                                | Χ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X                          | Χ                                                  | Χ                                         |   |  |
| E0.10                            | SITE POWER PLAN — EAST                                                                                                                                   | X                                                | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X                          | X                                                  | X                                         |   |  |
| E0.11                            | SITE POWER PLAN - WEST                                                                                                                                   |                                                  | , ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                                                    | X                                         |   |  |
| E0.12<br>E0.13                   | SITE LIGHTING PLAN — EAST<br>SITE LIGHTING PLAN — WEST                                                                                                   | X                                                | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X                          | Χ                                                  | X                                         |   |  |
| E1.01<br>E1.02<br>E1.03<br>E1.50 | LIGHTING & PHOTOMETRIC PLAN—BASEMENT<br>LIGHTING & PHOTOMETRIC PLAN—1ST FLOOR<br>LIGHTING PLAN — 2ND & 3RD FLOOR<br>LIGHTING NOTES & LUMINAIRE SCHEDULES | X                                                | X<br>X<br>X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | X<br>X<br>X                | X<br>X<br>X                                        | X<br>X<br>X                               |   |  |
| E3.00                            | POWER PLAN - BASEMENT & 1ST FLOOR                                                                                                                        | X                                                | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | $\mid X \mid$              | X                                                  | X                                         |   |  |
| E3.01                            | POWER PLAN - 2ND & 3RD FLOOR                                                                                                                             | X                                                | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X                          | X                                                  | X                                         |   |  |
| E5.00<br>E5.01                   | UNIT PLANS NOTES UNIT PLANS & SCHEDULES                                                                                                                  | $+\frac{X}{X}$                                   | $\stackrel{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}{\overset{X}}{\overset{X}{\overset{X}}{\overset{X}{\overset{X}{\overset{X}}{\overset{X}{\overset{X}}{\overset{X}{\overset{X}}{\overset{X}{\overset{X}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}{\overset{X}}{\overset{X}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}}{\overset{X}}}{\overset{X}}}{\overset{X}}}}{\overset{X}}}}}}}}$ | X                          | X                                                  | X<br>                                     |   |  |
| E5.02                            | UNIT PLANS & SCHEDULES                                                                                                                                   | Ιχ̈́                                             | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ΙΏΙ                        | X                                                  | X                                         |   |  |
|                                  |                                                                                                                                                          |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |                                                    |                                           |   |  |
| E6.00<br>E6.01                   | ONE-LINE DIAGRAM & NOTES PANELS SCHEDULES                                                                                                                | <del>                                     </del> | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X                          | X                                                  | X                                         |   |  |
| LU.UI                            | I ANLLS SCHLDULLS                                                                                                                                        |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | $\square \wedge \square$   |                                                    | ^                                         | I |  |

#### RESULTING FROM SUBSTITUTIONS OR REVISIONS.

HANICAL SHEET METAL 4 HOURS PLUMBING/PIPING 4 HOURS ELECTRICAL 4 HOURS SPRINKLER 2 HOURS GENERAL CONTRACTOR ALL SESSIONS 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

05/02/2025

LEGEND, GENERAL

NOTES, DRAWING

HEET TITLE:

INDEX

# **APPLICABLE CODES**

THE FOLLOWING PROJECT DESIGN IS BASED ON THE FOLLOWING CODES:

- -2020 NATIONAL ELECTRICAL CODE (NEC)
- -2018 WASHINGTON STATE ENERGY CODE (WSEC)
- -2018 INTERNATIONAL BUILDING CODE (IBC) & WASHINGTON STATE AMENDMENTS
- -2018 INTERNATIONAL FIRE CODE (IFC) & WASHINGTON STATE AMENDMENTS
- -2018 INTERNATIONAL MECHANICAL CODE (IMC) & WASHINGTON STATE AMENDMENTS
- -2018 UNIFORM PLUMBING CODE (UPC) & WASHINGTON STATE AMENDMENTS

# VIBRATION AND ACOUSTIC STICE STATE OF THE PERINT STATE OF THE PERI

THE FOLLOWING MEASURES SHALL BE TAKEN TO MINIMIZE VIBRATION AND NOISE TRANSMISSION FROM MECHANICAL AND ELECTRICAL EQUIPMENT TO THE INTERIOR SPACES:

#### TRANSFORMERS:

A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

B) MOUNT TRANSFORMERS ON NEOPRENE GROMMET ISOLATORS.

SUBDUCT EXHAUST FANS:

A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

<u>ENCLOSED GARAGE EXHAUST FANS:</u>

A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

ROOFTOP AIR HANDLERS:

A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

FAN COIL UNITS:

A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

ROOF MOUNTED CONDENSERS:

A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

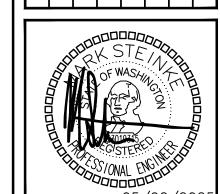
FLEXIBLE CONDUIT OR MC CABLE CONNECTIONS FOR VIBRATION ISOLATION SHALL BE A MINIMUM OF TWO FEET LONG.

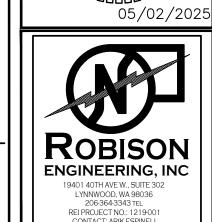
# TEMPERATURE LIMITATION OF CONDUCTORS

ADDITIONAL ADJUSTMENTS FOR CONDUITS EXPOSED TO SUNLIGHT ON OR ABOVE ROOFTOPS SHALL BE FACTORED PER NEC TABLE 310.15(B)(2)(C)

# CONDUIT & CONDUCTOR FIRE RATING

- 1. CONDUIT FOR ELECTRICAL CONDUCTORS BY THE FACP OR FIRE ALARM SYSTEM SHALL BE IN 2 HOUR RATED ENCLOSURES OR ENCASED IN 2—INCH OF CONCRETE AND RATED CABLE ASSEMBLIES, OR BE CONDUCTORS IN 2 HOUR—RATED RACEWAYS PER NFPA 72.
- 2. THE EQUIPMENT AND CONTROL WIRING SHALL BE ENCLOSED BY FIRE BARRIERS CONSTRUCTED IN ACCORDANCE WITH IBC SECTION 707 OR HORIZONTAL ASSEMBLIES CONSTRUCTED IN ACCORDANCE WITH IBC SECTION 711, OR USING A 2 HR RATED CABLE SYSTEM OR ENCLOSED WITHIN 2" OF CONCRETE.
- 3. FIRE ALARM WIRING SHALL COMPLY WITH IBC 907.6.1. WIRING SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 70.
- 4. RACEWAYS FOR THE DEDICATED BRANCH CIRCUIT(S) REQUIRED FOR PRIMARY POWER TO THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE IN 2 HOUR RATED ENCLOSURES OR ENCASED IN 2-INCH OF CONCRETE AND RATED CABLE ASSEMBLIES, OR BE CONDUCTORS IN 2 HOUR-RATED RACEWAYS PER IBC 907 AND NFPA 72 SECTION 10.6.11.3.1.3





CHECKED:

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1 4OTH AVE W. SUITE 302 NWOOD, WA 98036

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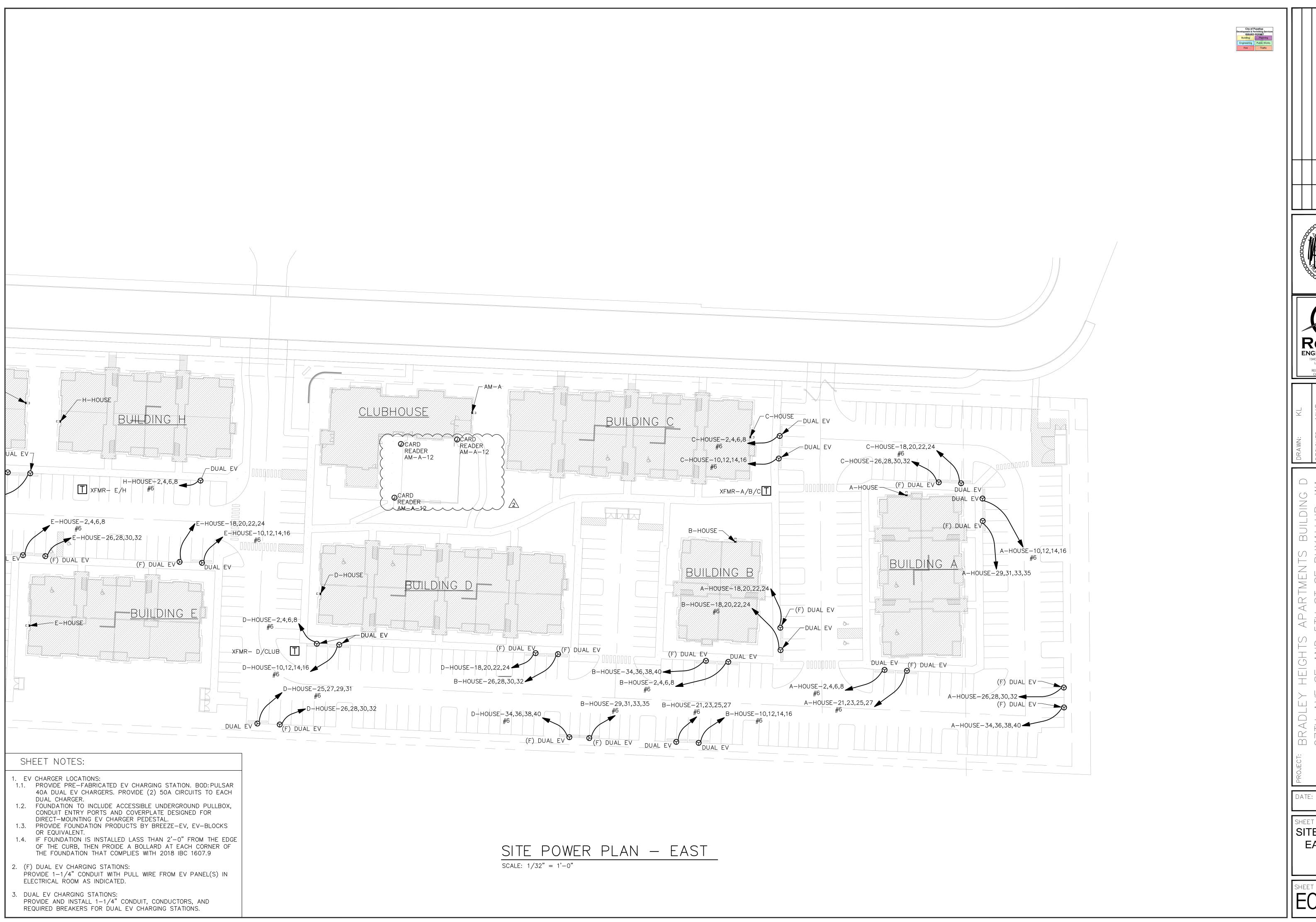
SHEET TITLE:

LEGEND, GENERAL

NOTES, DRAWING

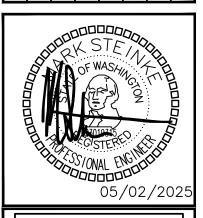
INDEX

EO.01



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KLYSAK F:\777-006 DHI MEADOWDALE APARTMENTS\DWG\FLAT E0.10 SITE PLAN.DWG 05-09-2023 10:47

NO. DATE DESCRIPTION





DESIGNED: MHS
CHECKED: PSR
APPROVED: JAY

PRMU20240283

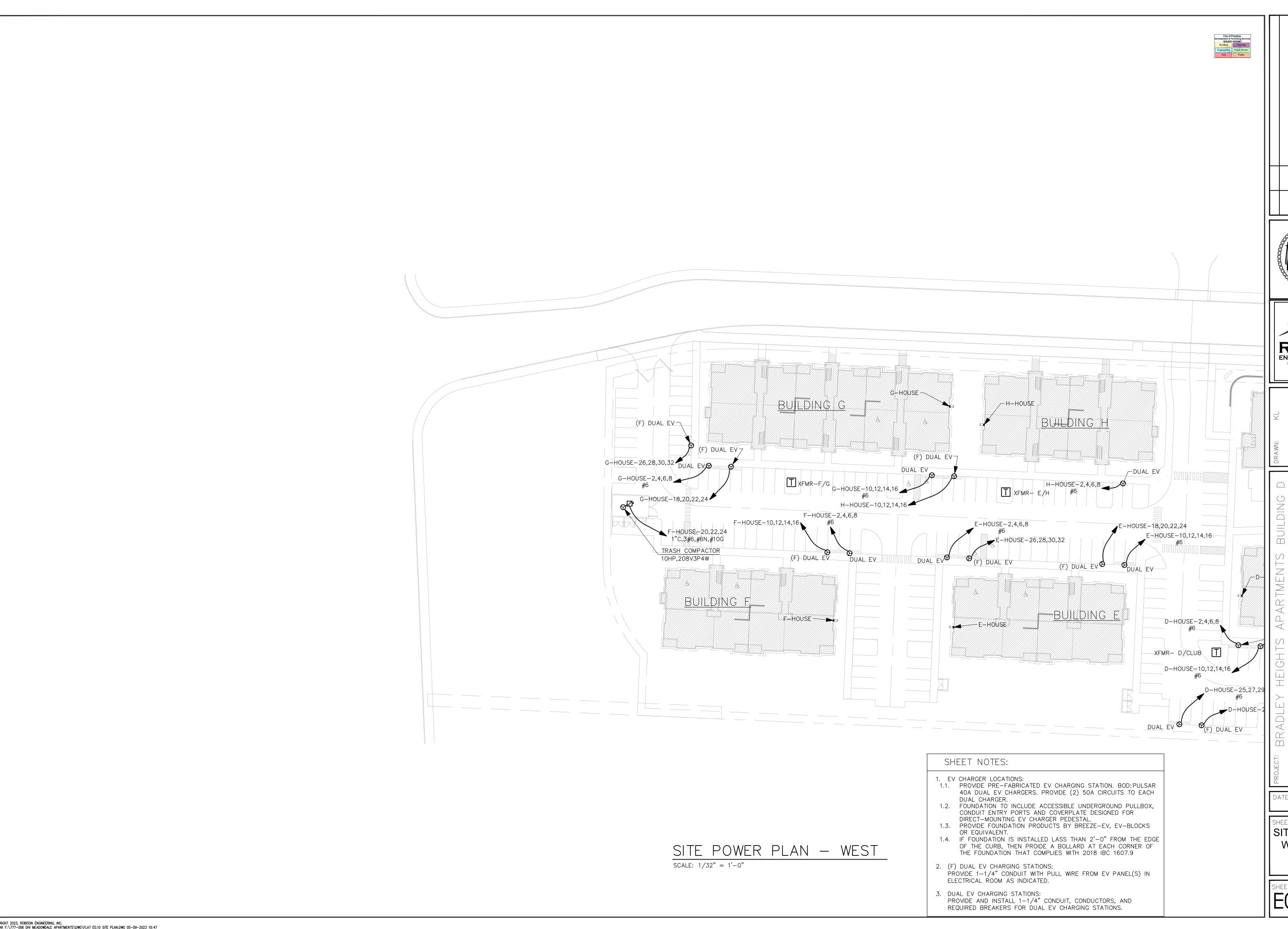
19401 4OTH AVE W. SUITE 302 LYNNWOOD, WA 98036

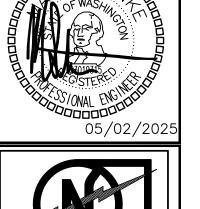
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SHEET TITLE:
SITE POWER
EAST SITE
PLAN

EO.10



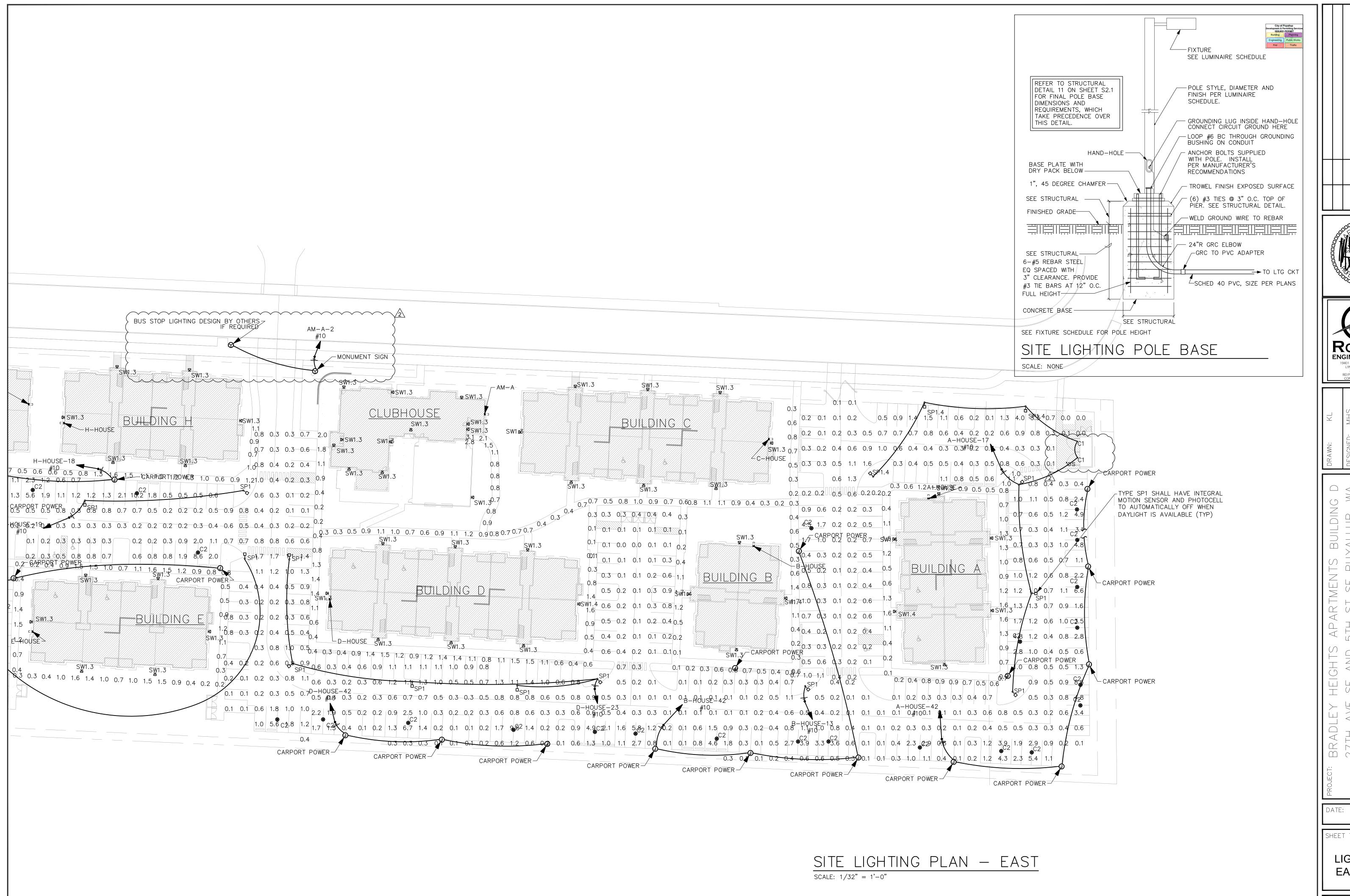




12024028

05/02/2025

SHEET TITLE: SITE POWER WEST SITE PLAN



ROBISON **ENGINEERING, INC** 19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206-364-3343 TEL REI PROJECT NO.: 1219-001

N. SUITE 302
8036
PRMU20240283

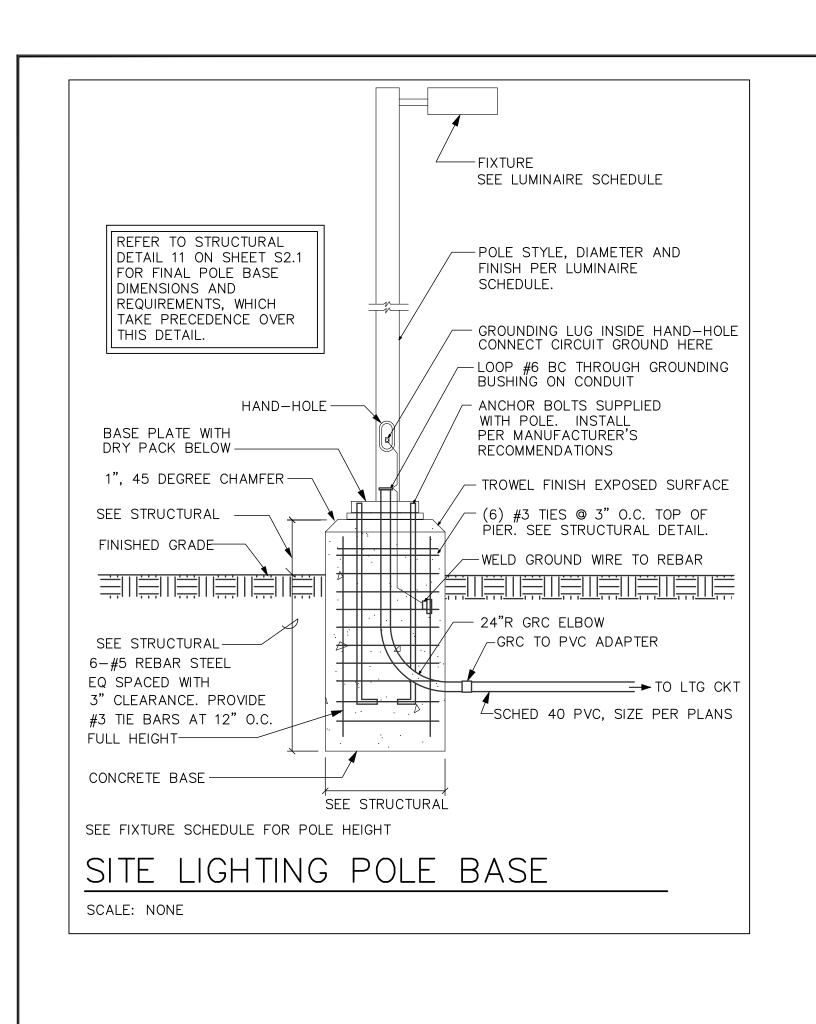
**50N** 19401 40TH AVE W. SUITE 302 LYNNWOOD, WA 98036 PHONE:(206)364-3343

Robison

TE: 05/02/2025

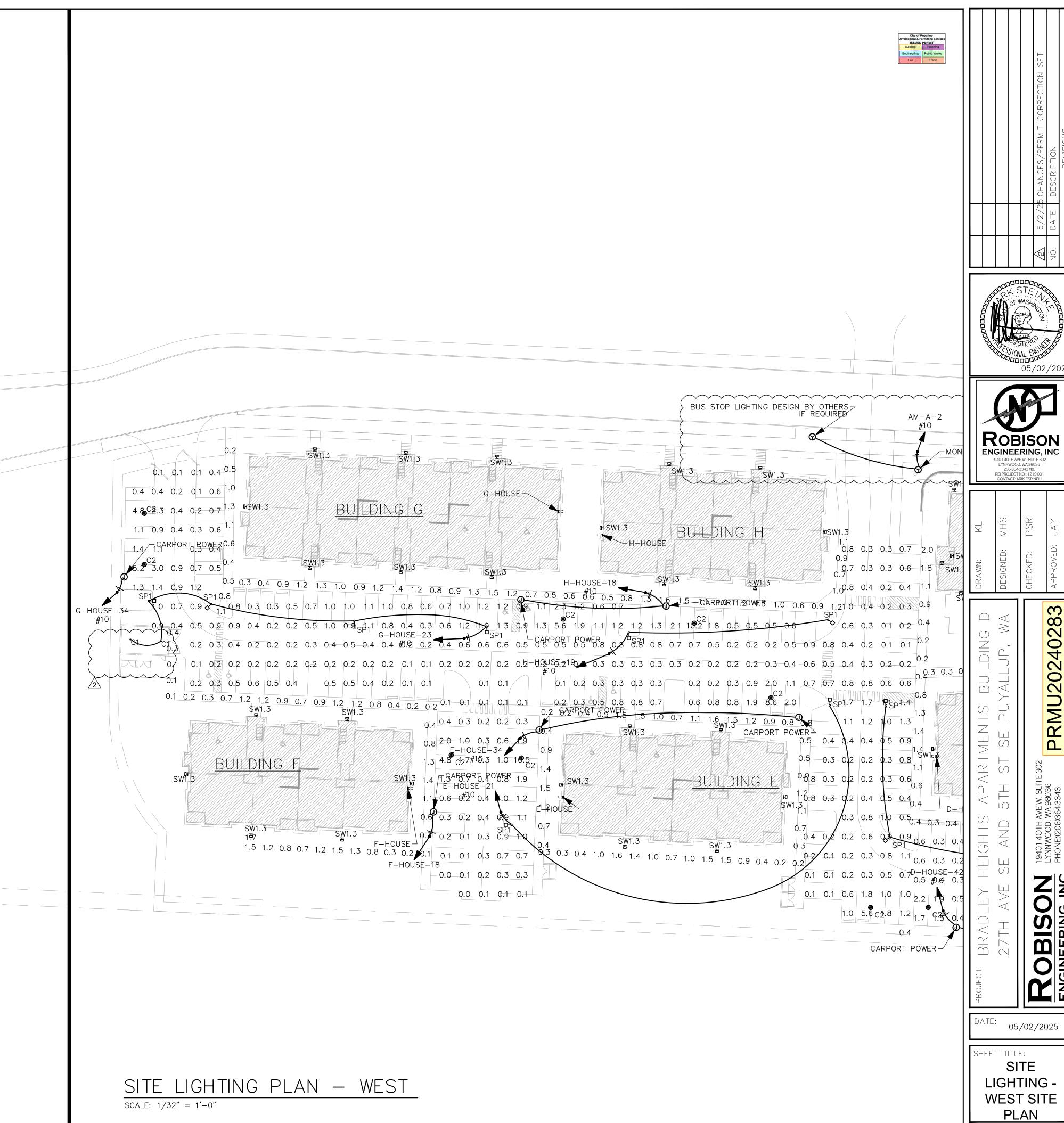
SHEET TITLE:
SITE
LIGHTING EAST SITE
PLAN

EO.12

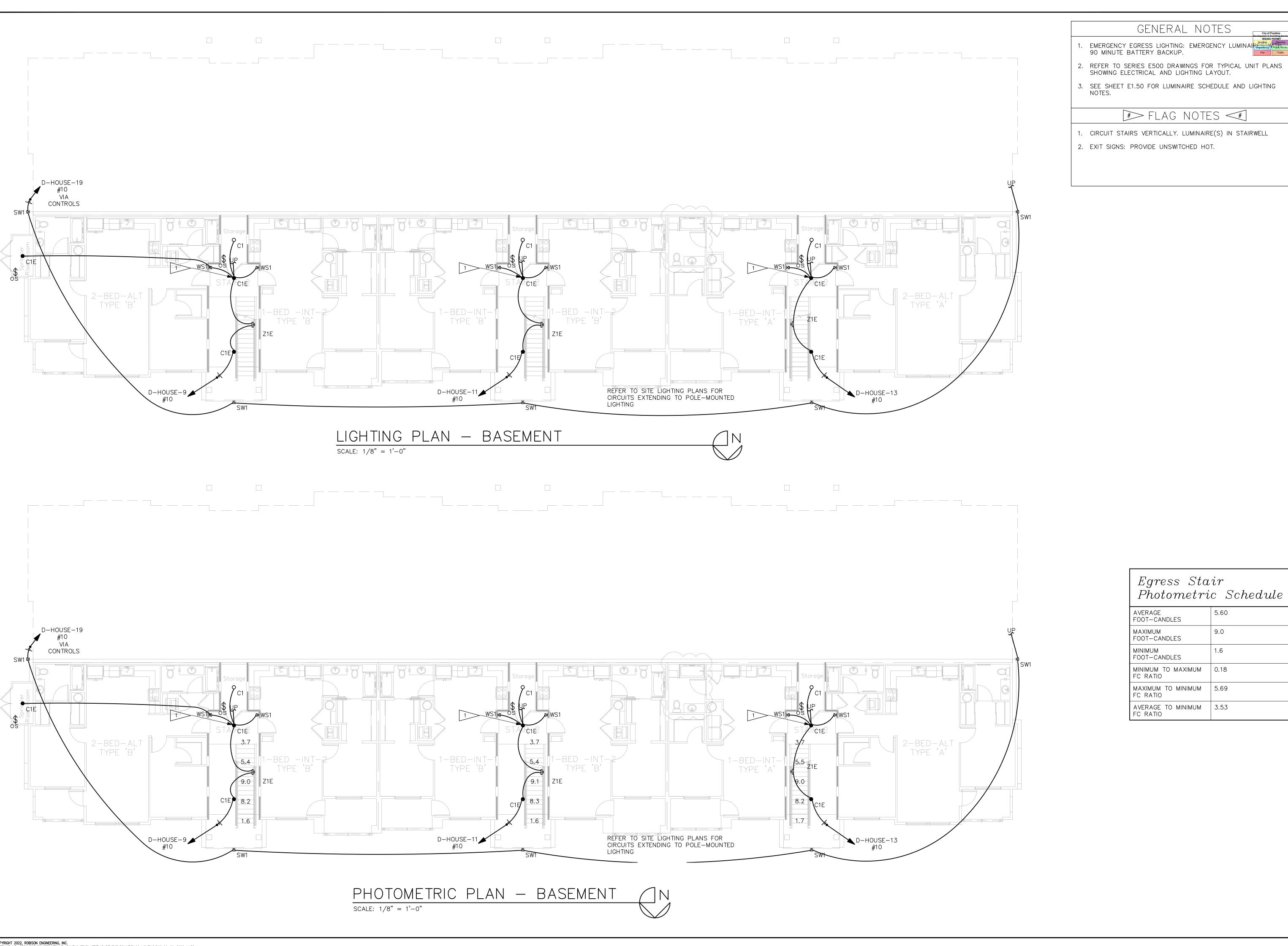


| Drive Aisle<br>Photometri      |        |
|--------------------------------|--------|
| AVERAGE<br>FOOT—CANDLES        | 0.74   |
| MAXIMUM<br>FOOT-CANDLES        | 10.5   |
| MINIMUM<br>FOOT-CANDLES        | 0.0    |
| MAXIMUM TO MINIMUM<br>FC RATIO | 912.07 |
| AVERAGE TO MINIMUM<br>FC RATIO | 64.31  |

| Walkway F<br>Schedule          | Photometric |
|--------------------------------|-------------|
| AVERAGE<br>FOOT-CANDLES        | 0.82        |
| MAXIMUM<br>FOOT-CANDLES        | 3.1         |
| MINIMUM<br>FOOT-CANDLES        | 0.1         |
| MAXIMUM TO MINIMUM<br>FC RATIO | 41.68       |
| AVERAGE TO MINIMUM FC RATIO    | 11.02       |



E0.13



- 2. REFER TO SERIES E500 DRAWINGS FOR TYPICAL UNIT PLANS SHOWING ELECTRICAL AND LIGHTING LAYOUT.
- 3. SEE SHEET E1.50 FOR LUMINAIRE SCHEDULE AND LIGHTING NOTES.

#> FLAG NOTES <#

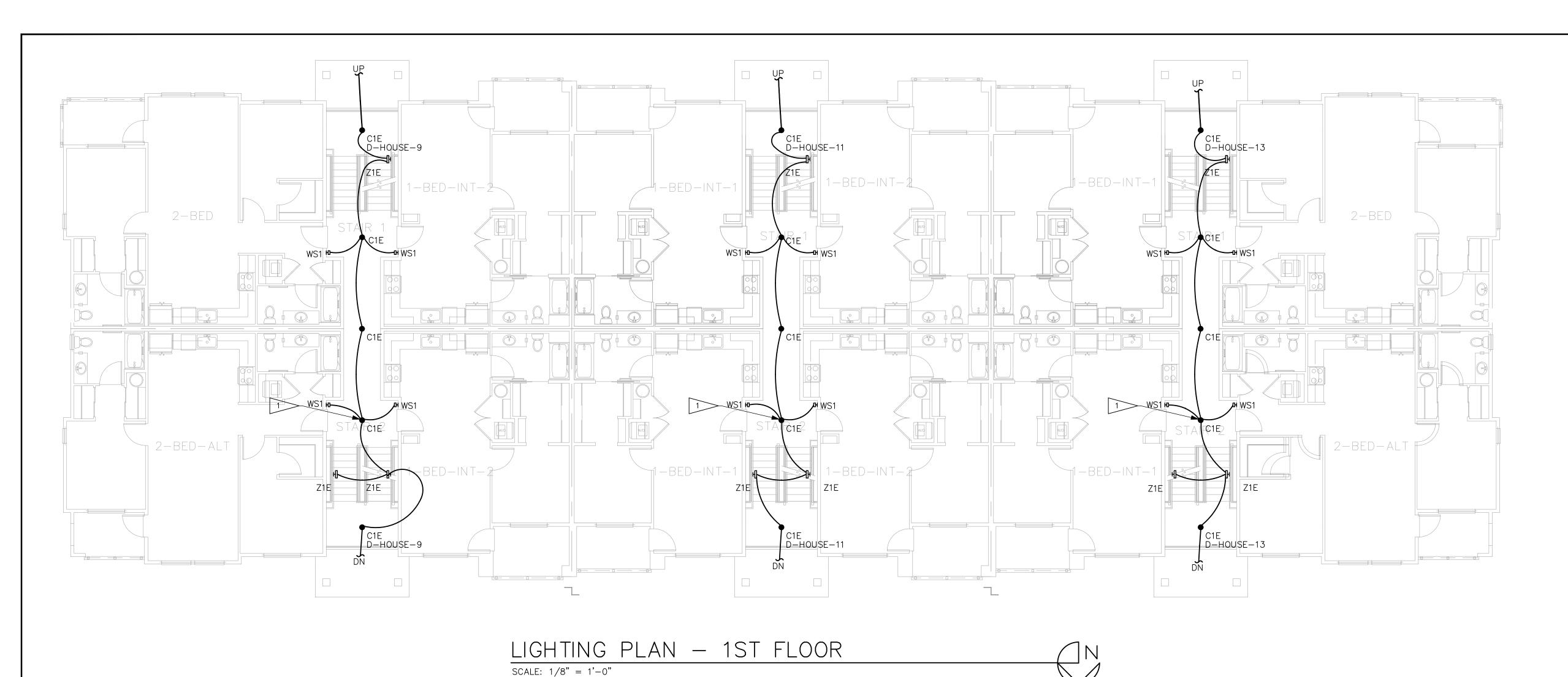
1. CIRCUIT STAIRS VERTICALLY. LUMINAIRE(S) IN STAIRWELL





05/02/2025

LIGHTING & PHOTOMETRIC PLAN -**BASEMENT** 



#### GENERAL NOTES

- EMERGENCY EGRESS LIGHTING: EMERGENCY LUMINAL PROJECTION OF THE PROPERTY PRO
- 2. REFER TO SERIES E500 DRAWINGS FOR TYPICAL UNIT PLANS SHOWING ELECTRICAL AND LIGHTING LAYOUT.
- 3. SEE SHEET E1.50 FOR LUMINAIRE SCHEDULE AND LIGHTING

#### #> FLAG NOTES <#

- 1. CIRCUIT STAIRS VERTICALLY. LUMINAIRE(S) IN STAIRWELL
- 2. EXIT SIGNS: PROVIDE UNSWITCHED HOT.

| Egress Stair | S        |
|--------------|----------|
| Photometric  | Schedule |

|   | AVERAGE<br>FOOT—CANDLES        | 11.08 |
|---|--------------------------------|-------|
|   | MAXIMUM<br>FOOT-CANDLES        | 13.9  |
|   | MINIMUM<br>FOOT-CANDLES        | 6.1   |
|   | MINIMUM TO MAXIMUM<br>FC RATIO | 0.44  |
|   | MAXIMUM TO MINIMUM<br>FC RATIO | 2.28  |
|   | AVERAGE TO MINIMUM<br>FC RATIO | 1.82  |
| ' |                                |       |

| AVERAGE<br>FOOT-CANDLES               | 4.18 |
|---------------------------------------|------|
| MAXIMUM<br>FOOT-CANDLES               | 6.6  |
| MINIMUM<br>FOOT-CANDLES               | 2.9  |
| MINIMUM TO MAXIMUM<br>FC RATIO        | 0.44 |
| MAXIMUM TO MINIMUM<br>FC RATIO        | 2.28 |
| AVERAGE TO MINIMUM<br>FC RATIO        | 1.44 |
| · · · · · · · · · · · · · · · · · · · |      |

# Egress Long Stairs Photometric Schedule

| 1 700007700071                 |      |
|--------------------------------|------|
| AVERAGE<br>FOOT-CANDLES        | 6.46 |
| MAXIMUM<br>FOOT-CANDLES        | 12.0 |
| MINIMUM<br>FOOT-CANDLES        | 1.9  |
| MINIMUM TO MAXIMUM FC RATIO    | 0.16 |
| MAXIMUM TO MINIMUM<br>FC RATIO | 6.36 |
| AVERAGE TO MINIMUM FC RATIO    | 3.43 |

| AVERAGE<br>FOOT—CANDLES        | 11.08 |
|--------------------------------|-------|
| MAXIMUM<br>FOOT-CANDLES        | 13.9  |
| MINIMUM<br>FOOT-CANDLES        | 6.1   |
| MINIMUM TO MAXIMUM<br>FC RATIO | 0.44  |
| MAXIMUM TO MINIMUM<br>FC RATIO | 2.28  |
| AVERAGE TO MINIMUM<br>FC RATIO | 1.82  |

| Egress | Corri | dor      |
|--------|-------|----------|
| Photom | etric | Schedule |

PHOTOMETRIC PLAN - 1ST FLOOR SCALE: 1/8" = 1'-0"

-BED-INT-TYPE 'B'

D-HOUSE-9



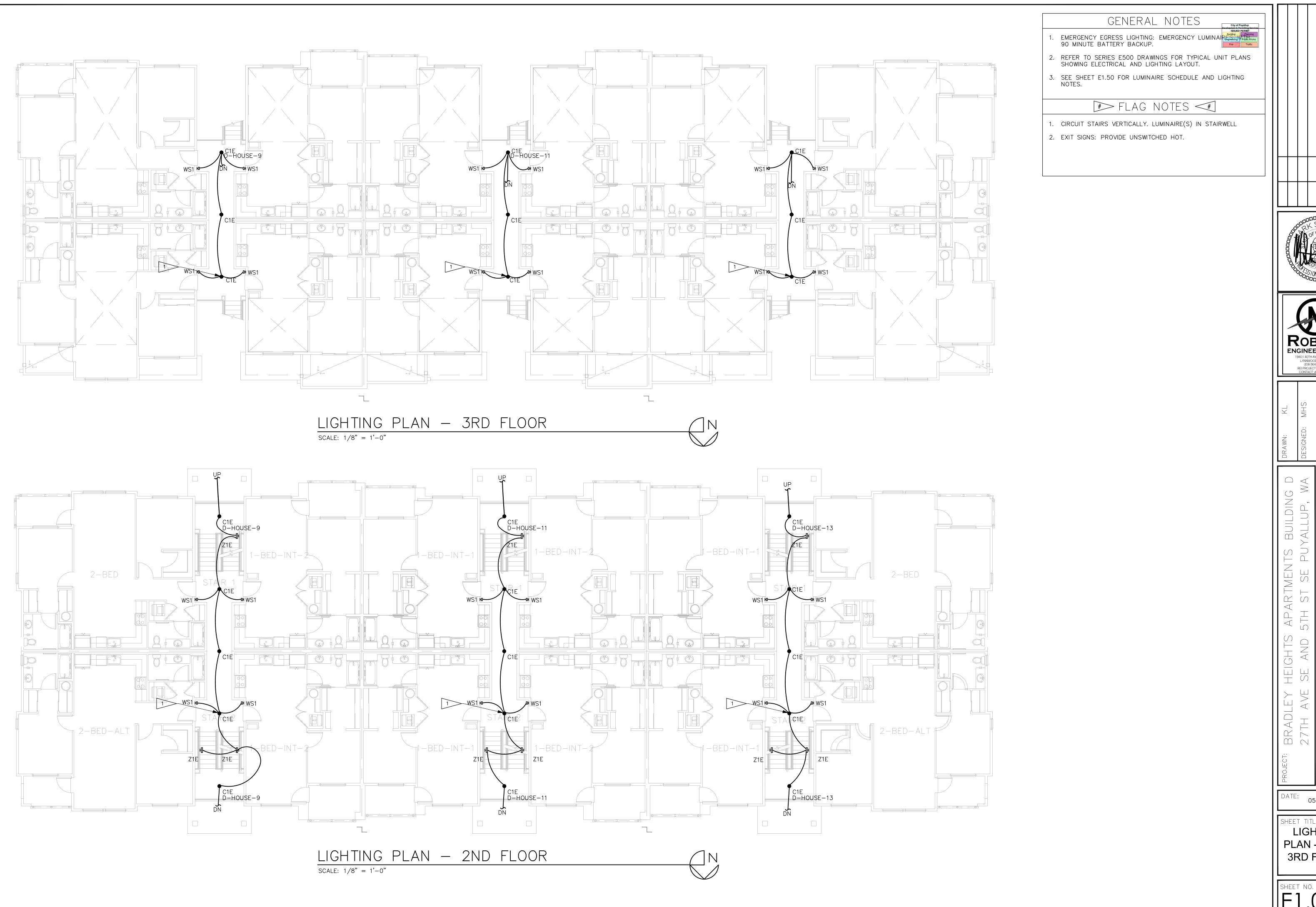
-BED-INT-1

1-BED-INT TYPE 'B'

05/02/2025

ROBISON ENGINEERING, INC

LIGHTING & PHOTOMETRIC PLAN - 1ST FLOOR



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MSTEINKE G: \\_RESOURCE FOLDER\STEINKE LEAVENS TEMPLATES\APARTMENT 30X42\E1.00 LIGHTING.DWG 09-26-2022 11:30

05/02/2025

LIGHTING PLAN - 2ND & 3RD FLOOR

| EXTE    | EXTERIOR LUMINAIRE SCHEDULE |                      |                                                                   |                                                  |          |                      |            |             |         |
|---------|-----------------------------|----------------------|-------------------------------------------------------------------|--------------------------------------------------|----------|----------------------|------------|-------------|---------|
| CALLOUT | SYMBOL                      | MOUNTING             | DESCRIPTION                                                       | MODEL                                            | VOLTAGE  | TYPE                 | CRI / CCT  | LAMPING     | WATTAGE |
| SP1     | <b>←</b>                    | 16' POLE             | POLE LIGHT — PARKING & DRIVE AISLE<br>— COMFORT OPTICS — B2 U0 G2 | GARDCO: P20 C A02 830 T1S AR1 120<br>BL30-MW PCB | MULTIPLE | INTEGRAL<br>CONTROLS | 80 / 3000K | (1) 36W LED | 36      |
| SW1     | ю                           | SURFACE —<br>12' AFF | WALL SCONCE - AREA LIGHT - B1 U0 G1                               | GARDCO: GWM A06 830 T3M 120 MW30 PCB             | 120      | INTEGRAL<br>CONTROLS | 80 / 3000K | (1) 16W LED | 16      |

#### NOTES:

. CONTRACTOR TO FURNISH AND INSTALL ALL FIXTURES.

2. LUMINAIRE SCHEDULE IS BOD ONLY. CONTRACTOR TO SUBMIT FIXTURE MODEL OR EQUIVALENT. CONTRACTOR TO COORDINATE FIXTURE FINISHES WITH ARCHITECT/OWNER.
3. FIXTURE CATALOG NUMBERS DO NOT NECESSARILY DENOTE SPECIFIC MOUNTING ACCESSORIES. CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES TO SUCCESSFULLY COMPLETE THE

INSTALLATION.
4. 'BUG' RATING ON EXTERIOR FIXTURES INDICATES 'BACKLIGHT', 'UPLIGHT', AND 'GLARE' AS STANDARDS IN CLASSIFYING OUTDOOR LIGHT FIXTURES.

| CALLOUT | SYMBOL   | MOUNTING | DESCRIPTION                                                                               | MODEL                                            | VOLTAGE  | TYPE             | CRI / CCT          | LAMPING          | WATTAGE |
|---------|----------|----------|-------------------------------------------------------------------------------------------|--------------------------------------------------|----------|------------------|--------------------|------------------|---------|
| B1      |          | SURFACE  | 4' NARROW WRAP — BOH                                                                      | DAY-BRITE CFI: FSW440L835 UNV DIM                | 120      | 0-10V<br>DIMMING | 80 / 3000K         | (1) 31.4W<br>LED | 31.4    |
| C1E     | •        | SURFACE  | 4" SURFACE DOWNLIGHT                                                                      | DMF: DRDH N JO 70S EM / DRD5S 4 R 07 9 30 EM     | 120      | 0-10V<br>DIMMING | 90 / 3000K         | (1) 9W LED       | 9       |
| D1      | ٥        | RECESSED | RECESSED DOWNLIGHT — SLOPED CEILING                                                       | DMF: DRD4M 10 9 30 FL X 0 / DRDH N<br>JS 1004    | 120      | 0-10V<br>DIMMING | 90 / 3000K         | (1) 12W LED      | 12      |
| P1      | ٥        | PENDANT  | STEM MOUNT DOWNLIGHT — SLOPED<br>CEILING — 4' STEM                                        | DMF: DCR T4 S X A 30 FL 0 00 30 XX O 00 [FINISH] | 120      | 0-10V<br>DIMMING | 90 / 3000K         | (1) 40W LED      | 40      |
| WS1     | ю        | SURFACE  | WALL SCONCE - EM BATTERY BACKUP                                                           | TBD                                              | 120      | TBD DIMMING      | TBD / TBD          | (1) 5W LED       | 5       |
| X1      | ⊗        | SURFACE  | EXIT SIGN — EMERGENCY BATTERY<br>BACKUP — HATCH INDICATES LIT FACE                        | LSI: EMS WB SERIES (OR EQUAL)                    | MULTIPLE | EM               | EM / EM            | (1) 5W EM        | 5       |
| X2      | <b>⊗</b> | SURFACE  | COMBO EXIT SIGN                                                                           | LSI: CEC (OR EQUAL)                              | MULTIPLE | EM               | EM / EM            | (1) 5W EM        | 5       |
| Х3      |          | SURFACE  | EMERGENCY LIGHT — EMERGENCY<br>BATTERY BACKUP<br>DAMP LOCATION RATED — MAX 35'<br>SPACING | LITHONIA: ELM2LF (OR EQUAL)                      | 120      | EM               | EM / EM            | (1) 5W EM        | 5       |
| X4      | н        | WALL     | EXTERIOR EMERGENCY LIGHT — EMERGENCY ON ONLY — MAX SPACING 35'                            | NORA LIGHTING: NE-902LED                         | 120      | EM               | 35' MAX<br>SPACING | (1) 5W LED       | 5       |
| Z1E     | Н        | WALL     | WALL PACK                                                                                 | LITHONIA: WPX1 LED P1 30K MVOLT                  | 120      | EM               | 70 / 3000K         | (1) 11W LED      | 11      |

NOTES:
1. CONTRACTOR TO FURNISH AND INSTALL ALL FIXTURES.

2. LUMINAIRE SCHEDULE IS BOD ONLY. CONTRACTOR TO SUBMIT FIXTURE MODEL OR EQUIVALENT. CONTRACTOR TO COORDINATE FIXTURE FINISHES WITH ARCHITECT/OWNER.
3. FIXTURE CATALOG NUMBERS DO NOT NECESSARILY DENOTE SPECIFIC MOUNTING ACCESSORIES. CONTRACTOR TO PROVIDE ALL NECESSARY ACCESSORIES TO SUCCESSFULLY COMPLETE THE INSTALLATION.

| LIGHTING CONTROLS LEGEND |                                                                     |                                                                                                                                                                                                                                                                                     |  |  |  |
|--------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| SYMBOL                   | CONTROL TYPE                                                        | CONTROL FUNCTION                                                                                                                                                                                                                                                                    |  |  |  |
| \$ \$                    | TOGGLE SWITCH                                                       | MANUAL ON/OFF LIGHTING CONTROL. SUBSCRIPT INDICATES WHICH FIXTURES ARE TO BE CONTROLLED BY WHICH SWITCH (WSEC C405.2.3). SUBSCRIPT 'k' INDICATES TAMPER RESISTANT KEYED SWITCH FOR USE BY AUTHORIZED PERSONNEL ONLY.                                                                |  |  |  |
| <b>D D</b>               | DIMMER SWITCH                                                       | MANUAL MULTI-LEVEL LIGHTING CONTROL. SWITCH SHALL ALSO HAVE MANUAL ON/OFF FUNCTIONALITY. SUBSCRIPT INDICATES WHICH FIXTURES ARE TO BE CONTROLLED BY WHICH DIMMER. (C405.2.3)                                                                                                        |  |  |  |
| vs vs<br>os os<br>\$     | TOGGLE/DIMMER<br>SWITCH WITH<br>OCCUPANCY SENSOR                    | SWITCHES LABELED 'os' OR 'vs' SHALL TURN OFF ALL CONNECTED LUMINAIRES WITHIN 20 MINUTES OF SPACE BEING VACANT. (C405.2.1.1)                                                                                                                                                         |  |  |  |
| CS-01                    | CONTROL STATION;<br>SEE LIGHTING<br>CONTROL ZONE TABLE<br>ON PLANS. | MANUAL LOCAL LIGHTING CONTROL (C405.2.1.1). CONTROL STATION SHALL HAVE CAPACITY TO CONTROL MULTIPLE ZONES AND MULTIPLE SCENES AS NEEDED. SUBSCRIPT CORRESPONDS TO 'LIGHTING CONTROLS' TABLE ON PLANS.                                                                               |  |  |  |
| (S)                      | SURFACE MOUNTED<br>OCCUPANCY SENSOR                                 | AUTOMATIC LIGHTING CONTROL SHALL TURN OFF ALL CONNECTED LUMINAIRES WITHIN 20 MINUTES OF SPACE BEING VACANT. (C404.2.1.1)                                                                                                                                                            |  |  |  |
| ax<br>PS                 | MULTIZONE<br>PHOTOSENSOR                                            | AUTOMATIC LIGHTING CONTROL SHALL AUTOMATICALLY ADJUST THE LIGHT OUTPUT OF ALL CONNECTED LUMINAIRES BASED ON THE DAYLIGHT LEVEL IN THE PRIMARY AND SECONDARY ZONES (C405.2.4). SUBSCRIPT INDICATES WHICH FIXTURES ARE TO BE CONTROLLED BY ZONE; 'x' INDICATES MULTIPLE ZONE CONTROL. |  |  |  |

#### GENERAL LIGHTING NOTES

- 1. LIGHTING CONTROLS SHALL BE INSTALLED WHICH MEET ALL REQUIREMENTS OF LOCAL ENERGY (1950) PERMY.
- 2. EMERGENCY LIGHT FIXTURES: IN ADDITION TO SWITCH-LEG, PROVIDE UNSWITCHED HOT TO SERVE NTERN BATTERY AND CHARGER.
- 3. LOCATIONS OF OCCUPANCY SENSORS, PHOTO SENSORS, DIMMERS, AND SWITCHES ARE DIAGRAMMATIC. CONTRACTOR TO COORDINATE QUANTITIES AND OPTIMAL LOCATIONS WITH LIGHTING CONTROL
  - 4. AUTOMATIC LIGHTING SHUT-OFF CONTROLS SHALL BE PROVIDED BY LOCAL OCCUPANCY SENSORS UNLESS OTHERWISE NOTED. PUBLIC SPACES ARE ACTIVE 24/7 AND THEREFORE EXEMPT FROM AUTOMATIC LIGHTING SHUT-OFF REQUIREMENTS FOR SECURITY. (WSEC C405.2)
  - 5. DAYLIGHT ZONES ARE SHOWN ON PLANS AS DEFINED BY WASHINGTON STATE ENERGY CODE (WSEC)
    C405.2.4.2. SIDELIGHT DAYLIGHT ZONES ARE REFERRED TO AS 'PRIMARY' AND 'SECONDARY' ON PLANS AND
    DENOTED BY DASHED LINES.
  - 6. FOR CUSTOM FF&E FIXTURES, IT IS THE MANUFACTURER'S RESPONSIBILITY TO FURNISH PRODUCTS WHICH ARE COMPLIANT WITH ALL REQUIREMENTS OF LOCAL ENERGY CODES, AS WELL AS MATCH THE ELECTRICAL SPECIFICATIONS PROVIDED IN THE LUMINAIRE SCHEDULES. PROVIDE SUBMITTAL SHOP DRAWINGS WITHIN 30 DAYS OF RECEIVING FIXTURE ORDER. SUBMITTALS SHALL CLEARLY INDICATE LAMPING AND MAXIMUM WATTAGE RATING OF LAMP SOCKETS. NON—COMPLIANT FIXTURES REJECTED BY ELECTRICAL INSPECTOR SHALL BE RETURNED TO THE MANUFACTURER FOR REWORKING AND/OR RE—LABELING.
  - 7. ALL FIXTURES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
  - 8. CONTRACTOR SHALL BE RESPONSIBLE TO ORDER ALL NECESSARY HARDWARE, ELECTRICAL CABLE, TIMERS, TRANSFORMERS, ETC., AS REQUIRED FOR COMPLETION OF INSTALLATION OF A FULLY FUNCTIONING SYSTEM.
  - 9. CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPPING ALL FIXTURES WITH THE EXACT LAMPS SPECIFIED IN THE FIXTURE SCHEDULE.
  - 10. WHERE FIXTURES REQUIRE REMOTE TRANSFORMERS OR BALLASTS, THE CONTRACTOR SHALL DETERMINE LOCATIONS AS REQUIRED FOR EVEN LOAD DISTRIBUTION, SERVICE ACCESS, AND VENTILATION.
  - 11. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL ENGINEER FOR EXACT LOCATIONS OF TIMERS AND/OR PHOTO CELLS, IF ANY.
  - 12. WHERE APPLICABLE, THE CONTRACTOR SHALL AIM AND ADJUST LIGHTING FIXTURES AS DIRECTED BY THE LIGHTING DESIGNER UPON COMPLETION OF THE INSTALLATION.

#### SPECIAL NOTE TO THE CONTRACTOR:

MANUFACTURER AND ARCH/OWNER.

1. FIXTURE SUBMITTALS THAT DO NOT INCLUDE LAMP SPECIFICATIONS WILL BE CONSIDERED INCOMPLETE AND WILL NOT BE REVIEWED.

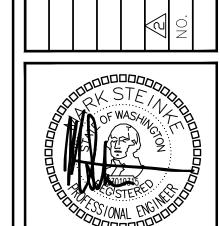
#### LIGHTING CONTROL SYSTEM REQUIREMENTS

- 1. CONTRACTOR TO PROVIDE A FULLY OPERATIONAL LIGHTING CONTROL SYSTEM.
- 2. CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF DIMMING AND CONTROL MODULES WITH FIXTURE TYPES PRIOR TO INSTALLATION.
- 3. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH A LIGHTING CONTROLS VENDOR TO OBTAIN LIGHTING CONTROL SYSTEM PACKAGE COMPLETE WITH DEVICES, WIRING DIAGRAMS, ANNOTATED PLANS INDICATING WHICH DEVICE TO BE USED IN EACH LOCATION, CONNECTION REQUIREMENTS, SET UP INSTRUCTIONS, COMMISSIONING AND CHECK—OUT FOLLOWING COMPLETION. PROVIDE ALL LOW VOLTAGE WIRING AS REQUIRED FOR CONTROL DEVICE INTERCONNECTIONS.
- 4. INSTALLER QUALIFICATIONS: TECHNICIAN INSTALLING AND WIRING THE LIGHTING CONTROL SYSTEM SHALL HAVE INSTALLED THIS SAME SYSTEM AT LEAST ONCE PREVIOUSLY. TECHNICIAN SHALL HAVE RECEIVED TRAINING BY FACTORY REPRESENTATIVE ON THE SYSTEM BEING INSTALLED.
- 5. PROVIDE LIGHTING CONTROL SYSTEM TO PERFORM THE FUNCTIONS DESCRIBED BELOW:
- 5.1. LIGHTING CONTROL SCHEDULE: PROVIDE SEPARATE SWITCHING AND DIMMING CONTROL FOR LIGHTING ZONES AS INDICATED.
- 5.2. AUTOMATIC LIGHTING CONTROLS:
  5.2.1. UNLESS OTHERWISE NOTED ON PLANS, OCCUPANCY SENSORS SHALL AUTOMATICALLY TURN OFF ALL CONNECTED LIGHTING WITHIN 20 MINUTES OF SPACE BEING UNOCCUPIED. OCCUPANCY SENSORS SHALL EITHER BE MANUAL ON OR SHALL BE CONTROLLED TO AUTOMATICALLY TURN THE LIGHTING ON TO NOT MORE THAN 50 PERCENT POWER EXCEPT WHERE MANUAL ON WOULD ENDANGER THE SAFETY OR SECURITY OF THE ROOM OR BUILDING OCCUPANTS. (C405.2.1.1)
- 5.2.2. MULTI-ZONE PHOTO-SENSORS SHALL PROVIDE SEPARATE CONTROL FOR LÚMINAIRES IN EACH TYPE
- OF DAYLIGHT ZONE. (C405.2.4.1)

  5.2.3. EXTERIOR LIGHTING CONTROLS SHALL AUTOMATICALLY TURN OFF ALL EXTERIOR LIGHTING AS A FUNCTION OF AVAILABLE DAYLIGHT. BUILDING FACADE AND LANDSCAPE LIGHTING SHALL HAVE CONTROLS THAT AUTOMATICALLY SHUT OFF THE LIGHTING FOR A MINIMUM OF 6 HOURS PER NIGHT OR NOT LATER THAN ONE HOUR AFTER BUSINESS CLOSING TO NOT EARLIER THAN ONE HOUR BEFORE BUSINESS OPENING, WHICHEVER IS LESS. OTHER LIGHTING SHALL HAVE CONTROLS CONFIGURED TO AUTOMATICALLY REDUCE THE CONNECTED LIGHTING POWER BY AT LEAST 30 PERCENT FROM NO LATER THAN 12 MIDNIGHT TO 6 AM OR FROM ON HOUR AFTER BUSINESS CLOSING TO ONE HOUR BEFORE BUSINESS OPENING OR DURING ANY PERIOD WHEN NO ACTIVITY HAS BEEN DETECTED FOR A TIME OF NO LONGER THAN 15 MINUTES. (C405.2.6)
- 6. MEANS OF EGRESS ILLUMINATION: AT ANY TIME THE BUILDING IS OCCUPIED, THE MEANS OF EGRESS SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THAN 1 FOOTCANDLE AT FLOOR LEVEL. (IBC 1008.2.1)
- 7. DURING EMERGENCY CONDITIONS EMERGENCY LIGHTING CIRCUITS SHALL BYPASS ALL LIGHTING CONTROLS IN ORDER TO ENERGIZE ALL CONNECTED LUMINAIRES AT FULL CAPACITY. PROVIDE UL924 RELAYS AS REQUIRED TO BYPASS AREA CONTROLS.
- 7.1. EMERGENCY PATHWAY EGRESS LIGHTING: ILLUMINATION PROVIDED ALONG THE EGRESS PATH AT FLOOR LEVEL SHALL AVERAGE AT LEAST 1 FOOT CANDLE. (IBC 1008.3.5)
- 7.2. EMERGENCY LIGHTING SHALL BE SUPPLIED BY: ELECTRICAL CONTRACTOR

#### EXIT SIGN NOTES

DURING CONSTRUCTION UPON COMPLETION OF A TYPICAL FLOOR FRAMING AND BEFORE WALL COVER, ELECTRICAL CONTRACTOR SHALL WALK THE EGRESS PATHS WITH THE LOCAL INSPECTOR (AHJ) TO CONFIRM THAT ALL THE EXIT SIGNS ARE LOCATED PER THE AHJ'S SATISFACTION AND IDENTIFY ANY ADDITIONAL EXIT SIGNS THAT THE AHJ WISHES TO BE INSTALLED (IBC 1013.1). CONTRACTOR SHALL PROVIDE UP TO 10% ADDITIONAL EXIT SIGNS AT NO ADDITIONAL COST.





DESIGNED: MHS
CHECKED: PSR
APPROVED: JAY

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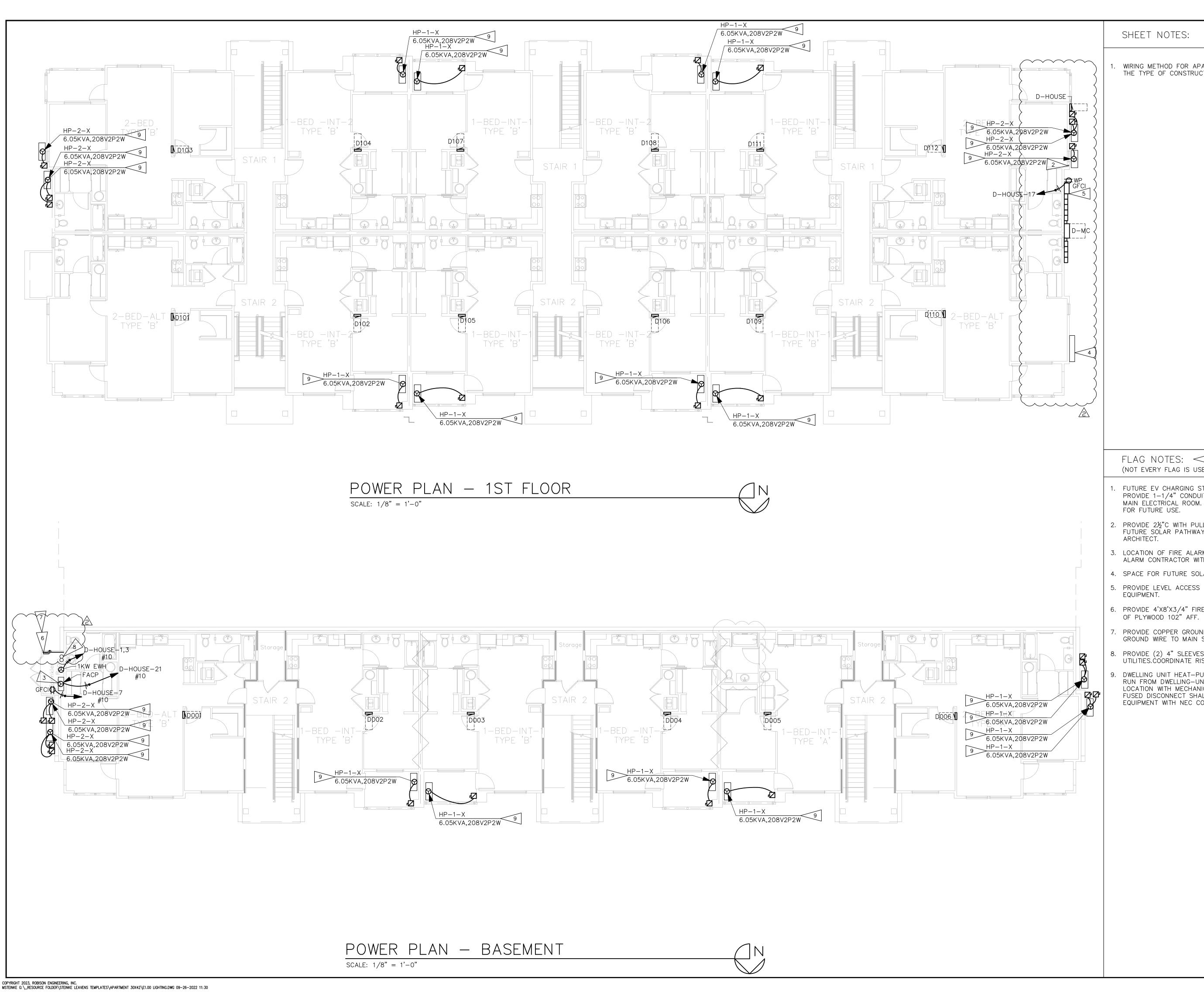
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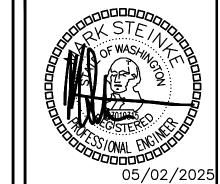
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LIGHTING
PLAN - 3RD
FLOOR

E1.50



WIRING METHOD FOR APARTMENT FEEDERS MUST BE SUITABLE FOR THE TYPE OF CONSTRUCTION. SEE NEC 334.10





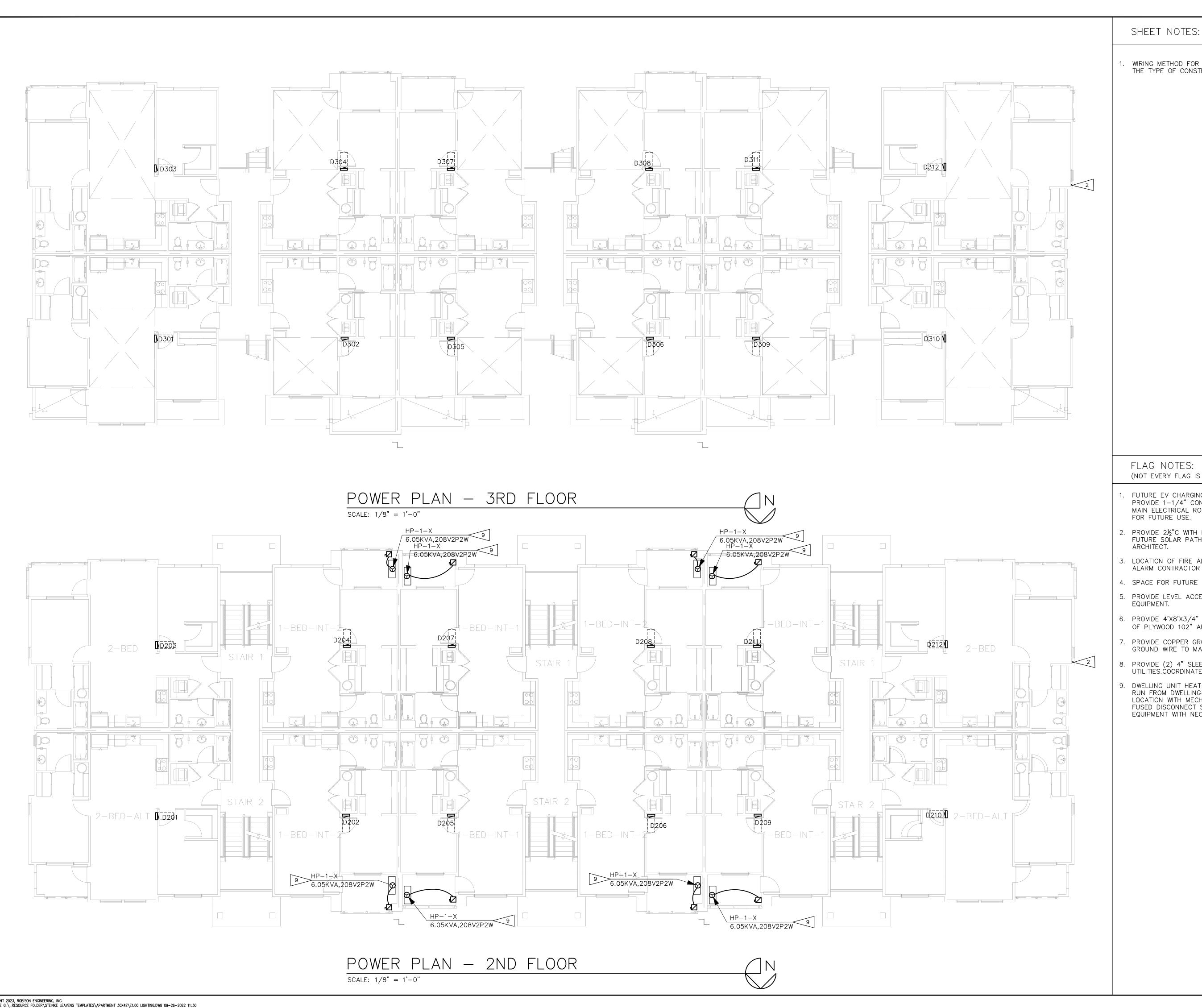
FLAG NOTES: <# (NOT EVERY FLAG IS USED ON EVERY SHEET)

- FUTURE EV CHARGING STATIONS:
  PROVIDE 1-1/4" CONDUIT WITH PULL WIRE FROM EV PANEL(S) IN
  MAIN ELECTRICAL ROOM. TERMINATE CONDUIT IN A J-BOX ON WALL
- 2. PROVIDE 21/2"C WITH PULL STRING WEATHER CAP TO ROOF FOR FUTURE SOLAR PATHWAY. COORDINATE RISER LOCATION WITH
- 3. LOCATION OF FIRE ALARM PANEL TO BE COORDINATED BY FIRE ALARM CONTRACTOR WITH FIRE AUTHORITIES.
- 4. SPACE FOR FUTURE SOLAR EQUIPMENT.
- 5. PROVIDE LEVEL ACCESS SURFACE IN FRONT OF ELECTRICAL
- 6. PROVIDE 4'X8'X3/4" FIRE RETARDANT PLYWOOD. BOTTOM 6"AFF TOP
- PROVIDE COPPER GROUND BAR 2"X24"X1/4" AND #6 COPPER GROUND WIRE TO MAIN SERVICE GROUND.
- PROVIDE (2) 4" SLEEVES FOR LV CABLE TO COMM/DATA UTILITIES. COORDINATE RISER LOCATION WITH ARCHITECT.
- DWELLING UNIT HEAT-PUMPS: POWER FOR HEAT PUMP SHALL BE RUN FROM DWELLING-UNIT ELECTRICAL PANEL. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION. FUSED DISCONNECT SHALL BE INSTALLED NEAR MECHANICAL EQUIPMENT WITH NEC CODE MINIMUM CLEARANCES IN FRONT OF IT.

20,

05/02/2025

SHEET TITLE: POWER PLAN - BASEMENT & 1ST FLOOR



WIRING METHOD FOR APARTMENT FEEDERS MUST BE SUITABLE FOR THE TYPE OF CONSTRUCTION. SEE NEC 334.10



19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206-364-3343 TEL REI PROJECT NO.: 1219-001 CONTACT: ARIK ESPINELI

FLAG NOTES: # (NOT EVERY FLAG IS USED ON EVERY SHEET)

- FUTURE EV CHARGING STATIONS:
  PROVIDE 1-1/4" CONDUIT WITH PULL WIRE FROM EV PANEL(S) IN
  MAIN ELECTRICAL ROOM. TERMINATE CONDUIT IN A J-BOX ON WALL FOR FUTURE USE.
- 2. PROVIDE 2½"C WITH PULL STRING WEATHER CAP TO ROOF FOR FUTURE SOLAR PATHWAY. COORDINATE RISER LOCATION WITH ARCHITECT.
- 3. LOCATION OF FIRE ALARM PANEL TO BE COORDINATED BY FIRE ALARM CONTRACTOR WITH FIRE AUTHORITIES.
- 4. SPACE FOR FUTURE SOLAR EQUIPMENT.
- 5. PROVIDE LEVEL ACCESS SURFACE IN FRONT OF ELECTRICAL EQUIPMENT.
- 6. PROVIDE 4'X8'X3/4" FIRE RETARDANT PLYWOOD. BOTTOM 6"AFF TOP OF PLYWOOD 102" AFF.
- 7. PROVIDE COPPER GROUND BAR 2"X24"X1/4" AND #6 COPPER GROUND WIRE TO MAIN SERVICE GROUND.
- 8. PROVIDE (2) 4" SLEEVES FOR LV CABLE TO COMM/DATA UTILITIES.COORDINATE RISER LOCATION WITH ARCHITECT.
- DWELLING UNIT HEAT-PUMPS: POWER FOR HEAT PUMP SHALL BE RUN FROM DWELLING-UNIT ELECTRICAL PANEL. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION. FUSED DISCONNECT SHALL BE INSTALLED NEAR MECHANICAL EQUIPMENT WITH NEC CODE MINIMUM CLEARANCES IN FRONT OF IT.

05/02/2025

SHEET TITLE:

POWER PLAN - 2ND & 3RD **FLOOR** 

| UNIT LU | UNIT LUMINAIRE SCHEDULE |          |                          |                          |         |               |                      |         |       |  |  |  |  |  |
|---------|-------------------------|----------|--------------------------|--------------------------|---------|---------------|----------------------|---------|-------|--|--|--|--|--|
| CALLOUT | SYMBOL                  | MOUNTING | DESCRIPTION              | MODEL                    | VOLTAGE | TYPE          | LAMPING              | WATTAGE | NOTES |  |  |  |  |  |
| U1      | 0                       | CEILING  | 4" DOWNLIGHT             | DMF: DRD5S-4-R-10-9-30-0 | 120     | 0-10V DIMMING | (1) 12W LED<br>3000K | 12      |       |  |  |  |  |  |
| U2      | 0                       | CEILING  | 4" DOWNLIGHT WET RATED   | DMF: DRD5S-4-S-10-9-30-0 | 120     | 0-10V DIMMING | (1) 12W LED<br>3000K | 12      |       |  |  |  |  |  |
| U3      | H                       | WALL     | 24" VANITY LIGHT         | MAXIM - 52102            | 120     | ELV DIMMING   | (1) 16W LED<br>3000K | 16      |       |  |  |  |  |  |
| U4      | Ю                       | WALL     | SLIM BALCONY LIGHT       | MAXIM - 26106BK          | 120     | NON DIMMING   | (1) 10W LED<br>3000K | 10      |       |  |  |  |  |  |
| U5      | 0                       | SURFACE  | 6" FLUSH MOUNT DOWNLIGHT | MAXIM - 57413WTWT        | 120     | 0-10V DIMMING | (1) 11W LED<br>3000K | 11      |       |  |  |  |  |  |

# DATHROOM EXHAUST FAN (BEF-1) 2-SPEED FAN WITH BULT IN HUMIDITY SENSOR. DWELLING UNIT ELECTRICAL PANEL 120V/IP POWER 120V/IP POWER SENSOR. DWELLING UNIT VENTILATION WIRING DIAGRAM DETAIL

| ELECTRIC HEATERS                                               |          |           |    |         |                 |  |  |  |  |  |  |
|----------------------------------------------------------------|----------|-----------|----|---------|-----------------|--|--|--|--|--|--|
| EQUIP NO. SERVICE MOUNTING/ HEATING ELECTRICAL BASIS OF DESIGN |          |           |    |         |                 |  |  |  |  |  |  |
| LQOIF NO.                                                      | SER VICE | DISCHARGÉ | KW | VOLTAGE | DASIS OF DESIGN |  |  |  |  |  |  |
| EWH-1                                                          | BEDROOM  | WALL      | 1  | 208V/1P | (1)             |  |  |  |  |  |  |
| EWH-2 LIVING ROOM WALL 1.5 208V/1P (1)                         |          |           |    |         |                 |  |  |  |  |  |  |

(1) BROAN, CADET OR EQUIVALENT.

(2) PROVIDE REMOTE THERMOSTAT.

NOTES:

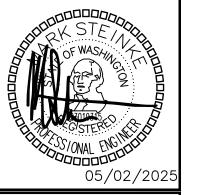
### ACCESSIBILITY NOTES:

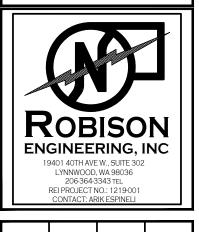
- 1. ALL SWITCHES AND CONTROLS 15" MIN; 48" MAX TO CONTROL.
- 2. GENERAL OUTLETS MIN 18" AFF.
- 3. ALL SWITCHES/CONTROLS ABOVE COUNTERTOPS 48" MAX.
- 4. ELECTRICAL SUB-PANELS IN UNITS MUST COMPLY WITH ABOVE REACH RANGES.
- 5. SWITCHES FOR EXHAUST HOODS AND GARBAGE DISPOSALS MUST COMPLY WITH ABOVE REACH RANGES. INSTALL SWITCHES ON FACE OF CABINETS IF REQUIRED TO COMPLY.

### APARTMENT NOTES:

- 1. ALL ELECTRICAL WORK SHALL COMPLY WITH A Building Pauling Pa
- 2. DEVICE BOXES ON OPPOSITE SIDES OF DEMISING WALLS SHALL BE IN SEPARATE STUD BAYS. PROVIDE BACKING EQUIVALENT TO LOWRY'S OUTLET BOX PADS. CONDUIT FROM ONE UNIT SHALL NOT PASS THROUGH STUDS OF A SHARED WALL(DOUBLE STUDS) FROM AN ADJACENT UNIT(BRIDGING).
- 3. PROVIDE ARC-FAULT PROTECTION, TAMPER PROOF AND GFCI RECEPTACLES AS REQUIRED BY CODE AND LOCAL AHJ. ARC-FAULT PROTECTION MUST BE PROVIDED FOR CIRCUITS IN THE AREAS LISTED IN NEC 210.12(A).
- 4. PROVIDE SUFFICIENT DUPLEX RECEPTACLES TO MEET NEC 210.52.
- 5. THERMOSTATS SHALL NOT INTERFERE WITH DOOR SWINGS.
- 6. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS FOR KITCHEN APPLIANCES. COORDINATE ALL J-BOX LOCATIONS WITH APPLIANCE INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.
- 7. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CORD AND PLUG ASSEMBLY FOR EACH DISPOSER.
- 8. PROVIDE A DEDICATED 20 AMP CIRCUIT TO EACH UNIT BATHROOM RECEPTACLE. BATHROOM LIGHTS, FAN TO BE ON SAME CIRCUIT PER 210.11(C)(3) EXCEPTION.
- 9. HOME RUNS AND LOOPS CONNECTING LIGHT FIXTURES, WIRING DEVICES, AND HVAC EQUIPMENT ON PLANS INDICATE CIRCUITING SCHEME. SEE TYPICAL PANEL SCHEDULES FOR ACTUAL CIRCUIT NUMBERS FOR TYPICAL APARTMENT.
- 10. LIGHTS WITHIN 3' HORIZONTAL OF SHOWER OR TUB TO BE WET LOCATION RATED AND HAVE FULLY ENCLOSED TRIMS. PROVIDE GFCI PROTECTION IF THE LUMINAIRE INSTALLATION MANUAL STATES IT IS REQUIRED.
- 11. PROVIDE SMOKE DETECTORS AND CO ALARMS AS REQUIRED. DETECTORS AND ALARMS TO BE HARDWIRED AND PROVIDED WITH BATTERY BACKUP.
- 12. ELECTRICAL CONTRACTOR SHALL INSTALL RECEPTACLES AND TV, DATA/PHONE OUTLETS UNDER COMMON COVER PLATE WHERE POSSIBLE. PROVIDE AND INSTALL DIVIDERS AS REQUIRED FOR CABLE/POWER SEPARATION.
- 13. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND LAYOUTS OF ALL DEVICES.
- 14. ALL WALL PENETRATIONS SHALL BE CAULKED WITH APPROVED MATERIAL TO MAINTAIN THE FIRE RATING OF ALL WALLS AND FLOORS.
- 15. ALL CONDUIT SHALL BE INSTALLED IN NEAT SYMMETRICAL LINES HORIZONTAL OR PERPENDICULAR TO BUILDING COLUMNS AND ROOF LINES. CONDUITS SHALL BE GROUPED ON COMMON SUPPORTS WHEREVER POSSIBLE.
- 16. REFERENCE MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.
- 17. ELECTRICAL CONTRACTOR SHALL VERIFY ALL FUSE RATING WIRE SIZES AND DISCONNECT SIZES WITH EQUIPMENT SERVED ON THE JOB PRIOR TO INSTALLATION.
- 18. SEE ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR ADDITIONAL DETAILS AND CASEWORK DIMENSIONS.
- 19. DEVICE LOCATIONS IN 1ST DWELLING/RESIDENT UNIT SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO ROUGH-IN OF REMAINING UNITS
- 20. CONFIRM FINAL LOCATION OF HEATERS AND THERMOSTATS IN FIELD PRIOR TO ROUGH—IN

|   |  |       |         | 5/2/5     | DATE    |       |
|---|--|-------|---------|-----------|---------|-------|
|   |  |       |         | ₹         | NO.     |       |
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DESIGNED: MHS
CHECKED: PSR
APPROVED: JAY

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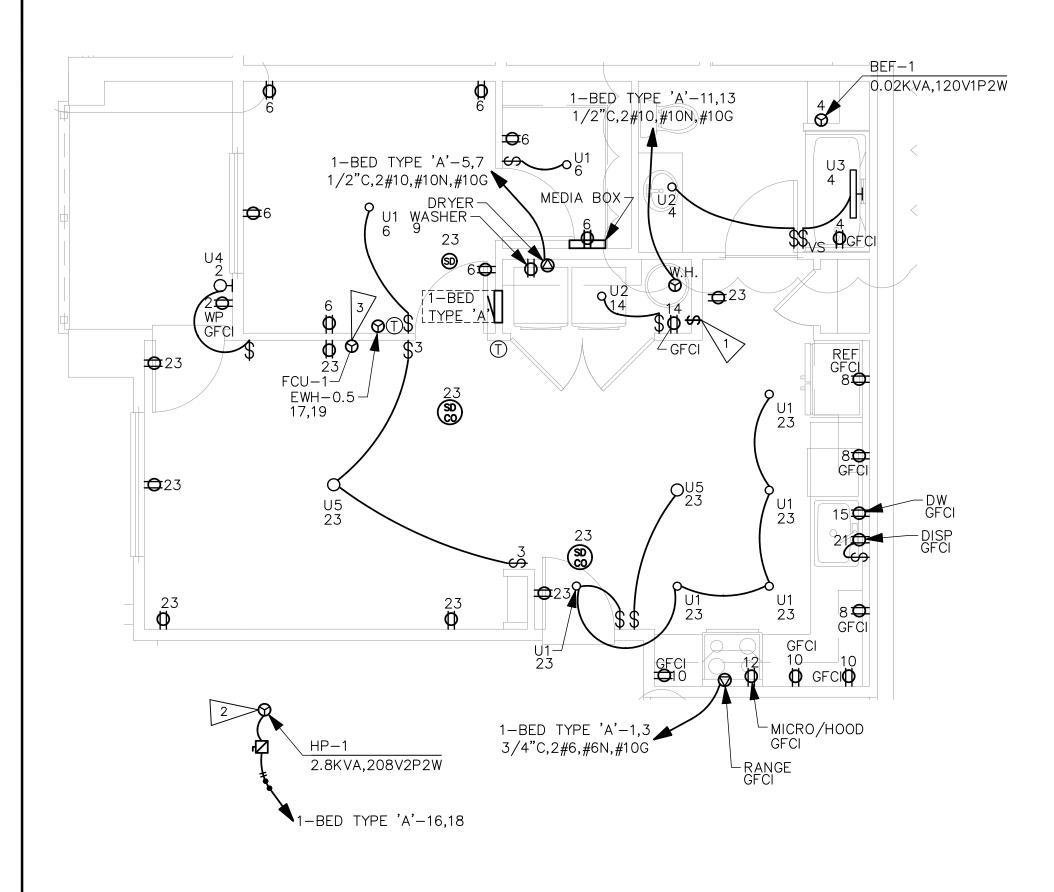
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OBISON 19401 A LYNNW LYN

OATE: 05/02/2025

SHEET TITLE:
UNIT PLANS
NOTES

SHEET NO. **E5.00** 

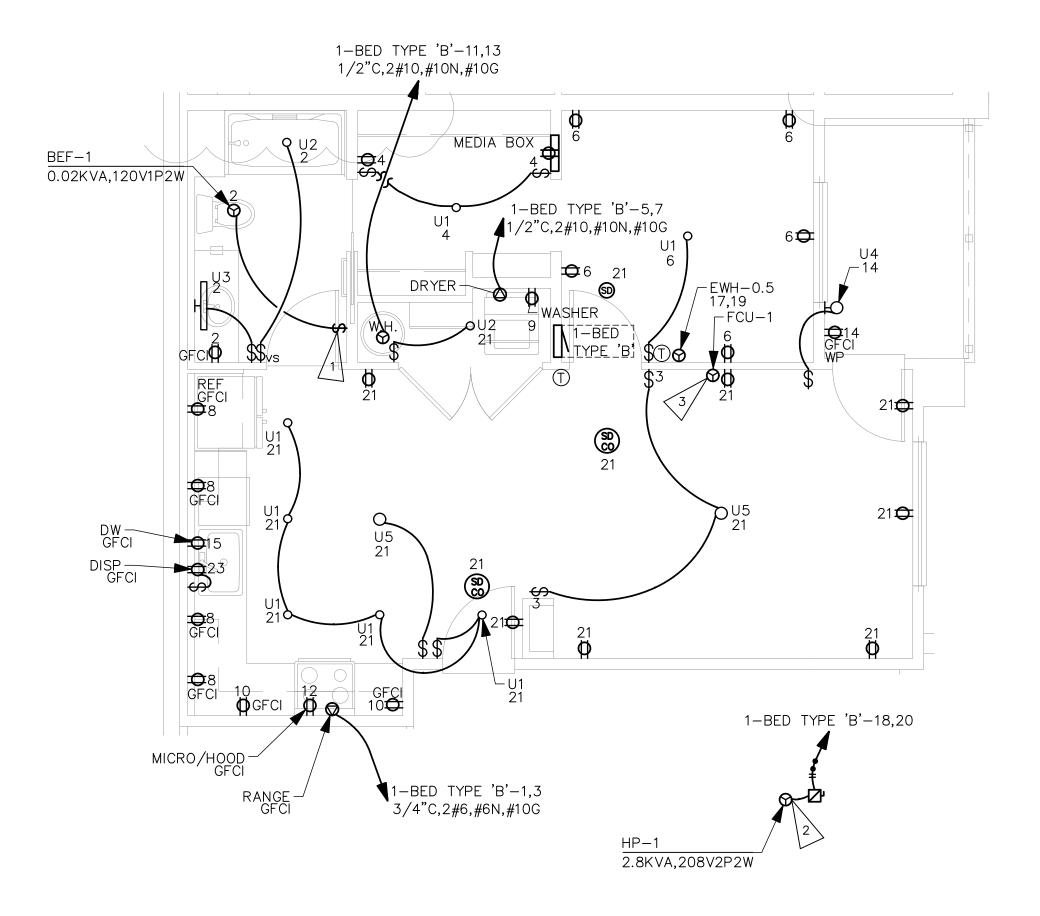


UNIT TYPICALS

1-BED-INT-2 TYPE 'A'

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

| 1                       | -B                                | ED                | $\overline{T}$   | PE                                                                  | $\overline{}$ ,           |             |                     |                                                                  |                                 |                |                      |                                              |                |
|-------------------------|-----------------------------------|-------------------|------------------|---------------------------------------------------------------------|---------------------------|-------------|---------------------|------------------------------------------------------------------|---------------------------------|----------------|----------------------|----------------------------------------------|----------------|
| M(<br>FE                | ROOM MOUNTING FLUSH FED FROM NOTE |                   |                  | VOLTS <b>208/120V 2P 3W</b> BUS AMPS <b>125</b> NEUTRAL <b>100%</b> |                           |             | 2P 3W               | AIC <b>22,000</b><br>Main BKR <b>MLO</b><br>Lugs <b>Standard</b> |                                 |                |                      | MLO                                          |                |
| CKT<br>#                | CKT<br>BKR                        | LOAD<br>KVA       | CIRCUIT          | T DESCRIF                                                           | PTION                     |             | CKT<br>#            | CKT<br>BKR                                                       | LO                              | AD<br>⁄A       | CIRC                 | UIT DESC                                     | RIPTION        |
| 1<br>3<br>5             | 50/2<br> <br> <br>  30/2          | 8<br>4.99         | RANGE<br>DRYER   |                                                                     |                           | a<br>b<br>a | 2 4                 | 20/1<br>20/1<br>20/1                                             | 0.1<br>0.2<br>1.2               | 23             | BEF-                 | TING, RECI<br>-1, LIGHTIN<br>TING, MED       | NG, RECEPTACLE |
| 7<br>9<br>11<br>13      | 20/1<br>30/2                      | 1.5<br>4.4        | WASHEF<br>WATER  | R<br>HEATER                                                         |                           | b           | 8<br>10<br>12<br>14 | 20/1<br>20/1<br>20/1<br>20/1                                     | 1.5<br>1.5<br>1.5<br>0.1        | 5<br>58        | SMAL<br>SMAL<br>MICR | L APPLIA<br>L APPLIA<br>O/HOOD<br>TING, RECI | NCE            |
| 15<br>17<br>19<br>21    | 20/1<br>20/2<br> <br>20/1         | 1.2<br>0.5<br>0.7 | DISHWA<br>WALL H | EATER                                                               |                           | ь<br>а<br>ь | 16<br>18            | 20/2<br> <br> -/1<br> -/1                                        | 2.8                             | 3              | HP-                  | I<br>CE                                      |                |
| 23                      | 20/1                              | 1.49              | 1                |                                                                     | TACLE, SDCO               |             | 24                  | 1 7                                                              | 0                               |                | SPAC                 |                                              |                |
| OP                      | TIONAL D                          | WELLING           | UNIT C           | ALCULATIO<br>CONN<br>KVA                                            | DN (NEC 220.8             | 32)         |                     |                                                                  |                                 |                | NN<br>VA             | CALC<br>KVA                                  |                |
|                         | GHTING A<br>RECEPTA<br>MALL—AP    | CLES              |                  | 2.61<br>3                                                           | 871 SF<br>(3 VA/SF)       |             | U                   | ERAL LOA<br>P TO 10<br>KVA                                       | ٩D                              | 10             |                      | 10                                           | (100%)         |
| 1                       | AUNDRY<br>PPLIANCE                | ES                |                  | 1.5<br>8.47                                                         |                           |             |                     | VER 10<br>KVA                                                    |                                 | 13.6           | 3                    | 5.43                                         | (40%)          |
|                         | ELECTRIC COOKING 8                |                   |                  |                                                                     | MAX HEATING OR<br>COOLING |             |                     |                                                                  | 3.19                            | (220.82(C)(4)) |                      |                                              |                |
| TOTAL GENERAL LOAD 23.6 |                                   |                   |                  | TOTAL LOAD<br>BALANCED LOAD<br>PHASE A<br>PHASE B                   |                           |             |                     |                                                                  | 18.6<br>89.5 A<br>98.3%<br>102% |                |                      |                                              |                |



UNIT TYPICALS

1-BED-INT-1 TYPE 'B'

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

| M(<br>FE                | DOM<br>DUNTING<br>D FROM<br>DTE        | FLUSH          | <u>     </u>     | <u>FL</u>                | VOLTS 208,<br>BUS AMPS<br>NEUTRAL 1      | 12     | 5              | 2P 3W                      |            |      | N             | AIC <b>22,00</b><br>MAIN BKR<br>LUGS <b>STA</b>    | MLO     |
|-------------------------|----------------------------------------|----------------|------------------|--------------------------|------------------------------------------|--------|----------------|----------------------------|------------|------|---------------|----------------------------------------------------|---------|
| CKT<br>#                | CKT<br>BKR                             | LOAD<br>KVA    | CIRCUIT          | DESCRIF                  | <br>PTION                                |        | CKT<br>#       | CKT<br>BKR                 | LO.        |      | CIRC          | CUIT DESC                                          | RIPTION |
| 1<br>3<br>5             | 50/2<br> <br> <br> <br> <br> <br> <br> | 8              | RANGE            |                          |                                          | аь     | 2 4            | 20/1<br>20/1<br>20/1       | 0.2        | 72   | LIGH'<br>RECE | -1, LIGHTIN<br>TING, MEDI<br>EPTACLE<br>TING, RECI | •       |
| 7                       | ĺ                                      |                |                  | _                        |                                          | Ь      | 8              | 20/1                       | 1.5        |      | SMAI          | LL APPLIA                                          | NCE     |
| 9<br>11                 | 20/1<br>30/2                           | 1.5<br>4.4     | WASHEF<br> WATER | R<br>HEATER              |                                          | a<br>b | 10<br>12       | 20/1<br>20/1               | 1.5<br>1.5 |      | 1             | LL APPLIAI<br>30/HOOD                              | NCE     |
| 13<br>15                | 20/1                                   | 1.2            | DISHWA           | SHEB                     |                                          | a<br>b | 14<br>16       | 20/1<br>20/1               | 0.1        |      | LIGH          | TING, RECE<br>EPTACLE, S                           |         |
| 17                      | 20/2                                   | 0.5            | WALL H           |                          |                                          | a      | 18             | 20/2                       | 2.8        |      | HP-           |                                                    | 3000    |
| 19<br>21<br>23          | 20/1<br>20/1<br>20/1                   | 1.5<br>0.7     | LIGHTIN          | -                        | TACLE, SDCO                              | a      | 20<br>22<br>24 | <br> -/1<br> -/1           | 0          |      | SPA(          |                                                    |         |
| OP                      | TIONAL [                               | DWELLING       | UNIT CA          | ALCULATIO<br>CONN<br>KVA | ON (NEC 220.8                            | 32)    |                |                            | •          |      | DNN<br>VA     | CALC<br>KVA                                        |         |
|                         | GHTING<br>RECEPTA<br>MALL—AF           |                |                  | 2.61<br>3                | 871 SF<br>(3 VA/SF)                      |        | U              | ERAL LO.<br>P TO 10<br>KVA |            | 10   |               | 10                                                 | (100%)  |
|                         | AUNDRY<br>PPLIANCI                     | <del>-</del> S |                  | 1.5<br>8.47              |                                          |        |                | VER 10<br>KVA              |            | 13.6 | 6             | 5.43                                               | (40%)   |
|                         | ELECTRIC COOKING 8                     |                |                  |                          |                                          |        | HEATING        | G OR                       |            |      | 3.19          | (220.82(C)(4                                       |         |
| TOTAL GENERAL LOAD 23.6 |                                        |                |                  |                          | TOTAL LOAD BALANCED LOAD PHASE A PHASE B |        |                | 18.6<br>89.5 A             |            |      |               |                                                    |         |

### **GENERAL NOTES:**

- 1. COORDINATE FINAL LOCATION OF THERMOSTATS, SWITCHES, RECEPTACLES, DATA, PHONE, LIGHT FIXTURES AND J-BOXES WITH ARCHITECTURAL ELEVATIONS AND INTERIOR DESIGN PLANS PRIOR TO ROUGH-IN.
- 2. ADA UNITS SHALL HAVE HOOD CONTROLS INSTALLED IN THE FACE OF THE LOWER CABINET WORK.
- 3. PROVIDE TAMPER RESISTANT RECEPTACLES PER NEC 406.12.
- 4. ALL UNITS: PROVIDE SWITCH CONTROLLING GARBAGE DISPOSAL TO BE LOCATED ABOVE BACKSPLASH NEXT TO SINK OR ON COUNTER. SEE ARCHITECTURE.
- 5. BATHROOM GFCI RECEPTACLES TO HAVE INTEGRAL NIGHTLIGHT.
- 6. RECESSED CEILING LIGHT IN BATHROOM SHALL BE LED RATED FOR WET LOCATIONS W/ SHATTER PROOF LENS.
- 7. ALL RECEPTACLES SHALL MEET REQUIREMENTS OF NEC ARTICLE 210.
- 8. PROVIDE TELEPHONE & CABLE T.V. MEDIA TERMINATION ENCLOSURE (MEDIA BOX): PROVIDE LEVITON COMPACT MEDIA ENCLOSURE OR EQUVALENT IN WALL WITH TOP NO HIGHTER THAN 60" AFF WITH 120V RECEPTACLE ADJACENT.
- 9. PROVIDE COMBINATION HARDWIRED 120VAC PHOTOELECTRIC SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR WITH BATTERY-BACKUP
- DETECTOR SHALL BE MINIMUM 6' HORIZONTAL DISTANCE FROM PERMANENT COOKING APPLIANCE PER CFC 90.2.11.8.
- •• DETECTOR SHALL BE MINIMUM 3'
  HORIZONTAL DISTANCE FROM THE DOOR
  OF A BATHROOM THAT CONTAINS A
  BATHTUB OR SHOWER PER CFC 90.2.11.8.
- PROVIDE INTERCONNECTION WIRING SUCH THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL ALARMS IN THE DWELLING UNIT.
- COORDINATE WITH AHJ ON
   INTERCONNECTING EACH DWELLING UNIT
   INTO THE FIRE ALARM SYSTEM FOR THE
   BUILDING.
   COORDINATE WITH AHJ AS TO THE
- NUMBER AND LOCATION OF DEVICES
  PRIOR TO ROUGH—IN. DEVICES SHOWN
  ARE DIAGRAMMATIC.
- 10. DISHWASHER OUTLET SHALL BE ACCESSIBLE. RECEPTACLE SHALL BE LOCATED IN SPACE ADJACENT TO THE DISHWASHER.
- 11. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT FOR THE LIVING ROOM.

### #>FLAG NOTES

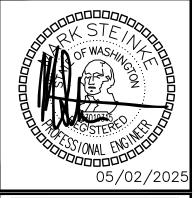
- 1. INTERLOCK ERV/BEF TO ON/OFF SWITCH. PROVIDE PERMANENT LABEL SAYING, "WHOLE HOUSE VENTILATION. LEAVE ON UNLESS OUTDOOR AIR QUALITY IS VERY POOR." ADHERE PERMANENT LABEL TO WALL ABOVE WALL SWITCH.
- 2. COORDINATE OUTDOOR LOCATION OF INDIVIDUAL HP UNITS WITH MECHANICAL PLANS.
- 3. POWERED FROM OUTDOOR UNIT.

### AFCI/GFCI REQUIREMENTS FOR DWELLING UNITS:

- ALL 15 AND 20A, 120V SINGLE PHASE CIRCUITS NOT INCLUDING THE BATHROOM SHALL BE AFCI PROTECTED (210.12).
- ALL DWELLING UNIT CIRCUITS IN BATHROOMS, GARAGES, OUTDOORS, KITCHENS, LAUNDRY AREAS, AND AREAS WITHIN 6' OF A SINK SHALL BE GFCI PROTECTED (210.8).
   BATHROOM CIRCUIT TO BE GFCI PROTECTED VIA A GFCI RECEPTACLE, WHILE OTHER CIRCUITS SHALL BE
- 3. UTILIZE "DUAL FUNCTION" BREAKER WHEN BOTH AFCI AND GFCI PROTECTION IS REQUIRED.

PROTECTED AT THE BREAKER.







DESIGNED: MHS
CHECKED: PSR
APPROVED: JAY

RMU20240283

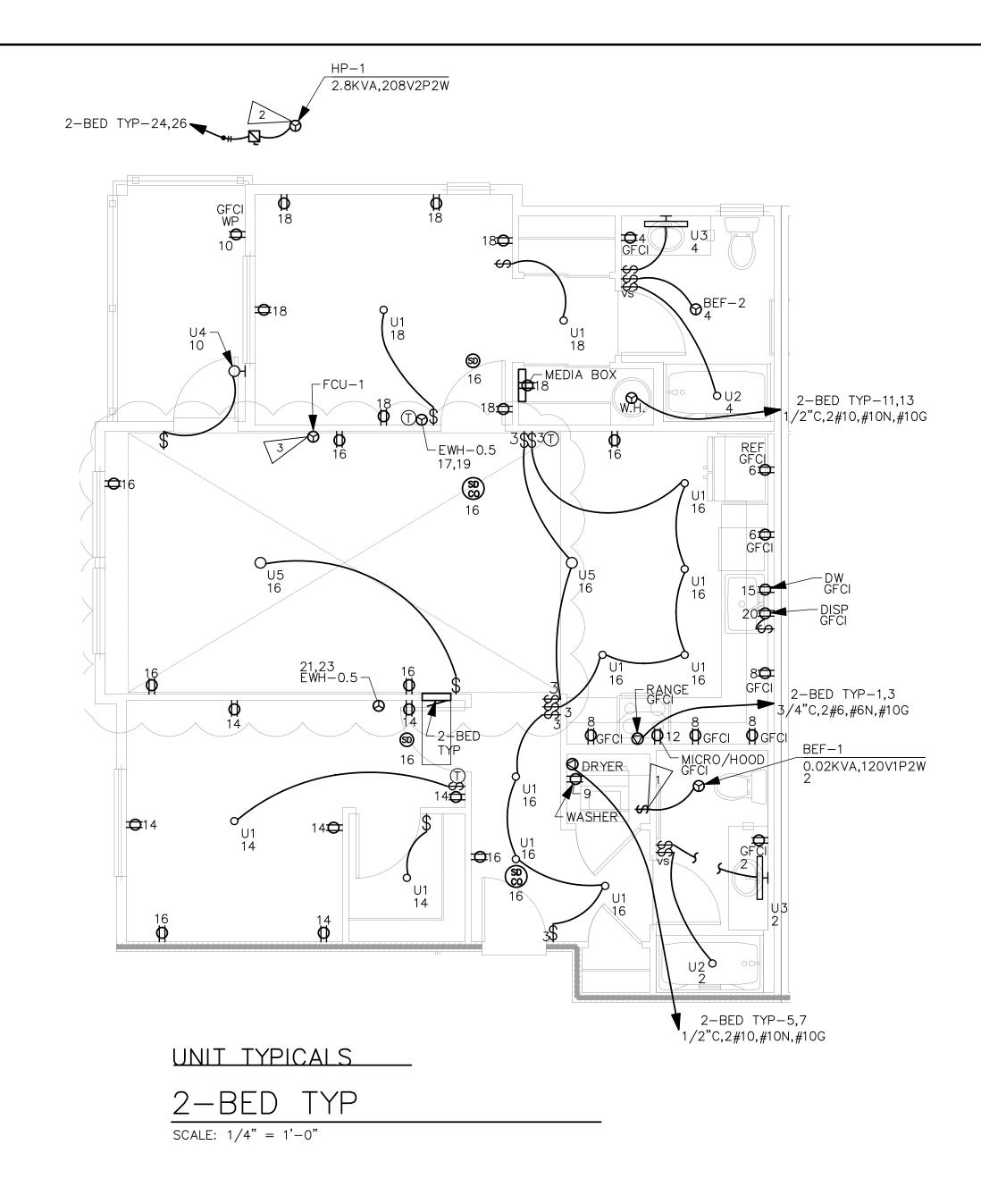
19401 40TH AVE W. SUITE 302 LYNNWOOD, WA 98036

ROBISON INC.

E: 05/02/2025

SHEET TITLE:
UNIT PLANS &
SCHEDULES

E5.01



| 2               | B = B                            | ED          | T                         | YP                       |                                                                           |                                                 |          |                            |                                                                  |              |                                                            |                             |  |  |
|-----------------|----------------------------------|-------------|---------------------------|--------------------------|---------------------------------------------------------------------------|-------------------------------------------------|----------|----------------------------|------------------------------------------------------------------|--------------|------------------------------------------------------------|-----------------------------|--|--|
| MC<br>FE        | OOM<br>DUNTING<br>D FROM<br>DTE  | FLUSH       |                           |                          | VOLTS <b>208/120V 2P 3W</b><br>BUS AMPS <b>125</b><br>NEUTRAL <b>100%</b> |                                                 |          |                            | AIC <b>22,000</b><br>Main BKR <b>MLO</b><br>LUGS <b>STANDARD</b> |              |                                                            |                             |  |  |
| CKT<br>#        | CKT<br>BKR                       | LOAD<br>KVA | CIRCUI                    | T DESCRIP                | TION                                                                      |                                                 | CKT<br># | CKT<br>BKR                 | LOAD<br>KVA                                                      | CIRC         | CUIT DESC                                                  | RIPTION                     |  |  |
| 1<br>3          | 50/2<br>                         | 8           | RANGE                     |                          |                                                                           | a<br>b                                          | 2<br>4   | 20/1<br>20/1               | 0.23<br>0.308                                                    | BATI         | •                                                          | NG, RECEPTACLE<br>LIGHTING, |  |  |
| 5<br>7          | 30/2                             | 4.99        | DRYER                     |                          |                                                                           | a<br>b                                          | 6        | 20/1                       | 1.5<br>1.5                                                       | SMA<br>SMA   | LL APPLIA<br>LL APPLIA                                     | NCE                         |  |  |
| 9<br>11<br>3    | 20/1<br>30/2<br>                 | 1.5<br>4.4  | WASHER WATER              | R<br>HEATER              |                                                                           | Ы                                               |          | 20/1<br>20/1<br>20/1       | 0.19<br>1.58<br>1.1                                              | MICE         | TING, RECI<br>RO/HOOD<br>TING, RECI                        | <u> </u>                    |  |  |
| 5<br>7          | 20/1<br>20/2                     | 1.2<br>0.5  | DISHWASHER<br>WALL HEATER |                          |                                                                           |                                                 | 16<br>18 | 20/1<br>20/1               | 1.19<br>1.28                                                     | LIGH         | LIGHTING, RECEPTACLE<br>LIGHTING, MEDIA BOX,<br>RECEPTACLE |                             |  |  |
| 9<br>21<br>23   | 20/2                             | 0.5         | WALL F                    | IEATER                   |                                                                           | a                                               | 22       | 20/1<br>20/1<br>20/2       | 0.7<br>0.2<br>2.8                                                | DISP<br>SDC: |                                                            |                             |  |  |
| 25              | -/1                              | 0           | SPACE                     |                          |                                                                           |                                                 | 26       |                            | 2.0                                                              | "            | •                                                          |                             |  |  |
| OP <sup>-</sup> | TIONAL D'                        | WELLING     | UNIT C                    | ALCULATIO<br>CONN<br>KVA | N (NEC 220.8                                                              | 32)                                             |          |                            |                                                                  | CONN<br>KVA  | CALC<br>KVA                                                |                             |  |  |
| F               | GHTING A<br>RECEPTAC<br>MALL—APF | CLES        |                           | 3.52<br>3                | 1,173 SF<br>(3 VA/SF)                                                     | (                                               | U        | ERAL LOA<br>P TO 10<br>KVA | .D 10                                                            |              | 10                                                         | (100%)                      |  |  |
| LA              | AUNDRY<br>PPLIANCE:              |             |                           | 1.5<br>8.47              |                                                                           |                                                 |          | VER 10<br>KVA              | 6.                                                               | 49           | 2.6                                                        | (40%)                       |  |  |
|                 | OTAL GEN                         |             | DAD                       | 16.5                     |                                                                           | ı                                               |          | HEATING<br>OLING           | OR                                                               |              | 3.51                                                       | (220.82(C)(4))              |  |  |
|                 |                                  |             |                           |                          |                                                                           | TOTAL LOAD<br>BALANCED LO<br>PHASE A<br>PHASE B |          |                            |                                                                  |              | 16.1<br>77.4 A<br>98.8%<br>101%                            |                             |  |  |

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- PER NEC 406.12.
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- THERMOSTAT FOR THE LIVING ROOM.

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- 6. RECESSED CEILING LIGHT IN BATHROOM SHALL BE LED RATED FOR WET LOCATIONS W/ SHATTER PROOF LENS.

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- 3. POWERED FROM OUTDOOR UNIT.





20240

05/02/2025

UNIT PLANS & SCHEDULES

# REQUIRED ELECTRIC VEHICLE CHARGING INFRASTRUCTURE WAC 427:

- WHERE PARKING IS PROVIDED, TEN PERCENT OF PARKING SPACES SHALL BE PROVIDED WITH ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.
- ELECTRICAL ROOM(S) SERVING PARKING AREAS SHALL BE DESIGNED TO ACCOMMODATE THE ELECTRICAL EQUIPMENT AND DISTRIBUTION REQUIRED TO SERVE A MINIMUM OF 20 PERCENT OF THE TOTAL PARKING SPACES WITH 208/240 V 40—AMP ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.
- MINIMUM ONE ACCESSIBLE PARKING SPACE SHALL BE SERVED BY ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.

TOTAL NUMBER OF PARKING SPACES = 354 AVERAGE NUMBER OF PARKING SPACES PER BUILDING = 354/8 = 45;  $45 \times 0.2 = 9$ 

5 OUTDOOR EV CHARGERS WITH INFRASTRUCTURE 4 CONDUITS TO FUTURE EV CHARGING LOCATIONS

BY 50%. 208A/2 = 37.5KVA (104)A @ 208V 3 PHASE

CAPACITY FOR 9 CHARGERS  $\times$  208V/1PH  $\times$  40A = 74.9 KVA = (208)A 3 PHASE POWER @ 120/208V UTILIZING LOAD MANAGEMENT INFRASTRUCTURE, EV LOAD CAN BE REDUCED

PER WAC 427, ELECTRICAL INFRASTRUCTURE FOR EACH BUILDING SHALL BE DESIGNED TO ACCOMMODATE 104 AMPS OF EV ELECTRICAL LOAD.

### GROUNDING NOTES AND REQUIREMENTS:

THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR, POWER COMPANY, PHONE COMPANY, INTERNET COMPANY, CABLE TV COMPANY, AND THE SATELLITE TV COMPANY TO ENSURE REQUIRED GROUNDING IS INSTALLED FOR EACH SYSTEM.

THIS SHALL BE DONE PRIOR TO AND DURING INSTALLATION OF FOUNDATION RE—BAR AND CONTINUE DURING THE CONSTRUCTION PHASES, TO ENSURE EACH SYSTEM HAS IT'S REQUIRED GROUNDING INSTALLED FOR PROPER OPERATION OF THE SYSTEM.

- 1. THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND PROVIDE WHAT IS REQUIRED TO DO THE FOLLOWING:
- 2. FOOTING GROUND RE-BAR COMES UP IN THE ELECTRICAL ROOM AND THE RE-BAR IS SNUGLY SECURED TO THE FOOTING RE-BAR.
- 3. THE MSB GROUNDING TIES TO THE FOOTING RE-BAR, COUNTERPOISE, BUILDING STEEL, AND WATER PIPING.
- 4. THE GROUND WIRE FOR THE COUNTERPOISE SHALL BE STRANDED, INSULATED WIRE IN CONDUIT UNTIL IT REACHES THE FIRST BAR OF THE COUNTERPOISE. BETWEEN THE COUNTERPOISE BARS IT SHALL BE A STRANDED BARE COPPER WIRE.

| GENI | ERAL           | FEEDER SCHEDULE                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|----------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ID   | FEEDER<br>AMPS | CONDUIT AND FEEDER                                        | FEEDING THESE DEVICES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1    | 100            | 1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G                        | POOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2    | 125            | 2"C,3#2/0 AL,#2/0 AL N,#4 AL G                            | AM-B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3    | 200            | 2"C,3#3/0,#3/0N,#6G                                       | A-HOUSE, B-HOUSE, C-HOUSE, D-HOUSE, E-HOUSE, F-HOUSE, G-HOUSE, H-HOUSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4    | 400            | (2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1/0 AL G         | AM-CT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5    | 400            | (2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1<br>AL G        | AM-DISC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6    | 400            | 3-1/2"C,3#500kcmil,#500kcmil N,#2G                        | AM-A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7    | 800            | (3)3"C,3#400kcmil AL,#400kcmil AL N,#4/0 AL G             | B-MC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 8    | 1000           | (4)3"C,3#350kcmil AL,#350kcmil AL N,#4/0 AL G             | H-MC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 9    | 1200           | (4)3-1/2"C,3#500kcmil AL,#500kcmil AL<br>N,#250kcmil AL G | A-MC, C-MC, D-MC, E-MC, F-MC, G-MC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| (11) | 125            | 1-1/2"C,2#2/0 AL,#2/0 AL N,#4 AL G                        | A-001, A-002, A-003, A-004, A-101, A-102, A-103, A-104, A-105, A-106, A-107, A-108, A-201, A-202, A-203, A-204, A-205, A-206, A-207, A-208, A-301, A-302, A-303, A-304, A-305, A-306, A-307, A-308, B-001, B-002, B-101, B-102, B-103, B-104, B-201, B-202, B-203, B-204, B-301, B-302, B-303, B-304, C-101, C-102, C-103, C-104, C-105, C-106, C-107, C-108, C-109, C-110, C-111, C-112, C-201, C-202, C-203, C-204, C-205, C-206, C-207, C-208, C-209, C-210, C-211, C-212, C-301, C-302, C-303, C-304, C-305, C-306, C-307, C-308, C-309, C-310, C-311, C-312, D001, D002, D003, D004, D005, D006, D101, D102, D103, D104, D105, D106, D107, D108, D109, D110, D111, D112, D201, D202, D203, D204, D205, D206, D207, D208, D209, D210, D211, D212, D301, D302, D303, D304, D305, D306, D307, D308, D309, D310, D311, D312, E001, E002, E003, E004, E101, E102, E103, E104, E105, E106, E107, E108, E201, E202, E203, E204, E205, E206, E207, E208, E301, E302, E303, E304, E305, E306, E307, E308, F001, F002, F003, F004, F101, F102, F103, F104, F105, F106, F107, F108, F201, F202, F203, F204, F205, F206, F207, F208, F301, F302, F303, F304, F305, F306, F307, F308, G101, G102, G103, G104, G105, G106, G107, G108, G109, G110, G111, G112, G201, G202, G203, G204, G205, G206, G207, G208, G209, G210, G211, G212, G301, G302, G303, G304, G305, G306, G307, G308, G309, G310, G311, G312, H101, H102, H103, H104, H105, H106, H107, H108, H201, H202, H203, H204, H205, H206, H207, H208, H301, H302, H303, H304, H305, H306, H307, H308 |

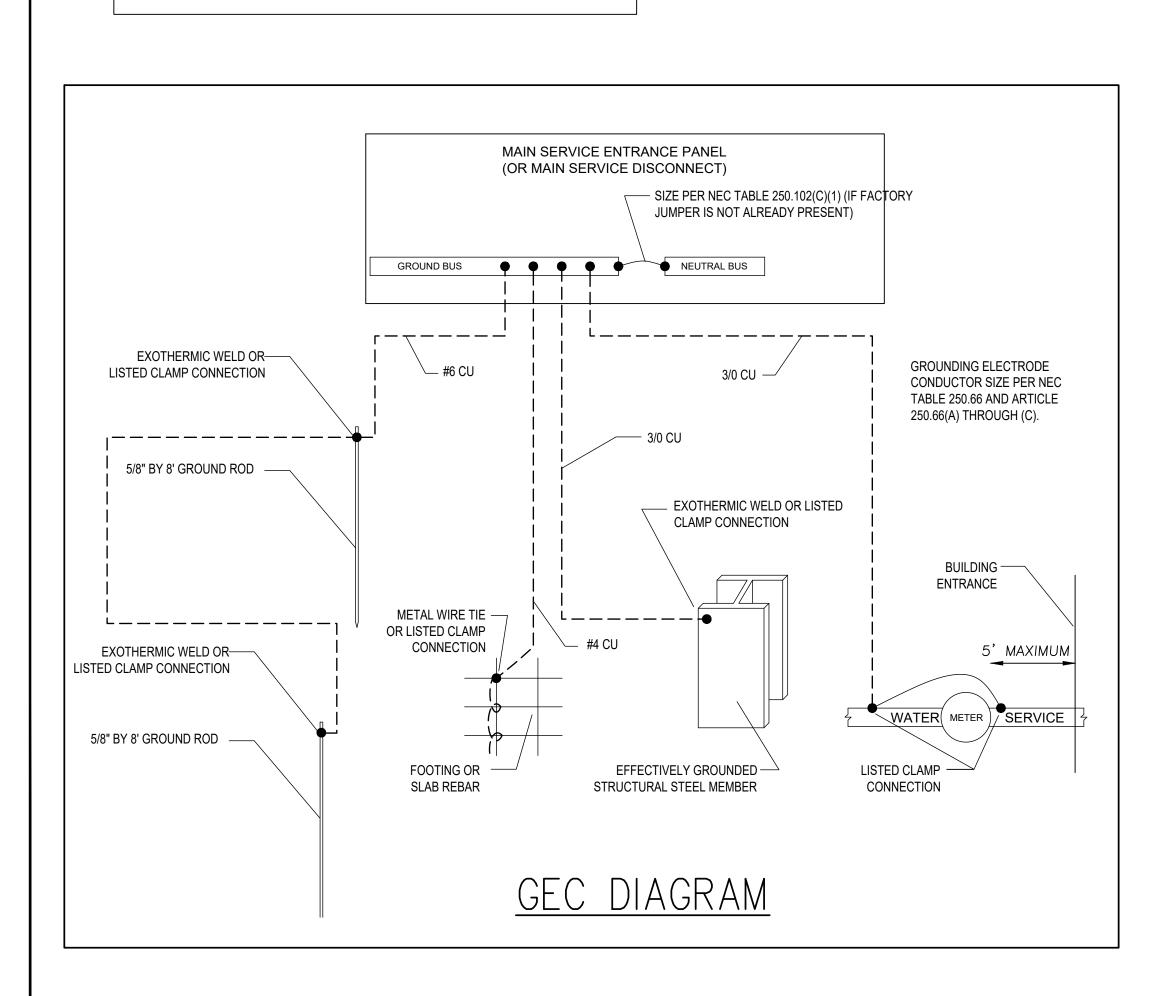
SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/O AND ABOVE

FEEDER SCHEDULE NOTES: CONDUIT FILL:

- \* FOR CONDUIT SIZES 1-1/2" AND BELOW, FILL IS BASED ON EMT.
- \* FOR CONDUIT SIZES 2" AND ABOVE, FILL IS BASED ON SCHEDULE 40 PVC.
- IN LOCATIONS APPROVED FOR THE PURPOSE. CONTRACTOR MAY USE MC CABLE.
- IN LOCATIONS APPROVED FOR THE PURPOSE CONTRACTOR MAY USE OTHER CONDUIT TYPES, INCLUDING RMC, FMC AND LFMC. CONTRACTOR REQUIRED TO ENSURE CONDUIT FILL DOES NOT EXCEED 40%.

CONTRACTOR RESPONSIBLE TO ENSURE TERMINATION/LUG CAPACITY FOR ALL SCHEDULED FEEDERS.

XHHW/THHN/THWN SHALL BE USED FOR INSULATION OF THE CONDUCTOR.



### COORDINATION AND ARC FLASH STUDIES:

IMMEDIATELY UPON SELECTION OF ACTUAL EQUIPMENT BEING PROVIDED FOR THE PROJECT, THE ELECTRICAL CONTRACTOR SHALL PERFORM AN ARC FLASH ANALYSIS AND COORDINATION STUDY ON THE STANDBY DISTRIBUTION BASED ON ACTUAL EQUIPMENT TO BE PROVIDED, CONDUCTOR TYPES/SIZES/LENGTHS, ETC. COORDINATION SHALL BE CONFIRMED BASED ON FAULT NUMBERS SHOWN ON THIS DRAWING.

STUDIES SUBMITTED SHALL BE STAMPED BY A PROFESSIONAL ELECTRICAL ENGINEER HOLDING A CURRENT LICENSE FROM THE STATE OF WA.

PRELIMINARY ARC FLASH AND COORDINATION STUDIES ARE TO BE SUBMITTED WITH THE SUBMITTALS FOR THE PROTECTIVE DEVICES, PANELBOARDS, SWITCHBOARDS, AND OTHER ELECTRICAL EQPT.

THE ELECTRICAL CONTRACTOR SHALL SUBMIT THE STAMPED AND SIGNED ARC FLASH AND COORDINATION STUDY TO THE AHJ AS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL PERMANENT LABELS INDICATING ARC FLASH HAZARD RISK CATEGORIES ON ALL DISTRIBUTION POINTS (SWITCHBOARDS, PANELBOARDS, VFDS, DISCONNECT SWITCHES, ETC). LABELS SHALL COMPLY WITH NFPA 70E.

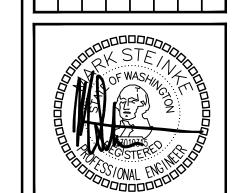
### SHEET NOTES:

- A. CONTRACTOR TO OBTAIN UTILITY APPROVAL OF ALL SERVICE AND METERING EQUIPMENT PRIOR TO ORDERING.
- B. DISTRIBUTION SYSTEM AS DESIGNED IS FULLY RATED. CONTRACTOR WILL BE RESPONSIBLE FOR ENGINEERING IF SERIES RATED SYSTEMS ARE SUBMITTED, THE SUBMITTED SYSTEM SHALL MEET NEC 240.86(B) REQUIREMENTS FOR TESTED COMBINATIONS, AND SHALL NOT BE USED IF MOTOR CONTRIBUTION EXCEEDS LIMITS PER 240.86(C). NEC 110.22 MARKING REQUIREMENTS MUST BE MET.
- C. PROVIDE PERMANENT WARNING LABELS FOR ARC FLASH AND PPE REQUIREMENTS FOR THE SERVICE EQUIPMENT AND PANELS.

### FLAG NOTES:

#

- 1. GROUNDING ELECTRODE CONDUCTOR AND SYSTEM GROUNDING SIZED PER N.E.C. 250
- 2. PROVIDE ARC ENERGY REDUCTION: ENERGY REDUCING MAINTENANCE SWITCH PER NEC 240.87(B)(3)
- 3. PROVIDE A LISTED SURGE PROTECTIVE DEVICE FOR DWELLING UNITS AS REQUIRED BY NEC 230.67. CONTRACTOR TO CONFIRM LOCATION IS ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. OBTAIN PRICING FOR OPTION TO HAVE SPDs LOCATED IN UNIT PANELS VS UPSTREAM.
- 4. METER ELEVATIONS AND METERS PER STACK SHALL BE INSTALLED PER UTILITY ELECTRICAL PROVIDER REQUIREMENTS . METER SOCKET IN ELECTRICAL ROOM. VERIFY EXACT LOCATION AND REQUIREMENTS WITH ELECTRIC UTILITY (TYPICAL)
- 5. PROVIDE (1) 2 1/2" CONDUITS FOR SOLAR READY PATHWAY AND RESERVE SPACE IN THE MAIN ELECTRIC ROOM FOR FUTURE SOLAR EQUIPMENT. RESERVE SPACE FOR INSTALLATION OF FUTURE SOLAR CIRCUIT BREAKER AND PERMANENTLY MARK THIS LOCATION AS "FOR FUTURE SOLAR ELECTRIC".





DESIGNED: MHS
CHECKED: PSR
APPROVED: JAY

MU20240283

4VE W. SUITE 302 WA 98036 **DRM** 

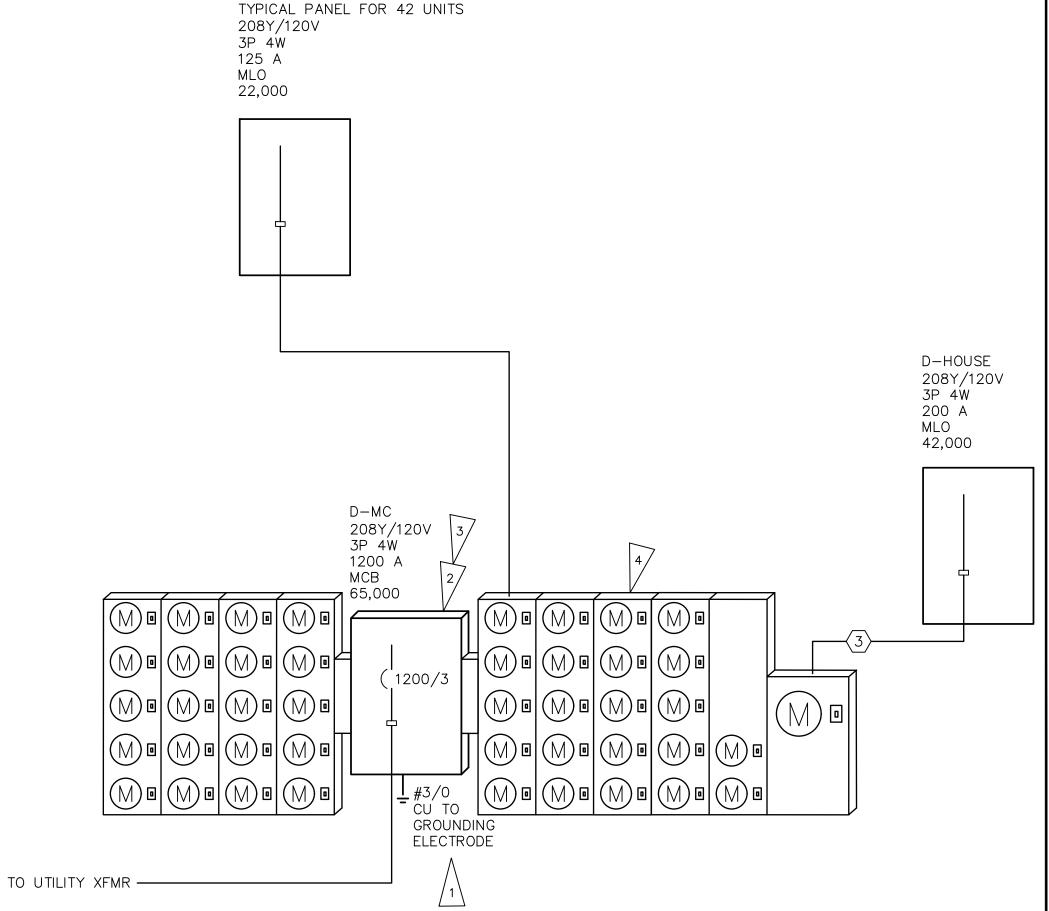
**SON** 19401 40TH, LYNNWOOD, PHONE:(206)

ROBIS

ATE: 05/02/2025

SHEET TITLE:
ONE-LINE
DIAGRAM &
NOTES

E6.00



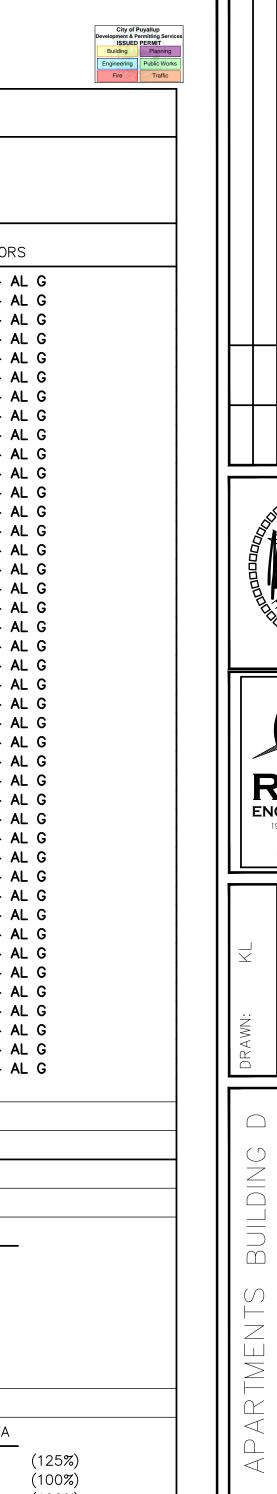
ONE-LINE DIAGRAM

| DEVICE         | FEEDE        | R                | BRANCH CIRC       | UIT .        | TOTAL        |
|----------------|--------------|------------------|-------------------|--------------|--------------|
|                | VOLTAGE DROP | WIRE<br>SIZE     | MAX VOLTAGE DROP  | WIRE<br>SIZE | VOLTAGE DROI |
| XFMR<br>A/B/C  | 0%           |                  | _                 | _            | 0%           |
| A-MC           | 1.61%        | (4)#500kcm<br>AL | îl —              | _            | 1.61%        |
| A-HOUSE        | 1.93%        | #3/0             | 1.06% (CKT 19)    | #10          | 2.99%        |
| В-МС           | 0.51%        | (3)#400kcm<br>AL | il —              | _            | 0.51%        |
| B-HOUSE        | 0.79%        | #3/0             | 1.4% (CKT 3)      | #10          | 2.18%        |
| C-MC           | 0.74%        | (4)#500kcm<br>AL | il —              | _            | 0.74%        |
| C-HOUSE        | 0.91%        | #3/0             | 1.56% (CKT 7)     | #10          | 2.48%        |
| XFMR<br>D/CLUB | 0%           |                  | _                 | _            | 0%           |
| AM-CT          | 0.35%        | (2)#250kcm<br>AL | il —              | _            | 0.35%        |
| AM-DISC        | 0.57%        | (2)#250kcm<br>AL | il —              | _            | 0.57%        |
| AM-A           | 0.85%        | #500kcmil        | 1.95% (CKT 41)    | #12          | 2.79%        |
| AM-B           | 2.33%        | #2/0 AL          | 2.18% (CKT 33,35) | #8           | 4.51%        |
| POOL           | 0.89%        | #1/0 AL-1        | 0.28% (CKT 1)     | #12          | 1.18%        |
| D-MC           | 2.76%        | (5)#600kcm<br>AL | il —              | _            | 2.76%        |
| D-HOUSE        | 3.01%        | #3/0             | 1.52% (CKT 21)    | #10          | 4.53%        |
| XFMR E/H       | 0%           |                  | _                 | _            | 0%           |
| E-MC           | 0.64%        | (4)#500kcm<br>AL | il —              | _            | 0.64%        |
| E-HOUSE        | 0.82%        | #3/0             | 1.1% (CKT 19)     | #10          | 1.92%        |
| H-MC           | 0.97%        | (4)#350kcm<br>AL | il —              | _            | 0.97%        |
| H-HOUSE        | 1.11%        | #3/0             | 1.1% (CKT 17)     | #10          | 2.21%        |
| XFMR F/G       | 0%           |                  | _                 | _            | 0%           |
| F-MC           | 1.6%         | (4)#500kcm<br>AL | il —<br>          | _            | 1.6%         |
| F-HOUSE        | 1.85%        | #3/0             | 1.1% (CKT 19)     | #10          | 2.95%        |
| G-MC           | 0.54%        | (4)#500kcm<br>AL | il —              | _            | 0.54%        |
| G-HOUSE        | 0.71%        | #3/0             | 1.52% (CKT 21)    | #10          | 2.23%        |

| FAUL           | T CUF   | RRENT  | SCHE    | 'DULE          |        |                  |                |       |
|----------------|---------|--------|---------|----------------|--------|------------------|----------------|-------|
| DEVICE         | FAULT   | AIC    | UTILITY | FED .          | FROM   | FEE              | DER            | TOTAL |
|                |         | RATING | FAULT   | DEVICE         | FAULT  | SIZE             | LENGTH         | MOTOR |
| VEND           | 0.4.545 | N. /A  | 00.700  |                |        |                  |                | FAULT |
| XFMR<br>A/B/C  | 64,515  | N/A    | 60,300  |                |        |                  |                | 4,215 |
| A-MC           | 35,355  | 65,000 | 33,084  | XFMR<br>A/B/C  | 60,300 | (4)#500kcm<br>AL | il126'         | 2,271 |
| A-HOUSE        | 23,930  | 42,000 | 22,899  | A-MC           | 33,084 | #3/0             | 21'            | 1,031 |
| B-MC           | 38,026  | 65,000 | 36,129  | XFMR<br>A/B/C  | 60,300 | (3)#400kcm<br>AL | il 70 <b>'</b> | 1,897 |
| B-HOUSE        | 26,195  | 42,000 | 25,329  | В-МС           | 36,129 | #3/0             | 18'            | 866   |
| C-MC           | 45,210  | 65,000 | 42,184  | XFMR<br>A/B/C  | 60,300 | (4)#500kcm<br>AL | il68'          | 3,026 |
| C-HOUSE        | 29,061  | 42,000 | 27,827  | C-MC           | 42,184 | #3/0             | 19'            | 1,234 |
| XFMR<br>D/CLUB | 42,183  | N/A    | 39,700  |                |        |                  |                | 2,483 |
| AM-CT          | 10,600  | 42,000 | 10,279  | XFMR<br>D/CLUB | 39,700 | (2)#250kcm<br>AL | il180'         | 321   |
| AM-DISC        | 9,613   | 42,000 | 9,311   | AM-CT          | 10,279 | (2)#250kcm<br>AL | il23 <b>'</b>  | 302   |
| AM-A           | 8,641   | 22,000 | 8,350   | AM-DISC        | 9,311  | #500kcmil        | 33'            | 291   |
| AM-B           | 3,955   | 22,000 | 3,774   | AM-A           | 8,350  | #2/0 AL          | 108'           | 181   |
| POOL           | 7,226   | 22,000 | 7,025   | AM-A           | 8,350  | #1/0 AL-1        | 14'            | 201   |
| D-MC           | 33,991  | 65,000 | 31,558  | XFMR<br>D/CLUB | 39,700 | (5)#600kcm<br>AL | il83 <b>'</b>  | 2,433 |
| D-HOUSE        | 24,675  | 42,000 | 23,388  | D-MC           | 31,558 | #3/0             | 19'            | 1,287 |
| XFMR E/H       | 42,497  | N/A    | 39,700  |                |        |                  |                | 2,797 |
| E-MC           | 25,915  | 65,000 | 23,937  | XFMR E/H       | 39,700 | (4)#500kcm<br>AL | il155 <b>'</b> | 1,978 |
| E-HOUSE        | 19,299  | 42,000 | 18,197  | E-MC           | 23,937 | #3/0             | 21'            | 1,102 |
| H-MC           | 29,457  | 65,000 | 27,480  | XFMR E/H       | 39,700 | (4)#350kcm<br>AL | il92 <b>'</b>  | 1,977 |
| H-HOUSE        | 18,568  | 42,000 | 17,791  | H-MC           | 27,480 | #3/0             | 30'            | 777   |
| F-MC           | 31,879  | 65,000 | 29,797  | XFMR F/G       | 60,300 | (4)#500kcm<br>AL | il155'         | 2,082 |
| F-HOUSE        | 19,185  | 42,000 | 18,353  | F-MC           | 29,797 | #3/0             | 31'            | 832   |
| G-MC           | 27,460  | 65,000 | 25,243  | XFMR F/G       | 60,300 | (4)#500kcm<br>AL | il 207'        | 2,217 |
| G-HOUSE        | 20,163  | 42,000 | 18,965  | G-MC           | 25,243 | #3/0             | 20'            | 1,198 |

| MC<br>FE                   | OOM<br>DUNTING<br>D FROM<br>DTE |                              | E                           |                     | VOLTS <b>208</b><br>Bus amps<br>Neutral | 20                    | 0                  | 3P 4W                                                 |              |            | AIC <b>42,00</b><br>Main BKR<br>Lugs <b>Sta</b> | MLO                        |
|----------------------------|---------------------------------|------------------------------|-----------------------------|---------------------|-----------------------------------------|-----------------------|--------------------|-------------------------------------------------------|--------------|------------|-------------------------------------------------|----------------------------|
| CKT<br>#                   | CKT<br>BKR                      | LOAD<br>KVA                  | CIRCUI                      | T DESCRIF           | PTION                                   |                       | CKT<br>#           | CKT<br>BKR                                            | LOAD<br>KVA  | CIRC       | CUIT DESC                                       | RIPTION                    |
| 1<br>3<br>5<br>7           | 20/2<br> <br> -/1<br>  20/1     | 1<br>0<br>0.18               | EWH<br>SPACE<br>RECEP       |                     |                                         | а<br>b<br>c<br>а      | 2<br>4<br>6<br>8   | 50/2<br> <br>50/2                                     | 8.3<br>8.3   |            | CHARGER<br>CHARGER                              |                            |
| 9<br>11<br>13<br>15        | 20/1<br>20/1<br>20/1<br>-/1     | 0.296<br>0.296<br>0.296<br>0 | LIGHTIN<br>LIGHTIN<br>SPACE | IG<br>IG            |                                         | ь<br>с<br>а<br>ь      | 12                 | 50/2<br> <br> <br>  50/2<br>                          | 8.3<br>8.3   |            | CHARGER<br>CHARGER                              |                            |
| 21<br>23                   | 20/1<br>20/1<br>20/1<br>20/1    | 0.18<br>0.128<br>0.5<br>0.18 | 1                           | IG<br>GHTING        |                                         | с<br>а<br>ь<br>с      | 20<br>22<br>24     | 50/2<br> <br> <br> <br> <br> <br> <br>                | 8.3          | (F)        | EV CHARG                                        | ER                         |
| 25<br>27<br>29<br>31<br>33 | 50/2<br> <br>50/2<br> <br> -/1  | 8.3<br>8.3                   | EV CHA                      |                     |                                         | а<br>b<br>с<br>а<br>b | 28<br>30<br>32     | 50/2<br> <br>50/2<br> <br>50/2                        | 8.3<br>8.3   | (F)        | EV CHARG EV CHARG                               | ER                         |
| 35<br>37<br>39<br>41       | -/1<br>-/3<br>                  | 0                            | SPACE                       | BREAKER             |                                         | с<br>а<br>ь<br>с      | 36<br>38<br>40     | 50/2<br> <br> <br> <br> <br> <br> <br> <br> <br> <br> | 8.3<br>0.15  | (F)        | EV CHARG                                        | ER                         |
|                            |                                 |                              | CONN<br>KVA                 | CALC<br>KVA         |                                         |                       |                    |                                                       |              | ONN<br>(VA | CALC<br>KVA                                     |                            |
| RI                         | GHTING<br>ECEPTACL<br>V LOAD    | _ES C                        | .2<br>).36<br>)9.6          | 1.5<br>0.36<br>62.3 | (125%)<br>(50%>10)<br>(63%)             |                       | NON                | TINUOUS<br>ICONTINU<br>TING                           |              |            | 0.625<br>0.15<br>1                              | (125%)<br>(100%)<br>(100%) |
|                            |                                 |                              |                             |                     |                                         |                       | BAL.<br>LO.<br>PHA |                                                       | )<br>3-PHASE |            | 65.9<br>183 A<br>112%<br>101%                   | •                          |

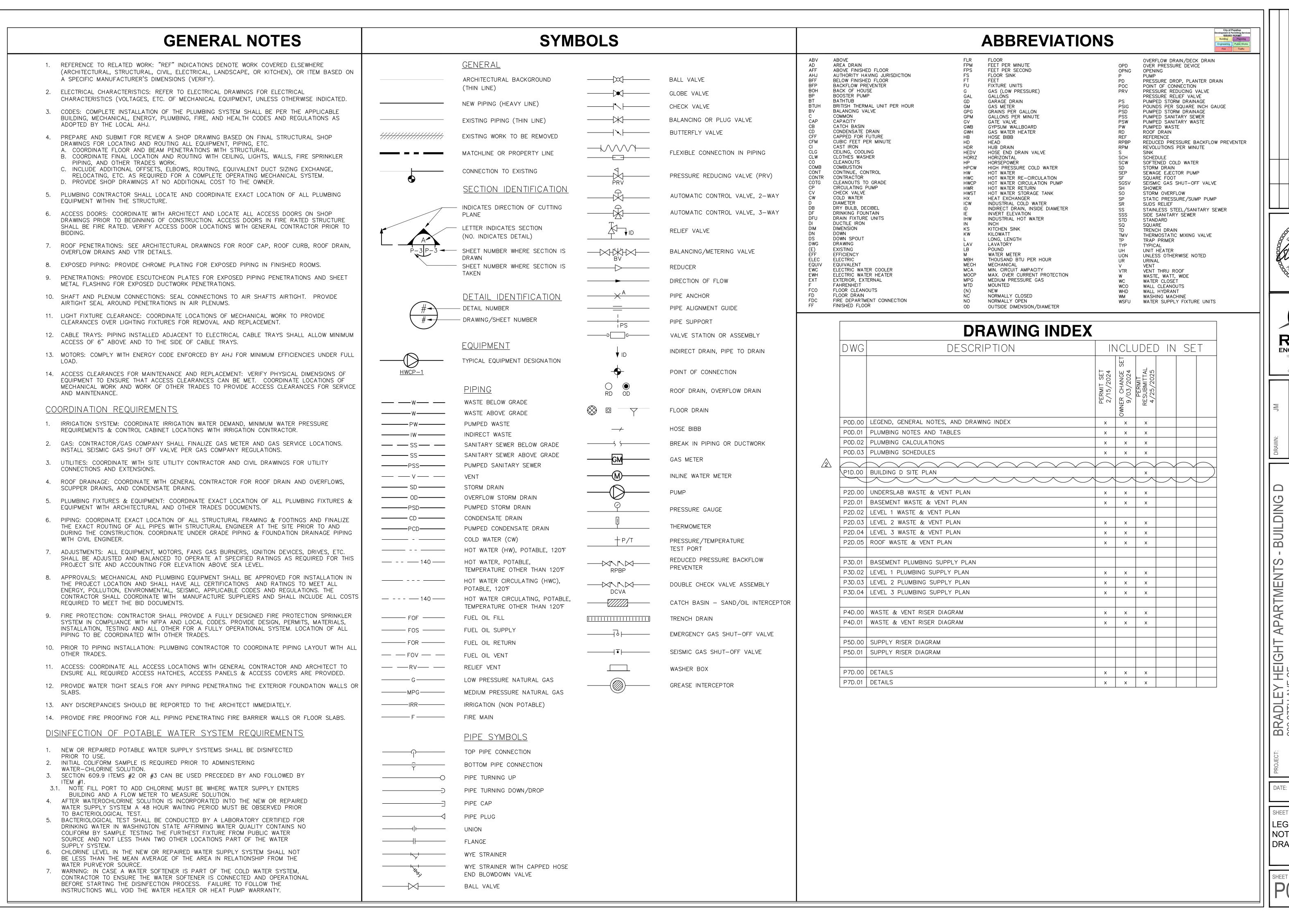
|            | ITING <b>SURFAC</b><br>FROM <b>XFMR [</b> |                          | BUS /        | S <b>208Y/120V</b><br>Amps <b>1200</b><br>Ral <b>100%</b> | 3P 4W        |                     |            | AIC 65,000<br>Main BKR 1<br>Lugs <b>Stand</b> |              |                  |
|------------|-------------------------------------------|--------------------------|--------------|-----------------------------------------------------------|--------------|---------------------|------------|-----------------------------------------------|--------------|------------------|
| CKT<br>#   | BREAKER<br>TRIP/POLES                     | CIRCUIT DESCRIP          | TON          | A                                                         | LOAD KV      | ′A C                | FEEDER I   | RACEWAY AND                                   | CONDUCTORS   | 5                |
| 1          | 125/2                                     | PANEL DO01               |              | 16.6                                                      | 17.1         |                     | 1-1/2"C,   | ,2#2/0 AL,#2                                  | /O AL N,#4 A | L G              |
| 2          | 125/2                                     | PANEL DO02               |              | 1                                                         | 16.2         | 16.1                |            | ,2#2/0 AL,#2,                                 |              |                  |
| 3          | 125/2                                     | PANEL DOO3               |              | 16.1                                                      | 46.4         | 16.2                |            | ,2#2/0 AL,#2,                                 |              |                  |
| 4<br>5     | 125/2<br>125/2                            | PANEL D004<br>PANEL D005 |              | 16.2                                                      | 16.1<br>15.7 | 16.3                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                |              |                  |
| 6          | 125/2                                     | PANEL DOOG               |              | 17.1                                                      | ł            | 16.6                |            | ,2#2/0 AL,#2/                                 |              |                  |
| 7          | 125/2                                     | PANEL D101               |              | 16.6                                                      | 17.1         |                     | 1-1/2"C,   | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 8          | 125/2                                     | PANEL D102               |              | 174                                                       | 16.2         |                     |            | ,2#2/0 AL,#2,                                 |              |                  |
| 9<br>10    | 125/2<br>125/2                            | PANEL D103<br>PANEL D104 |              | 17.1<br>16.2                                              | 16.1         | 16.6                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                | •••          |                  |
| 11         | 125/2                                     | PANEL D105               |              | 10.2                                                      | 16.2         | 16.1                |            | ,2#2/0 AL,#2/                                 | •••          |                  |
| 12         | 125/2                                     | PANEL D106               |              | 16.1                                                      |              | 16.2                | 1-1/2"C,   | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 13         | 125/2                                     | PANEL D107               |              | 15.7                                                      | 16.3         |                     |            | ,2#2/0 AL,#2,                                 |              |                  |
| 14  <br>15 | 125/2<br>125/2                            | PANEL D108<br>PANEL D109 |              | 16.1                                                      | 15.7         | 16.3<br>16.2        |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                |              |                  |
| 16         | 125/2                                     | PANEL DIOS               |              | 16.6                                                      | 17.1         | 10.2                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                | •••          |                  |
| 17         | 125/2                                     | PANEL D111               |              |                                                           | 16.2         |                     | 1-1/2"C,   | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 18         | 125/2                                     | PANEL D112               |              | 17.1                                                      | 1            |                     | 1-1/2"C,   | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 19         | 125/2<br>125/2                            | PANEL D201               |              | 16.6                                                      | 17.1         | 16 1                |            | ,2#2/0 AL,#2,                                 | **           |                  |
| 20  <br>21 | 125/2<br>125/2                            | PANEL D202<br>PANEL D203 |              | 17.1                                                      | 16.2         |                     |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                |              |                  |
| 22         | 125/2                                     | PANEL D204               |              | 16.2                                                      | 1            | .0.0                | 1          | ,2#2/0 AL,#2/                                 | **           |                  |
| 23         | 125/2                                     | PANEL D205               |              | İ                                                         | 16.2         | 1                   |            | ,2#2/0 AL,#2,                                 |              |                  |
| 24  <br>25 | 125/2<br>125/2                            | PANEL D206<br>PANEL D207 |              | 16.1                                                      | 1            | 16.2                |            | ,2#2/0 AL,#2,                                 | **           |                  |
| 25<br>26   | 125/2<br>125/2                            | PANEL D207               |              | 15.7                                                      | 15.7         | 16.3                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                | •••          |                  |
| 27         | 125/2                                     | PANEL D209               |              | 16.1                                                      | ł            | 16.2                |            | ,2#2/0 AL,#2/                                 |              |                  |
| 28         | 125/2                                     | PANEL D210               |              | 16.6                                                      |              |                     | 1-1/2"C,   | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 29         | 125/2                                     | PANEL D211               |              | 174                                                       | 16.2         | 16.1                |            | ,2#2/0 AL,#2,                                 | **           |                  |
| 30  <br>31 | 125/2<br>125/2                            | PANEL D212<br>PANEL D301 |              | 17.1<br>16.6                                              | ł            | 10.6                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                | •••          |                  |
| 32         | 125/2                                     | PANEL D302               |              | 10.0                                                      | 16.2         | 16.1                |            | ,2#2/0 AL,#2/                                 |              |                  |
| 33         | 125/2                                     | PANEL D303               |              | 17.1                                                      | l .          | 16.6                | 1-1/2"C    | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 34  <br>35 | 125/2                                     | PANEL D304<br>PANEL D305 |              | 16.2                                                      | 16.1<br>16.2 | 16.1                |            | ,2#2/0 AL,#2,                                 | **           |                  |
| 36         | 125/2<br>125/2                            | PANEL D305               |              | 16.1                                                      |              | 16.1                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                | •••          |                  |
| 37         | 125/2                                     | PANEL D307               |              | 15.7                                                      | 16.3         |                     | 1-1/2"C,   | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 38         | 125/2                                     | PANEL D308               |              | 10.1                                                      | 15.7         |                     |            | ,2#2/0 AL,#2,                                 |              |                  |
| 39<br>40   | 125/2<br>125/2                            | PANEL D309<br>PANEL D310 |              | 16.1<br>16.6                                              | 17.1         | 16.2                |            | ,2#2/0 AL,#2,<br>,2#2/0 AL,#2,                | **           |                  |
| 41         | 125/2                                     | PANEL D311               |              |                                                           | 16.2         | 16.1                |            | ,2#2/0 AL,#2/                                 | •••          |                  |
| 42         | 125/2                                     | PANEL D312               |              | 17.1                                                      |              | 16.6                |            | ,2#2/0 AL,#2,                                 | /O AL N,#4 A | L G              |
| 43         | 200/3                                     | PANEL D-HOUSE            |              | 38.5                                                      | 34.5         | 29.9                | 2″C,3#3/   | 0,#3/0N,#6G                                   |              |                  |
|            |                                           | TOTAL CONNE              | CTED KVA BY  | PHASE 499                                                 | 492          | 486                 |            |                                               |              |                  |
| PTIC       | DNAL MULTIFAI                             | MILY DWELLING CA         | CULATION (NE |                                                           |              |                     | -          |                                               |              |                  |
|            |                                           |                          | KVA          | DWELLI                                                    | NG UNIT      | LUADS               |            |                                               | KVA          |                  |
|            |                                           |                          |              | 40,791 SF                                                 | $C \cap V$   | INECTED             | ΙΟΔΓ       |                                               | 1,100        |                  |
| LIGH       | ITING AND RE                              | CEPTACLES                | 1.7.7        | 40,791 SF<br>(3 VA/SF)                                    |              |                     |            |                                               | •            |                  |
|            | LL-APPLIANCI                              | E                        | 126          |                                                           |              | ILLING U<br>IAND FA |            |                                               | 42<br>(28%)  |                  |
|            | NDRY<br>LIANCES                           |                          | 63<br>356    |                                                           |              | CULATE              |            |                                               | 309          |                  |
|            | CIANCES<br>CTRIC COOKING                  | G                        | 224          |                                                           |              |                     |            |                                               |              |                  |
|            | TING                                      |                          |              | (100%)                                                    |              |                     |            |                                               |              |                  |
|            |                                           |                          |              | НО                                                        | USE LOA      | os                  |            |                                               |              |                  |
|            |                                           | CONN KVA                 | CALC KVA     |                                                           |              |                     |            | CONN KVA                                      | CALC KVA     |                  |
|            | ITING                                     | 1.2                      |              | (125%)                                                    |              | ITINUOU:            |            | 0.5                                           | 0.625        | (125%)           |
|            | EPTACLES<br>LOAD                          | 0.36<br>99.6             |              | (50%>10)<br>(63%)                                         |              | ICONTINI            | JOUS       | 0.15<br>1                                     | 0.15<br>1    | (100%)<br>(100%) |
| ĽV         | LUAU                                      | 99.6                     | 62.3         | (63%)                                                     |              | TING                | OF 4.5 : - | ı                                             | 1            | (100%)           |
|            |                                           |                          |              |                                                           |              |                     | SE LOAD    |                                               | 65.9         |                  |
|            |                                           |                          |              | TC                                                        | TAL LOA      | D                   |            |                                               |              |                  |
|            |                                           |                          |              |                                                           |              |                     |            |                                               |              |                  |
|            |                                           |                          | KVA          |                                                           |              |                     |            |                                               | KVA          |                  |

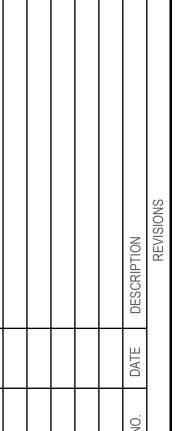


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**PANEL** SCHEDULES









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LEGEND GENERAL

NOTES AND DRAWING INDEX

27. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.

28. VALVE TAGS: PROVIDE VALVE TAGS PER SPECIFICATIONS TO IDENTIFY

29. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.

VALVE AND THE AREA IT SERVES.

30. ALL TEMPERATURE MIXING VALVES SHALL COMPLY WITH ASSE-1070 SAFETY STANDARDS.

31. PROVIDE PIPE MARKER WITH DIRECTION OF FLOW. LABEL "NON-POTABLE WATER DO NOT DRINK" CLEARLY ON NON-POTABLE

32. PROVIDE EXPANSION LOOPS/EXPANSION JOINTS IN PIPING PER 2018 UPC TABLE 313.3 AND MANUFACTURER INSTALLATION INSTRUCTIONS.

33. PROVIDE APPROVED PIPE HANGERS & PIPE SUPPORTS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND 2018 UPC TABLES 313.3 & 313.6. SUBMIT FOR APPROVAL.

34. DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.

35. REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

36. CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.

37. PIPING & EQUIPMENT SUPPORTS/HANGERS & SEISMIC RESTRAINTS TO BE DESIGNED BY DESIGN BUILT CONTRACTOR.

38. IF NEEDED, PROVIDE VACUUM BREAKERS AT ALL HOSE BIBBS.

39. FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS IN ACCORDANCE WITH 2018 UPC 1007.0.

40. INSULATION MATERIAL SHALL MEET CITY OF FERNDALE QUALITY

41. ALL PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE 2018 WASHINGTON STATE ENERGY CODE.

42. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH 2018 UPC 701.0 AND 903.0.

43. ALL SANITARY SYSTEM MATERIAL SHALL BE LISTED BY AN APPROVED LISTING AGENCY.

44. ALL STORAGE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH AN APPROVED. LISTED EXPANSION TANK OR OTHER DEVICE DESIGNED FOR INTERMITTENT OPERATION FOR THERMAL EXPANSION CONTROL PER 2018 UPC 608.3.

45. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENTS DUE TO SEISMIC MOTION PER 2018 UPC

46. MATERIAL EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH 2018 IMC 602.2.1.

47. HVAC EQUIPMENT AND WATER HEATERS SHALL COMPLY WITH 2018 IMC

CHAPTER 3.

48. BOILERS SHALL COMPLY WITH ALL THE REQUIREMENTS OF 2018 IMC

PROVIDE EXPANSION TANKS FOR BOILERS PER 2018 IMC SECTION

SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER 2018 UPC 408.0.

51. PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH CITY OF FERNDALE WATER CONSERVATION STANDARDS.

CONTRACTOR SHALL PROVIDE FIRESTOPPING AT PENETRATIONS AS NECESSARY TO RETAIN THE FIRE RATING OF ALL ASSEMBLIES. ALL WORK SHALL BE IN COMPLIANCE WITH CODE REQUIREMENTS FOR THE BUILDING CONSTRUCTION TYPE.

53. ALL GARAGE DRAINS, TRASH ROOMS DRAINS & GARAGE TRENCH DRAINS SHALL BE TAKEN TO SAND/OIL INTERCEPTOR(S) BEFORE CONNECTING TO THE SANITARY SEWER SYSTEM.

54. PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE

BACKFLOW PREVENTERS OR OTHER APPROVED BACKFLOW PREVENTION DEVICE WHERE REQUIRED BY HEALTH AUTHORITIES, FOOD SERVICE DRAWINGS, APPLIANCE MANUFACTURER INSTRUCTIONS AND BY CODE.

PROVIDE REQUIRED & PROPER BACK FLOW PREVENTERS AS SPECIFIED FOR THE APPLIANCES INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

a. ICE MACHINES AND ICE MAKERS

CARBONATED BEVERAGE DISPENSING SYSTEMS COFFEE BREWERS

CHAPTER 10.

ESPRESSO MACHINES

WATER FILTERS STEAM OR HOT WATER BOILERS

IRRIGATION SYSTEM FIRE PROTECTION SYSTEM

CHEMICAL TREATMENT SYSTEM SOAP/CHEMICAL DISPENSER SYSTEM

COMMERCIAL WASHER

THE FOLLOWING PROJECT DESIGN IS BASED ON THE FOLLOWING CODES:

-2018 UNIVERSAL PLUMBING CODE (UPC)

-2018 WASHINGTON STATE ENERGY CODE (WSEC) - COMMERCIAL PROVISIONS

### PIPE INSULATION SCHEDULE

|                                                                                                 | FIFE IIV                                       | SULATION SCITE                              | DOLL     |                                             |                |        |
|-------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------|----------|---------------------------------------------|----------------|--------|
| CEDVICE                                                                                         | OPTION                                         | 1                                           | OF       | PTION 2                                     | VAPOR RETARDER | NOTEC  |
| SERVICE                                                                                         | MATERIAL                                       | THICKNESS                                   | MATERIAL | THICKNESS                                   | REQUIRED       | NOTES  |
| DOMESTIC COLD WATER, IRRIGATION WATER, CONDENSATE DRAINS, STORM DRAIN (IN CONDITIONED SPACE)    | MINERAL-FIBER WITH JACKET                      | ALL SIZES: ½"                               | PVC/NBR  | ALL SIZES: ¾"                               | YES            | 12,13  |
| DOMESTIC COLD WATER, IRRIGATION WATER, CONDENSATE DRAINS, WASTE (OUTSIDE THE CONDITIONED SPACE) | MINERAL-FIBER WITH JACKET                      | (R-3)<br>½" PIPE: ½"<br>ALL OTHER SIZES: 1" | PVC/NBR  | (R-3)<br>½" PIPE: ½"<br>ALL OTHER SIZES: ¾" | YES            | 7,8,10 |
| ROOF DRAIN BODIES                                                                               | MINERAL-FIBER OR CELLULAR<br>GLASS WITH JACKET | 1"                                          | PVC/NBR  | 1"                                          | YES            | 12     |
| DOMESTIC HOT WATER AND RECIRCULATED HOT WATER (RESIDENTIAL)                                     | MINERAL-FIBER WITH JACKET                      | (R-3)<br>½" PIPE: ½"<br>ALL OTHER SIZES: 1" | PVC/NBR  | (R-3)<br>½" PIPE: ½"<br>ALL OTHER SIZES: ¾" | NO             | 2,10   |
| DOMESTIC HOT WATER AND RECIRCULATED HOT WATER (NONRESIDENTIAL)                                  | MINERAL-FIBER WITH JACKET                      | ½"-1¼" PIPE: 1"<br>1½"-4" PIPE:1.5"         | PVC/NBR  | ½"-1¼" PIPE: 1"<br>1½"-4" PIPE:1.5"         | NO             | 3,9    |
| EXPOSED SANITARY DRAINS AND DOMESTIC WATER SUPPLIES AND STOPS FOR ADA FIXTURES.                 | TRUEBRO LAV-GUARD                              | N/A                                         | N/A      | N/A                                         | NO             | 11     |

PIPING INSULATION EXPOSED TO THE WEATHER SHALL BE PROTECTED FROM DAMAGE. CONTRACTOR SHALL PROVIDE SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. ADHESIVE TAPE SHALL NOT BE PERMITTED.

2. PER 2018 WSEC SECTION R403.5.3 (RESIDENTIAL) INSULATION FOR HOT WATER PIPE SHALL HAVE A MINIMUM R-VALUE OF R-3.

3. PIPING FROM WATER HEATER TO THE TERMINATION OF HEATED WATER SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.9.

4. ON BOTH THE INLET AND OUTLET PIPING OF A STORAGE HOT WATER HEATER, THE FIRST 8 FEET OF PIPING OR PIPING FROM WATER HEATER TO HEAT TRAP SHALL BE INSULATED.

5. HEAT TRACED PIPING SHALL BE INSULATED IN THE SAME MANNER AS NON HEAT TRACED PIPING OR PER THE HEAT TRACE MANUFACTURER'S INSTRUCTIONS.

6. TUBULAR PIPING INSULATION SHALL NOT BE REQUIRED FOR THE FOLLOWING:

6.1. THE TUBING FROM THE CONNECTION AT THE TERMINATION OF THE FIXTURE SUPPLY PIPING TO A PLUMBING FIXTURE OR PLUMBING APPLIANCE.

6.2. VALVES, PUMPS, STRAINERS, AND THREADED UNIONS IN PIPING THAT IS 1 INCH OR LESS IN NOMINAL DIAMETER. PIPING FROM USER-CONTROLLED SHOWER AND BATH MIXING VALVES TO THE WATER OUTLETS.

COLD WATER PIPING OF A DEMAND RECIRCULATION WATER SYSTEM. TUBING FROM A HOT DRINKING-WATER HEATING UNIT TO THE WATER OUTLET.

6.6. PIPING AT LOCATIONS WHERE A VERTICAL SUPPORT OF THE PIPING IS INSTALLED.

6.7. PIPING SURROUNDED BY BUILDING INSULATION WITH A THERMAL RESISTANCE (R-VALUE) OF NOT LESS THAN R-3.

HOT WATER PIPING THAT IS PART OF THE FINAL PIPE RUN TO THE PLUMBING FIXTURE AND IS NOT PART OF THE HEATED—WATER CIRCULATION SYSTEM CIRCULATION PATH IS NOT REQUIRED TO MEET THE MINIMUM INSULATION REQUIREMENTS OF C404.6.

7. PER 2018 UPC SECTION 312.6 NO WATER, SOIL, OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING, IN ATTICS OR CRAWL SPACES, OR IN AN EXTERIOR WALL UNLESS, WHERE NECESSARY, ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPE FROM FREEZING. ALL HOT AND COLD WATER PIPES OUTSIDE THE CONDITIONED SPACE SHALL BE PROVIDED WITH INSULATION WITH A MINIMUM R-VALUE OF

8. HEAT TRACING SHALL BE PROVIDED FOR COLD WATER AND IRRIGATION WATER IN UNCONDITIONED SPACES. CONTACT ENGINEERING IF NECESSARY. PER 2018 WSEC SECTION C403.12.3 FREEZE PROTECTION SYSTEMS, SUCH AS HEAT TRACING OF OUTDOOR PIPING, SHALL INCLUDE AUTOMATIC CONTROLS CONFIGURED TO SHUT OFF THE SYSTEMS WHEN OUTDOOR AIR TEMPERATURES ARE ABOVE 40°F.

9. PER 2018 WSEC TABLE C403.2.9 INSULATION FOR HOT WATER AND HOT WATER RECIRCULATION SHALL HAVE A THERMAL CONDUCTIVITY OF 0.21-0.28 (BTU.IN/H.FT².ºF) AT OPERATING TEMPERATURE.

' 10. INSULATION R-VALUE SHALL MEET THE MINIMUM REQUIREMENT. THICKNESS IS BASED ON GRAINGER SAMPLE DATA FOR K-FLEX(PVC/NBR) AND OWENS CORNING(FIBER GLASS).

11. ALL ADA P-TRAPS, HOT WATER SUPPLY TUBING, AND SHUT-OFF COCKS SHALL BE PROTECTED WITH APPROVED COVERS TO PREVENT SCALDING.

12. REQUIRED BY ENGINEERING BASED ON BEST PRACTICE

13. INSULATION IS NOT REQUIRED ON PLASTIC COLD WATER PIPING.

### HANGER SPACING FOR WATER PIPING

| ALL SUSPENDED WATER SUPPLY PIPE SHALL BE SUPPORTED AS FOLLOWS PER 2018 UPC TABLE 313.3: |                            |                          |  |  |  |  |  |
|-----------------------------------------------------------------------------------------|----------------------------|--------------------------|--|--|--|--|--|
|                                                                                         | MAX. HORIZONTAL<br>SPACING | MAX. VERTICAL<br>SPACING |  |  |  |  |  |
| COPPER PIPE ≤1½"                                                                        | 6 FT.                      | 10 FT.                   |  |  |  |  |  |
| COPPER PIPE >2"                                                                         | 10 FT.                     | 10 FT.                   |  |  |  |  |  |
| COPPER TUBING ≤1½"                                                                      | 6 FT.                      | 10 FT.                   |  |  |  |  |  |
| COPPER TUBING >2"                                                                       | 10 FT.                     | 10 FT.                   |  |  |  |  |  |
| CPVC <u>&lt;</u> 1"                                                                     | 3 FT.                      | 10 FT.                   |  |  |  |  |  |
| CPVC > 11/2"                                                                            | Λ FT                       | 10 FT                    |  |  |  |  |  |

### HANGER SPACING FOR WASTE AND VENT PIPING

| ALL SUSPENDED SANITARY AND VENT |             |            |
|---------------------------------|-------------|------------|
| SUPPORTED AS FOLLOWS PER 2018   | UPC TABLE 3 | 313.3:     |
|                                 | MAX. HORIZ. | MAX. VERT. |
|                                 | SPACING     | SPACING    |
| ABS                             | 4 FT.       | 10 FT.     |
| PVC (TYPE DWV)                  | 4 FT.       | 10 FT.     |
| CAST-IRON HUBLESS*              | EVERY       | 15 FT.     |
|                                 | OTHER JOINT |            |

\*CAST—IRON OVER 4'SHALL BE SUPPORTED AT EVERY JOINT

NECESSARY FOR A COMPLETE SYSTEM.

OR REVISIONS.

### FIXTURE TYPE NOTES FLOW RATE SHOWERHEADS 1.8 GPM @ 80 PSI LAVATORY FAUCETS, RESIDENTIAL 1.2 GPM @ 60 PSI LAVATORY FAUCETS, NON-RESIDENTIAL 0.5 GPM @ 60 PSI 1.8 GPM @ 60 PSI KITCHEN FAUCETS 3 1.28 GALLONS/FLUSH GRAVITY TANK-TYPE WATER CLOSETS 4 FLUSHOMETER TANK WATER CLOSETS 1.28 GALLONS/FLUSH 4 1.28 GALLONS/FLUSH FLUSHOMETER VALVE WATER CLOSETS 4

PLUMBING FIXTURE FLOW RATES PER 2018 UPC CH. 4

LAVATORY FAUCETS SHALL NOT HAVE A FLOW RATE LESS THAN 0.8 GPM AT 20 PSI.

DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GPM @ 60 PSI.

- THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.6 GALLONS. THE EFFECTIVE FLUSH VOLUME IS THE AVERAGE FLUSH VOLUME WHEN TESTED IN ACCORDANCE WITH ASME A112.19.2 DUAL FLUSH TOILETS - THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.6 GALLONS. THE EFFECTIVE FLUSH VOLUME IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. FLUSH VOLUMES WILL BE TESTED IN ACCORDANCE WITH ASME A112.19.2 AND ASME A112.19.14.

### NOTE TO CONTRACTOR

### DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE

# **CONTRACTOR SUBSTITUTIONS** & REVISIONS

DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS

PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR REVISIONS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTURER'S NAME AND CATALOG DESIGNATIONS, THE MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFICATION FOR THAT ITEM ARE CONSIDERED PART OF SPECIFICATION. ENGINEERING COSTS FOR REVISING MEP PLANS SHALL BE ADDRESSED IN THE COST ANALYSIS OF THE SUBSTITUTION PROPOSAL. CONTRACTOR TO COORDINATE WITH ENGINEER AND DETERMINE ASSOCIATED DESIGN AND PERMITTING COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OTHER COSTS ASSOCIATED WITH UNFORESEEN ISSUES RESULTING FROM SUBSTITUTIONS

# PRE-CONSTRUCTION MEETING NOTES

REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD

0.5 GALLONS/FLUSH

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE

2 HOURS SPRINKLER GENERAL CONTRACTOR

ELECTROMECHANICAL HYDRAULIC WATER CLOSETS 1.28 GALLONS/FLUSH

### NOTES:

URINALS

WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS RATED AT 0.35 GPM OR OTHER MEANS MAY BE USED TO ACHIEVE

KITCHEN FAUCETS MAY TEMPORARILY INCREASE FLOW ABOVE THE MAXIMUM RATE, BUT NOT ABOVE 2.2 GPM @ 60 PSI AND MUST

INCLUDES SINGLE AND DUAL FLUSH WATER CLOSETS WITH AN EFFECTIVE FLUSH OF 1.6 GALLONS OR LESS. SINGLE FLUSH TOILETS

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL 4 HOURS 4 HOURS PLUMBING/PIPING ELECTRICAL 4 HOURS

ALL SESSIONS

WASTE, VENT, COLD WATER, AND HOT WATER SYSTEM IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS, AND LOCAL CODES. CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNIONS, ETC. AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS.

REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON PLANS. 2. HOT AND COLD: WATER PIPING CONNECTION TO EACH FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE AND HOT WATER ON THE

LEFT HAND SIDE.

3. HOT WATER: NON-CIRCULATING HOT WATER PIPE SHALL NOT EXCEED 10' UNLESS OTHERWISE SHOWN ON DRAWINGS.

4. VENT STACKS: COORDINATE VENT STACK WITH HVAC EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.

5. CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT UPC AND AS REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS WHERE THEY ARE NOT HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO BE FITTED WITH CARPET INSERTS. LOCATIONS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS.

SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH 2018 UPC SECTION 711.0, STATE AND LOCAL CODES.

7. SHUT-OFFS: PROVIDE 1/4 TURN BALL VALVE ANGLE STOP SHUT-OFF VALVES AND BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT BATH/SHOWERS.

8. TUB SPOUTS SHALL BE THREADED (NO PUSH-ON FITTINGS).

9. TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.

10. ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS APPLICATION MEETING ADA REQUIREMENTS. PROVIDE HANDI-LAV GUARD OR EQUIVALENT. OFFSET P-TRAPS TO CLEAR WHEELCHAIR ACCESS.

11. GAS EQUIPMENT: GAS EQUIPMENT SHALL BE INSTALLED PER EQUIPMENT LISTINGS, APPLICABLE SFGC, SPC, LOCAL CODES & NFPA STANDARDS.

12. GAS CONNECTIONS: INSTALL FLEXIBLE QUICK DISCONNECT ASSEMBLIES FOR ALL GAS FIRED KITCHEN EQUIPMENT PER APPLICABLE SFGC, SPC, LOCAL CODES & NFPA STANDARDS. PROVIDE LOCKABLE GAS SHUT-OFF VALVES FOR FIREPLACES & BBQS IN UNATTENDED PUBLIC LOCATIONS IN THE BUILDING.

13. GAS PIPING CONNECTIONS TO WATER HEATERS, BOILERS AND FURNACES SHALL HAVE DIRT LEGS AND UNIONS PROVIDED ON APPLIANCE SIDE OF SHUTOFF VALVE.

14. GAS PIPING INSTALLATION: STEEL OR MALLEABLE IRON FUEL LINES 2" OR SMALLER SHALL BE ASSEMBLED USING THREAD SEALANT SUITABLE FOR NATURAL GAS. GAS PIPING LARGER THAN 2" SHALL HAVE WELDED FITTINGS.

15. GAS PIPING UNDERGROUND: WHERE INSTALLED BELOW GRADE THROUGH THE OUTER FOUNDATION OR BASEMENT WALL OF A BUILDING, SHALL BE ENCASED IN A PROTECTIVE PIPE SLEEVE. THE ANNULAR SPACE BETWEEN THE GAS PIPING AND THE SLEEVE SHALL BE SEALED.

16. GAS PIPING ABOVE GROUND: WHERE PASSING THROUGH AN OUTSIDE WALL, GAS PIPING SHALL BE PROTECTED AGAINST CORROSION BY COATING OR WRAPPING WITH AN INERT MATERIAL. WHERE PIPING IS ENCASED IN A PROTECTIVE PIPE SLEEVE, THE ANNULAR SPACE BETWEEN THE PIPING AND THE SLEEVE SHALL BE SEALED.

17. GAS PIPE SUPPORT: FUEL LINES SHALL BE SUPPORTED OR STRAPPED, AND SHALL BE PLUMB AND SQUARE.

18. GAS PIPING ON ROOFTOPS SHALL BE SUPPORTED AND ANCHORED TO THE ROOF.

19. GAS PIPING SHALL NOT BE BURIED UNDER A BUILDING, SLAB OR OTHER STRUCTURE.

20. GAS PIPING PROTECTIVE COATING: PAINT ALL EXTERIOR EXPOSED GAS PIPING WITH TWO COATS OF RUST INHIBITIVE PAINT. COLOR: GRAY.

21. WATER HAMMER ARRESTORS: PROVIDE AT THE END OF HOT AND COLD WATER LINES SERVING TWO OR MORE FIXTURES; SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTORS ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC.

22. TRAP PRIMERS AS SPECIFIED: PROVIDE TRAP PRIMERS AND PIPING FOR FLOOR DRAINS, FLOOR SINKS, AREA DRAINS & HUB DRAINS. ARRANGE PIPING TO ACHIEVE EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS. COORDINATE EXACT LOCATIONS WITH ARCHITECT & ELECTRICAL ENGINEER.

23. P-TRAPS: ALL EXPOSED P-TRAPS SHALL BE CHROME-PLATED BRASS. P-TRAPS SERVING HANDICAPPED COUNTER TOP LAVATORIES SHALL BE

SHALL NOT BE USED. NO EXCEPTIONS. 25. HOT WATER RECIRCULATING BALANCING VALVES SHOULD BE BELL & GOSSETT CIRCUIT SETTER (WATTS OR EQUAL) WITH INTEGRAL READOUT

24. THROUGHOUT THE PROJECT PROVIDE BALL VALVES. GATE VALVES

SHUTOFF.

PORTS, ADJUSTMENT KNOB, DRAIN CONNECTION, AND POSITIVE

# **APPLICABLE CODES**

-2018 INTERNATIONAL BUILDING CODE (IBC) -2018 INTERNATIONAL MECHANICAL CODE (IMC)

04/25/2025

PLUMBING NOTES

AND TABLES

ROBISON

**ENGINEERING, INC** 

19401 40TH AVE W., SUITE 30

YNNWOOD, WA 98036

CONTACT: JEFF MACGILLIVRAY

DIN

BUIL

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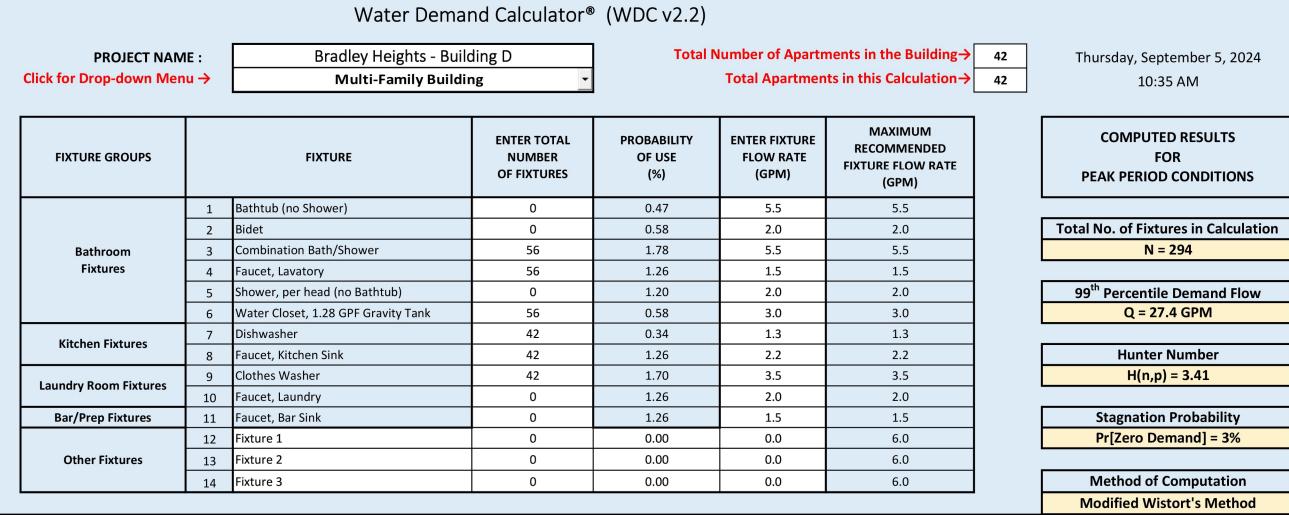
ARTM

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**8** 20

### PLUMBING CALCULATIONS





1. ADD 4 GPM FLOW RATE FOR HOSE BIBBS - TOTAL FLOW IS 31.4 GPM.

| REQUIRED SERVICE SIZE IN BUILDING:  REQUIRED METER SIZE: | 2"         | 6"           |                |       | + |   |   | <del>                                     </del> |          |                           |             |           | +         | +              |              |
|----------------------------------------------------------|------------|--------------|----------------|-------|---|---|---|--------------------------------------------------|----------|---------------------------|-------------|-----------|-----------|----------------|--------------|
| REQUIRED SERVICE SIZE IN BUILDING:                       | SUPPLY     | WASTE        |                |       |   |   |   |                                                  |          |                           |             |           |           |                |              |
|                                                          |            |              |                |       |   |   |   |                                                  |          |                           |             |           |           |                |              |
| PEAK FLOW:                                               | FOR SUPPLY | USE APPENDIX | M CALCULAT     | ONS   |   |   |   |                                                  |          |                           |             |           |           |                |              |
| TOTAL FIXTURE UNITS:                                     | 719.5      | 576          | 430.5          | 554   |   |   |   |                                                  |          |                           |             |           |           |                |              |
|                                                          | TOTAL      | CW           | HW             | W/V   |   |   |   |                                                  |          |                           |             |           |           |                |              |
|                                                          |            |              |                |       |   |   |   |                                                  |          |                           | TOTAL:      | 5.5       | 5.5       | 0              | 8            |
| FLOOR DRAIN                                              | 0          | 0            | 0              | 8     | 1 | 0 | 0 | 0                                                | 0        |                           | 1           | 0         | 0         | 0              | 8            |
| HOSE BIB                                                 | 2.5/1      | 2.5/1        | 0              | 0     | 3 | 1 | 0 | 0                                                | 0        |                           | 4           | 5.5       | 5.5       | 0              | 0            |
| FIXTURE                                                  | TOTAL      | CW           | HW             | W/V   | В | 1 | 2 | 3                                                | R        |                           | OF FIXTURES | SERVICE   | CW ONLY   | HW ONLY        | W/V ONLY     |
| FIXTURE                                                  |            | FIXTUF       | RE UNITS       |       |   | 4 | _ | _                                                |          |                           | TOTAL QTY   |           | TOTAL FIX | TURE UNITS     | •            |
| Public Fixtures                                          |            |              |                |       |   |   |   |                                                  |          |                           |             |           |           |                |              |
|                                                          |            |              |                |       |   |   |   |                                                  |          |                           |             |           |           |                |              |
|                                                          |            | 2.20         | 2.20           |       |   |   |   |                                                  | <u> </u> | 1                         | TOTAL:      |           | 248.5     | 178.5          | 238          |
| KITCHEN SINK W/ DISHWASHER                               | 3          | 2.25         | 2.25           | 2     | 2 | 4 | 4 | 4                                                | 0        | 1                         | 14          | 42        | 31.5      | 31.5           | 28           |
| CLOTHES WASHER                                           | 4          | 3            | 3              | 3     | 2 | 4 | 4 | 4                                                | 0        | 1                         | 14          | 56        | 42        | 42             | 42           |
| AVATORY<br>BATHTUB                                       | 4          | 0.75<br>3    | 0.75<br>3      | 2     | 2 | 4 | 4 | 4                                                | 0        | 2                         | 28          | 28<br>112 | 21<br>84  | 21             | 28           |
| NATER CLOSET                                             | 2.5        | 2.5          | 0 75           | 3     | 2 | 4 | 4 | 4                                                | 0        | 2                         | 28          | 70        | 70        | 0              | 84           |
| MATER OLOGET                                             | TOTAL      |              |                | W/V   |   |   |   |                                                  |          |                           | OF FIXTURES |           | CW ONLY   | HW ONLY        | W/V ONLY     |
| FIXTURE                                                  | TOTAL      | FIXTUF       | RE UNITS<br>HW | 10/0/ | В | 1 | 2 | 3                                                | R        | # OF FIXTURES<br>PER UNIT | TOTAL QTY   | SERVICE   | 1         | TURE UNITS     | 14/0 / ONU ) |
| 2 Bedroom Unit (2 Bath)                                  |            |              |                |       |   |   |   |                                                  |          |                           |             |           |           |                |              |
|                                                          |            |              |                |       |   |   |   |                                                  |          |                           | TOTAL:      | 406       | 322       | 252            | 308          |
| KITCHEN SINK W/ DISHWASHER                               | 3          | 2.25         | 2.25           | 2     | 4 | 8 | 8 | 8                                                | 0        | 1                         | 28          | 84        | 63        | 63             | 56           |
| CLOTHES WASHER                                           | 4          | 3            | 3              | 3     | 4 | 8 | 8 | 8                                                | 0        | 1                         | 28          | 112       | 84        | 84             | 84           |
| BATHTUB                                                  | 4          | 3            | 3              | 2     | 4 | 8 | 8 | 8                                                | 0        | 1                         | 28          | 112       | 84        | 84             | 56           |
| AVATORY                                                  | 1          | 0.75         | 0.75           | 1     | 4 | 8 | 8 | 8                                                | 0        | 1                         | 28          | 28        | 21        | 21             | 28           |
| NATER CLOSET                                             | 2.5        | 2.5          | 0              | 3     | 4 | 8 | 8 | 8                                                | 0        | 1                         | 28          | 70        | 70        | 0              | 84           |
| FIXTURE                                                  | TOTAL      | CW           | HW             | W/V   | В | 1 | 2 | 3                                                | R        | PER UNIT                  | OF FIXTURES | SERVICE   | CW ONLY   | HW ONLY        | W/V ONLY     |
|                                                          |            | FIXTUF       | RE UNITS       |       |   |   |   |                                                  |          | # OF FIXTURES             | TOTAL QTY   |           | TOTAL FIX | <br>TURE UNITS |              |
| Bedroom Units (1 Bath)                                   |            |              |                |       |   |   |   |                                                  |          |                           |             |           |           |                |              |

| BRADLEY HEIGHTS APARTMENTS - WATER SUPP          |            | RE    |
|--------------------------------------------------|------------|-------|
| CALCULATIONS ARE BASED ON 2018 UPC AP            | PENDIX A   |       |
| FROM STREET TO RPBP                              |            |       |
| STREET PRESSURE, PSI                             |            | 75    |
| MINIMUM STREET PRESSURE, PSI                     |            | 75    |
| ASSUME +/- 5 PSI FLUCTUATION                     |            |       |
| EQUIPMENT LOSSES, PSI                            |            |       |
| WATER METER LOSS                                 |            | 4     |
| BACKFLOW PREVENTER                               |            | 10    |
| SITE SERVICE LINE (ESTIMATE)                     |            |       |
| PIPING SYSTEM LENGTH, FEET                       | 50         |       |
| FITTING ALLOWANCE, FEET                          | 12.5       |       |
| FROM STREET TO RPBP                              |            |       |
| ZONE FRICTION LOSS FACTOR, PSI/100'              | 3.0        |       |
| TOTAL ZONE FRICTION LOSS, PSI                    |            | 1.88  |
| MINIMUM PRESSURE AT RPBP, PSI                    |            | 59.13 |
| FROM RPBP TO FURTHEST APARTMENT                  | UNIT       |       |
| MINIMUM PRESSURE AT END PREVIOUS ZONE, PSI       |            | 59.1  |
| EQUIPMENT LOSSES, PSI                            |            |       |
| THERMOSTATIC MIXING VALVE LOSS                   |            | 4     |
| STATIC HEAD, PSI                                 |            |       |
| TOTAL ELEVATION GAIN, FT                         | 30         | 13.0  |
| PIPING FRICTION LOSSES                           |            |       |
| PIPING SYSTEM LENGTH, FEET                       | 150        |       |
| FITTING ALLOWANCE, FEET                          | 22.5       |       |
| ZONE FRICTION LOSS FACTOR, PSI/100'              | 3.0        |       |
| TOTAL ZONE FRICTION LOSS, PSI                    |            | 5.175 |
| MINIMUM PRESSURE AT FURTHEST APARTMENT UNIT, PSI |            | 37.0  |
| FROM FURTHEST APARTMENT UNIT TO FURTHE           | ST FIXTURE |       |
| MINIMUM PRESSURE AT FURTHEST APARTMENT UNIT, PSI |            | 37.0  |
| PIPING FRICTION LOSSES                           |            |       |
| RISER TO MANIFOLD, FEET                          | 4          |       |
| FITTING ALLOWANCE, FEET                          | 6          |       |
| FROM MANIFOLD TO FURTHEST FIXTURE                | 35         |       |
| ZONE FRICTION LOSS FACTOR, PSI/100'              | 14.0       |       |
| TOTAL ZONE FRICTION LOSS, PSI                    |            | 6.3   |
| MINIMUM PRESSURE AT FURTHEST FIXTURE, PSI        |            | 30.7  |



PRMU2024028

BRADLEY HEIGHT APARTMENTS - BUILDING D 202 27TH AVE SE PUYALLUP, WA 98374

CALCULATIONS

## PLUMBING SCHEDULES



| PIPE MATERIALS            |                            |                                |       |  |  |
|---------------------------|----------------------------|--------------------------------|-------|--|--|
| PIPE TYPE                 | MATERIAL                   | JOINT                          | NOTES |  |  |
| WATER DISTRIBUTION PIPING | COPPER, TYPE L.            | SOLDERED                       | 2     |  |  |
| APARTMENT WATER PIPING    | PEX-A                      | EXPANSION OR PUSH-FIT FITTINGS | 2     |  |  |
| WASTE AND VENT PIPING     | SCHEDULE 40 SOLID CORE PVC | SOLVENT CEMENT                 | 1,3   |  |  |
| CONDENSATE DRAIN PIPING   | COPPER, TYPE M.            | SOLDERED OR PROPRESS FITTINGS  |       |  |  |

- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- PROVIDE THERMAL EXPANSION LOOPS FOR ALL WATER PIPING IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS.
- 3. PROVIDE CAST IRON PIPING FOR WASTE DISCHARGE EXCEEDING 110 DEGREES FAHRENHEIT.

| PIPE      | PIPE SIZING SCHEDULE - COPPER TYPE L AT 3.0 PSI/100 FEET |                    |                  |                  |              |                  |  |  |  |
|-----------|----------------------------------------------------------|--------------------|------------------|------------------|--------------|------------------|--|--|--|
|           | cc                                                       | OLD WATER, FLUSH T | ANK              |                  | HOT WATER    |                  |  |  |  |
| PIPE SIZE | FIXTURE<br>UNITS                                         | FLOW,<br>GPM       | VELOCITY,<br>FPS | FIXTURE<br>UNITS | FLOW,<br>GPM | VELOCITY,<br>FPS |  |  |  |
| 1/2"      | 0.8                                                      | 1.8                | 2.4              | 1.0              | 2.0          | 2.8              |  |  |  |
| 3/4"      | 5.5                                                      | 4.7                | 3.1              | 6.5              | 5.5          | 3.6              |  |  |  |
| 1"        | 12.8                                                     | 9.8                | 3.8              | 15.2             | 11.2         | 4.4              |  |  |  |
| 1-1/4"    | 25.5                                                     | 17.3               | 4.4              | 29.3             | 19.6         | 5.0              |  |  |  |
| 1-1/2"    | 46.6                                                     | 27.7               | 5.0              | 46.8             | 27.7         | 5.0              |  |  |  |
| 2"        | 166.0                                                    | 58.2               | 6.0              | 116.9            | 48.2         | 5.0              |  |  |  |
| 2-1/2"    | 395.0                                                    | 104.0              | 7.0              | 246.9            | 74.4         | 5.0              |  |  |  |
| 3"        | 735.1                                                    | 167.3              | 7.9              | 405.8            | 106.2        | 5.0              |  |  |  |
| 4"        | 1782.4                                                   | 303.2              | 8.0              | 872.0            | 189.5        | 5.0              |  |  |  |
| 6"        | 6381.3                                                   | 669.1              | 8.0              | 2847.0           | 418.2        | 5.0              |  |  |  |

|           | PIPE SIZII       | NG SCHED          | ULE - PEX A      | AT 14.0 PS       | /100 FEET    |                  |
|-----------|------------------|-------------------|------------------|------------------|--------------|------------------|
|           | CO               | LD WATER, FLUSH T | ANK              |                  | HOT WATER    |                  |
| PIPE SIZE | FIXTURE<br>UNITS | FLOW,<br>GPM      | VELOCITY,<br>FPS | FIXTURE<br>UNITS | FLOW,<br>GPM | VELOCITY,<br>FPS |
| 1/2"      | 1.9              | 2.9               | 5.3              | 3.4              | 3.4          | 6.2              |
| 3/4"      | 9.0              | 7.5               | 6.8              | 11.2             | 8.6          | 7.8              |
| 1"        | 21.2             | 14.7              | 8.1              | 20.9             | 14.6         | 8.0              |
| 1-1/4"    | 40.8             | 25.3              | 9.3              | 33.5             | 21.8         | 8.0              |
| 1-1/2"    | 76.3             | 37.9              | 10.0             | 53.3             | 30.3         | 8.0              |
| 2"        | 199.8            | 65.0              | 10.0             | 134.8            | 52.0         | 8.0              |
| 2-1/2"    | 369.5            | 98.9              | 10.0             | 270.6            | 79.1         | 8.0              |
| 3"        | 588.9            | 141.0             | 10.0             | 439.0            | 112.8        | 8.0              |

|           | ELECTRIC WATER HEATER |              |                                |              |                  |         |           |                 |                              |           |  |
|-----------|-----------------------|--------------|--------------------------------|--------------|------------------|---------|-----------|-----------------|------------------------------|-----------|--|
| EQUIP NO. | SERVICE               | GPH RECOVERY | STORAGE                        | INLET/OUTLET | OPERATING WEIGHT |         | ELECTRICA | L               | BASIS OF DESIGN              | NOTES     |  |
| EQUIP NO. | SERVICE               | AT 100°F TR  | (GAL) CONNECTION (LBS) VOLTAGE |              | VOLTAGE          | AMPS    | HEATER KW | DASIS OF DESIGN | NOTES                        |           |  |
| WH-1      | APARTMENTS            | 16           | 50                             | 3/4"         | 550              | 208V/3P | 18.75     | 4.5             | BRADFORD WHITE RE250T6-1NCWW | 1,2,3,4,5 |  |

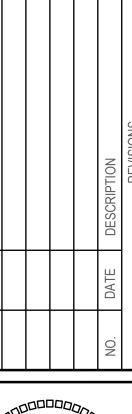
2 1 PROVIDE CONDENSATE NEUTRALIZER. VENT PER MANUFACTURER'S INSTRUCTIONS.
2. FOR WATER HEATER PIPING SEE DETAIL 2/P7D.00.

3. UNITS SHALL BE CERTIFIED IN THE AIR QUALITY MANAGEMENT DISTRICT HAVING JURISDICTION.

- 4. FACTORY AUTHORIZED START-UP AND OWNERS TRAINING REQUIRED. OWNER, ENGINEER, AND CONTRACTOR TO RECEIVE A COPY OF START UP REPORT.
- 5. ALL DOMESTIC WATER EQUIPMENT SHALL BE NSF-61 LISTED.

|       |                    |          | EX                   | PANSION TAN | K        |                   |                       |        |       |
|-------|--------------------|----------|----------------------|-------------|----------|-------------------|-----------------------|--------|-------|
| EQUIP | SERVICE            | CAPACITY | PRE-CHARGE PRESSURE, | TANK        | SIZE     | OPERATING WEIGHT, | BASIS OF              | NOTES  |       |
| NO.   | SERVICE            | GAL.     |                      | PSI         | DIAMETER | HEIGHT            | LBS                   | DESIGN | NOTES |
| ET-1  | DOMESTIC HOT WATER | 4.5      | 50                   | 11          | 15       | 9                 | THERM-X-TROL<br>ST-12 | 1      |       |

1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS



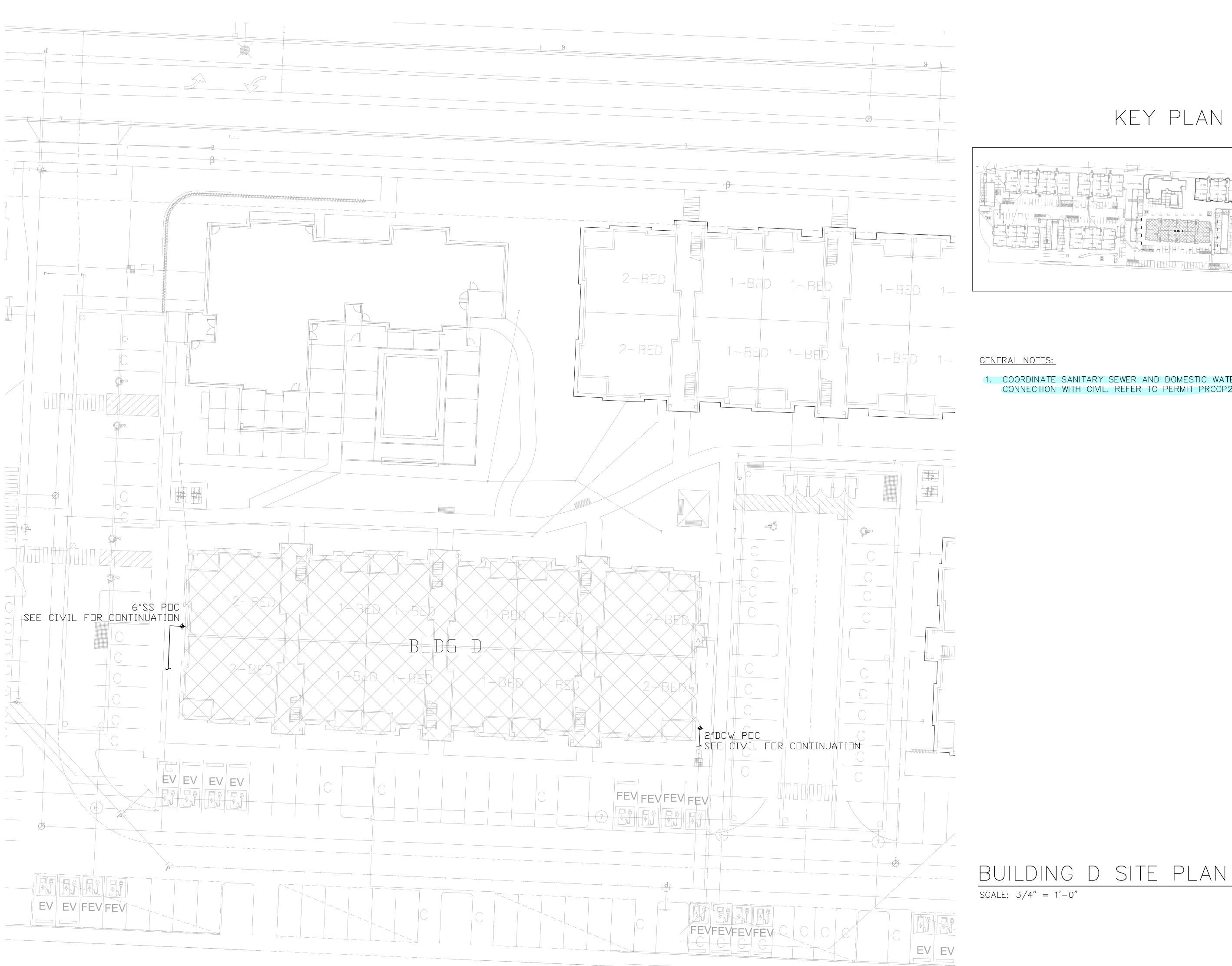




| M         | RJ       | JR        |
|-----------|----------|-----------|
| DESIGNED: | CHECKED: | APPROVED: |

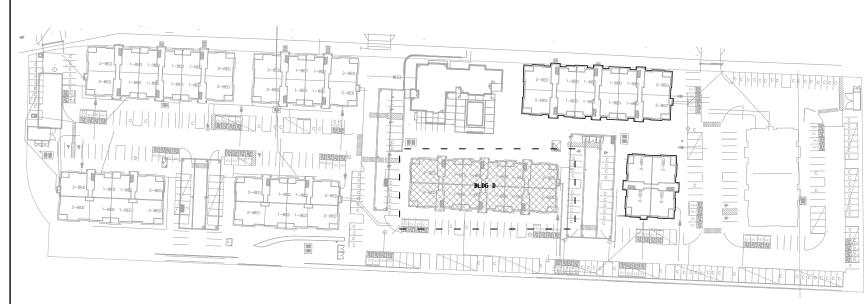
PRMU2024028

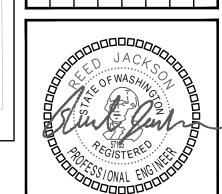
PLUMBING SCHEDULES





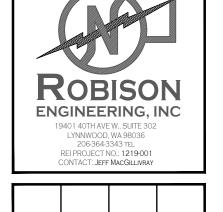
# KEY PLAN





GENERAL NOTES:

1. COORDINATE SANITARY SEWER AND DOMESTIC WATER POINTS OF CONNECTION WITH CIVIL. REFER TO PERMIT PRCCP20240845.



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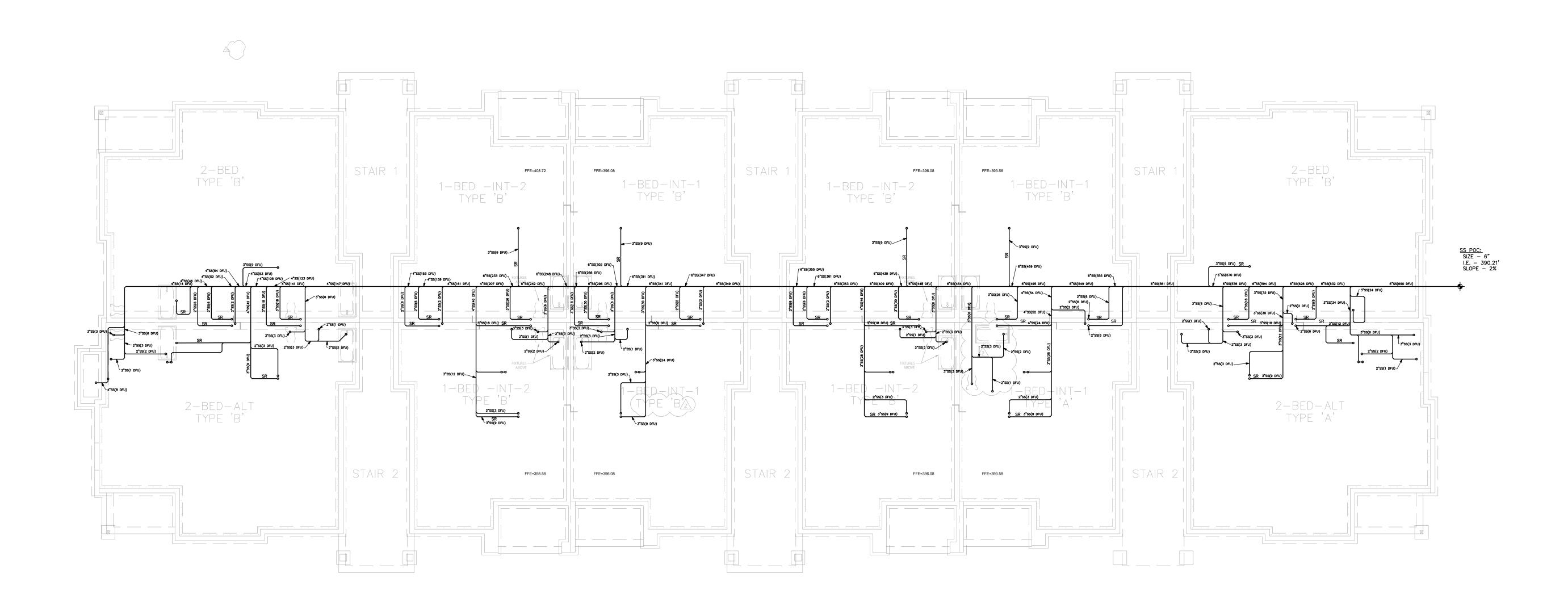
HEIGHT APARTMENTS - BUILDING D
E SE

SHEET TITLE: BUILDING D SITE PLAN

P1D.00



ROBISON ENGINEERING, INC 19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206-364-3343 TEL REI PROJECT NO.: 1219-001 CONTACT: JEFF MACGILLIVRAY



### **GENERAL NOTES**

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PER 2018 UPC 1007.1. SEE DETAIL 5/P7D.01.

2. WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2018 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

| PIPE SIZE | VERTICAL  | HORIZONTAL | VENT      |
|-----------|-----------|------------|-----------|
| 1½"       | 2 DFU     | 1 DFU      | 8 DFU     |
| 2"        | 16 DFU    | 8 DFU      | 24 DFU    |
| 3"        | 48 DFU    | 35 DFU     | 84 DFU    |
| 4"        | 256 DFU   | 172 DFU    | 256 DFU   |
| 6"        | 1,380 DFU | 576 DFU    | 1,380 DFU |
| 8"        | 3,600 DFU | 2,112 DFU  | 3,600 DFU |

### FLAG NOTES #

NOT USED

IF UPSTREAM MANHOLE RIM ELEVATION IS HIGHER THAN FINISH FLOOR ELEVATION CONTACT ENGINEER FOR FURTHER EVALUATION.

BACKWATER VALVE ANALYSIS - SS POC:

SCALE: 1/8" = 1-0"

2

SHEET TITLE: UNDERSLAB WASTE & VENT PLAN

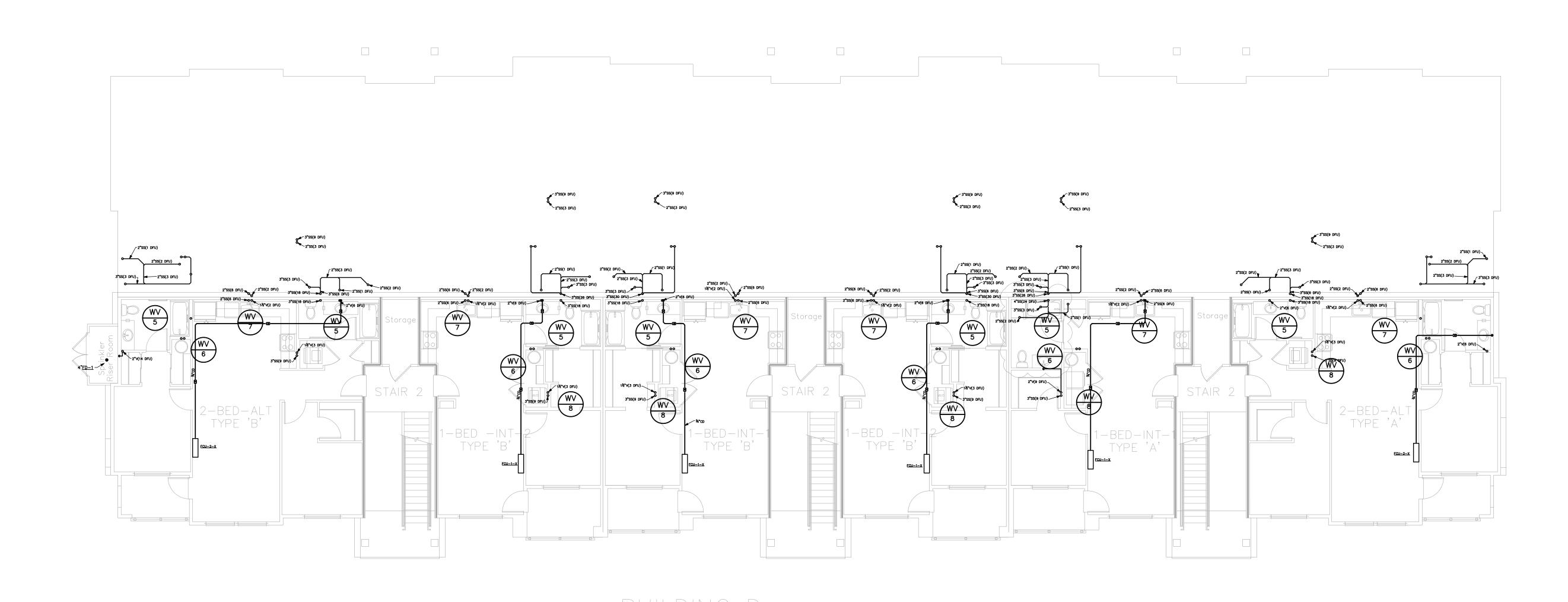
HEIGHT APARTMENTS
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BRADLEY
202 27TH AVE
PUYALLUP W

04/25/2025

UNDERSLAB WASTE & VENT PLAN





<u>/2</u>

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PER 2018 UPC 1007.1. SEE DETAIL 5/P7D.01.

WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2018 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

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|-----------|-----------|------------|-----------|
| 1½"       | 2 DFU     | 1 DFU      | 8 DFU     |
| 2"        | 16 DFU    | 8 DFU      | 24 DFU    |
| 3"        | 48 DFU    | 35 DFU     | 84 DFU    |
| 4"        | 256 DFU   | 172 DFU    | 256 DFU   |
| 6"        | 1,380 DFU | 576 DFU    | 1,380 DFU |
| 8"        | 3,600 DFU | 2,112 DFU  | 3,600 DFU |

FLAG NOTES #

NOT USED

2

SHEET TITLE:

BASEMENT

WASTE & VENT

PLAN

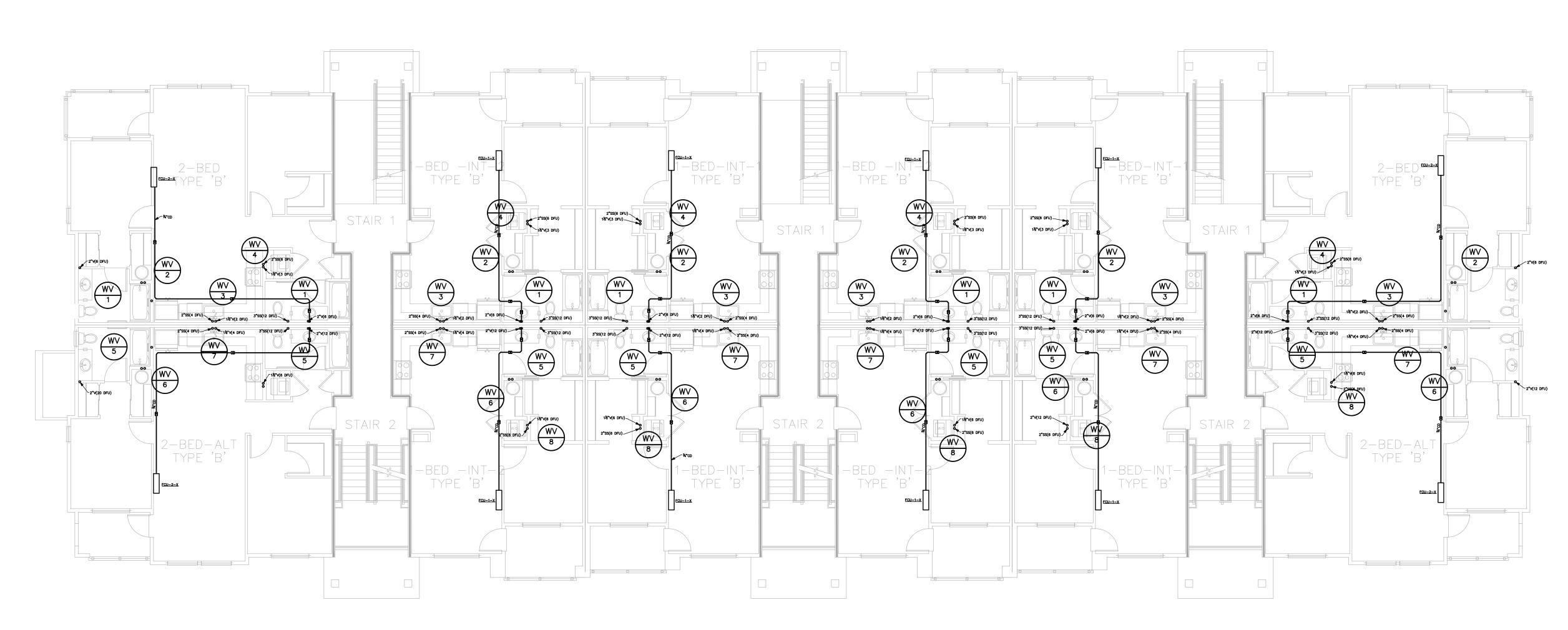
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P2D.01

04/25/2025

PRMU2024028

APARTMENTS - BUILDING D





 $\sqrt{2}$ 

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PER 2018 UPC 1007.1. SEE DETAIL 5/P7D.01.

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| 1½"       | 2 DFU     | 1 DFU      | 8 DFU     |
| 2"        | 16 DFU    | 8 DFU      | 24 DFU    |
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| 4"        | 256 DFU   | 172 DFU    | 256 DFU   |
| 6"        | 1,380 DFU | 576 DFU    | 1,380 DFU |
| 8"        | 3,600 DFU | 2,112 DFU  | 3,600 DFU |

# FLAG NOTES #

NOT USED

LEVEL 1 WASTE & VENT PLAN

SHEET NO.
P2D.02

04/25/2025

PRMU2024028

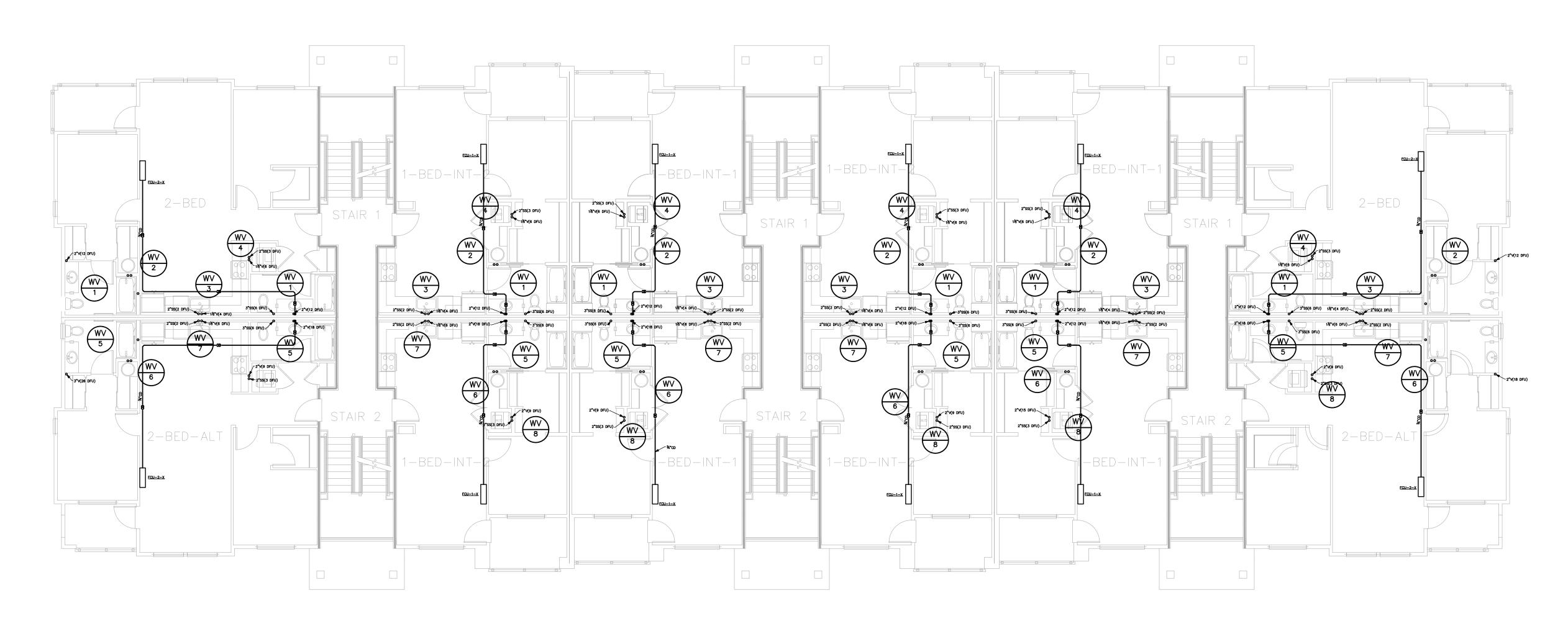
APARTMENTS - BUILDING D

BRADLEY 202 27TH AVE PUIVALLET

LEVEL 1 WASTE & VENT PLAN

SCALE: 1/8" = 1-0"





<u>/2</u>

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PER 2018 UPC 1007.1. SEE DETAIL 5/P7D.01.

WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2018 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

| PIPE SIZE | VERTICAL  | HORIZONTAL | VENT      |
|-----------|-----------|------------|-----------|
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| 3"        | 48 DFU    | 35 DFU     | 84 DFU    |
| 4"        | 256 DFU   | 172 DFU    | 256 DFU   |
| 6"        | 1,380 DFU | 576 DFU    | 1,380 DFU |
| 8"        | 3,600 DFU | 2,112 DFU  | 3,600 DFU |

# FLAG NOTES #

NOT USED

<u>^2</u>

SHEET TITLE:

LEVEL 2 WASTE &

VENT PLAN

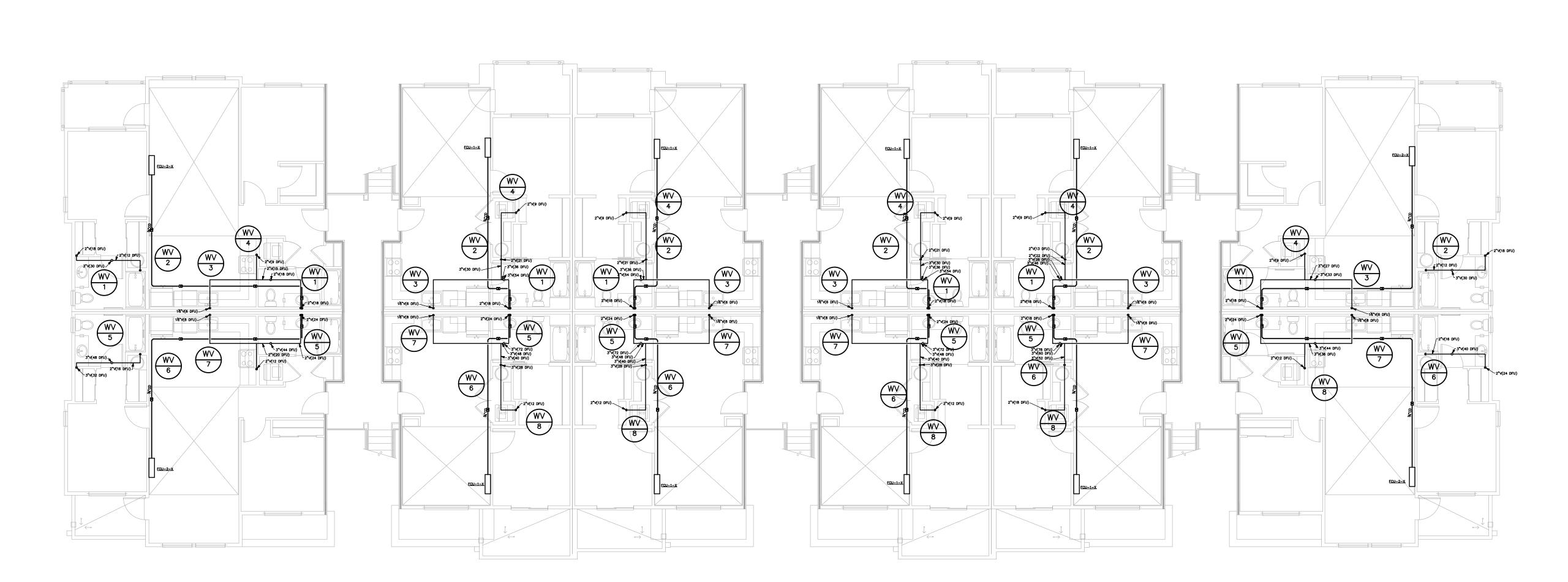
P2D.03

04/25/2025

PRMU2024028

' HEIGHT APARTMENTS - BUILDING D
E SE
NA 98374





<u>/2</u>

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PER 2018 UPC 1007.1. SEE DETAIL 5/P7D.01.

WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2018 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

| PIPE SIZE | VERTICAL  | HORIZONTAL | VENT      |
|-----------|-----------|------------|-----------|
| 1½"       | 2 DFU     | 1 DFU      | 8 DFU     |
| 2"        | 16 DFU    | 8 DFU      | 24 DFU    |
| 3"        | 48 DFU    | 35 DFU     | 84 DFU    |
| 4"        | 256 DFU   | 172 DFU    | 256 DFU   |
| 6"        | 1,380 DFU | 576 DFU    | 1,380 DFU |
| 8"        | 3,600 DFU | 2,112 DFU  | 3,600 DFU |

# FLAG NOTES #

NOT USED

<u>/2</u>

DATE: 04/25/2025

SHEET TITLE:

' HEIGHT APARTMENTS - BUILDING D
E SE
NA 98374

19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206-364-3343 TEL REI PROJECT NO.: 1219-001 CONTACT: JEFF MACGILLIVRAY

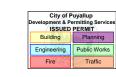
PRMU2024028

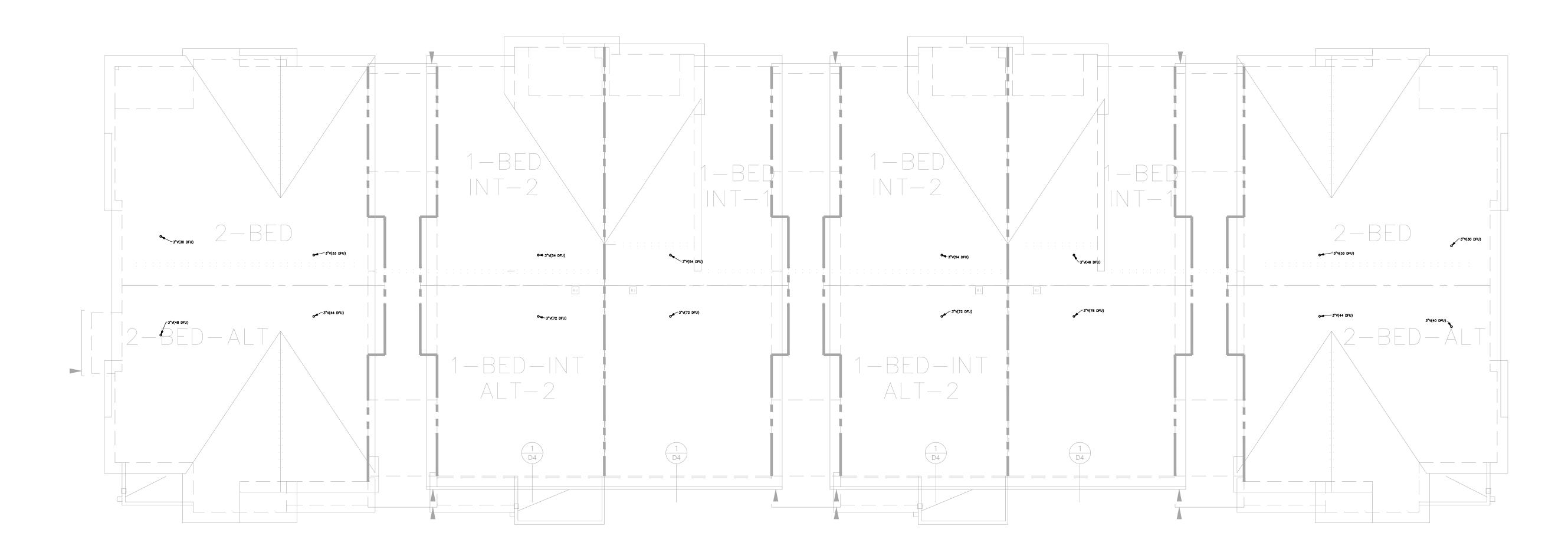
LEVEL 3 WASTE & VENT PLAN

SHEET NO.

LEVEL 3 WASTE & VENT PLAN

SCALE: 1/8" = 1-0"





1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PER 2018 UPC 1007.1. SEE DETAIL 5/P7D.01.

TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

| <u>PIPE SIZE</u> | VERTICAL  | HORIZONTAL | VENT      |
|------------------|-----------|------------|-----------|
| 1½"              | 2 DFU     | 1 DFU      | 8 DFU     |
| 2"               | 16 DFU    | 8 DFU      | 24 DFU    |
| 3"               | 48 DFU    | 35 DFU     | 84 DFU    |
| 4"               | 256 DFU   | 172 DFU    | 256 DFU   |
| 6"               | 1,380 DFU | 576 DFU    | 1,380 DFU |
| 8"               | 3,600 DFU | 2,112 DFU  | 3,600 DFU |

# FLAG NOTES #

NOT USED

04/25/2025

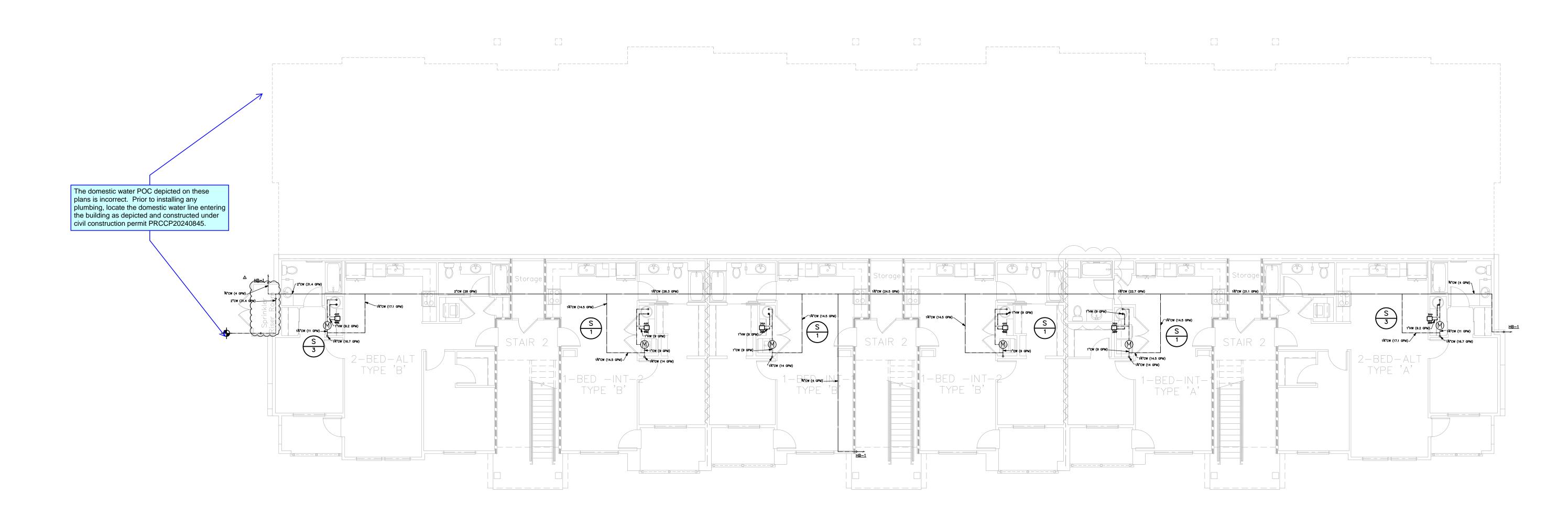
APARTMENTS - BUILDING D

ROOF WASTE & VENT PLAN

ROBISON ENGINEERING, INC 19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 2063643343 TEL REI PROJECT NO: 1219-001 CONTACT: JEFF MACGILLIVRAY

PRMU20240283





2

1. PROVIDE EXPANSION LOOPS FOR ALL WATER PIPING PER THE MANUFACTURER'S INSTRUCTIONS. SEE DETAIL 3/P7D.01.

2. INSTALL HEAT TRACE ON SUPPLY PIPE IN NON CONDITIONED SPACES.

FLAG NOTES #

NOT USED

BASEMENT PLUMBING SUPPLY PLAN

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

NO. DATE DESCRIPTION
REVISIONS





DESIGNED: JM

CHECKED: RJ

APPROVED: JR

302

19401 4OTH AVE W. SUITE 302

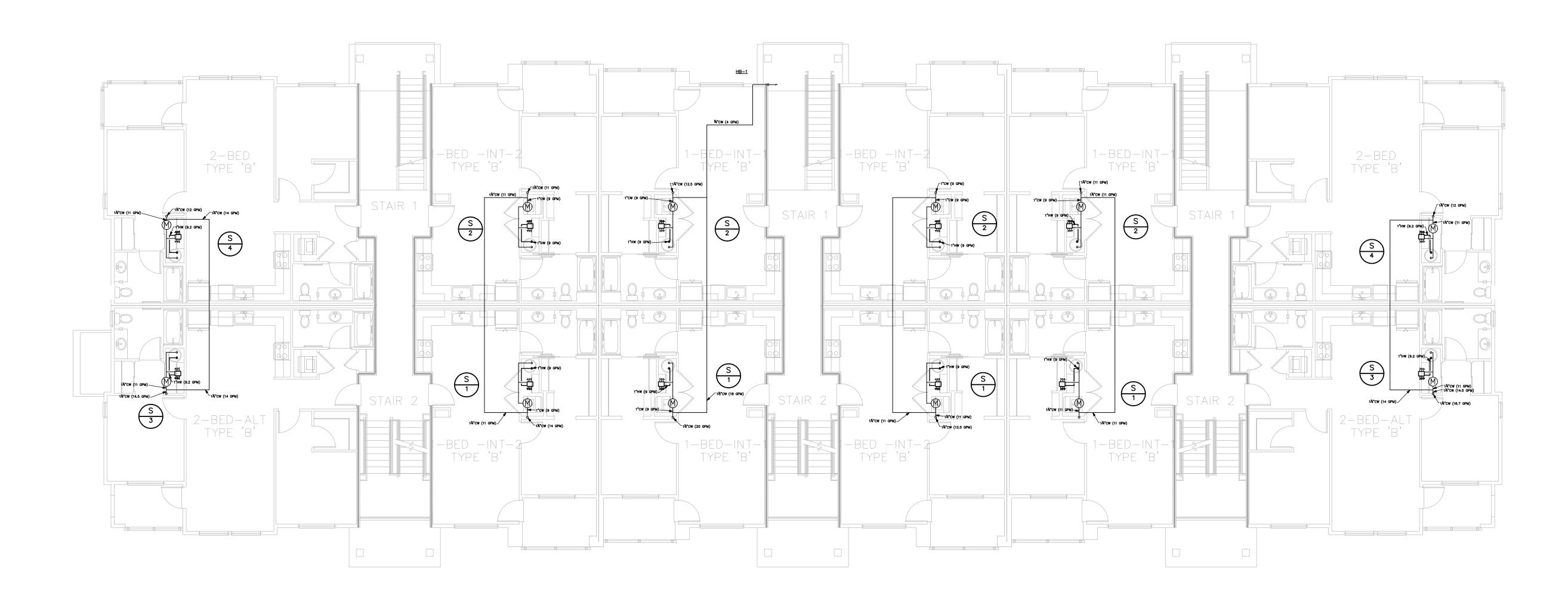
202 27TH AVE SE PUYALLUP, WA 9

DATE: 04/25/202

SHEET TITLE:

BASEMENT
PLUMBING
SUPPLY PLAN





<u>/2</u>

1. PROVIDE EXPANSION LOOPS FOR ALL WATER PIPING PER THE MANUFACTURER'S INSTRUCTIONS. SEE DETAIL 3/P7D.01.

2. INSTALL HEAT TRACE ON SUPPLY PIPE IN NON CONDITIONED SPACES.

FLAG NOTES #

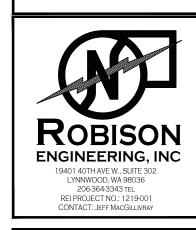
NOT USED

LEVEL 1 PLUMBING SUPPLY PLAN

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

NO. DATE DESCRIPTION
REVISIONS





DESIGNED: JIM
CHECKED: RJ
APPROVED: JR

PRMU20240283

APARTMENTS - BUILDING D

/ HEIGHT /E SE WA 98374 **SON** 19401 40TH AVE W. SUITE 302 LYNNWOOD, WA 98036

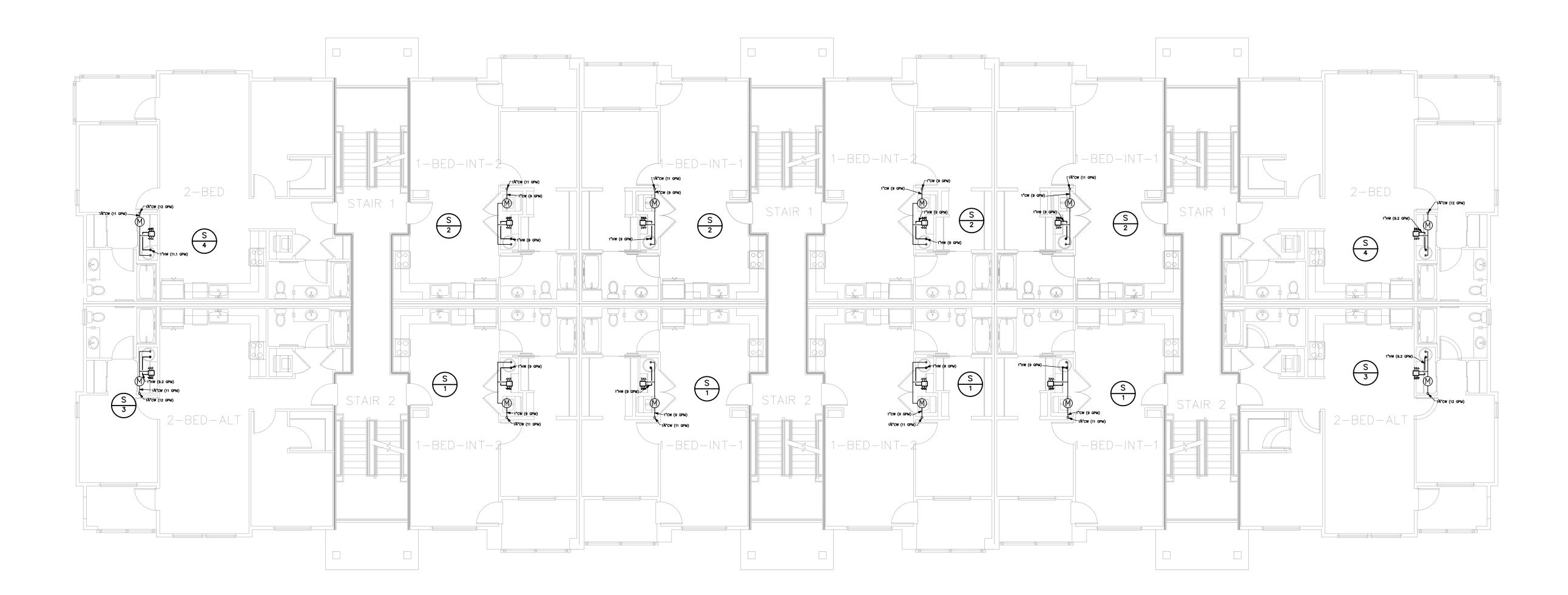
Robisc

DATE: 04/25/2025

SHEET TITLE:

LEVEL 1
PLUMBING
SUPPLY PLAN





FLAG NOTES #

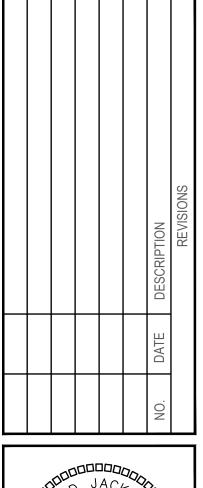
1. PROVIDE EXPANSION LOOPS FOR ALL WATER PIPING PER THE MANUFACTURER'S INSTRUCTIONS. SEE DETAIL 3/P7D.01.

2. INSTALL HEAT TRACE ON SUPPLY PIPE IN NON CONDITIONED SPACES.

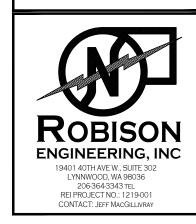
NOT USED

LEVEL 2 PLUMBING SUPPLY PLAN

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







DESIGNED: JM
CHECKED: RJ
APPROVED: JR

PRMU20240283

**SON** 19401 40TH AVE W. SUITE 302 LYNNWOOD, WA 98036 PHONF:(206)364-3343

HEIGHT APARTMENTS - BUILDING D

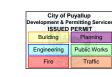
DATE: 04/25/2025

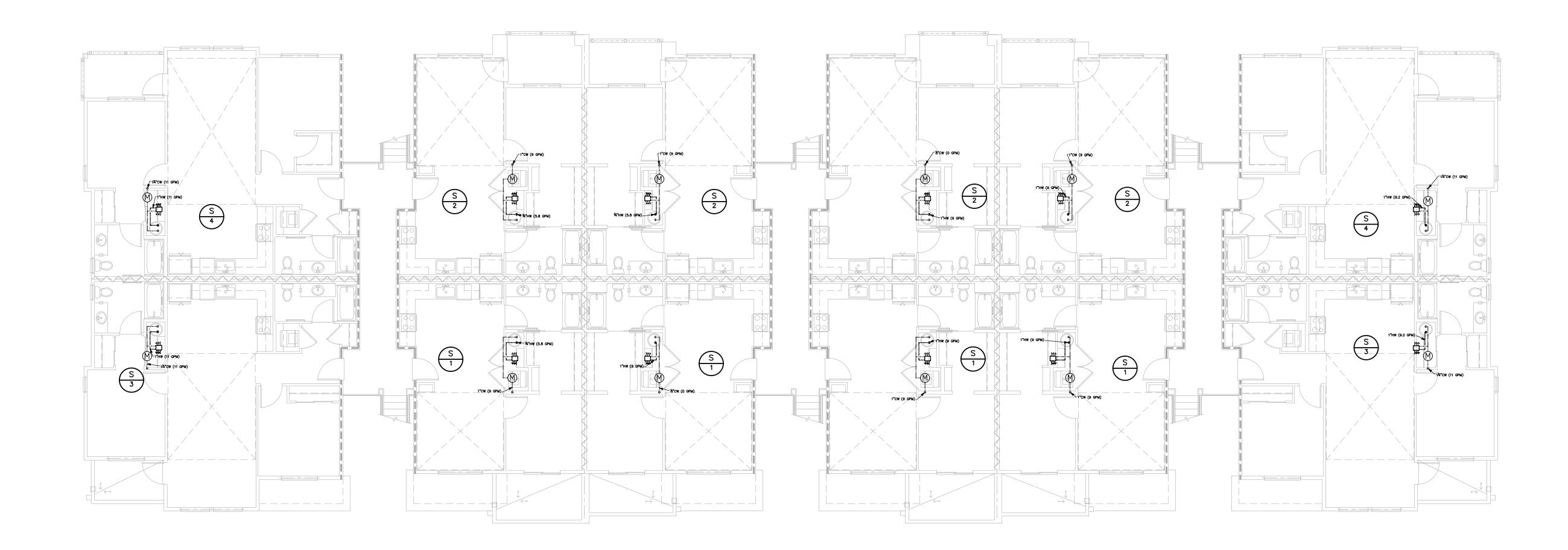
SHEET TITLE:

LEVEL 2

PLUMBING

SUPPLY PLAN





2

1. PROVIDE EXPANSION LOOPS FOR ALL WATER PIPING PER THE MANUFACTURER'S INSTRUCTIONS. SEE DETAIL 3/P7D.01.

2. INSTALL HEAT TRACE ON SUPPLY PIPE IN NON CONDITIONED SPACES.

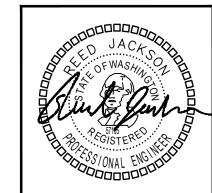
FLAG NOTES #

NOT USED

LEVEL 3 PLUMBING SUPPLY PLAN

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

NO. DATE DESCRIPTION
REVISIONS





DESIGNED: JM
CHECKED: RJ
APPROVED: JR

PRMU20240283

APARTMENTS - BUILDING D

19401 40TH AVE W. SUITE 302 LYNNWOOD, WA 98036 PHONF (206)364-3343

BRADLEY HEIGHT
202 27TH AVE SE
PUYALLUP, WA 98374

DATE: 04/25/2025

SHEET TITLE:

LEVEL 3
PLUMBING
SUPPLY PLAN

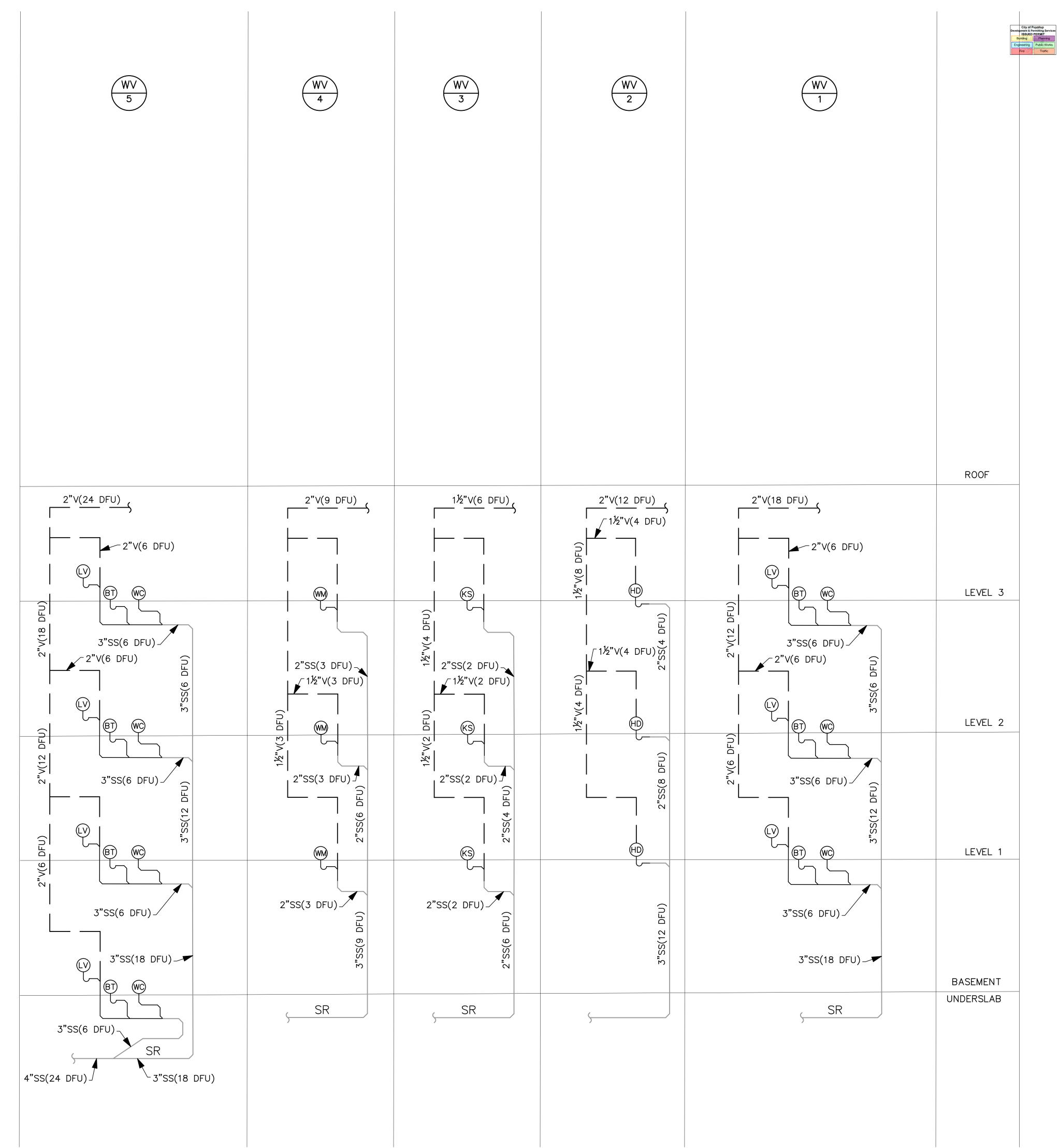


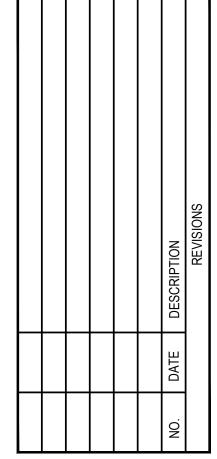
= WASTE & VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P2D.00 SERIES FOR FLOOR PLANS.

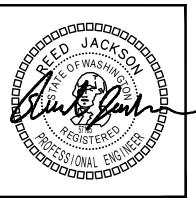
- 1. SUD RELIEF PIPING WITH LENGTH OF 8FT WILL BE USED.
- 2. WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2018 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

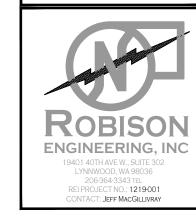
| PIPE SIZE  | VERTICAL  | HORIZONTAL | <u>VENT</u> |
|------------|-----------|------------|-------------|
| 1½"        | 2 DFU     | 1 DFU      | 8 DFU       |
| 2"         | 16 DFU    | 8 DFU      | 24 DFU      |
| <b>3</b> " | 48 DFU    | 35 DFU     | 84 DFU      |
| 4"         | 256 DFU   | 216 DFU    | 256 DFU     |
| 6"         | 1,380 DFU | 720 DFU    | 1,380 DFU   |
| 8"         | 3,600 DFU | 2,640 DFU  | 3,600 DFU   |

| ABBREVIATION LEGEND:                                                                                                                                                        |                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| LV = LAVATORY BT = BATHTUB SH = SHOWER KS = KITCHEN SINK WITH DISHWASHER WM = WASHING MACHINE WC = WATER CLOSET UR = URINAL FD = FLOOR DRAIN FS = FLOOR SINK HD = HUB DRAIN | (1 DFU) (2 DFU) (2 DFU) (2 DFU) (3 DFU) (3 DFU) (2 DFU) (2 DFU) (4 DFU) (4 DFU) |









|                              | CONTACT: <b>Jef</b> f |    |   |               |
|------------------------------|-----------------------|----|---|---------------|
| MC                           | MC                    | RJ | _ | ۲ <sub></sub> |
| DESIGNED: CHECKED: APPROVED: |                       |    |   |               |
|                              |                       |    |   | $\sim$        |
|                              |                       |    |   | ~             |

PRMU2024028 BUILDING BRADLEY HEIGHT APARTMENTS 202 27TH AVE SE PUYALLUP, WA 98374

DATE: 04/25/2025

SHEET TITLE: WASTE RISER DIAGRAMS

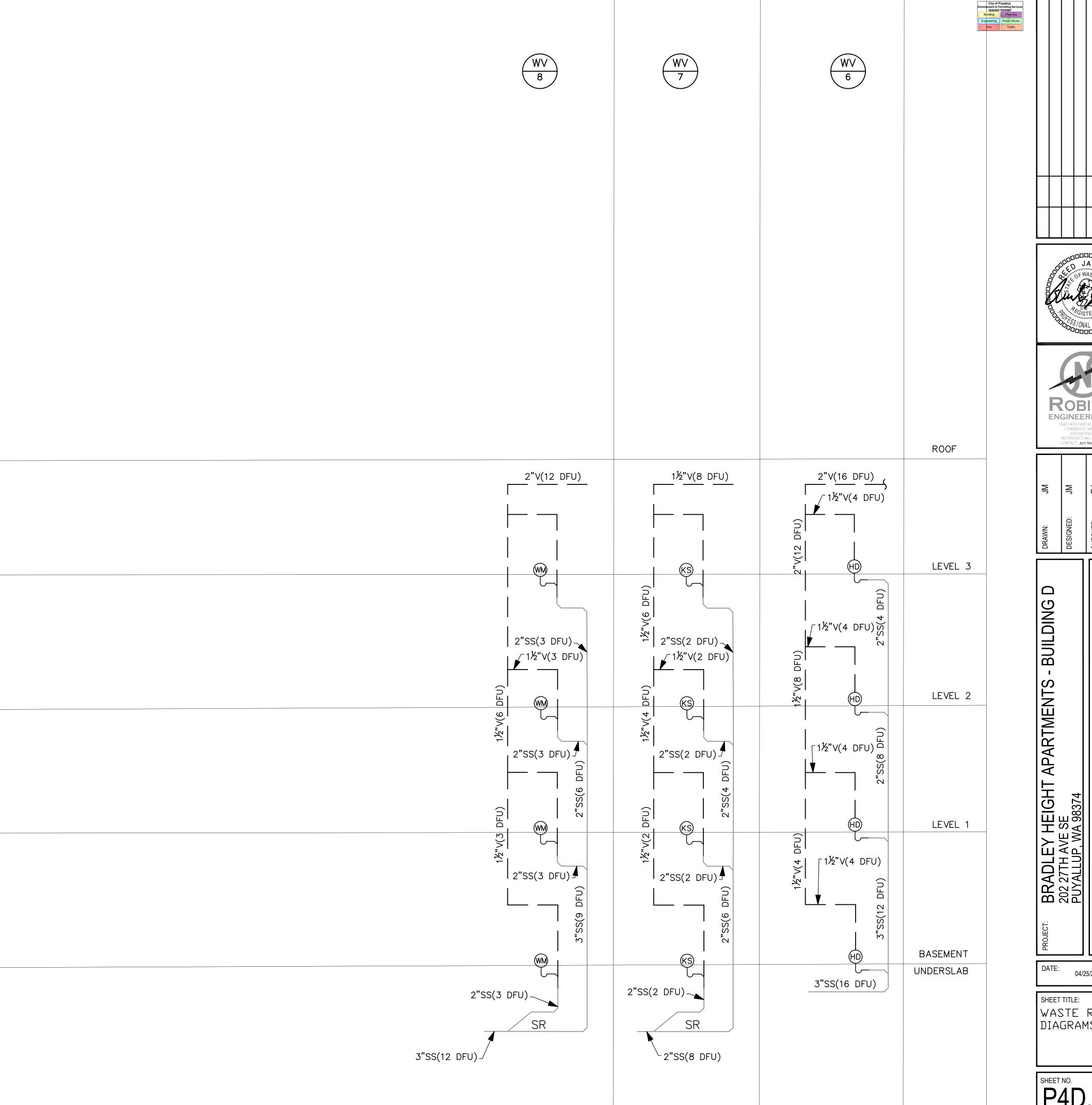
P4D.00

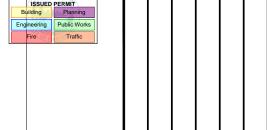


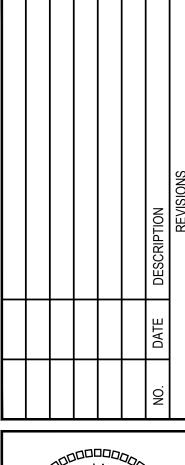
- = WASTE & VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P2D.00 SERIES FOR FLOOR PLANS.
- 1. SUD RELIEF PIPING WITH LENGTH OF 8FT WILL BE USED.
- 2. WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2018 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING 4" AND LARGER MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

| PIPE SIZE  | VERTICAL  | HORIZONTAL | <u>VENT</u> |
|------------|-----------|------------|-------------|
| 1½"        | 2 DFU     | 1 DFU      | 8 DFU       |
| 2"         | 16 DFU    | 8 DFU      | 24 DFU      |
| <b>3</b> " | 48 DFU    | 35 DFU     | 84 DFU      |
| 4"         | 256 DFU   | 216 DFU    | 256 DFU     |
| 6"         | 1,380 DFU | 720 DFU    | 1,380 DFL   |
| 8"         | 3,600 DFU | 2,640 DFU  | 3,600 DFU   |

| ABBREVIATION LEGEND:                                                                                                                                                        |                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| LV = LAVATORY BT = BATHTUB SH = SHOWER KS = KITCHEN SINK WITH DISHWASHER WM = WASHING MACHINE WC = WATER CLOSET UR = URINAL FD = FLOOR DRAIN FS = FLOOR SINK HD = HUB DRAIN | (1 DFU) (2 DFU) (2 DFU) (2 DFU) (3 DFU) (3 DFU) (2 DFU) (2 DFU) (4 DFU) (4 DFU) |











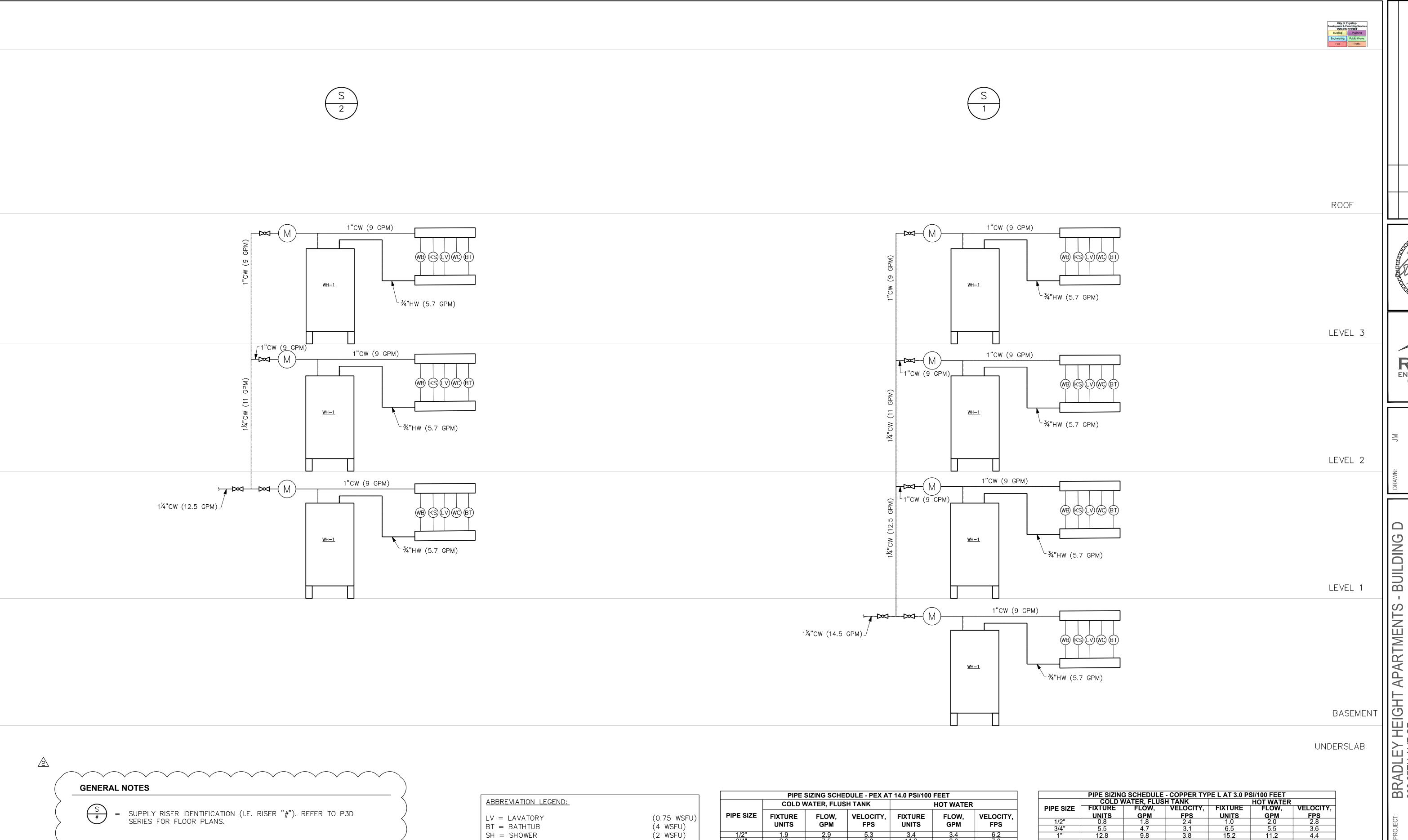
|        | REI PROJECT I<br>CONTACT: <b>JEFF</b> |          |           |
|--------|---------------------------------------|----------|-----------|
| MC     | MC                                    | RJ       | 꼾         |
| DRAWN: | DESIGNED:                             | CHECKED: | APPROVED: |
|        |                                       |          | ~         |

PRMU2024028

04/25/2025

SHEET TITLE:
WASTE RISER
DIAGRAMS

P4D.01



(3 WSFU)

(4 WSFU)

(2.5 WSFU)

KS = KITCHEN SINK WITH DISHWASHER

WB = WASHER BOX

WC = WATER CLOSET

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB DRAINS PER

2. WATER PIPES ARE SIZED PER THE WATER SUPPLY PRESSURE CALCULATION ON POD.02.

2018 UPC 1007.1. SEE DETAIL 5/P7D.01





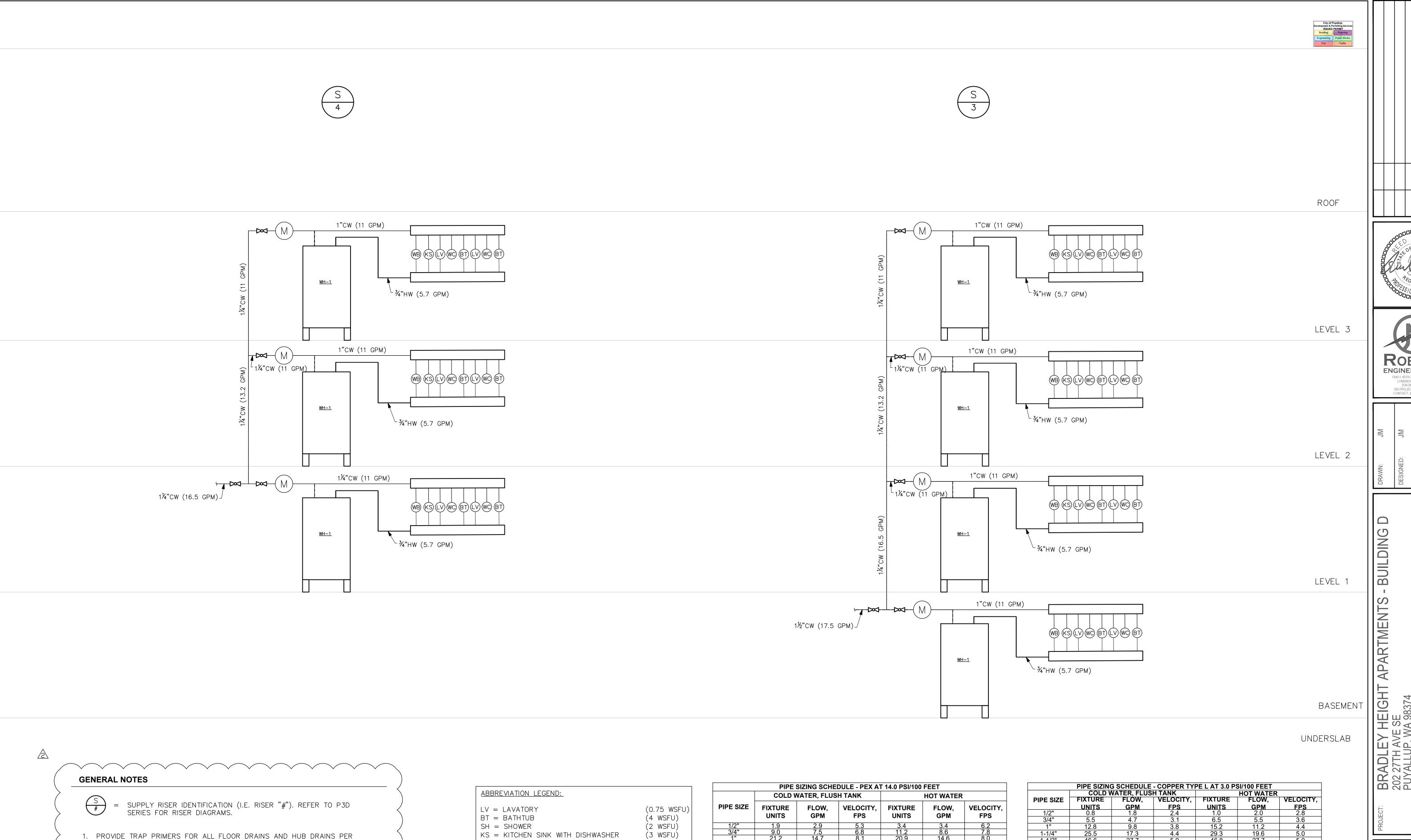
| DESIGNED: CHECKED: APPROVED: | INIO   | ML        | RJ       | JR        |
|------------------------------|--------|-----------|----------|-----------|
|                              | DKAWN: | DESIGNED: | CHECKED: | APPROVED: |

RMU20240283

BRADLE 202 27TH AN PUYALLUP.

DATE: 04/25/2025

SHEET TITLE: SUPPLY RISER DIAGRAMS



(4 WSFU)

(2.5 WSFU)

WB = WASHER BOX

WC = WATER CLOSET

2018 UPC 1007.1. SEE DETAIL 5/P7D.01

2. WATER PIPES ARE SIZED PER THE WATER SUPPLY PRESSURE CALCULATION ON POD.02.

04/25/2025

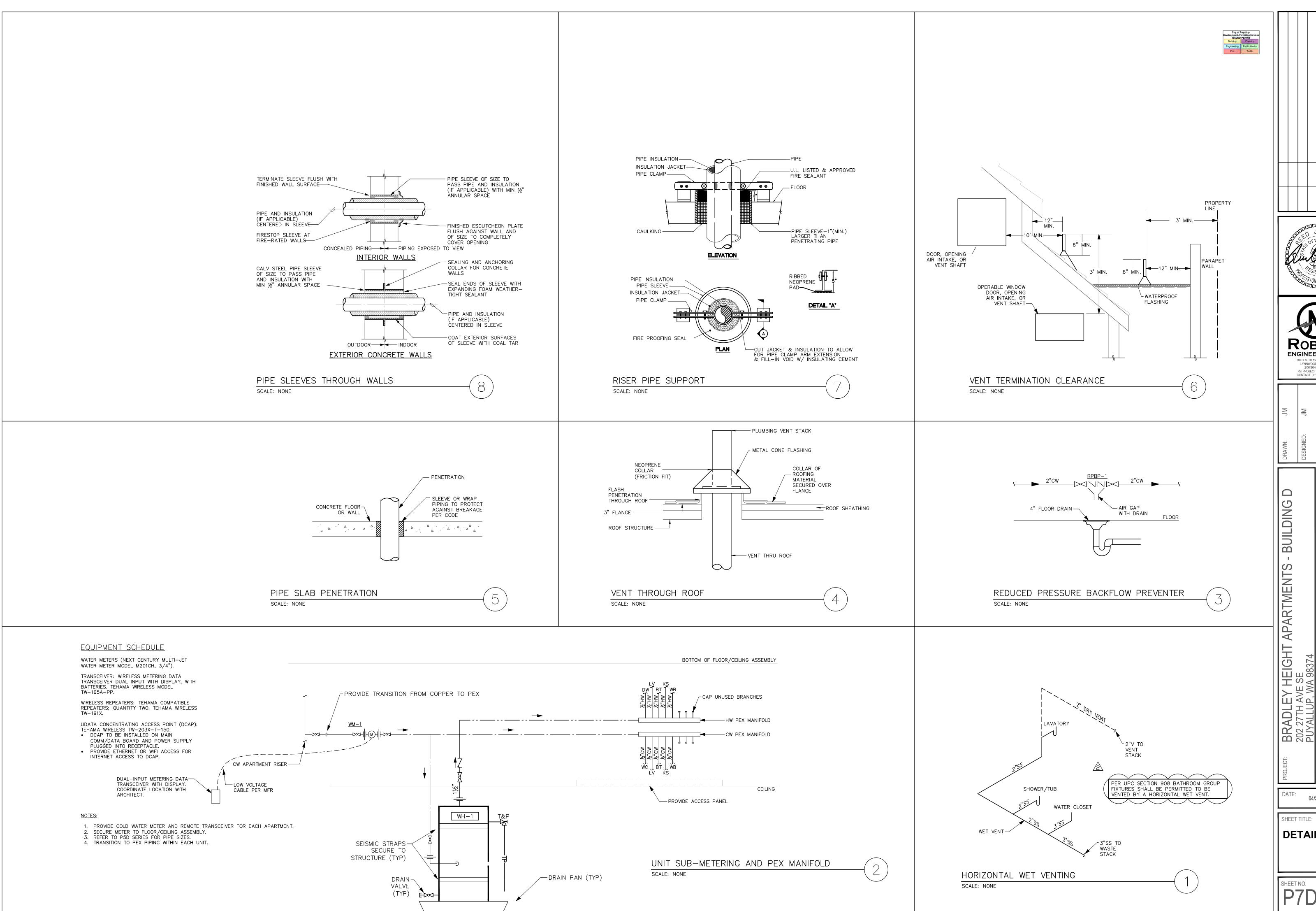
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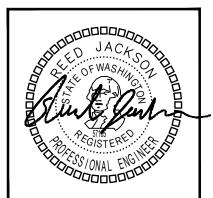
SHEET TITLE: SUPPLY RISER DIAGRAMS

19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206364-3343 TEL REI PROJECT NO.: 1219-001 CONTACT: JEFF MACGILLIVRAY

3

RMU2024028





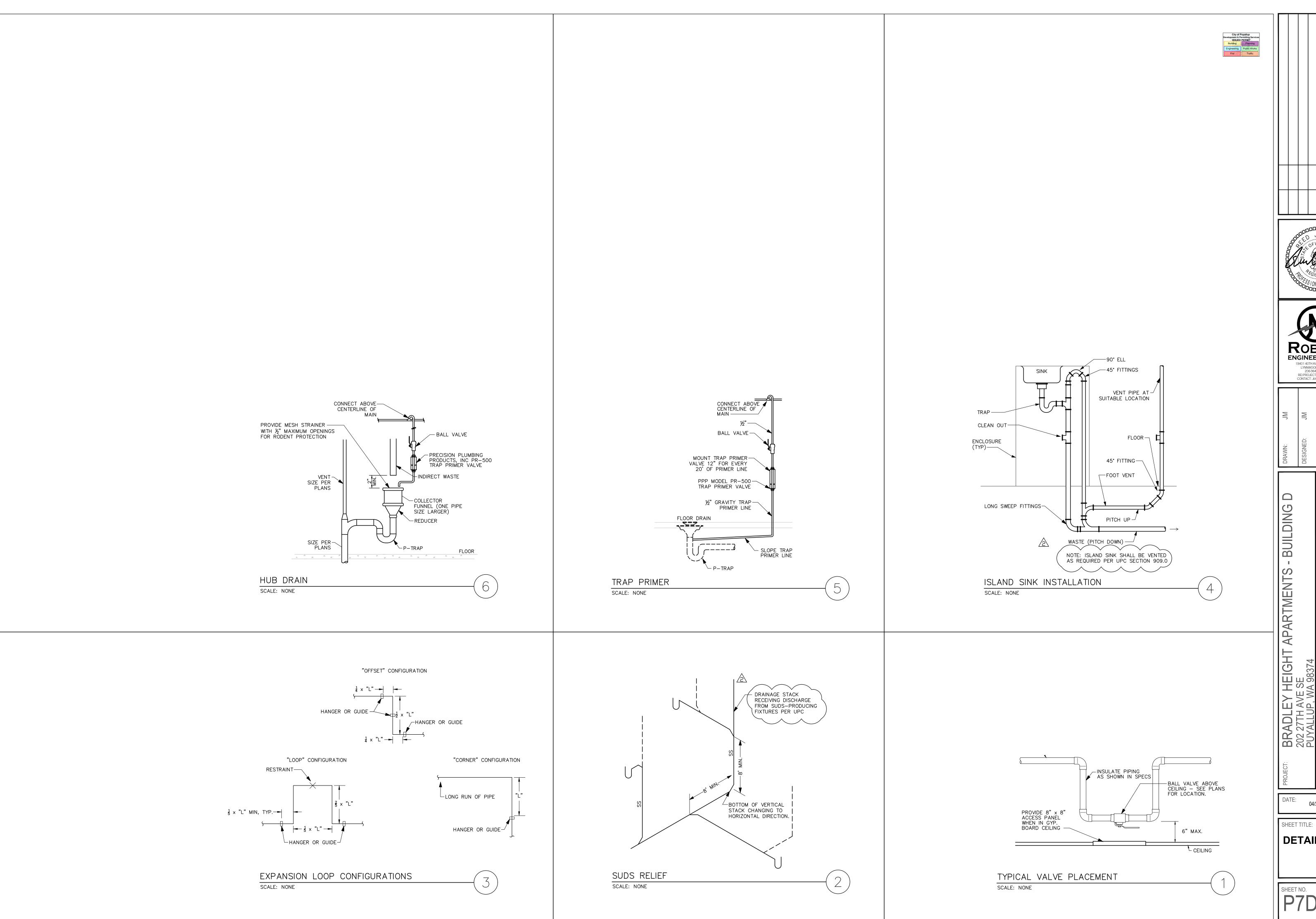


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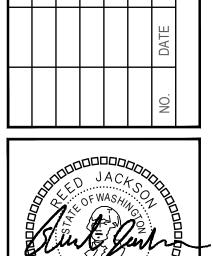
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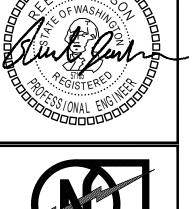
04/25/2025

DETAILS











| DESIGNED:<br>CHECKED:<br>APPROVED: | ML        | RJ       | JR        |
|------------------------------------|-----------|----------|-----------|
|                                    | DESIGNED: | CHECKED: | APPROVED: |

3

PRMU2024028

04/25/2025

DETAILS