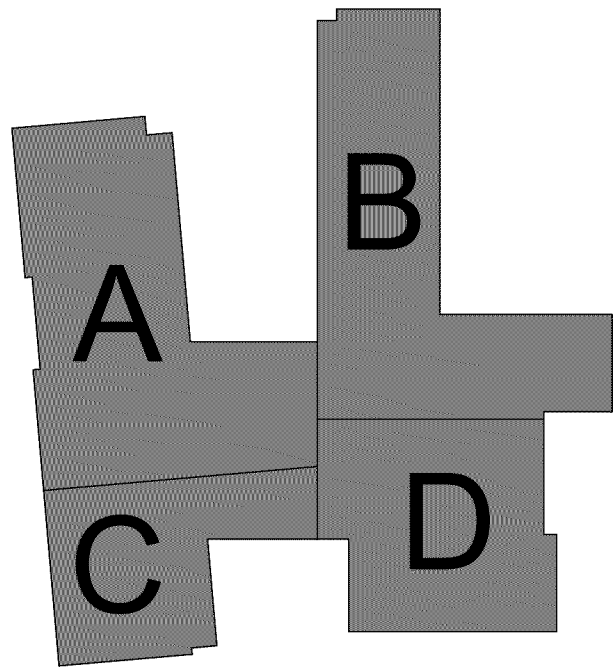
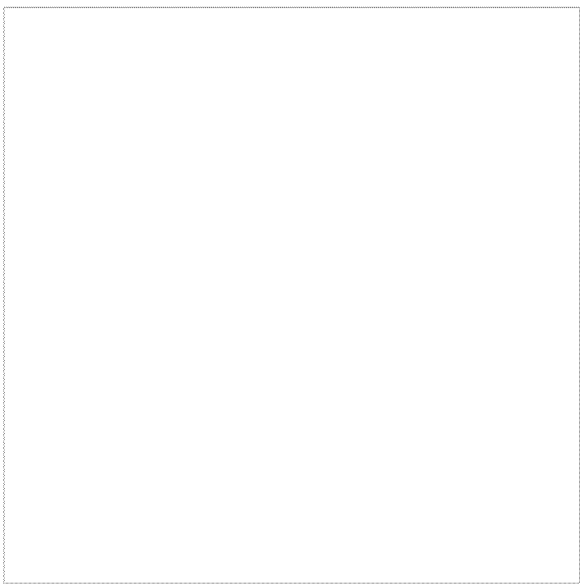
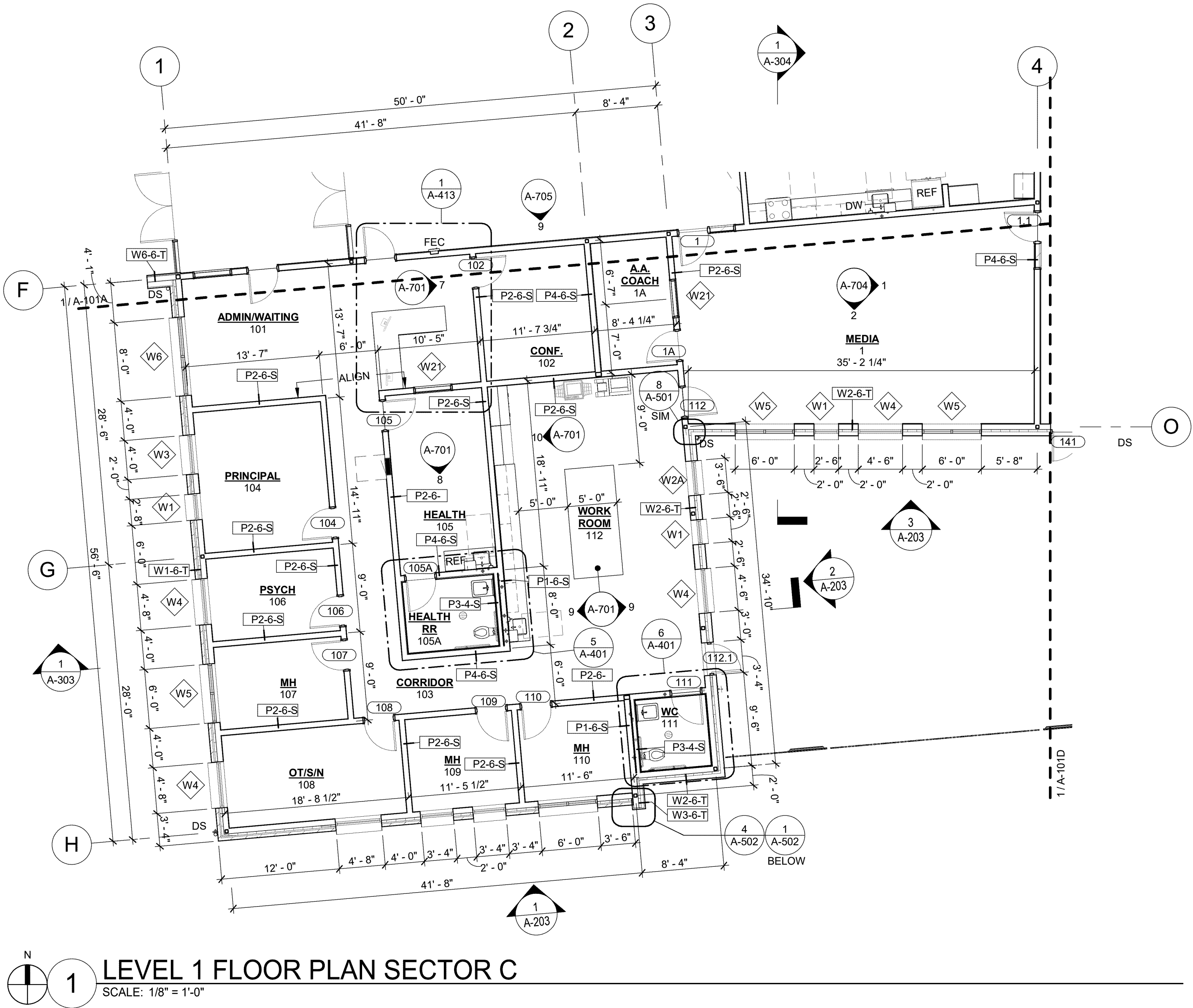


- FLOOR PLAN GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEET(S) FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO WALL TYPE SHEETS FOR INTERIOR AND EXTERIOR WALL DESCRIPTIONS. UNLESS OTHERWISE NOTED, THE TYPICAL EXTERIOR WALL TYPE SHALL BE TYPE W1-6-T AND THE TYPICAL INTERIOR WALL TYPE SHALL BE TYPE P2-6-S.
  3. WALL TYPES ARE NOT CALLED OUT AT EACH ROOM. WALL TYPES CALLED OUT IN ONE ROOM EXTEND FOR THE ENTIRE LENGTH OF THE WALL UNLESS OTHERWISE NOTED.
  4. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  5. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
  6. INTERIOR STUD WALLS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  7. COLUMNS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  8. MASONRY WALLS ARE DIMENSIONED TO FACE OF MASONRY UNLESS OTHERWISE NOTED.
  9. MASONRY OPENINGS ARE DIMENSIONED NOMINALLY UNLESS OTHERWISE NOTED.
  10. ALL DOOR, WINDOW, LOUVER AND OTHER OPENINGS ARE DIMENSIONED FOR NOMINAL OPENING SIZE. CONSTRUCT OPENING SIZES PER MANUFACTURER REQUIREMENTS. REFER TO DOOR TYPES, DOOR FRAME TYPES, AND WINDOW TYPES FOR DIMENSIONS.
  11. HINGE SIDE VERTICAL LEG OF DOOR FRAMES TO BE 6" FROM ADJACENT PERPENDICULAR WALLS UNLESS OTHERWISE NOTED.
  12. ARCHITECTURAL FINISHED FLOOR ELEVATION OF 0'-0" CORRESPONDS TO CIVIL ELEVATION OF 180.00
  13. FLOOR DRAINS TO BE SET SO TOP OF DRAIN IS BELOW FINISH FLOOR ELEVATION WITH CONTINUOUS SLOPE FROM PERIMETER OF ROOM TO DRAIN UNLESS OTHERWISE NOTED. SLOPE 1/4" PER FOOT ALONG SHORTEST DISTANCE FROM PERIMETER OF ROOM TO DRAIN. FLOOR SLOPE SHALL NOT EXCEED 1/4" PER FOOT AT ANY LOCATION IN ROOM.
  14. FLOOR PLANS INDICATE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.
  15. OVERALL FLOOR PLANS ARE FOR REFERENCE ONLY. REFER TO ENLARGED FLOOR PLAN SHEETS.
  16. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  17. FLOOR MATERIAL TRANSITIONS OCCUR AS INDICATED IN PLAN AND BELOW DOORWAYS WHERE NOT SHOWN IN PLAN. REFERENCE ROOM FINISH SCHEDULE FOR FLOOR MATERIALS AND SEE DETAIL 7/A-541







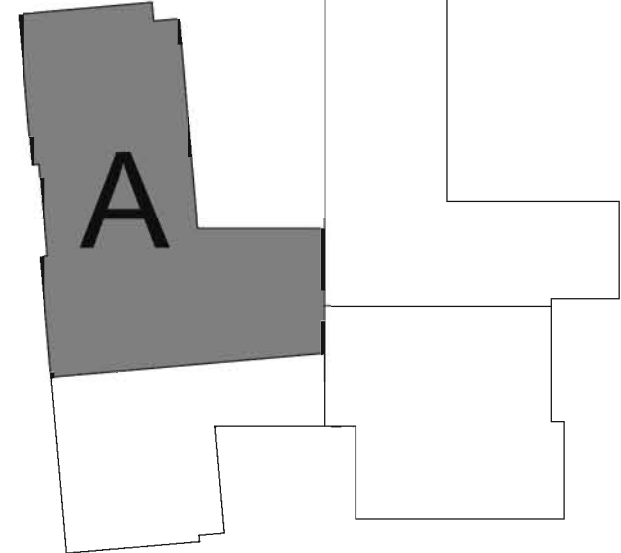
- FLOOR PLAN GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEET(S) FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO WALL TYPE SHEETS FOR INTERIOR AND EXTERIOR WALL DESCRIPTIONS. UNLESS OTHERWISE NOTED, THE TYPICAL EXTERIOR WALL TYPE SHALL BE TYPE W1-6-T AND THE TYPICAL INTERIOR WALL TYPE SHALL BE TYPE P2-6-S.
  3. WALL TYPES ARE NOT CALLED OUT AT EACH ROOM. WALL TYPES CALLED OUT IN ONE ROOM EXTEND FOR THE ENTIRE LENGTH OF THE WALL UNLESS OTHERWISE NOTED.
  4. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  5. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
  6. INTERIOR STUD WALLS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  7. COLUMNS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  8. MASONRY WALLS ARE DIMENSIONED TO FACE OF MASONRY UNLESS OTHERWISE NOTED.
  9. MASONRY OPENINGS ARE DIMENSIONED NOMINALLY UNLESS OTHERWISE NOTED.
  10. ALL DOOR, WINDOW, LOUVER AND OTHER OPENINGS ARE DIMENSIONED FOR NOMINAL OPENING SIZE. CONSTRUCT OPENING SIZES PER MANUFACTURER REQUIREMENTS. REFER TO DOOR TYPES, DOOR FRAME TYPES, AND WINDOW TYPES FOR DIMENSIONS.
  11. HINGE SIDE VERTICAL LEG OF DOOR FRAMES TO BE 6" FROM ADJACENT PERPENDICULAR WALLS UNLESS OTHERWISE NOTED.
  12. ARCHITECTURAL FINISHED FLOOR ELEVATION OF 0'-0" CORRESPONDS TO CIVIL ELEVATION OF 180.00
  13. FLOOR DRAINS TO BE SET SO TOP OF DRAIN IS BELOW FINISH FLOOR ELEVATION WITH CONTINUOUS SLOPE FROM PERIMETER OF ROOM TO DRAIN UNLESS OTHERWISE NOTED. SLOPE 1/4" PER FOOT ALONG SHORTEST DISTANCE FROM PERIMETER OF ROOM TO DRAIN. FLOOR SLOPE SHALL NOT EXCEED 1/4" PER FOOT AT ANY LOCATION IN ROOM.
  14. FLOOR PLANS INDICATE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.
  15. OVERALL FLOOR PLANS ARE FOR REFERENCE ONLY. REFER TO ENLARGED FLOOR PLAN SHEETS.
  16. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  17. FLOOR MATERIAL TRANSITIONS OCCUR AS INDICATED IN PLAN AND BELOW DOORWAYS WHERE NOT SHOWN IN PLAN. REFERENCE ROOM FINISH SCHEDULE FOR FLOOR MATERIALS AND SEE DETAIL 7/A-541



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- FLOOR PLAN GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEET(S) FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO WALL TYPE SHEETS FOR INTERIOR AND EXTERIOR WALL DESCRIPTIONS. UNLESS OTHERWISE NOTED, THE TYPICAL EXTERIOR WALL TYPE SHALL BE TYPE W1-6-T AND THE TYPICAL INTERIOR WALL TYPE SHALL BE TYPE P2-6-S.
  3. WALL TYPES ARE NOT CALLED OUT AT EACH ROOM. WALL TYPES CALLED OUT IN ONE ROOM EXTEND FOR THE ENTIRE LENGTH OF THE WALL UNLESS OTHERWISE NOTED.
  4. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  5. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
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  15. OVERALL FLOOR PLANS ARE FOR REFERENCE ONLY. REFER TO ENLARGED FLOOR PLAN SHEETS.
  16. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  17. FLOOR MATERIAL TRANSITIONS OCCUR AS INDICATED IN PLAN AND BELOW DOORWAYS WHERE NOT SHOWN IN PLAN. REFERENCE ROOM FINISH SCHEDULE FOR FLOOR MATERIALS AND SEE DETAIL 7/A-541



FLOOR PLAN SECTOR  
A

A-101A

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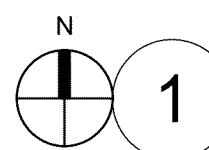
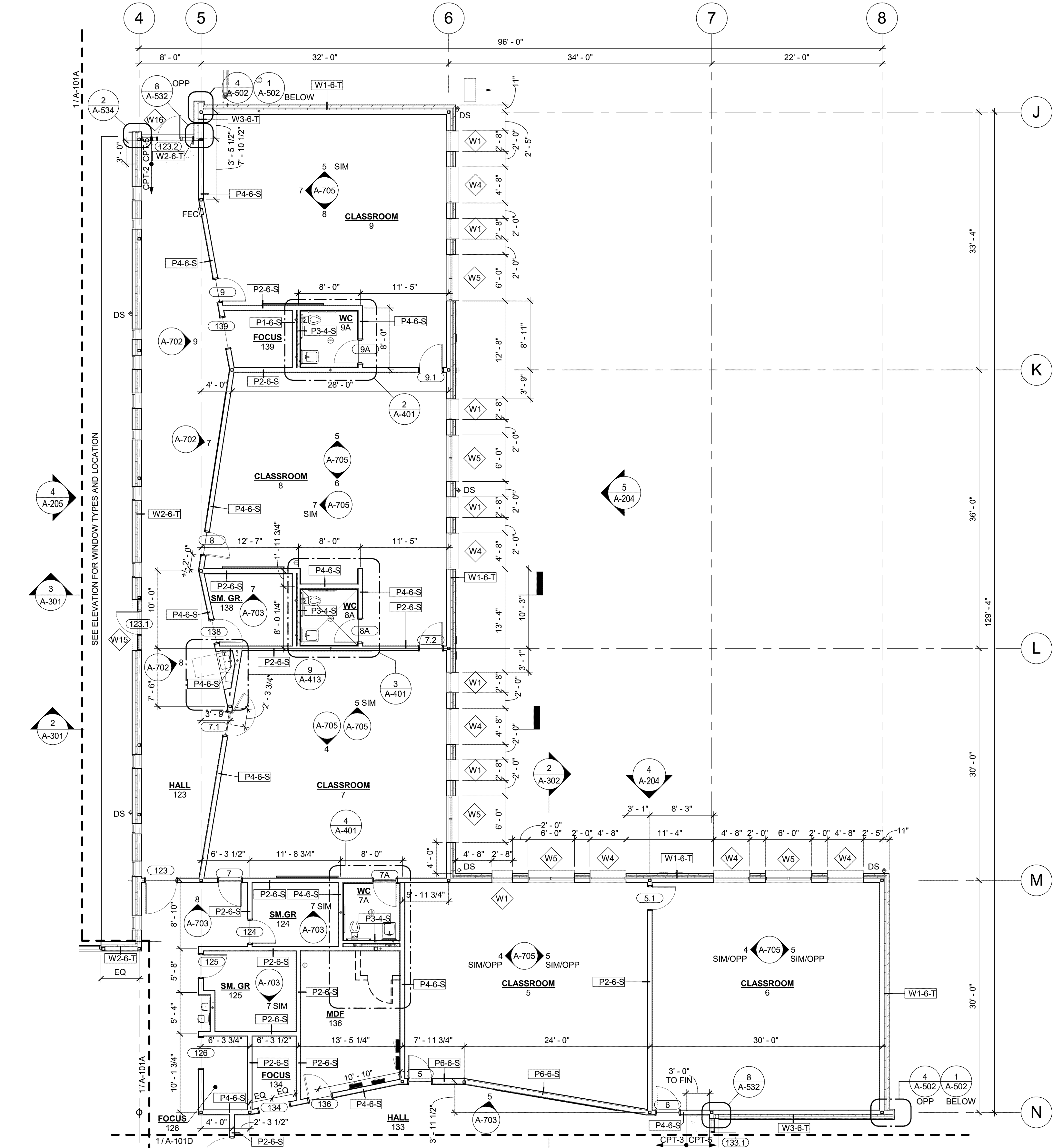
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STATE OF WASHINGTON

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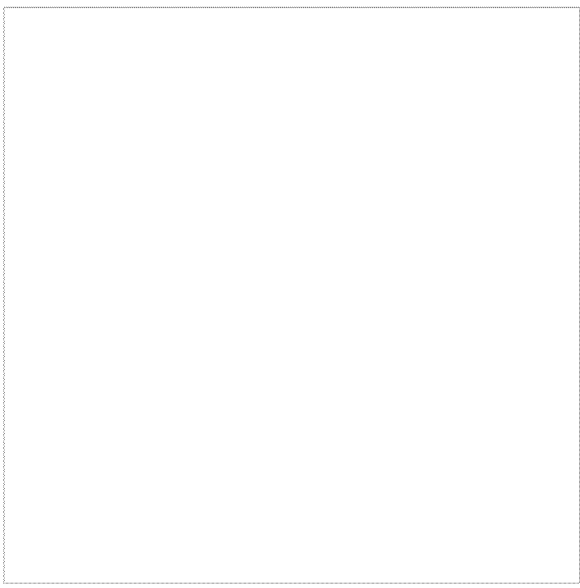
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610 Esther St., Suite 200  
Vancouver, WA 98660  
360.694.8571  
LSW-Architects.com

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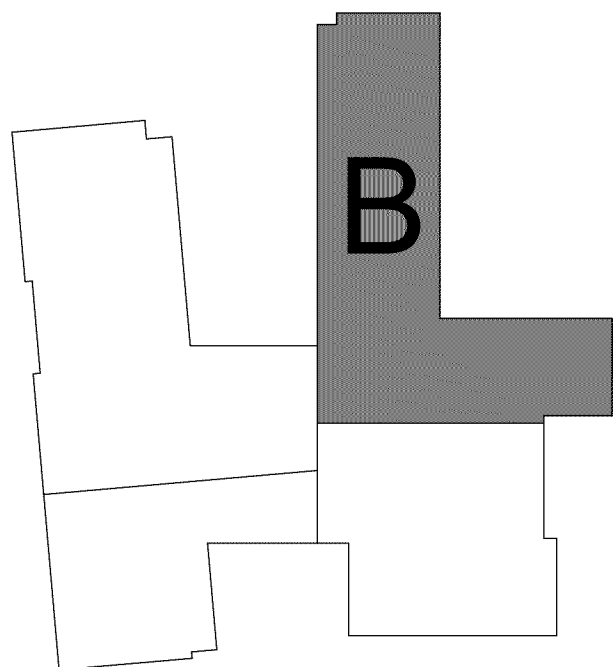




**LEVEL 1 FLOOR PLAN SECTOR B**  
SCALE: 1/8" = 1'-0"



- FLOOR PLAN GENERAL NOTES**
- REFER TO CODE ANALYSIS SHEET(S) FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  - REFER TO WALL TYPE SHEETS FOR INTERIOR AND EXTERIOR WALL DESCRIPTIONS. UNLESS OTHERWISE NOTED, THE TYPICAL EXTERIOR WALL TYPE SHALL BE TYPE W1-6-T AND THE TYPICAL INTERIOR WALL TYPE SHALL BE TYPE P2-6-S.
  - WALL TYPES ARE NOT CALLED OUT AT EACH ROOM. WALL TYPES CALLED OUT IN ONE ROOM EXTEND FOR THE ENTIRE LENGTH OF THE WALL UNLESS OTHERWISE NOTED.
  - WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  - WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
  - INTERIOR STUD WALLS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  - COLUMNS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  - MASONRY WALLS ARE DIMENSIONED TO FACE OF MASONRY UNLESS OTHERWISE NOTED.
  - MASONRY OPENINGS ARE DIMENSIONED NOMINALLY UNLESS OTHERWISE NOTED.
  - ALL DOOR, WINDOW, LOUVER AND OTHER OPENINGS ARE DIMENSIONED FOR NOMINAL OPENING SIZE. CONSTRUCT OPENING SIZES PER MANUFACTURER REQUIREMENTS. REFER TO DOOR TYPES, DOOR FRAME TYPES, AND WINDOW TYPES FOR DIMENSIONS.
  - HINGE SIDE VERTICAL LEG OF DOOR FRAMES TO BE 6" FROM ADJACENT PERPENDICULAR WALLS UNLESS OTHERWISE NOTED.
  - ARCHITECTURAL FINISHED FLOOR ELEVATION OF 0'-0" CORRESPONDS TO CIVIL ELEVATION OF 180.00
  - FLOOR DRAINS TO BE SET SO TOP OF DRAIN IS BELOW FINISH FLOOR ELEVATION WITH CONTINUOUS SLOPE FROM PERIMETER OF ROOM TO DRAIN UNLESS OTHERWISE NOTED. SLOPE 1/4" PER FOOT ALONG SHORTEST DISTANCE FROM PERIMETER OF ROOM TO DRAIN. FLOOR SLOPE SHALL NOT EXCEED 1/4" PER FOOT AT ANY LOCATION IN ROOM.
  - FLOOR PLANS INDICATE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.
  - OVERALL FLOOR PLANS ARE FOR REFERENCE ONLY. REFER TO ENLARGED FLOOR PLAN SHEETS.
  - REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  - FLOOR MATERIAL TRANSITIONS OCCUR AS INDICATED IN PLAN AND BELOW DOORWAYS WHERE NOT SHOWN IN PLAN. REFERENCE ROOM FINISH SCHEDULE FOR FLOOR MATERIALS AND SEE DETAIL 7/A-541





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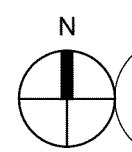
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**FLOOR PLAN SECTOR**  
**D**

# A-101D

Scale	As indicated
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## LEVEL 1 FLOOR PLAN SECTOR D

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

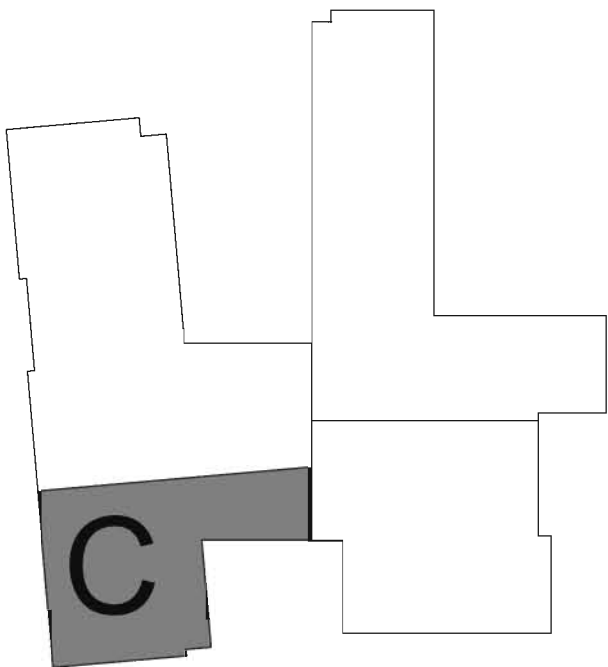




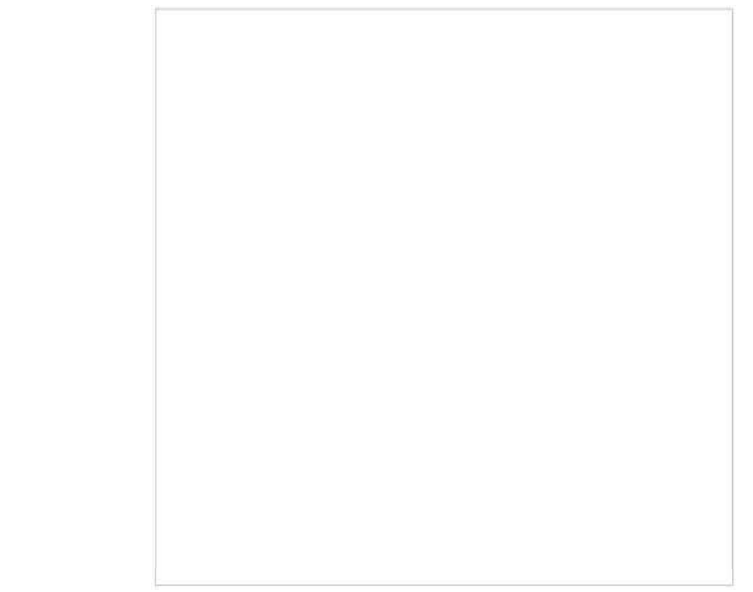
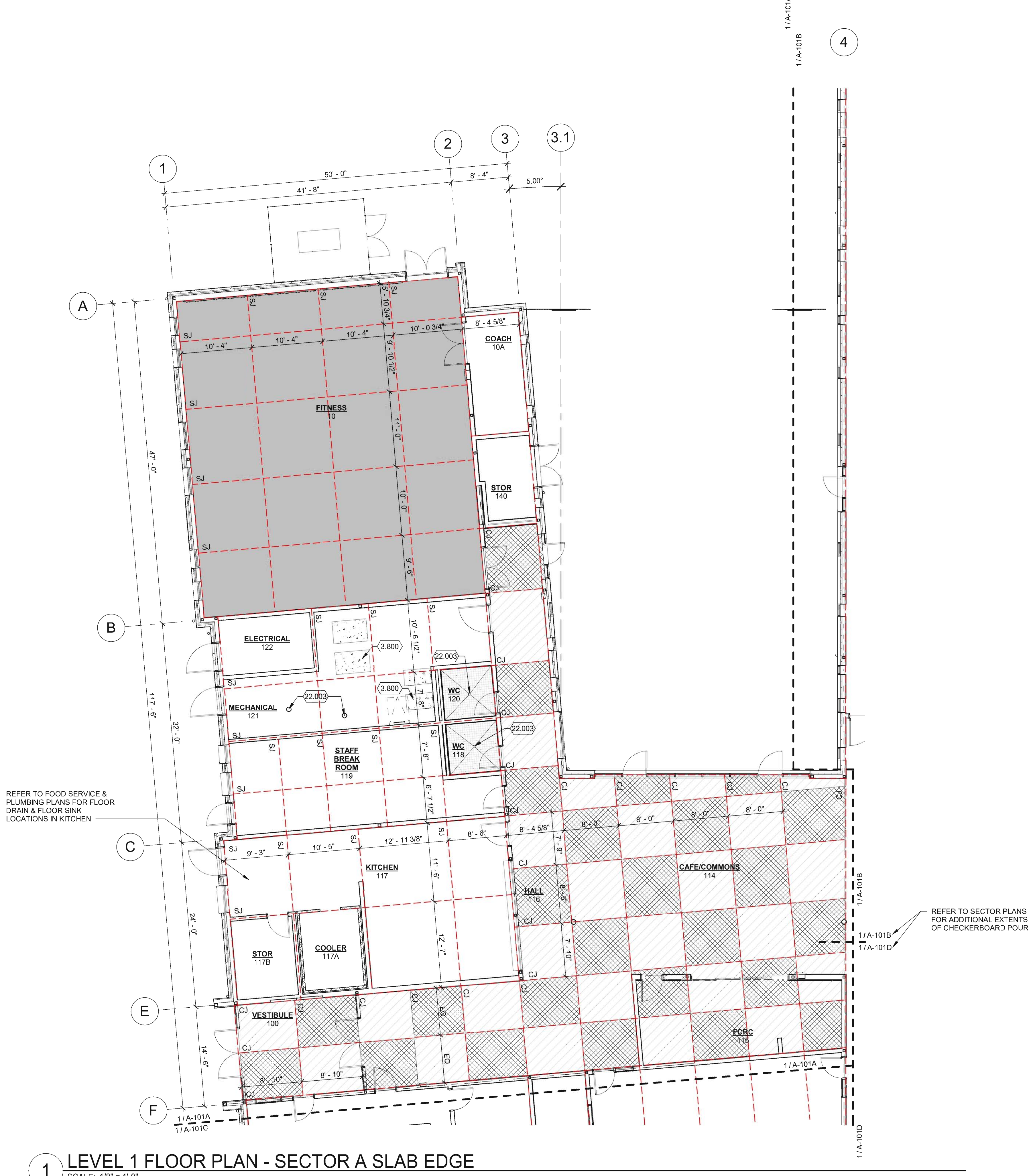
SLAB EDGE LEGEND	
<b>SJ</b>	SAWCUT JOINT (CONTROL JOINT)
<b>CJ</b>	CONSTRUCTION JOINT
	SLAB POUR "X"
	SLAB POUR "Y"
	SLOPED SLAB AT TILE
	DEPRESSED SLAB

SLAB EDGE GENERAL NOTES	
1. SLAB EDGE DIMENSIONS ARE APPROXIMATE AND PROVIDED TO SCHEMATICALLY LOCATE SAWCUT AND CONSTRUCTION JOINTS ONLY. REFER TO FLOOR PLAN, STRUCTURAL PLANS, EXTERIOR DETAILS & WALL TYPES TO IDENTIFY SLAB EDGE CONDITIONS AT WALLS & FOUNDATIONS.	

KEYNOTE LEGEND	
Key Value	Keynote Text
22.003	FLOOR DRAIN, SEE PLUMBING







**SLAB EDGE LEGEND**

SJ --- SAWCUT JOINT (CONTROL JOINT)

CJ --- CONSTRUCTION JOINT

[Pattern] SLAB POUR "X"

[Pattern] SLAB POUR "Y"

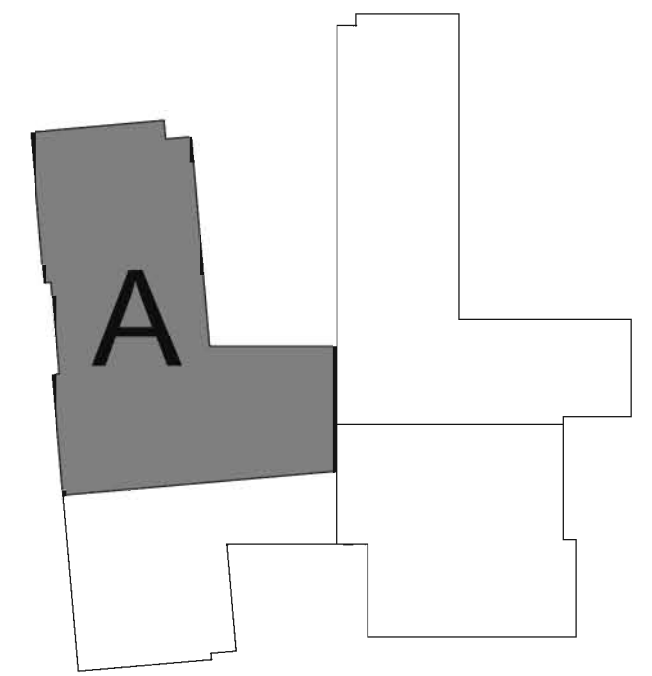
[Pattern] SLOPED SLAB AT TILE

[Pattern] DEPRESSED SLAB

**SLAB EDGE GENERAL NOTES**

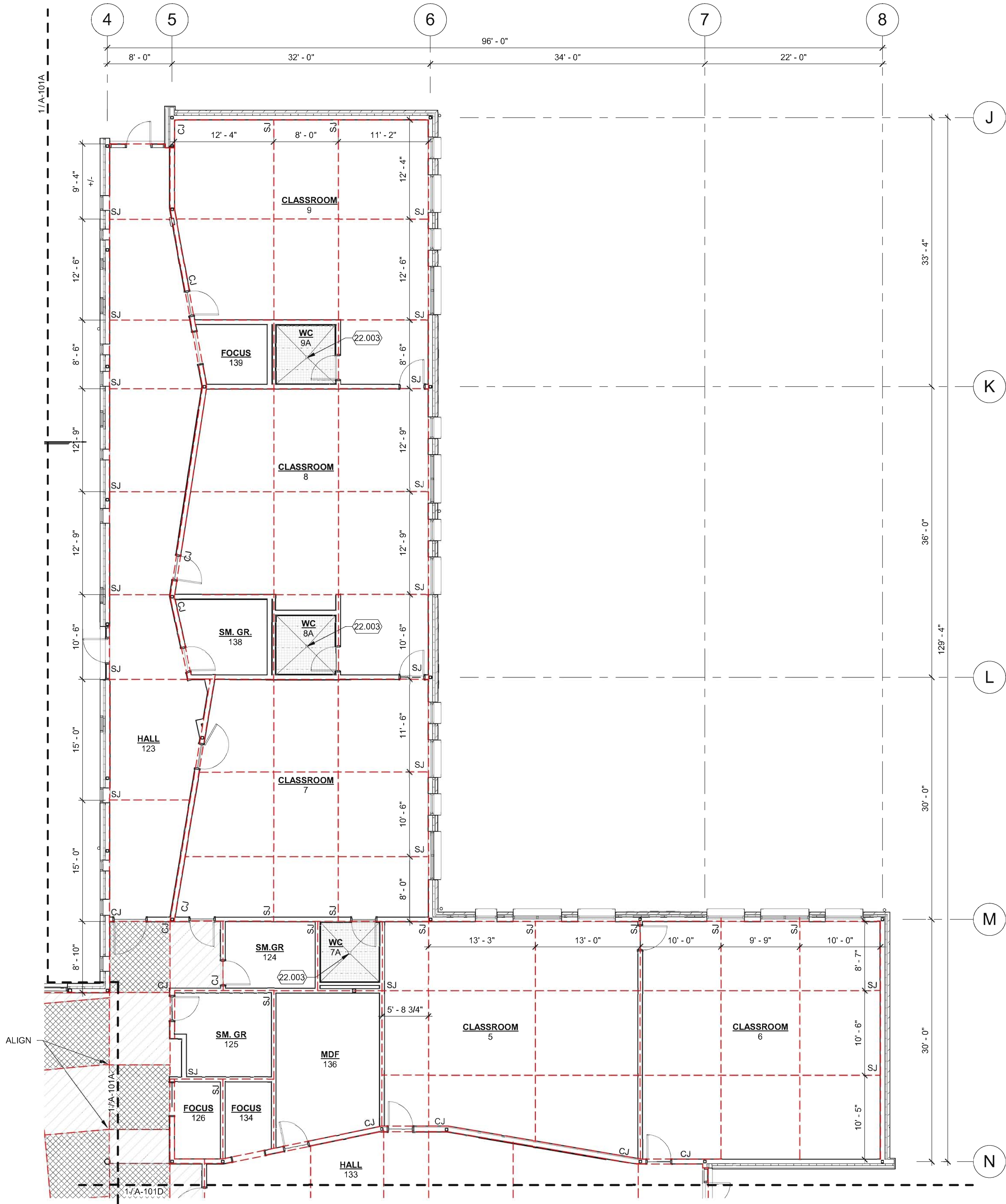
1. SLAB EDGE DIMENSIONS ARE APPROXIMATE AND PROVIDED TO SCHEMATICALLY LOCATE SAWCUT AND CONSTRUCTION JOINTS ONLY. REFER TO FLOOR PLAN, STRUCTURAL PLANS, EXTERIOR DETAILS & WALL TYPES TO IDENTIFY SLAB EDGE CONDITIONS AT WALLS & FOUNDATIONS.

KEYNOTE LEGEND	
Key Value	Keynote Text
3.800	4" CONCRETE HOUSEKEEPING PAD, SEE MECHANICAL
22.003	FLOOR DRAIN, SEE PLUMBING





1 LEVEL 1 FLOOR PLAN SECTOR B  
SCALE: 1/8" = 1'-0"



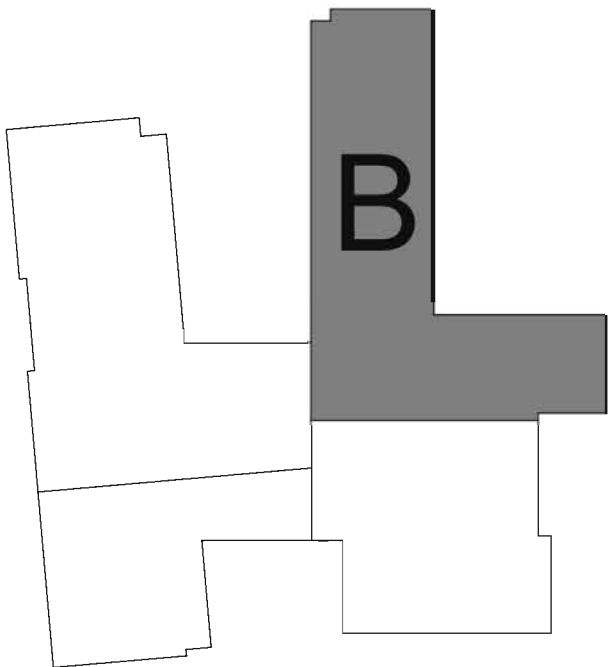
**SLAB EDGE LEGEND**

- SJ SAWCUT JOINT (CONTROL JOINT)
- CJ CONSTRUCTION JOINT
- SLAB POUR "X"
- SLAB POUR "Y"
- SLOPED SLAB AT TILE
- DEPRESSED SLAB

**SLAB EDGE GENERAL NOTES**

1. SLAB EDGE DIMENSIONS ARE APPROXIMATE AND PROVIDED TO SCHEMATICALLY LOCATE SAWCUT AND CONSTRUCTION JOINTS ONLY. REFER TO FLOOR PLAN, STRUCTURAL PLANS, EXTERIOR DETAILS & WALL TYPES TO IDENTIFY SLAB EDGE CONDITIONS AT WALLS & FOUNDATIONS.

KEYNOTE LEGEND	
Key Value	Keynote Text
22.003	FLOOR DRAIN, SEE PLUMBING



SLAB JOINTING PLAN  
SECTOR B

A-111B

Scale As indicated





1 LEVEL 1 FLOOR PLAN SECTOR D  
SCALE: 1/8" = 1'-0"



**SLAB EDGE LEGEND**

SJ --- SAWCUT JOINT (CONTROL JOINT)

CJ --- CONSTRUCTION JOINT

SLAB POUR "X"

SLAB POUR "Y"

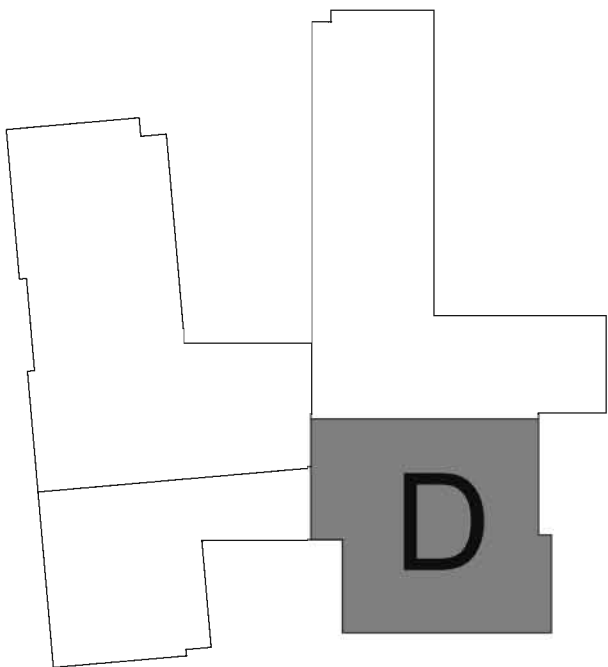
SLOPED SLAB AT TILE

DEPRESSED SLAB

**SLAB EDGE GENERAL NOTES**

1. SLAB EDGE DIMENSIONS ARE APPROXIMATE AND PROVIDED TO SCHEMATICALLY LOCATE SAWCUT AND CONSTRUCTION JOINTS ONLY. REFER TO FLOOR PLAN, STRUCTURAL PLANS, EXTERIOR DETAILS & WALL TYPES TO IDENTIFY SLAB EDGE CONDITIONS AT WALLS & FOUNDATIONS.

KEYNOTE LEGEND	
Key Value	Keynote Text
22.003	FLOOR DRAIN, SEE PLUMBING

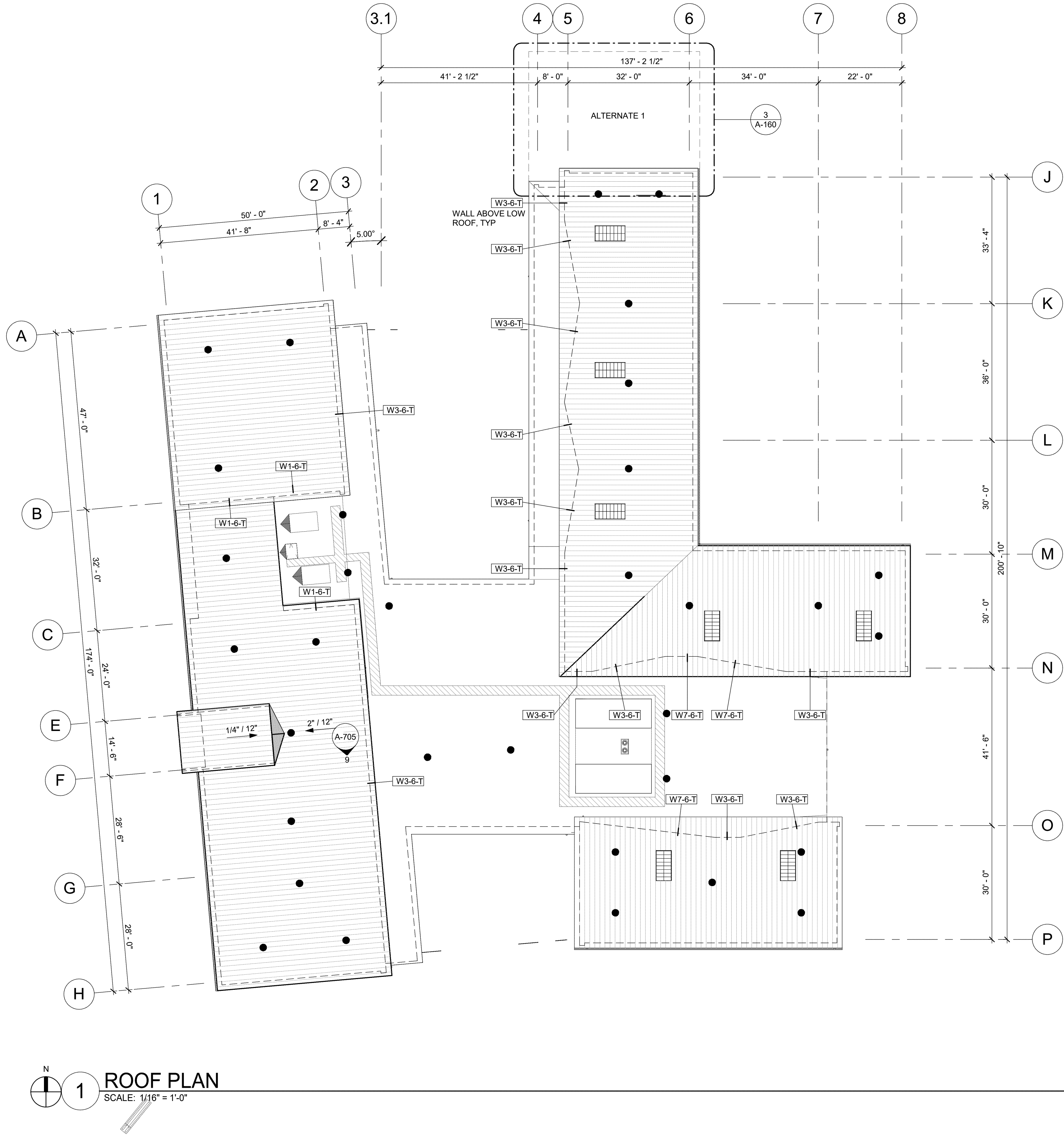


SLAB JOINTING PLAN  
SECTOR D

A-111D

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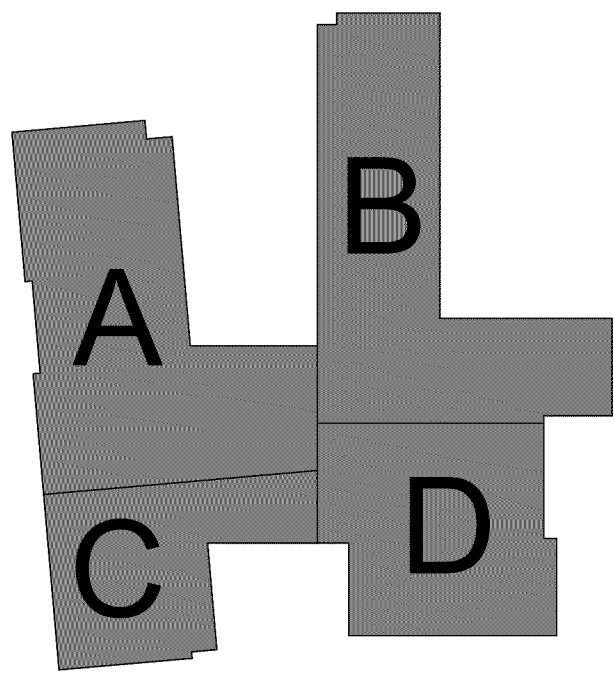




**1 ROOF PLAN**  
SCALE: 1/16" = 1'-0"

- ROOF PLAN GENERAL NOTES**
1. ROOF PLANS INDICATE LOCATIONS OF ARCHITECTURAL, STRUCTURAL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS ON THE ROOF OR THAT PENETRATE THE ROOF. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION. ROOF PENETRATIONS, ROOF ACCESSORIES AND ROOF CURBS TO RECEIVE FLASHING.
  2. SEISMICALLY ANCHOR ALL ROOF EQUIPMENT TO CURBS AND PROVIDE UNDER DECK REINFORCING BLOCKING TO PROPERLY ANCHOR.
  3. ALL ROOF ELEVATIONS INDICATED ARE TO THE TOP OF DECKING OR TOP OF PLATE UNLESS OTHERWISE NOTED.
  4. ALL CRICKETS ARE TO BE SLOPED A MINIMUM OF 1/2" PER FOOT UNLESS OTHERWISE NOTED.
  5. TAPERED INSULATION CRICKETS ARE TO BE ADDED OVER THE BASE LAYER INSULATION.
  6. FALL ARREST SYSTEM ANCHORS AND STRUCTURAL CONNECTIONS ARE A BIDDER-DESIGNED OR DESIGN-BUILD SYSTEM. LOCATIONS ARE SHOWN FOR GENERAL REFERENCE ONLY.
  7. REFER TO BUILDING ELEVATIONS AND SECTIONS FOR ADDITIONAL DETAIL REFERENCES.
  8. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.

ROOF PLAN SYMBOL LEGEND	
	FACE OF WALL BELOW
	INSULATION SLOPE CHANGE
	TAPERED INSULATION CRICKET/SADDLE
	ROOFING SYSTEM WALKWAY
	SCHEMATIC FALL PROTECTION LAYOUT - FOR REFERENCE ONLY SEE 4/S601 FOR TYP DETAIL
	METAL ROOF PANELS
	MEMBRANE ROOFING





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ROOF PLAN SECTION  
C

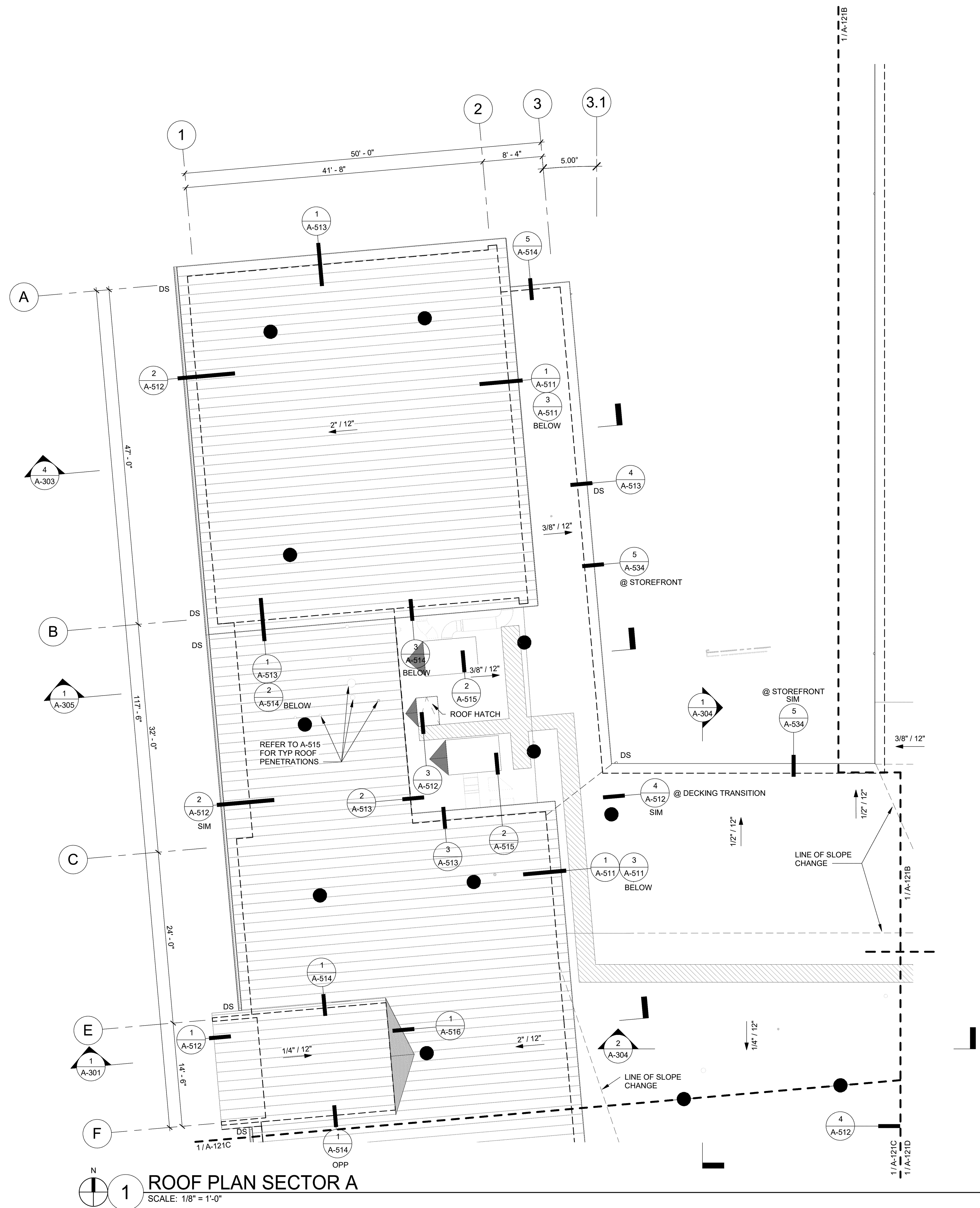
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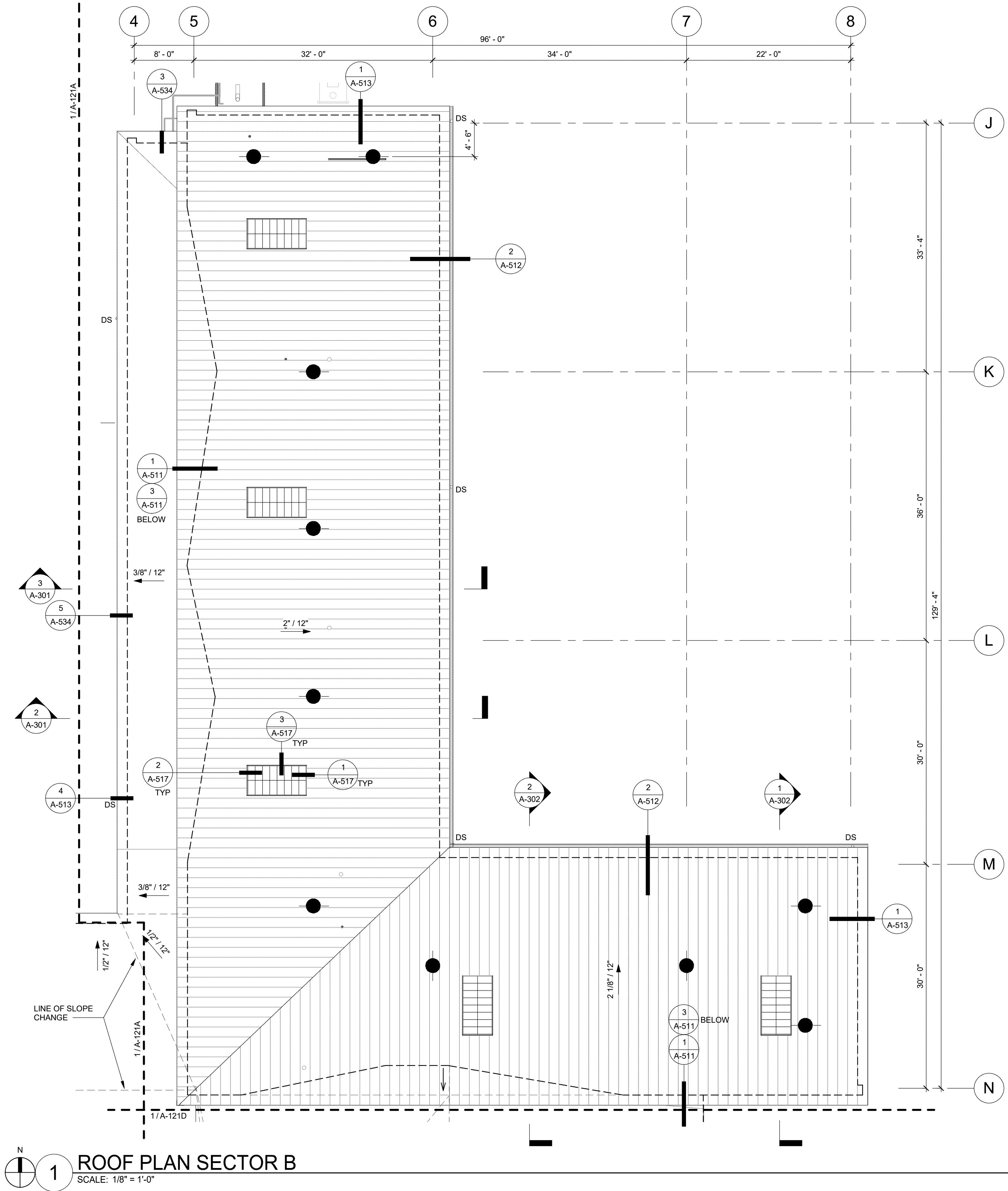


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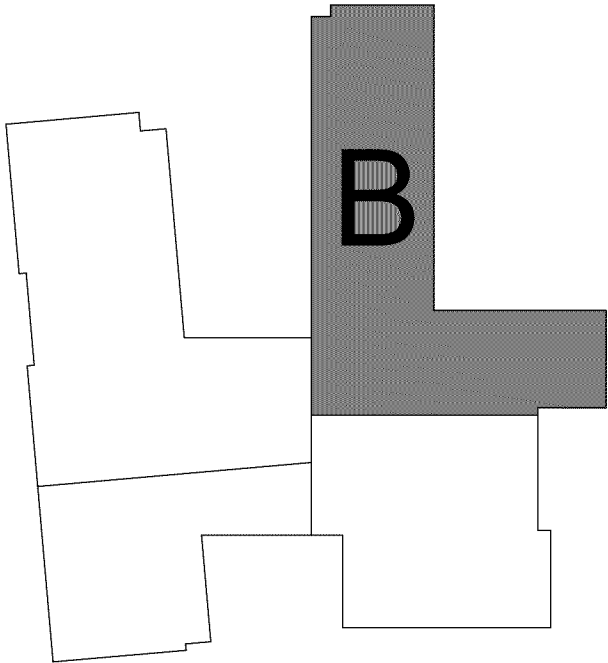




**1** ROOF PLAN SECTOR B  
SCALE: 1/8" = 1'-0"

- ROOF PLAN GENERAL NOTES**
1. ROOF PLANS INDICATE LOCATIONS OF ARCHITECTURAL, STRUCTURAL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS ON THE ROOF OR THAT PENETRATE THE ROOF. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION. ROOF PENETRATIONS, ROOF ACCESSORIES AND ROOF CURBS TO RECEIVE FLASHING.
  2. SEISMICALLY ANCHOR ALL ROOF EQUIPMENT TO CURBS AND PROVIDE UNDER DECK REINFORCING BLOCKING TO PROPERLY ANCHOR.
  3. ALL ROOF ELEVATIONS INDICATED ARE TO THE TOP OF DECKING OR TOP OF PLATE UNLESS OTHERWISE NOTED.
  4. ALL CRICKETS ARE TO BE SLOPED A MINIMUM OF 1/2" PER FOOT UNLESS OTHERWISE NOTED.
  5. TAPERED INSULATION CRICKETS ARE TO BE ADDED OVER THE BASE LAYER INSULATION.
  6. FALL ARREST SYSTEM ANCHORS AND STRUCTURAL CONNECTIONS ARE A BIDDER-DESIGNED OR DESIGN-BUILD SYSTEM. LOCATIONS ARE SHOWN FOR GENERAL REFERENCE ONLY.
  7. REFER TO BUILDING ELEVATIONS AND SECTIONS FOR ADDITIONAL DETAIL REFERENCES.
  8. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.

ROOF PLAN SYMBOL LEGEND	
---	FACE OF WALL BELOW
- - - -	INSULATION SLOPE CHANGE
[Hatched Box]	TAPERED INSULATION CRICKET/SADDLE
[Diagonal Lines Box]	ROOFING SYSTEM WALKWAY
[Dot]	SCHEMATIC FALL PROTECTION LAYOUT - FOR REFERENCE ONLY SEE 4/S601 FOR TYP DETAIL
[Vertical Lines Box]	METAL ROOF PANELS
[Empty Box]	MEMBRANE ROOFING



**ROOF PLAN SECTOR B**

**A-121B**

Scale As indicated



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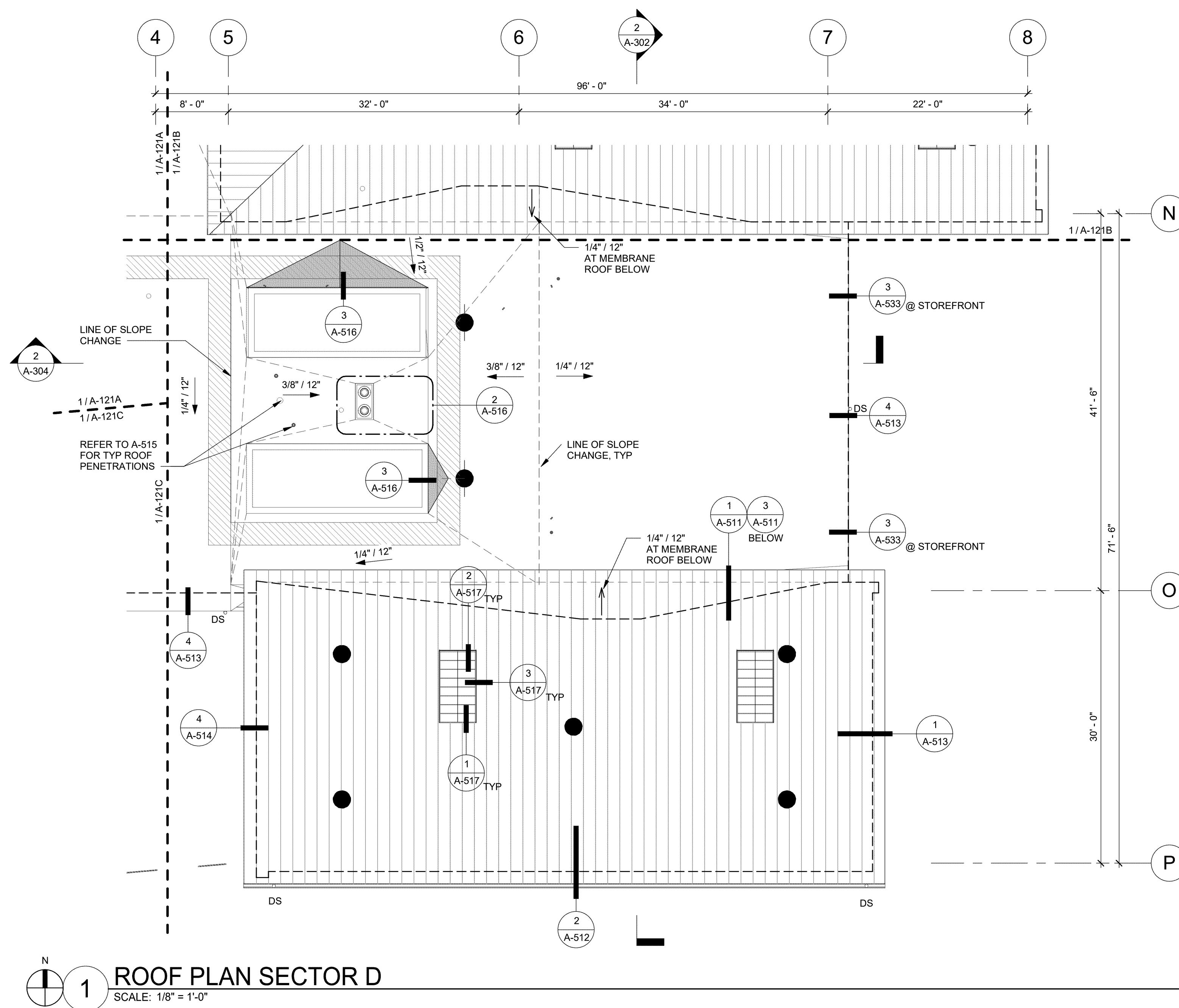
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PERMISSION OF LSW ARCHITECTS, PC

ROOF PLAN SECTOR  
D


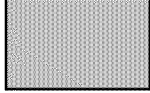
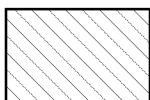

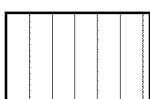
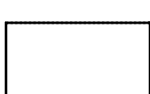
# A-121D

Scale	As indicated
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### ROOF PLAN GENERAL NOTES

1. ROOF PLANS INDICATE LOCATIONS OF ARCHITECTURAL, STRUCTURAL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS ON THE ROOF OR THAT PENETRATE THE ROOF. REFER TO STRUCTURAL MECHANICAL ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION. ROOF PENETRATIONS, ROOF ACCESSORIES AND ROOF CURBS TO RECEIVE FLASHING.
2. SEISMICALLY ANCHOR ALL ROOF EQUIPMENT TO CURBS AND PROVIDE UNDER-ROOF REINFORCING BLOCKING TO PROPERLY ANCHOR.
3. ALL ROOF ELEVATIONS INDICATED ARE TO THE TOP OF DECKING OR TOP OF PLATE UNLESS OTHERWISE NOTED.
4. ALL CRICKETS ARE TO BE SLOPED A MINIMUM OF 1/2" PER FOOT UNLESS OTHERWISE NOTED.
5. TAPERED INSULATION CRICKETS ARE TO BE ADDED OVER THE BASE LAYER INSULATION.
6. FALL ARREST SYSTEM ANCHORS AND STRUCTURAL CONNECTIONS ARE A BIDDER-DESIGNED OR DESIGNED BY THE ARCHITECT. DETAILS ARE SHOWN FOR GENERAL REFERENCE ONLY.
7. REFER TO BUILDING ELEVATIONS AND SECTIONS FOR ADDITIONAL DETAIL REFERENCES.
8. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.

<b>ROOF PLAN SYMBOL LEGEND</b>	
	<b>FACE OF WALL BELOW</b> <b>INSULATION SLOPE CHANGE</b>
	<b>TAPERED INSULATION</b> <b>CRICKET/SADDLE</b>
	<b>ROOFING SYSTEM WALKWAY</b>
	<b>SCHEMATIC FALL PROTECTION</b> <b>LAYOUT - FOR REFERENCE ONLY</b> <b>SEE 4/S601 FOR TYP DETAIL</b>
	<b>METAL ROOF PANELS</b>
	<b>MEMBRANE ROOFING</b>





- REFLECTED CEILING PLAN GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. RATED WALLS TO EXTEND FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK OR RATED CEILING SYSTEM.
  3. REFLECTED CEILING PLANS INDICATE LOCATIONS OF MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS INTEGRAL WITH CEILINGS AND MAY NOT SHOW ALL COMPONENTS TO BE LOCATED IN OR IN THE CEILINGS. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.
  4. MECHANICAL EQUIPMENT AND ELECTRICAL FIXTURES TO BE SUSPENDED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM.
  5. CEILING ELEVATIONS INDICATE THE HEIGHT ABOVE THE FINISHED FLOOR IN THE ROOM OR AREA IN WHICH THE CEILING IS LOCATED. AT RAMPS, STAIRS OR PLATFORMS, CEILING ELEVATIONS ARE FROM THE FINISHED FLOOR OF THE LOWER FLOOR UNLESS OTHERWISE NOTED.
  6. TYPICAL CEILING HEIGHT SHALL BE 9'-0" UNLESS OTHERWISE NOTED.
  7. REFER TO TYPICAL SUSPENDED <sup>5</sup> A-543 CEILING DETAIL
  8. CENTER CEILING GRIDS IN ROOMS UNLESS OTHERWISE INDICATED
  9. IN ROOMS AND AREAS WHERE FLOOR & ROOF STRUCTURE ABOVE IS EXPOSED, CLEAN AND PREP STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING ITEMS MEMBERS FOR PAINT.
  10. LIGHTS IN SOFFITS TO BE CENTERED UNLESS OTHERWISE NOTED.
  11. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  12. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
  13. REFER TO TYPICAL WALL BRACING DETAIL <sup>2</sup> S406
  14. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.

REFLECTED CEILING PLAN SYMBOL LEGEND	
	RETURN AIR DIFFUSER, SEE MECH
	SUPPLY AIR DIFFUSER, SEE MECH
	RECESSED LIGHT FIXTURE, SEE ELECTRICAL
	CAN LIGHT FIXTURE, SEE ELECTRICAL
	PENDANT LIGHT FIXTURE, SEE ELECTRICAL
	CEILING HEIGHT
	OPEN TO STRUCTURE
	2x4 ACOUSTICAL CEILING TILE
	GYPSPUM WALLBOARD CEILING
	EXPOSED METAL DECK
	T&G CEILING



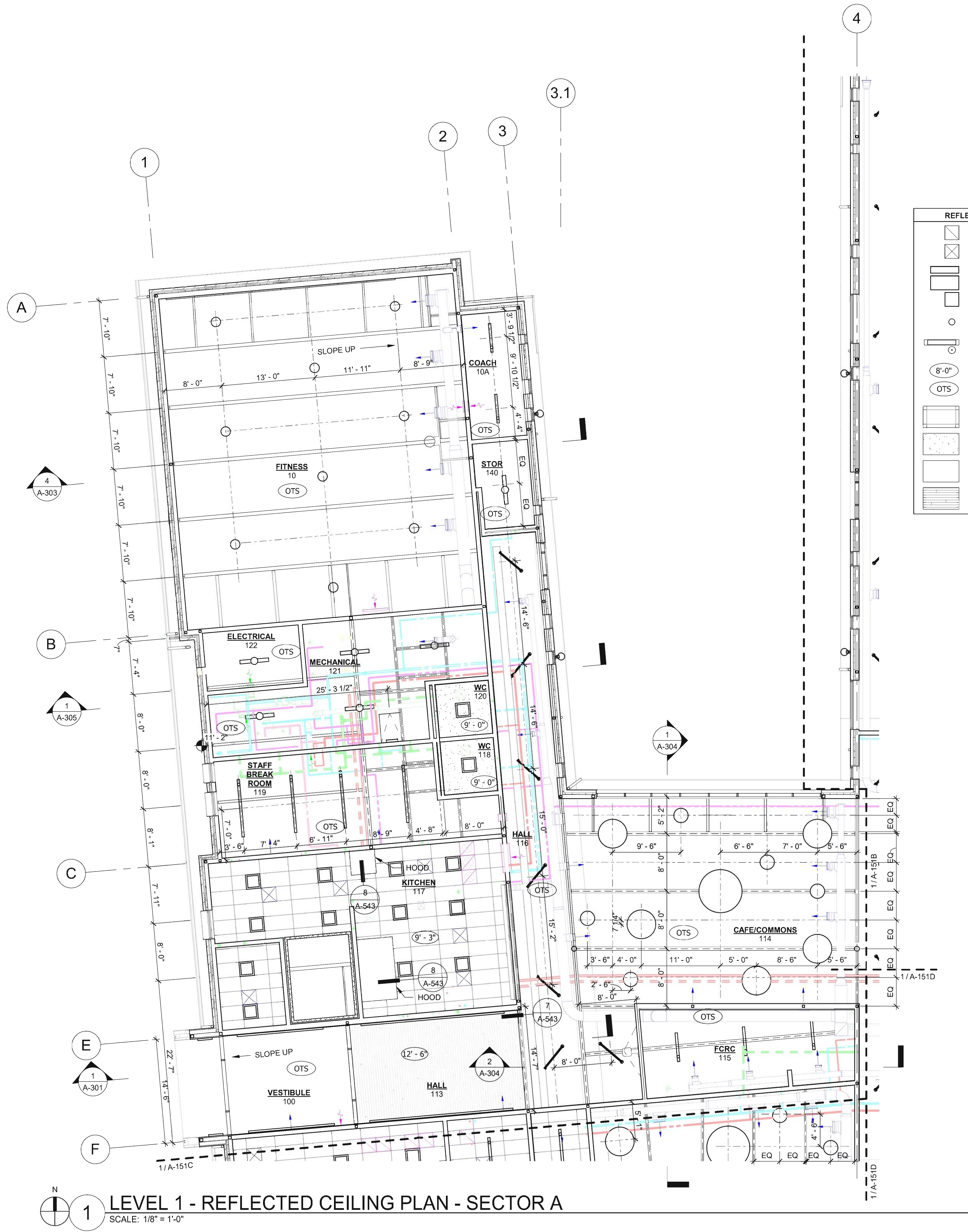


REFLECTED CEILING PLAN SYMBOL LEGEND	
	RETURN AIR DIFFUSER, SEE MECH
	SUPPLY AIR DIFFUSER, SEE MECH
	RECESSED LIGHT FIXTURE, SEE ELECTRICAL
	CAN LIGHT FIXTURE, SEE ELECTRICAL
	PENDANT LIGHT FIXTURE, SEE ELECTRICAL
	CEILING HEIGHT
	OPEN TO STRUCTURE
	2x4 ACOUSTICAL CEILING TILE
	GYPSUM WALLBOARD CEILING
	EXPOSED METAL DECK
	T&G CEILING

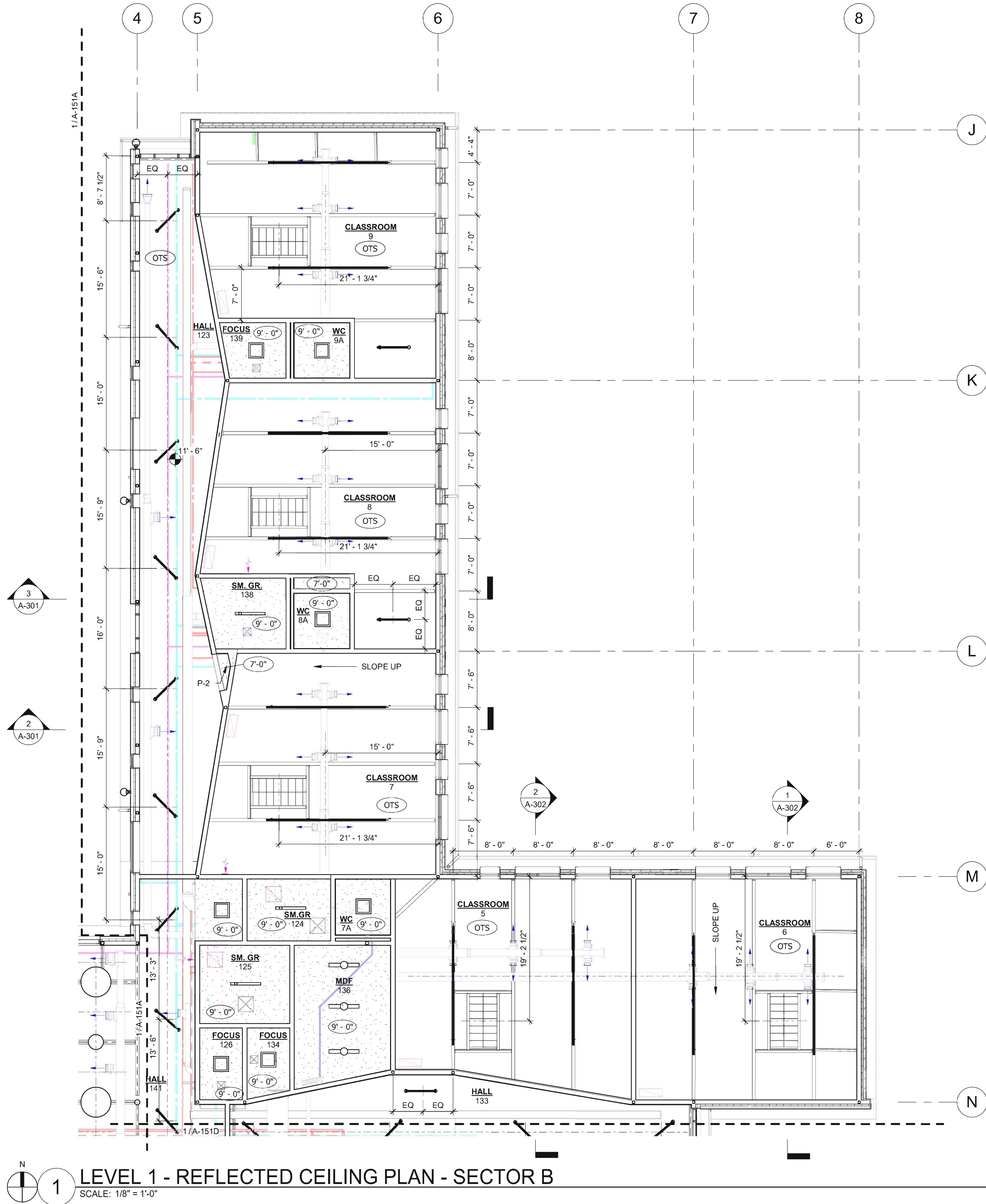
REFLECTED CEILING PLAN GENERAL NOTES	
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.	
2. RATED WALLS TO EXTEND FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK OR RATED CEILING SYSTEM.	
3. REFLECTED CEILING PLANS INDICATE LOCATIONS OF MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS INTEGRAL WITH CEILINGS AND MAY NOT SHOW ALL COMPONENTS TO BE LOCATED IN OR IN THE CEILINGS. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.	
4. MECHANICAL EQUIPMENT AND ELECTRICAL FIXTURES TO BE SUSPENDED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM.	
5. CEILING ELEVATIONS INDICATE THE HEIGHT ABOVE THE FINISHED FLOOR IN THE ROOM OR AREA IN WHICH THE CEILING IS LOCATED. AT RAMP, STAIRS OR PLATFORMS, CEILING ELEVATIONS ARE FROM THE FINISHED FLOOR OF THE LOWER FLOOR UNLESS OTHERWISE NOTED.	
6. TYPICAL CEILING HEIGHT SHALL BE 9'-0" UNLESS OTHERWISE NOTED.	
7. REFER TO TYPICAL SUSPENDED CEILING DETAIL	5 A-543
8. CENTER CEILING GRIDS IN ROOMS UNLESS OTHERWISE INDICATED	
9. IN ROOMS AND AREAS WHERE FLOOR & ROOF STRUCTURE ABOVE IS EXPOSED, CLEAN AND PREP STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING ITEMS MEMBERS FOR PAINT.	
10. LIGHTS IN SOFFITS TO BE CENTERED UNLESS OTHERWISE NOTED.	
11. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.	
12. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.	
13. REFER TO TYPICAL WALL BRACING DETAIL	2 S406
14. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.	



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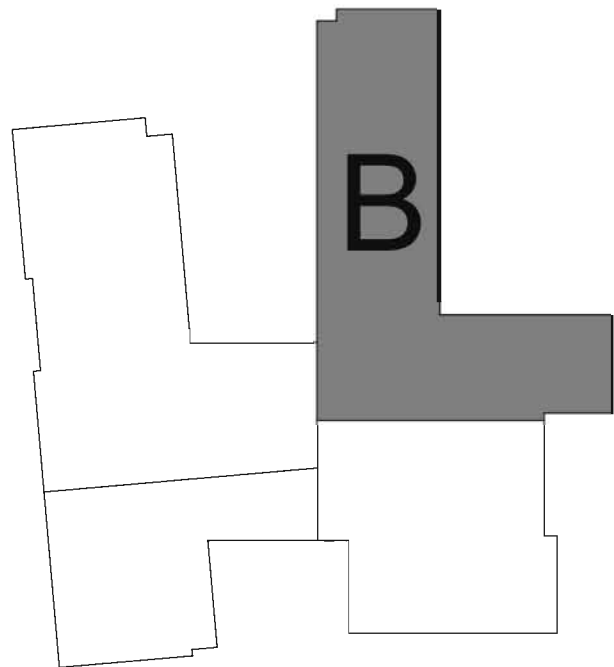




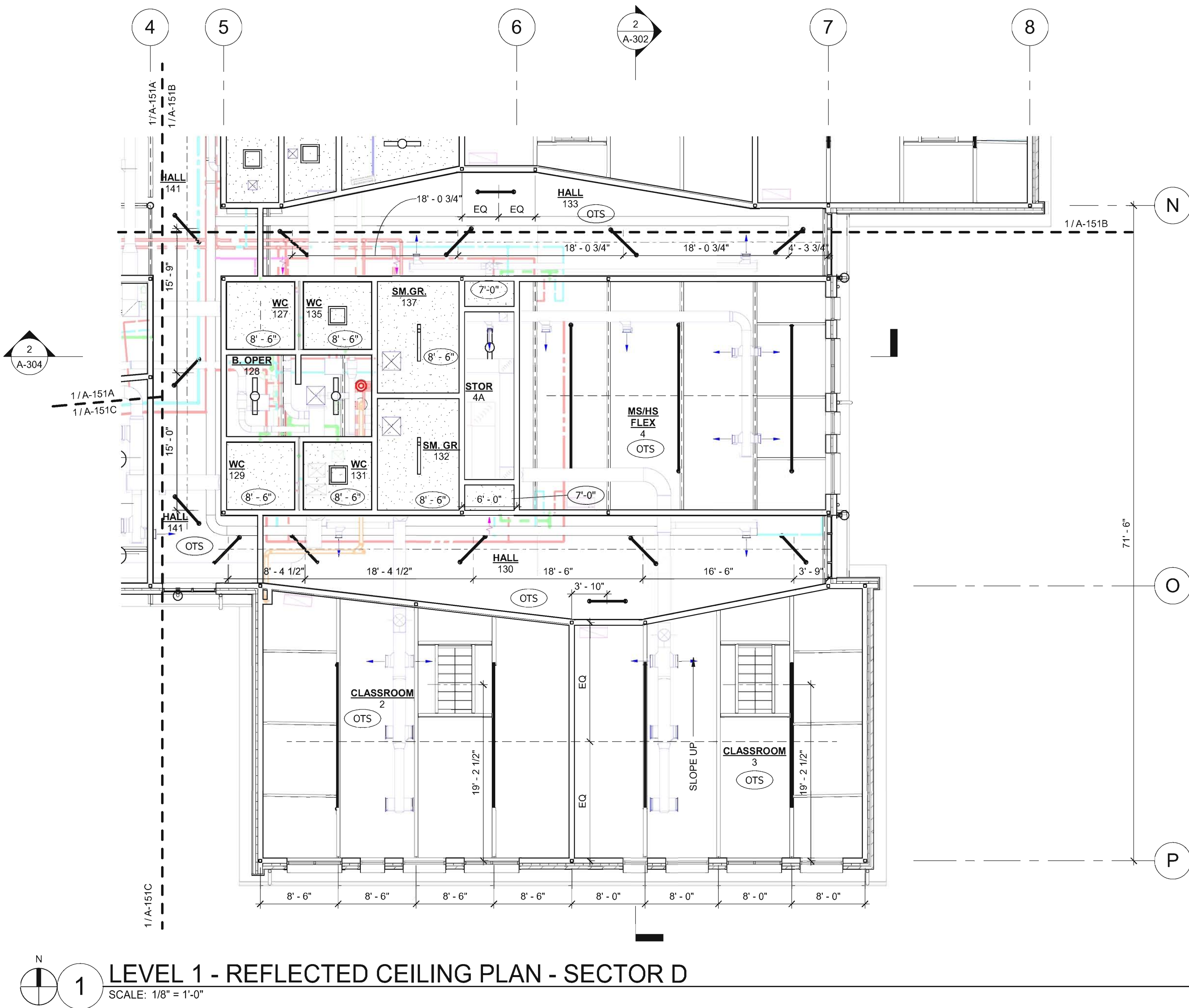


REFLECTED CEILING PLAN SYMBOL LEGEND	
	RETURN AIR DIFFUSER, SEE MECH
	SUPPLY AIR DIFFUSER, SEE MECH
	RECESSED LIGHT FIXTURE, SEE ELECTRICAL
	CAN LIGHT FIXTURE, SEE ELECTRICAL
	PENDANT LIGHT FIXTURE, SEE ELECTRICAL
	CEILING HEIGHT
	OPEN TO STRUCTURE
	2x4 ACOUSTICAL CEILING TILE
	GYPSUM WALLBOARD CEILING
	EXPOSED METAL DECK
	T&G CEILING

- | REFLECTED CEILING PLAN GENERAL NOTES  |            |
|---|------------|
| 1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.   |            |
| 2. RATED WALLS TO EXTEND FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK OR RATED CEILING SYSTEM.   |            |
| 3. REFLECTED CEILING PLANS INDICATE LOCATIONS OF MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS INTEGRAL WITH CEILINGS AND MAY NOT SHOW ALL COMPONENTS TO BE LOCATED IN OR IN THE CEILINGS. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION. |            |
| 4. MECHANICAL EQUIPMENT AND ELECTRICAL FIXTURES TO BE SUSPENDED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM.  |            |
| 5. CEILING ELEVATIONS INDICATE THE HEIGHT ABOVE THE FINISHED FLOOR IN THE ROOM OR AREA IN WHICH THE CEILING IS LOCATED. AT RAMP, STAIRS OR PLATFORMS, CEILING ELEVATIONS ARE FROM THE FINISHED FLOOR OF THE LOWER FLOOR UNLESS OTHERWISE NOTED.                       |            |
| 6. TYPICAL CEILING HEIGHT SHALL BE 9'-0" UNLESS OTHERWISE NOTED.  |            |
| 7. REFER TO TYPICAL SUSPENDED CEILING DETAIL  | 5<br>A-543 |
| 8. CENTER CEILING GRIDS IN ROOMS UNLESS OTHERWISE INDICATED   |            |
| 9. IN ROOMS AND AREAS WHERE FLOOR & ROOF STRUCTURE ABOVE IS EXPOSED, CLEAN AND PREP STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING ITEMS MEMBERS FOR PAINT.  |            |
| 10. LIGHTS IN SOFFITS TO BE CENTERED UNLESS OTHERWISE NOTED.  |            |
| 11. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.  |            |
| 12. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.   | 2<br>A-546 |
| 13. REFER TO TYPICAL WALL BRACING DETAIL  | S406       |
| 14. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.   |            |



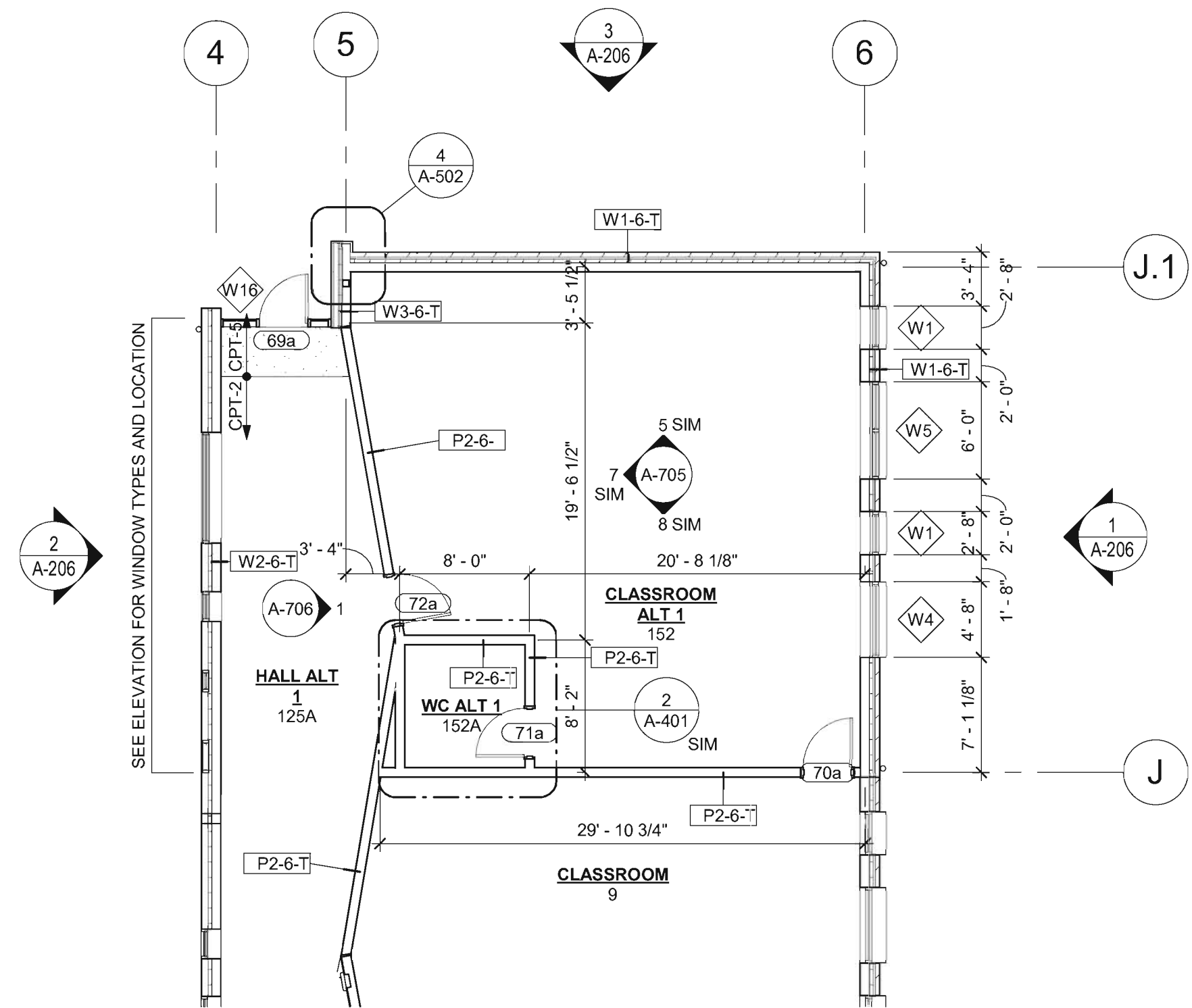




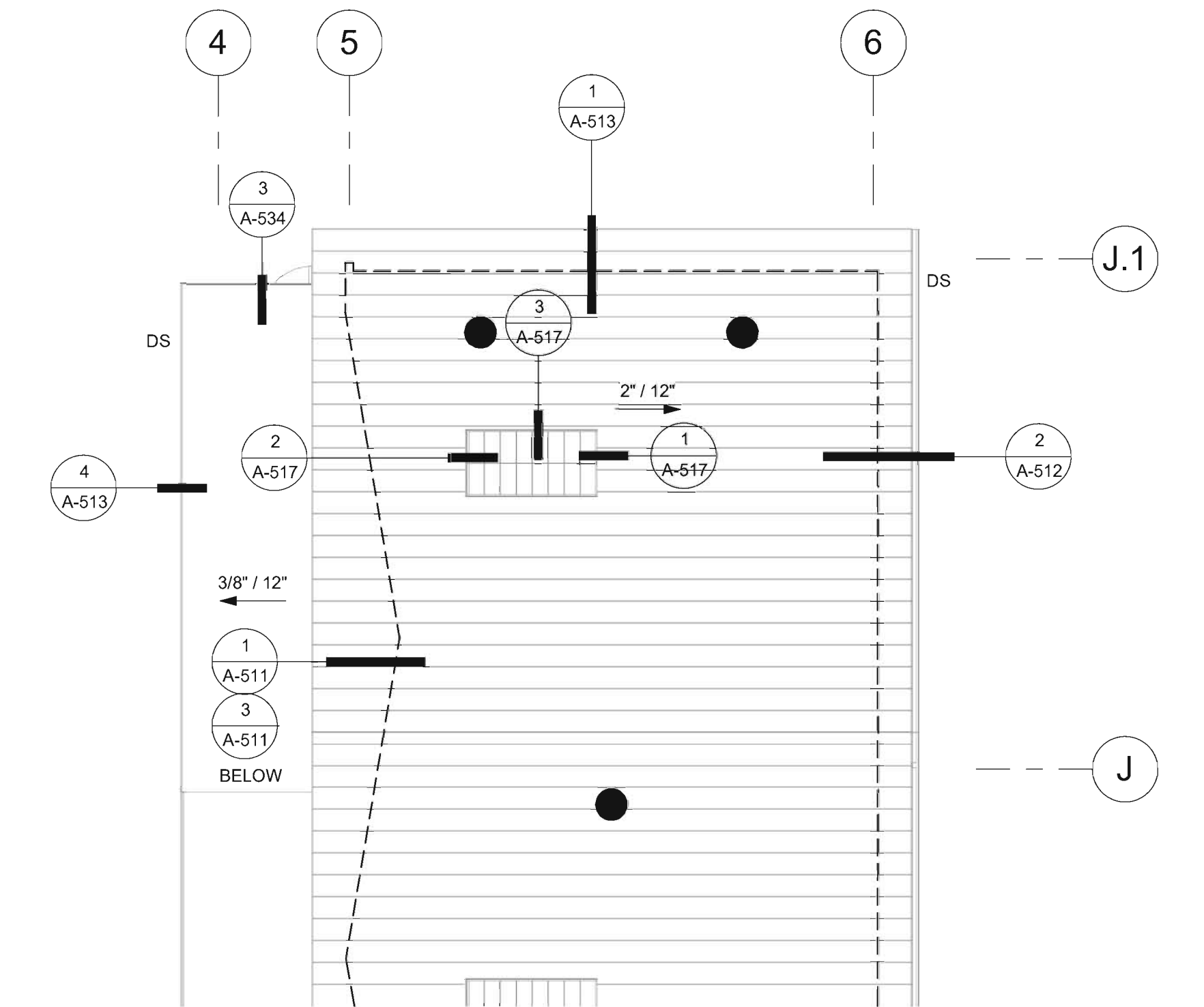
REFLECTED CEILING PLAN SYMBOL LEGEND	
	RETURN AIR DIFFUSER, SEE MECH
	SUPPLY AIR DIFFUSER, SEE MECH
	RECESSED LIGHT FIXTURE, SEE ELECTRICAL
	CAN LIGHT FIXTURE, SEE ELECTRICAL
	PENDANT LIGHT FIXTURE, SEE ELECTRICAL
	CEILING HEIGHT
	OPEN TO STRUCTURE
	2x4 ACOUSTICAL CEILING TILE
	GYPSUM WALLBOARD CEILING
	EXPOSED METAL DECK
	T&G CEILING

REFLECTED CEILING PLAN GENERAL NOTES	
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.	
2. RATED WALLS TO EXTEND FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK OR RATED CEILING SYSTEM.	
3. REFLECTED CEILING PLANS INDICATE LOCATIONS OF MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS INTEGRAL WITH CEILINGS AND MAY NOT SHOW ALL COMPONENTS TO BE LOCATED IN OR IN THE CEILINGS. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.	
4. MECHANICAL EQUIPMENT AND ELECTRICAL FIXTURES TO BE SUSPENDED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM.	
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6. TYPICAL CEILING HEIGHT SHALL BE 9'-0" UNLESS OTHERWISE NOTED.	
7. REFER TO TYPICAL SUSPENDED CEILING DETAIL	5 A-543
8. CENTER CEILING GRIDS IN ROOMS UNLESS OTHERWISE INDICATED	
9. IN ROOMS AND AREAS WHERE FLOOR & ROOF STRUCTURE ABOVE IS EXPOSED, CLEAN AND PREP STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING ITEMS MEMBERS FOR PAINT.	
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13. REFER TO TYPICAL WALL BRACING DETAIL	2 S406
14. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.	

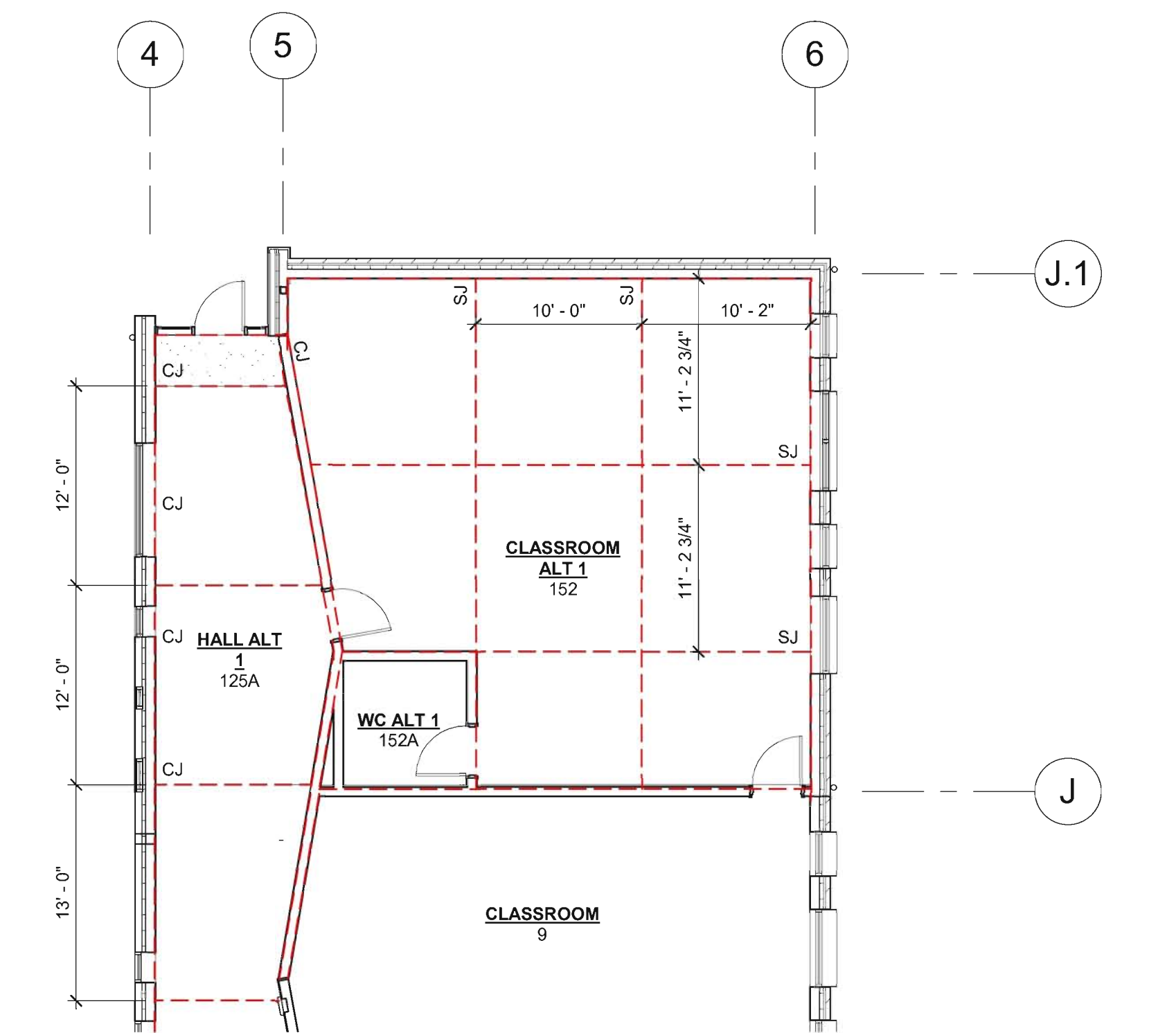




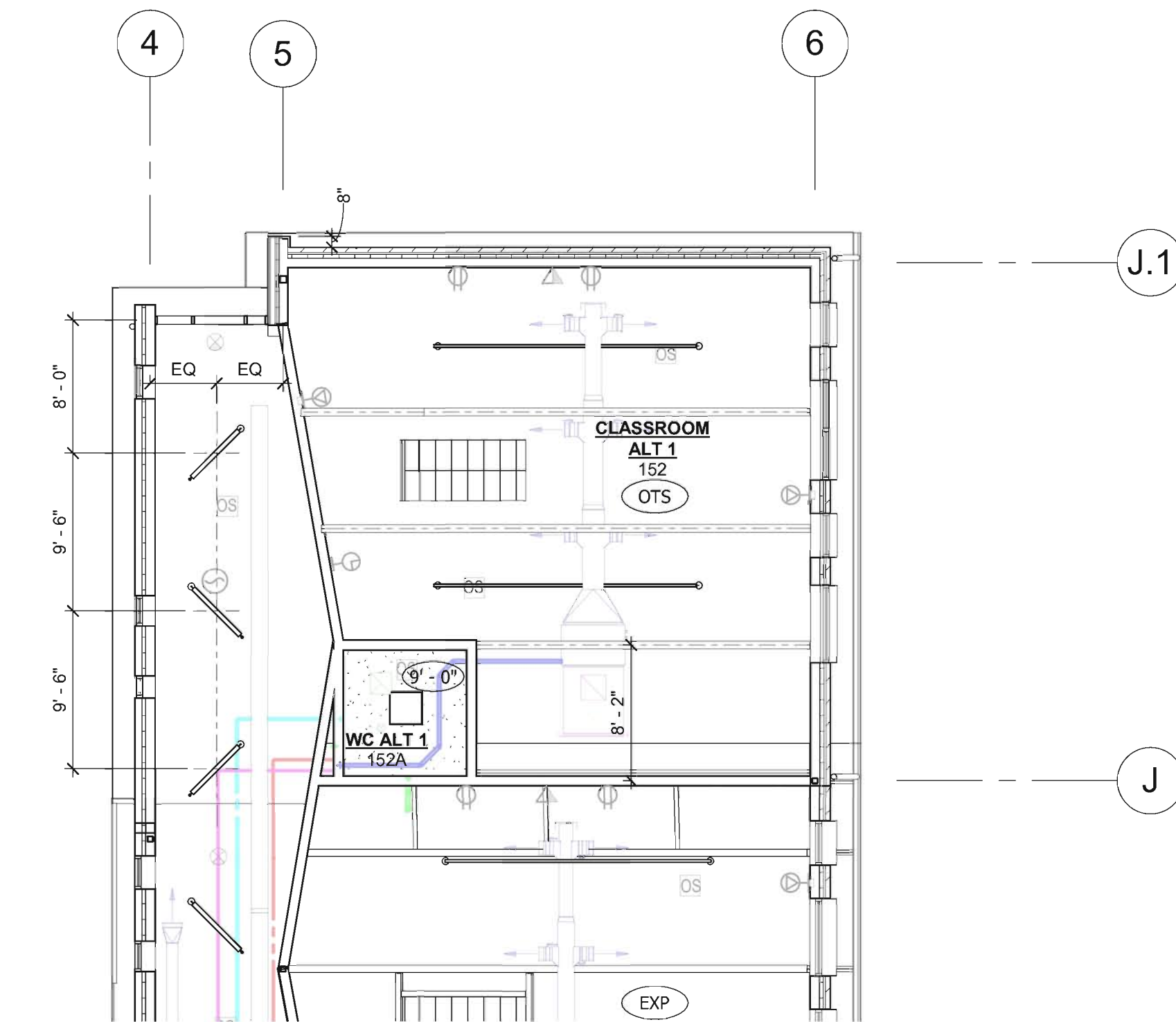
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SCALE: 1/8" = 1'-0"



3 ROOF PLAN ALTERNATE No.1  
SCALE: 1/8" = 1'-0"



2 LEVEL 1 SLAB JOINTING PLAN ALTERNATE No.1  
SCALE: 1/8" = 1'-0"

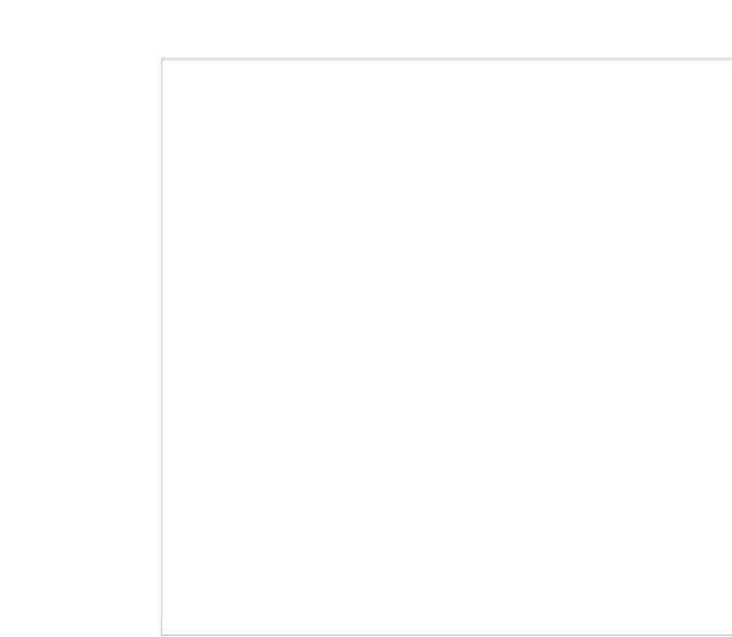


4 LEVEL 1 - REFLECTED CEILING PLAN - ALTERNATE No.1  
SCALE: 1/8" = 1'-0"

- REFLECTED CEILING PLAN GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. RATED WALLS TO EXTEND FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK OR RATED CEILING SYSTEM.
  3. REFLECTED CEILING PLANS INDICATE LOCATIONS OF MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS INTEGRAL WITH CEILINGS AND MAY NOT SHOW ALL COMPONENTS TO BE LOCATED IN OR IN THE CEILINGS. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.
  4. MECHANICAL EQUIPMENT AND ELECTRICAL FIXTURES TO BE SUSPENDED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM.
  5. CEILING ELEVATIONS INDICATE THE HEIGHT ABOVE THE FINISHED FLOOR IN THE ROOM OR AREA IN WHICH THE CEILING IS LOCATED. AT RAMPS, STAIRS OR PLATFORMS, CEILING ELEVATIONS ARE FROM THE FINISHED FLOOR OF THE LOWER FLOOR UNLESS OTHERWISE NOTED.
  6. TYPICAL CEILING HEIGHT SHALL BE 9'-0" UNLESS OTHERWISE NOTED.
  7. REFER TO TYPICAL SUSPENDED CEILING DETAIL.
  8. CENTER CEILING GRIDS IN ROOMS UNLESS OTHERWISE INDICATED.
  9. IN ROOMS AND AREAS WHERE FLOOR & ROOF STRUCTURE ABOVE IS EXPOSED, CLEAN AND PREP STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING ITEMS MEMBERS FOR PAINT.
  10. LIGHTS IN SOFFITS TO BE CENTERED UNLESS OTHERWISE NOTED.
  11. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  12. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
  13. REFER TO TYPICAL WALL BRACING DETAIL.
  14. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.

- ROOF PLAN GENERAL NOTES**
1. ROOF PLANS INDICATE LOCATIONS OF ARCHITECTURAL, STRUCTURAL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS ON THE ROOF OR THAT PENETRATE THE ROOF. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION. ROOF PENETRATIONS, ROOF ACCESSORIES AND ROOF CURBS TO RECEIVE FLASHING.
  2. SEISMICALLY ANCHOR ALL ROOF EQUIPMENT TO CURBS AND PROVIDE UNDER DECK REINFORCING BLOCKING TO PROPERLY ANCHOR.
  3. ALL ROOF ELEVATIONS INDICATED ARE TO THE TOP OF DECKING OR TOP OF PLATE UNLESS OTHERWISE NOTED.
  4. ALL CRICKETS ARE TO BE SLOPED A MINIMUM OF 1/2" PER FOOT UNLESS OTHERWISE NOTED.
  5. TAPERED INSULATION CRICKETS ARE TO BE ADDED OVER THE BASE LAYER INSULATION.
  6. FALL ARREST SYSTEM ANCHORS AND STRUCTURAL CONNECTIONS ARE A BIDDER-DESIGNED OR DESIGN-BUILD SYSTEM. LOCATIONS ARE SHOWN FOR GENERAL REFERENCE ONLY.
  7. REFER TO BUILDING ELEVATIONS AND SECTIONS FOR ADDITIONAL DETAIL REFERENCES.
  8. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.

SLAB EDGE LEGEND	
SJ	SAWCUT JOINT (CONTROL JOINT)
CJ	CONSTRUCTION JOINT
SLAB POUR "X"	
SLAB POUR "Y"	
SLOPED SLAB AT TILE	
DEPRESSED SLAB	



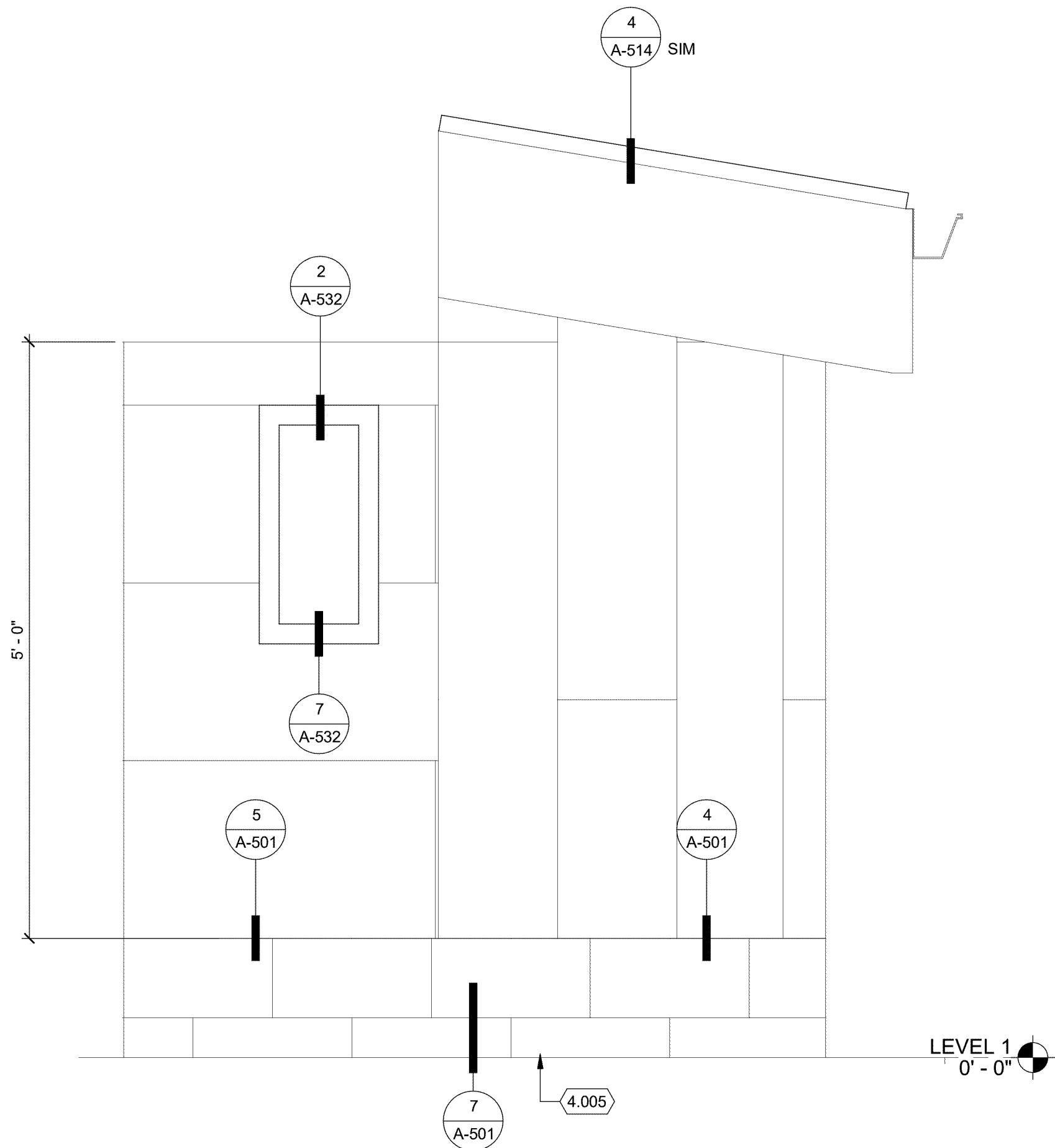
- FLOOR PLAN GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEET(S) FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO WALL TYPE SHEETS FOR INTERIOR AND EXTERIOR WALL DESCRIPTIONS. UNLESS OTHERWISE NOTED, THE TYPICAL EXTERIOR WALL TYPE SHALL BE TYPE W1-6-T AND THE TYPICAL INTERIOR WALL TYPE SHALL BE TYPE P2-6-S.
  3. WALL TYPES ARE NOT CALLED OUT AT EACH ROOM. WALL TYPES CALLED OUT IN ONE ROOM EXTEND FOR THE ENTIRE LENGTH OF THE WALL UNLESS OTHERWISE NOTED.
  4. WHERE CEILINGS ARE PRESENT, INTERIOR PARTITIONS ARE TO EXTEND 6" MINIMUM ABOVE FINISH CEILING HEIGHT UNLESS OTHERWISE NOTED.
  5. WHERE CEILINGS ARE NOT PRESENT, INTERIOR PARTITIONS ARE FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF DECK UNLESS OTHERWISE NOTED.
  6. INTERIOR STUD WALLS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  7. COLUMNS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
  8. MASONRY WALLS ARE DIMENSIONED TO FACE OF MASONRY UNLESS OTHERWISE NOTED.
  9. MASONRY OPENINGS ARE DIMENSIONED NOMINALLY UNLESS OTHERWISE NOTED.
  10. ALL DOOR, WINDOW, LOUVER AND OTHER OPENINGS ARE DIMENSIONED FOR NOMINAL OPENING SIZE. CONSTRUCT OPENING SIZES PER MANUFACTURER REQUIREMENTS. REFER TO DOOR TYPES, DOOR FRAME TYPES, AND WINDOW TYPES FOR DIMENSIONS.
  11. HINGE SIDE VERTICAL LEG OF DOOR FRAMES TO BE 6" FROM ADJACENT PERPENDICULAR WALLS UNLESS OTHERWISE NOTED.
  12. ARCHITECTURAL FINISHED FLOOR ELEVATION OF 0'-0" CORRESPONDS TO CIVIL ELEVATION OF 180.00.
  13. FLOOR DRAINS TO BE SET SO TOP OF DRAIN IS BELOW FINISH FLOOR ELEVATION WITH CONTINUOUS SLOPE FROM PERIMETER OF ROOM TO DRAIN UNLESS OTHERWISE NOTED. SLOPE 1/4" PER FOOT ALONG SHORTEST DISTANCE FROM PERIMETER OF ROOM TO DRAIN. FLOOR SLOPE SHALL NOT EXCEED 1/4" PER FOOT AT ANY LOCATION IN ROOM.
  14. FLOOR PLANS INDICATE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS AND MAY NOT SHOW ALL COMPONENTS. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL INFORMATION.
  15. OVERALL FLOOR PLANS ARE FOR REFERENCE ONLY. REFER TO ENLARGED FLOOR PLAN SHEETS.
  16. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  17. FLOOR MATERIAL TRANSITIONS OCCUR AS INDICATED IN PLAN AND BELOW DOORWAYS WHERE NOT SHOWN IN PLAN. REFERENCE ROOM FINISH SCHEDULE FOR FLOOR MATERIALS AND SEE DETAIL 7/A-541.

REFLECTED CEILING PLAN SYMBOL LEGEND	
RETURN AIR DIFFUSER, SEE MECH	
SUPPLY AIR DIFFUSER, SEE MECH	
RECESSED LIGHT FIXTURE, SEE ELECTRICAL	
CAN LIGHT FIXTURE, SEE ELECTRICAL	
PENDANT LIGHT FIXTURE, SEE ELECTRICAL	
CEILING HEIGHT	
OPEN TO STRUCTURE	
2x4 ACOUSTICAL CEILING TILE	
GYPSUM WALLBOARD CEILING	
EXPOSED METAL DECK	
T&G CEILING	

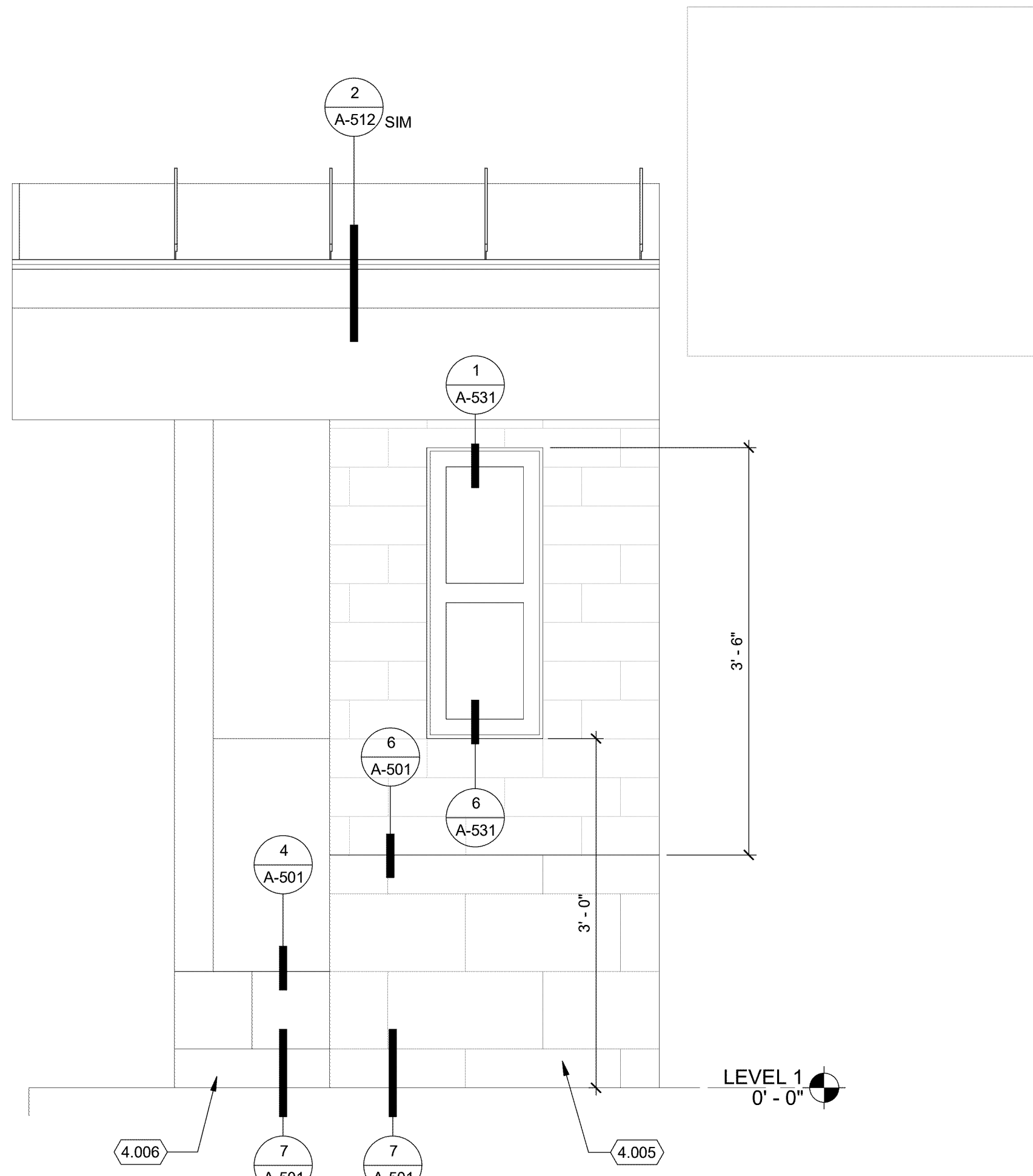


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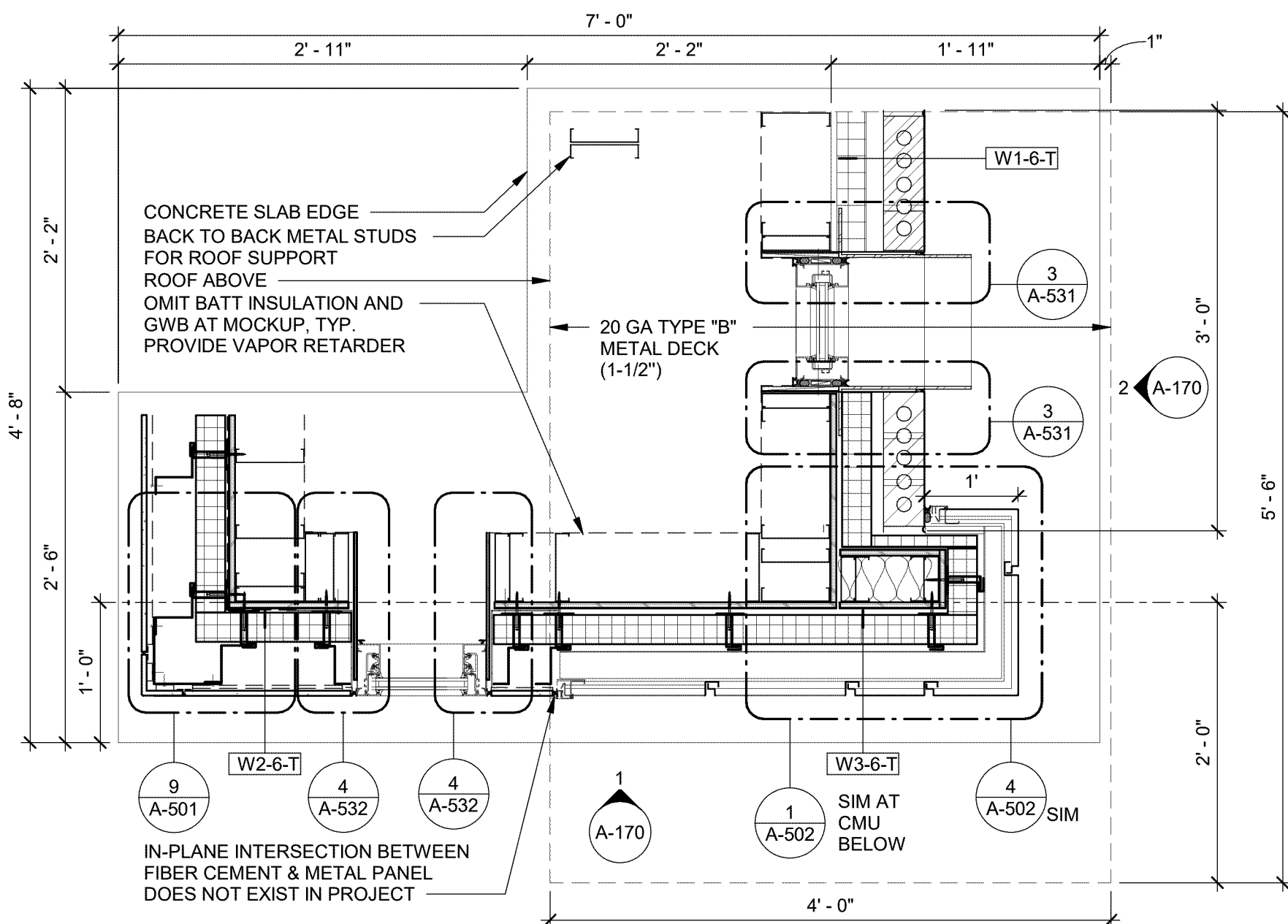
KEYNOTE LEGEND	
Key Value	Keynote Text
4.005	CMU-1
4.006	CMU-2



1 MOCK-UP - SOUTH ELEVATION  
SCALE: 1" = 1'-0"

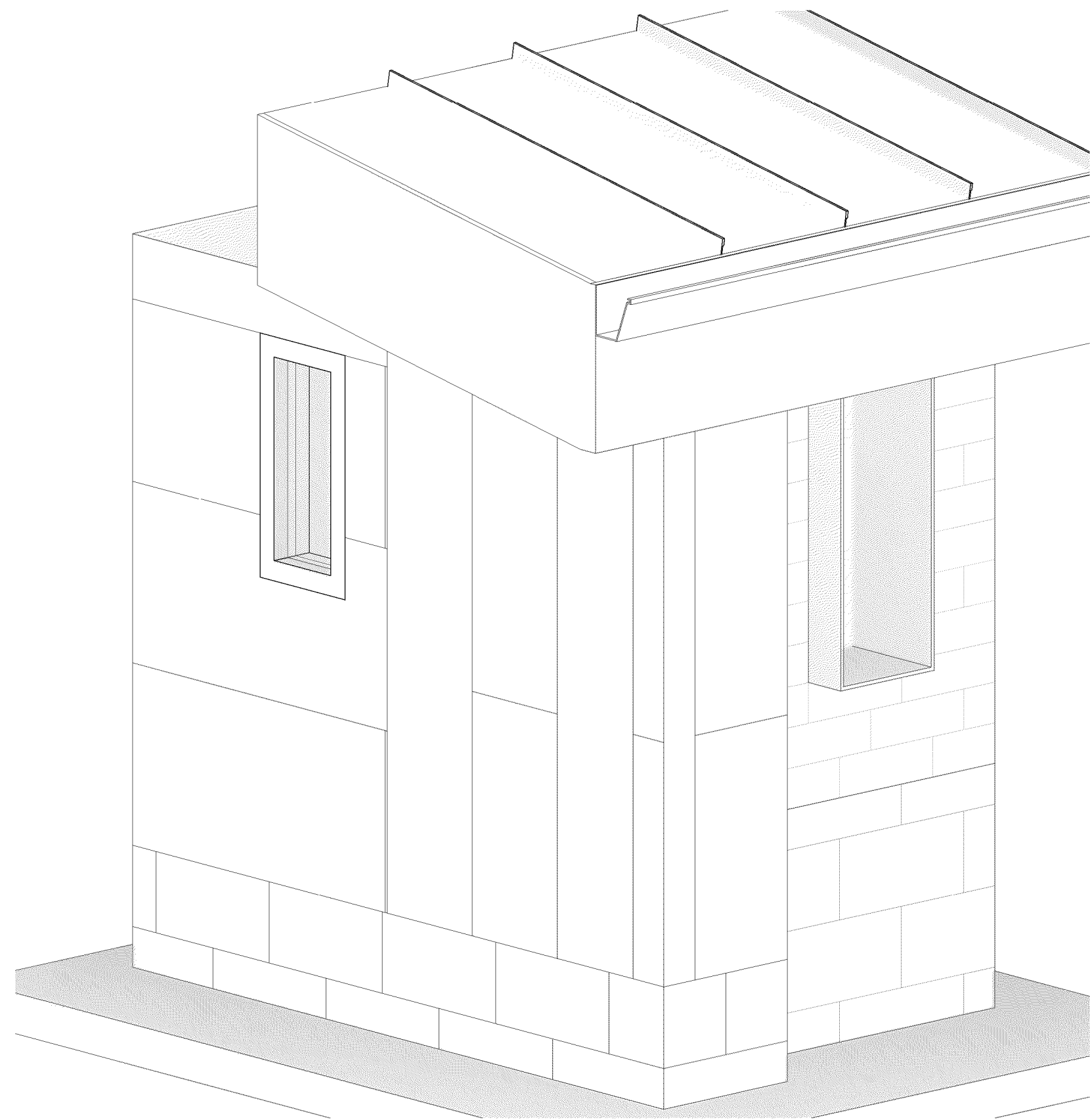


2 MOCK-UP - EAST ELEVATION  
SCALE: 1" = 1'-0"



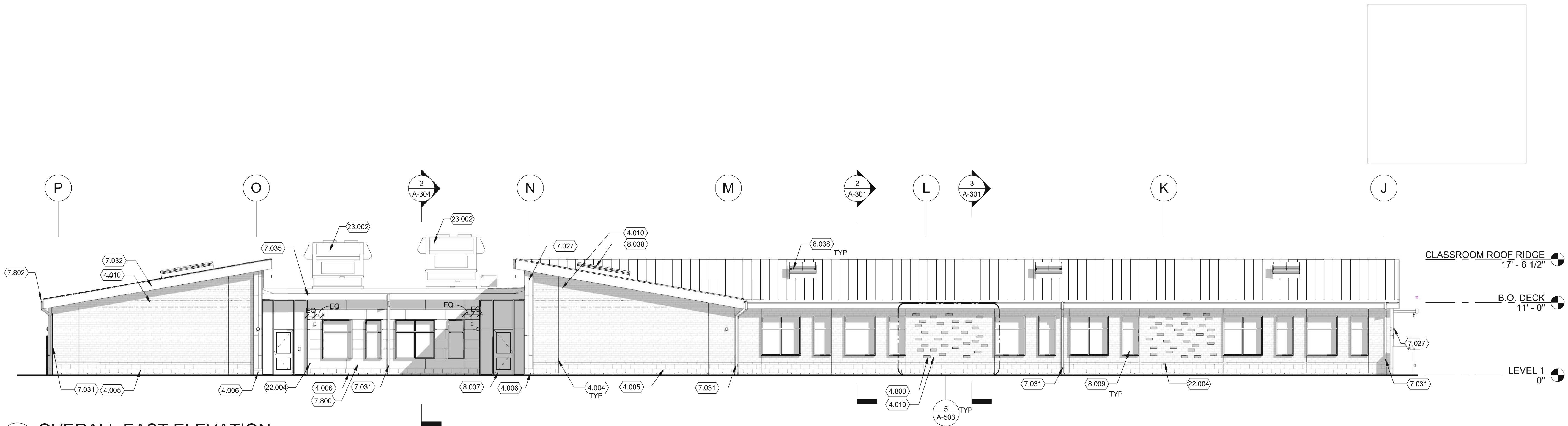
NOTE: PROVIDE L3X3X1/4 ANGLE FOR ROOF EDGE  
SUPPORT ON ALL SIDES.

3 ENLARGED PLAN - MOCK-UP  
SCALE: 1" = 1'-0"

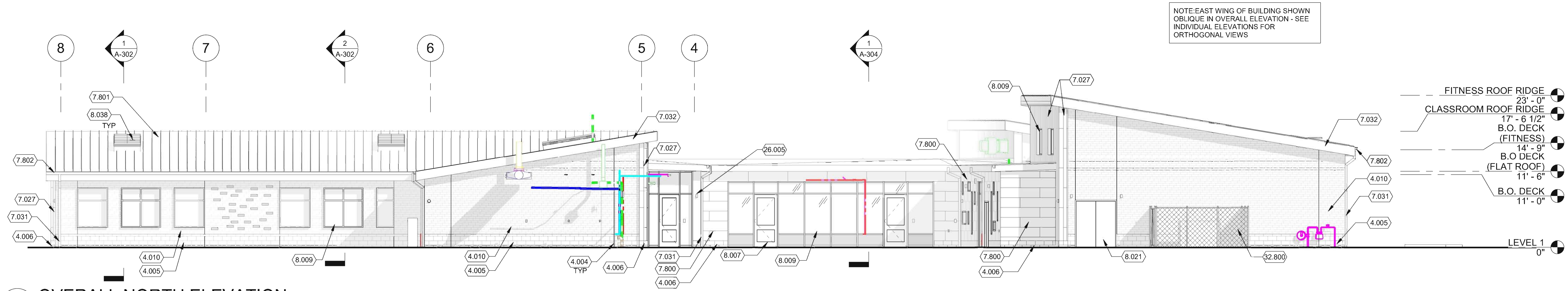




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1 OVERALL EAST ELEVATION  
SCALE: 1/8" = 1'-0"



2 OVERALL NORTH ELEVATION  
SCALE: 1/8" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
4.004	CONTROL JOINT
4.005	CMU-1
4.006	CMU-2
4.010	FACING BRICK -1
4.800	FACING BRICK - 2
7.027	METAL WALL PANEL
7.031	PAINTED PVC DOWNSPOUT
7.032	PREFINISHED SHEET METAL FLASHING/TRIM
7.035	ROOF EDGE FLASHING
7.800	FIBER CEMENT SIDING
7.801	STANDING SEAM METAL ROOF
7.802	PREFINISHED METAL GUTTER
8.007	ALUMINUM-FRAMED DOOR(S)
8.009	ALUMINUM-FRAMED STOREFRONT
8.021	HOLLOW METAL DOOR AND FRAME
8.038	UNIT SKYLIGHT
22.004	HOSE BIB
23.002	ROOF TOP UNIT
26.005	LIGHT FIXTURE
32.800	FENCE

EXTERIOR ELEVATIONS GENERAL NOTES
1. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.
2. LOCATION AND SPACING OF MASONRY CONTROL JOINTS ARE TO BE AS SHOWN ON EXTERIOR ELEVATIONS UNLESS OTHERWISE NOTED.
3. MATERIAL JOINTS ARE TO BE EQUALLY SPACED AND/OR CENTERED WITH ADJACENT ELEMENTS AS SHOWN UNLESS OTHERWISE NOTED.
4. REFER TO DOOR AND WINDOW TYPES FOR DOOR, WINDOW AND LOUVER DIMENSIONS, LOCATION AND SPACING OF MULLIONS/FRA ME MEMBERS AND TYPICAL DETAIL REFERENCES.

OVERALL BUILDING ELEVATIONS

A-201

Scale As indicated



**FIR GROVE CHILDREN'S CENTER**  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661

issue date  
10/15/2019

**PERMIT/BID SET**

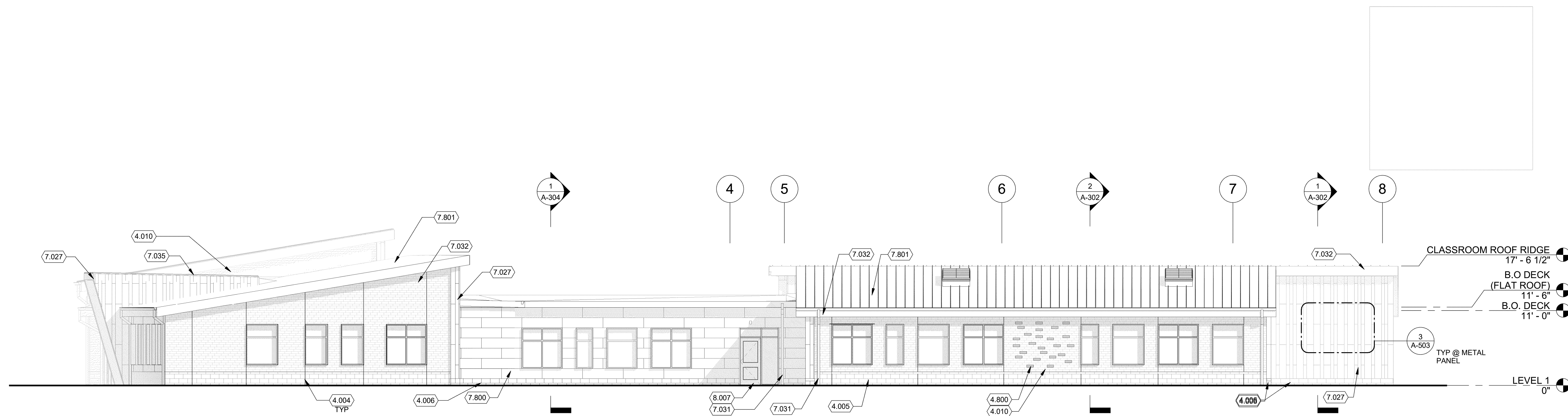
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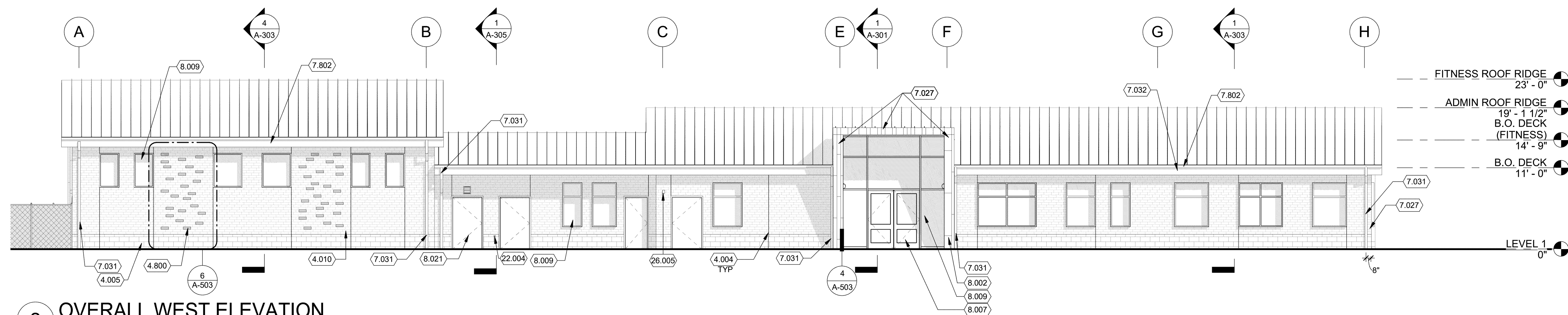
## OVERALL BUILDING ELEVATIONS

A-202

Scale	As indicated
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1 OVERALL SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"

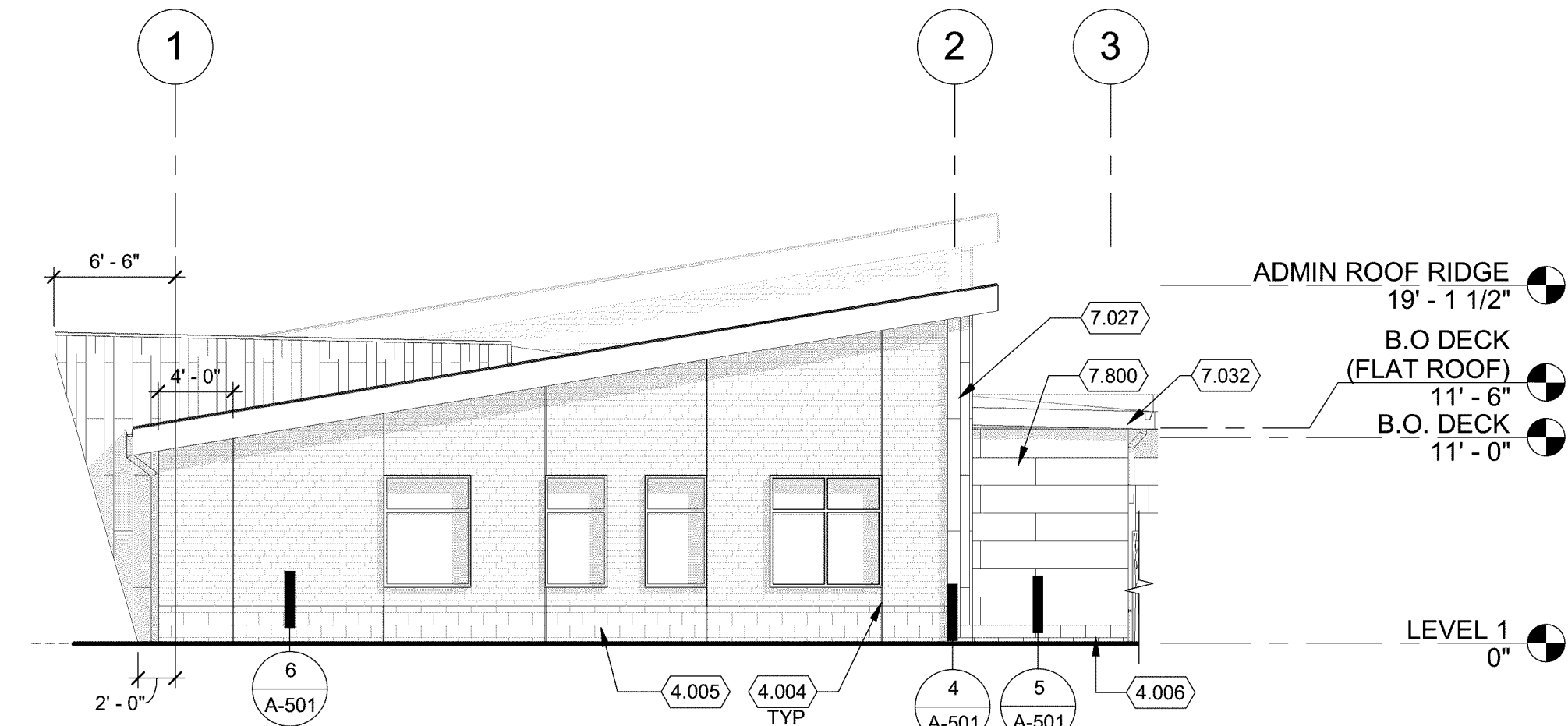


2 OVERALL WEST ELEVATION  
SCALE: 1/8" = 1'-0"

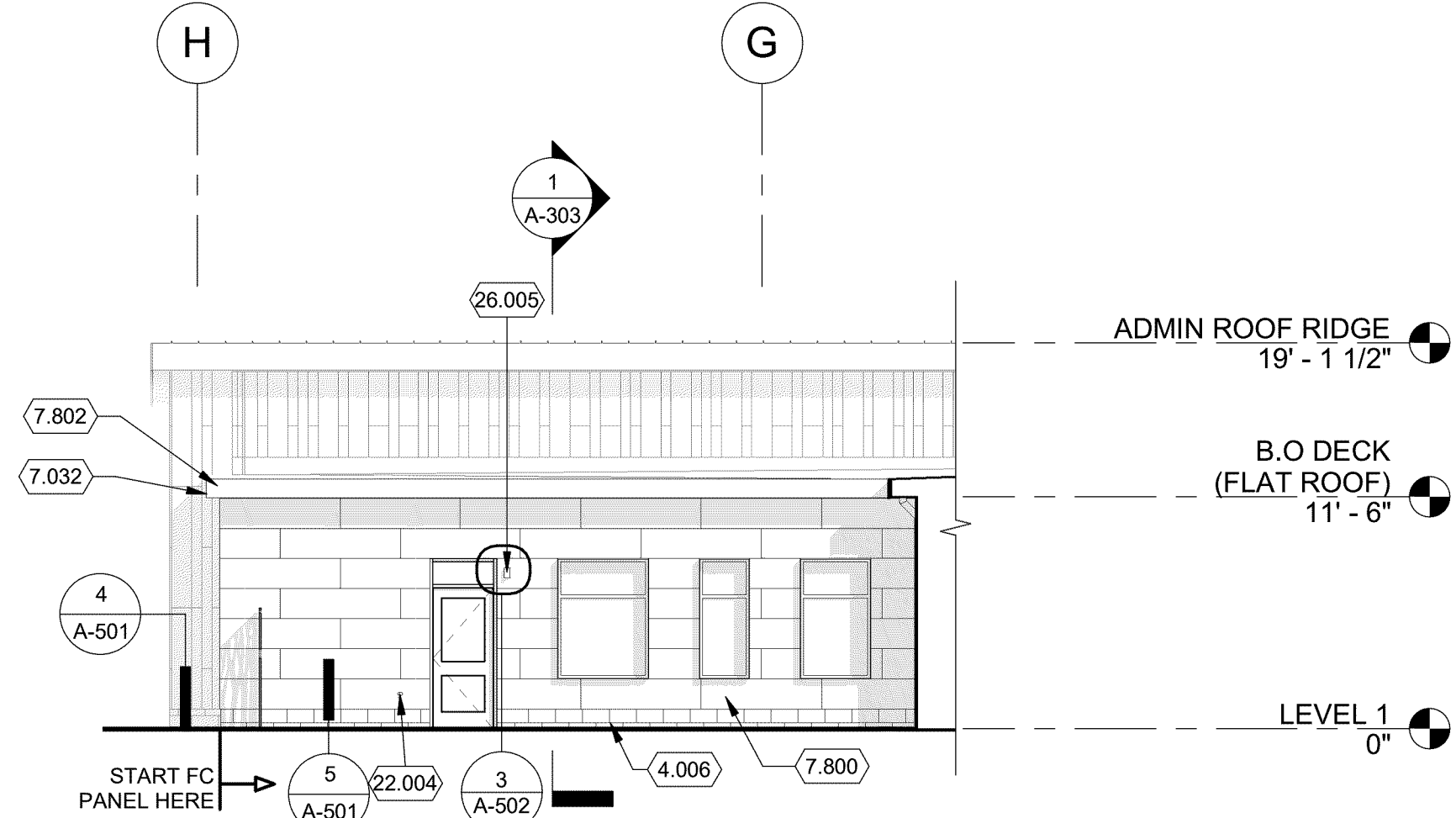
KEYNOTE LEGEND	
Key Value	Keynote Text
4.004	CONTROL JOINT
4.005	CMU-1
4.006	CMU-2
4.010	FACING BRICK -1
4.800	FACING BRICK - 2
7.027	METAL WALL PANEL
7.031	PAINTED PVC DOWNSPOUT
7.032	PREFINISHED SHEET METAL FLASHING/TRIM
7.035	ROOF EDGE FLASHING
7.800	FIBER CEMENT SIDING
7.801	STANDING SEAM METAL ROOF
7.802	PREFINISHED METAL GUTTER
8.002	ADA ACTUATOR
8.007	ALUMINUM-FRAMED DOOR(S)
8.009	ALUMINUM-FRAMED STOREFRONT
8.021	HOLLOW METAL DOOR AND FRAME
22.004	HOSE BIB
23.002	ROOF TOP UNIT
26.005	LIGHT FIXTURE

EXTERIOR ELEVATIONS GENERAL NOTES	
1.	ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.
2.	LOCATION AND SPACING OF MASONRY CONTROL JOINTS ARE TO BE AS SHOWN ON EXTERIOR ELEVATIONS UNLESS OTHERWISE NOTED.
3.	MATERIAL JOINTS ARE TO BE EQUALLY SPACED AND/OR CENTERED WITH ADJACENT ELEMENTS AS SHOWN UNLESS OTHERWISE NOTED.
4.	REFER TO DOOR AND WINDOW TYPES FOR DOOR, WINDOW AND LOUVER DIMENSIONS, LOCATION AND SPACING OF MULLIONS/FRAME MEMBERS AND TYPICAL DETAIL REFERENCES.

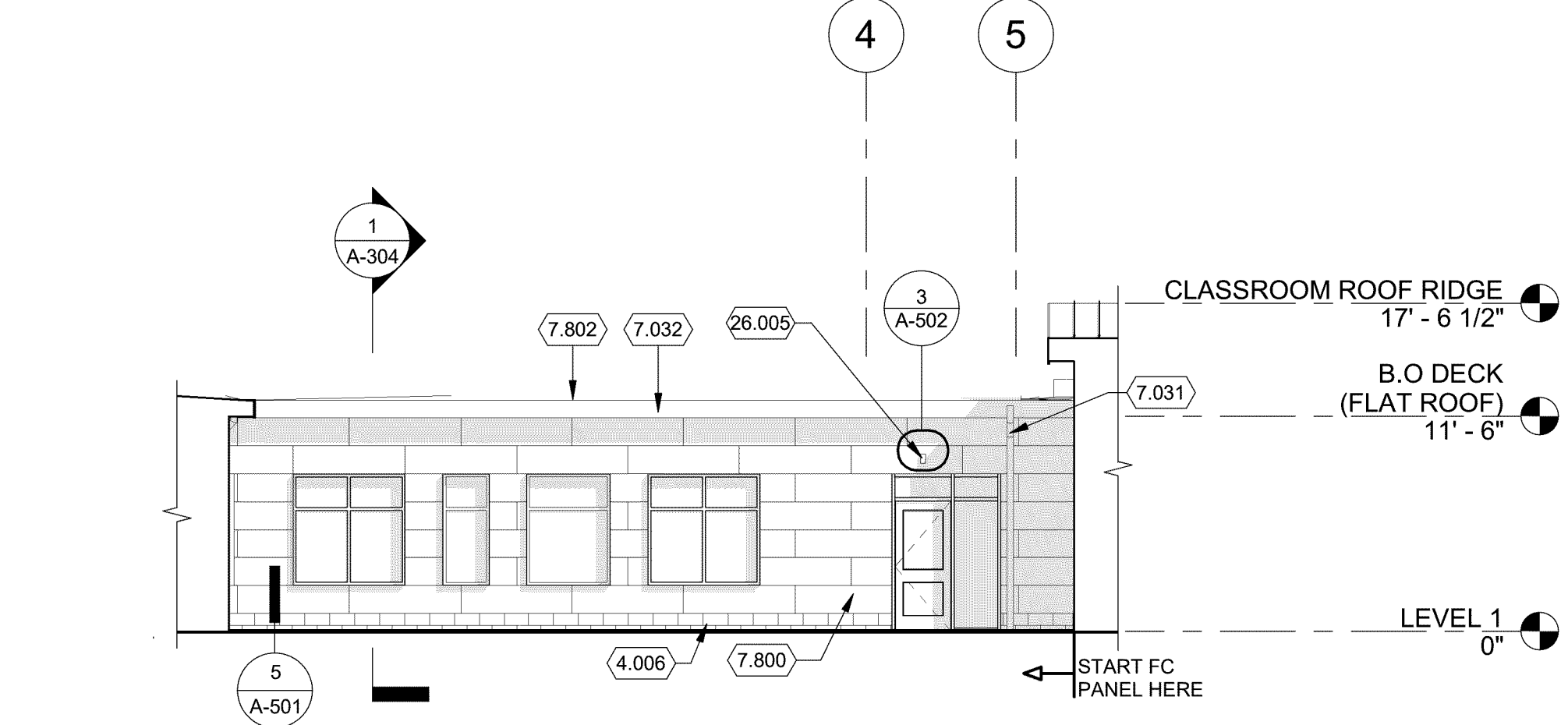




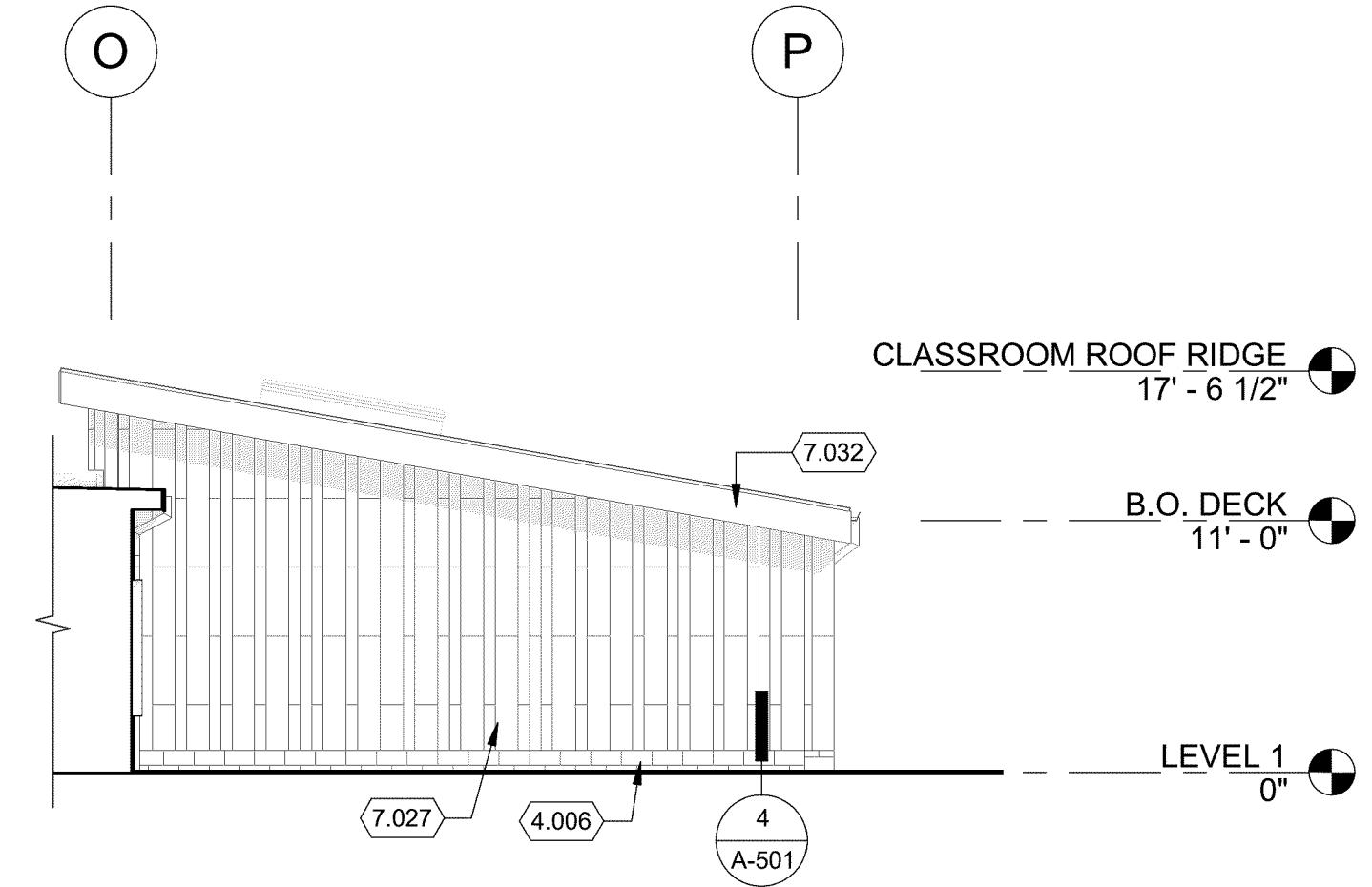
1 SOUTH ADMIN ELEVATION  
SCALE: 1/8" = 1'-0"



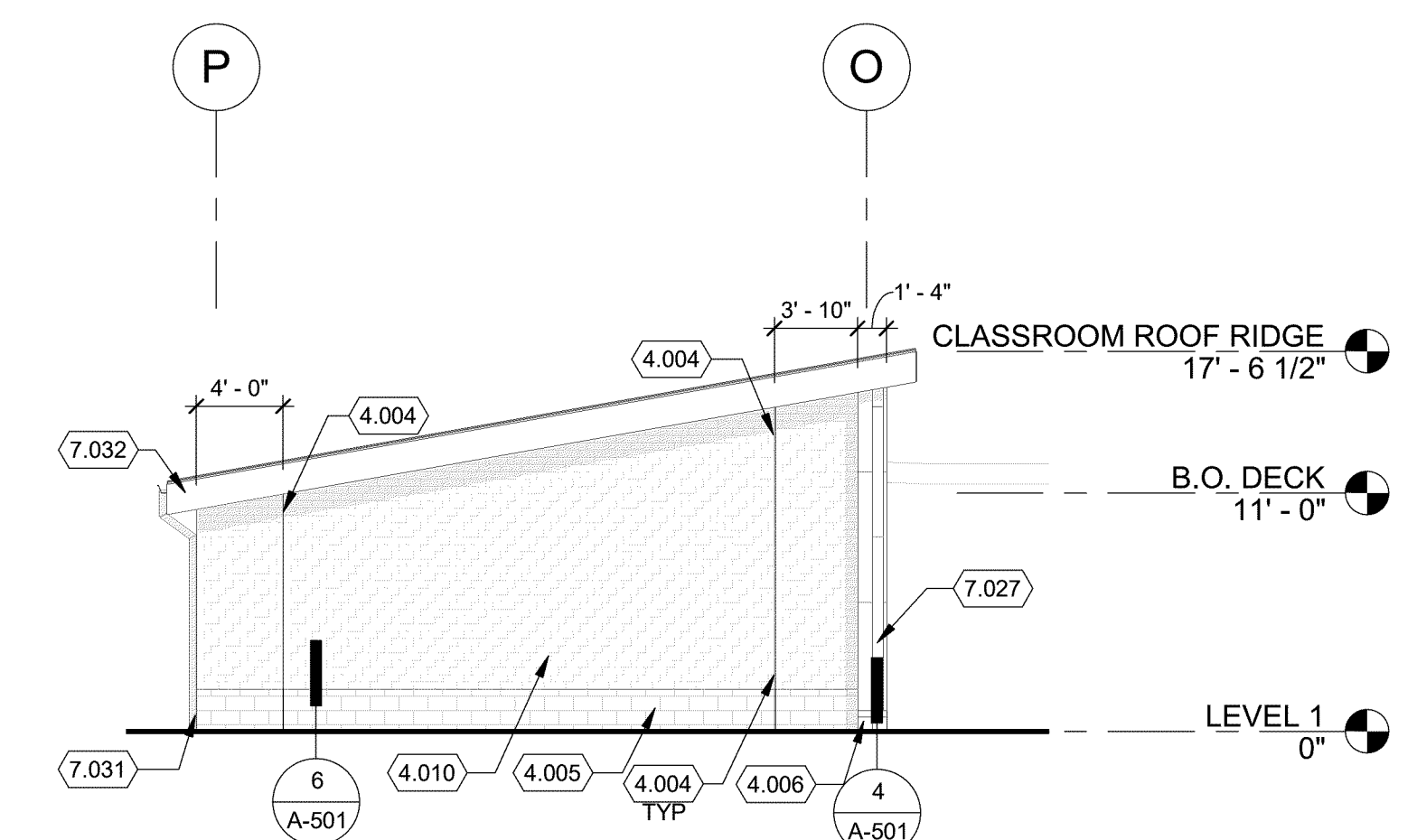
2 SOUTH COURTYARD EAST ELEVATION  
SCALE: 1/8" = 1'-0"



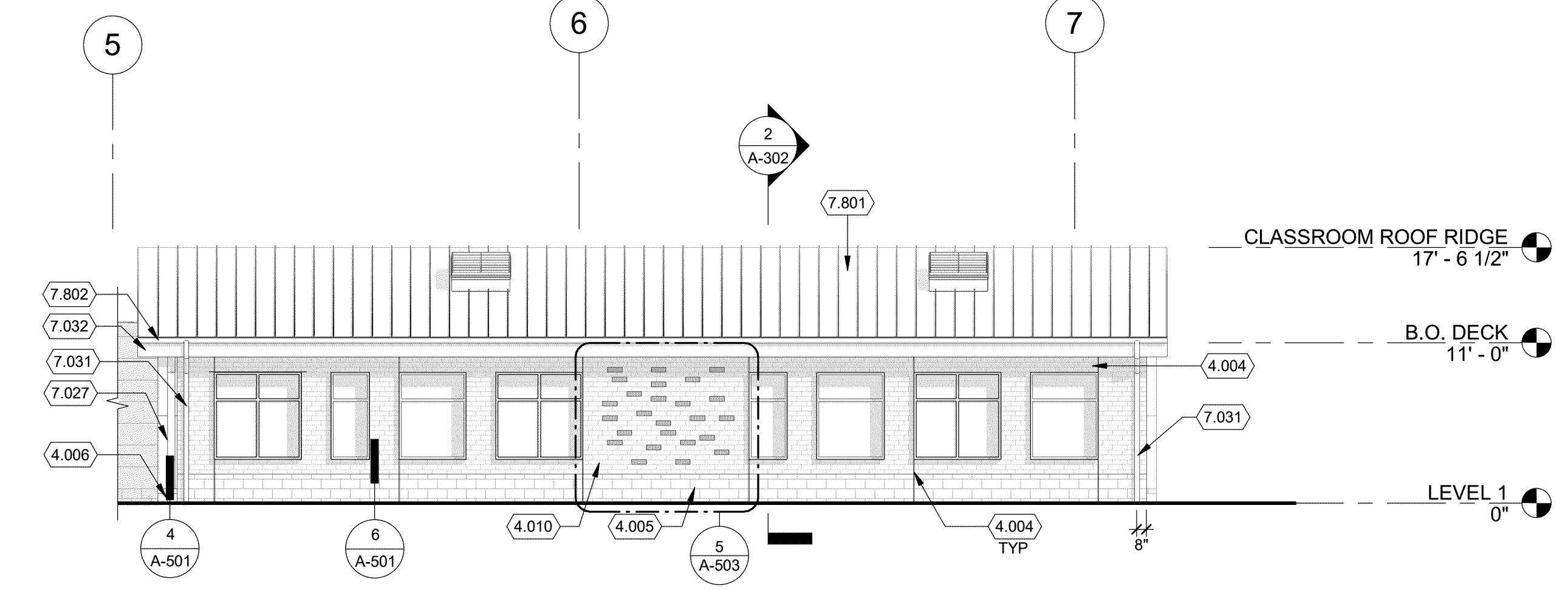
3 SOUTH COURTYARD NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



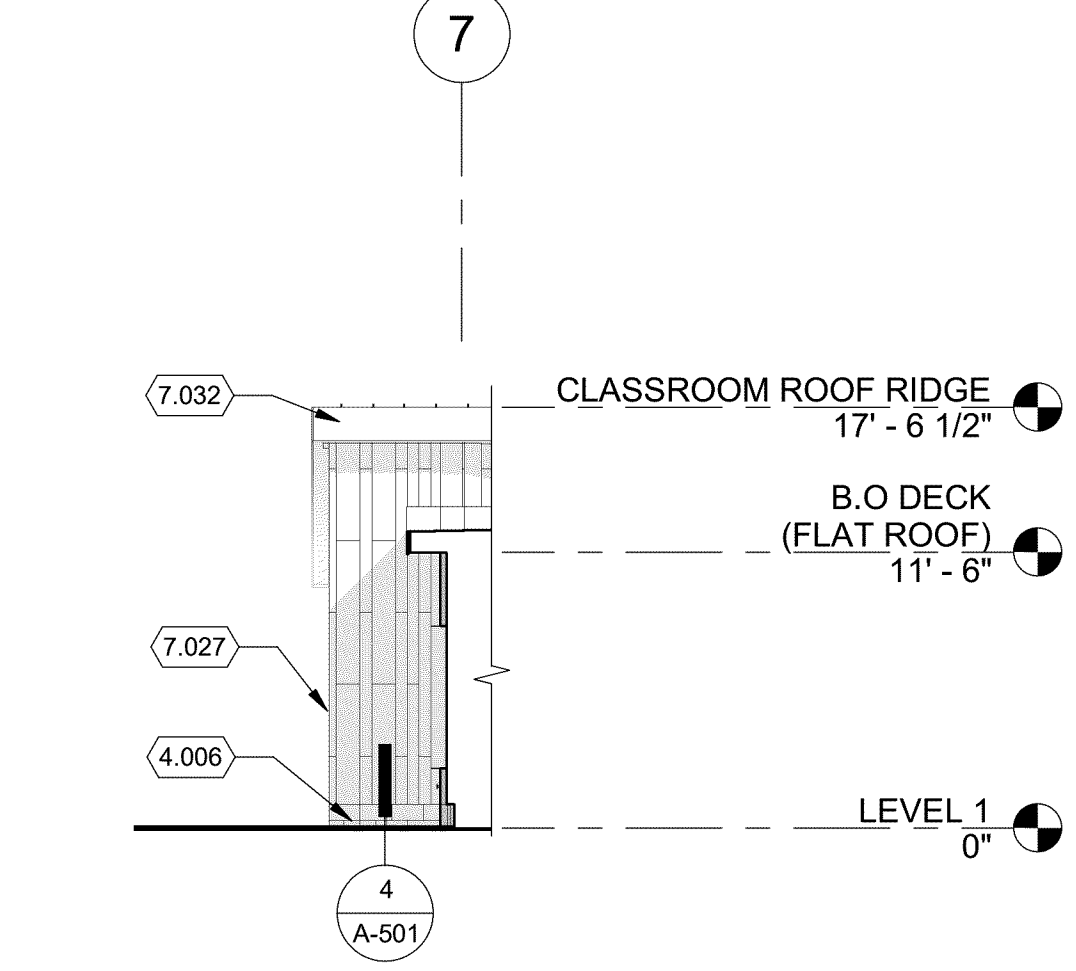
4 SOUTH COURTYARD WEST ELEVATION  
SCALE: 1/8" = 1'-0"



6 EAST CLASSROOM ELEVATION  
SCALE: 1/8" = 1'-0"



5 SOUTH CLASSROOM ELEVATION  
SCALE: 1/8" = 1'-0"



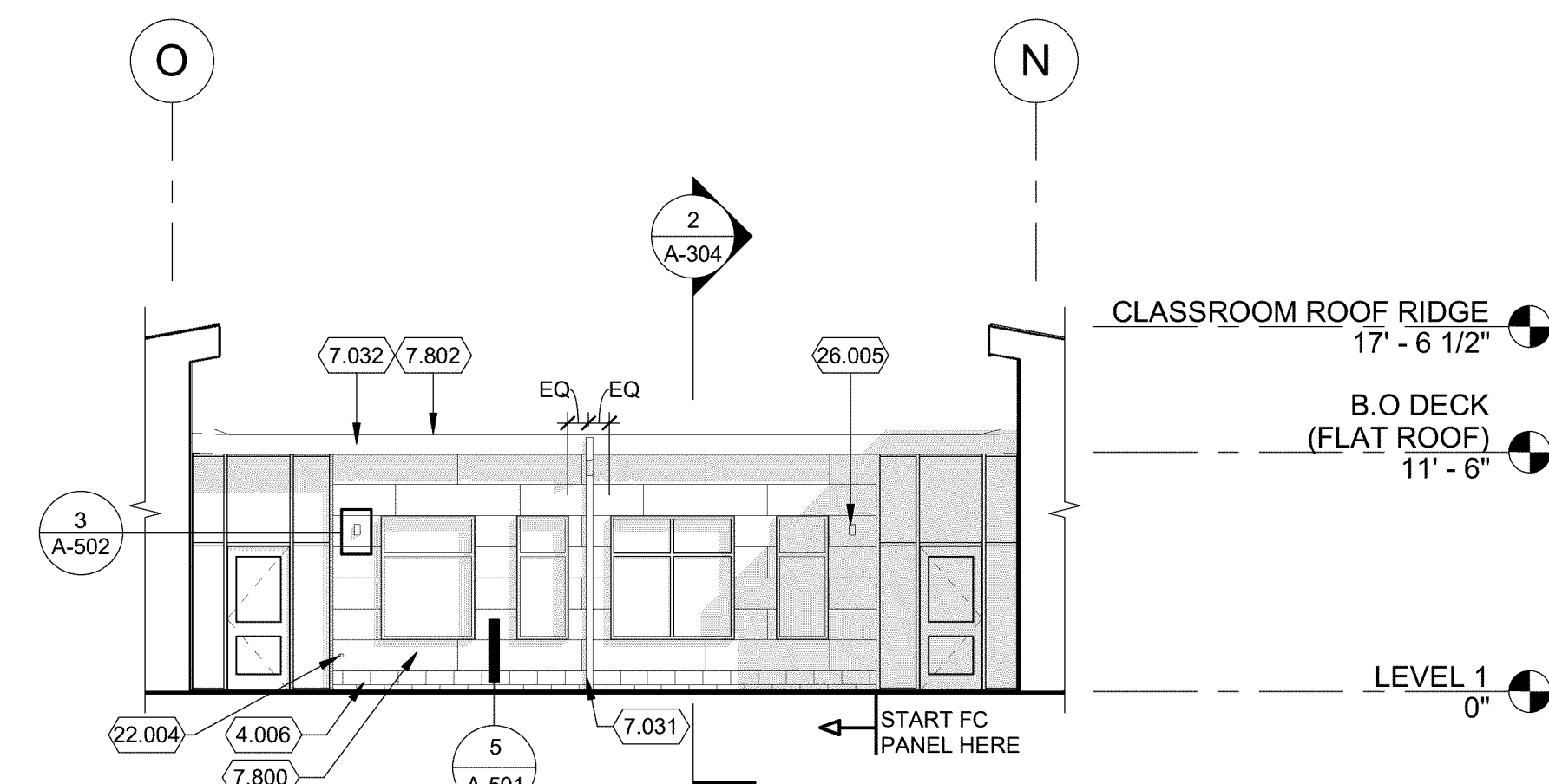
7 EAST COURTYARD SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
4.004	CONTROL JOINT
4.005	CMU-1
4.006	CMU-2
4.010	FACING BRICK -1
7.027	METAL WALL PANEL
7.031	PAINTED PVC DOWNSPOUT
7.032	PREFINISHED SHEET METAL FLASHING/TRIM
7.800	FIBER CEMENT SIDING
7.801	STANDING SEAM METAL ROOF
7.802	PREFINISHED METAL GUTTER
22.004	HOSE BIB
26.005	LIGHT FIXTURE

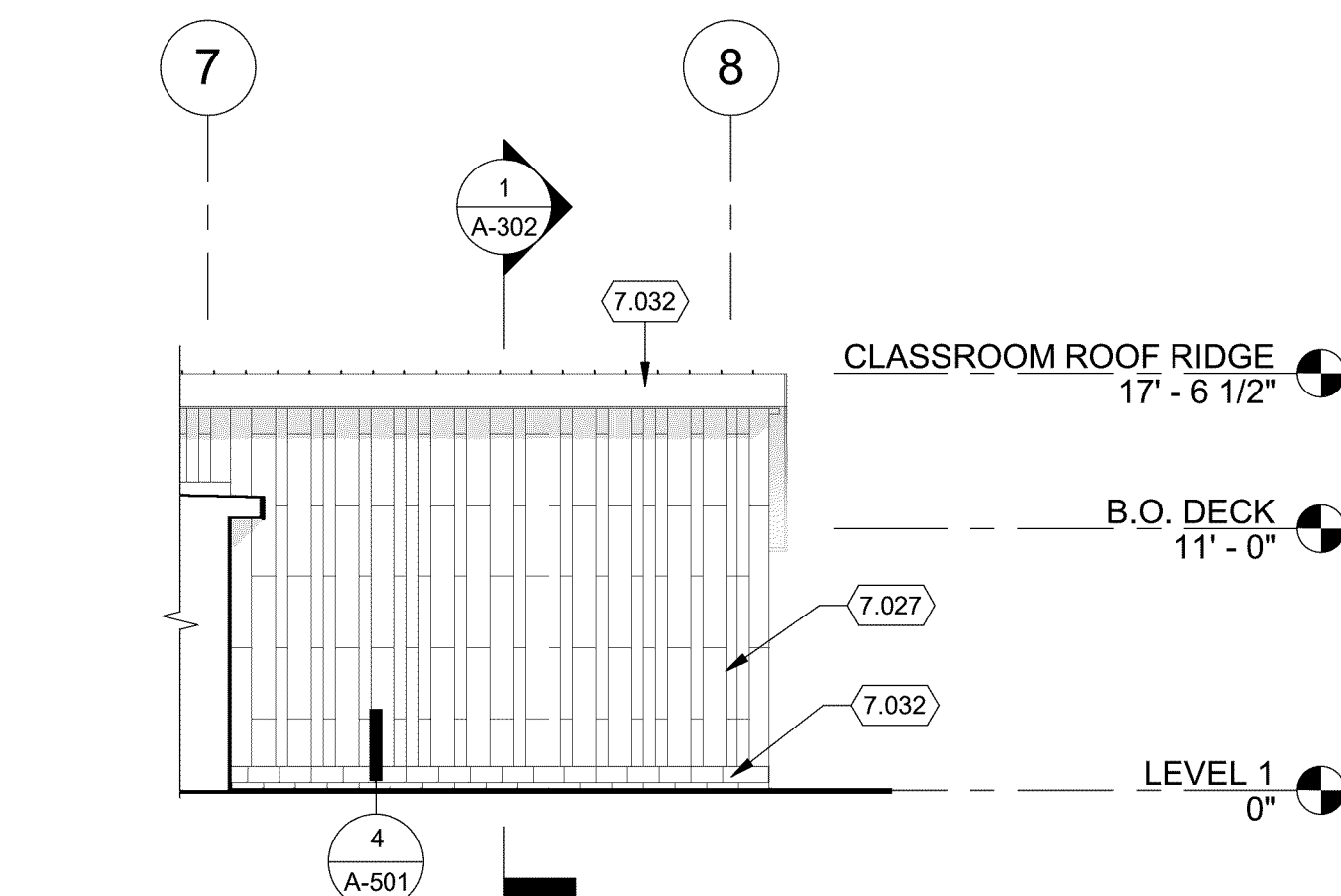
- EXTERIOR ELEVATIONS GENERAL NOTES
1. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.
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  4. REFER TO DOOR AND WINDOW TYPES FOR DOOR, WINDOW AND LOUVER DIMENSIONS, LOCATION AND SPACING OF MULLIONS/FRAME MEMBERS AND TYPICAL DETAIL REFERENCES.



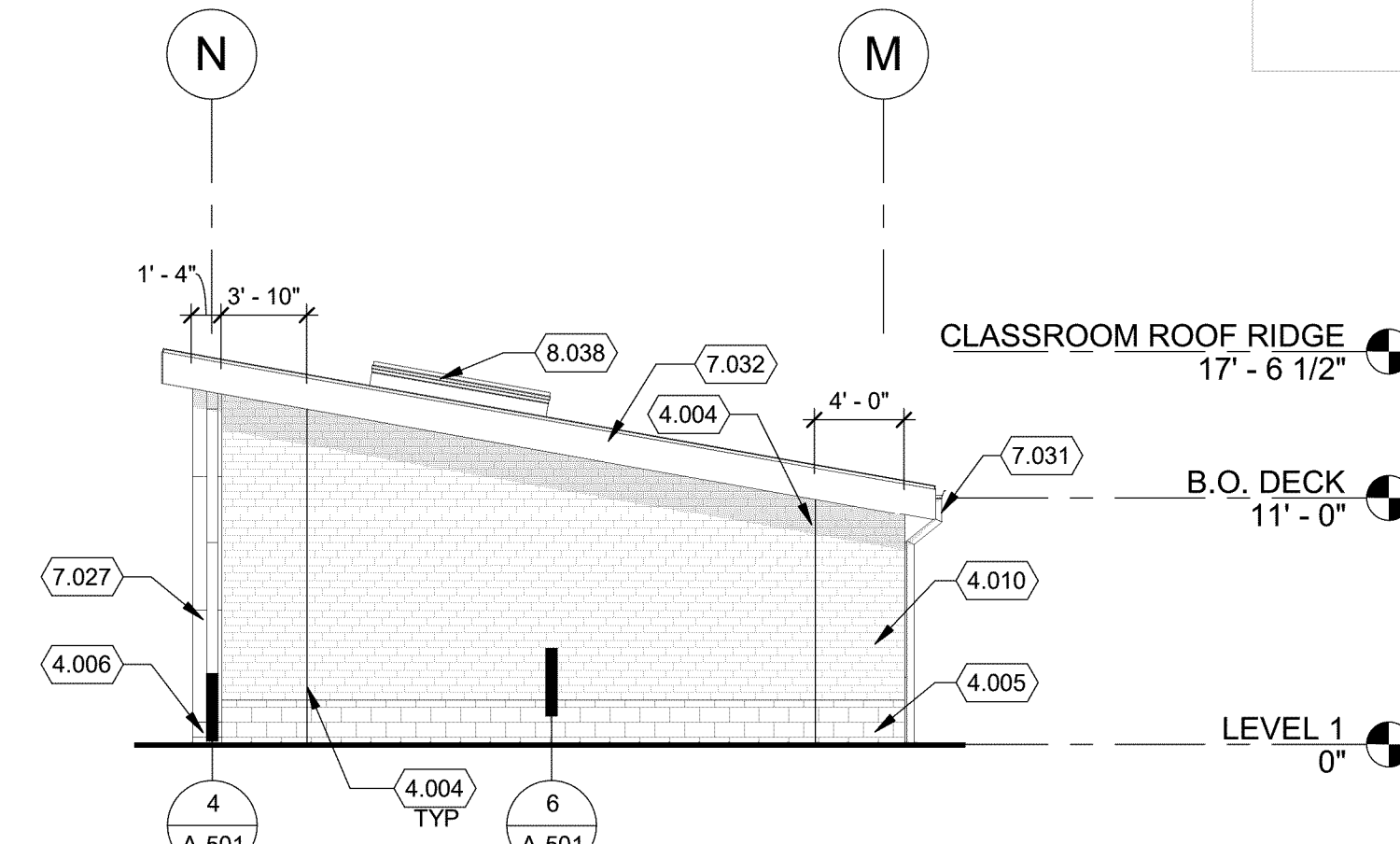
**FIR GROVE CHILDREN'S CENTER**  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661



1 EAST COURTYARD EAST ELEVATION  
SCALE: 1/8" = 1'-0"

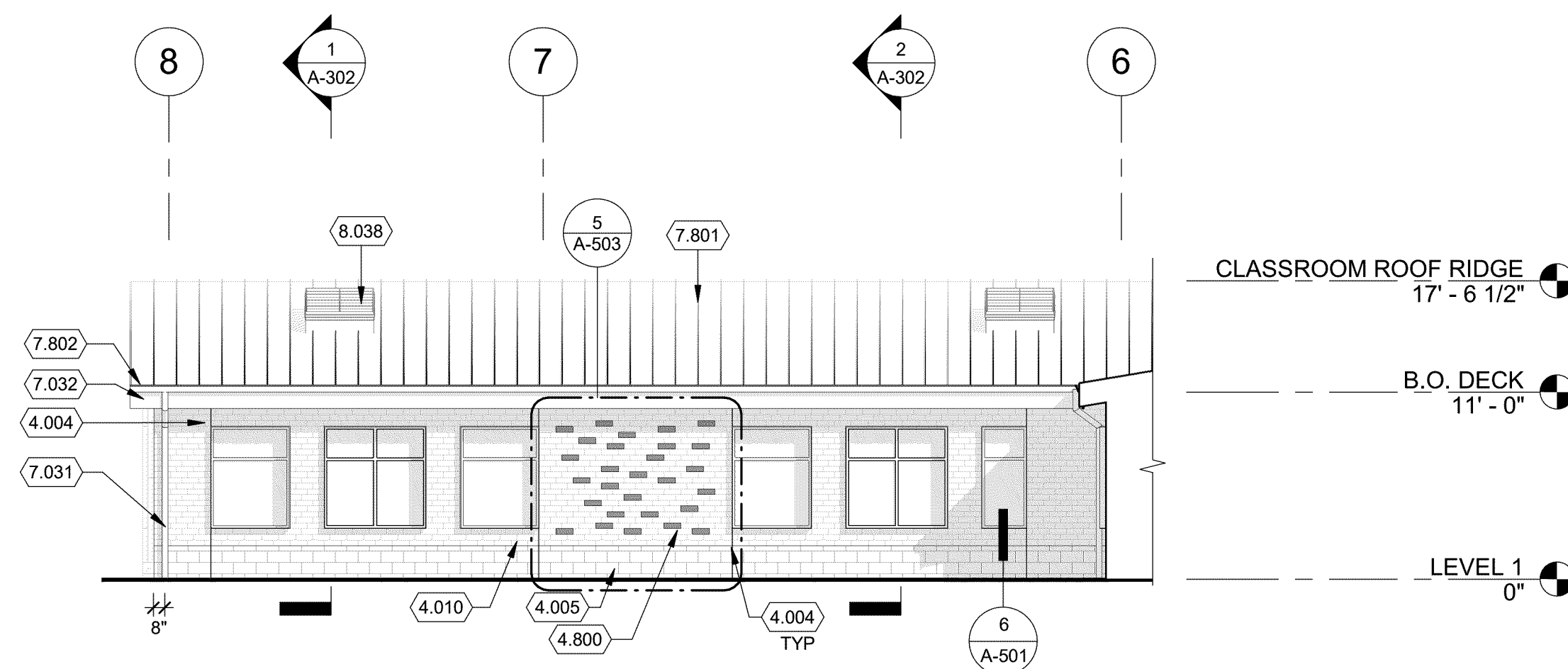


## 2 EAST COURTYARD NORTH ELEVATION

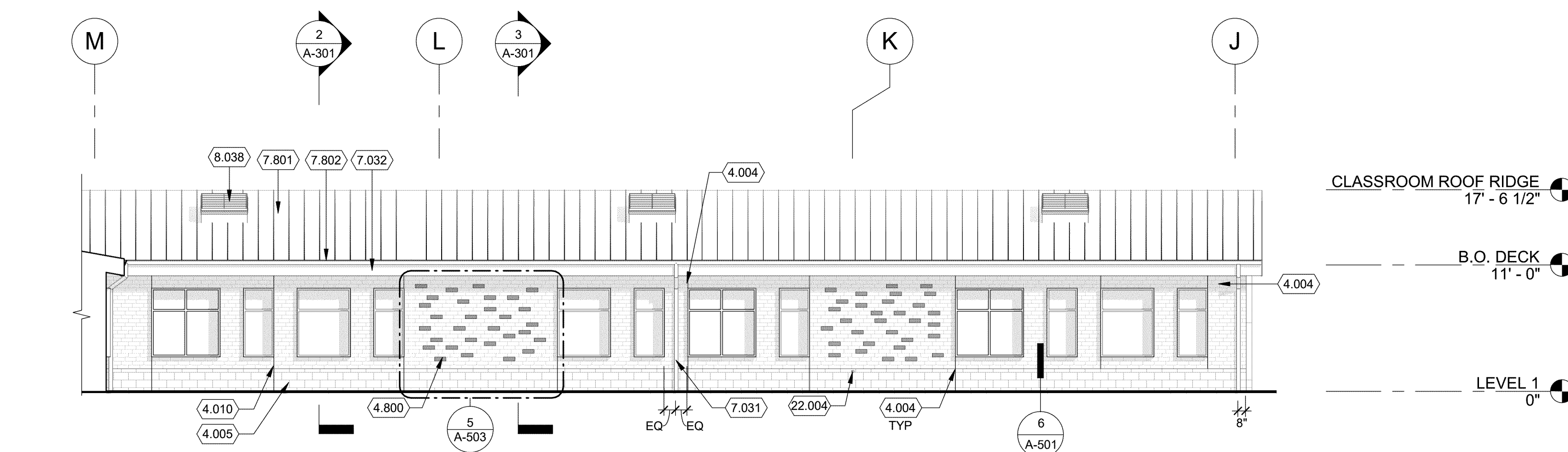


### 3 EAST CLASSROOM ELEVATION

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



## 4 NORTH CLASSROOM ELEVATION



## 5 EAST CLASSROOM ELEVATION

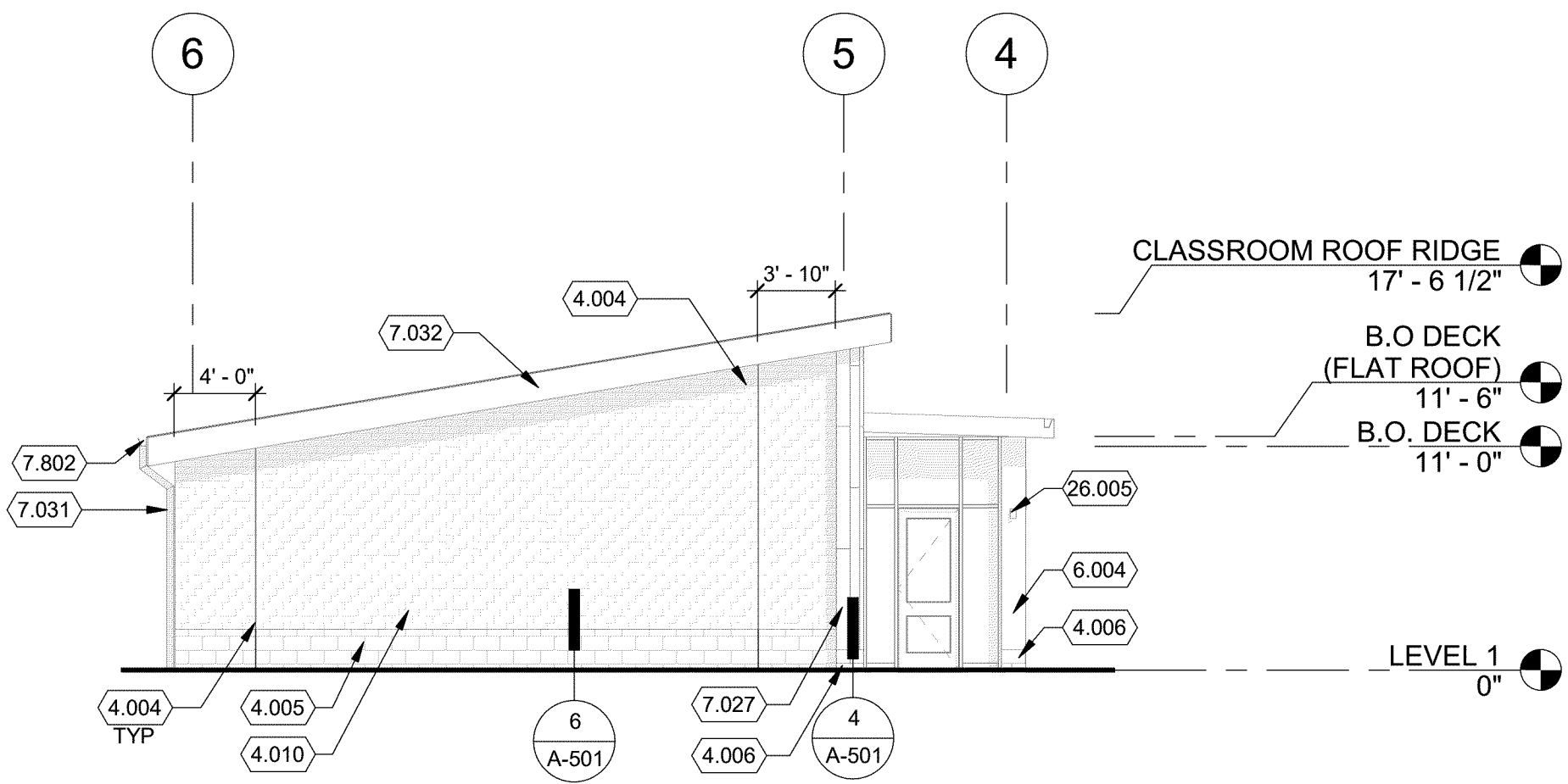
SCALE: 1/8" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
4.004	CONTROL JOINT
4.005	CMU-1
4.006	CMU-2
4.010	FACING BRICK -1
4.800	FACING BRICK - 2
7.027	METAL WALL PANEL
7.031	PAINTED PVC DOWNSPOUT
7.032	PREFINISHED SHEET METAL FLASHING/TRIM
7.800	FIBER CEMENT SIDING
7.801	STANDING SEAM METAL ROOF
7.802	PREFINISHED METAL GUTTER
8.038	UNIT SKYLIGHT
22.004	HOSE BIB
26.005	LIGHT FIXTURE

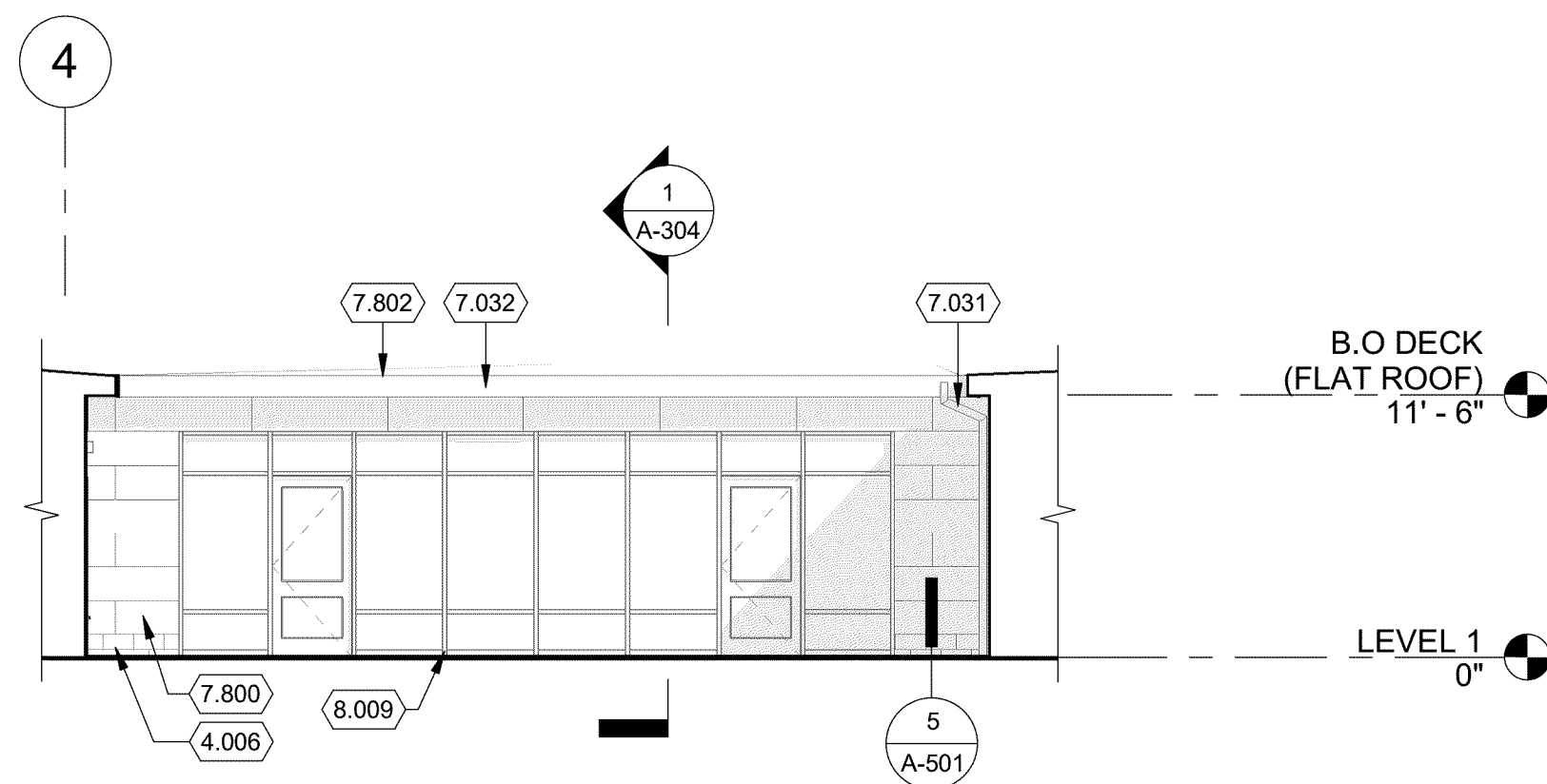
## EXTERIOR ELEVATIONS GENERAL NOTES

1. ALL DIMENSIONS ARE FROM GRIDLINES OR FACE OF FINISH UNLESS OTHERWISE NOTED.
2. LOCATION AND SPACING OF MASONRY CONTROL JOINTS ARE TO BE AS SHOWN ON EXTERIOR ELEVATIONS UNLESS OTHERWISE NOTED.
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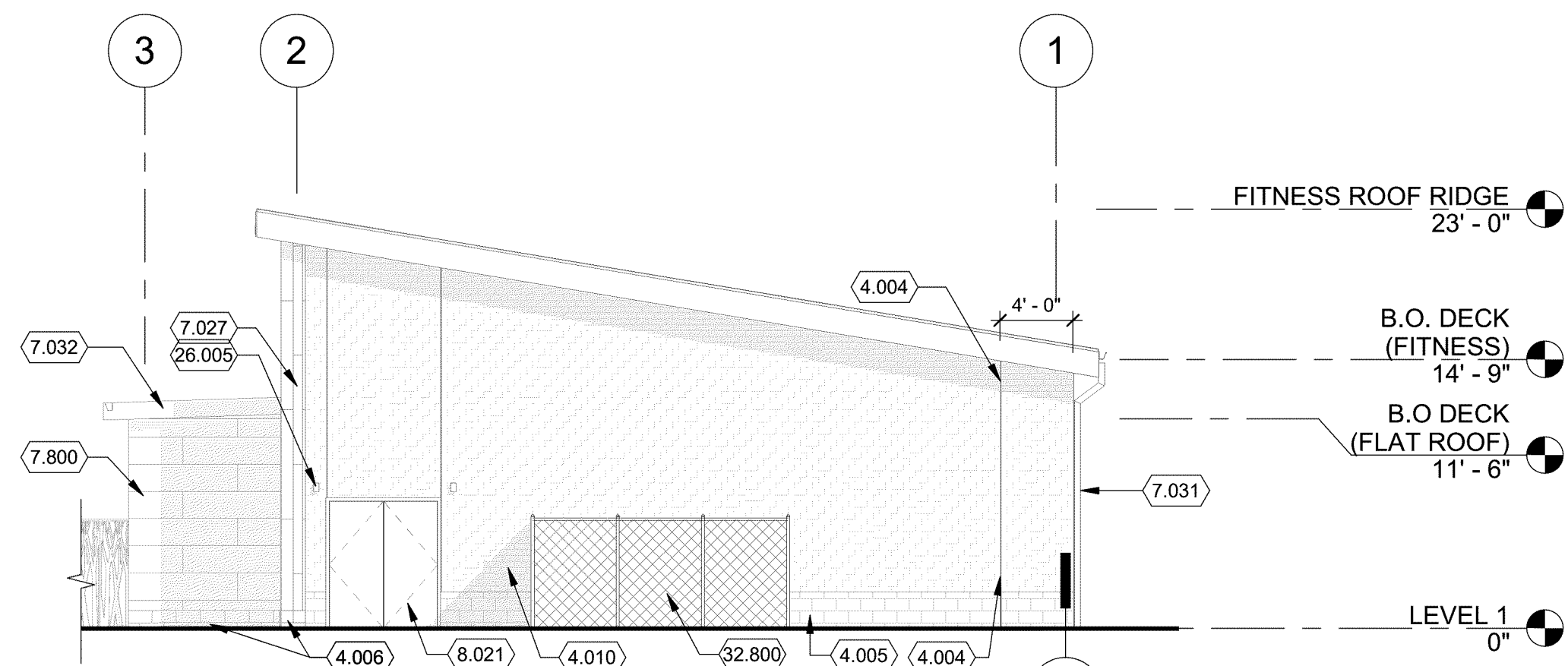




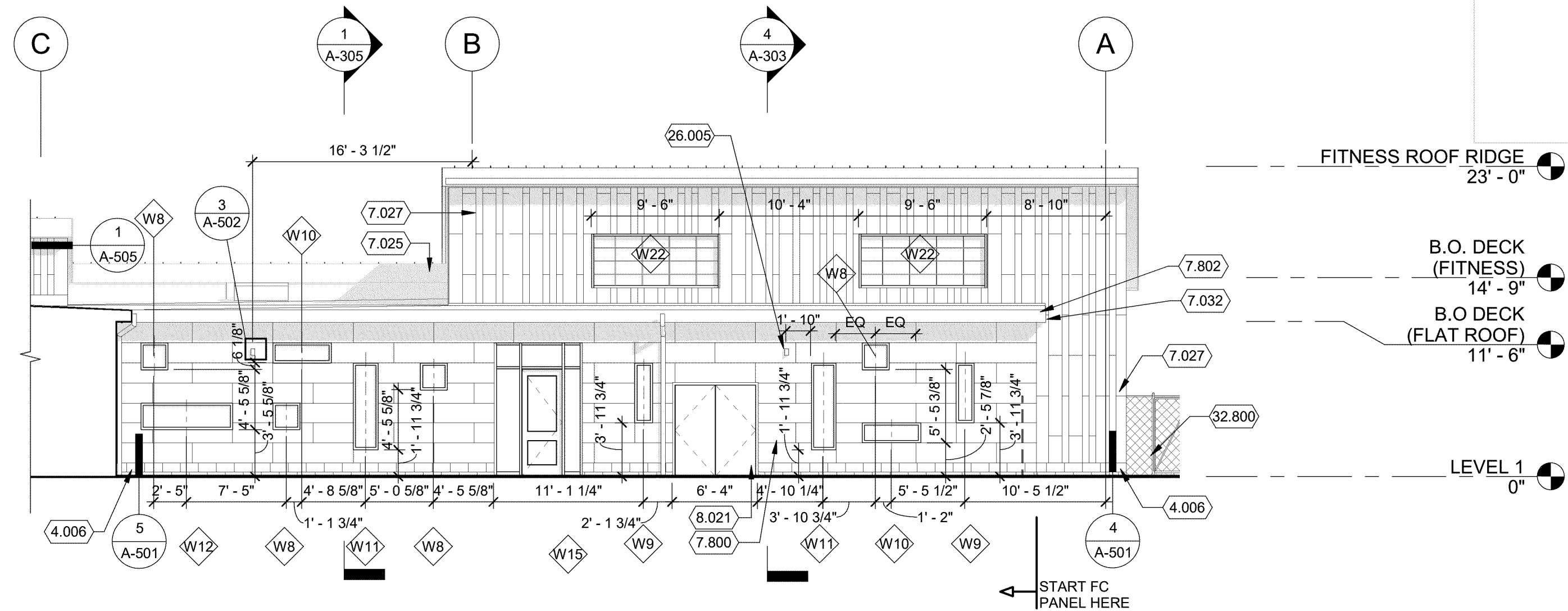
1 NORTH CLASSROOM ELEVATION  
SCALE: 1/8" = 1'-0"



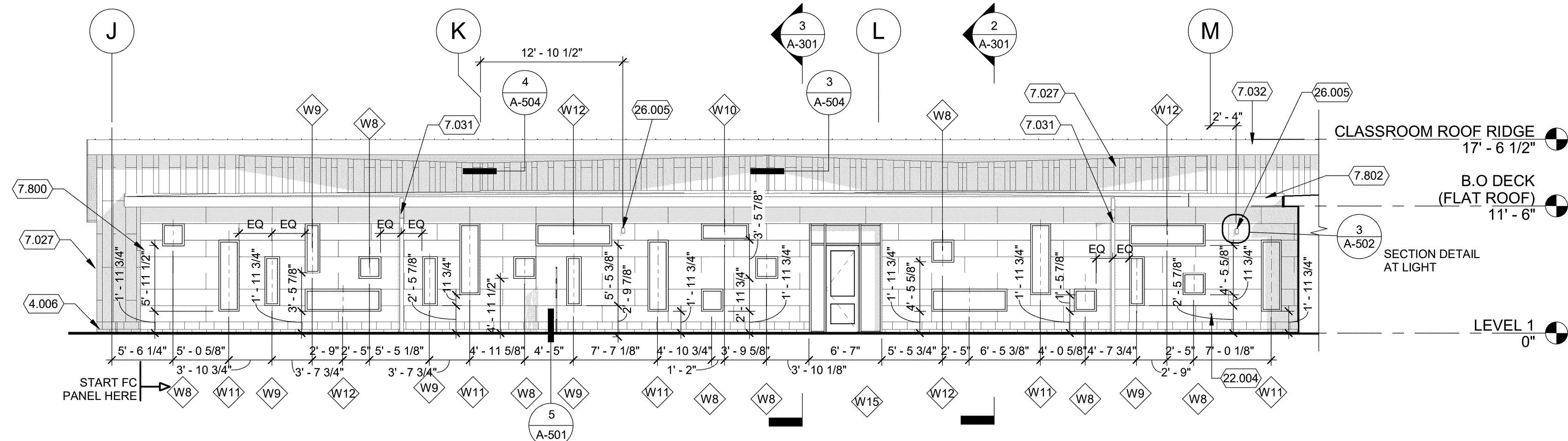
3 NORTH COURTYARD SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



5 NORTH FITNESS ELEVATION  
SCALE: 1/8" = 1'-0"



2 NORTH COURTYARD EAST ELEVATION  
SCALE: 1/8" = 1'-0"

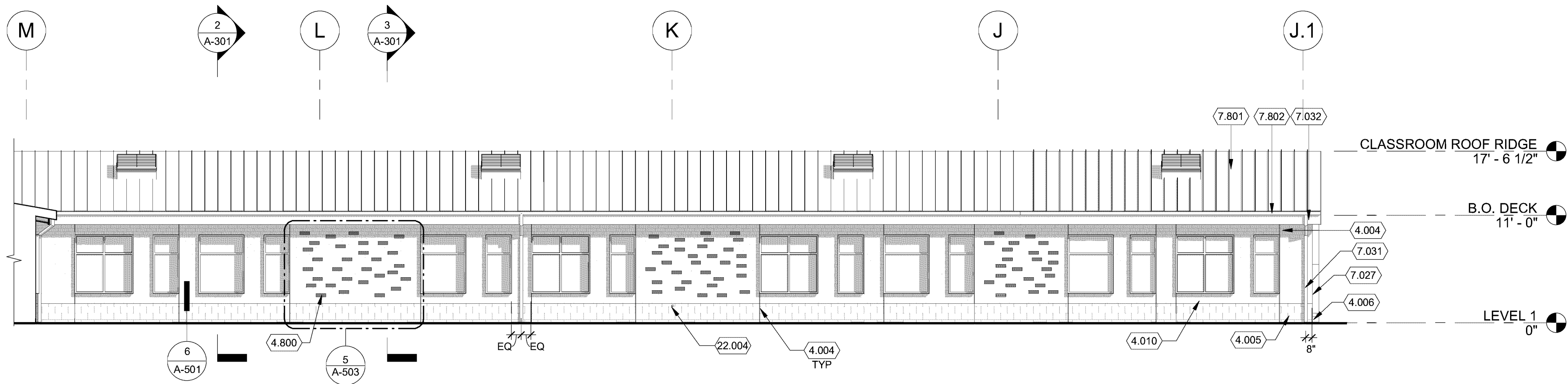


4 NORTH COURTYARD WEST ELEVATION  
SCALE: 1/8" = 1'-0"

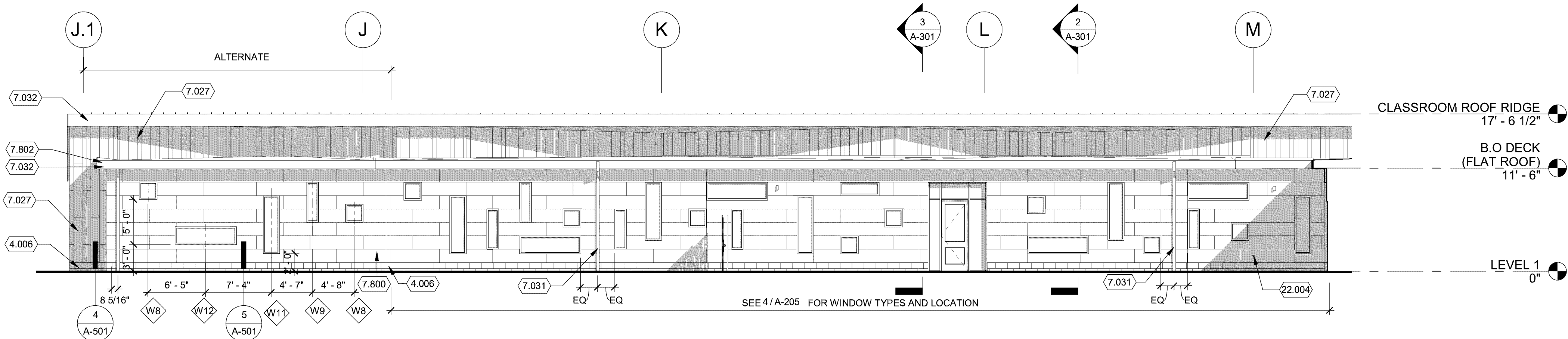
KEYNOTE LEGEND	
Key Value	Keynote Text
4.004	CONTROL JOINT
4.005	CMU-1
4.006	CMU-2
4.010	FACING BRICK -1
6.004	FIBERGLASS REINFORCED PANEL
7.025	KETONE ETHYLENE ESTER MEMBRANE ROOFING
7.027	METAL WALL PANEL
7.031	PAINTED PVC DOWNSPOUT
7.032	PREFINISHED SHEET METAL FLASHING/TRIM
7.800	FIBER CEMENT SIDING
7.802	PREFINISHED METAL GUTTER
8.009	ALUMINUM-FRAMED STOREFRONT
8.021	HOLLOW METAL DOOR AND FRAME
22.004	HOSE BIB
26.005	LIGHT FIXTURE
32.800	FENCE

EXTERIOR ELEVATIONS GENERAL NOTES
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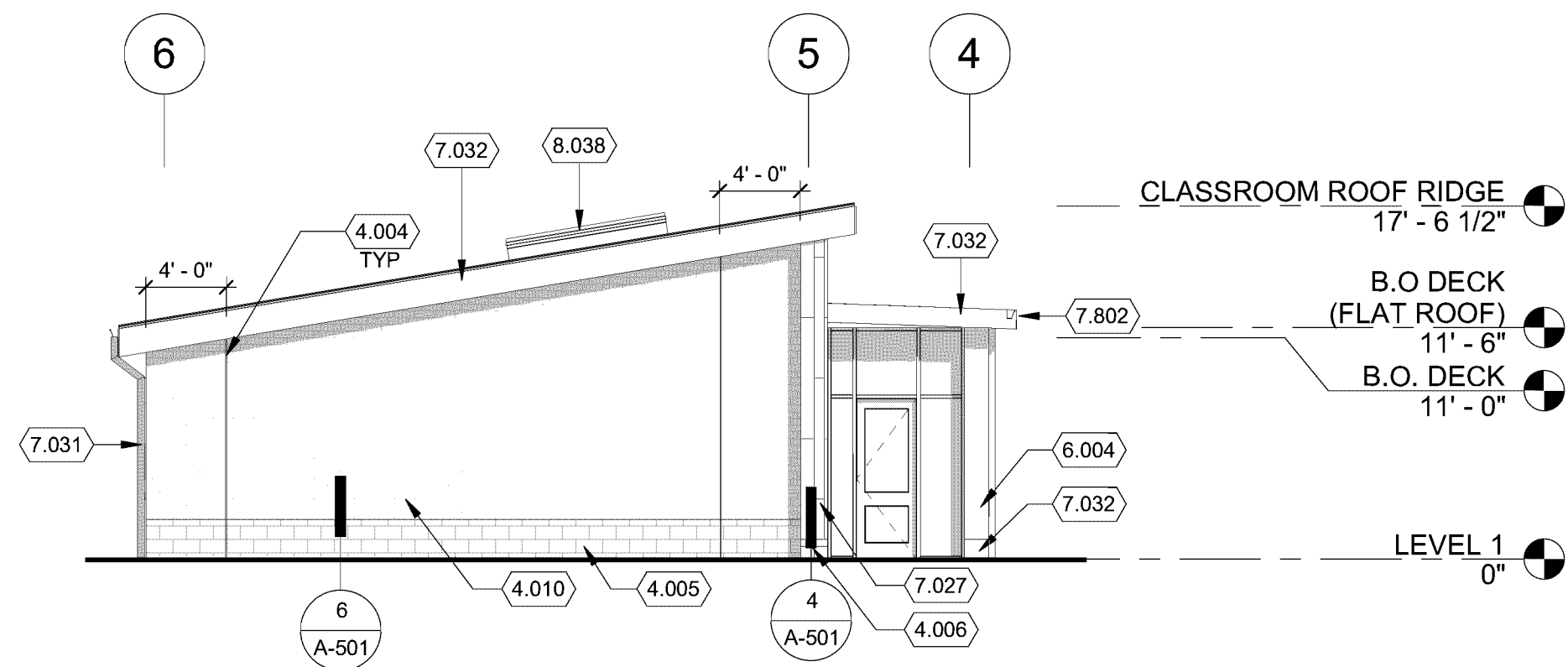




1 EAST CLASSROOM ELEVATION ALTERNATE  
SCALE: 1/8" = 1'-0"



2 NORTH COURTYARD WEST ELEVATION ALTERNATE  
SCALE: 1/8" = 1'-0"



3 NORTH CLASSROOM ELEVATION ALTERNATE  
SCALE: 1/8" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
4.004	CONTROL JOINT
4.005	CMU-1
4.006	CMU-2
4.010	FACING BRICK -1
4.800	FACING BRICK - 2
6.004	FIBERGLASS REINFORCED PANEL
7.027	METAL WALL PANEL
7.031	PAINTED PVC DOWNSPOUT
7.032	PREFINISHED SHEET METAL FLASHING/TRIM
7.800	FIBER CEMENT SIDING
7.801	STANDING SEAM METAL ROOF
7.802	PREFINISHED METAL GUTTER
8.038	UNIT SKYLIGHT
22.004	HOSE BIB

EXTERIOR ELEVATIONS GENERAL NOTES
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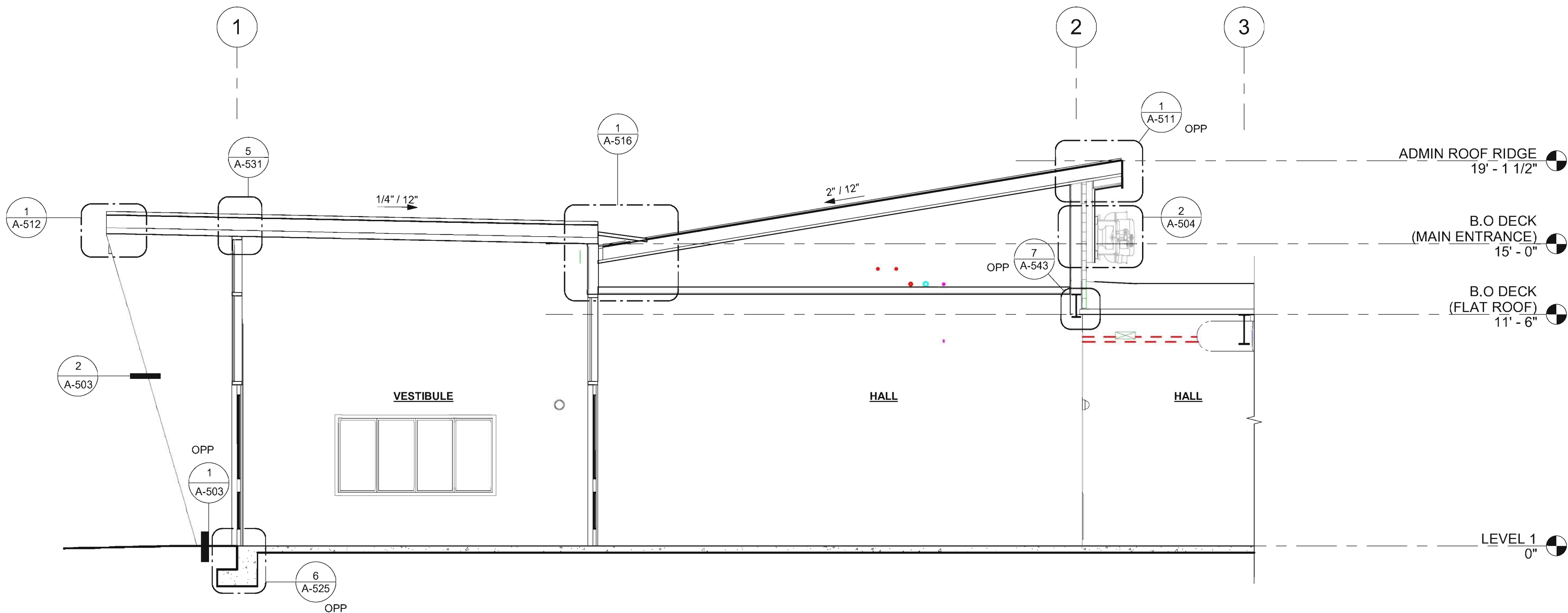
BUILDING ELEVATIONS ALTERNATE

A-206

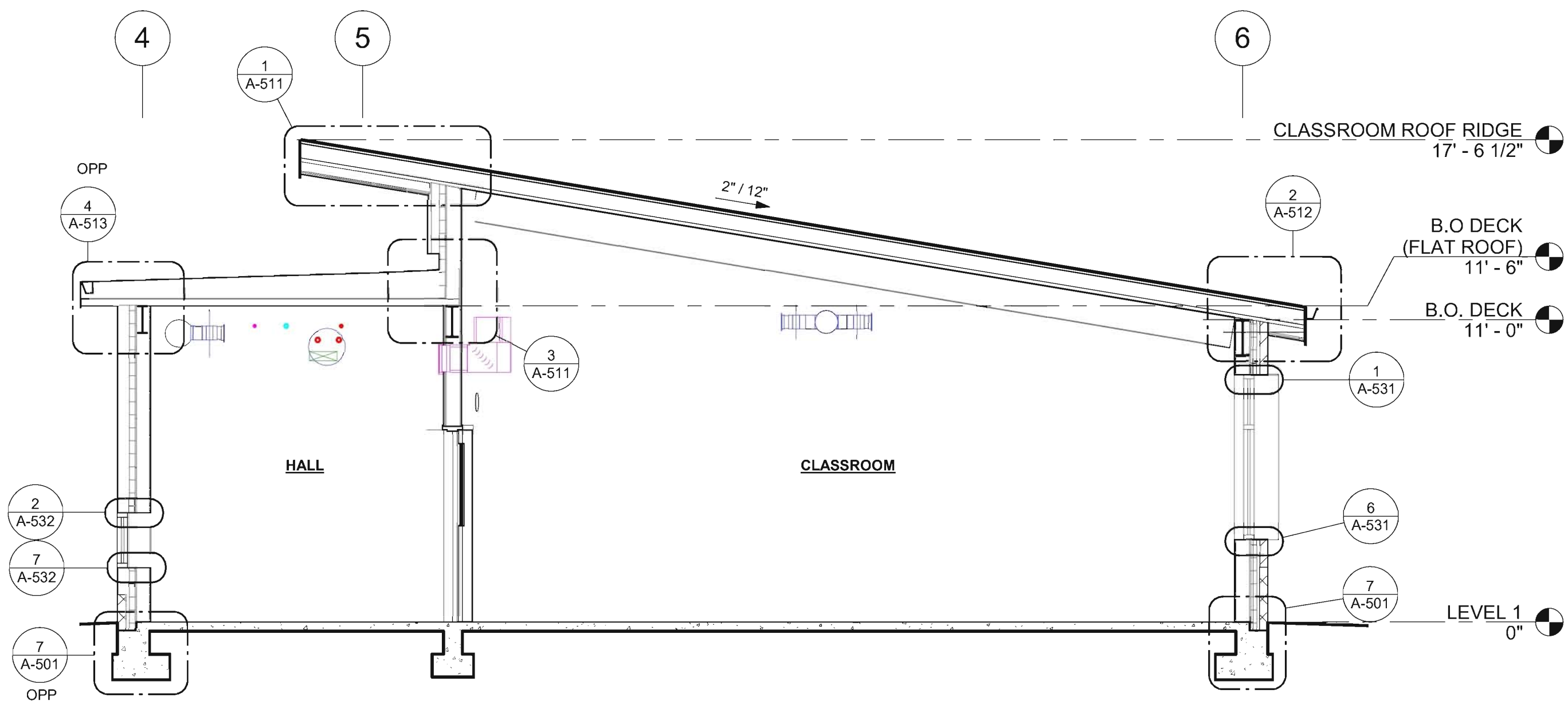
Scale As indicated



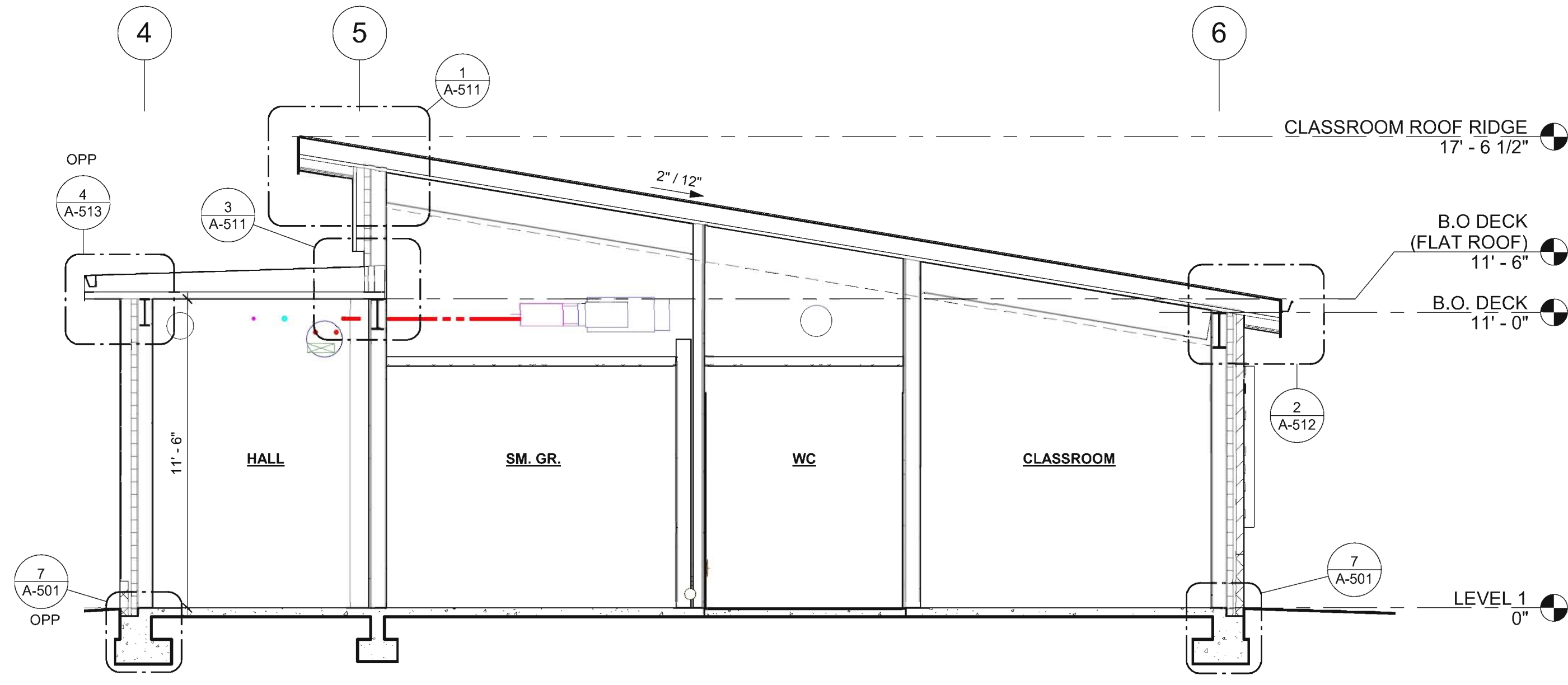
10/10/2019 1:48:35 PM



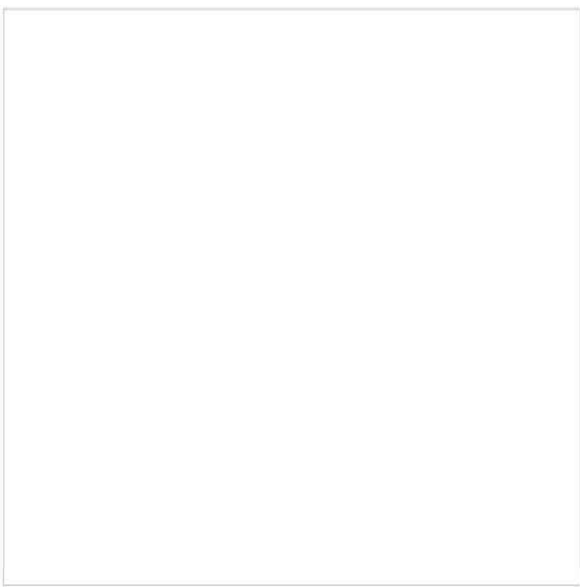
1 BUILDING SECTION  
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION  
SCALE: 1/4" = 1'-0"



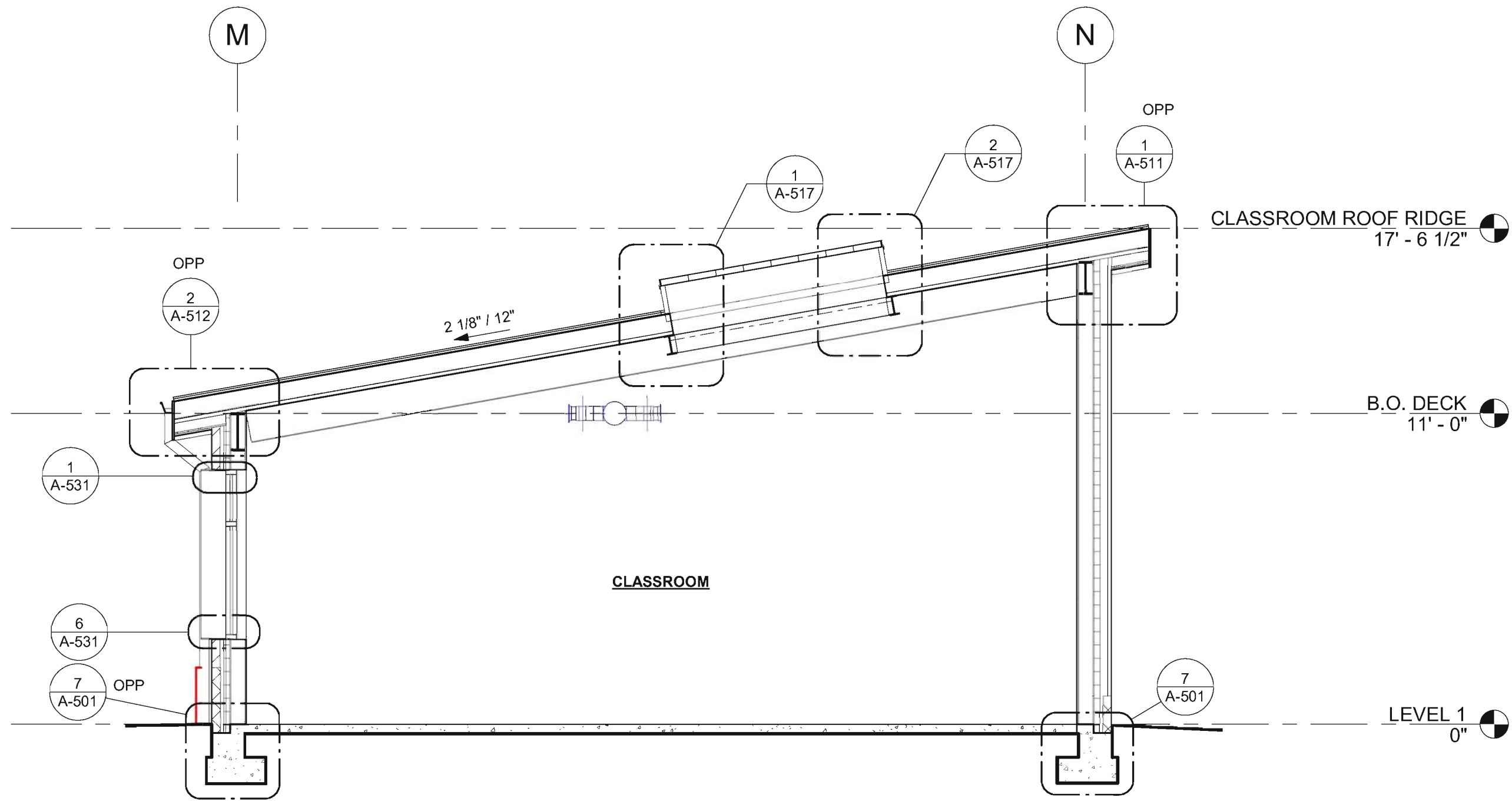
3 BUILDING SECTION  
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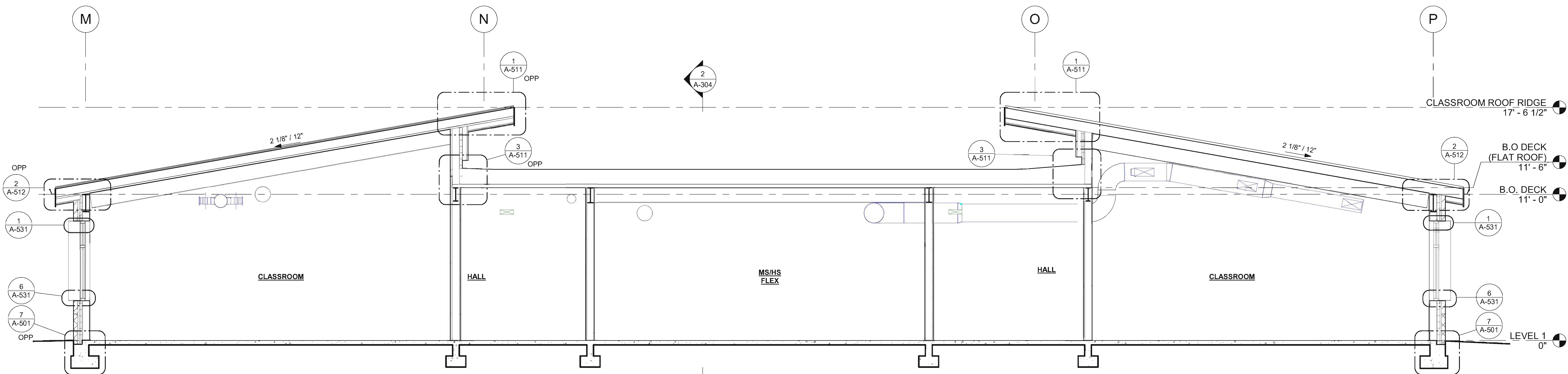
- BUILDING SECTIONS GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  3. SEE SHEETS A-621 AND A-622 FOR STOREFRONT DETAILS THAT ARE NOT CALLED IN SECTIONS



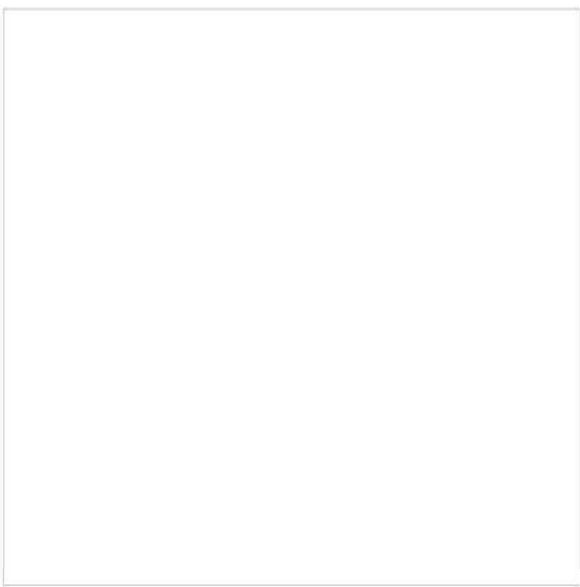
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1 BUILDING SECTION  
SCALE: 1/4" = 1'-0"



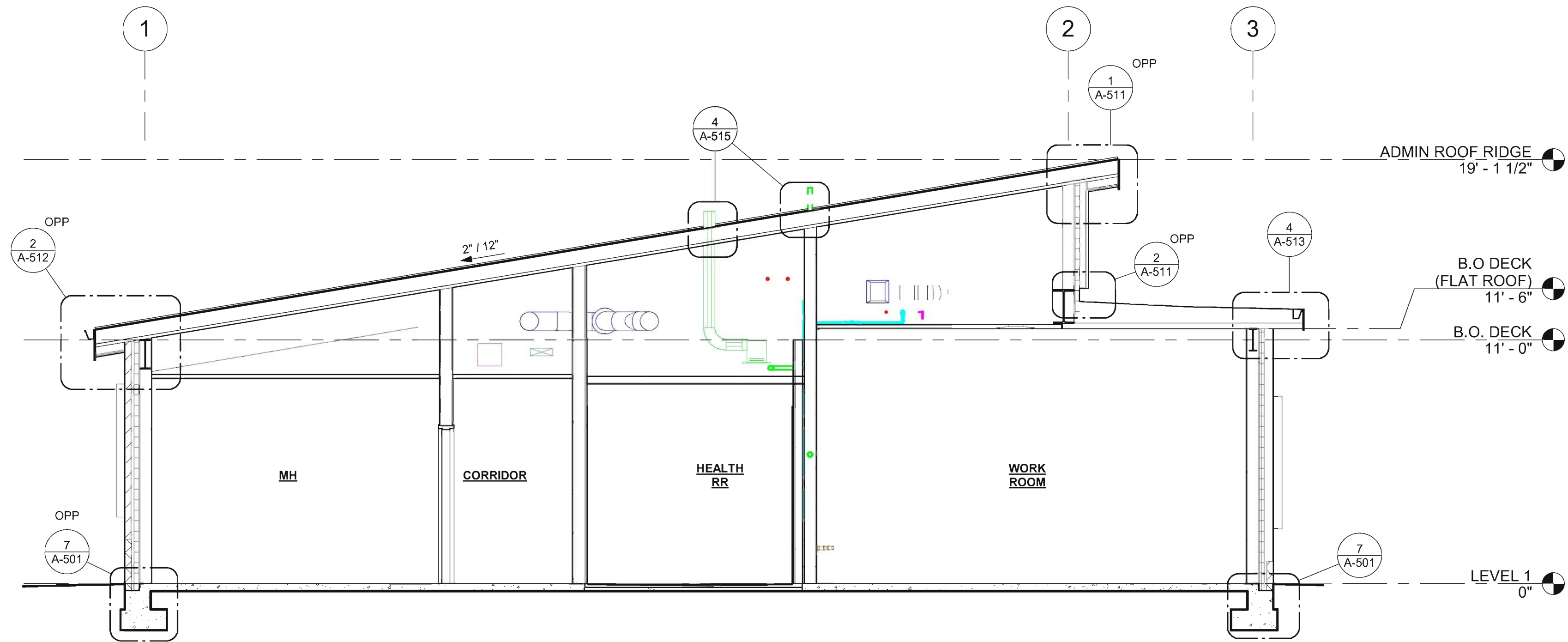
2 BUILDING SECTION  
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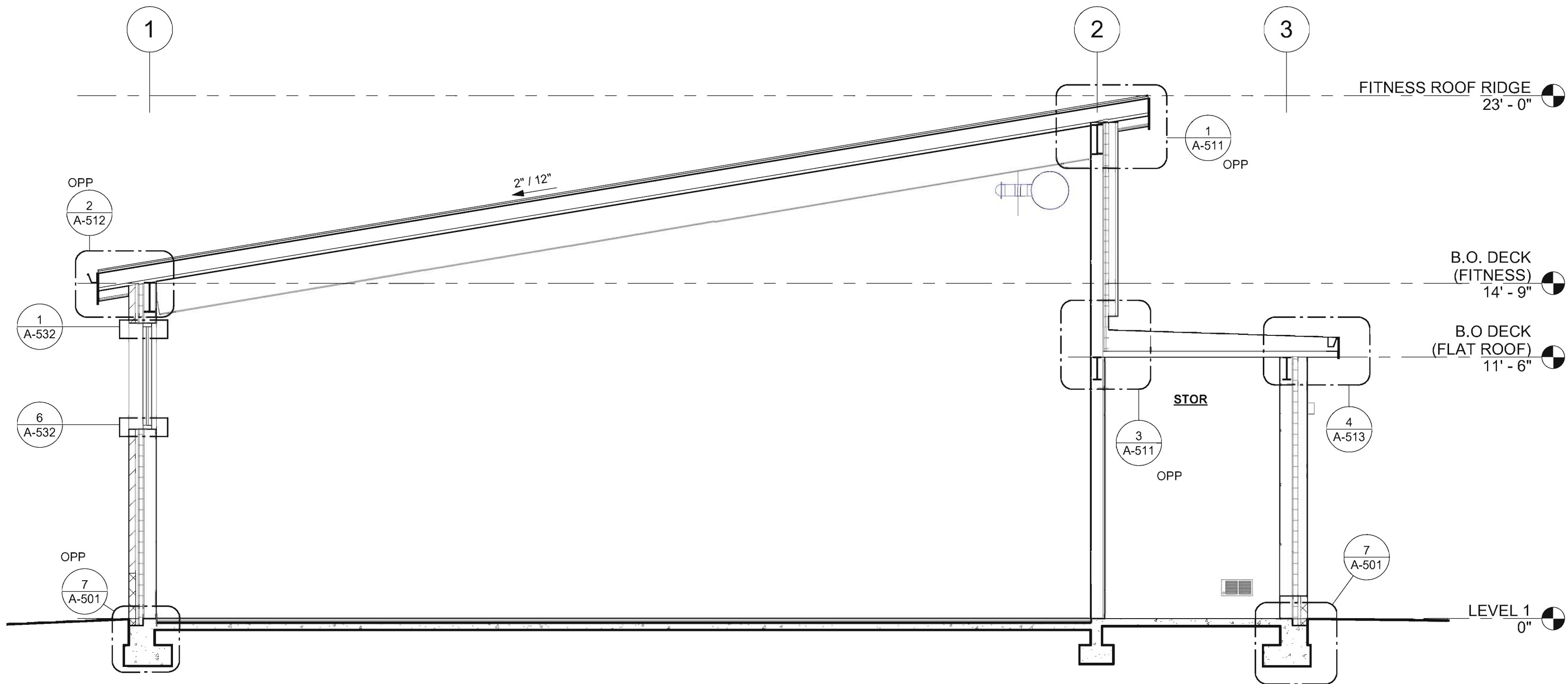
- BUILDING SECTIONS GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  3. SEE SHEETS A-621 AND A-622 FOR STOREFRONT DETAILS THAT ARE NOT CALLED IN SECTIONS



10/10/2019 1:48:39 PM



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

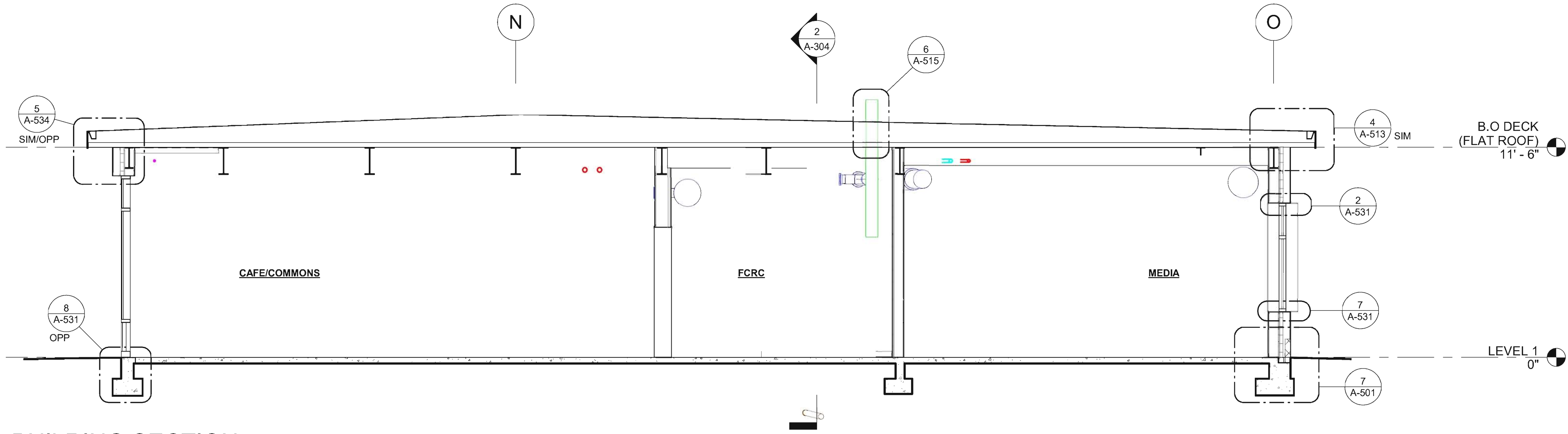
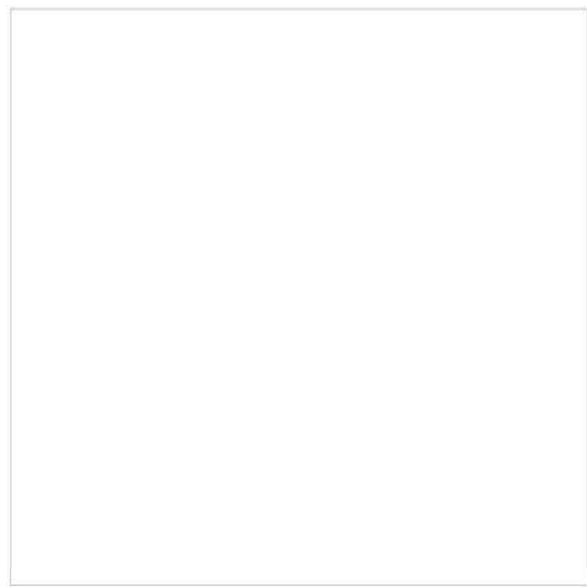


4 BUILDING SECTION  
SCALE: 1/4" = 1'-0"

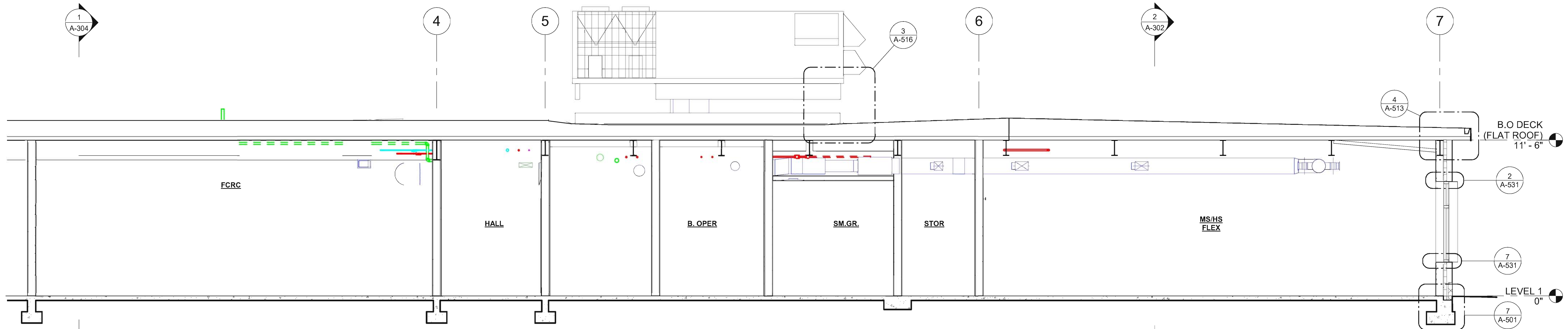
- BUILDING SECTIONS GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO EXTERIOR ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS FOR WALL CONSTRUCTION ABOVE CUT-LINE.
  3. SEE SHEETS A-621 AND A-622 FOR STOREFRONT DETAILS THAT ARE NOT CALLED IN SECTIONS



10/10/2019 1:48:41 PM

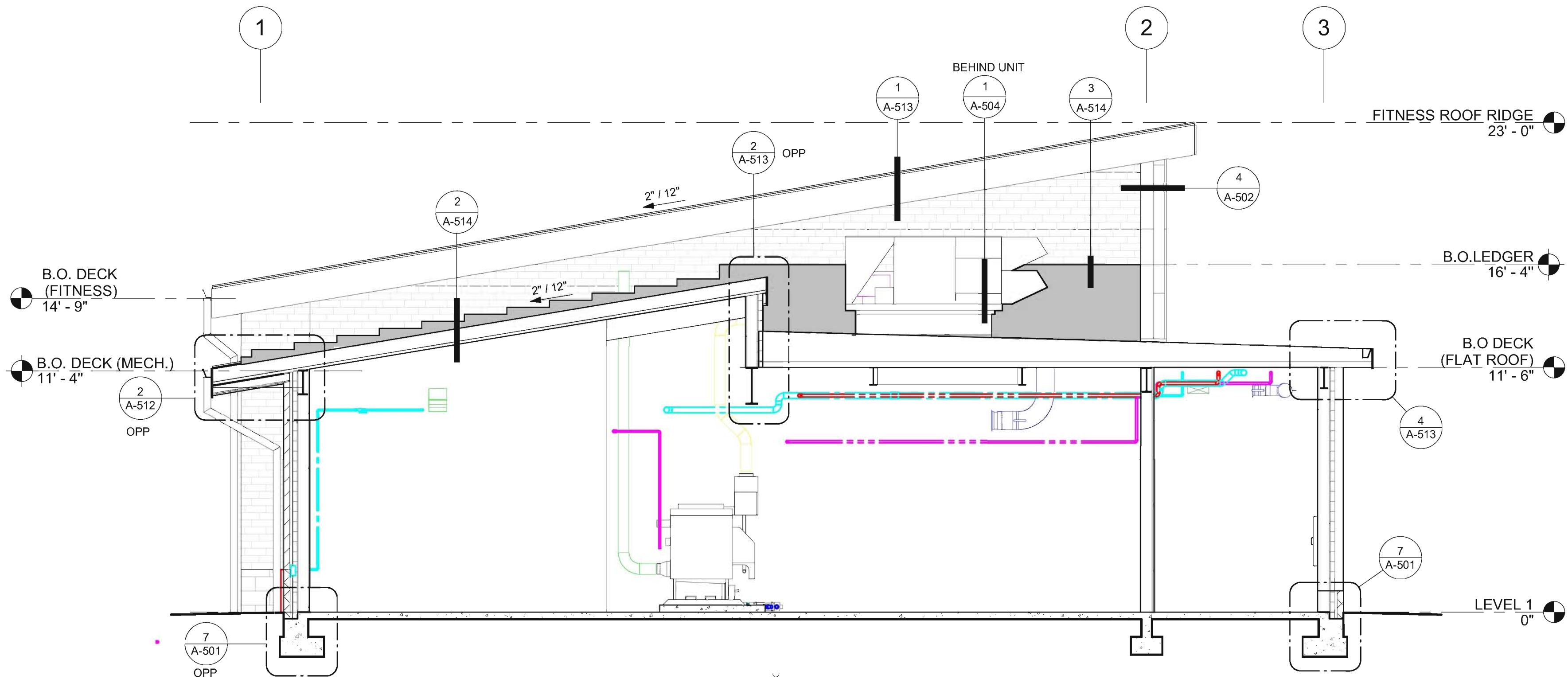


**1 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"



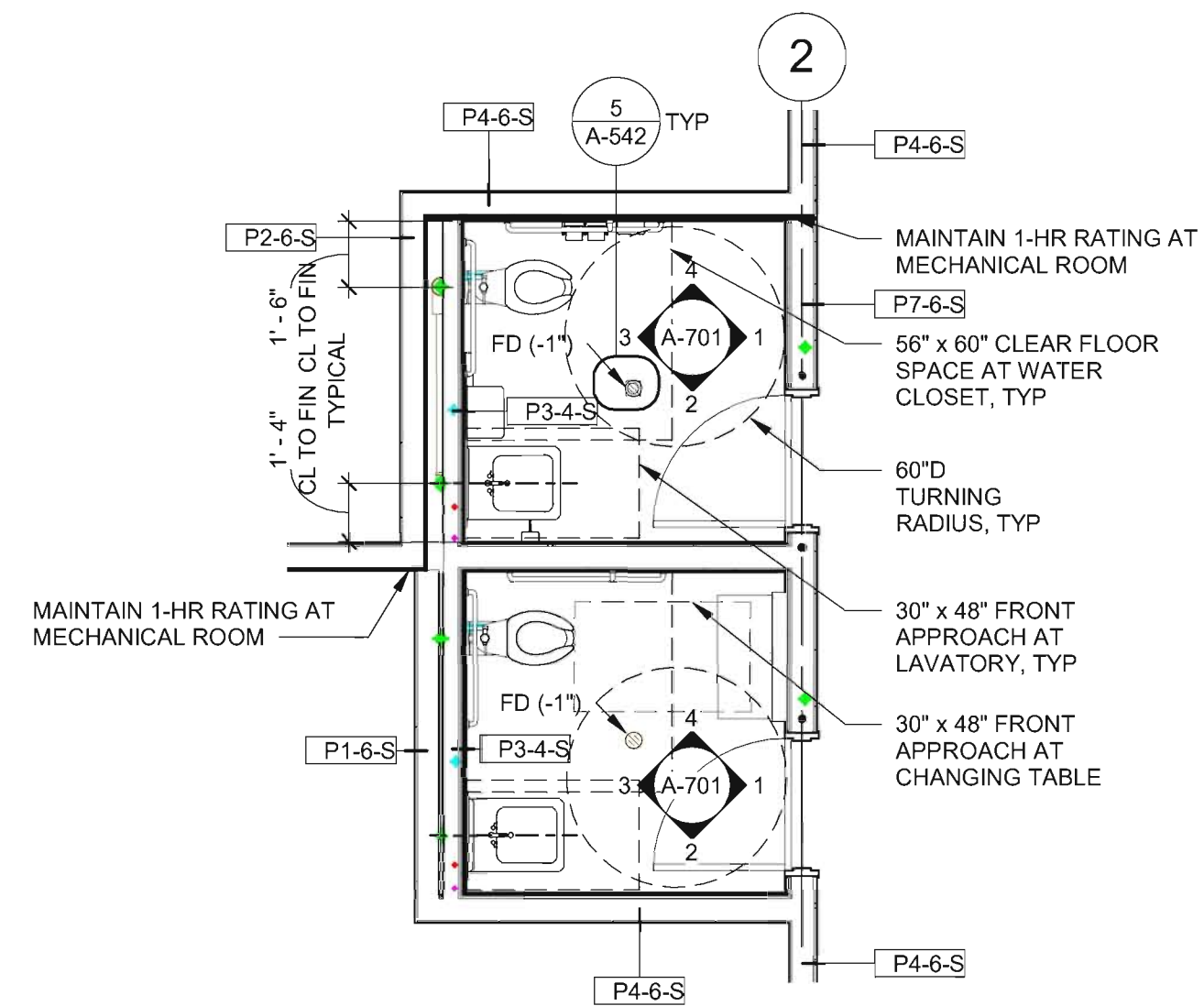
**2 BUILDING SECTION**  
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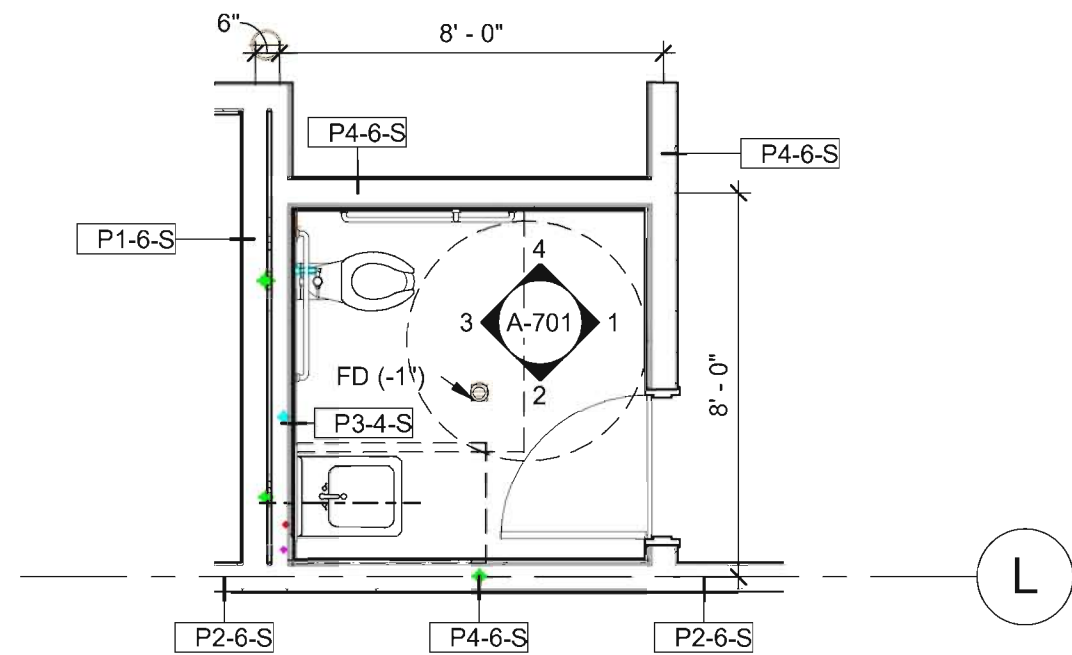


1 BUILDING SECTION  
SCALE: 1/4" = 1'-0"

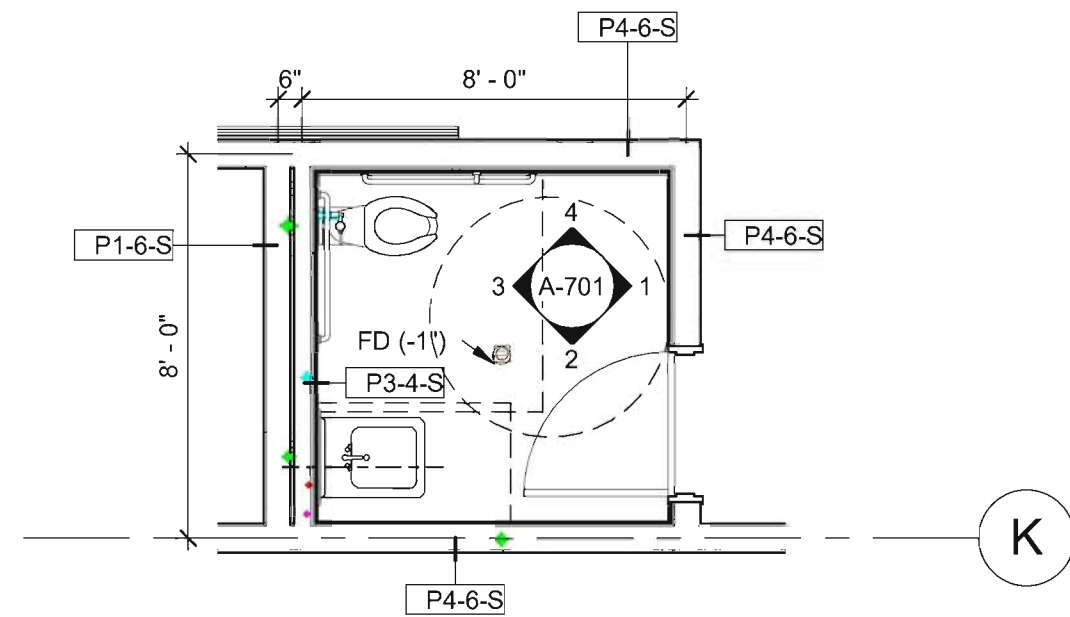




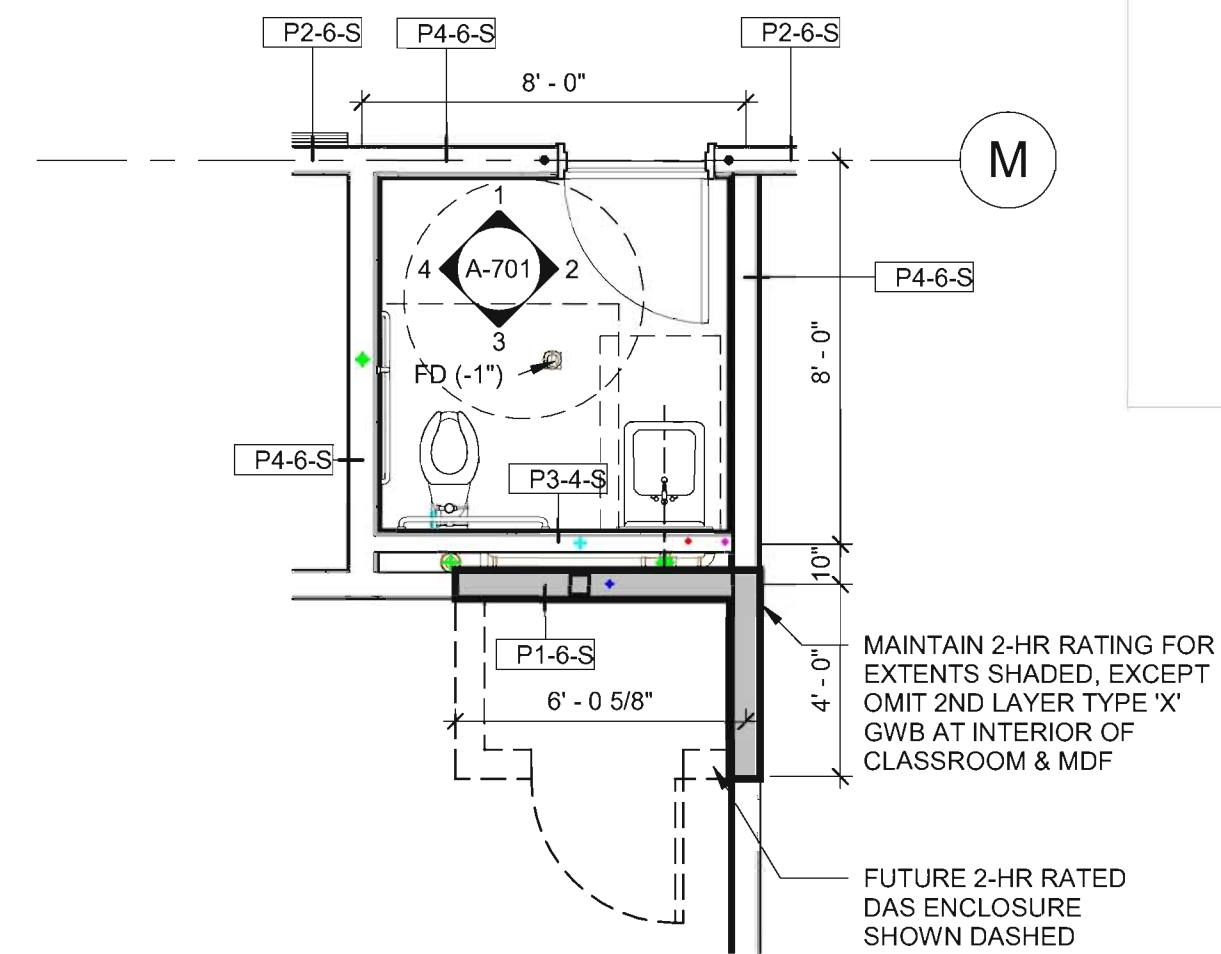
1 ENLARGED PLAN SECTOR A  
SCALE: 1/4" = 1'-0"



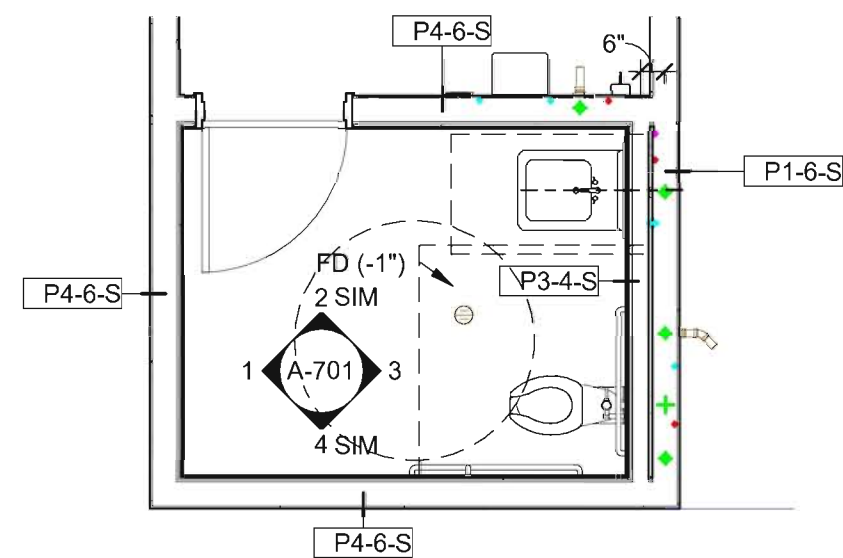
3 ENLARGED PLAN SECTOR B  
SCALE: 1/4" = 1'-0"



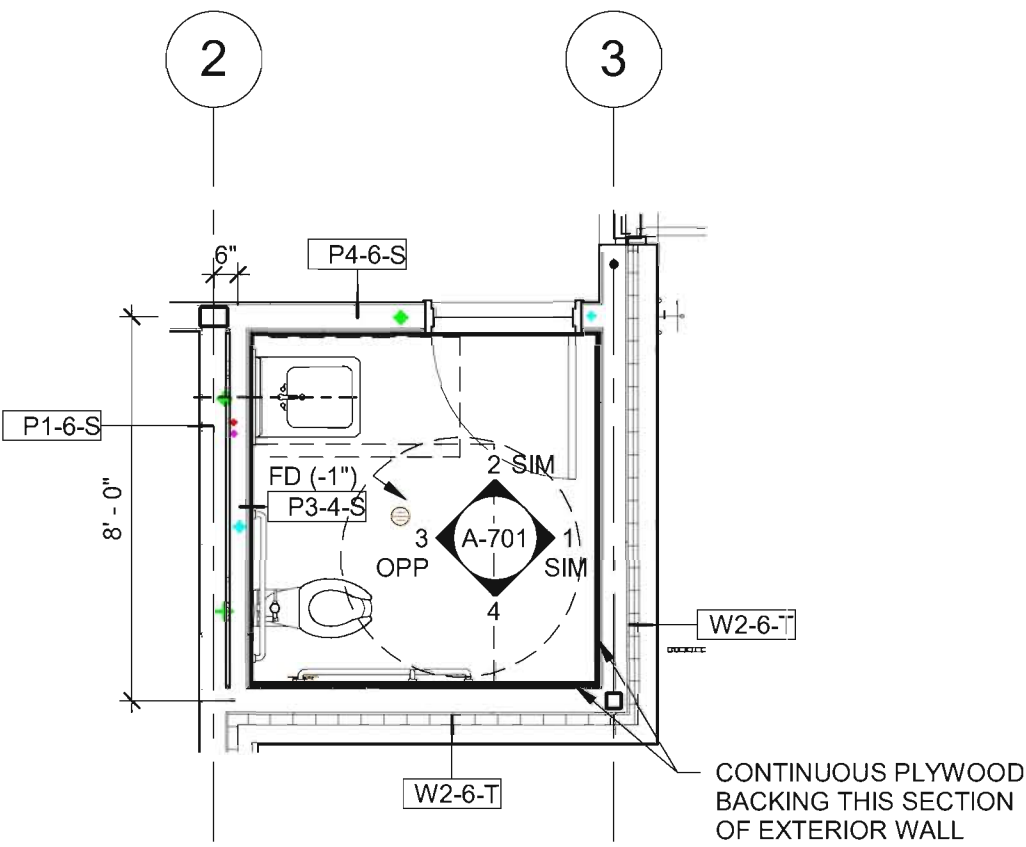
2 ENLARGED PLAN SECTOR B  
SCALE: 1/4" = 1'-0"



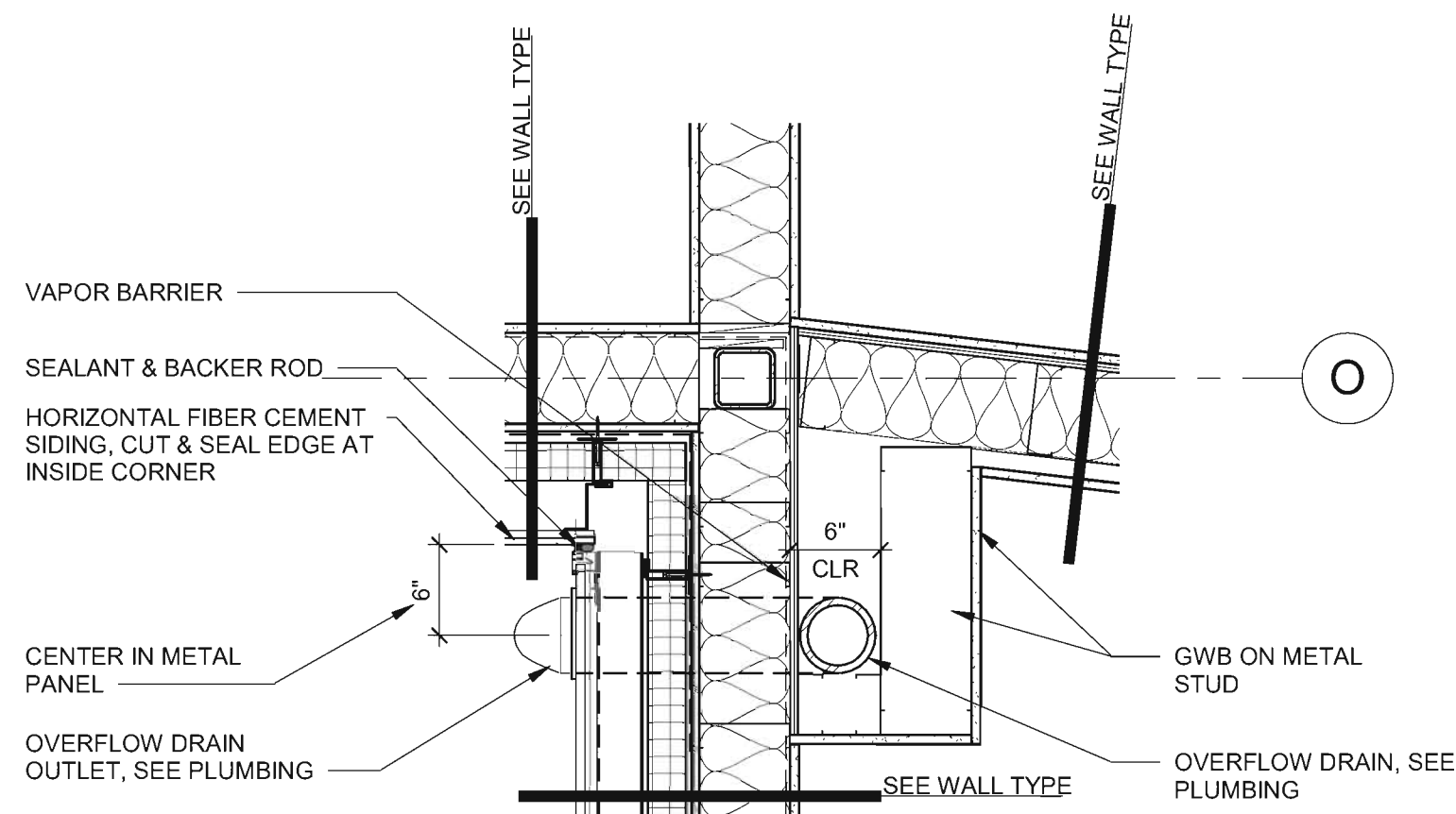
4 ENLARGED PLAN SECTOR B  
SCALE: 1/4" = 1'-0"



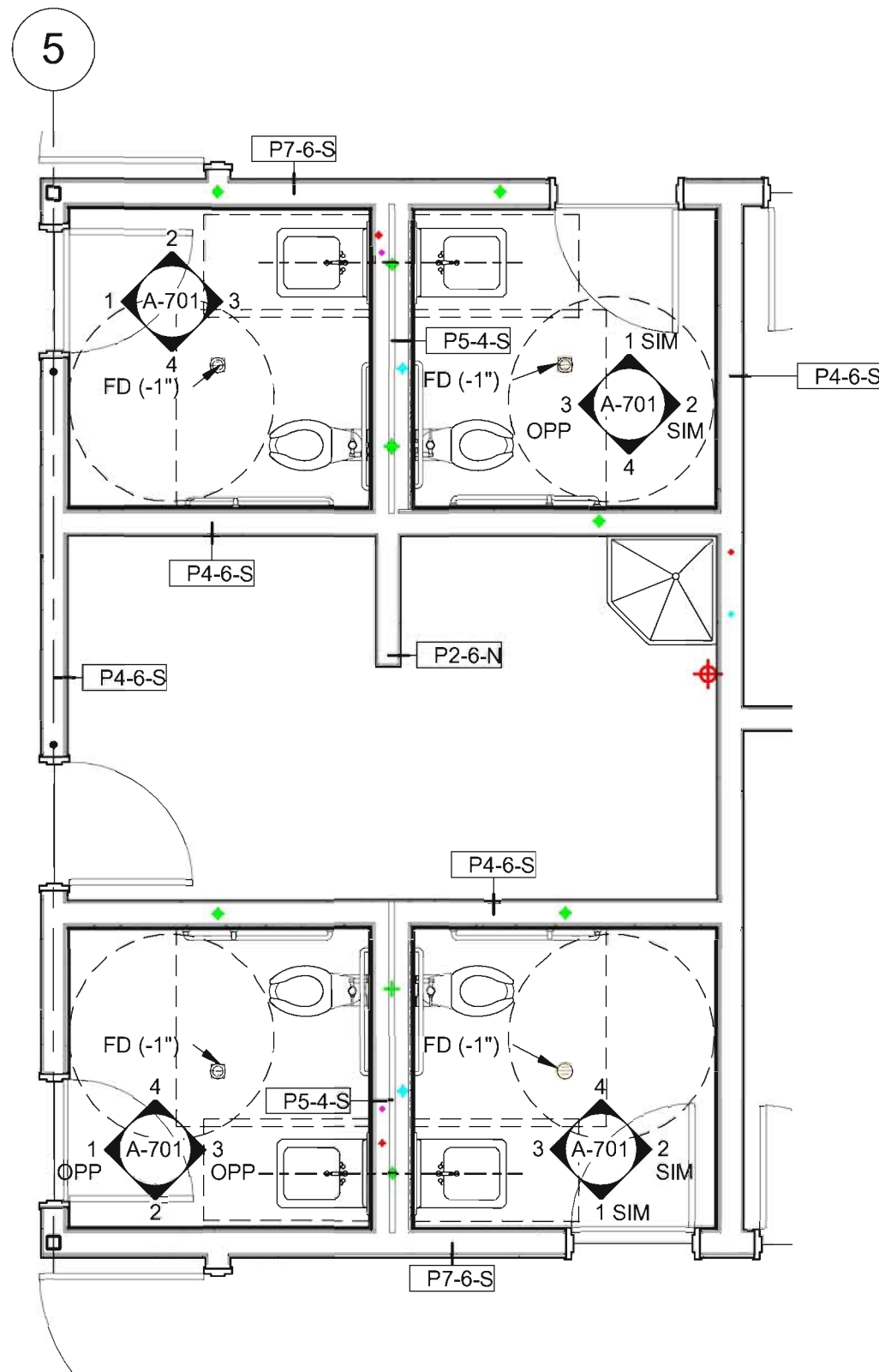
5 ENLARGED PLAN SECTOR C  
SCALE: 1/4" = 1'-0"



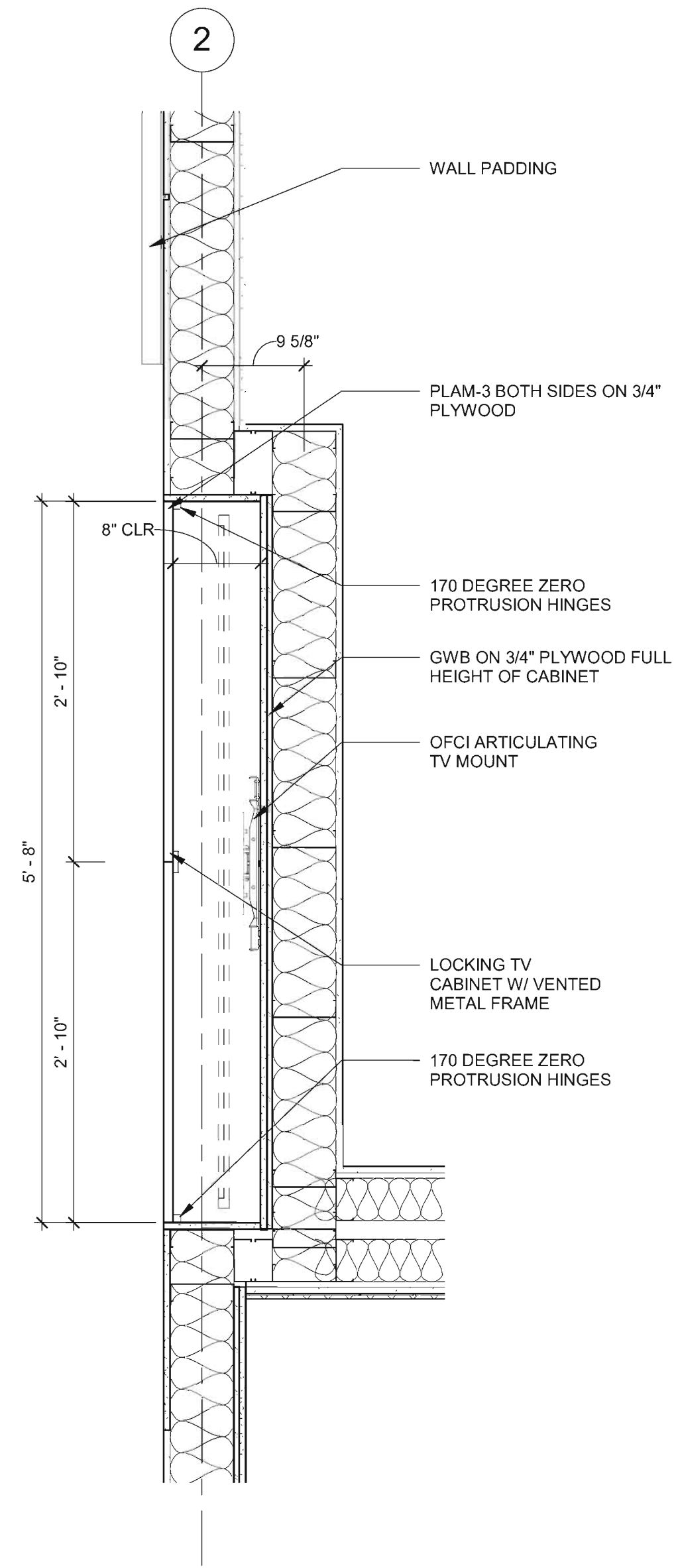
6 ENLARGED PLAN SECTOR C  
SCALE: 1/4" = 1'-0"



9 PLAN DETAIL AT OVERFLOW  
SCALE: 1" = 1'-0"

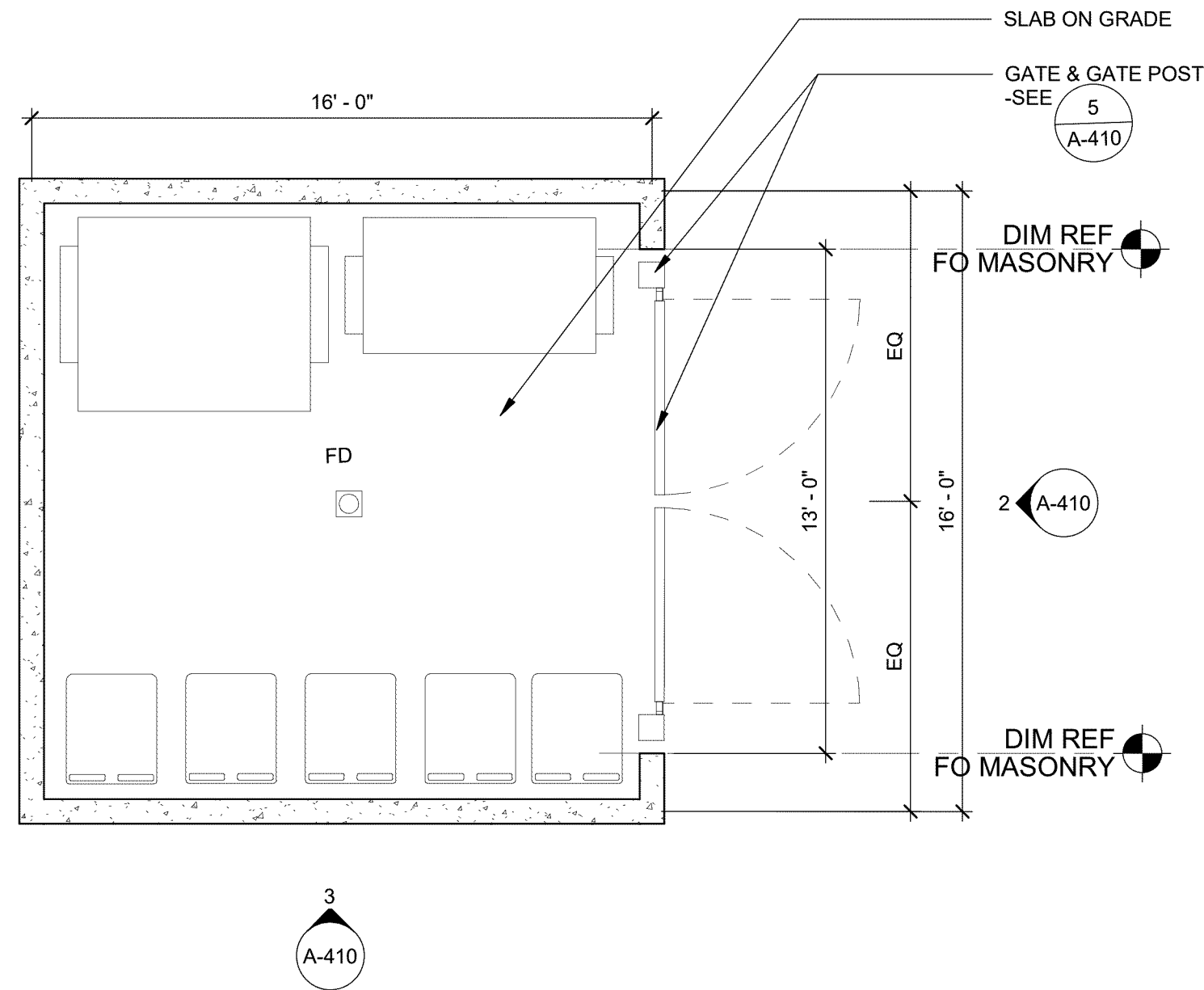


7 ENLARGED PLAN SECTOR D  
SCALE: 1/4" = 1'-0"

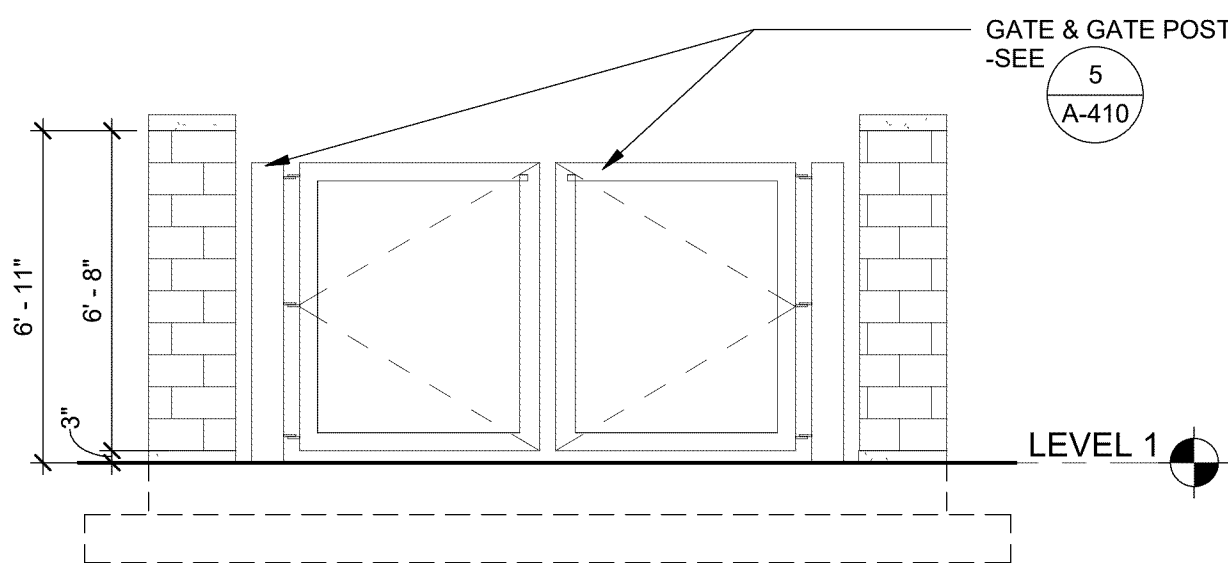


8 DETAIL AT FITNESS TV  
SCALE: 1" = 1'-0"

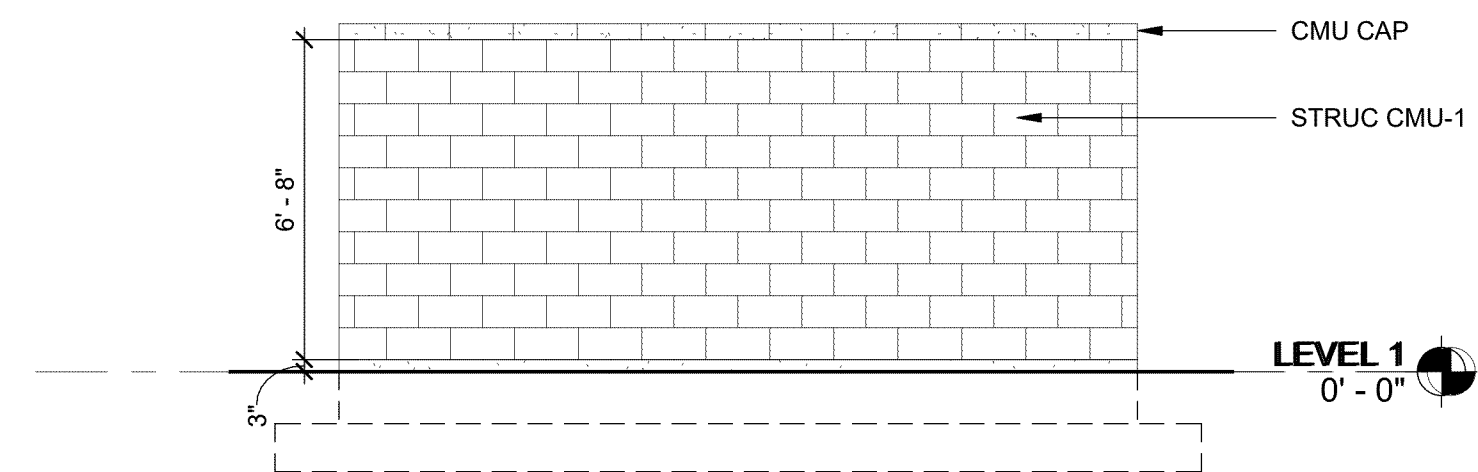




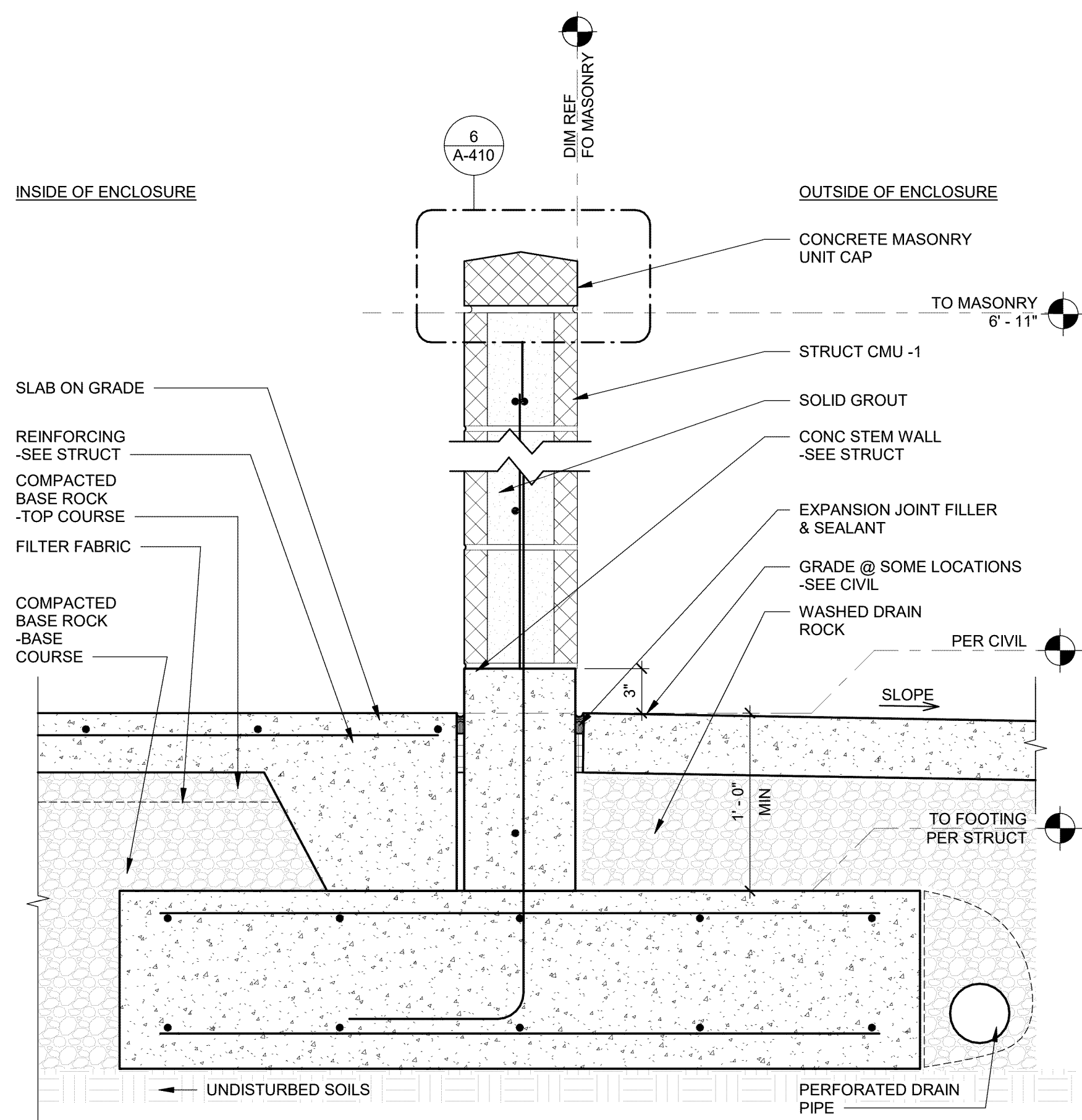
1 SITE ENCLOSURE PLAN  
SCALE: 1/4" = 1'-0"



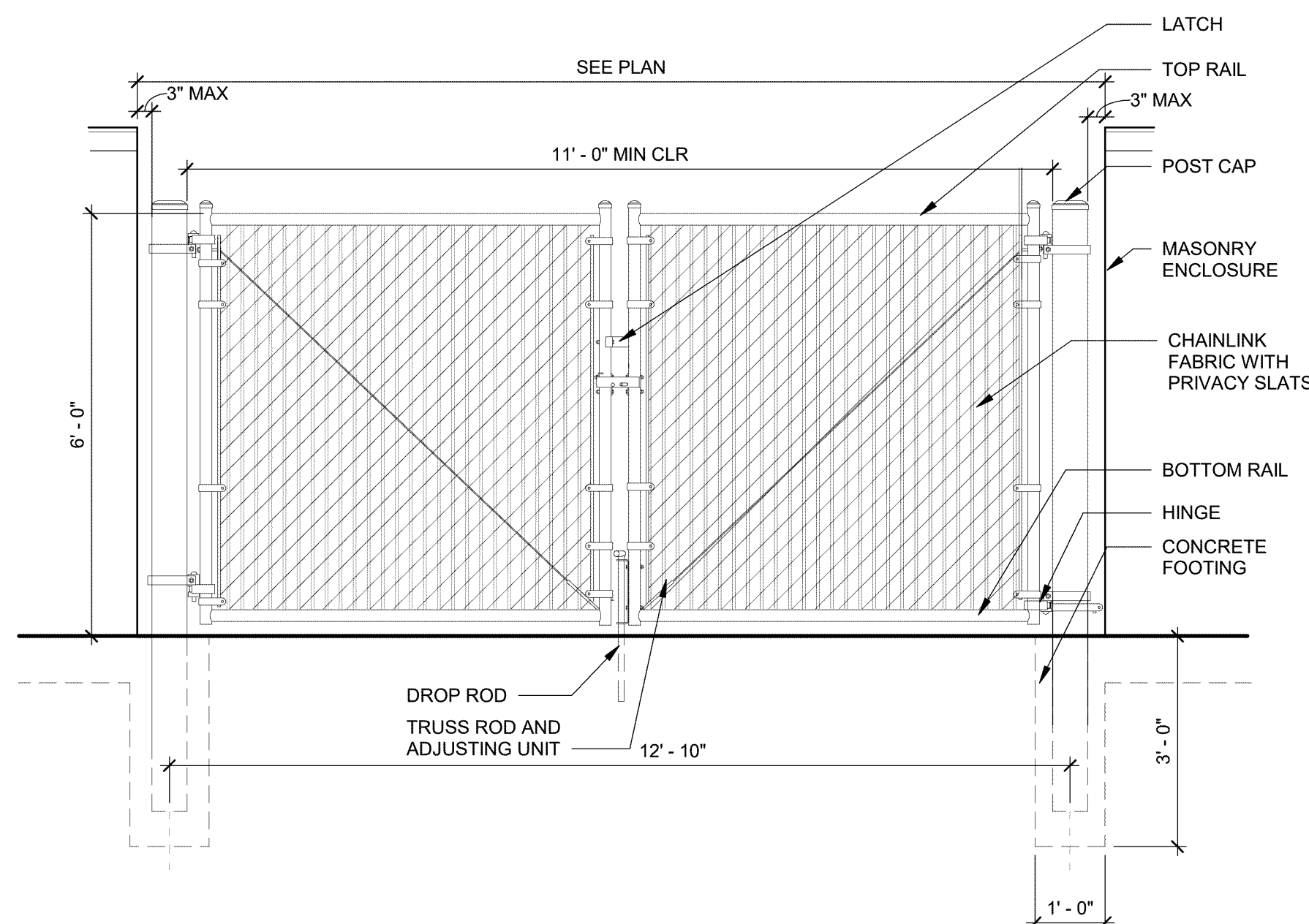
2 EAST ELEVATION - SITE ENCLOSURE  
SCALE: 1/4" = 1'-0"



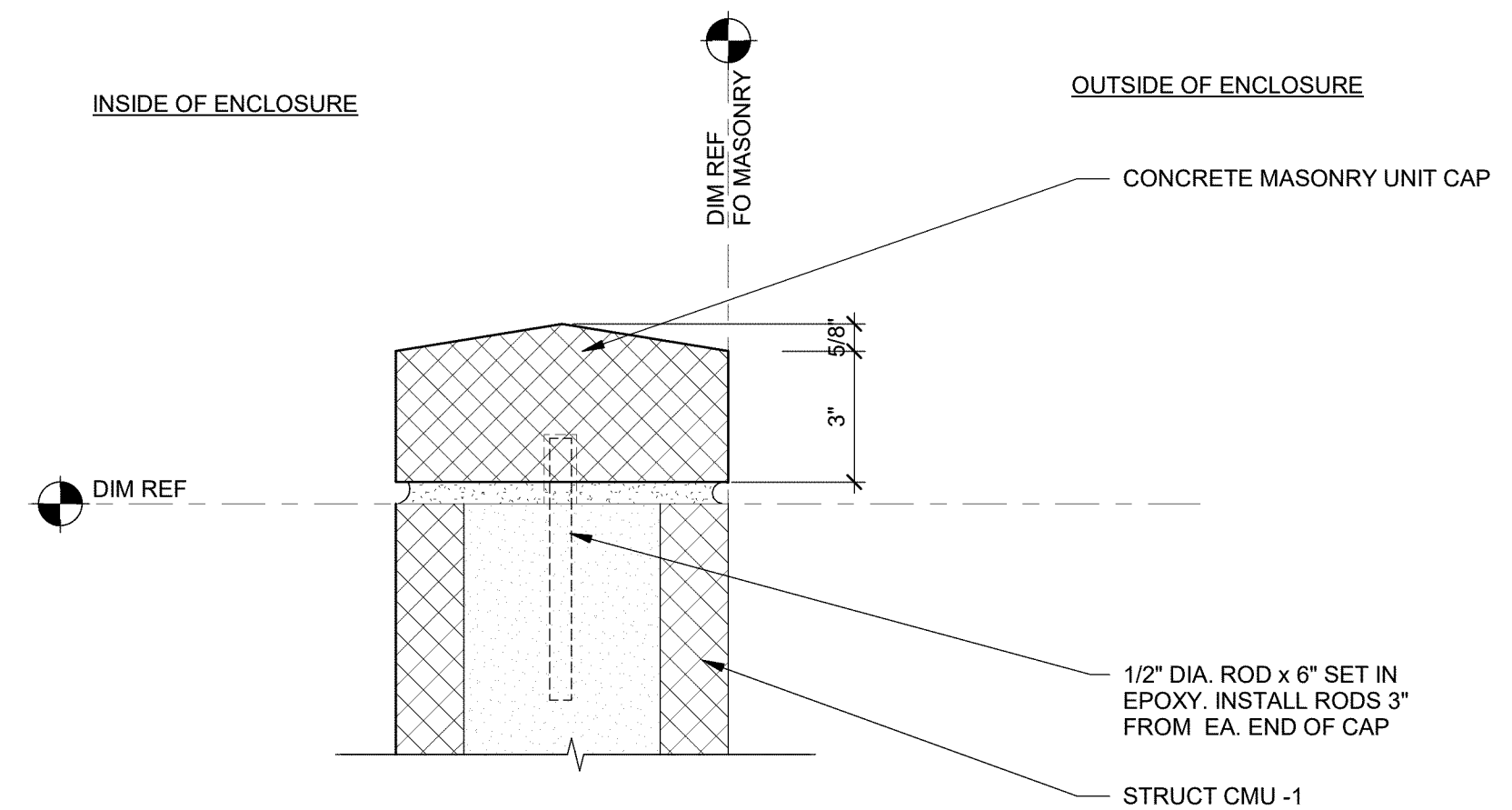
3 SOUTH ELEVATION - SITE ENCLOSURE  
SCALE: 1/4" = 1'-0"



4 SITE ENCLOSURE - SECTION  
SCALE: 1 1/2" = 1'-0"

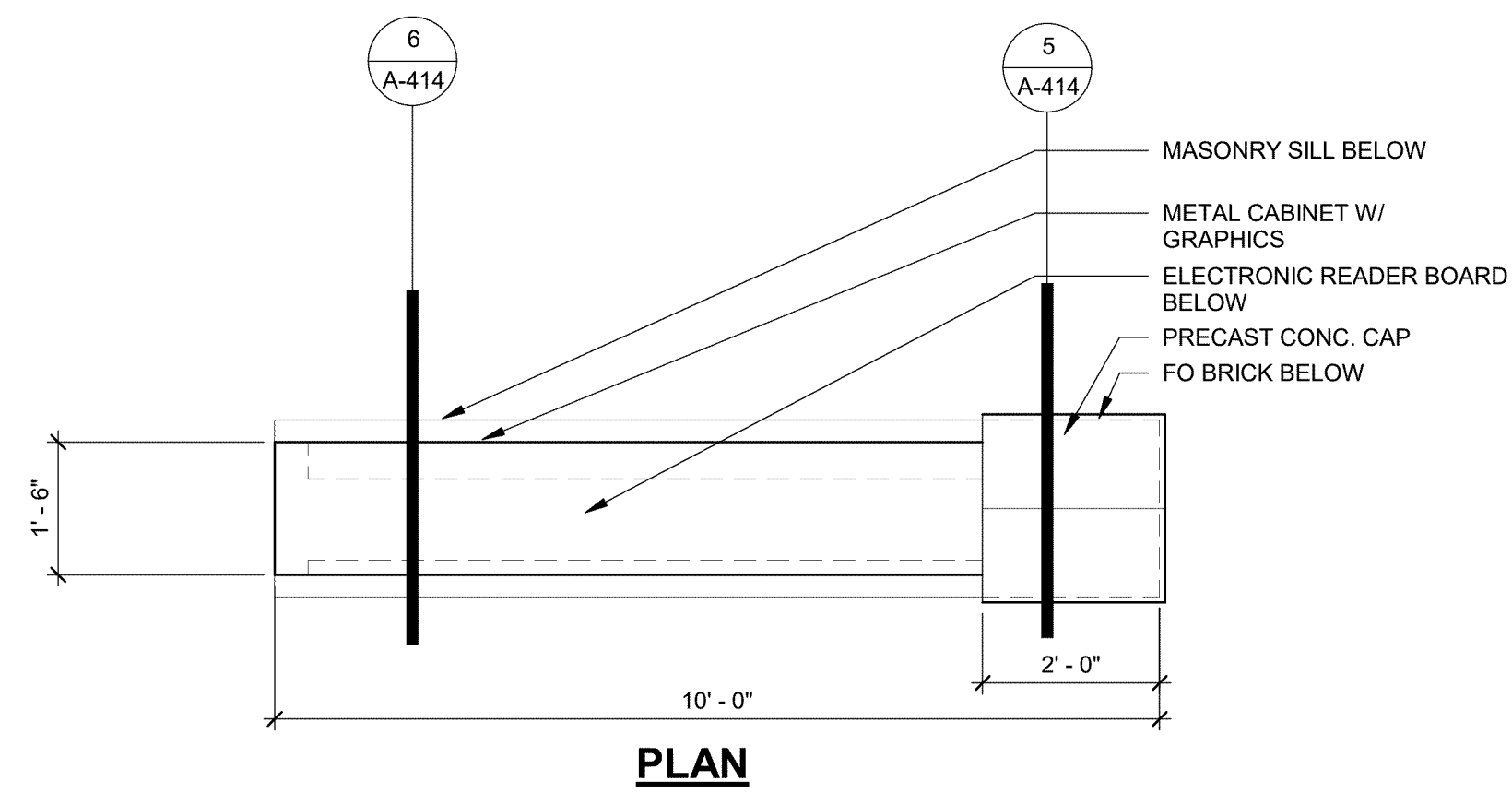


5 SITE ENCLOSURE - GATE  
SCALE: 1/2" = 1'-0"

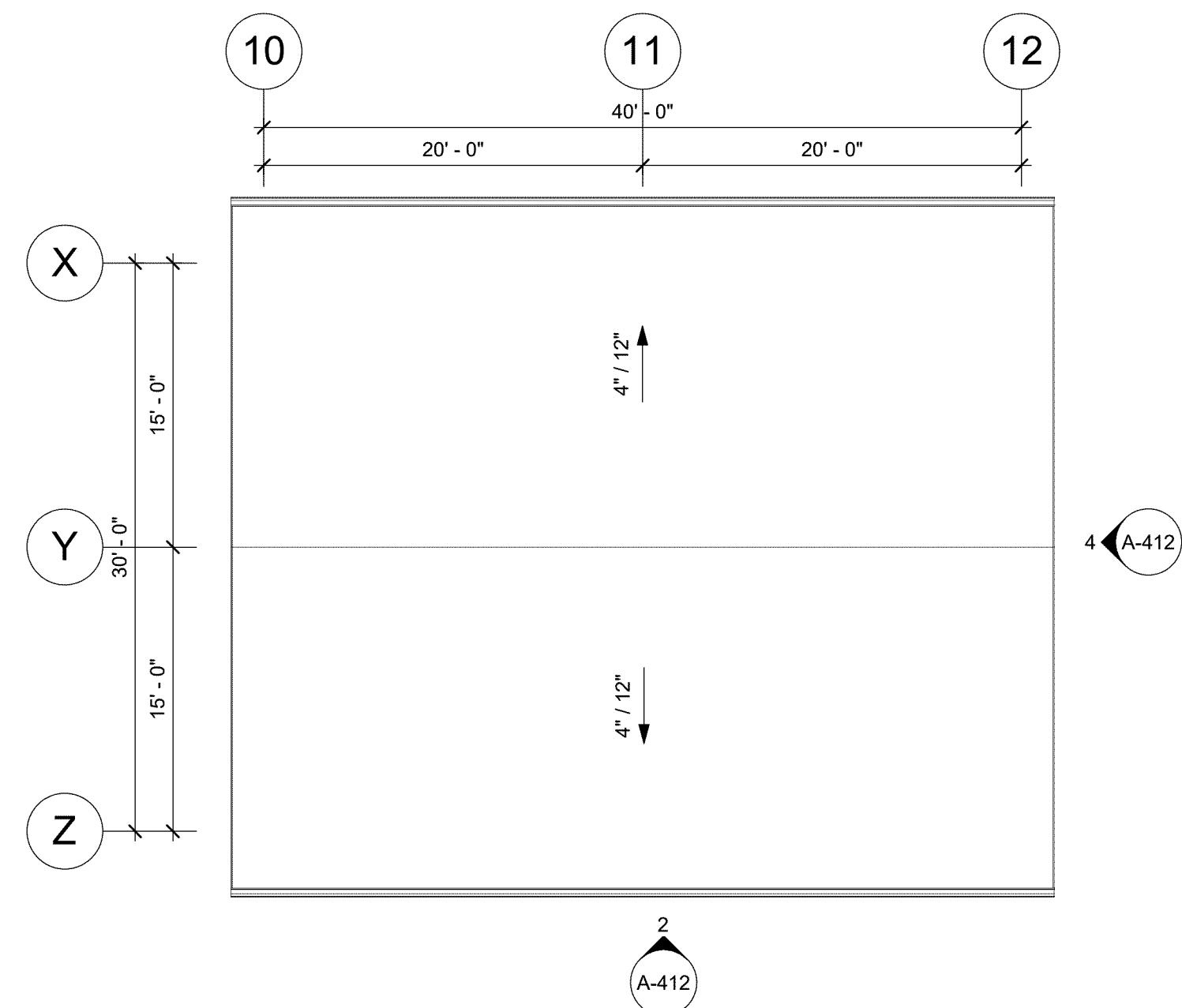


6 SITE ENCLOSURE - CAP  
SCALE: 3" = 1'-0"

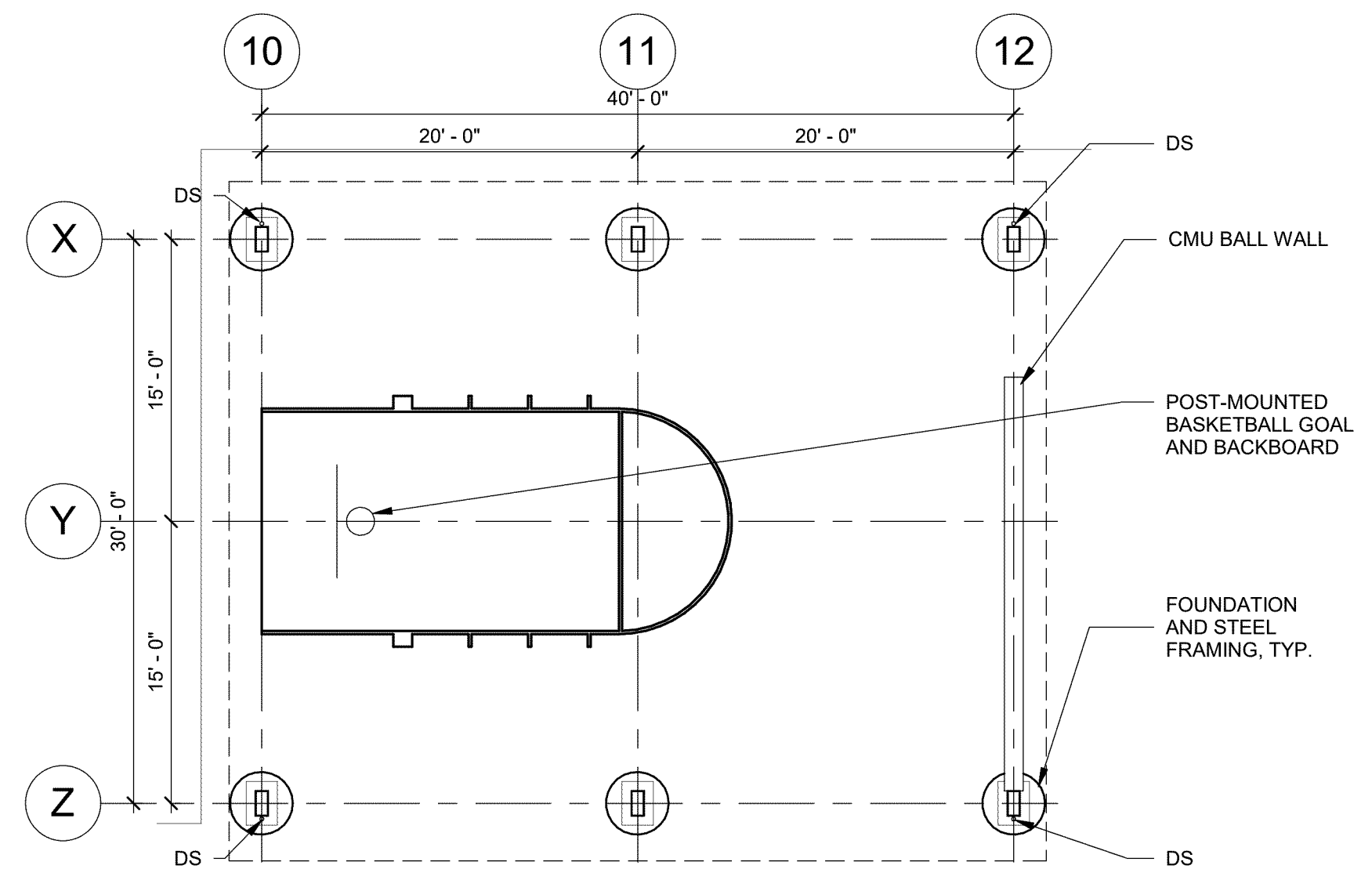




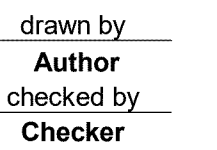
## PLAN



### 3 COVERED PLAY - ROOF PLAN



**5 COVERED PLAY - FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



**GROVE CHILDREN'S CENTER**  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661

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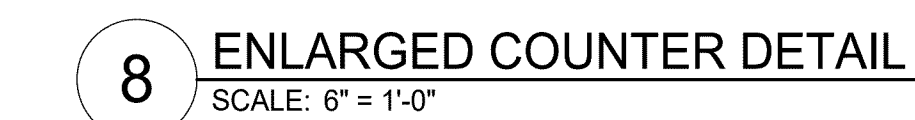
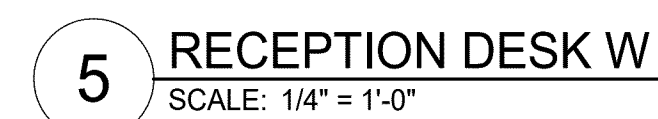
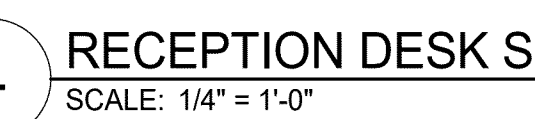
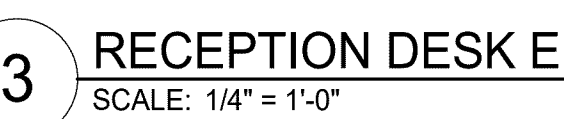
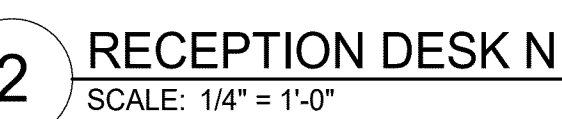
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## ENLARGED PLANS / SITE STRUCTURES

A-412

Scale	As indicated
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9728 REGISTERED ARCHITECT  
*Casey Wyckoff*  
CASEY JOHN WYCKOFF  
STATE OF WASHINGTON

sw job number  
2018-0029

**FIR GROVE CHILDREN'S CENTER**  
**VANCOUVER PUBLIC SCHOOLS**  
**3200 E 18TH ST**  
**VANCOUVER, WA, 98661**

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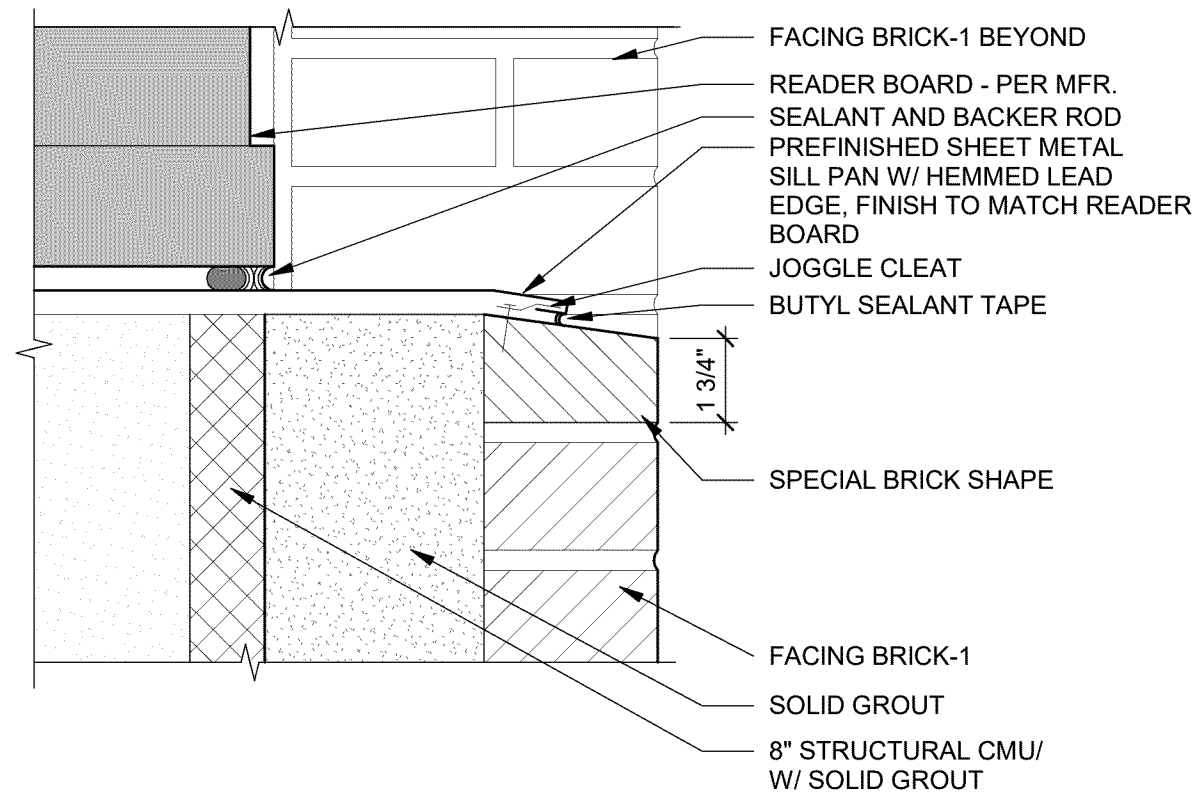
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**ENLARGED PLANS  
AND DETAILS /  
RECEPTION DESK**

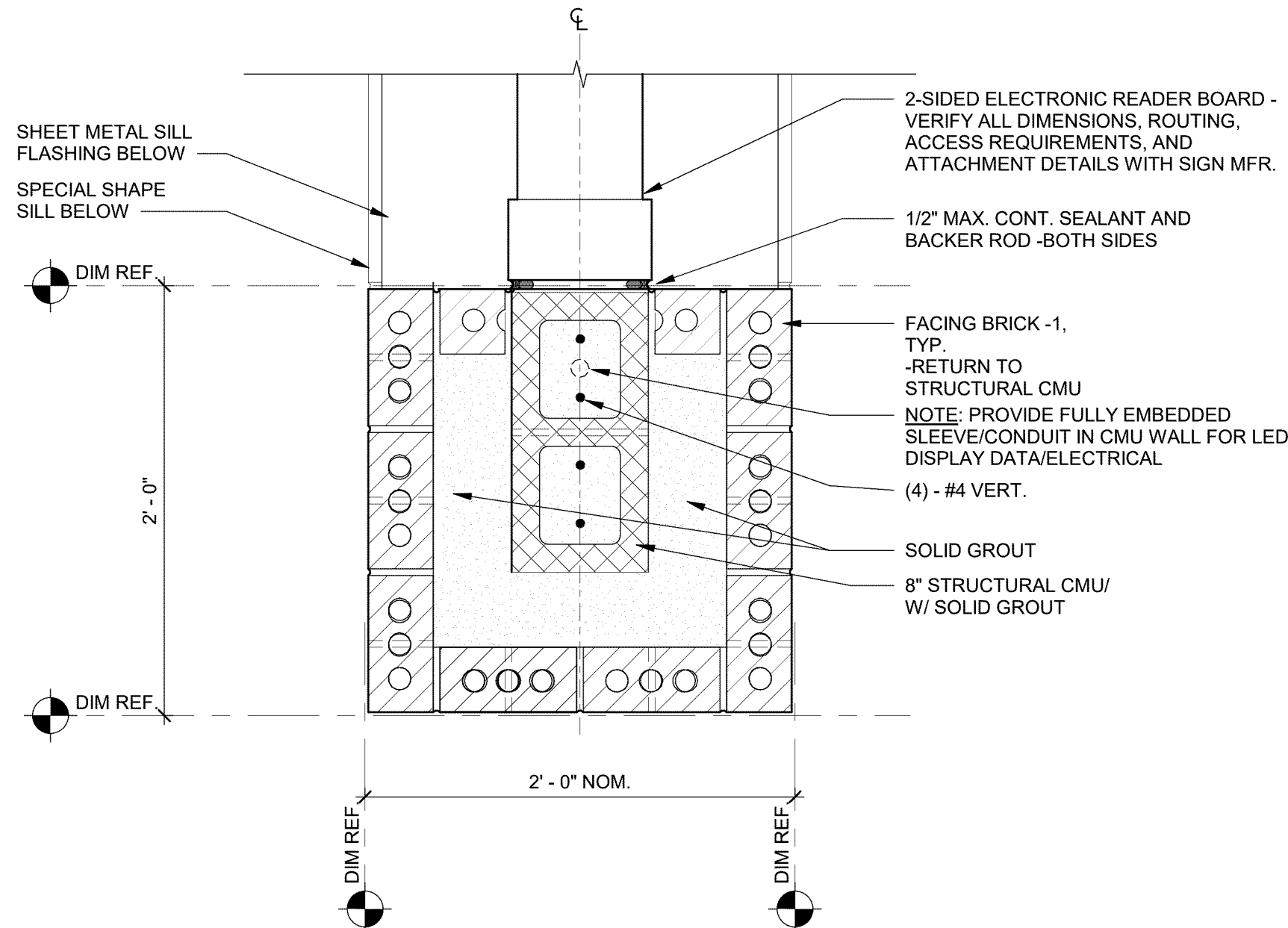
A-413

Scale	As indicated
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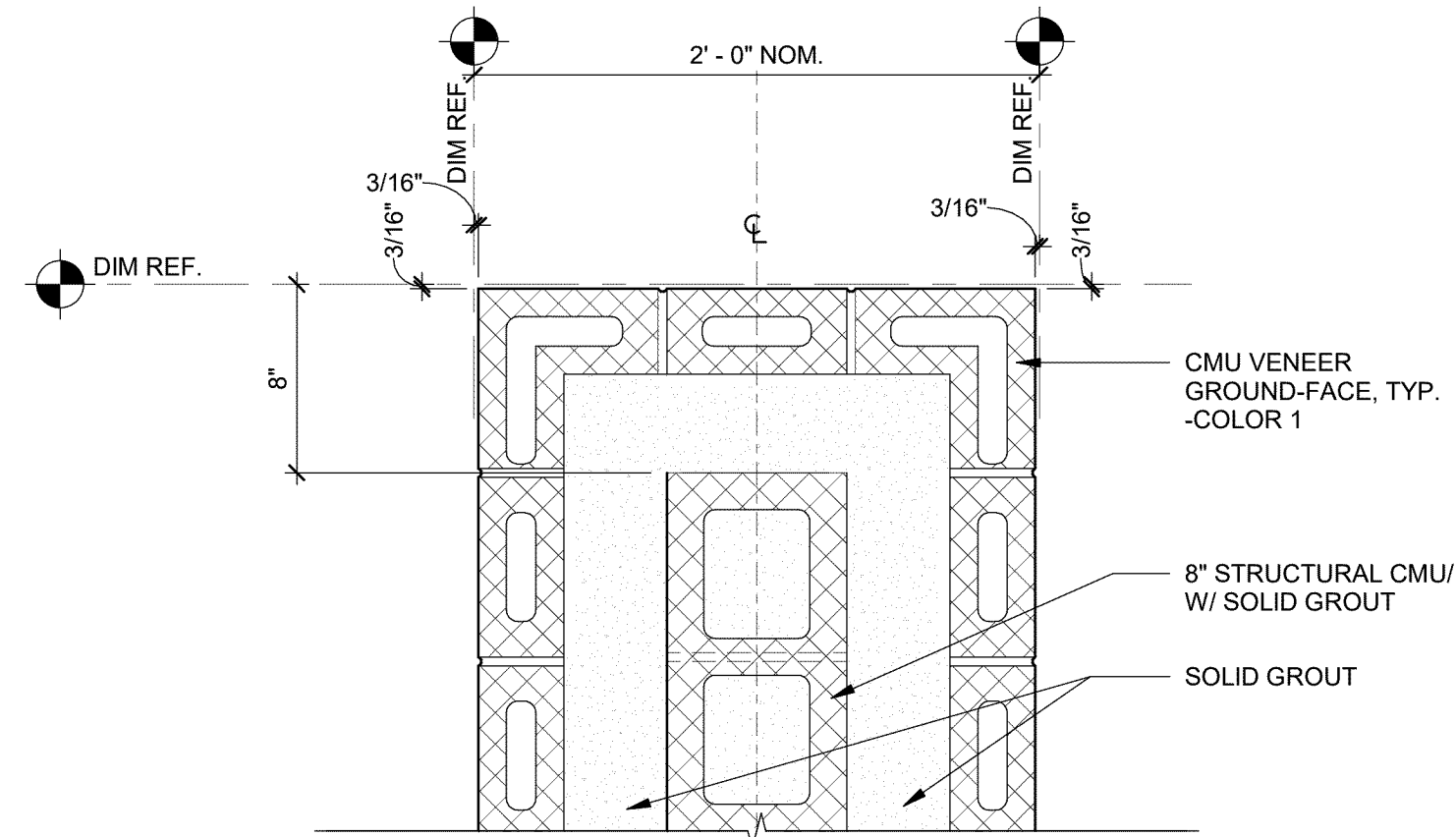




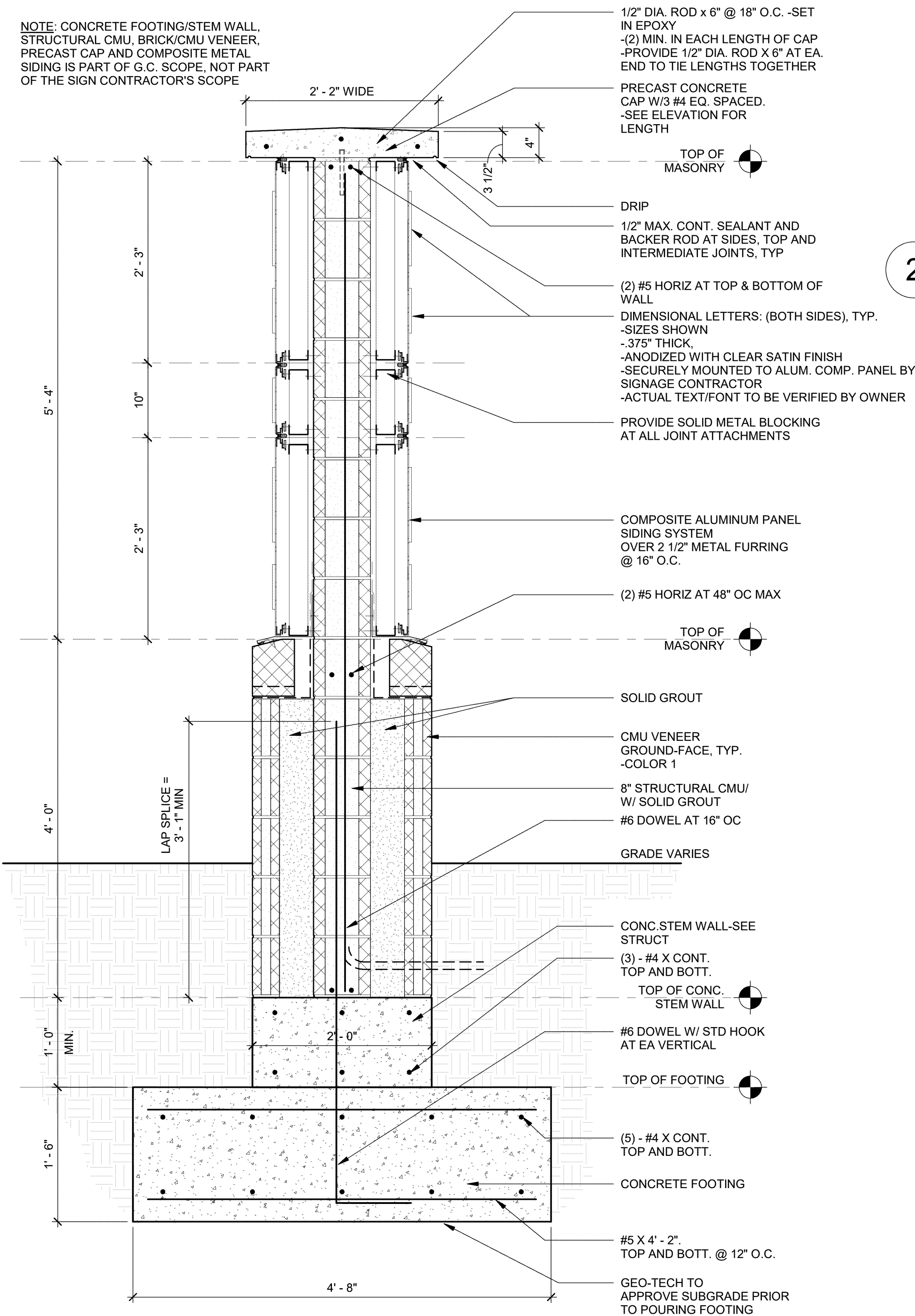
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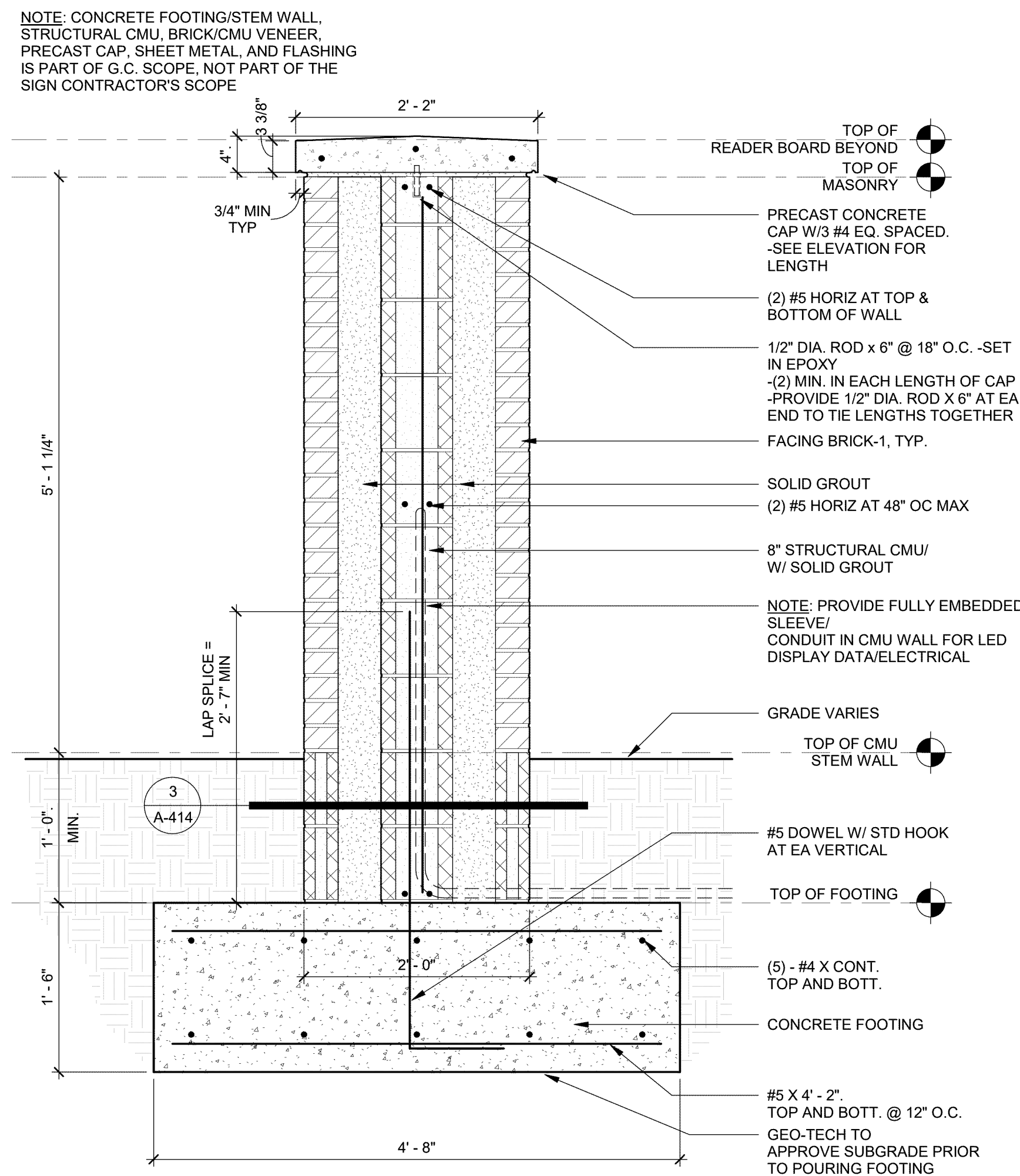
2 MONUMENT - PLAN DETAIL  
SCALE: 1 1/2" = 1'-0"



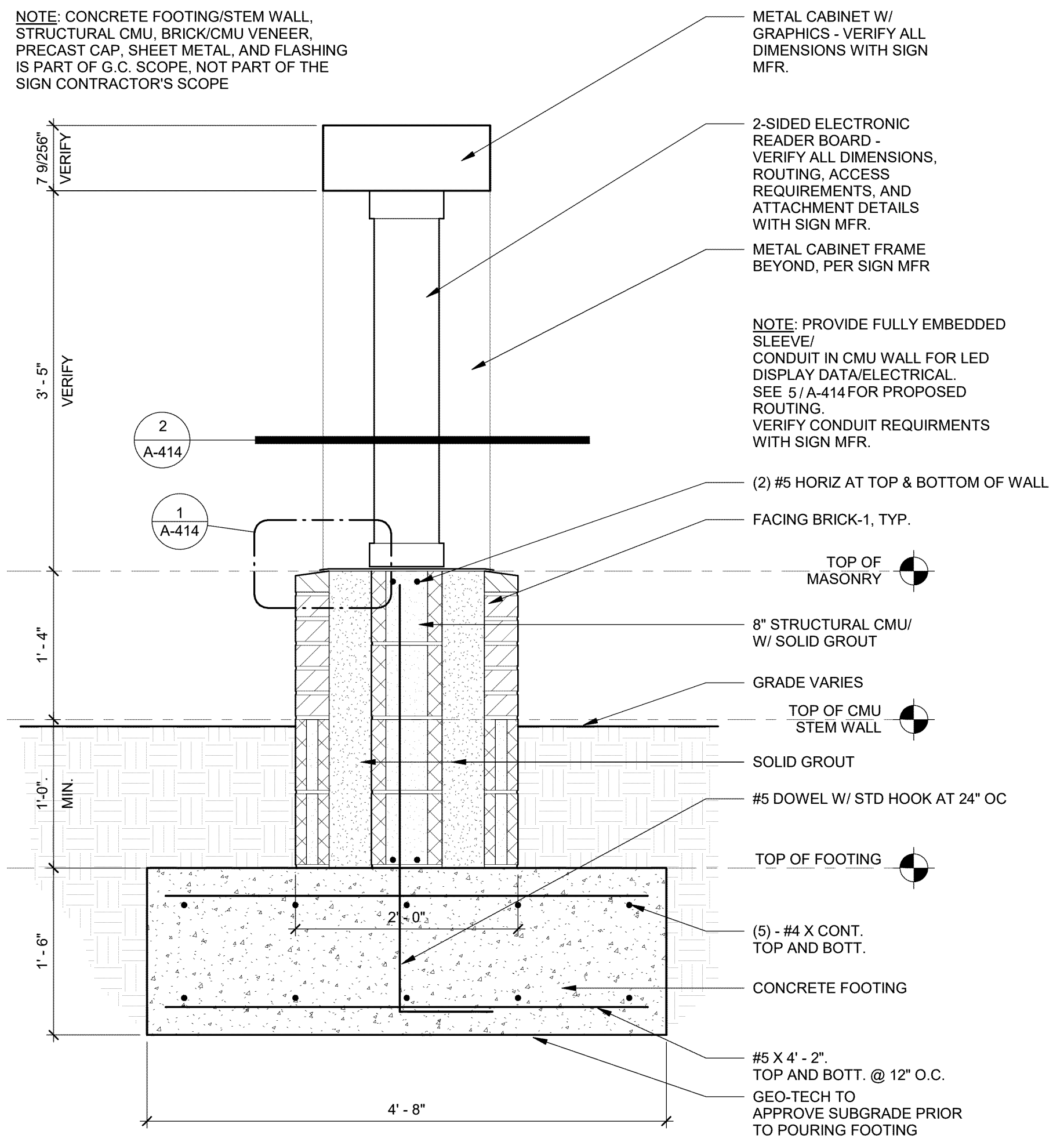
3 MONUMENT - PLAN DETAIL  
SCALE: 1 1/2" = 1'-0"



4 MONUMENT SIGN SECTION  
SCALE: 1" = 1'-0"



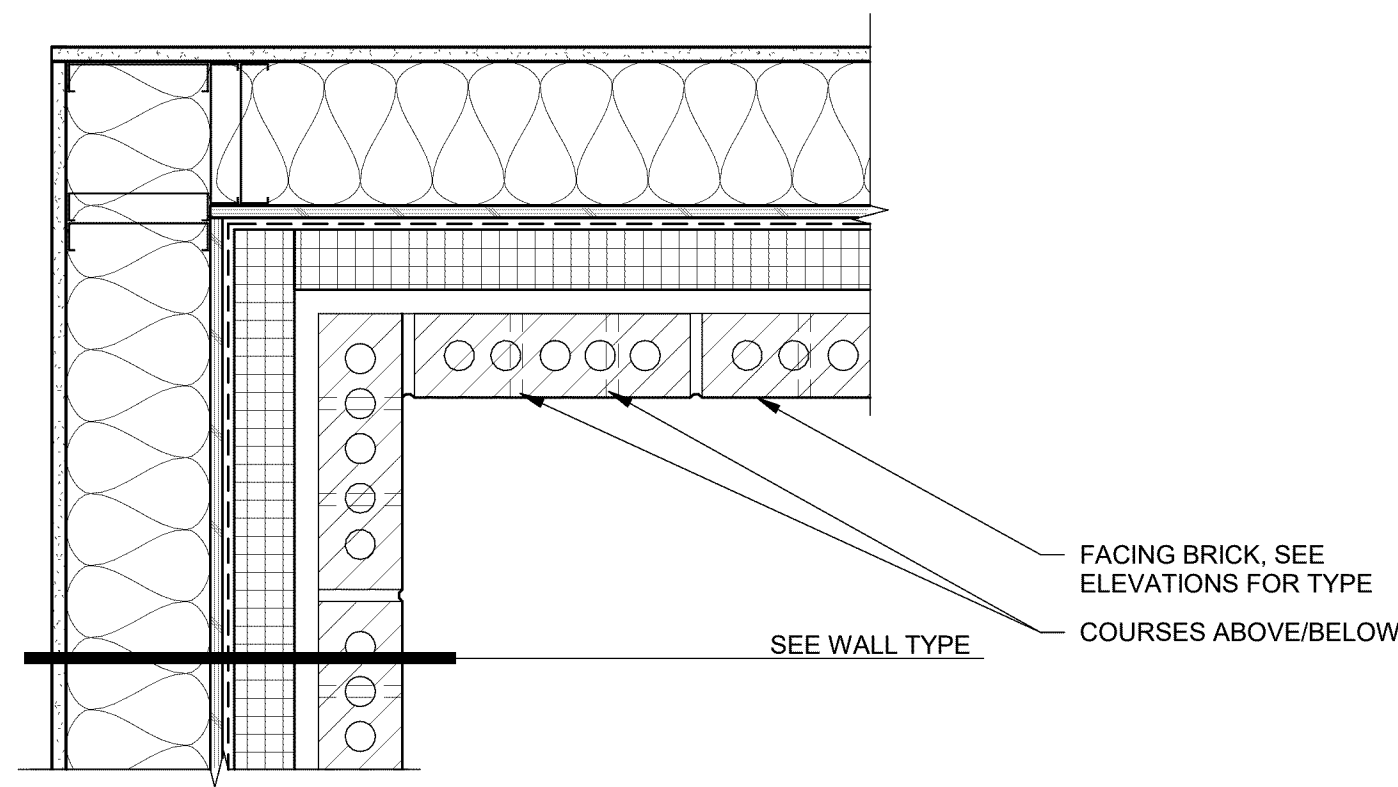
5 MONUMENT SIGN SECTION  
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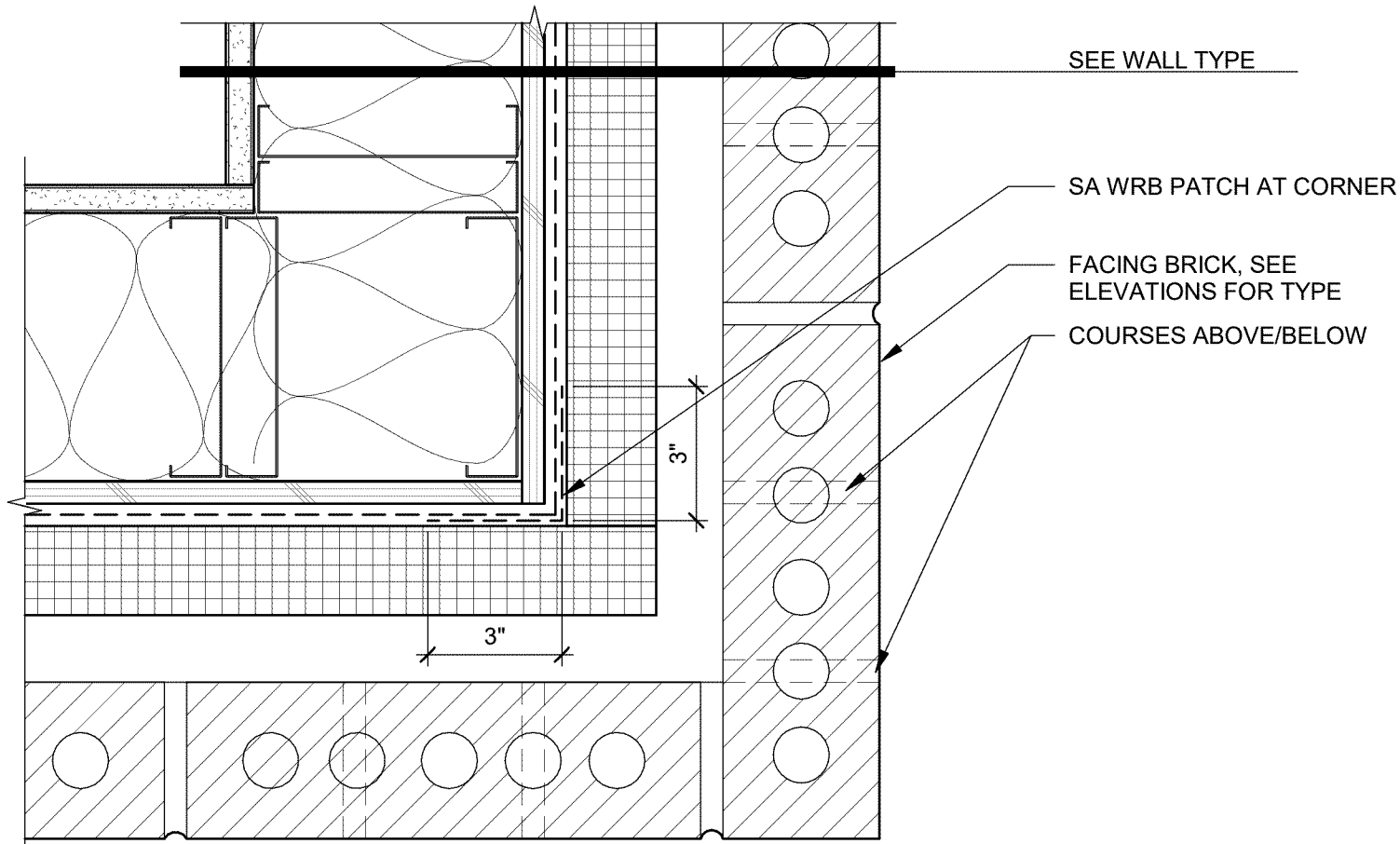
6 MONUMENT SIGN SECTION - READER BOARD  
SCALE: 1" = 1'-0"

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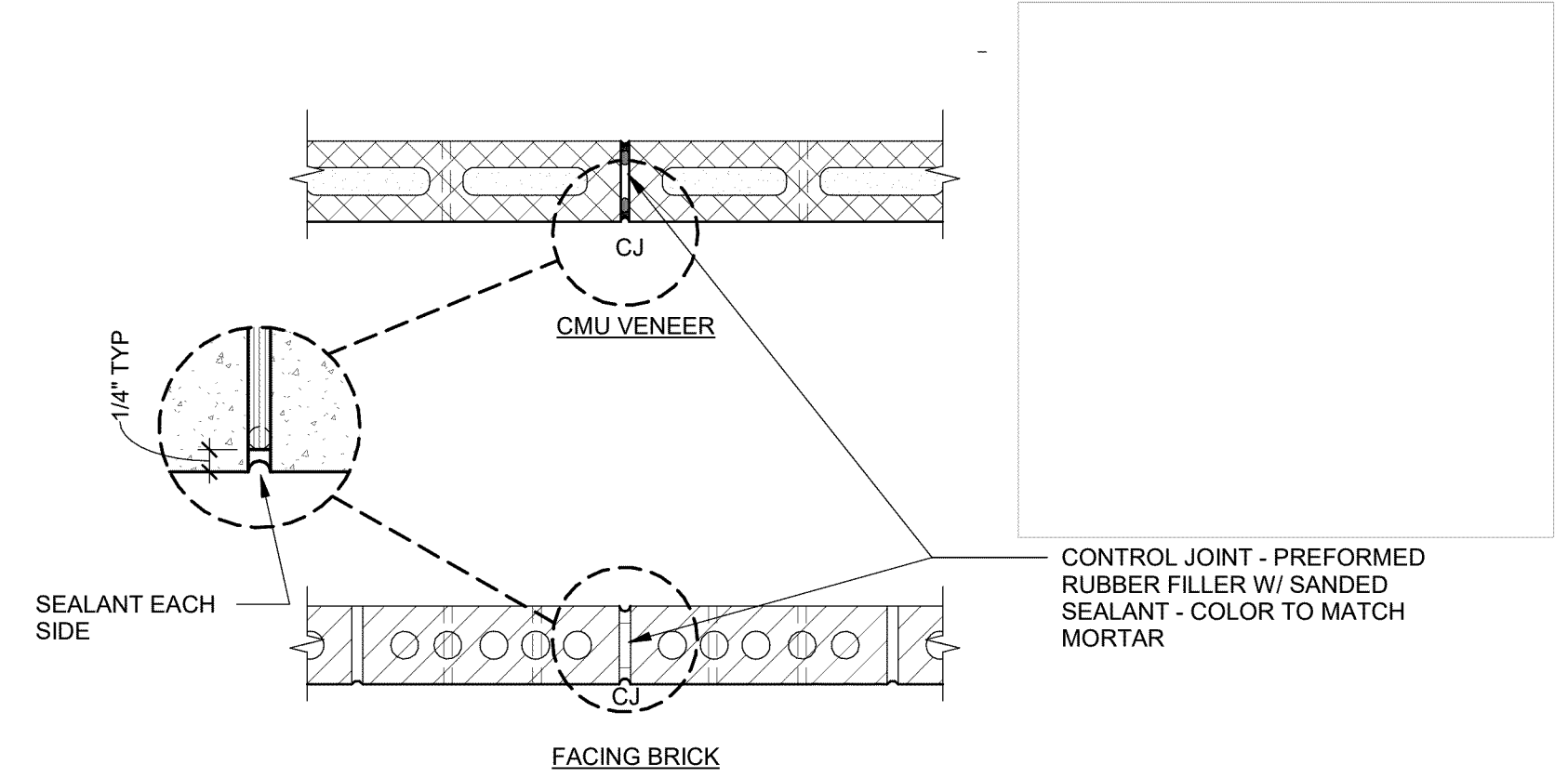




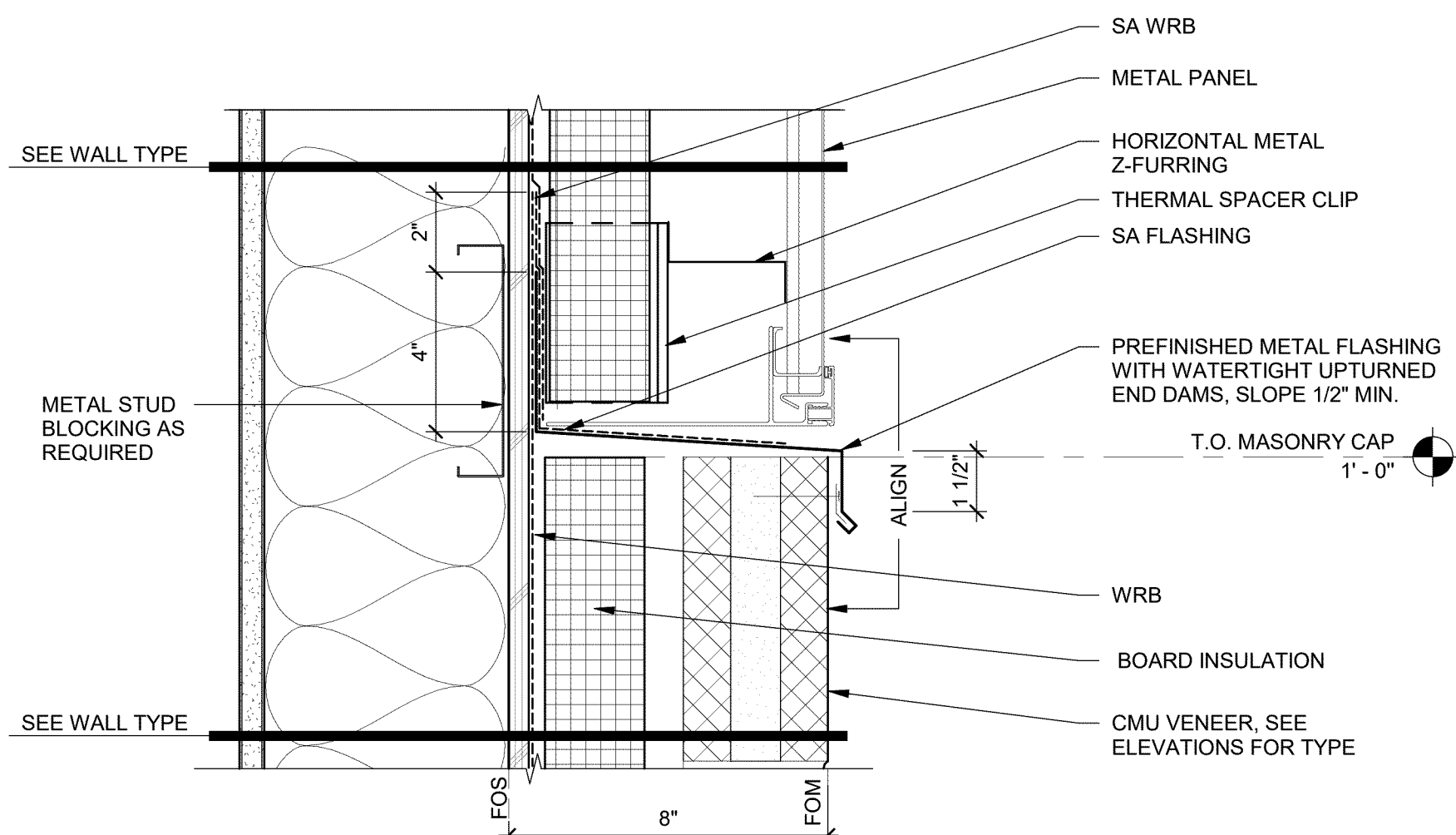
1 BRICK VENEER @ INSIDE CORNER  
SCALE: 1 1/2" = 1'-0"



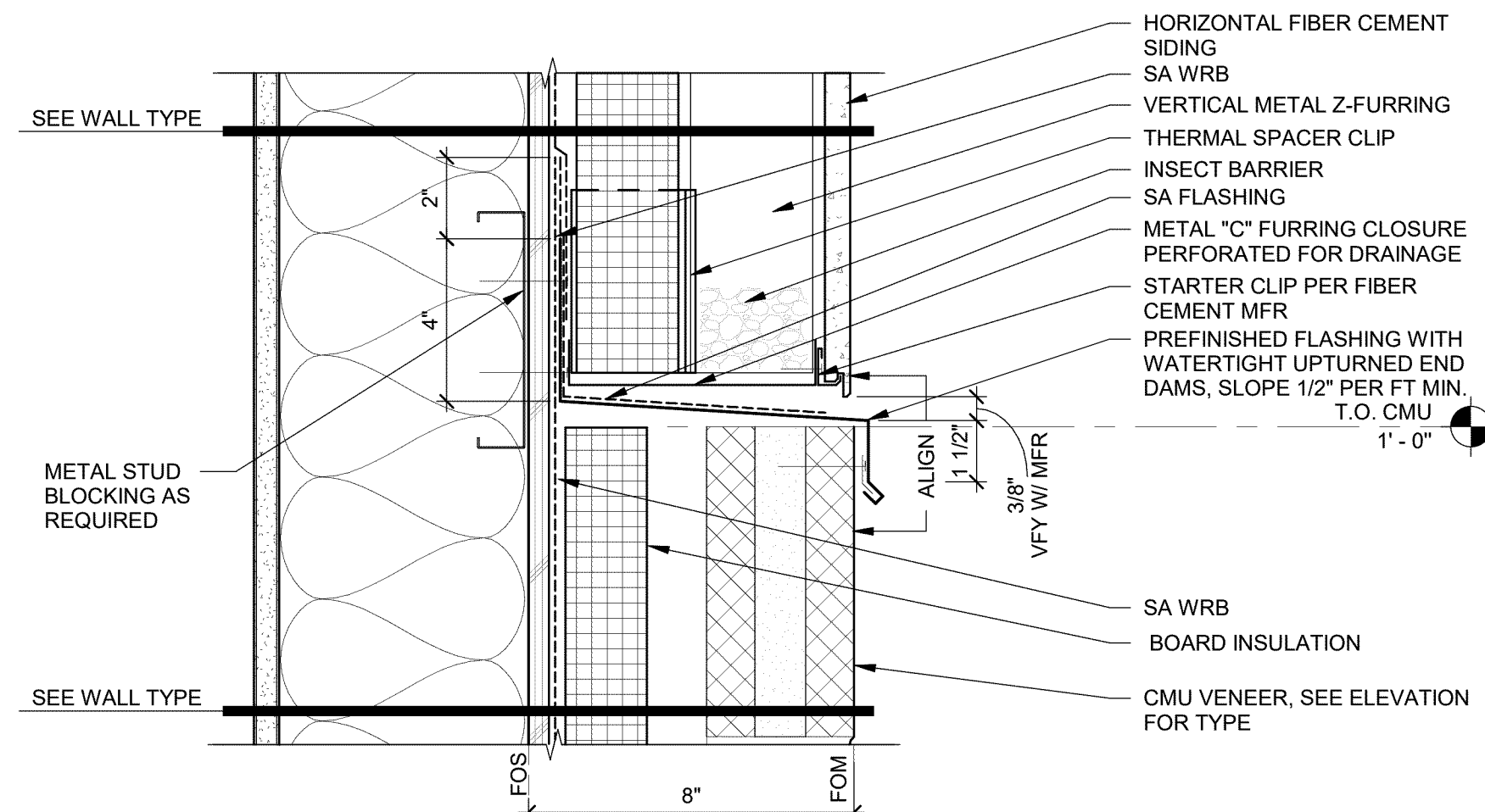
2 BRICK VENEER @ OUTSIDE CORNER  
SCALE: 3" = 1'-0"



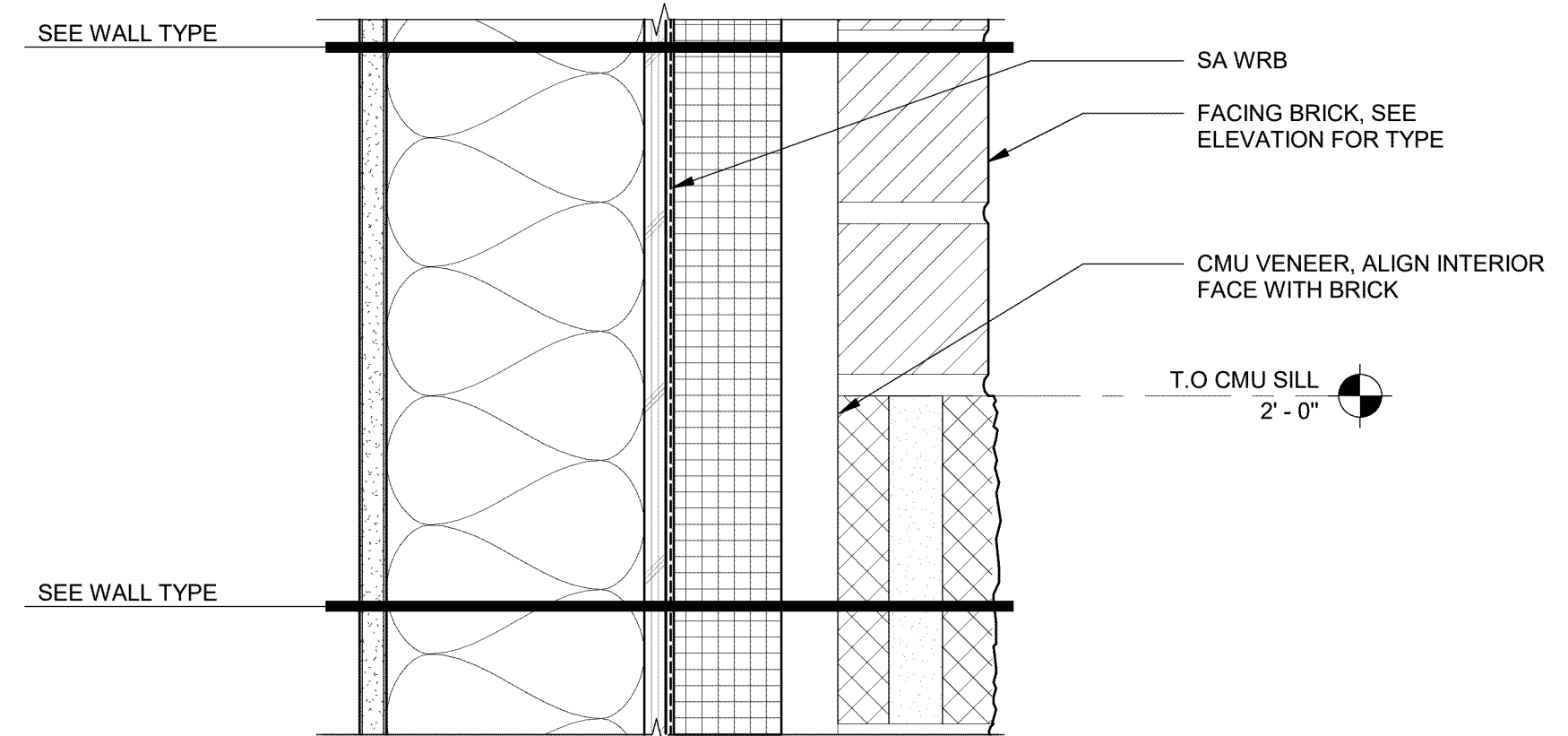
3 TYPICAL CONTROL JOINT @ MASONRY  
SCALE: 1 1/2" = 1'-0"



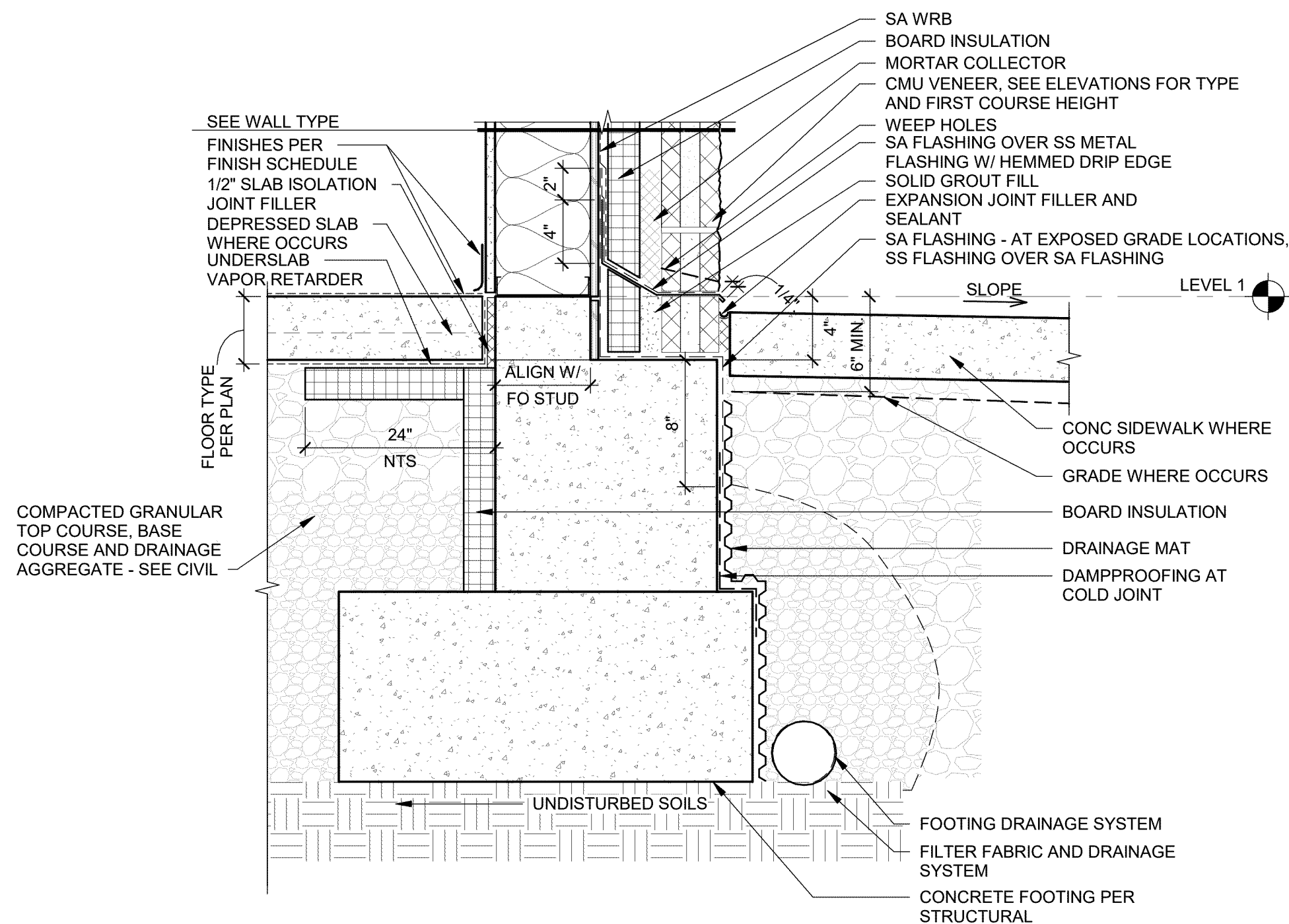
4 CMU VENEER CAP @ METAL PANEL  
SCALE: 3" = 1'-0"



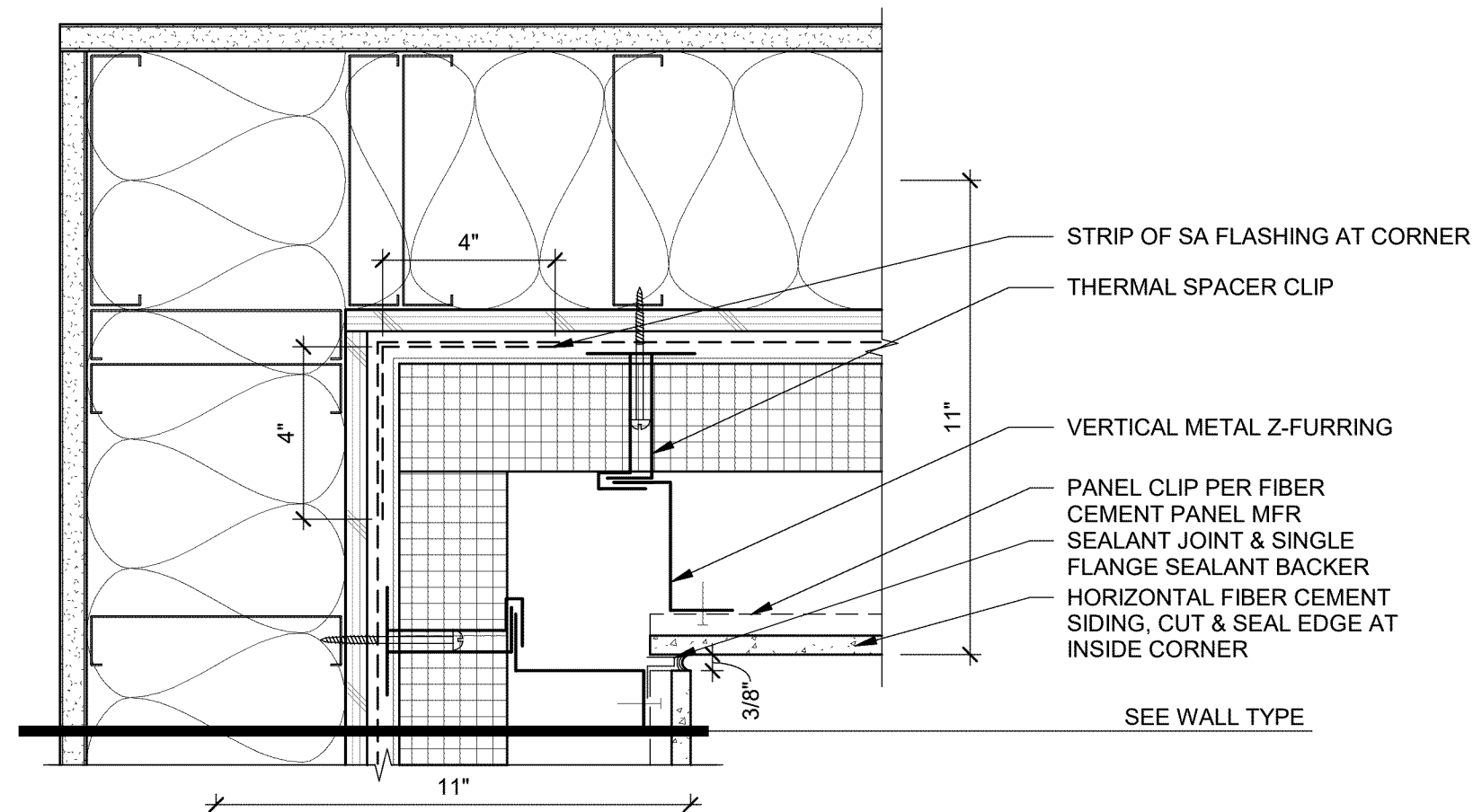
5 CMU VENEER CAP @ FC SIDING  
SCALE: 3" = 1'-0"



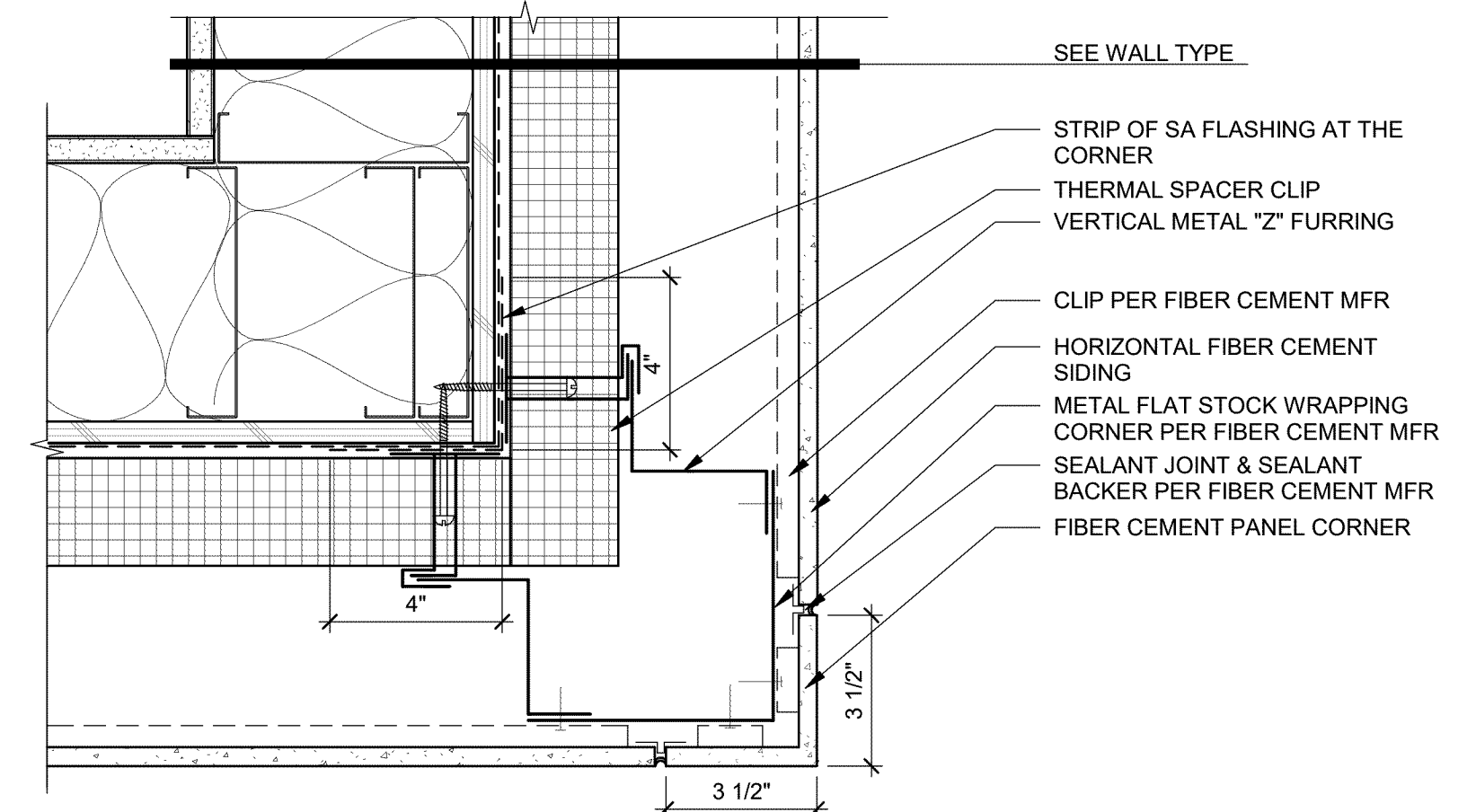
6 CMU VENEER CAP @ BRICK  
SCALE: 3" = 1'-0"



7 CMU VENEER @ FOUNDATION / SIDEWALK  
SCALE: 1 1/2" = 1'-0"



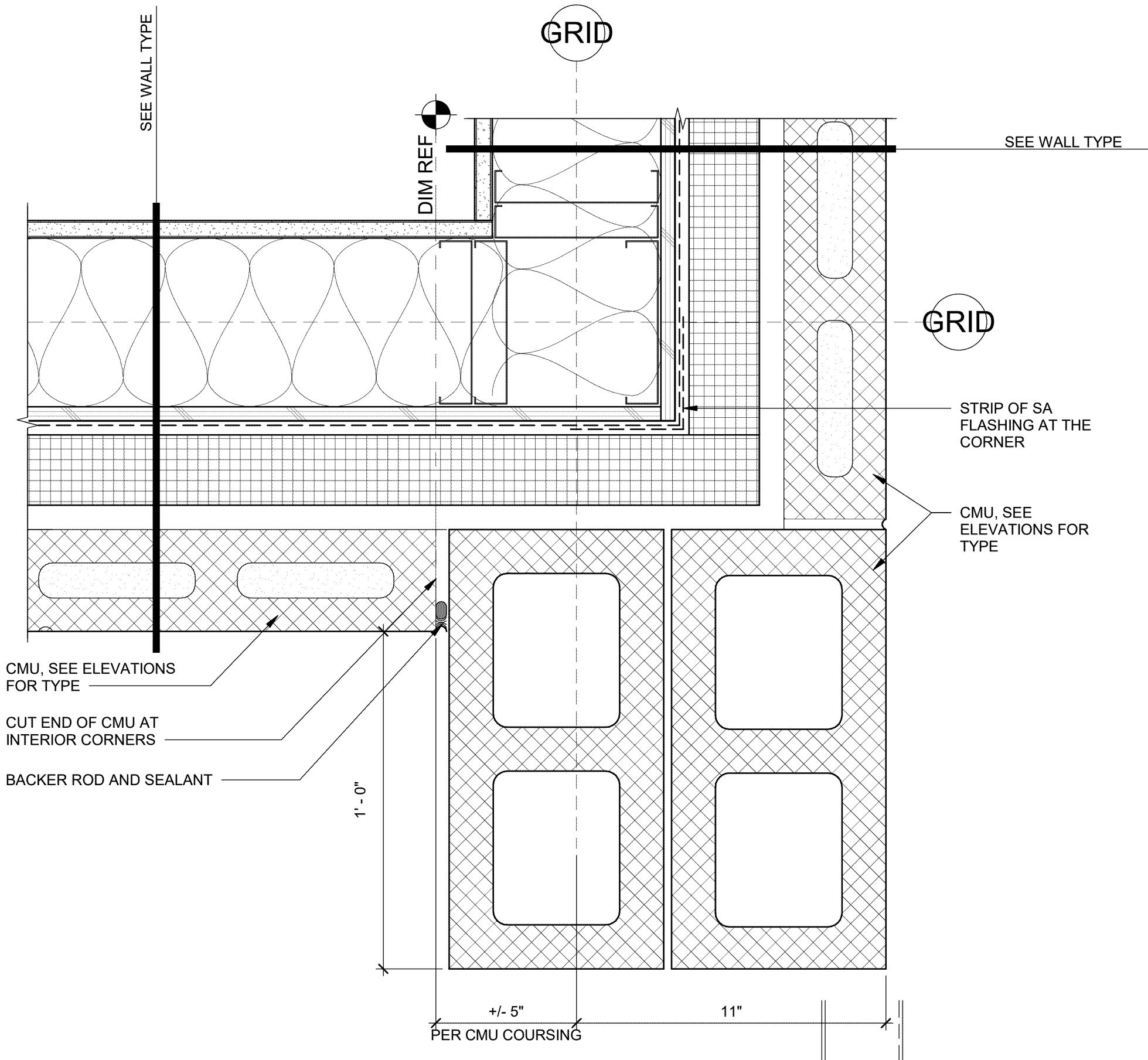
8 FC SIDING @ INSIDE CORNER  
SCALE: 3" = 1'-0"



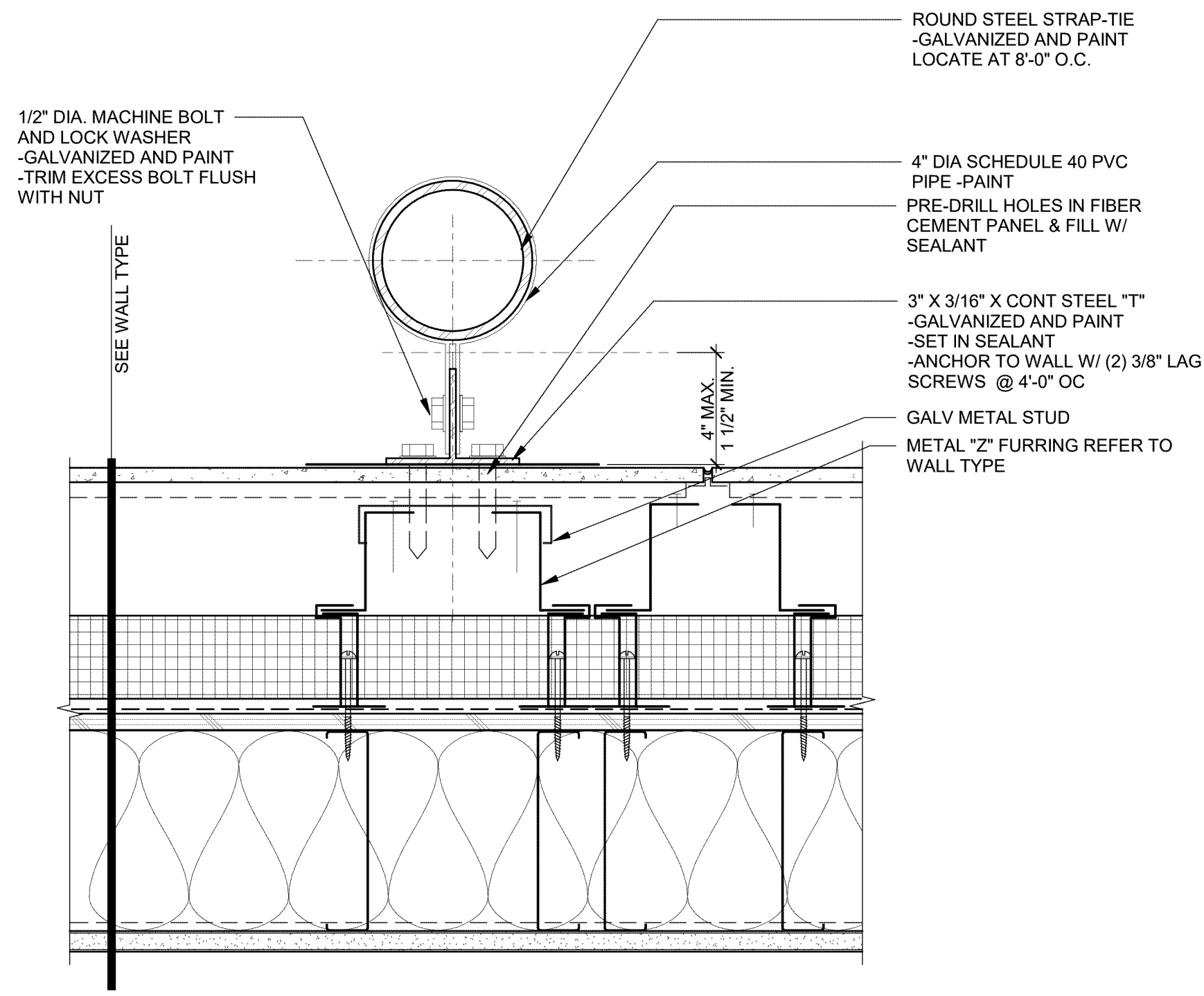
9 FC SIDING @ OUTSIDE CORNER  
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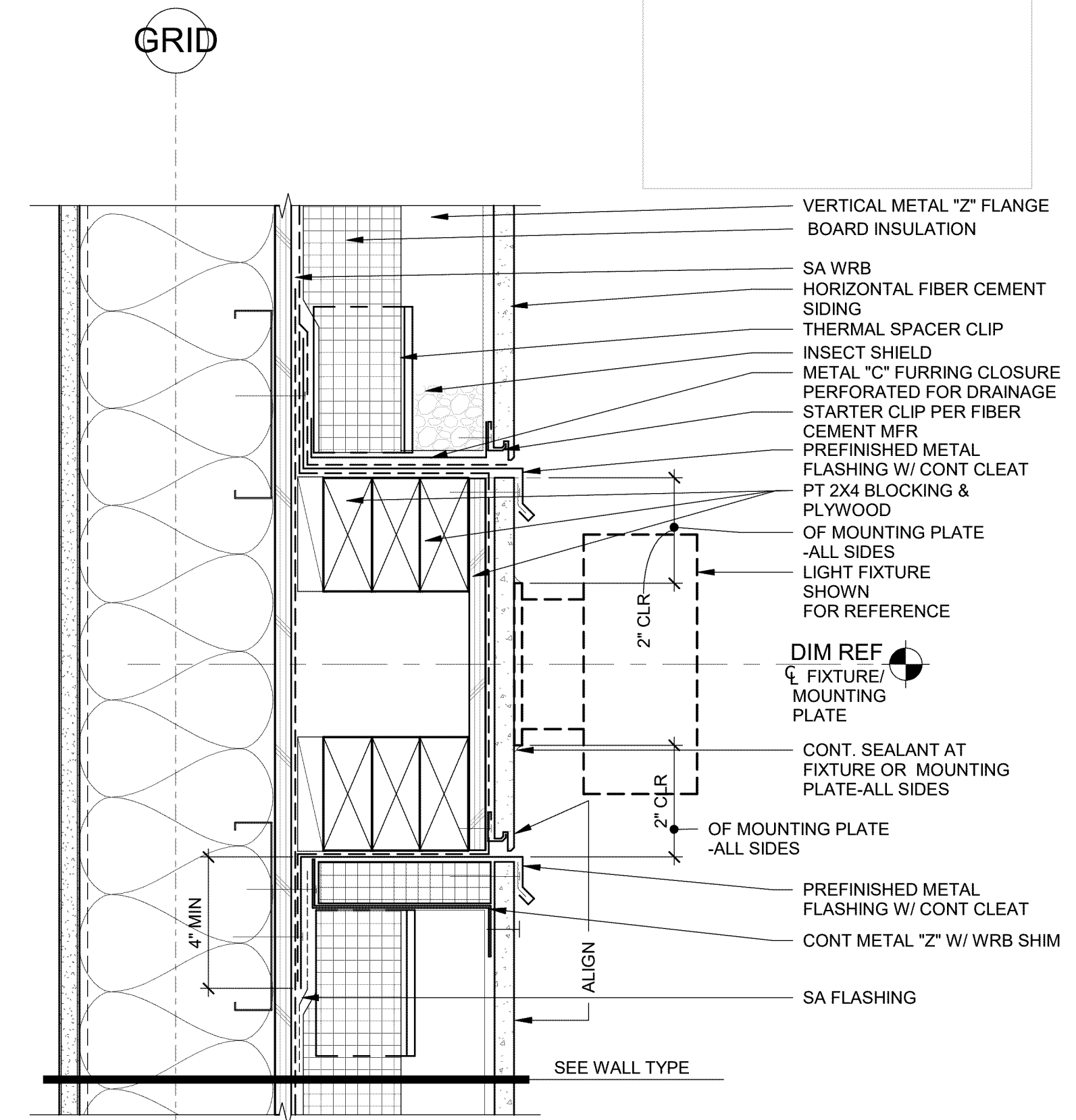
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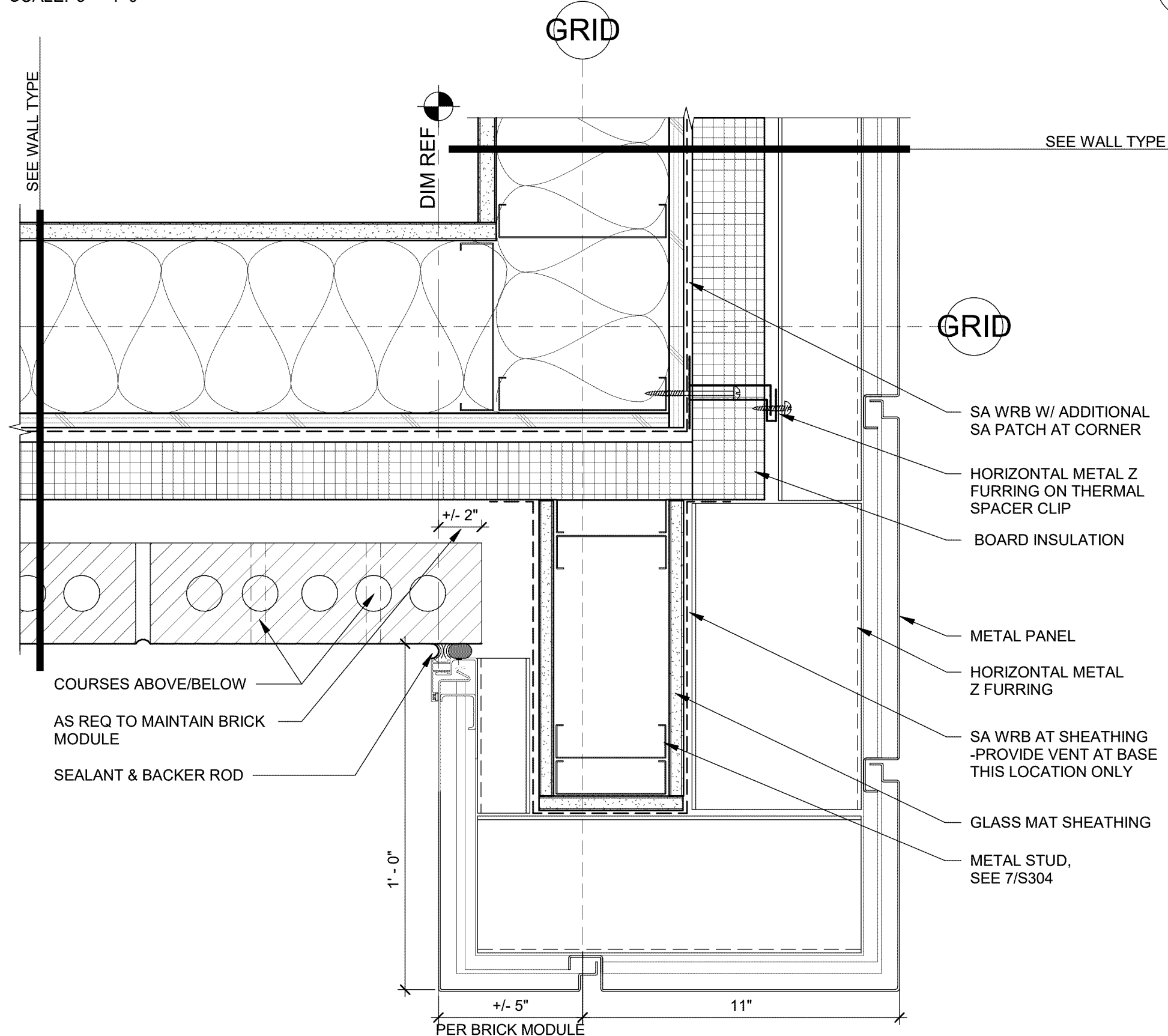
1 CMU VENEER INTERSECTION  
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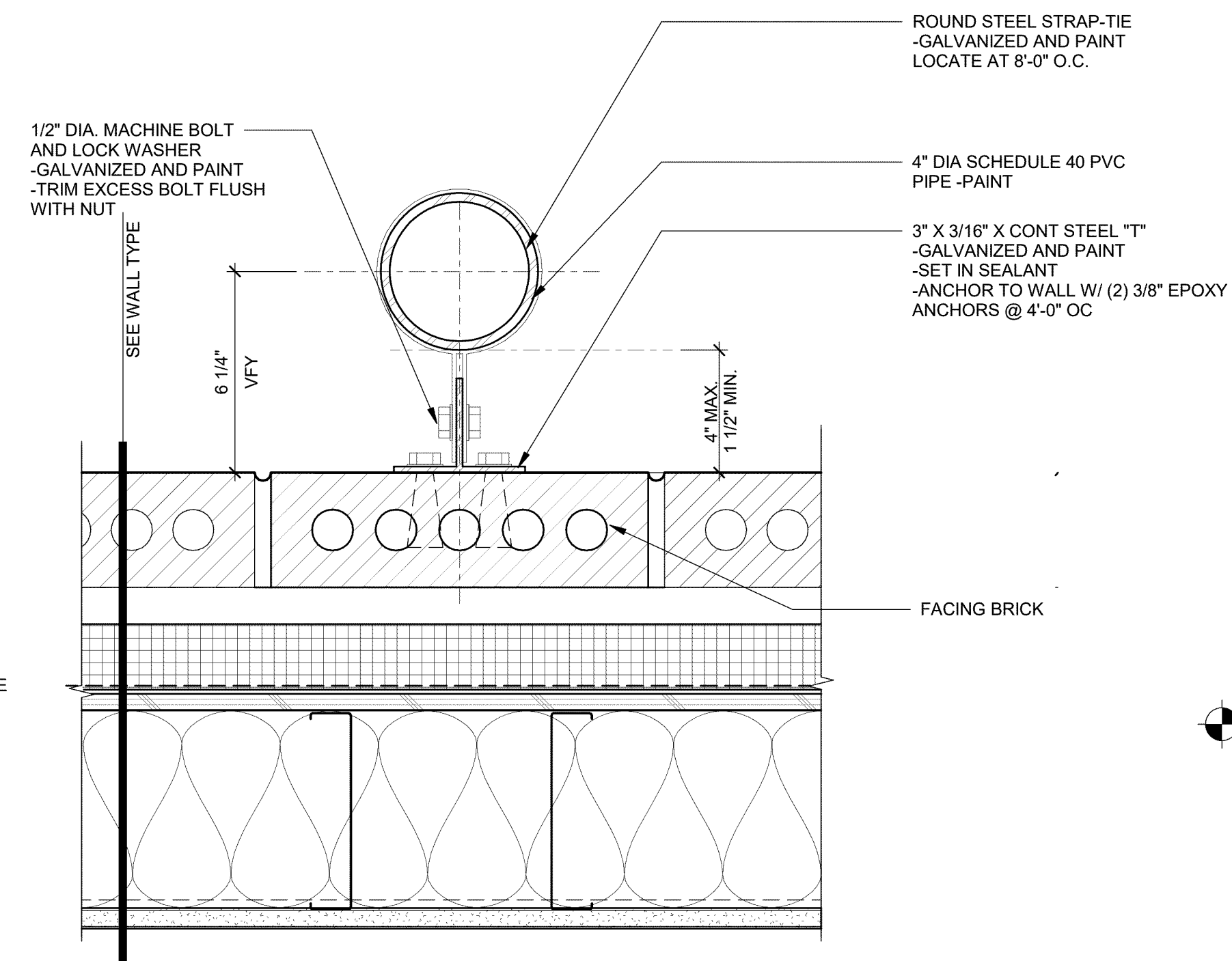
2 DOWNSPOUT AT FIBER CEMENT  
SCALE: 3" = 1'-0"



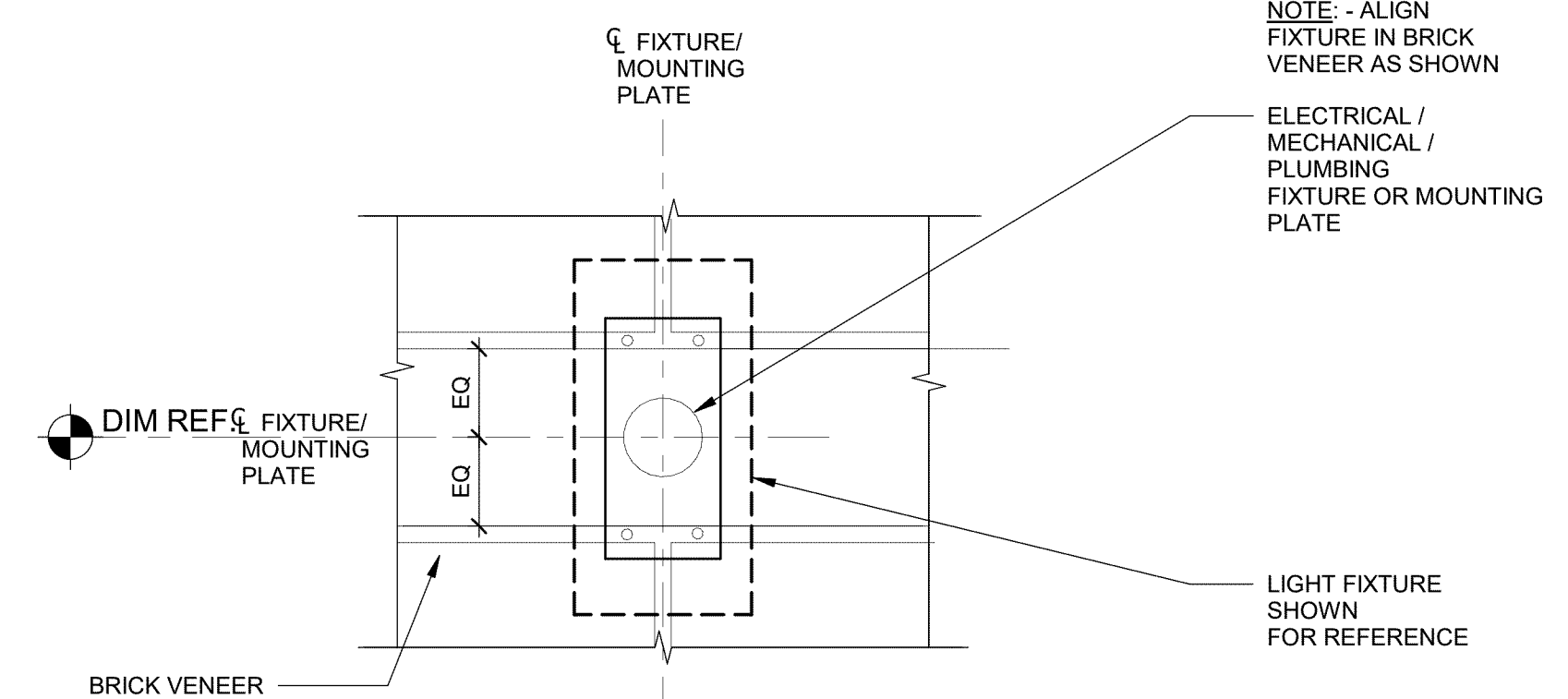
3 TYP EXTERIOR FIXTURE MOUNTING - FIBER CEMENT  
SCALE: 3" = 1'-0"



4 BRICK VENEER @ METAL PANEL  
SCALE: 3" = 1'-0"

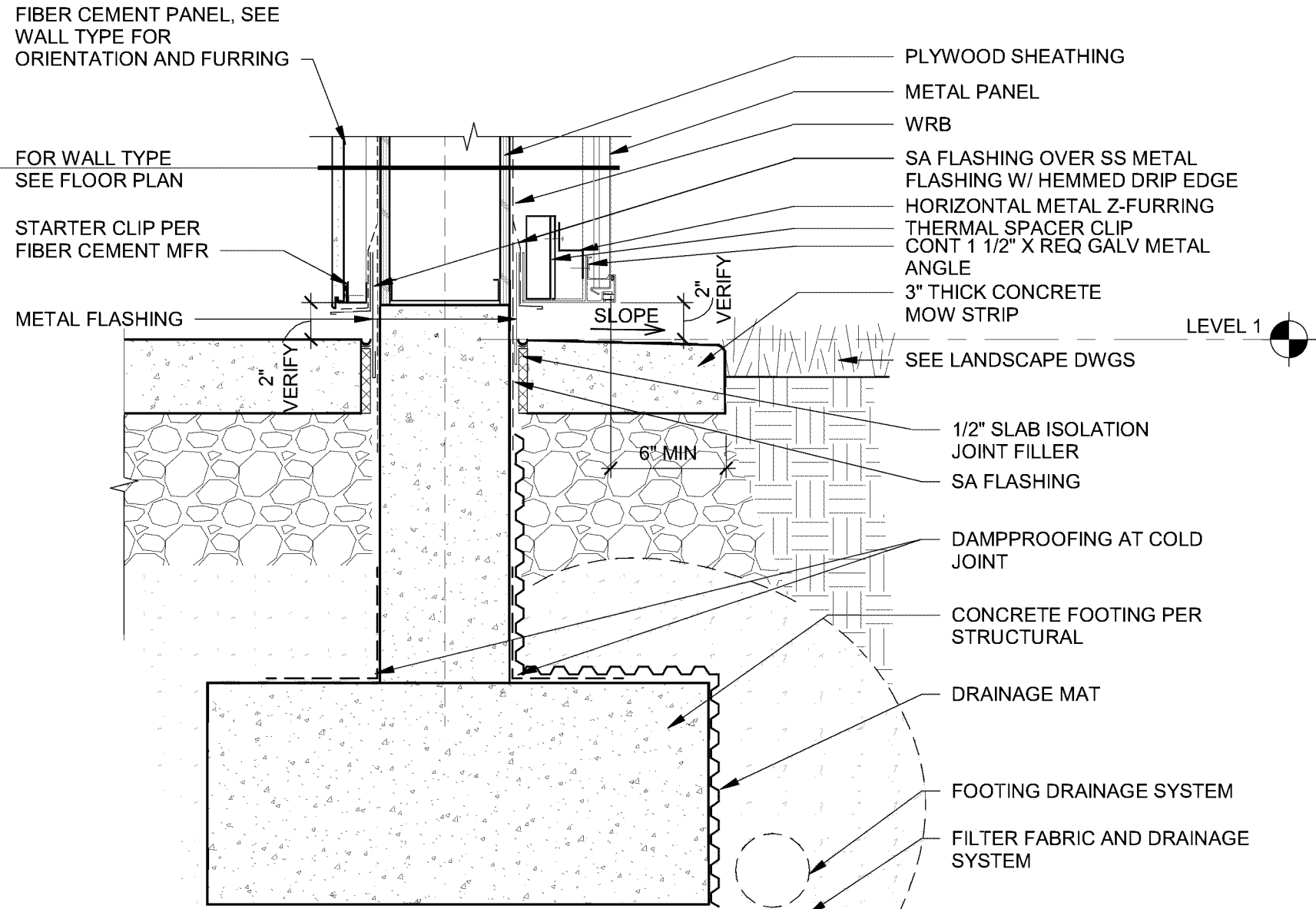


5 DOWNSPOUT AT FACING BRICK  
SCALE: 3" = 1'-0"

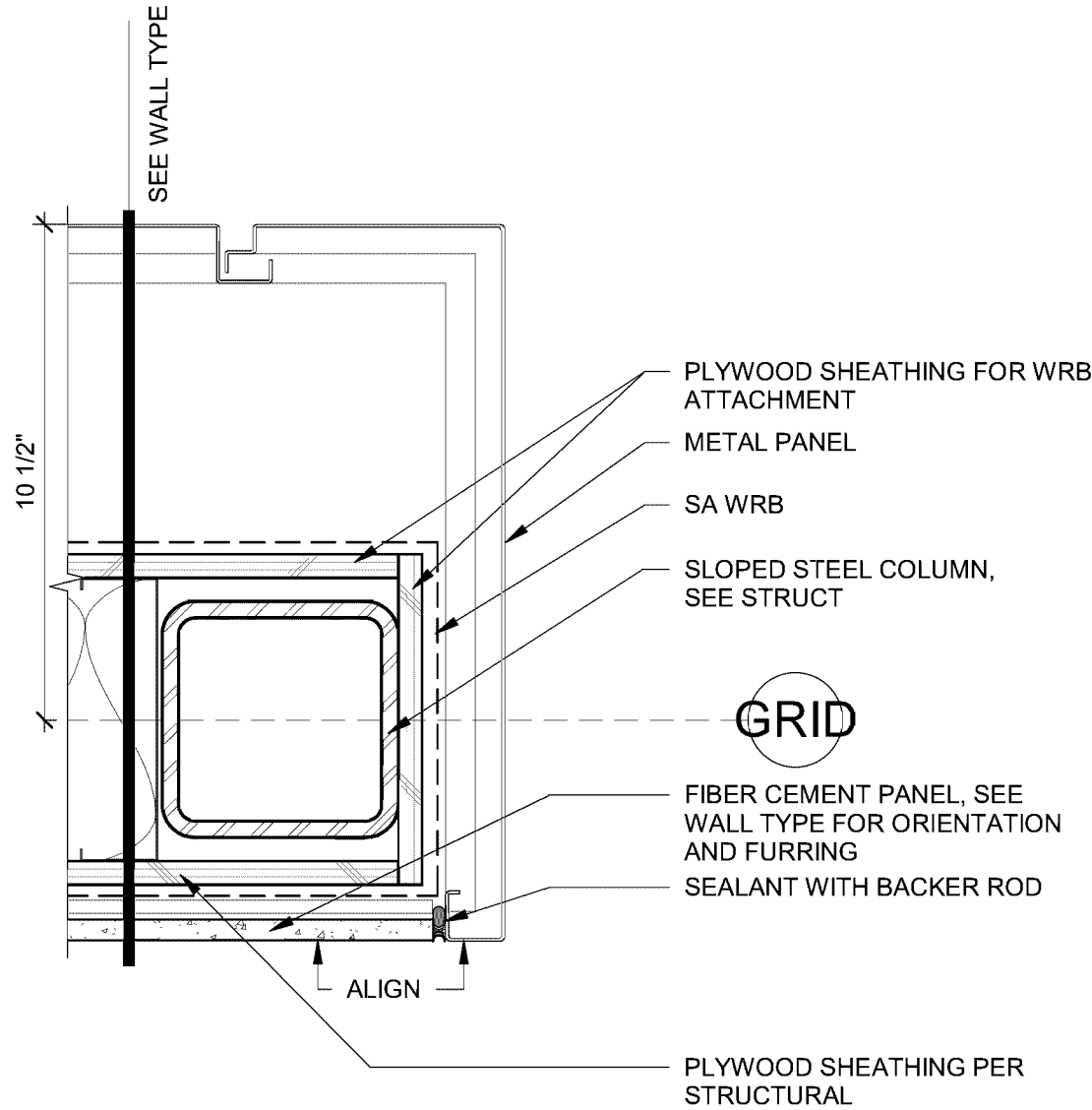


6 TYP EXTERIOR FIXTURE MOUNTING @ BRICK VENEER  
SCALE: 3" = 1'-0"

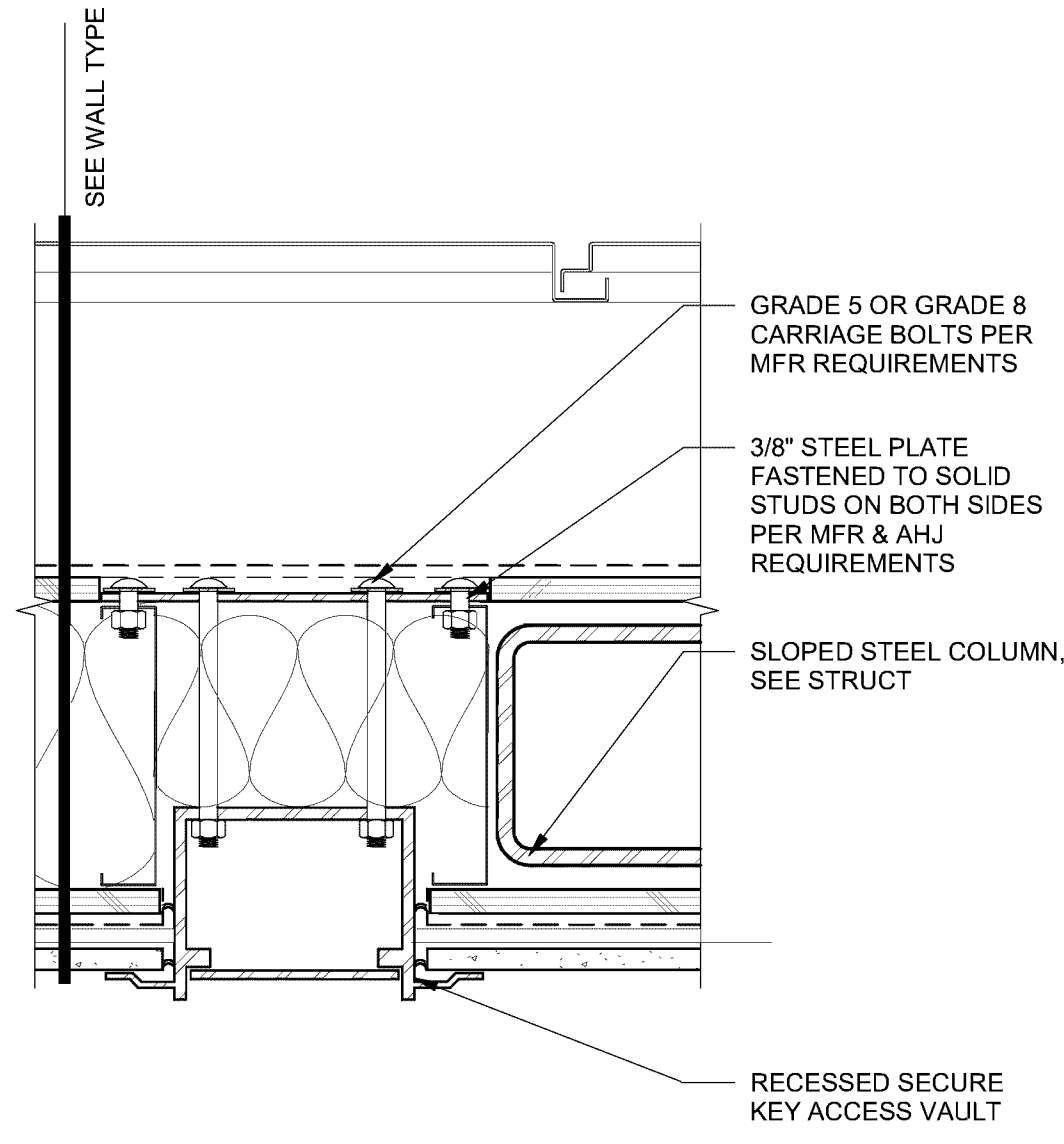




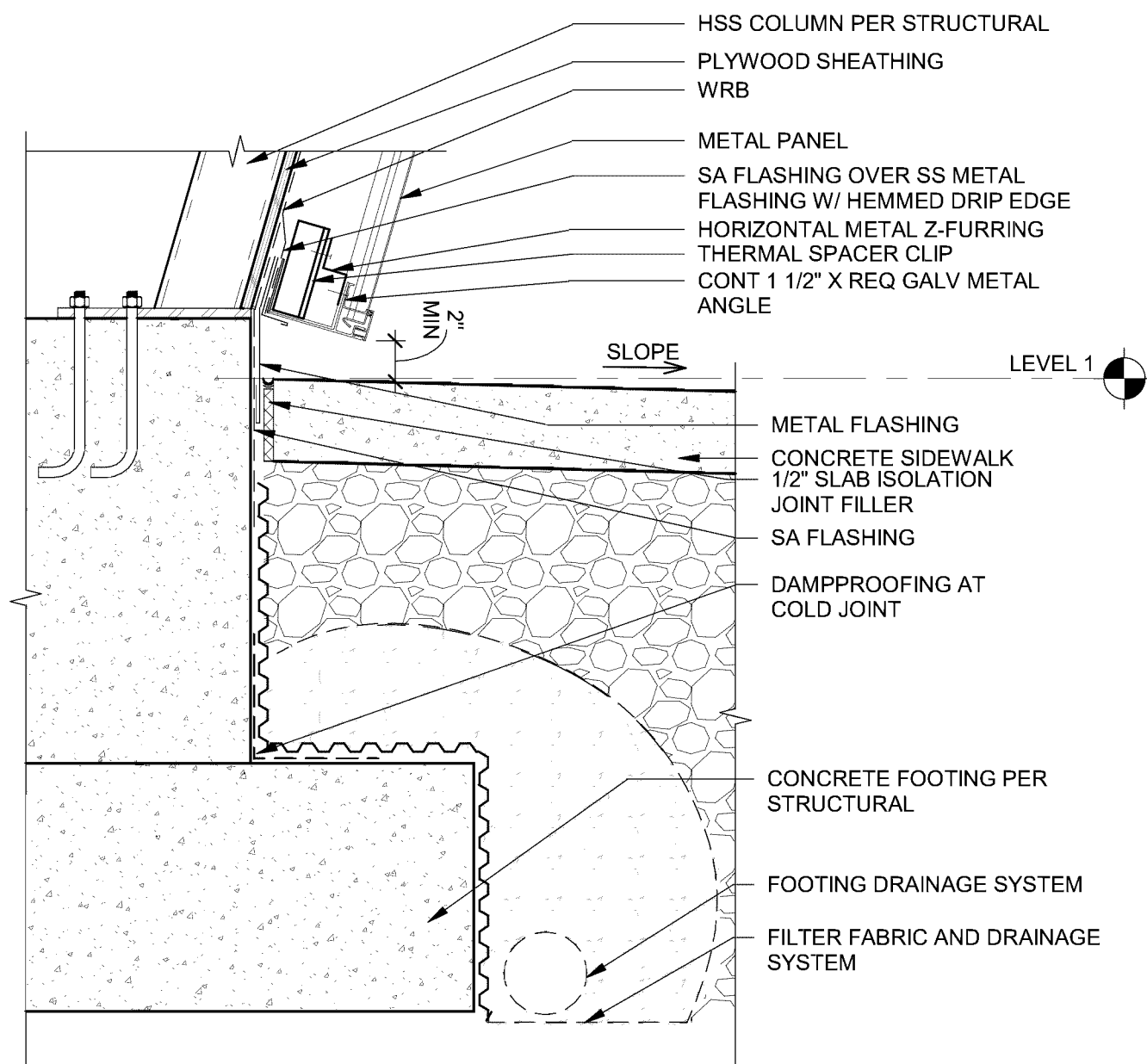
1 METAL PANEL @ FOUNDATION / SIDEWALK  
SCALE: 1 1/2" = 1'-0"



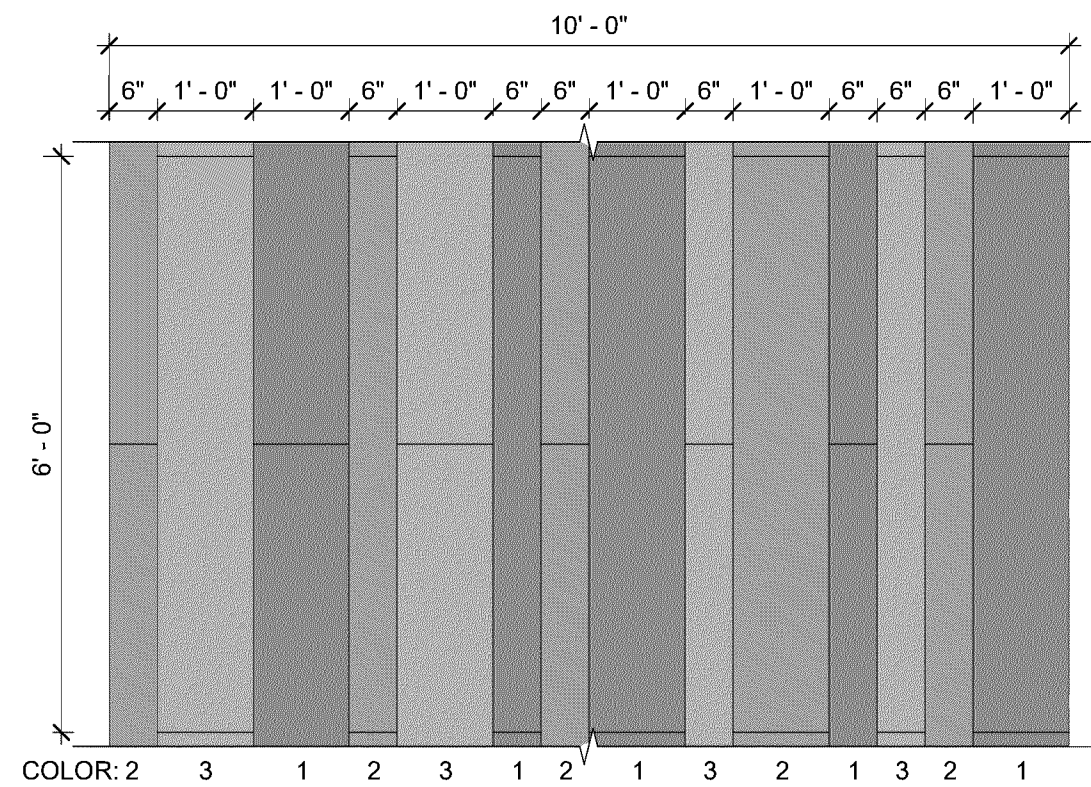
2 FC SIDING TO METAL PANEL TRANSITION @ ENTRY  
SCALE: 3" = 1'-0"



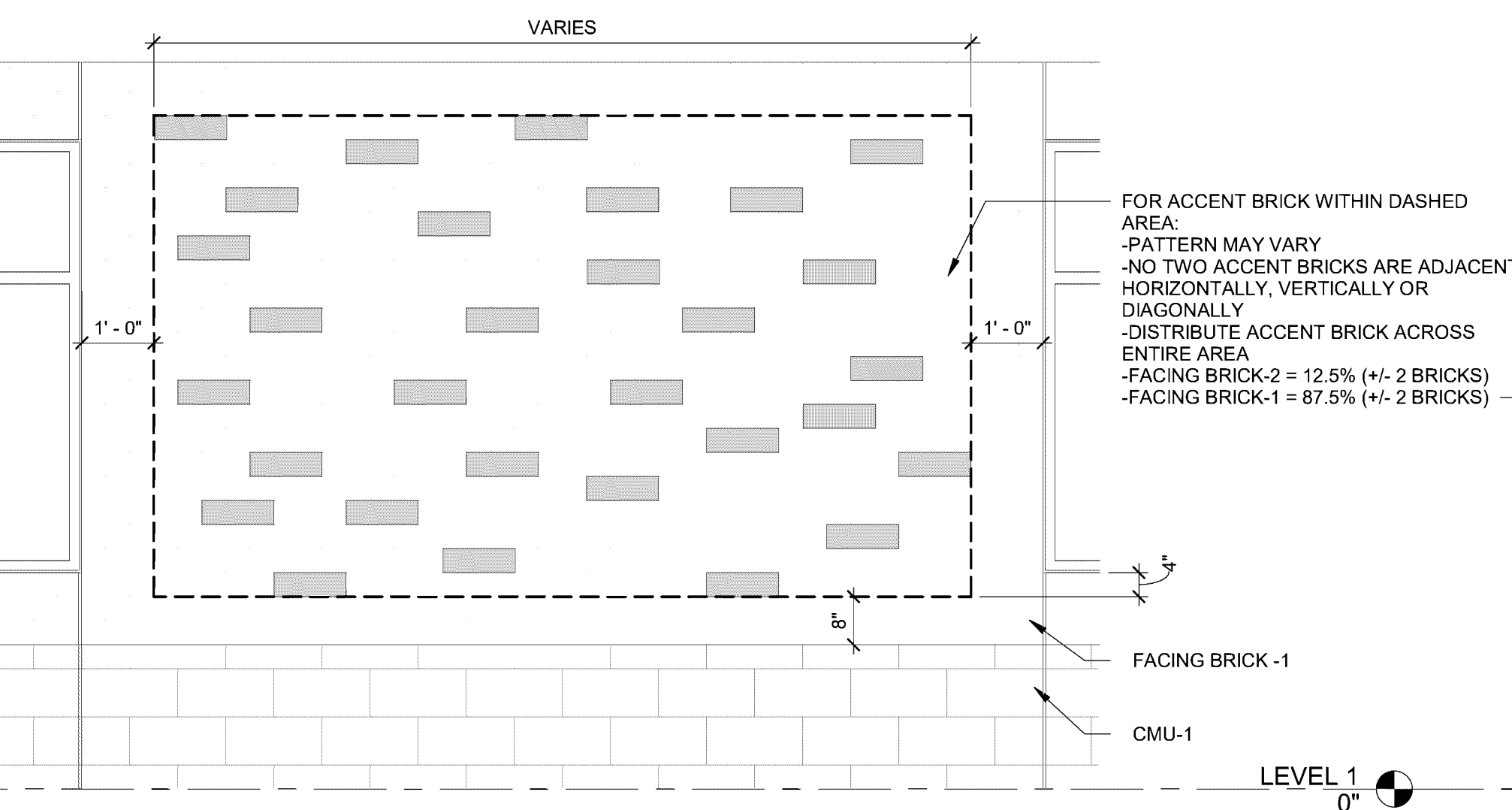
7 SECURE KEY ACCESS VAULT PLAN DETAIL  
SCALE: 3" = 1'-0"



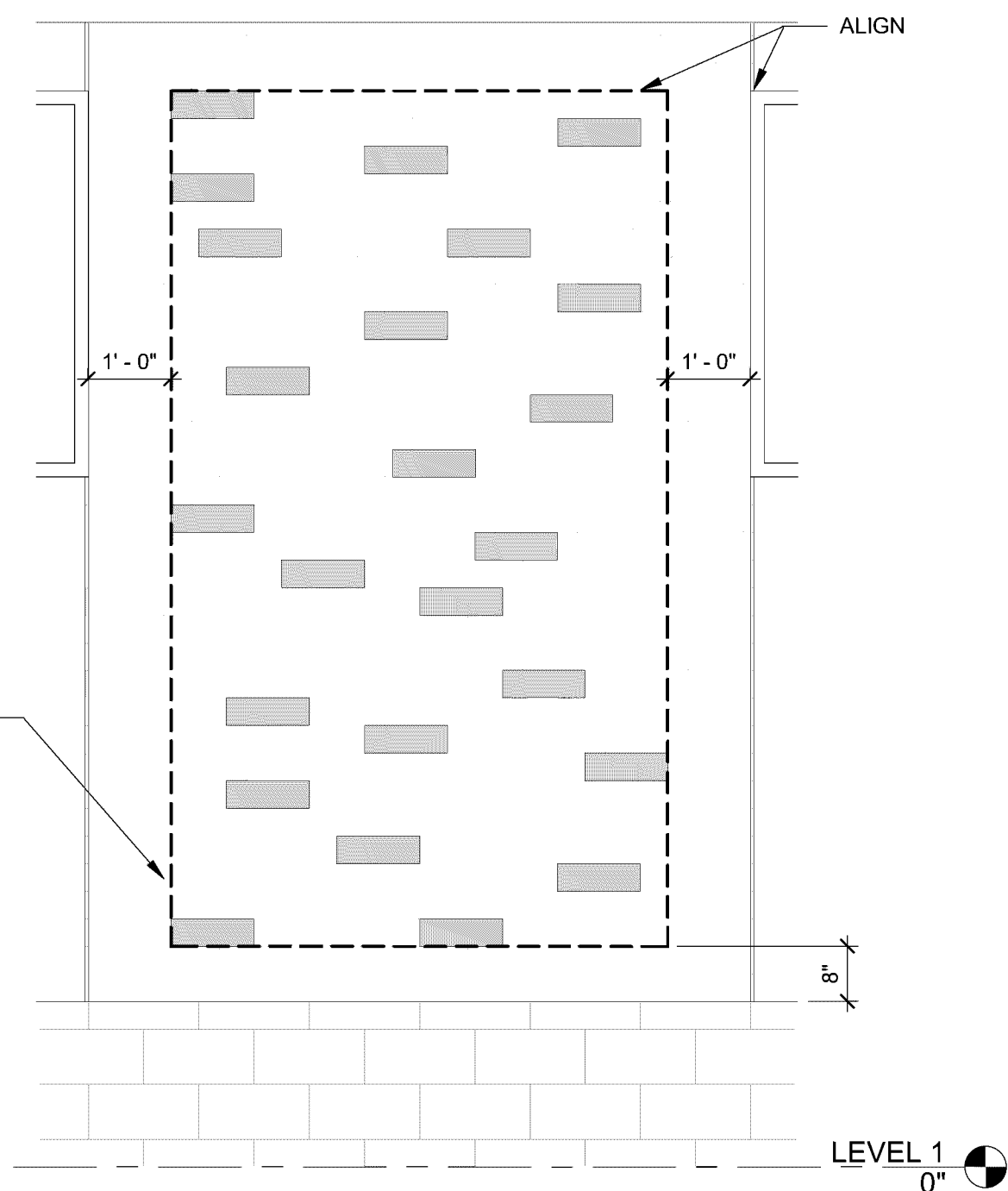
4 METAL PANEL @ SIDEWALK / ENTRY  
SCALE: 1 1/2" = 1'-0"



3 TYPICAL METAL PANEL PATTERN  
SCALE: 1/2" = 1'-0"

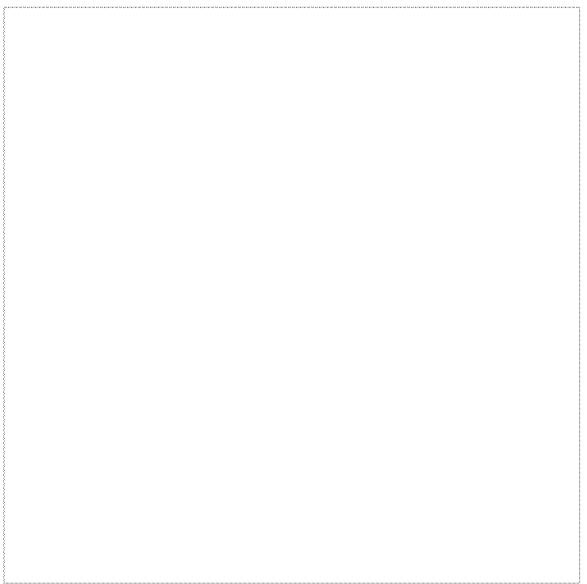


5 ENLARGED ELEVATION - TYPICAL ACCENT BRICK  
SCALE: 1/2" = 1'-0"

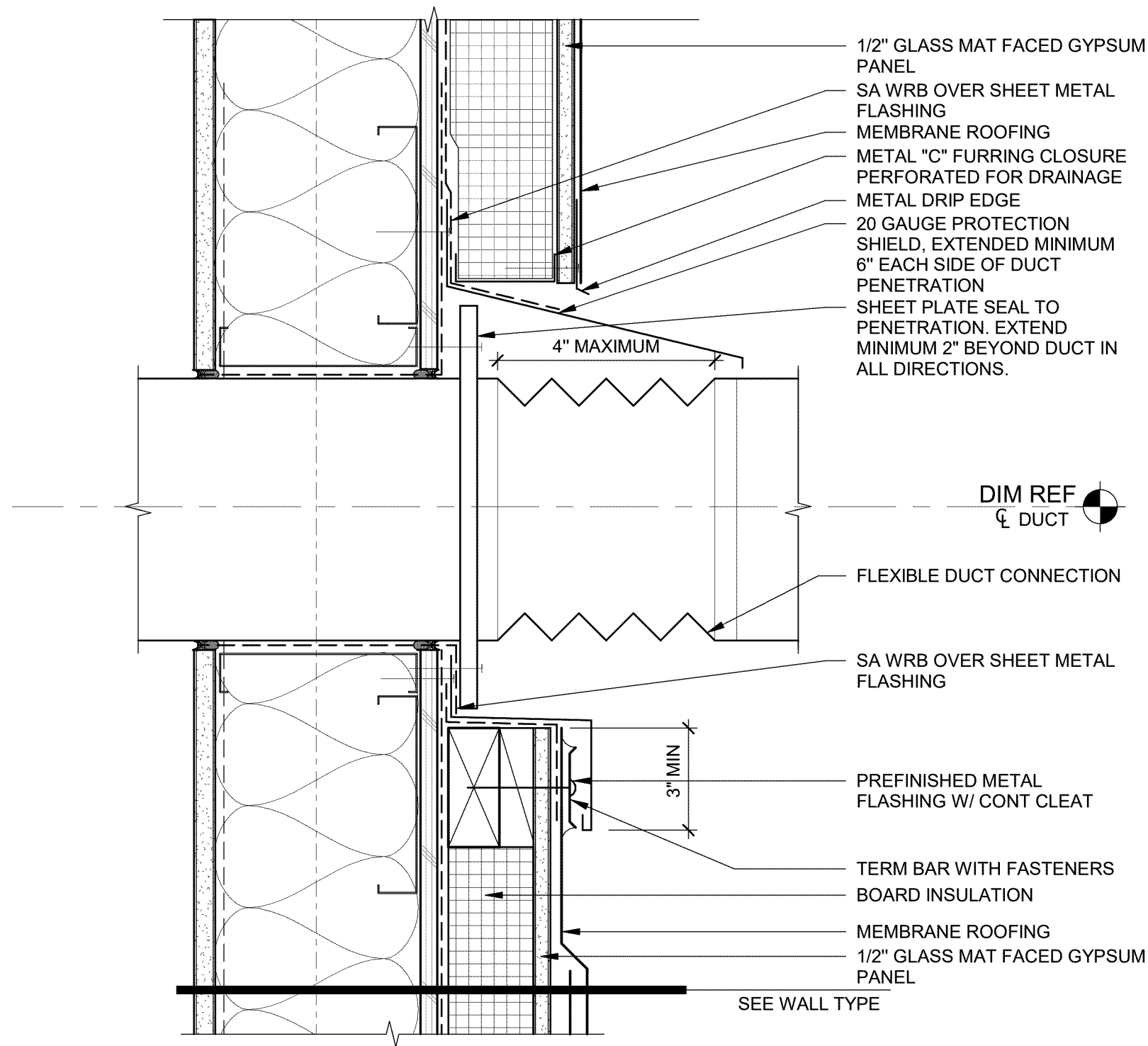


6 ENLARGED ELEVATION - FITNESS ACCENT BRICK  
SCALE: 1/2" = 1'-0"



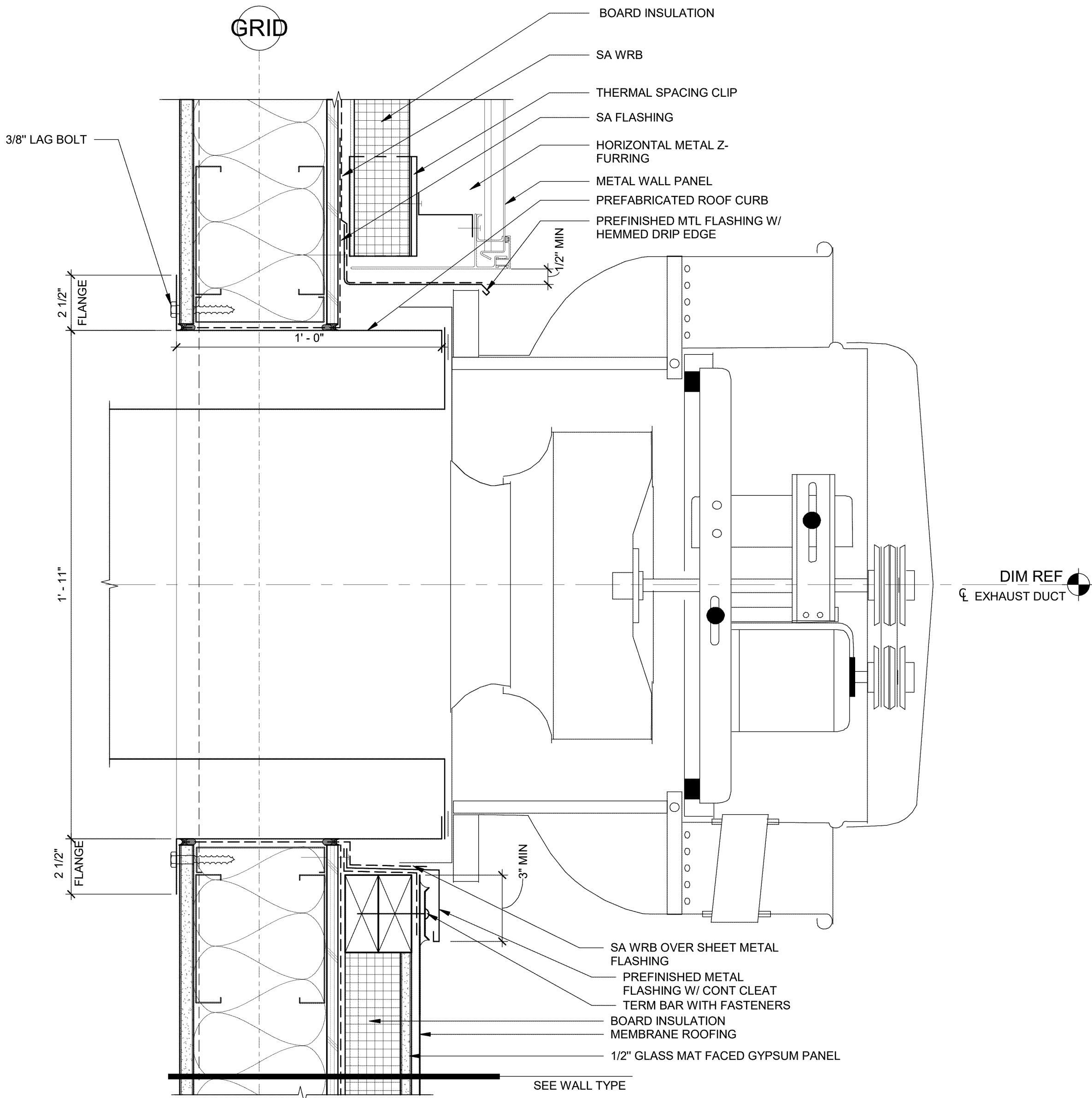


GRID

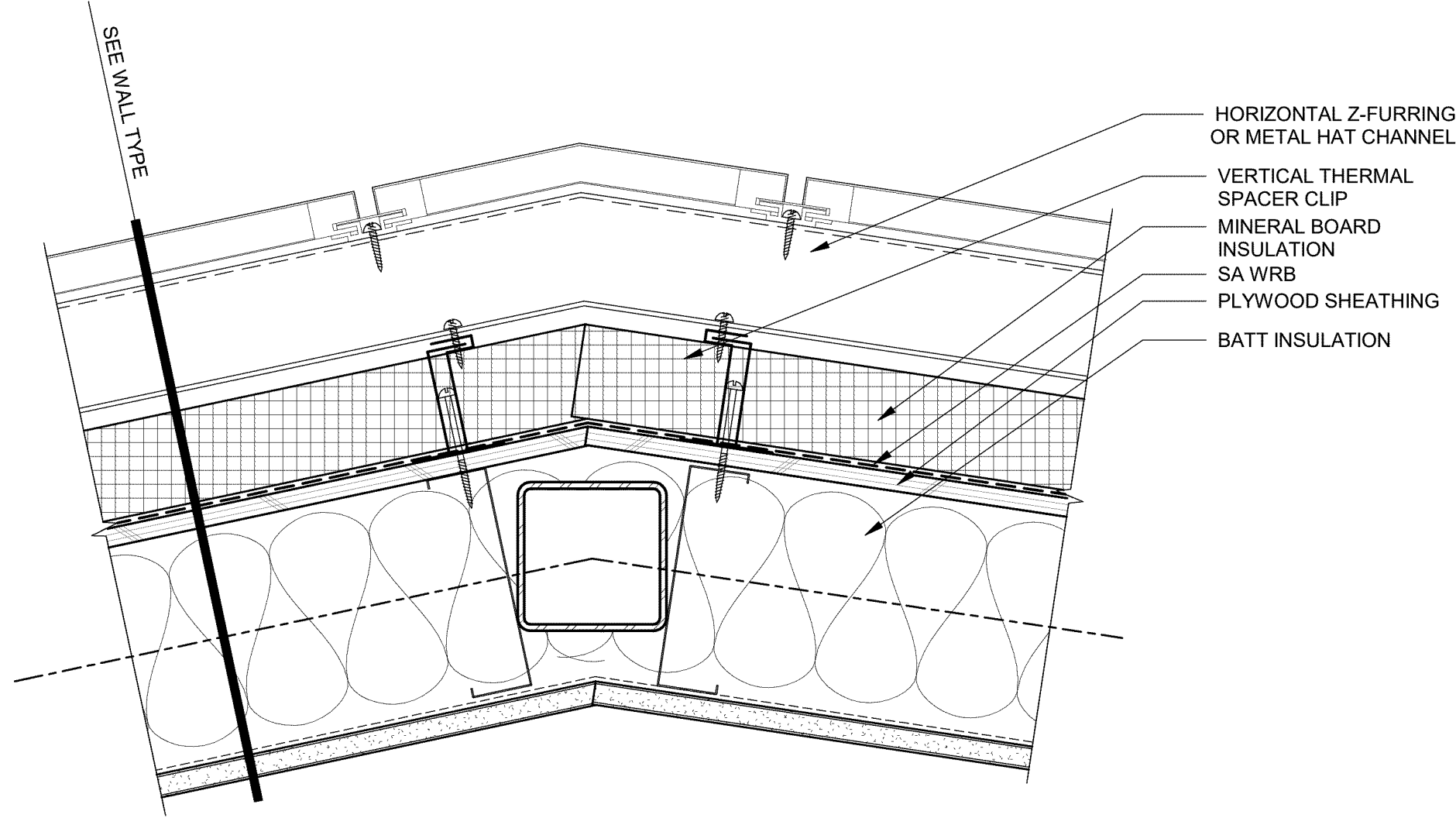


**1** TYPICAL SIDEWALL DUCT PENETRATION @ MEMBRANE ROOF  
SCALE: 3" = 1'-0"

GRID

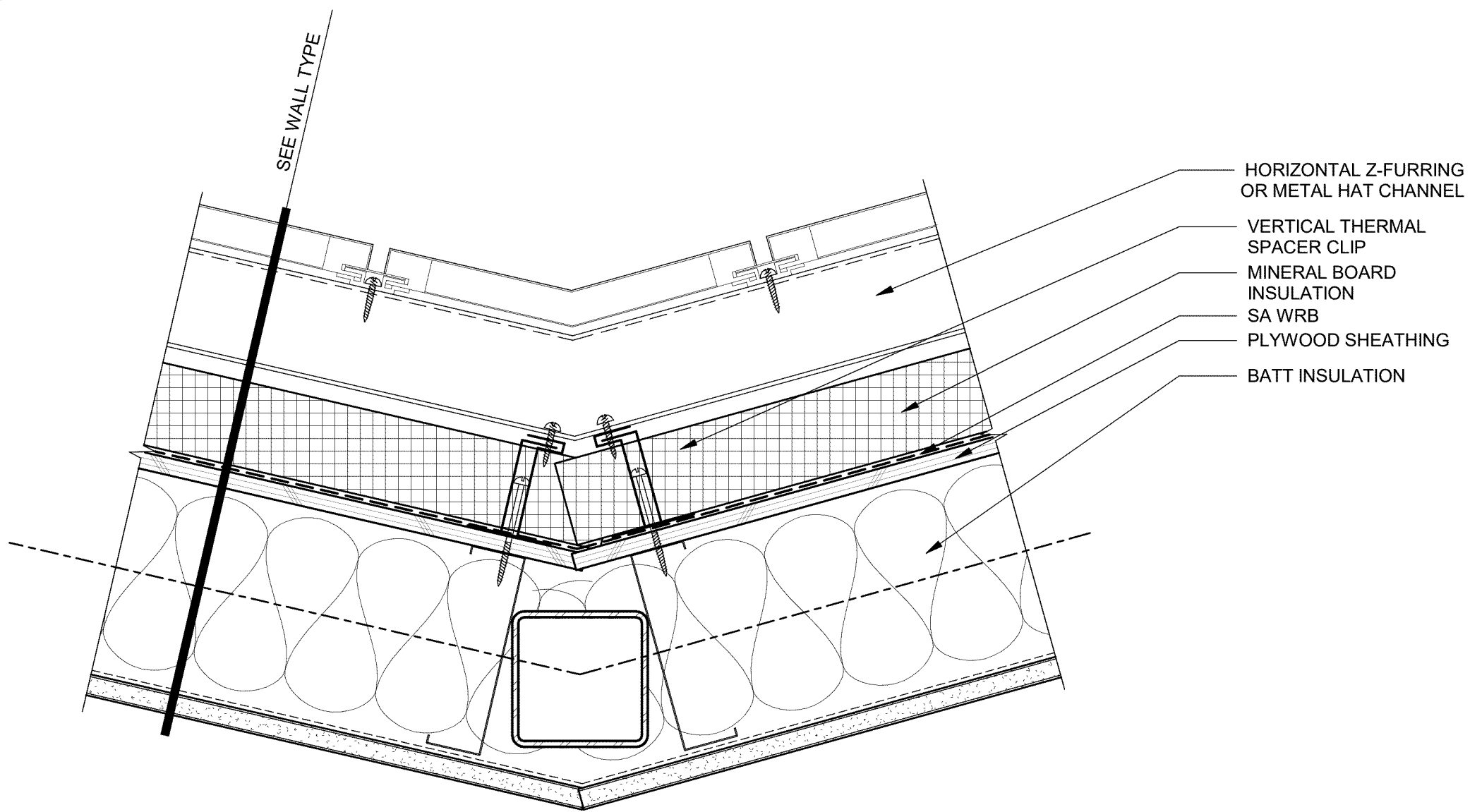


**2** SIDEWALL KITCHEN EXHAUST PENETRATION @ METAL PANEL  
SCALE: 3" = 1'-0"



**3** METAL PANEL OUTSIDE CORNER  
SCALE: 3" = 1'-0"

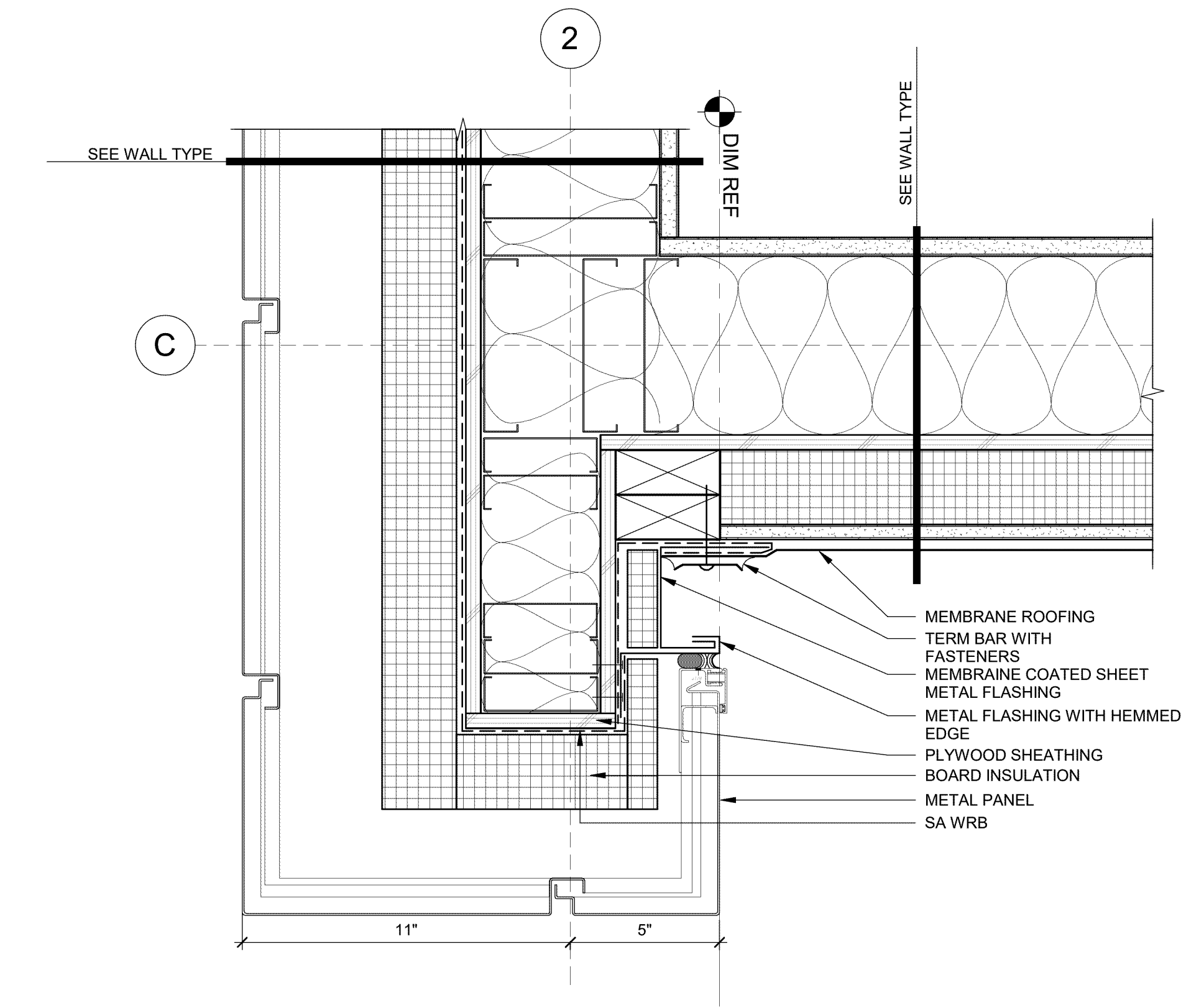
SEE WALL TYPE



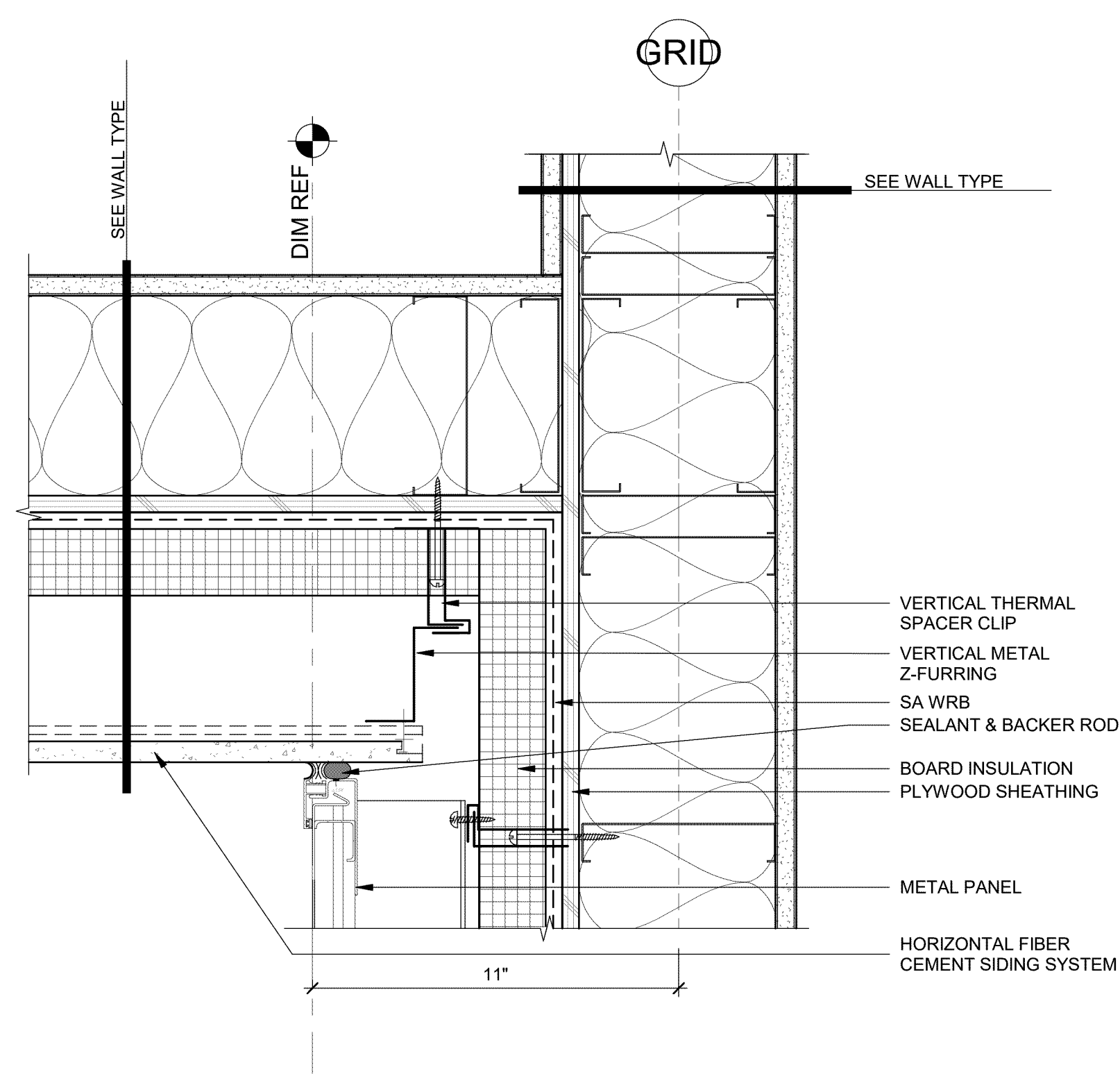
**4** METAL PANEL INSIDE CORNER  
SCALE: 3" = 1'-0"



10/10/2019 1:49:10 PM



1 INSIDE CORNER @ METAL PANEL AND MEMBRANE ROOFING  
SCALE: 3" = 1'-0"

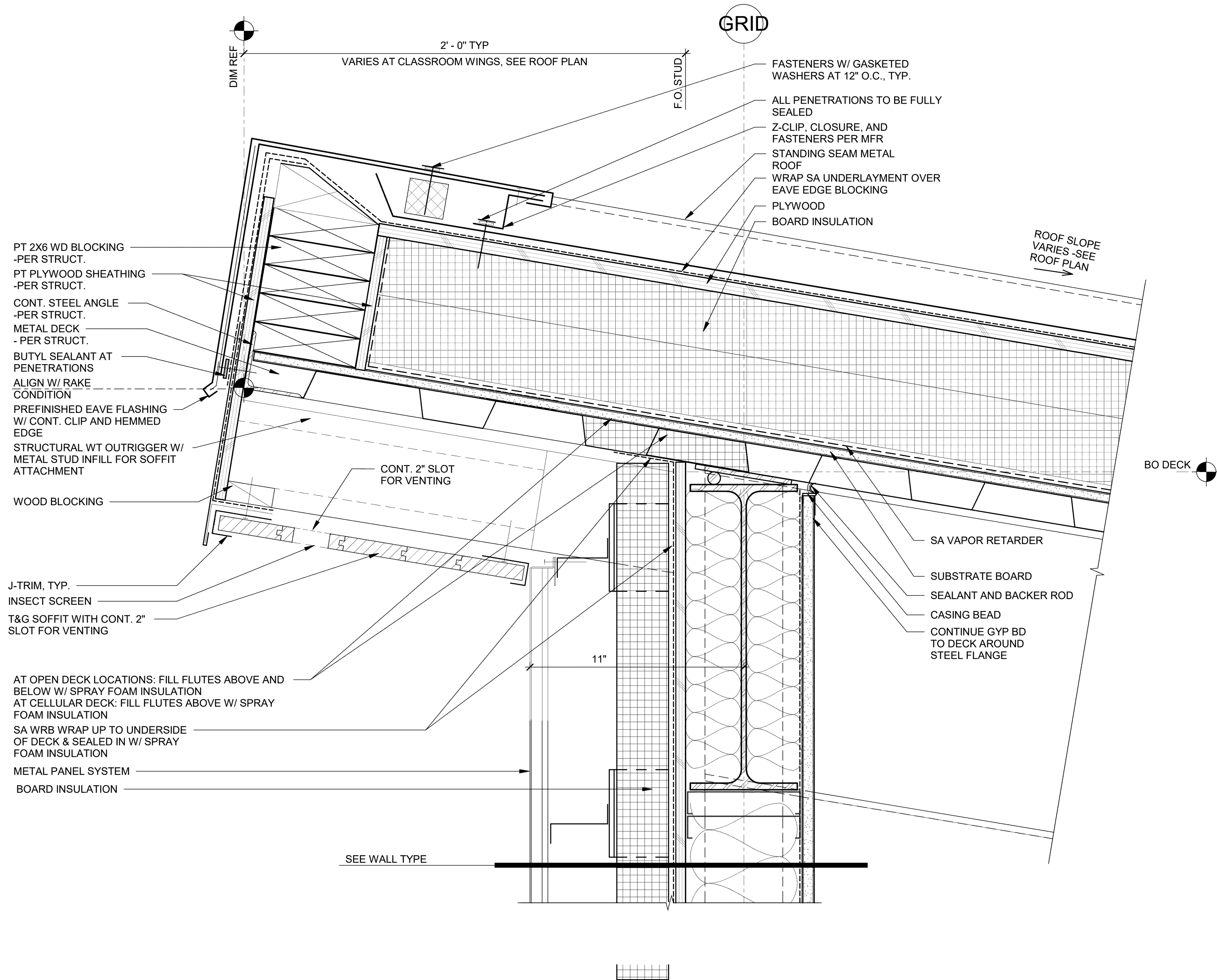


2 INSIDE CORNER @ FIBER CEMENT AND METAL PANEL  
SCALE: 3" = 1'-0"



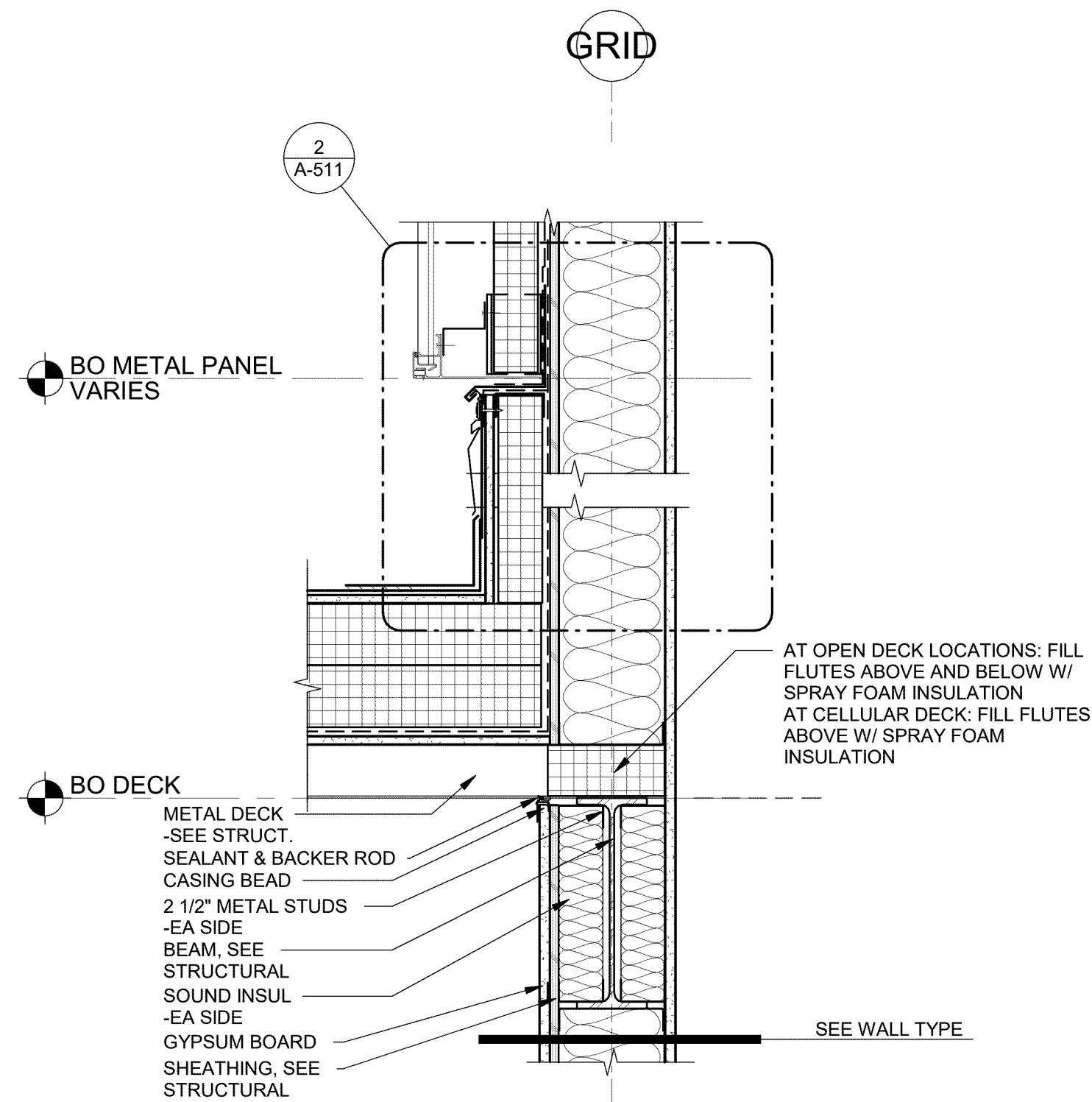
# 1 HIGH SOFFIT TO WALL STANDING SEAM

SCALE: 3" = 1'-0"



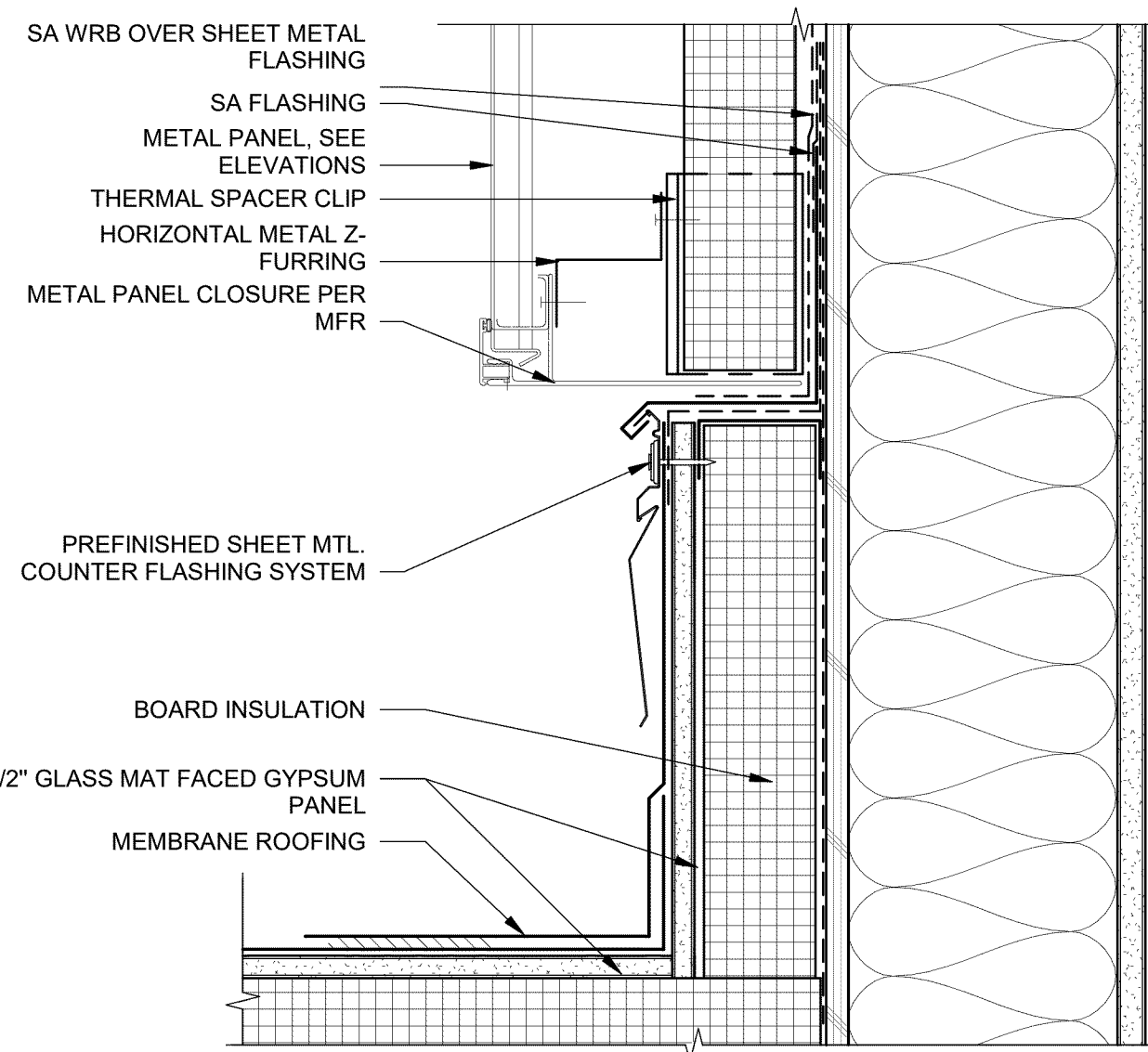
# 3 ROOFING TO METAL PANEL

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



# 2 ROOFING TO METAL PANEL

SCALE: 3" = 1'-0"



A-511

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ROOF DETAILS

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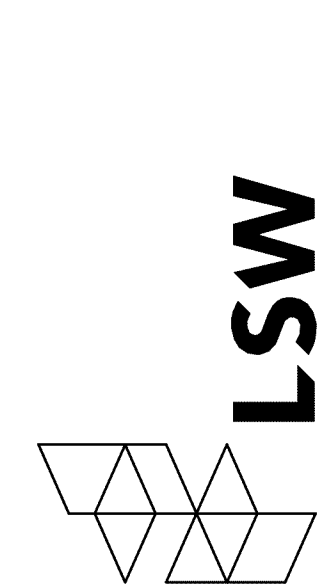
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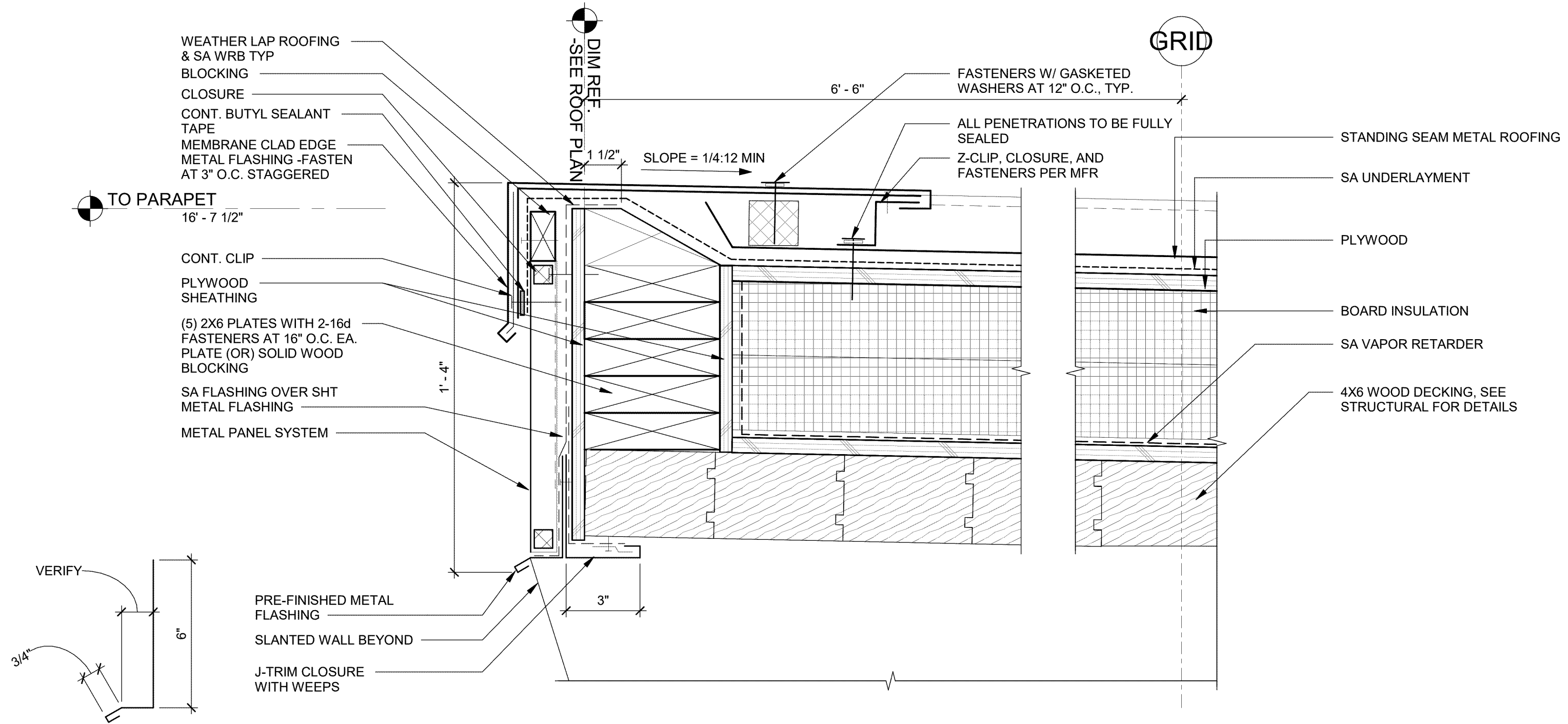
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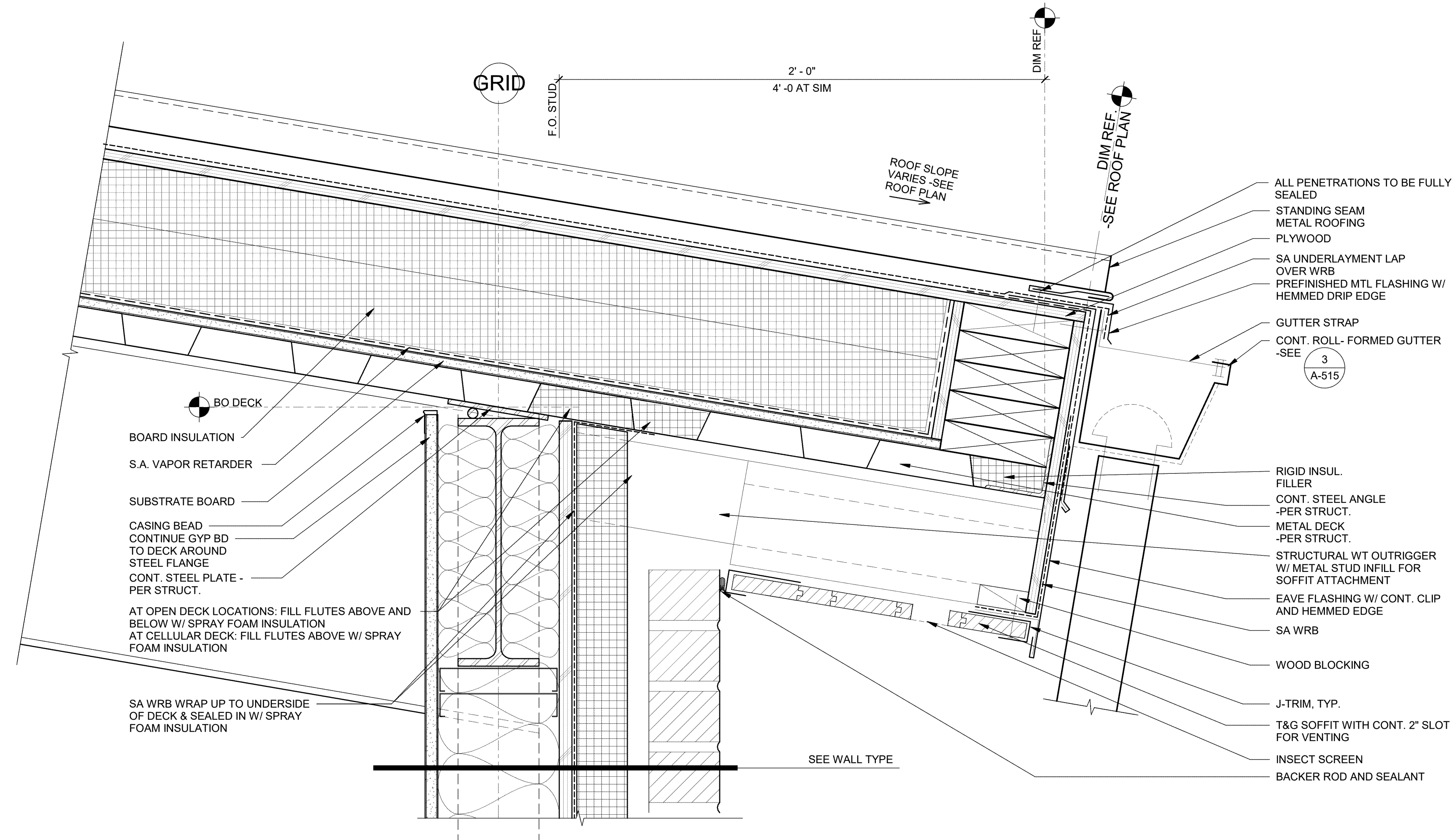
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610 Esther St., Suite 200  
Vancouver, WA 98660  
360.694.8571  
LSW-Architects.com



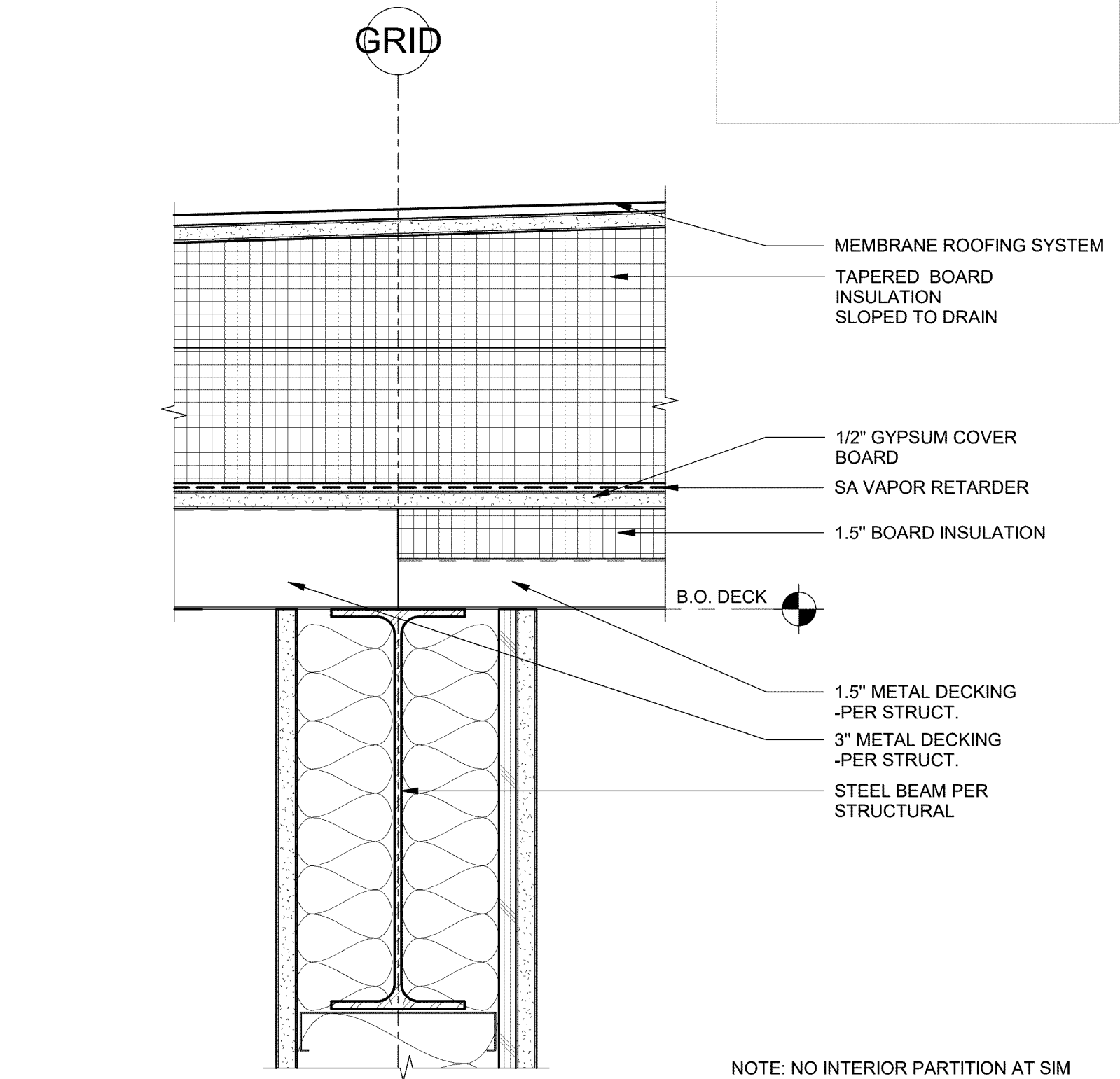




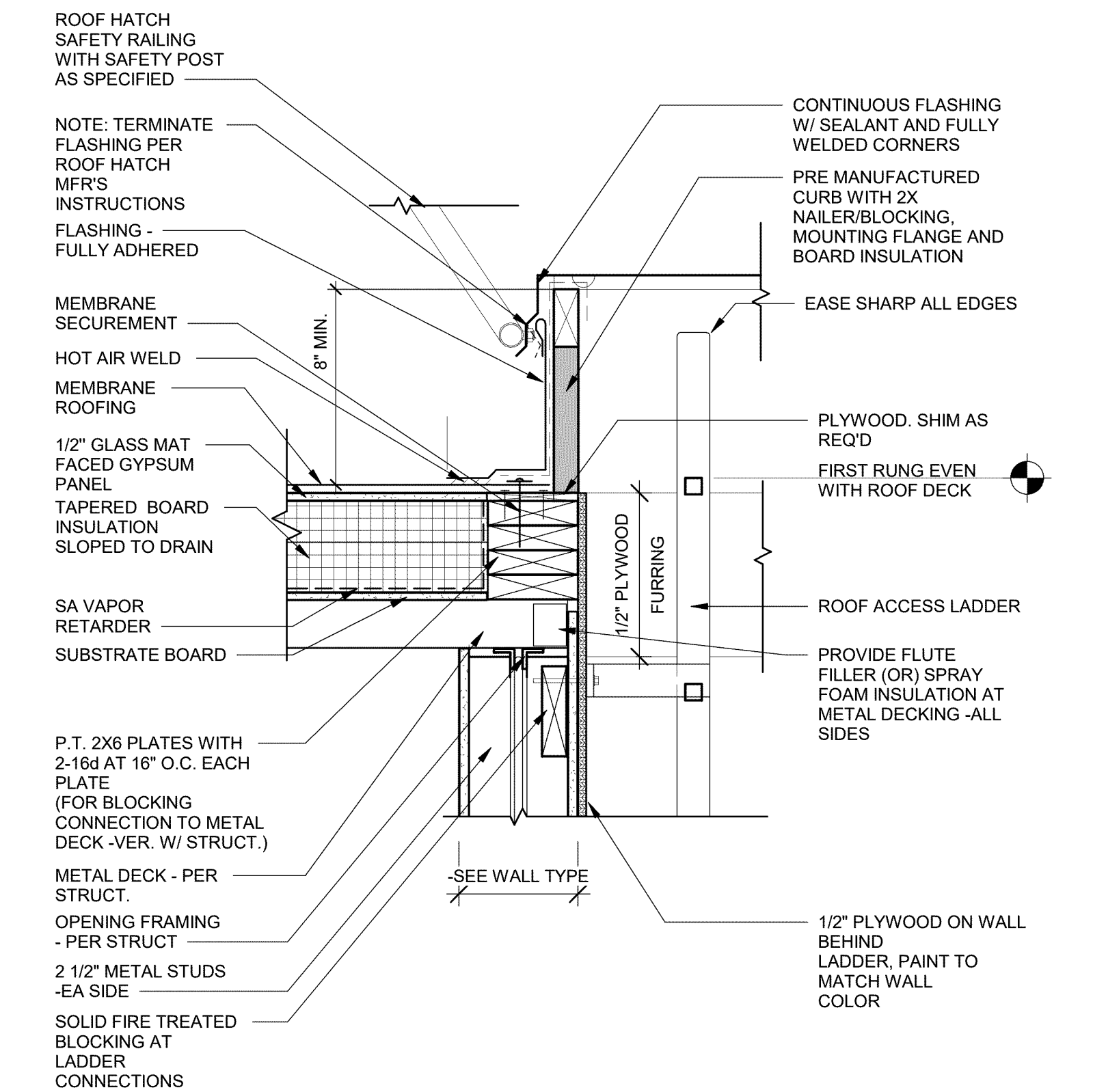
1 ROOF OVERHANG @ MAIN ENTRANCE  
SCALE: 3" = 1'-0"



2 LOW SOFFIT TO WALL STANDING SEAM  
SCALE: 3" = 1'-0"

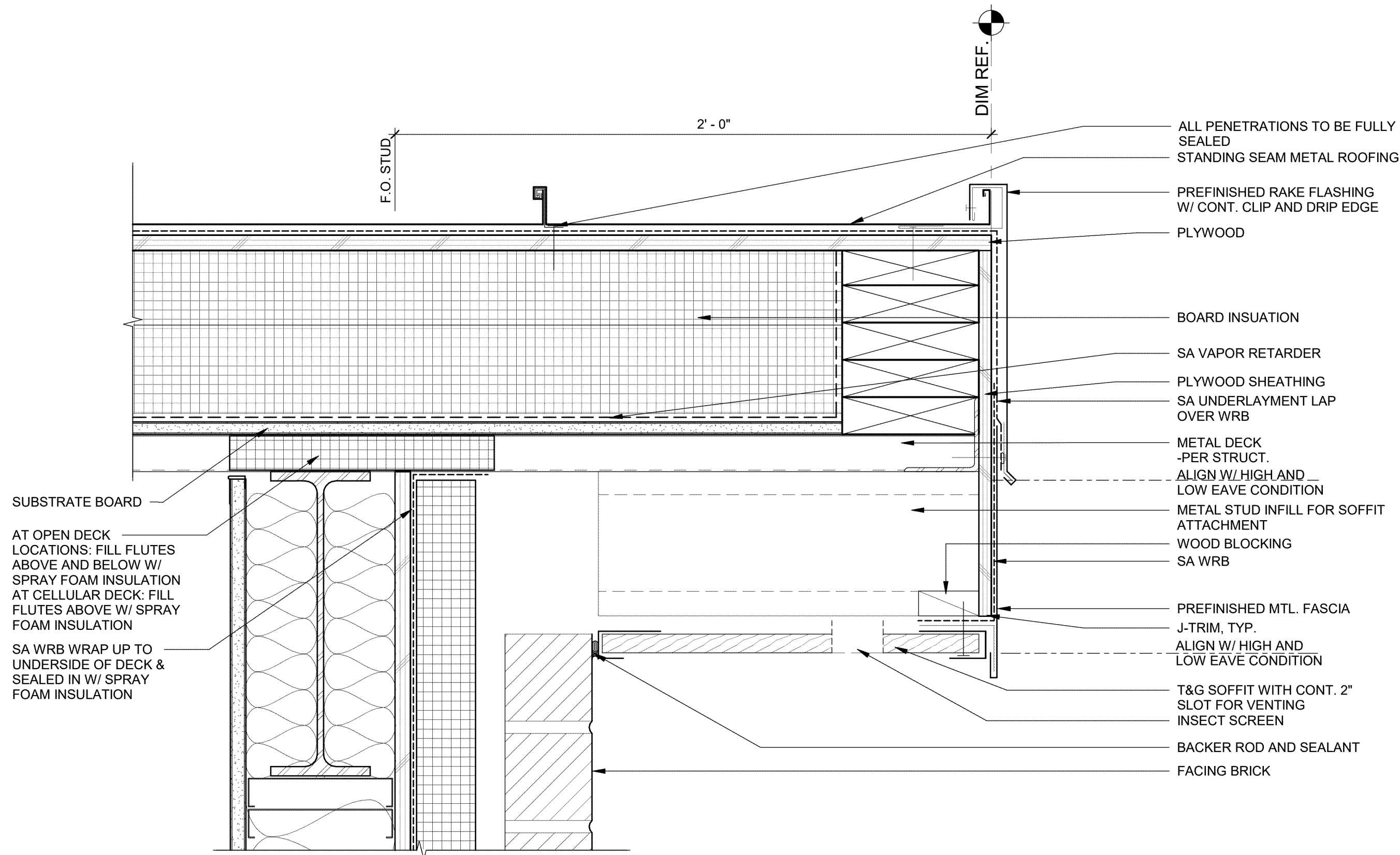


4 MEMBRANE ROOF @ DECKING TRANSITION  
SCALE: 3" = 1'-0"

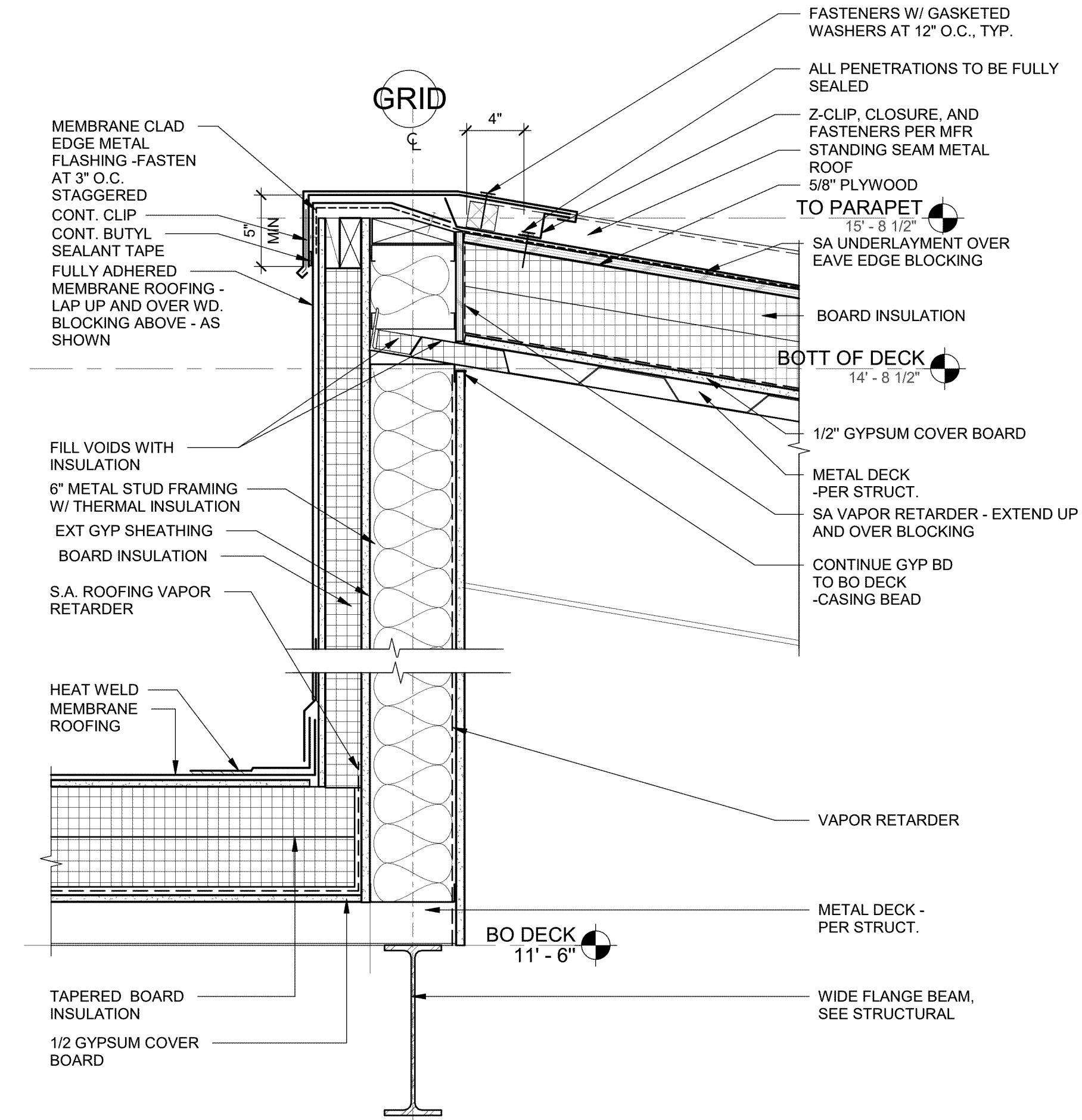


3 ROOF HATCH/LADDER  
SCALE: 1 1/2" = 1'-0"

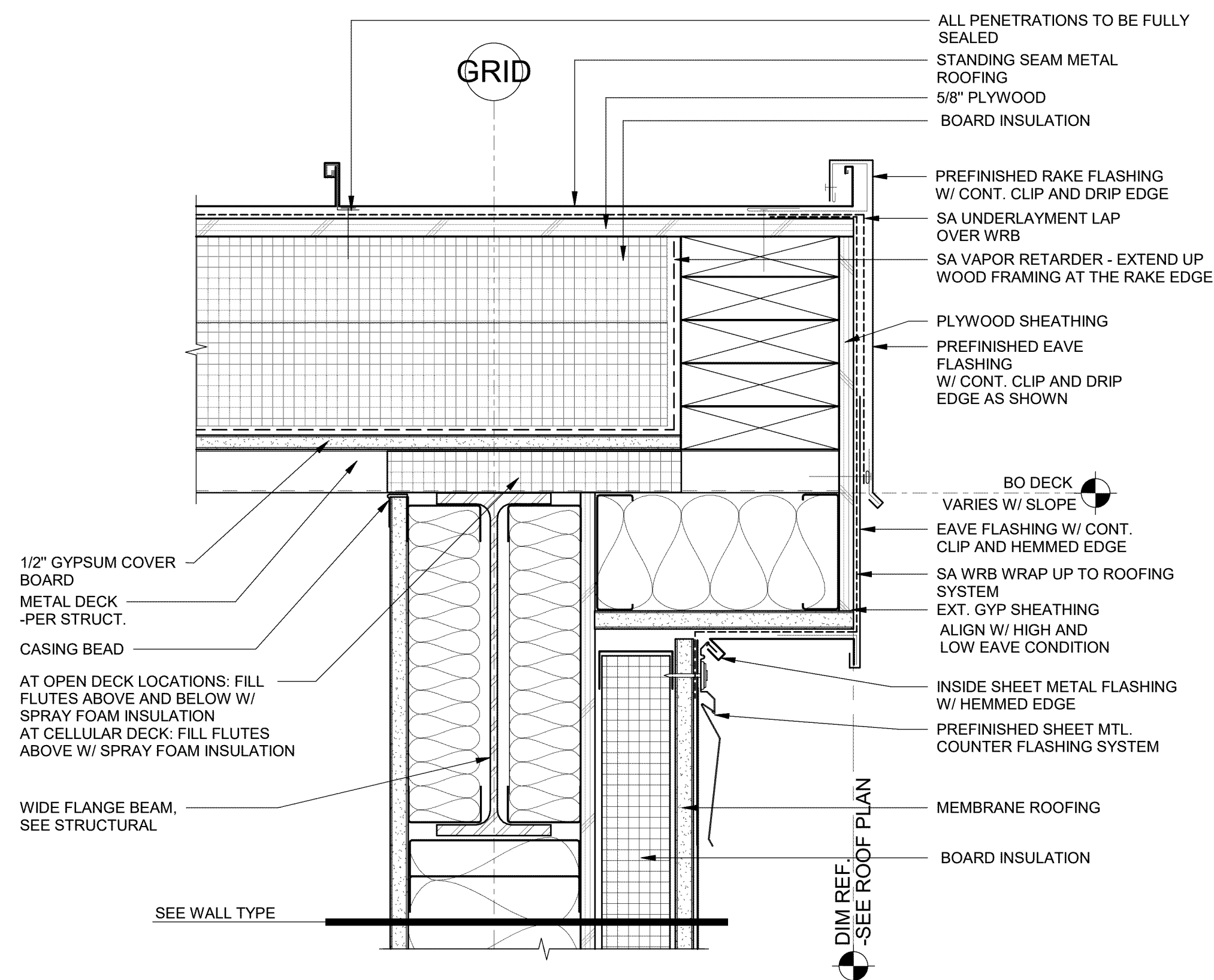




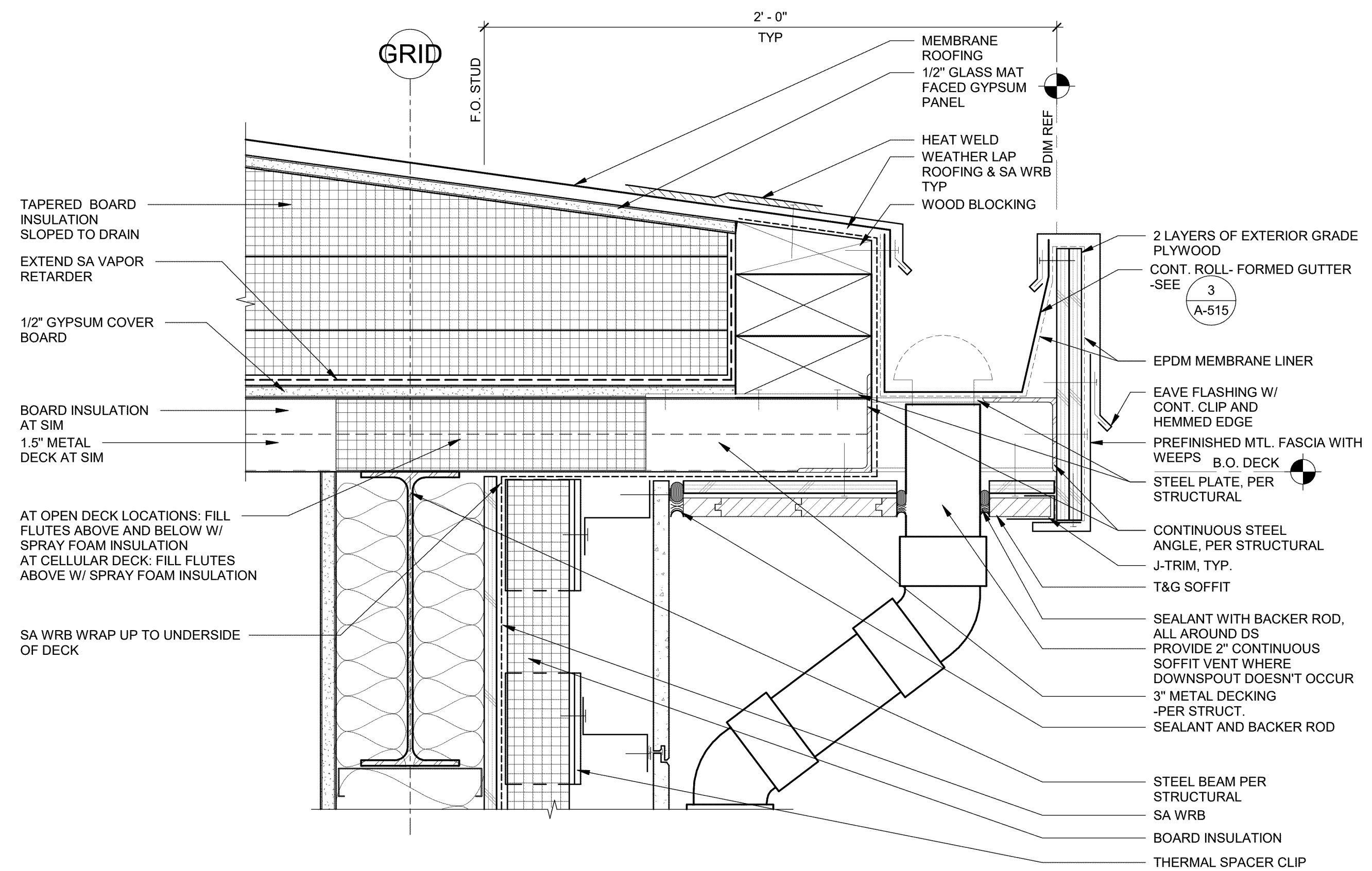
1 RAKE EDGE STANDING SEAM @BRICK  
SCALE: 3" = 1'-0"



2 ROOF TRANSITION @ WEST ROOFTOP UNITS  
SCALE: 1 1/2" = 1'-0"

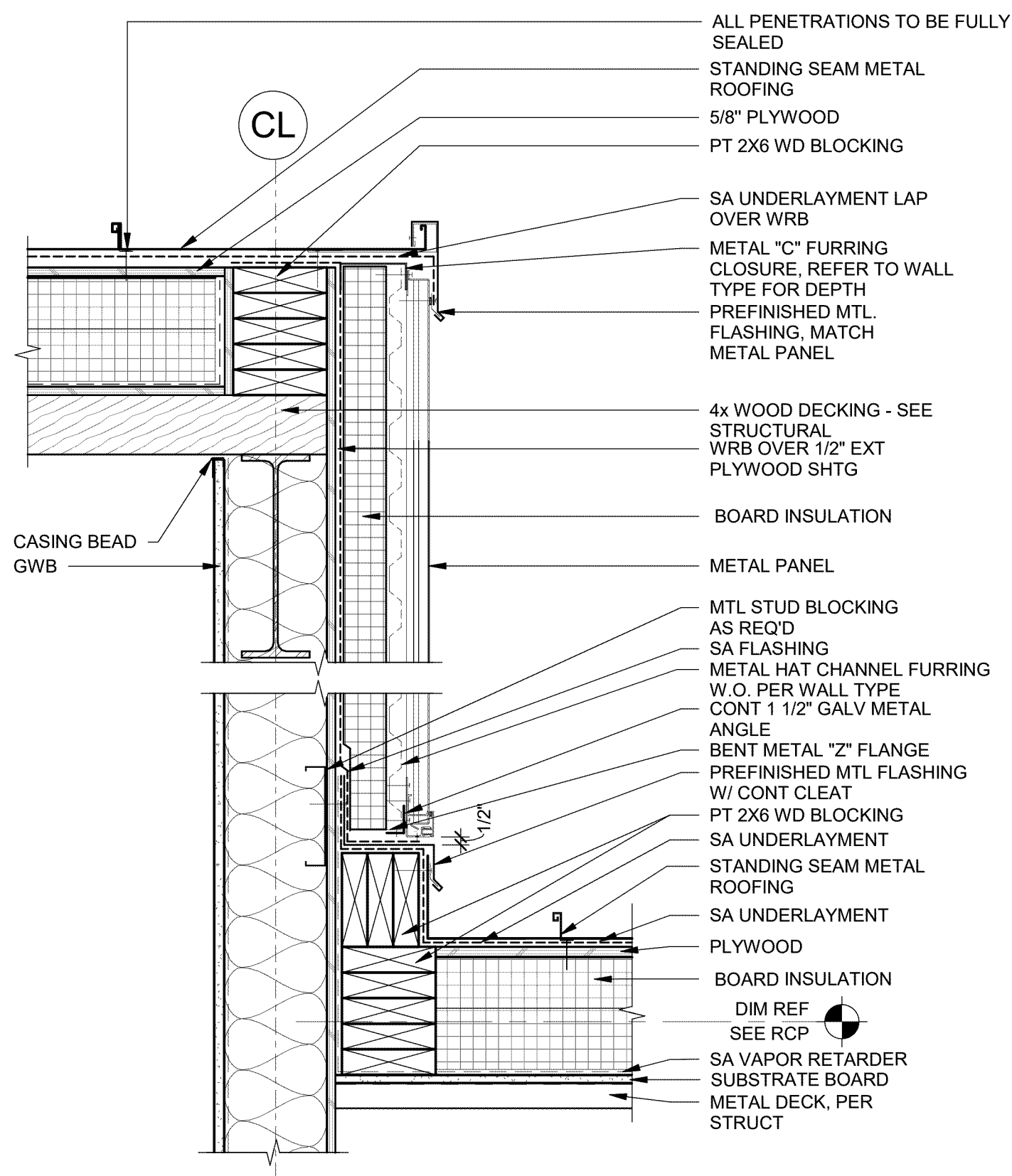


3 RAKE TO WALL @ ROOFTOP UNITS  
SCALE: 3" = 1'-0"

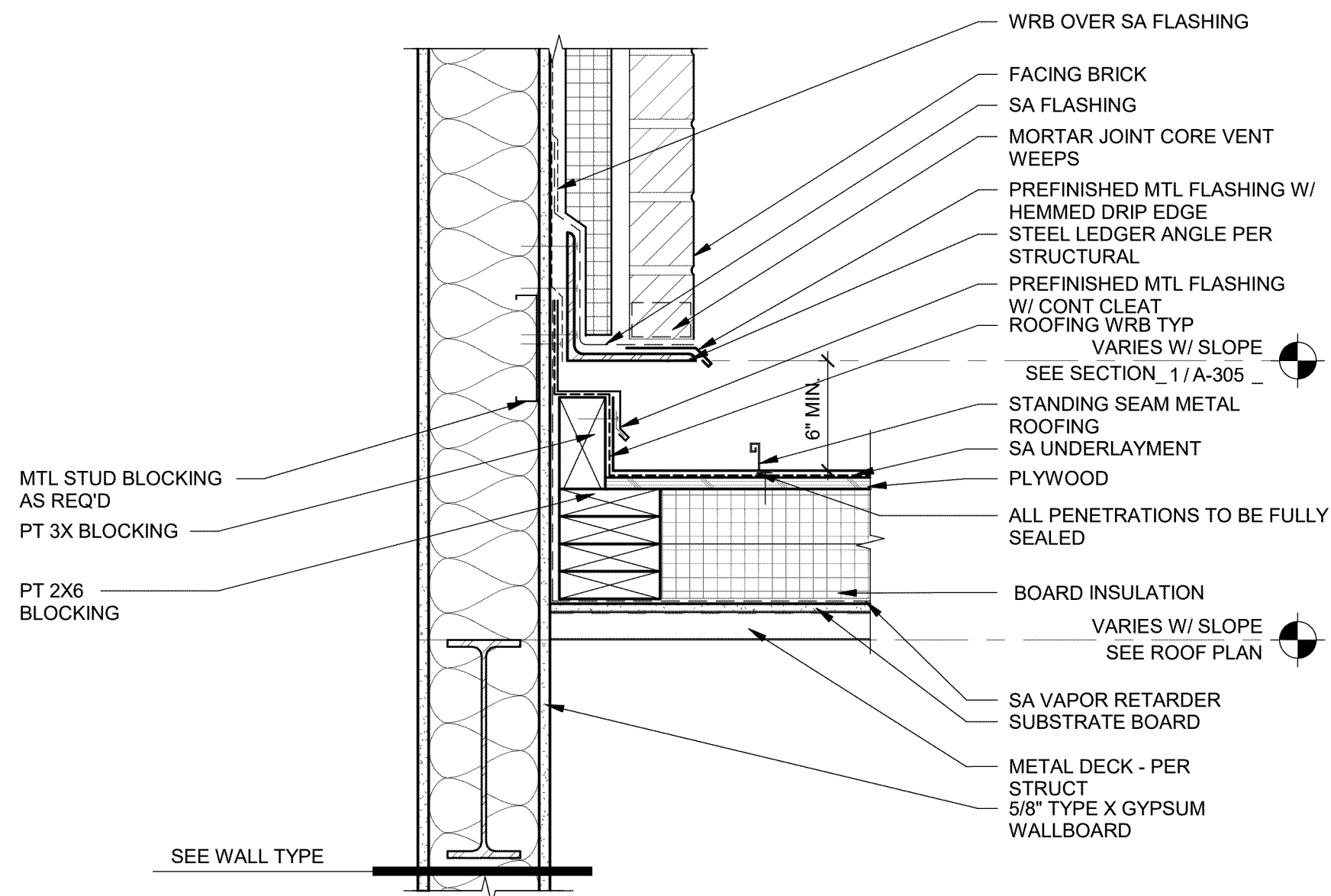


4 MEMBRANE ROOF @ EAVE W/ GUTTER  
SCALE: 3" = 1'-0"

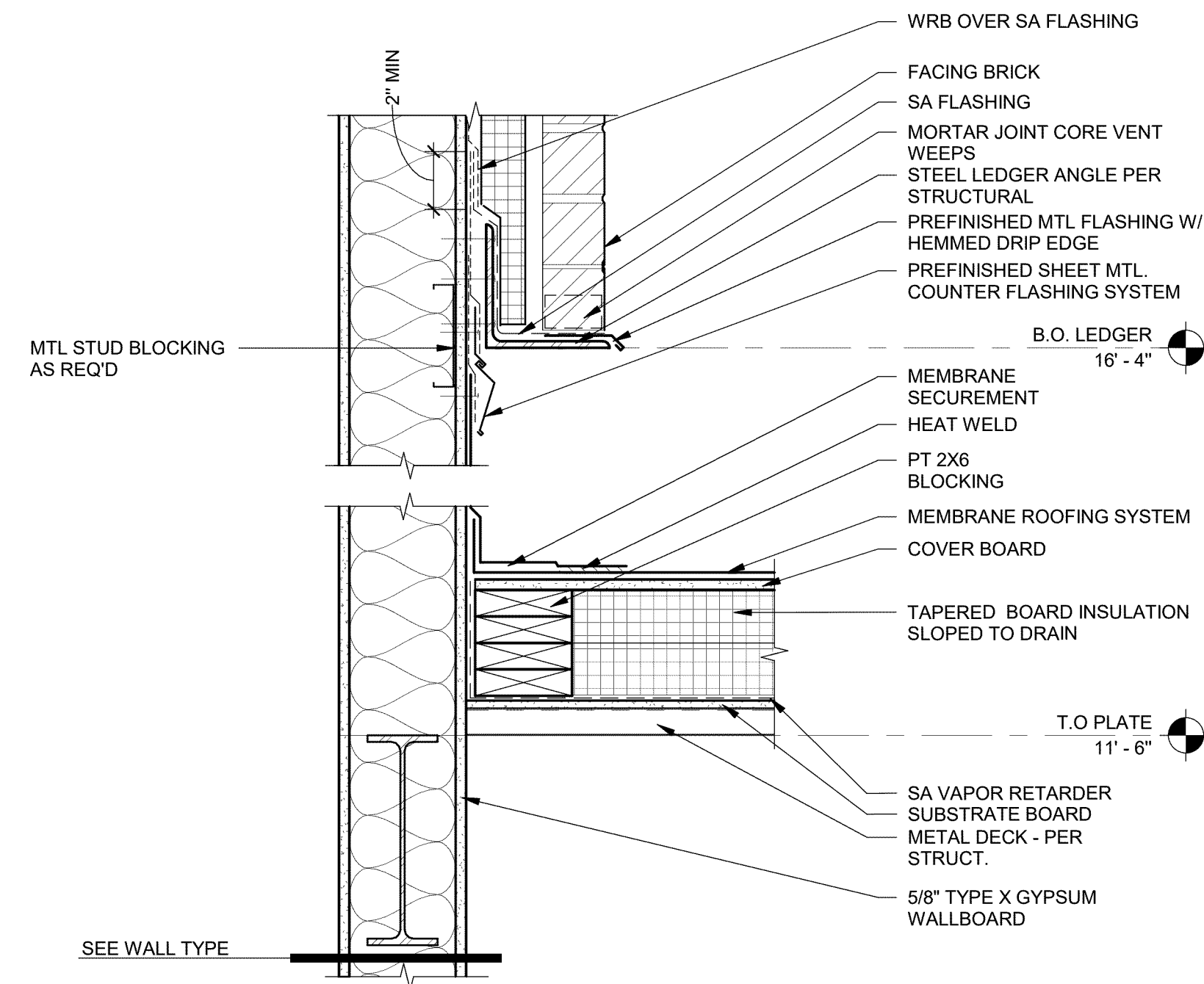




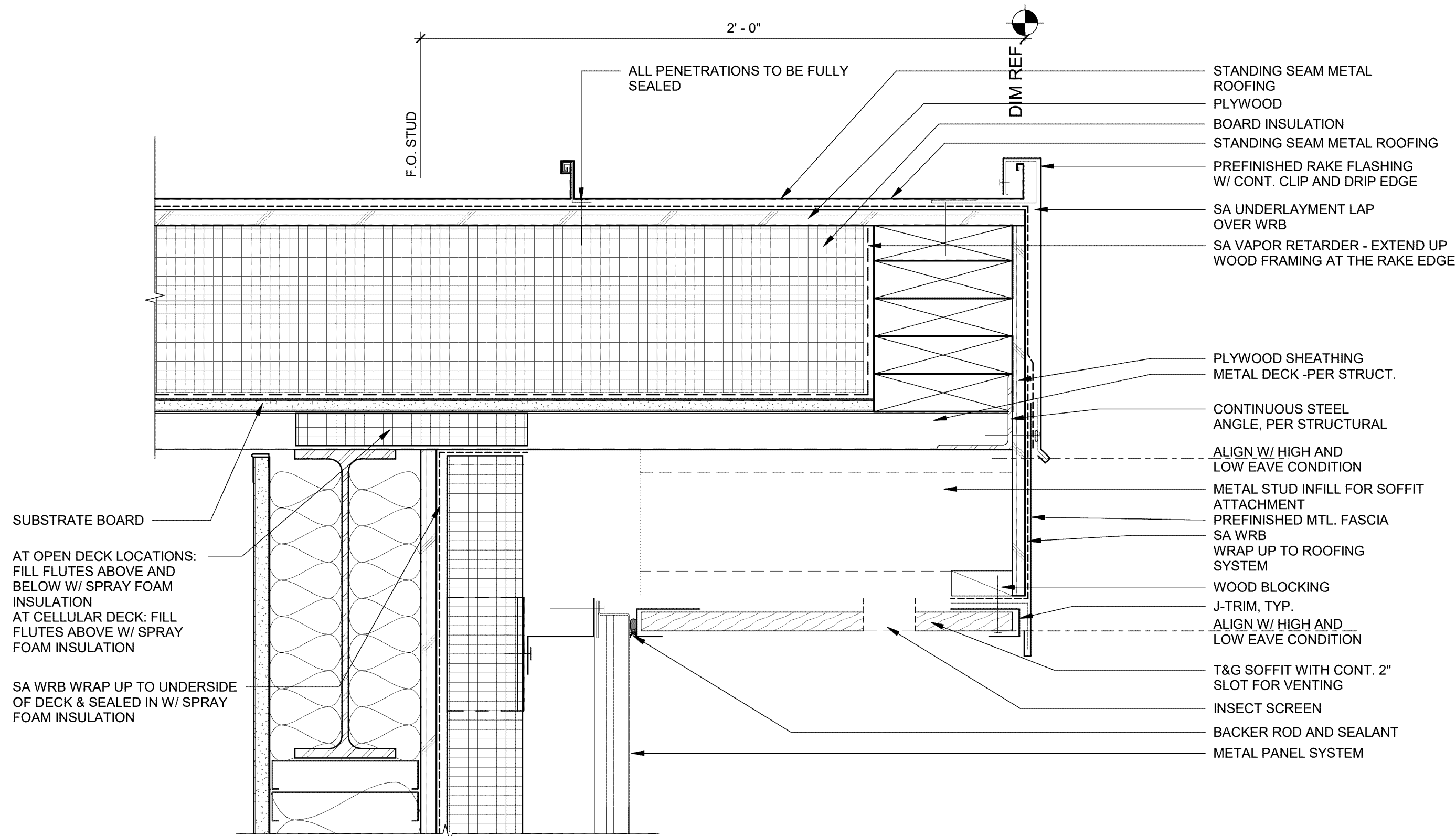
1 ROOF TO WALL TRANSITION @ MAIN ENTRANCE  
SCALE: 1 1/2" = 1'-0"



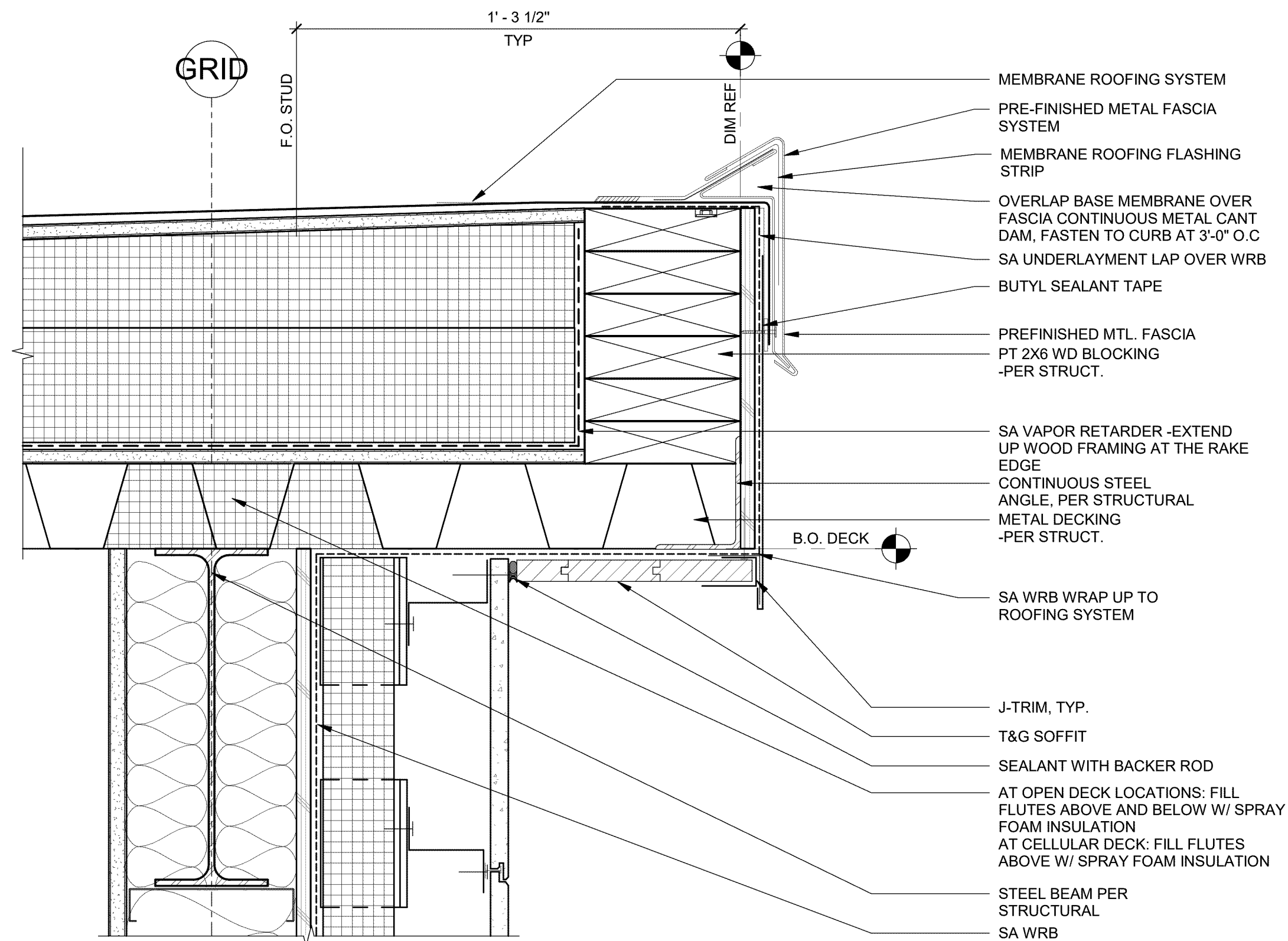
2 METAL ROOF @ RAKE / BRICK VENEER ABOVE  
SCALE: 1 1/2" = 1'-0"



3 MEMBRANE ROOF @ RAKE / BRICK VENEER ABOVE  
SCALE: 1 1/2" = 1'-0"

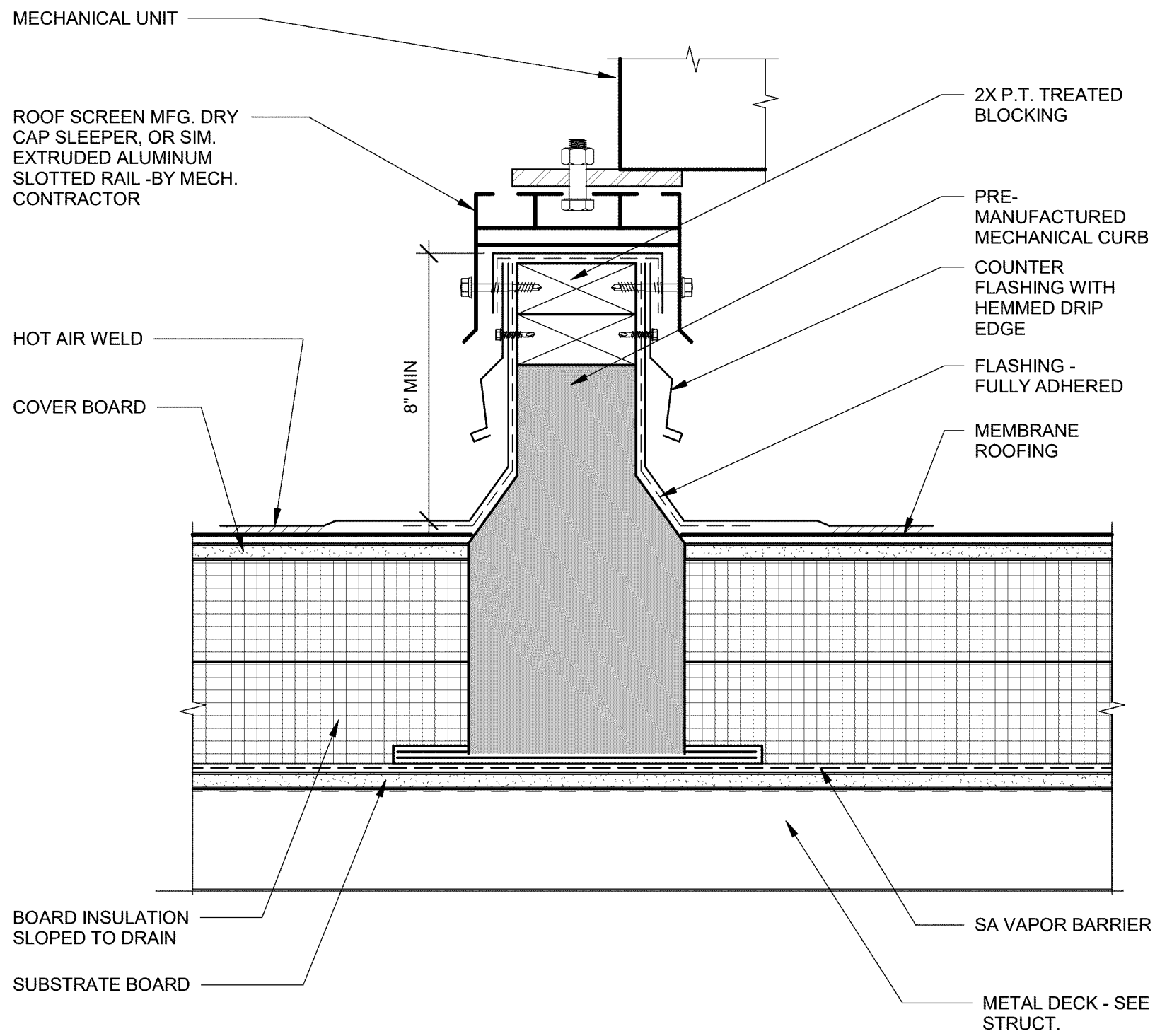


4 RAKE EDGE STANDING SEAM @ METAL PANEL  
SCALE: 3" = 1'-0"

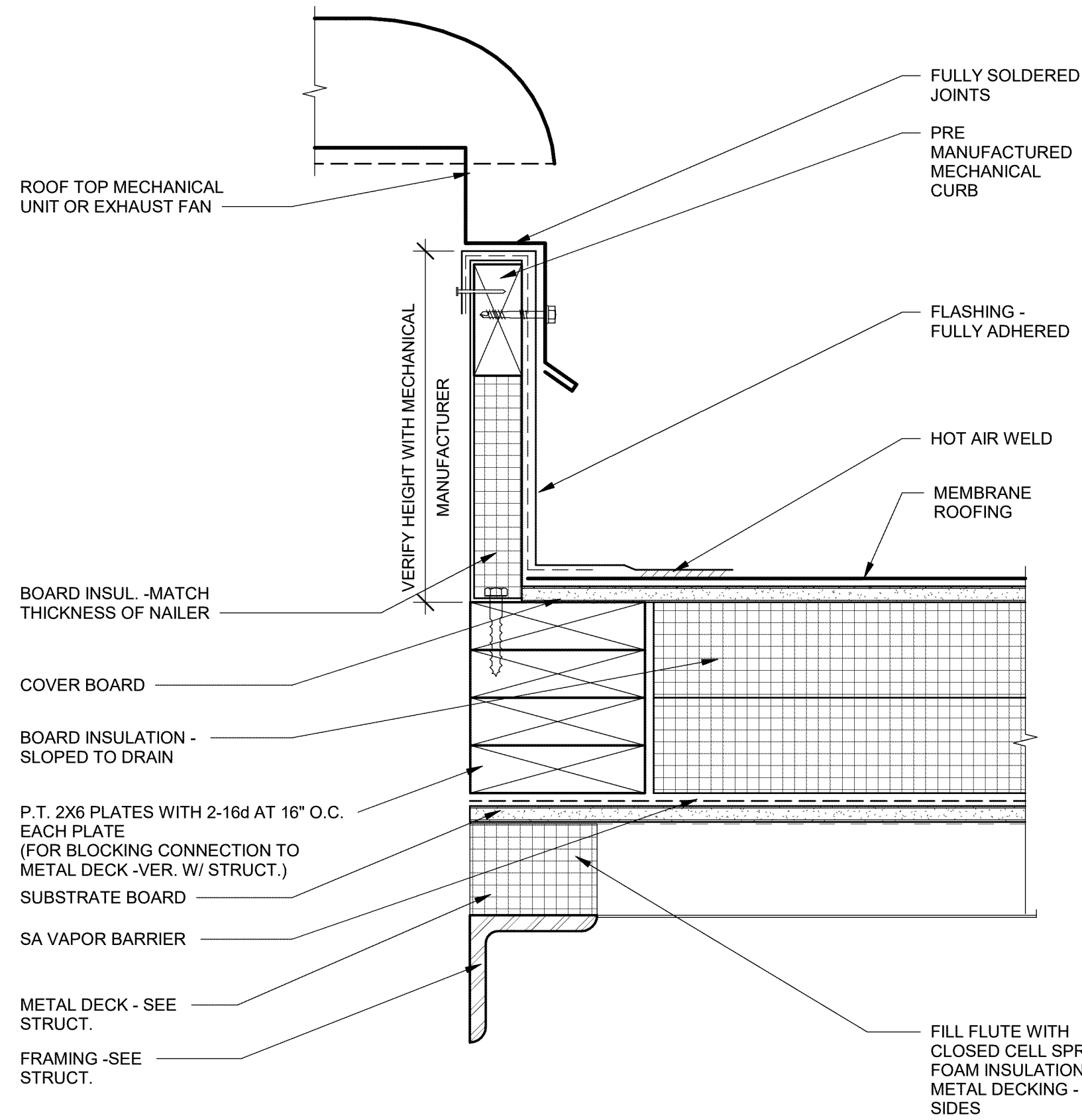


5 MEMBRANE ROOF @ RAKE  
SCALE: 3" = 1'-0"

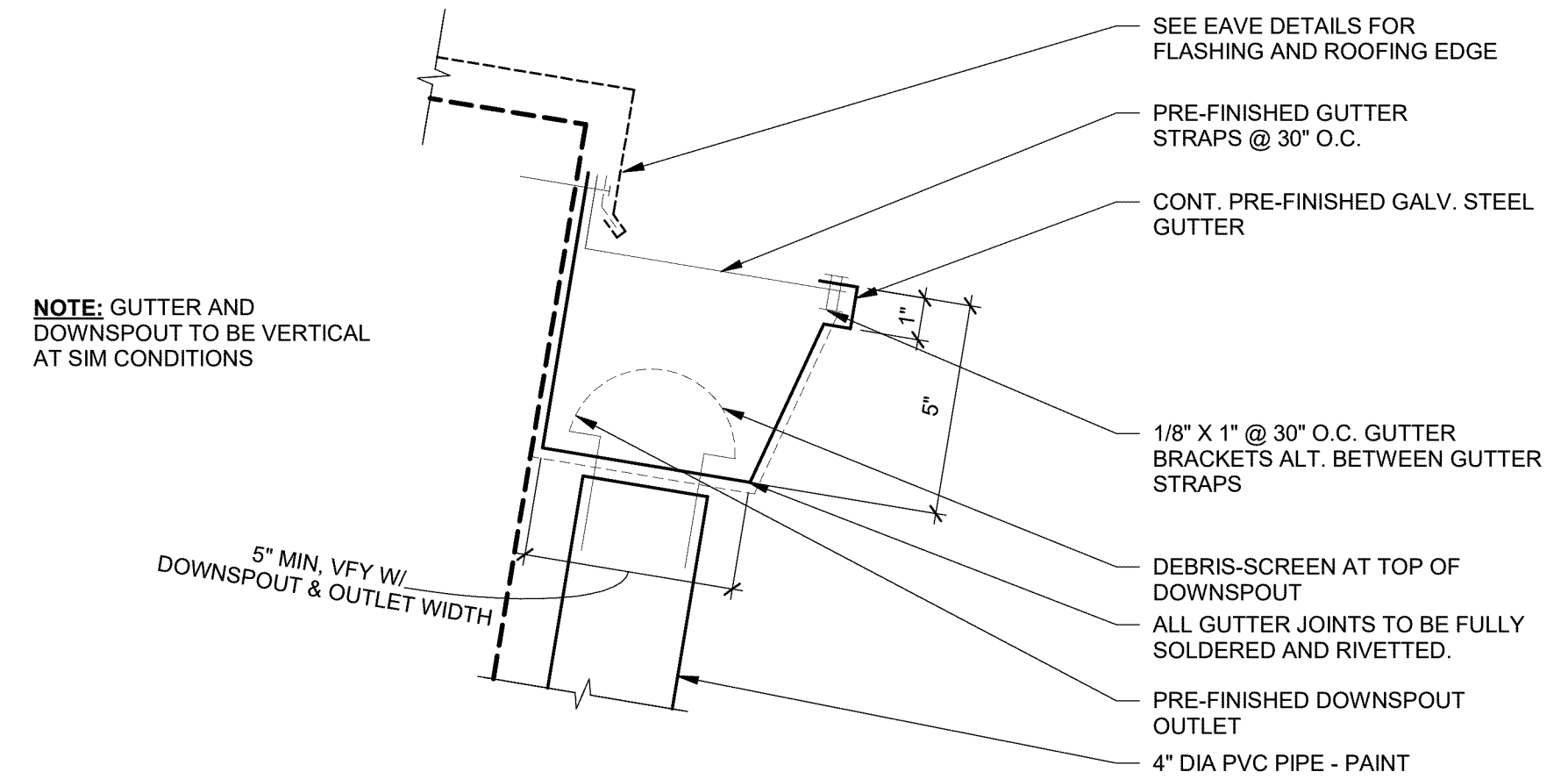




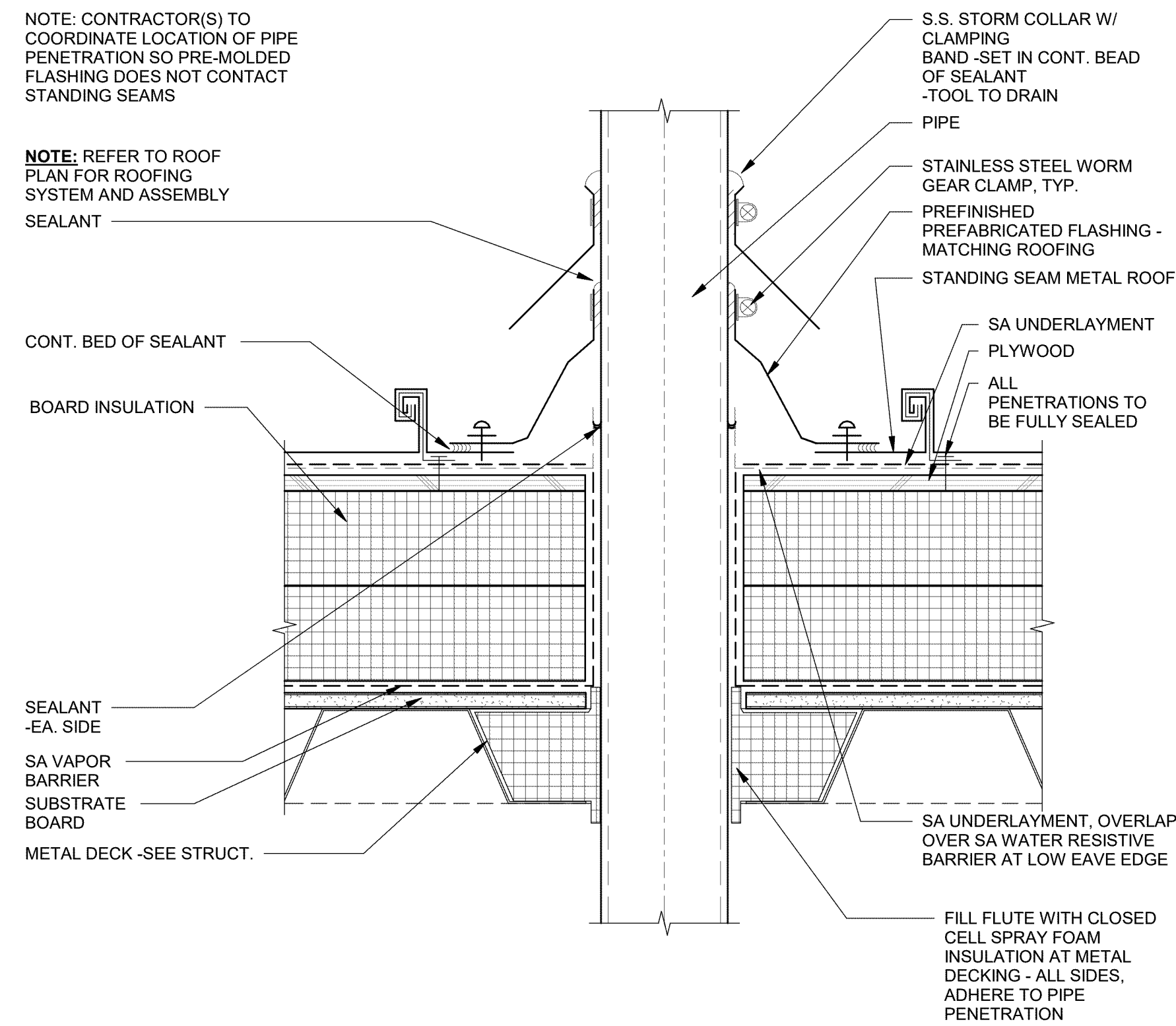
**1 MECHANICAL CURB**  
SCALE: 3" = 1'-0"



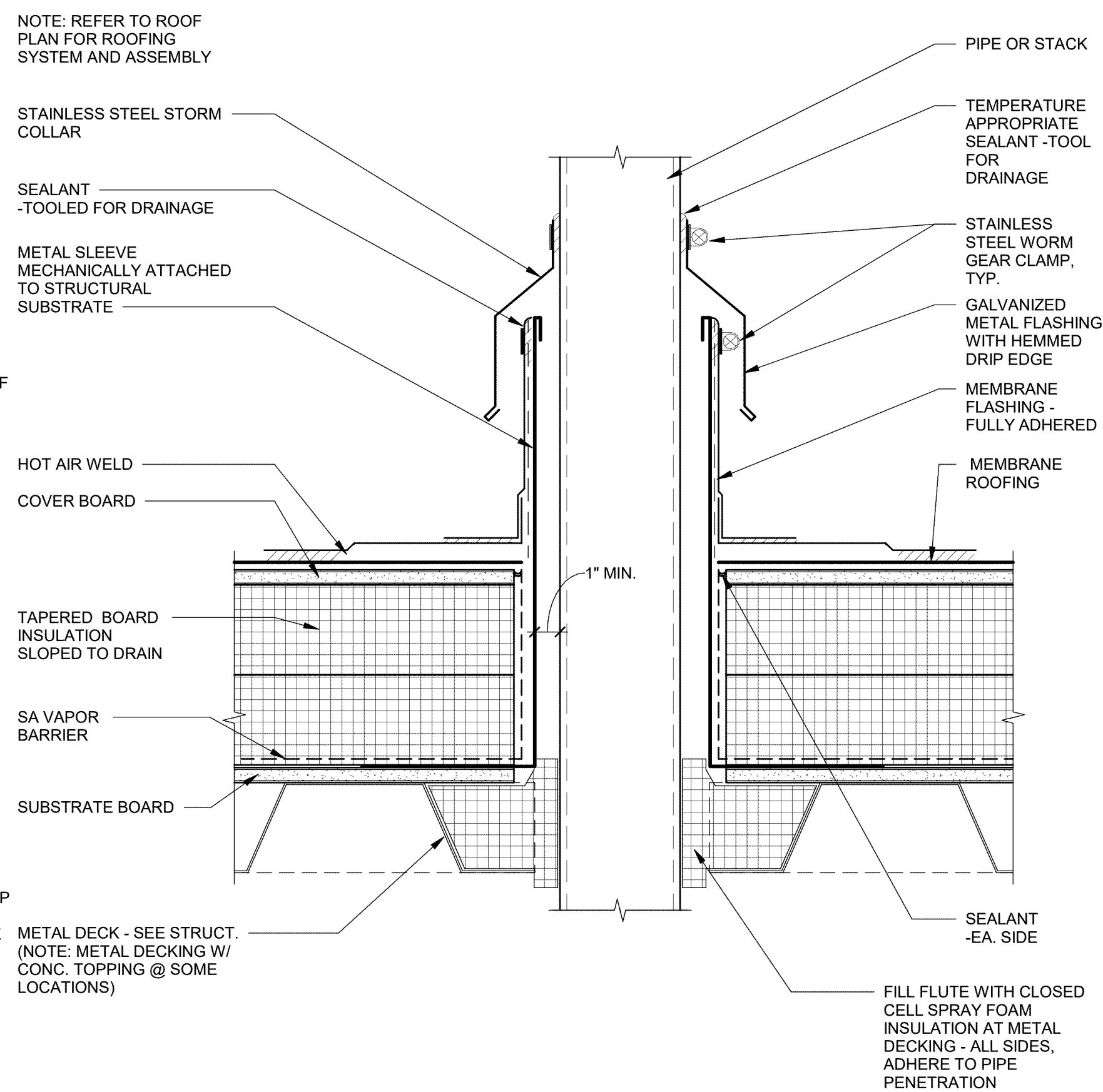
**2 MECHANICAL CURB AT EXHAUST FANS**  
SCALE: 3" = 1'-0"



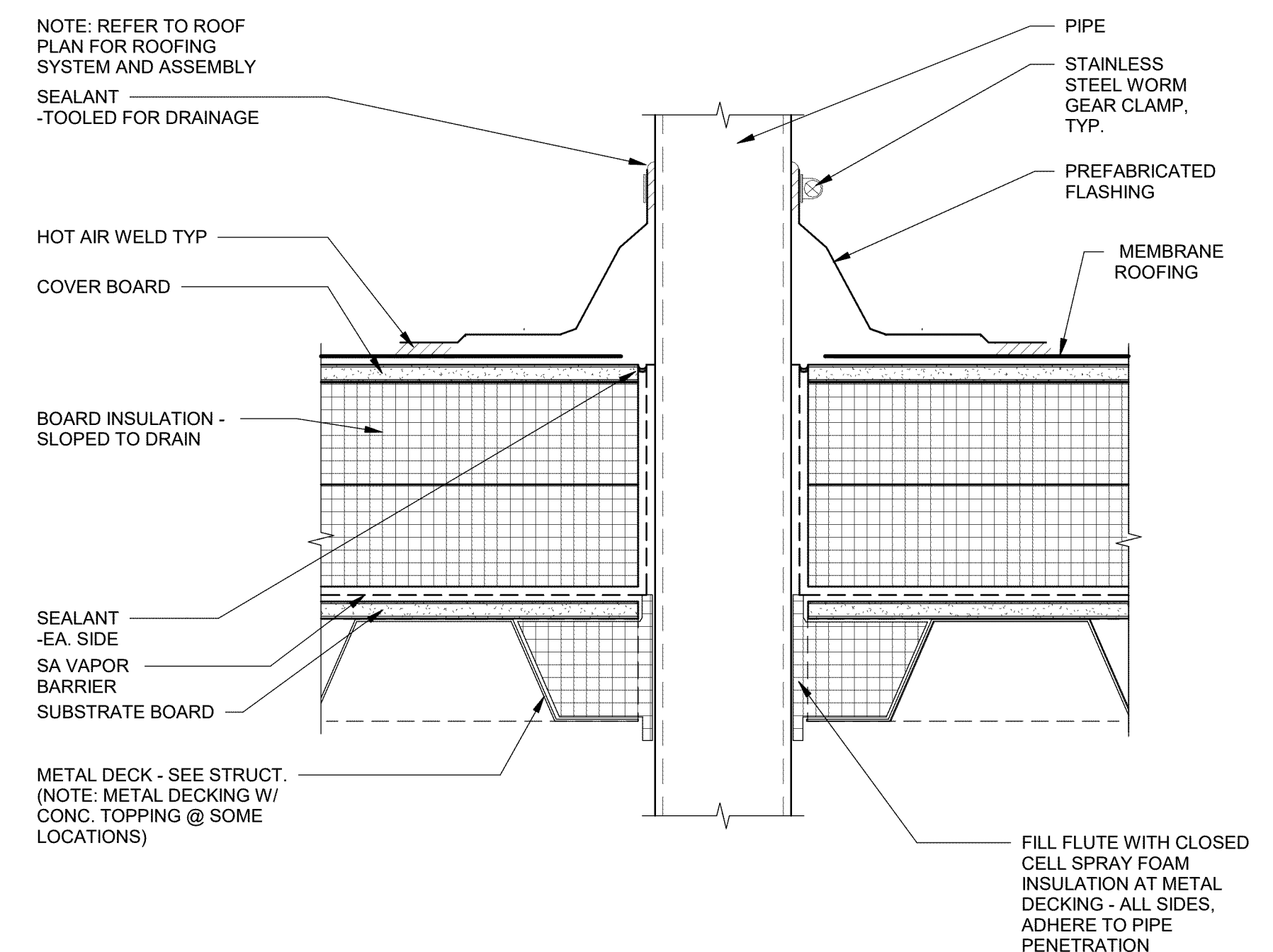
**3 SHEET METAL GUTTER @ DOWNSPOUT**  
SCALE: 3" = 1'-0"



**4 ROOF PENETRATION @ METAL ROOFING**  
SCALE: 3" = 1'-0"

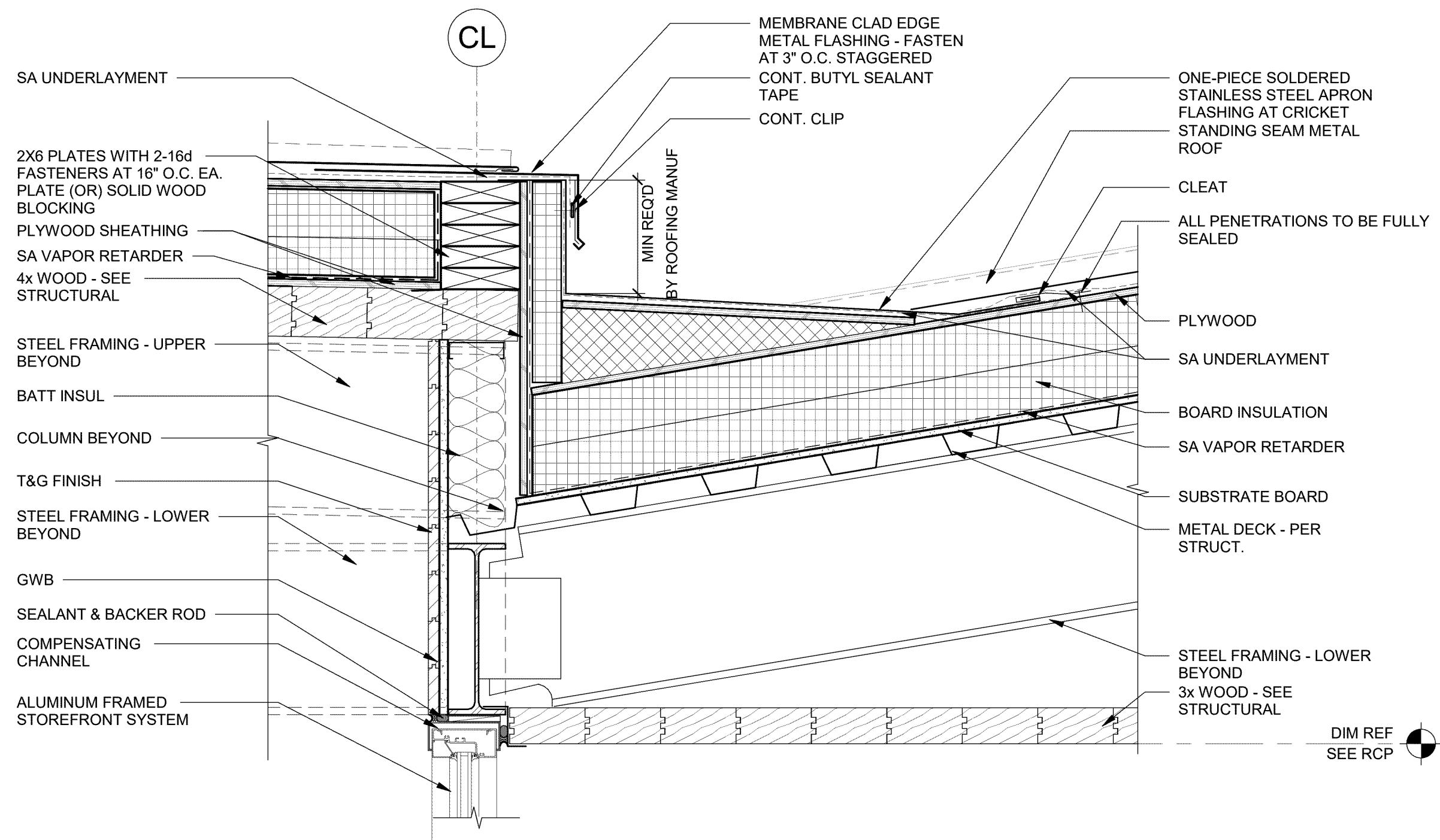


**5 ROOF PENETRATION HEAT STACK**  
SCALE: 3" = 1'-0"

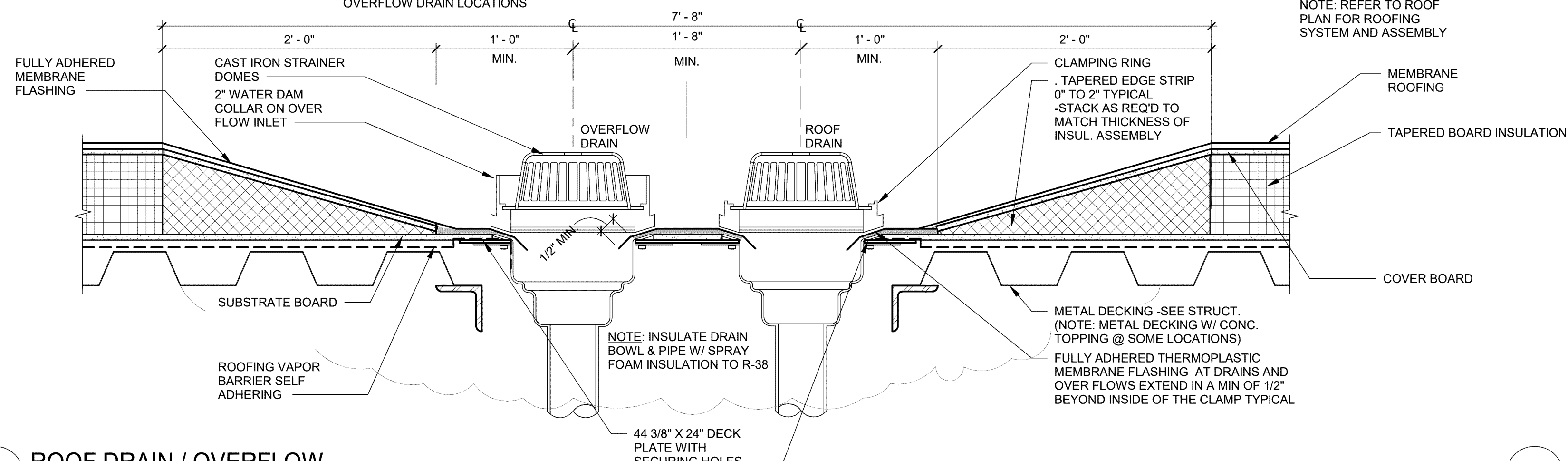
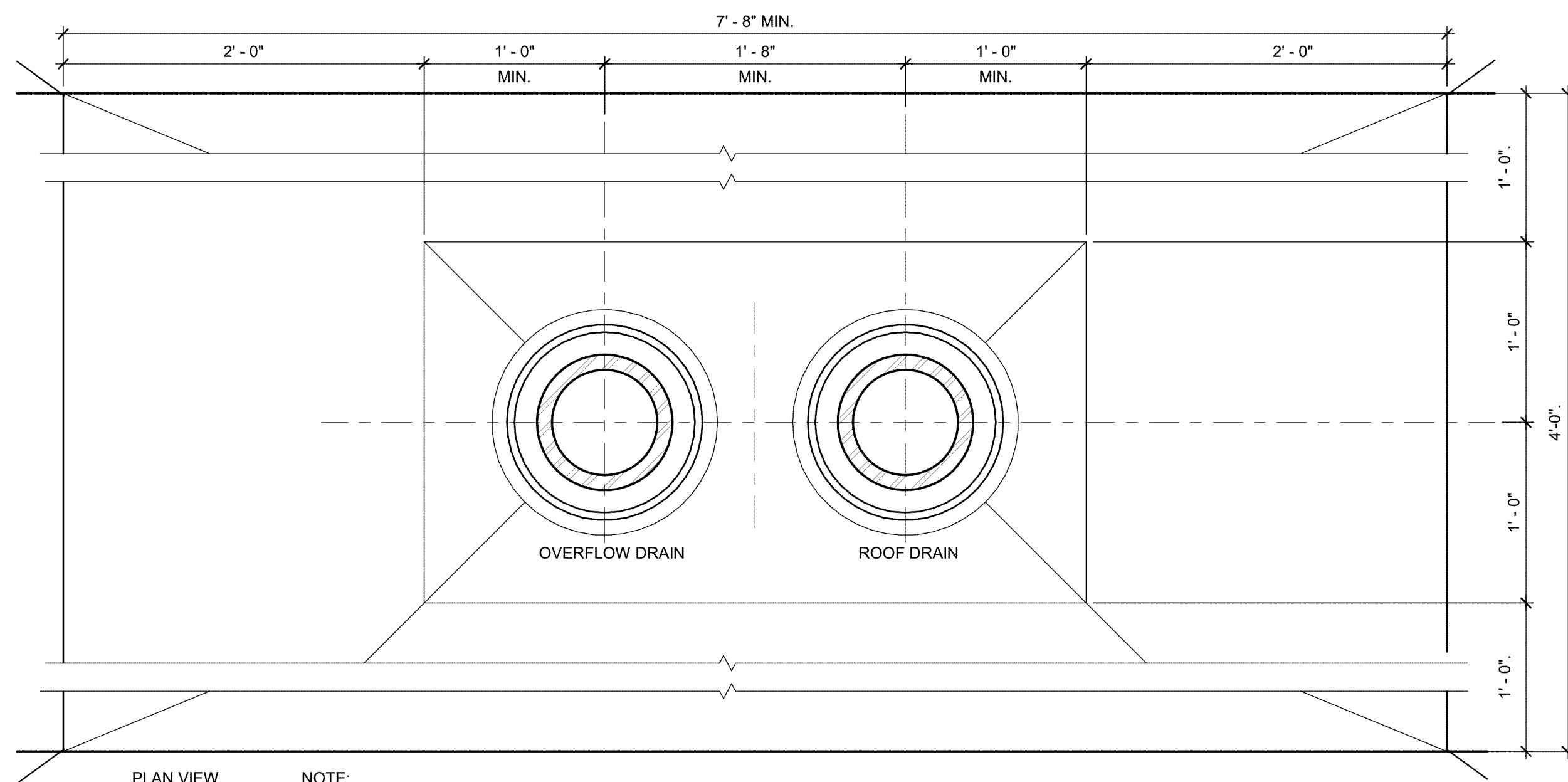


**6 ROOF PENETRATION PREFABRICATED**  
SCALE: 3" = 1'-0"

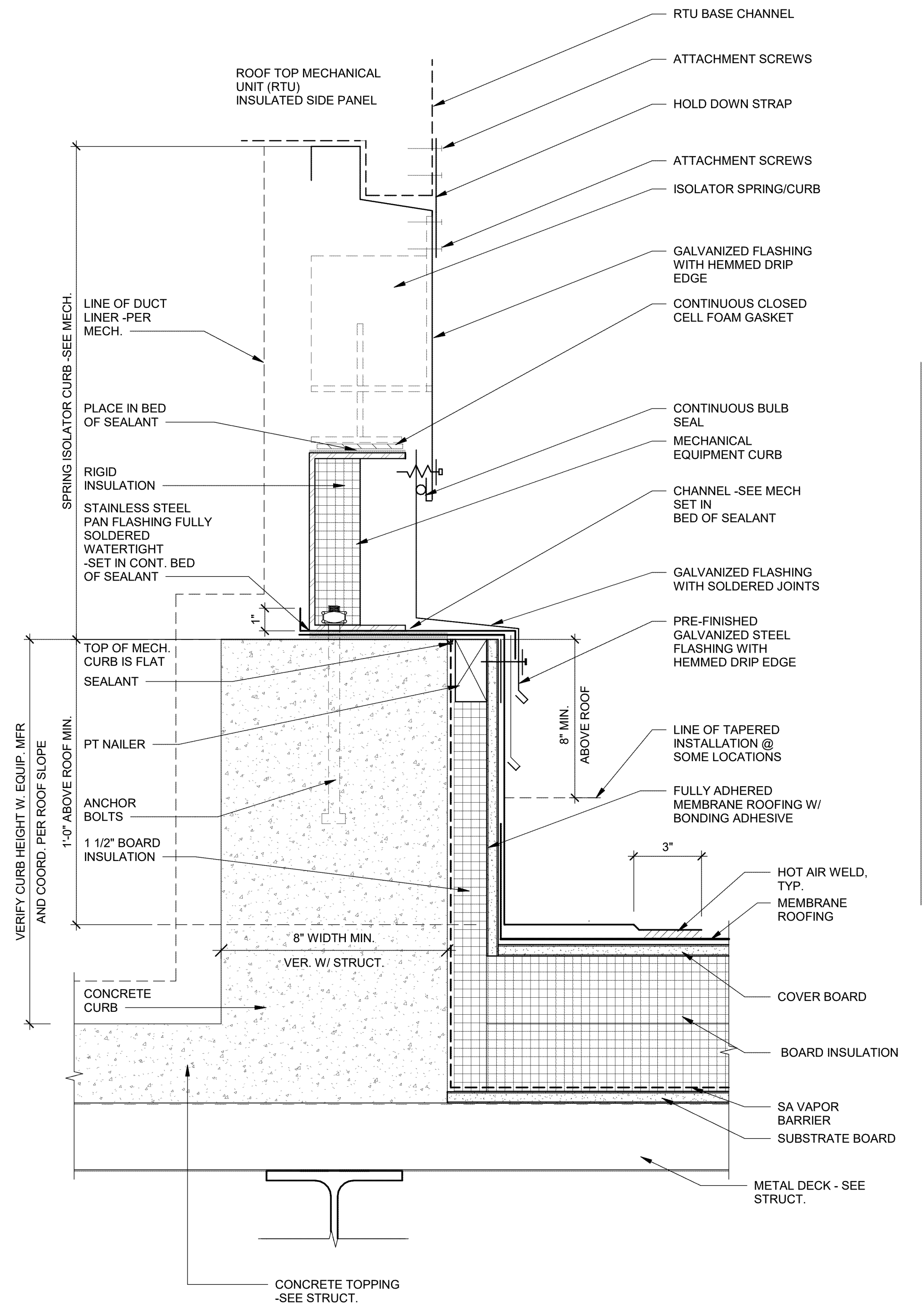




**1 ROOF MAIN ENTRANCE @ STOREFRONT HEAD**  
SCALE: 1 1/2" = 1'-0"



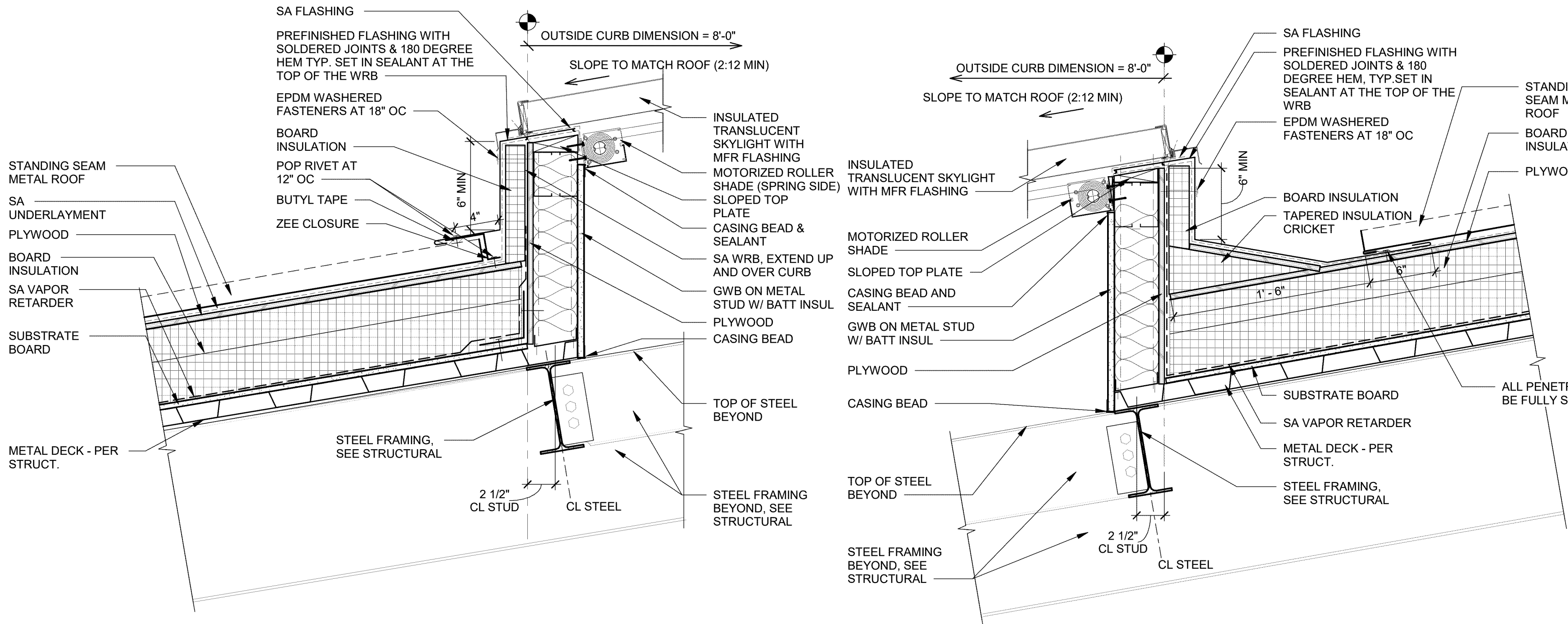
**2 ROOF DRAIN / OVERFLOW**  
SCALE: 1 1/2" = 1'-0"



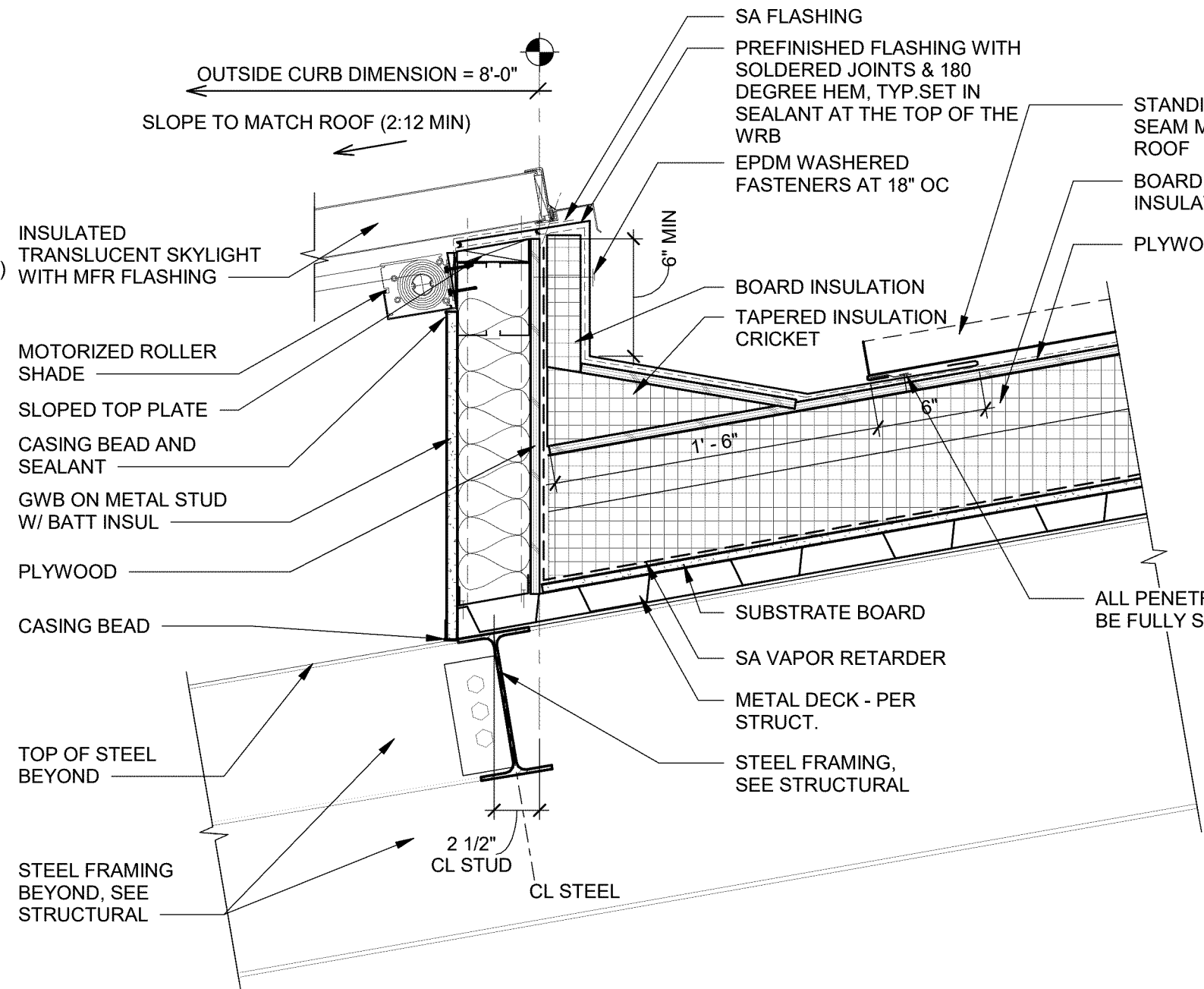
**3 MECHANICAL CURB W/ ISOLATOR CURB**  
SCALE: 3" = 1'-0"

NOTE: ATTACHMENT TO THE CURB TO BE ENGINEERED BY SUBCONTRACTOR.

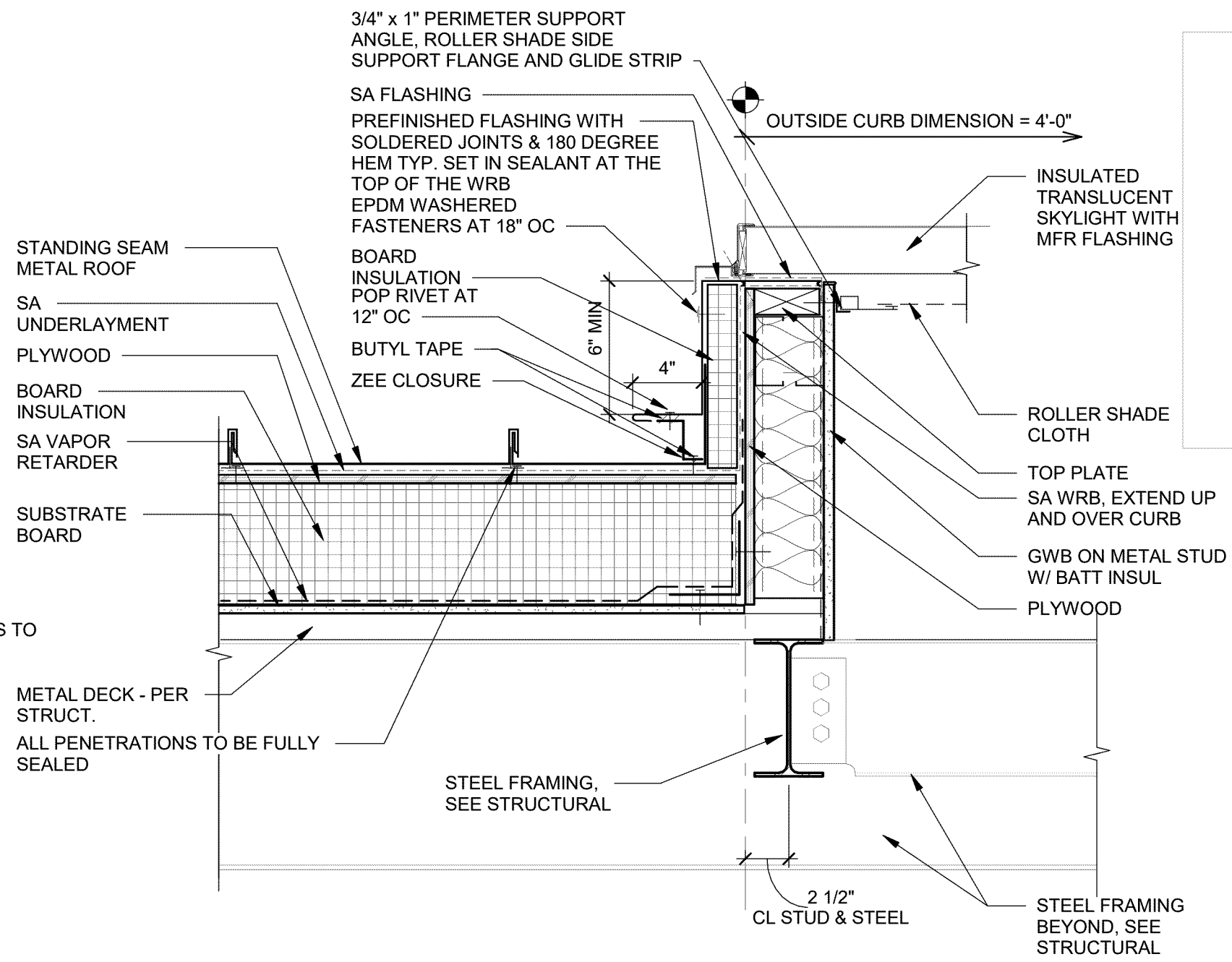




**1 SKYLIGHT DETAIL AT LOW SIDE**  
SCALE: 1 1/2" = 1'-0"

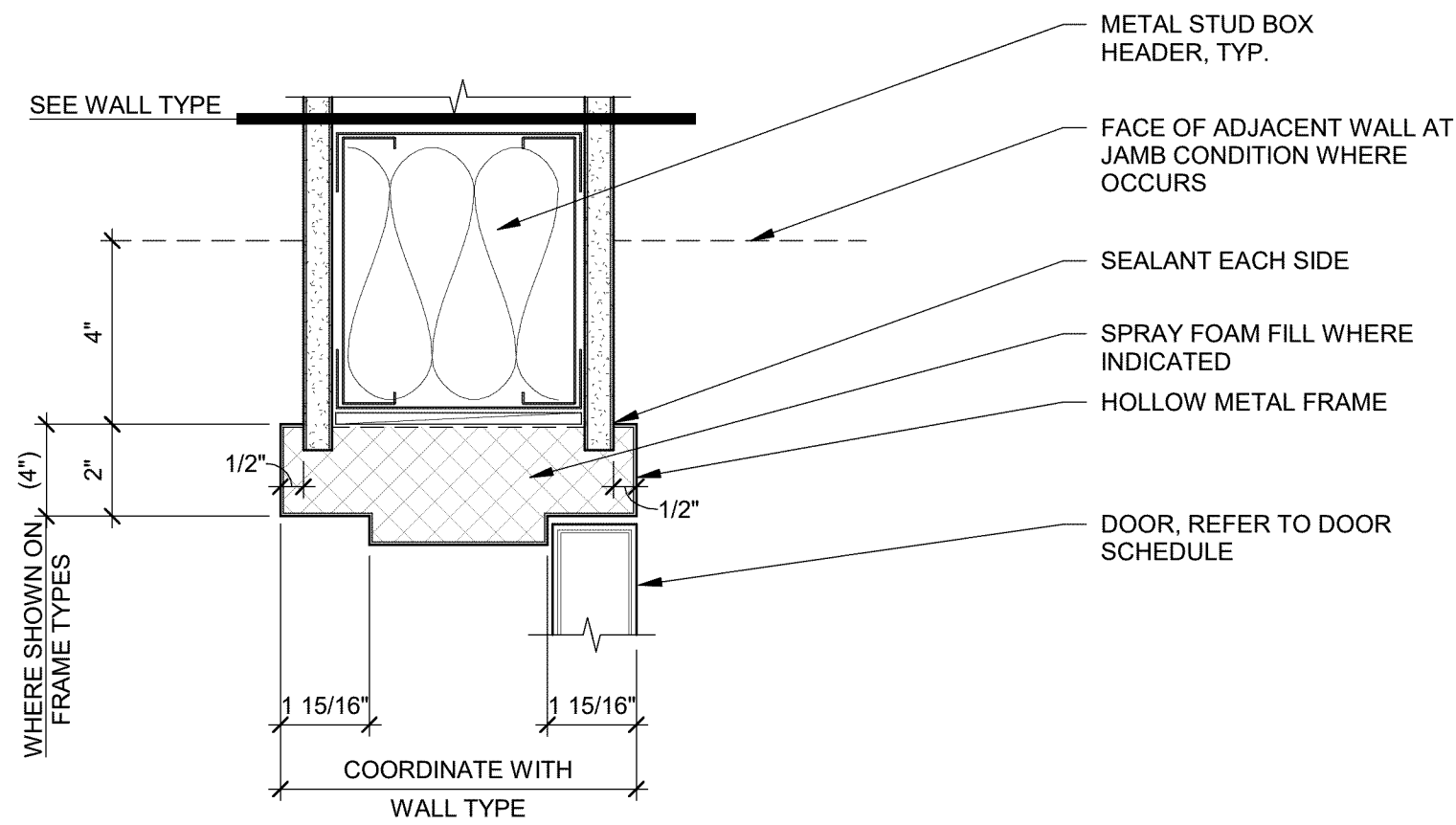


**2 SKYLIGHT DETAIL AT HIGH SIDE**  
SCALE: 1 1/2" = 1'-0"

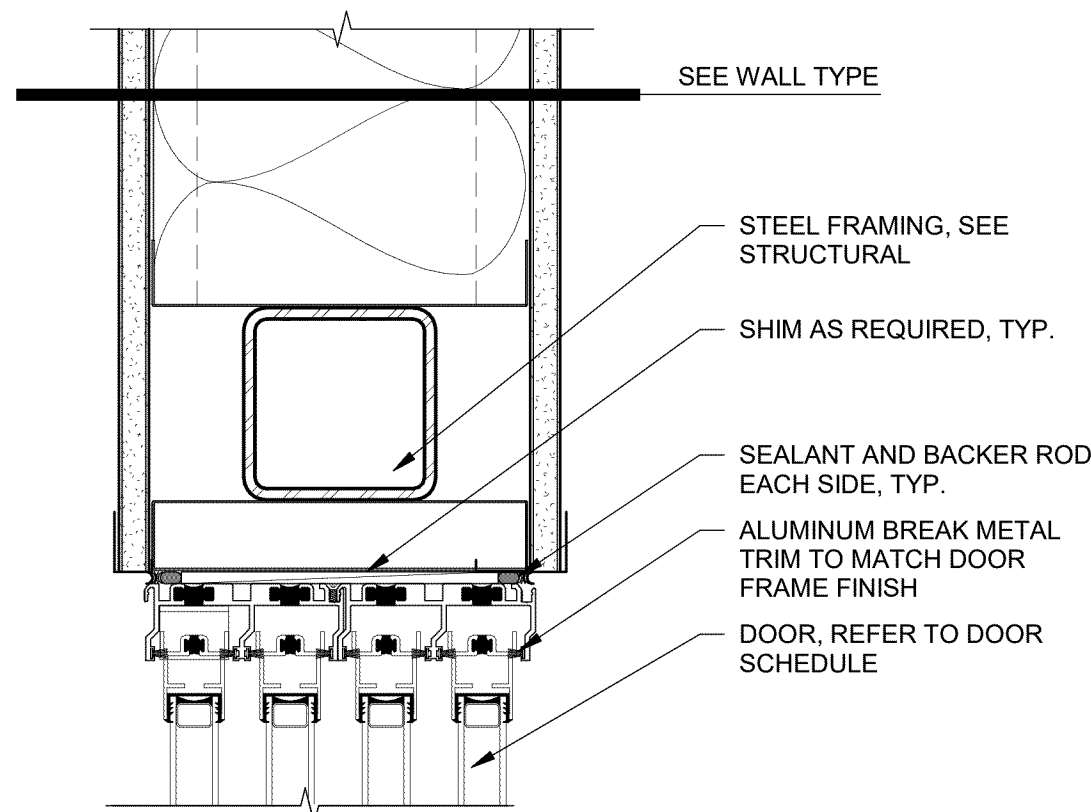


**3 SKYLIGHT DETAIL AT RAKE**  
SCALE: 1 1/2" = 1'-0"

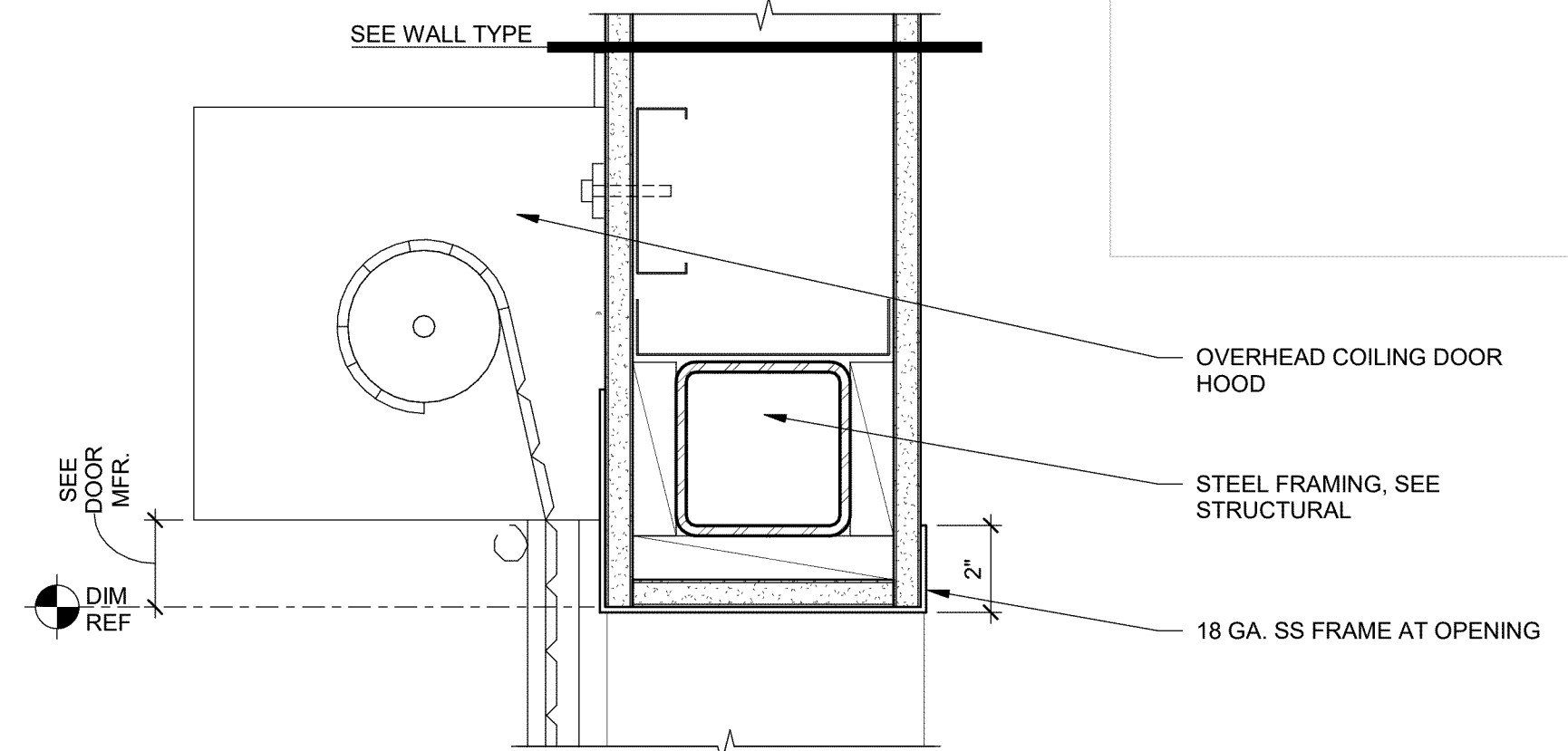




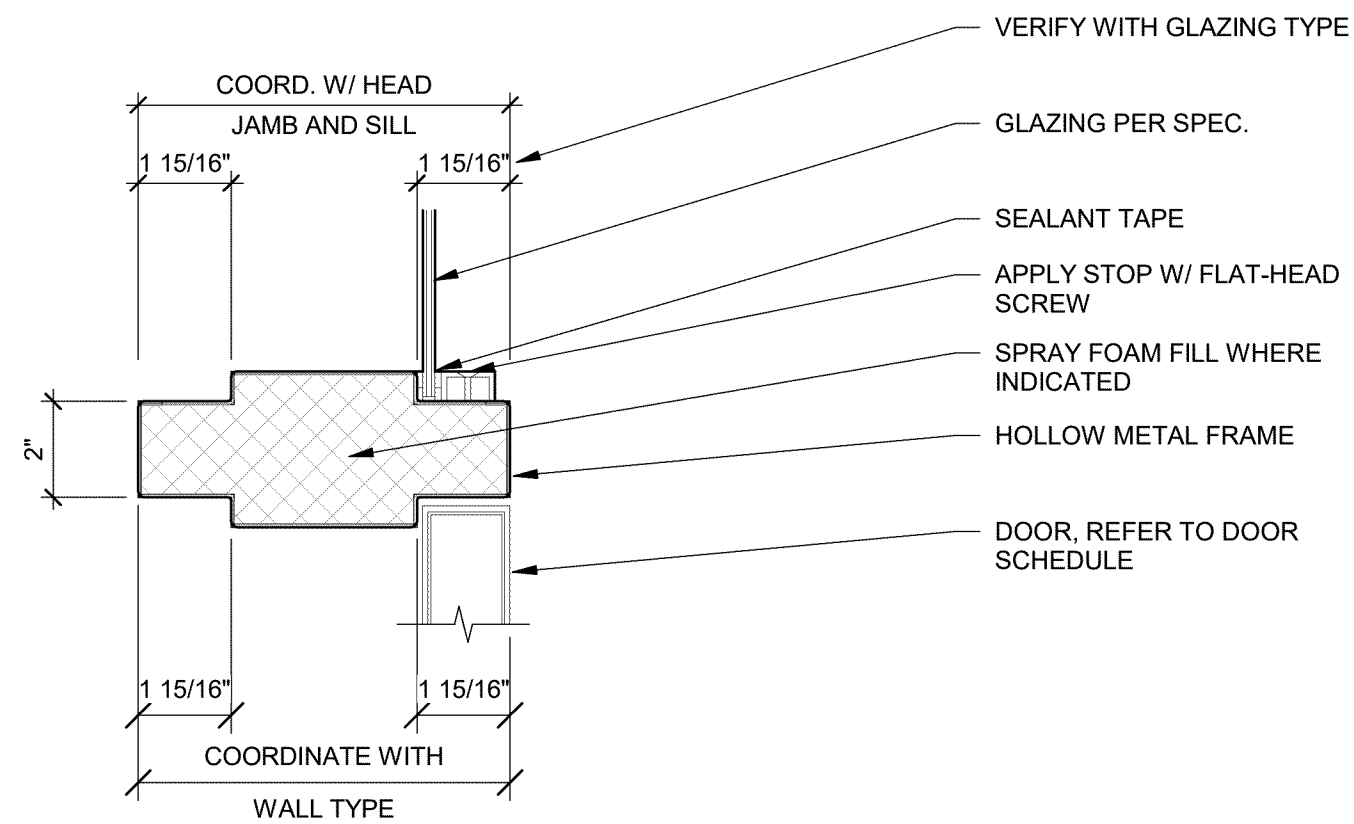
**1 HM DOOR HEAD @ STUD WALL (JAMB SIM)**  
SCALE: 3" = 1'-0"



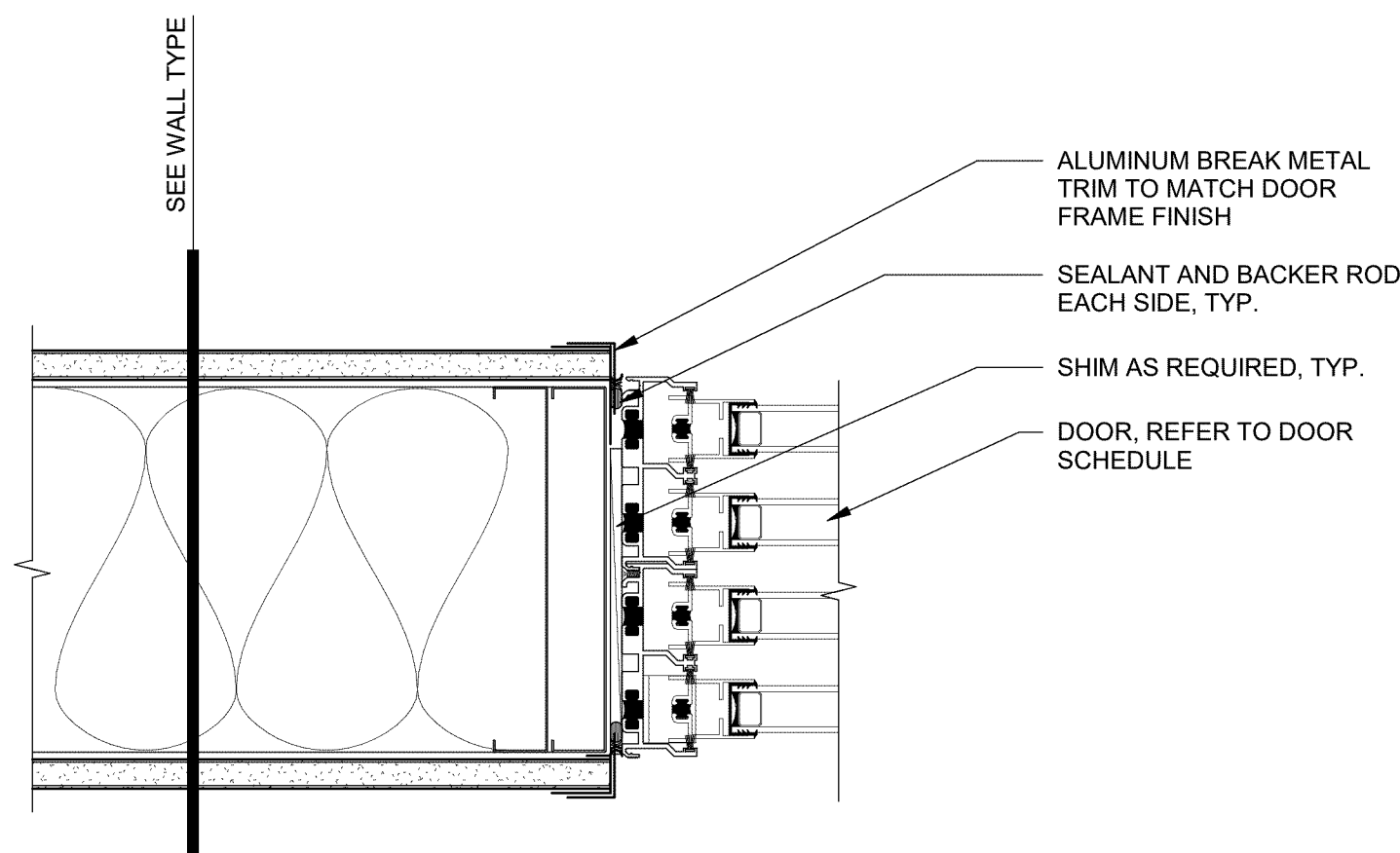
**2 STRFT SLIDER HEAD (4 PANELS) @ STUD WALL**  
SCALE: 3" = 1'-0"



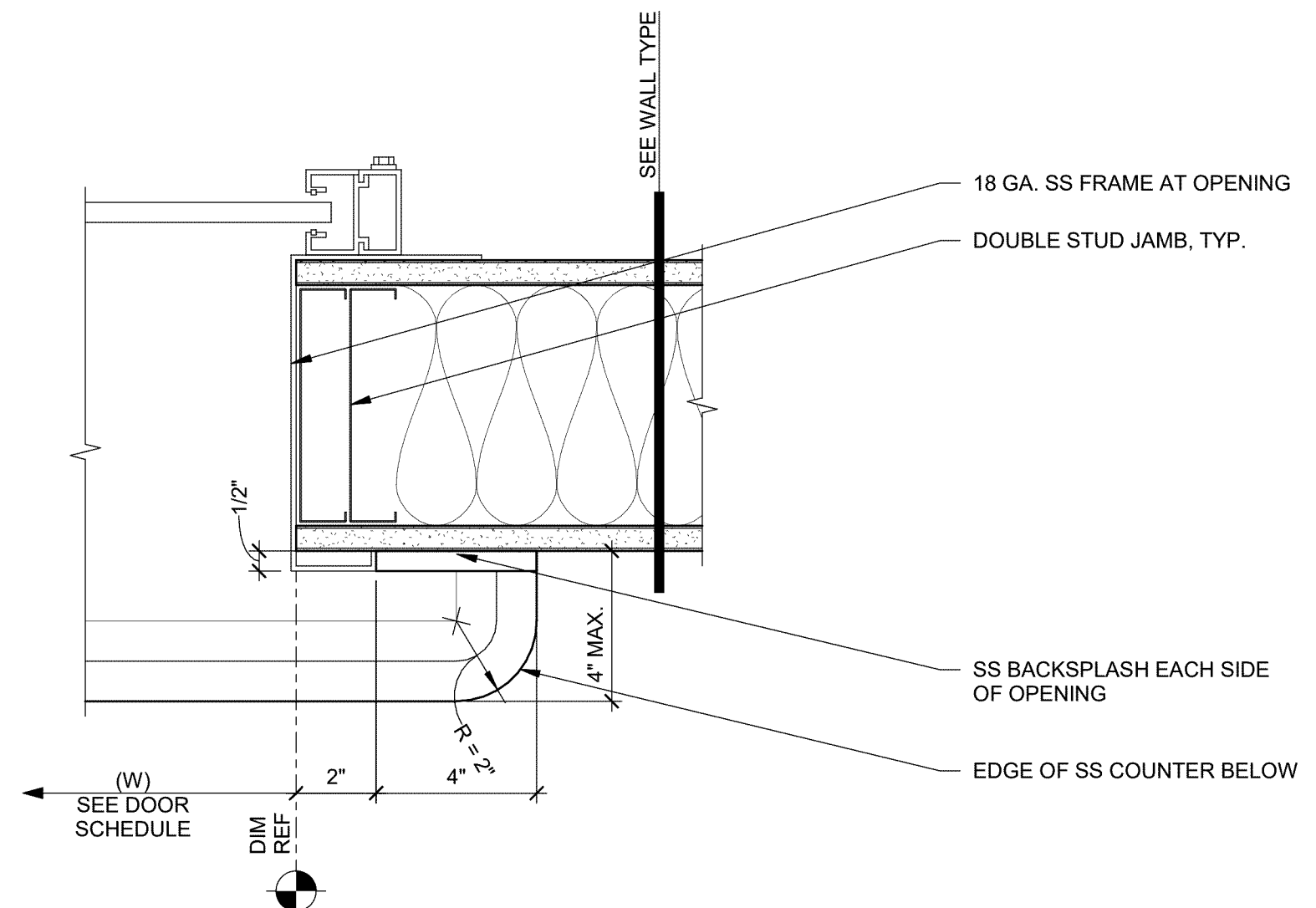
**3 OVERHEAD COILING COUNTER DOOR HEAD @ KITCHEN**  
SCALE: 3" = 1'-0"



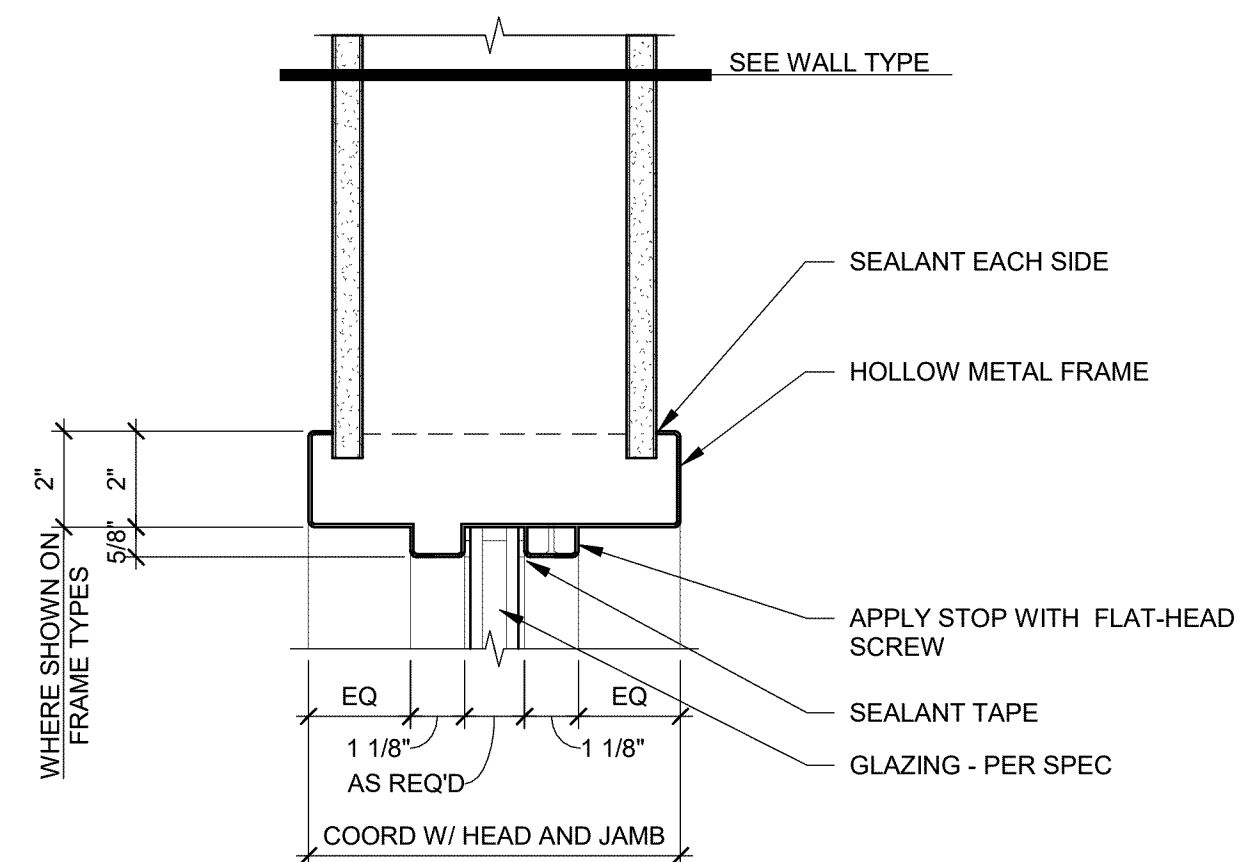
**4 HM DOOR HEAD @ MULLION (JAMB SIM.)**  
SCALE: 3" = 1'-0"



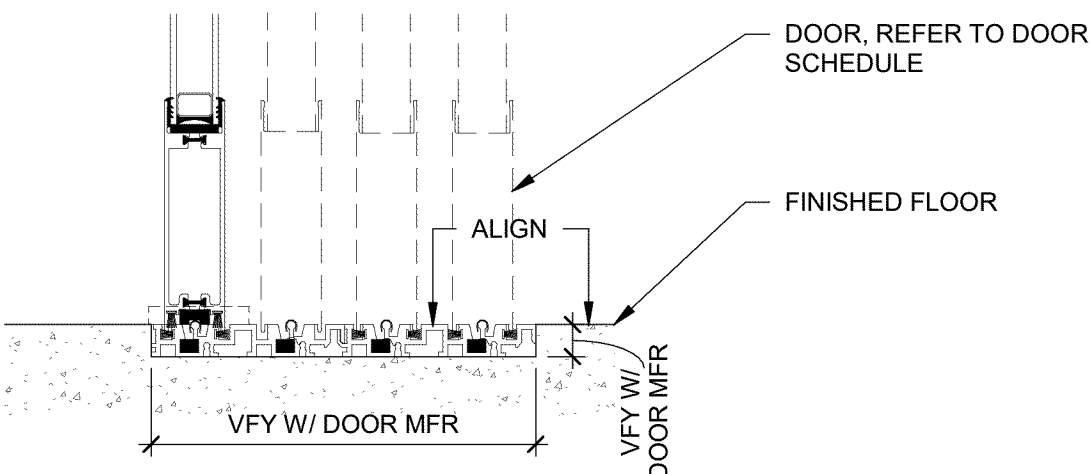
**5 STRFT SLIDER JAMB (4 PANELS) @ STUD WALL**  
SCALE: 3" = 1'-0"



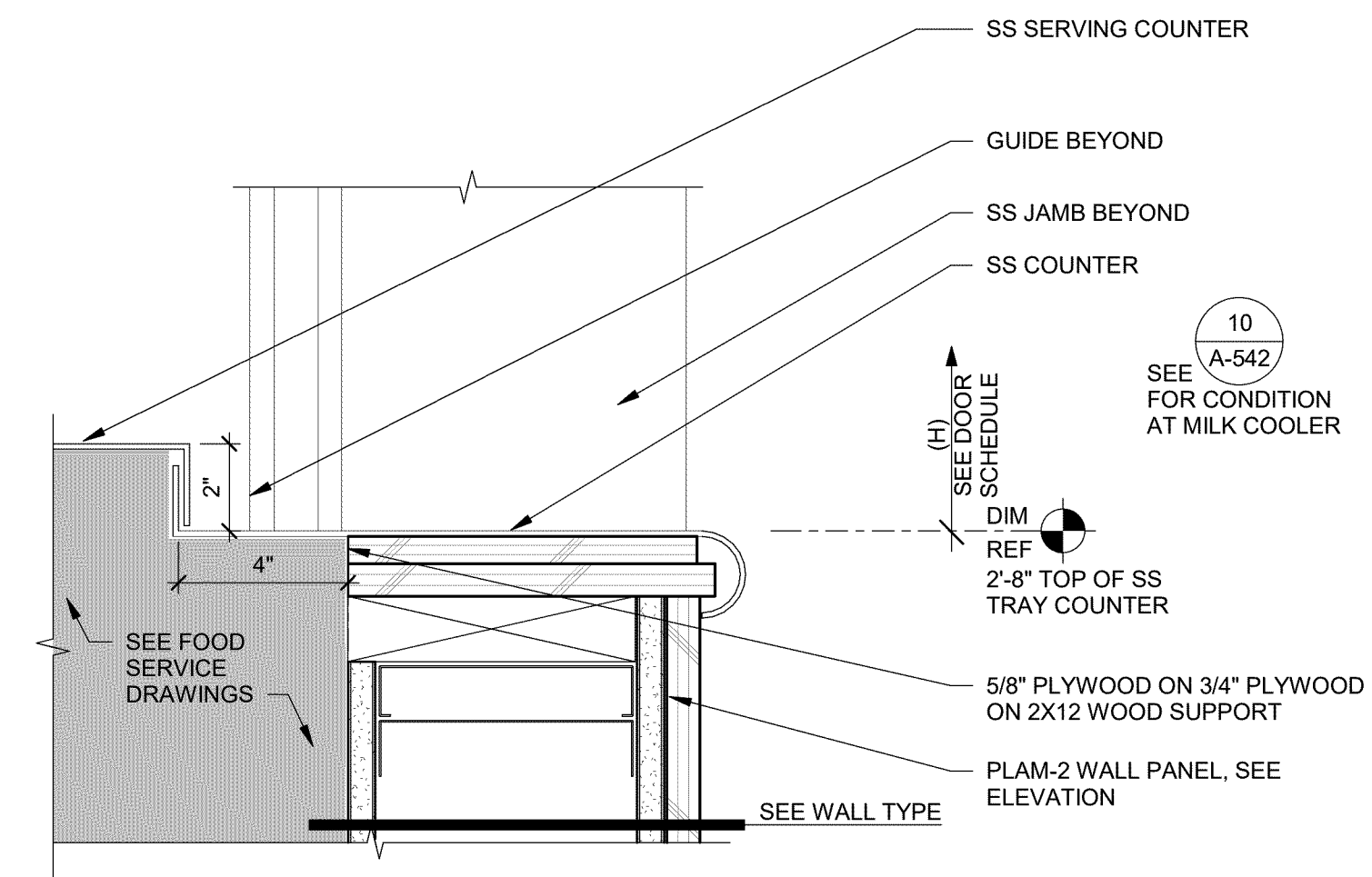
**6 OVERHEAD COILING COUNTER DOOR JAMB @ KITCHEN**  
SCALE: 3" = 1'-0"



**7 RELITE HEAD/ JAMB SIM**  
SCALE: 3" = 1'-0"

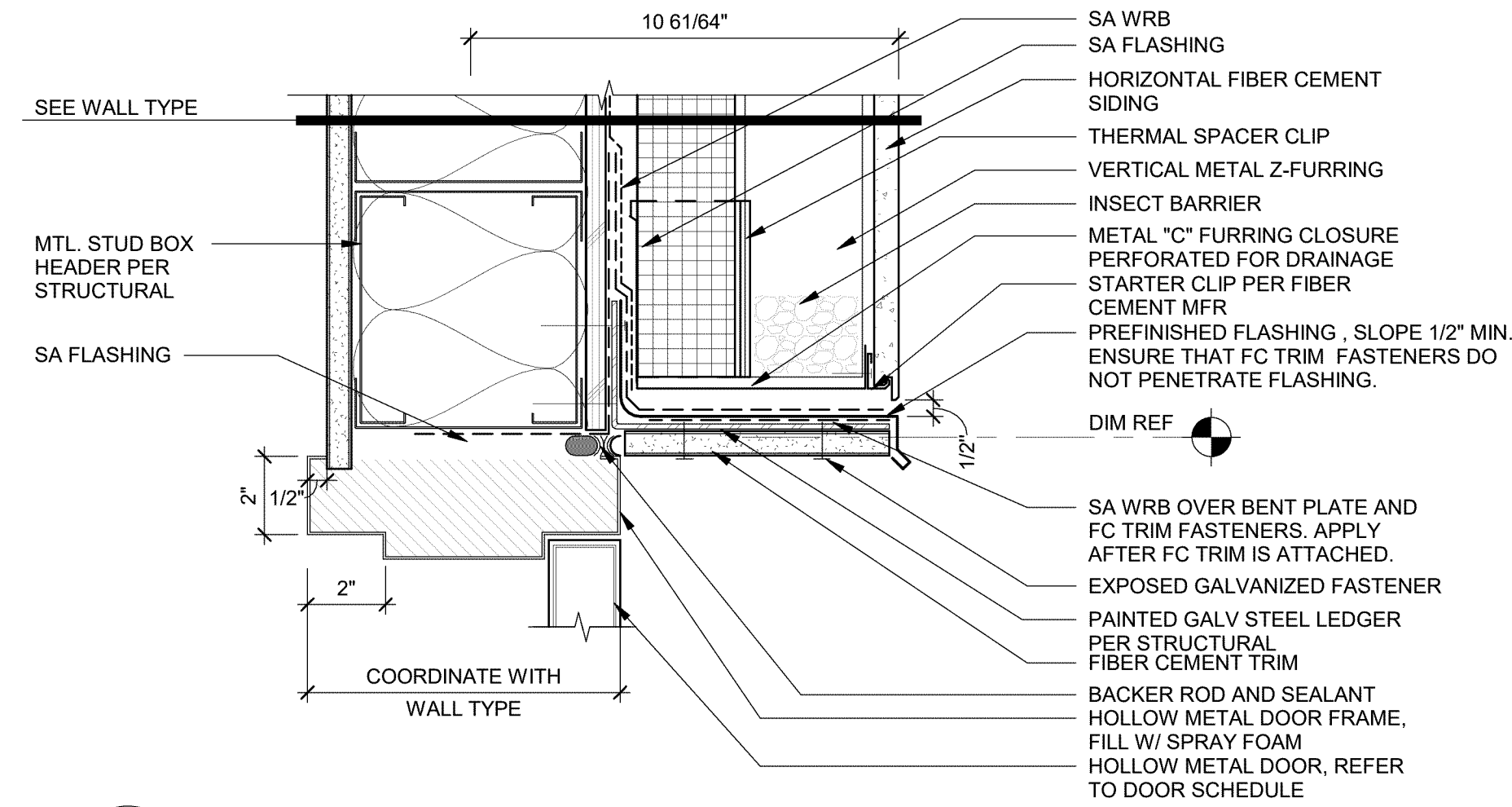


**8 STRFT (4) PANEL SLIDING DOOR THRESHOLD**  
SCALE: 3" = 1'-0"

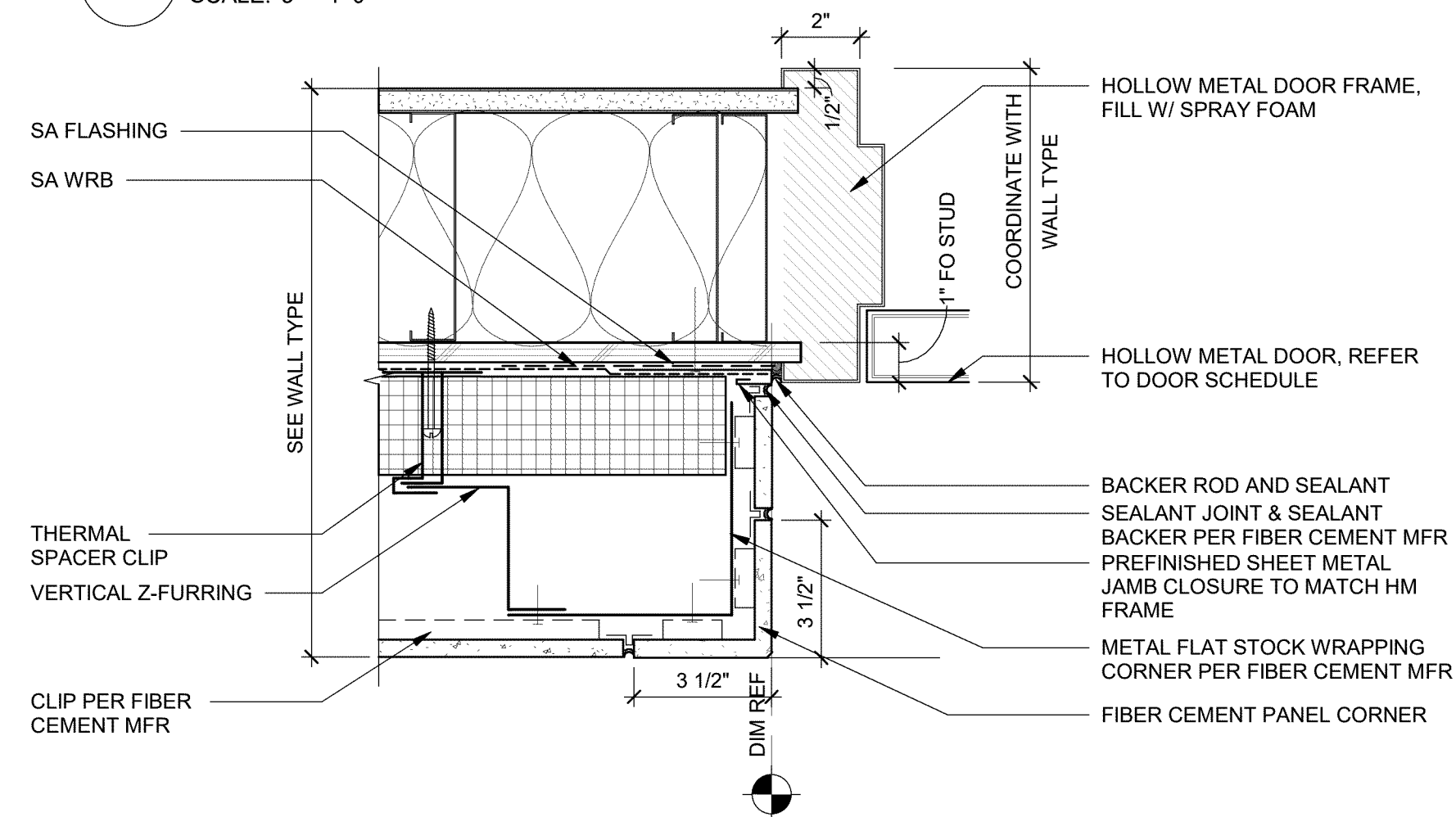


**9 OVERHEAD COILING COUNTER DOOR SILL @ KITCHEN**  
SCALE: 3" = 1'-0"

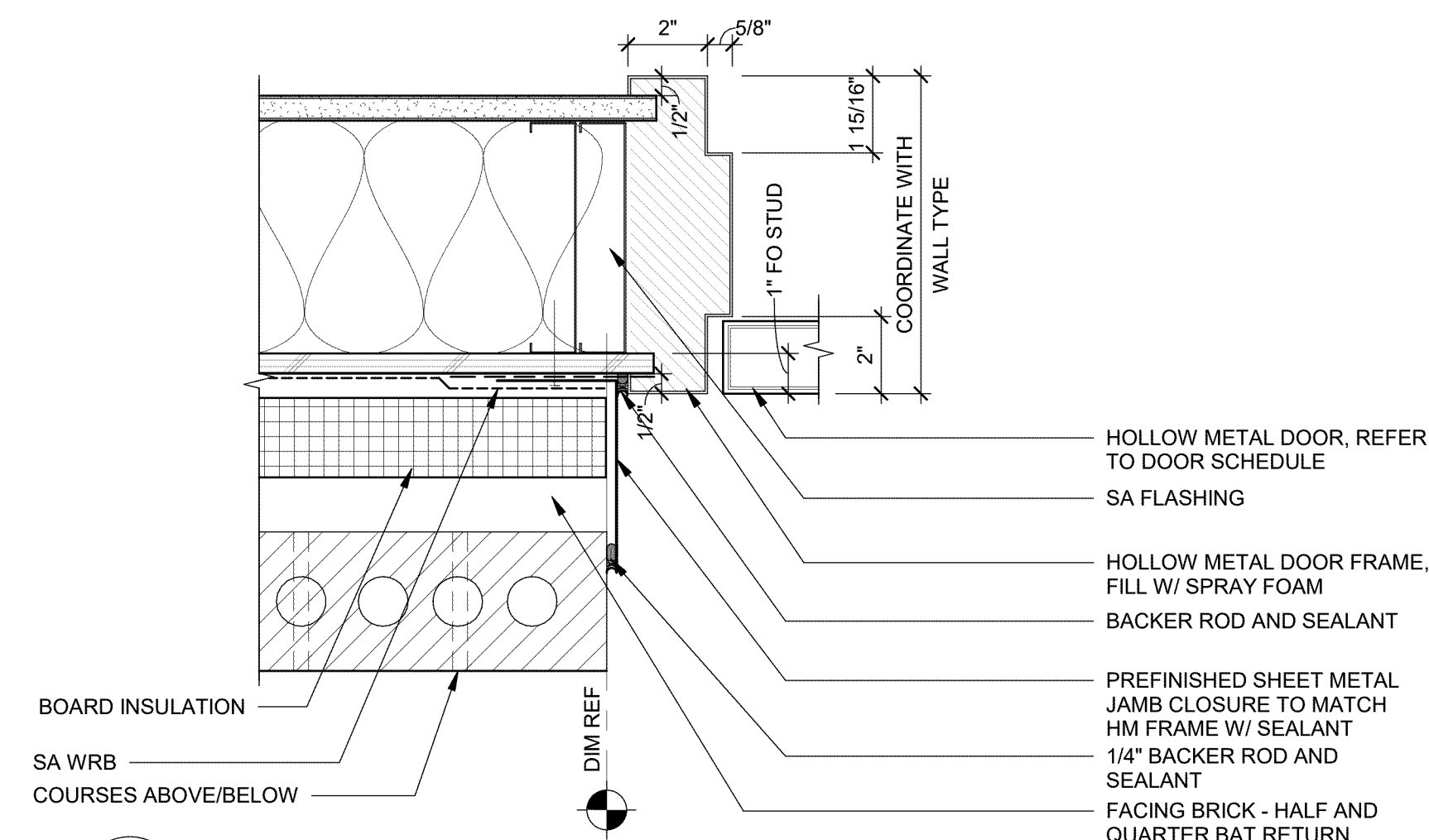




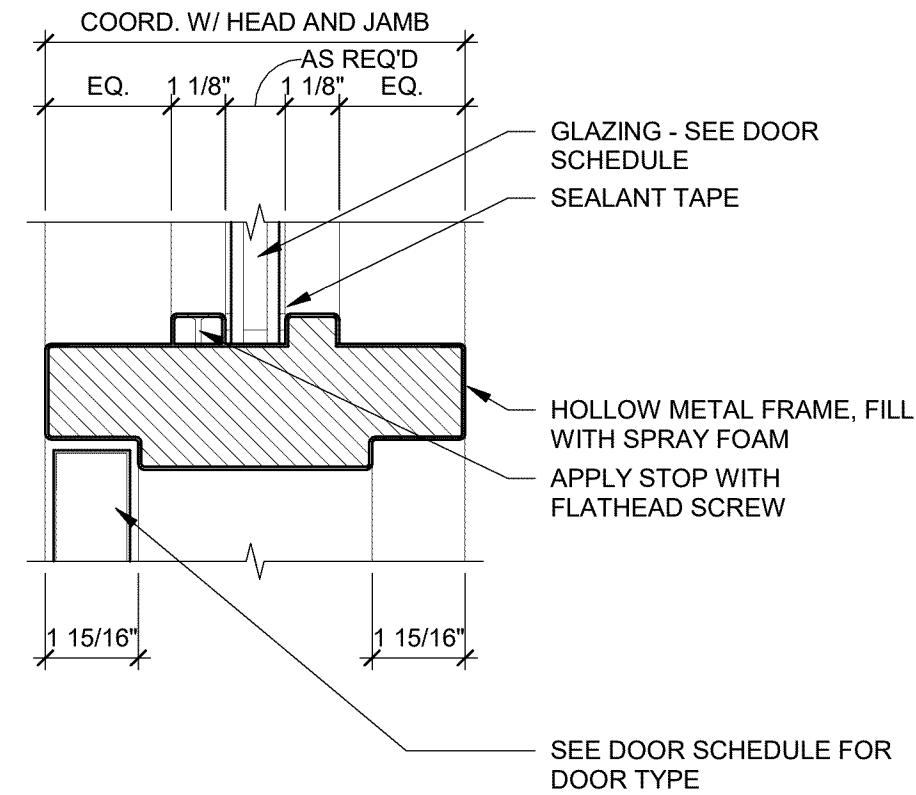
**1 HM DOOR HEAD @ FC SIDING**  
SCALE: 3" = 1'-0"



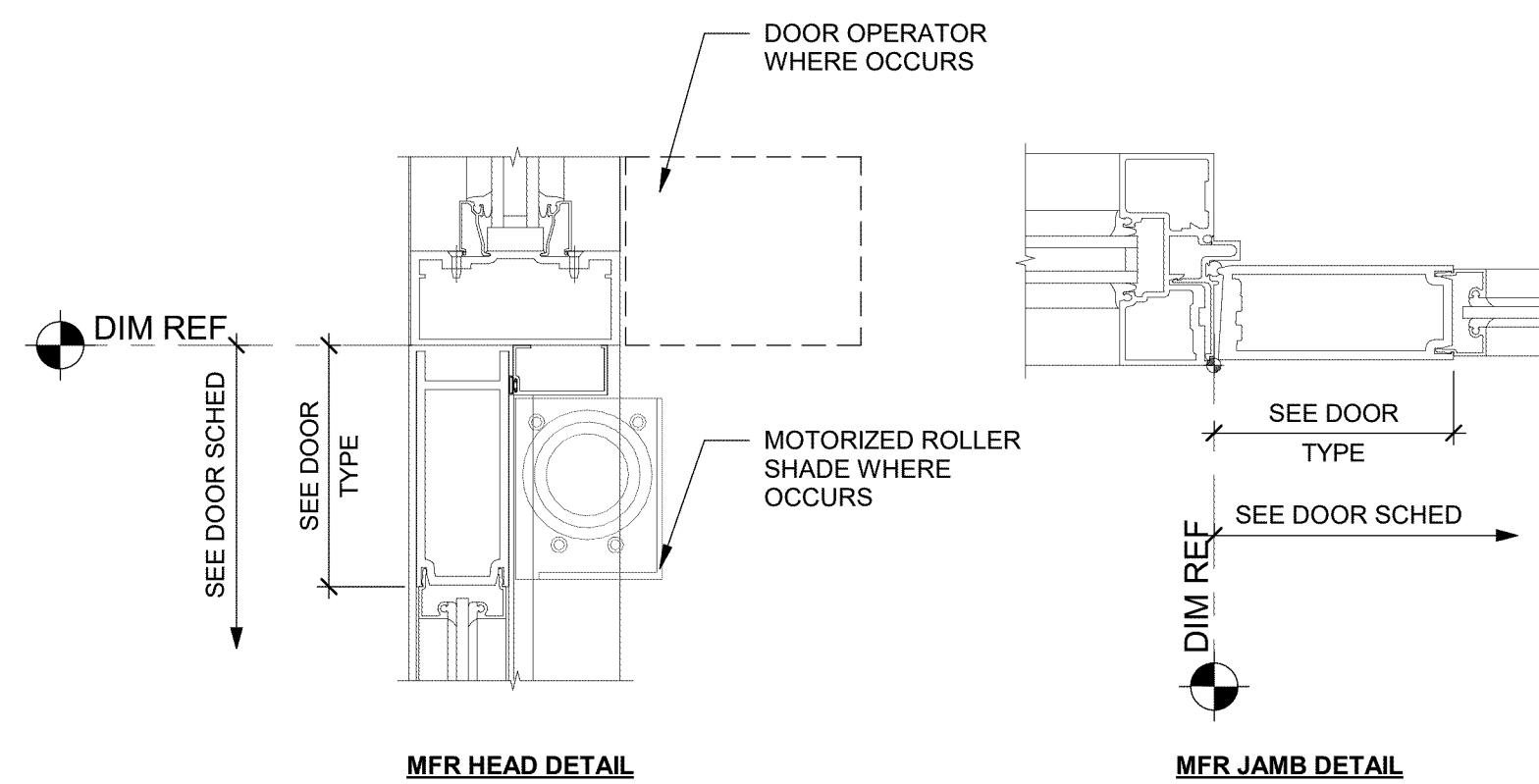
**3 HM DOOR JAMB @ FC SIDING**  
SCALE: 3" = 1'-0"



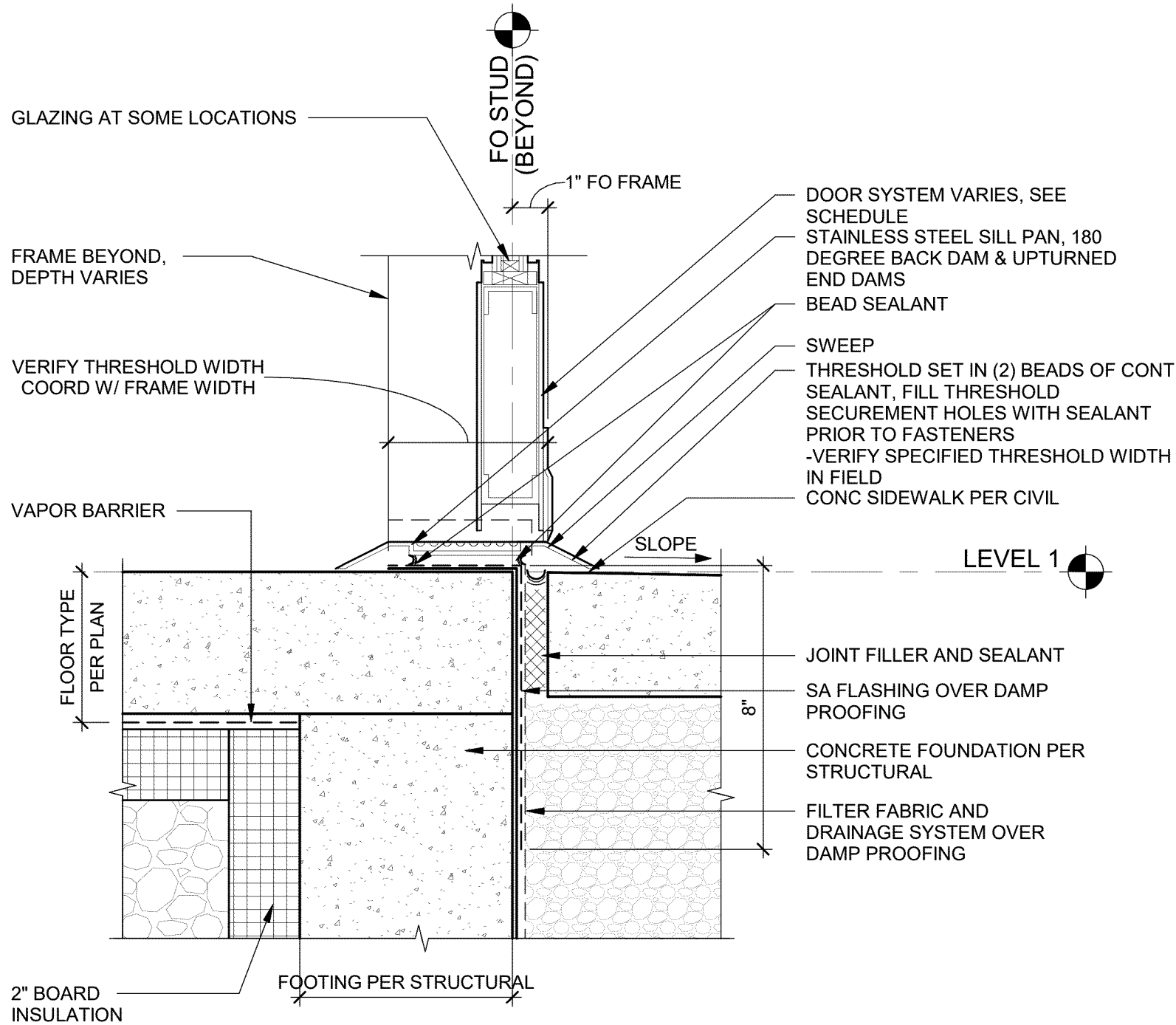
**5 HM DOOR JAMB @ BRICK VENEER**  
SCALE: 3" = 1'-0"



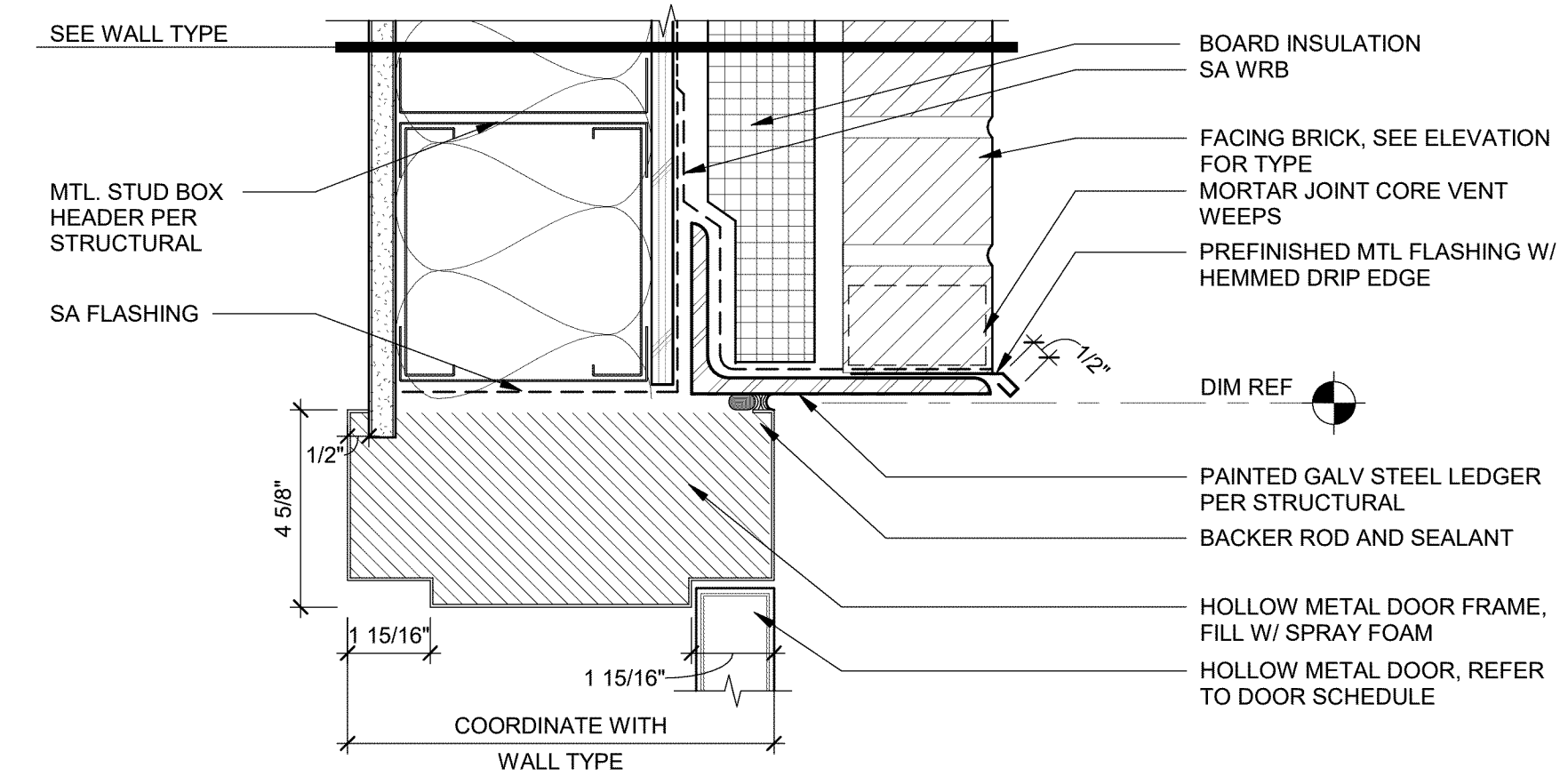
**2 HM DOOR HEAD / JAMB @ MULLION**  
SCALE: 3" = 1'-0"



**4 SF DOOR HEAD / JAMB @ MULLION**  
SCALE: 3" = 1'-0"

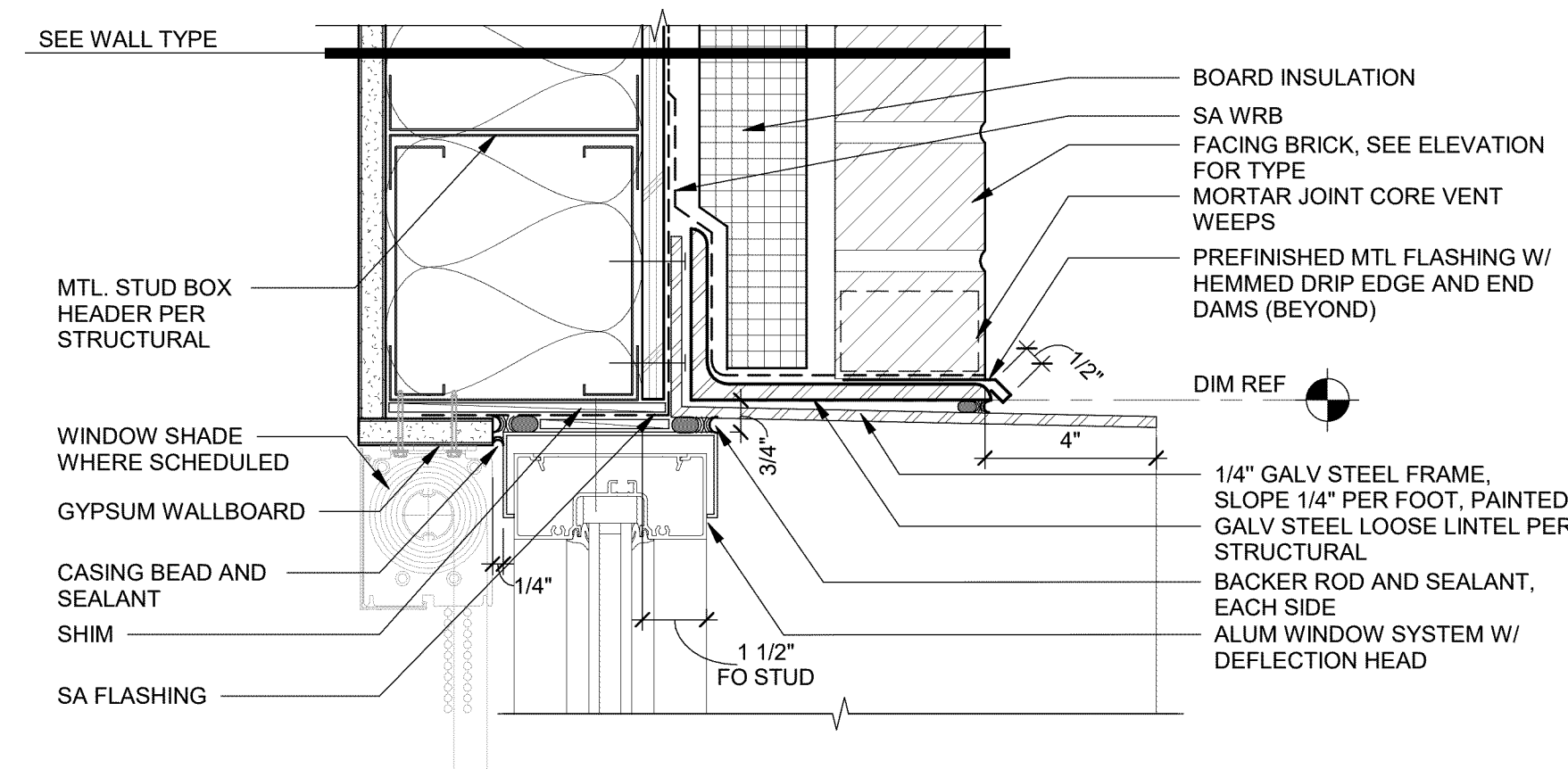


**6 THRESHOLD @ SF DOOR (HM SIM)**  
SCALE: 3" = 1'-0"

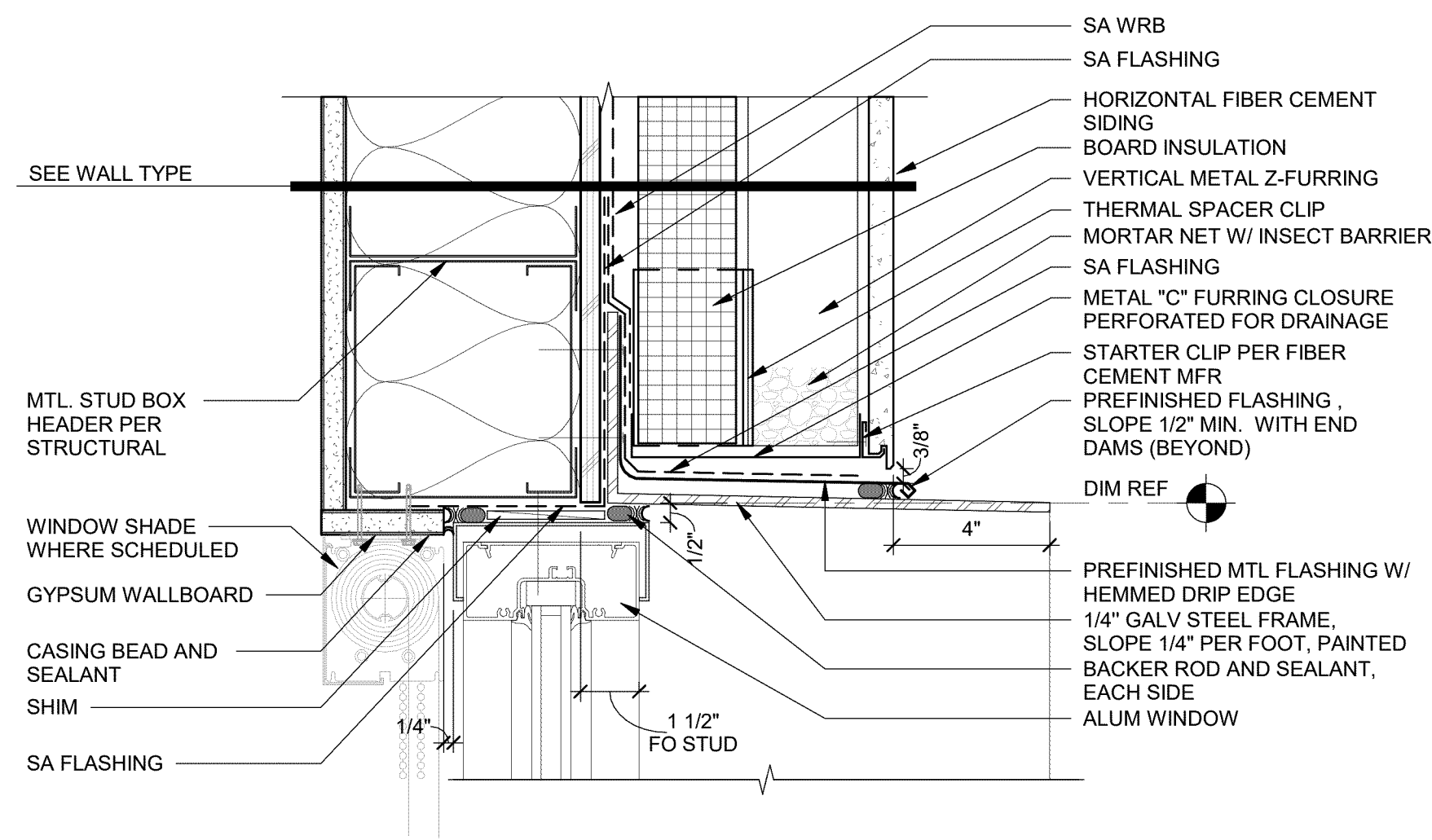


**7 HM DOOR HEAD @ BRICK**  
SCALE: 3" = 1'-0"

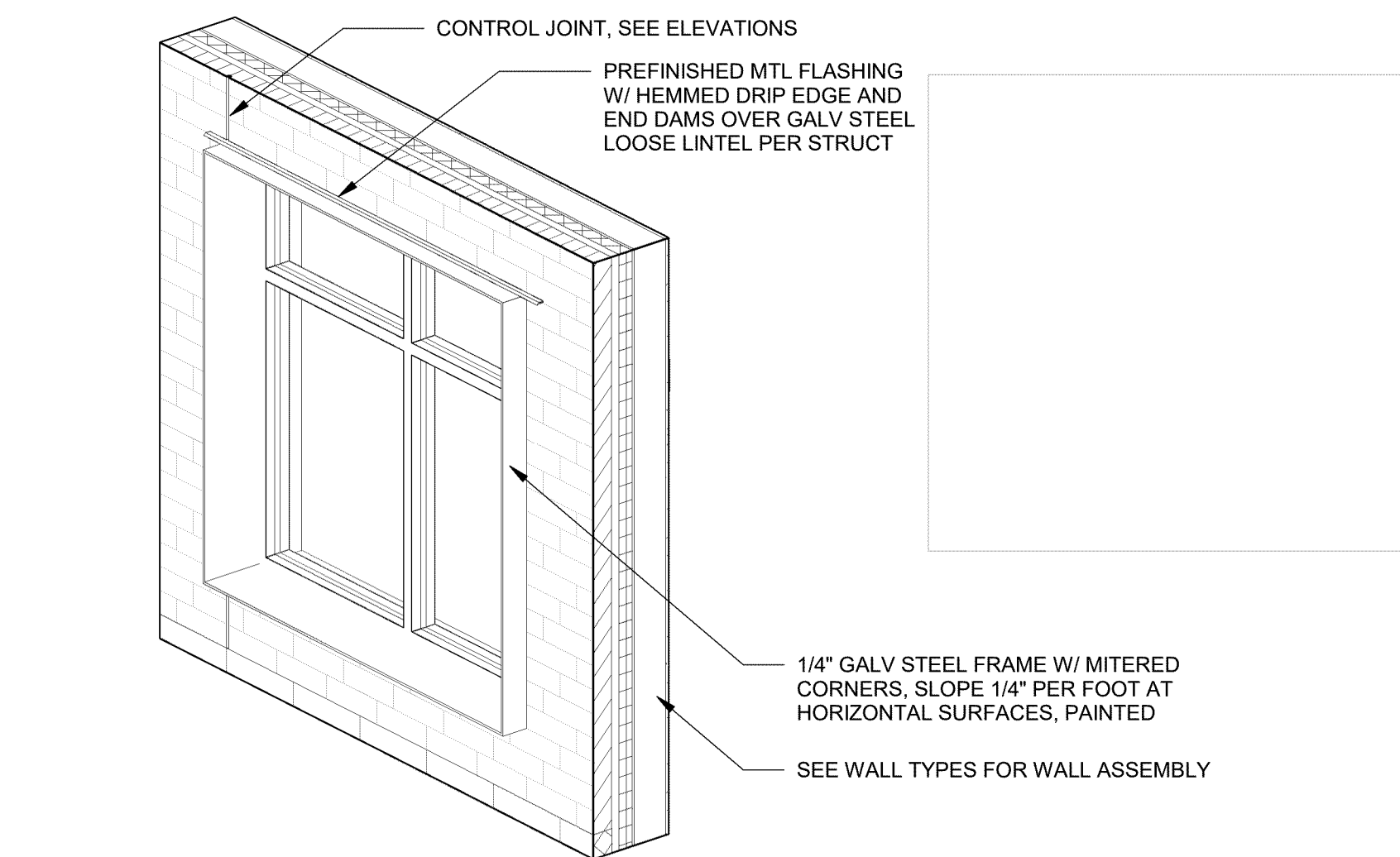




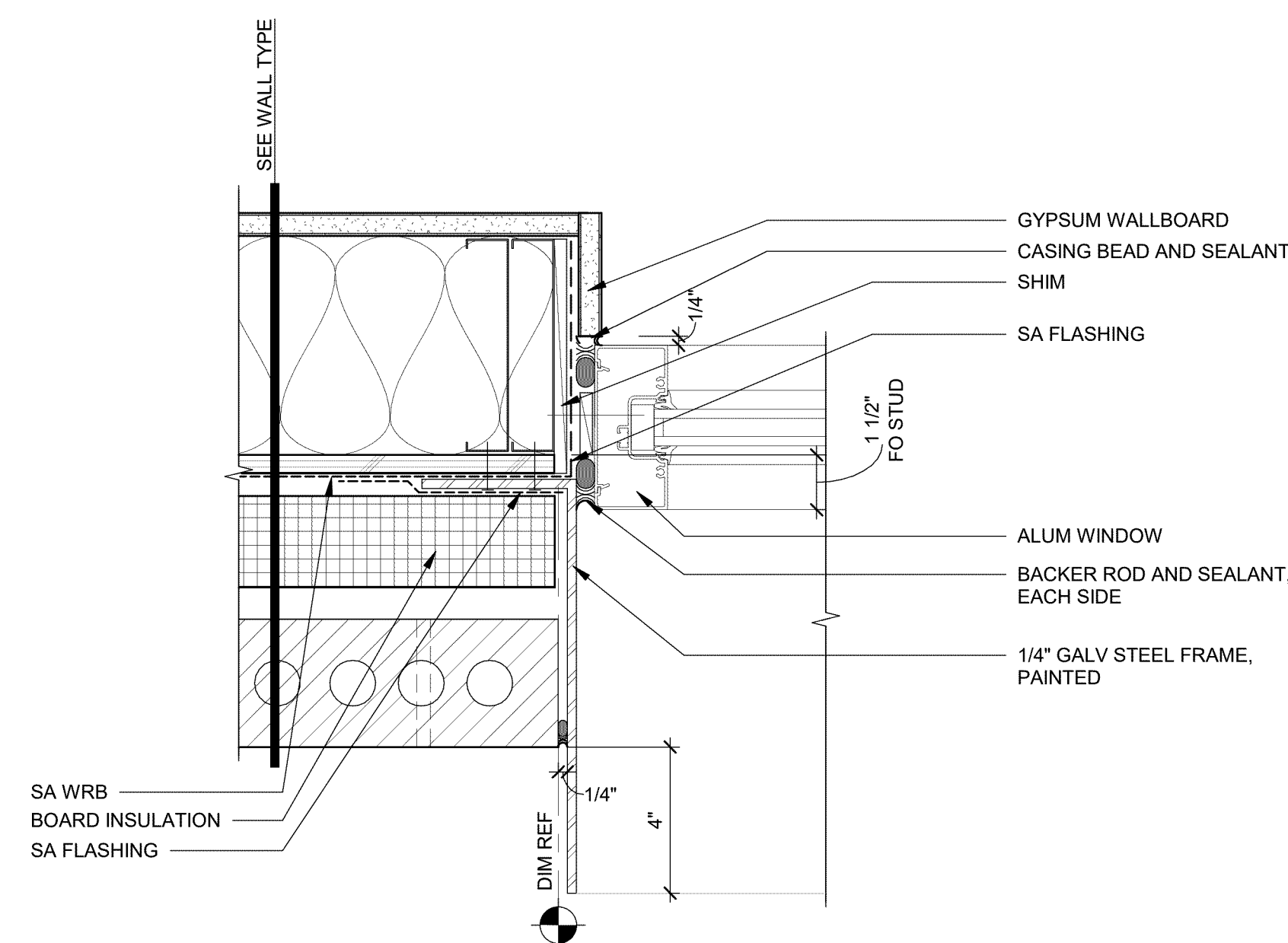
**1 STOREFRONT HEAD @ BRICK VENEER W/ FRAME**  
SCALE: 3" = 1'-0"



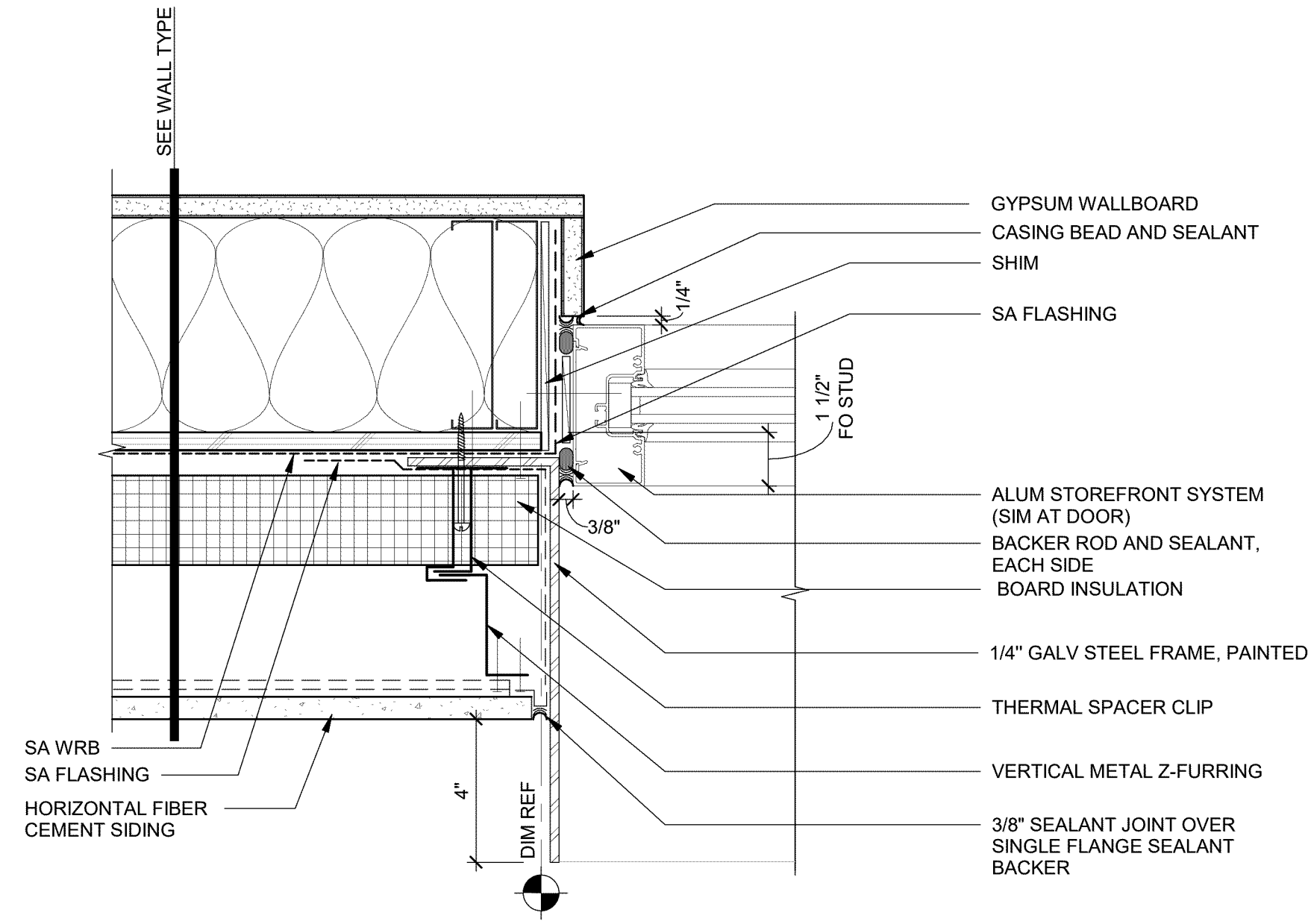
**2 STOREFRONT HEAD @ FC SIDING W/ FRAME**  
SCALE: 3" = 1'-0"



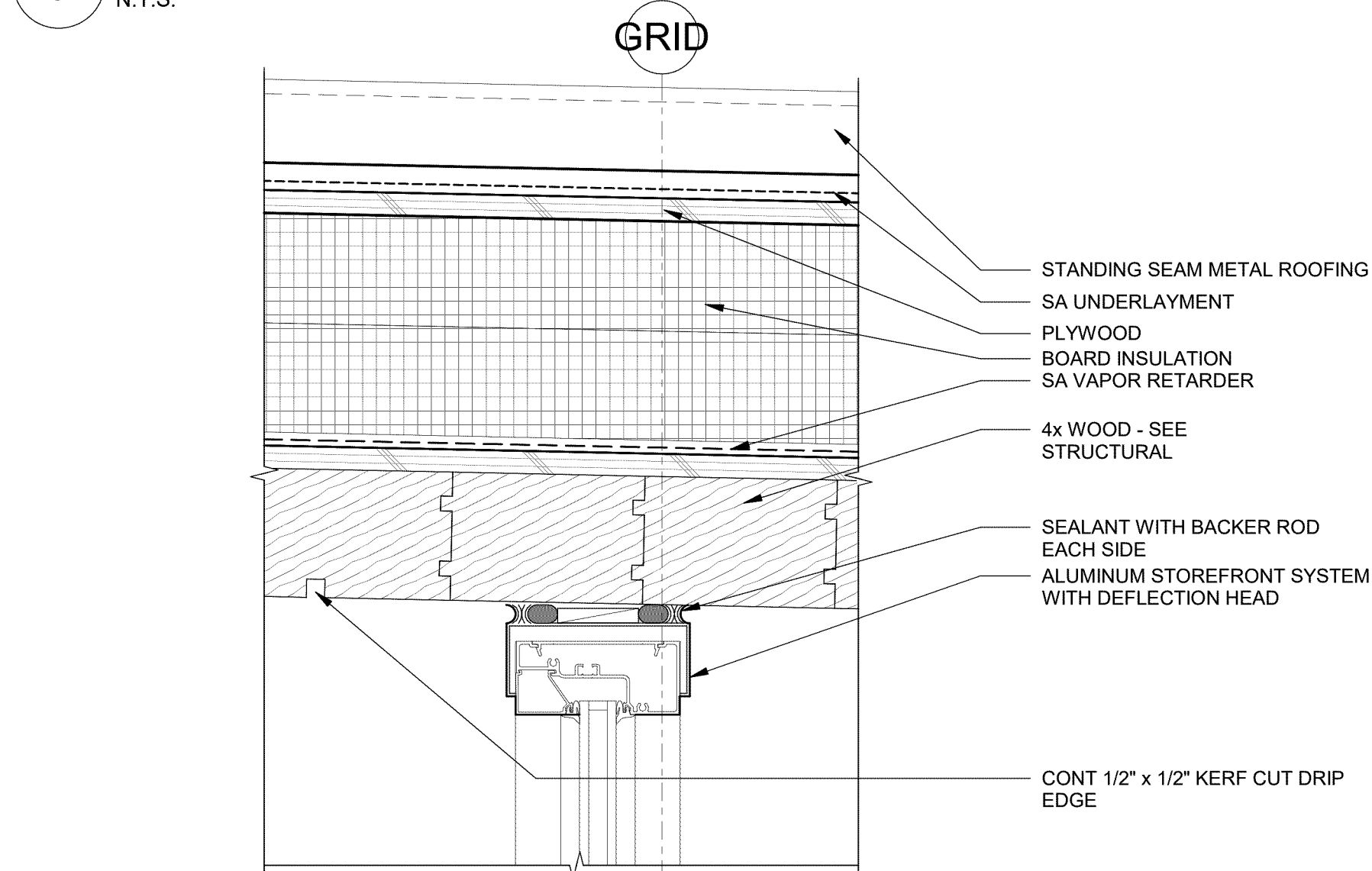
**9 WINDOW FRAME 3D VIEW**  
N.T.S.



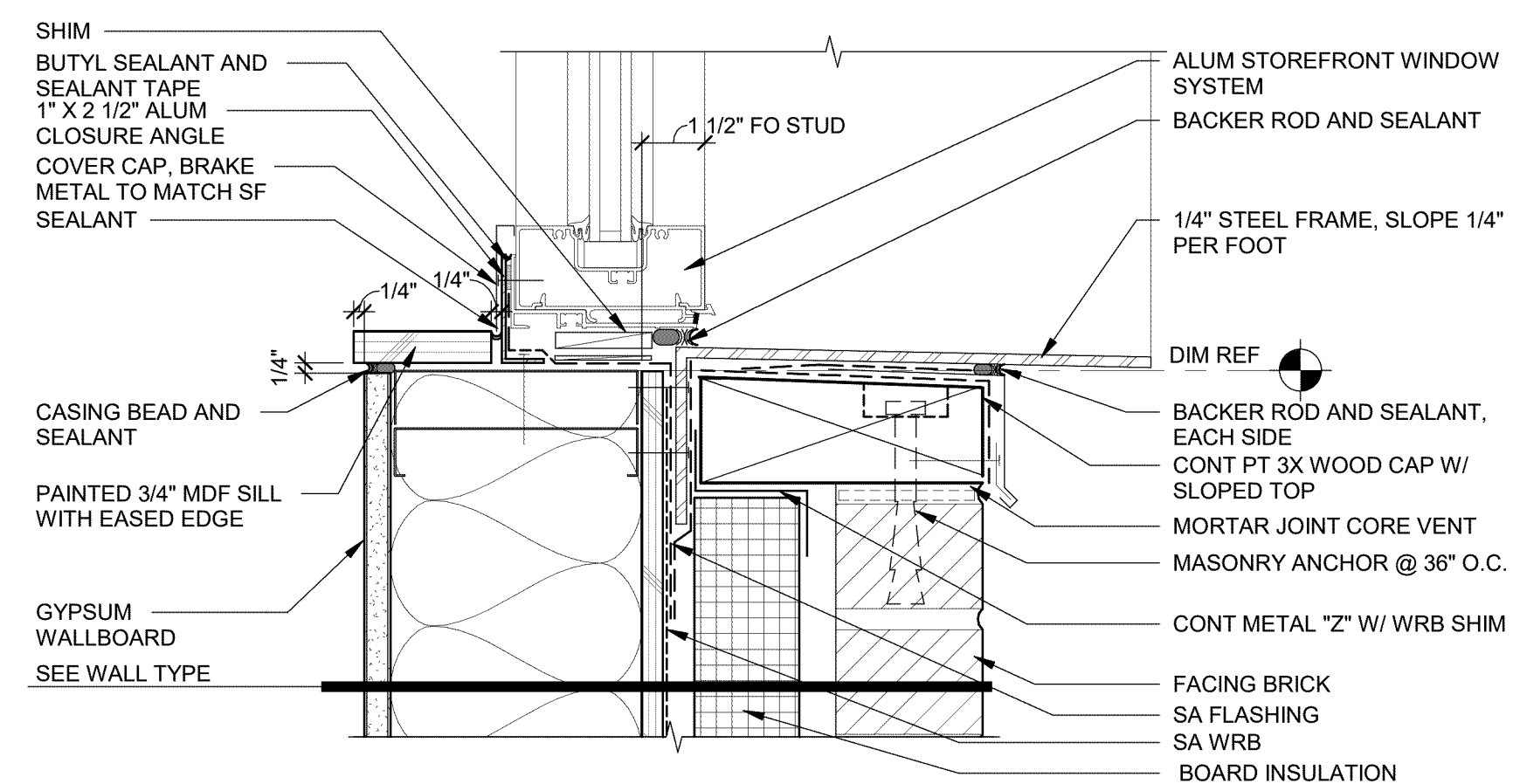
**3 STOREFRONT JAMB @ BRICK VENEER W/ FRAME**  
SCALE: 3" = 1'-0"



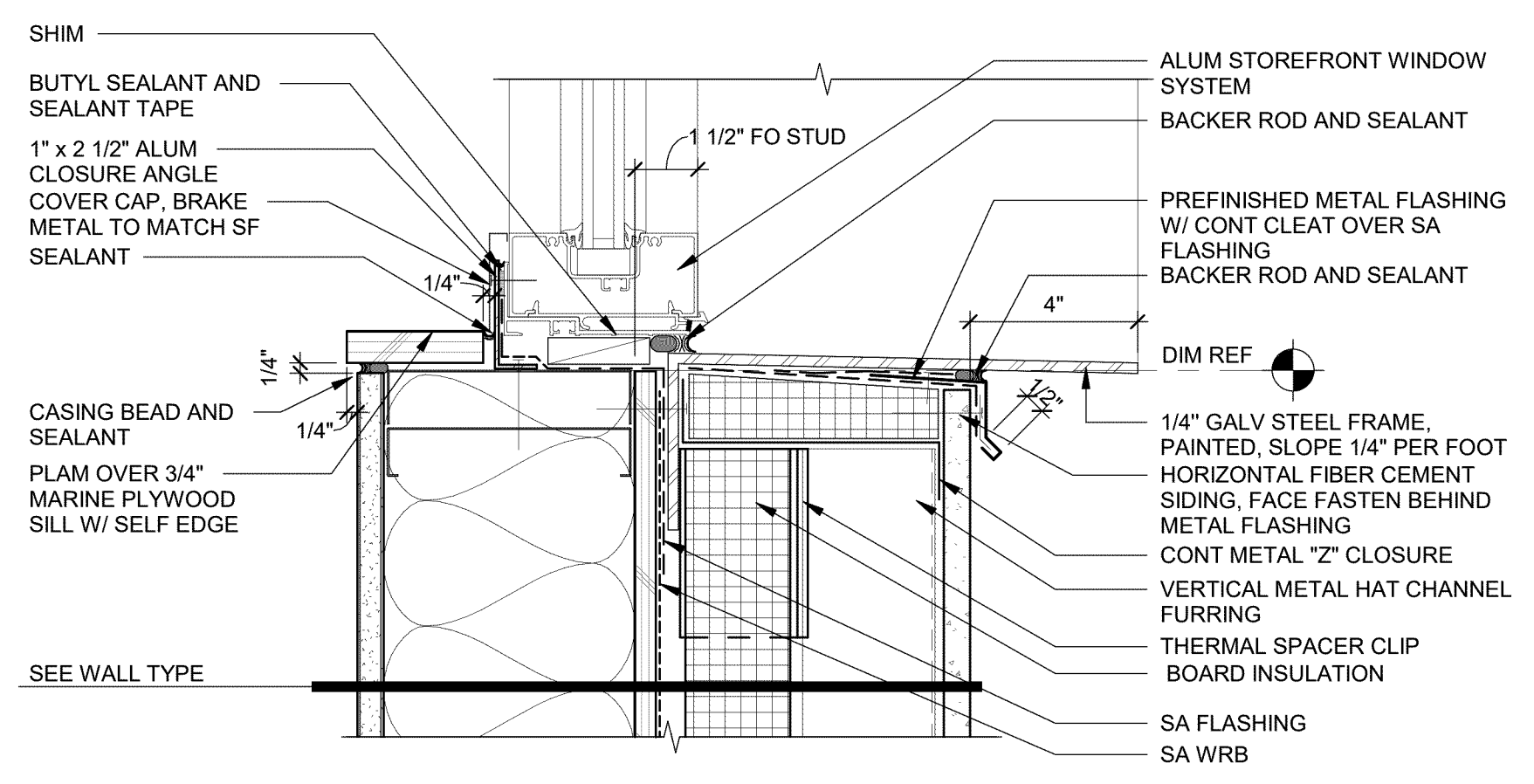
**4 STOREFRONT JAMB @ FC SIDING W/ FRAME**  
SCALE: 3" = 1'-0"



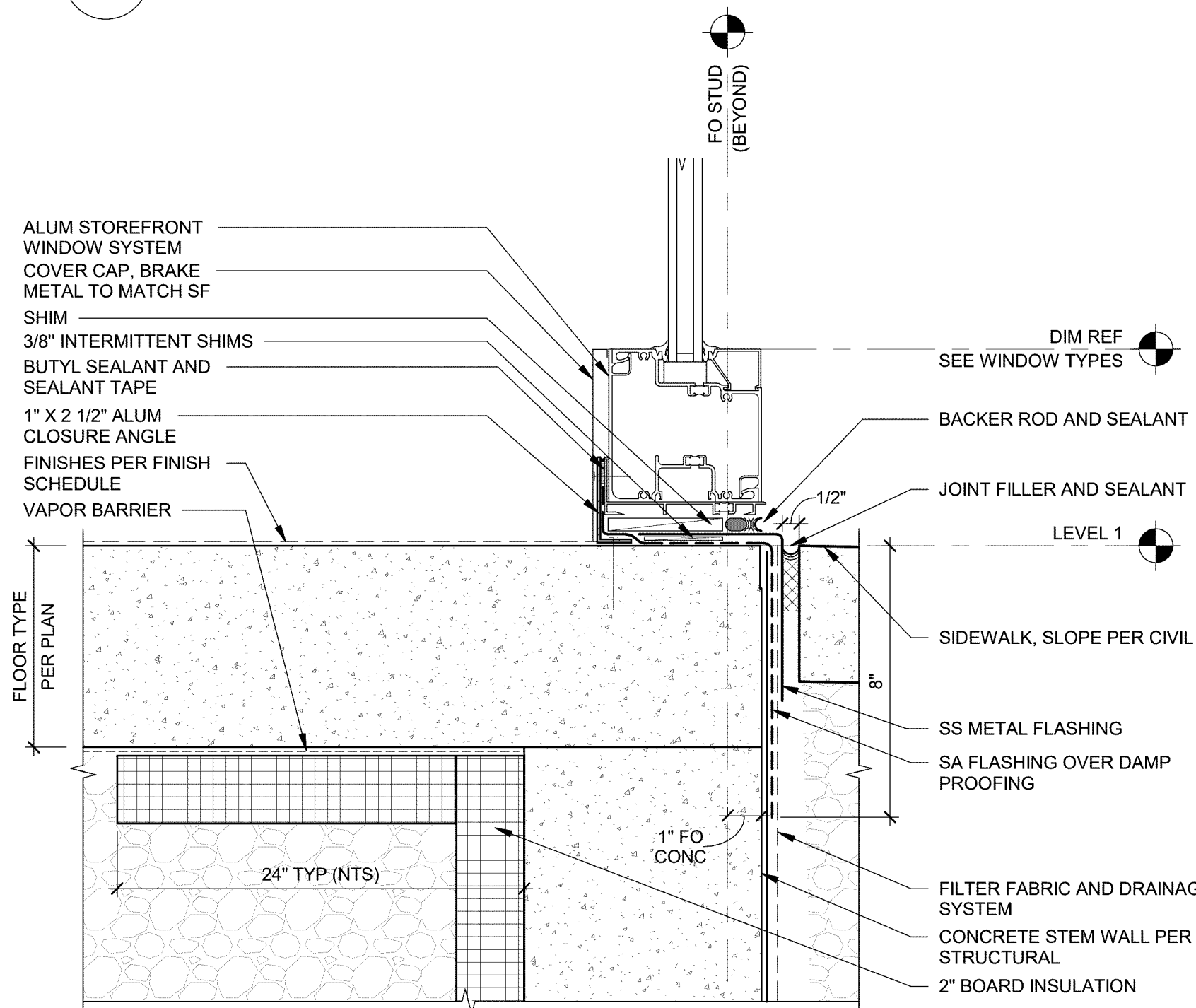
**5 STOREFRONT HEAD @ MAIN ENTRANCE**  
SCALE: 3" = 1'-0"



**6 STOREFRONT SILL @ BRICK VENEER W/ FRAME**  
SCALE: 3" = 1'-0"

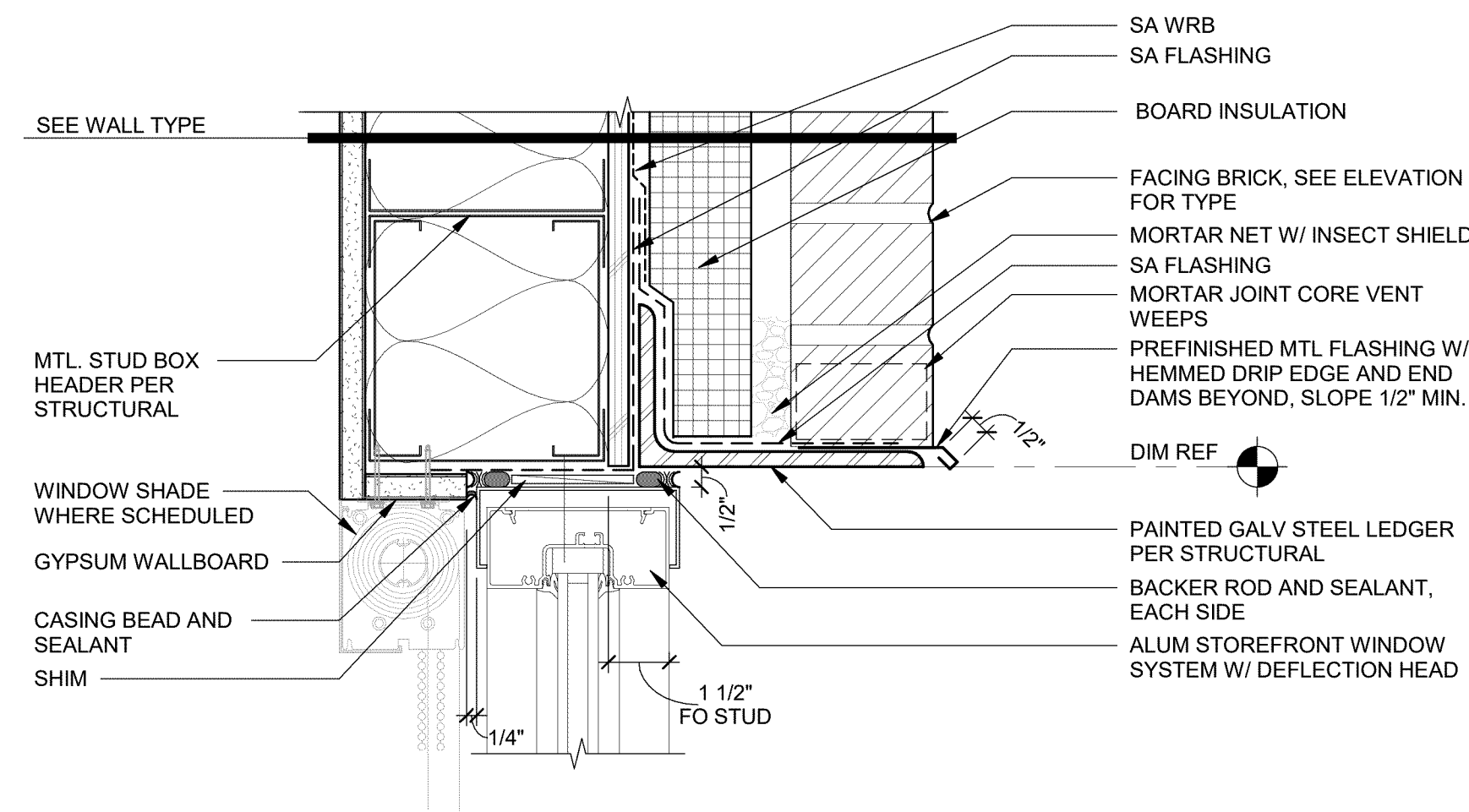


**7 STOREFRONT SILL @ FC SIDING W/ FRAME**  
SCALE: 3" = 1'-0"

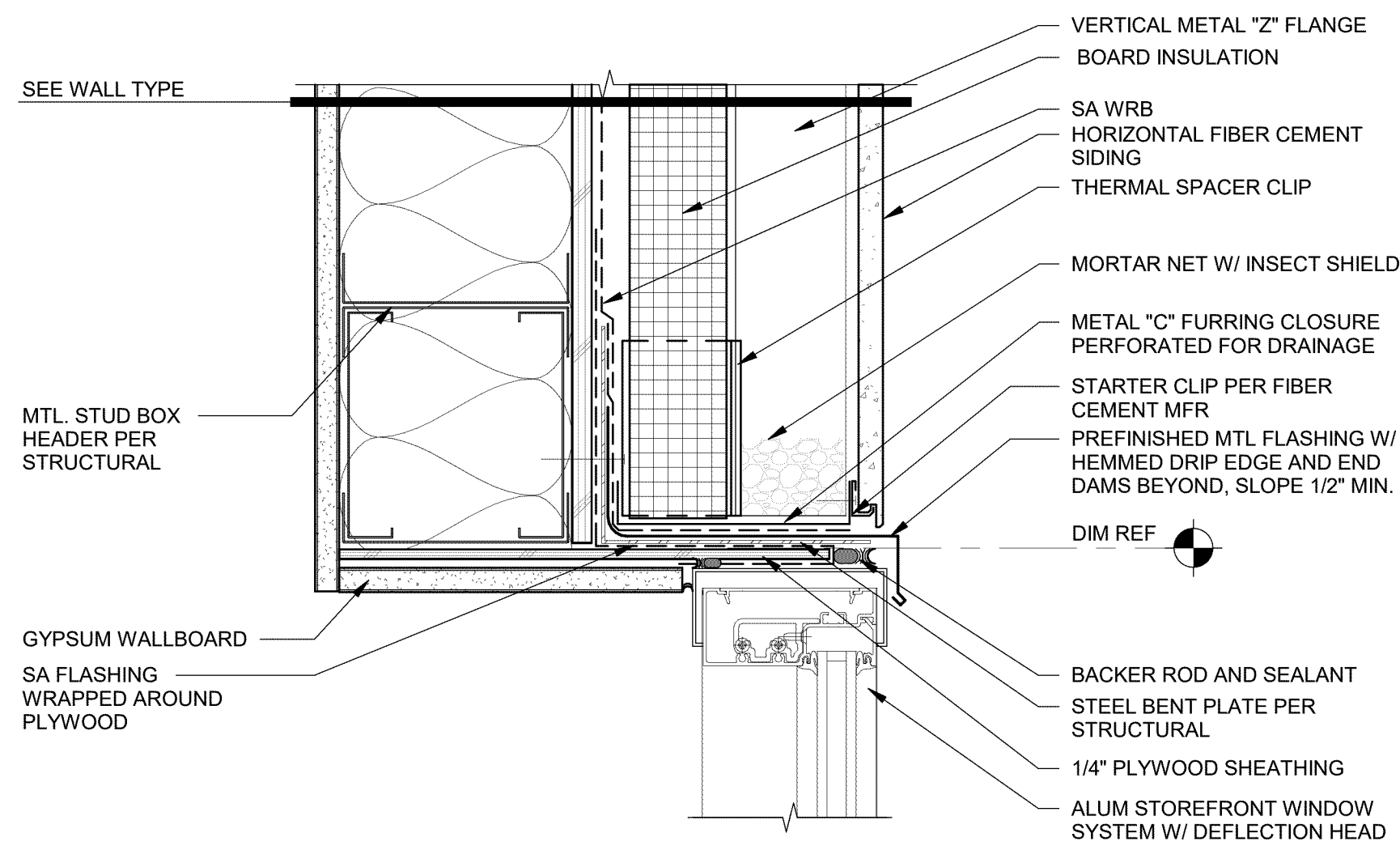


**8 STOREFRONT SILL @ FOUNDATION**  
SCALE: 3" = 1'-0"

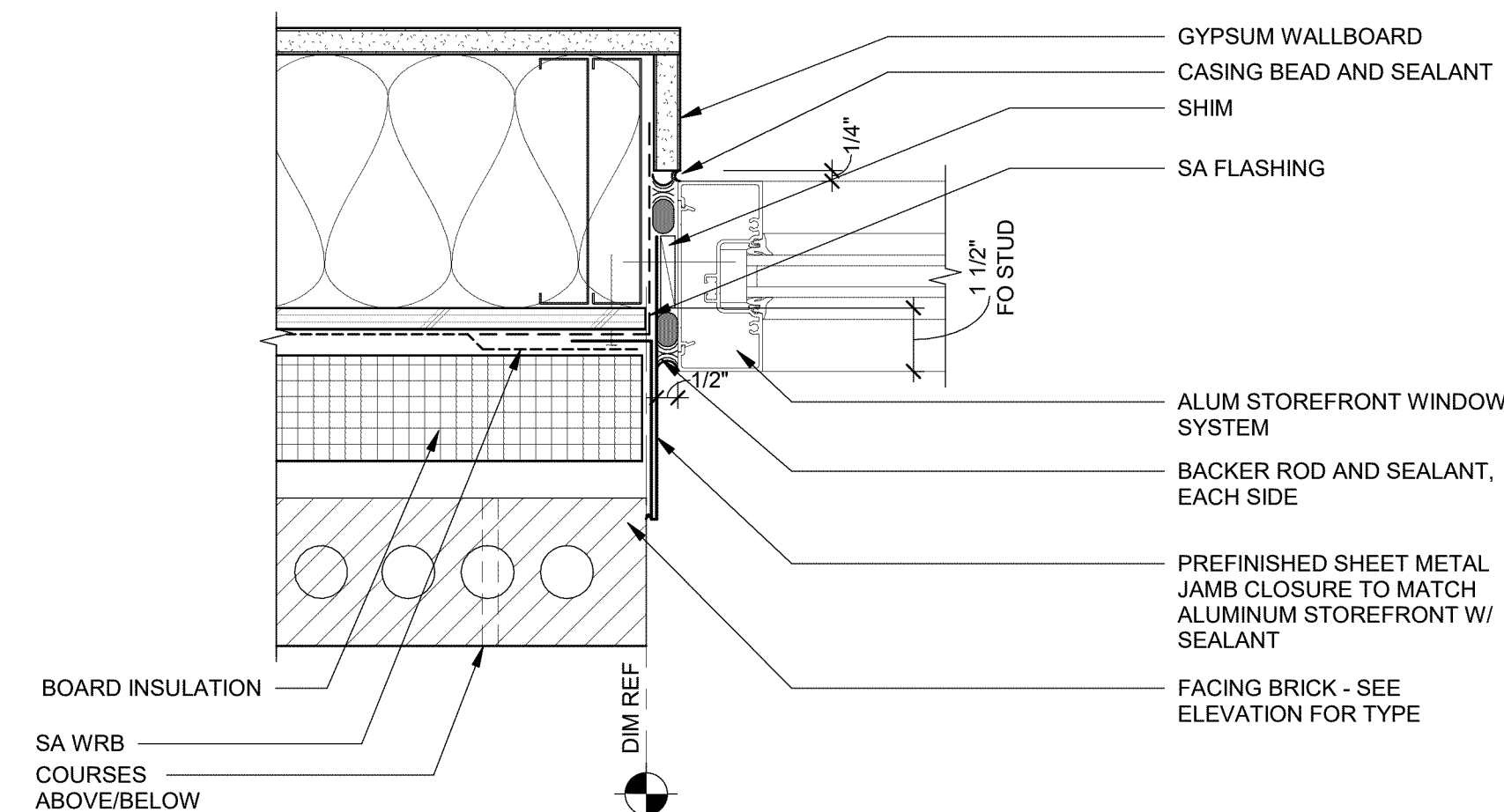
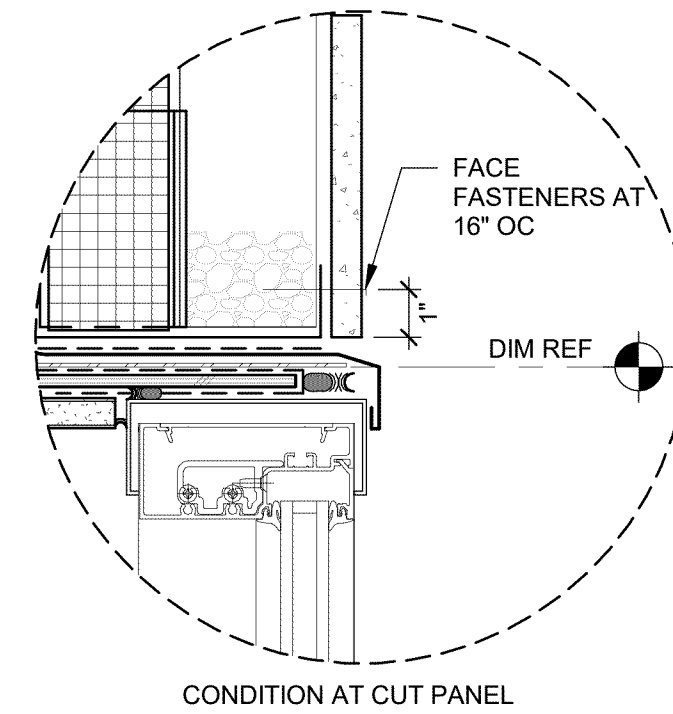




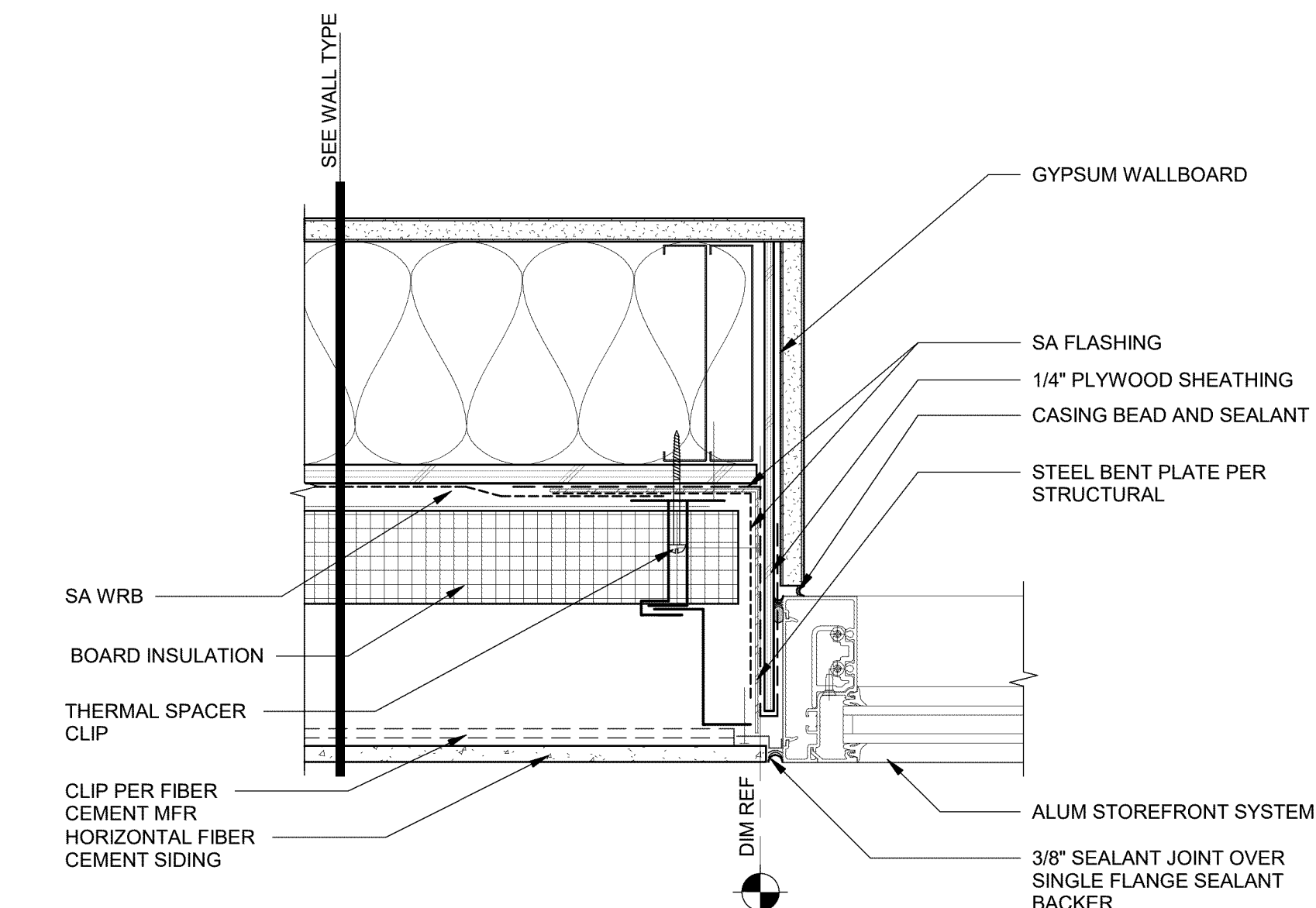
1 STOREFRONT HEAD @ BRICK VENEER  
SCALE: 3" = 1'-0"



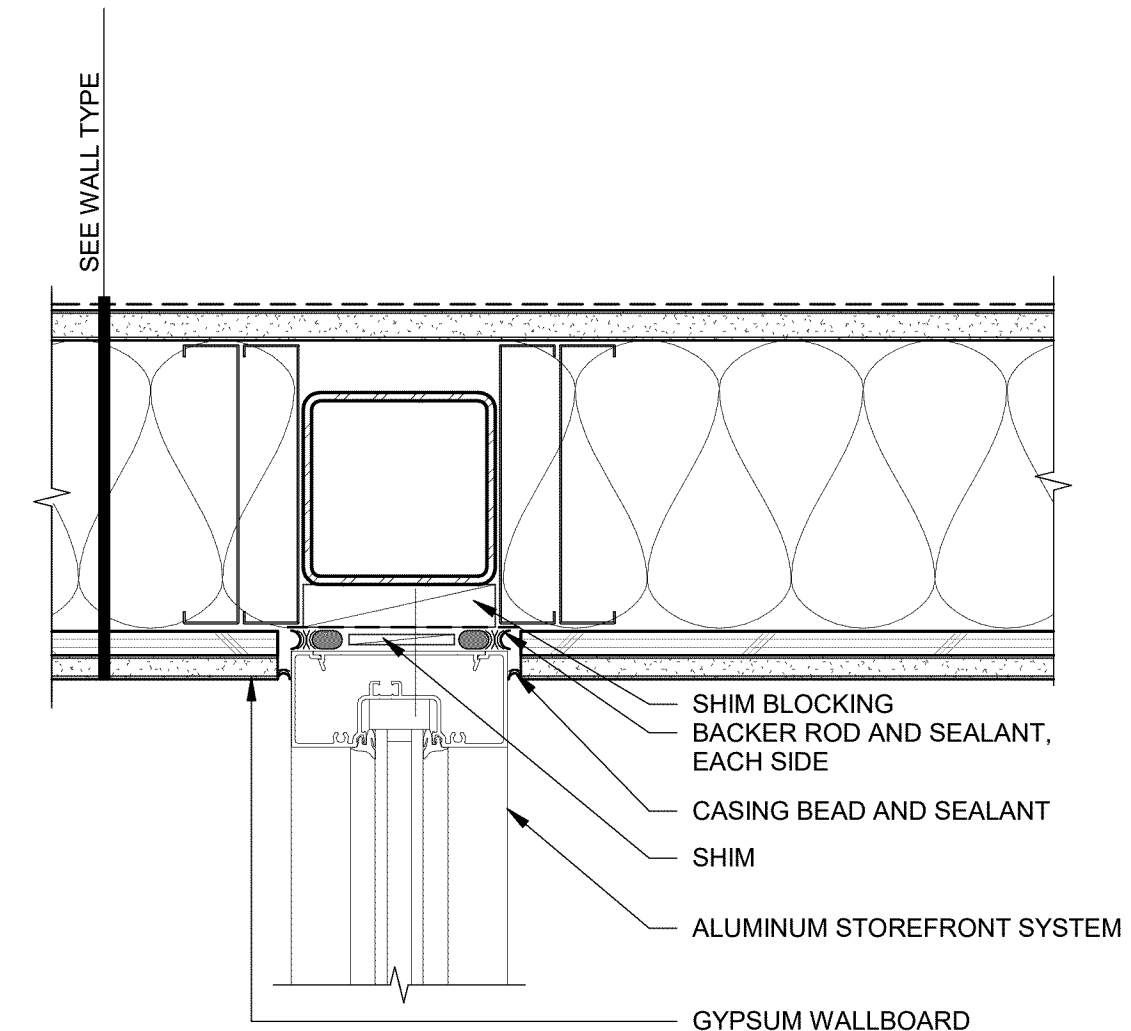
2 STOREFRONT HEAD @ FC SIDING  
SCALE: 3" = 1'-0"



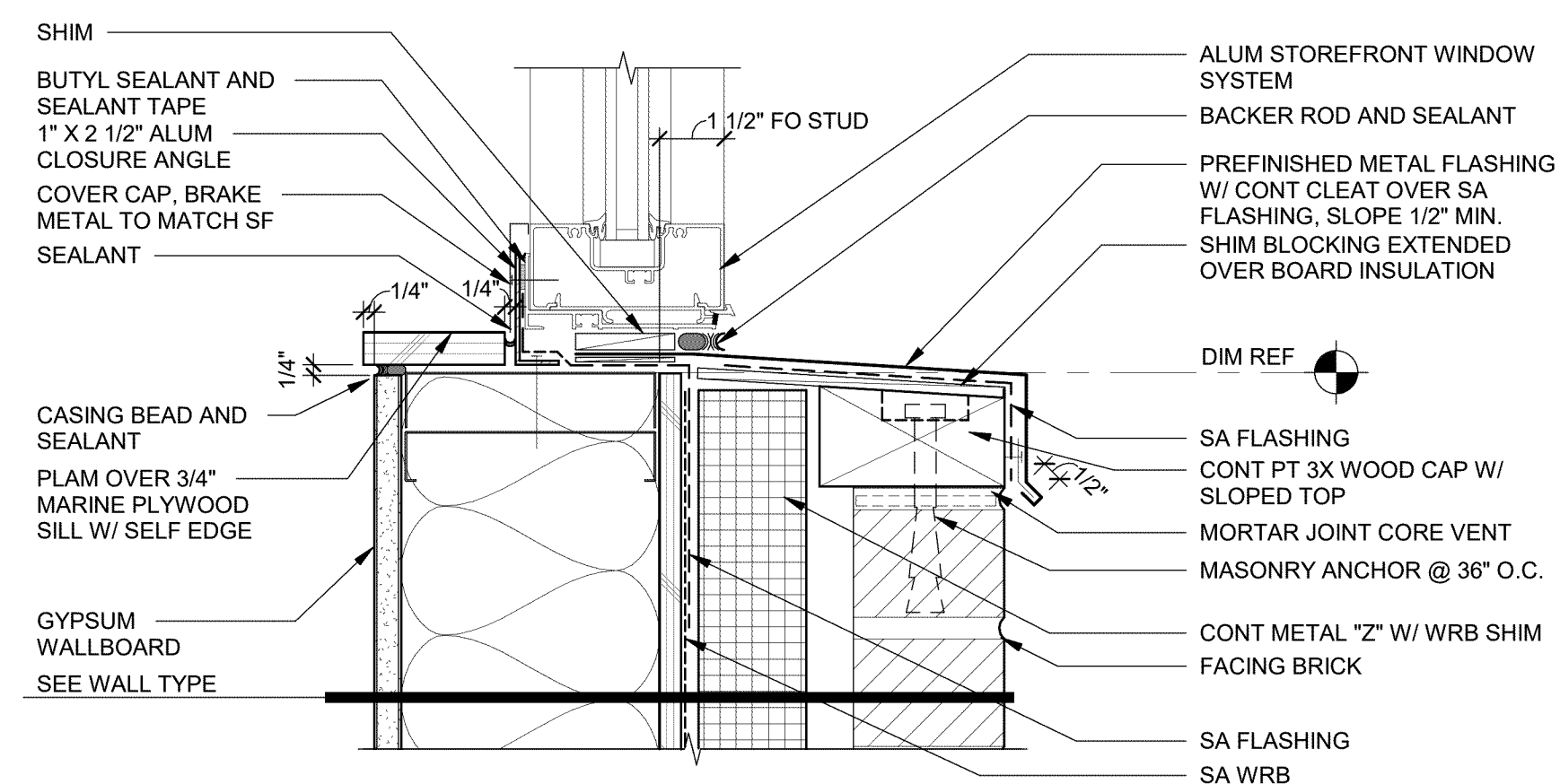
3 STOREFRONT JAMB @ BRICK VENEER  
SCALE: 3" = 1'-0"



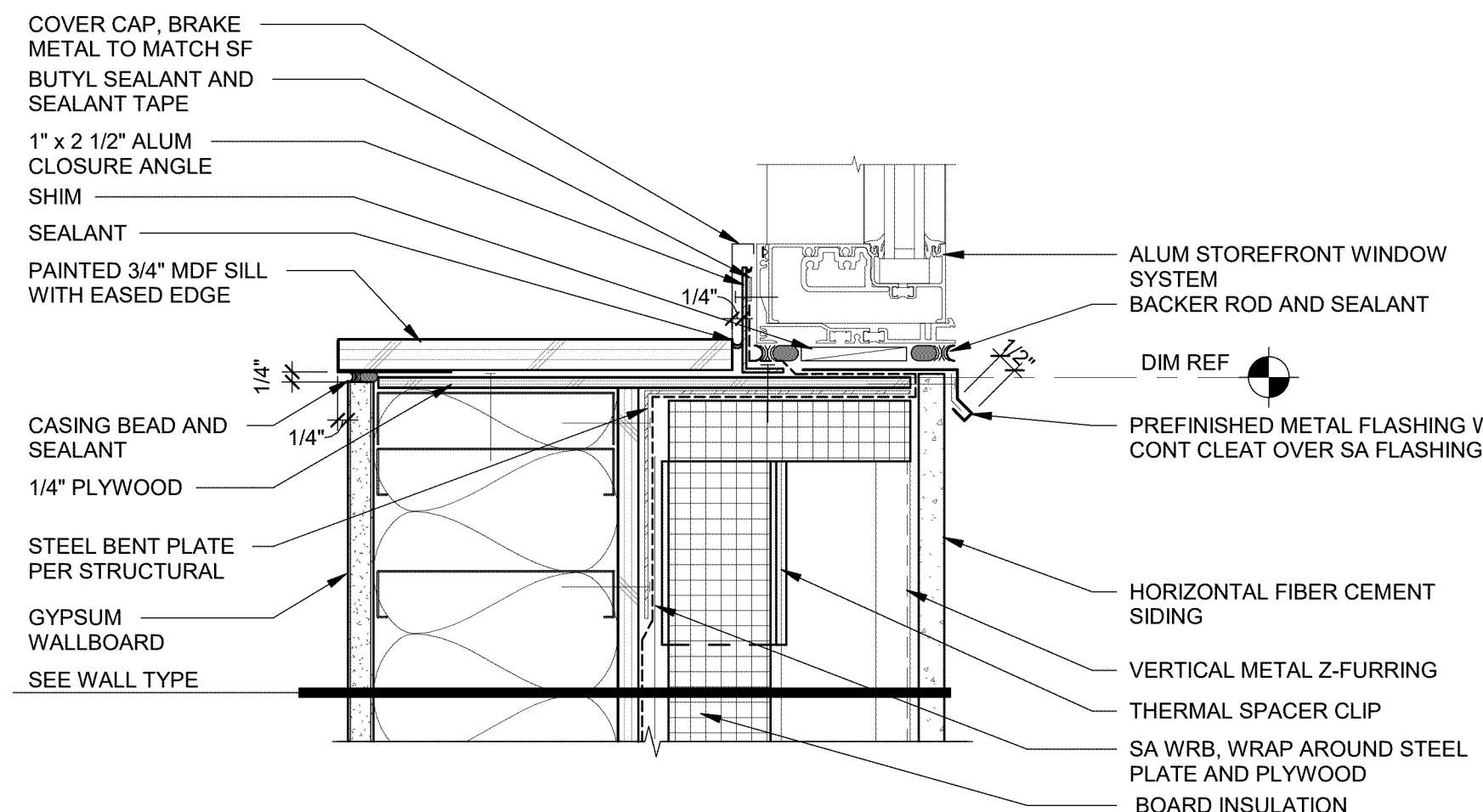
4 STOREFRONT JAMB @ FC SIDING  
SCALE: 3" = 1'-0"



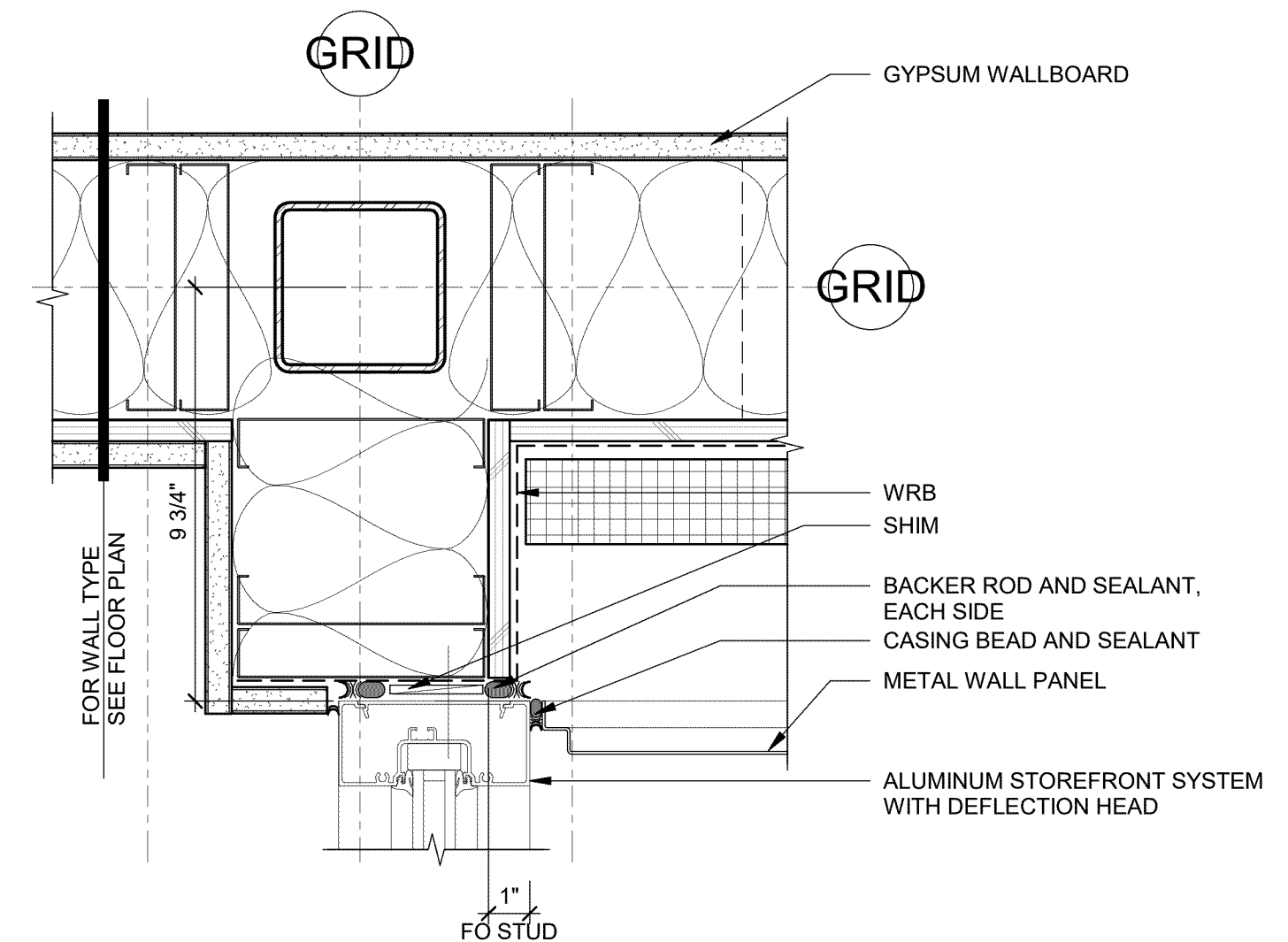
5 STOREFRONT JAMB AT ENTRY  
SCALE: 3" = 1'-0"



6 STOREFRONT SILL @ BRICK VENEER  
SCALE: 3" = 1'-0"

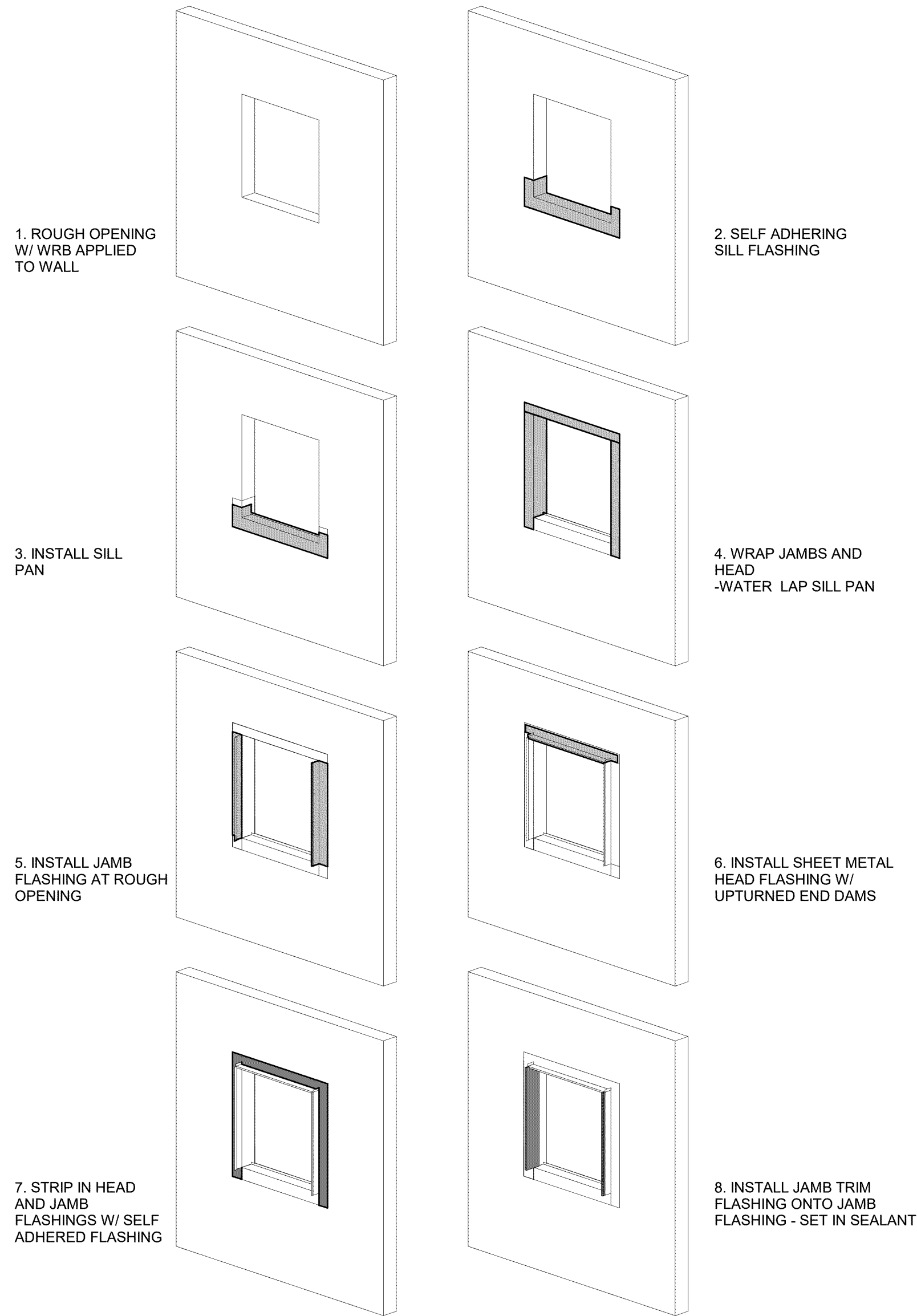


7 STOREFRONT SILL @ FC SIDING  
SCALE: 3" = 1'-0"

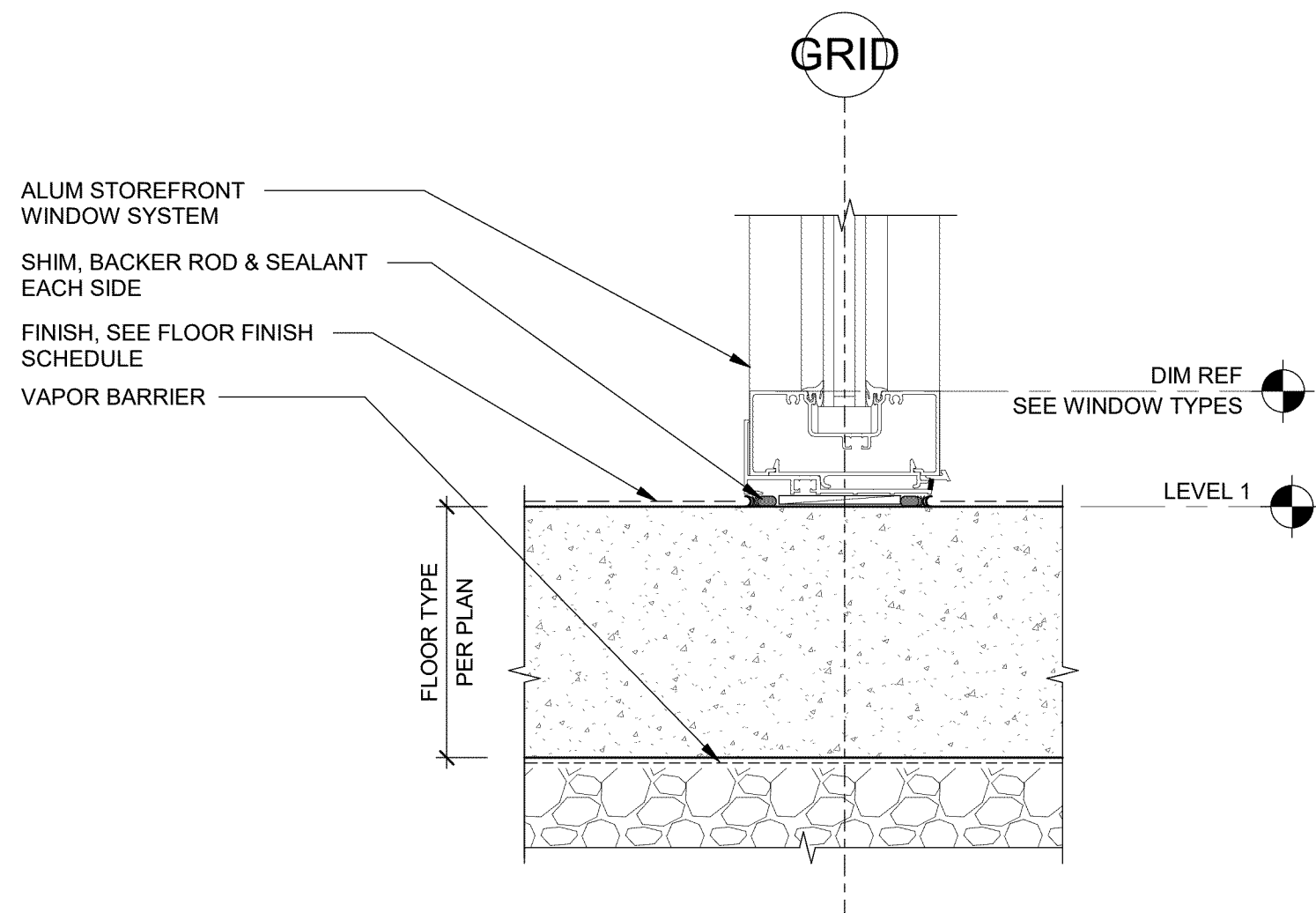


8 STOREFRONT JAMB @ METAL PANEL  
SCALE: 3" = 1'-0"

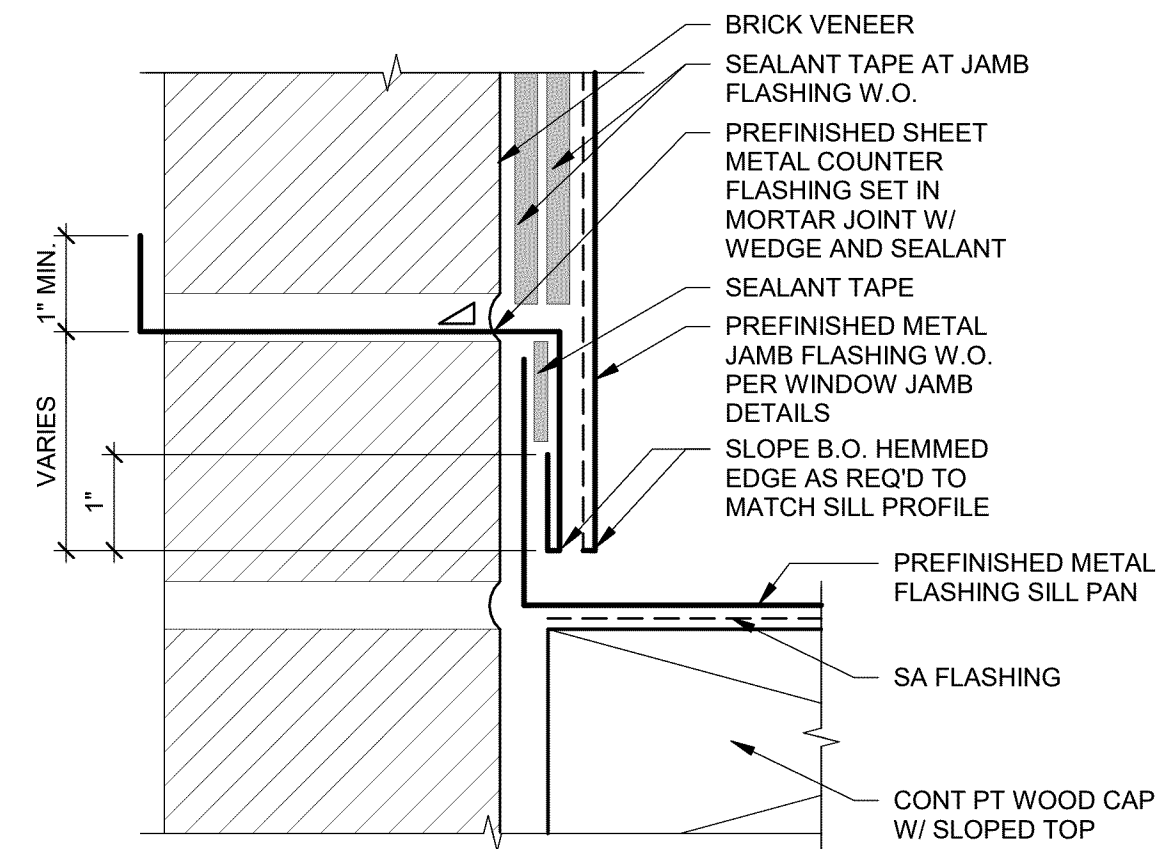




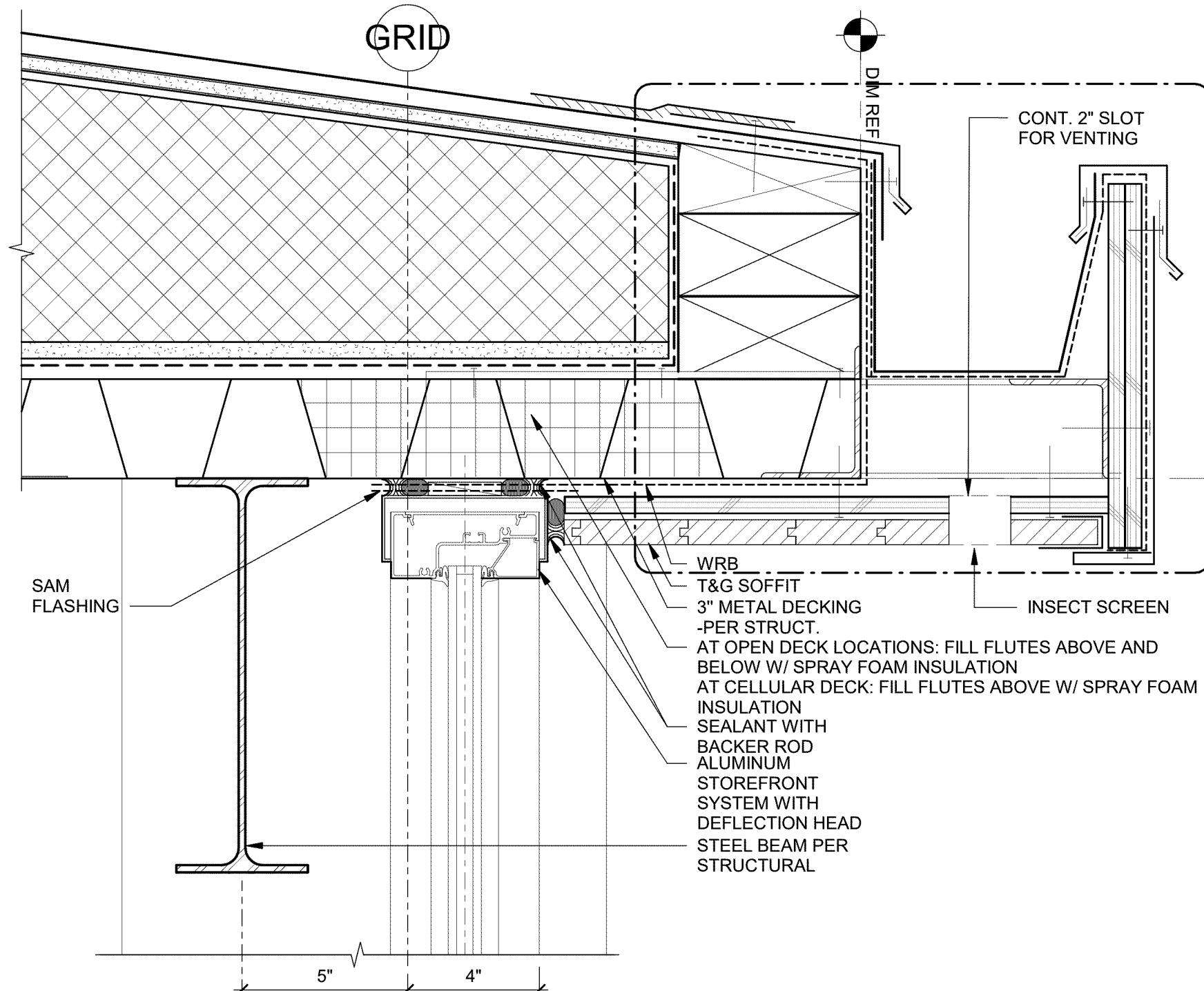
**1 WINDOW FLASHING SEQUENCE**  
N.T.S.



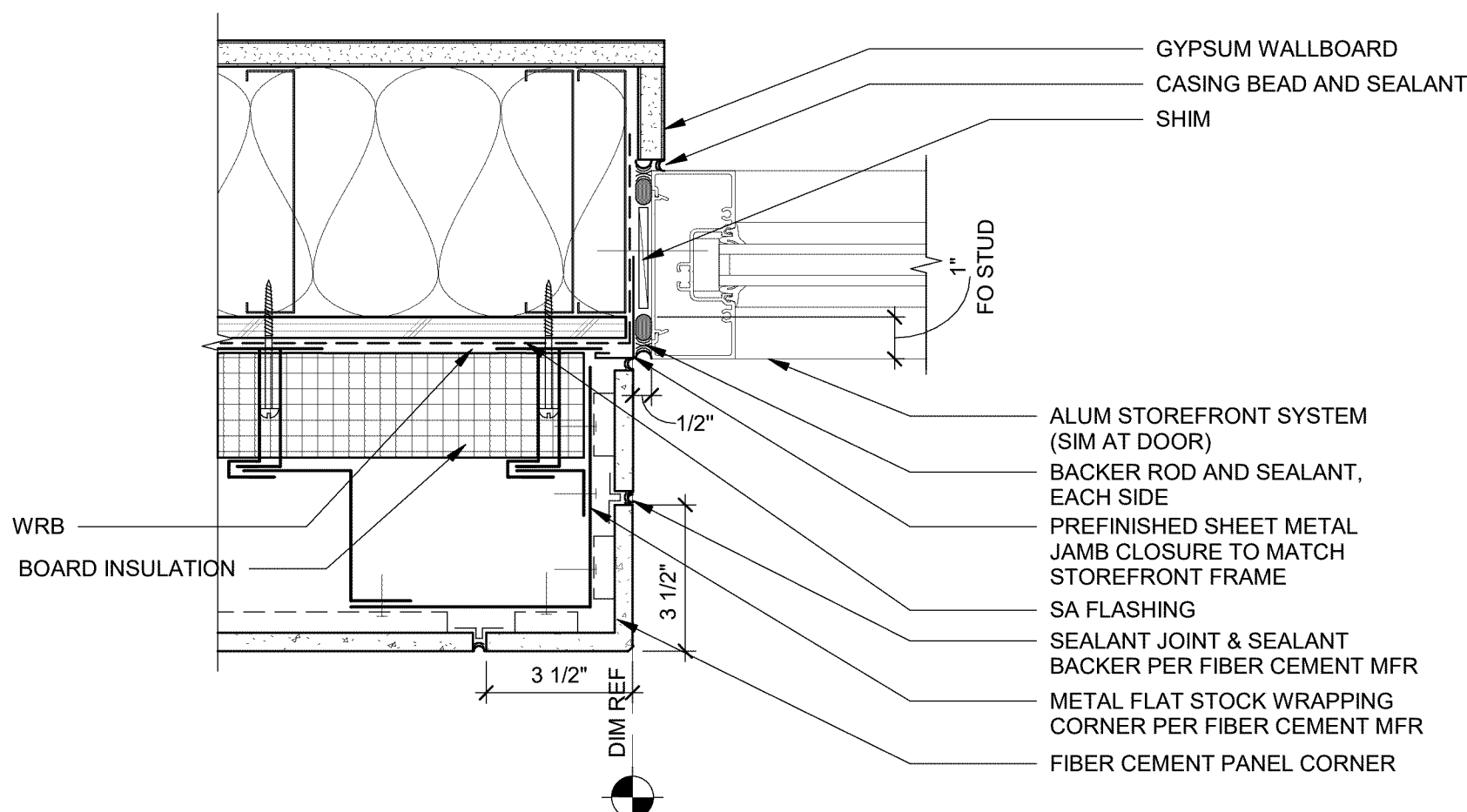
**5 STOREFRONT SILL @ LEVEL 1**  
SCALE: 3" = 1'-0"



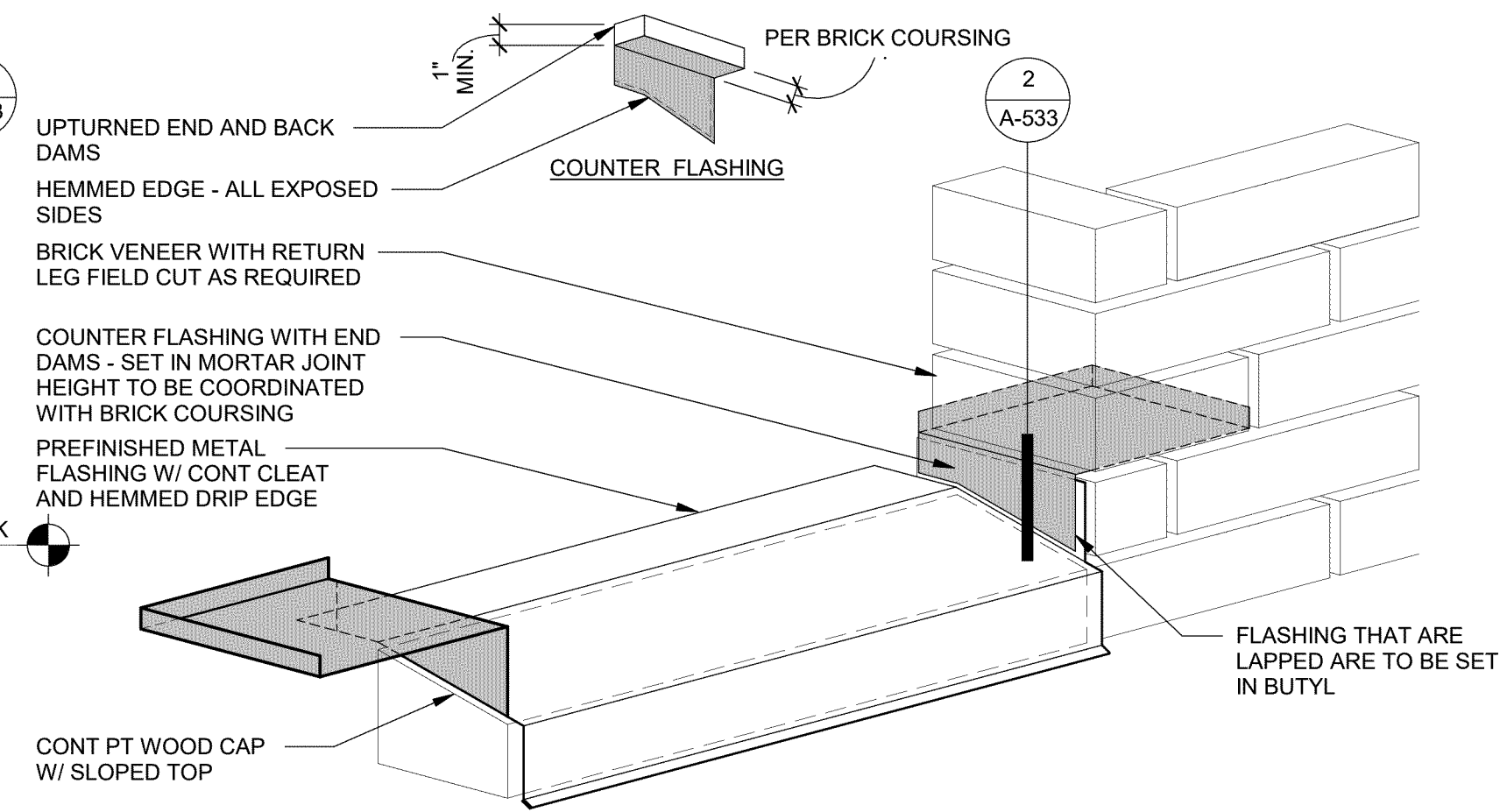
**2 COUNTER FLASHING @ WINDOW SILL PAN**  
SCALE: 6" = 1'-0"



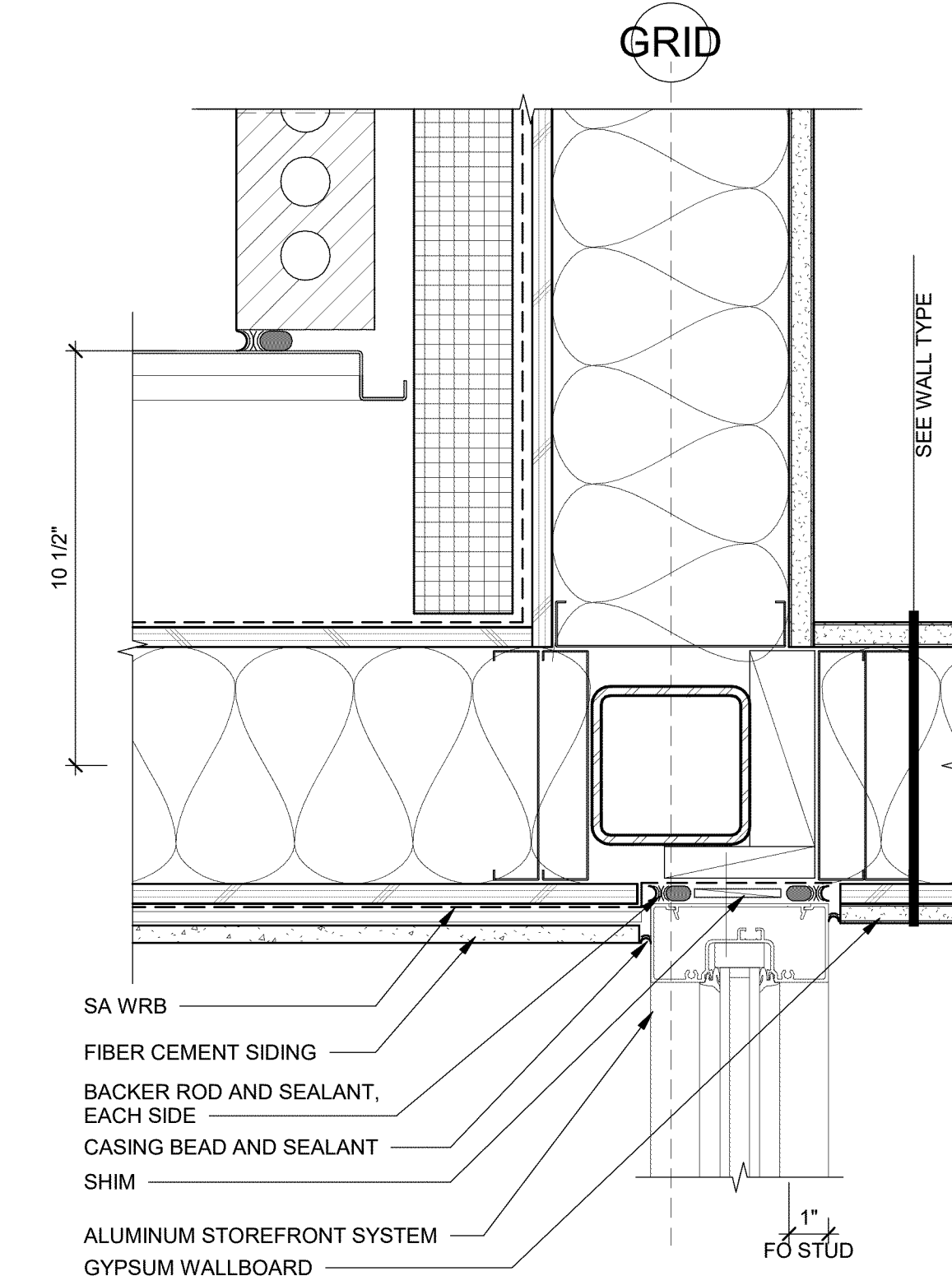
**3 STOREFRONT HEAD @ MEMBRANE ROOF EAVE**  
SCALE: 3" = 1'-0"



**6 STOREFRONT JAMB @ FC SIDING**  
SCALE: 3" = 1'-0"



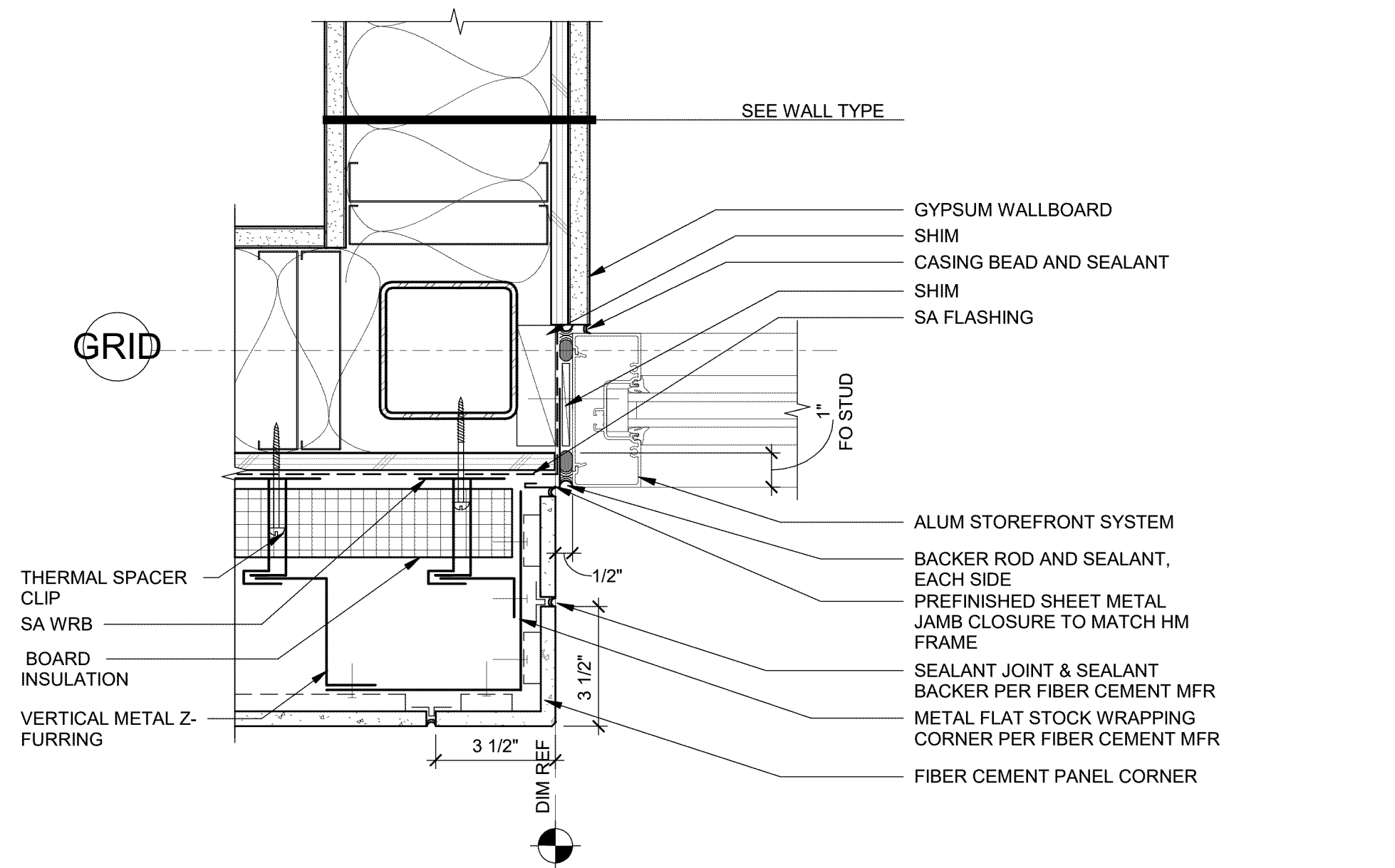
**4 WINDOW SILL PAN 3D DIAGRAM**  
SCALE: 1 1/2" = 1'-0"



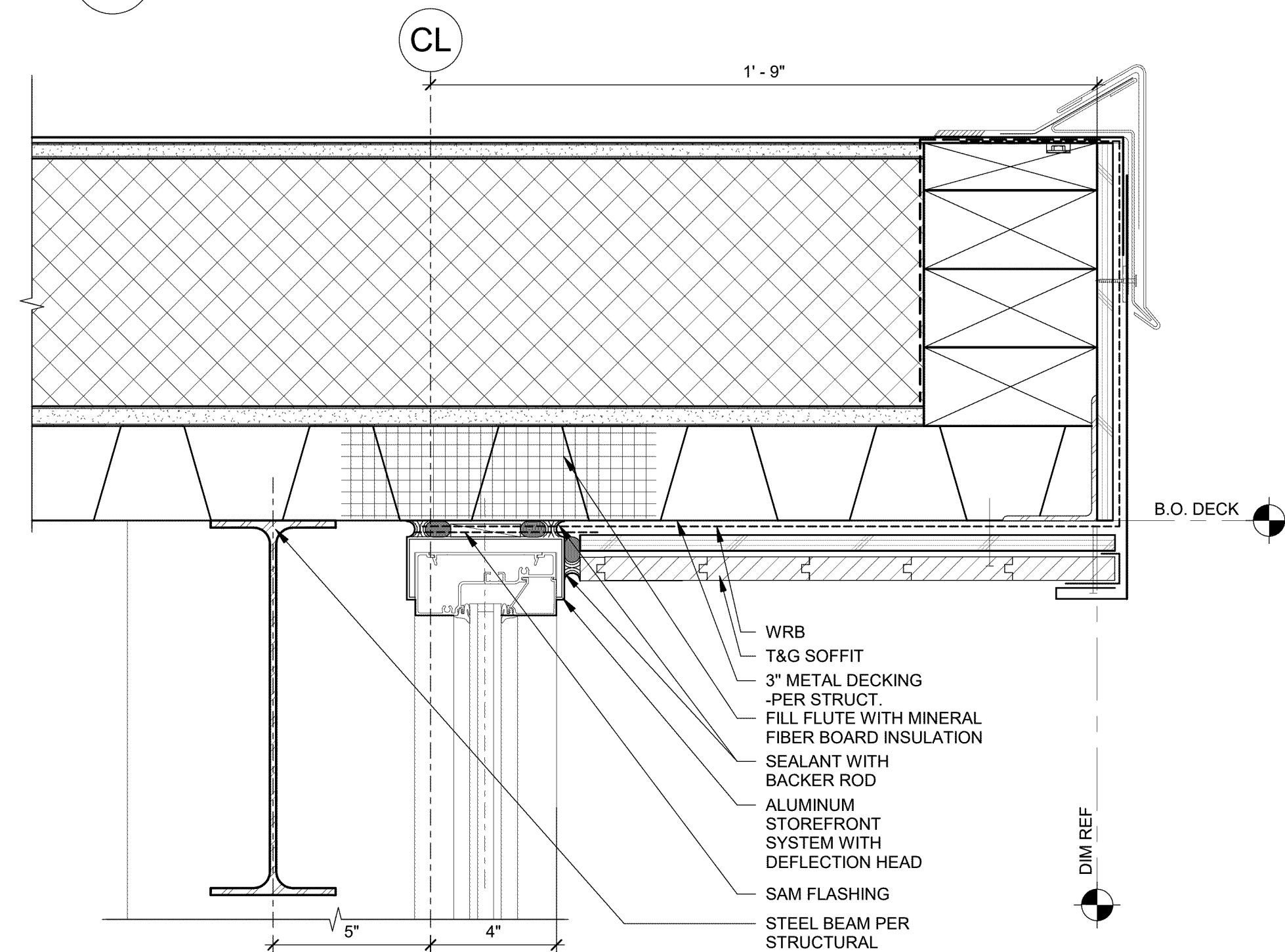
**7 STOREFRONT JAMB @ ENTRY**  
SCALE: 3" = 1'-0"



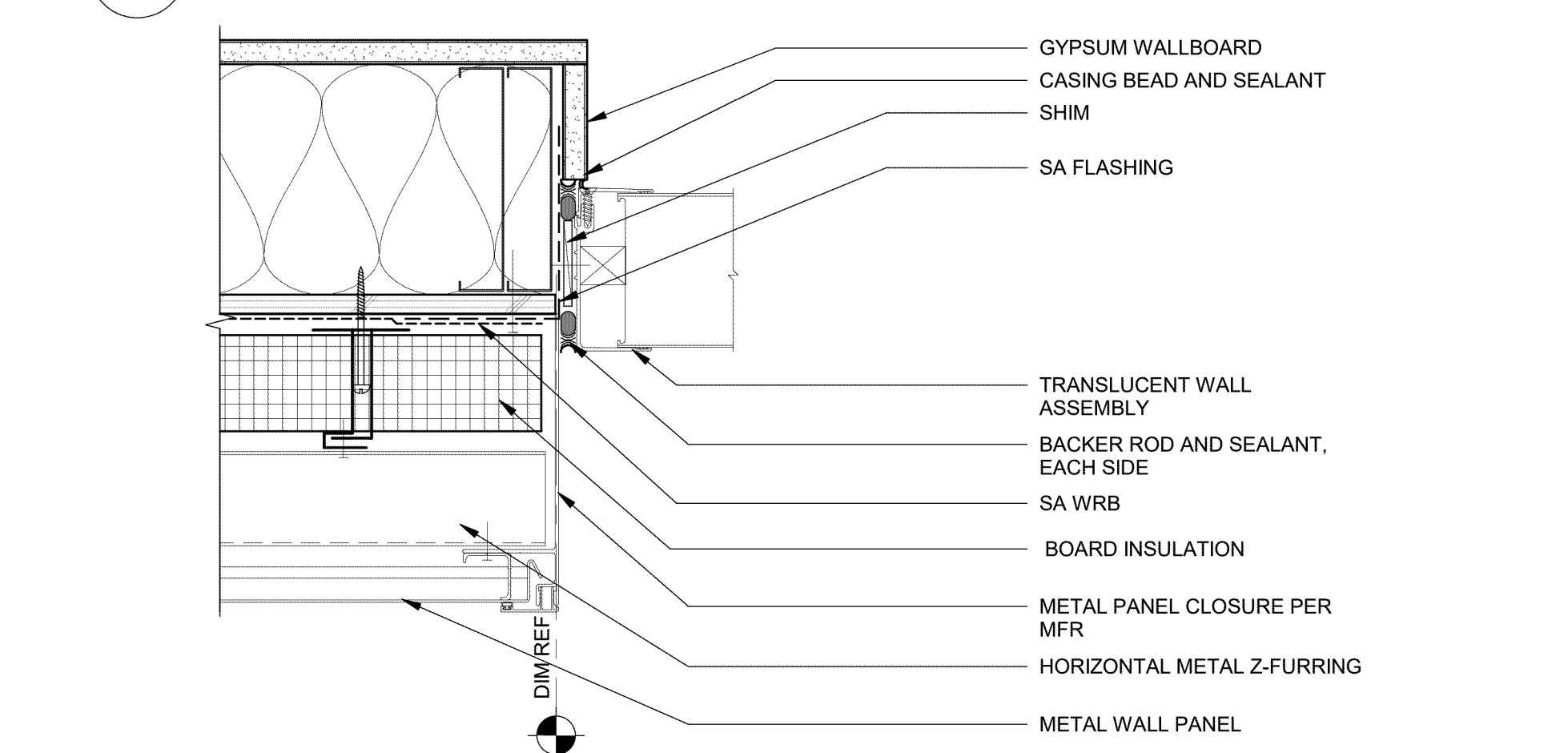
10/10/2019 1:49:37 PM



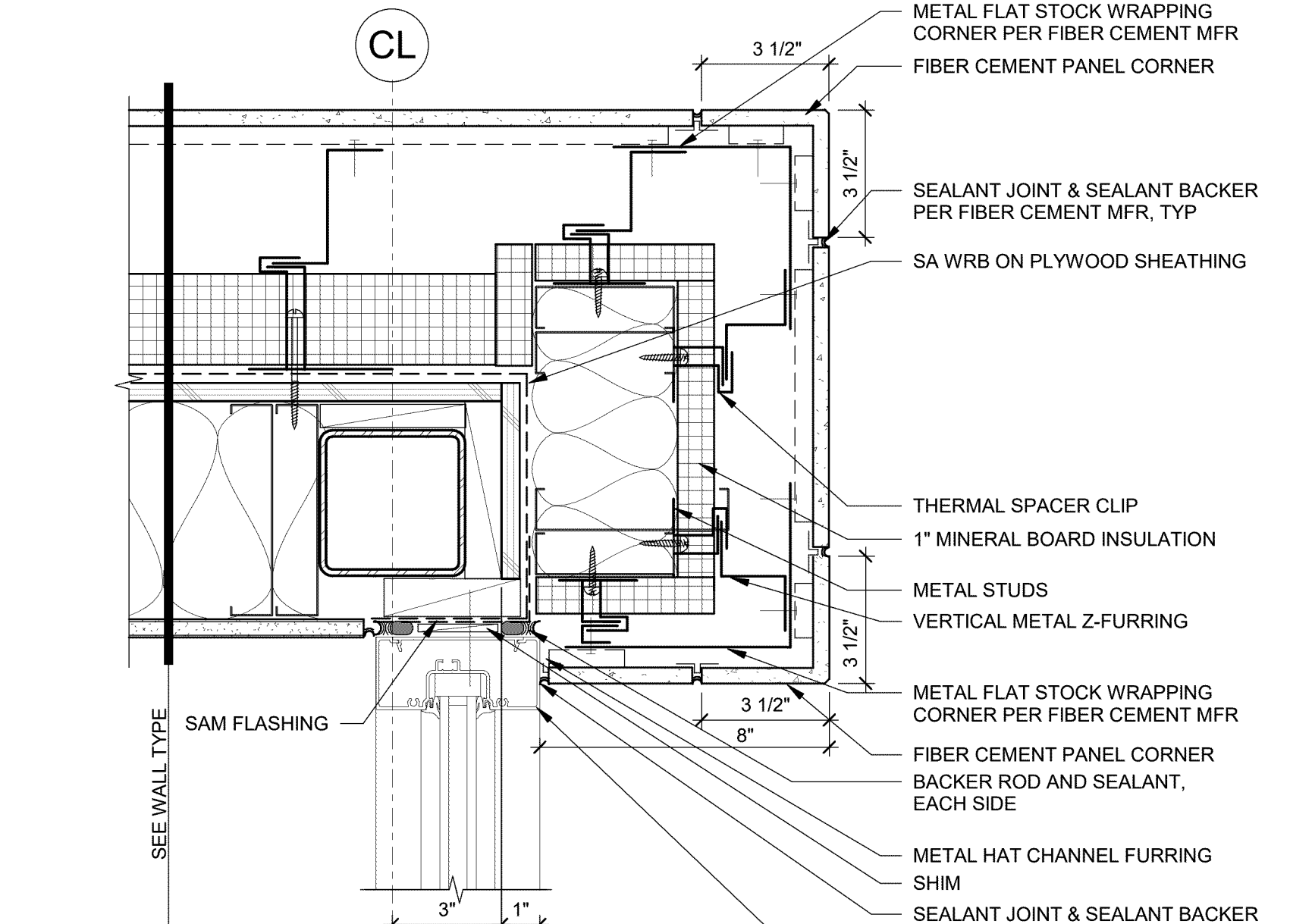
1 STOREFRONT JAMB @ FC SIDING 2  
SCALE: 3" = 1'-0"



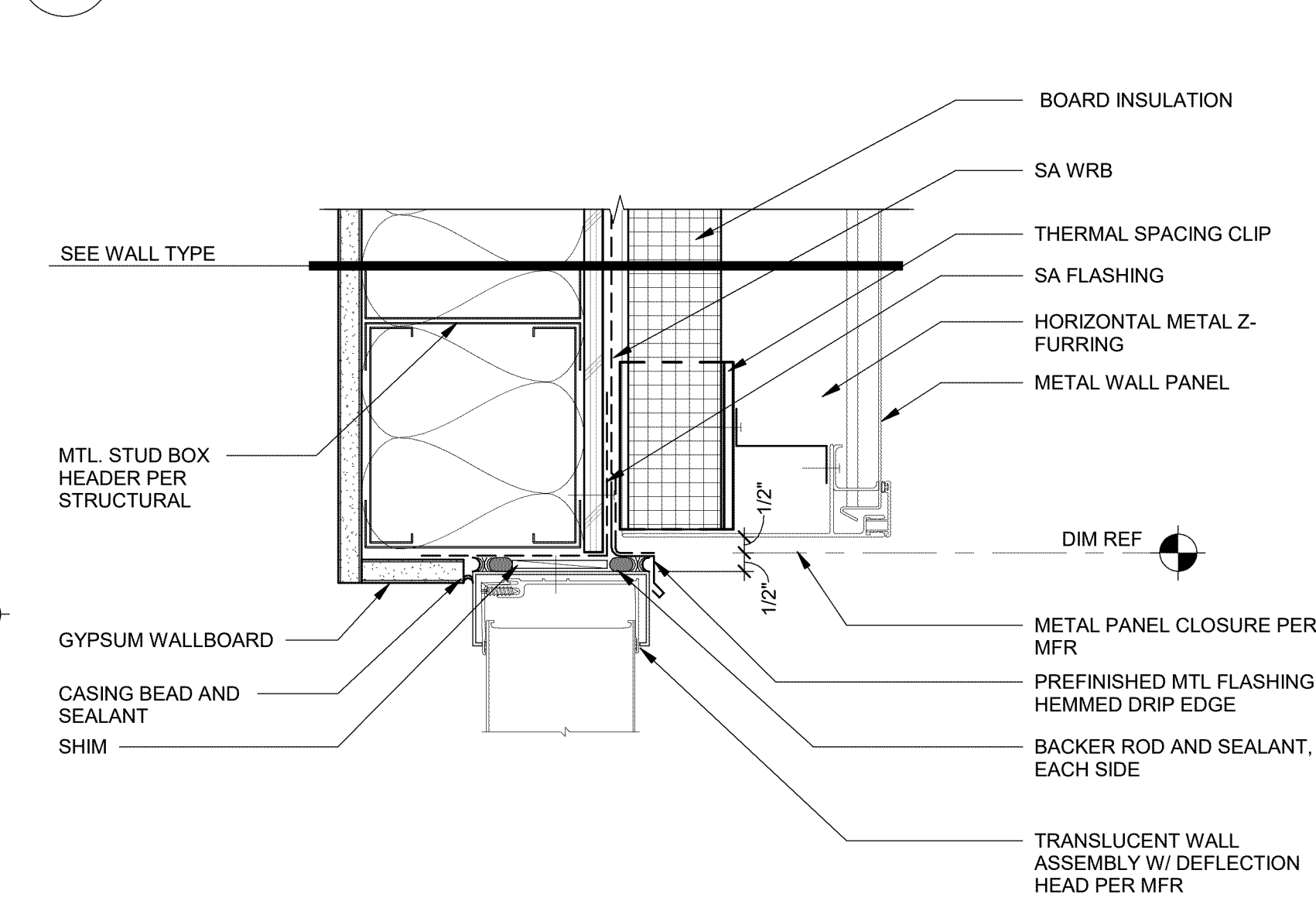
3 STOREFRONT HEAD @ MEMBRANE ROOF RAKE  
SCALE: 3" = 1'-0"



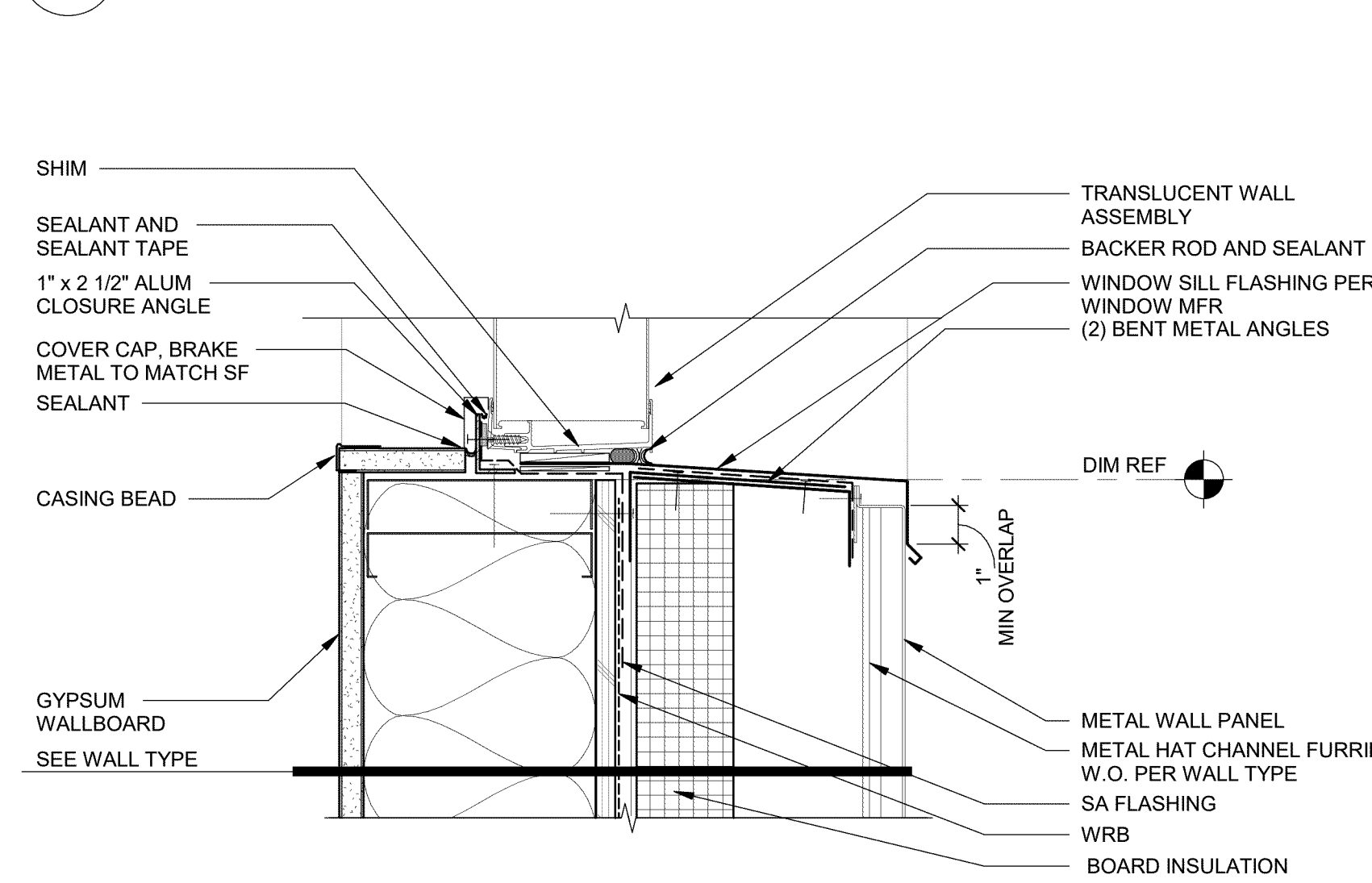
6 TRANSLUCENT WALL ASSEMBLY JAMB  
SCALE: 3" = 1'-0"



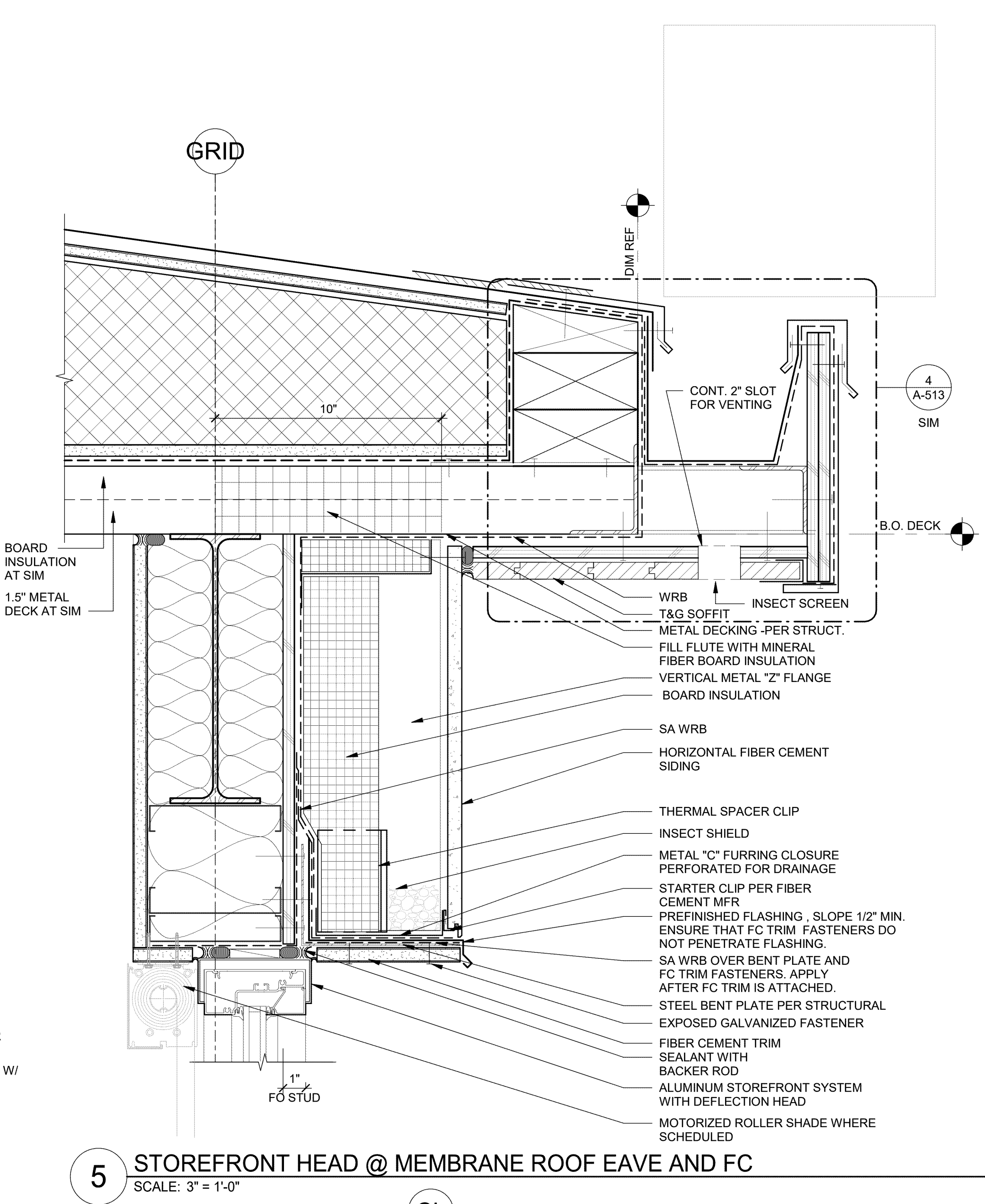
2 STOREFRONT JAMB @ FC CORNER  
SCALE: 3" = 1'-0"



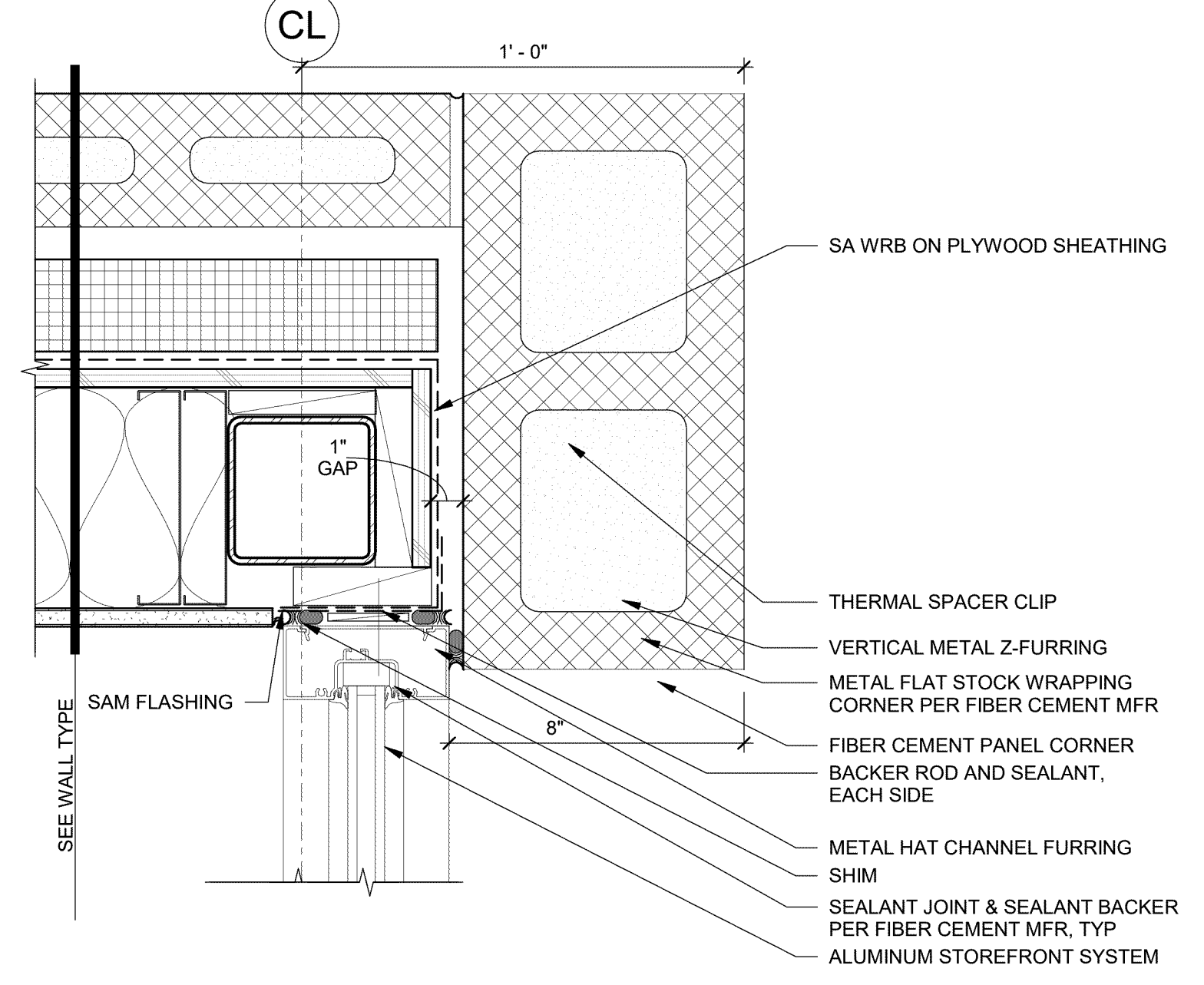
4 TRANSLUCENT WALL ASSEMBLY HEAD  
SCALE: 3" = 1'-0"



7 TRANSLUCENT WALL ASSEMBLY SILL  
SCALE: 3" = 1'-0"

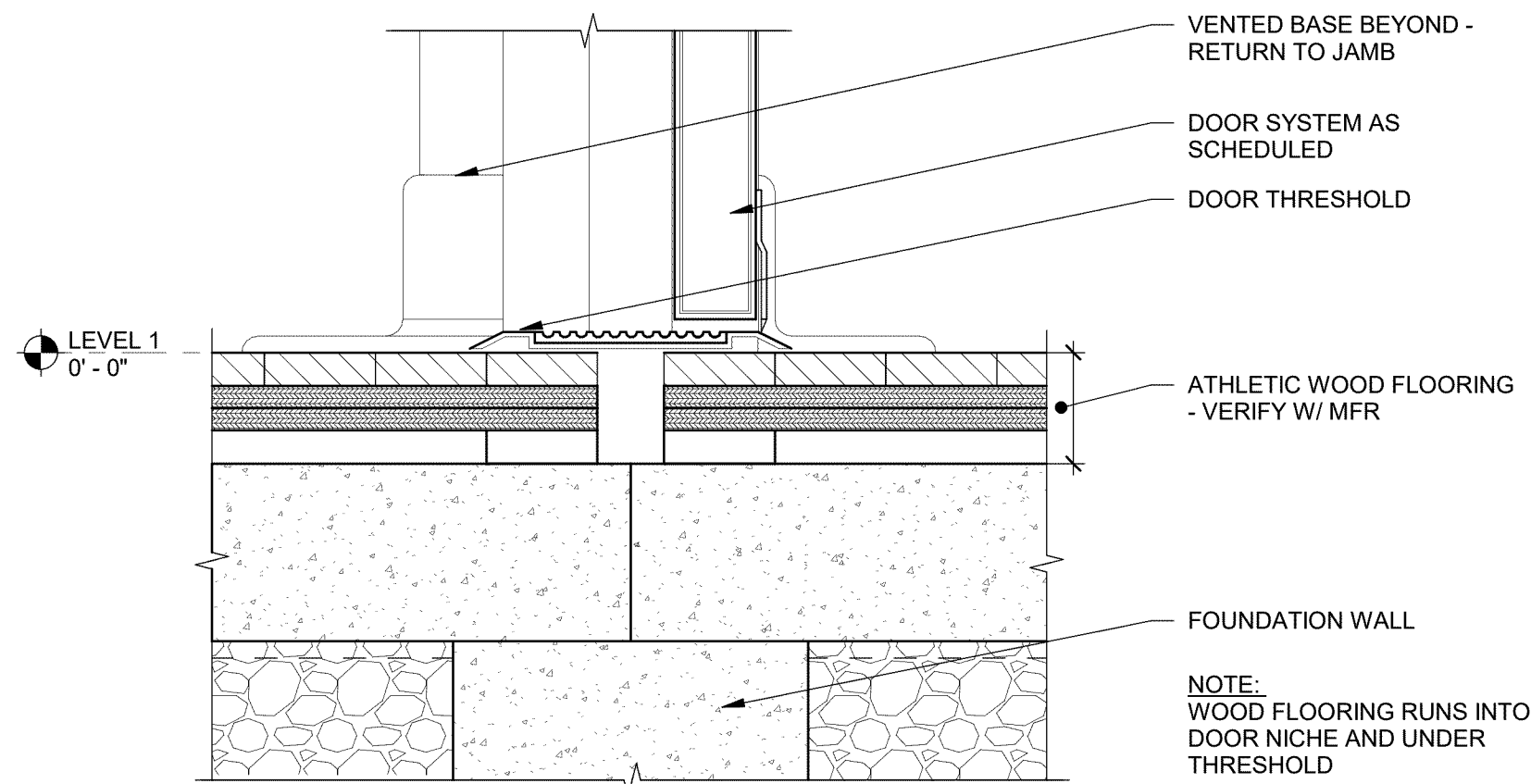


5 STOREFRONT HEAD @ MEMBRANE ROOF EAVE AND FC  
SCALE: 3" = 1'-0"

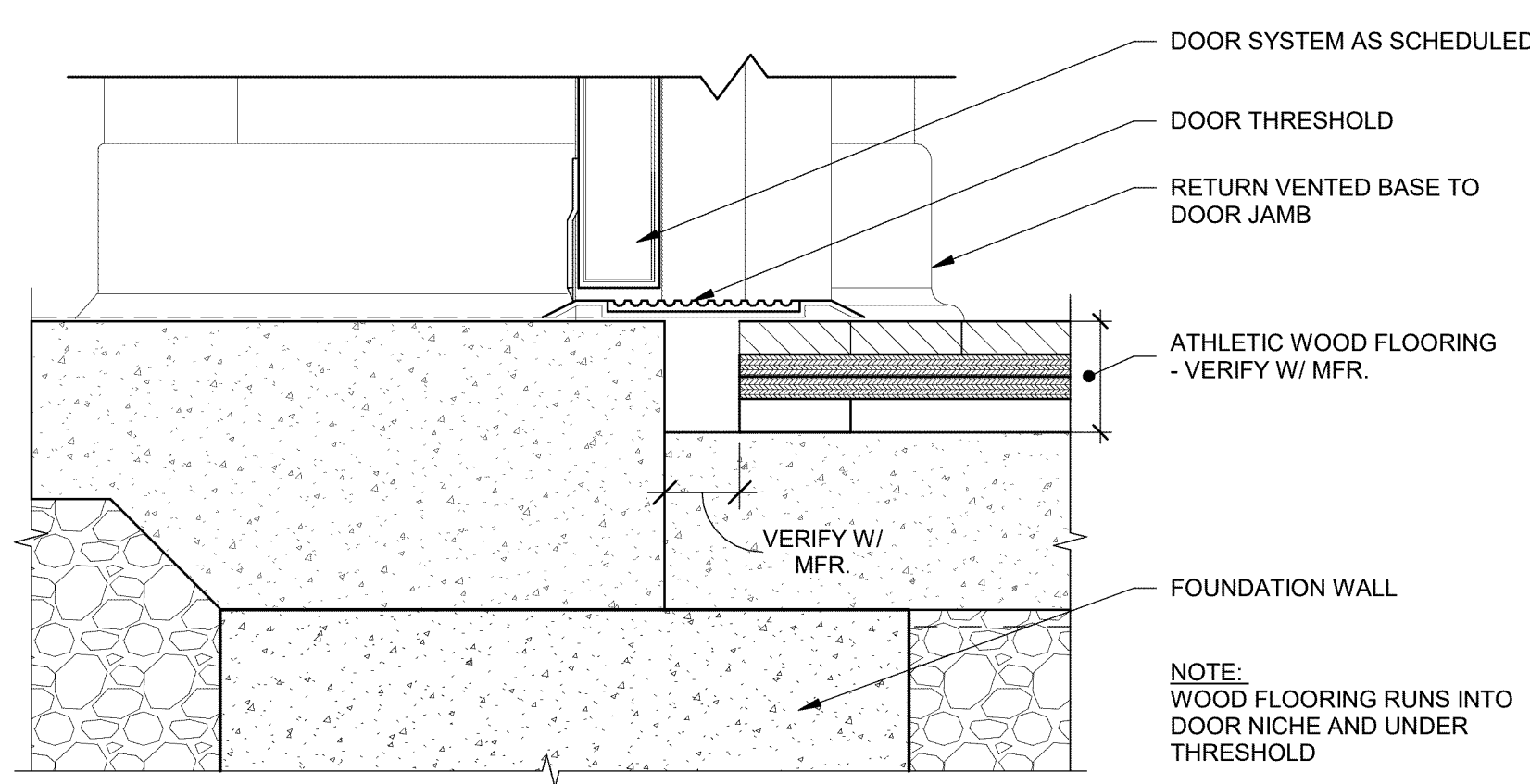


8 STOREFRONT JAMB BELOW FC CORNER @ CMU  
SCALE: 3" = 1'-0"

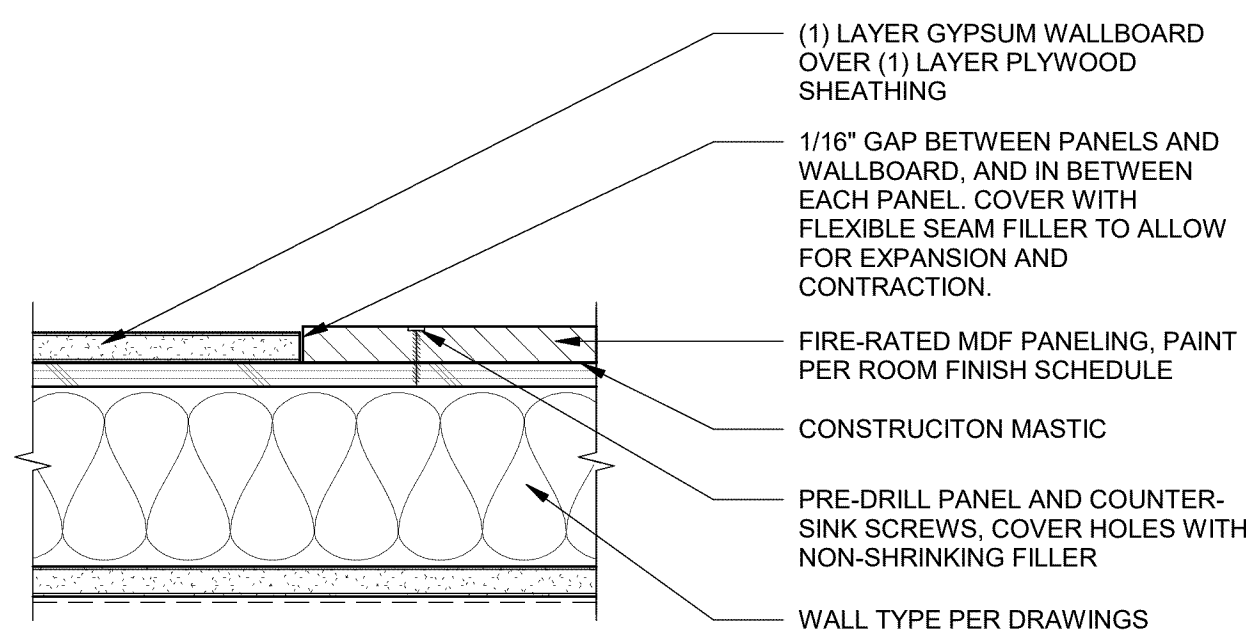




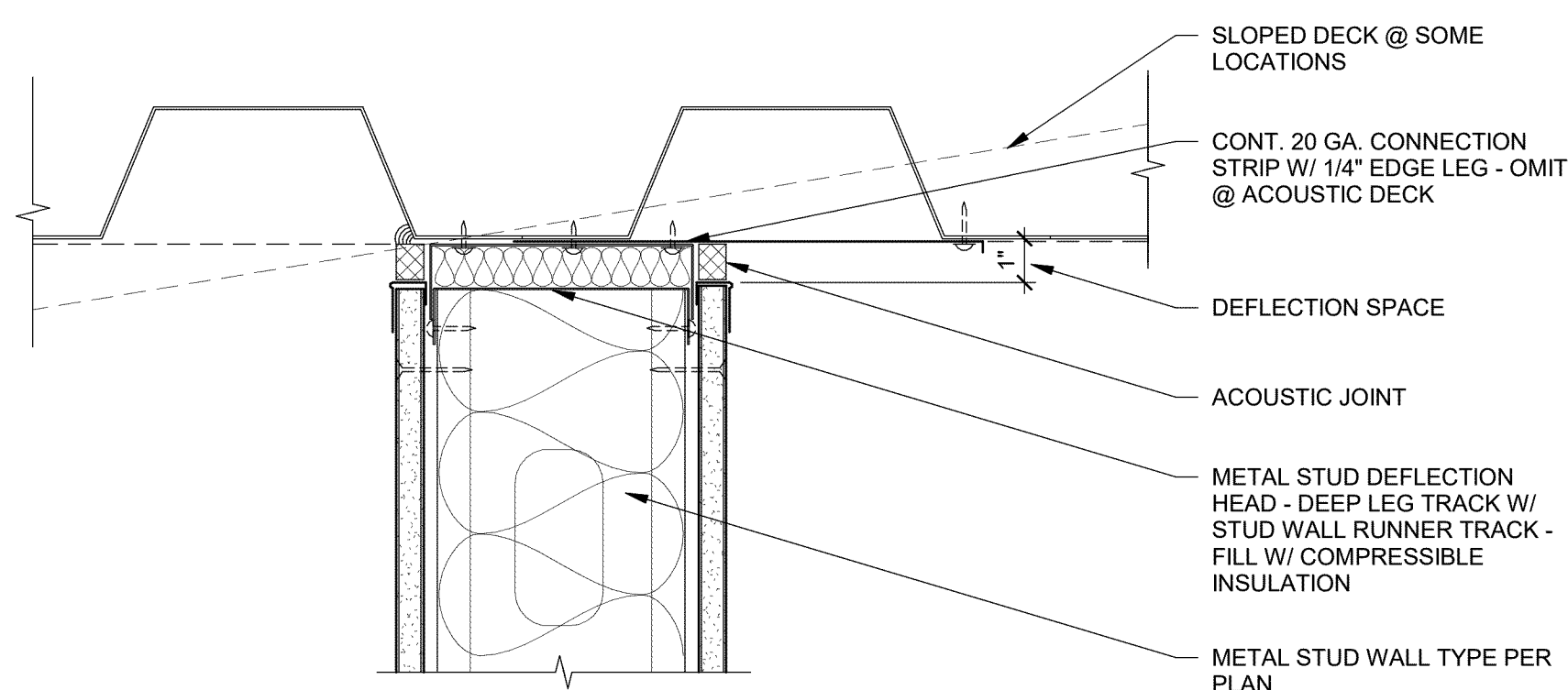
**1 HM DOOR THRESHOLD @ WOOD FLOORS**  
SCALE: 3" = 1'-0"



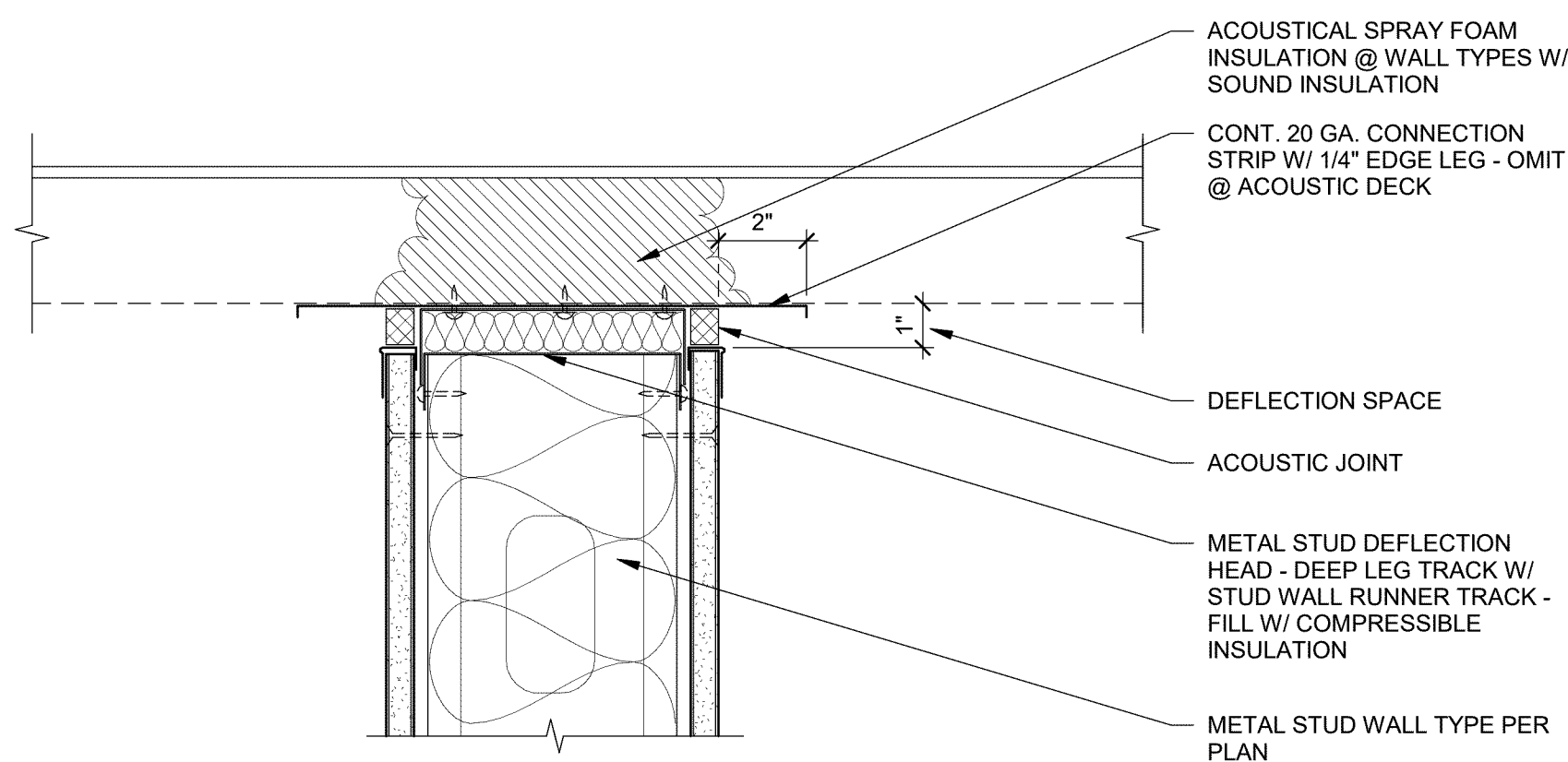
**2 HM DOOR THRESHOLD @ WOOD FLOORING**  
SCALE: 3" = 1'-0"



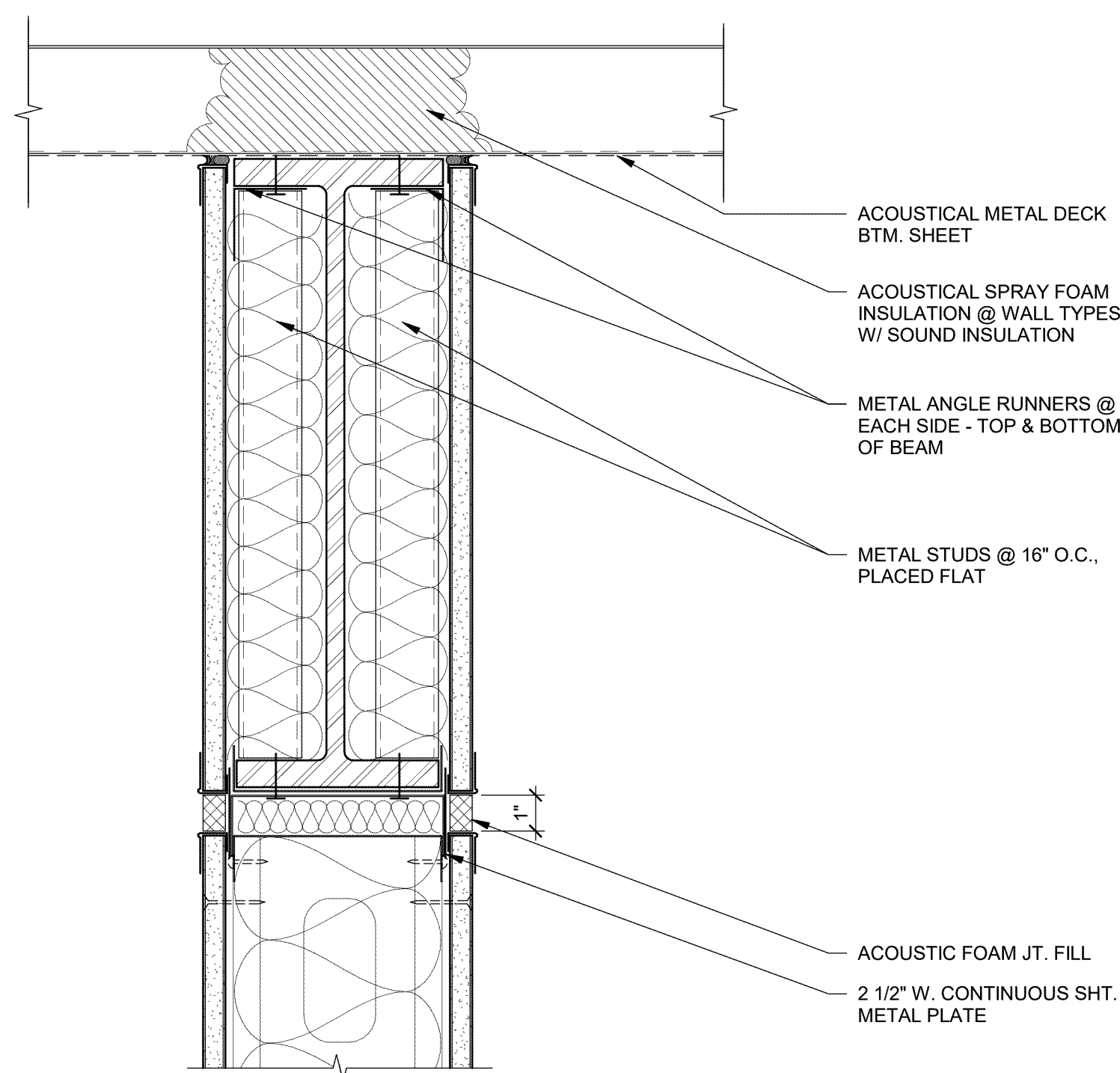
**3 MDF WALL PANEL DETAIL**  
SCALE: 3" = 1'-0"



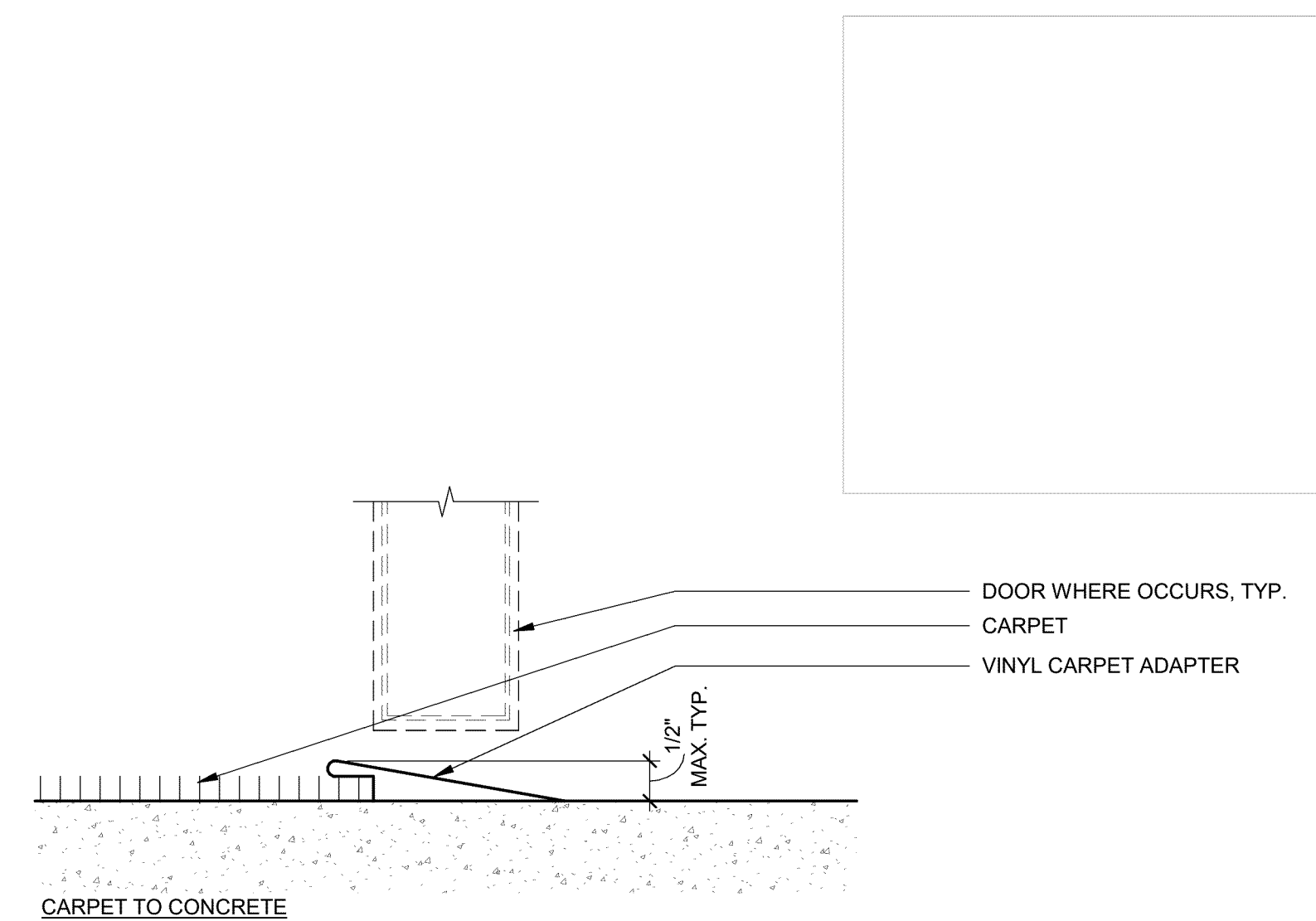
**4 PARTITION DEFLECTION HEAD PARALLEL TO DECK**  
SCALE: 3" = 1'-0"



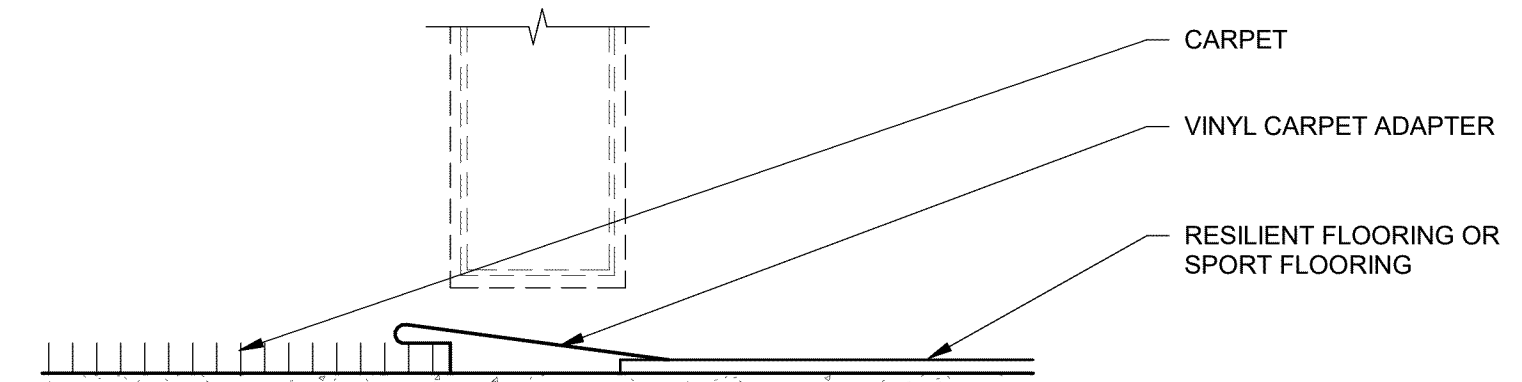
**5 PARTITION DEFLECTION HEAD PERPENDICULAR TO DECK**  
SCALE: 3" = 1'-0"



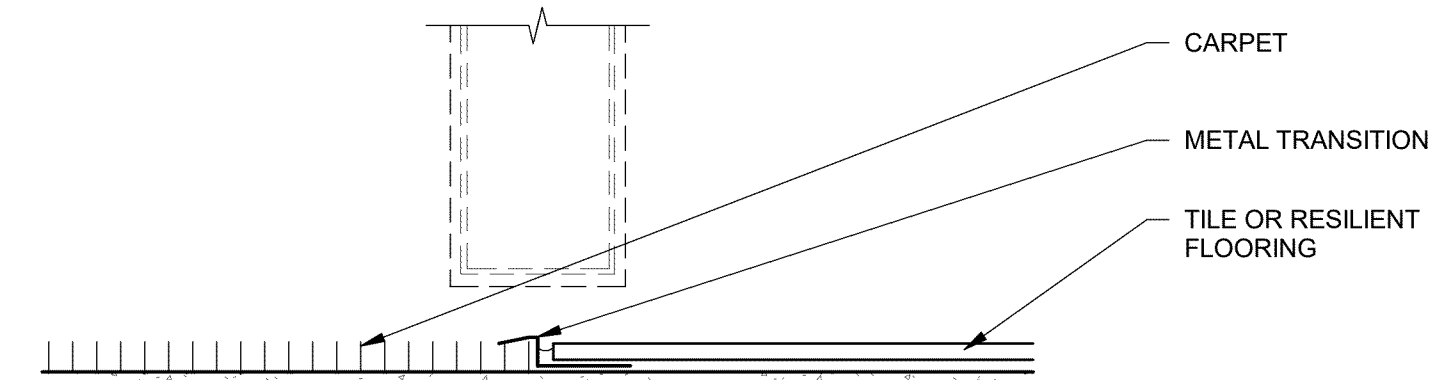
**6 PARTITION TO DECK @ BEAM**  
SCALE: 3" = 1'-0"



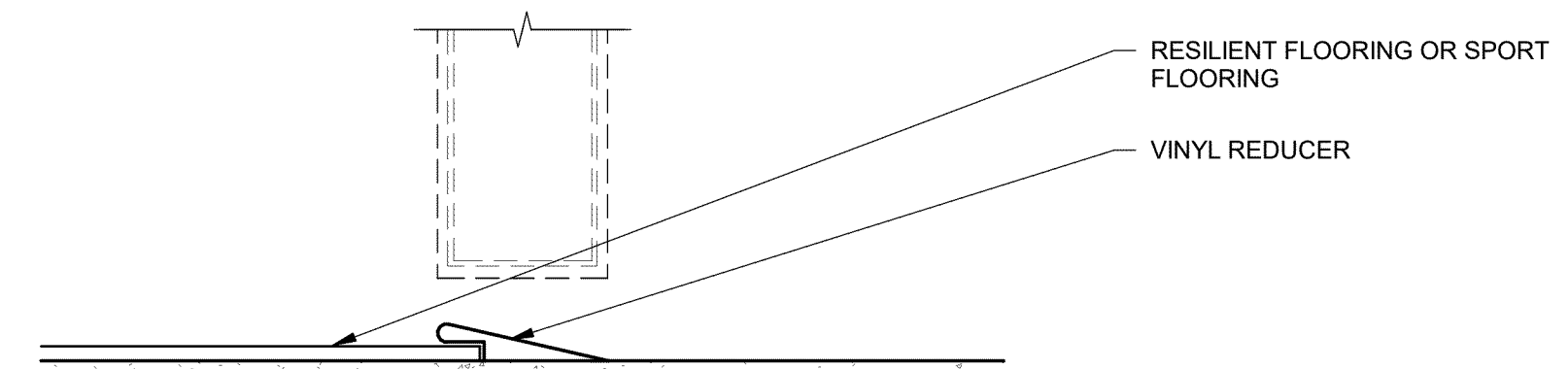
CARPET TO CONCRETE



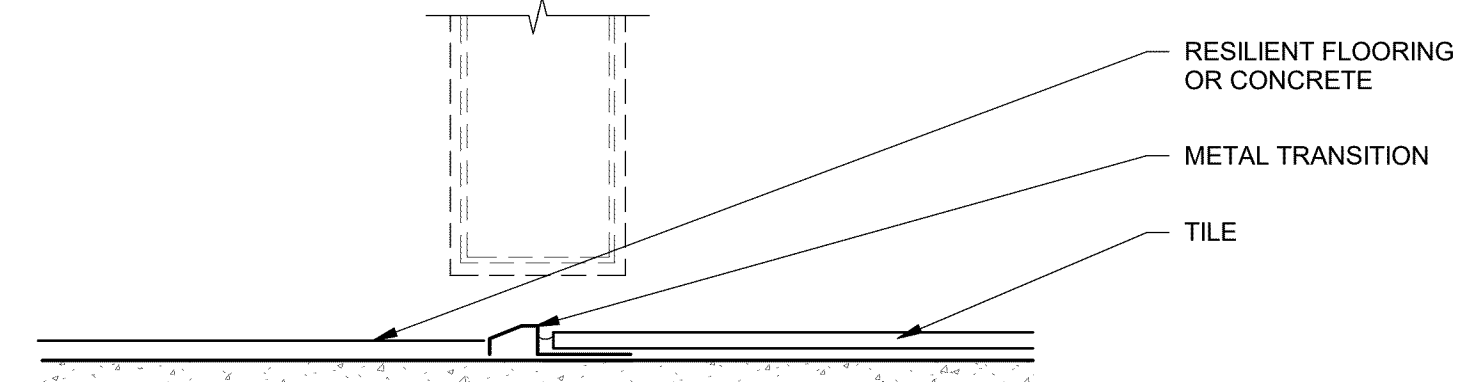
CARPET TO RF



CARPET TO TILE/RF



RF TO CONCRETE



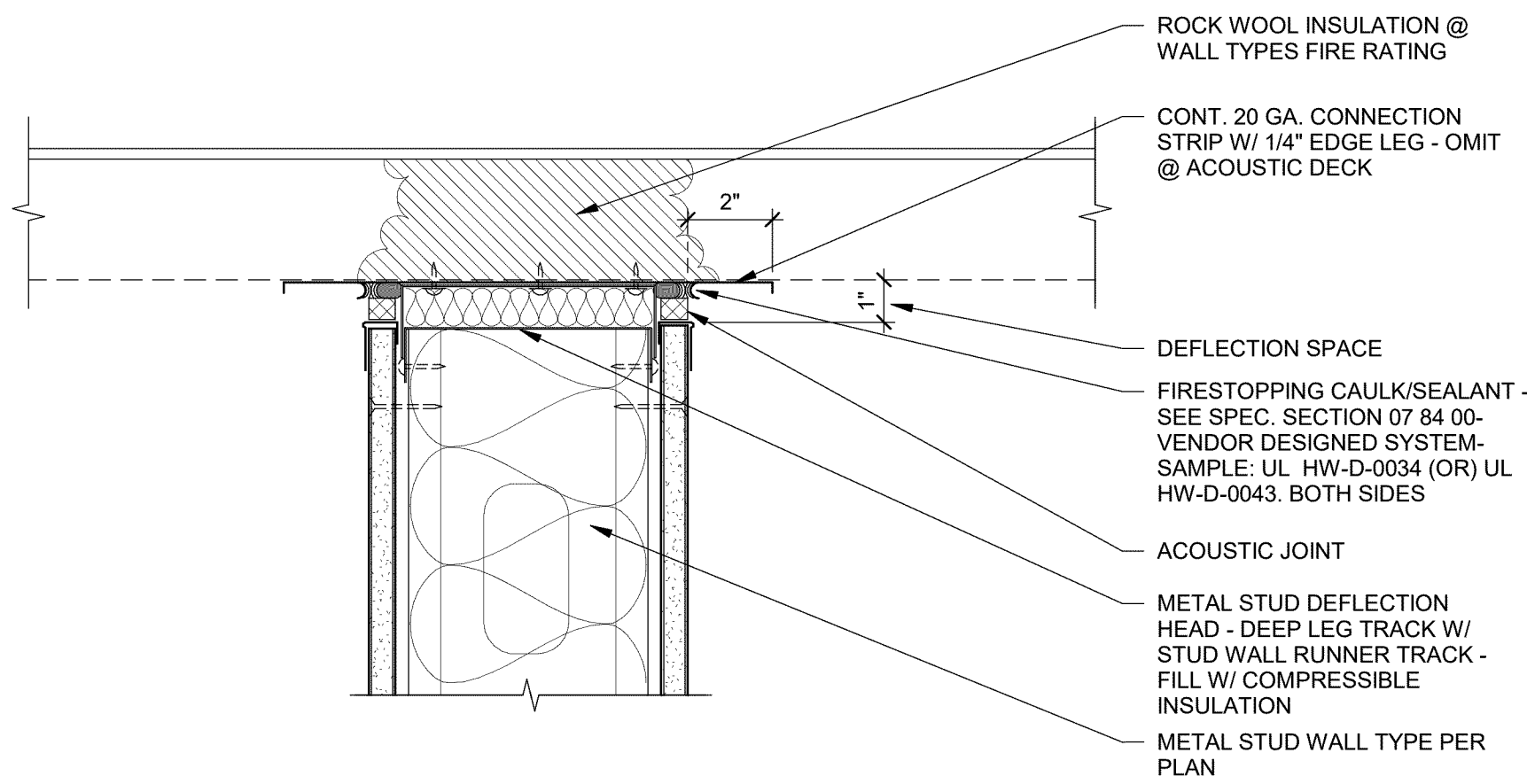
RF/CONCRETE TO TILE

- NOTE:**
1. REFER TO ROOM FINISH SCHEDULE & PLANS FOR FLOOR FINISHES
  2. REFER TO DOOR HARDWARE SETS FOR ADDITIONAL SPECIFIED TRANSITIONS / THRESHOLDS

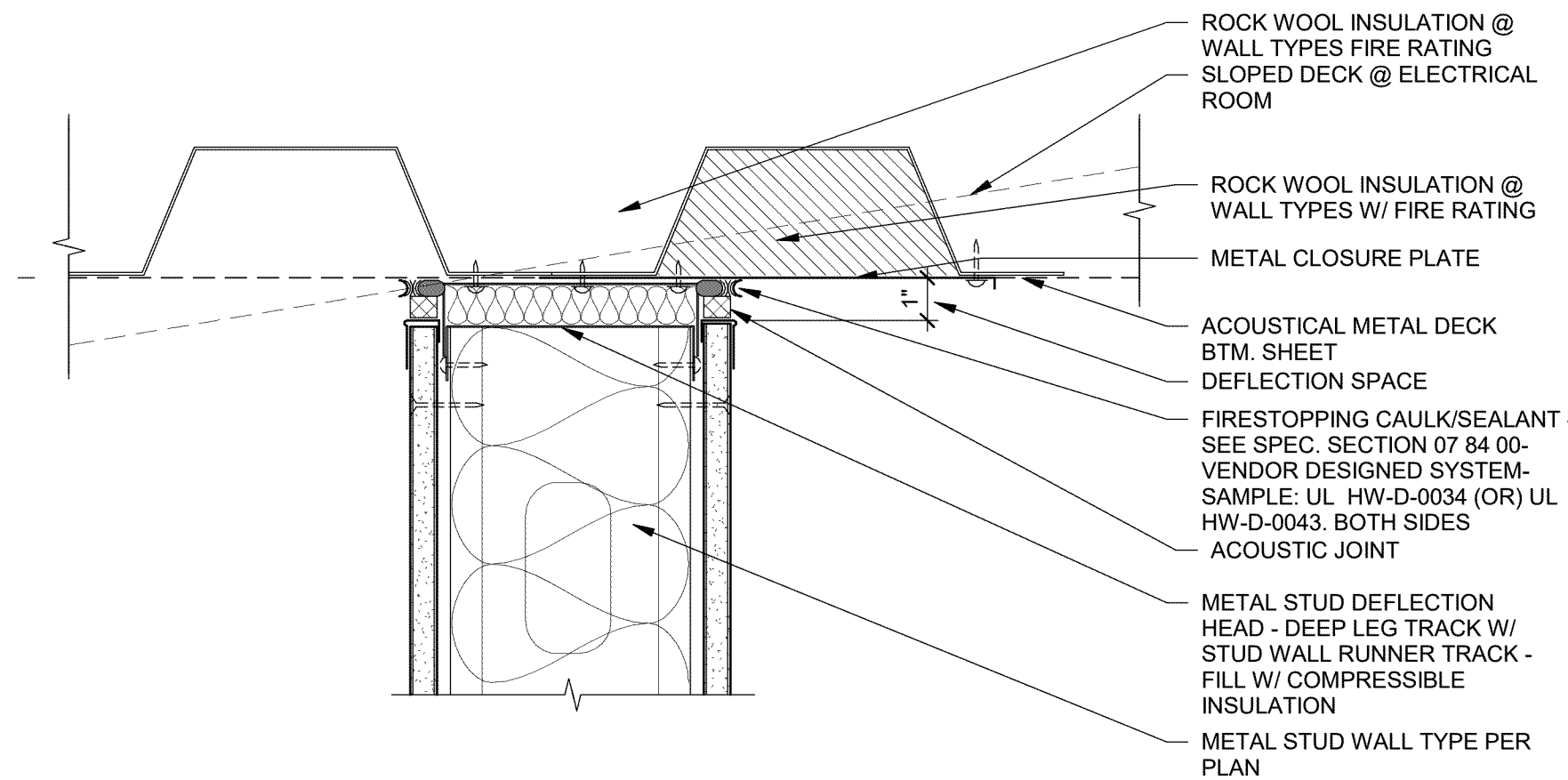
**7 TYP FLOOR TRANSITIONS**  
SCALE: 6" = 1'-0"



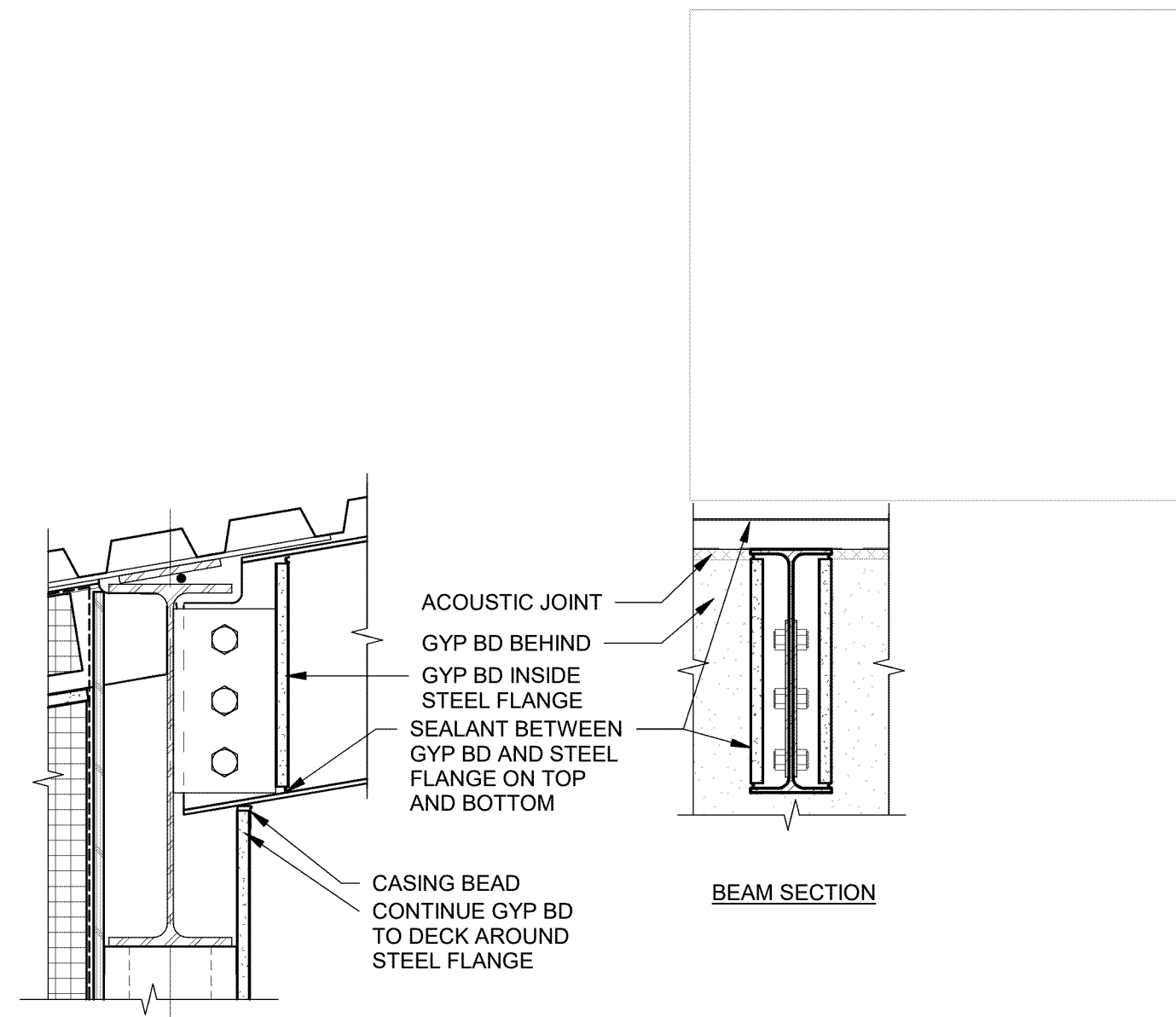
10/10/2019 1:49:45 PM



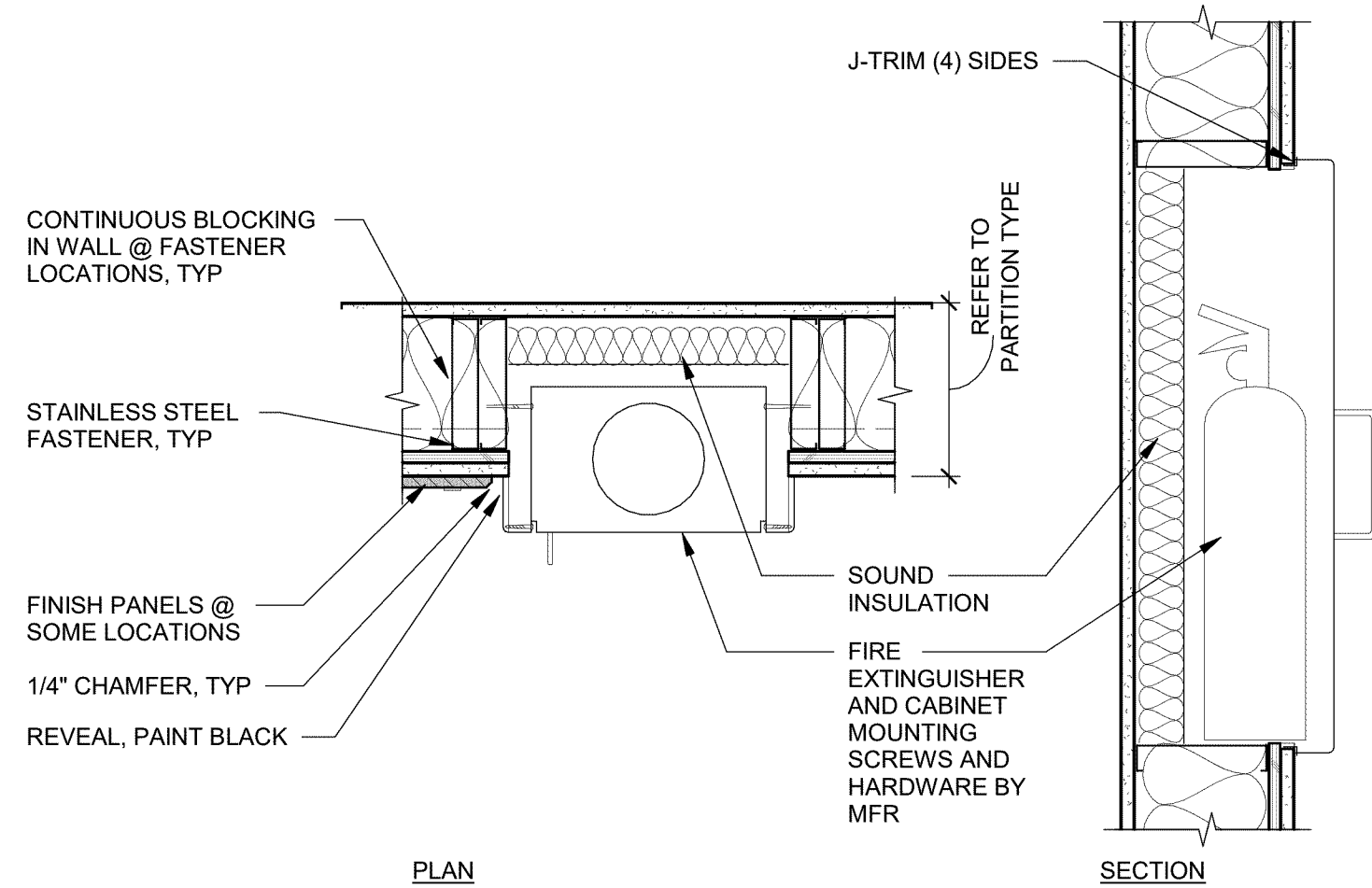
1 1-HOUR PARTITION DEFLECTION HEAD @ MECHANICAL ROOM  
SCALE: 3" = 1'-0"



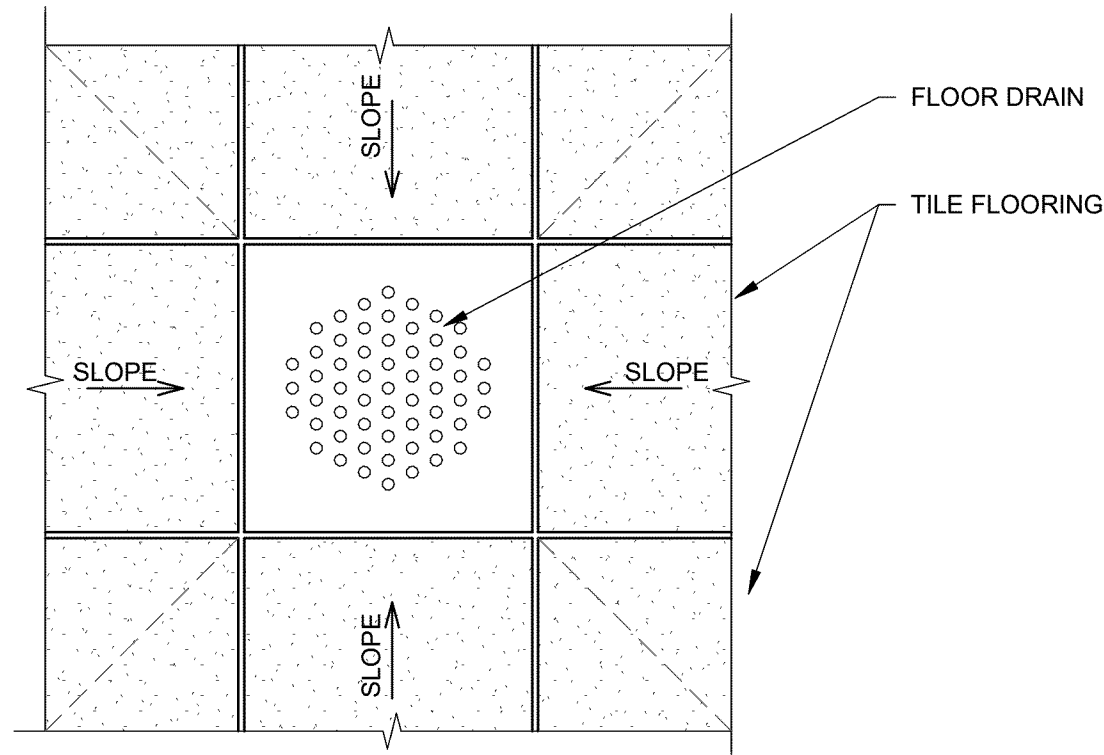
2 1-HOUR PARTITION TO DECK @ MECHANICAL ROOM  
SCALE: 3" = 1'-0"



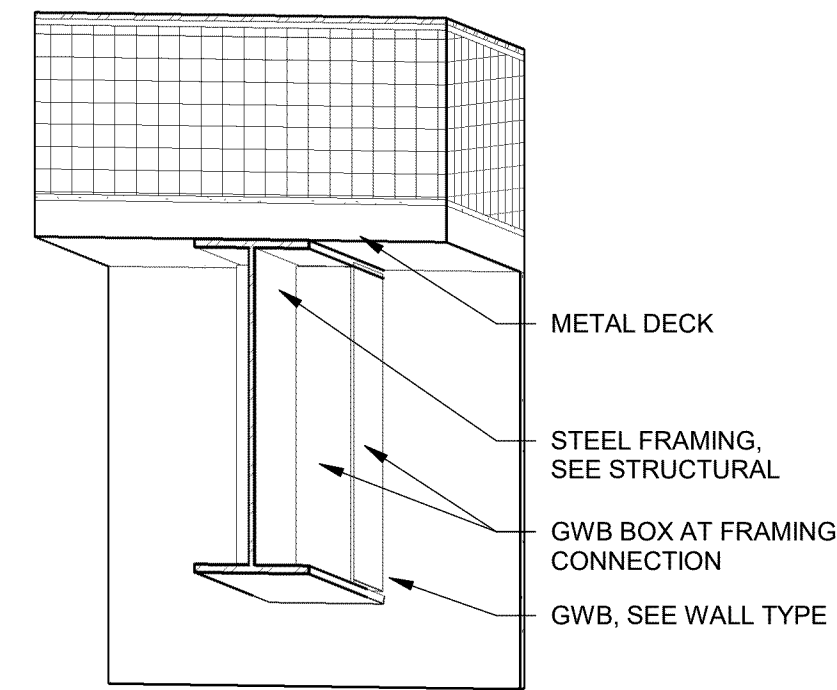
3 PARTITION TO BEAM CONNECTION  
SCALE: 1 1/2" = 1'-0"



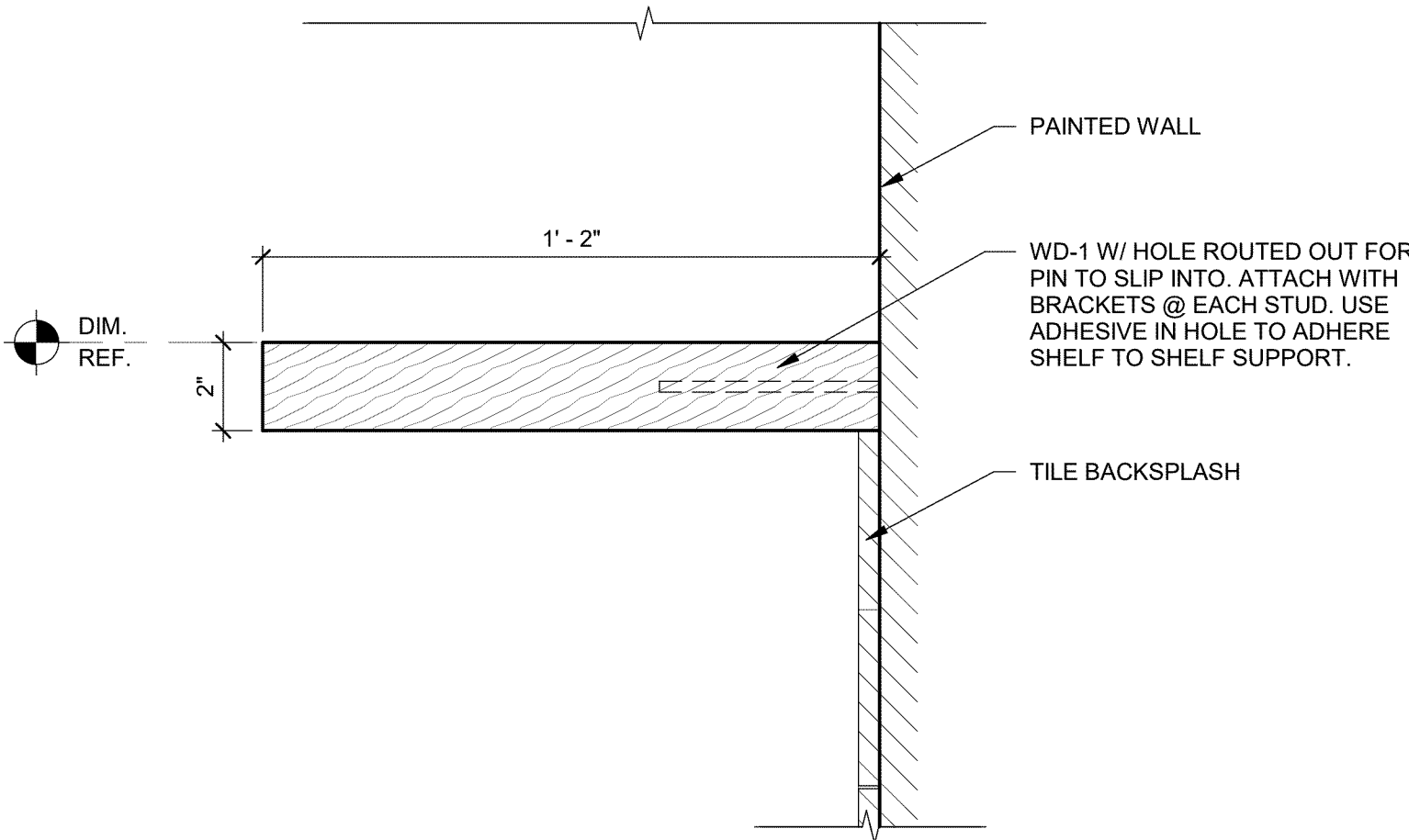
4 FIRE EXT CABINET DETAIL  
SCALE: 1 1/2" = 1'-0"



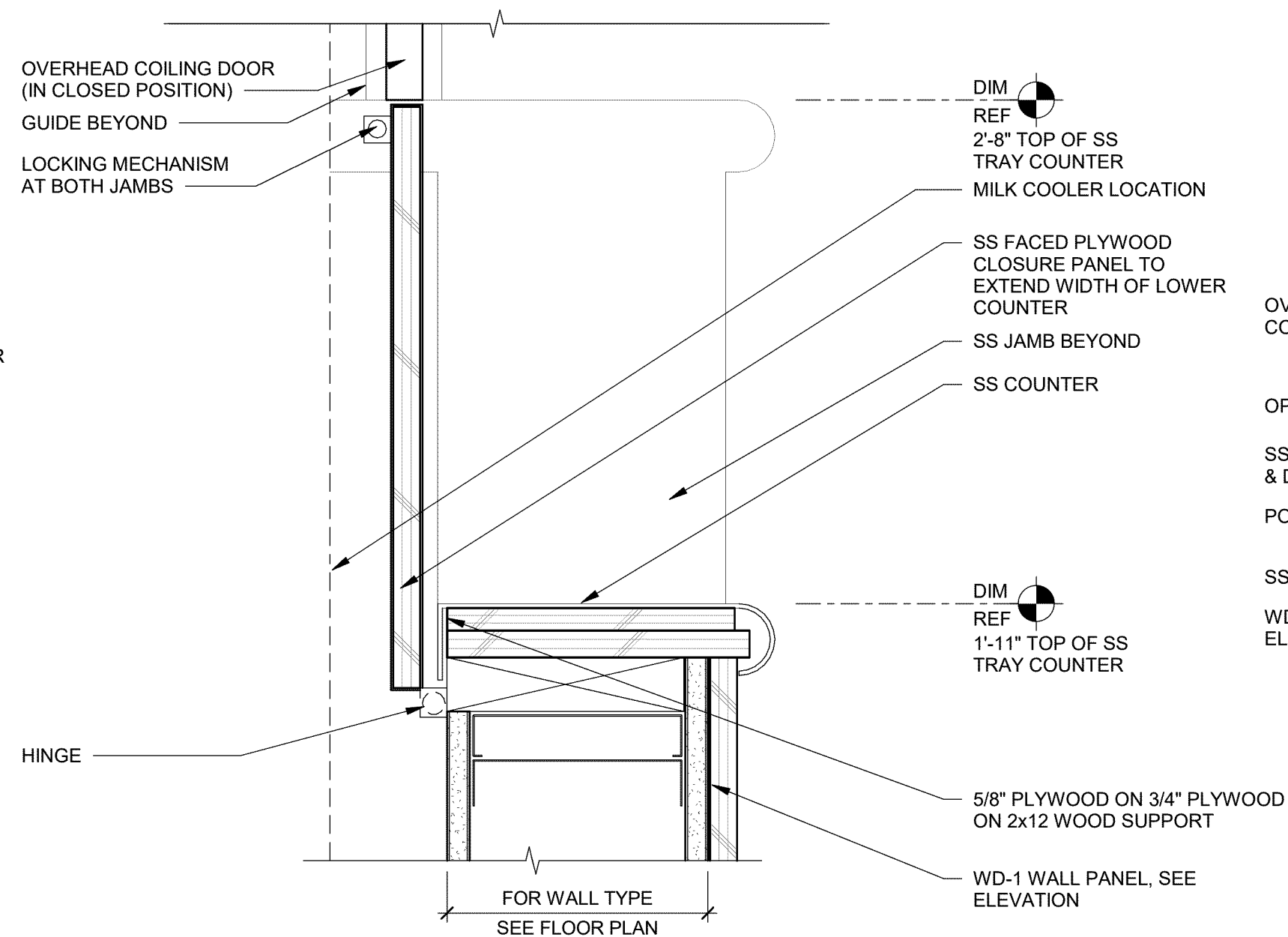
5 FLOOR DRAIN AT TILE - TYPICAL  
SCALE: 3" = 1'-0"



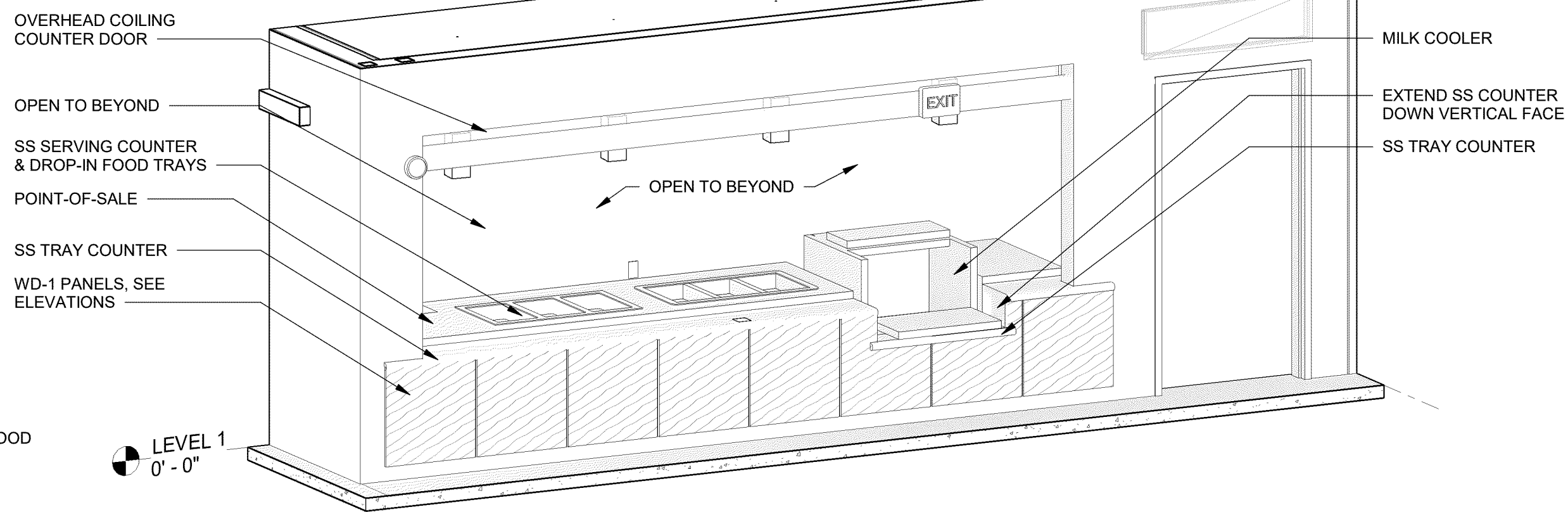
6 PARTITION TO BEAM CONNECTION 3D VIEW  
SCALE:



7 SHELVING ABOVE SINK @ FCRC  
SCALE: 3" = 1'-0"

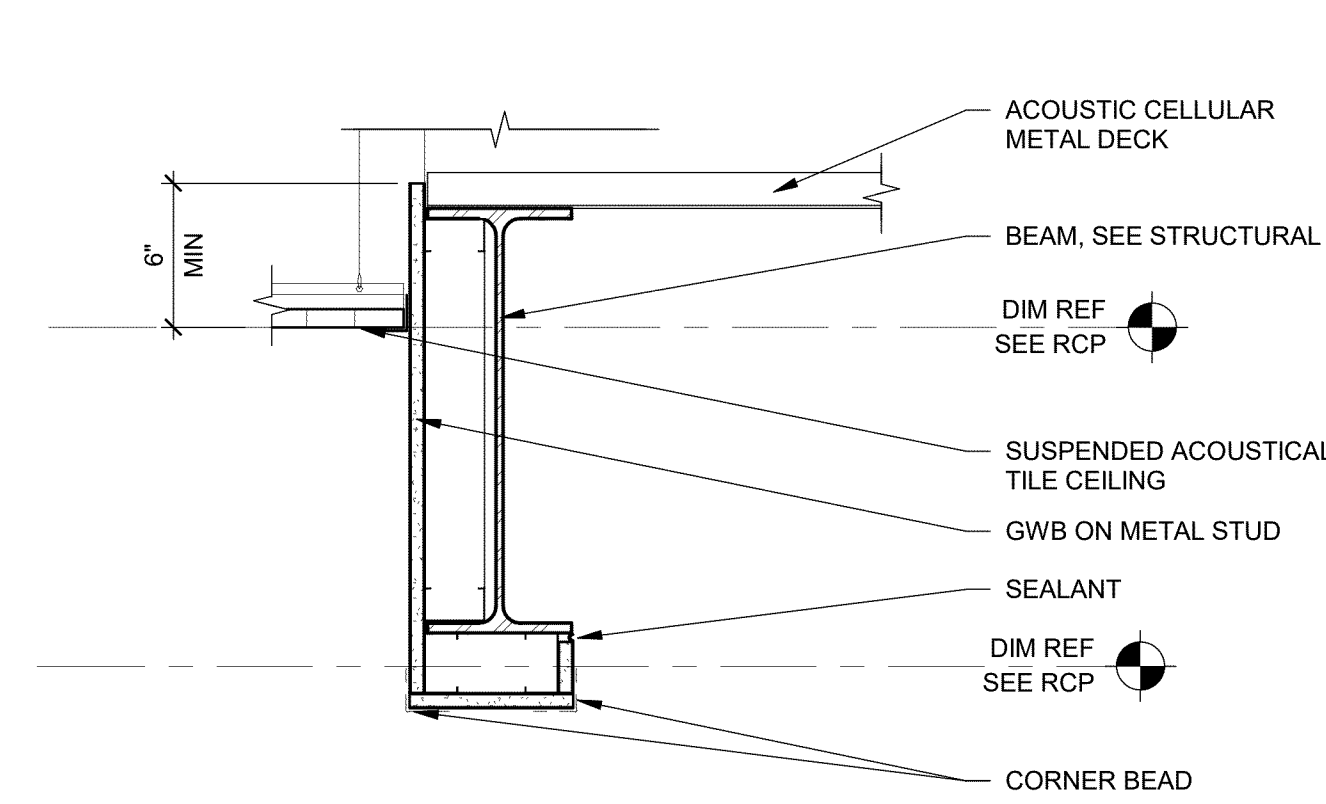


10 OVERHEAD COILING COUNTER DOOR SILL @ MILK COOLER  
SCALE: 3" = 1'-0"

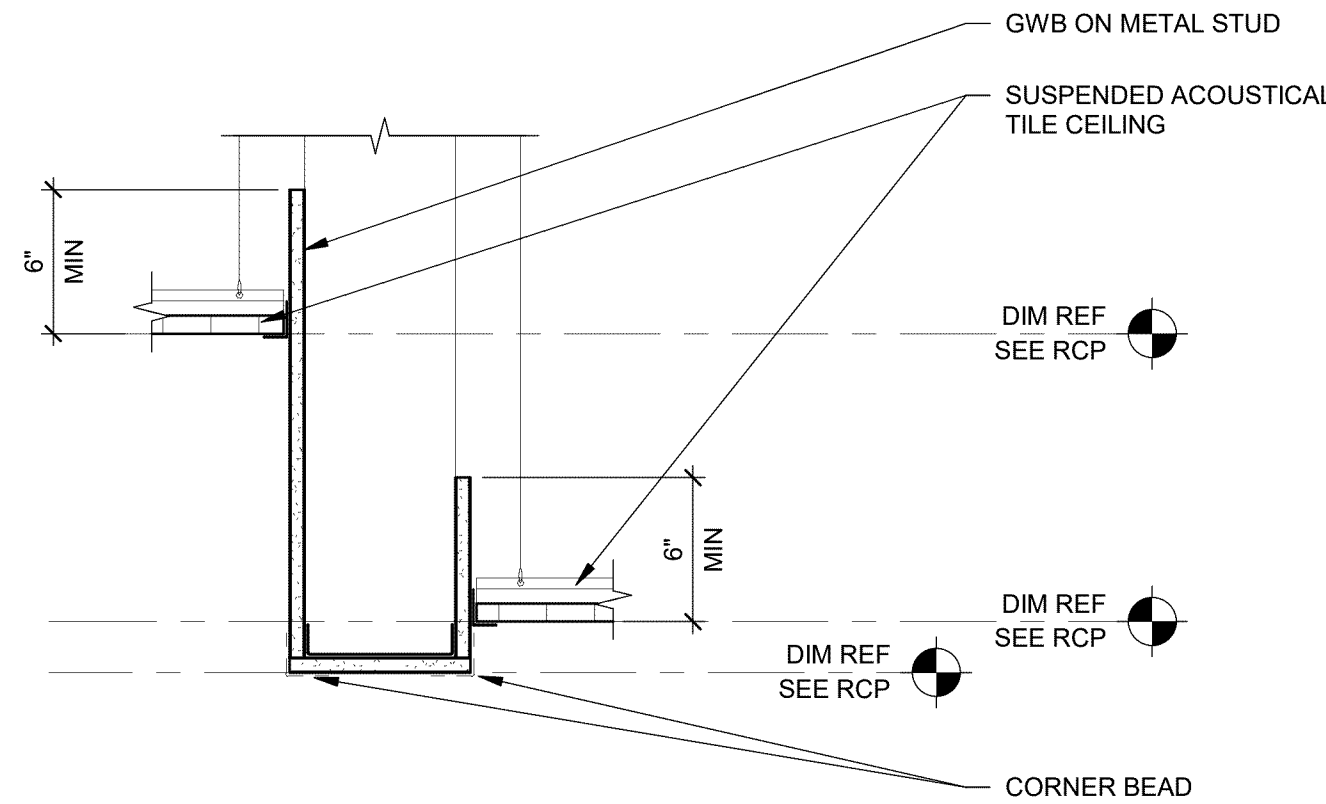


9 KITCHEN DOOR 3D VIEW  
SCALE:

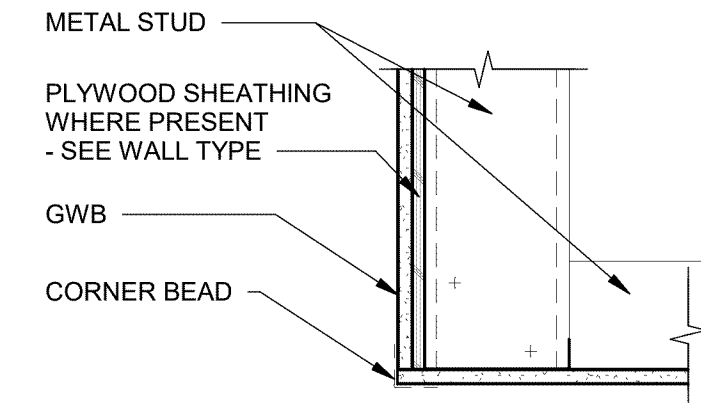




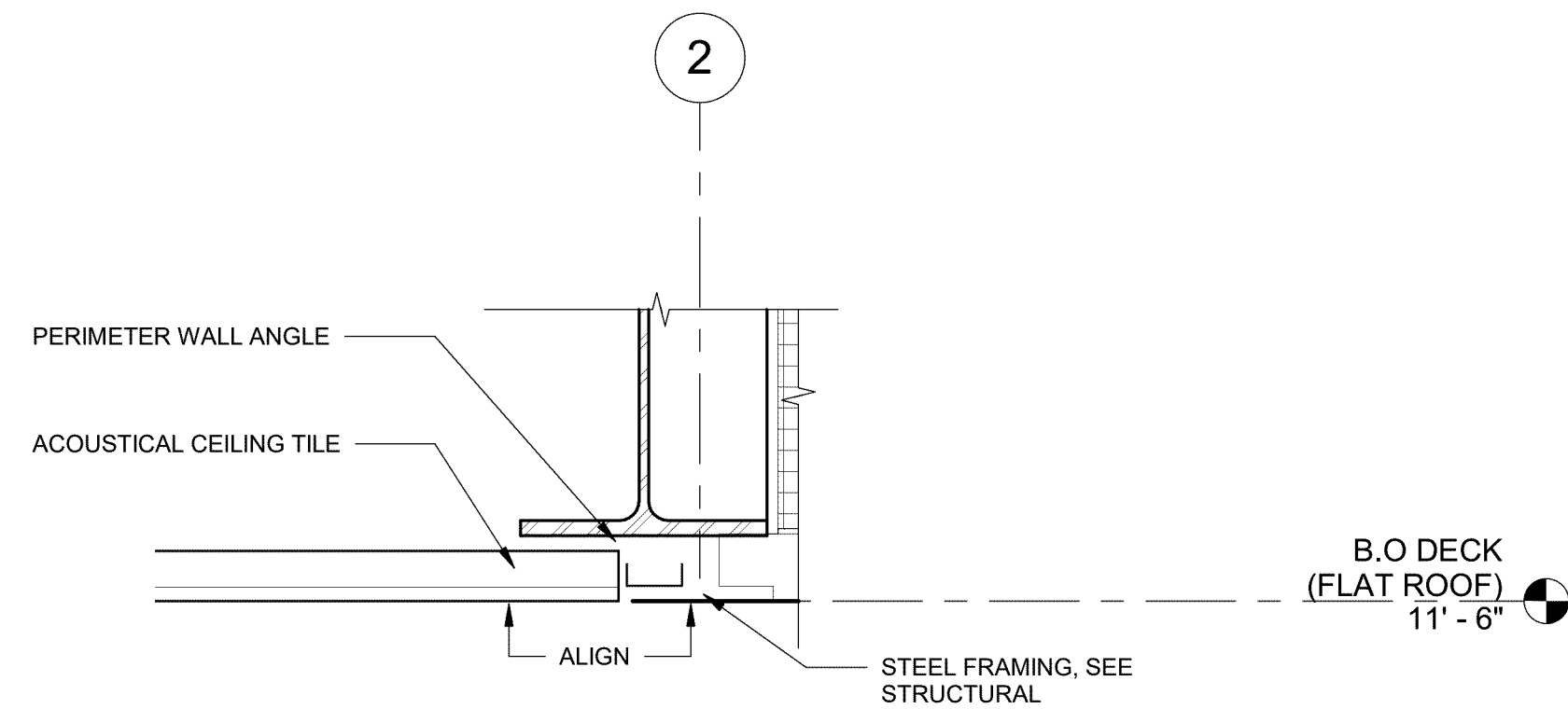
**1 CEILING DETAIL**  
SCALE: 1 1/2" = 1'-0"



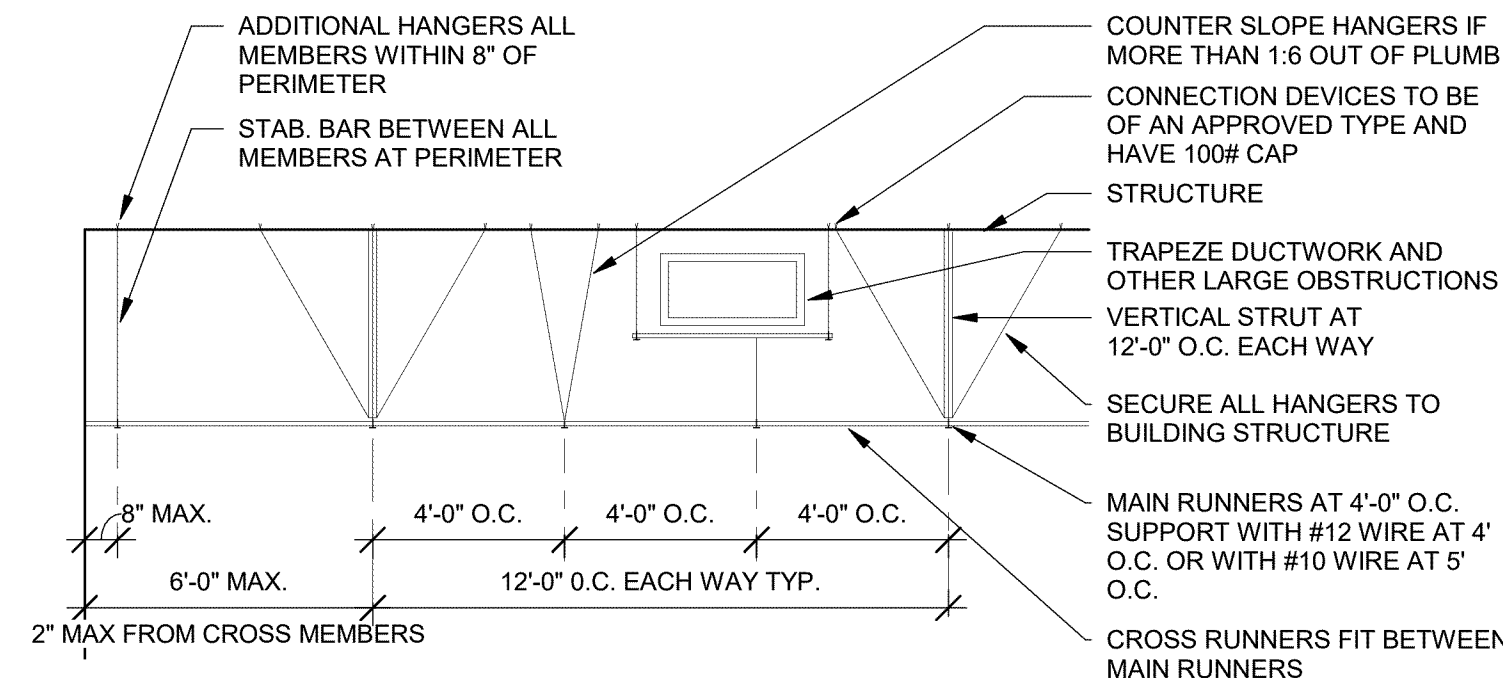
**2 CEILING DETAIL**  
SCALE: 1 1/2" = 1'-0"



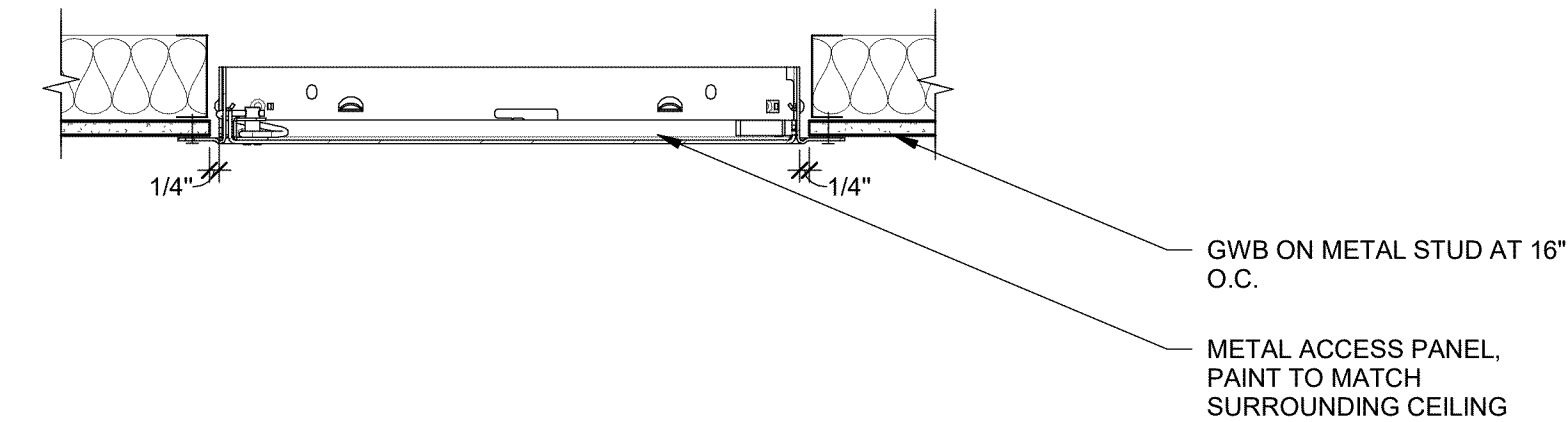
**3 CEILING DETAIL**  
SCALE: 1 1/2" = 1'-0"



**4 CEILING DETAIL**  
SCALE: 1 1/2" = 1'-0"

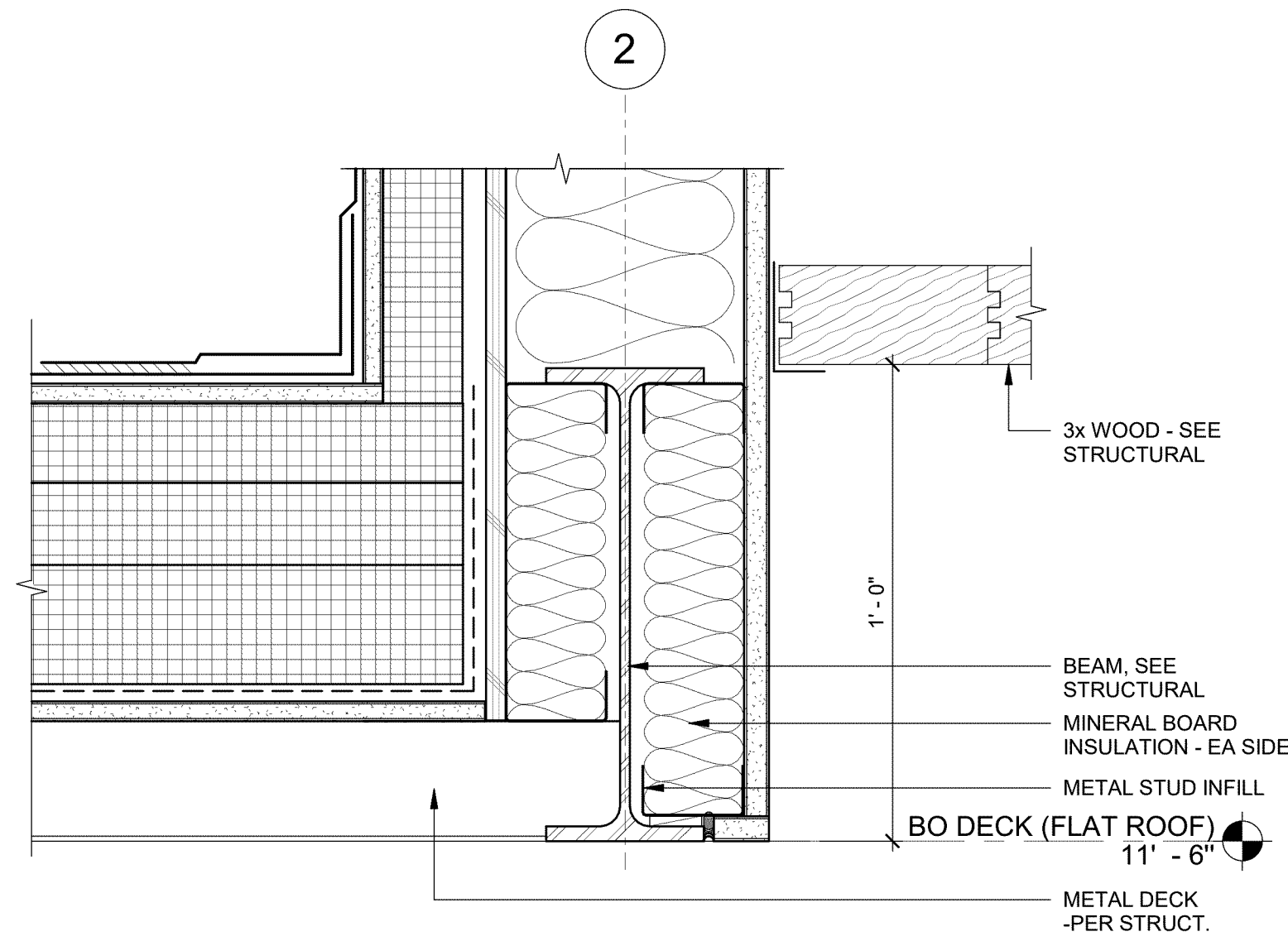


**5 SUSPENDED CEILING DETAIL**  
SCALE: 1/4" = 1'-0"

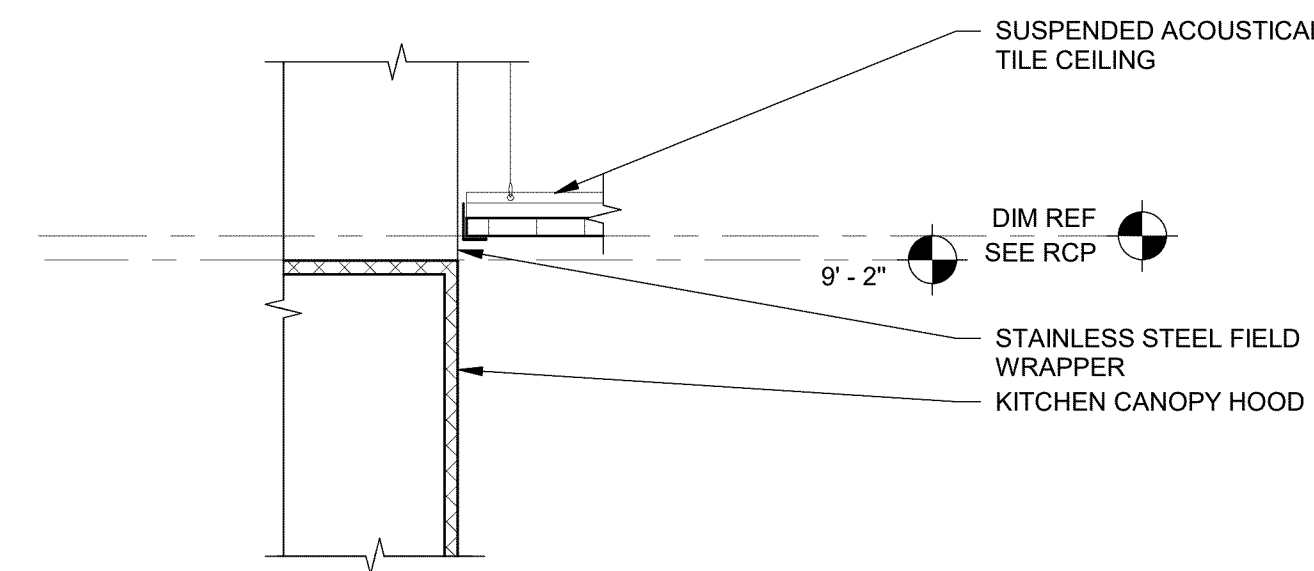


**6 RECESSED PANEL ACCESS DOOR**  
SCALE: 1 1/2" = 1'-0"

NOTE: PROVIDE ACCESS PANELS FOR ACCESS TO CONCEALED EQUIPMENT, JUNCTION BOXES AND CONTROLS. QUANTITY AND LOCATION OF ACCESS PANELS IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH AS-BUILT CONDITIONS AND MAY NOT BE INDICATED ON DRAWINGS. SUBMIT PROPOSED ACCESS PANEL LAYOUT TO ARCHITECT FOR CONFIRMATION OF DESIGN INTENT.

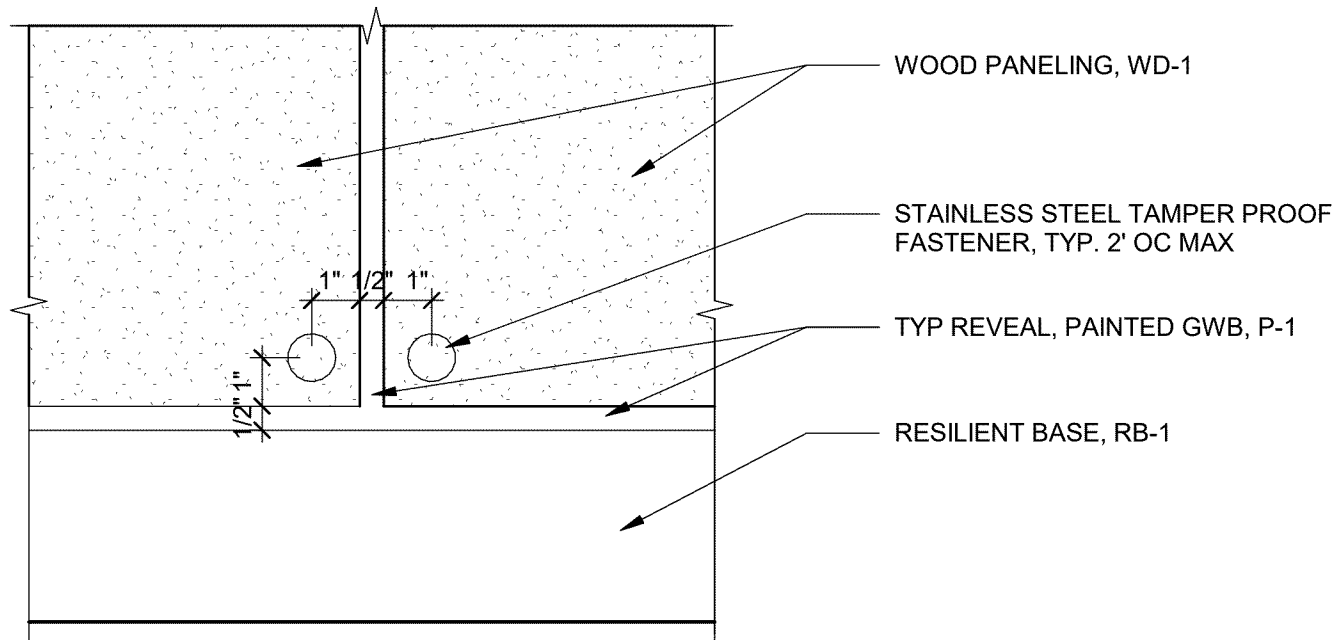


**7 CEILING DETAIL**  
SCALE: 3" = 1'-0"

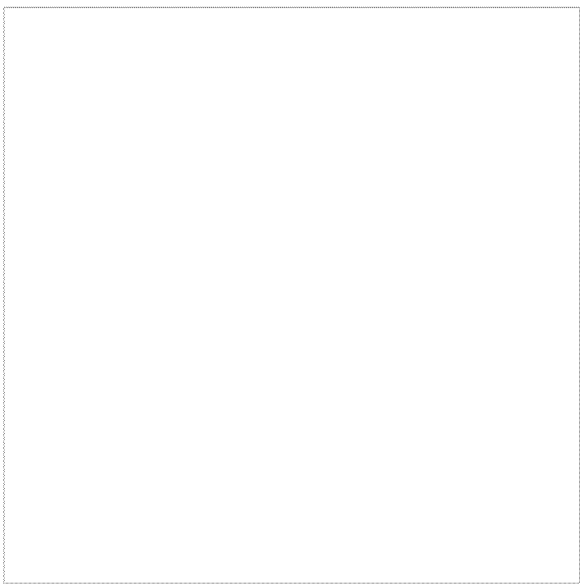


**8 CEILING DETAIL**  
SCALE: 1 1/2" = 1'-0"

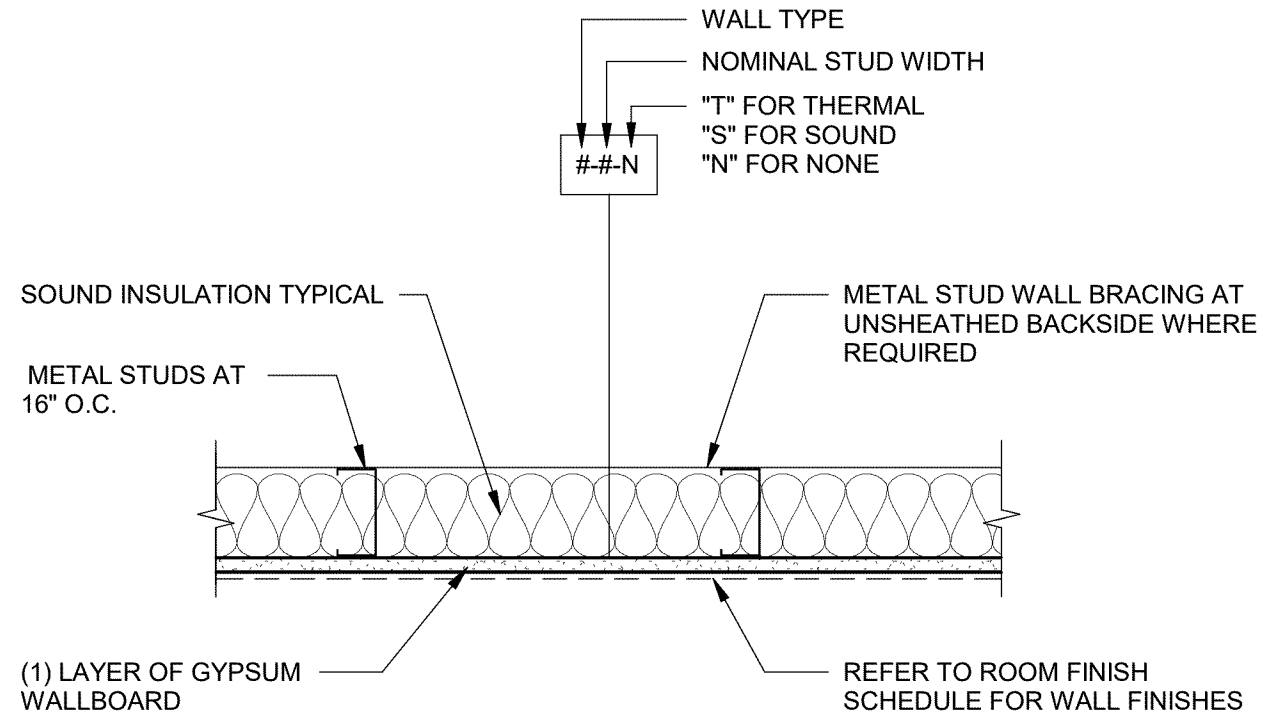




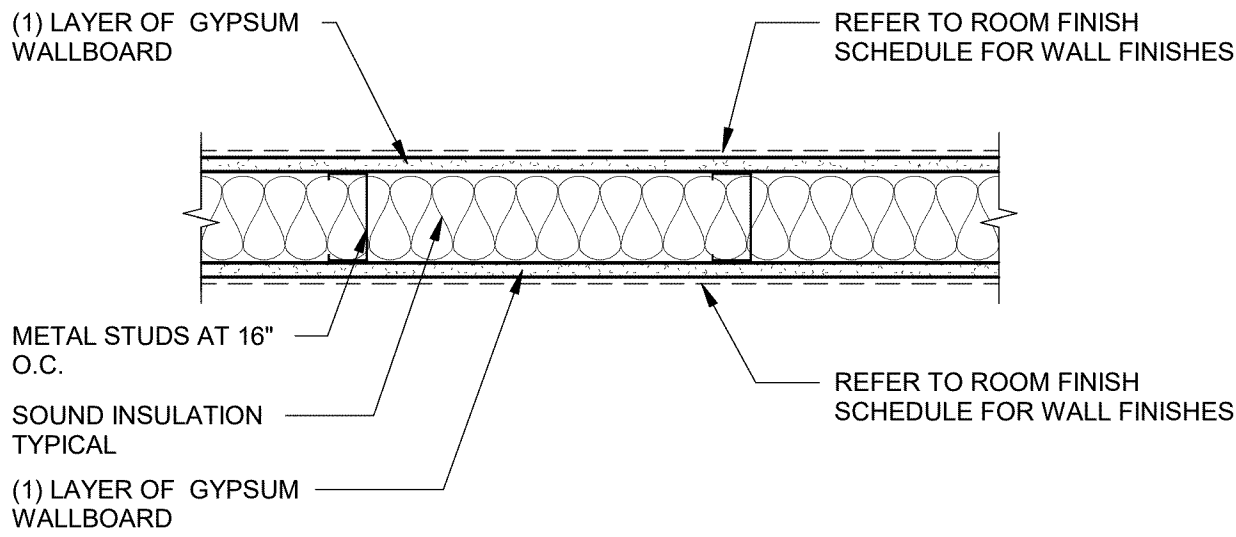
1 WOOD PANELING @ KITCHEN  
SCALE: 3" = 1'-0"







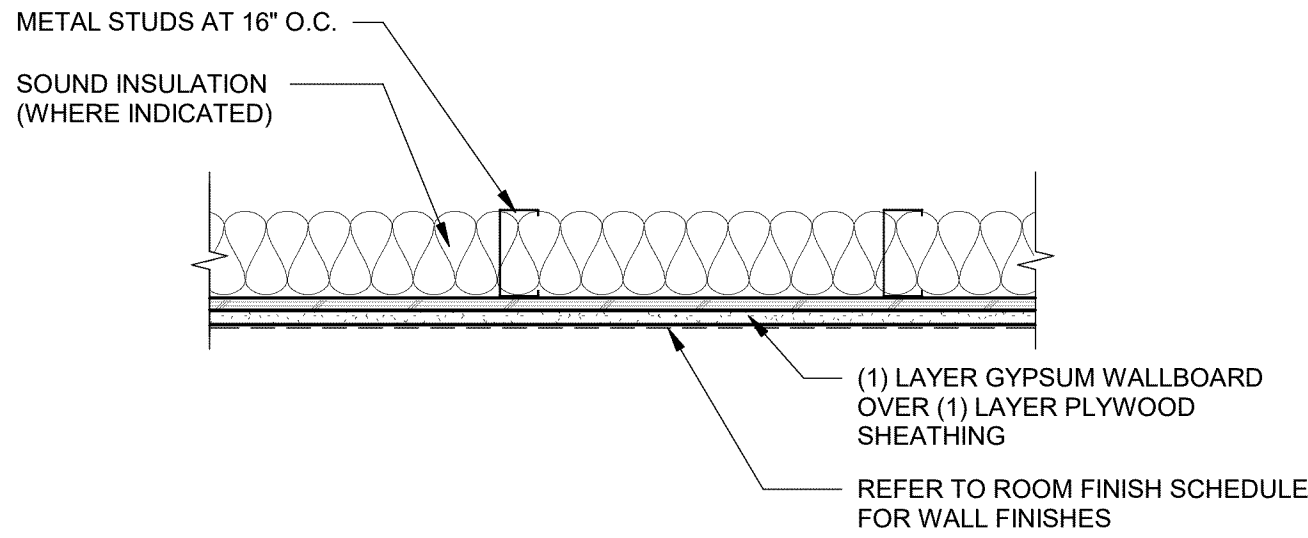
P1



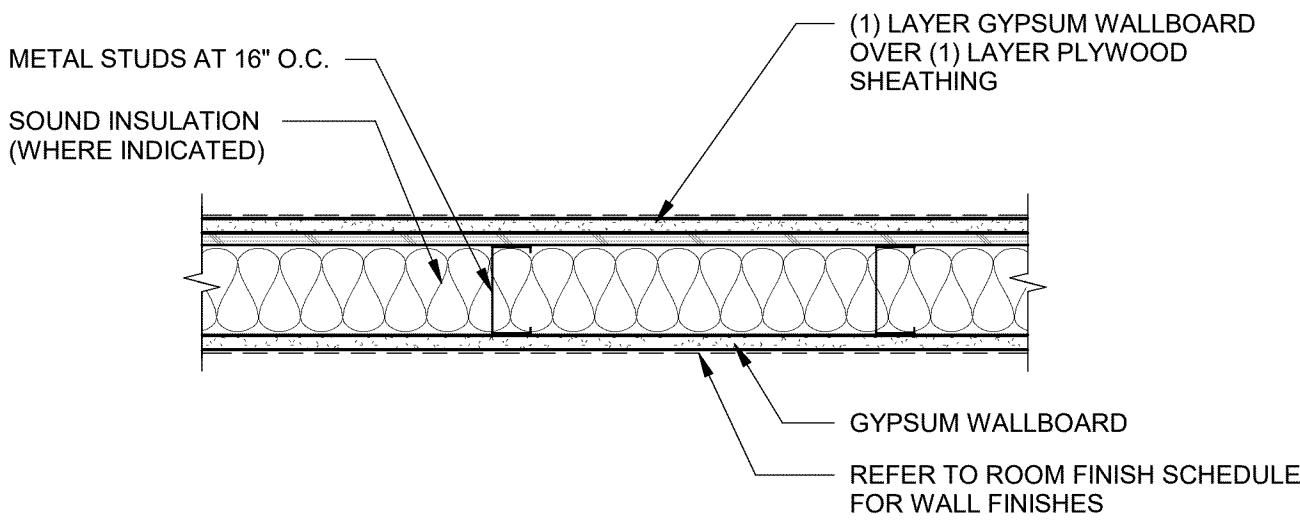
P2

REF# UL U419 AT 1-HR AND 2-HR RATED WALLS

NOTE:  
1. PROVIDE GYPSUM WALLBOARD FULL HEIGHT TO DECK ABOVE AT RATED WALLS.  
2. PROVIDE SPECIFIED CEMENTITIOUS BACKING BOARD AT CERAMIC TILE LOCATIONS.

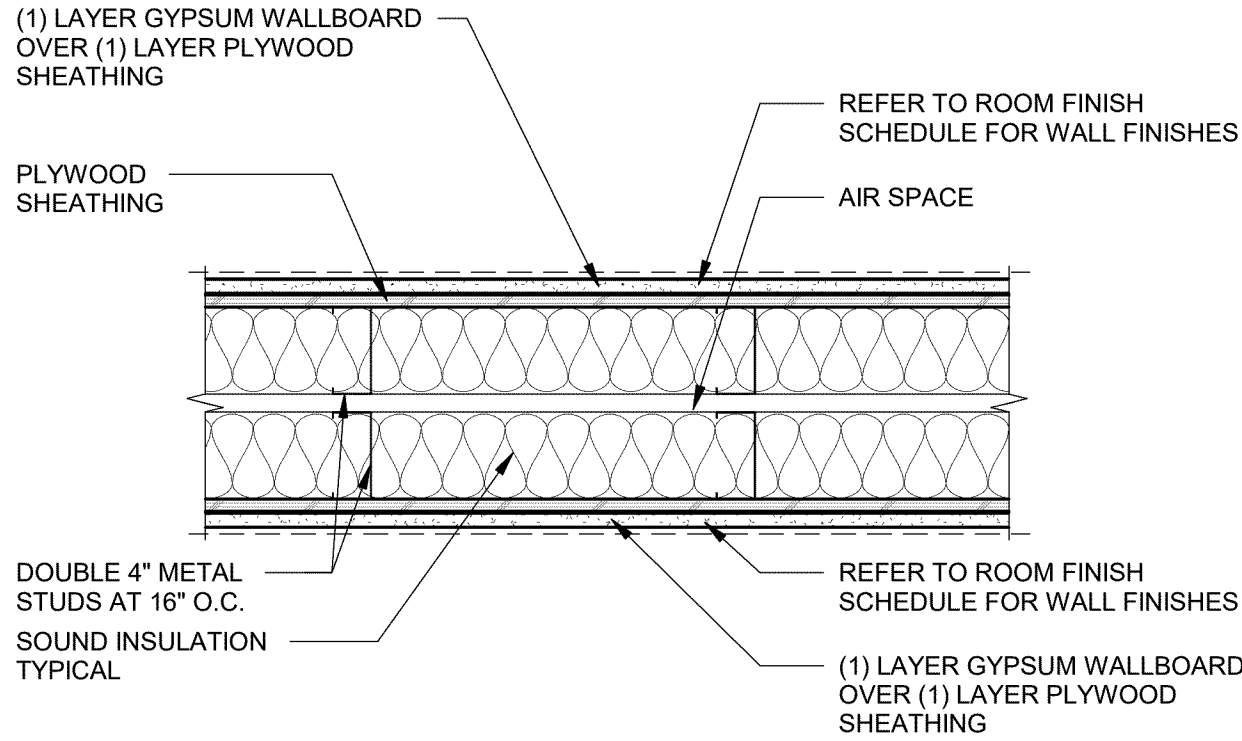


P3

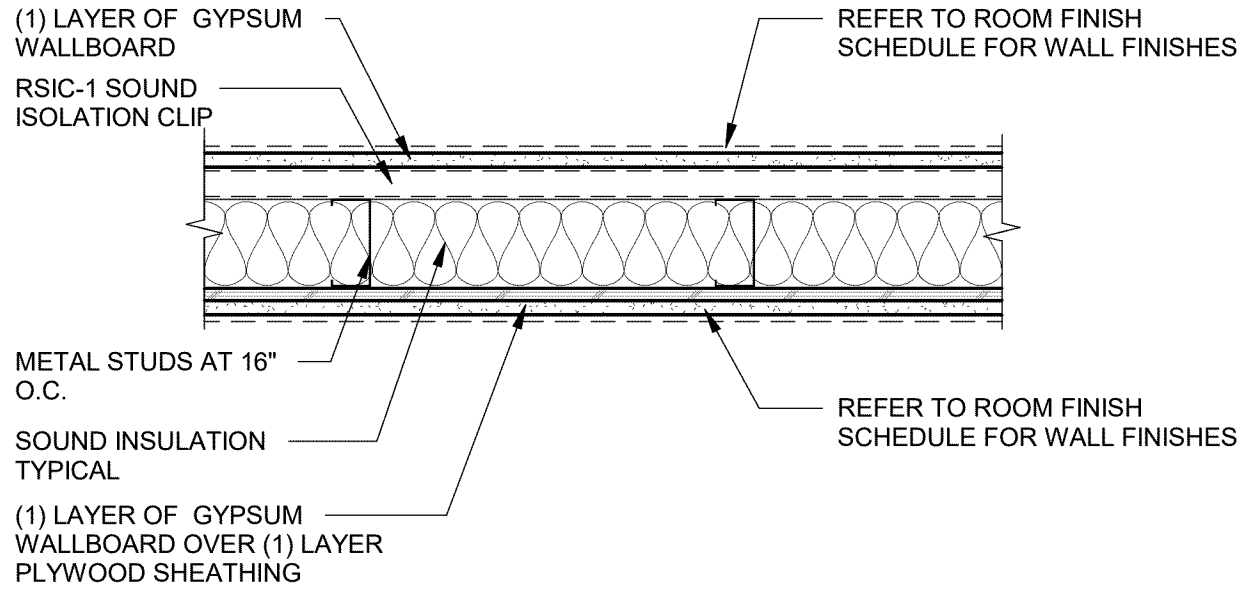


P4

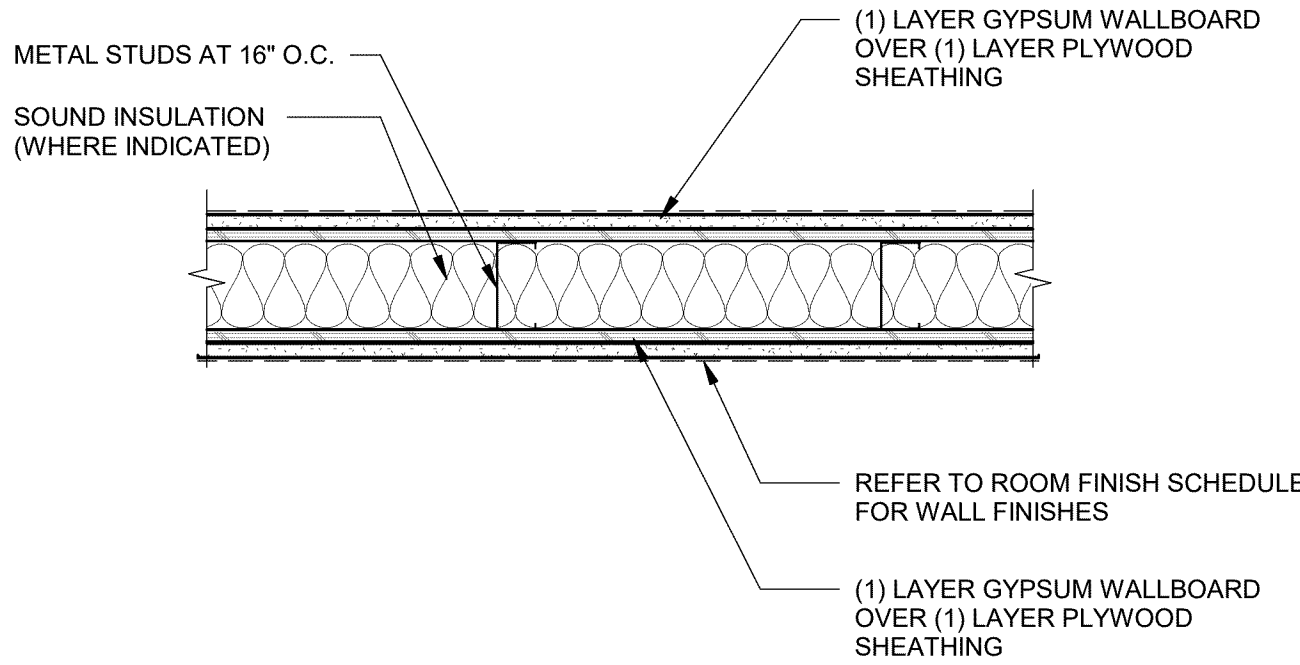
REF# UL U419 AT 1-HR AND 2-HR RATED WALLS



P5

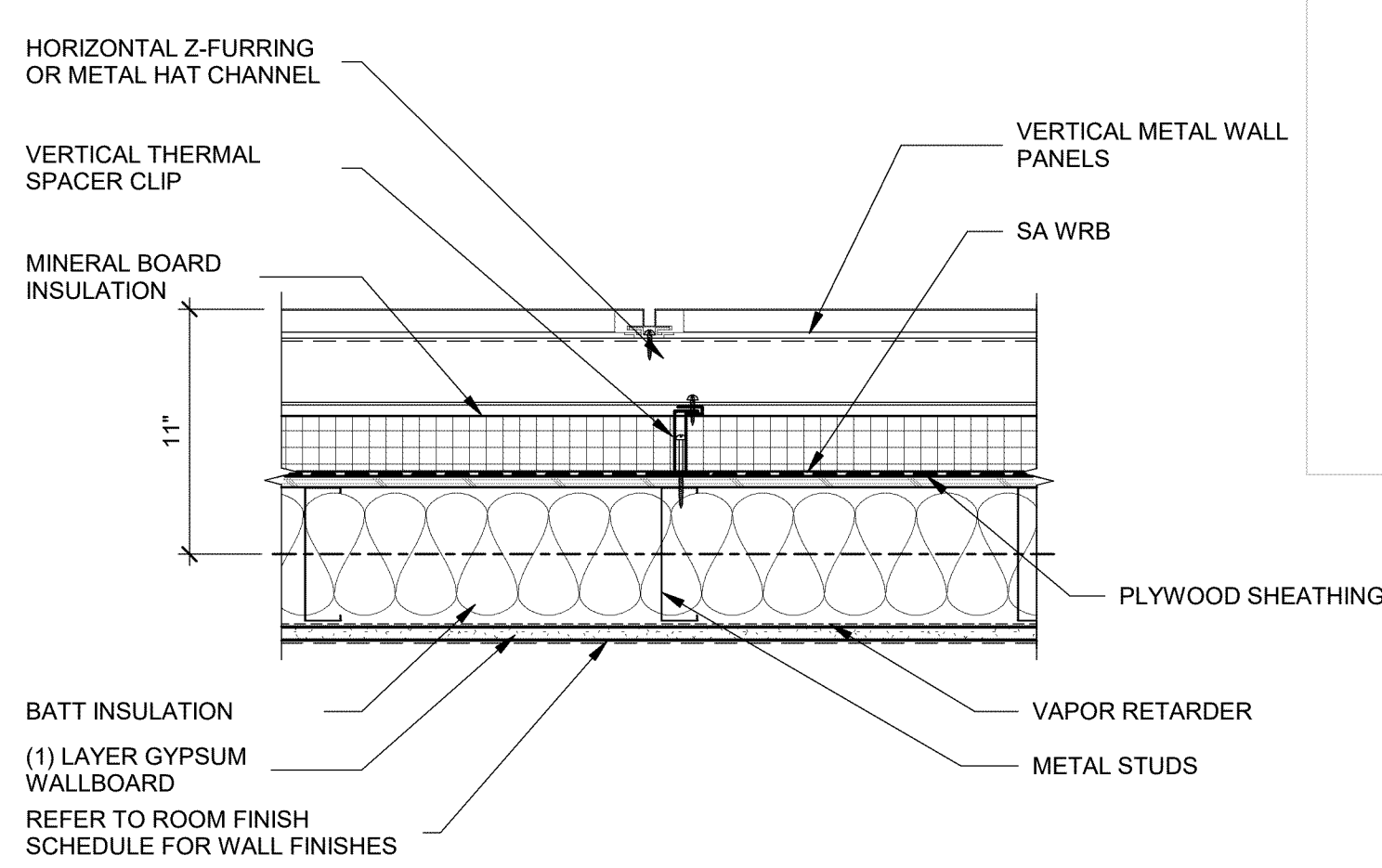
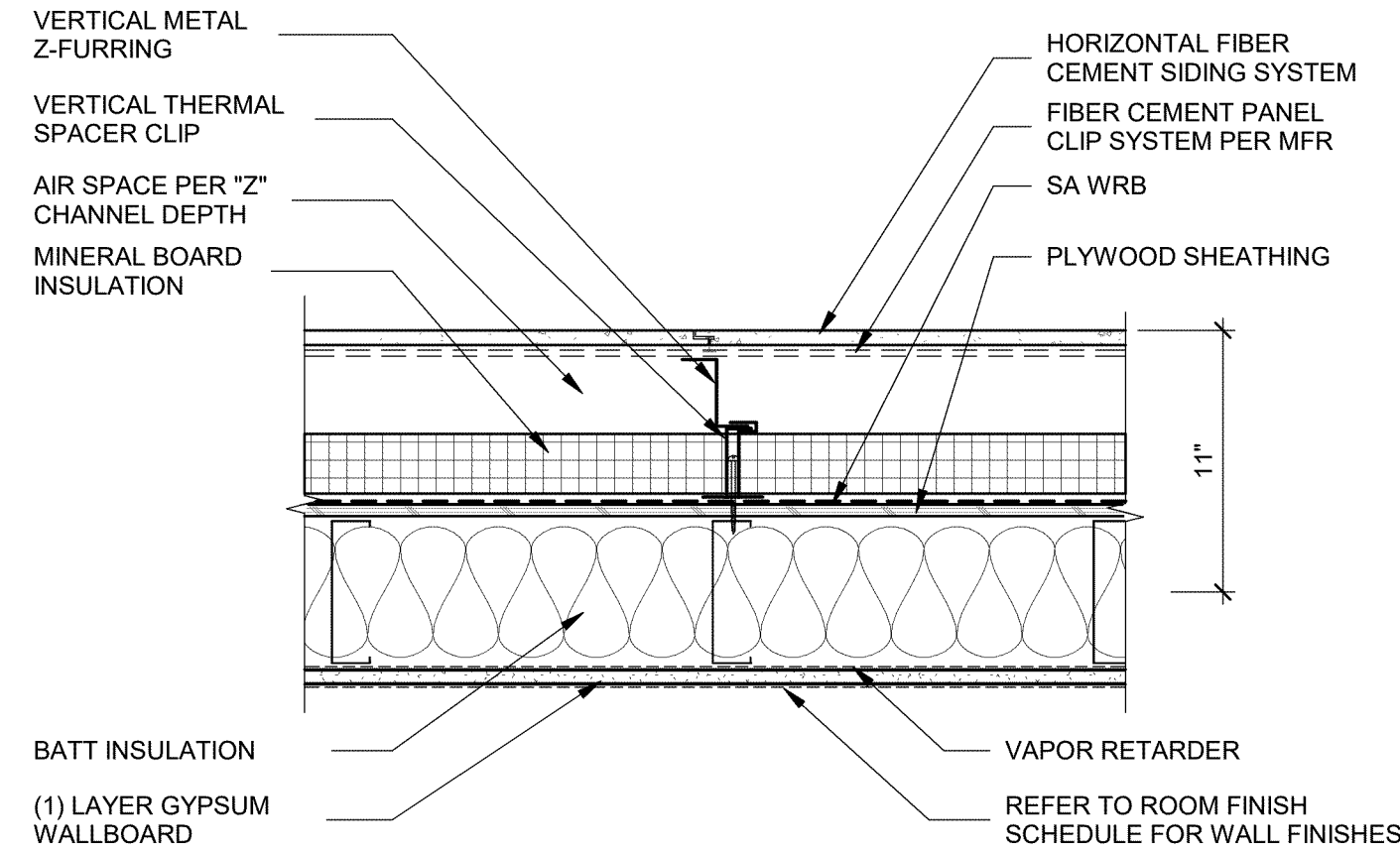
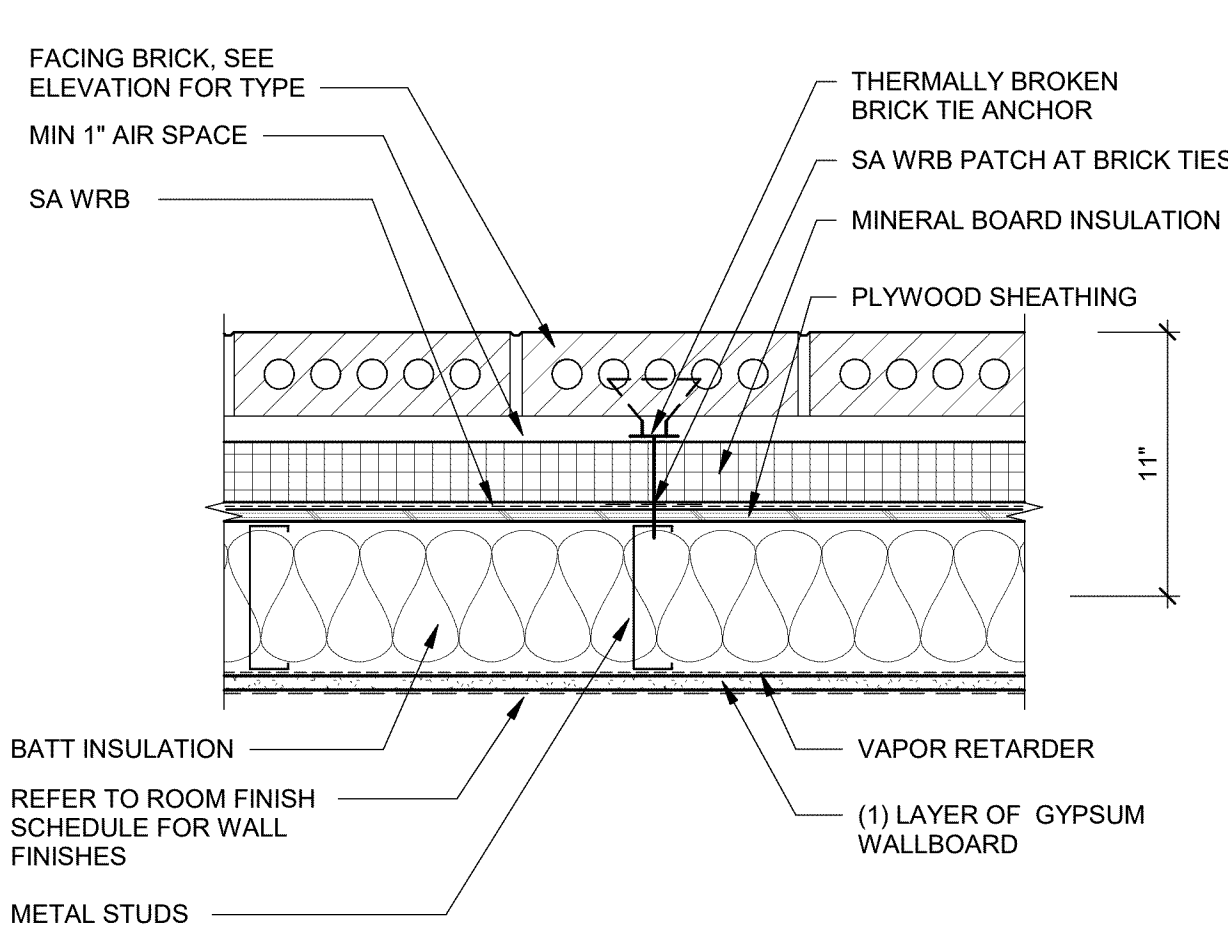


P6



P7

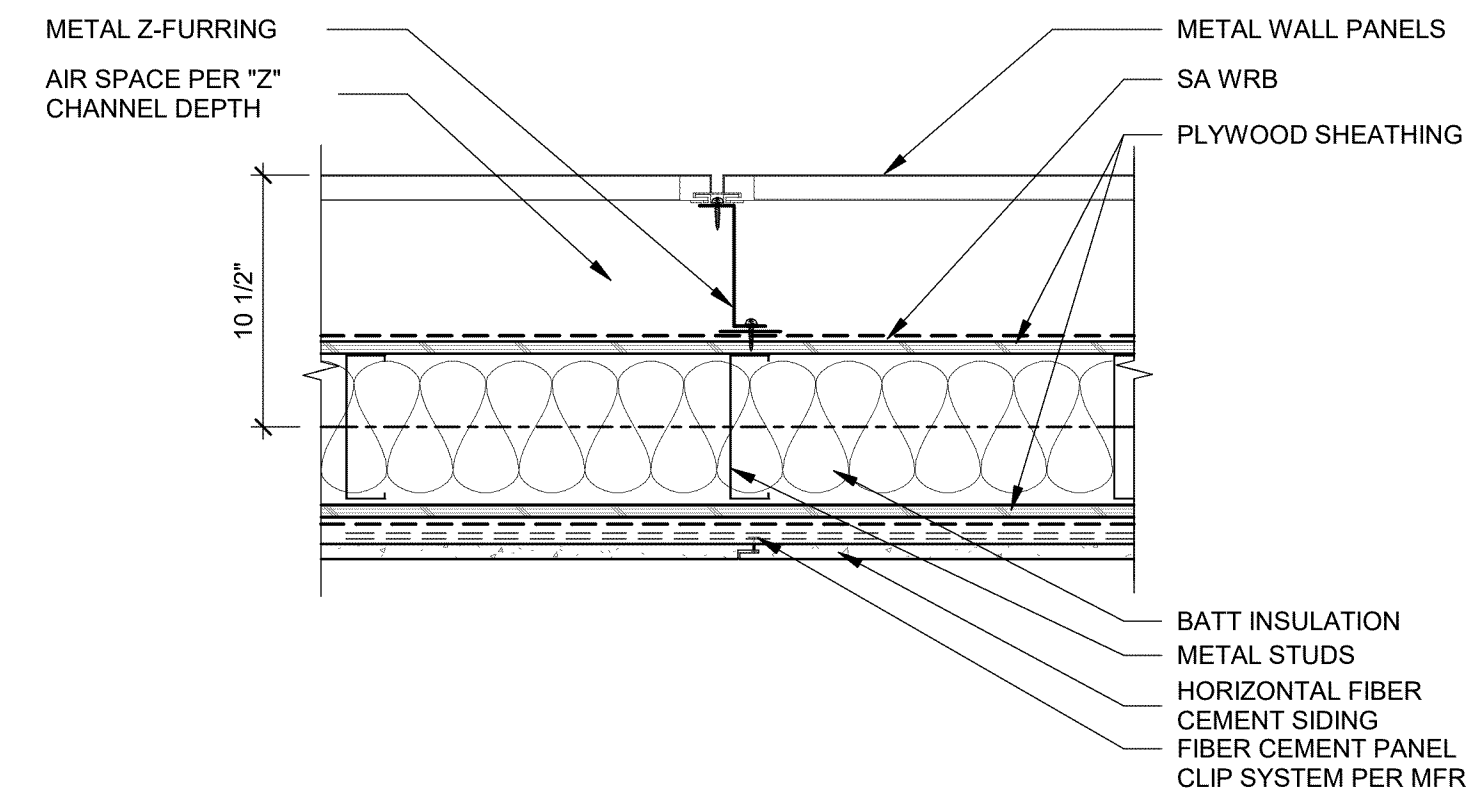
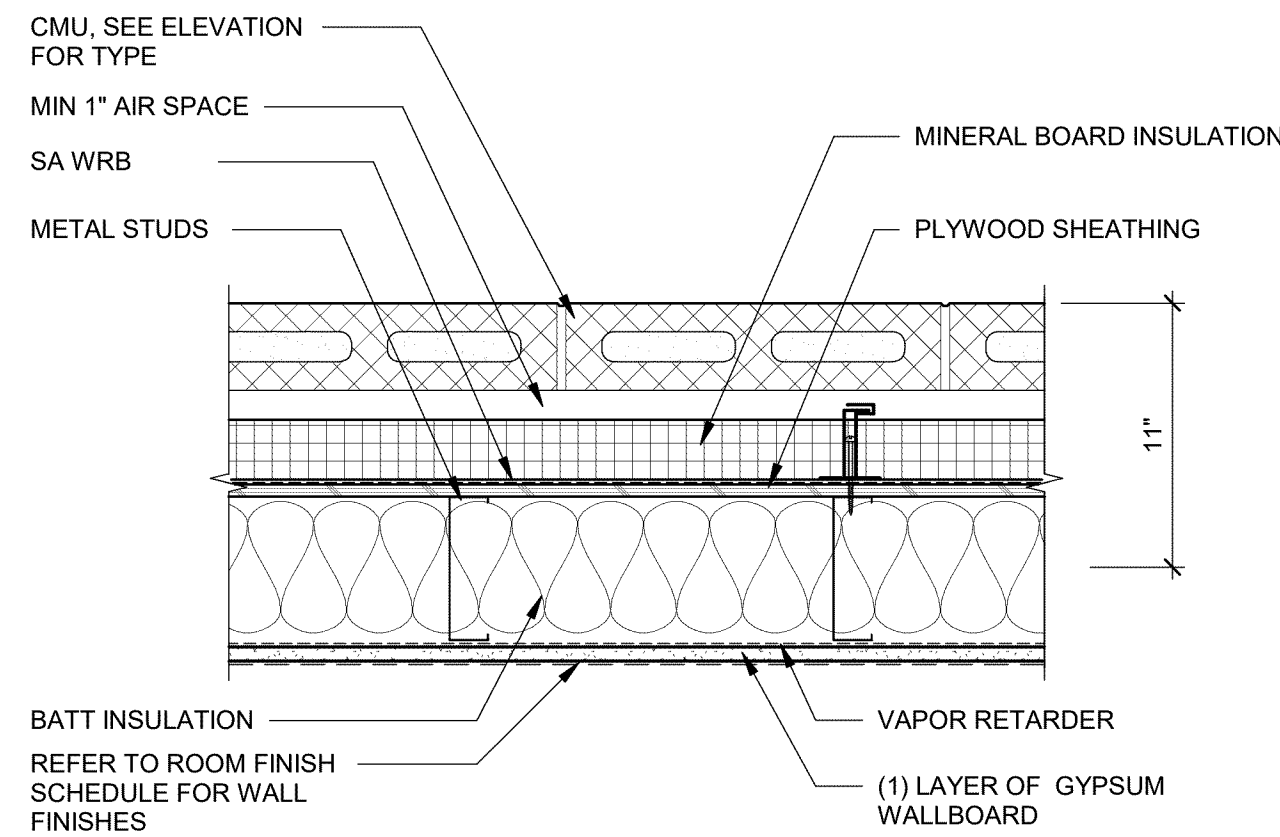
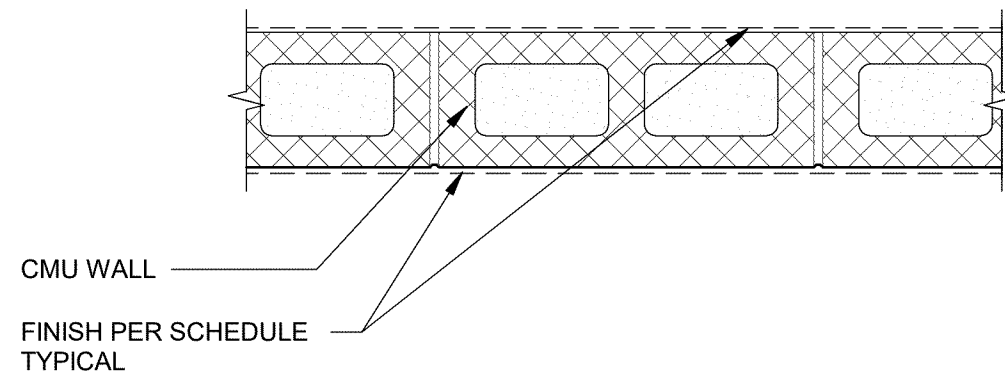




W1 - FACING BRICK

W2 - CEMENTITIOUS PANEL

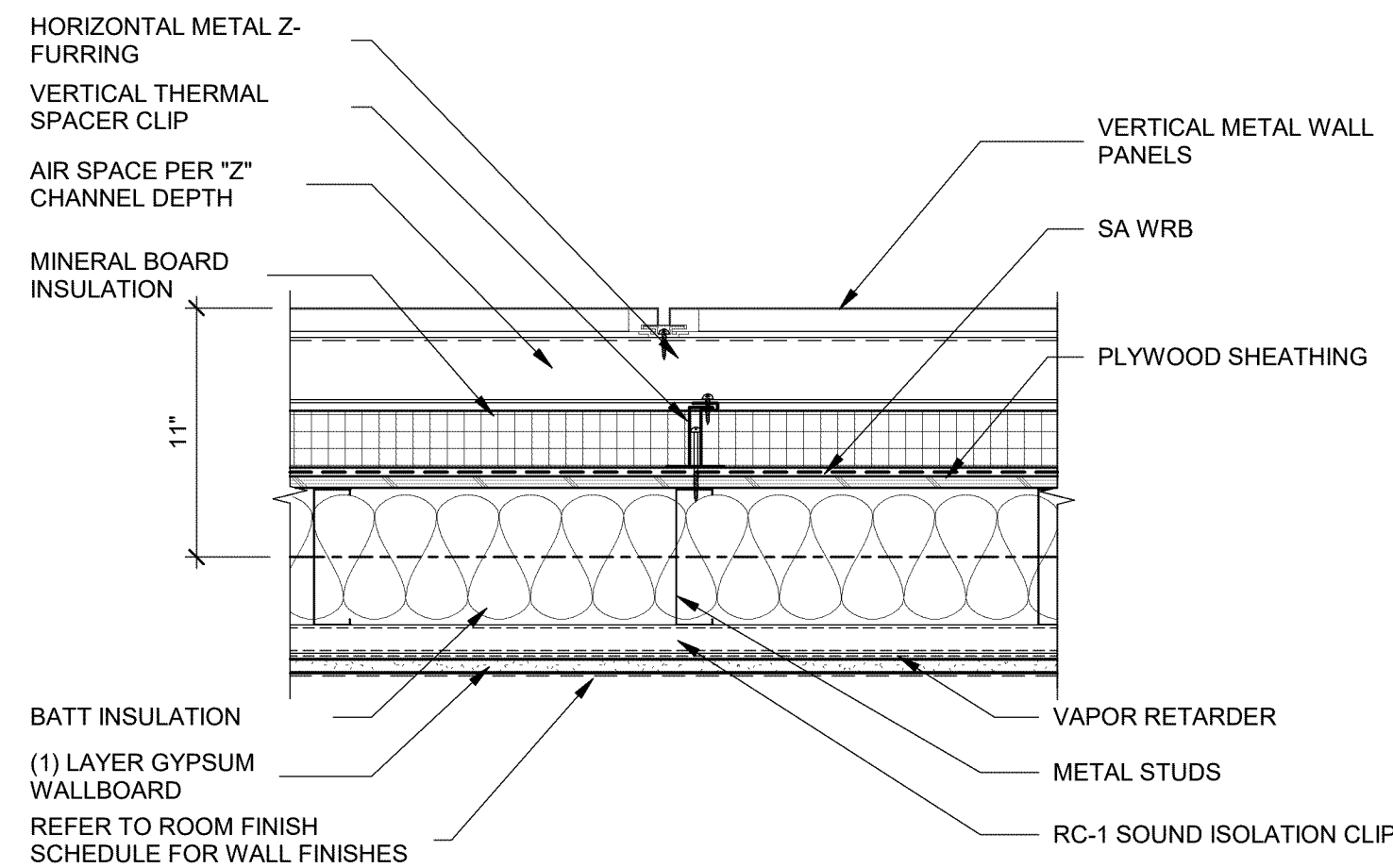
W3 - METAL PANEL



W4 - STRUCTURAL CMU

W5 - CONCRETE MASONRY

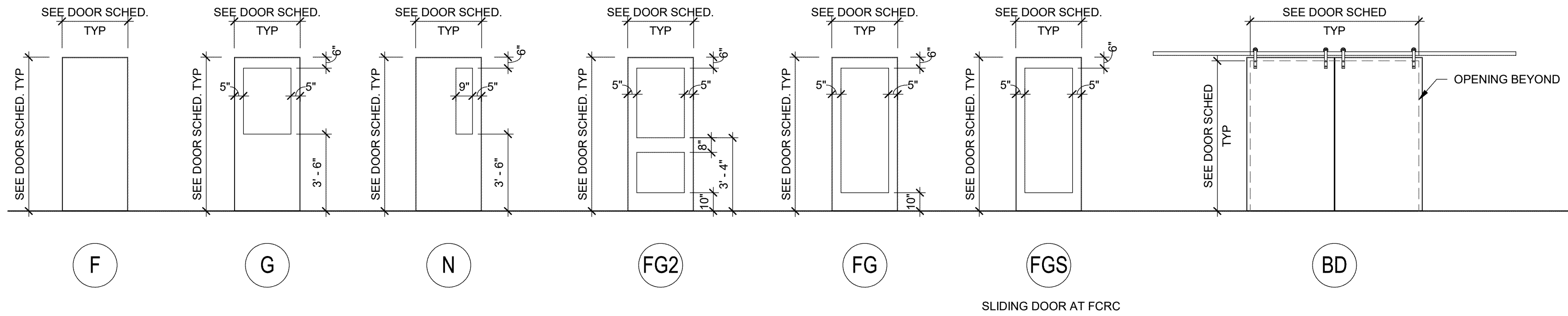
W6 - METAL PANEL @ ENTRANCE



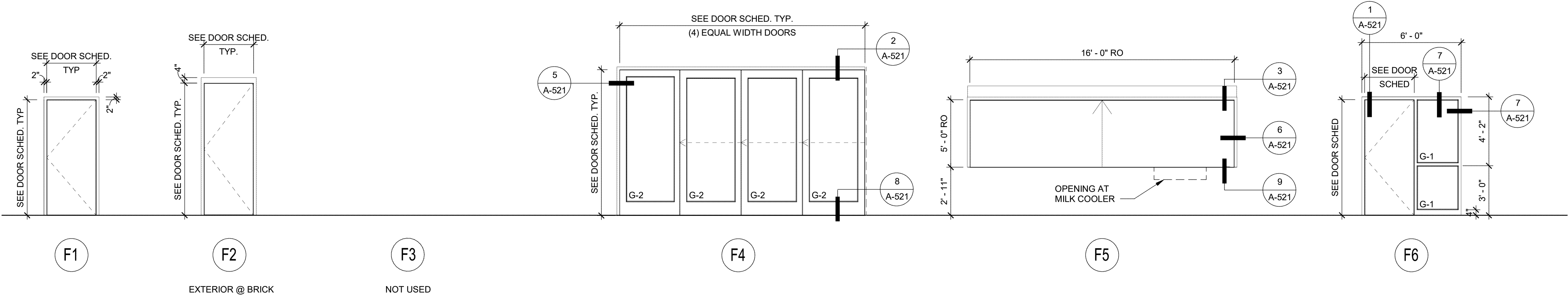
W7 - METAL PANEL NEAR RTUS



DOOR TYPES



FRAME TYPES



- DOOR & WINDOW TYPES GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO DOOR SCHEDULE FOR RATINGS. PROVIDE FIRE RATED GLASS AT RATED DOORS, LAMINATED SAFETY GLASS AT NON-RATED LOCATIONS, AND INSULATED SAFETY GLAZING AT EXTERIOR LOCATIONS.
  3. DETAILS FOR HEAD, JAMB AND SILL CONDITIONS SHOWN ARE TYPICAL. REFER TO PLANS, INTERIOR AND EXTERIOR ELEVATIONS AND SECTIONS FOR NON-TYPICAL DETAILS.
  4. ALL WINDOWS, STOREFRONT, AND CURTAIN WALL SYSTEMS SHALL HAVE SILL PAN FLASHING.
  5. REMOVABLE STOPS TO HAVE FASTENERS ON THE SECURE SIDE OF THE ROOM OR AREA THEY ARE LOCATED IN UNLESS OTHERWISE NOTED.

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**DOOR AND FRAME  
ELEVATIONS**

**A-611**

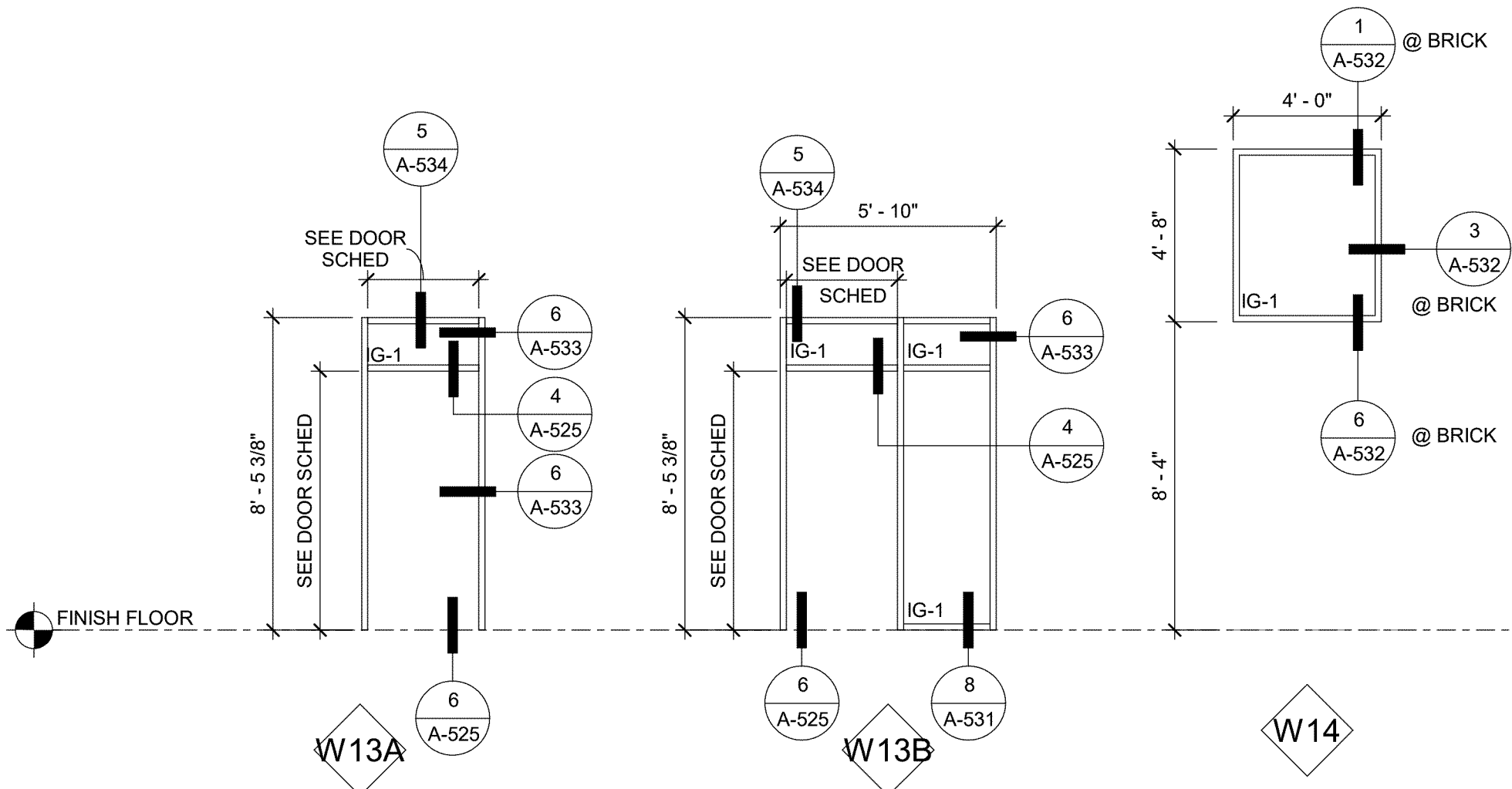
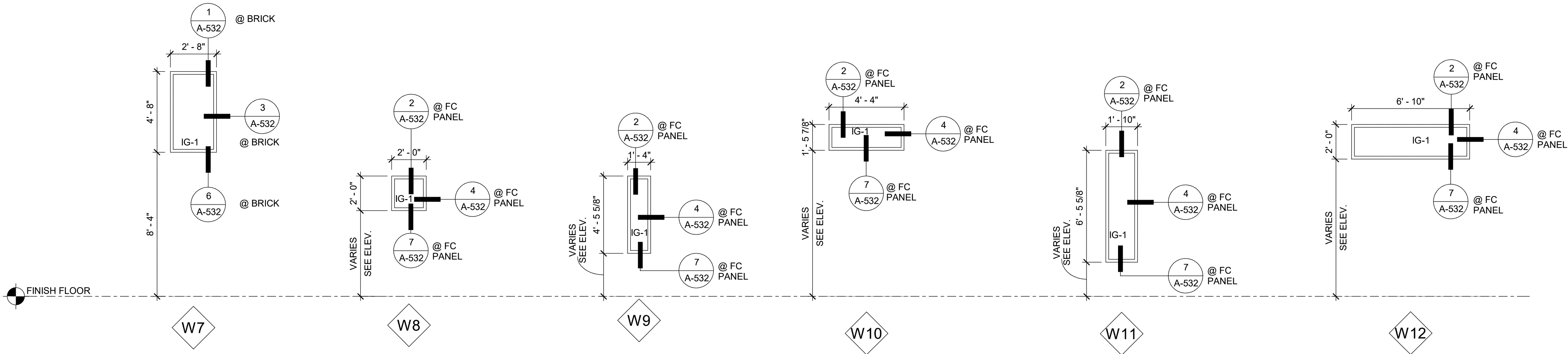
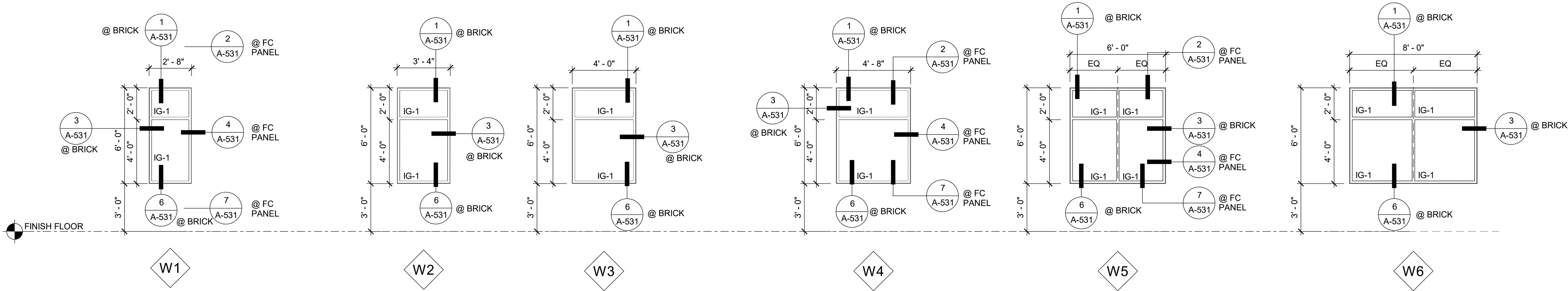
Scale As indicated



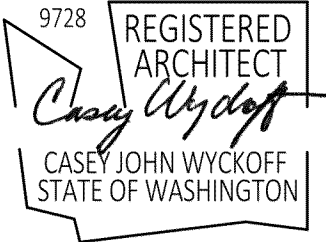
DOOR SCHEDULE																		
DOOR NO.	DOOR							FRAME			DETAILS			FIRE RATING	HARDWARE SET	SIGN TYPE	SIGN TEXT	REMARKS
	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	GLAZING TYPE	TYPE	MATERIAL	FINISH	HEAD	JAMB	THRESH.					
1	FG2	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F6	HM	P-8	1/A-521	1/A-521		15	F	MEDIA		
1.1	FG2	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F6	HM	P-8	1/A-521	1/A-521		18	F	MEDIA		
1A	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	OFFICE		
2	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		19	F	CLASSROOM		
2.1	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		20	-			
3	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	F	CLASSROOM		
4	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		19	F	CLASSROOM		
4.1	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		19	F	CLASSROOM		
4A	BD	8'-0"	7'-0"	1 3/4"	WD	<By Category>	-	-	AL	PREFINISHED				21	-			
5	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	F	CLASSROOM		
5.1	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		20	-			
6	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	F	CLASSROOM		
7	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		22	-			
7.1	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	F	CLASSROOM		
7.2	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		20	-			
7A	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		06	H3			
8	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		19	F	CLASSROOM		
8A	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		06	H3			
9	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	F	CLASSROOM		
9.1	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		20	-			
9A	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		06	H3			
10	N	6'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521	1/A-541	10	F	FITNESS		
10.1	F	6'-0"	7'-0"	1 3/4"	HM	P-8	-	F1	HM	P-8	7/A-525	5/A-525	2/A-541	23	-			
10A	N	6'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521	1/A-541	13	B	COACH		
100	FG2	7'-0"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	01	-			
101	G	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		14	C	MAIN OFFICE		
101.1	G	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		07	C	MAIN OFFICE		
102	G	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	CONFERENCE		
104	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	PRINCIPAL		
105	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	HEALTH		
105A	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		06	H3			
106	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	OFFICE		
107	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	OFFICE		
108	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	OFFICE		
109	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	OFFICE		
110	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		03	C	OFFICE		
111	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		06	H3			
112	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		11	C	MAIN OFFICE		
112.1	FG2	3'-0"	7'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
113	FG2	7'-0"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525		02	-			
114	FG2	3'-6"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	09	-			
114.1	FG2	3'-6"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
115	FG	14'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F4	AL	PREFINISHED	2/A-521	5/A-521	8/A-521	12	-	-		
115.1	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	B	FCRC		
116	FG2	3'-0"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
117	F	3'-6"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		25	C	KITCHEN		
117.1	F	4'-0"	7'-0"	1 3/4"	HM	P-8	-	F2	HM	P-8	7/A-525	5/A-525	6/A-525	08	-			
117B	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		04	-			
118	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		05	H3			
119	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		26	C	STAFF ROOM		
119.1	F	3'-0"	7'-0"	1 3/4"	HM	P-8	-	F2	HM	P-8	7/A-525	5/A-525	6/A-525	16	-			
120	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		05	H3			
121	F	4'-0"	7'-0"	1 3/4"	HM	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		27	B	MECHANICAL		
121.1	F	4'-0"	7'-0"	1 3/4"	HM	P-8	-	F2	HM	P-8	7/A-525	5/A-525	6/A-525	28	-			
122	F	4'-0"	7'-0"	1 3/4"	HM	P-8	-	F2	HM	P-8	7/A-525	5/A-525	6/A-525	29	L			
123	N	4'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		30	-			
123.1	FG2	3'-0"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
123.2	FG2	3'-0"	8'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
124	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	C	SMALL GROUP		
125	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	C	SMALL GROUP		
126	F	4'-0"	7'-0"	1 3/4"	-	-	-	F1	HM	P-8					-		CASED OPENING	
127	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		05	H3			
128	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		04	B	BUILDING OPERATOR		
129	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		05	H3			
130	N	4'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		30	-			
130.1	FG2	3'-0"	7'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
131	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		05	H3			
132	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	C	SMALL GROUP		
133	N	4'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		30	-			
133.1	FG2	3'-0"	7'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525	24	-			
134	F	4'-0"	7'-0"	1 3/4"	-	-	-	F1	HM	P-8					-		CASED OPENING	
135	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		05	H3			
136	F	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	-	F1	HM	P-8	1/A-521	1/A-521		31	B	IT		
137	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	C	SMALL GROUP		
138	N	3'-0"	7'-0"	1 3/4"	WD	PLAM-1	G-1	F1	HM	P-8	1/A-521	1/A-521		15	C	SMALL GROUP		
139	F	4'-0"	7'-0"	1 3/4"	-	-	-	F1	HM	P-8					-		CASED OPENING	
140	F	6'-0"	6'-10"	1 3/4"	HM	P-8	-	F1	HM	P-8	1/A-525	3/A-525	6/A-525	32	-			
141	FG2	3'-0"	7'-0"	2"	AL	PREFINISHED	IG-1	STRFT	AL	PREFINISHED	4/A-525	4/A-525	6/A-525					



STOREFRONT TYPES



- DOOR & WINDOW TYPES GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
  2. REFER TO DOOR SCHEDULE FOR RATINGS. PROVIDE FIRE RATED GLASS AT RATED DOORS, LAMINATED SAFETY GLASS AT NON-RATED LOCATIONS, AND INSULATED SAFETY GLAZING AT EXTERIOR LOCATIONS.
  3. DETAILS FOR HEAD, JAMB AND SILL CONDITIONS SHOWN ARE TYPICAL. REFER TO PLANS, INTERIOR AND EXTERIOR ELEVATIONS AND SECTIONS FOR NON-TYPICAL DETAILS.
  4. ALL WINDOWS, STOREFRONT, AND CURTAIN WALL SYSTEMS SHALL HAVE SILL PAN FLASHING.
  5. REMOVABLE STOPS TO HAVE FASTENERS ON THE SECURE SIDE OF THE ROOM OR AREA THEY ARE LOCATED IN UNLESS OTHERWISE NOTED.



drawn by  
Author  
checked by  
Checker

lsw job number  
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**FIR GROVE CHILDREN'S CENTER**  
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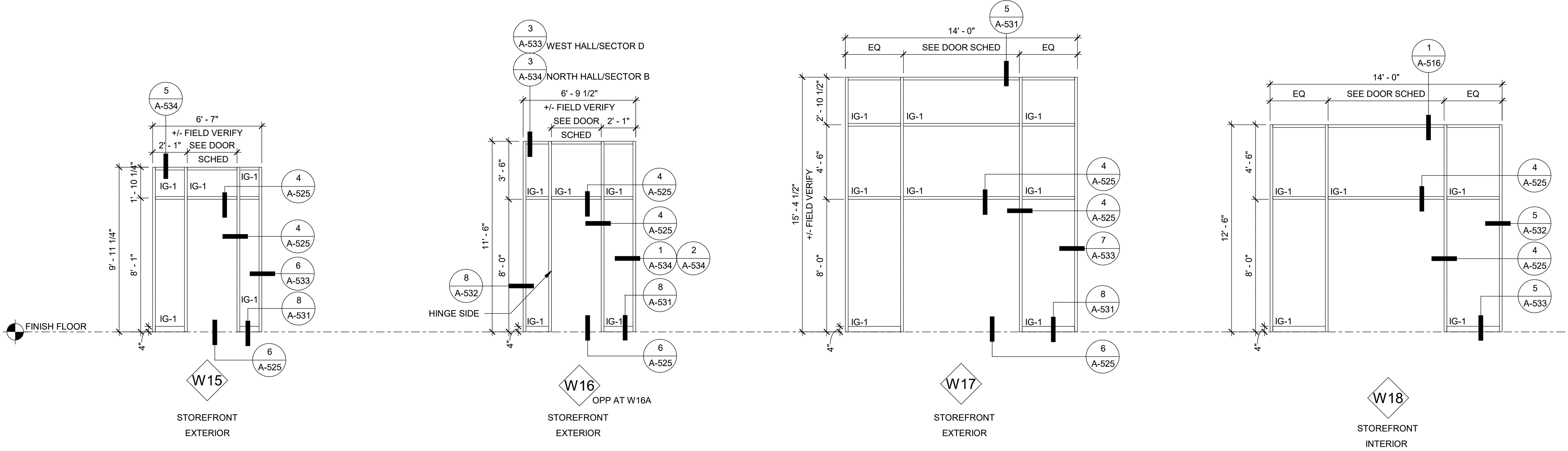
STOREFRONT TYPES

**A-621**

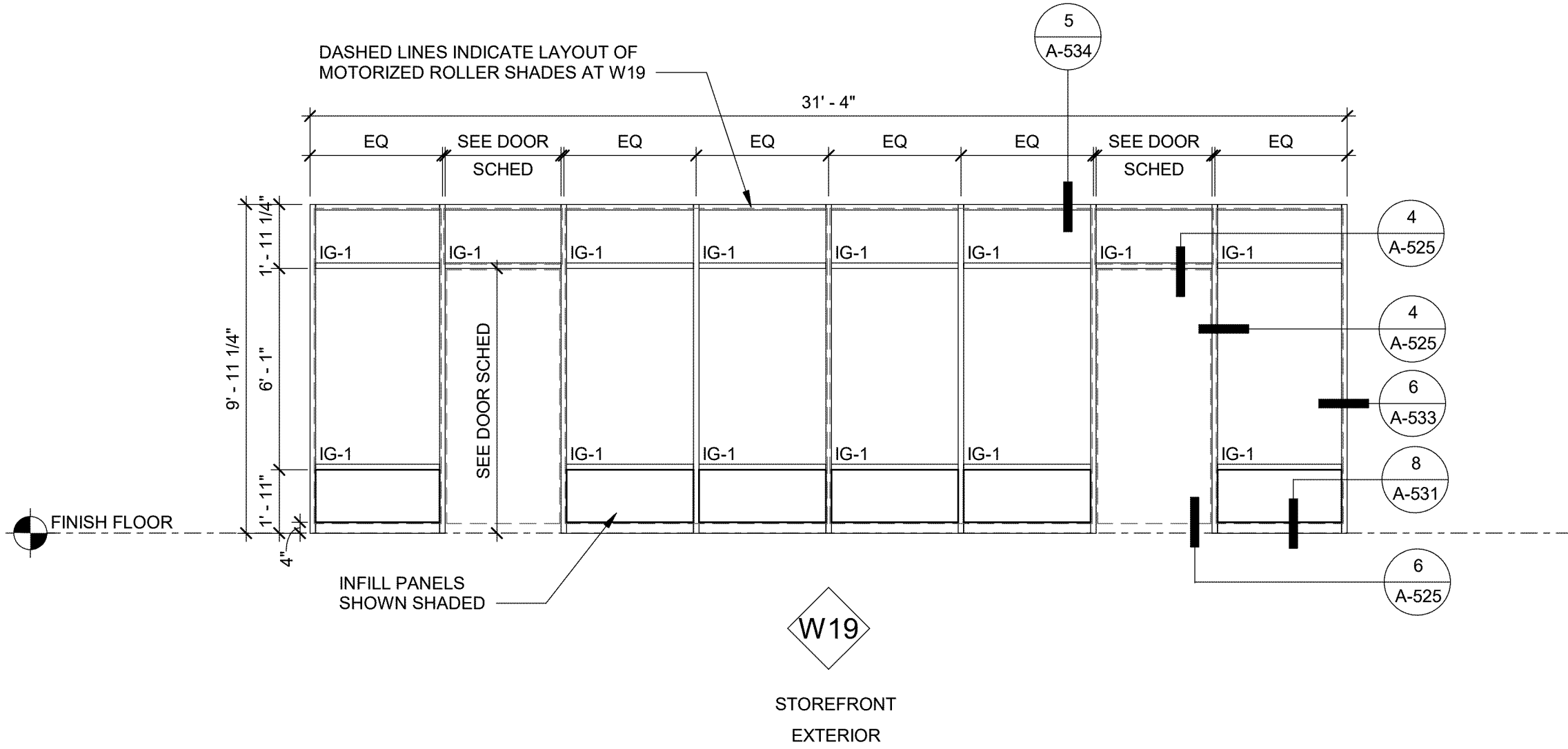
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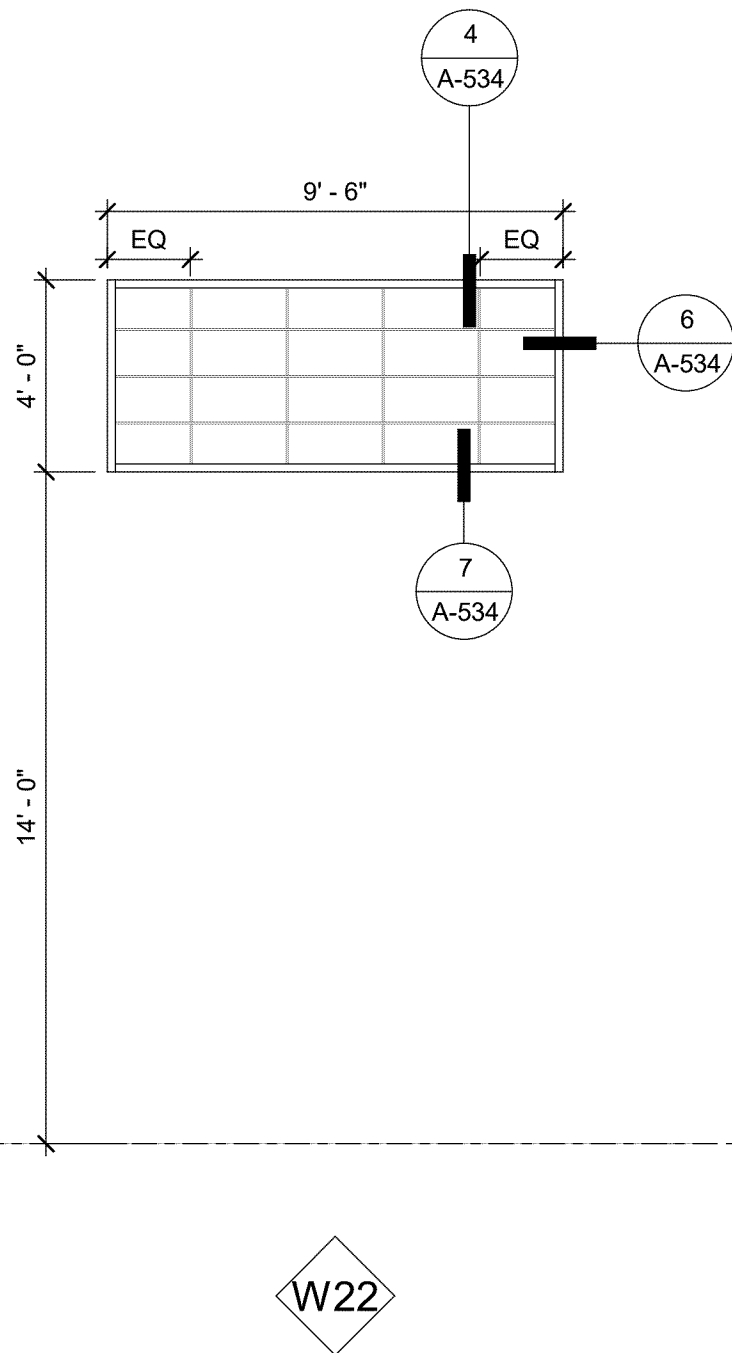
STOREFRONT TYPES



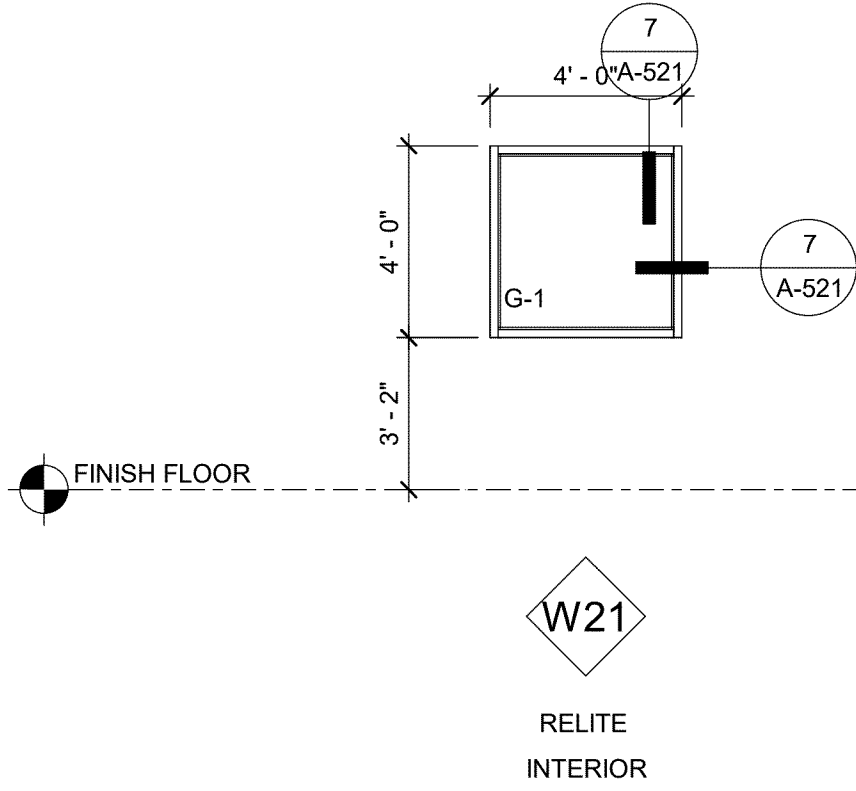
- DOOR & WINDOW TYPES GENERAL NOTES**
1. REFER TO CODE ANALYSIS SHEETS FOR RATED CONSTRUCTION AND OPENING PROTECTION.
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TRANSLUCENT WALL ASSEMBLY TYPES



RELITE TYPES



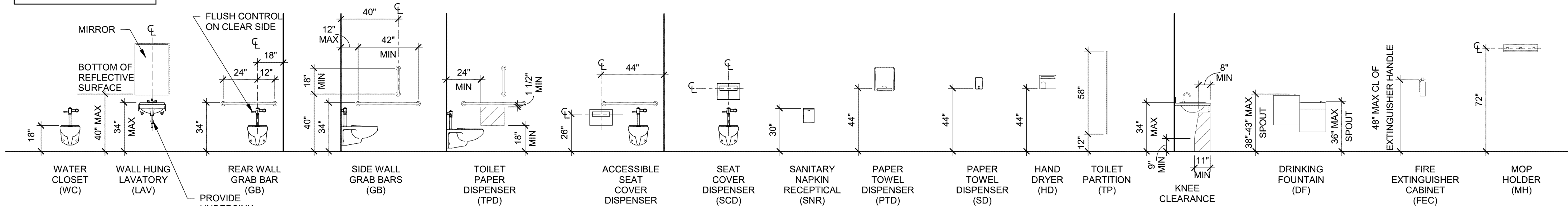


ROOM FINISH SCHEDULE														
Num ber	Name	FLOOR	BASE	WALLS								CEILING		REMARKS
		FINISH	FINISH	NORTH		EAST		SOUTH		WEST		MATERIAL	FINISH	
				MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH			
1	MEDIA	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1/AP-4/A P-5/AP-6	GWB	P-1	OTS	P-4	
1A	A.A. COACH	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-5	GWB	P-1	AP-1	FAC	
2	CLASSROOM	CPT-1	RB-1	GWB	P-4	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
3	CLASSROOM	CPT-1	RB-1	GWB	P-4	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
4	MS/HS FLEX	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-5	OTS	P-1	
4A	STOR	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
5	CLASSROOM	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-3	GWB	P-1	OTS	P-1	
6	CLASSROOM	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-3	GWB	P-1	OTS	P-1	
7	CLASSROOM	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-2	OTS	P-1	
7A	WC	T-1	T-1	GWB	P-1/T-3	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
8	CLASSROOM	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1/AP-4	GWB	P-1/P-2	OTS/GWB	P-1	
8A	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-3	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
9	CLASSROOM	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1/P-2	OTS	P-1	
9A	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-3	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
10A	COACH	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
100	VESTIBULE	CPT-5	RB-1	GWB	P-1	-	-	GWB	P-1	-	-	WD	CLEAR SEALER	
101	ADMIN/WAITING	CPT-1	RB-1	GWB	P-1	GWB	P-3	GWB	P-1	GWB	P-1	AP-1	FAC	
102	CONF.	CPT-1	RB-1	GWB	P-5	GWB	P-1	GWB	P-1	GWB	P-1	AP-1	FAC	
103	CORRIDOR	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	AP-1	FAC	
104	PRINCIPAL	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-5	GWB	P-1	AP-1	FAC	
105	HEALTH	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	AP-1	FAC	
105A	HEALTH RR	T-1	T-1	GWB	P-1/T-5	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
106	PSYCH	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-5	GWB	P-1	AP-1	FAC	
107	MH	CPT-1	RB-1	GWB	P-5	GWB	P-1	GWB	P-1	GWB	P-1	AP-1	FAC	
108	OT/S/N	CPT-1	RB-1	GWB	P-1	GWB	P-5	GWB	P-1	GWB	P-1	AP-1	FAC	
109	MH	CPT-1	RB-1	GWB	P-1	GWB	P-5	GWB	P-1	GWB	P-1	AP-1	FAC	
110	MH	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-5	AP-1	FAC	
111	WC	T-1	T-1	GWB	P-1/T-5	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
112	WORK ROOM	CPT-1	RB-1	GWB	P-1	GWB	P-1	-	-	GWB	P-1	AP-1/OTS	FAC/PT-1	
113	HALL	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-4	-	-	WD/OTS	CLEAR SEALER/P-1	
114	CAFE/COMMONS	CONC-1	RB-1	GWB	P-1	-	-	GWB	P-1	-	-	OTS	P-1	
115	FCRC	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1/T-2	GWB	P-1	GWB	P-1	
116	HALL	CONC-1	RB-1	GWB	P-1/T-2	GWB	P-1	-	-	GWB	P-1/WD-1	OTS	P-1	
117	KITCHEN	RF-1	RF-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	AP-2	FAC	
117A	COOLER													
117B	STOR	RF-1	RF-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	AP-2	FAC	
118	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-3	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
119	STAFF BREAK ROOM	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-5	GWB	P-1	OTS	P-1	
120	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-3	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
121	MECHANICAL	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
122	ELECTRICAL	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
123	HALL	CPT-2/CPT-5	RB-1	GWB	P-1	GWB	P-2/WD-3	GWB	P-1	GWB	P-1	OTS/GWB	P-1/P-2	
124	SM.GR	CPT-2	RB-1	GWB	P-1/AP-4	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	
125	SM. GR	CPT-3	RB-1	GWB	P-1	GWB	P-1	GWB	P-1/AP-5	GWB	P-1	GWB	P-1	
126	FOCUS	RF-2	RB-3	GWB	P-1/WP-1	GWB	P-1/WP-4	GWB	P-1/WP-1	GWB	P-1/WP-1	GWB	P-1	SEE A-704/9 FOR EXTENT OF WP
127	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-4	GWB	P-1	
128	B. OPER	CONC-1	RB-1	GWB	P-1/FRP-1	GWB	P-1/FRP-1	GWB	P-1	GWB	P-1	GWB	P-1	
129	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-5	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
130	HALL	CPT-4/CPT-5	RB-1	GWB	P-1/P-7	GWB	P-1	GWB	P-4/WD-5	GWB	P-1	OTS/GWB	P-1	
131	WC	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-5	GWB	P-1/T-2	GWB	P-1	
132	SM. GR.	CPT-4	RB-1	GWB	P-1	GWB	P-1/AP-6	GWB	P-1	GWB	P-1	GWB	P-1	
133	HALL	CPT-3/CPT-5	RB-1	GWB	P-3/WD-4	GWB	P-1	GWB	P-1/P-7	GWB	P-1	OTS/GWB	P-1	
134	FOCUS	RF-2	RB-3	GWB	P-1/WP-1	GWB	P-1/WP-3	GWB	P-1/WP-1	GWB	P-1/WP-1	GWB	P-1	SEE A-704/9 FOR EXTENT OF WP
135	WC	T-1	T-1	GWB	P-1/T-4	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	
136	MDF	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	
137	SM.GR.	CPT-3	RB-1	GWB	P-1	GWB	P-1/AP-5	GWB	P-1	GWB	P-1	GWB	P-1	
138	SM. GR.	CPT-2	RB-1	GWB	P-1/AP-4	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	
139	FOCUS	RF-2	RB-3	GWB	P-1/WP-1	GWB	P-1/WP-2	GWB	P-1/WP-1	GWB	P-1/WP-1	GWB	P-1	SEE A-704/9 FOR EXTENT OF WP
140	STOR	CONC-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	OTS	P-1	
141	HALL	CONC-1	RB-1	GWB	P-1/P-2	GWB	P-1/P-3/P-4/T-2	GWB	P-1	GWB	P-1	OTS	P-1	

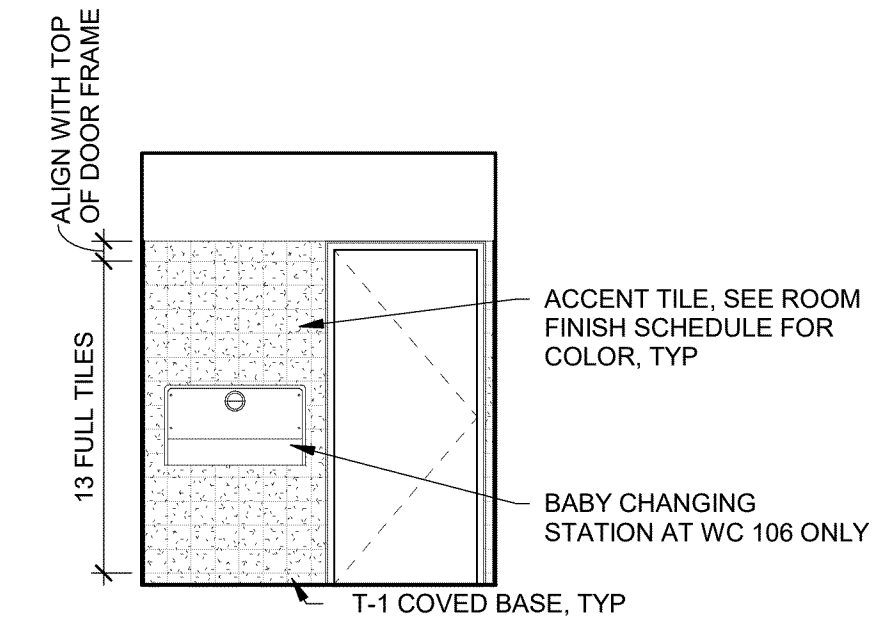
ROOM FINISH SCHEDULE ALTERNATE 1														
Num ber	Name	FLOOR	BASE	WALLS								CEILING		REMARKS
		FINISH	FINISH	NORTH		EAST		SOUTH		WEST		MATERIAL	FINISH	
				MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH			
125A	HALL ALT 1	CPT-6	RB-1	GWB	P-1	GWB	P-2	-	-	GWB	P-1	OTS/GWB	P-1	
152	CLASSROOM ALT 1	CPT-1	RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1/P-2	OTS	P-1	
152A	WC ALT 1	T-1	T-1	GWB	P-1/T-2	GWB	P-1/T-3	GWB	P-1/T-2	GWB	P-1/T-2	GWB	P-1	



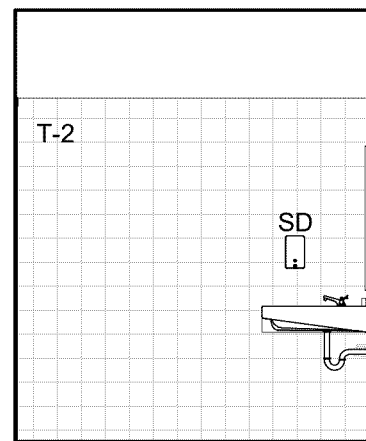
NOTE: PROVIDE BLOCKING IN WALL FOR ALL ACCESSORIES. FIXTURES ARE DIAGRAMMATIC.



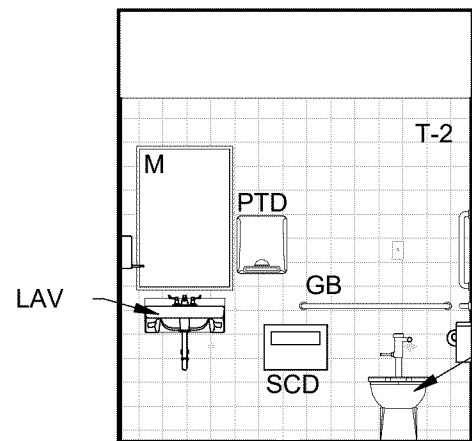
## MOUNTING HEIGHT LEGEND



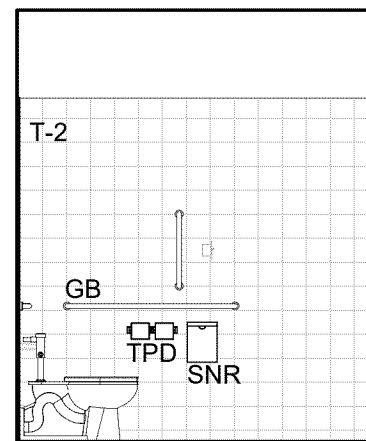
1 TYP RR ELEVATION  
SCALE: 1/4" = 1'-0"



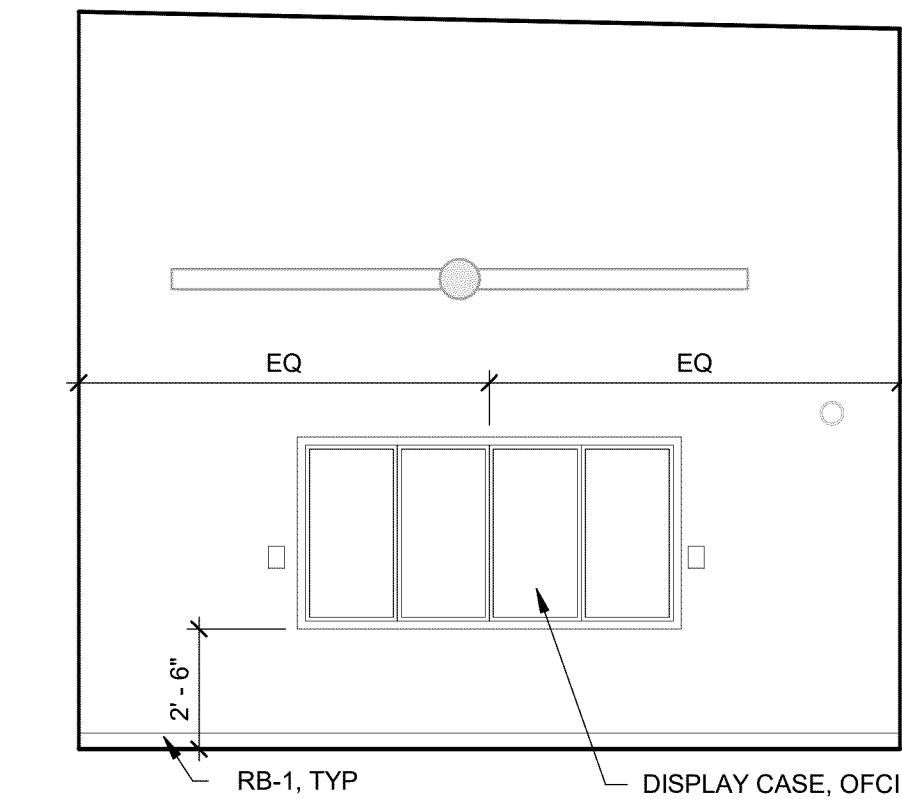
2 TYP RR ELEVATION  
SCALE: 1/4" = 1'-0"



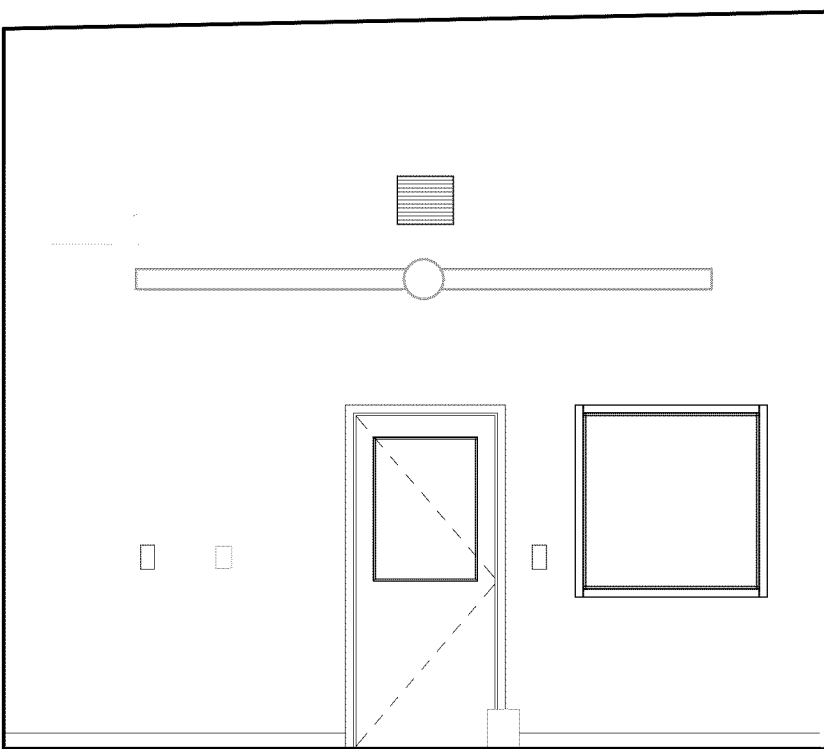
3 TYP RR ELEVATION  
SCALE: 1/4" = 1'-0"



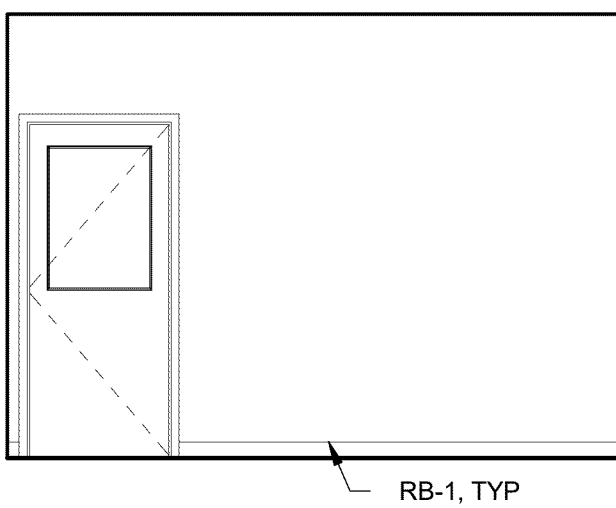
4 TYP RR ELEVATION  
SCALE: 1/4" = 1'-0"



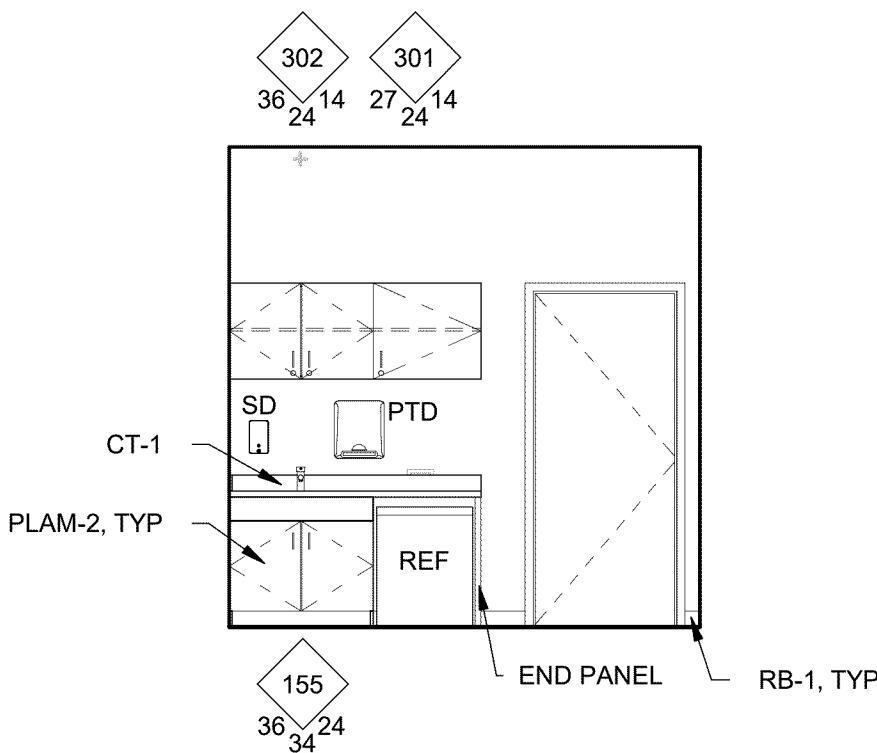
5 100 - VESTIBULE N  
SCALE: 1/4" = 1'-0"



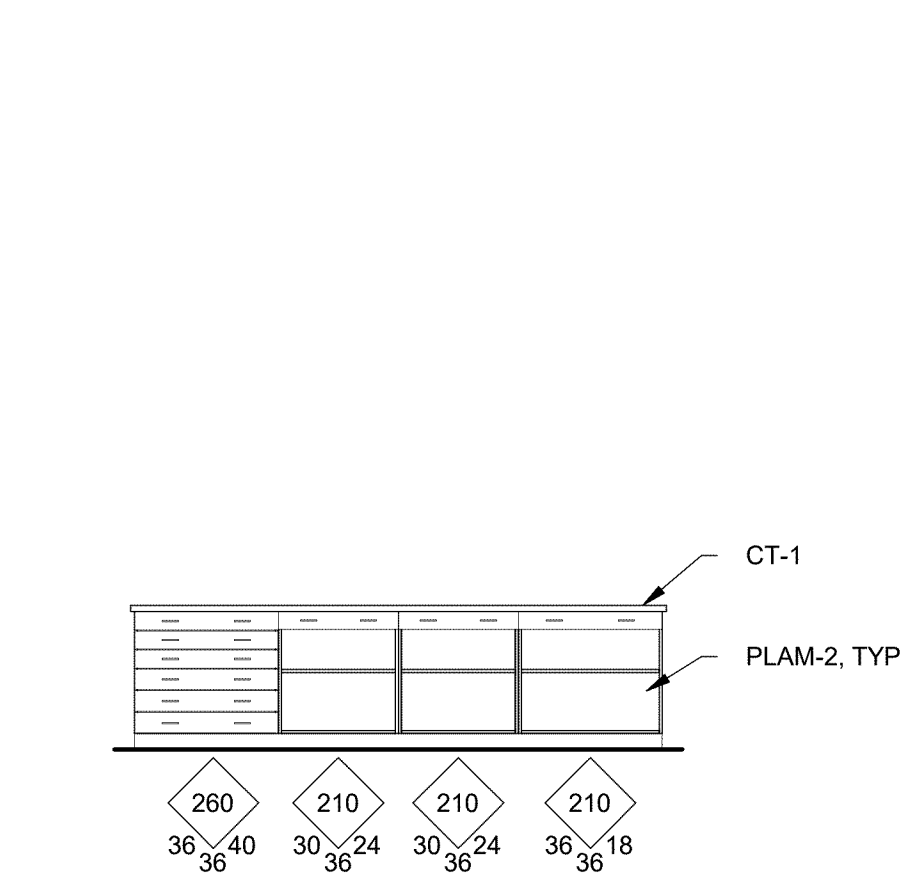
6 100 - VESTIBULE S  
SCALE: 1/4" = 1'-0"



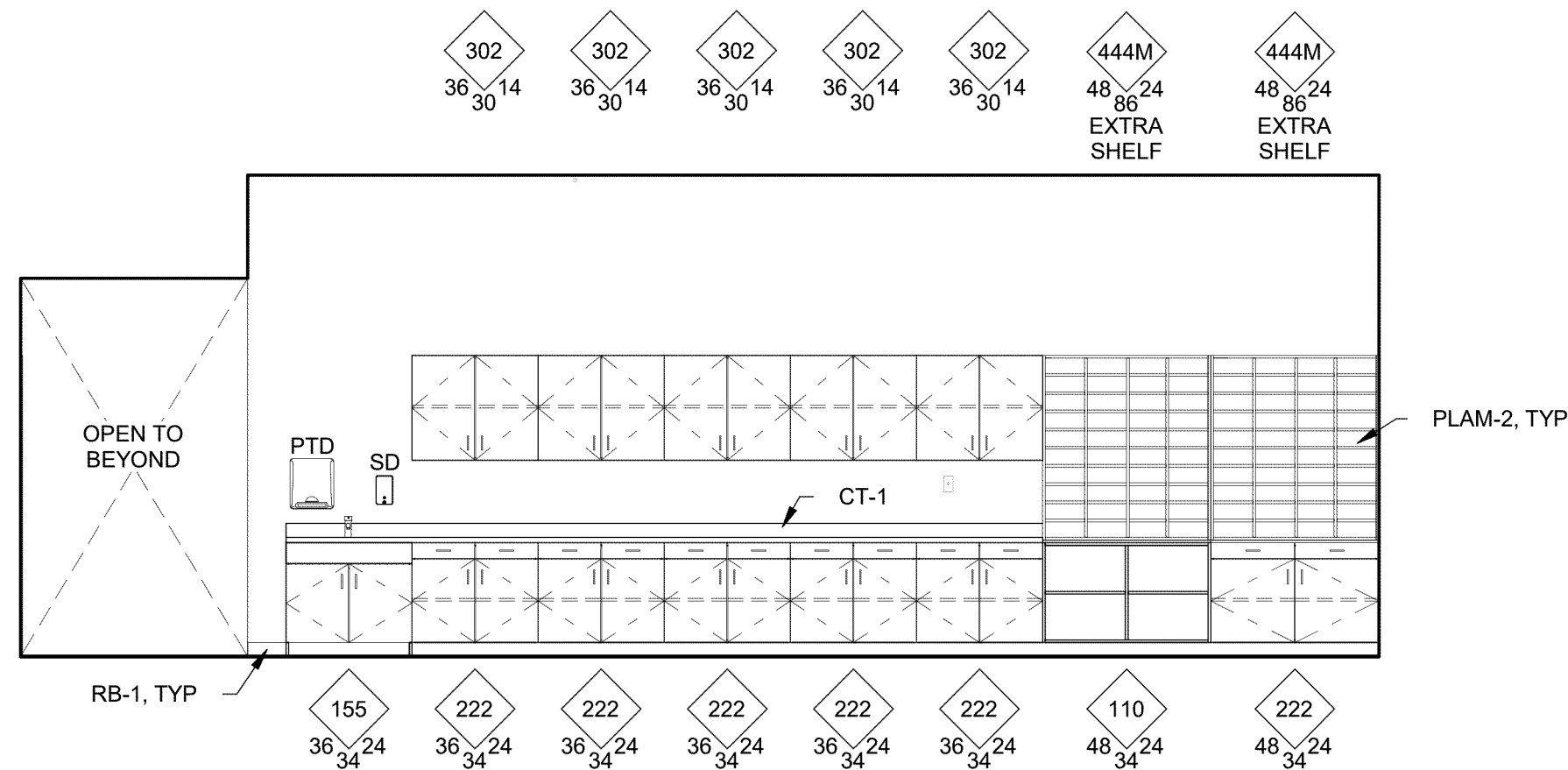
7 101 - ADMIN/WAITING E  
SCALE: 1/4" = 1'-0"



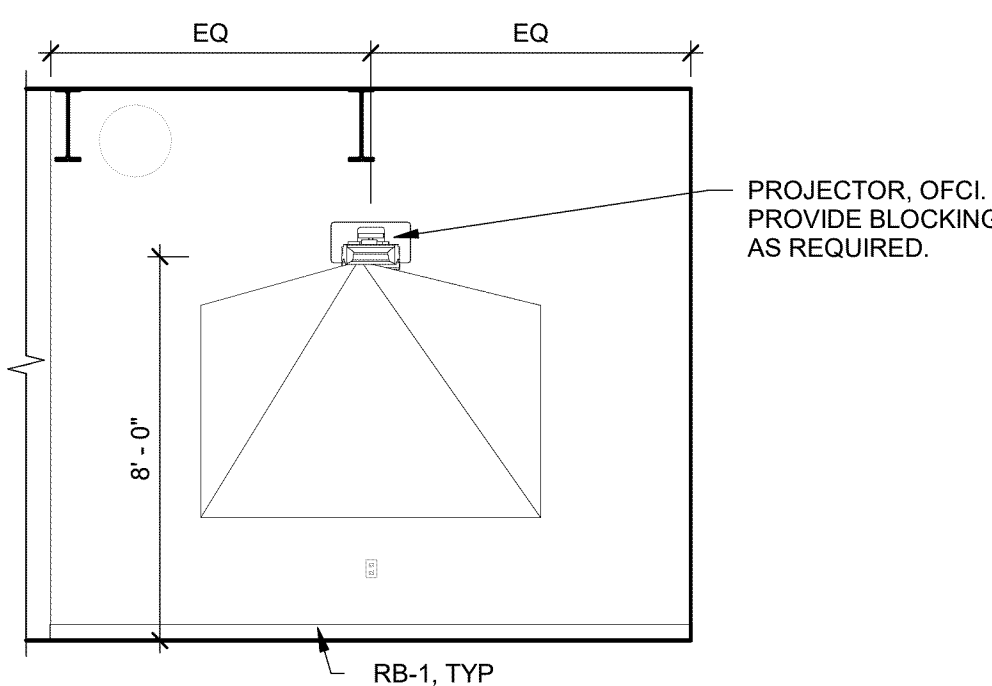
8 105 - HEALTH S  
SCALE: 1/4" = 1'-0"



9 112 - WORK ROOM ISLAND  
SCALE: 1/4" = 1'-0"



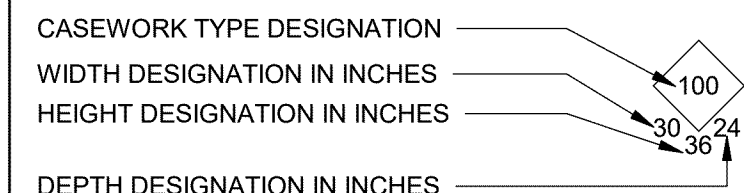
10 112 - WORK ROOM W  
SCALE: 1/4" = 1'-0"



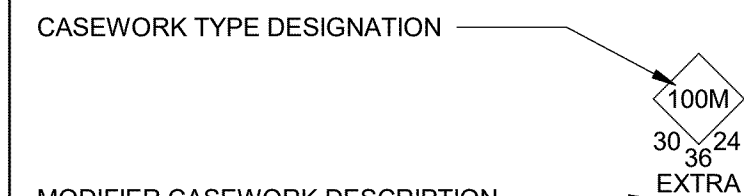
11 113 - HALL E  
SCALE: 1/4" = 1'-0"

## AWS (CDS) CASEWORK TYPE SYMBOL

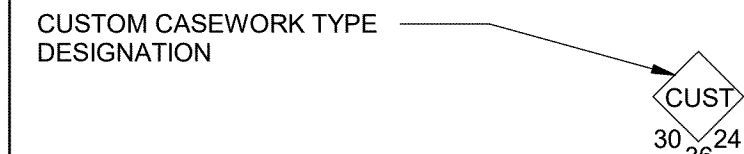
(STANDARDS BASED ON AMERICAN WOODWORK STANDARDS)



CASEWORK TYPE MODIFIERS ARE INDICATED IN THE TYPE NUMBER AND A DESCRIPTION; SEE BELOW.



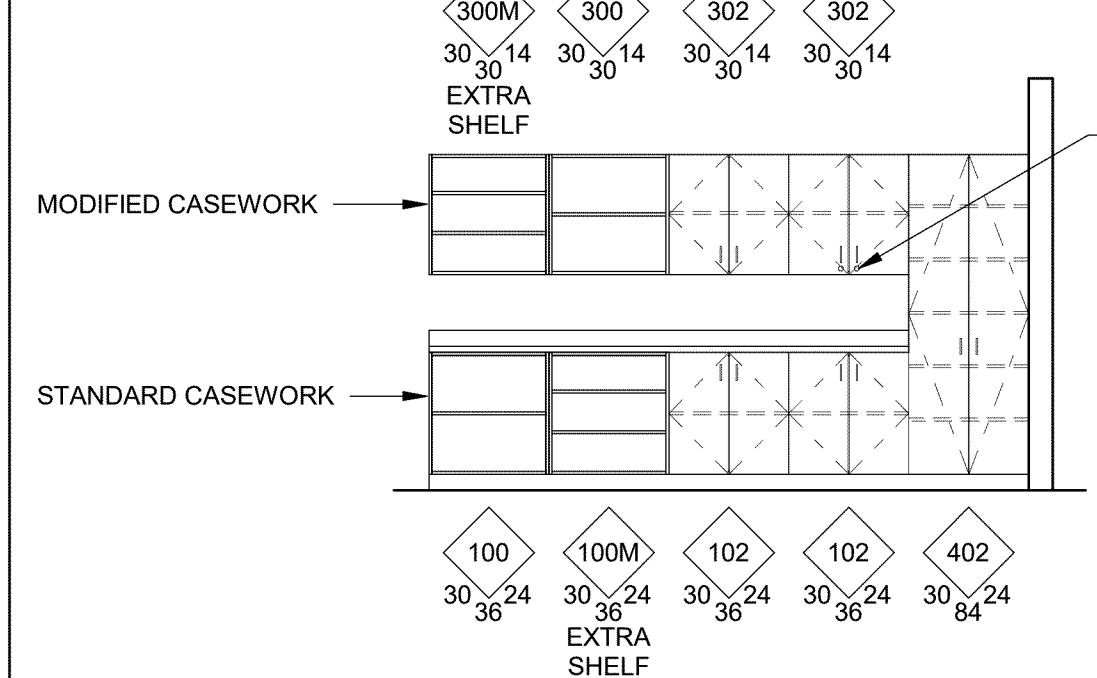
CUSTOM CASEWORK IS INDICATED IN THE TYPE NUMBER FIELD AND ACCOMPANIED WITH DETAILS SHOWN ON ELEVATIONS; SEE BELOW.



THE CDS IS SUBDIVIDED AS FOLLOWS:

BASE CABINETS W/O DRAWERS	100 SERIES
BASE CABINETS W/ DRAWERS	200 SERIES
WALL-HUNG CABINETS	300 SERIES
TALL STORAGE CABINETS	400 SERIES
TALL WARDROBE CABINETS	500 SERIES
LIBRARY CABINETS	600 SERIES
MOVABLE CABINETS	700 SERIES

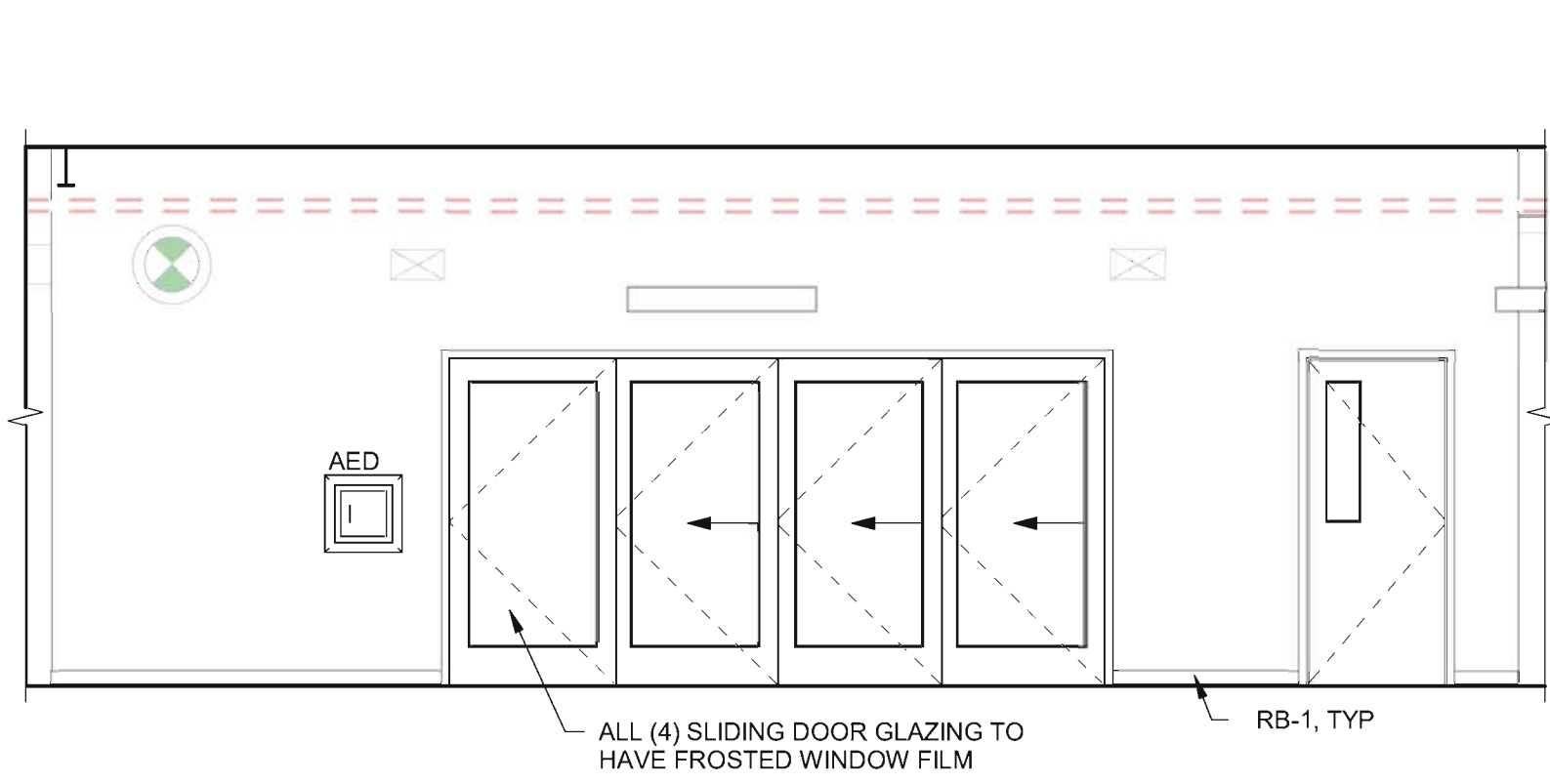
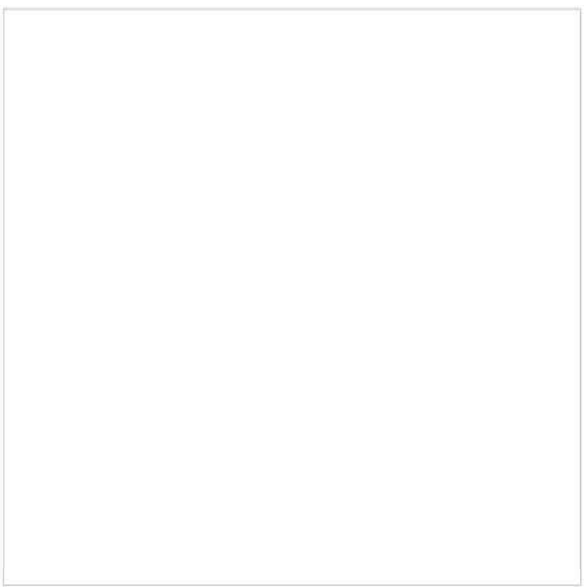
## EXAMPLE:



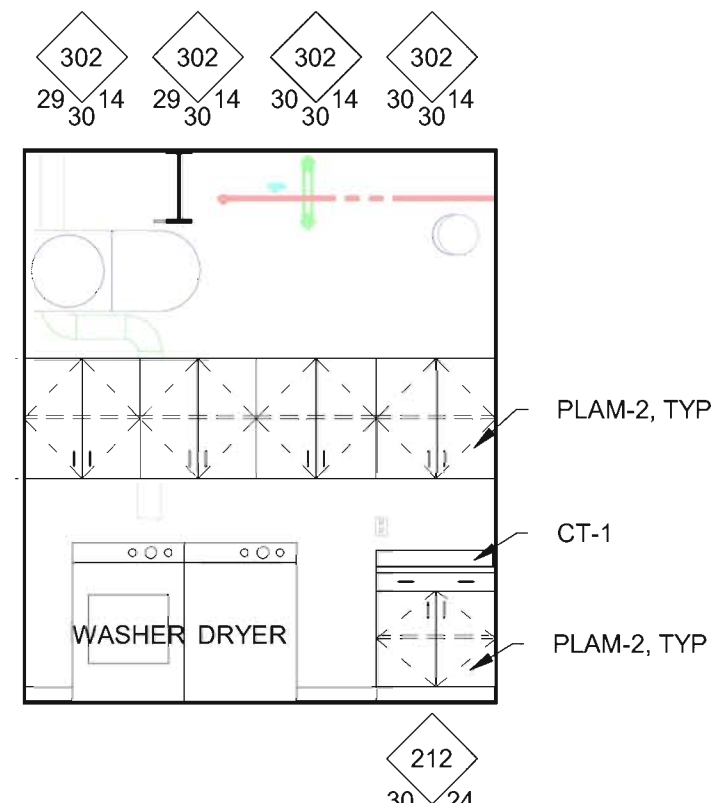
## GENERAL NOTES: (REFER TO AWS APPENDIX A FOR TYPE DESCRIPTIONS)

- 100 OR 200 SERIES CABINETS MAY BE CONVERTED INTO MOVEABLE CABINETS BY PREFIXING A "7" TO THE NUMBER. (EXAMPLE: 7-102-36"x30"x18" [7-102-915mm x 762mm x 457mm]).
- MOVEABLE CABINETS SHALL BE EQUIPPED WITH ADEQUATE APPROVED CASTERS FOR THE INTENDED LOAD CAPACITY.
- CDS #s 728, 729, 735, 736, 737, 738 AND 739 REQUIRE METAL ANGLE REINFORCED CORNERS.
- CARTS AND ROLLING TALL STORAGE CABINETS WITH DOORS, LACKING ANY HORIZONTAL; AND/OR VERTICAL STABILIZING DIVIDERS, REQUIRE A DIAPHRAGM BOTTOM; SPECIFICALLY CDS #s 702, 712, 716, 722, 743, 744, 746, 750 AND 751.
- WARDROBE CABINETS (500 SERIES) WITH DOORS REQUIRE A FRAMED MIRROR ON ONE DOOR, AND CABINETS # 533 AND 534 REQUIRE A PAPER ROLLER/CUTTER AND SLIDE-OUT TILTING PAPER SHELVES.
- CART STORAGE CABINETS ARE REQUIRED TO HAVE HARDWOOD SIDE GUIDES, SPECIFICALLY CDS #s 160, 161 AND 162.
- CERAMICS DRYING CABINETS ARE REQUIRED TO HAVE GALVANIZED METAL FRAME SHELVES WITH WIRE MESH, SPECIFICALLY CDS #s 196, 199 AND 459.
- FILE DRAWERS REQUIRE FULL-EXTENSION SLIDES AND A FILE-HANGING SYSTEM, SPECIFICALLY CDS #s 223, 224, 230, 231, 240, 242, 253, 255, 531, 532 AND 533.
- WARDROBE CABINETS ARE REQUIRED TO HAVE A SHELF, POLE, AND FRAMED MIRROR WHEN CLOSED WITH HINGED DOORS, SPECIFICALLY, CDS #s 501, 511, 512, 522, 530, 531, 532 AND 552.

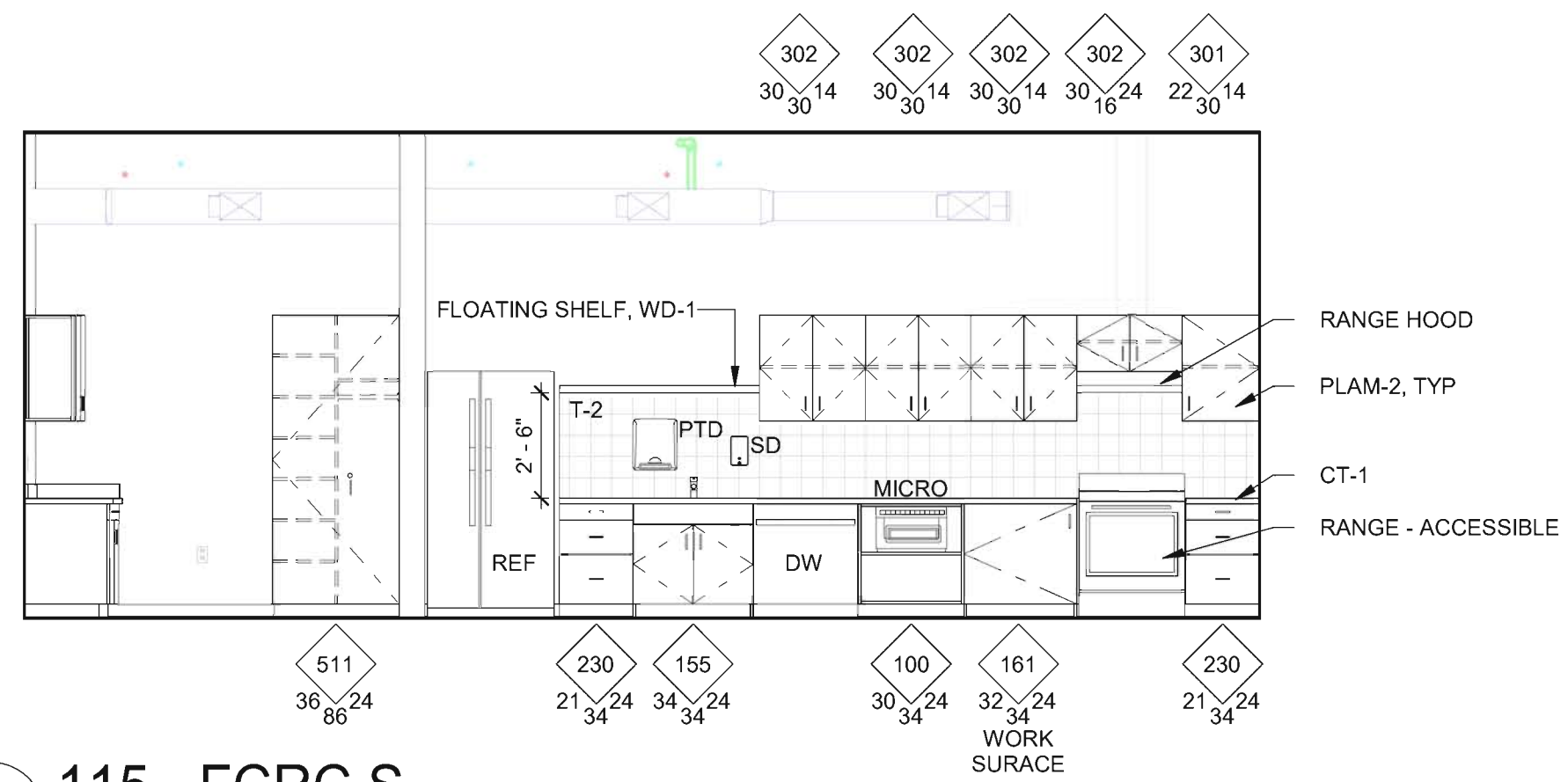




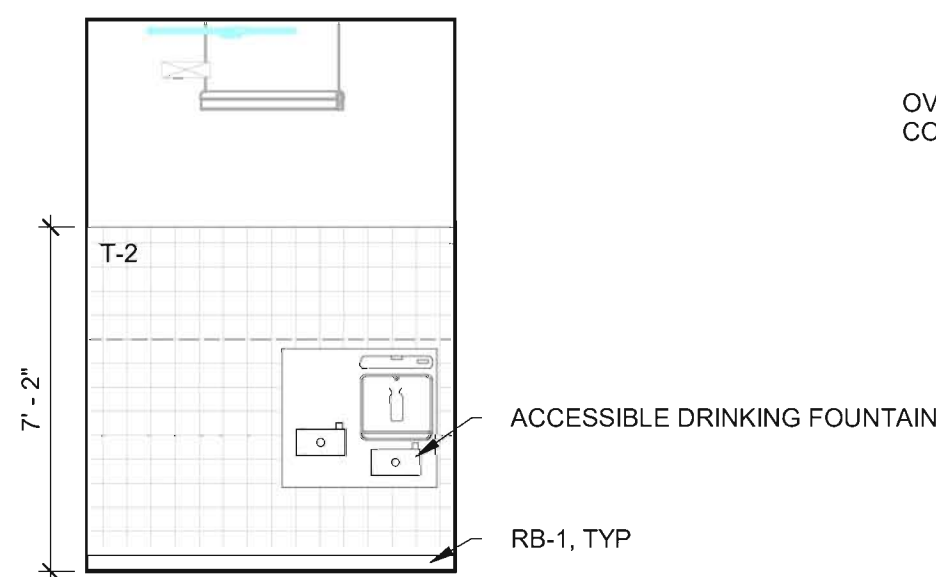
1 114 - CAFE/COMMONS S  
SCALE: 1/4" = 1'-0"



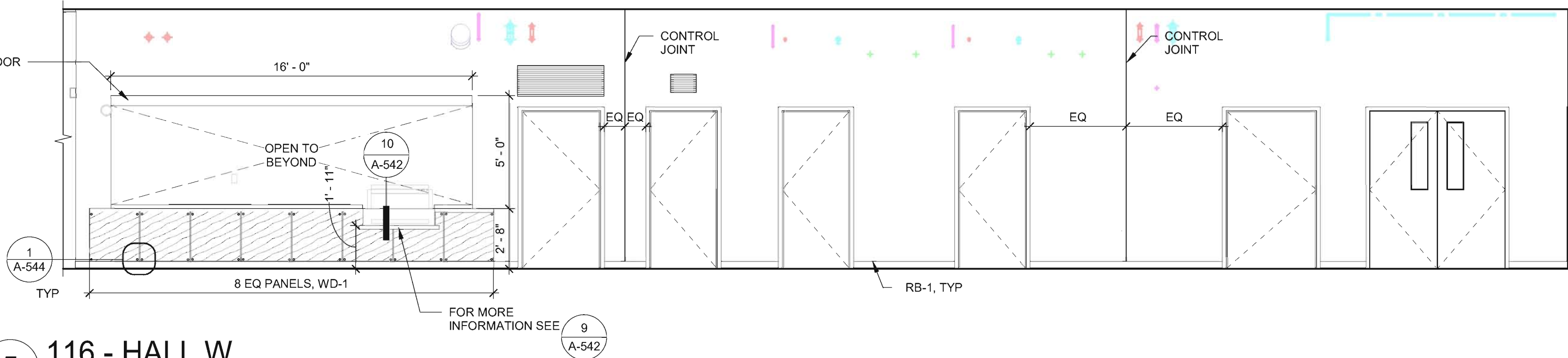
2 115 - FCRC E  
SCALE: 1/4" = 1'-0"



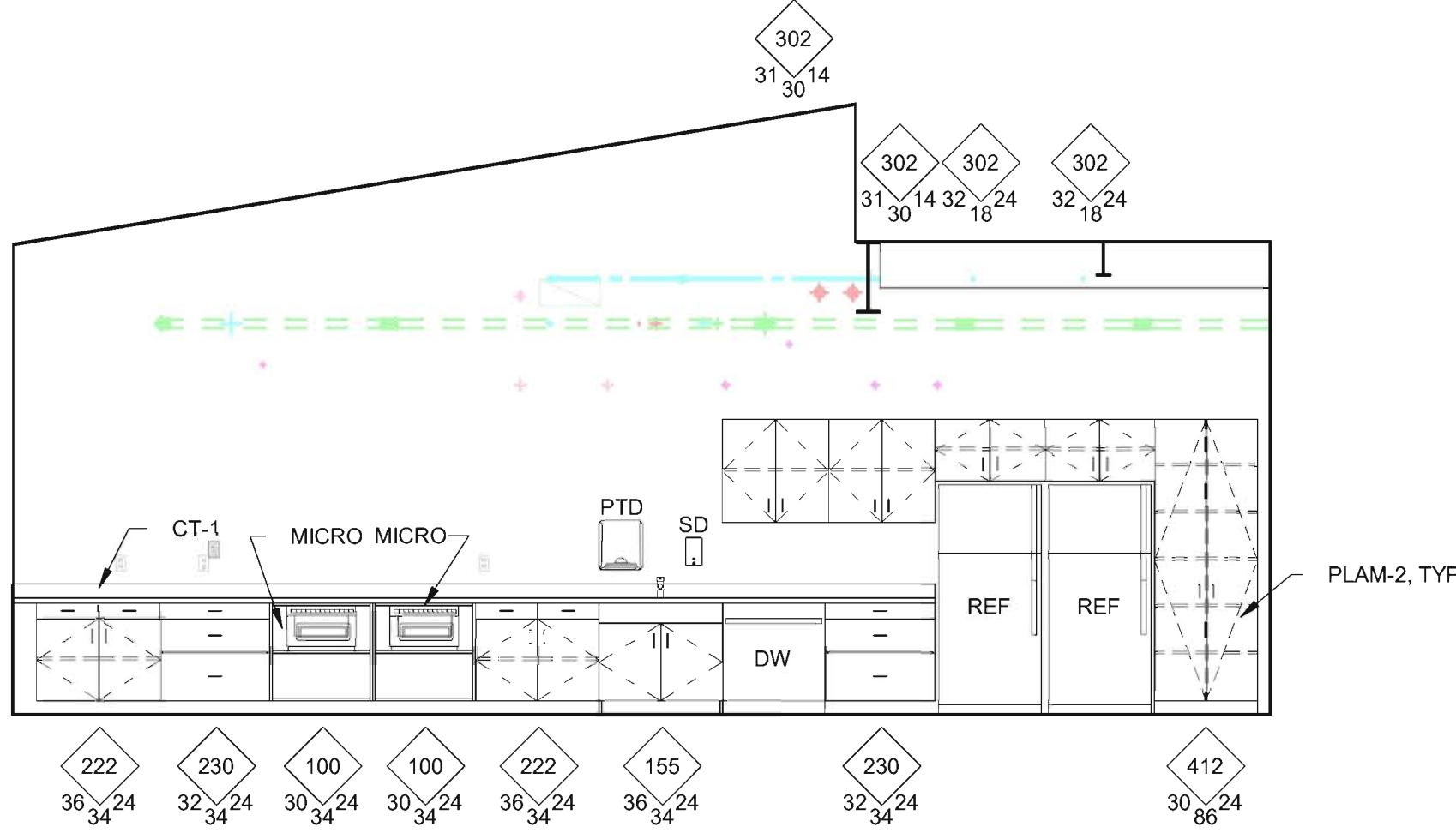
3 115 - FCRC S  
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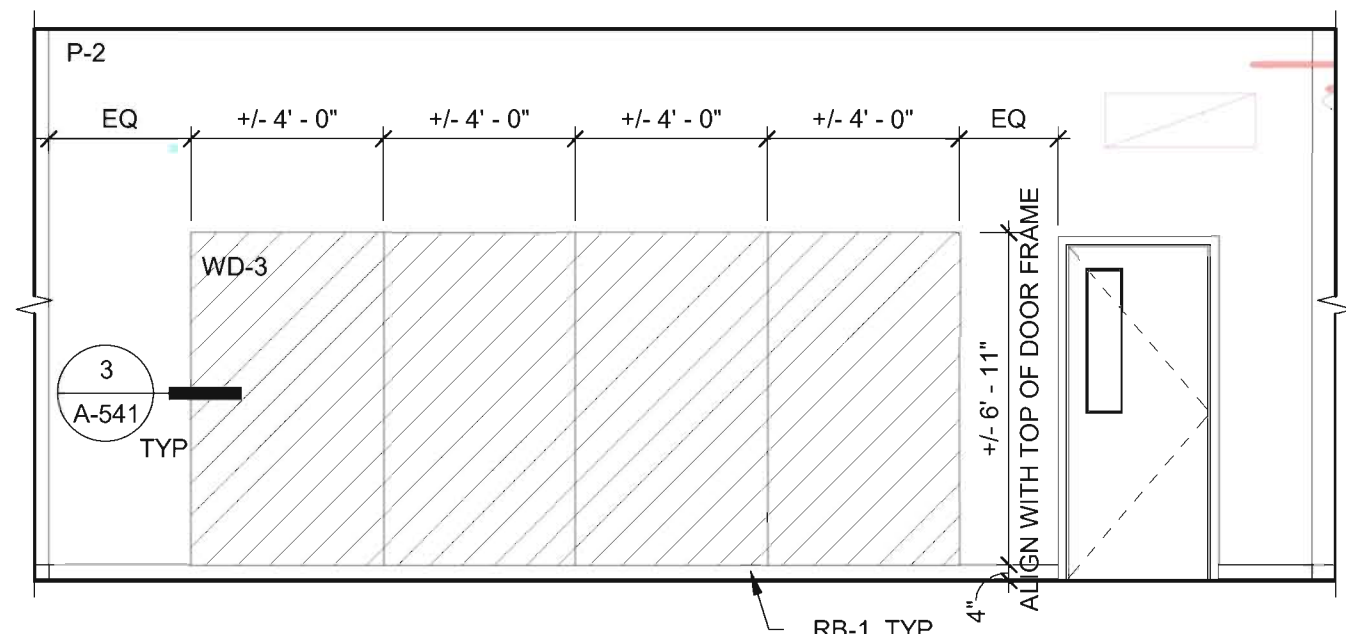
4 116 - HALL N  
SCALE: 1/4" = 1'-0"



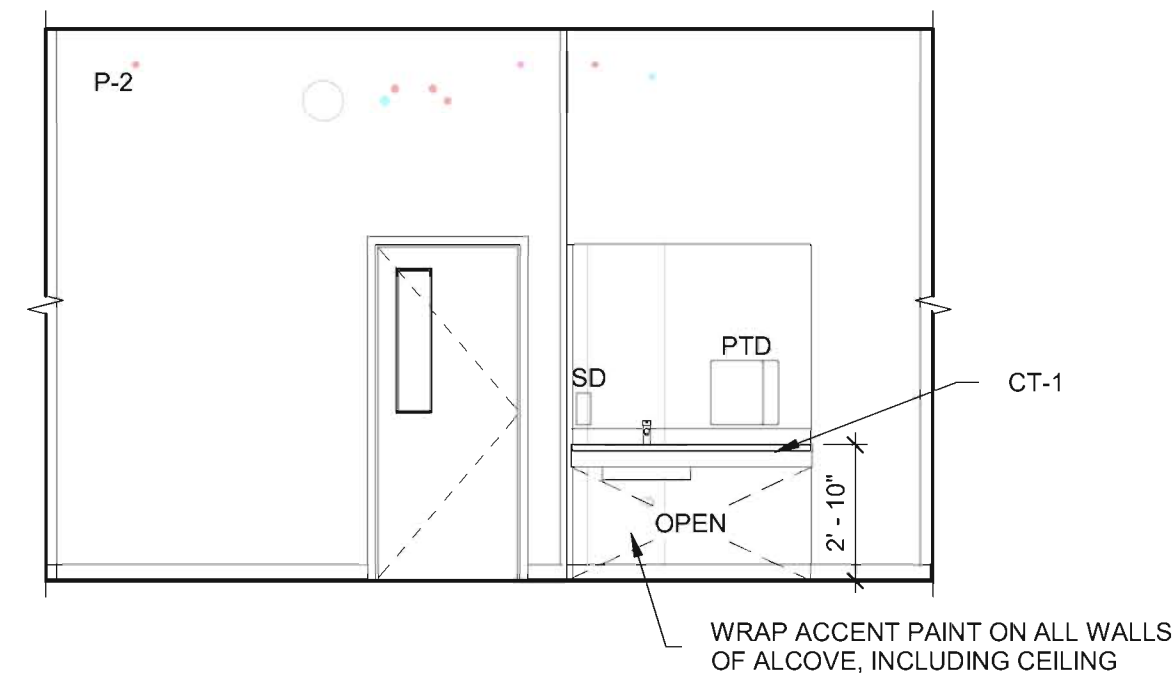
5 116 - HALL W  
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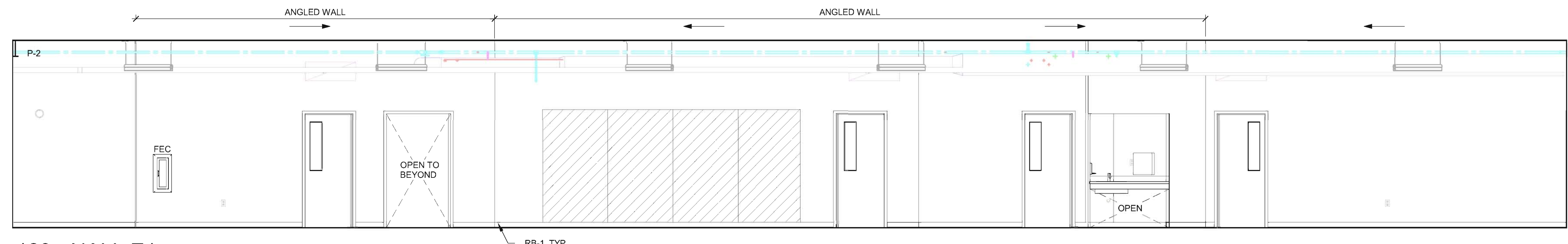
6 119 - STAFF BREAK ROOM N  
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7 123 - HALL E2  
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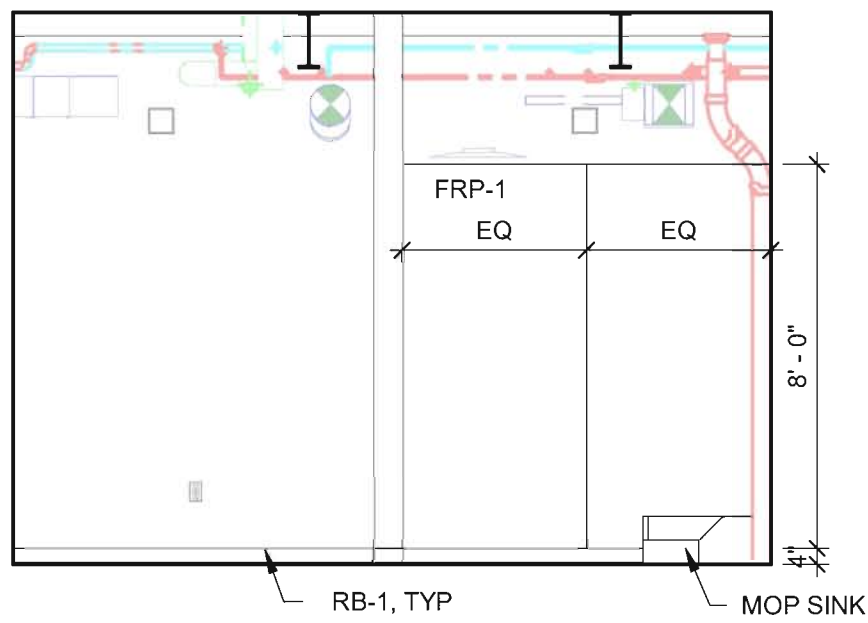


8 123 - HALL E3  
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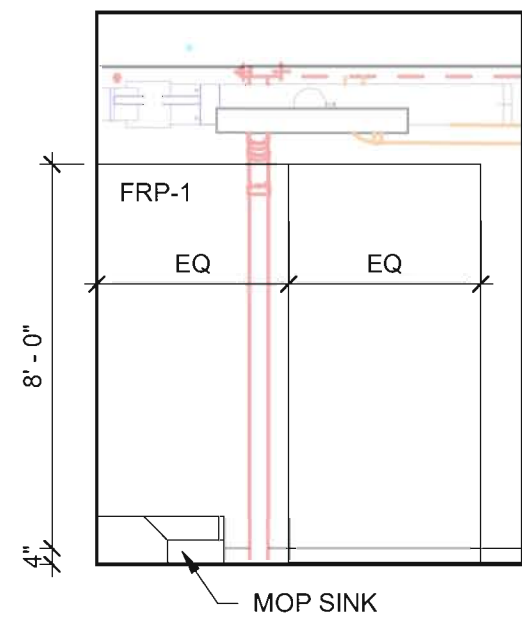


9 123 - HALL E1  
SCALE: 1/4" = 1'-0"

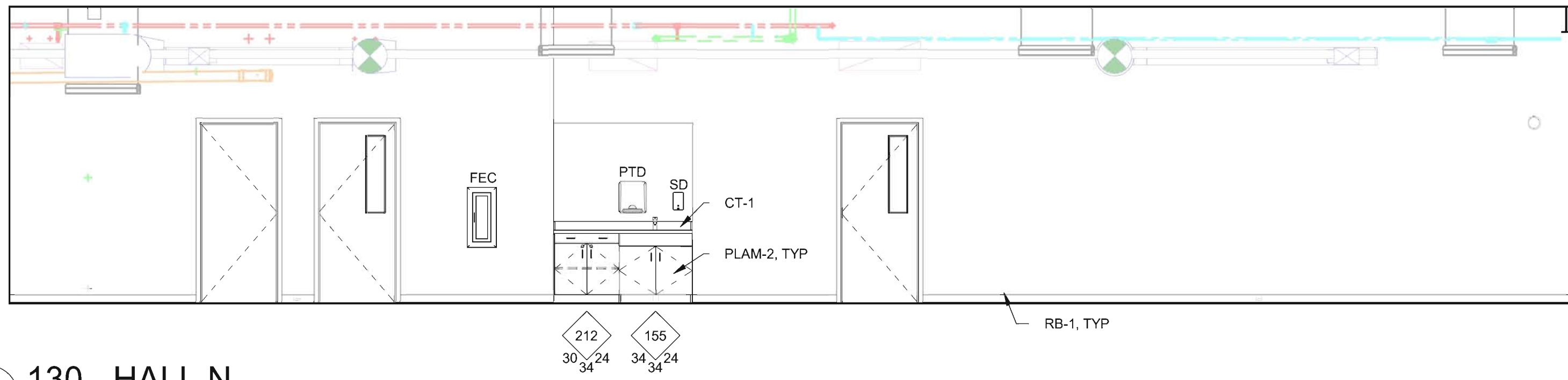




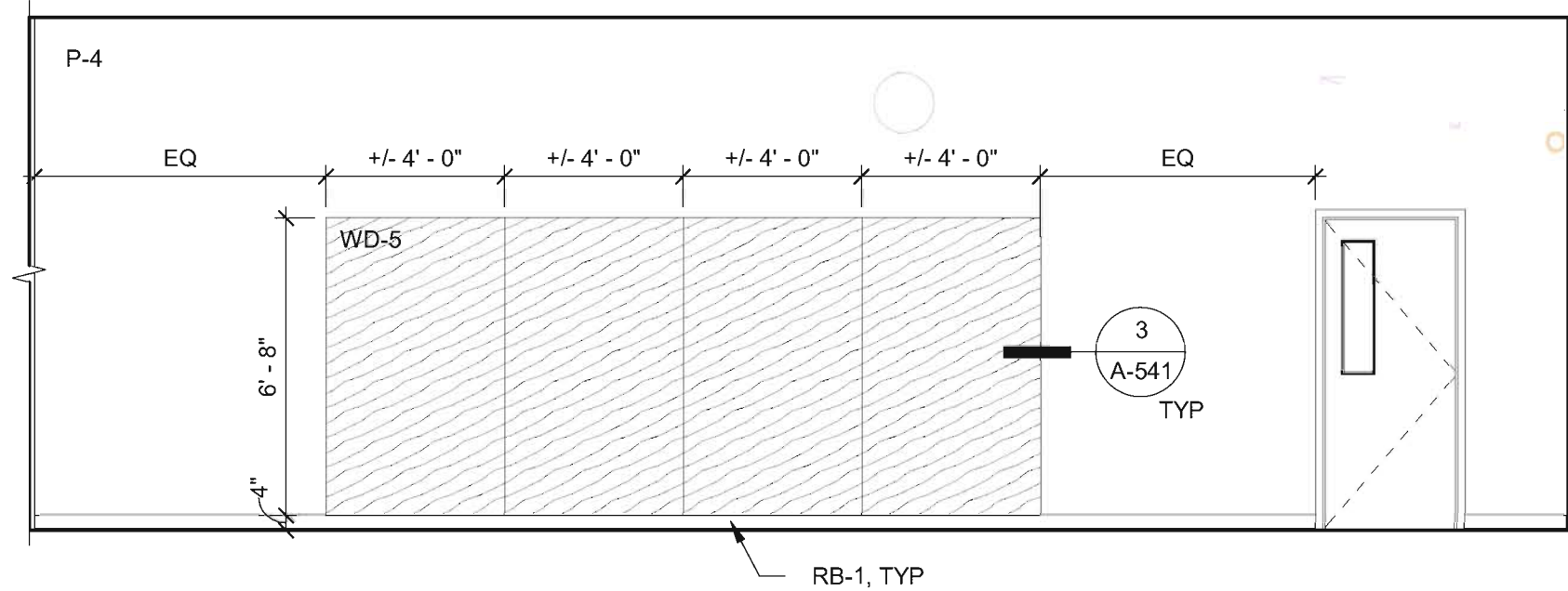
1 128 - B. OPER N  
SCALE: 1/4" = 1'-0"



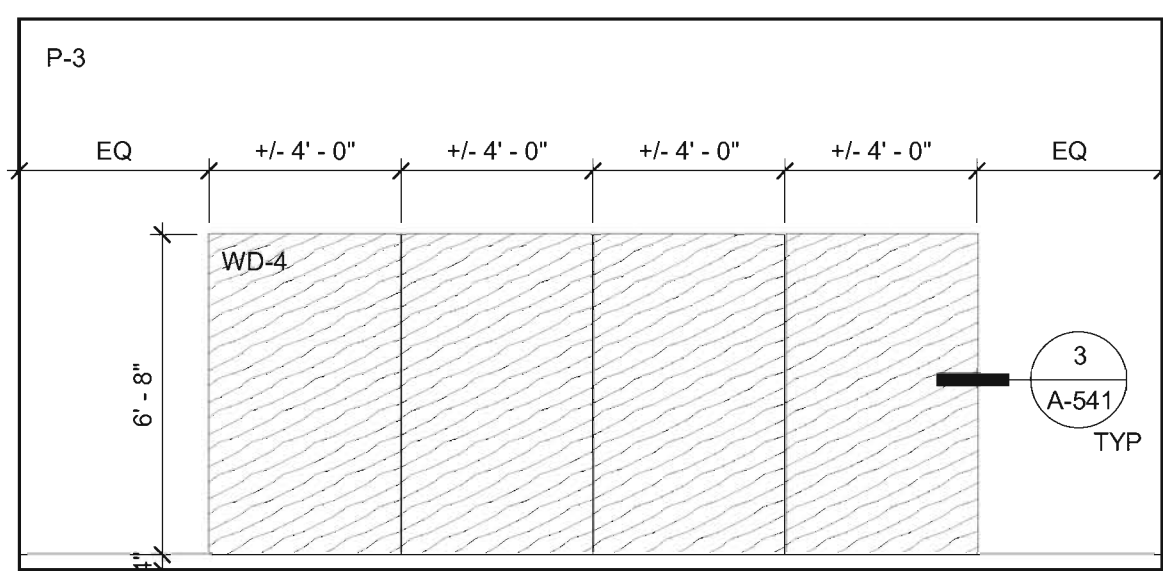
2 128 - B. OPER E  
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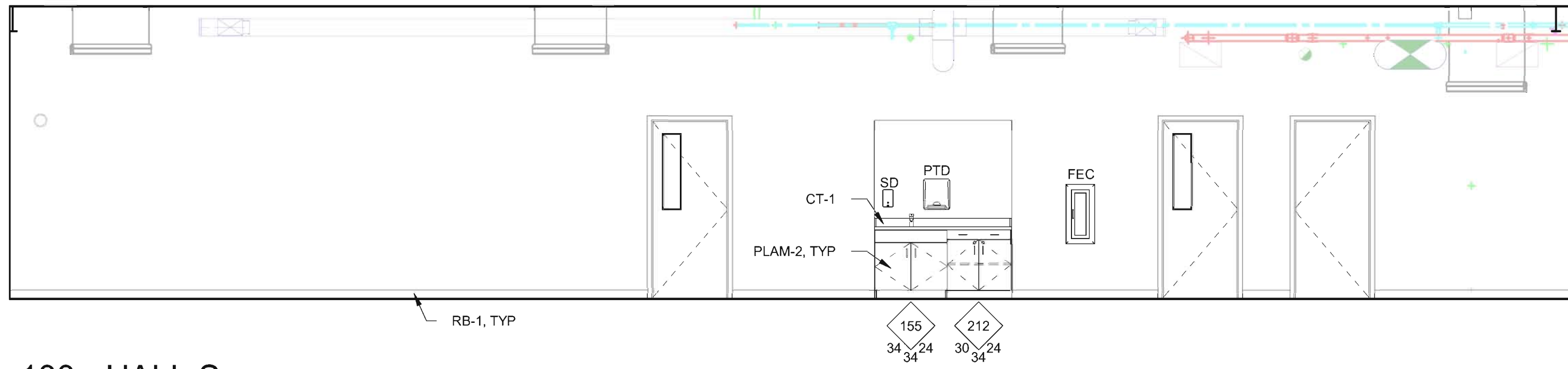
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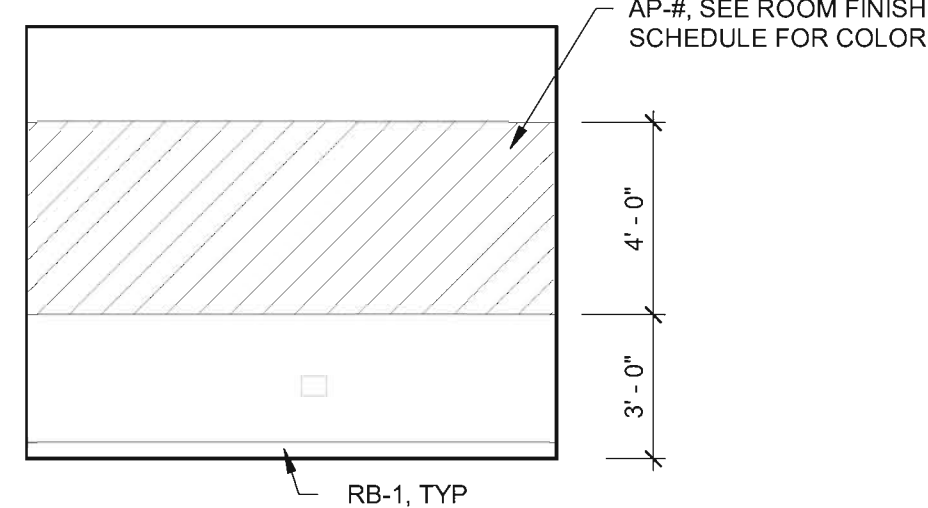
4 130 - HALL S  
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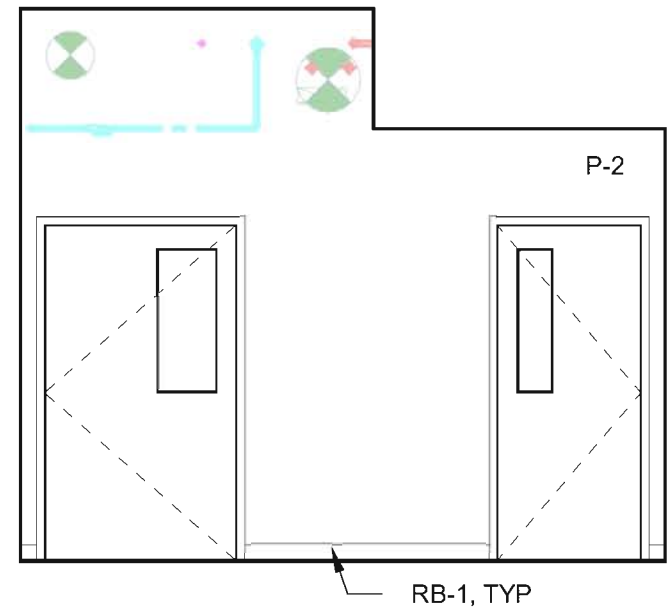
5 133 - HALL N  
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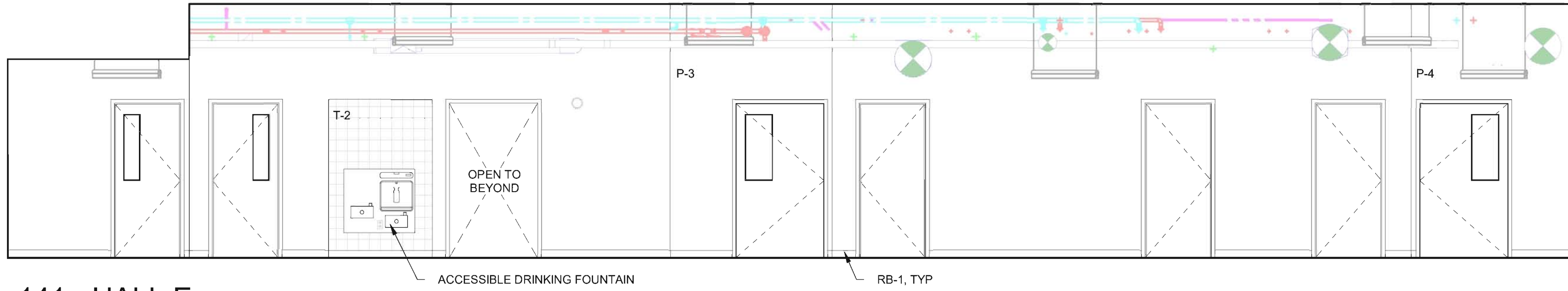
6 133 - HALL S  
SCALE: 1/4" = 1'-0"



7 138/124/125/132/137 - SMALL GROUP  
SCALE: 1/4" = 1'-0"

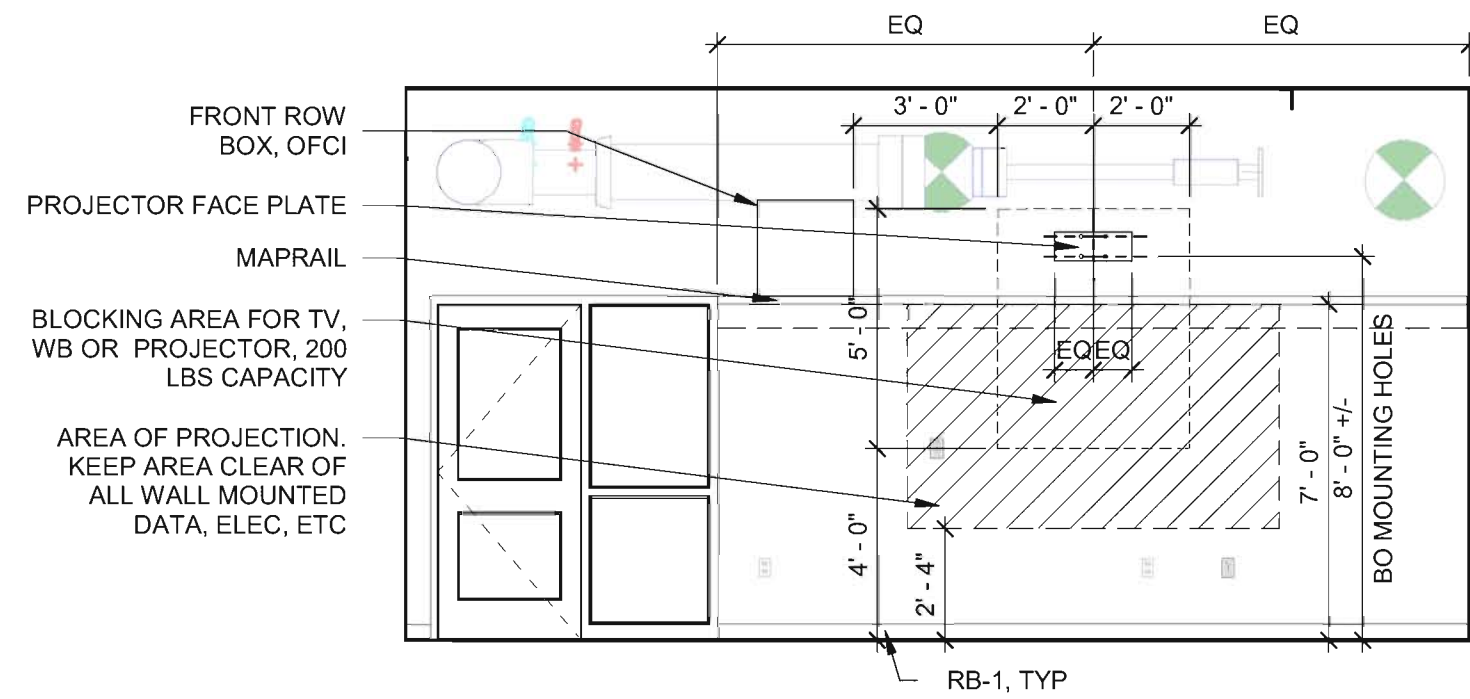


8 141 - HALL N  
SCALE: 1/4" = 1'-0"

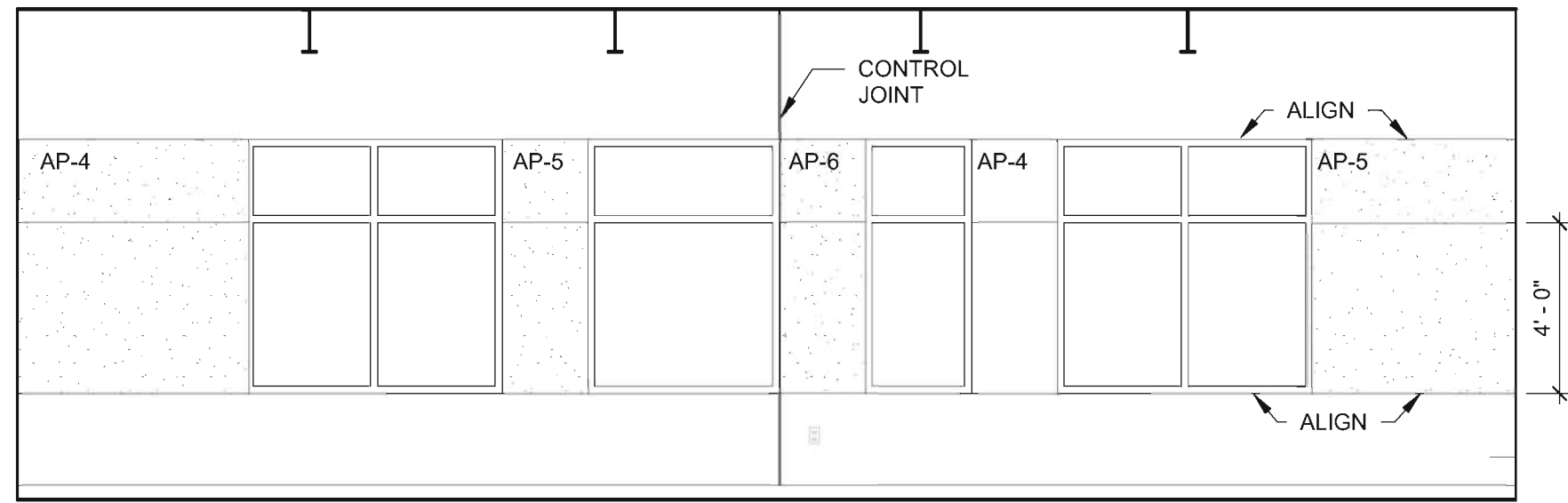


9 141 - HALL E  
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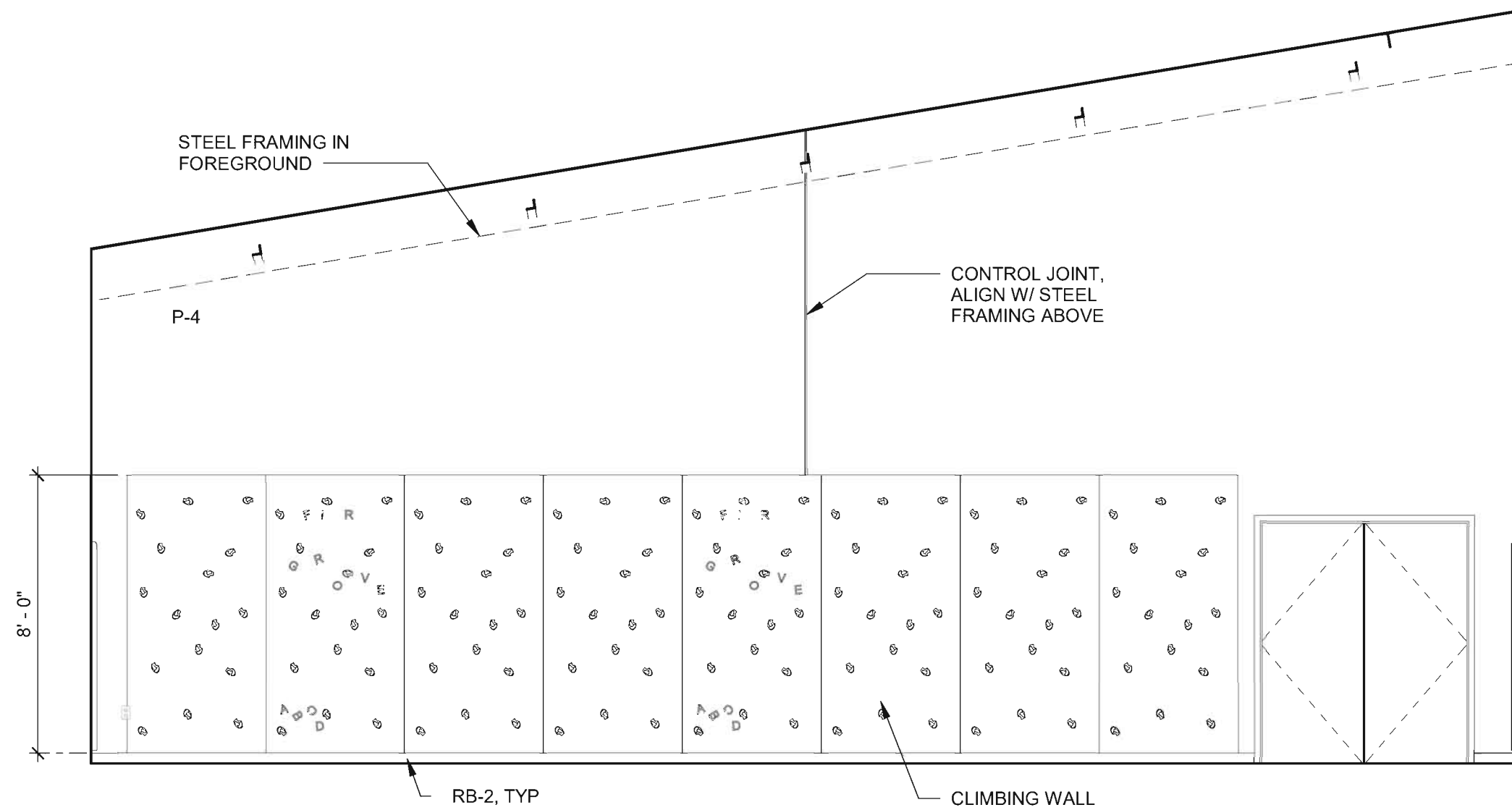




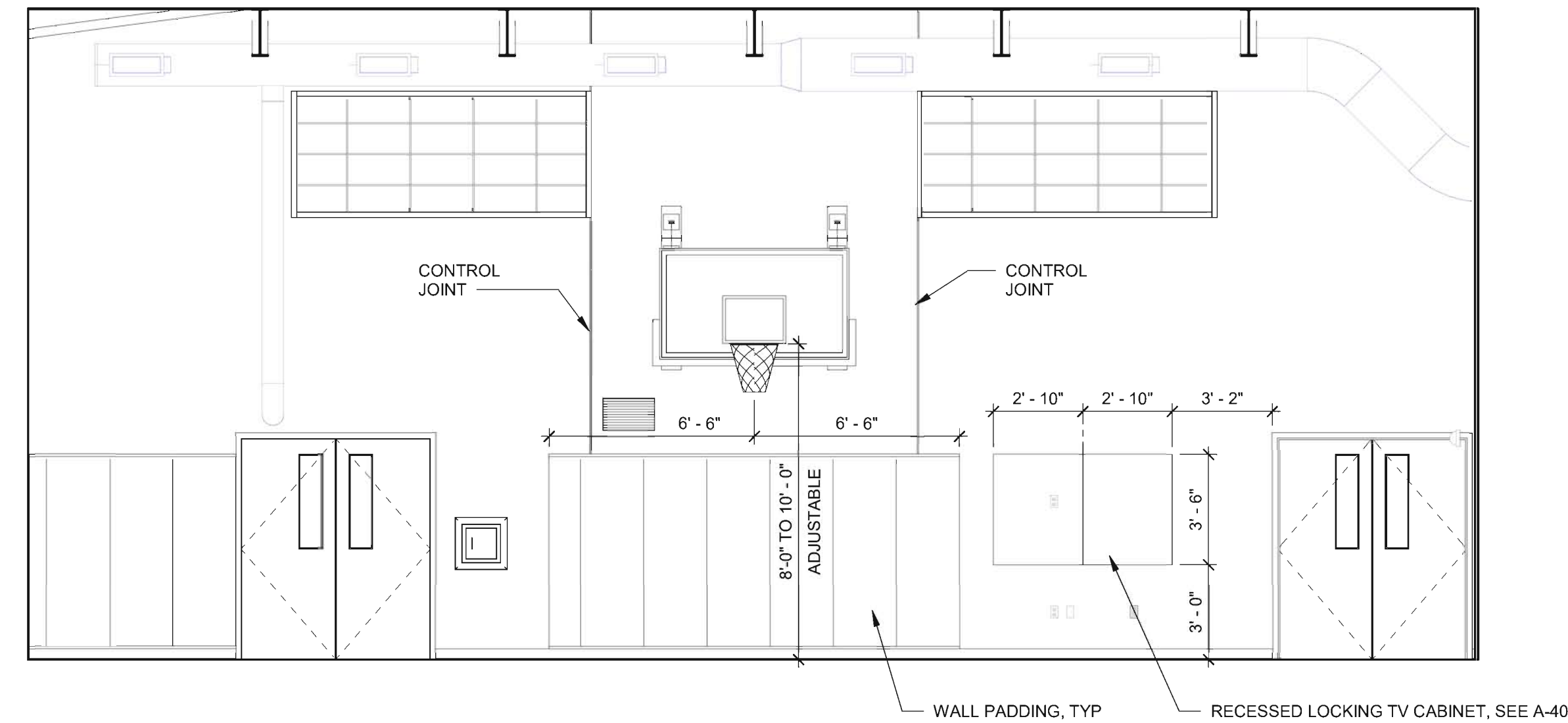
1 1 - MEDIA E  
SCALE: 1/4" = 1'-0"



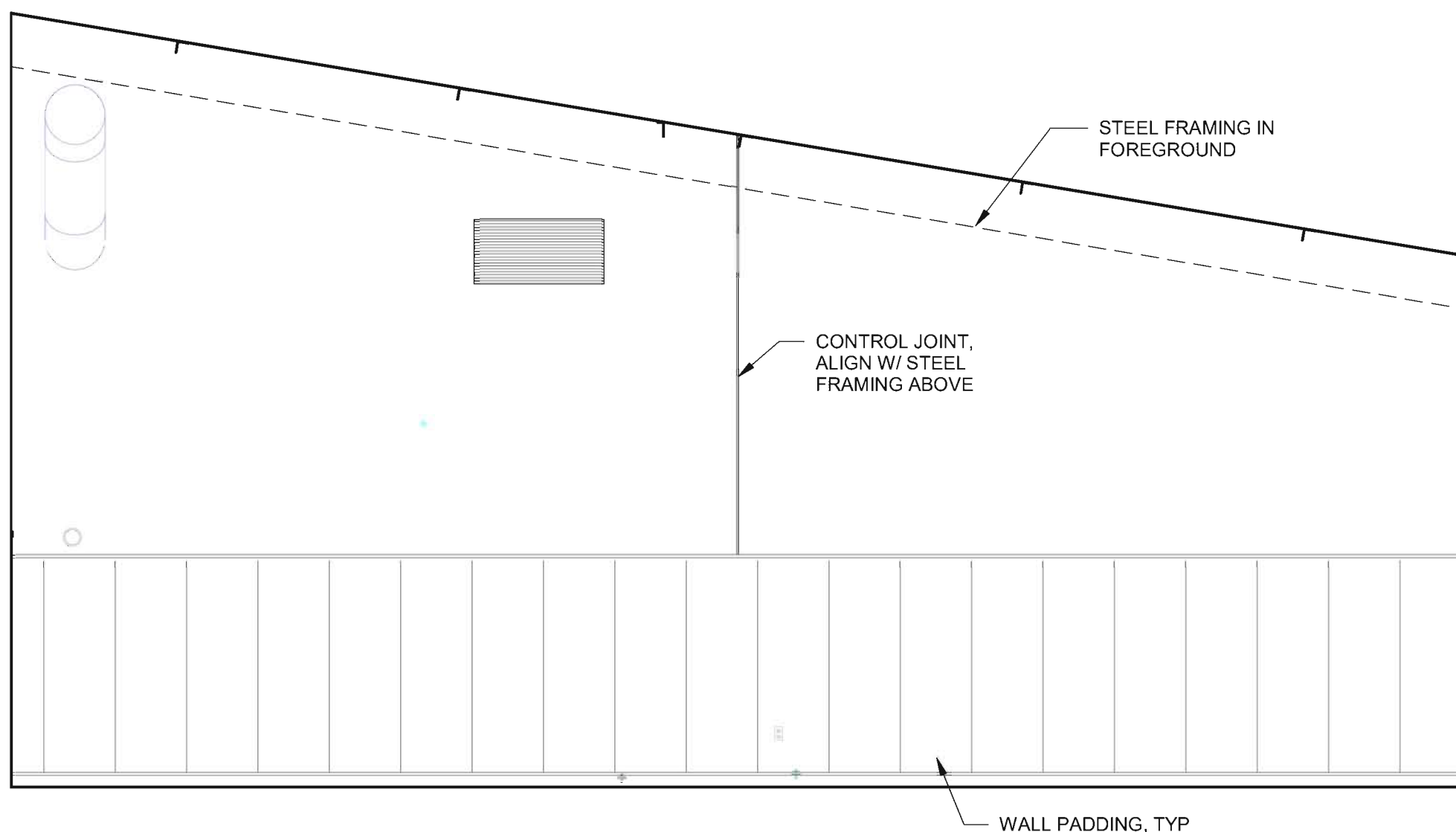
2 1 - MEDIA S  
SCALE: 1/4" = 1'-0"



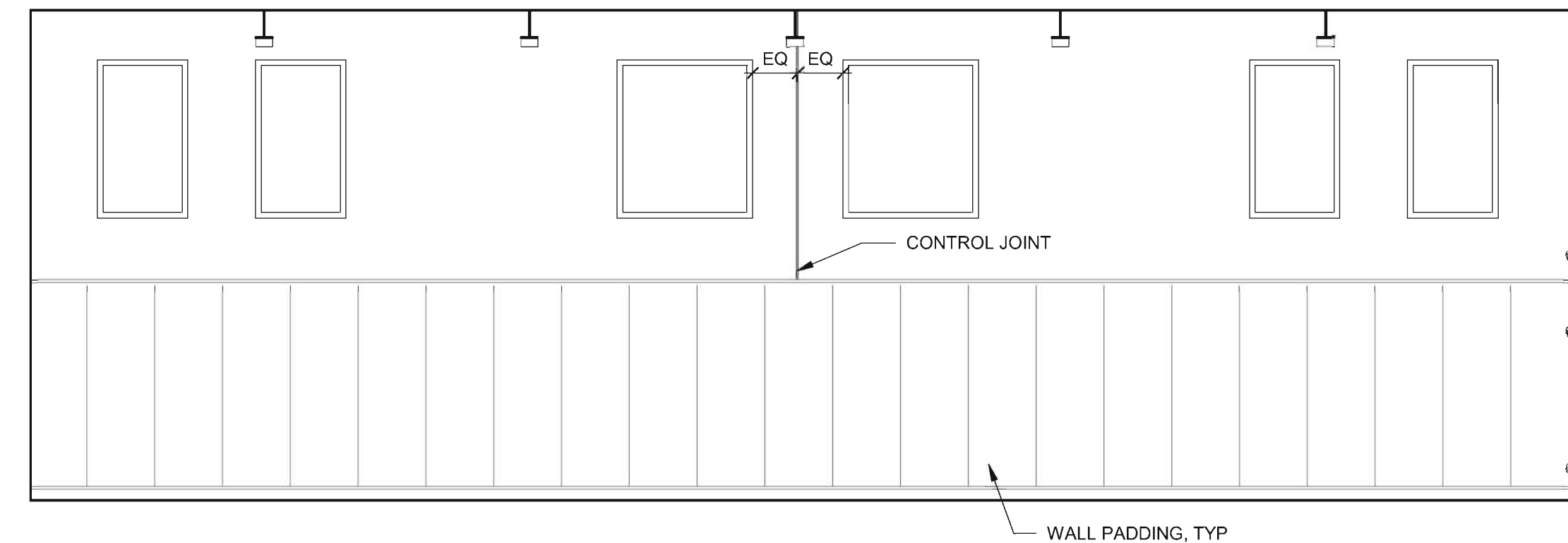
3 10 - FITNESS N  
SCALE: 1/4" = 1'-0"



4 10 - FITNESS E  
SCALE: 1/4" = 1'-0"

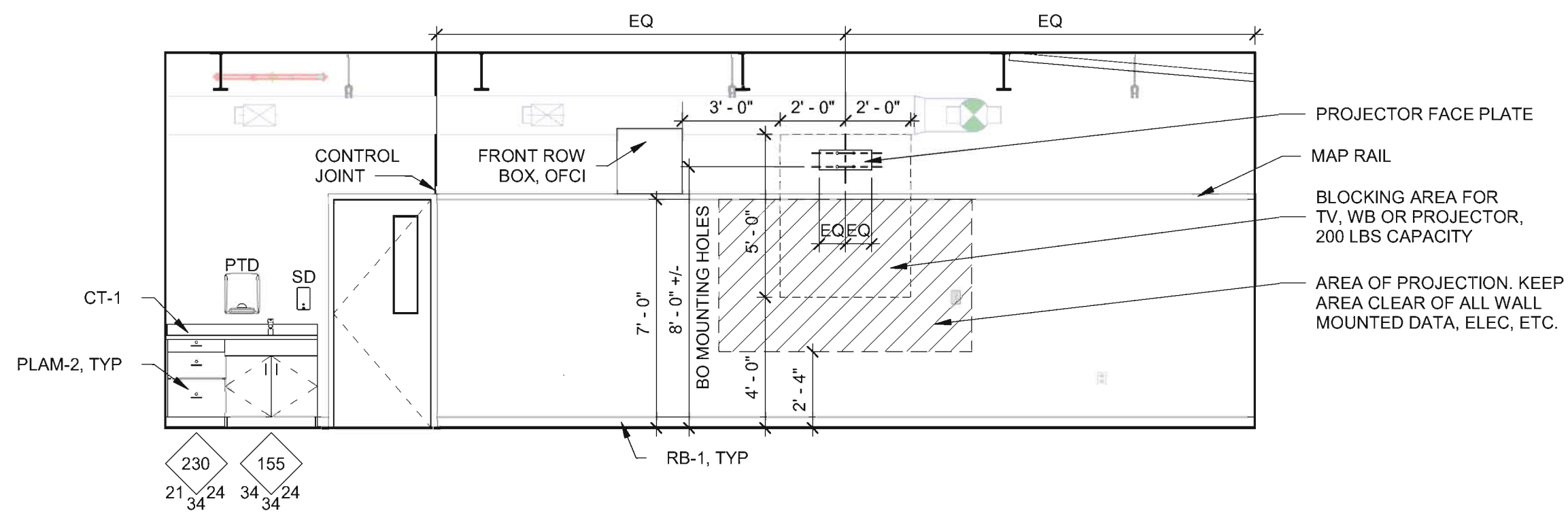


5 10 - FITNESS S  
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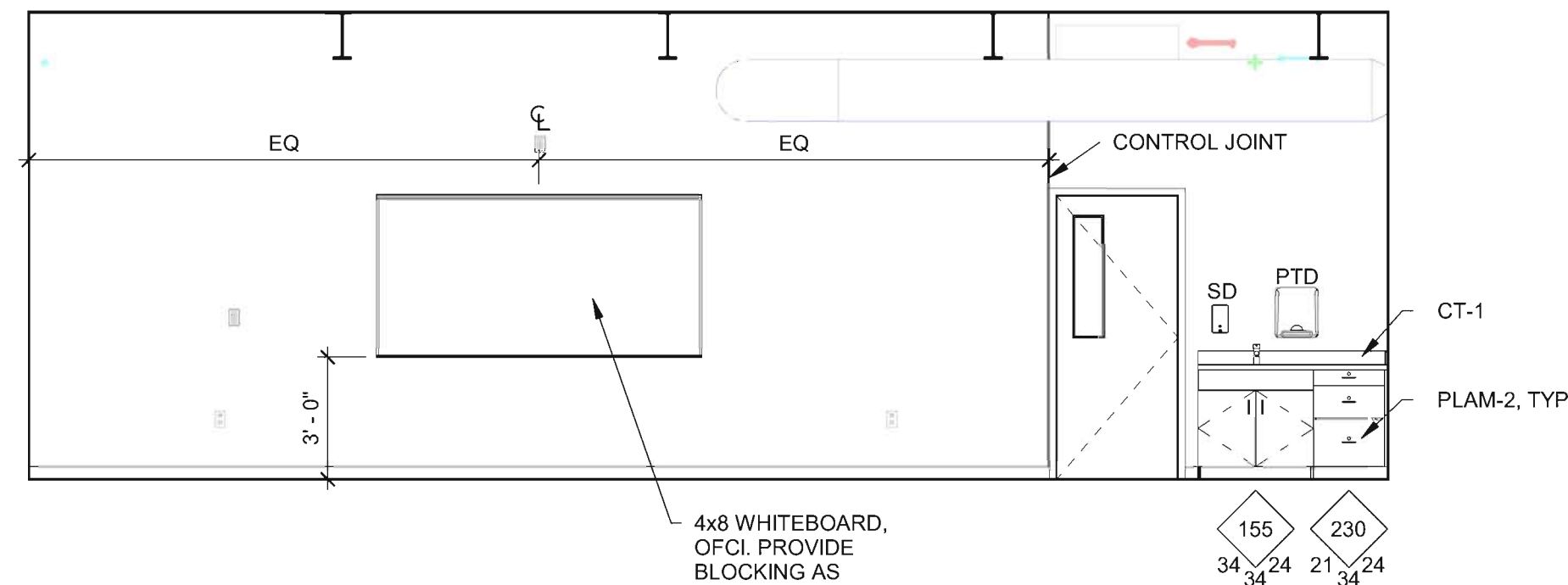


6 10 - FITNESS W  
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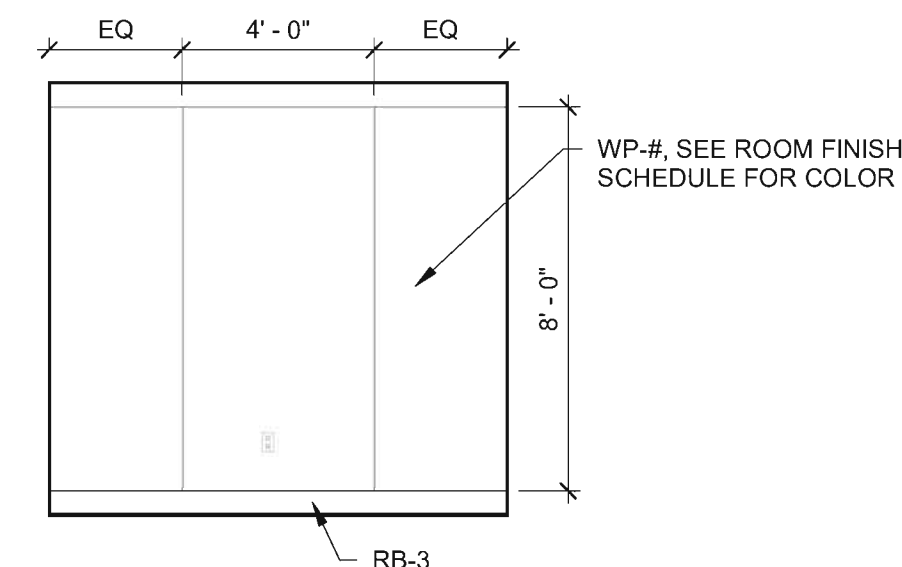




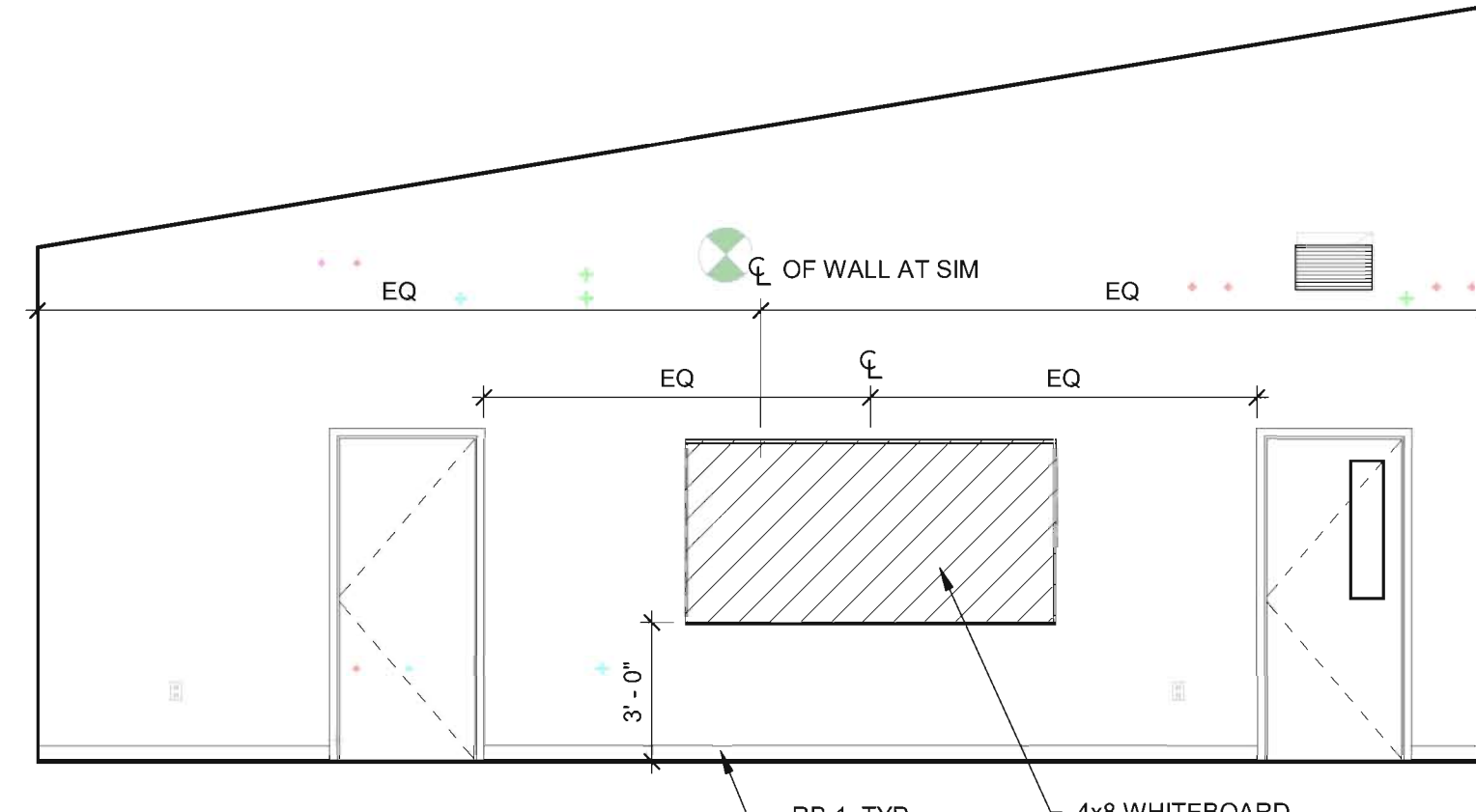
1 4 - MS/HS FLEX N  
SCALE: 1/4" = 1'-0"



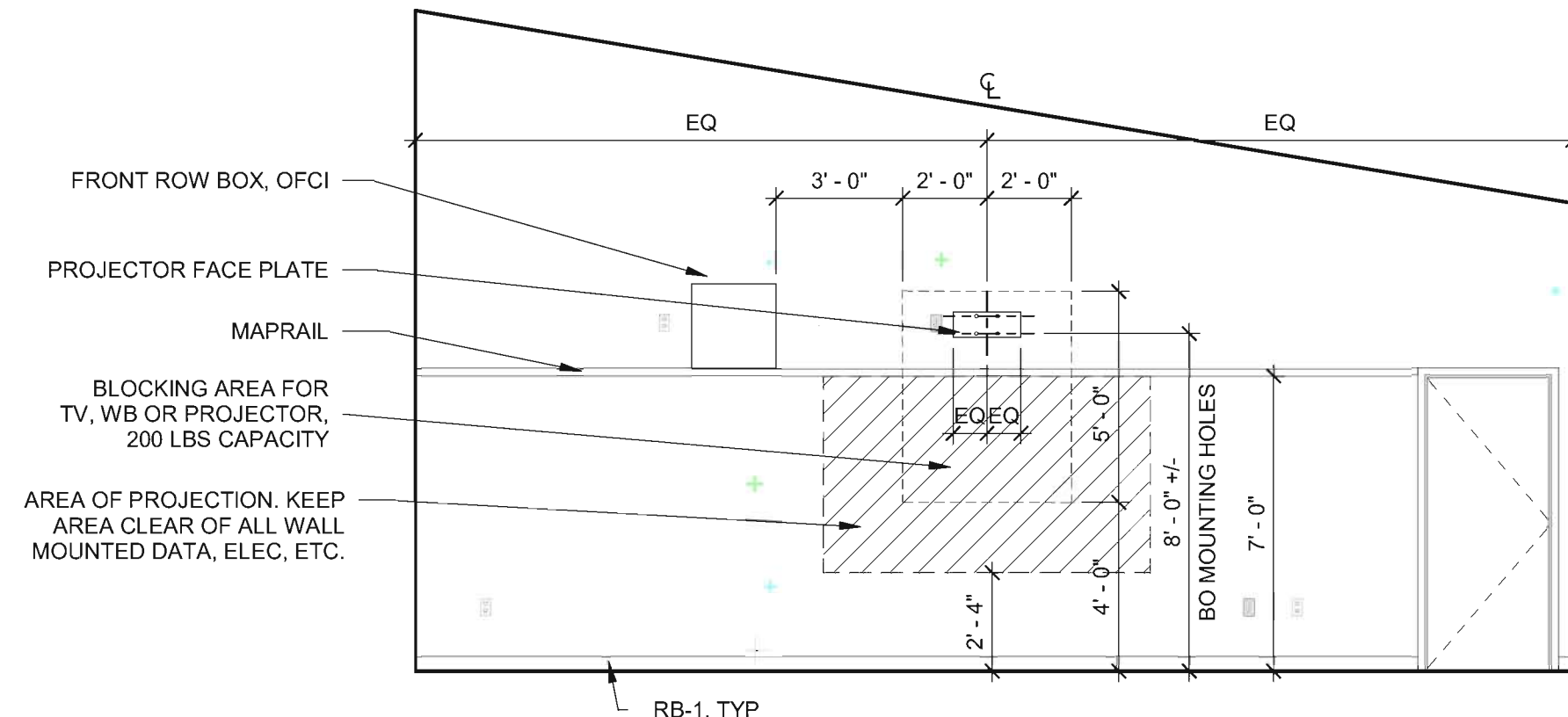
2 4 - MS/HS FLEX S  
SCALE: 1/4" = 1'-0"



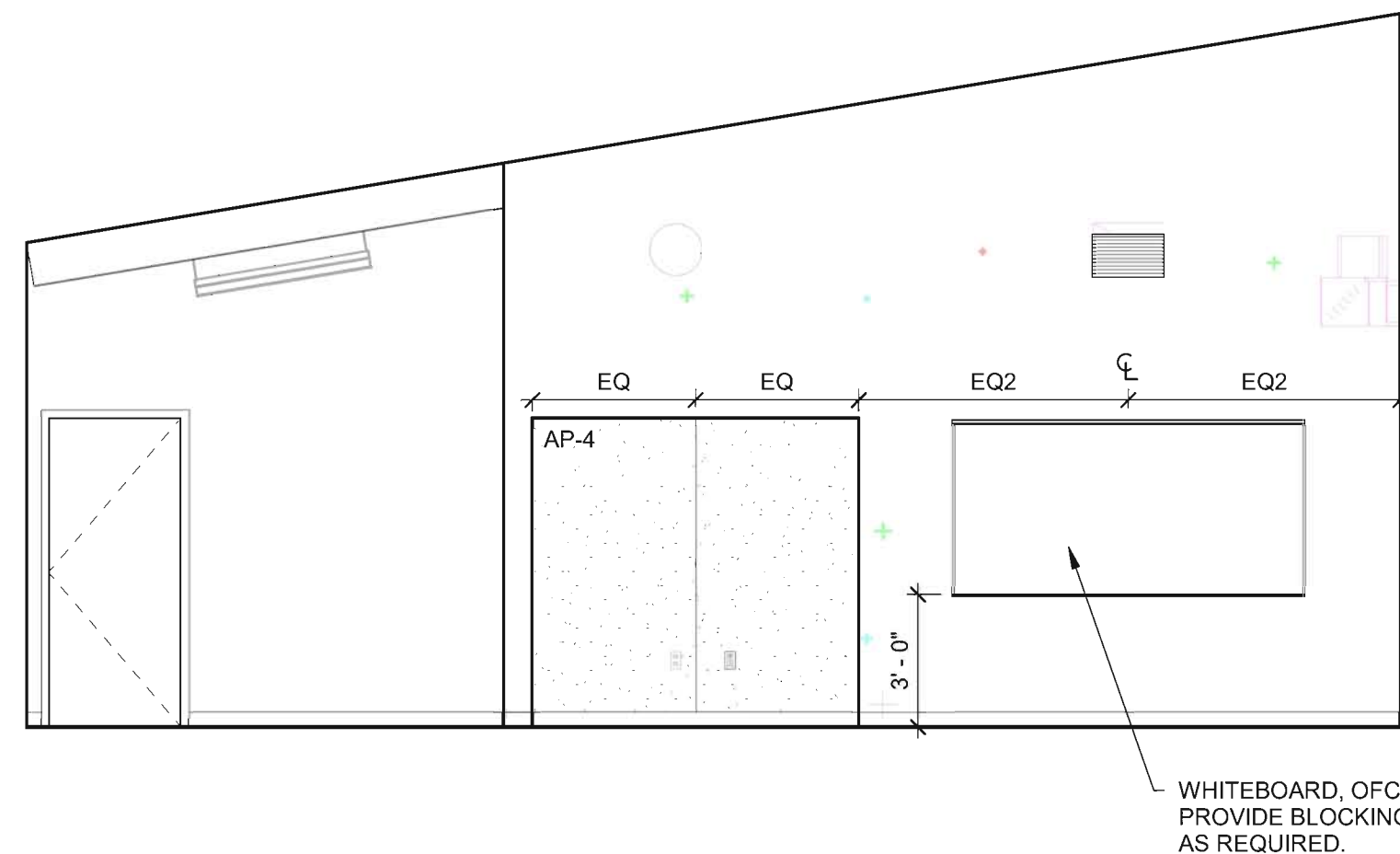
3 TYP FOCUS ROOM WALL PADDING  
SCALE: 1/4" = 1'-0"



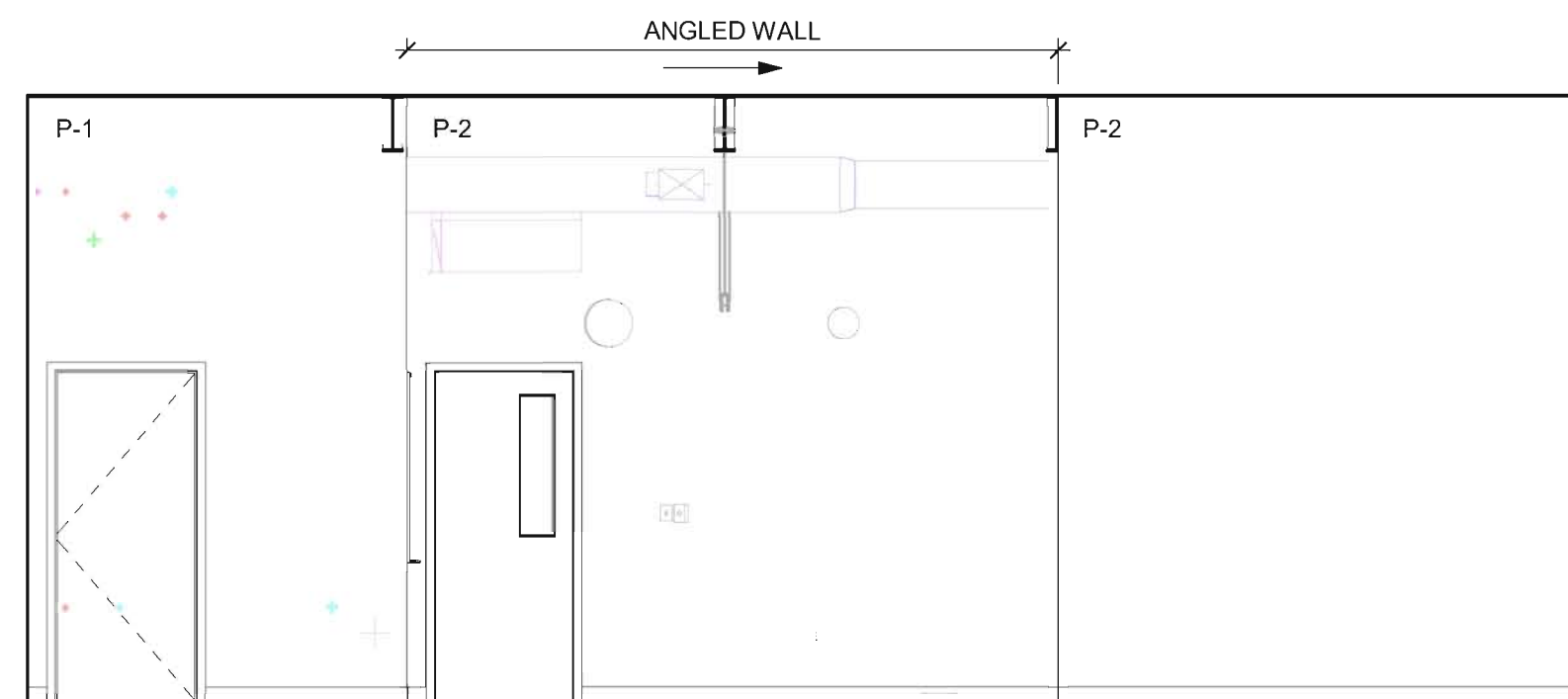
4 TYP CLASSROOM ELEVATION  
SCALE: 1/4" = 1'-0"



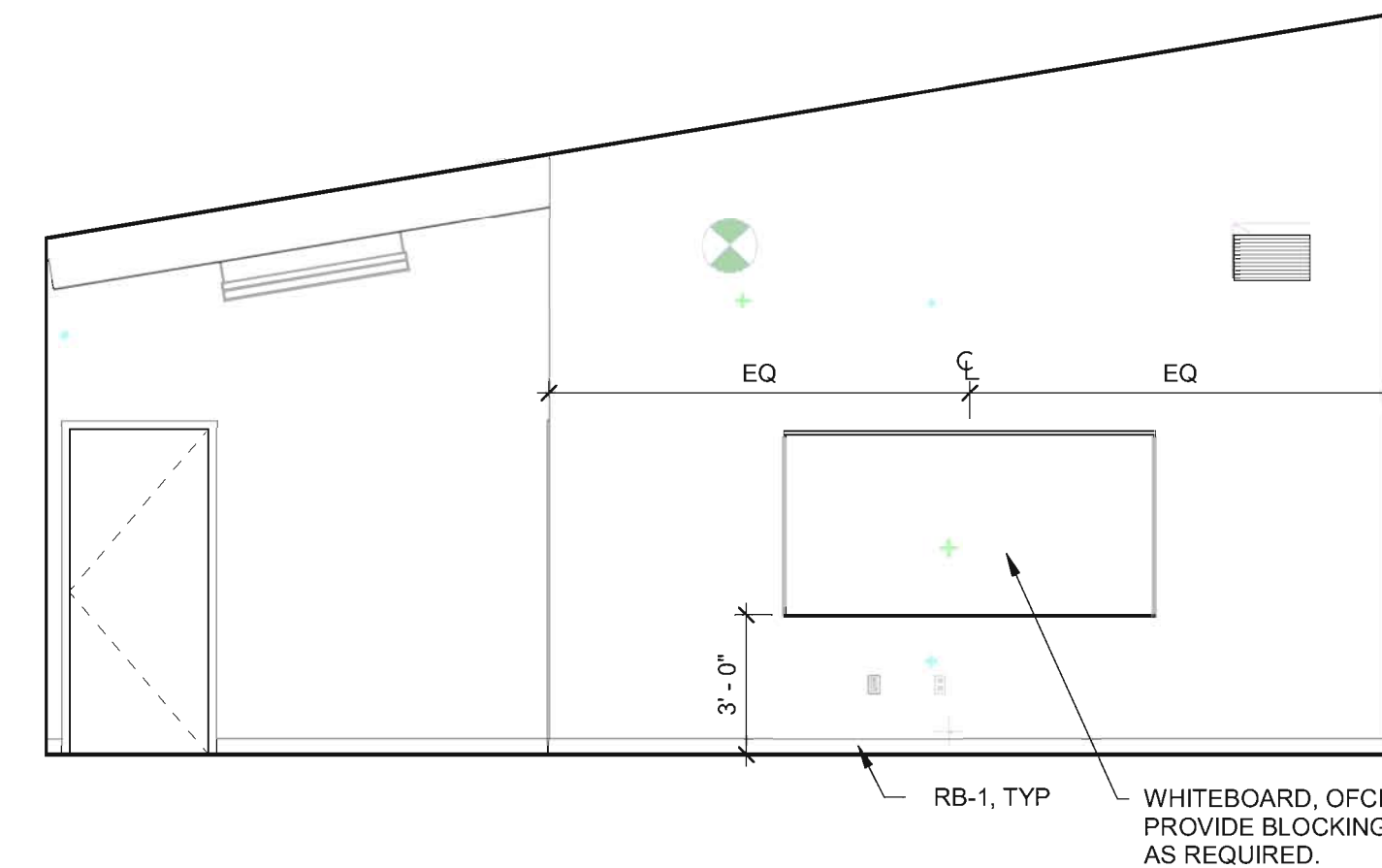
5 TYP TEACHING WALL ELEVATION  
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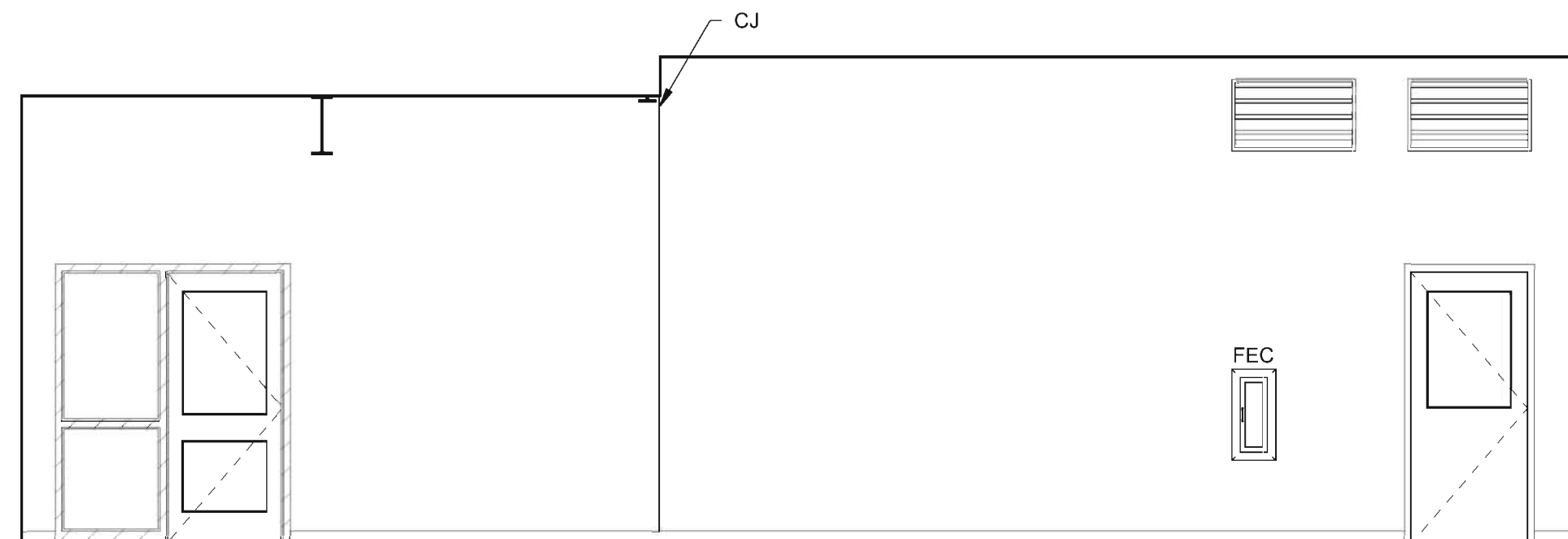
6 8 - CLASSROOM S  
SCALE: 1/4" = 1'-0"



7 8/9 - CLASSROOM W  
SCALE: 1/4" = 1'-0"

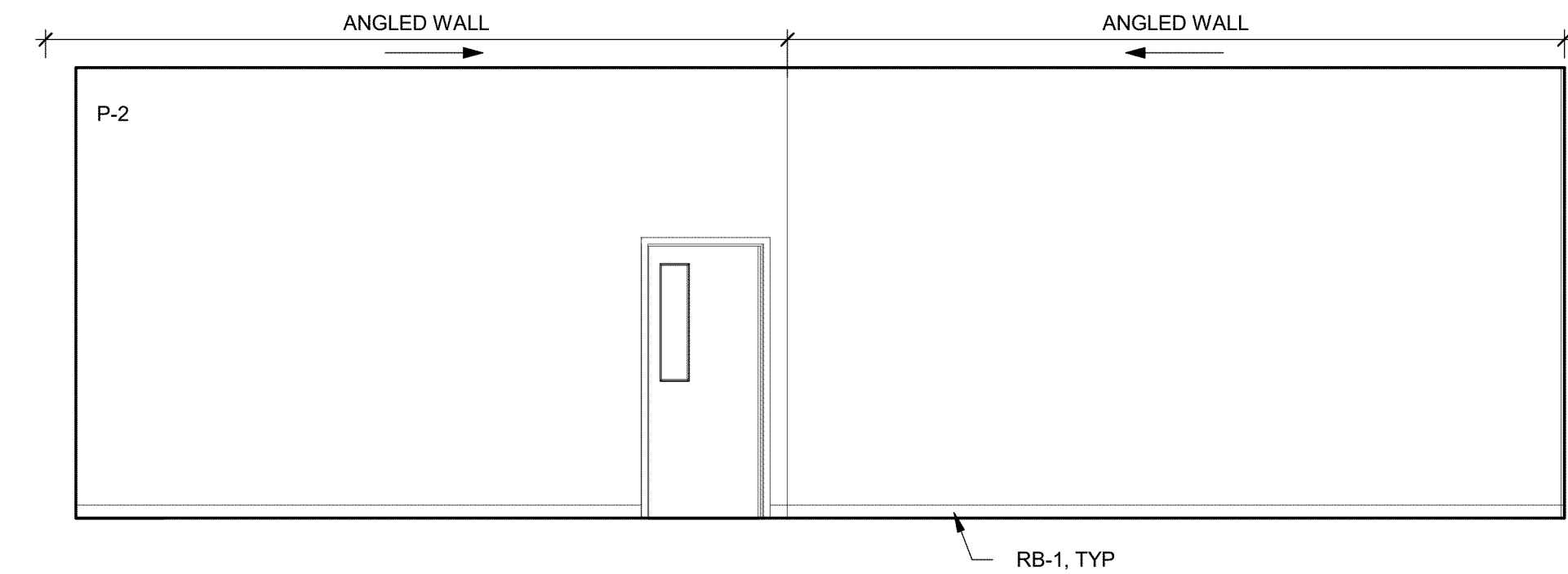


8 9 - CLASSROOM S  
SCALE: 1/4" = 1'-0"

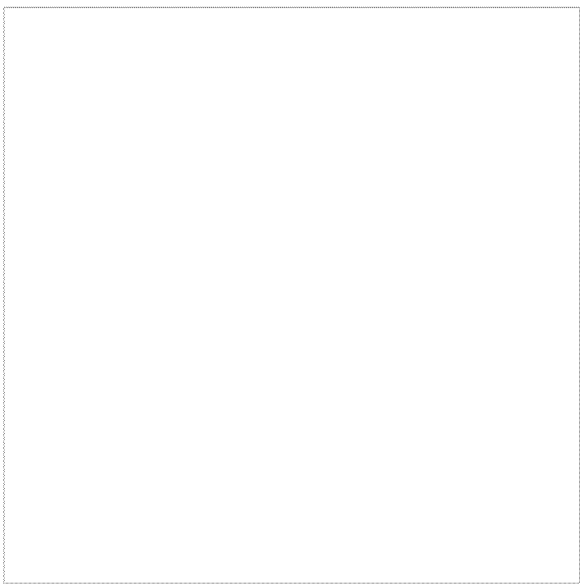


9 113 - HALL S  
SCALE: 1/4" = 1'-0"





1 125A - HALL ALT 1 E  
SCALE: 1/4" = 1'-0"

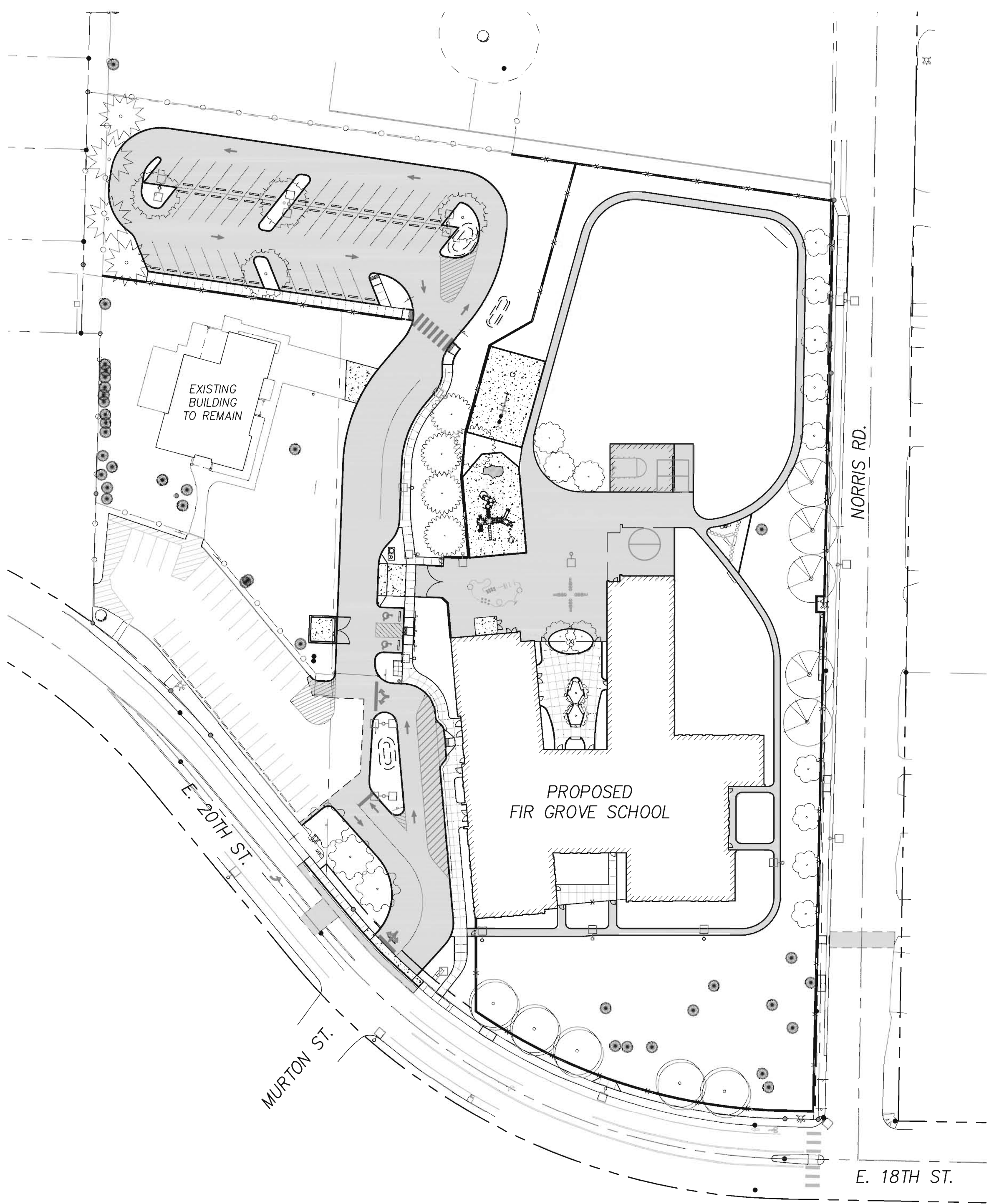




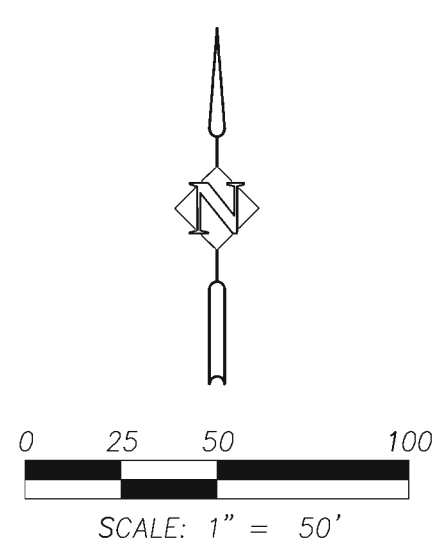
# FIR GROVE CHILDREN'S CENTER

## VANCOUVER, WASHINGTON

PARCEL # 29845000 & 29875000

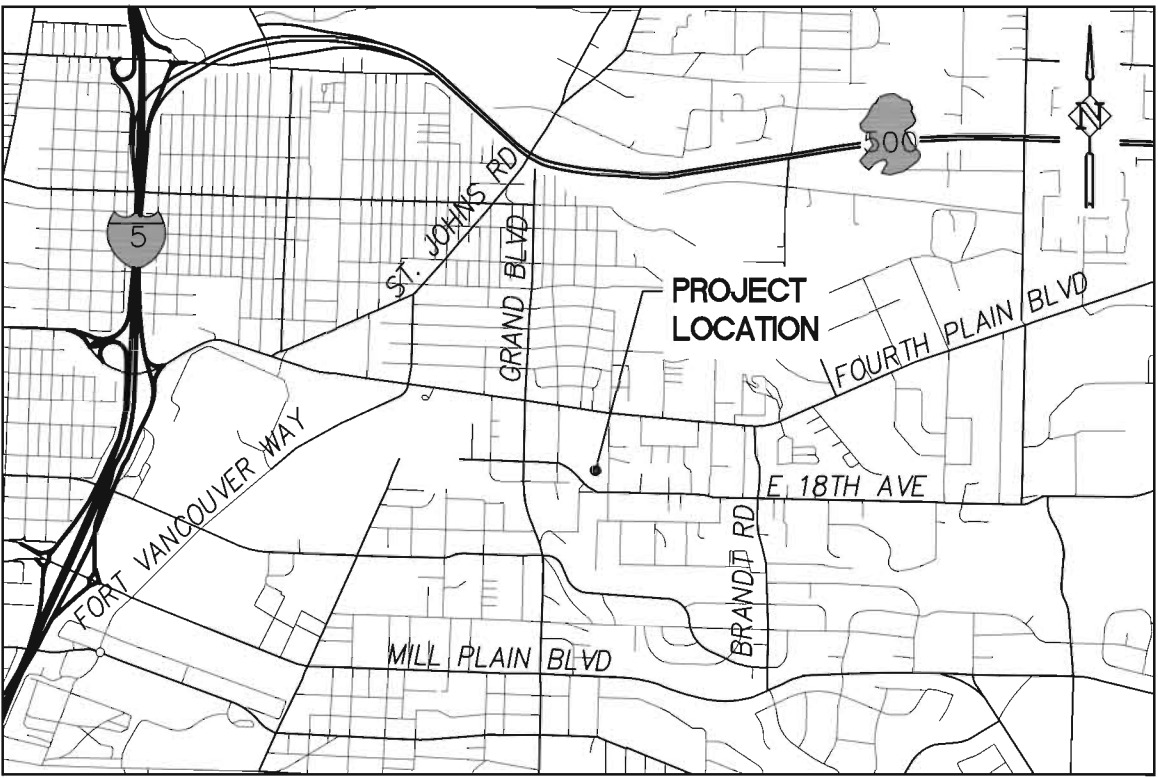


SITE MAP



### SHEET INDEX

- C-100 COVER SHEET
- C-101 EXISTING CONDITIONS
- C-102 DEMOLITION PLAN
- C-201 SITE PLAN
- C-202 FIRE RESPONSE PLAN
- C-203 SIGNING AND STRIPING PLAN
- C-301 GRADING AND EROSION CONTROL PLAN
- C-302 GRADING ENLARGEMENTS
- C-401 STORM DRAINAGE PLAN
- C-501 SANITARY SEWER AND UTILITY PLAN
- C-502 WATER PLAN
- C-601 PUBLIC STREET IMPROVEMENT PLAN
- C-701 SITE DETAILS
- C-702 SITE DETAILS
- C-703 SITE DETAILS
- C-704 EROSION CONTROL DETAILS
- C-705 GRADING DETAILS
- C-706 STORM DRAINAGE DETAILS
- C-707 STORM DRAINAGE DETAILS
- C-708 SANITARY SEWER DETAILS
- C-709 SANITARY SEWER DETAILS
- C-710 WATER DETAILS
- C-711 WATER DETAILS
- C-712 STREET IMPROVEMENT DETAILS
- C-713 STREET IMPROVEMENT DETAILS
- C-714 SIGNING AND STRIPING DETAILS



VICINITY MAP  
N.T.S.

### PROJECT OWNER

VANCOUVER PUBLIC SCHOOLS  
 CONTACT: TODD HORENSTEIN  
 PO BOX 8937  
 VANCOUVER, WA 98668  
 TEL: 360-313-4777  
 EMAIL: TODD.HORENSTEIN@VANS.D.ORG

### ARCHITECT

LSW ARCHITECTS  
 CONTACT: DON LUTHARDT  
 610 ESTHER STREET, SUITE 200  
 VANCOUVER, WA 98660  
 TEL: 360-694-8571  
 EMAIL: DON@LSW-ARCHITECTS.COM

### CIVIL ENGINEER

HARPER HOUF PETERSON RIGHELLIS INC.  
 CONTACT: KELLY BACHELDER, P.E.  
 1220 MAIN STREET, SUITE 150  
 VANCOUVER, WA 98660  
 TEL: 360-750-1131  
 FAX: 360-750-1141  
 EMAIL: KELLYB@HHPR.COM

### PLANNER/APPLICANT

HARPER HOUF PETERSON RIGHELLIS INC.  
 CONTACT: BRAD KILBY, AICP  
 205 SE SPOKANE STREET, SUITE 200  
 PORTLAND, OR 97202  
 TEL: 503-221-1131  
 FAX: 503-221-1171  
 EMAIL: BRADK@HHPR.COM

### WATER

ALL WATERMAIN INSTALLATION, DISINFECTION AND TESTING SHALL COMPLY WITH WSDOT STANDARD SPECIFICATIONS, UNIFORM PLUMBING CODE, AND CITY OF VANCOUVER WATER DESIGN AND CONSTRUCTION STANDARDS.

SEE ADDITIONAL WATER NOTES, SHEET C-710 AND C-711.

### FIRE SPRINKLER SUPPLY

UNDERGROUND FIRE SPRINKLER SUPPLY MAINS SHALL BE INSTALLED ONLY BY CONTRACTORS IN COMPLIANCE WITH WAC 212-80 AND ENDORSED IN ACCORDANCE WITH VMC 16.04.095 UNDER SEPARATE PERMIT.

### ARCHAEOLOGY

IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA AND CLARK COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.

### STANDARD DETAIL STATEMENT

ALL MATERIALS AND METHODS OF CONSTRUCTION AND INSTALLATION FOR WATER, SEWER, STORM WATER FACILITIES, AND EROSION CONTROL MEASURES, SHALL CONFORM TO CITY OF VANCOUVER ENGINEERING SERVICES "GENERAL REQUIREMENTS AND DETAILS FOR THE DESIGN AND CONSTRUCTION OF WATER, SANITARY SEWER AND SURFACE WATER SYSTEMS." CONSTRUCTION SHALL BE AS PER THE MOST CURRENT STANDARD DETAIL CONTAINED THEREIN.

**HHPR** Harper  
 Houf Peterson  
 Righellis Inc.

ENGINEERS • PLANNERS  
 LANDSCAPE ARCHITECTS • SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1131 www.hhpr.com fax: 360.750.1141



drawn by  
 JDB/KDB  
 checked by  
 KDB

lsw job number  
 2018-0029

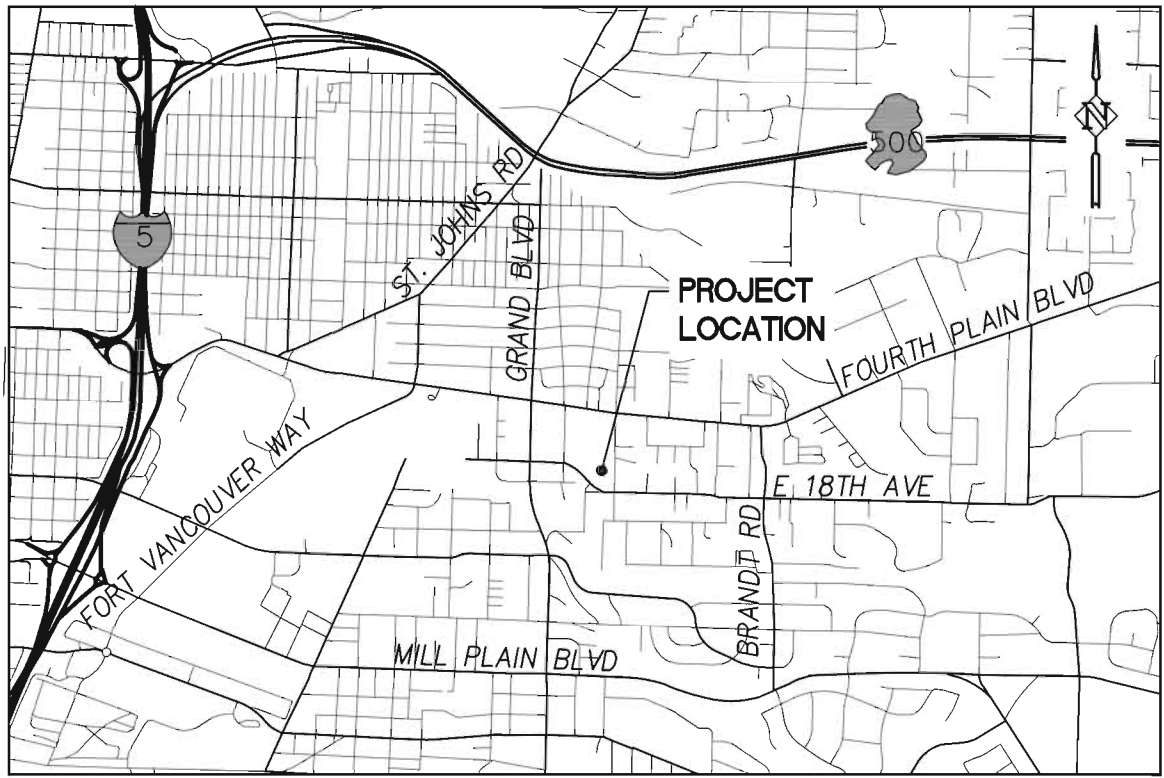
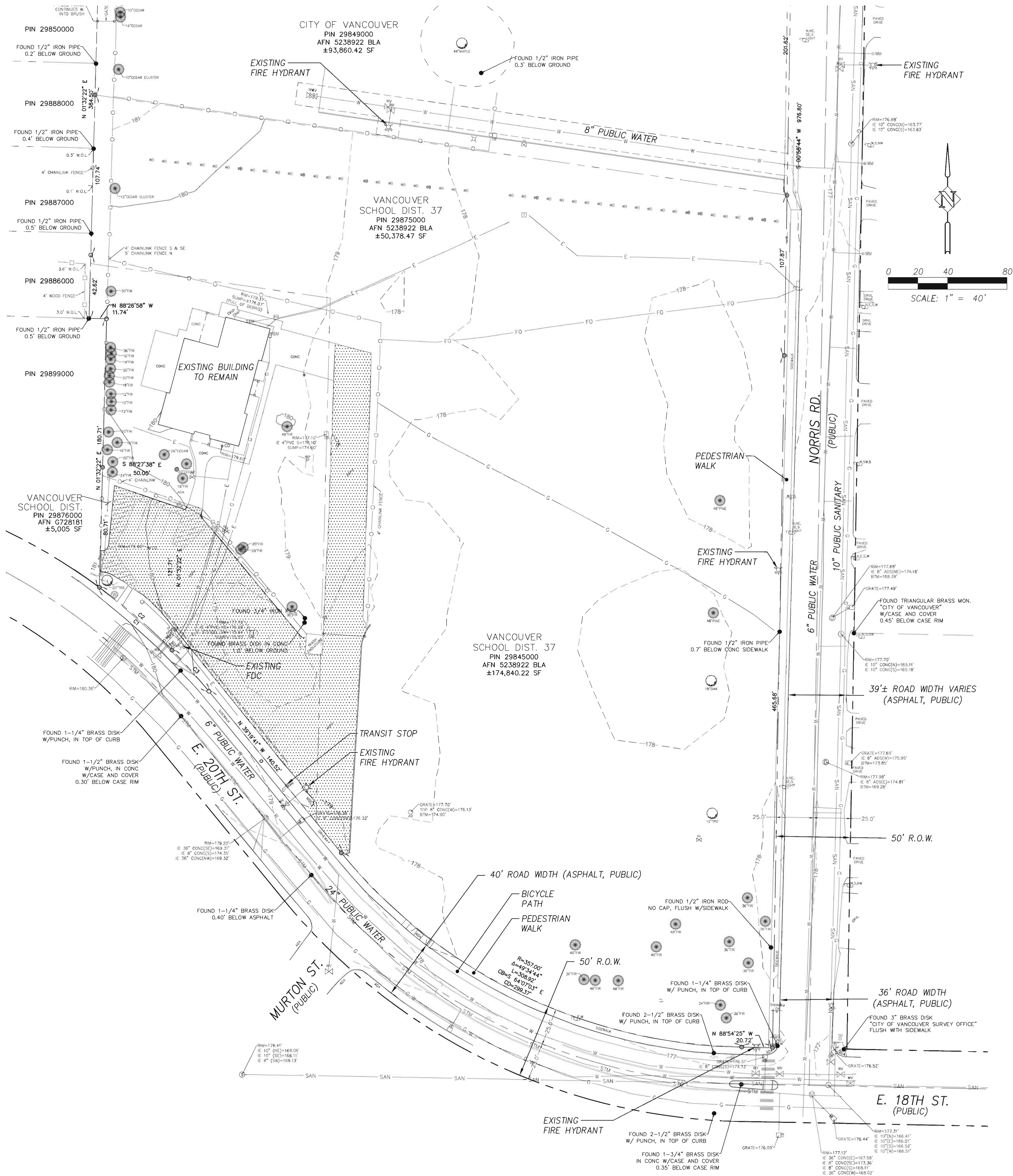
CITY OF Vancouver WASHINGTON			
Application Number <u>ENG-75797</u>			
Improvement Summary:			
Water Main Footage	520	LF	
Sewer Main Footage	0	LF	
Septic System Decommissioned	0	EA	
Total Hard Surface	83,400	SF	
Total Pervious Pavement/Sidewalk	0	SF	
Private Hard Surface	1.91	AC	
Grading Cut	3830	CY	Fill 3760 CY
Total Trenching within City Right of Way	107	LF	
Total Street Improvements (Curb/Pavmnt)	112	LF	
Right of Way Dedication	2937	SF	
Easements Utility	8140	SF	Non-Util 0 SF
		Arterial	Local
Full St Const.	0	LF	0 LF
Total Pavmnt Add	0	SF	0 SF
Curb/Gutter	107	LF	5 LF
Sidewalk	600	SF	458 SF
Street Lights	0	#	0 #
Traffic Signals	0	#	

FIR GROVE CHIDLREN'S CENTER  
 VANCOUVER PUBLIC SCHOOLS  
 3200 E 18TH ST  
 VANCOUVER, WA 98661

issue date  
 10/15/2019  
 BID/PERMIT SET  
 revisions

COVER SHEET





VICINITY MAP  
N.T.S.

LEGEND:	
	INDICATES WATER VALVE
	INDICATES FIRE HYDRANT
	INDICATES WATER METER
	INDICATES CONTROL VALVE
	INDICATES WATER STAND PIPE
	INDICATES WATER VAULT
	INDICATES WELL
	INDICATES FIRE DEPARTMENT CONNECTION
	INDICATES TELEPHONE PEDESTAL
	INDICATES STORM SEWER MANHOLE
	INDICATES DRYWELL
	INDICATES CATCH BASIN
	INDICATES STORM VAULT
	INDICATES AREA DRAIN
	INDICATES SANITARY SEWER MANHOLE
	INDICATES TRAFFIC SIGNAL BOX
	INDICATES POWER POLE WITH DIRECTION OF OVERHEAD LINES
	INDICATES GUY ANCHOR
	INDICATES TRANSFORMER
	INDICATES GAS VALVE
	INDICATES HEAT PUMP
	INDICATES SIGN
	INDICATES STREET NAME SIGN
	INDICATES MAIL BOX
	INDICATES BOLLARD
	INDICATES EVERGREEN TREE WITH TRUNK DIAMETER AND TYPE
	INDICATES DECIDUOUS TREE WITH TRUNK DIAMETER AND TYPE
	INDICATES RIGHT OF WAY CENTERLINE
	INDICATES MONUMENT FOUND AS NOTED
	INDICATES CALCULATED POSITION
	INDICATES BOUNDARY
	INDICATES EDGE OF ASPHALT
	INDICATES EDGE OF CONCRETE
	INDICATES EDGE OF GRAVEL
	INDICATES 5 FOOT INTERVAL CONTOUR
	INDICATES 1 FOOT INTERVAL CONTOUR
	INDICATES FENCE LINE
	INDICATES CHAINLINK FENCE LINE
	INDICATES WOOD FENCE LINE
	INDICATES PAINT STRIPE
	INDICATES ELECTRIC LOCATE
	INDICATES FIBER OPTIC LOCATE
	INDICATES GAS LOCATE
	INDICATES STORM LOCATE
	INDICATES SANITARY LOCATE
	INDICATES WATER LOCATE
	INDICATES UNIDENTIFIED DECIDUOUS TREE
	INDICATES ADA RAMP
	INDICATES ASPHALT SURFACE
	INDICATES CONCRETE SURFACE
	INDICATES GRAVEL SURFACE
	INDICATES WITH
	INDICATES YELLOW PLASTIC CAP
	INDICATES PARCEL IDENTIFICATION NUMBER

PROJECT GENERAL INFORMATION

- THE FOLLOWING ARE NOT PRESENT NEAR THE PROJECT SITE:
- WATERCOURSES, STREAM, RIVERS, ETC.
  - AREAS PRONE TO FLOODING
  - FEMA DESIGNATED FLOODPLAINS, FLOOD FRINGE, OR FLOODWAY
  - DESIGNATED SHORELINES
  - WATER BODIES OR KNOWN WETLANDS
  - UNSTABLE SLOPES AND LANDSLIDE HAZARD AREAS
  - SIGNIFICANT WILDLIFE HABITAT OR VEGETATION
  - SIGNIFICANT HISTORIC SITES.
- PROPOSED IMPROVEMENTS DO NOT INCLUDE THE FOLLOWING:
- WETLAND, STREAM, STEEP BANK BUFFER AREAS/PROTECTED AREAS
  - ROAD SEGMENTS EXCEEDING 15% GRADE
  - DRIVEWAY OR CORNER LOTS NOT MEETING SIGHT DISTANCE STANDARDS

TOPOGRAPHIC SURVEY BY MINISTER-GLAESER

HORIZONTAL DATUM:

NAD 83(2011)(EPOC 2010.0000),  
WASHINGTON STATE PLANE COORDINATE  
SYSTEM, SOUTH ZONE, US SURVEY FEET.

VERTICAL DATUM:

NGVD 29 - CITY OF VANCOUVER

BENCH MARK:

CITY OF VANCOUVER BENCH MARK NO. 54  
3" BRASS DISK LOCATED IN THE NW QUADRANT OF THE  
INTERSECTION OF GENERAL ANDERSON AVE. AND WINTLER DRIVE  
ELEVATION = 169.60', CITY OF VANCOUVER DATUM (NGVD 29)

NOTE:

AN ONSITE PRIVATE UTILITY LOCATE WAS COMPLETED BY MT. VIEW  
LOCATING, LLC. THE UNDERGROUND UTILITIES AS SHOWN HEREON  
ARE AS MARKED AT THE TIME OF THIS SURVEY. UNDERGROUND  
UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. UNDERGROUND  
CONNECTIONS ARE SHOWN AS STRAIGHT LINES BETWEEN SURFACE  
LOCATIONS BUT MAY CONTAIN BENDS OR CURVES NOT SHOWN.  
SOME UNDERGROUND LOCATIONS HEREON MAY HAVE BEEN TAKEN  
FROM PUBLIC RECORDS. M.G.S. ASSUMES NO LIABILITY FOR THE  
ACCURACY OF PUBLIC RECORDS.



drawn by  
JDB/KDB  
checked by  
KDB

lsw job number  
2018-0029

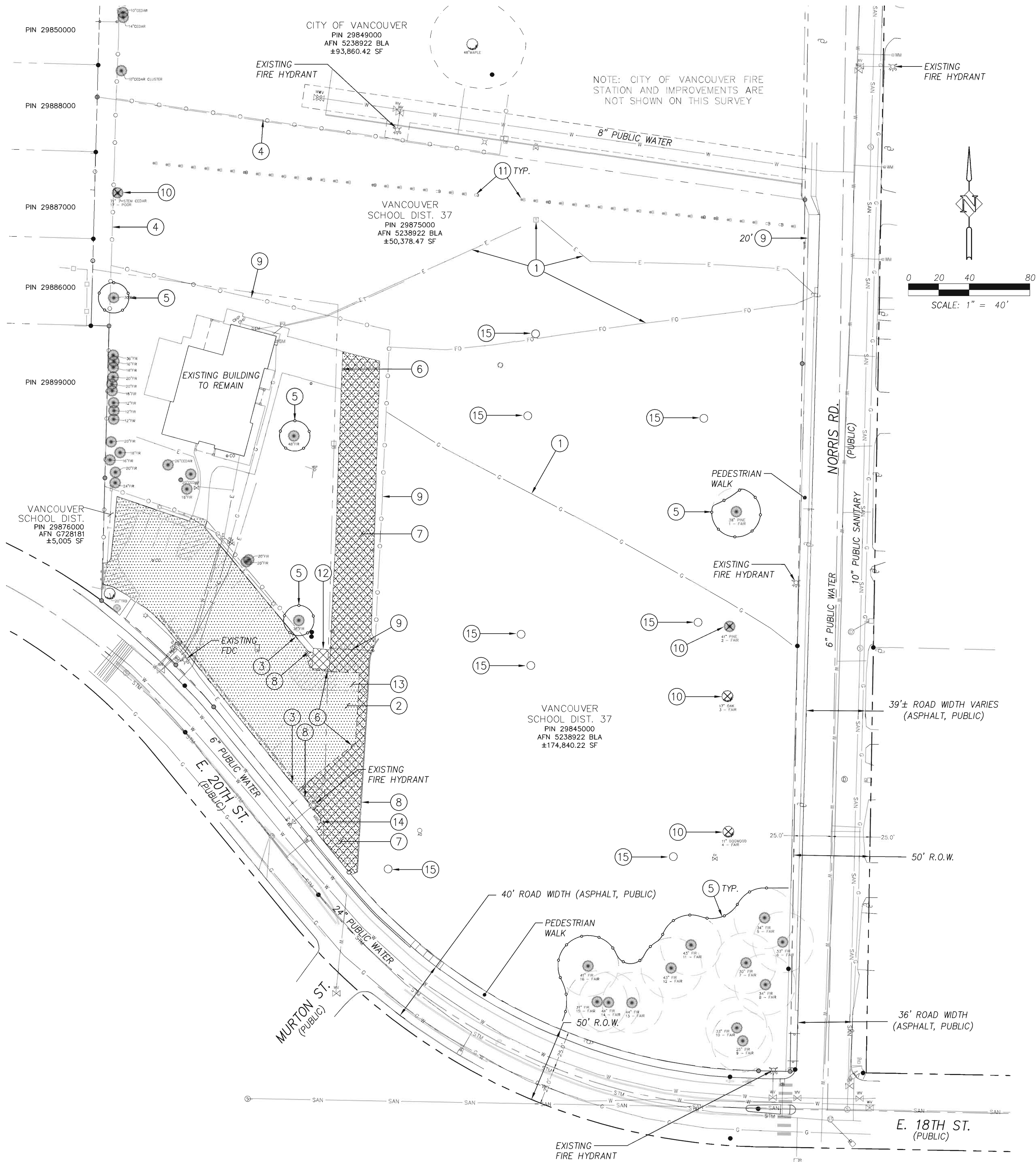
FIR GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
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revisions

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EXISTING  
CONDITIONS





**EXISTING UNDERGROUND UTILITY NOTE:**

SITE WAS PREVIOUSLY USED AS JOHN ROGERS ELEMENTARY. UNKNOWN UNDERGROUND UTILITIES ARE LIKELY WITHIN THE PROJECT AREA. CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES WITHIN THE BUILDING FOOTPRINT. REMOVE RIM AND CONE OF ALL BURIED DRYWELLS AND MANHOLES AND FILL WITH COMPACTED STRUCTURAL FILL IF OUTSIDE OF THE BUILDING FOOTPRINT.

**TREE REMOVAL NOTE:**

SALVAGE ALL TRUNKS THAT ARE LARGER THAN 2' DIAMETER TO REPURPOSE FOR THE NATURE PLAY AREA. SALVAGED WOOD SHALL BE FREE OF ROT, DISEASE, AND FUNGUS. REFER TO LANDSCAPE PLANS FOR SPECIFIC DIMENSIONS TO CUT LOGS INTO APPROPRIATE SECTIONS. KEEP BARK ON TREE UNLESS NOTED IN THE DETAIL.

COMPLETELY REMOVE ALL STUMPS.

**LEGEND:**

	INDICATES WATER VALVE
	INDICATES FIRE HYDRANT
	INDICATES WATER METER
	INDICATES WATER CONTROL VALVE
	INDICATES WATER STAND PIPE
	INDICATES WATER VAULT
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	INDICATES STORM LOCATE
	INDICATES SANITARY LOCATE
	INDICATES WATER LOCATE
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	INDICATES YELLOW PLASTIC CAP
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**Harper Houf Peterson Righellis Inc.**

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LANDSCAPE ARCHITECTS • SURVEYORS  
1220 Main Street, Suite 150, Vancouver, WA 98660  
phone: 360.750.1131 www.hhpr.com fax: 360.750.1141

**CONSTRUCTION NOTES:**

- 1 PROTECT EXISTING UTILITY TO GATE HOUSE BUILDING. RELOCATE AS NECESSARY FOR CONSTRUCTION. COORDINATE WITH VPS.
- 2 PROTECT EXISTING ASPHALT.
- 3 PROTECT EXISTING CURB.
- 4 PROTECT EXISTING FENCE.
- 5 PROTECT EXISTING TREES.
- 6 SAWCUT EXISTING PAVEMENT/CONCRETE TO CREATE A CLEAN, VERTICAL EDGE.
- 7 REMOVE EXISTING ASPHALT.
- 8 REMOVE EXISTING CURB.
- 9 REMOVE EXISTING FENCE OR GATE.
- 10 REMOVE EXISTING TREE. SEE GRADING PLAN, SHEET C-301.
- 11 REMOVE EXISTING BOLLARDS.
- 12 REMOVE EXISTING TRASH ENCLOSURE.
- 13 REMOVE EXISTING STRIPING.
- 14 REMOVE EXISTING MAILBOX.
- 15 POSSIBLE LOCATION OF EXISTING DRYWELL. SEE EXISTING UTILITY NOTE, THIS SHEET.

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**DEMOLITION  
PLAN**

**C-102**

**LSW**  
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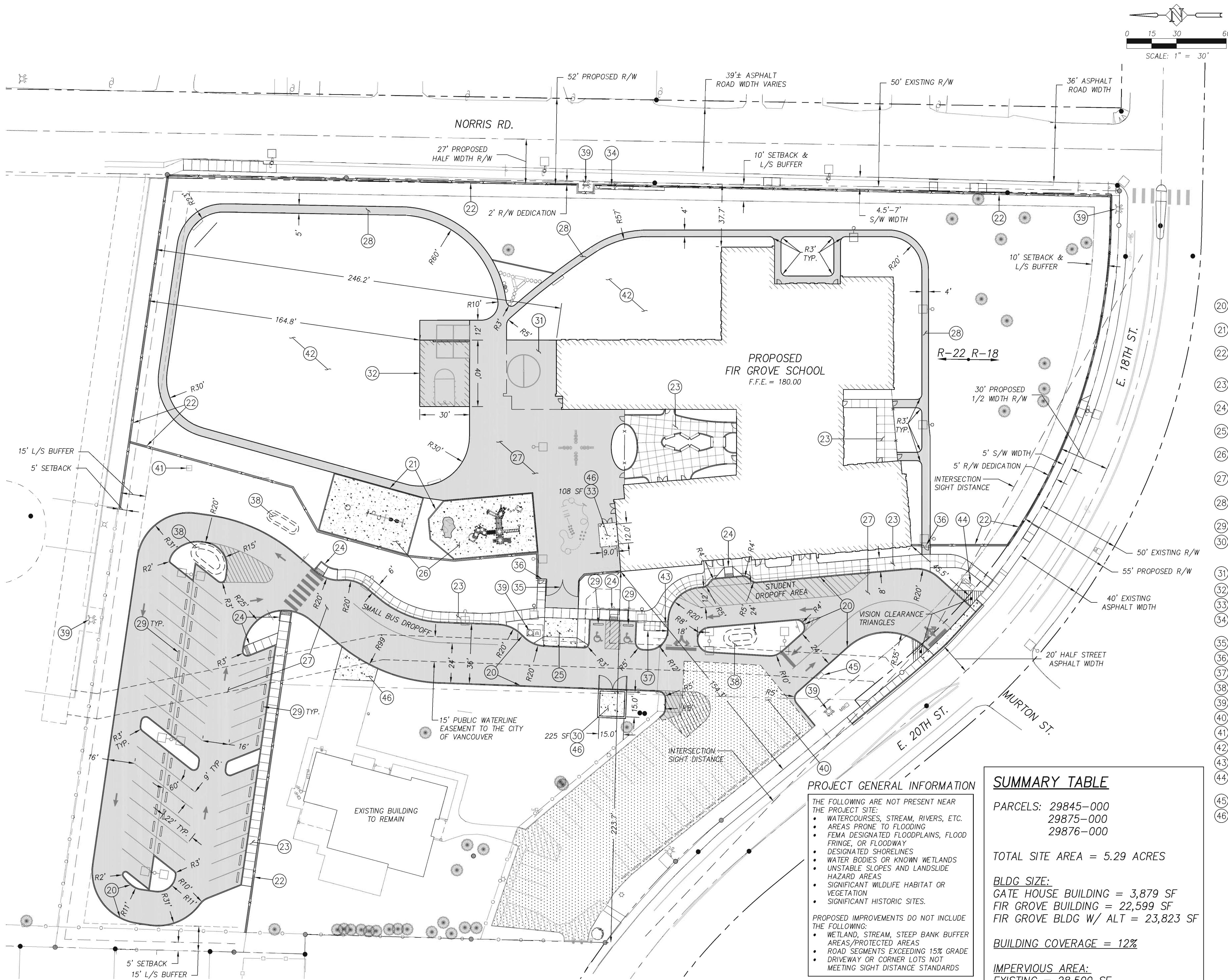
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SITE PLAN



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CONSTRUCTION NOTES:

- 20) CONSTRUCT 16" STANDARD CURB PER DETAIL, SHEET C-701.
- 21) CONSTRUCT FLUSH CURB PER DETAIL, SHEET C-701.
- 22) CONSTRUCT FLUSH CURB FOR MOW STRIP UNDER FENCE PER DETAIL, SHEET C-701. SEE LANDSCAPE PLANS FOR FENCE INSTALLATION.
- 23) CONSTRUCT CONCRETE SIDEWALK PER DETAILS, SHEET C-701.
- 24) CONSTRUCT ADA RAMP PER DETAILS, SHEET C-702.
- 25) CONSTRUCT CONCRETE DRIVEWAY PER SECTION, SHEET C-702.
- 26) CONSTRUCT CONCRETE PAD FOR PLAY PIT PER DETAIL, SHEET C-701.
- 27) CONSTRUCT ASPHALT PER H.M.A. AUTOMOBILE PARKING LOT SECTION, SHEET C-701.
- 28) CONSTRUCT ASPHALT PER H.M.A. PATH SECTION, SHEET C-701.
- 29) INSTALL WHEEL STOPS PER DETAIL, SHEET C-701.
- 30) INSTALL COMBINED TRASH ENCLOSURE FOR GATE HOUSE AND FIR GROVE. SEE ARCHITECTURAL PLANS.
- 31) ALTERNATE #1 - ADDITIONAL CLASSROOM.
- 32) COVERED PLAY STRUCTURE.
- 33) MECHANICAL YARD.
- 34) ROLLING EMERGENCY GATE FOR FIRE ACCESS. SEE LANDSCAPE PLANS.
- 35) VEHICLE GATE. SEE LANDSCAPE PLANS.
- 36) PEDESTRIAN GATE. SEE LANDSCAPE PLANS.
- 37) BIKE RACK. SEE LANDSCAPE PLANS.
- 38) BIORETENTION FACILITY. SEE SHEET C-401.
- 39) FIRE HYDRANT. SEE SHEET C-502.
- 40) EXISTING ASPHALT DRIVE TO REMAIN.
- 41) EXISTING TRANSFORMER TO REMAIN.
- 42) LAWN PLAY AREA.
- 43) FLAG POLE.
- 44) PROJECT READER BOARD, UNDER SEPARATE PERMIT.
- 45) PROJECT MAILBOX.
- 46) CONSTRUCT CONCRETE PER SECTION, SHEET C-701.

PROJECT GENERAL INFORMATION

THE FOLLOWING ARE NOT PRESENT NEAR THE PROJECT SITE:

- WATERCOURSES, STREAM, RIVERS, ETC.
- AREAS PRONE TO FLOODING
- FEMA DESIGNATED FLOODPLAINS, FLOOD FRINGE, OR FLOODWAY
- DESIGNATED SHORELINES
- WATER BODIES OR KNOWN WETLANDS
- UNSTABLE SLOPES AND LANDSLIDE HAZARD AREAS
- SIGNIFICANT WILDLIFE HABITAT OR VEGETATION
- SIGNIFICANT HISTORIC SITES.

PROPOSED IMPROVEMENTS DO NOT INCLUDE THE FOLLOWING:

- WETLAND, STREAM, STEEP BANK BUFFER AREAS/PROTECTED AREAS
- ROAD SEGMENTS EXCEEDING 15% GRADE
- DRIVEWAY OR CORNER LOTS NOT MEETING SIGHT DISTANCE STANDARDS

SUMMARY TABLE

PARCELS: 29845-000  
29875-000  
29876-000

TOTAL SITE AREA = 5.29 ACRES

BLDG SIZE:  
GATE HOUSE BUILDING = 3,879 SF  
FIR GROVE BUILDING = 22,599 SF  
FIR GROVE BLDG W/ ALT = 23,823 SF

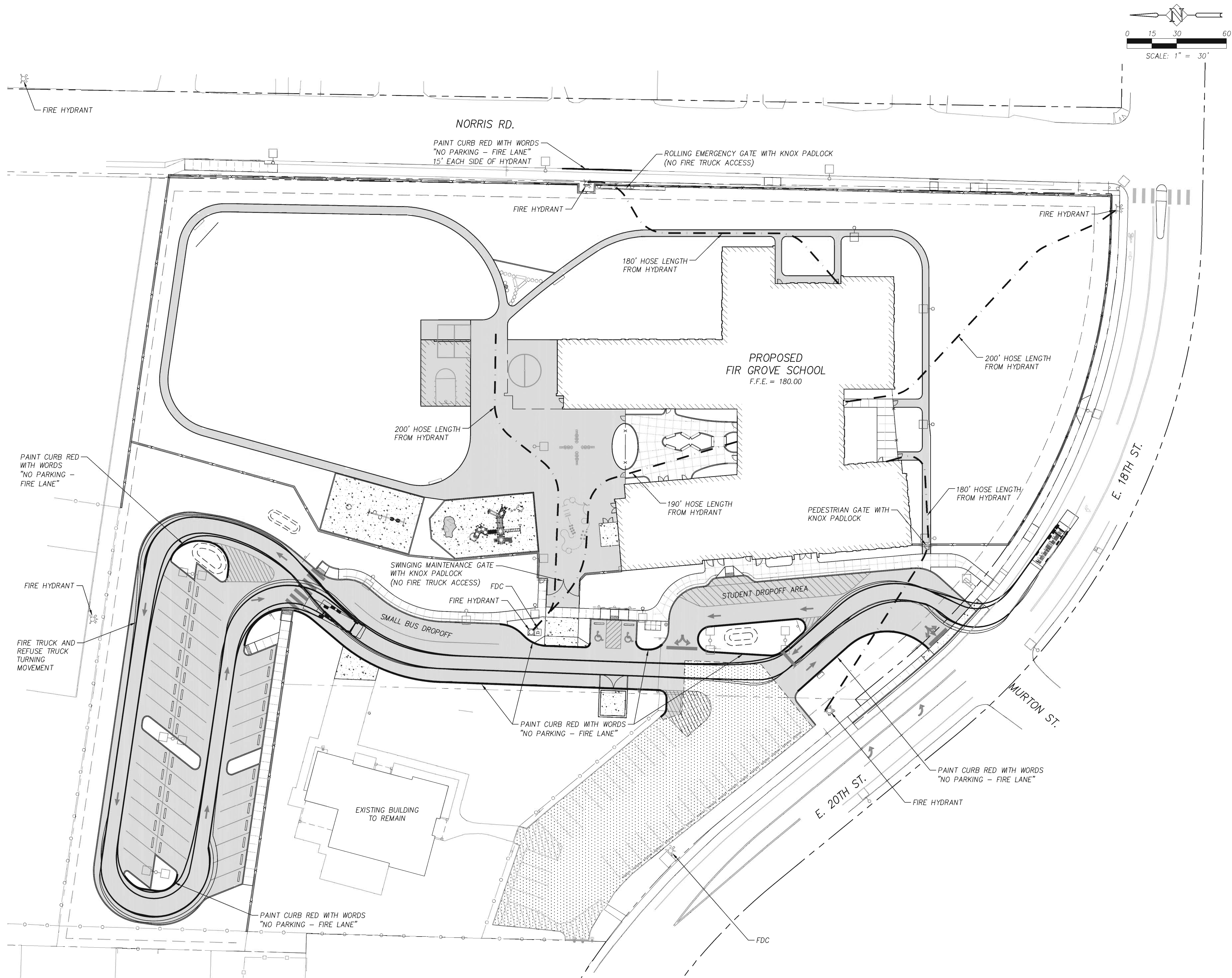
BUILDING COVERAGE = 12%

IMPERVIOUS AREA:  
EXISTING = 28,500 SF  
NEW = 83,400 SF

IMPERVIOUS COVERAGE = 48.6%

STANDARD PARKING STALLS.....	46
ADA PARKING STALLS.....	2
TOTAL PARKING STALLS.....	48





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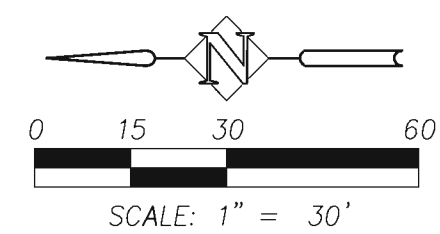
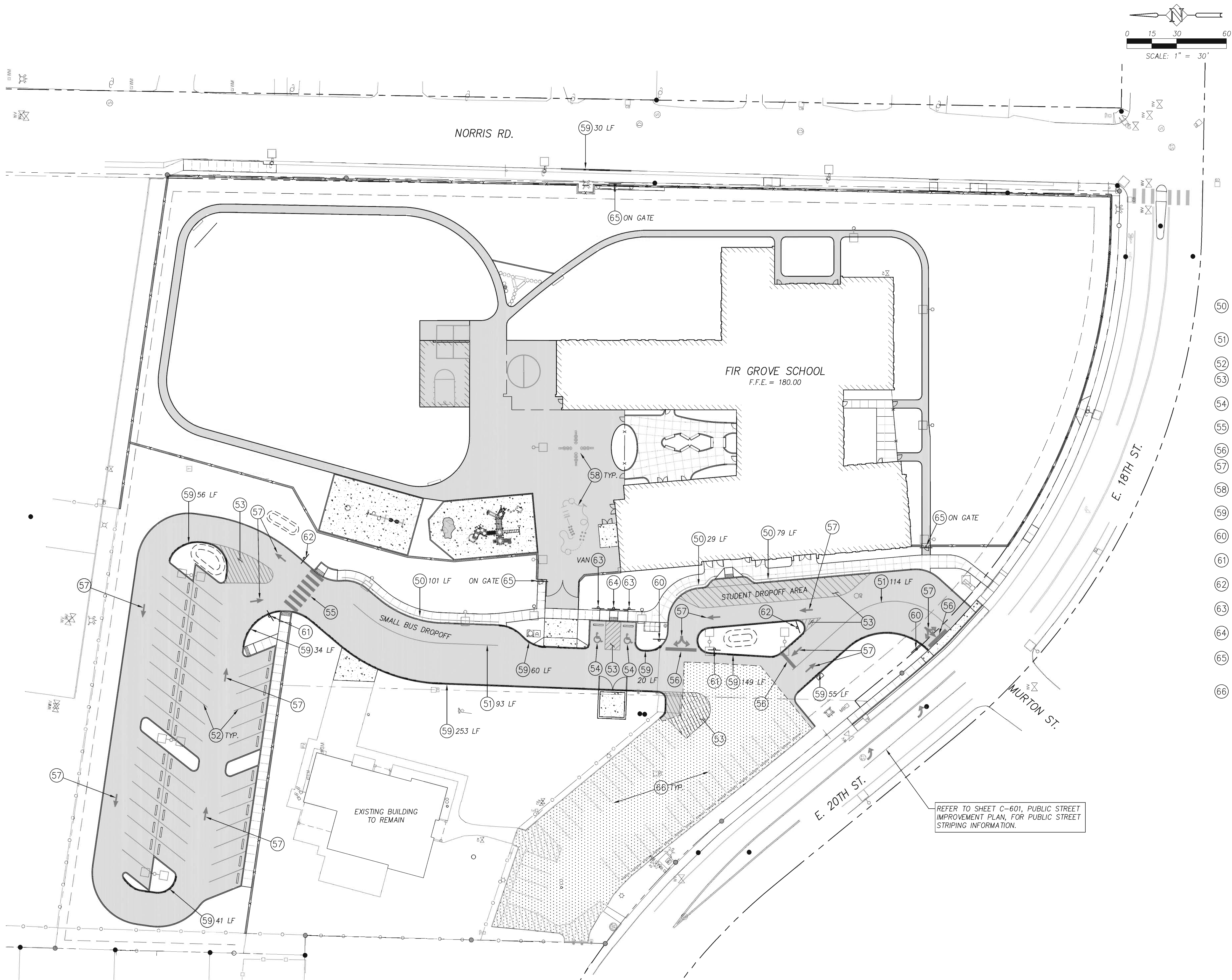
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**FIRE RESPONSE  
PLAN**

**C-202**





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**CONSTRUCTION NOTES:**

- (50) PAINT 4" WHITE SEPARATION STRIPING ON THE SIDEWALK, 2' OFF THE FACE OF CURB. SEE PLAN FOR LENGTH.
- (51) PAINT 4" WHITE SEPARATION STRIPING. SEE PLAN FOR LENGTH.
- (52) PAINT 4" WHITE PARKING LOT STRIPING.
- (53) PAINT CROSS STRIPING PER ACCESSIBLE STALL CROSS STRIPING DETAIL, SHEET C-703.
- (54) PAINT ACCESSIBLE PARKING SYMBOL PER DETAIL, SHEET C-703.
- (55) PAINT CROSSWALK LADDER STRIPE PER DETAIL, SHEET C-703.
- (56) PAINT STOP BAR PER DETAIL, SHEET C-703.
- (57) PAINT DIRECTIONAL ARROW PER DETAILS, SHEET C-703.
- (58) SEE LANDSCAPE PLANS, SHEET L-503 FOR PLAY AREA STRIPING.
- (59) PAINT THE CURB RED FOR FIRE ACCESS. SEE PLAN FOR LENGTH.
- (60) INSTALL "STOP" SIGN PER DETAILS, SHEET C-703.
- (61) INSTALL "DO NOT ENTER" SIGN PER DETAILS, SHEET C-703.
- (62) INSTALL "ONE WAY" SIGN PER DETAILS, SHEET C-703.
- (63) INSTALL ADA ACCESSIBLE SIGN PER DETAILS, SHEET C-703. "VAN" WHERE SHOWN ON PLANS.
- (64) INSTALL "HANDICAP ACCESS AISLE NO PARKING" SIGN PER DETAIL, SHEET C-703.
- (65) INSTALL "NOTICE NO DRUGS NO ALCOHOL NO WEAPONS ON PREMISES" SIGN PER DETAIL, SHEET C-703.
- (66) PROTECT EXISTING GATE HOUSE PARKING STALL STRIPING.



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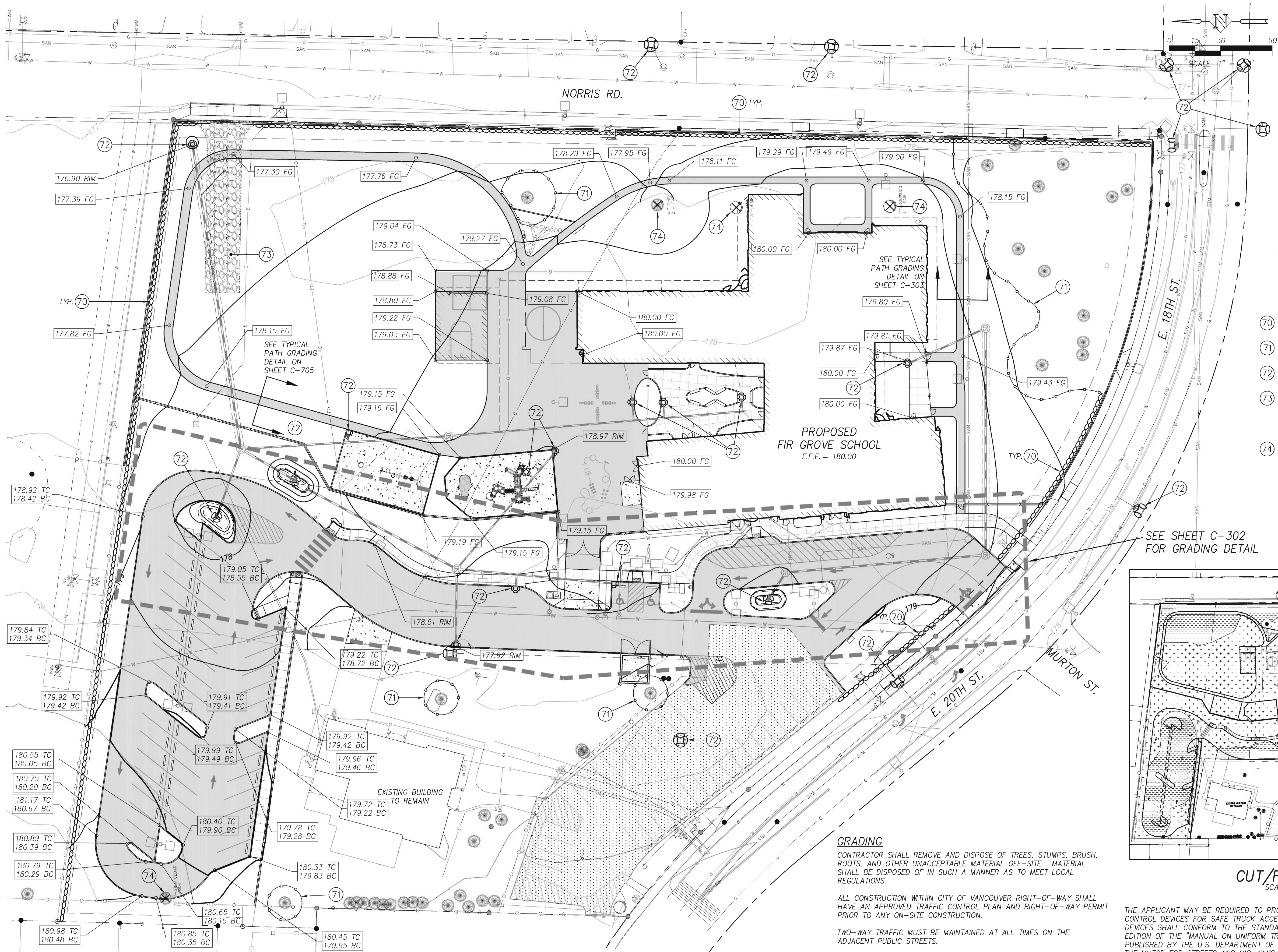
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**SIGNING &  
STRIPING PLAN**

**C-203**





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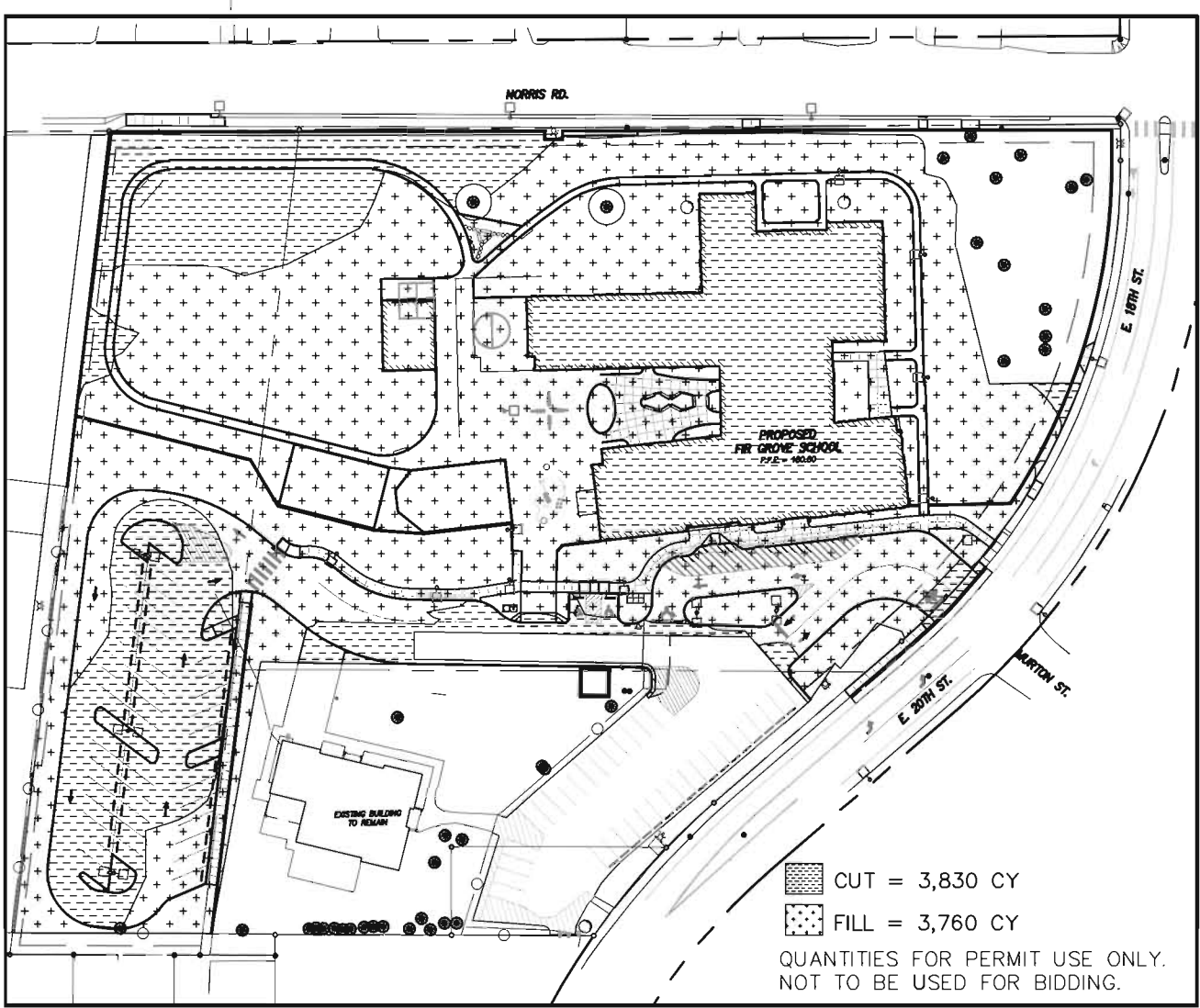
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**CONSTRUCTION NOTES:**

- 70 INSTALL EROSION CONTROL SILT FENCE PER DETAIL E-2.33, SHEET C-704.
- 71 INSTALL TREE PROTECTION FENCE PER DETAIL T03-20, SHEET C-704.
- 72 PROVIDE INLET PROTECTION AT ALL INLETS PER DETAILS E-2.20A AND E-2.20B, SHEET C-704.
- 73 PROVIDE CONSTRUCTION ENTRANCE PER DETAIL E-1.05, SHEET C-704. EXISTING CURB SHALL BE RESTORED TO "LIKE" OR BETTER CONDITION AS NECESSARY IF DISTURBED DURING CONSTRUCTION.
- 74 REMOVE EXISTING TREE, STUMP AND ROOTS AS NECESSARY FOR CONSTRUCTION.

PROPOSED  
FIR GROVE SCHOOL  
F.F.E. = 180.00

SEE SHEET C-302  
FOR GRADING DETAIL



**CUT/FILL DIAGRAM**  
SCALE: 1" = 100'

**GRADING**

CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, AND OTHER UNACCEPTABLE MATERIAL OFF-SITE. MATERIAL SHALL BE DISPOSED OF IN SUCH A MANNER AS TO MEET LOCAL REGULATIONS.

ALL CONSTRUCTION WITHIN CITY OF VANCOUVER RIGHT-OF-WAY SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN AND RIGHT-OF-WAY PERMIT PRIOR TO ANY ON-SITE CONSTRUCTION.

TWO-WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES ON THE ADJACENT PUBLIC STREETS.

SHOULD ANY ITEM OF ARCHAEOLOGICAL INTEREST (VMC 20.710.090) BE FOUND DURING DEVELOPMENT, YOU ARE REQUIRED TO STOP WORK AND NOTIFY THE PLANNING CASE MANAGER IN DEVELOPMENT REVIEW SERVICES AT (360) 487-7800, AND THE WASHINGTON STATE OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION AT (360)756-4011 IMMEDIATELY. FAILURE TO DO SO COULD RESULT IN A FELONY CONVICTION.

IN THE EVENT THAT ARCHAEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL BE HALTED IMMEDIATELY AND THE CITY OF VANCOUVER'S COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT AND THE WASHINGTON STATE DEPARTMENT FOR ARCHAEOLOGY AND HISTORIC PRESERVATION SHALL BE NOTIFIED IN ORDER FOR THE FINDINGS TO BE INVESTIGATED AND ASSESSED BY A PROFESSIONAL ARCHAEOLOGIST.

**GENERAL NOTES**

ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL CONFORM TO THE LATEST STANDARDS AND PRACTICE OF THE CITY OF VANCOUVER AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AS PREPARED BY WSDOT AND APWA.

CITY OF VANCOUVER TRANSPORTATION SERVICES STANDARD DETAILS DATED 7/1/19 SHALL BE UTILIZED IN THE CONSTRUCTION OF THE TRANSPORTATION ELEMENTS OF THESE PLANS.

STREET SIGNING AND STRIPING SHALL BE INSTALLED BY THE DEVELOPER. ALL STREET SIGNS AND STRIPING SHALL BE INSTALLED PER THE MUTCD.

STREET LIGHTING WILL BE INSTALLED BY THE DEVELOPER PER P.U.D. APPROVED STREET LIGHTING PLANS.

PRE-PAVING AS-BUILTS SHALL BE SUBMITTED TO THE CITY OF VANCOUVER CONSTRUCTION OFFICE AND CITY INSPECTOR FOR BOTH SANITARY SEWER AND STORM SEWER, PRIOR TO PAVING.

PAVING WILL NOT BE ALLOWED DURING WET OR COLD WEATHER, PER WSDOT SPECIFICATIONS.

ANY SIGNIFICANT DEVIATIONS FROM THE PLANS WILL REQUIRE A REQUEST FROM THE APPLICANT'S ENGINEER AND APPROVAL FROM THE CITY'S ENGINEER AND CITY INSPECTOR.

ALL PAVEMENT SHALL BE STRAIGHT CUT PRIOR TO PAVING. EXISTING PAVEMENT SHALL BE REMOVED AS NECESSARY TO PROVIDE A SMOOTH TRANSITION FOR BOTH RIDE AND DRAINAGE.

ALL ADA PEDESTRIAN RAMPS SHOWN ON THE PLANS AND ON THE DETAIL SHEETS SHALL BE CONSTRUCTED WITH THE PROJECT. WHERE THE SIDEWALK ENDS AT THE PROPERTY LINE, A PEDESTRIAN RAMP SHALL BE PROVIDED TO ACCOMMODATE WHEEL CHAIR ACCESS. SIDEWALKS SHALL BE CONSTRUCTED WITH THE PROJECT WHERE THERE IS AN EXISTING HOUSE, DRAINAGE SWALE, ETC. OR ALONG AN ARTERIAL THAT DOES NOT ALLOW ACCESS FROM THE NEW LOTS.

SUBGRADE PREPARATION DURING WET OR WINTER TIME CONSTRUCTION IS USUALLY/OFTEN NOT FEASIBLE. A WET OR WINTER TIME PLAN SHALL BE SUBMITTED TO CITY OF VANCOUVER, DEVELOPMENT ENGINEERING STAFF FOR REVIEW AND APPROVAL IF THE CONTRACTOR PLANS TO COMMENCE WITH CONSTRUCTION DURING WET WEATHER CONDITIONS. IF PAVING FROM OCTOBER 15TH TO MARCH 30TH, A WET WEATHER SUBGRADE PREPARATION PLAN IS REQUIRED. THE SUBGRADE MUST BE OVER EXCAVATED AND A GEOTEXTILE LINER USED. THE INSPECTOR SHALL APPROVE A COMPLETE PROOF ROLL TEST ON BOTH SIDES OF THE STREET.



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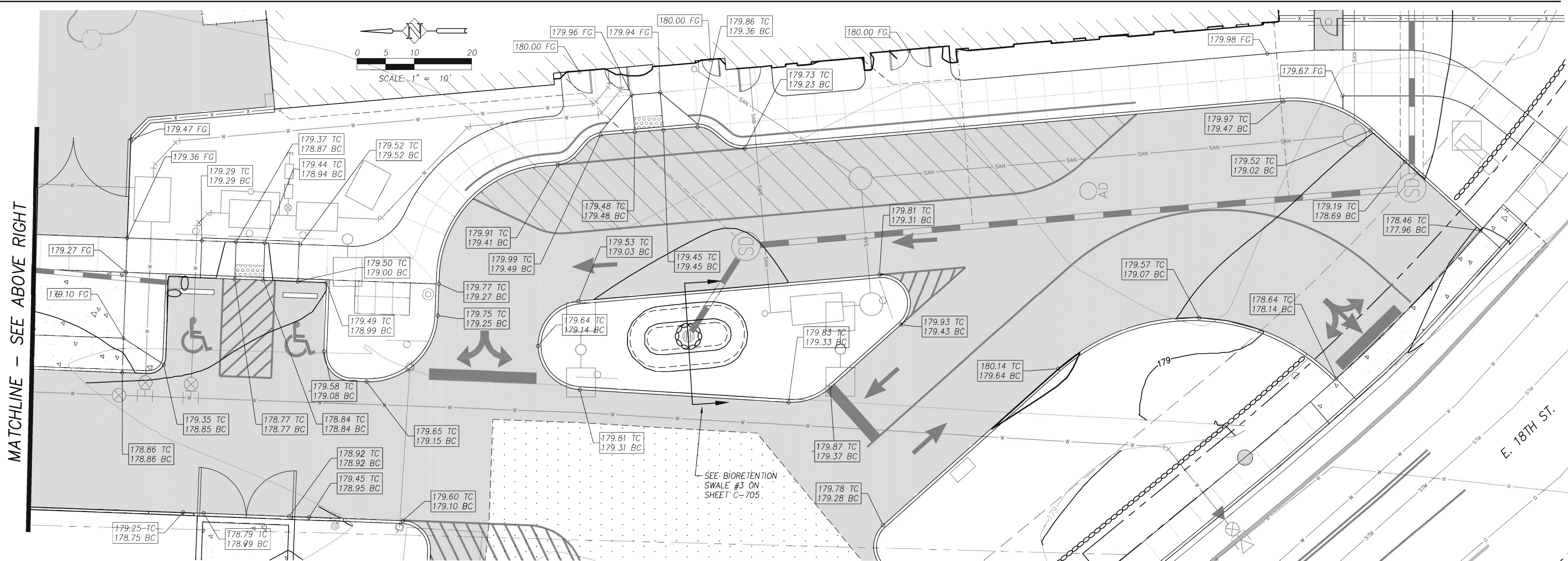
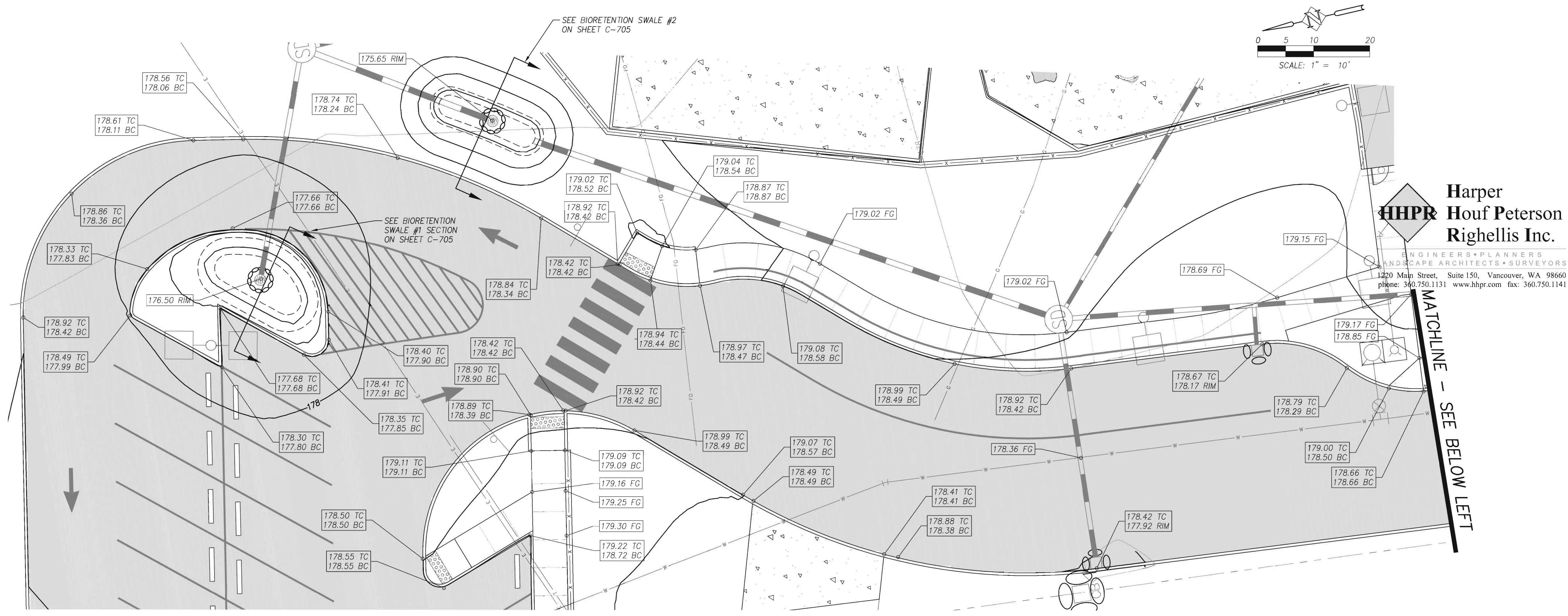
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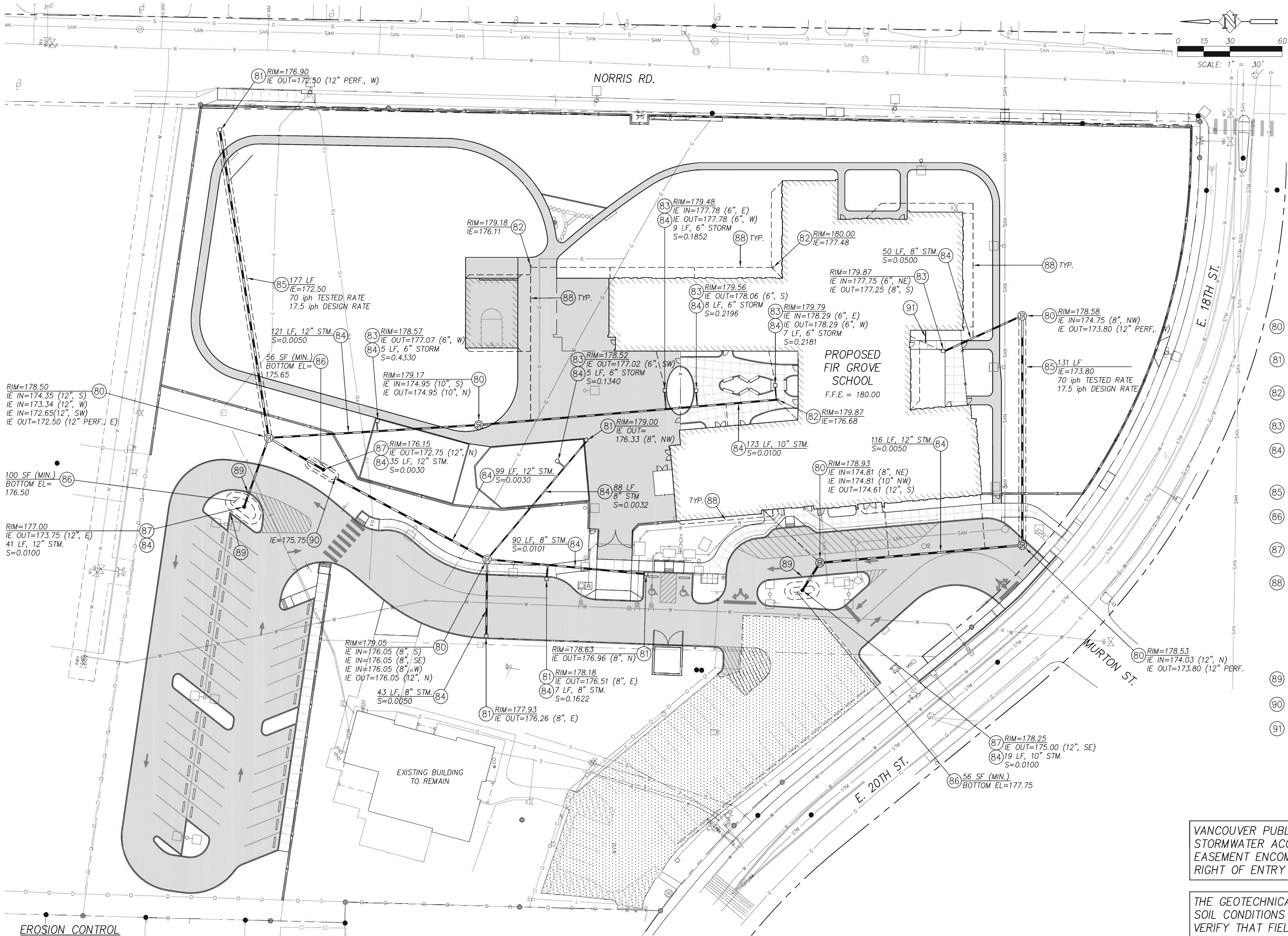
**GRADING AND  
EROSION  
CONTROL PLAN**

**C-301**









#### EROSION CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.

SEDIMENT CONTROL SHALL BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF WORK AND MAINTAINED THROUGH THE LIFE OF THE PROJECT, AS CALLED OUT ON THE PLANS.

ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY A SUITABLE APPLICATION OF AN APPROPRIATE BEST MANAGEMENT PRACTICE (BMP). DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN SEVEN (7) DAYS.

PAVEMENT SWEEPING AND SHOVELING IS REQUIRED. WASHING THE PAVEMENT INTO THE EXISTING STORM SYSTEM WILL NOT BE PERMITTED.

THE CONTRACTOR SHALL MAINTAIN ON-SITE A WRITTEN DAILY LOG OF EROSION CONTROL PRACTICE MAINTENANCE.

IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR EROSION CONTROL TECHNIQUES, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY CITY OF VANCOUVER. IF THE BMP'S APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT-OF-WAY, THEN THE DIRECTOR SHALL REQUIRE ADDITIONAL BMP'S.

EROSION CONTROL AS SHOWN ON THE PLANS ARE THE BASE RECOMMENDATIONS, AND ARE IN NO WAY INTENDED TO REPRESENT ALL OF THE POTENTIAL EROSION CONTROL MEASURES THAT MAY BE REQUIRED DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING OF TEMPORARY CUT-OFF DITCHES, SEDIMENTATION PONDS, SUMPS, BAKER TANKS™, BYPASS PUMPING, AND/OR OTHER MEANS AS REQUIRED AND NECESSARY TO CONTROL STORM WATER RUNOFF DURING CONSTRUCTION SO THAT NO SILT-LADEN WATER LEAVES THE PROJECT SITE. ALL SUCH MEASURES SHALL BE AT CONTRACTOR'S EXPENSE.

#### STORM DRAINAGE

ON-SITE STORM SEWER IMPROVEMENTS SHALL CONFORM TO THE LATEST VERSION OF THE IBC AND THE UPC, AND CONFORM TO WSDOT SPECIFICATIONS WHERE NOTED.

THE CONTRACTOR SHALL MAINTAIN 6" MINIMUM VERTICAL AND 3' MINIMUM HORIZONTAL CLEARANCE (OUTSIDE SURFACES) BETWEEN STORM DRAIN PIPES AND OTHER UTILITY PIPES AND CONDUITS. FOR CROSSINGS OF SANITARY SEWER LINES, THE WASHINGTON DEPARTMENT OF ECOLOGY CRITERIA APPLY.

ALL CATCH BASINS SHALL BE LABELED WITH "NO DUMPING\*PROTECT WATER\*ONLY RAIN IN DRAIN" MEDALLIONS. MEDALLIONS SHALL BE AFFIXED TO DRY SURFACE WITH HIGH QUALITY POLYURETHANE SEALANT AND RIVETS.

STORM DRAIN PIPE, BENDS, AND FITTINGS SHALL BE PVC, ASTM D 3034, SDR 35, OR SMOOTH INTERIOR, HIGH DENSITY POLYETHYLENE CORRUGATED PIPE AASHTO M252 OR M294, TYPE S AS PRODUCED AND SPECIFIED BY ADS, PRODUCT NAME N12, OR APPROVED EQUAL. ALL STORM SEWER FITTINGS AND PIPE JOINTS SHALL BE GASKETED.

ALL ON-SITE STORMWATER FACILITIES SHALL BE PRIVATELY MAINTAINED BY THE CURRENT OR FUTURE PROPERTY OWNER(S).

ALL VAULT, UTILITY BOX, INLET, MANHOLE AND CLEANOUT RIMS SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE NOTED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN ANY STORM SYSTEM PIPING TO EXISTING DRAINAGE APPURTENANCES TO REMAIN.

VANCOUVER PUBLIC SCHOOLS HAVE AN EXISTING STORMWATER ACCESS AND INSPECTION EASEMENT ENCOMPASSING THE ENTIRE SITE. RIGHT OF ENTRY AGREEMENT #5516197

THE GEOTECHNICAL ENGINEER SHALL OBSERVE SOIL CONDITIONS DURING CONSTRUCTION AND VERIFY THAT FIELD INFILTRATION RATES MEET DESIGN RATES. IF RATES DIFFER, IT MAY BE NECESSARY TO ENLARGE THE SYSTEMS.

ALL ON-SITE STORMWATER SYSTEMS ARE CONSIDERED "PRIVATE" AND WILL BE OWNED AND MAINTAINED BY VANCOUVER PUBLIC SCHOOLS.

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#### CONSTRUCTION NOTES:

- INSTALL STORM MANHOLE PER DETAIL D-2.0, SHEET C-706. SEE PLAN FOR RIM AND INVERT ELEVATIONS.
- INSTALL CATCH BASIN PER DETAIL D-1.1, SHEET C-706. SEE PLAN FOR RIM AND INVERT ELEVATIONS.
- INSTALL STORM CLEANOUT PER DETAIL, D-2.3, SHEET C-706. SEE PLAN FOR RIM AND INVERT ELEVATIONS.
- INSTALL AREA DRAIN PER DETAIL, SHEET C-707. SEE PLAN FOR RIM AND INVERT ELEVATIONS.
- INSTALL STORM PIPE PER BEDDING AND BACKFILL DETAILS D-3.1B AND D-3.2, SHEET C-706. SEE PLAN FOR SIZE, LENGTH AND SLOPE INFORMATION.
- CONSTRUCT INFILTRATION TRENCH PER DETAIL, SHEET C-707. SEE PLAN FOR LENGTH.
- CONSTRUCT BIORETENTION FACILITY PER DETAIL, SHEET C-707. SEE PLAN FOR SIZE AND BOTTOM ELEVATION.
- INSTALL OVERFLOW RISER PER DETAIL, SHEET C-707. SEE PLAN FOR RIM AND INVERT ELEVATIONS.
- INSTALL ROOF DOWNSPOUT AND PIPING, COORDINATE LOCATION WITH BUILDING ROOF AND FLOOR PLANS. INVERTS FOR ROOF DRAIN CONNECTIONS AT BUILDINGS ARE F.F.E. MINUS 2.0'. ROOF DRAIN PIPING TO STORM MAIN SHALL BE 6" MINIMUM DIAMETER AT 1% MINIMUM SLOPE. LAYOUT IS CONCEPTUAL - EXACT LAYOUT SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. INSTALL CLEANOUTS AS REQUIRED BY THE UPC.
- CONSTRUCT CURB CUT FOR DRAINAGE PER DETAILS, SHEET C-705.
- CONSTRUCT PIPE OUTFALL PER DETAIL, SHEET C-707. SEE PLAN FOR INVERT ELEVATION.
- CONNECT TO 4" BUILDING STORM, INVERT AT BUILDING IS F.F.E. MINUS 2.0'. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.

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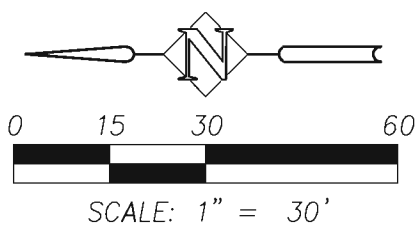
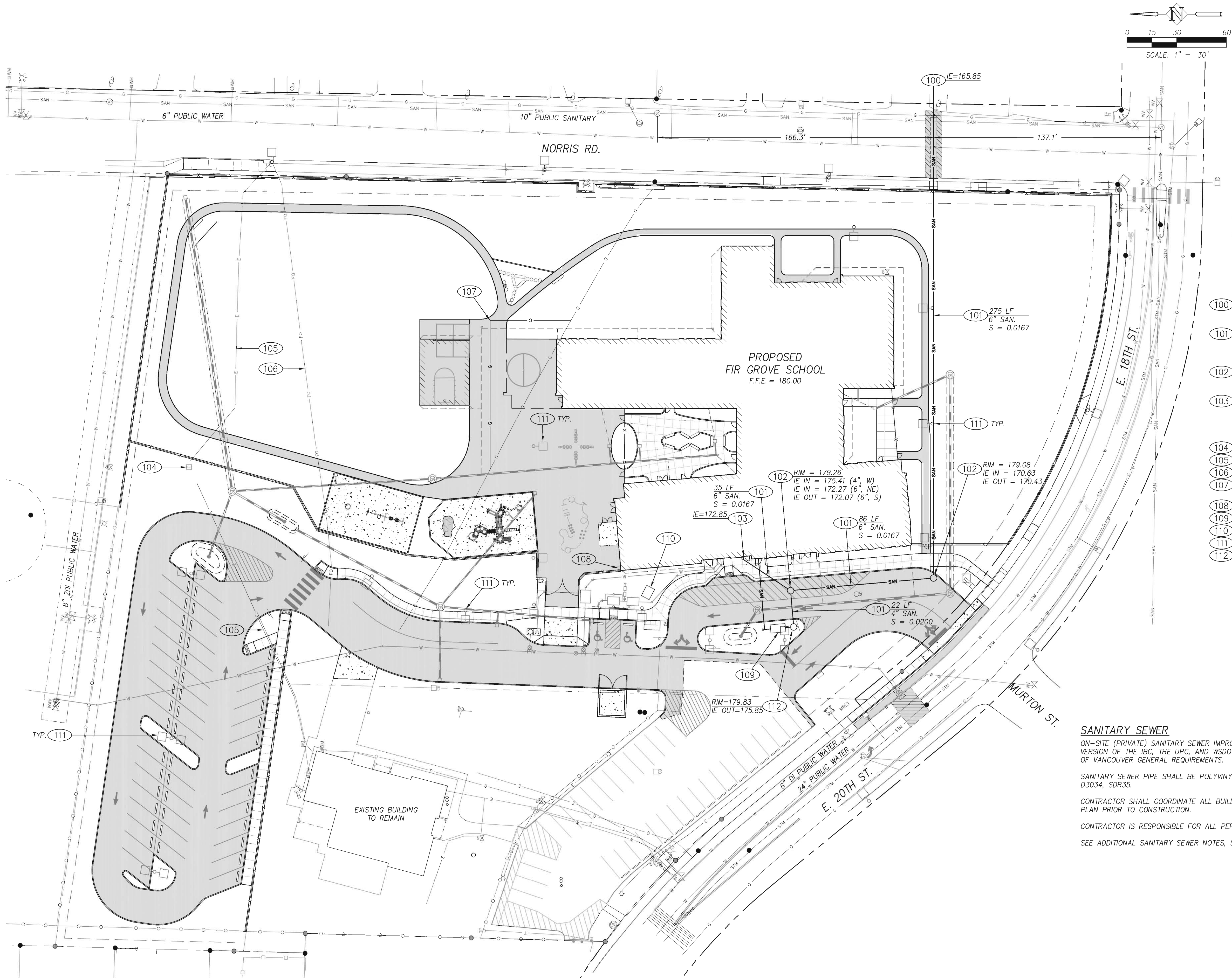
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**STORM DRAINAGE PLAN**

**C-401**





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**CONSTRUCTION NOTES:**

- 100 CONNECT TO PUBLIC SANITARY SEWER PER DETAIL S-1.4B AND S-1.4C, SHEET C-708. SEE PLAN FOR INVERT ELEVATION.
- 101 INSTALL SANITARY SEWER PIPING WITH TRACER WIRE PER DETAILS S-1.2 AND S-1.3, SHEET C-708 AND S-5.2, SHEET C-709. SEE PLAN FOR SIZE, LENGTH AND SLOPE INFORMATION.
- 102 INSTALL SANITARY SEWER MANHOLE PER DETAIL S-2.1A, SHEET C-708. SEE PLAN FOR RIM AND INVERT ELEVATIONS.
- 103 SANITARY SEWER POINT OF CONNECTION WITH CLEANOUT AND WYE PER DETAIL S-3.1, SHEET C-709. INSTALL 4" x 6" REDUCER TO CONNECT TO BUILDING SANITARY. SEE PLAN FOR INVERT ELEVATION.
- 104 PROTECT EXISTING TRANSFORMER.
- 105 PROTECT EXISTING ELECTRICAL LINE.
- 106 PROTECT EXISTING FIBER OPTIC LINE.
- 107 RELOCATE EXISTING GAS LINE AROUND PROPOSED BUILDING.
- 108 GAS METER.
- 109 GREASE INTERCEPTOR. SEE PLUMBING PLANS.
- 110 TRANSFORMER.
- 111 SITE LIGHTING.
- 112 SAMPLING MANHOLE, SEE PLUMBING PLANS FOR DETAILS. SEE PLAN FOR INVERT ELEVATION OUT.

**SANITARY SEWER**

ON-SITE (PRIVATE) SANITARY SEWER IMPROVEMENTS SHALL CONFORM TO THE LATEST VERSION OF THE IBC, THE UPC, AND WSDOT SPECIFICATIONS WHERE NOTED AND THE CITY OF VANCOUVER GENERAL REQUIREMENTS.

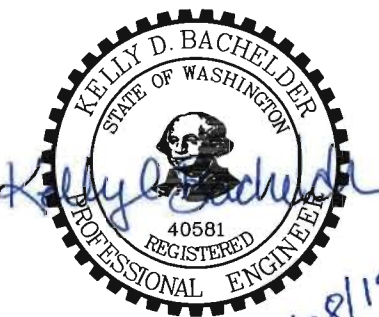
SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) AND CONFORM TO ASTM D3034, SDR35.

CONTRACTOR SHALL COORDINATE ALL BUILDING SANITARY CONNECTIONS WITH PLUMBING PLAN PRIOR TO CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND INSPECTIONS.

SEE ADDITIONAL SANITARY SEWER NOTES, SHEET C-708 AND C-709.

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**KDB**

lsw job number  
**2018-0029**

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VANCOUVER PUBLIC SCHOOLS  
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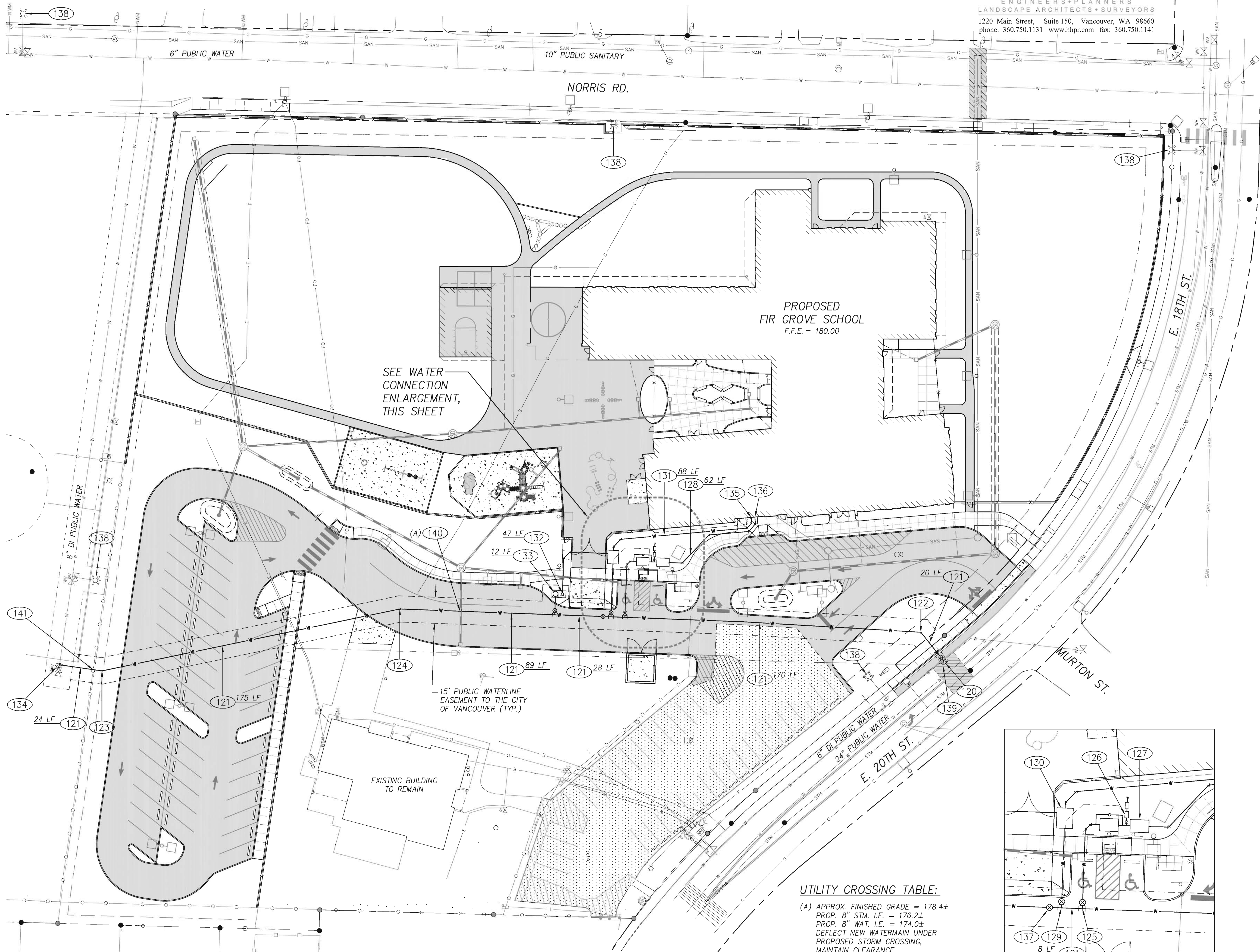
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**SANITARY SEWER  
AND UTILITIES  
PLAN**





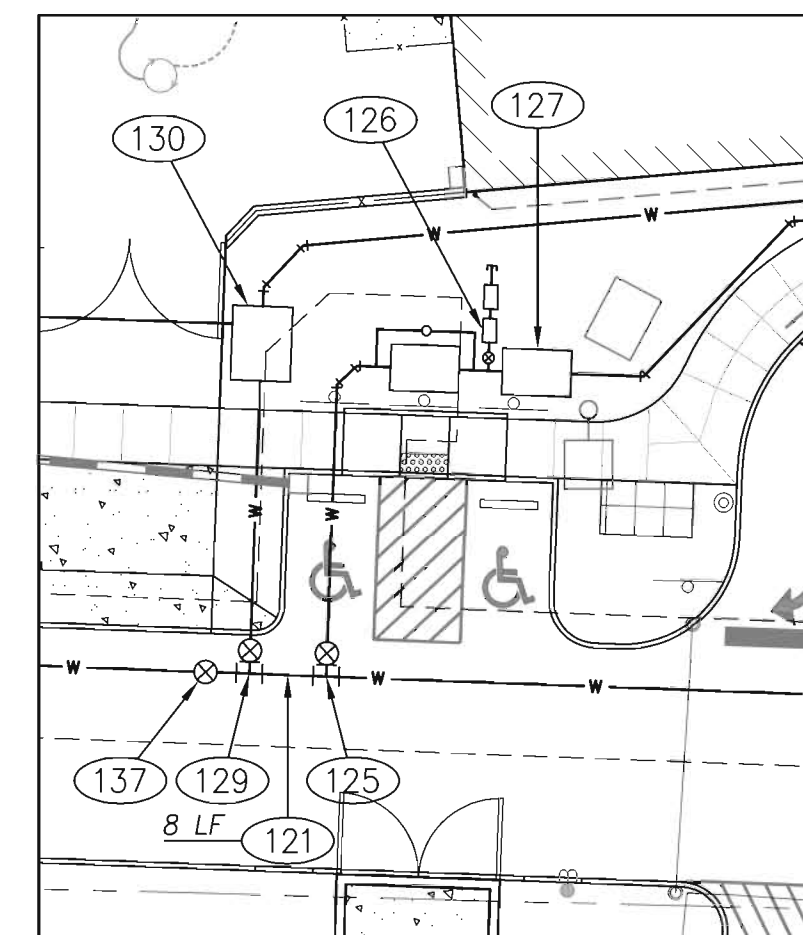
**CONSTRUCTION NOTES:**

- 120 1 - 6" S.S. TAPPING SLEEVE, FLG. (6" D.I.)  
1 - 6" TAPPING GATE VALVE, FLG. x M.J.  
1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.  
1 - 6", CL. 52 Z.D.I. NIPPLE (FIELD FIT LENGTH)  
1 - 6" x 8" REDUCER, M.J.  
1 - THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS
- 121 INSTALL 8" Z.D.I. WATERMAIN PIPE PER NOTES AND DETAILS, SHEET C-710. SEE PLAN FOR LENGTH.
- 122 1 - 8", 45' D.I. BEND, M.J. WITH MECH. JOINT RESTRAINTS. MECH. RESTRAIN 17 L.F. BOTH SIDES.
- 123 1 - 8", 22 1/2' D.I. BEND, M.J. WITH MECH. JOINT RESTRAINTS. MECH. RESTRAIN 8 L.F. BOTH SIDES.
- 124 1 - 8", 11 1/4' D.I. BEND, M.J. WITH MECH. JOINT RESTRAINTS. MECH. RESTRAIN 6 L.F. BOTH SIDES.
- 125 1 - 8" x 4" TEE, M.J.  
1 - 4" G.V., M.J.  
1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.  
2 - 4", 45' D.I. BEND, M.J. (WHERE SHOWN)  
1 - 3" DOMESTIC WATER METER IN VAULT WITH 2" BYPASS PER DETAIL W-3, SHEET C-710 INCL:  
2 - 4" G.V., M.J. x FLG.  
1 - 4" x 3" REDUCER, FLG. x FLG.  
INSTALL APPROX. 36 LF OF 4" Z.D.I. WATERMAIN PIPE (FIELD FIT LENGTH). MECH. RESTRAIN ALL JOINTS. CONTRACTOR SHALL COORDINATE WITH THE CONSTRUCTION INSPECTOR AND CITY METER CREW TO OBTAIN THE CORRECT SPACING SPOOL.
- 126 INSTALL 2" DEDUCT WATER METER WITH DOUBLE CHECK VALVE ASSEMBLY (WATTS D007MI-OT-S2 OR APPROVED EQUAL) PER DETAILS W-2 AND W-21, SHEETS C-710 AND C-711, AND SHUT-OFF VALVE FOR IRRIGATION.
- 127 1 - 3" DOMESTIC DOUBLE CHECK VALVE ASSEMBLY (WATTS 757-D05Y3 OR APPROVED EQUAL) IN VAULT 575-WA OR APPROVED EQUAL PER DETAIL W-22, SHEET C-711.
- 128 INSTALL 3" Z.D.I. WATERMAIN PIPE FROM CHECK VALVE TO BUILDING. MECH. RESTRAIN ALL JOINTS. SEE PLAN FOR APPROX. COMBINED LENGTH.  
4 - 3", 45' D.I. BEND, M.J. (WHERE SHOWN)
- 129 1 - 8" x 6" TEE, M.J. x SIDE FLG.  
1 - 6" G.V., FLG. x M.J.  
1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.  
INSTALL APPROX. 30 LF OF 6" Z.D.I. FIRE SUPPRESSANT PIPE (FIELD FIT LENGTHS), MECH. RESTRAIN ALL JOINTS FROM THE TEE TO THE BACKFLOW DEVICE.
- 130 INSTALL 6" FIRE SUPPRESSION DOUBLE CHECK VALVE ASSEMBLY (WATTS 757-0546 OR APPROVED EQUAL) IN VAULT 676-WA OR APPROVED EQUAL PER DETAIL W-22, SHEET C-711.
- 131 INSTALL 6" Z.D.I. FIRE SUPPRESSANT PIPE FROM VAULT TO BUILDING. MECH. RESTRAIN ALL JOINTS. SEE PLAN FOR APPROX. COMBINED LENGTH.  
4 - 6", 45' D.I. BEND, M.J. (WHERE SHOWN)
- 132 FDC. SEE PLAN FOR 4" Z.D.I. COMBINED LENGTH. CONTRACTOR SHALL RESTRAIN ALL JOINTS AND PROVIDE NECESSARY FITTINGS INCLUDING:  
1 - 4' x 4' CONCRETE PAD  
2 - 4", 45' D.I. BEND, M.J. (WHERE SHOWN)
- 133 INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-10, SHEET C-710 WITH:  
1 - 4' x 4' CONCRETE PAD  
1 - 8" x 6" TEE, M.J. x SIDE FLG.  
1 - 6" G.V., FLG. x M.J.  
1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.  
INSTALL 6" Z.D.I. WATERMAIN PIPE TO HYDRANT. MECH. RESTRAIN ALL JOINTS. SEE PLAN FOR APPROX. LENGTH.
- 134 CUT EXISTING 8" D.I. WATERMAIN, REMOVE EXISTING BLOW-OFF ASSEMBLY AND INSTALL:  
1 - 8", 90' D.I. ELBOW, M.J. WITH MECH. JOINT RESTRAINTS  
1 - THRUST BLOCK
- 135 6" FIRE SUPPRESSION WATER LINE POINT OF CONNECTION. REFER TO PLUMBING PLANS FOR EXACT LOCATION.
- 136 3" DOMESTIC WATER SERVICE POINT OF CONNECTION. REFER TO PLUMBING PLANS FOR EXACT LOCATION.
- 137 1 - 8" G.V., M.J.  
1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.  
1 - 8", CL. 52 Z.D.I. NIPPLE (FIELD FIT LENGTH, SOUTH)  
MECH. RESTRAIN ALL JOINTS.
- 138 PROTECT EXISTING FIRE HYDRANT.
- 139 CONSTRUCT BEDDING AND BACKFILL PER DETAIL W-13, SHEET C-710.
- 140 CAUTION: UTILITY CROSSING. SEE UTILITY CROSSING TABLE (THIS SHEET).
- 141 TEMPORARILY DISCONNECT FENCING FOR TRENCHING AND WATERMAIN INSTALLATION. REASSEMBLE TO LIKE OR NEW CONDITION UPON TESTING AND ACCEPTANCE OF NEW MAIN.

**UTILITY CROSSING TABLE:**

- (A) APPROX. FINISHED GRADE = 178.4±  
PROP. 8" STM. I.E. = 176.2±  
PROP. 8" WAT. I.E. = 174.0±  
DEFLECT NEW WATERMAIN UNDER  
PROPOSED STORM CROSSING,  
MAINTAIN CLEARANCE.

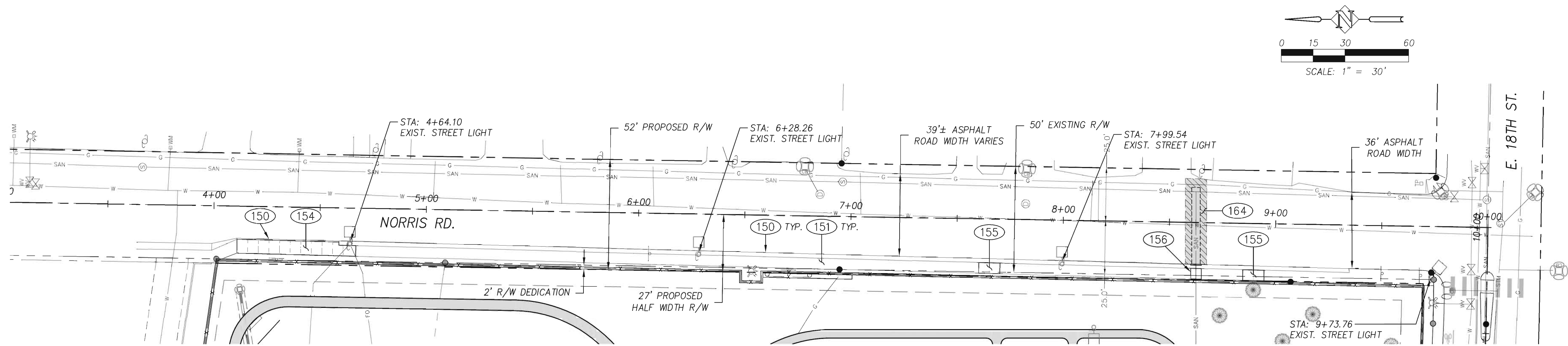
A SEPARATE PERMIT IS REQUIRED  
FOR UNDERGROUND FIRE WATER  
PIPING AND SHALL BE INSTALLED IN  
ACCORDANCE WITH WAC 212-80.



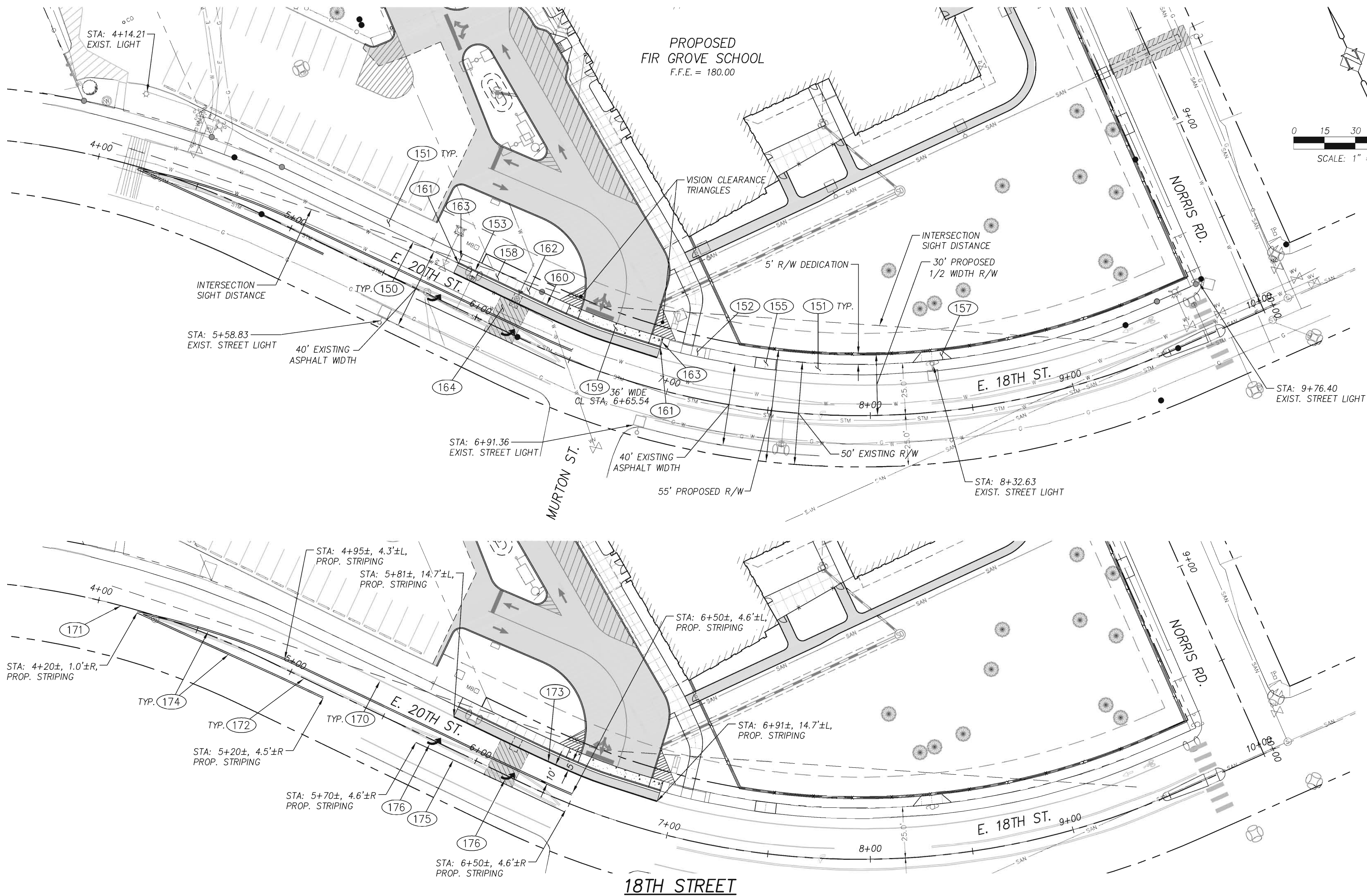
**WATER CONNECTION ENLARGEMENT**

SCALE: 1" = 20'





NORRIS ROAD



18TH STREET

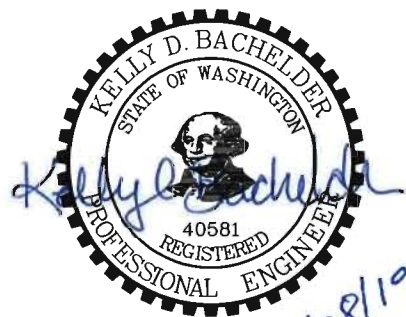
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**CONSTRUCTION NOTES:**

- (150) PROTECT EXISTING CURB.
- (151) PROTECT EXISTING SIDEWALK.
- (152) PROTECT EXISTING ADA RAMP. REMOVE PEDESTRIAN CURB FOR NEW SIDEWALK TIE IN.
- (153) PROTECT EXISTING CATCH BASIN. PROVIDE INLET PROTECTION PER DETAILS E-2.20A AND E-2.20B, SHEET C-704.
- (154) REMOVE AND REPLACE EXISTING SIDEWALK FROM NEWLY CONSTRUCTED SIDEWALK TO SOUTH OF UTILITY POLE. CONSTRUCT NEW SIDEWALK PER DETAIL T02-01A, SHEET C-712.
- (155) REMOVE AND REPLACE EXISTING SIDEWALK AT DAMAGED LOCATION. CONSTRUCT NEW (10' MIN.) SIDEWALK PER DETAIL T02-01A, SHEET C-712.
- (156) REMOVE EXISTING SIDEWALK AND ADJACENT CURB FOR SANITARY SEWER INSTALLATION. CONSTRUCT NEW (5' MIN.) SIDEWALK AND TYPE E-1 CURB PER DETAILS T01-01A AND T02-01A, SHEET C-712.
- (157) CONSTRUCT CONCRETE SIDEWALK NORTH OF UTILITY POLE TO MOW STRIP AND TIE INTO EXISTING SIDEWALK. CONSTRUCT NEW SIDEWALK PER DETAIL T02-01A, SHEET C-712.
- (158) REMOVE EXISTING DRIVEWAY DROP.
- (159) CONSTRUCT NEW DRIVEWAY PER DETAIL T01-05B, SHEET C-712.
- (160) CONSTRUCT TYPE A-1 CONCRETE CURB AND GUTTER PER DETAILS T01-01A AND T05-01A, SHEET C-712.
- (161) MATCH NEW CURB TO EXISTING CURB. TRANSITION LOCATION AND HEIGHT TO EXISTING CURB OVER 3 FEET.
- (162) CONSTRUCT CONCRETE SIDEWALK PER DETAIL T02-01A, SHEET C-712.
- (163) MATCH NEW SIDEWALK ELEVATION AND LOCATION TO EXISTING SIDEWALK. PROTECT EXISTING ADA RAMP, TIE IN SIDEWALK.
- (164) PROVIDE PAVEMENT RESTORATION PER DETAILS T05-01B AND T05-6A, SHEETS C-712 AND C-713. GRIND AND OVERLAY TO MATCH EXISTING TOP LIFT PLUS 1/4", 3" MIN.
- (170) PROTECT EXISTING 8" WHITE BIKE LANE STRIPE.
- (171) PROTECT EXISTING DOUBLE YELLOW STRIPING.
- (172) REMOVE EXISTING DOUBLE YELLOW STRIPING.
- (173) PAINT 8" WHITE BIKE LANE STRIPE WHERE NEW ASPHALT REPAIR IS CONSTRUCTED.
- (174) PAINT DOUBLE YELLOW CENTERLINE STRIPE PER DETAIL T29-48, SHEET C-714.
- (175) PAINT 8" TURN LANE LINE PER DETAIL T29-44, SHEET C-714.
- (176) PAINT LEFT TURN MARKER PER DETAIL T29-53, SHEET C-714.

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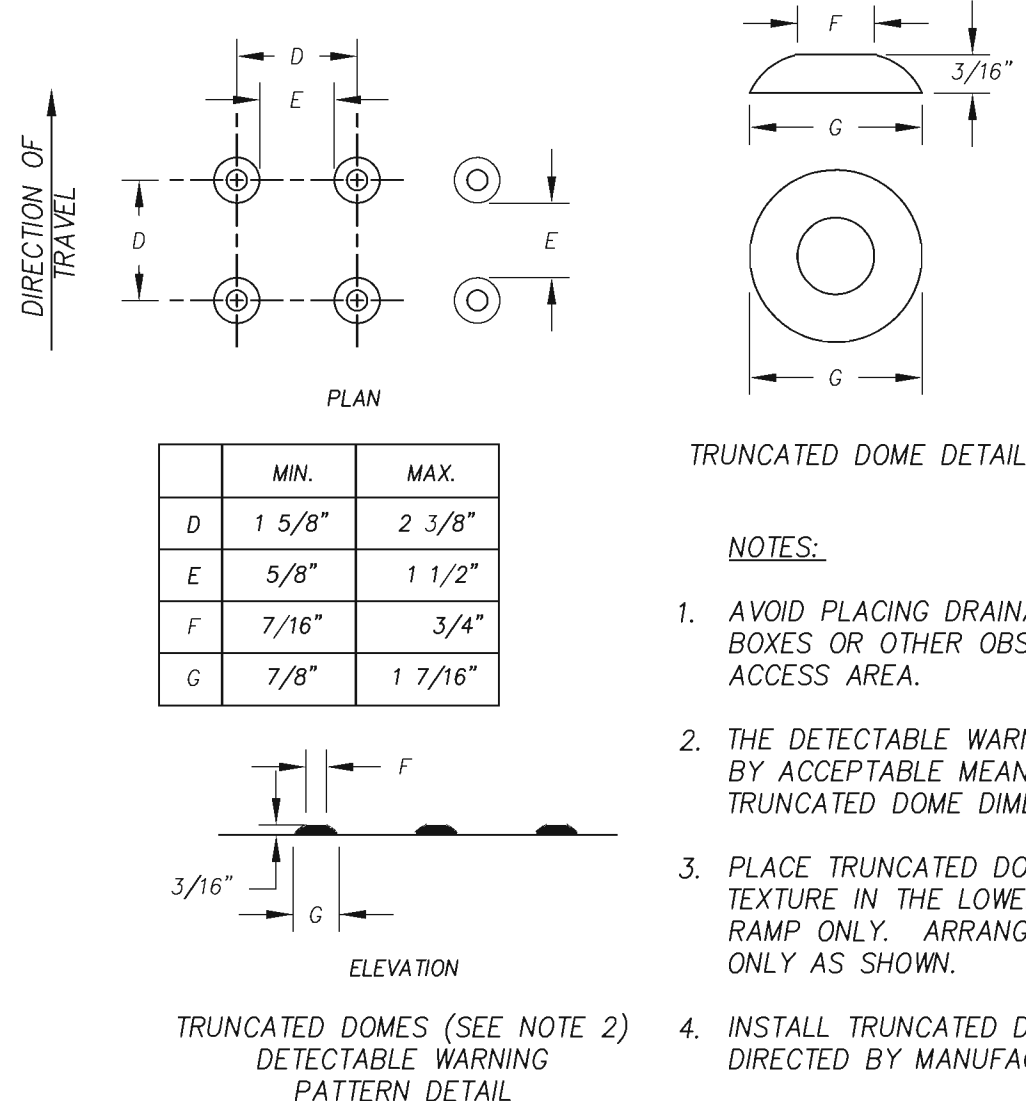
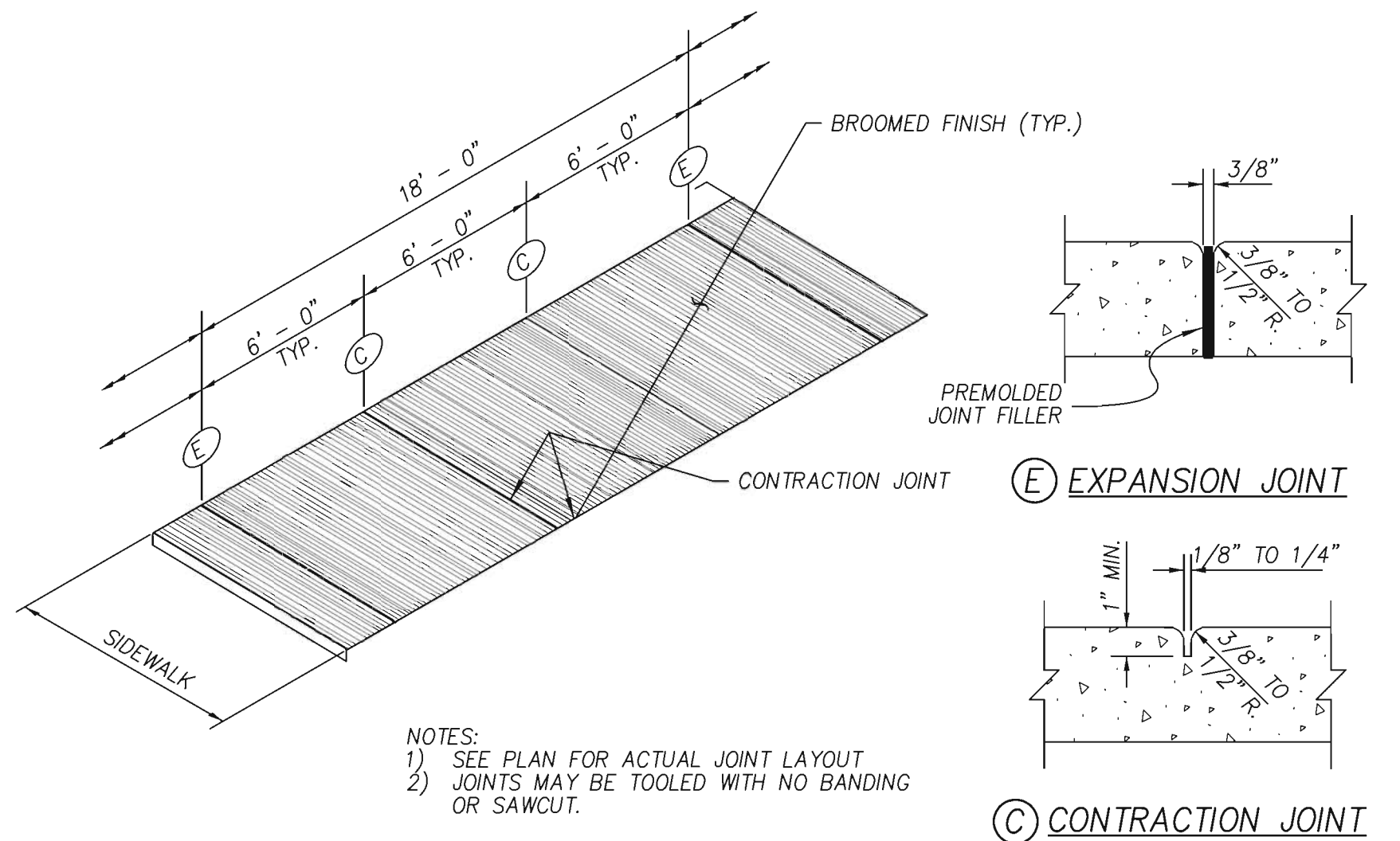
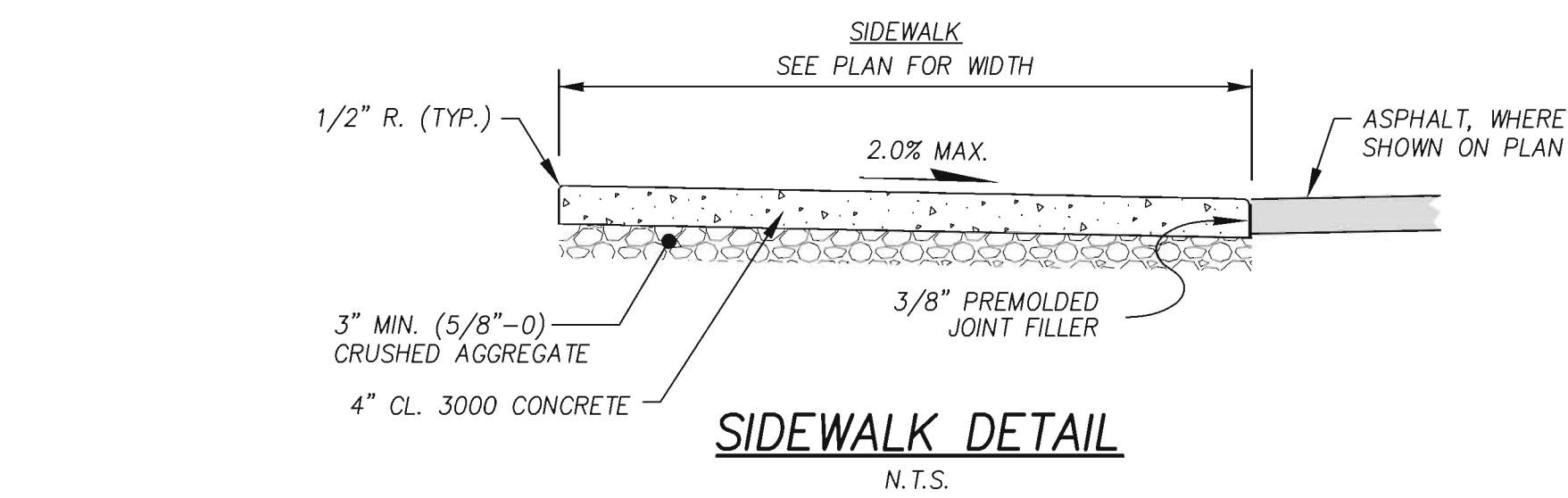
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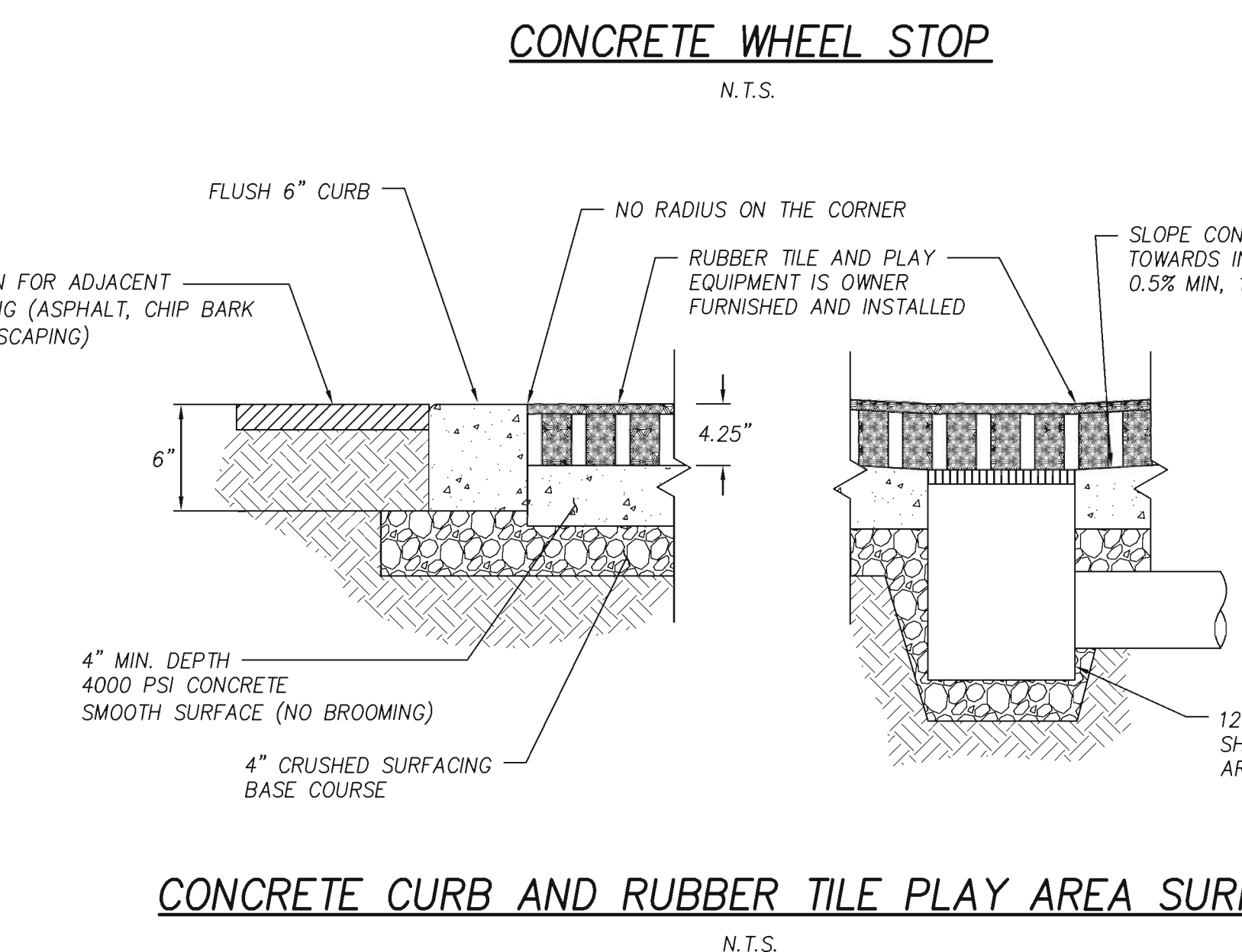
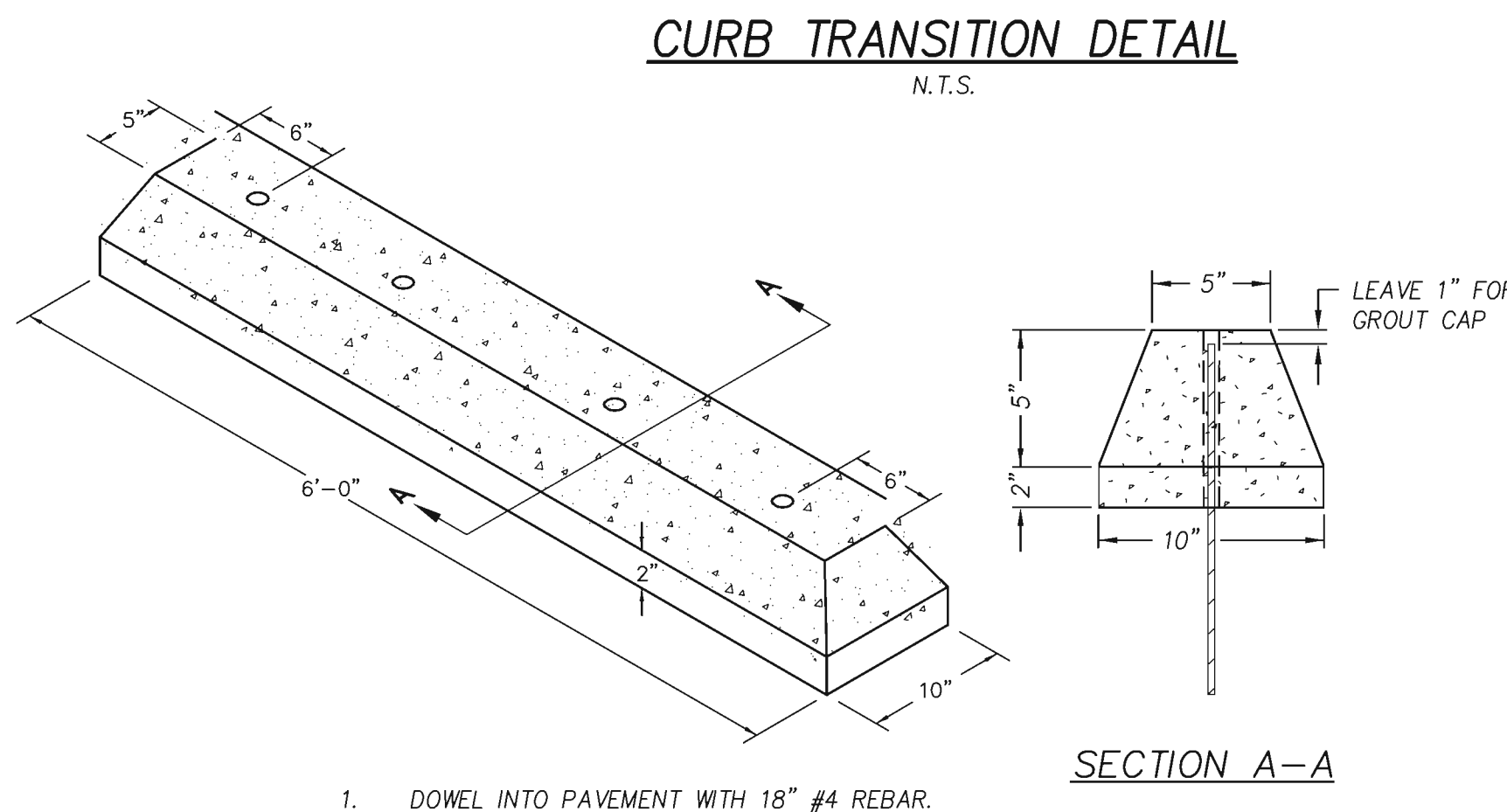
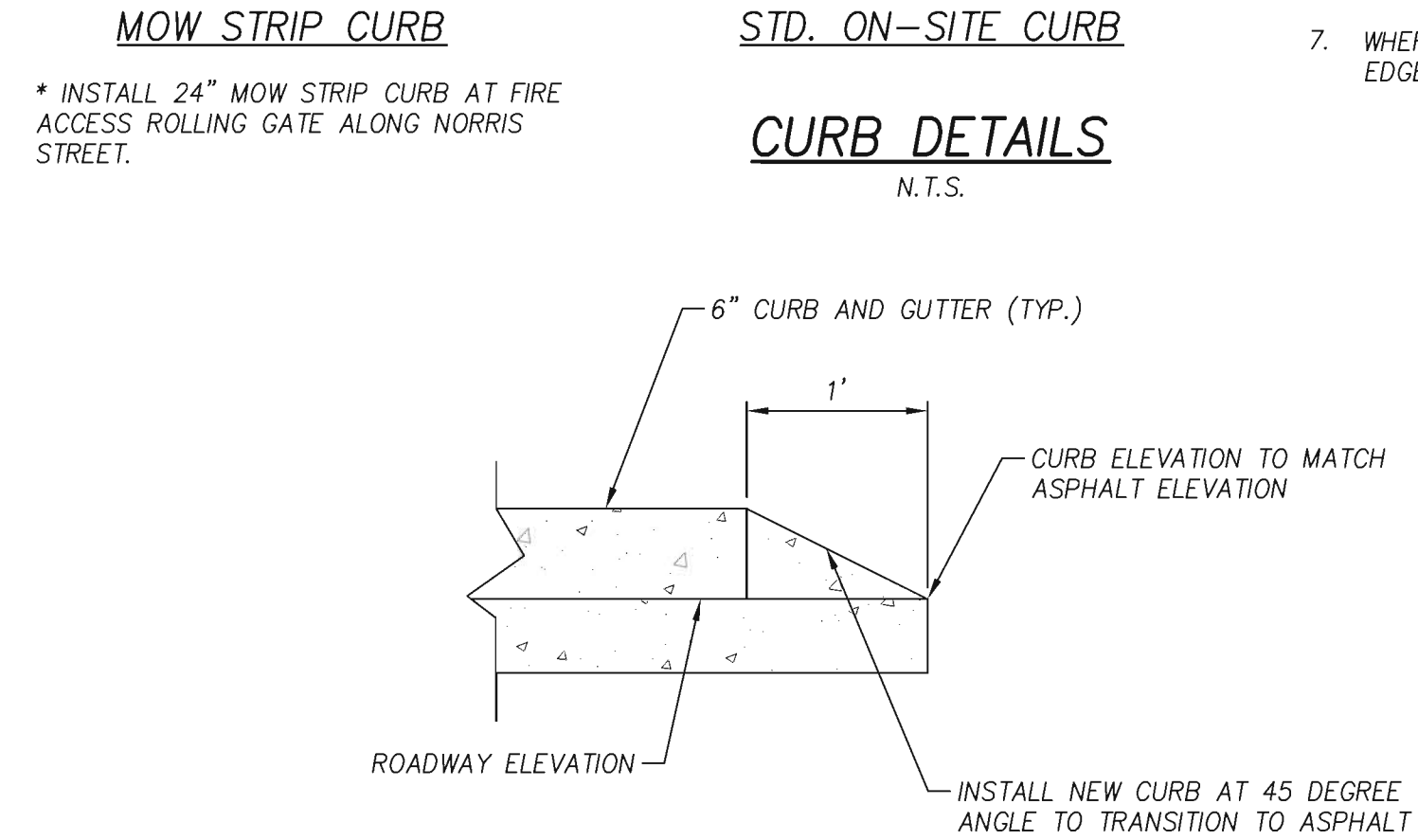
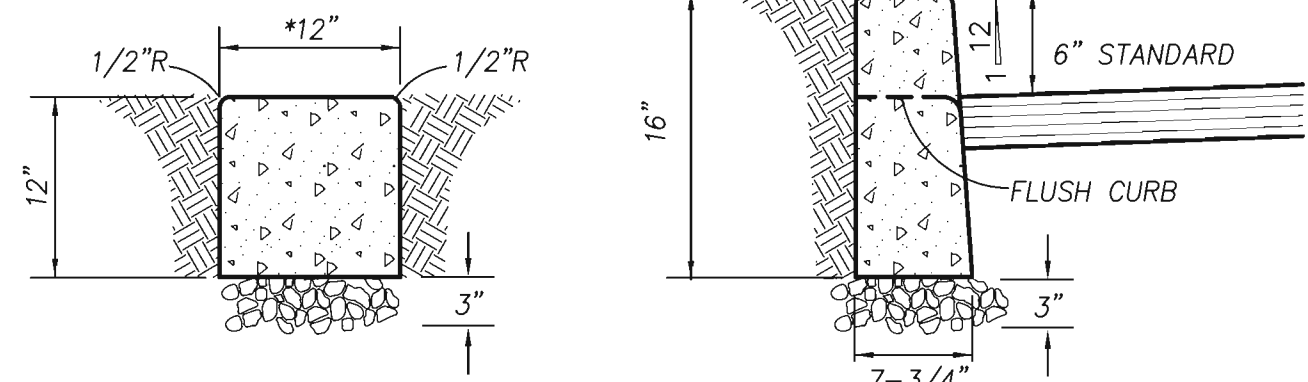
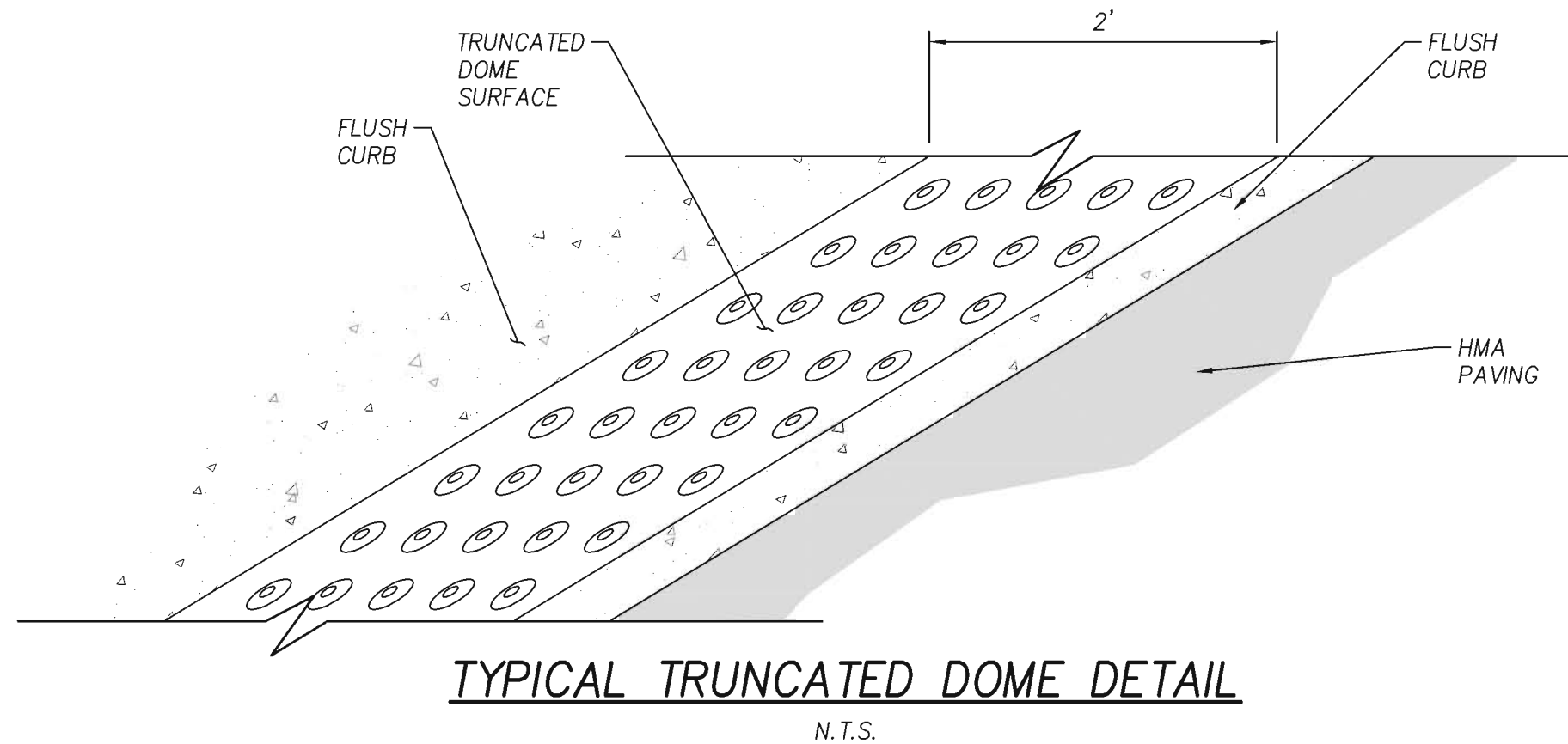
**PUBLIC STREET  
IMPROVEMENT  
PLAN**

**C-601**



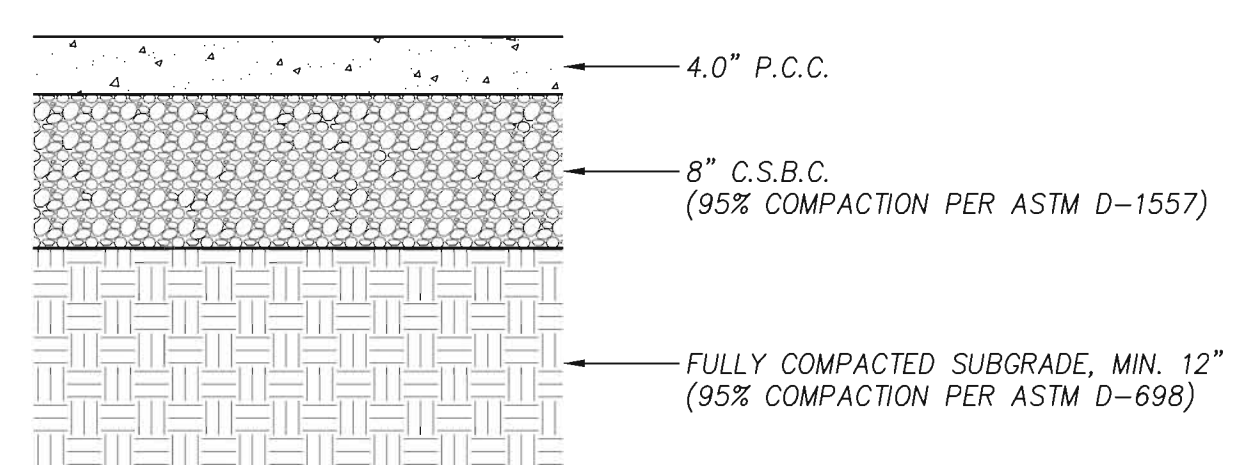
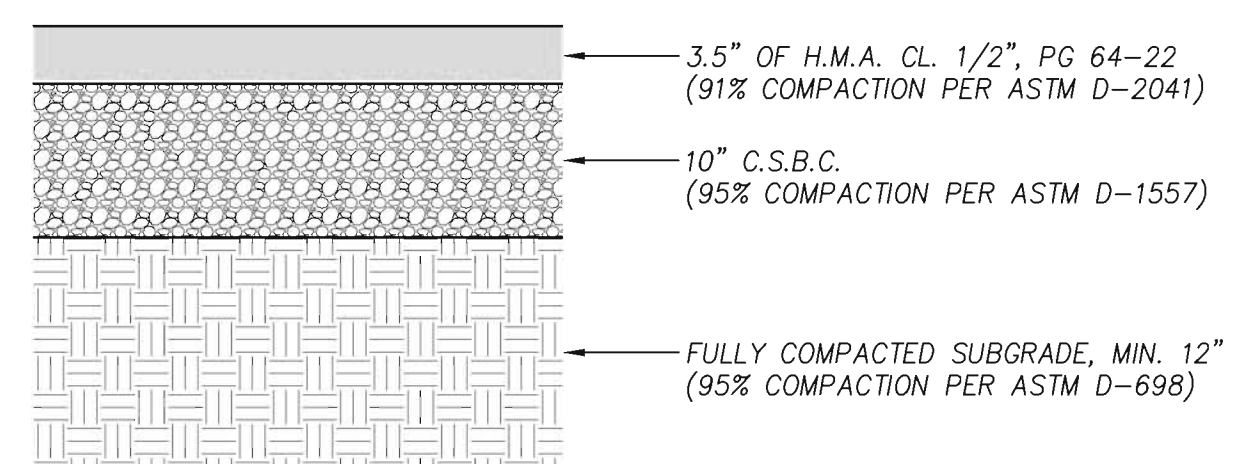
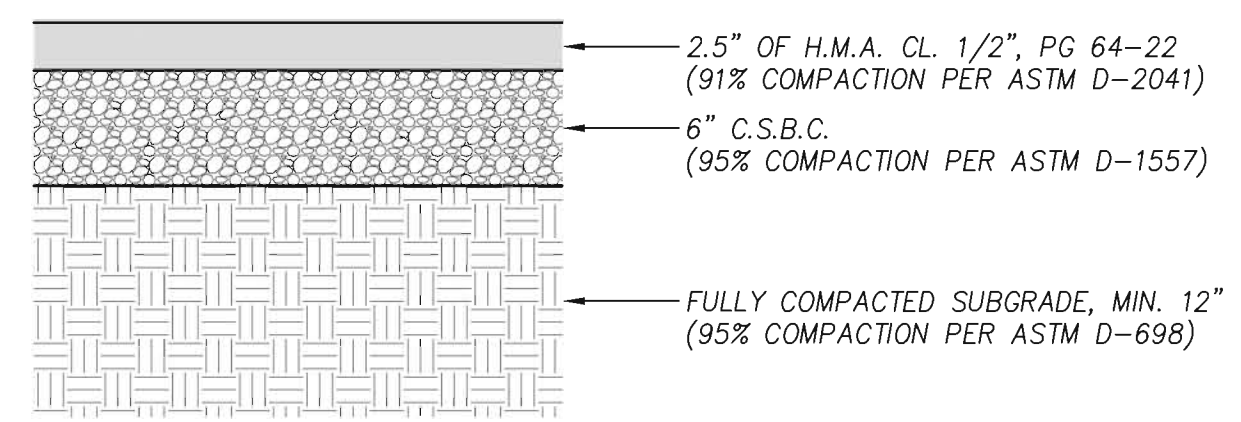


- NOTES:**
1. AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREA.
  2. THE DETECTABLE WARNING PATTERNS CAN BE CREATED BY ACCEPTABLE MEANS THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.
  3. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 24" OF THE THROAT OF THE RAMP ONLY. ARRANGE DOMES USING IN-LINE PATTERN ONLY AS SHOWN.
  4. INSTALL TRUNCATED DOMES ON A CONCRETE PANEL AS DIRECTED BY MANUFACTURER.



**CONCRETE CURB AND RUBBER TILE PLAY AREA SURFACE**  
N.T.S.

- NOTES:**
1. CONCRETE SHALL BE 4000 PSI MIN., 3-1/2" SLUMP (MAX.).
  2. CURBS ADJACENT TO PAVEMENT OR SIDEWALK TO HAVE EXPANSION AND/OR CONSTRUCTION JOINTS TO MATCH EXISTING PATTERNS.
  3. 3/8" EXPANSION JOINTS SHALL BE PLACED AT 45' MAXIMUM SPACING, ON BOTH SIDES OF CATCH BASINS, AT TOPS OF DRIVEWAYS, AND ALL CHANGES IN DIRECTION. 1 1/2" CUT JOINTS TO BE PLACED AT 15' MAXIMUM SPACING.
  4. CURB SHALL BE PLACED ON 3" MIN. DEPTH 5/8"-0 CRUSHED AGGREGATE.
  5. COMPACT SUBGRADE AND AGGREGATE TO 95% MAXIMUM DRY DENSITY.
  6. CURB TO BE MEDIUM BROOM FINISHED.
  7. WHERE MATCHING EXISTING CURBS, ALL EXISTING EDGES SHALL BE SAWCUT.



**CEMENT CONCRETE DRIVEWAY SECTION**  
N.T.S.

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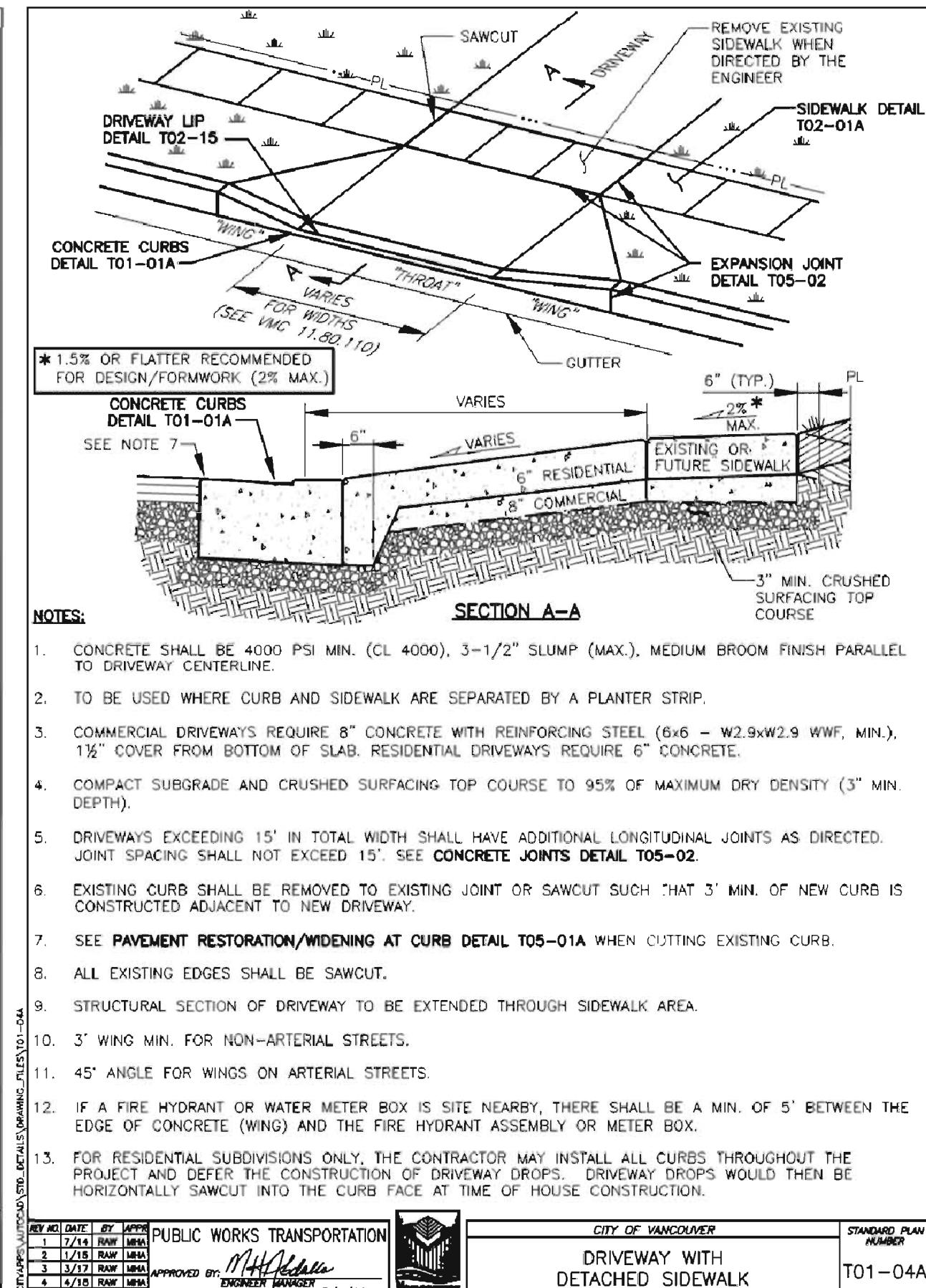
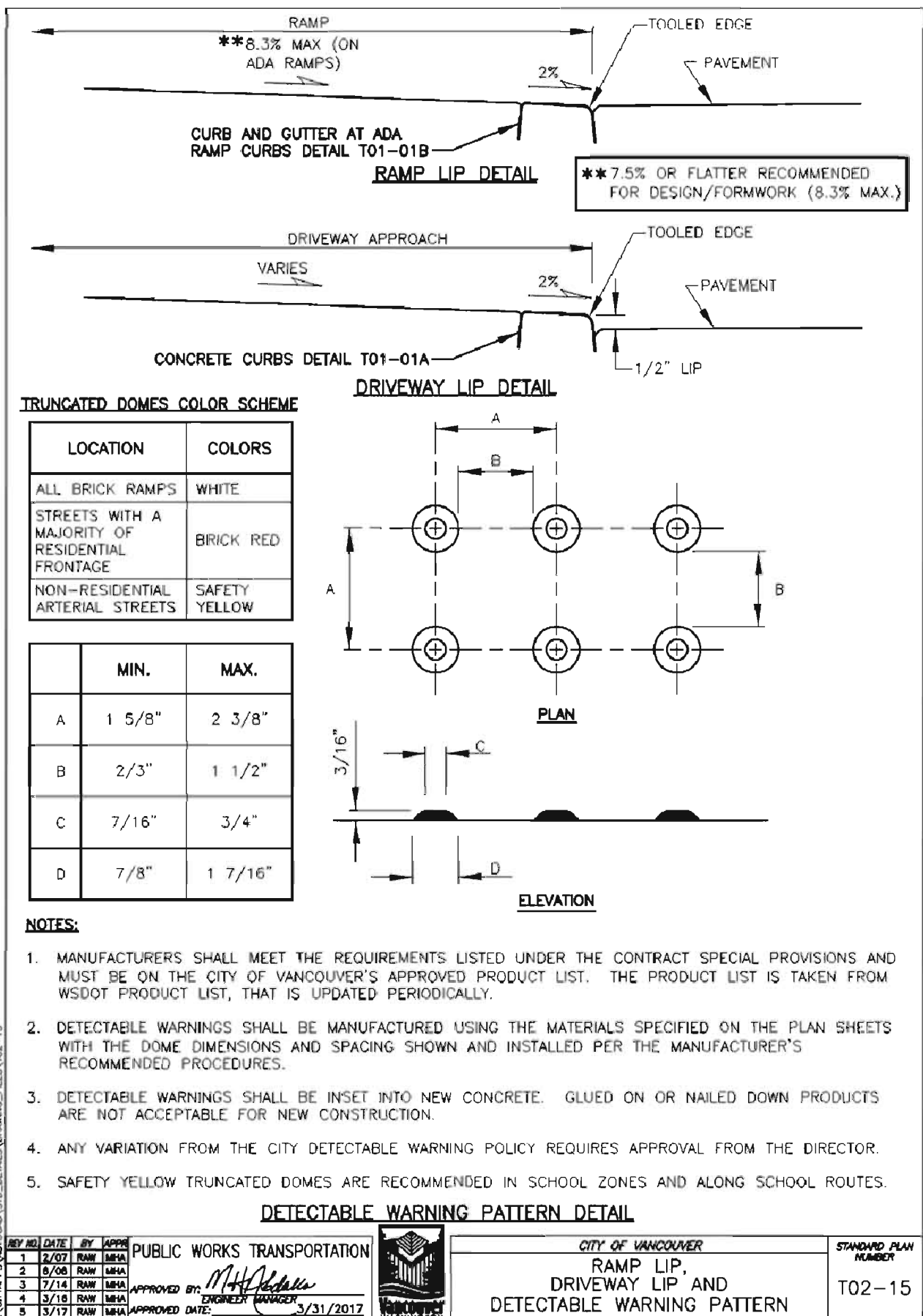
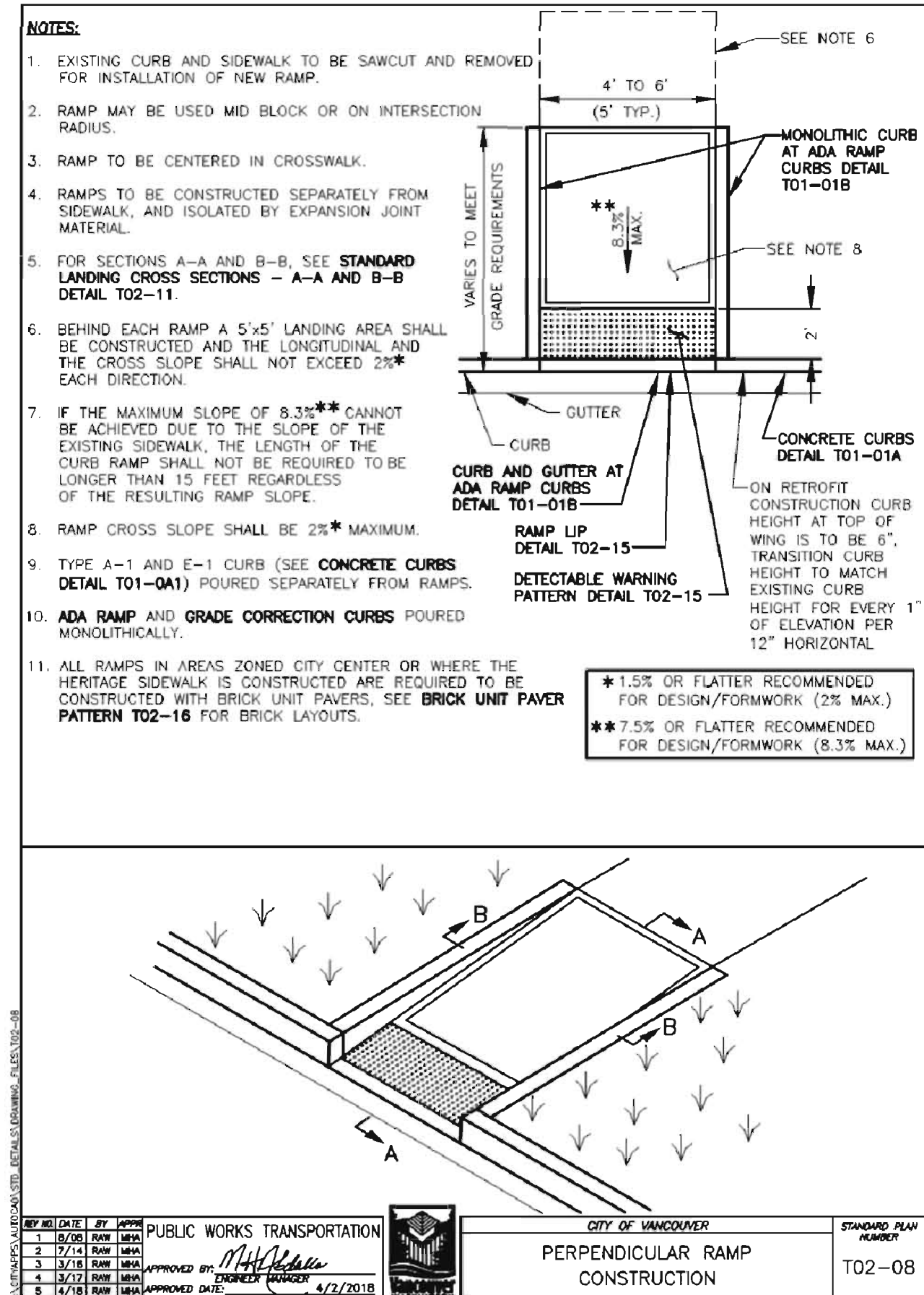
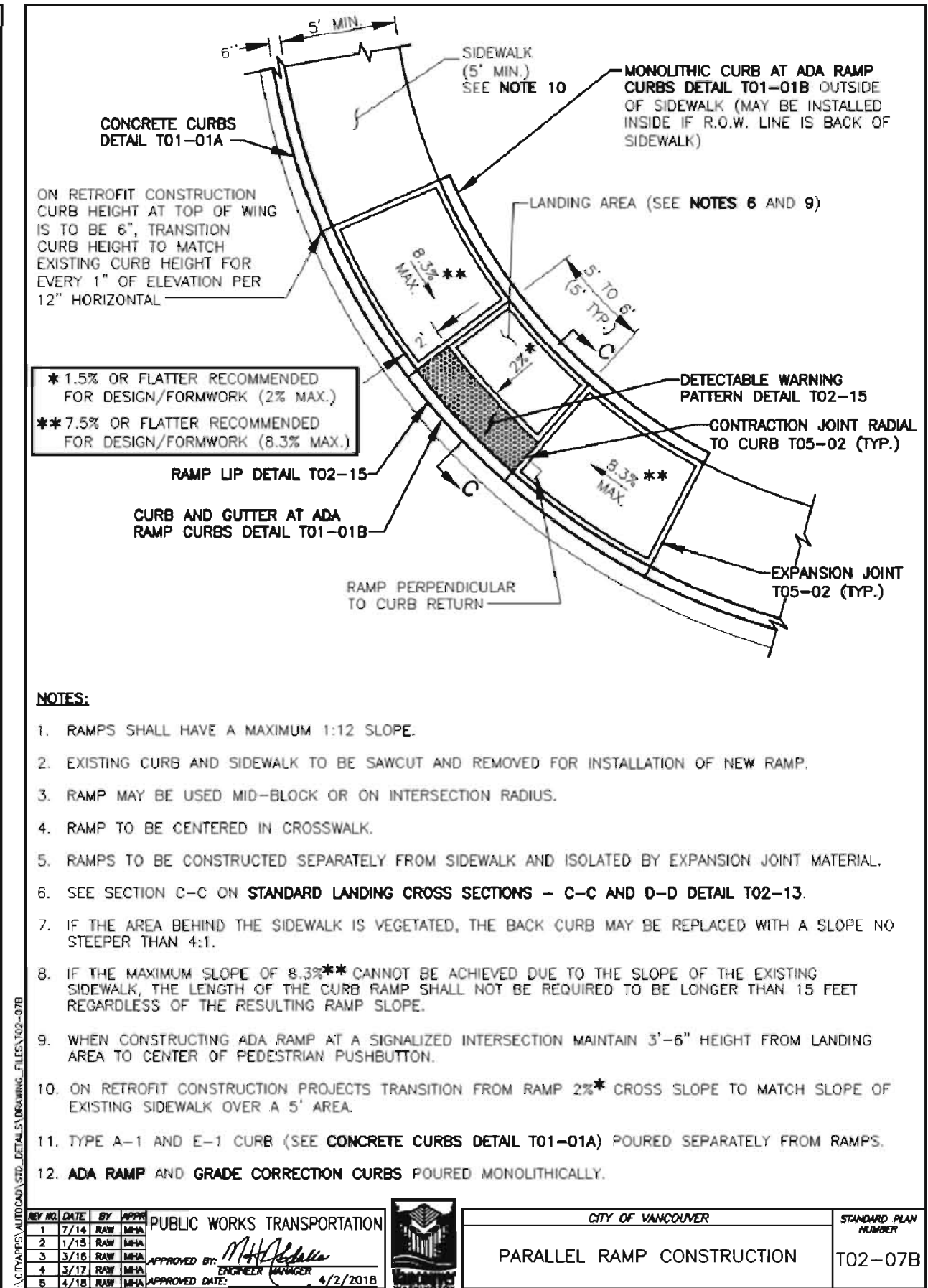
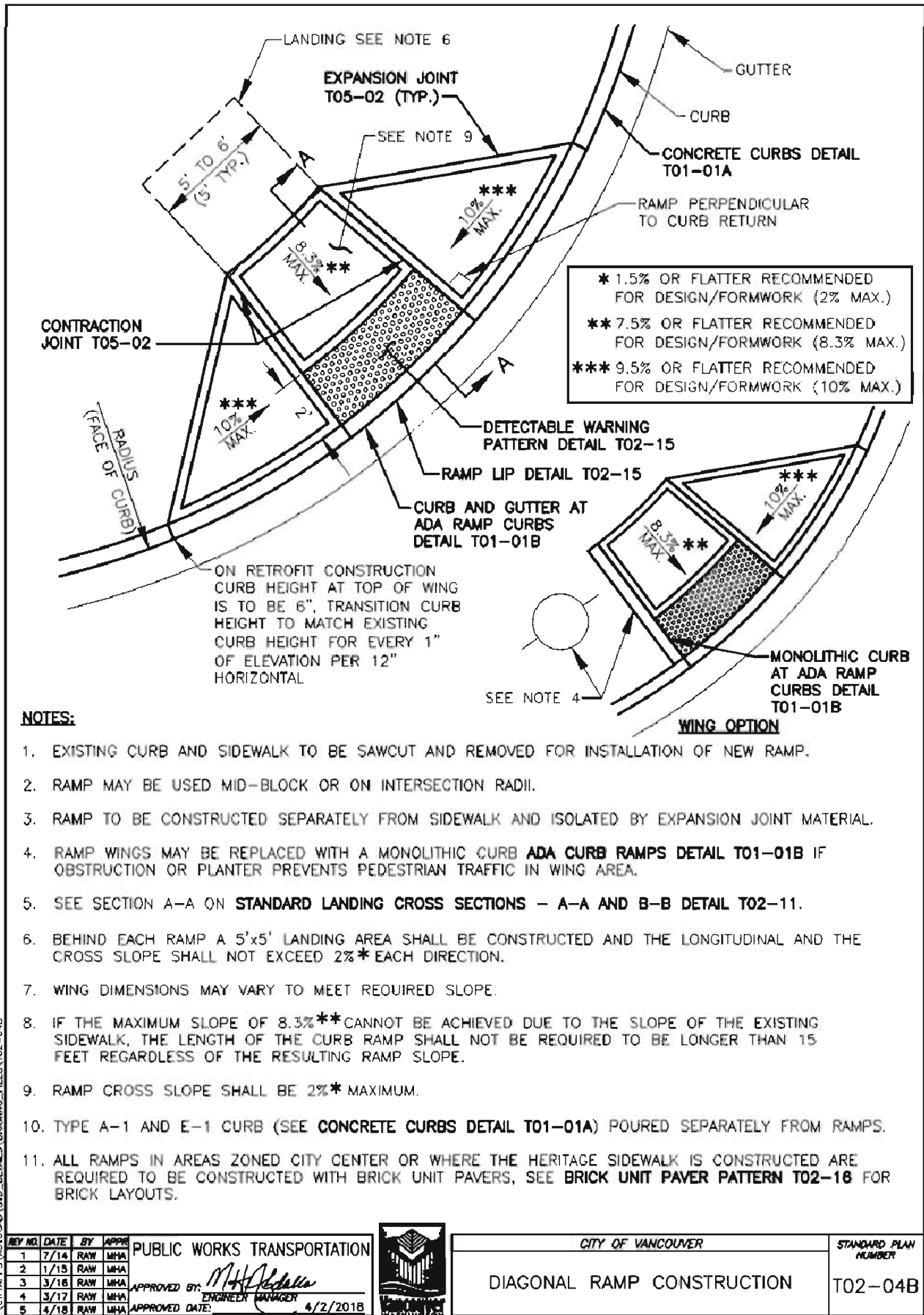
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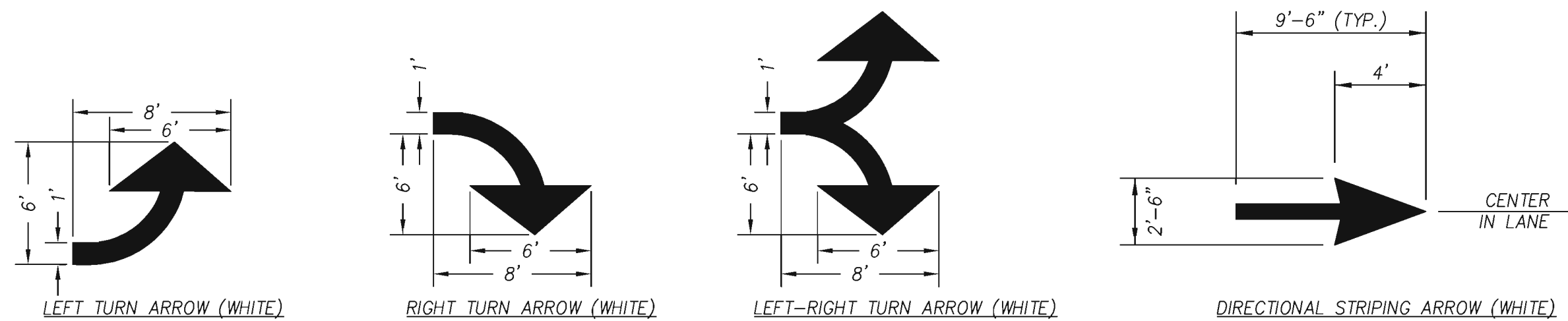
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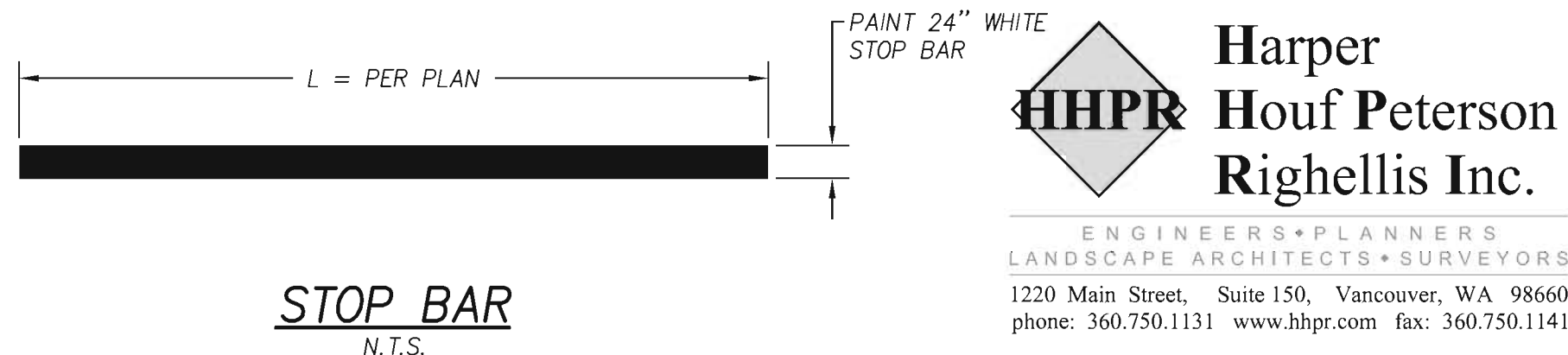
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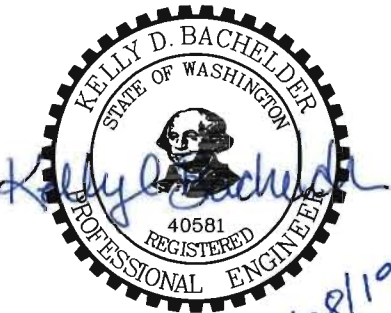
DIRECTIONAL ARROW  
N.T.S.



STOP BAR  
N.T.S.

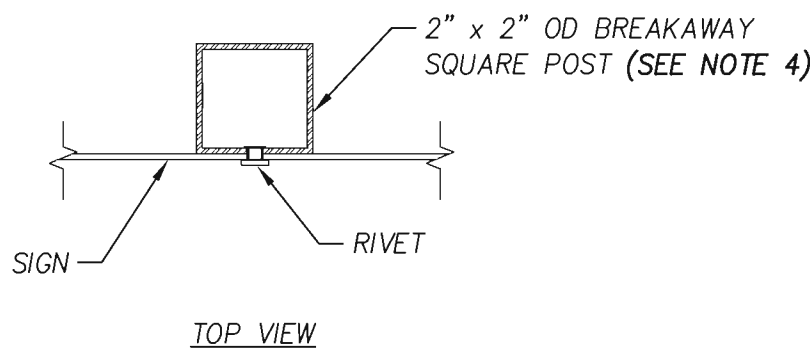
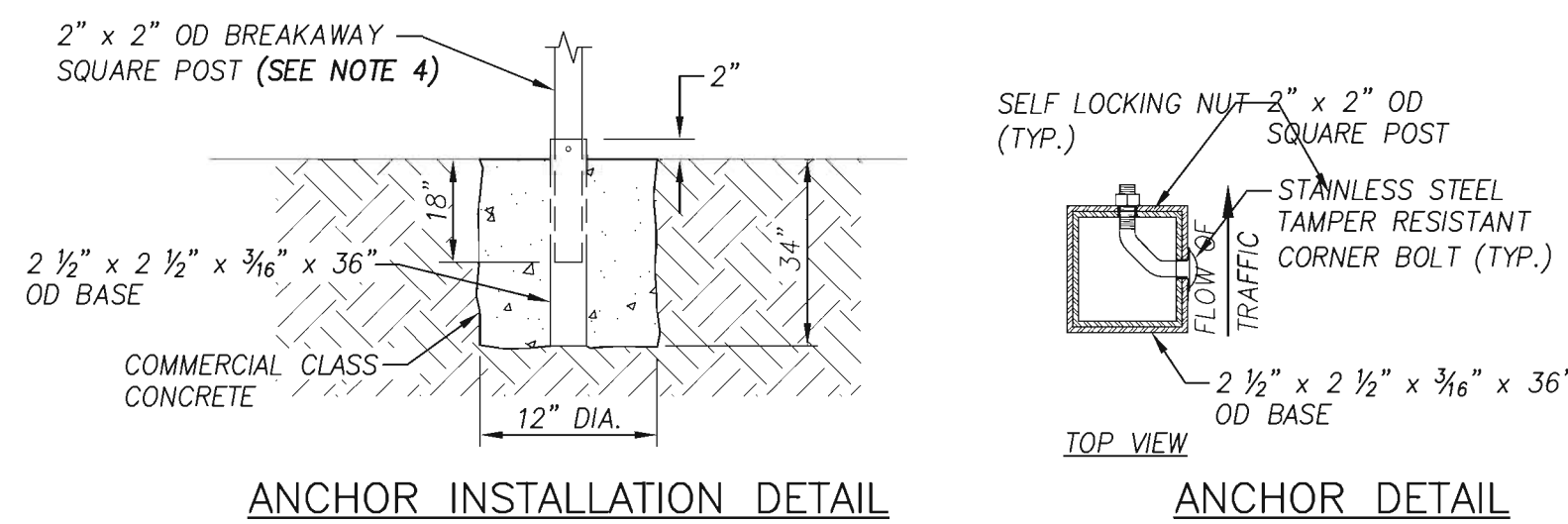
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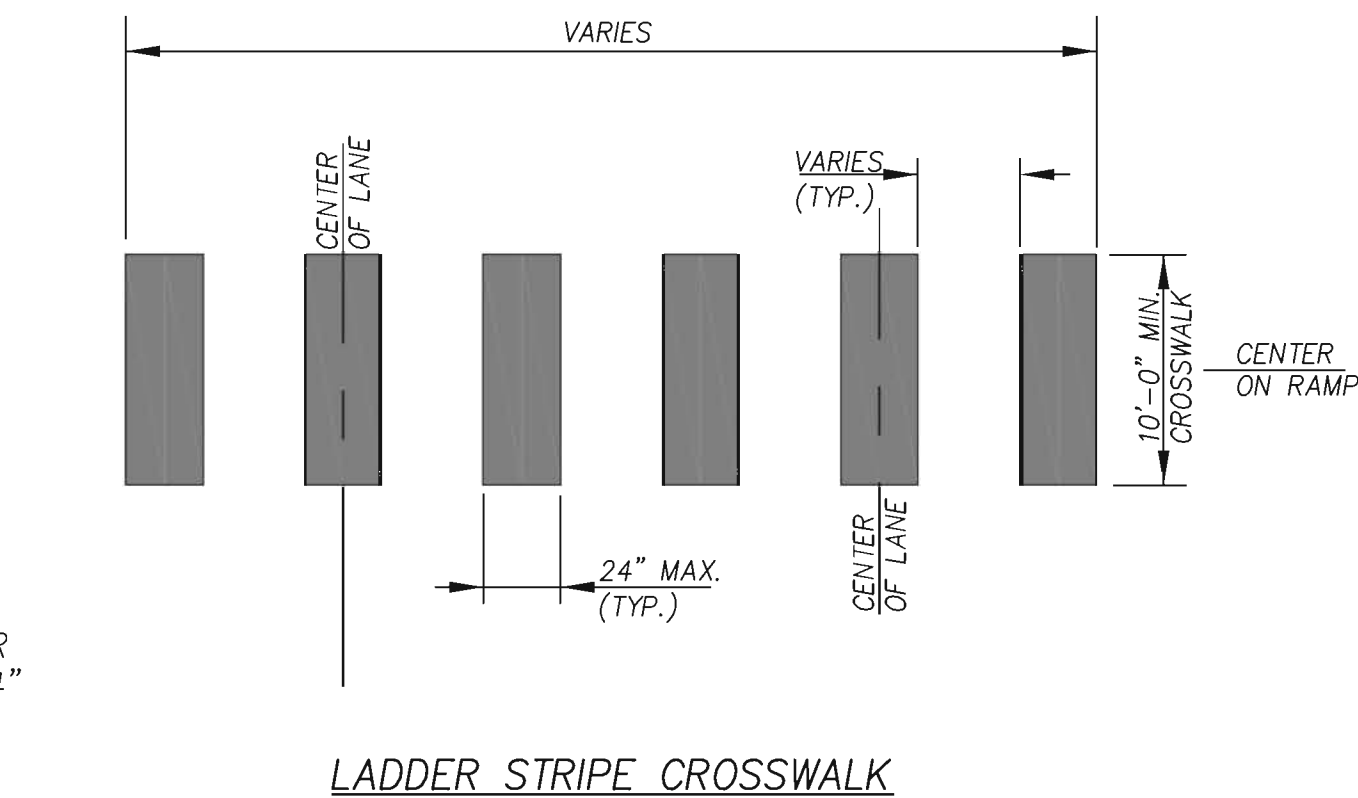
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SIGN MOUNTING DETAIL

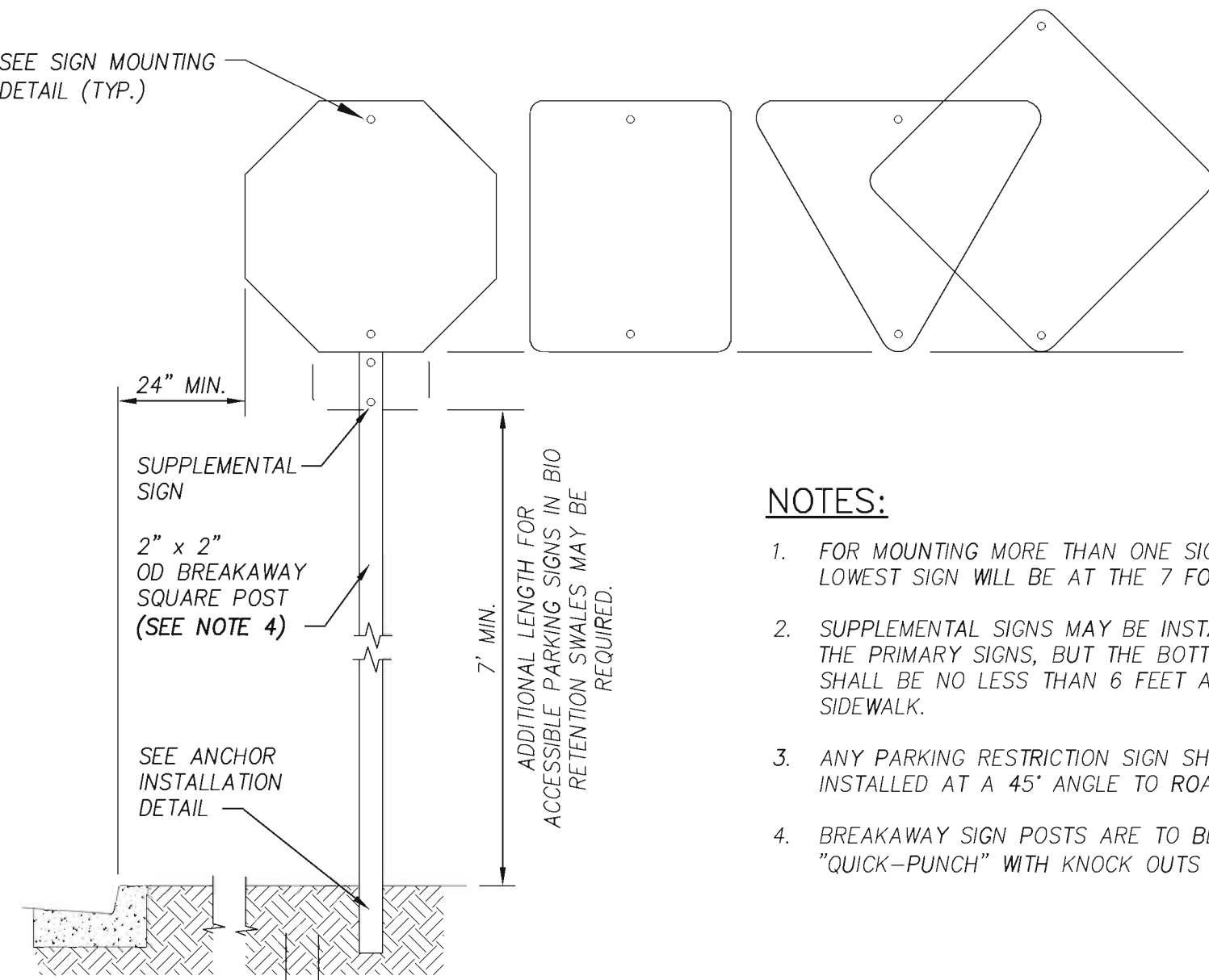


SIGN LEGEND  
N.T.S.



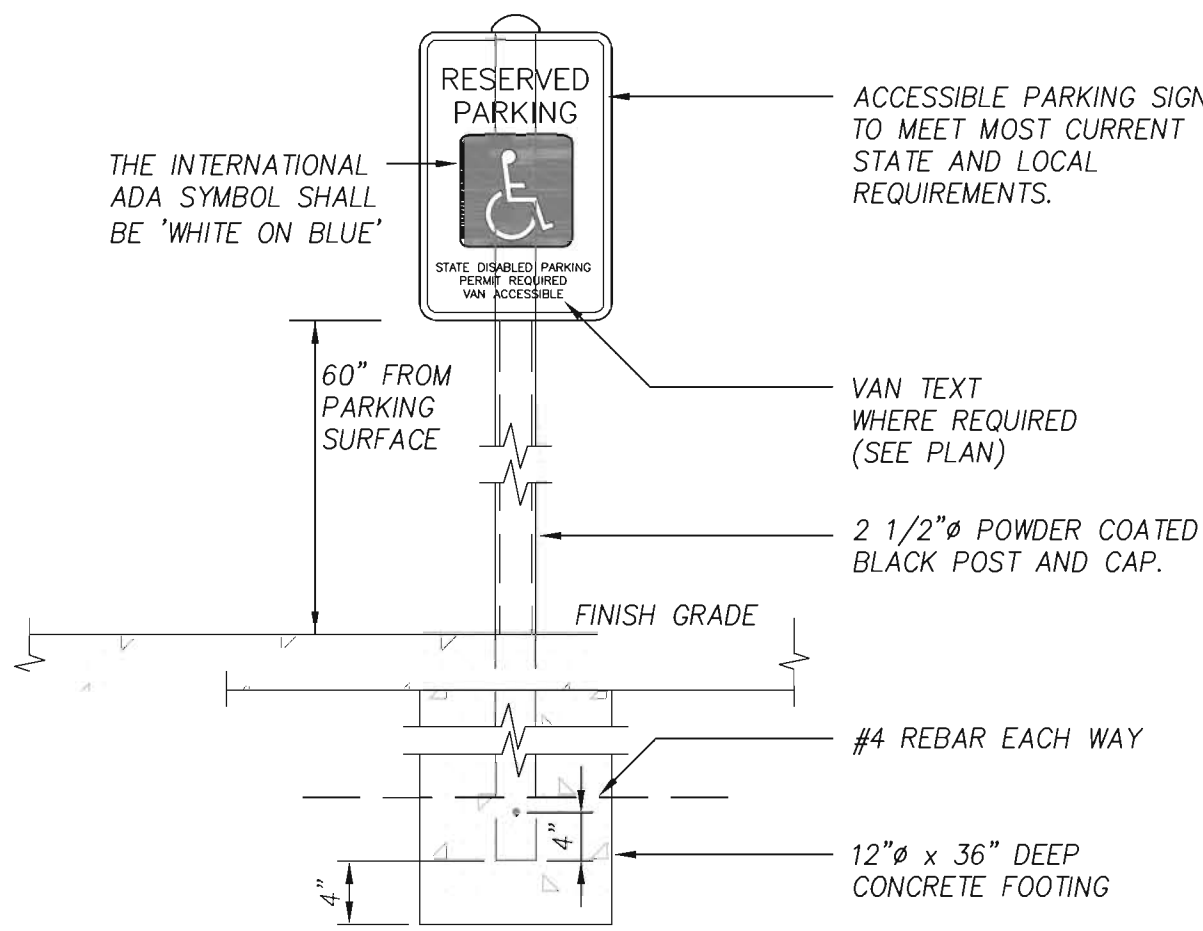
NOTE:  
LOCATE CROSSWALKS CENTERED ON WHEELCHAIR RAMP LOCATIONS OR 5' BACK OF EXTENDED FOG LINE, EDGE OF PAVEMENT OR CURB FACE.

CROSSWALK LINE MARKINGS  
N.T.S.

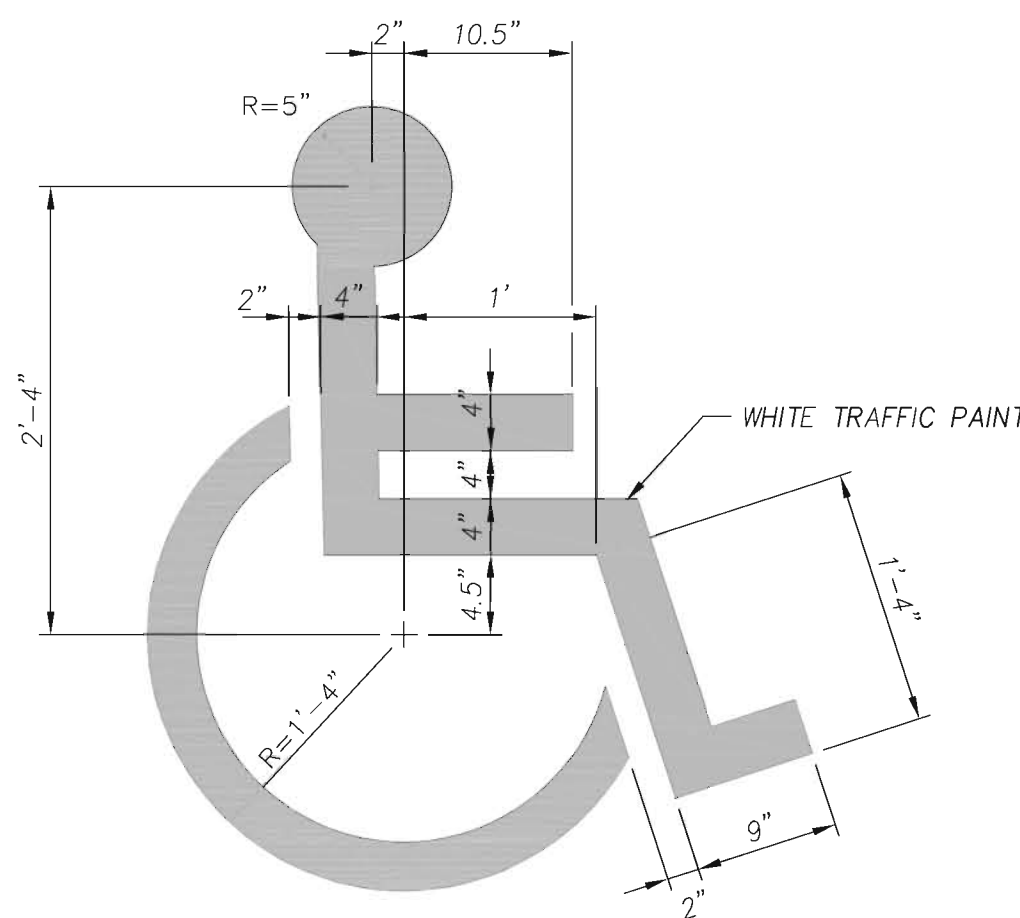


GROUND MOUNTED SIGN DETAILS  
N.T.S.

- NOTES:
- FOR MOUNTING MORE THAN ONE SIGN TO A POST, LOWEST SIGN WILL BE AT THE 7 FOOT HEIGHT.
  - SUPPLEMENTAL SIGNS MAY BE INSTALLED BELOW THE PRIMARY SIGNS, BUT THE BOTTOM OF THE SIGN SHALL BE NO LESS THAN 6 FEET ABOVE THE SIDEWALK.
  - ANY PARKING RESTRICTION SIGN SHALL BE INSTALLED AT A 45° ANGLE TO ROADWAY.
  - BREAKAWAY SIGN POSTS ARE TO BE "QUICK-PUNCH" WITH KNOCK OUTS IN PLACE.

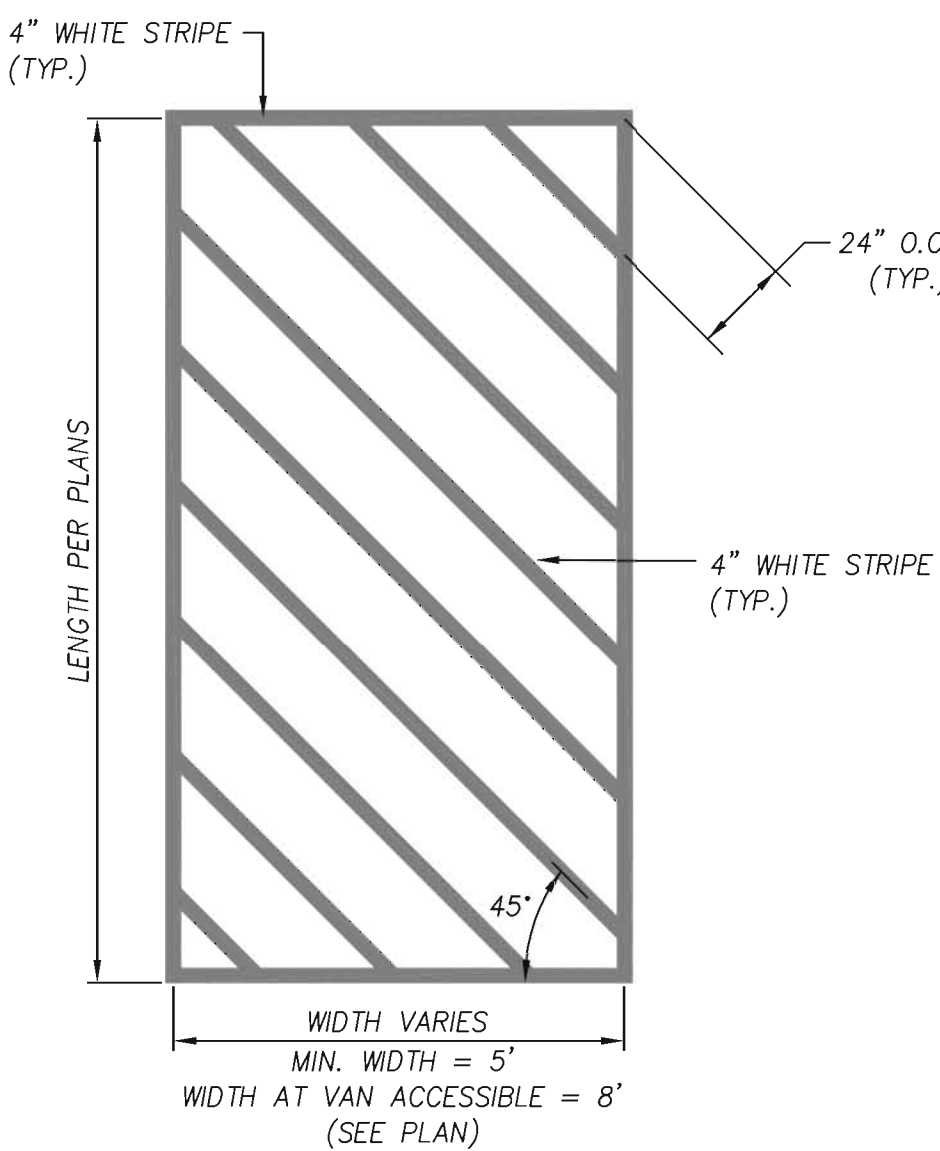


ACCESSIBLE PARKING SIGN  
N.T.S.



- NOTES:
- SYMBOL AND PAINT SHALL MEET CURRENT A.D.A. ACCESSIBILITY GUIDELINE REQUIREMENTS.

ACCESSIBLE PARKING SYMBOL  
N.T.S.



ACCESSIBLE STALL CROSS STRIPING  
N.T.S.

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**EROSION  
CONTROL  
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**GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES**

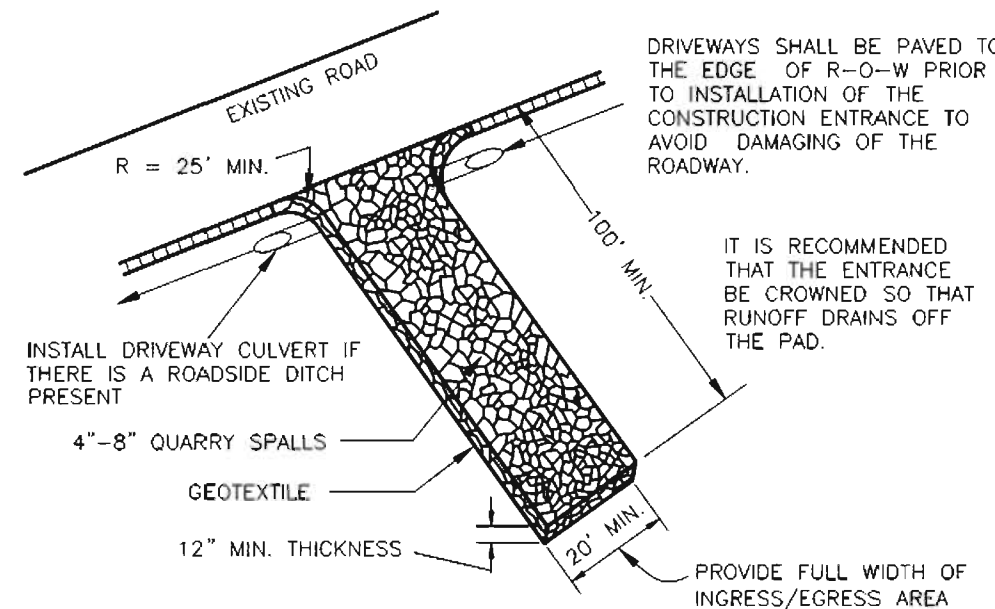
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY INCLUDING CLEARING OR GRADING. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY EROSION SPECIALIST PRIOR TO THE COMMENCEMENT OF WORK. AN ON-SITE INSPECTION SHALL BE REQUESTED WHEN EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND PRIOR TO COMMENCEMENT OF WORK. ONCE APPROVED, THE SITE MUST BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT, AS SHOWN ON THE PLANS. ADDITIONAL MEASURES MAY BE REQUIRED TO MEET THE PROVISIONS OF THE CITY EROSION PREVENTION AND SEDIMENT CONTROL ORDINANCE AMC 14.24.
- EROSION AND SEDIMENT CONTROL BMPs SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS IN THE CITY OF VANCOUVER'S LATEST VERSION OF GENERAL REQUIREMENTS AND STANDARD DETAILS MANUAL AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, WHERE THE CITY OF VANCOUVER GENERAL REQUIREMENTS SHALL TAKE PRECEDENCE.
- THE DEVELOPER AND/OR OWNER IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL BMPs DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.
- PRIOR TO ANY SITE EXCAVATION, ALL STORM DRAIN INLETS SHALL BE PROTECTED DOWN SLOPE FROM ANY DISTURBED OR CONSTRUCTION AREAS PER STANDARD DETAIL E-2.20 TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS. CLEAN INLET FILTER AS NECESSARY TO MAINTAIN DRAINAGE. REMOVE FILTER AND CLEAN CATCH BASINS FOLLOWING COMPLETION OF SITE WORK.
- NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT IMMEDIATELY UPON INSTALLATION.
- THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR DEBRIS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR INFILTRATION SYSTEMS. IF THIS OCCURS, THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, DITCHES, AND STORM PIPES IMMEDIATELY. FINAL ACCEPTANCE WILL NOT BE ISSUED BY THE CITY UNTIL THIS OCCURS.
- PRIOR TO LEAVING A CONSTRUCTION SITE OR PRIOR TO DISCHARGING INTO AN INFILTRATION SYSTEM, SEDIMENT-LOADED WATER SHALL PASS THROUGH A SEDIMENT POND, TRAP, OR OTHER APPROVED BMP SYSTEM.
- ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs). FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL BE EXPOSED AND UNWORKED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL BE EXPOSED AND UNWORKED FOR MORE THAN SEVEN (7) DAYS.
- SOIL EROSION SHALL BE STABILIZED FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND WHEN POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS AND DRAINAGE CHANNELS.
- CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHEREVER THEY ARE CONSTRUCTED, WHETHER PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC.
- IF THE BMPs APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, STORM FACILITIES OR PUBLIC RIGHT-OF-WAY, THEN THE CITY SHALL REQUIRE ADDITIONAL BMPs.
- IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY OF VANCOUVER.

REV. NO.	DATE	BY	APPROVED	STANDARD PLAN NO.
1	11/01/06	KAD	AMG	<b>E-1.00a</b>
2	08/10/09	DN	AMG	
3	05/15/18	DN	AMG	

**GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES  
(CONTINUED)**

- PROPOSED PERMEABLE PAVEMENT AREAS SHALL BE SHOWN ON THE EROSION CONTROL PLAN. PERMEABLE PAVEMENT AREAS SHALL BE PROTECTED FROM SEDIMENT DURING AND AFTER INSTALLATION, UNTIL THE DEVELOPMENT CONSTRUCTION IS COMPLETED.
- WASHOUT OF CONCRETE TRUCKS MUST BE PERFORMED OFF-SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. WASHING OUT CONCRETE TRUCKS, CHUTES, TOOLS OR EQUIPMENT ON THE GROUND OR INTO STORM DRAINS, OPEN DITCHES, STREETS OR STREAMS IS PROHIBITED.
- SUBMIT Dewatering Plan prior to discharging turbid and contaminated stormwater and groundwater off-site. Treatment or disposal options may include: infiltration, transport off-site in a vehicle, for legal disposal, in a manner that does not pollute state waters. Ecology approved on-site chemical treatment, sanitary or combined sewer discharge with local sewer district approval, use of the sedimentation bag with outfall to a ditch or shale for small volumes of localized dewatering.
- PERMANENT STORM WATER FACILITIES SHALL BE ISOLATED AND PROTECTED FROM SEDIMENTATION WITH AN APPROVED BMP.
- MAINTENANCE OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs
- ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs SHALL BE REGULARLY INSPECTED AND MAINTAINED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
- THE CONTRACTOR/CDOL SHALL MAINTAIN AND HAVE ON-SITE A WRITTEN LOG OF EROSION PREVENTION AND SEDIMENT CONTROL BMP MAINTENANCE. CONSTRUCTION SITES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT.
- ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED PER THE STORMWATER MANUAL.
- DUST CONTROL
- IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST, REFER TO THE STORMWATER MANUAL FOR DUST CONTROL BMPs.
- TEMPORARY SEEDING
- EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR GIVEN A PERMANENT COVER TREATMENT WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH PLACED TO STABILIZE THE SOIL AND REDUCE EROSION. SEEDING AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE RESEED AS SOON AS SUCH AREAS ARE IDENTIFIED.
- AN APPROVED TEMPORARY SEEDING MIXTURE SHALL BE APPLIED TO THE PREPARED SEED BED AT A RATE OF 120 LBS./ACRE. NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.
- PROTECTION OF LOW IMPACT DEVELOPMENT (LID) BMPs
- PROTECT ALL BIOTREATMENT AND RAIN GARDEN FACILITIES FROM SEDIMENTATION THROUGH INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BMPs.
- RESTORE LID FACILITIES TO FULL FUNCTIONING CONDITION IF THEY ACCUMULATE SEDIMENT DURING CONSTRUCTION.
- MAINTAIN THE INFILTRATION CAPABILITIES OF BIOTREATMENT AND RAIN GARDEN FACILITIES BY PROTECTING AGAINST COMPACTION.
- CONTROL EROSION AND PREVENT SEDIMENT FROM CONTAMINATING PERMEABLE PAVEMENTS. CLEAN PERMEABLE PAVEMENT POOLED WITH SEDIMENT OR NO LONGER PASSING AN INITIAL INFILTRATION TEST.
- KEEP HEAVY EQUIPMENT OFF EXISTING SOILS UNDER PROPOSED LID FACILITIES THAT HAVE BEEN EXCAVATED TO FINAL GRADE TO RETAIN THE SOIL INFILTRATION RATE.
- CLEANING LIMITS FOR CRITICAL AREAS AND THEIR BUFFERS, AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA SHALL BE CLEARLY MARKED PRIOR TO LAND-DISTURBING ACTIVITY.

REV. NO.	DATE	BY	APPROVED	STANDARD PLAN NO.
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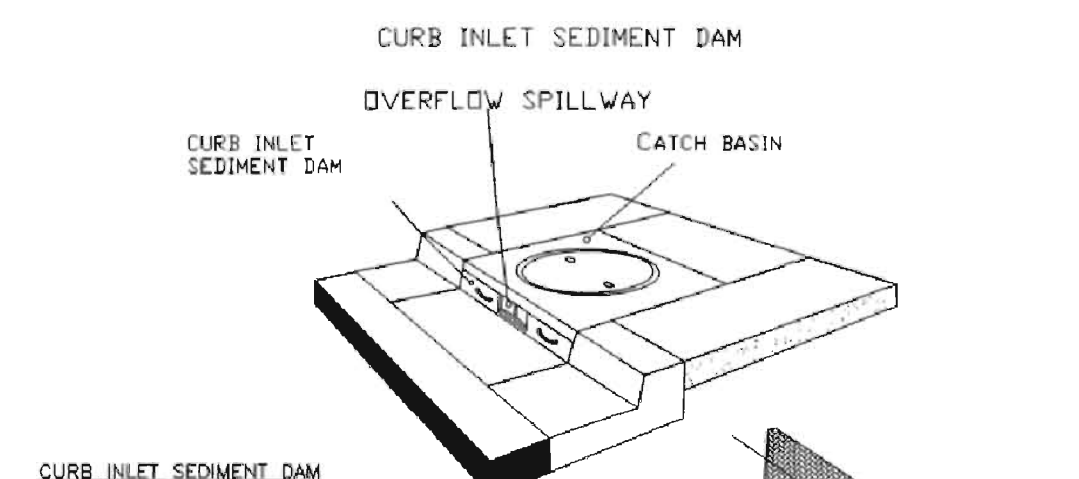


**NOTES:**

- IF THE ENTRANCE SITS ON A SLOPE, PLACE A FILTER FABRIC FENCE DOWN GRADIENT.
- TOP DRESS THE PAD WITH CLEAN 3" WASH ROCK WHEN THE CONSTRUCTION ENTRANCE BECOMES CLOGGED WITH SEDIMENTS.
- ANY SEDIMENT CARRIED FROM THE SITE ONTO THE STREET OR PAVED SURFACES SHALL BE CLEANED UP IMMEDIATELY.
- IF EQUIPMENT TRAVELS EXTENSIVELY ON UNSTABILIZED ROADS ON THE SITE, A TIRE AND VEHICLE UNDERCARRIAGE WASH NEAR THE ENTRANCE WILL BE NEEDED. PERFORM WASHING ON CRUSHED ROCK. WASH WATER WILL REQUIRE TREATMENT IN A SEDIMENT POND OR TRAP.
- WHERE CONSTRUCTION ACCESS ABUTS A CURB, MINIMUM 2" DIAMETER PVC AND COLD-PAATCH ASPHALT SHOULD BE USED TO CONSTRUCT THE APPROACH. IN ORDER TO PROTECT THE CURB AND MINIMIZE OBSTRUCTION TO STORMWATER FLOW IN THE GUTTER.
- TRUCKS LEAVING THE SITE SHALL EGRESS ACROSS THE FULL LENGTH OF THE PAD.
- SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAD LENGTH REDUCED TO 20 FEET IN LENGTH AND ROCK SHALL BE CLEANED 2 INCH TO 4 INCH.

N.T.S.

REV. NO.	DATE	BY	APPROVED	STANDARD PLAN NO.
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2	01/31/15	DN	AMG	

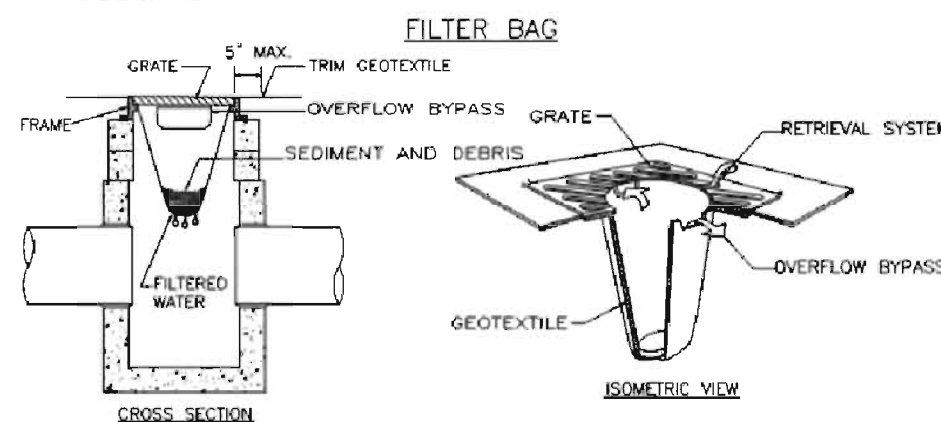


**CURB INLET SEDIMENT DAM**

Material: 100% Non-woven Polyfiber  
Color: Blue  
Height: 5" (Custom)  
Width: 36" - 54" - 70" (Custom)

Installation:  
Place strap through hole(s) provided. Wrap around the horizontal rod in mouth of curb inlet and extend strap through adjacent hole and tie.

- INLET PROTECTION MUST BE REGULARLY INSPECTED TO INSURE PROPER PLACEMENT/FUNCTION AND MAINTENANCE.



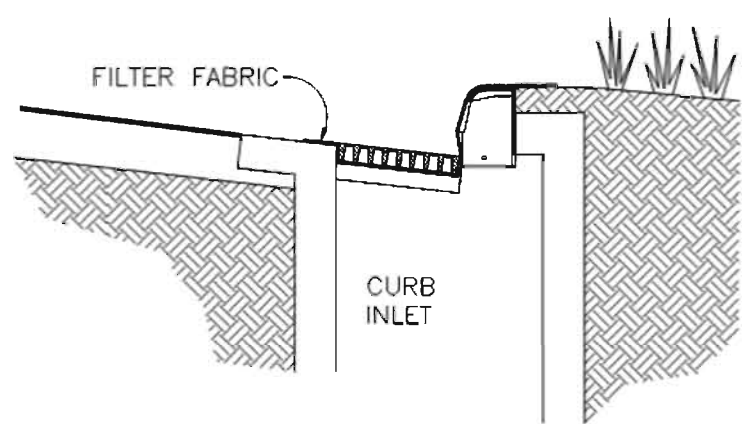
**NOTES:**

- SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
- THE REMOVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.
- THE BGID SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
- THE CONTRACTOR SHALL INSPECT THE BAG AFTER EACH STORM EVENT AND AT REGULAR INTERVALS.
- THE FILTER BAG SHALL BE CLEANED OR REPLACED WHEN THE BAG BECOMES HALF FULL.

N.T.S.

REV. NO.	DATE	BY	APPROVED	STANDARD PLAN NO.
1	06/07/04	MCH	AMG	<b>E-2.20a</b>
2	01/31/15	DN	AMG	

**PLAN VIEW**

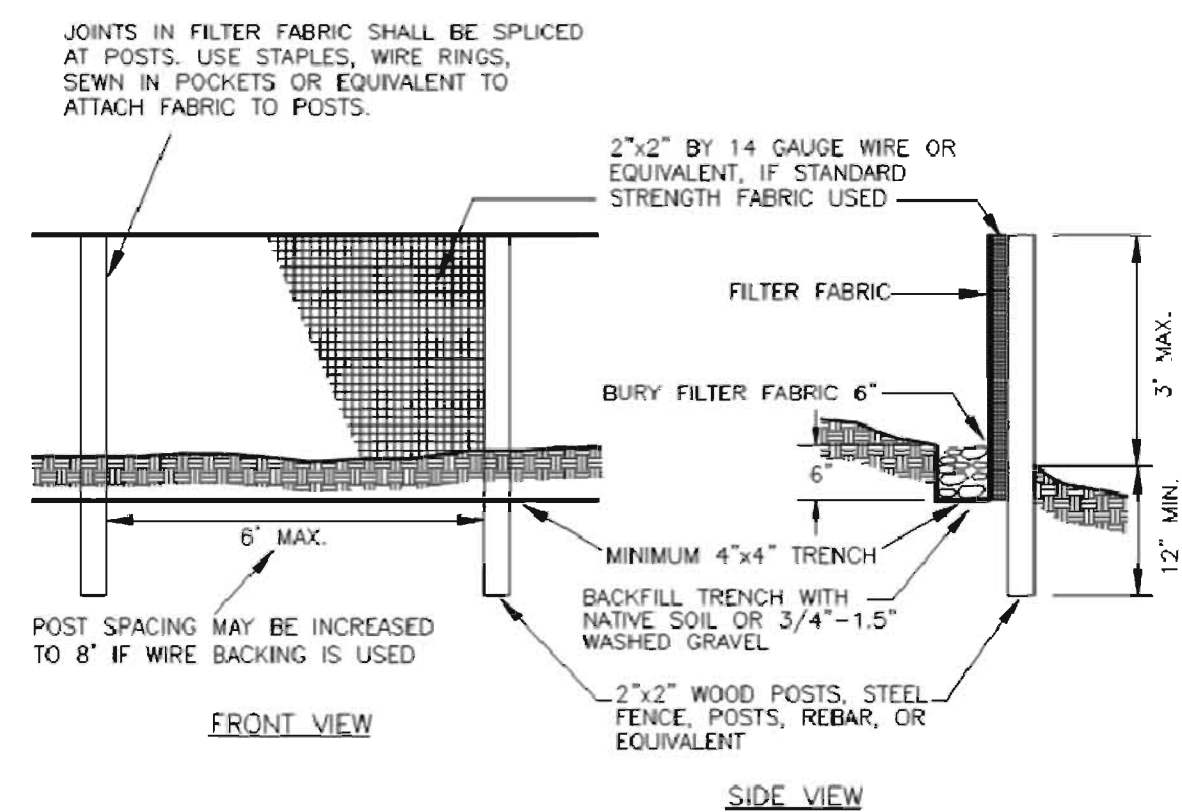


**NOTES:**

- USE FILTER MAT SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET, WITH MINIMAL NEED, WHERE WATER CAN FILTER AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
- BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
- INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

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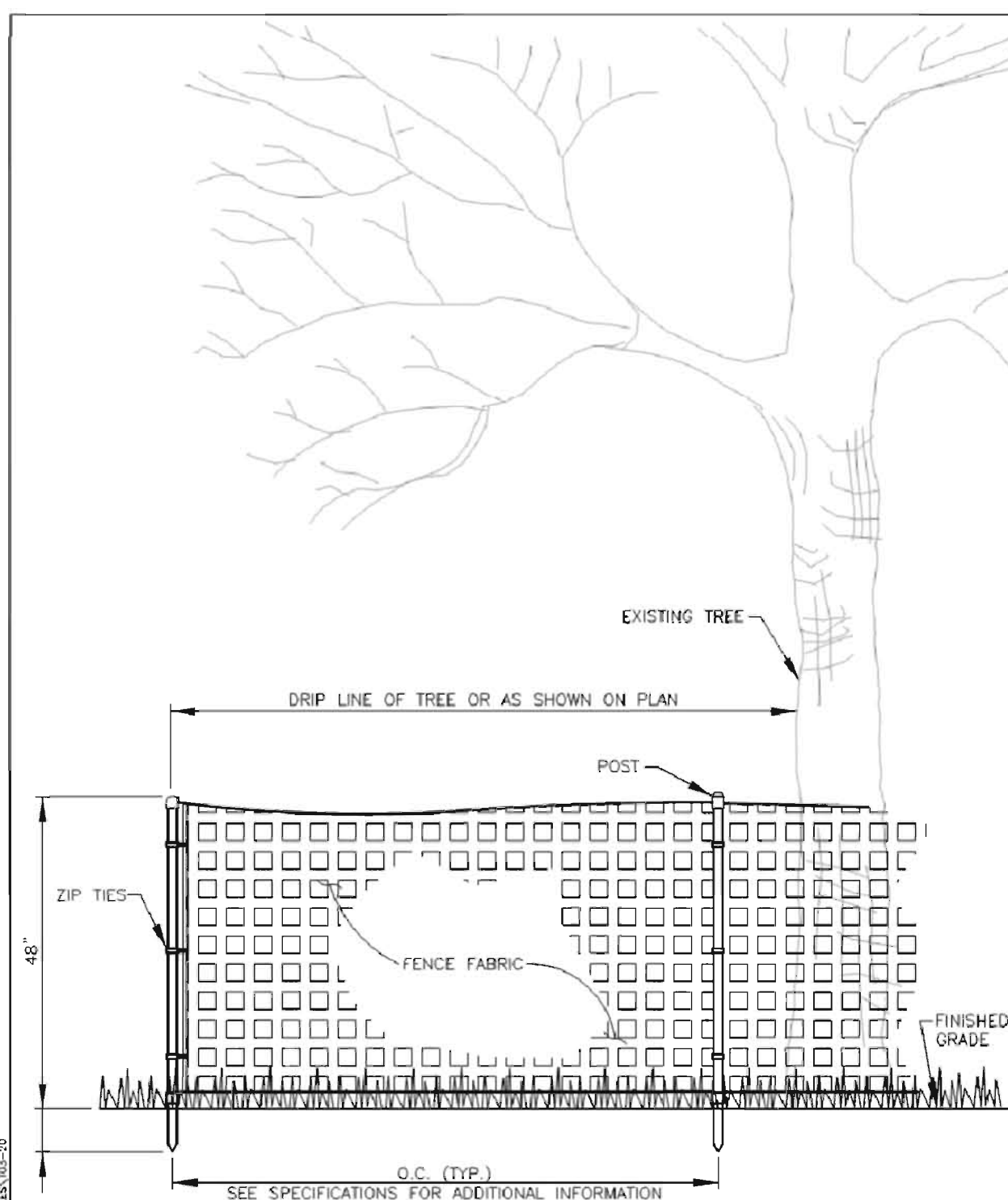
NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

**MAINTENANCE STANDARDS: ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.**

- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
- IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

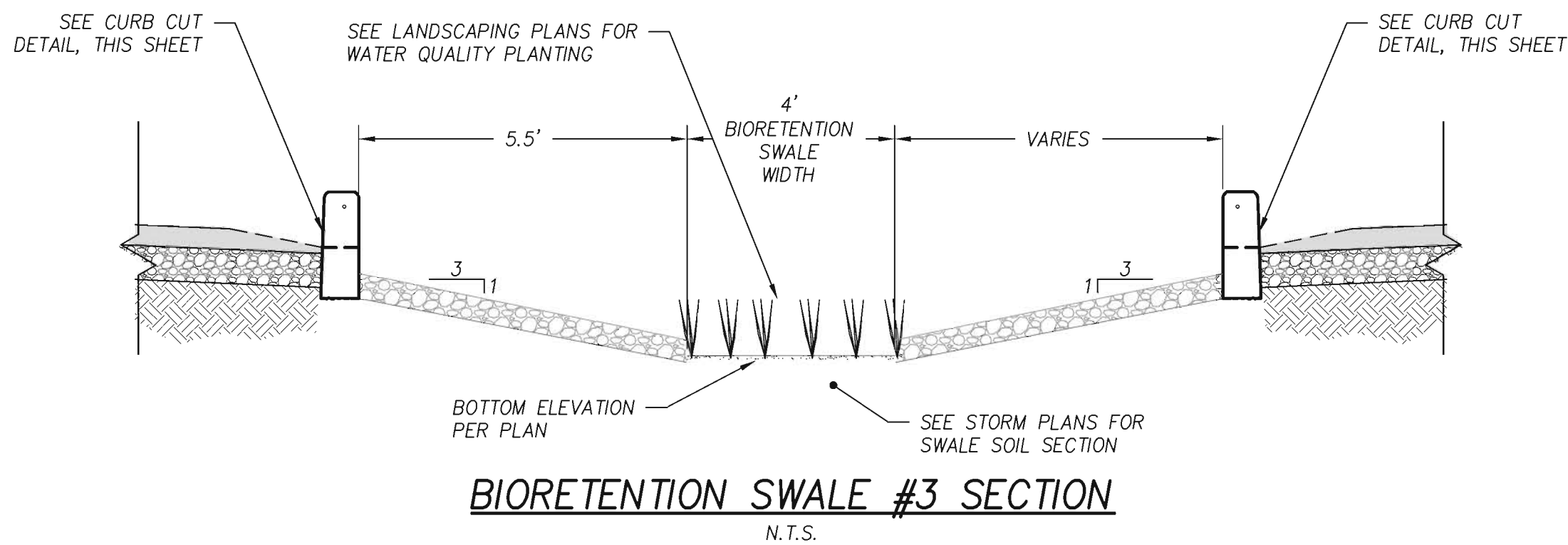
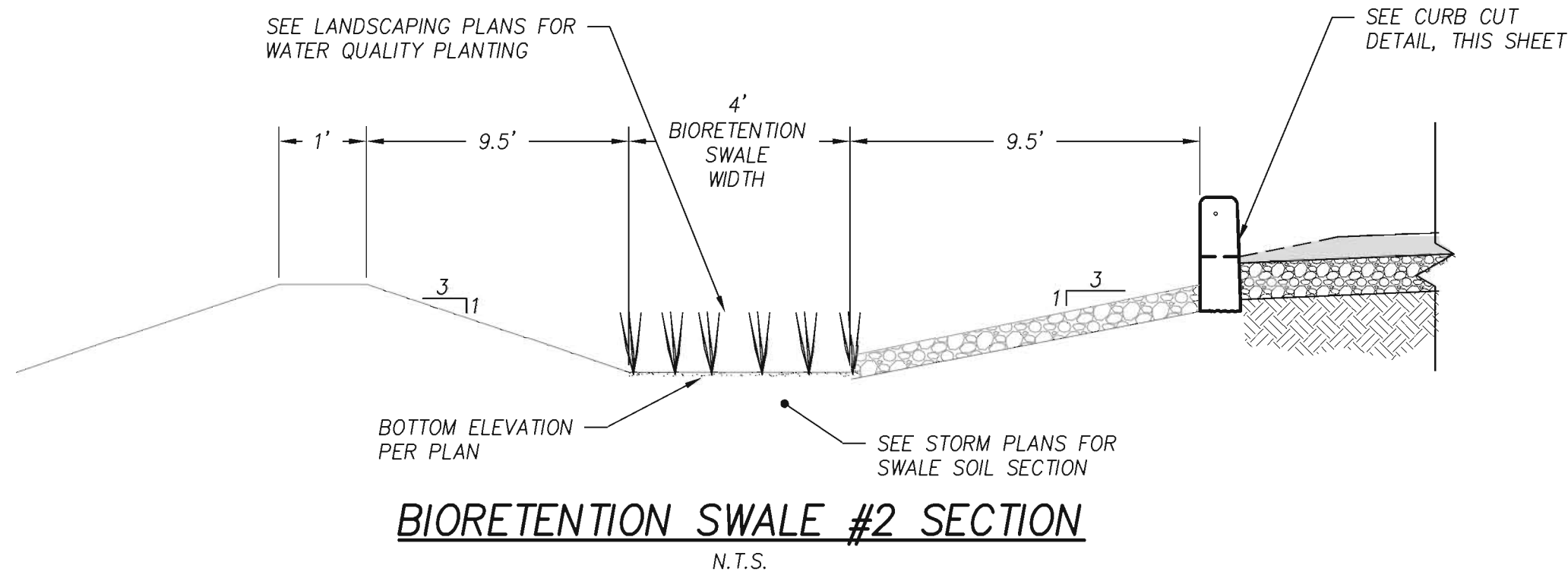
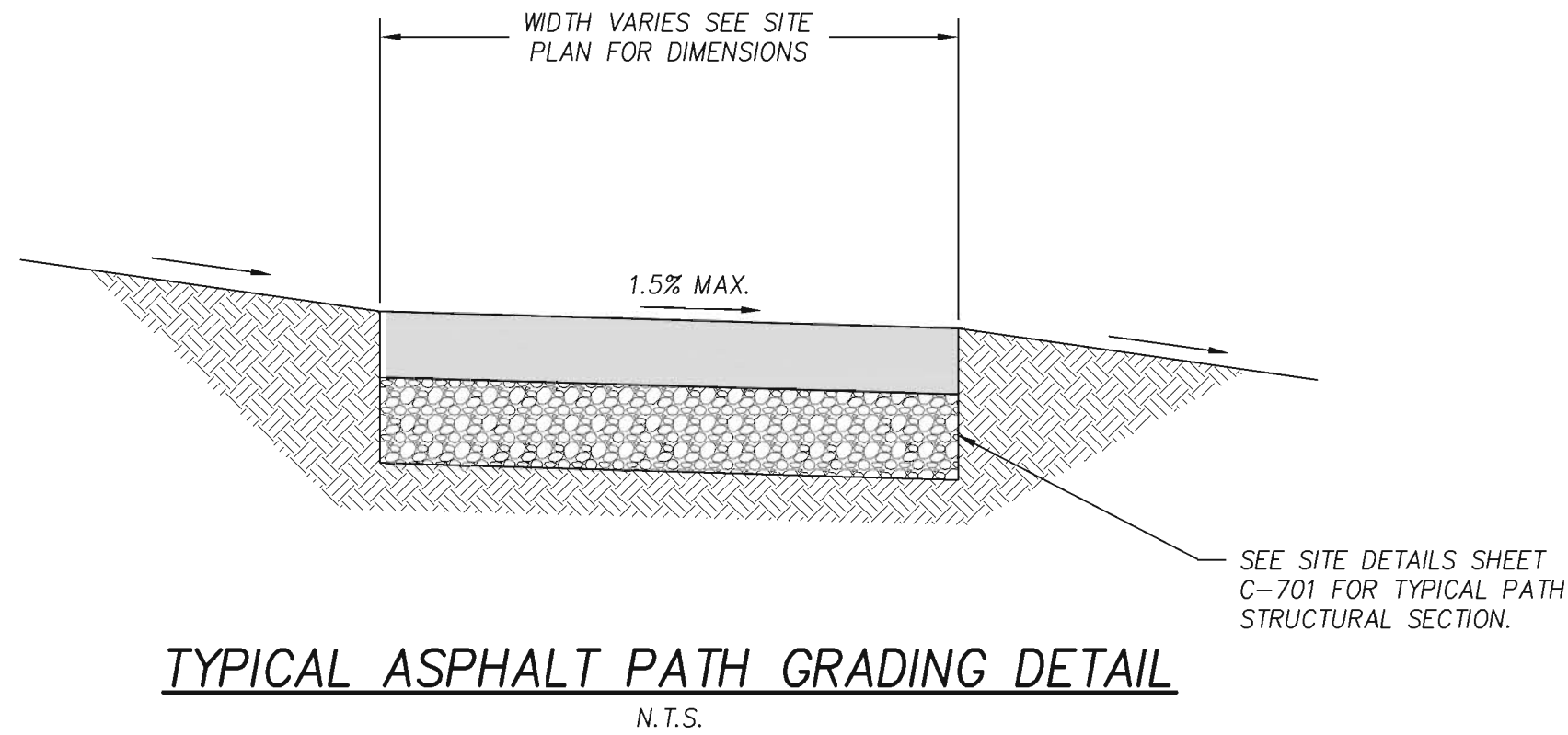
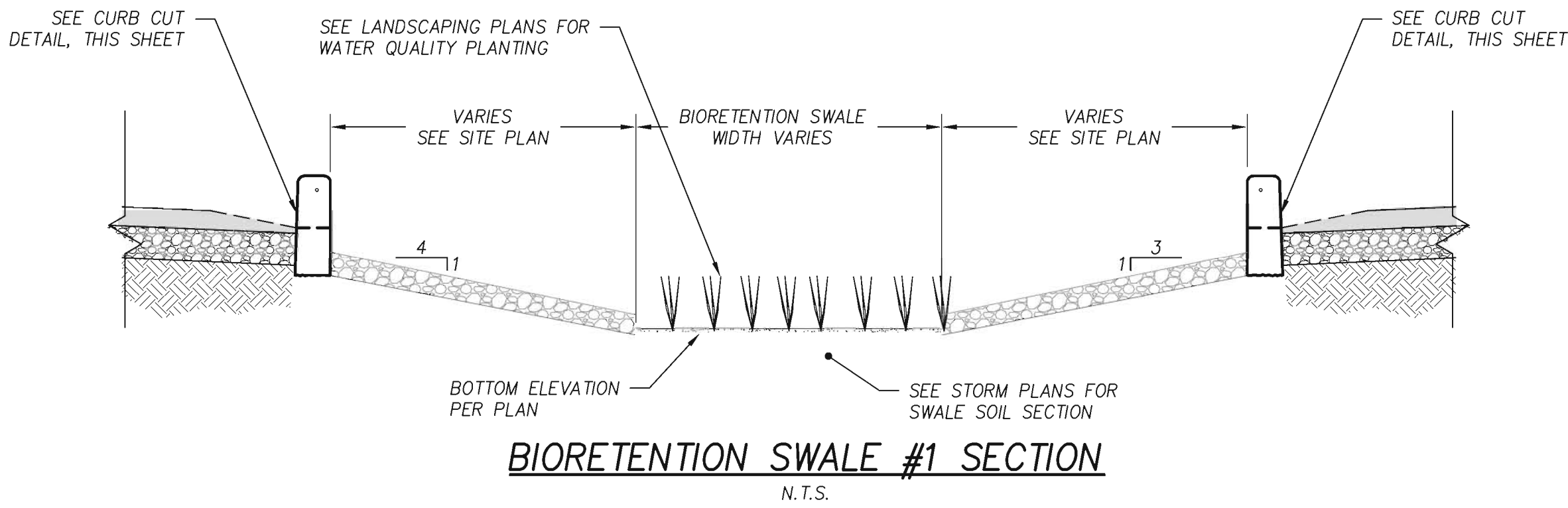
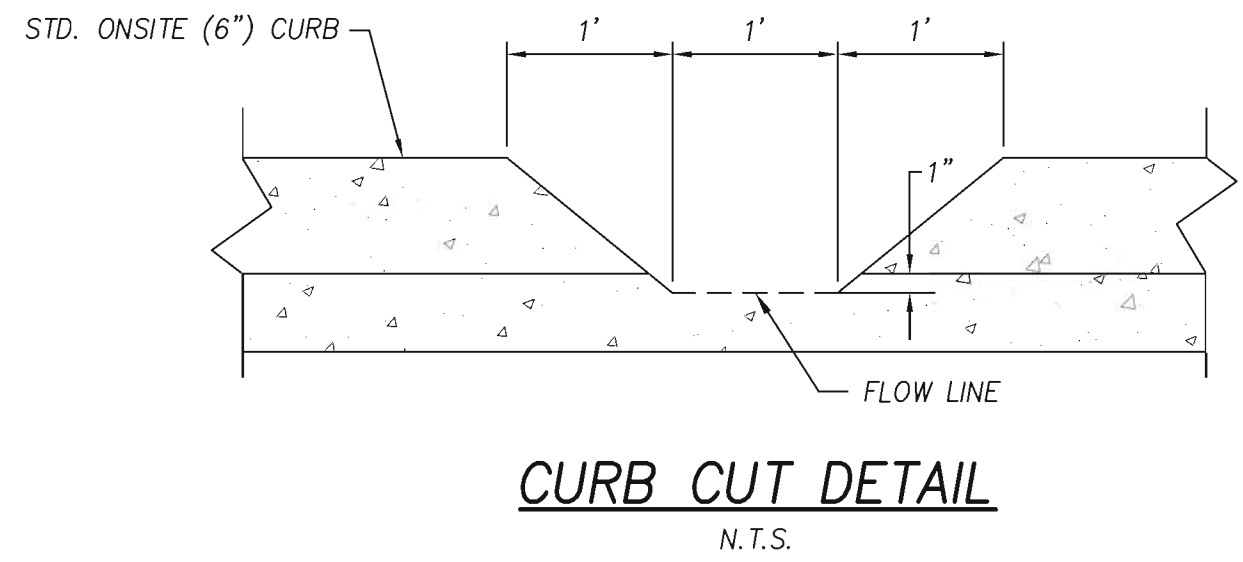
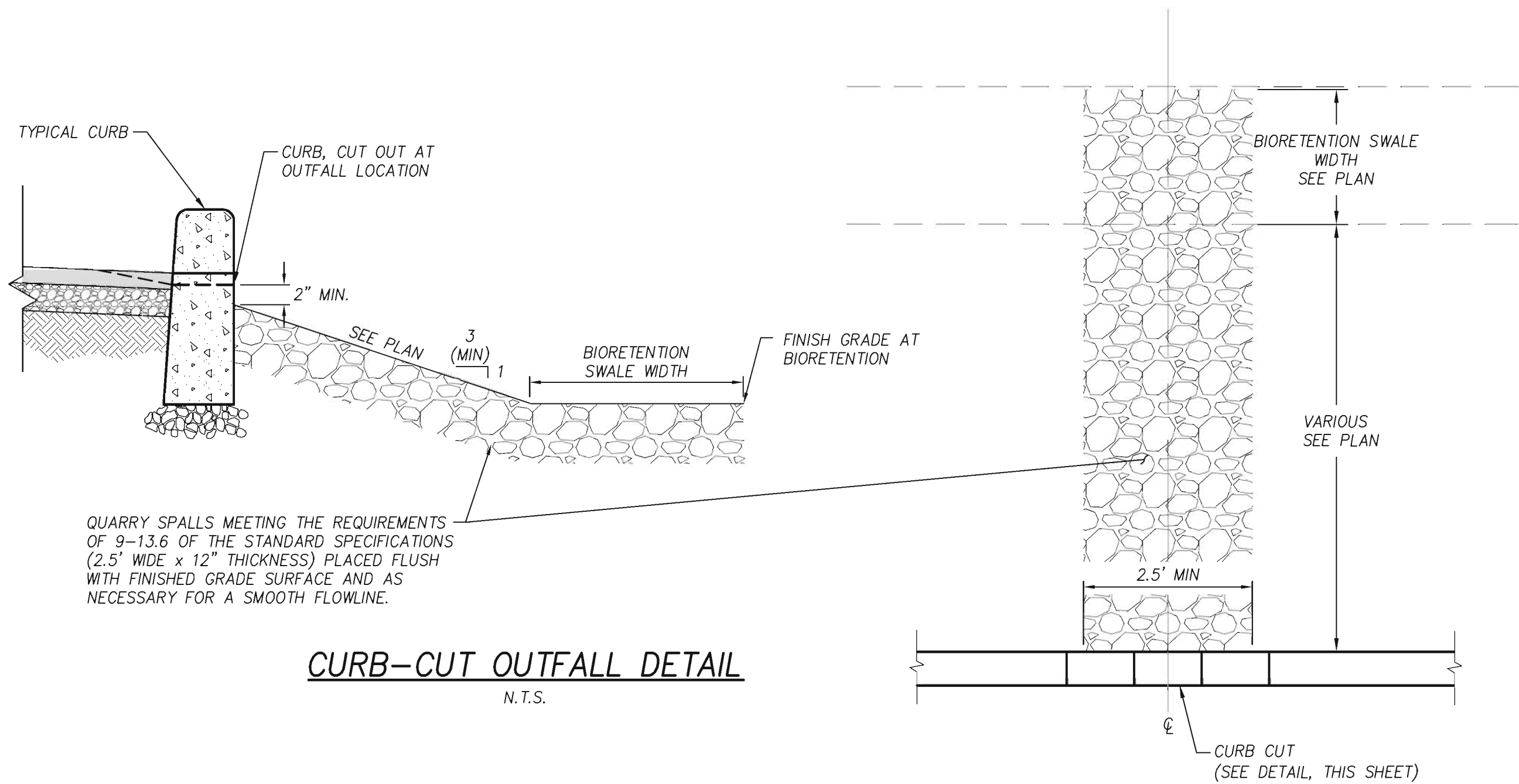
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REV. NO.	DATE	BY	APPROVED	STANDARD PLAN NO.
1	01/06/02	MCH	AMG	<b>E-2.33</b>
2	01/31/15	DN	AMG	



REV. NO.	DATE	BY	APPROVED	STANDARD PLAN NO.
1	01/06/02	MCH	AMG	<b>T03-20</b>
2	01/31/15	DN	AMG	





#### GRADING NOTES:

ALL CONSTRUCTION WITHIN THE CITY OF VANCOUVER OR CLARK COUNTY RIGHT-OF-WAY SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN AND RIGHT-OF-WAY PERMIT PRIOR TO ANY ON-SITE CONSTRUCTION ACTIVITY.

THE APPLICANT MAY BE REQUIRED TO PROVIDE FLAGGING, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES FOR SAFE TRUCK ACCESS ONTO PUBLIC STREETS. ALL SUCH DEVICES SHALL CONFORM TO THE STANDARDS ESTABLISHED IN THE LATEST ADOPTED EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND THE MODIFICATIONS TO THE MUTCD FOR STREETS AND HIGHWAYS FOR THE STATE OF WASHINGTON.

IN ORDER TO ENHANCE TRAFFIC AND SAFETY ELEMENTS, THE APPLICANT SHALL MAINTAIN ADEQUATE SIGHT DISTANCE AT THE SITE ACCESS POINTS AND INTERSECTIONS. DRIVEWAY EXITS SHALL MEET THE SIGHT DISTANCE REQUIREMENTS PER VMC 11.80.140, CITY STANDARD PLAN T04-03 AND T04-04. ANY OBSTRUCTIONS BY LANDSCAPING, SIGNING, PARKING, BUILDINGS, OR OTHER OBJECTS ARE UNSAFE. THE APPLICANT SHALL ENSURE THAT NONE OF THESE INTERFERE WITH VISION CLEARANCE REQUIREMENTS.

TWO-WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES ON THE ADJACENT PUBLIC STREETS.

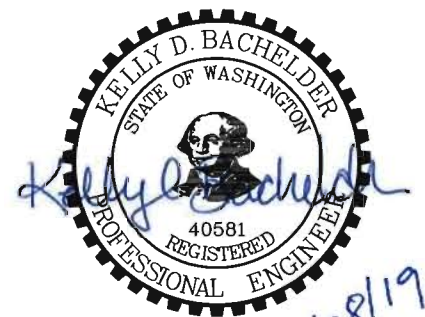
SHOULD ANY ITEM OF ARCHAEOLOGICAL INTEREST (VMC 20.710.090) BE FOUND DURING DEVELOPMENT, YOU ARE REQUIRED TO STOP WORK AND NOTIFY THE PLANNING CASE MANAGER IN DEVELOPMENT REVIEW SERVICES AT (360) 487-7800, AND THE WASHINGTON STATE OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION AT (360) 753-4011 IMMEDIATELY. FAILURE TO DO SO COULD RESULT IN A FELONY CONVICTION.

ANY PUBLIC, OR PRIVATE, CURB, GUTTER, SIDEWALK, OR ASPHALT DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO CITY OF VANCOUVER STANDARDS.

IF ANY FILL IS PROPOSED WITHIN CURRENT, OR FUTURE, RIGHT-OF-WAY THE CONTRACTOR SHALL PLACE SUCH FILL IN ACCORDANCE WITH 2014 WSDOT STANDARD SPECIFICATIONS SECTION 2-03.3(14)C METHOD B.

IF ANY SEDIMENT IS TRACKED INTO THE PUBLIC RIGHT-OF-WAY A WHEEL WASH OF CONSTRUCTION ENTRANCE MAY BE REQUIRED AT THE INSPECTOR'S DISCRETION.

**HHPR** Harper  
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drawn by  
JDB/KDB  
checked by  
KDB

lsw job number  
2018-0029

**FIR GROVE CHILDREN'S CENTER**  
**VANCOUVER PUBLIC SCHOOLS**  
3200 E 18TH ST  
VANCOUVER, WA 98661

issue date  
10/15/2019

**BID/PERMIT SET**

revisions

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**GRADING  
DETAILS**

**C-705**



**Harper  
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**STORM DRAINAGE  
DETAILS**

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**C-706**

**GENERAL STORM WATER CONSTRUCTION NOTES**

- ALL MATERIALS AND INSTALLATION OF STORM SEWERS AND DRAINAGE SYSTEMS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS IN THE CITY OF VANCOUVER'S LATEST VERSION OF "GENERAL REQUIREMENTS AND STANDARD DETAILS MANUAL," AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, WHERE THE CITY OF VANCOUVER GENERAL REQUIREMENTS SHALL TAKE PRECEDENCE. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".
- ALL PUBLIC STORM SEWER AND DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF VANCOUVER'S DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OFFICE (360) 487-7750 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CITY MAY REQUIRE THAT A PRECONSTRUCTION CONFERENCE BE HELD.
- THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MAY CONTACT THE NORTHWEST UTILITY NOTIFICATION CENTER AT 1-800-424-5555 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PROCURE AND COMPLY WITH THE PROVISIONS OF ALL APPLICABLE PERMITS, EASEMENTS, LICENSES AND CERTIFICATES IN CONSULTATION WITH THE CONSTRUCTION OF STORM SEWERS AND DRAINAGE SYSTEMS. COMPLIANCE SHALL BE AT ALL LEVELS: FEDERAL, STATE, AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK. THE CONTRACTOR SHALL OBTAIN A STREET CUT PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL OBTAIN AND SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING CONSTRUCTION. THE PLAN SHALL BE APPROVED BY THE CITY TRANSPORTATION DIVISION (360) 487-7735.
- ALL EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION SWPPP AND EROSION CONTROL DETAILS, PRIOR TO START OF ANY CONSTRUCTION OR LAND DISTURBING ACTIVITY.
- THE CONTRACTOR SHALL OBTAIN ALL OFFSITE CONSTRUCTION EASEMENTS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL OFFSITE UTILITIES EASEMENTS HAVE BEEN OBTAINED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY OFFSITE CONSTRUCTION.
- THE CONTRACTOR IS TO REPORT ANY SITE DISCREPANCIES IMMEDIATELY TO THE ENGINEER. ITEMS TO REPORT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:  
-EXISTING PIPE SIZE, TYPE, SLOPE AND INVERT ELEVATION  
-ROADWAY CENTERLINE AND TOP OF CURB ELEVATIONS  
-GROUNDWATER ENCOUNTERED WITHIN 3-FEET OF THE BOTTOM OF INFILTRATION FACILITIES.
- WATER QUALITY DEVICES WILL BE INSTALLED AND FUNCTIONING PRIOR TO COMMENCING WITH INSTALLATION OF PAYMENT FOR ALL AREAS DRAINING INTO THE WATER QUALITY SYSTEM. VEGETATION IN BIO-FILTRATION SWALE AND POND SYSTEMS SHALL BE ESTABLISHED AND MECHANICAL DEVICES AND FILTER MEDIA SHALL BE INSTALLED. SWALES AND FILTER STRIPS WILL BE SEED WITH AN APPROVED SEED MIX, PER THE WESTERN WASHINGTON MANUAL. TURF IS ALLOWED FOR VEGETATED FILTERS PROVIDED THE TURF AREA IS OVERSEED WITH THE EQUIVALENT GRASS SEED MIX.
- ALL NEW CATCH BASINS SHALL BE LABELED WITH "PROTECT WATER \* ONLY RAIN IN DRAIN" MEDALLIONS. MEDALLIONS SHALL BE AFFIXED TO DRY SURFACES WITH HIGH QUALITY POLYURETHANE SEALANT AND RIVETS. APPROVED MEDALLIONS ARE AVAILABLE FOR PURCHASE AT THE CITY'S PERMIT COUNTER (360)487-7804.
- ROOF DOWNSPOUT RUNOFF MUST BE RETAINED ON EACH SPECIFIC SITE. DOWNSPOUTS SHALL NOT DRAIN TO THE STREET OR ANY ADJACENT PROPERTIES UNLESS SPECIFIC APPROVAL HAS BEEN SHOWN ON APPROVED CIVIL ENGINEERING PLANS.
- THE CONTRACTOR SHALL PROVIDE A TELEVISION REPORT, VIDEOS, AND TABULAR AS-BUILT OF ALL PUBLIC STORM MAINS AND LATERALS PRIOR TO PAYING. THIS TV INFORMATION SHALL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW. TV INSPECTION SHALL DEMONSTRATE NO MANUFACTURING OR INSTALLATION DEFECTS, OR ANY DEFECTS IN THE LINES, FOR APPROVAL AND ACCEPTANCE BY THE CITY. FINAL ACCEPTANCE AND CONSTRUCTION OF STORM SEWERS ARE SUBJECT TO SECTIONS 1-05.12, AND 7-04.3 OF THE STANDARD SPECIFICATIONS.

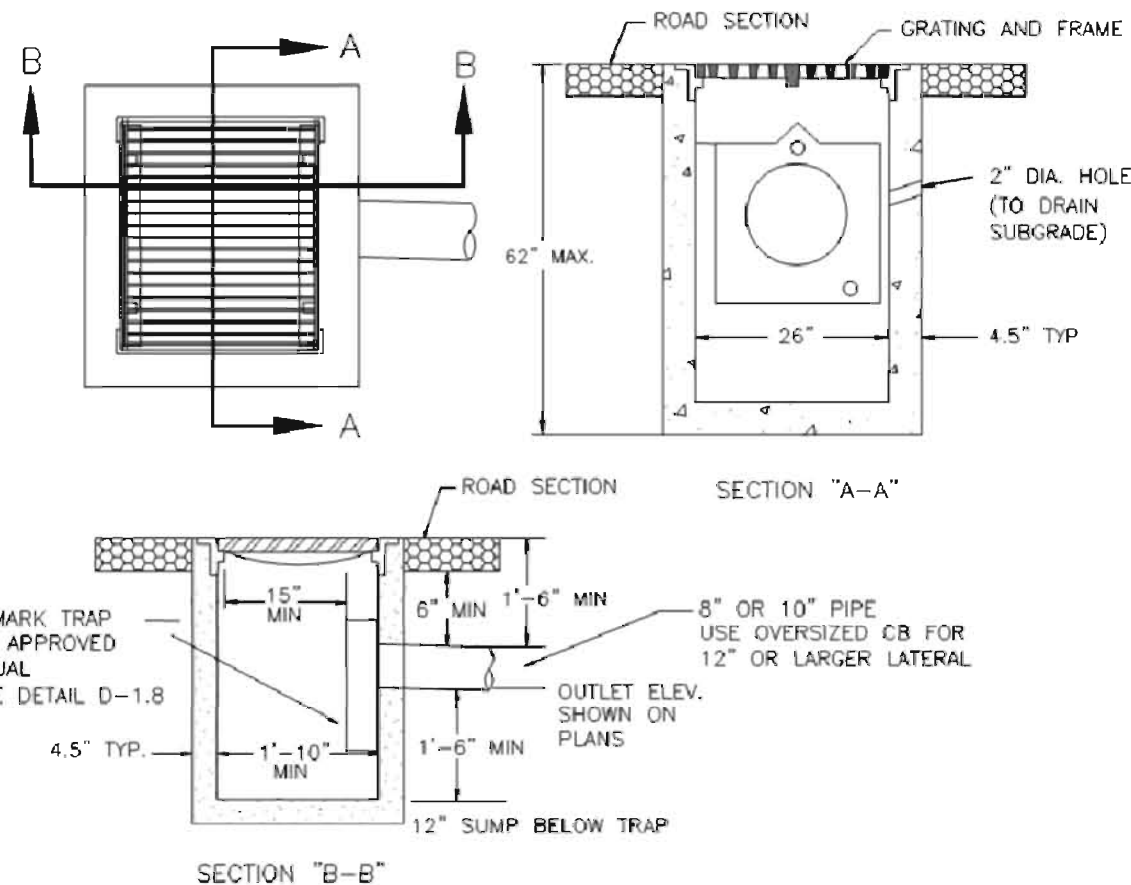


**CONSTRUCTION NOTES FOR STORM SEWERS**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	11/01/06	YAO	AMG
2	08/10/09	DN	AMG
3	11/09/2018	DN	AMG

STANDARD PLAN NO.  
**D-1.0**



**NOTES:**

- LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
- ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
- ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
- THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM WITH THE EXISTING OR PROPOSED CURB GRADE AND ROAD CROSS SLOPE.
- ALL NEW CATCH BASINS SHALL BE LABELED WITH "PROTECT WATER \* ONLY RAIN DOWN THE DRAIN" MEDALLIONS. MEDALLIONS SHALL BE AFFIXED TO DRY SURFACES WITH A HIGH QUALITY POLYURETHANE SEALANT AND RIVETS. CONTACT (360) 487-7130.
- SEE DETAIL D-1.7 FOR GRATE AND FRAME SPECIFICATIONS.

N.T.S.

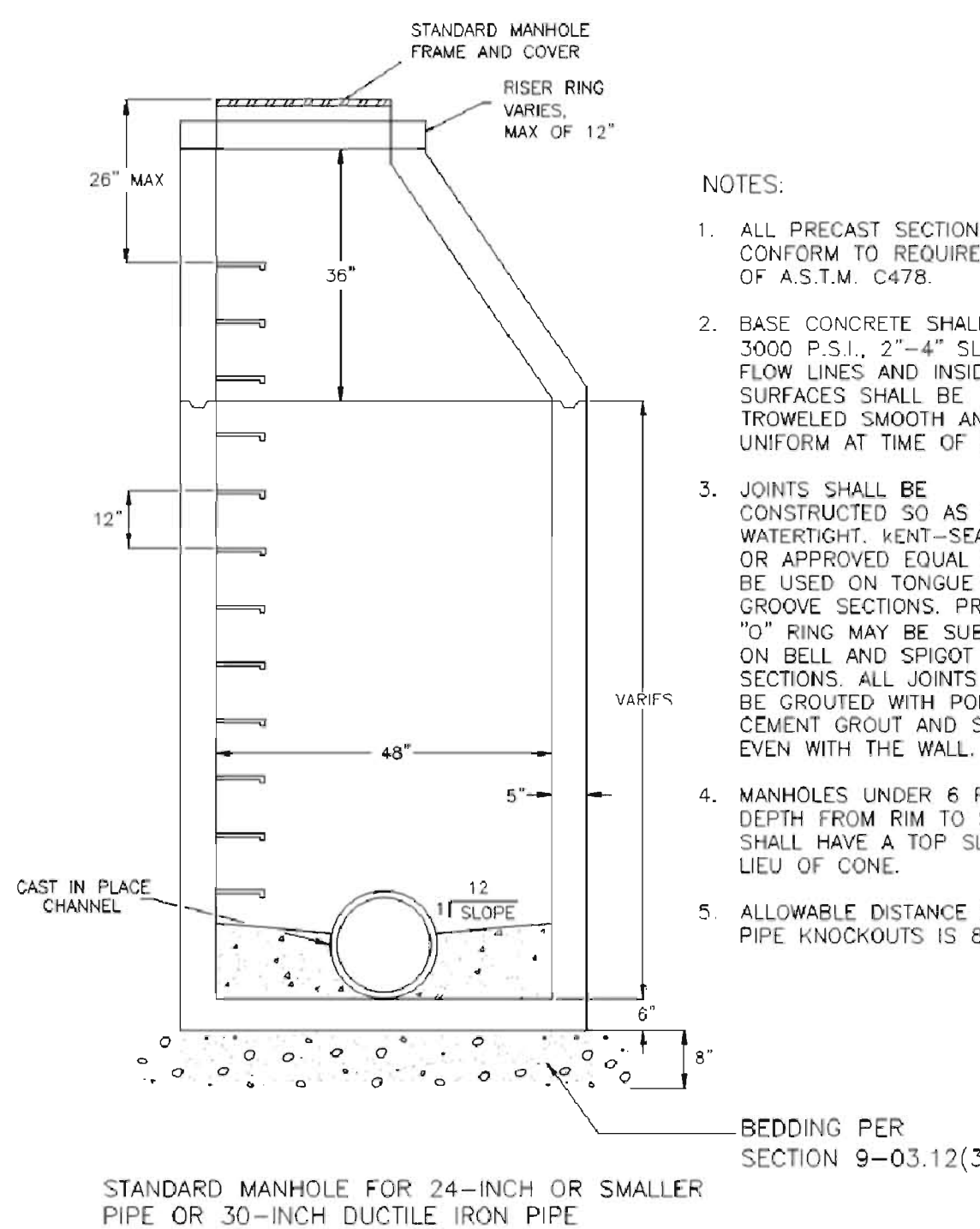


**STANDARD CATCH BASIN DETAIL**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	11/01/06	YAO	AMG
2	08/10/09	DN	AMG
4	08/20/17	DN	AMG

STANDARD PLAN NO.  
**D-1.1**



**NOTES:**

- ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF A.S.T.M. C478.
- BASE CONCRETE SHALL BE 3000 P.S.I., 2"-4" SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE TROWELED SMOOTH AND UNIFORM AT TIME OF POUR.
- JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATERTIGHT. KENT-SEAL NO. 2 OR APPROVED EQUAL SHALL BE USED ON TONGUE AND GROOVE SECTIONS. PREMOLDED "O" RING MAY BE SUBSTITUTED ON BELL AND SPIGOT SECTIONS. ALL JOINTS SHALL BE GROUTED WITH PORTLAND CEMENT GROUT AND STRUCK EVEN WITH THE WALL.
- MANHOLES UNDER 6 FEET IN DEPTH FROM RIM TO SHELF SHALL HAVE A TOP SLAB IN LIEU OF CONE.
- ALLOWABLE DISTANCE BETWEEN PIPE KNOCKOUTS IS 8 INCHES.

N.T.S.

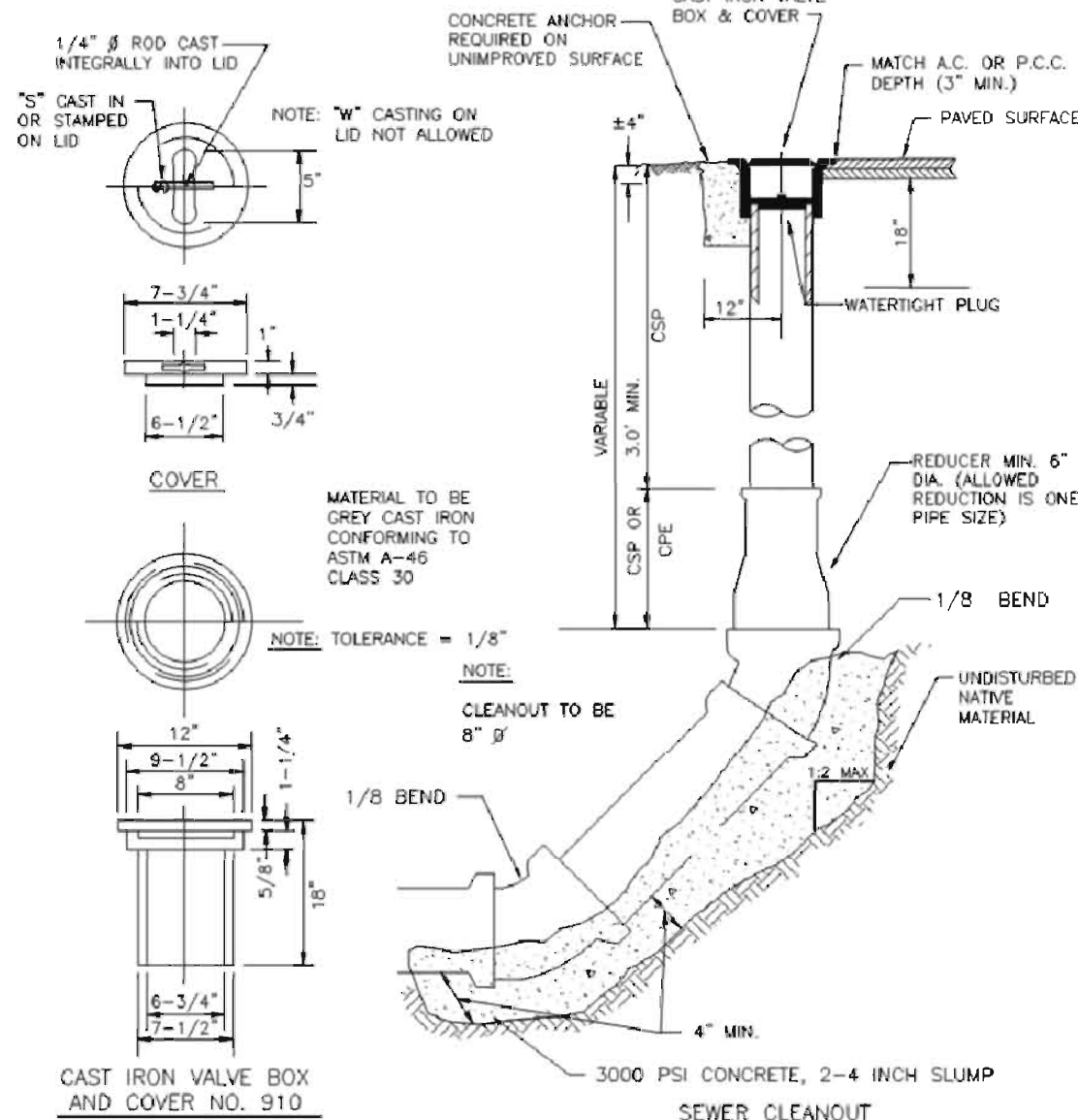


**STANDARD MANHOLE DETAIL**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	11/01/06	YAO	AMG
2	08/10/09	DN	AMG
3	01/23/15	DN	AMG

STANDARD PLAN NO.  
**D-2.0**



VALVE BOX SHALL BE FORT VANCOUVER  
PATTERN NO. 910 CAST IRON OR APPROVED EQUAL

N.T.S.

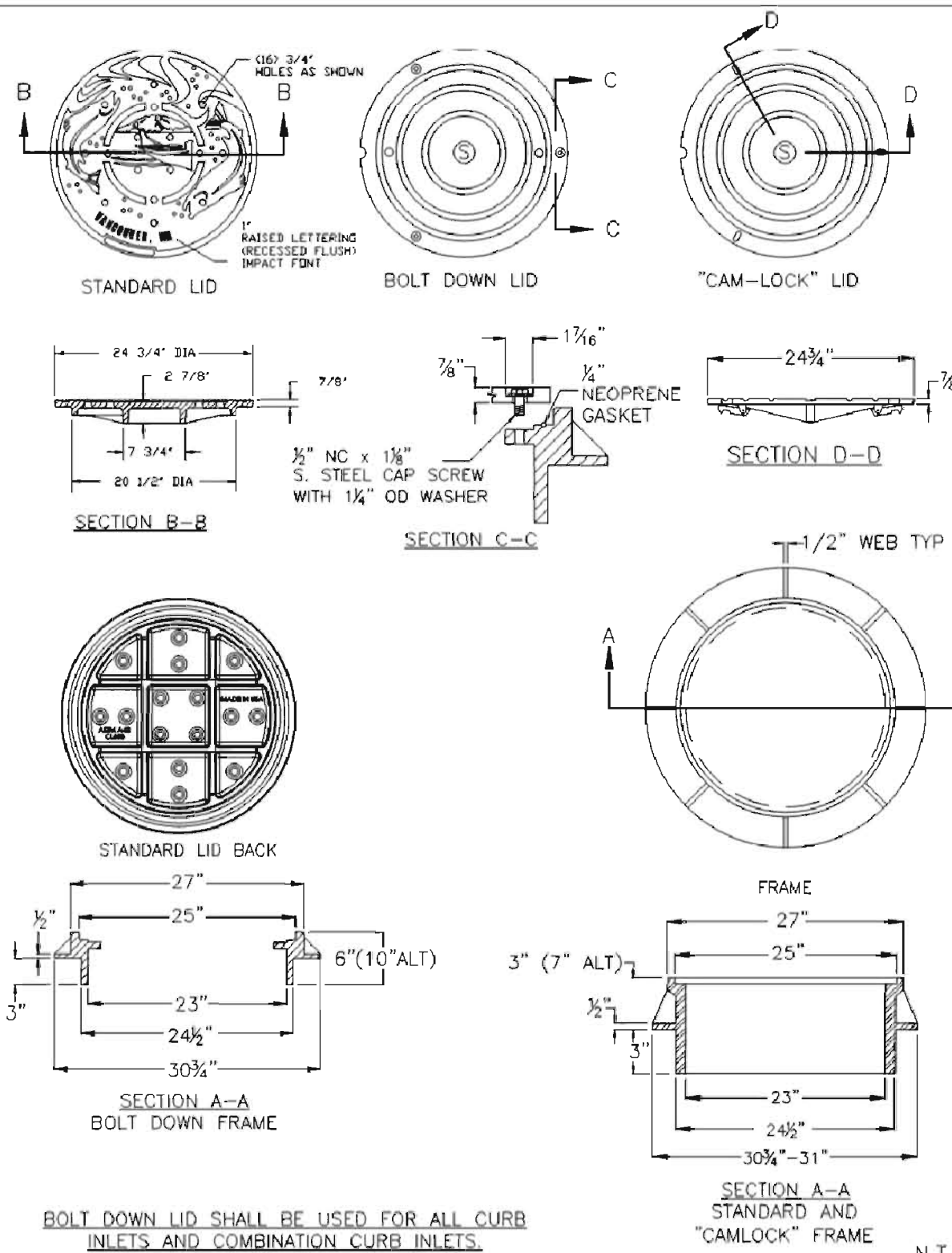


**STANDARD SEWER CLEANOUT DETAIL**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	11/30/04	DN	AMG
2	07/17/15	DN	AMG

STANDARD PLAN NO.  
**D-2.3**



BOLT DOWN LID SHALL BE USED FOR ALL CURB  
INLETS AND COMBINATION CURB INLETS.

N.T.S.

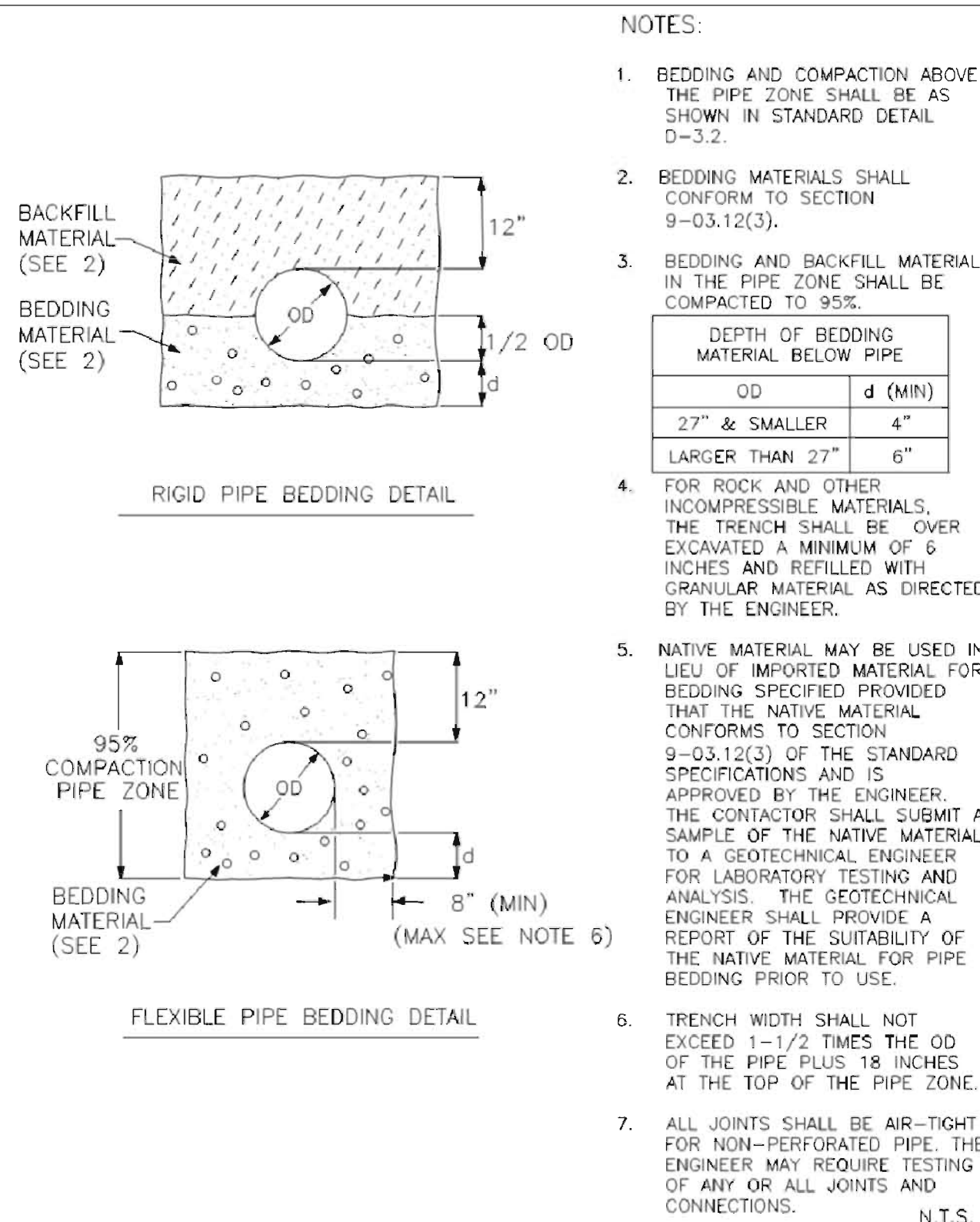


**MANHOLE COVER AND FRAME STANDARD DETAIL**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	08/18/92	GH	SA
2	11/01/05	DN	AMG
4	08/20/09	DN	AMG
	07/21/15	DN	AMG

STANDARD PLAN NO.  
**D-2.4**



**NOTES:**

- BEDDING AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN STANDARD DETAIL D-3.2.
- BEDDING MATERIALS SHALL CONFORM TO SECTION 9-03.12(3).
- BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED TO 95%.  

OD	d (MIN)
27" & SMALLER	4"
LARGER THAN 27"	6"
- FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER EXCAVATED A MINIMUM OF 6 INCHES AND REFILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER.
- NATIVE MATERIAL MAY BE USED IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED PROVIDED THAT THE NATIVE MATERIAL CONFORMS TO SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS AND IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE NATIVE MATERIAL TO A GEOTECHNICAL ENGINEER FOR LABORATORY TESTING AND ANALYSIS. THE GEOTECHNICAL ENGINEER SHALL PROVIDE A REPORT OF THE SUITABILITY OF THE NATIVE MATERIAL FOR PIPE BEDDING PRIOR TO USE.
- TRENCH WIDTH SHALL NOT EXCEED 1-1/2 TIMES THE OD OF THE PIPE PLUS 18 INCHES AT THE TOP OF THE PIPE ZONE.
- ALL JOINTS SHALL BE AIR-TIGHT FOR NON-PERFORATED PIPE. THE ENGINEER MAY REQUIRE TESTING OF ANY OR ALL JOINTS AND CONNECTIONS.

N.T.S.

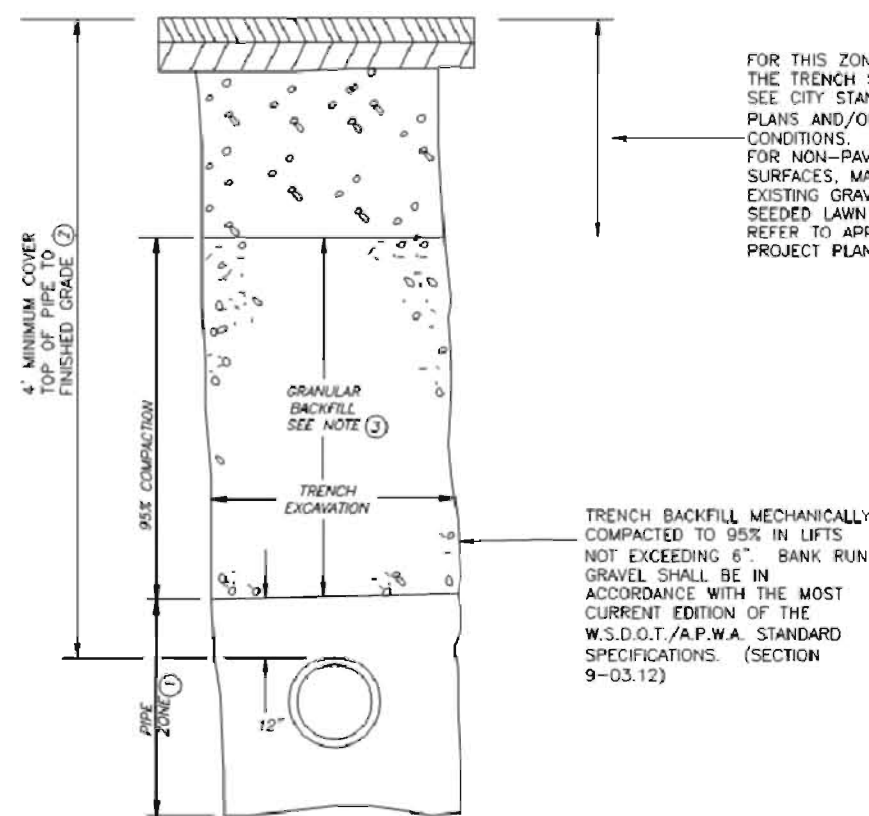


**RIGID & FLEXIBLE PIPE BEDDING DETAIL**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	11/01/06	YAO	AMG
2	01/23/15	DN	AMG

STANDARD PLAN NO.  
**D-3.1B**



**NOTES:**

- FOR PIPE ZONE BEDDING, SEE STANDARD DETAIL D-3.1A FOR PERFORATED PIPE OR STANDARD DETAIL D-3.1B FOR RIGID & FLEXIBLE PIPE.
- MINIMUM COVER FROM TOP OF PIPE TO FINISHED GRADE MAY BE REDUCED TO 3' WHEN DUCTILE IRON PIPE IS USED AND APPROVED BY THE CITY OF VANCOUVER.
- CONTROLLED DENSITY FILL (CDF) MAY BE REQUIRED BASED ON THE CITY STANDARDS.
- OVERSIZE MATERIAL (4" OR LARGER) SHALL NOT BE ALLOWED IN TRENCH.

N.T.S.



**TRENCH BACKFILL DETAIL**

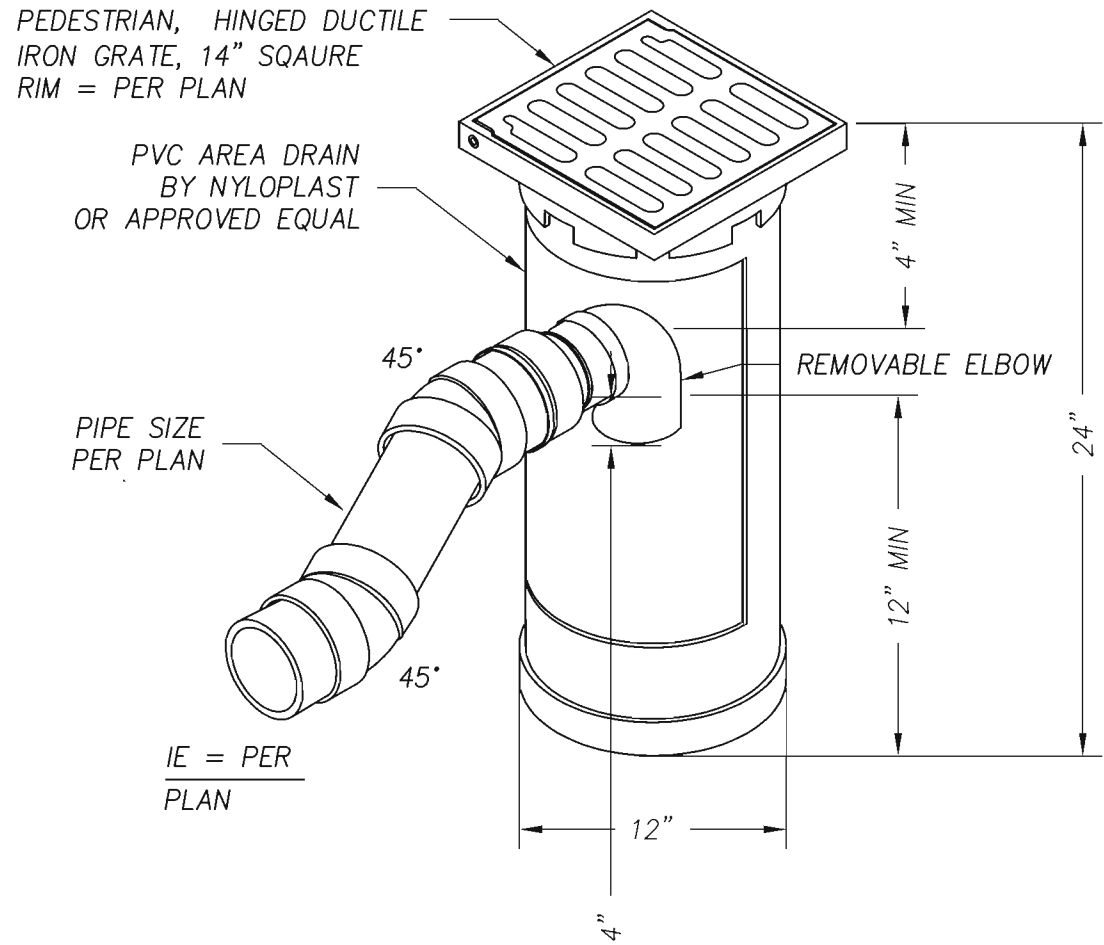
CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SURFACE WATER MANAGEMENT

REV. NO.	DATE	BY	APPROVED
1	11/30/04	DN	AMG
	08/10/09	DN	AMG
	07/21/15	DN	AMG

STANDARD PLAN NO.  
**D-3.2**

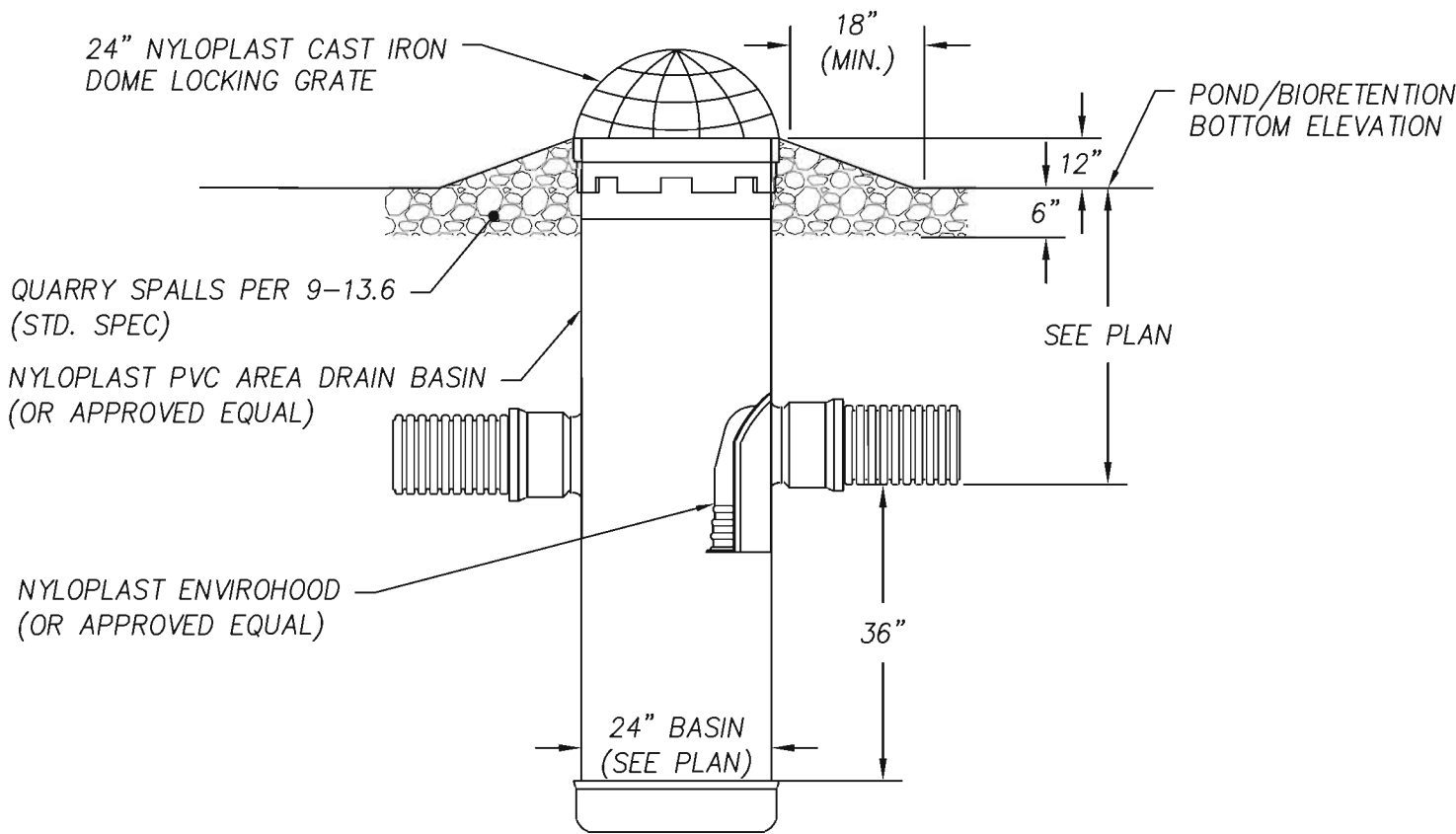


- NOTES:
1. TRAP TO BE REMOVABLE TO ALLOW FOR FULL ACCESS TO OUTLET PIPE.
  2. FRAMES, GRATES, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
  3. THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.



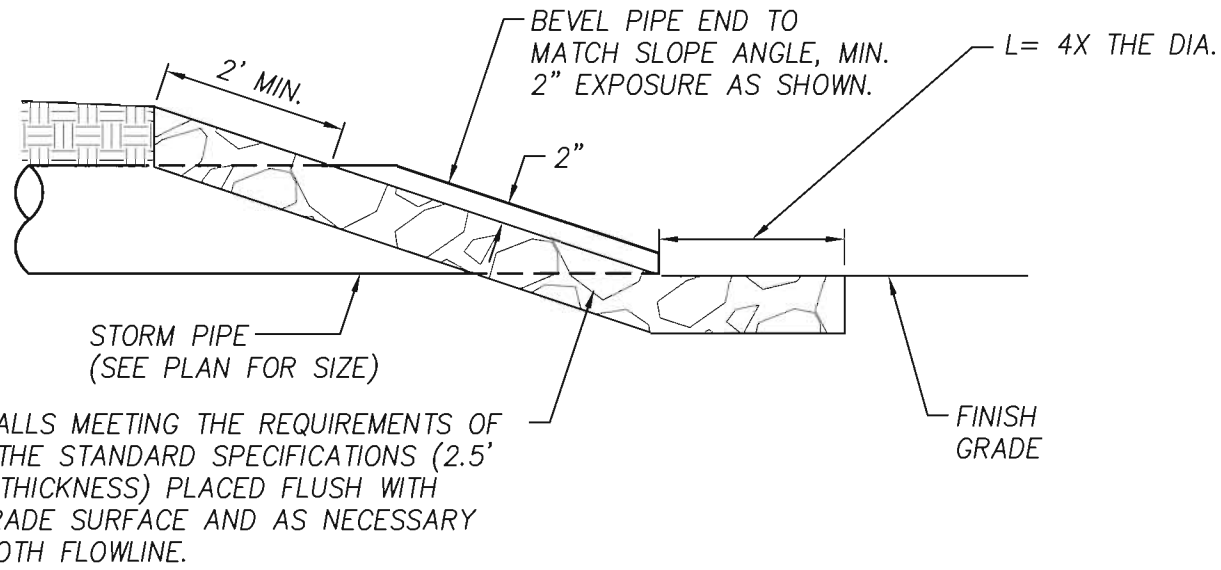
12" AREA DRAIN WITH TRAP

N.T.S.



OVERFLOW RISER

N.T.S.



PIPE OUTFALL DETAIL

N.T.S.

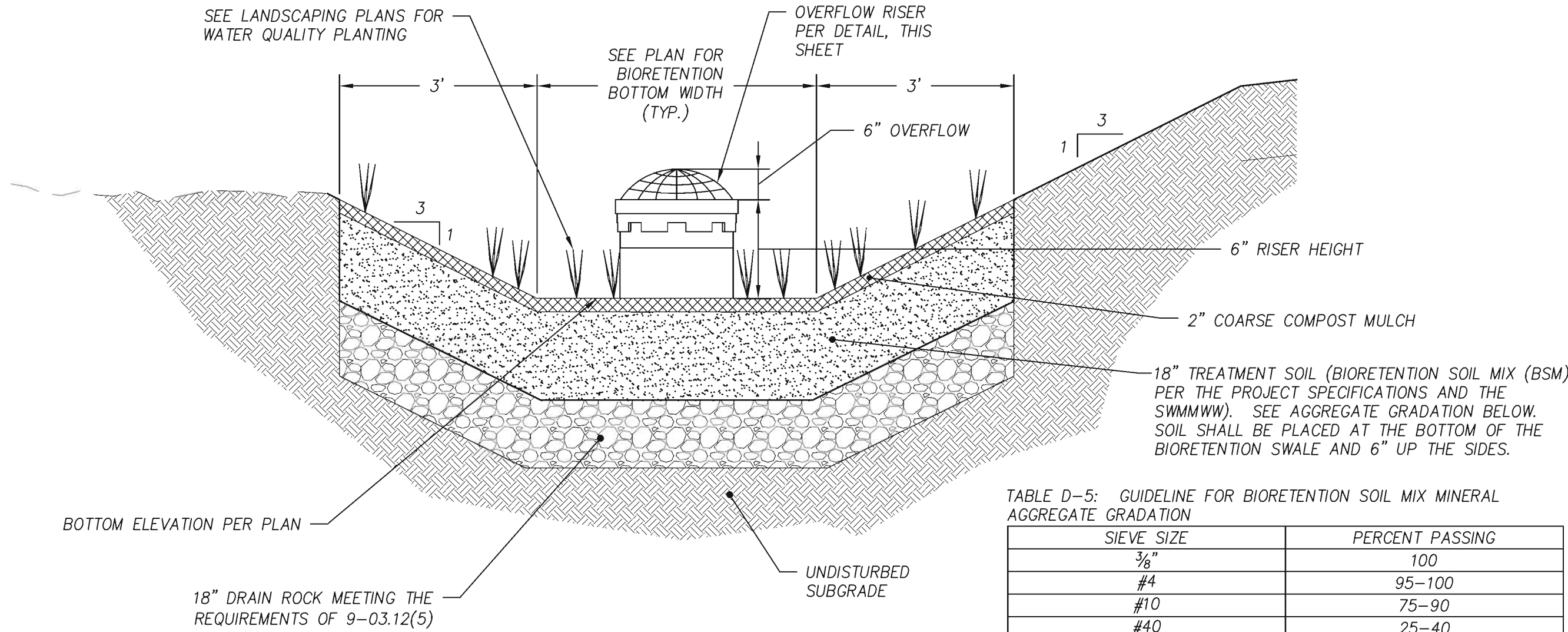


TABLE D-5: GUIDELINE FOR BIORETENTION SOIL MIX MINERAL AGGREGATE GRADATION

SIEVE SIZE	PERCENT PASSING
3/8	100
#4	95-100
#10	75-90
#40	25-40
#100	4-10
#200	2-5

BIORETENTION SOIL MIXES MUST CONTAIN 35% - 40% COMPOST BY VOLUME

BIORETENTION FACILITY

N.T.S.

NOTES:

DO NOT EXCAVATE THE BIORETENTION FACILITY DURING WET OR SATURATED CONDITIONS.

EXCAVATION SHOULD BE PERFORMED BY MACHINERY OPERATING ADJACENT TO THE BIORETENTION FACILITY AND NO HEAVY EQUIPMENT WITH NARROW TRACKS, NARROW TIRES, OR LARGE LUGGED, HIGH PRESSURE TIRES SHOULD BE ALLOWED ON THE BOTTOM OF THE BIORETENTION FACILITY.

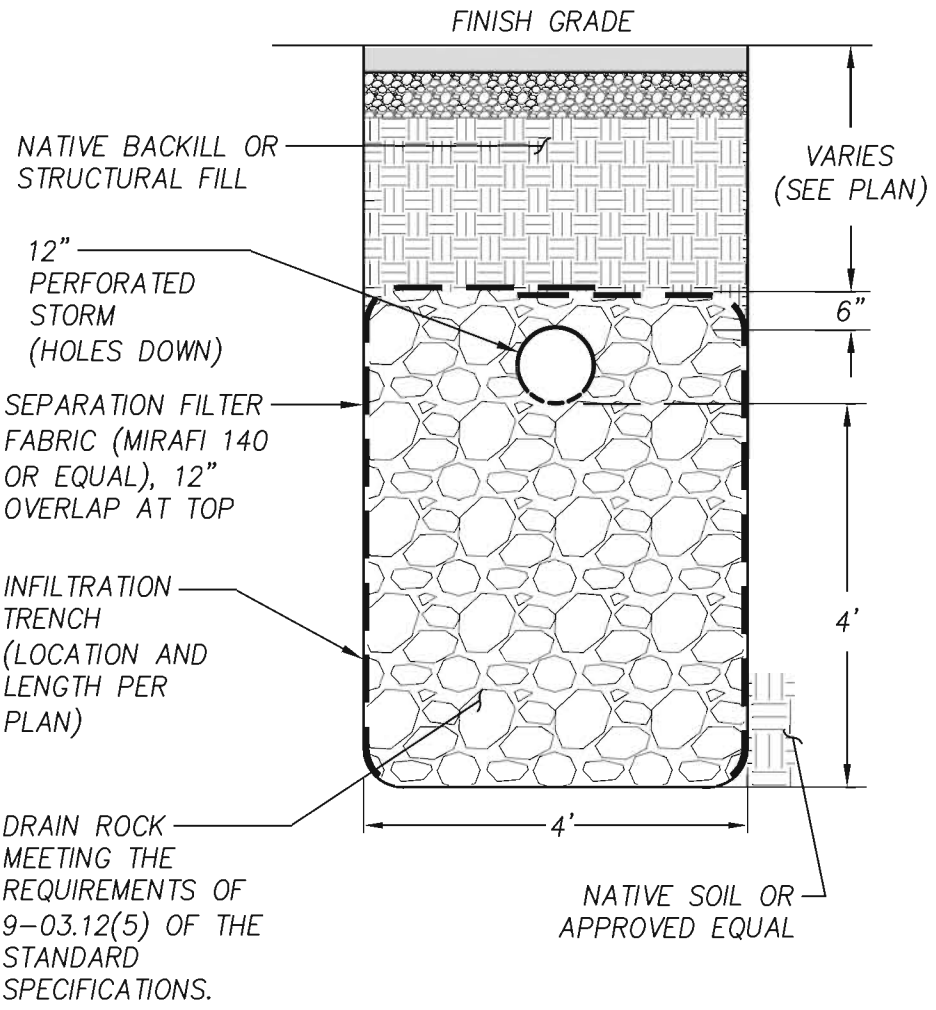
- PRIOR TO PLACEMENT OF THE BSM, THE FINISHED SUBGRADE SHALL:
- BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES.
  - HAVE ANY SEDIMENT DEPOSITED FROM CONSTRUCTION RUNOFF REMOVED. TO REMOVE ALL INTRODUCED SEDIMENT, SUBGRADE SOIL SHOULD BE REMOVED TO A DEPTH OF 3-6 INCHES AND REPLACED WITH BSM.
  - BE INSPECTED BY THE RESPONSIBLE ENGINEER TO VERIFY REQUIRED SUBGRADE CONDITIONS.
  - EXPOSED SIDEWALLS OF THE COMPLETED BIORETENTION AREA WITH BSM IN PLACE SHOULD BE NO STEEPER THAN 3H:1V. THE BOTTOM OF THE FACILITY SHOULD BE FLAT.

THE SOIL MIXTURE SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 6 INCHES PER LIFT FOR THE ENTIRE AREA OF THE BIORETENTIUN FACILITY.

COMPACT THE BIORETENTION SOIL MIX TO A RELATIVE COMPACTION OF 85 PERCENT OF MODIFIED MAXIMUM DRY DENSITY (ASTM D 1557). COMPACTION CAN BE ACHIEVED BY BOOT PACKING (SIMPLY WALKING OVER ALL AREAS OF EACH LIFT), AND THEN APPLY 0.2 INCHES (0.5 CM) OF WATER PER 1 INCH (2.5 CM) OF BIORETENTION SOIL MIX DEPTH. WATER FOR SETTLING SHOULD BE APPLIED BY SRAYING OR SPRINKLING.

BIORETENTION FACILITIES SHOULD NOT BE USED AS SEDIMENT CONTROL FACILITIES AND ALL DRAINAGE SHOULD BE DIRECTED AWAY FROM BIORETENTION FACILITIES AFTER INITIAL ROUGH GRADING.

CONSTRUCTION ON BIORETENTION FACILITIES SHOULD NOT BEGIN UNTIL ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED ACCORDING TO EROSION AND SEDIMENT CONTROL BMP'S AND TO THE SATISFACTION OF THE ENGINEER.



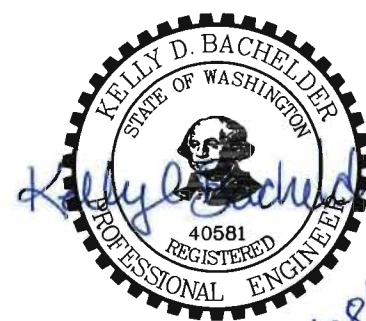
INFILTRATION TRENCH SECTION

N.T.S.



**Harper  
Houf Peterson  
Righellis Inc.**

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KDB

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2018-0029

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VANCOUVER PUBLIC SCHOOLS**  
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VANCOUVER, WA 98661

issue date  
10/15/2019  
BID/PERMIT SET  
revisions

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**SANITARY SEWER  
DETAILS**

**C-708**

**CONSTRUCTION SPECIFICATIONS FOR SANITARY SEWER**

1. ALL MATERIALS AND INSTALLATION OF PUBLIC SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".

2. ALL PUBLIC SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF VANCOUVER'S DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OFFICE (360-487-7750) AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CITY MAY REQUIRE THAT A PRE-CONSTRUCTION CONFERENCE BE HELD.

3. THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MAY CONTACT THE NORTHWEST UTILITY NOTIFICATION CENTER AT 1-800-424-5555 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.

4. FINAL ACCEPTANCE OF PUBLIC SANITARY SEWERS ARE SUBJECT TO SECTIONS 1-05.11, 1-05.12, 7-17.3(2), 7-17.3(2)(f), 7-17.3(2)(g) AND 7-17.3(2)(h) OF THE STANDARD SPECIFICATIONS. TELEVISION INSPECTION SHALL INCLUDE VIDEO OF ALL MANHOLES IN ADDITION TO THE PIPE. THIS MAY BE DONE WITH EITHER A HAND HELD VIDEO CAMERA OR USE OF A PAN AND TILT VIDEO CAMERA. THE CONTRACTOR SHALL GUARANTEE ALL WORK DONE FOR A PERIOD OF TWO (2) YEARS AS PER OF THE CITY OF VANCOUVER GENERAL REQUIREMENTS FOR MUNICIPAL CONSTRUCTION. THE VIDEO SHALL INCLUDE VIDEO OF PIPE SEGMENTS FROM THE NEAREST DOWNSTREAM EXISTING MANHOLE TO THE MANHOLES CONSTRUCTED BY THE PROJECT.

5. LOCAL VARIATIONS IN SLOPE (I.E. "BELLETS") MUST BE NO MORE THAN 1/2 OF AN INCH IN ALL SIZES OF PIPE. VARIATIONS IN EXCESS OF THESE TOLERANCES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.

6. ALL PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING:

7. CONCRETE PIPE, NON-REINFORCED, SHALL CONFORM TO ASTM C 14, CLASS 2, EXCEPT AS OTHERWISE NOTED. CONCRETE PIPE, REINFORCED, SHALL CONFORM TO ASTM C 76, AND SHALL BE OF THE CLASS NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.

8. POLYVINYL CHLORIDE (PVC) SEWER PIPE 15" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. IT SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PSI. PVC PIPE 18" DIAMETER SHALL CONFORM TO ASTM C 678. ALL PVC PIPE SHALL HAVE AN INTEGRAL BELL GASKETED JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12-1/2 FOOT LAYING LENGTHS. HIGH STRENGTH PVC PIPE SHALL CONFORM TO AWWA C900 OR C905.

9. DUCTILE IRON (DI) PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C151, WITH PUSH-ON JOINTS, CLASS 52, UNLESS OTHERWISE NOTED. DUCTILE IRON PIPE WILL ONLY BE ALLOWED WITH EXPLICIT CITY ENGINEERING APPROVAL.

10. INSTALLATION OF PIPE AND MANHOLES SHALL CONFORM TO THE FOLLOWING:

11. CONCRETE PIPE SHALL BE INSTALLED IN CONFORMANCE WITH STANDARD PLANS S-1.1 (CLASS C, UNLESS OTHERWISE NOTED) AND S-1.3.

12. PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL CONFORM TO STANDARD PLANS S-1.2 AND S-1.3.

13. MANHOLES SHALL CONFORM WITH STANDARD PLANS S-2.1 THROUGH S-2.3.

14. MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE DETAILS SHOWN ON THE STANDARD PLANS. ALL OTHER CONSTRUCTION SHALL CONFORM TO THE STANDARD DETAILS CONTAINED IN THE STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

15. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS ISSUED OR EASEMENTS GRANTED TO THE CITY IN CONNECTION WITH THE CONSTRUCTION OF SANITARY SEWERS. THE CONTRACTOR SHALL OBTAIN A STREET CUT PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

16. THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN INSIDE THE CITY CITY PLAN. SHALL BE APPROVED BY THE TRANSPORTATION DIVISION (360-487-7700) AND OUTSIDE THE CITY IT SHALL BE APPROVED BY THE CLATSOP COUNTY TRAFFIC ENGINEER (360-397-2446). VERIFICATION OF APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.

N.T.S.

**DIV 7**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

REV. NO. DATE BY APPROVED  
0 2-2019 BRC SLH

STANDARD PLAN NO. 23

**STANDARD PIPE ZONE MATERIAL (FLEXIBLE PIPE)**

DEPTH OF BEDDING MATERIAL BELOW PIPE

PIPE DIA	DB (MIN)
27" & SMALLER	4"
LARGER THAN 27"	6"

TRENCH WIDTH

PIPE ZONE 95% COMPACTION

6" MIN 9" MAX

SEE TABLE

BEDDING PER 9-03.12(3)

N.T.S.

**S-1.2**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

REV. NO. DATE BY APPROVED  
0 2-2019 BRC SLH

STANDARD PLAN NO. 23

**TYPICAL TRENCH SECTION: BACKFILL, BEDDING & SURFACING**

FINISHED GRADE

SEE NOTE 4

GRANULAR BACKFILL AS DIRECTED 95% COMPACTION (SEE NOTE 3)

5" MIN COVER 1" MIN TOP OF PIPE TO FINISHED GRADE (SEE NOTE 2)

12"

PIPE ZONE (SEE NOTE 1)

TRENCH EXCAVATION (SEE NOTE 5)

N.T.S.

**S-1.3**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

REV. NO. DATE BY APPROVED  
0 2-2019 BRC SLH

STANDARD PLAN NO. 26

**MINIMUM SLOPE LATERAL CONNECTION FOR NEW MAINS**

NOTES

1. SERVICE LATERALS SHALL BE INSTALLED PER SECTION 7-08.3 OF THE STANDARD SPECIFICATIONS.

2. SERVICE LATERALS SHALL BE PLUGGED PER SECTION 7-08.3(2)(f) OF THE STANDARD SPECIFICATIONS.

3. SERVICE LATERALS SHALL BE CLEARLY MARKED PER SECTION 7-18.3(5) OF THE STANDARD SPECIFICATIONS. ALL SERVICE LATERALS SHALL BE A MINIMUM OF 6-INCHES IN DIAMETER.

4. SEE S-1.4C FOR APPROVED COMMERCIAL TAP DETAIL.

5. SERVICE LATERALS CONNECTING TO PVC OR C-900 MAINS SHALL BE THE SAME MATERIAL AS THE MAIN.

6. TRANSITIONS BETWEEN DISSIMILAR PIPE MATERIALS OR SIZES SHALL BE MADE WITH APPROVED ADAPTORS (FERRODO, CAULDER OR EQUAL).

7. IN NEW SUBDIVISIONS AND OTHER CONSTRUCTION INVOLVING NEW ROADS, INSTALL LATERALS UP TO PROPERTY LINE FOR SEWERS IN STREET RIGHT-OF-WAY.

8. LATERALS GREATER THAN 6 FEET DEEP AT THE PROPERTY LINE SHALL BE INSTALLED WITH A RISER TO 6 FEET DEEP AT THE PROPERTY LINE.

9. WYES SHALL BE USED FOR ALL NEW LATERAL MAIN CONNECTIONS.

10. INSTALL 3M #1404XR, OMNIMARKER OR APPROVED EQUAL, SEWER UTILITY MARKER DIRECTLY OVER SERVICE LATERAL PER MANUFACTURER'S INSTRUCTIONS (MAXIMUM DEPTH = 5 FEET).

INSTALL LATERAL P/L TO P/L (SEE NOTE 7)

6" BEHIND CURB OR EDGE OF PAVEMENT

PAVEMENT

SEWER MAIN TRENCH (SEE S-1.3)

OMNI-MARKER SEE NOTE 10

LOCATING 2"x4" W/ WIRE

22.5DEG BEND

1% MIN SLOPE

22.5" MAX

6" LATERAL

PIPE CAP

PROFILE VIEW

PLAN VIEW

6" BEHIND CURB OR EDGE OF PAVEMENT

SEWER MAIN

APPROVED WYE (SEE NOTE 9)

OMNI-MARKER SEE NOTE 10

22.5DEG BEND

6" LATERAL

LOCATING 2"x4" W/ WIRE

P/L

N.T.S.

**S-1.4B**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

REV. NO. DATE BY APPROVED  
0 2-2019 BRC SLH

SHEET: 2 OF 4 28

**SADDLE TAPPING TEE DETAIL**

MAKE CLEAN CUT ON EXISTING LATERAL FOR BEST FIT OF COUPLER

SHEER-BAND STRONG BACK SERIES COUPLER AS REQ'D FOR CONNECTIONS TO EXISTING LATERALS (FERRODO OR APPROVED EQUAL)

SEE NOTE 4

PIPE BEDDING PER STANDARD PLAN S-1.2 DETAIL FOR PVC PIPE

4" OR 6" DIA PVC/C900 PIPE LENGTH AS REQ'D

HEAVY DUTY SS HOSE CLAMP (SUPPLIED WITH SADDLE)

SEE NOTES 1-3

GRAVITY SEWER MAIN (SEE NOTE 6)

2.0% MIN SLOPE

SEE NOTE 5

PIPE ZONE BEDDING

TRENCH WALL

N.T.S.

**S-1.4C**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

REV. NO. DATE BY APPROVED  
1 10-2017 BRC SLH  
2 2-2019 BRC SLH

SHEET: 3 OF 4 29

**STANDARD PRECAST MANHOLE**

STD FRAME & COVER (SEE S-2.2A)

ADJUST W/ GRADE RINGS PER SECTION 7-05.3(1) EACH JOINT MUST BE SEALED W/ EXTERNAL SEALANT (MUST BE GROUDED BETWEEN EACH RING) POLYETHYLENE RINGS MUST BE APPROVED BY THE CITY

12" MAX

25"

28" MAX

STD MANHOLE CONE SECTION 30" MIN 36" MAX (SEE NOTES 7&12)

12" MIN 16" MAX

MANHOLE STEPS (SEE 2.3)

48" MIN (SEE NOTE 13)

5" MIN

30" MAX

12" SLOPE

8" MIN

6" MIN

BEDDING PER SECTION 9-03.12(3)

PLAN VIEW

PROF. VIEW

NOTES

1. ALL PRECAST MANHOLE RINGS AND CONES SHALL CONFORM TO ASTM C-478 WITH CAST IN STEPS (SEE DETAIL S-2.3).

2. IN OVER EXCAVATED AREAS, PROVIDE SUPPORT FOR THE PIPE AS FOLLOWS: PLACE 3/4" MINUS CRUSHED ROCK OVER UNDISTURBED GROUND IN 6" LAYERS AND COMPACT USING HAND TAMPER.

3. BASE CONCRETE SHALL BE 3000 P.S.I., 2-4 IN. SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE TROWELED SMOOTH & UNIFORM AT TIME OF POUR. CHANNELS SHALL CONFORM ACCURATELY TO SLOPE GRADE. INSTALL REINFOR TO ELEVATION OF SPRINKLING OF PIPE.

4. PRE-CAST DOGHOUSE MANHOLES MAY BE SUBSTITUTED WITH SPECIFIC APPROVAL OF THE ENGINEER (SEE DETAIL S-2.1C).

5. JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATER-TIGHT (SEE DETAIL S-2.9).

6. SEAL ALL MANHOLE JOINTS AND FRAME WITH INFI-SHIELD "SEAL WRAP" EXTERIOR SEAL SYSTEM OR EQUAL.

7. MANHOLES UNDER 6'-0" IN DEPTH FROM RIM TO BENCH SHALL HAVE A TOP SLAB IN LIEU OF CONE (SEE DETAIL S-2.1B).

8. VACUUM TESTING OF MANHOLES WILL BE REQUIRED.

9. LOCKING MANHOLE LIDS ARE REQUIRED IN EASEMENTS, UNIMPROVED AREAS OR AT THE DISCRETION OF THE CITY INSPECTOR (SEE DETAIL S-2.2B).

10. SEE DETAIL S-3.4 FOR PRESSURE SEWER DISCHARGES INTO MANHOLES.

11. GROUT SHALL BE ALL-CRETE 30 OR CITY-APPROVED EQUAL.

12. ALL NEW MANHOLES SHALL BE CAST W/ CON-SHIELD MKX PRIOR TO MANHOLE BEING INSTALLED. SEE SECTION 3-3.03 OF THE SEWER STANDARD SPECIFICATIONS.

13. 60" MANHOLES REQUIRED FOR DROP CONNECTIONS (SEE DETAIL S-2.7).

14. 0.2 FT MIN DROP THROUGH MANHOLES UNLESS OTHERWISE APPROVED.

N.T.S.

**S-2.1A**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

REV. NO. DATE BY APPROVED  
0 2-2019 BRC SLH

SHEET: 1 OF 4 33

**STANDARD MANHOLE LID AND FRAME**

NOTES

1. STANDARD MANHOLE LID TO BE USED IN ALL PAVED PUBLIC RIGHT OF WAY AREAS.

24.75" (629mm)

0.785" (22mm)

7.75" (197mm)

20.5" (521mm)

2.875" (73mm)

SECTION A-A

SECTION B-B

27" (686mm)

25" (635mm)

24.5" (622mm)

6" (152mm)

3" (76mm)

0.5" (12.7mm)

75" (19mm) DIA THRU HOLES AS SHOWN (2 PLC'S)

1.25" (32mm) RAISED LETTERING IMPACT FONT (RECESSED FLUSH)

TOOLING NOTCH REQUIRED

STANDARD MANHOLE LID PLAN VIEW

SUBURBAN MANHOLE FRAME PLAN VIEW

N.T.S.

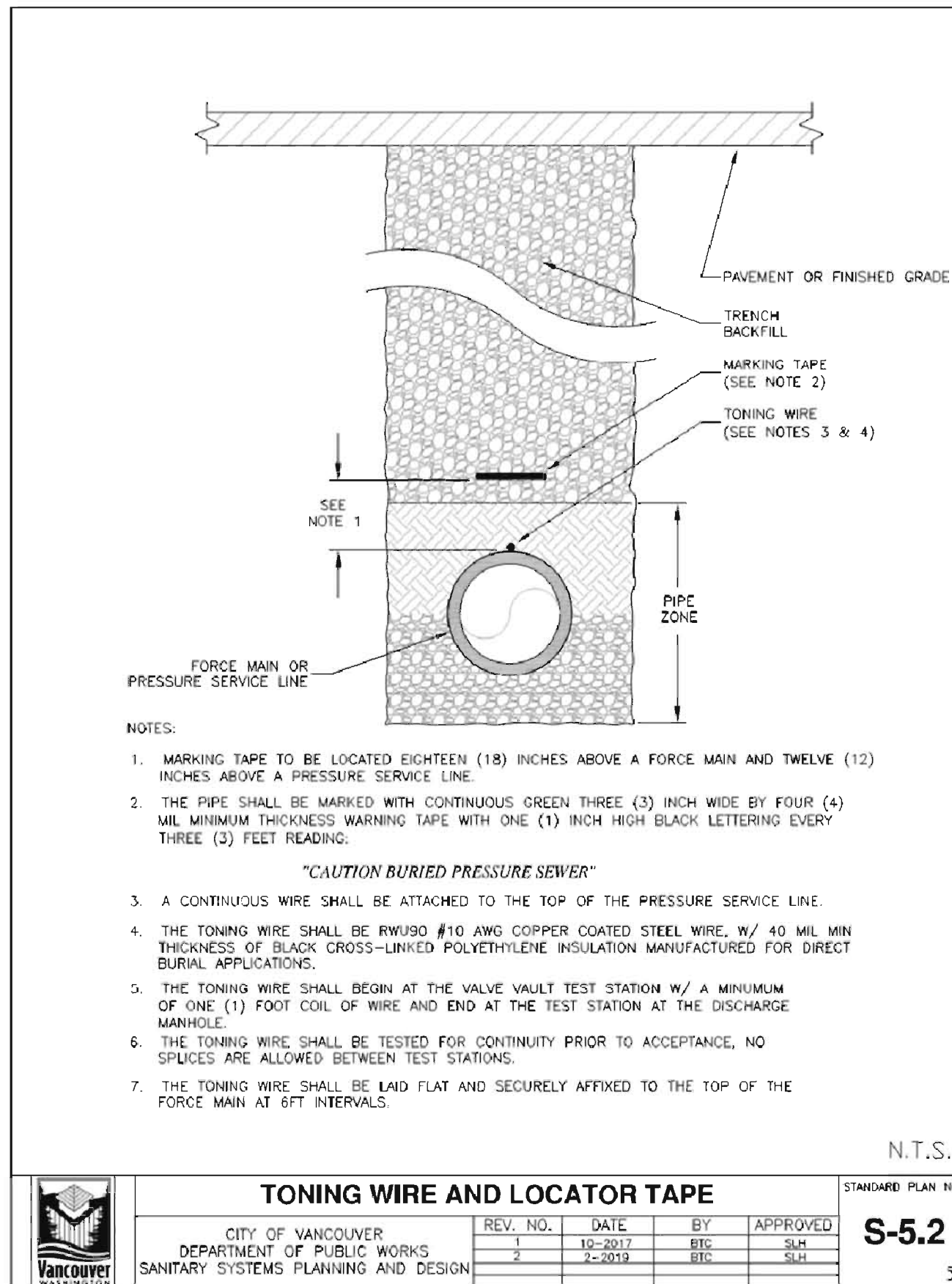
**S-2.2A**

CITY OF VANCOUVER  
DEPARTMENT OF PUBLIC WORKS  
SANITARY SYSTEMS PLANNING AND DESIGN

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SHEET: 1 OF 4 37









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KDB

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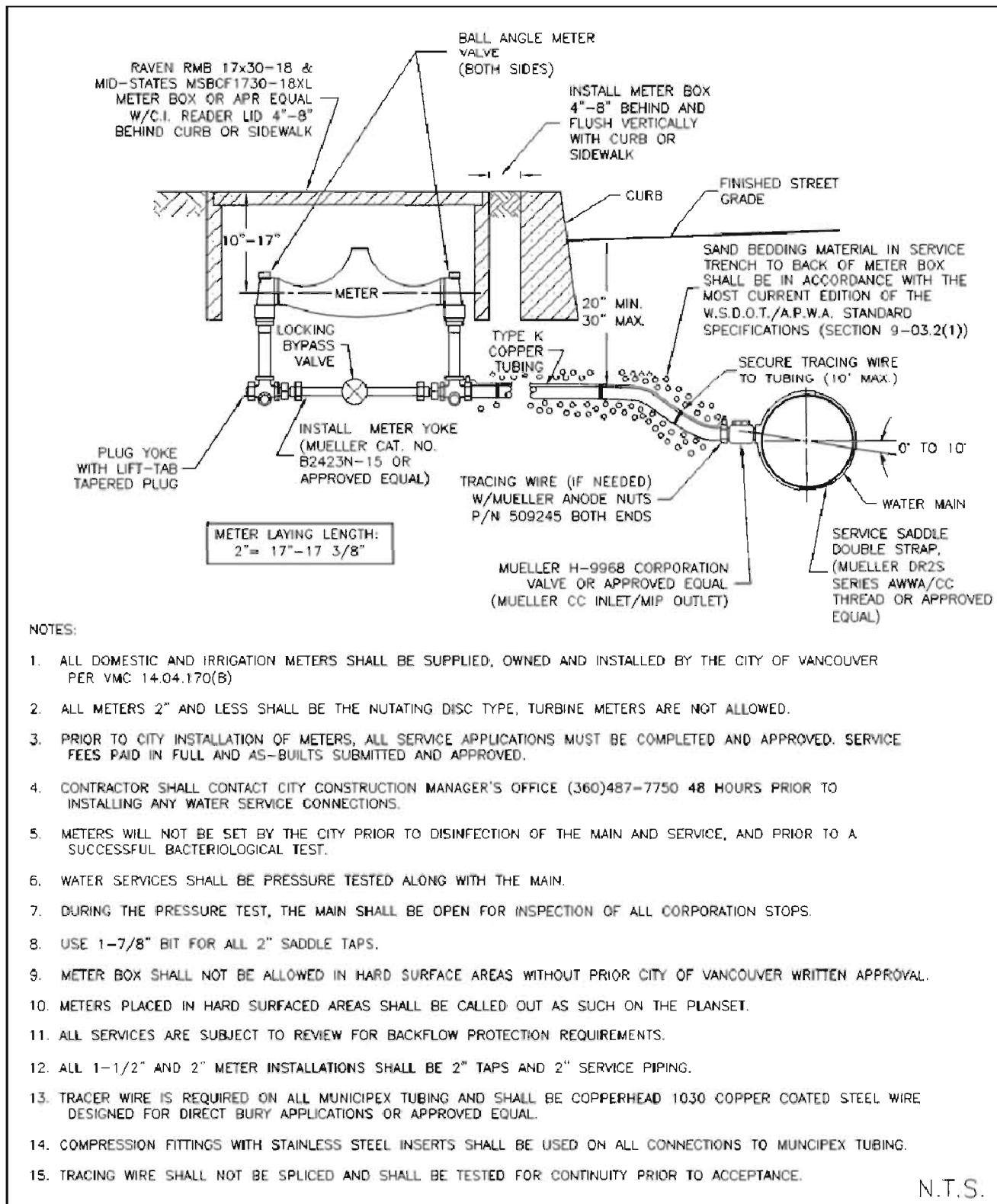
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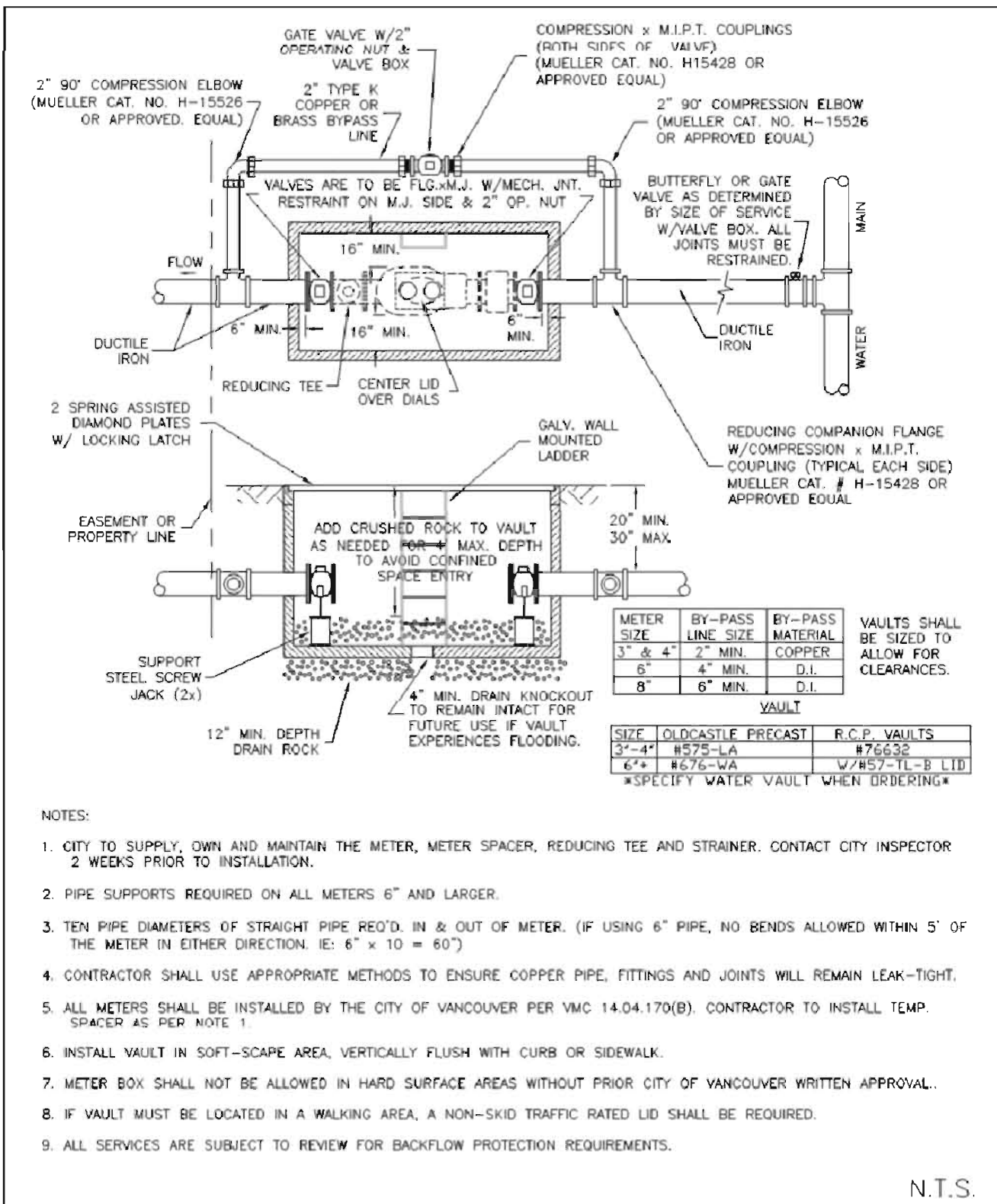
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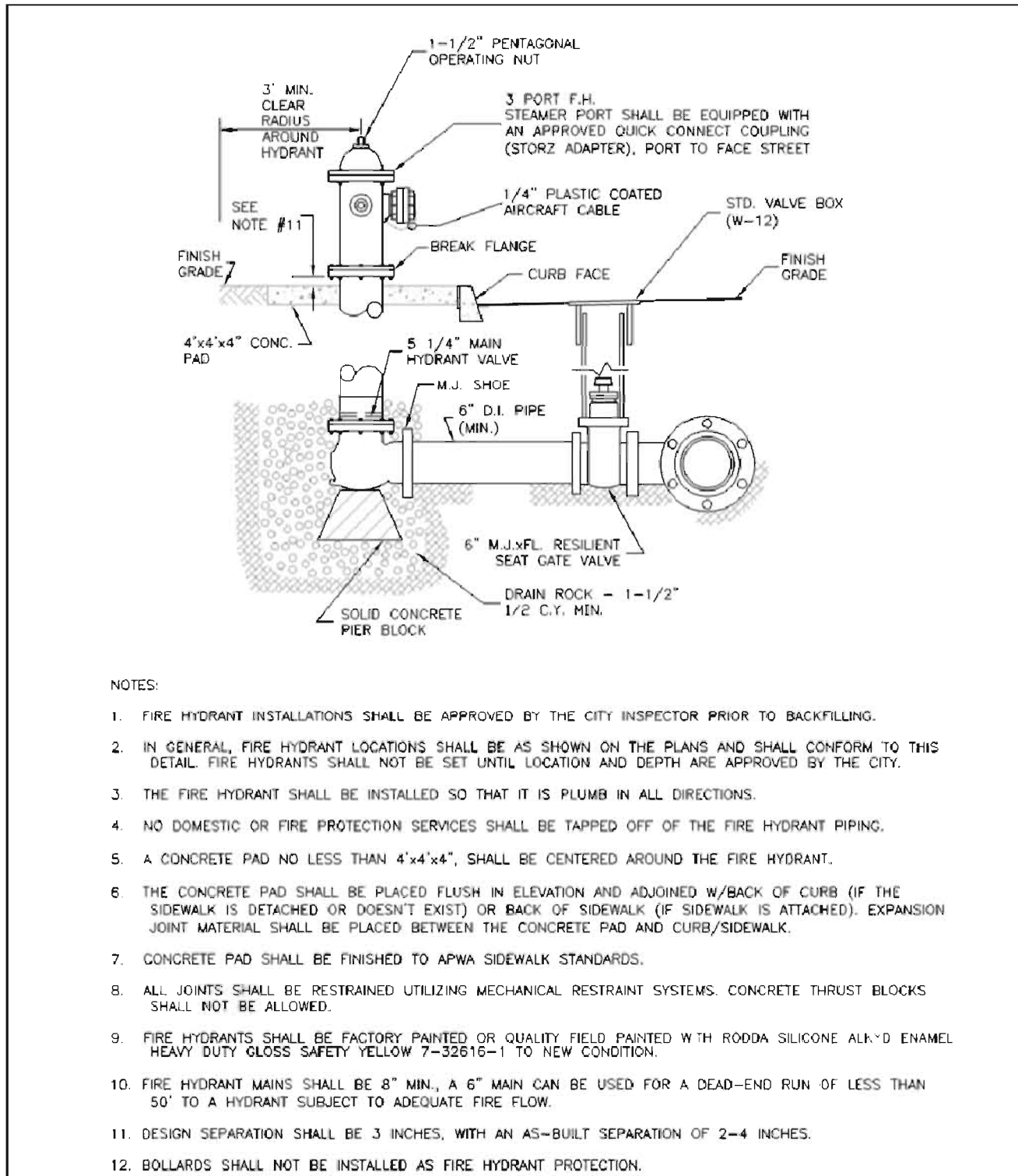
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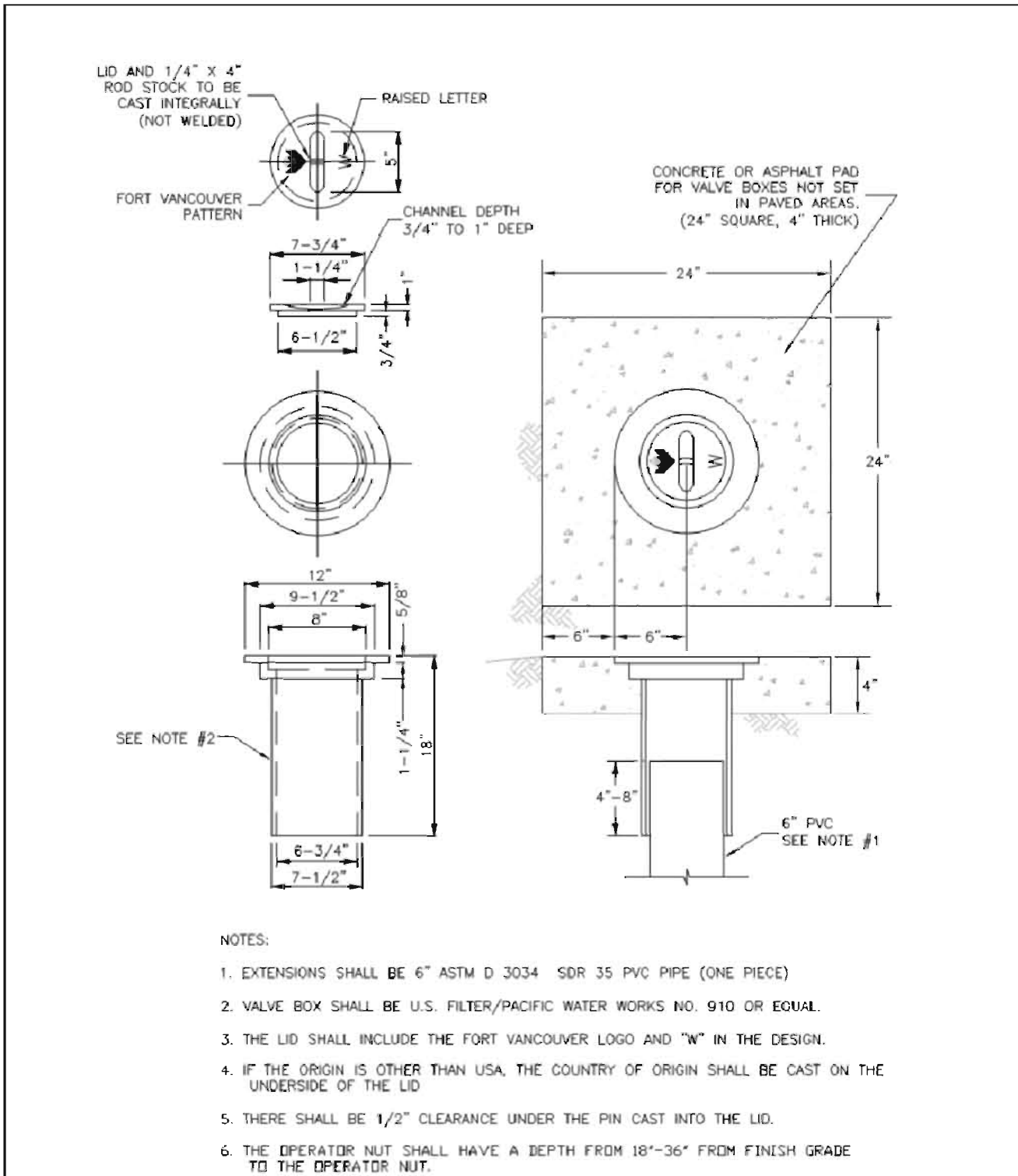
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4	01/19	G.P.H.	T.W.C.



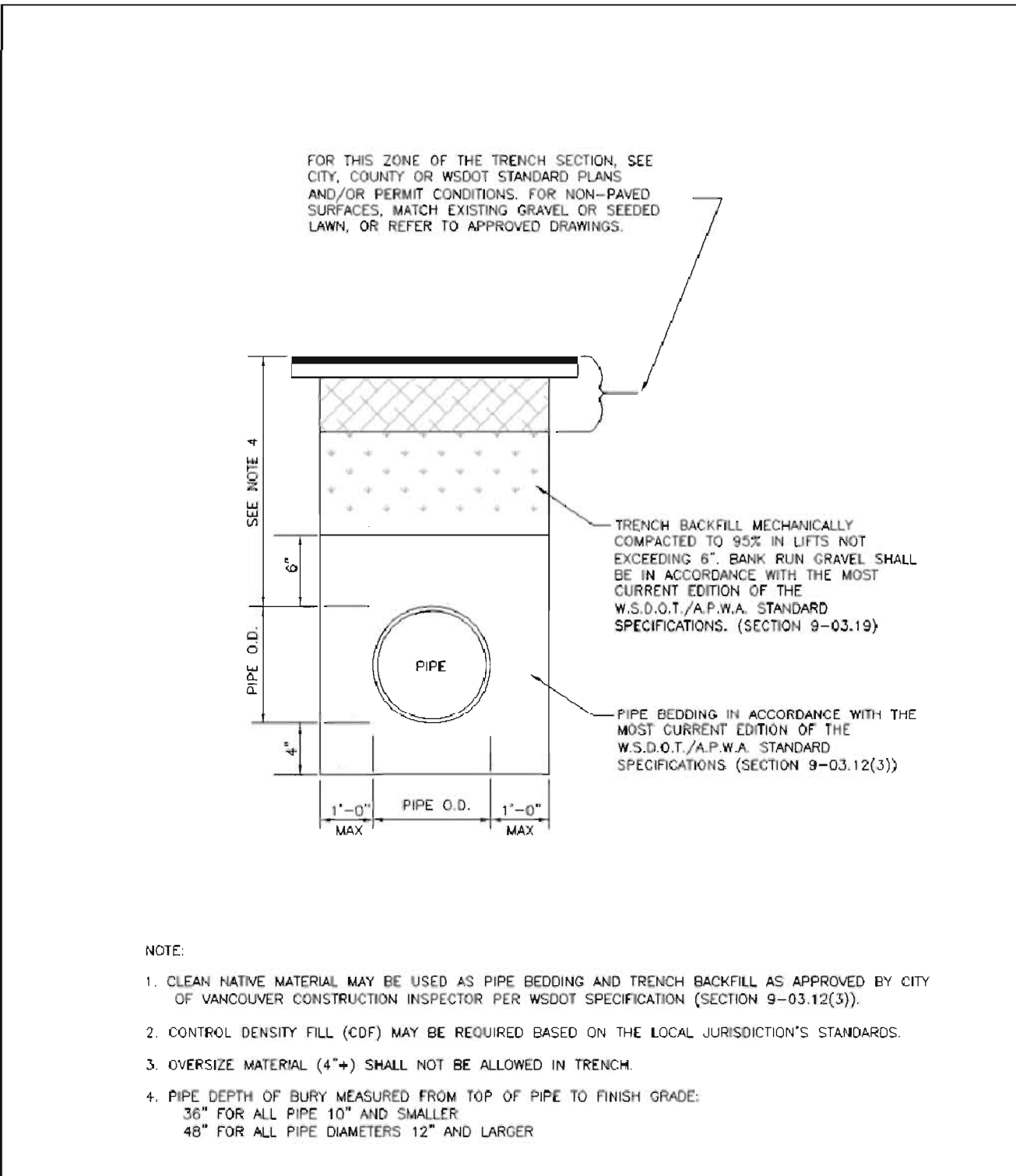
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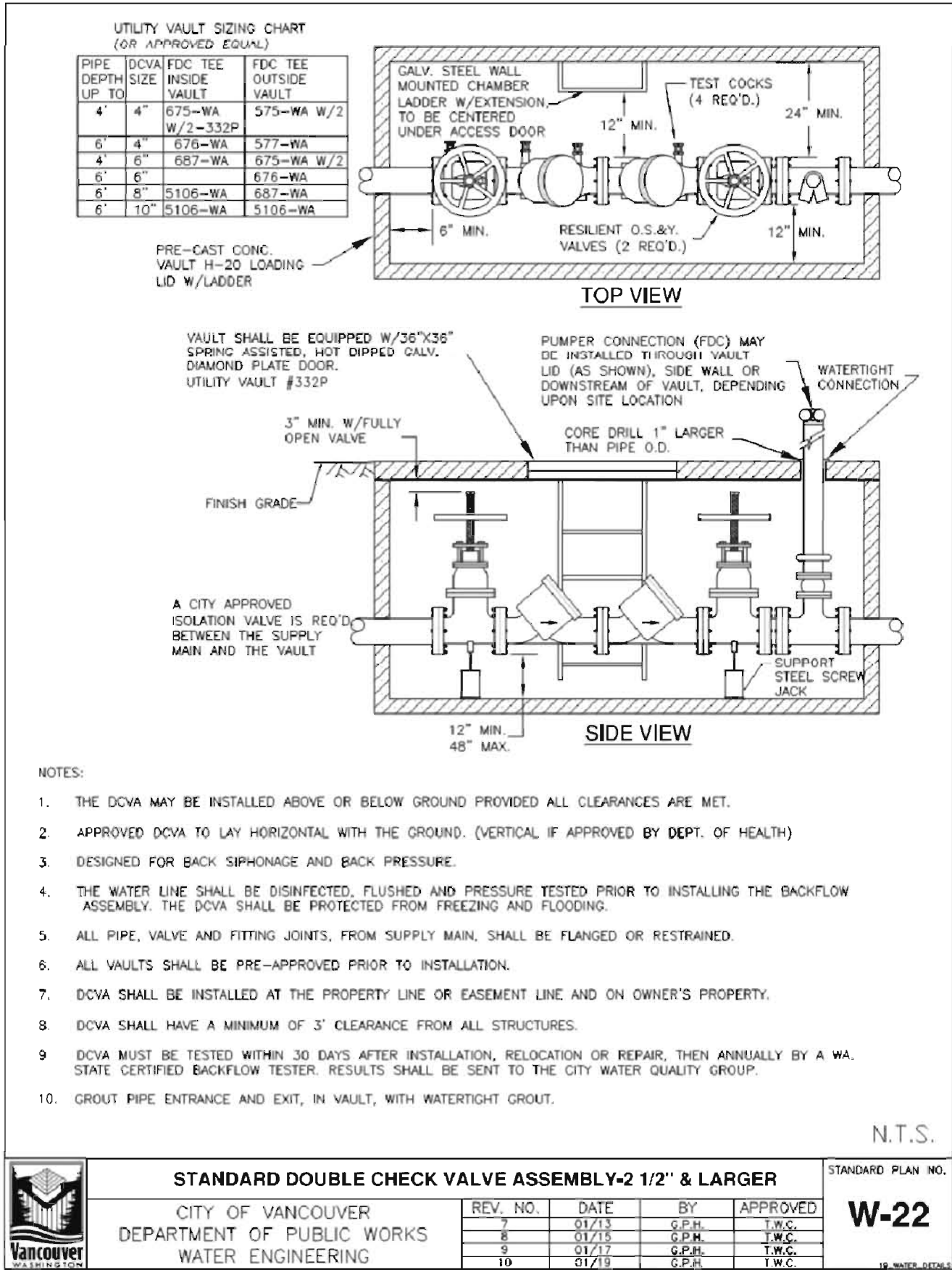
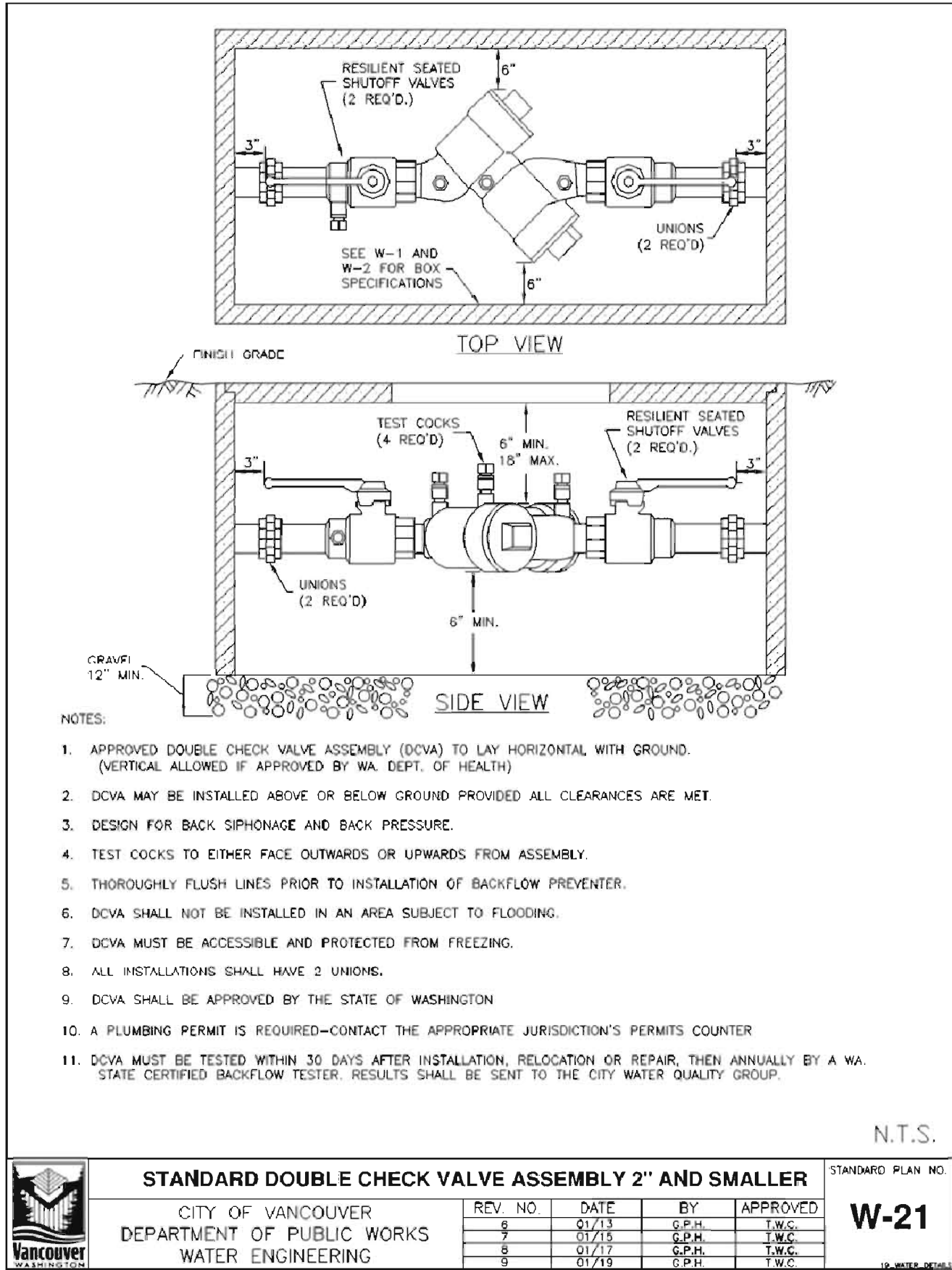


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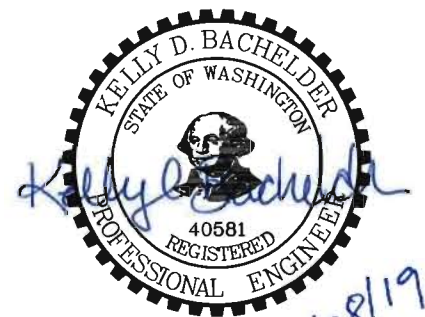
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checked by  
KDB

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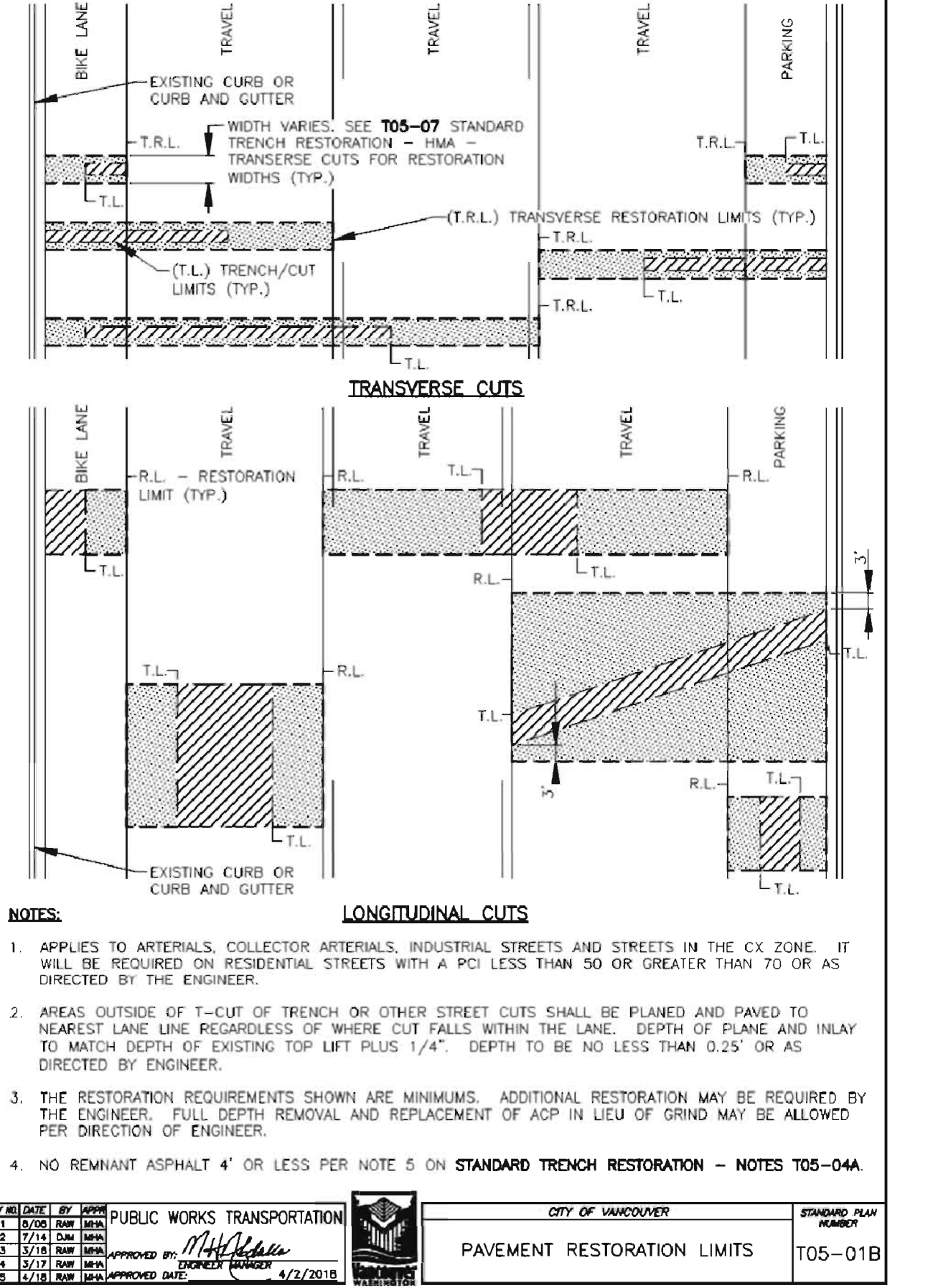
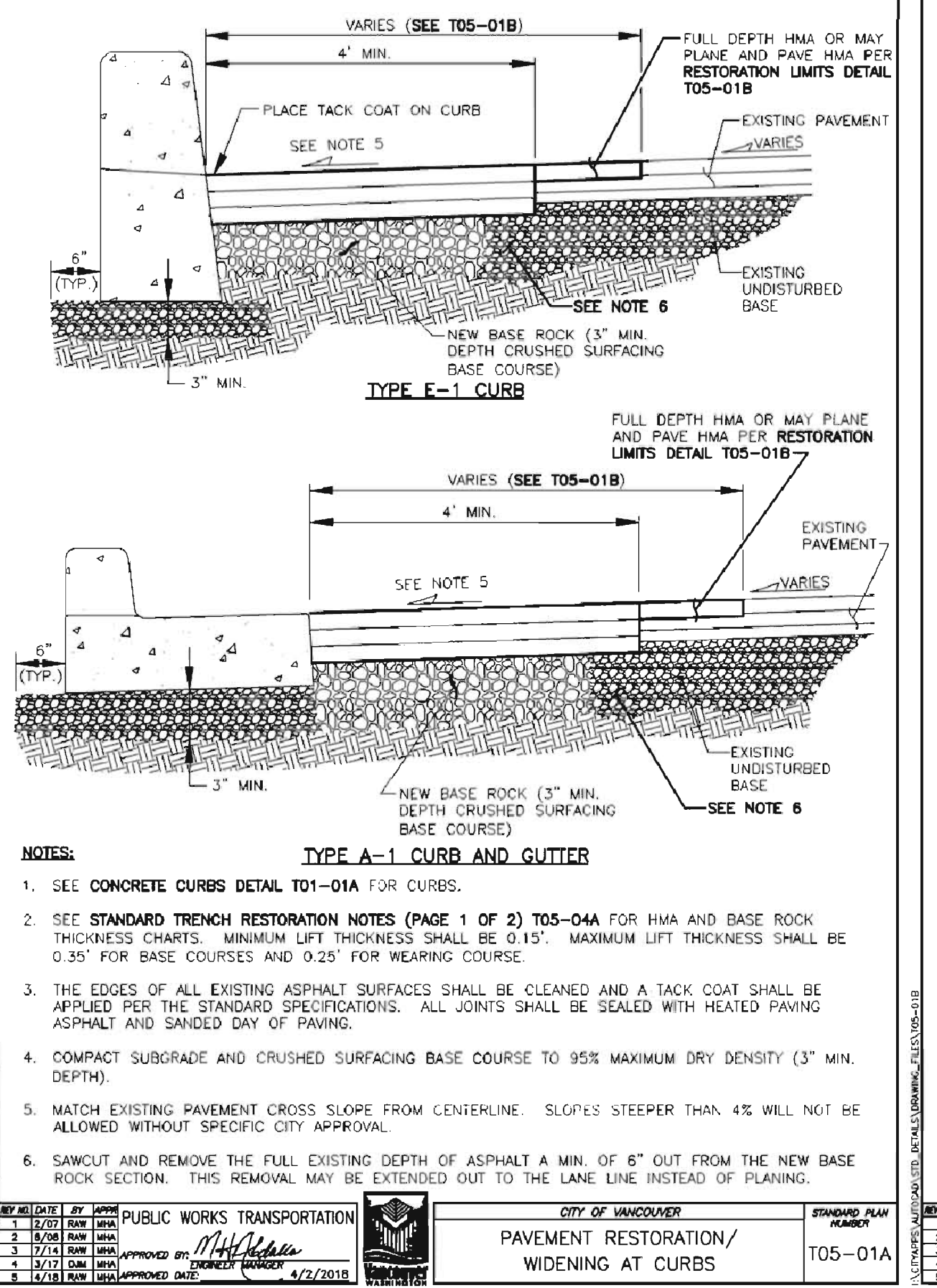
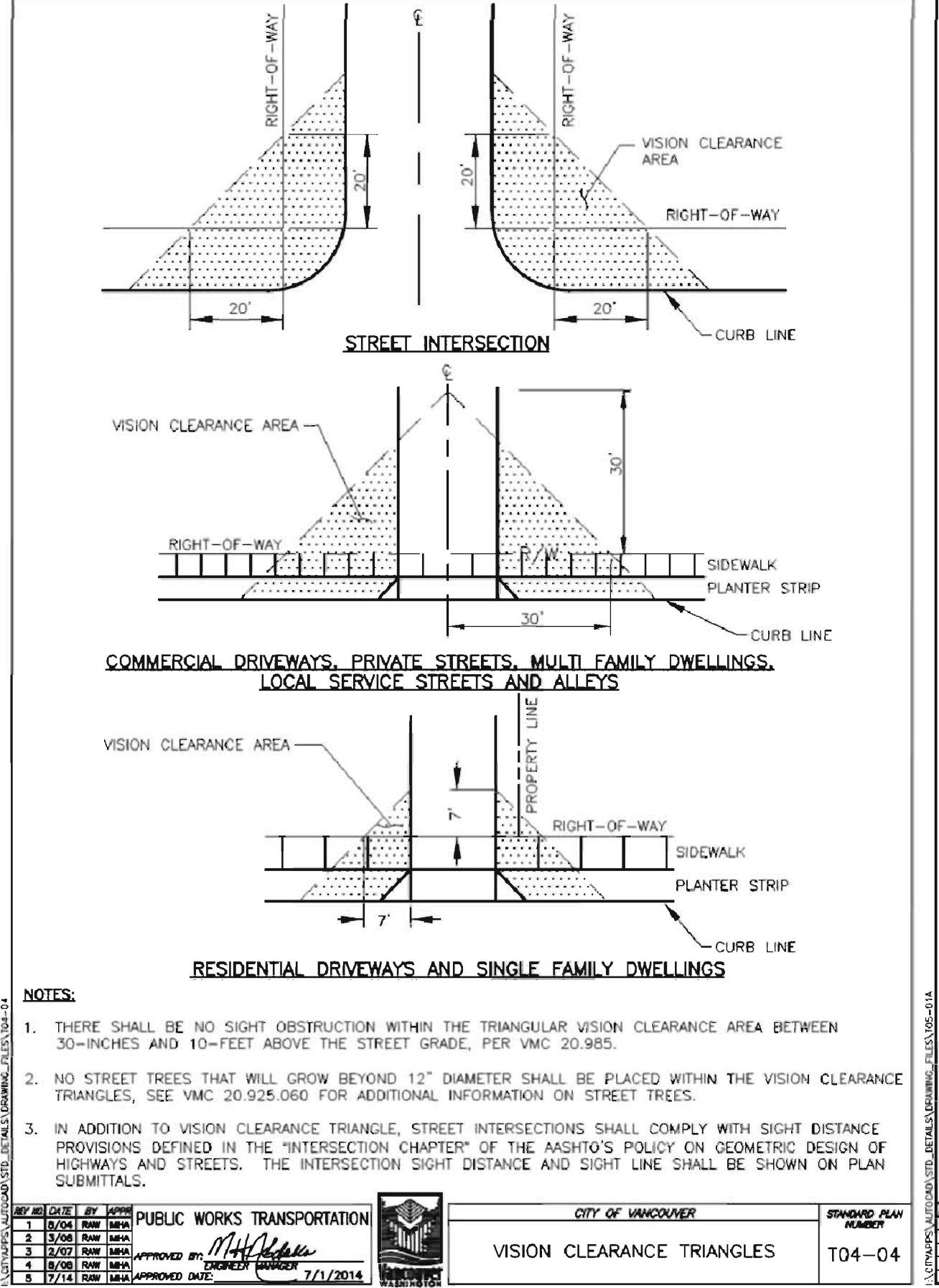
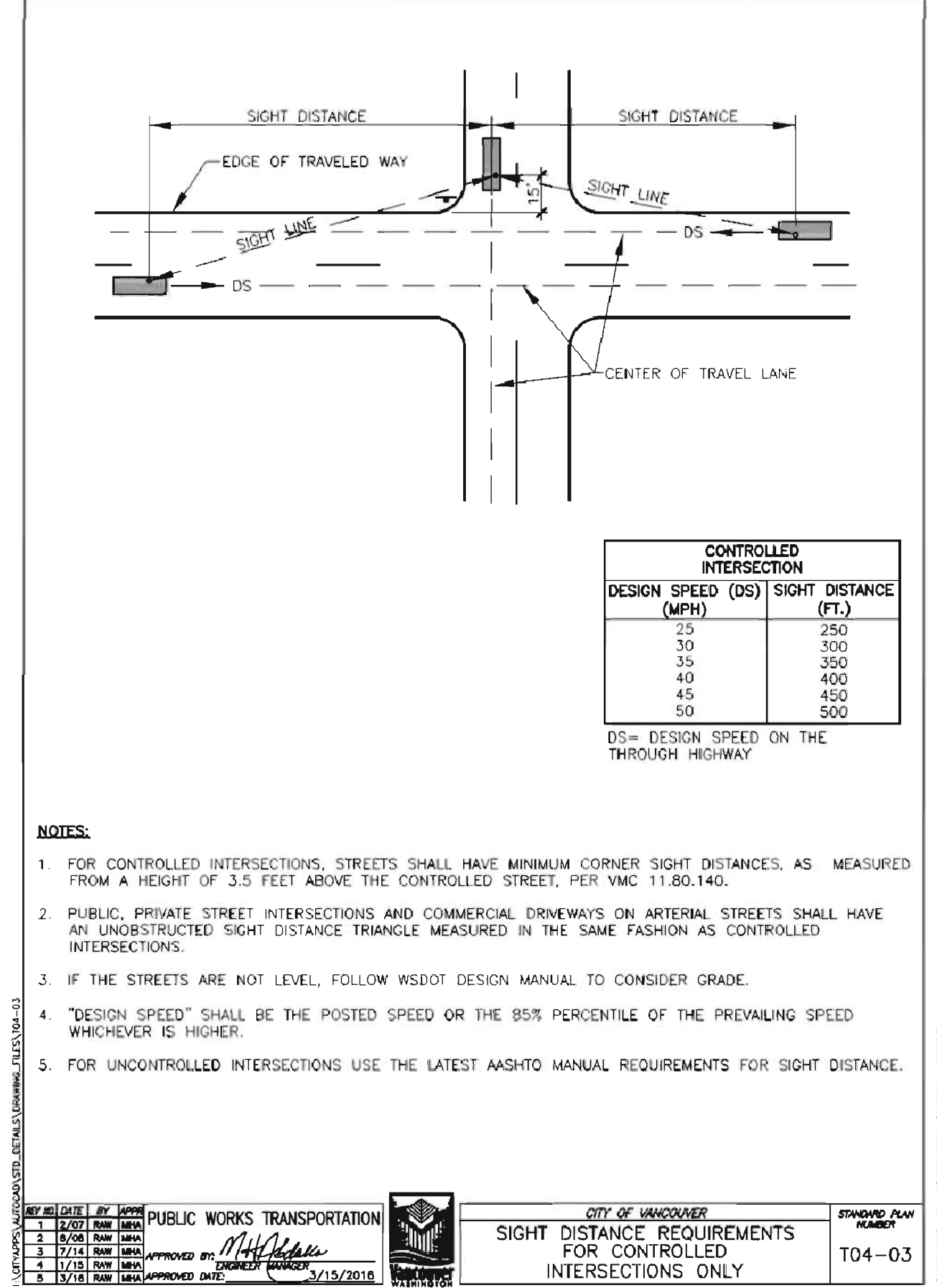
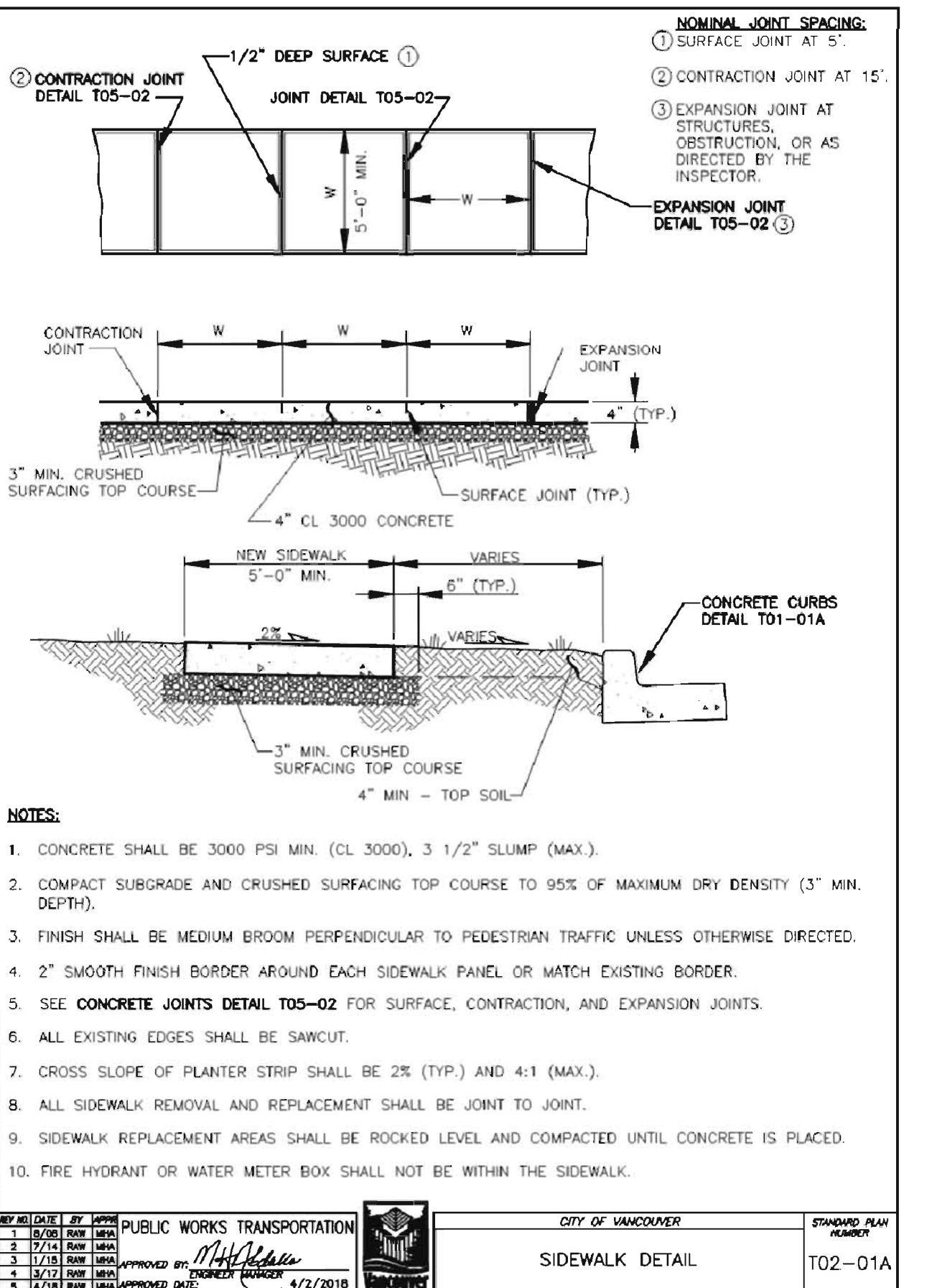
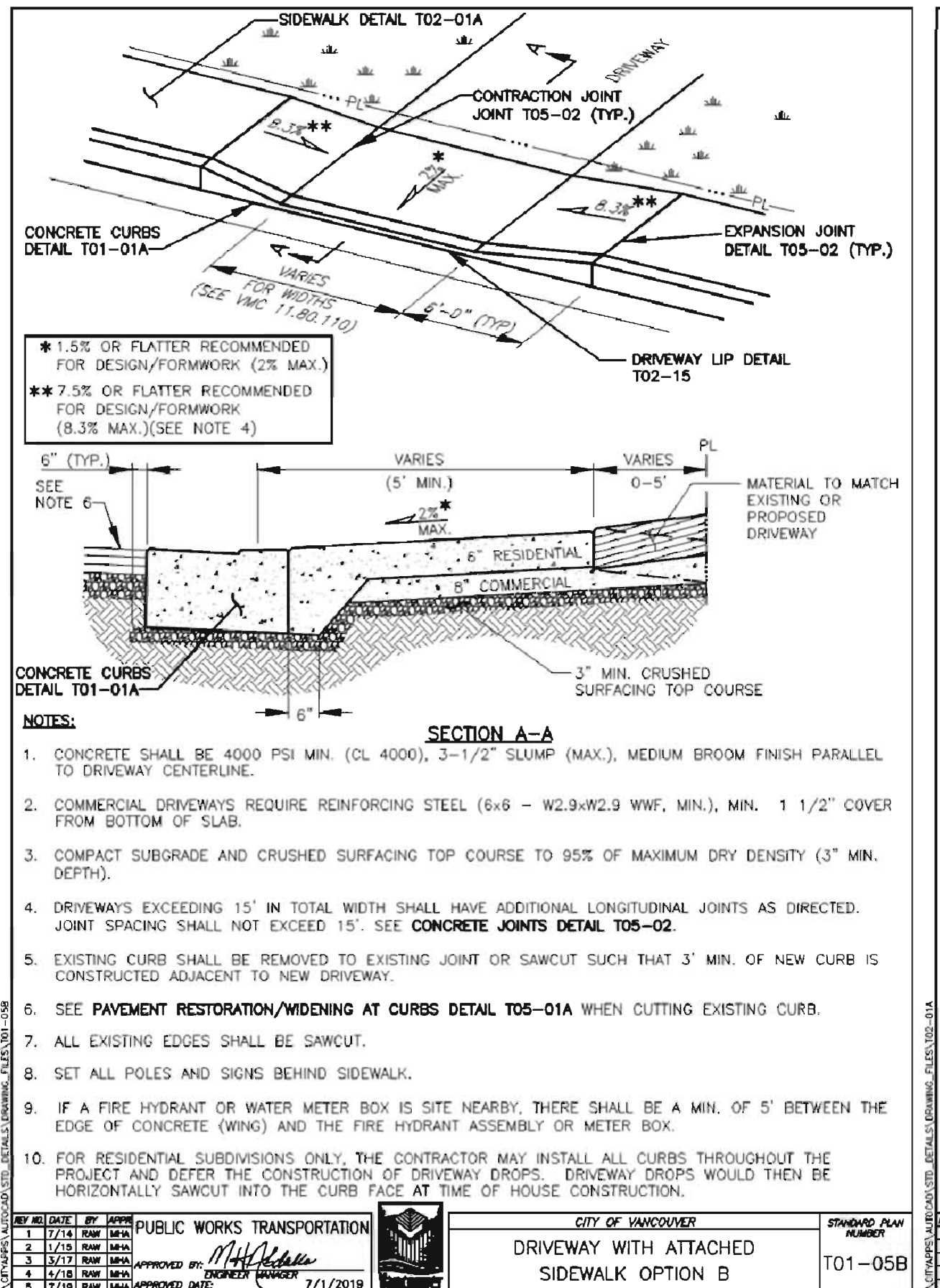
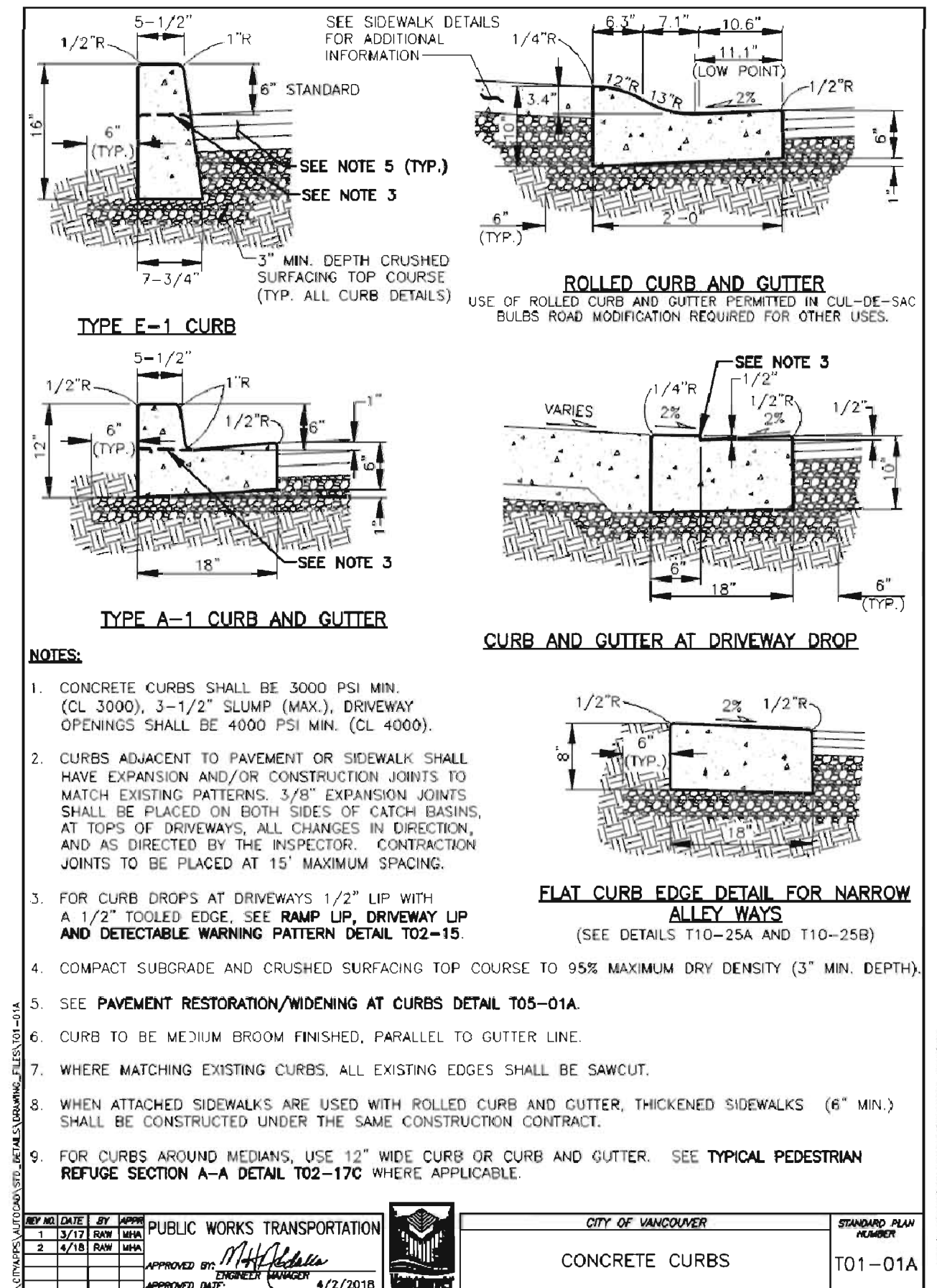
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lsw job number  
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**FIR GROVE CHILDRN'S CENTER  
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**STREET  
IMPROVEMENT  
DETAILS**

**C-713**

**GENERAL NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, EXCEPT WHERE OTHERWISE NOTED IN THESE STANDARDS. MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT). REFERENCE TO ENGINEER IN SPECIFICATIONS IS DEFINED AS CITY OF VANCOUVER ENGINEER.
- A FORTY-EIGHT (48) HOUR MINIMUM NOTICE SHALL BE GIVEN TO THE ENGINEER PRIOR TO PAVING UNLESS A LESSER TIME IS APPROVED BY THE ENGINEER.
- AN ALTERNATE PEDESTRIAN ACCESSIBLE ROUTE OF TRAVEL IS REQUIRED WHEN AN EXISTING ACCESSIBLE ROUTE IS BLOCKED DURING CONSTRUCTION. THE ALTERNATE ACCESSIBLE ROUTE SHALL MEET MIN. ACCESSIBLE STANDARDS AS SET FORTH IN THE LATEST VERSION OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) MANUAL.
- TRENCH BACKFILL AND RESURFACING SHALL BE AS SHOWN IN THE STANDARD DETAILS, UNLESS MODIFIED BY THE RIGHT OF WAY USE PERMIT OR FRANCHISE - UTILITY STREET/RIGHT OF WAY PERMIT. SURFACING DEPTHS AND PAYING LIMITS SHOWN IN THE STANDARD DETAILS ARE MINIMUMS AND MAY BE INCREASED BY THE ENGINEER TO MEET TRAFFIC LOADINGS OR SITE CONDITIONS.

STREET SECTIONS FOR AASHTO SOIL TYPES A1-A5 - ALL OTHER SOIL TYPES SEE STREET SECTION DETAIL FOR STREET CLASSIFICATION		
CLASSIFICATION	ASPHALT THICKNESS	BASE ROCK THICKNESS
PRINCIPAL ARTERIALS	0.85	0.85
MINOR ARTERIALS/3 LANE COLLECTOR ARTERIALS	0.75	0.85
COLLECTOR ARTERIALS	0.60	0.65
PRIMARY INDUSTRIAL 5 LANE	0.85	0.85
PRIMARY INDUSTRIAL 3 LANE	0.80	0.85
SECONDARY INDUSTRIAL 3 LANE	0.70	0.85
LOCAL INDUSTRIAL 2 LANE	0.65	0.75
NEIGHBORHOOD CIRCULATOR, LOCAL ACCESS (NON-RESIDENTIAL)	0.40	0.85
LOCAL ACCESS (RESIDENTIAL), LOOP/CUL-DE-SAC, PUBLIC ALLEY, PRIVATE STREET >4 DWELLINGS, APPROVED NARROW LOT STREET/ALLEY	0.40	0.75
PRIVATE STREET 1-4 DWELLINGS (NO CURBS) AND PRIVATE ALLEY	0.25	0.85

ON ALL STREETS WHERE 4 FEET OR LESS OF PAVEMENT REMAINS BETWEEN THE OUTSIDE OF A LONGITUDINAL TRENCH AND THE EDGE OF PAVEMENT OR THE CURB, THE PAVEMENT MUST BE REMOVED AND THE FULL DEPTH RESTORATION MUST BE FROM THE CUT NEAREST THE ROADWAY CENTER LINE TO THE CURB OR EDGE OF PAVEMENT. WHEREVER THERE IS ANY PART OF AN EXISTING PATCH WITHIN 5 FEET OF THE NEW CUT, THE OLD PATCH WILL BE INCORPORATED INTO THE NEW PAVEMENT RESTORATION. THE INCORPORATION MAY BE PART OF THE FULL DEPTH RESTORATION OR A PLANE AND ACP INLAY AS DEMONSTRATED IN THE CITY STANDARD PLANS FOR PAVEMENT RESTORATION LIMITS T05-01B AND STANDARD TRENCH RESTORATION - HMA - TRANSVERSE CUTS T05-07. RESTORATION BEYOND MINIMUM STANDARDS MAY BE REQUESTED ON STREETS WITH A PCI RATING LESS THAN 50 OR GREATER THAN 70, REGARDLESS OF AGE OF FUNCTIONAL CLASSIFICATION. VMC 11.80.100 (D)(2)(6) AND (7).

THE ENGINEER MAY REQUIRE MATERIALS COMPACTION AND MOISTURE TESTING. TESTING SHALL BE PERFORMED BY A LAB PRE-APPROVED BY THE CITY'S CONSTRUCTION DIVISION WITH THE RESULTS BEING SUPPLIED TO THE ENGINEER. THE TESTING IS NOT INTENDED TO RELIEVE THE CONTRACTOR FROM ANY LIABILITY FOR THE TRENCH RESTORATION. IT IS INTENDED TO SHOW THE INSPECTOR AND THE CITY THAT THE RESTORATION MEETS THIS SPECIFICATION.

NUMBER OF TESTS REQUIRED:

- UNDER 50 SQ. FT. = ONE (1) (ONE TEST FOR 7 DAYS)
- 50 TO 100 SQ. FT. = TWO (2) (ONE TEST FOR 14 DAYS)
- 100 TO 300 SQ. FT. = THREE (3) (ONE TEST FOR 28 DAYS)
- OVER 300 SQ. FT. = ONE (1) TEST EVERY 200 SQ. FT. OR EVERY 100 LINEAR FEET OF TRENCH, IF APPLICABLE.

REV	DATE	BY	APPN	PUBLIC WORKS TRANSPORTATION	CITY OF VANCOUVER	STANDARD PLAN NUMBER
1	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04A
2	7/1/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04A
3	4/18/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04A
4	7/1/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04A

**GENERAL NOTES (CONTINUED):**

- WHEN TRENCHING WITHIN THE UNIMPROVED RIGHT OF WAY, THE RIGHT OF WAY SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION. TRENCHES SHALL BE BACKFILLED AND COMPACTED PER THE TRENCH RESTORATION DETAILS, MATCHING THE EXISTING SURFACE.
- ALL CUTS IN PAVED ROADS AND SHOULDERS MUST BE PERMANENTLY PATCHED IMMEDIATELY UP COMPLETION OF THE BACKFILL WORK. IN CASES OF INCLEMENT WEATHER, THE PERMANENT PATCHING MAY BE DELAYED FOR UP TO 5 DAYS AS LONG AS STEEL PLATES OR HARD SURFACE TEMPORARY PAVING ARE USED, WITH ENGINEER APPROVAL. USE OF STEEL PLATES REQUIRES BEDDING AND FINISHING. IF THE WORK REQUIRES MORE THAN 1 DAY TO ACCOMPLISH, THE PORTION OF THE WORK THAT HAS BEEN COMPLETED EACH DAY MAY BE PATCHED WITH A TEMPORARY PATCH. AT THE COMPLETION OF THE WORK, ALL TEMPORARY PATCHES SHALL BE REMOVED AND THE ENTIRE AREA PERMANENTLY PATCHED. IF A GRIND AND INLAY OR OVERLAY IS REQUIRED AS PART OF THE RESTORATION, THE INLAY OR OVERLAY SHALL BE ACCOMPLISHED WITHIN 10 WORKING DAYS OF THE PERMANENT PATCHING.
- ALL JOINTS SHALL BE SAND SEALED USING HEATED PAVING ASPHALT AND SANDED SAME DAY AS PAVING. VMC 11.80.100 (D)(8).
- WHENEVER A NEW STREET IS ACCEPTED FROM A DEVELOPER, CONSTRUCTED OR RECONSTRUCTED BY THE CITY OR A NEW SURFACE TREATMENT IS COMPLETED, A FIVE (5) YEAR STREET CUT PROHIBITION GOES INTO EFFECT. THIS WILL RESULT IN DELAYING FURTHER CONSTRUCTION WITHIN THE PAVEMENT SECTION EXCEPT IN THE EVENT OF COMPELLING CIRCUMSTANCES. VMC 11.80.100 (B).
- CONTROL DENSITY FILL WILL BE REQUIRED WHEN STREET CUTS ARE IN ARTERIALS, COLLECTORS, INDUSTRIAL STREETS, STREETS LOCATED IN CX ZONING, CDF MAY BE REQUIRED ON OTHER STREETS WITH A PCI GREATER THAN 70. VMC 11.80.100 (C)(2)(a) AND VMC 11.80.100 (C2).
- ALL TRAFFIC SIGNAL INTERCONNECT CONDUITS AND CABLES (COPPER OR FIBER OPTIC) SHALL BE PROTECTED DURING CONSTRUCTION ACTIVITIES. DUE TO THE IMPORTANCE OF MAINTAINING THESE COMMUNICATIONS, ANY DAMAGE TO THESE CABLES AND CONDUITS CAUSED BY THE CONTRACTOR OR ANY OF ITS AFFILIATES SHALL BE REPORTED WITHIN 2 HOURS TO OPERATIONS CENTER DISPATCH AT (360) 696-8177 AND REPAIRED WITHIN 48 HOURS UNLESS OTHERWISE APPROVED BY CITY TRAFFIC ENGINEER. IF THIS REPAIR CANNOT BE COMPLETED IN THE ALLOTTED TIME, WORK WILL BE DONE BY THE CITY OR ITS DESIGNEE AND ALL COSTS, INCLUDING ANY OVERHEAD COSTS, WILL BE INVOICED TO THE CONTRACTOR.
- ALL TRAFFIC SIGNALS SHALL REMAIN IN OPERATION DURING CONSTRUCTION ACTIVITIES, EXCEPT AS INDICATED ON THE PLANS. ANY DAMAGES CAUSED BY THE CONTRACTOR OR ANY OF ITS AFFILIATES TO THE EXISTING TRAFFIC SIGNAL CONDUIT, WIRING, POLES, MAST ARMS, SIGNAL INDICATORS, LOOP DETECTORS, AND OTHER RELATED COMPONENTS SHALL BE REPAIRED WITHIN 24 HOURS UNLESS OTHERWISE APPROVED BY ENGINEER. IF THIS REPAIR CANNOT BE COMPLETED IN THE ALLOTTED TIME, WORK WILL BE DONE BY THE CITY OR ITS DESIGNEE AND ALL COSTS, INCLUDING ANY OVERHEAD COSTS, WILL BE INVOICED TO THE CONTRACTOR.
- CONTRACTOR SHALL REPORT ALL DAMAGES IMMEDIATELY TO THE CITY'S CONSTRUCTION SERVICES OFFICE AT (360)487-7750 OR CONTACT THE INSPECTOR.
- FOR RIGHT OF WAY PERMITS, THE RESTORATION WORK SHALL HAVE A WARRANTY PERIOD OF 2 YEARS ON RESIDENTIAL STREETS AND 5 YEARS ON ARTERIAL STREETS. PUBLIC AND PRIVATE UTILITIES SHALL WARRANTY THEIR WORK FOR THE LIFE OF THE RESTORATION. THE OWNER OR UTILITY SHALL REPAIR ANY OF THE FOLLOWING DEFICIENCIES WHICH OCCUR DURING THE WARRANTY PERIOD. VMC 11.80.100 (E).  
SETTLEMENT OR BUMP: ANY SETTLEMENT OR BUMP MORE THAN 1/4 INCH LOWER OR HIGHER THAN THE ORIGINAL PAVEMENT SHALL BE REPAIRED. REPAIR MAY INCLUDE REMOVAL AND REPLACEMENT OR SKIN PATCHING AND WILL BE DETERMINED BY THE ENGINEER.  
EDGE SEPARATION: ANY SEPARATION OF THE TRENCH FROM SURROUNDING ROADWAY GREATER THAN 1/4 INCH SHALL BE CRACK SEALED WITH MATERIAL PER WSDOT STANDARD SPECIFICATIONS SECTION 9-04.2(1).  
ALLIGATOR CRACKING: ANY TRENCH PAVEMENT WHICH EXHIBITS ALLIGATOR CRACKING SHALL BE REMOVED AND REPLACED. THE REPLACEMENT SHALL BE IN CONFORMANCE WITH THE PAVEMENT REPAIR SECTION OF THE STANDARD SPECIFICATIONS.  
RAVELING: RAVELING IS DEFINED AS SURFACE DETERIORATION THAT OCCURS WHEN AGGREGATE PARTICLES ARE DISLODGED OR OXIDATION CAUSES LOSS OF ASPHALT BINDER. THE HOT MIX ASPHALT PAVEMENT LOSES ITS SMOOTH SURFACE AND BEGINS TO APPEAR VERY OPEN AND ROUGH. MEDIUM OR HIGH SEVERITY RAVELING AS DEFINED BY THE "PAVEMENT SURFACE CONDITION FIELD RATING MANUAL FOR ASPHALT PAVEMENT" DEVELOPED BY THE NORTHWEST PAVEMENT MANAGEMENT ASSOCIATION SHALL BE PLANED AND RE-PAVED.
- FOR PERVIOUS PAVEMENTS, PER VMC 11.80.100 (B), STREETS CONSTRUCTED WITH PERMEABLE MATERIALS WILL HAVE A STREET CUT PROHIBITION FOR THE LIFE OF THE STREET.

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1	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04B
2	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04B
3	7/1/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04B
4	4/18/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - NOTES	T05-04B

**GENERAL NOTES (CONTINUED):**

- HOT MIX ASPHALT CLASS 1/2" PG 58H-22 CONSTRUCTED IN ACCORDANCE WITH SECTION 5-04 OF THE STANDARD SPECIFICATIONS. COMPACTION SHALL BE 92% OF MAXIMUM DENSITY AS DETERMINED BY WSDOT FOR FOR AASHTO 1209.  
HOT MIX ASPHALT THICKNESS PER CHART ON T05-04A, NOTE 4.  
IF EXISTING SECTION IS GREATER THAN THE VALUE IN THE TABLE, INSTALL 1" GREATER THAN EXISTING ASPHALT THICKNESS.  
MINIMUM HMA LIFT THICKNESS IS 0.15' - MAXIMUM HMA LIFT THICKNESS IS 0.35' FOR BASE COURSE, 0.25' FOR WEARING COURSE.  
THE MIX TEMPERATURE SHALL BE 325 DEGREES MAXIMUM AT THE TIME OF PLANT DISCHARGE. AT THE TIME OF PLACEMENT, THE MIX TEMPERATURE SHALL BE 250 DEGREES MINIMUM.
- HARD SURFACING REQUIRED SAME DAY AS STREET OPENING ON OR WITHIN 30 FT. OF ALL ARTERIAL CLASSIFICATIONS, AND STREETS IN CX ZONING AND INDUSTRIAL AREAS. VMC 11.80.100 (D)(8).
- BACKFILL SHALL CONSIST OF CONTROL DENSITY FILL (CDF), SEE T05-06B FOR CDF TECHNICAL SPECIFICATIONS.  
GRANULAR BACKFILL MAY BE USED IN LIEU OF CDF IN TRENCHES IF APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. TESTING OF THE TOP 30" OF GRANULAR BACKFILL WILL BE REQUIRED AS PER STANDARD TRENCH RESTORATION T05-04A (6) AND T05-05 (2).  
DENSITY TESTING SHALL BE PERFORMED BY A LAB PRE-APPROVED BY THE CITY'S CONSTRUCTION DIVISION WITH THE RESULTS BEING SUPPLIED TO THE ENGINEER.
- TRENCH ZONE WIDTH  
PIPE 8 IN. OR MORE = PIPE O.D. +2 FT. OR AS DIRECTED BY THE ENGINEER  
PIPE 6 IN. OR LESS = PIPE O.D. +1 FT. OR AS DIRECTED BY THE ENGINEER
- PIPE BEDDING AND PIPE ZONE BACKFILL MATERIALS SHALL BE PER UTILITY OWNERS AND/OR CITY SPECIFICATIONS. DEPTH OF COVER MAY BE ADJUSTED PER UTILITY OWNERS, AND/OR CITY SPECIFICATIONS 90% COMPACTION PER SECTION 7-08.3(j)(c) OF THE STANDARD SPECIFICATIONS.
- THE EXISTING ROAD SURFACE SHALL BE CUT IN A NEAT LINE PRIOR TO PAVEMENT REPLACEMENT BY SAWCUTTING, WHEEL CUTTER, OR PLANING EQUIPMENT. THIS WILL BE REQUIRED AROUND THE PERIMETER OF ALL EXCAVATIONS TO PROVIDE CLEAN, STRAIGHT, VERTICAL SIDES. THE CUT LINE SHALL BE ONE CONTINUOUS, FULL ASPHALT DEPTH, STRAIGHT LINE 1FT FROM THE OUTER EXCAVATION LIMITS OR OF ANY SLOUGHING OF THE STREET CUT.  
ALL STREET CUTS SHALL BE 12" MIN. FROM EXISTING CURB TO ALLOW FOR CONSTRUCTION OF T-CUT SECTION. REMNANT ASPHALT SHALL BE REMOVED AND REPLACED PER NOTE 5 ON STANDARD TRENCH RESTORATION - NOTES T05-04A.
- 48" MIN. PAVEMENT RESTORATION AROUND MANHOLES, VALVES AND VAULTS MEASURED FROM EDGE PER T05-01B, ARTERIAL ROADWAYS, AND ROADWAYS WITH PCI GREATER THAN 70. MAY REQUIRE ADDITIONAL RESTORATION PER T05-01B AND T05-07. FOR CONCRETE RESTORATION CONTACT PAVEMENT MANAGEMENT AT (360)696-8177.
- THE MINIMUM WEARING COURSE WIDTH SHALL BE EXPANDED TO LANE LINES PER STANDARD PLAN T05-01B PAVEMENT RESTORATION LIMITS, T05-07 STANDARD TRENCH RESTORATION - HMA - TRANSVERSE CUTS OR AS DIRECTED BY THE ENGINEER.
- THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER SECTION 5-04 OF THE STANDARD SPECIFICATIONS.
- ALL JOINTS SHALL BE SEALED USING HEATED PAVING ASPHALT AND SANDED SAME DAY AS PAVING.

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1	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06A
2	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06A
3	7/1/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06A
4	4/18/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06A

**CDF TECHNICAL SPECIFICATIONS**

- THE CONTROLLED DENSITY FILL (CDF) MIX DESIGN SHALL BE FROM AN APPROVED SOURCE.
- THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN ONE WEEK MINIMUM PRIOR TO INTENDED USE FOR REVIEW AND APPROVAL. ALTERNATIVELY, THE CONTRACTOR MAY PROVIDE THE SUPPLIER AND MIX NUMBER IF THE CDF MIX HAS BEEN APPROVED WITHIN THE PREVIOUS 12 MONTHS.
- THE CONTRACTOR SHALL PROVIDE BATCH WEIGHTS SHOWING THE AMOUNTS OF ALL INGREDIENTS IN THE MIX, BATCH TIME, AND THE TOTAL AMOUNT OF THE BATCH.
- CONTROL DENSITY FILL SHALL BE PERFORMANCE BASED AND MEET THE FOLLOWING CRITERIA:
  - THE CDF MIXTURE SHALL BE FLOWABLE, NON-SEGREGATING, AND SELF LEVELING.
  - CAN BE PAVED ON WITHIN 48 HOURS UNLESS OTHERWISE APPROVED.
  - TYPE F FLY ASH: 200 LBS MINIMUM.
  - TYPE I OR II CEMENT: 50 LBS MINIMUM.
  - SETTLING SHALL BE LESS THAN 1/8" PER FOOT DEPTH.
  - SHALL BE MACHINE DIGABLE UNLESS NOTED OTHERWISE.
  - FINE AGGREGATE (LESS THAN 3/8") SHALL BE USED UNLESS OTHERWISE APPROVED.
  - CONCRETE UNIT WEIGHT SHALL BE 100 PCF MINIMUM.
  - COMPRESSIVE 28 DAY STRENGTHS FROM MIN. 50 PSI TO MAX. 150 PSI.
- CDF SHALL NOT BE PLACED ON FROZEN GROUND. CDF PATCHING, MIXING AND PLACING MAY BE STARTED IF WEATHER CONDITIONS ARE FAVORABLE, WHEN THE TEMPERATURE IS AT 34-DEGREES F AND RISING. AT THE TIME OF PLACEMENT, CDF MUST HAVE A TEMPERATURE OF AT LEAST 40-DEGREES F. MIXING AND PLACING SHALL STOP WHEN THE TEMPERATURE IS 38 DEGREES F OR LESS AND FALLING. EACH FILLING STAGE SHALL BE AS CONTINUOUS AN OPERATION AS POSSIBLE.
- TRENCH SECTIONS TO BE FILLED WITH CDF SHALL BE CONTAINED AT EITHER END OF THE TRENCH SECTION BY BULKHEADS OR EARTH FILL.
- DURING CDF CURE TIME, THE CONTRACTOR SHALL INSTALL STEEL STREET PLATES OR OTHER PROTECTIVE DEVICES WHICH WILL ALLOW FOR THE PASSAGE AND SAFETY OF TRAFFIC WITH NO LOAD TRANSFERRED TO THE CDF.
- CONTRACTOR SHALL ALLOW FOR A MINIMUM 48 HOUR CURE TIME FOR CDF PRIOR TO PLACING ASPHALT.
- 30-INCH DEPTH OF CDF MAY BE REDUCED WITH ENGINEER'S APPROVAL IF CONFLICTING WITH PIPE ZONE BACKFILL.

REV	DATE	BY	APPN	PUBLIC WORKS TRANSPORTATION	CITY OF VANCOUVER	STANDARD PLAN NUMBER
1	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06B
2	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06B
3	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06B
4	7/1/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06B
5	4/18/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - CONTROLLED DENSITY FILL	T05-06B

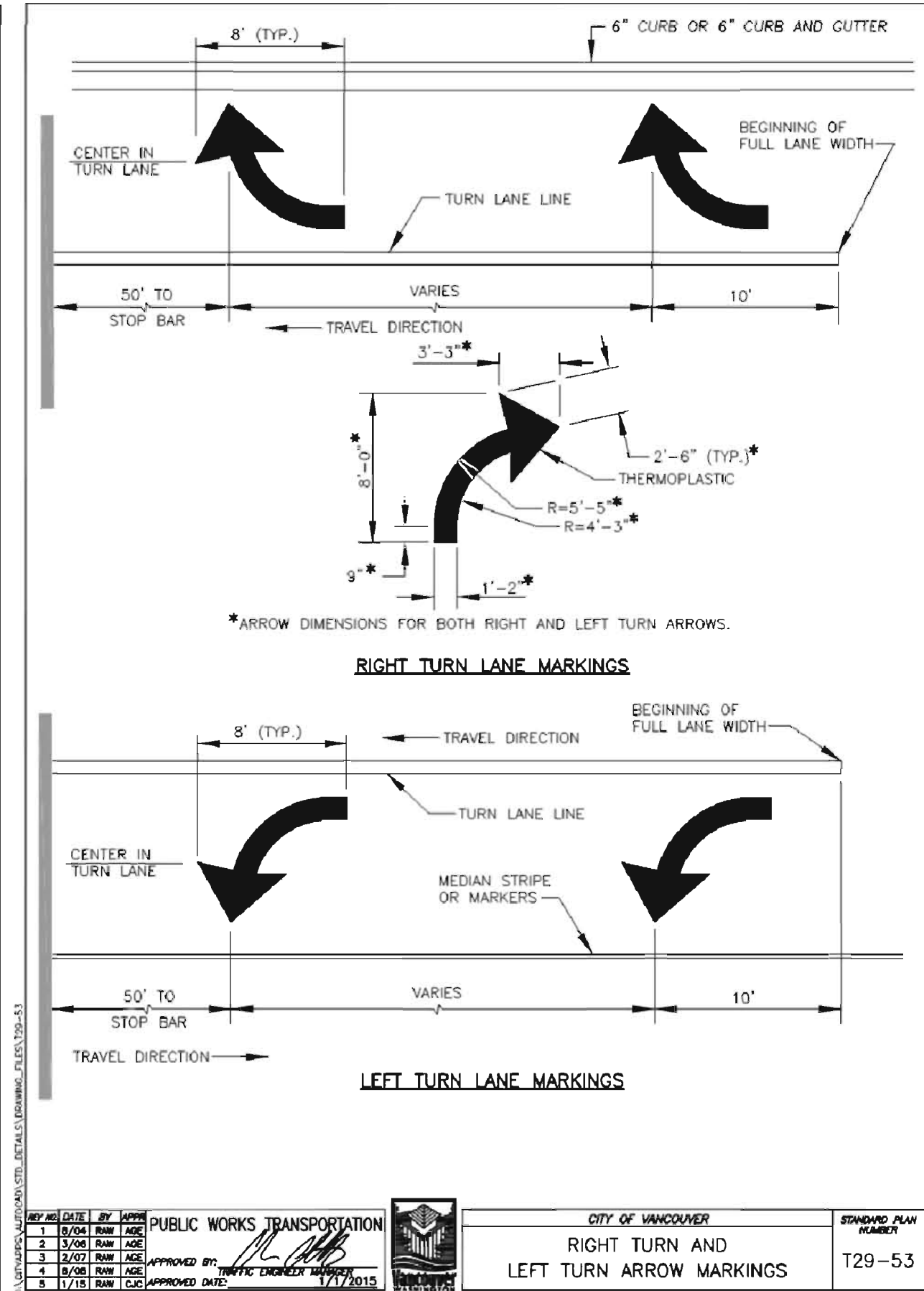
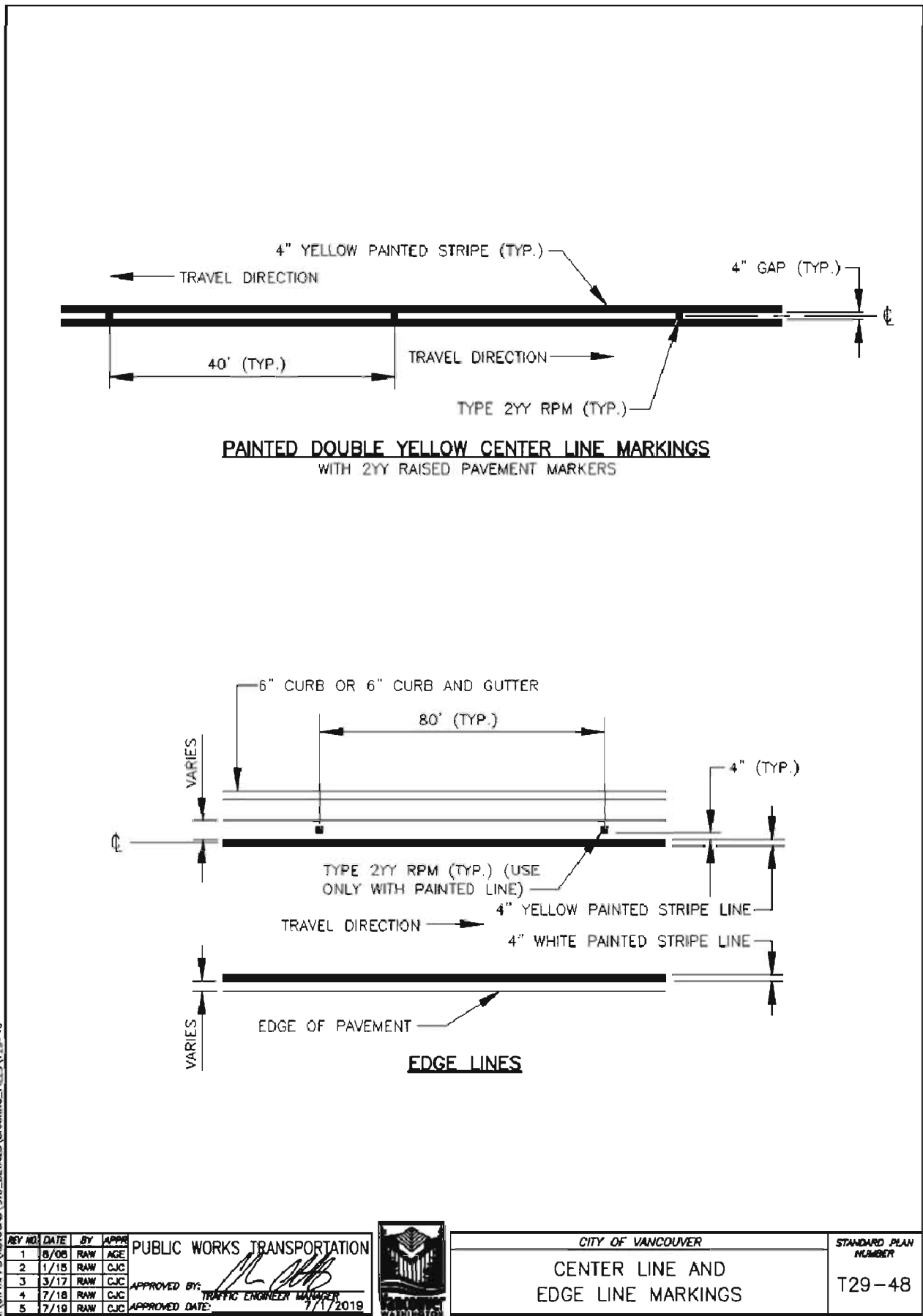
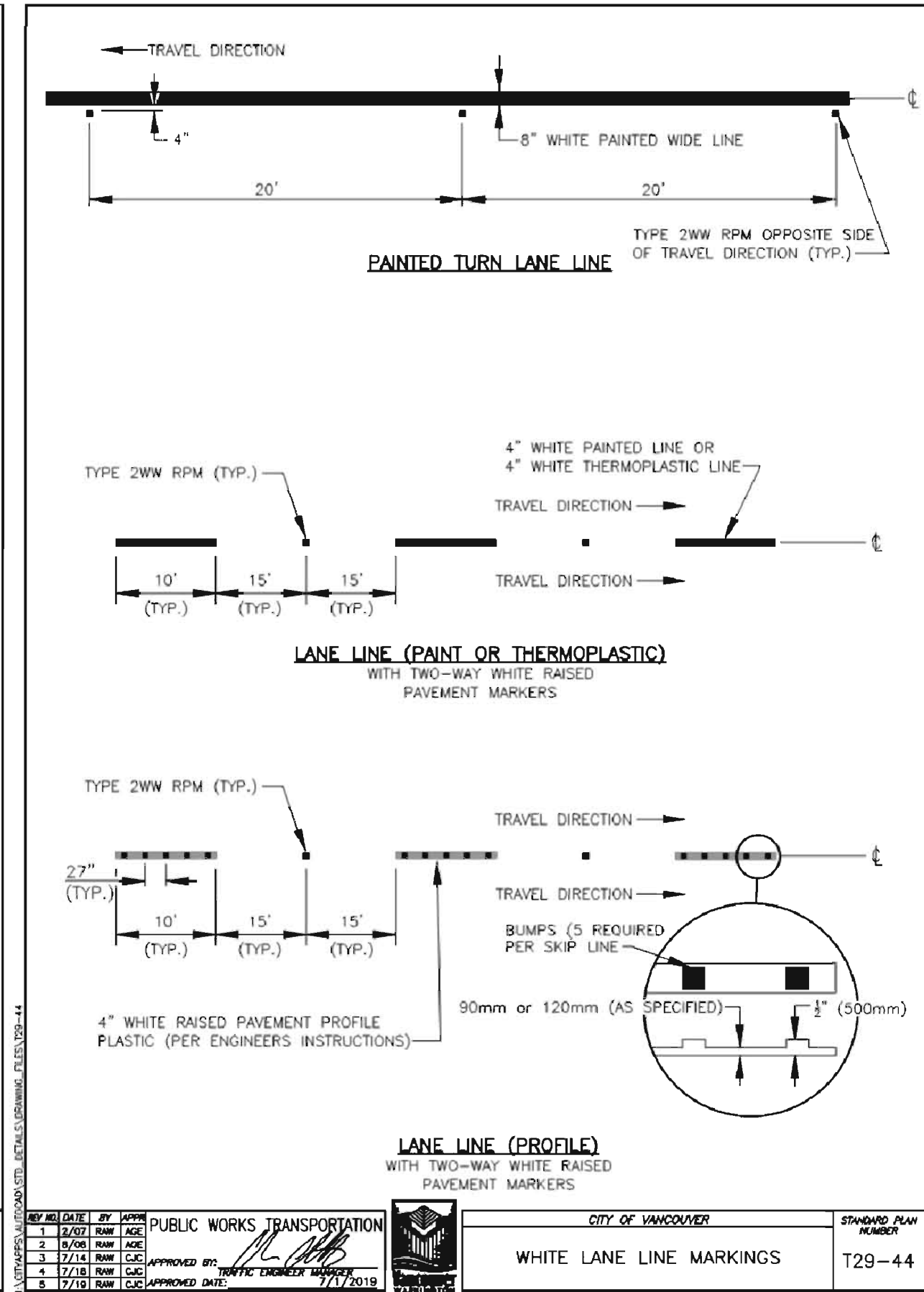
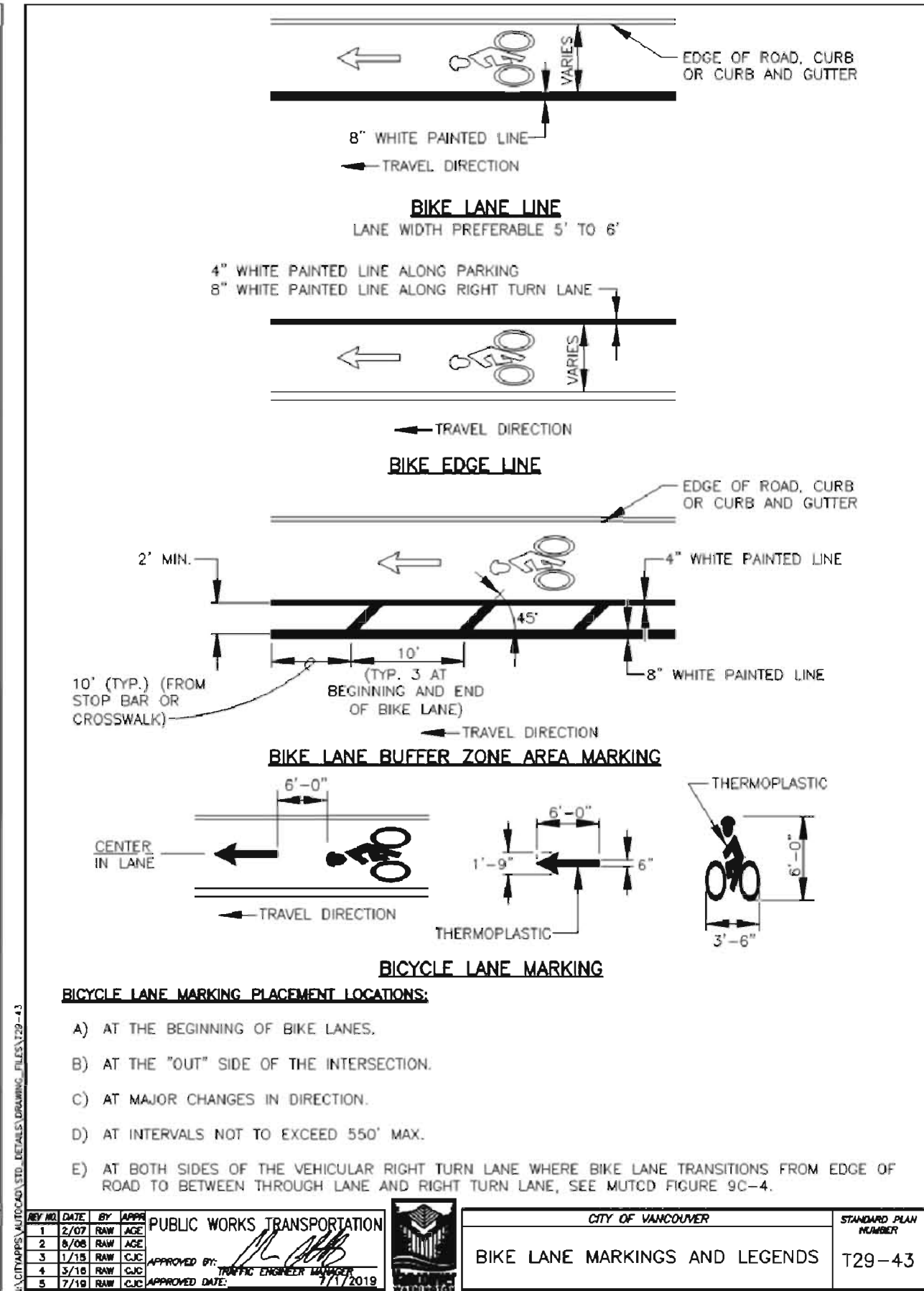
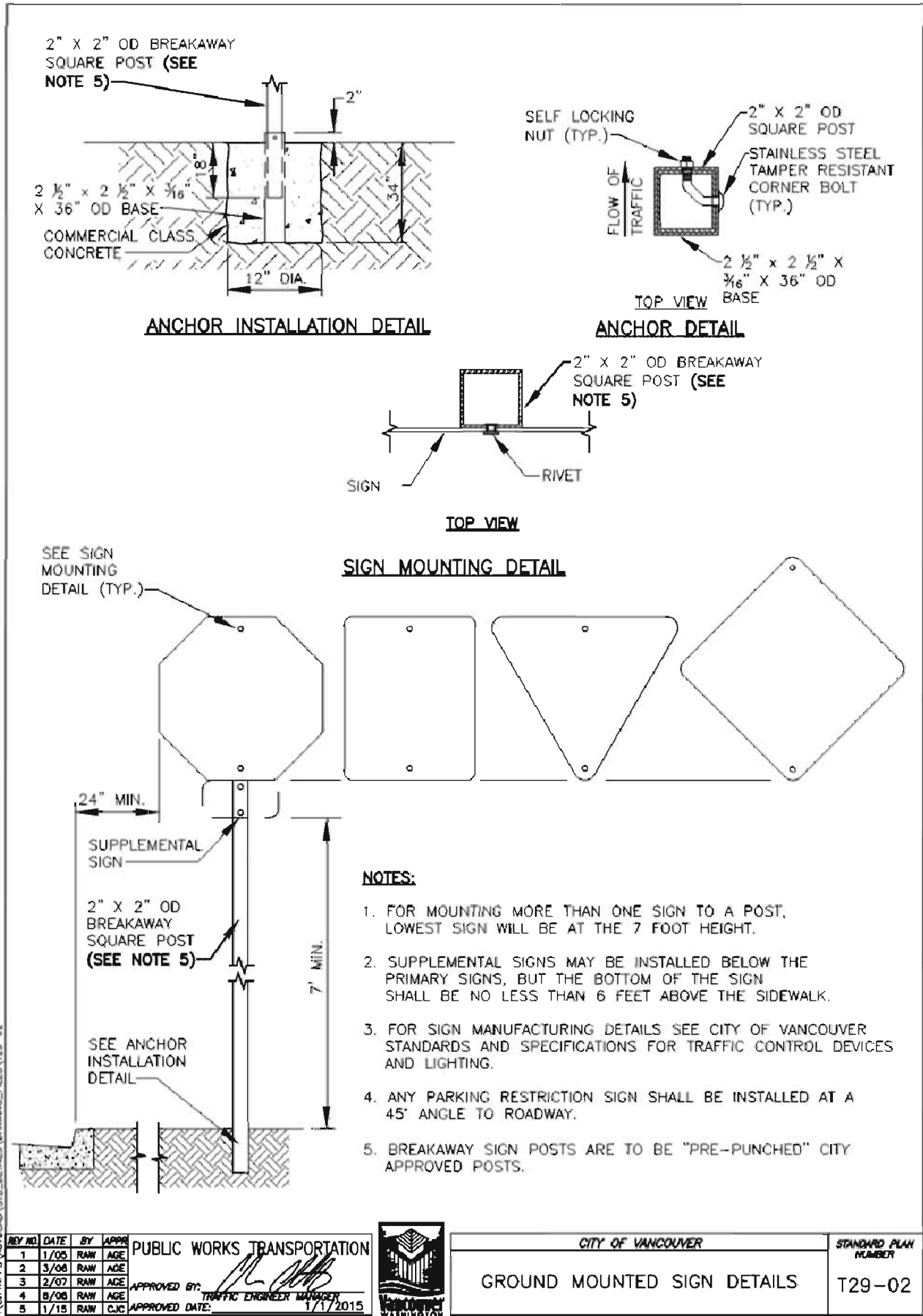
**NOTE:**

- HMA TYPE SHALL MEET THE REQUIREMENTS OF THE TYPICAL STREET SECTIONS FOR THE CLASSIFICATION OF ROAD. SEE DETAILS IN THE T10-XX SERIES.
- 10' RESIDENTIAL/LOCAL ACCESS PLANING WIDTH MAY BE REQUIRED ON STREETS WITH A PCI LESS THAN 50 OR GREATER THAN 70 OR AS REQUIRED BY THE ENGINEER.
- PLANING SHALL EXTEND A MINIMUM OF 3' BEYOND THE SAWCUT OF THE T-CUT.
- AT DRIVEWAY/CURB OPENINGS OR REPLACEMENTS LONGITUDINAL LIMITS OF PLANE AND PAVE SHALL BE EXTENDED 3' BEYOND THE NEW CONSTRUCTION AND 5' BEYOND THE TANGENT LENGTH OF A CONSTRUCTED CURB RADIUS.

MINIMUM PLANING WIDTHS	
ROADWAY TYPE	WIDTH
PRINCIPAL ARTERIAL	25'
MINOR ARTERIAL	20'
COLLECTOR ARTERIAL	15'
RESIDENTIAL/LOCAL ACCESS @	10'

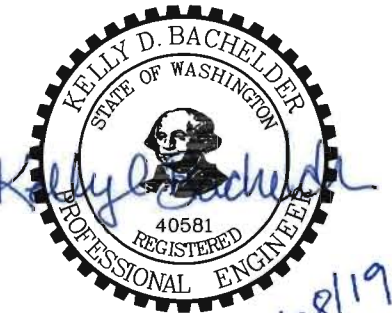
REV	DATE	BY	APPN	PUBLIC WORKS TRANSPORTATION	CITY OF VANCOUVER	STANDARD PLAN NUMBER
1	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - TRANSVERSE CUTS	T05-07
2	6/20/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - TRANSVERSE CUTS	T05-07
3	7/1/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - TRANSVERSE CUTS	T05-07
4	4/18/18	RAW	RAW	APPROVED BY: <i>[Signature]</i>	STANDARD TRENCH RESTORATION - HMA - TRANSVERSE CUTS	T05-07





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ELECTRICAL SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.

Abbreviations

AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
A	AMPERES, AMBER
AV	AUDIO VISUAL
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AVAILABLE INTERRUPTING CAPACITY
BAS	BUILDING AUTOMATION SYSTEM
CA	CABLE
CLG	CEILING
CB	CIRCUIT BREAKER
C	CONDUIT, CLOSE, CONTROL
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CU	COPPER
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EA	EACH
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
ESD	ELECTROSTATIC DISCHARGE
EL	ELEVATION
EM	EMERGENCY
(E)	EXISTING
FF	FINISH FLOOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FT	FOOT, FEET
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HT	HEIGHT
HC	HORIZONTAL CROSS CONNECT
ID	IDENTIFICATION
IN	INCH, INCHES
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LV	LOW VOLTAGE
MOCP	MAXIMUM OVERCURRENT PROTECTION
MHz	MEGAHERTZ
MCA	MINIMUM CIRCUIT AMPS
M	MOTOR
MCC	MOTOR CONTROL CENTER
NEC	NATIONAL ELECTRIC CODE
NESC	NATIONAL ELECTRIC SAFETY CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
N	NEUTRAL
N/A	NOT APPLICABLE
NTS	NOT TO SCALE
OC	ON CENTER
OSP	OUTSIDE PLANT
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PNL	PANEL
PH	PHASE
PVC	POLY-VINYL-CHLORIDE
PWR	POWER
(R)	RELOCATE
REQD	REQUIRED
RMC	RIGID METAL CONDUIT
SPKR	SPEAKER
STD	STANDARD
SPD	SURGE PROTECTION DEVICE
SWBD	SWITCHBOARD
TBD	TO BE DETERMINED
XFMR	TRANSFORMER
TP	TRANSITION POINT
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
VERFY	VERIFY
V	VOLTS, VOLTAGE
WP	WEATHERPROOF
W	WIRE, WHITE
W/	WITH
W/O	WITHOUT

Connections / Equipment

	COMBINATION ADJUSTABLE FREQUENCY DRIVE WITH SAFETY DISCONNECT SWITCH
	COMBINATION MOTOR STARTER/FUSED DISCONNECT SWITCH
	CONTACTOR COIL
	HEAVY DUTY FUSED DISCONNECT SWITCH
	MOTOR CONNECTION
	NON-FUSED DISCONNECT SWITCH
	RELAY
	REMOTE DRIVER FOR LED LUMINAIRES
	TRANSFORMER
	FIRE SMOKE DAMPER
	SMOKE DAMPER
	CEILING MOUNTED JUNCTION BOX
	FLOOR MOUNTED JUNCTION BOX
	WALL-MOUNTED JUNCTION BOX
<b>General</b>	
	DETAIL NUMBER AND SHEET LOCATION
	EQUIPMENT IDENTIFICATION
	FOOD SERVICE EQUIPMENT / CALCULATION TAG
	KEYED NOTE
	POINT OF CONNECTION
	SECTION NUMBER AND SHEET LOCATION
<b>Lighting</b>	
	COMBINATION EXIT SIGN CEILING MOUNTED AND DUAL HEAD EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARROW(S) INDICATES DIRECTION IF SHOWN
	COMBINATION EXIT SIGN WALL MOUNTED AND DUAL HEAD EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARROW(S) INDICATES DIRECTION IF SHOWN
	EMERGENCY LUMINAIRE WITH BATTERY PACK
	EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN
	EXIT SIGN WALL MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN
	RECESSED 2' X 2' LUMINAIRE
	RECESSED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
	RECESSED LUMINAIRE
	RECESSED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT
	SURFACE MOUNTED 2' X 2' LUMINAIRE
	SURFACE MOUNTED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
	SURFACE OR PENDANT MOUNTED 1' X 4' LUMINAIRE
	SURFACE OR PENDANT MOUNTED 1' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
	SURFACE OR PENDANT MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT

	SURFACE OR PENDANT MOUNTED STRIPLIGHT
	WALL MOUNTED 6" WIDE LUMINAIRE
	WALL MOUNTED 6" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
	WALL MOUNTED LUMINAIRE
	WALL MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
	AREA LUMINAIRE ARM MOUNTED WITH POLE AND CONCRETE BASE, NUMBER OF HEADS AND CONFIGURATION INDICATED ON PLANS.
<b>Miscellaneous</b>	
	BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.
	BRANCH PANEL
	CIRCUIT BREAKER
	DRY TYPE TRANSFORMER
	FLUSH MOUNT EQUIPMENT ENCLOSURE AS NOTED
	FLUSH WALL MOUNTED BRANCH PANEL
	GROUND BAR
	GROUNDING POINT
	MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL
	POWER UTILITY POLE
	SUBGRADE VAULT CATV
	SUBGRADE VAULT POWER
	TELEPHONE UTILITY POLE
	UTILITY TRANSFORMER PAD/VAULT

Raceways

	OVERHEAD PRIMARY SERVICE
	OVERHEAD SECONDARY SERVICE
	UNDERGROUND CABLE TELEVISION SERVICE
	UNDERGROUND PRIMARY SERVICE
	UNDERGROUND SECONDARY SERVICE
	UNDERGROUND TELEPHONE SERVICE

----- CONDUIT ROUTED BELOW FLOOR / GRADE

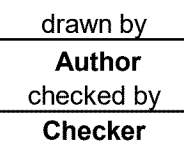
	CONDUIT ELLED DOWN
	CONDUIT ELLED UP
	CONDUIT/WIRING CONTINUATION
	CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING

Switches and Receptacles

	COMBINATION COMMUNICATIONS OUTLET AND DOUBLE DUPLEX RECEPTACLE, FLUSH FLOOR
--	---

	COMBINATION COMMUNICATIONS OUTLET AND DUPLEX RECEPTACLE, FLUSH FLOOR
	DUPLEX RECEPTACLE (MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS) A = ABOVE COUNTER B = CLOCK HANGER C = FLUSH CEILING MOUNTED E = EMERGENCY F = ARC FAULT PROTECTED BY BREAKER IN PANEL G = GROUND FAULT CIRCUIT INTERRUPTER H = HOSPITAL GRADE K = CHILD RESISTANT COVER L = ISOLATED GROUND P = PENDANT MOUNTED WITH CORD GRIPS. VERIFY PENDANT LENGTH R1 = HALF SWITCHED BY OCCUPANCY SENSOR RELAY R2 = FULLY SWITCHED BY OCCUPANCY SENSOR RELAY S = SPLIT WIRED T = TAMPER RESISTANT SHUTTERED RECEPTACLE U = USB PORT(S) W = WEATHERPROOF CONTINUOUS USE COVER, GFCI PROTECTED, WITH WEATHER-RESISTANT RECEPTACLE
	DUPLEX RECEPTACLE, FLUSH FLOOR
	DOUBLE DUPLEX RECEPTACLE, FLUSH FLOOR
	DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
	SINGLE RECEPTACLE, FLUSH FLOOR
	SINGLE RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
	EQUIPMENT ELECTRICAL CONNECTION
	SPECIAL PURPOSE RECEPTACLE. LETTER CODE DENOTES RECEPTACLE CONFIGURATION LX-XXR = NEMA CONFIGURATION TWIST-LOCK RECEPTACLE X-XXR = NEMA CONFIGURATION STRAIGHT BLADE RECEPTACLE P = PENDANT MOUNT WITH CORD GRIPS. VERIFY PENDANT LENGTH X = COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT BEING SUPPLIED
	PENDANT RECEPTACLE WITH CORD GRIPS. VERIFY PENDANT LENGTH. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
	CEILING MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY U = ULTRASONIC, 360 DEG RANGE H = ULTRASONIC, HALLWAY PATTERN v (LOWERCASE) = VACANCY CONTROL DESIGNATION
	WALL MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY v (LOWERCASE) = VACANCY CONTROL DESIGNATION
	MULTIPLE CHANNEL SURFACE METAL RECEPTACLE RACEWAY WITH LOW VOLTAGE DIVIDERS, LENGTH AND RECEPTACLES AS INDICATED
	SURFACE METAL RECEPTACLE RACEWAY
	PHOTO ELECTRIC SWITCH D = CONTINUOUS DIMMING PHOTOCELL S = SWITCHED PHOTOCELL
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	PHOTO ELECTRIC SWITCH D = CONTINUOUS DIMMING PHOTOCELL S = SWITCHED PHOTOCELL
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lsw job number  
**2018-0029**

**FIR GROVE CHILDREN'S CENTER**  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661

issue date  
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## LUMINAIRE SCHEDULE

PROJECT 2019-0017  
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Portland, OR 97204  
TEL 503.382.2266  
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# E-002

Scale

LUMINAIRE SCHEDULE																					
TYPE	DESCRIPTION	HOUSING	OPTICS	MOUNTING	FINISH	UL/IP RATING	BUG RATING	DRIVER LOCATION	DIMMING CONTROL	INITIAL DELIVERED LUMENS	CCT	CRI	RATED LIFE	LM/W	WATTS	VOLTAGE	MFR	MODEL	REMARKS		
'A'	SUSPENDED LED HIGH BAY; 16"DIA x 21"H NOMINAL DIMENSIONS	DIE CAST ALUMINUM	CLEAR CONICAL LENS WITH CLEAR POLYCARBONATE REFLECTOR	HOOK AND CORD MOUNTED AS CLOSE TO DECK AS POSSIBLE	CLEAR POLYCARBONATE	DAMP	N/A	INTEGRAL	0-10V	25900	3500K	80	100,000 (L70)	137	189.0	120	CREE	KBL-A-UV-H-35K-8-UL-10V CX8C16			
'B2'	RECESSED 2' x 2' LED LUMINAIRE	STEEL	POLYCARBONATE OPTIC	RECESSED	MATTE WHITE ENAMEL	DRY	N/A	INTEGRAL	0-10V, 1%	3500	3500K	95 (R9 90)	50,000 (L70)	66	53.0	120	SORAA	BL22-35-935-UNV-DM1			
'B'	RECESSED 2' x 2' LED LUMINAIRE	STEEL	POLYCARBONATE OPTIC	RECESSED	MATTE WHITE ENAMEL	DRY	N/A	INTEGRAL	0-10V, 1%	2500	3500K	95 (R9 90)	50,000 (L70)	66	39.0	120	SORAA	BL22-25-935-UNV-DM1			
'C'	4' STRIP LED LUMINAIRE	STEEL	ACRYLIC DIFFUSER	SURFACE	WHITE	DAMP	N/A	INTEGRAL	0-10V	4250	3500K	90+	100,000 (L70)	106	40.0	120	CREE	LS4-40L-35K-10V			
'D'	RECESSED LED LUMINAIRE; 25.2"L x 25.2"W x 5.8"D NOMINAL DIMENSIONS	ALUMINUM	OPAL DIFFUSER	RECESSED	WHITE	IP20	N/A	INTEGRAL	0-10V	1156	3500K	80+	N/A	23	49.7	120	ZANEEN	L37737-DV-35K-03-01			
'F4'	SUSPENDED LINEAR LED LUMINAIRE; 4'L x 2.5"W x 4.5"H DOMINAL DIMENSIONS	EXTRUDED ALUMINUM	75% DOWN, 25% UP	SUSPENDED AT 18" BELOW DECK	WHITE	DAMP	N/A		0-10V, 1%	2070	3500K	93 (R9 67)	100,000 (L80)	111	19.0	120	SIGNIFY LEDALITE	MF-O-S-L-935-20-Q-N-04-D-E-1-N-NN-W-M1-48			
'F16'	SUSPENDED LINEAR LED LUMINAIRE; 16'L x 2.5"W x 4.5"H DOMINAL DIMENSIONS	EXTRUDED ALUMINUM	75% DOWN, 25% UP	SUSPENDED AT 9' AFF	WHITE	DAMP	N/A	INTEGRAL	0-10V, 1%	17536	2700-6500K	80+	100,000 (L80)	124	140.0	120	SIGNIFY LEDALITE	MF-O-S-L-935-20-Q-N-04-D-E-1-N-NN-W-M1-48			
'G1'	SUSPENDED RING LED LUMINAIRE; 58.6"W x 1.2"H x 1.2"D x 54"OAH NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	DIRECT DISTRIBUTION MATTE OPAL ACRYLIC DIFFUSER; 0.03" REGRESSED FROM BOTTOM EDGE OF FIXTURE	SUSPENDED AT 10'AFF; 1/2" BUTTON CANOPY WITH 6 STRAIGHT ENERGIZED CABLES	WHITE	DRY	N/A	INSTALL SURFACE MOUNTED REMOTE POWER SUPPLY DIRECTLY ABOVE LUMINAIRE	0-10V, 1%	5915	3500K	90	50,000 (L70)	55	107.0	120	SPI LIGHTING	AIP12097 L103W 120-277V 3500K BCE DF_DIR			
'G2'	SUSPENDED RING LED LUMINAIRE; 48"W x 1.2"H x 1.2"D x 54"OAH NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	DIRECT DISTRIBUTION MATTE OPAL ACRYLIC DIFFUSER; 0.03" REGRESSED FROM BOTTOM EDGE OF FIXTURE	SUSPENDED AT 10'AFF; 1/2" BUTTON CANOPY WITH 6 STRAIGHT ENERGIZED CABLES	WHITE	DRY	N/A	INSTALL SURFACE MOUNTED REMOTE POWER SUPPLY DIRECTLY ABOVE LUMINAIRE	0-10V, 1%	4651	3500K	90	50,000 (L70)	54	86.0	120	SPI LIGHTING	AIP12096 L81W 120-277V 3500K BCE DF_DIR			
'G3'	SUSPENDED RING LED LUMINAIRE; 23.9"W x 1.2"H x 1.2"D x 54"OAH NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	DIRECT DISTRIBUTION MATTE OPAL ACRYLIC DIFFUSER; 0.03" REGRESSED FROM BOTTOM EDGE OF FIXTURE	SUSPENDED AT 10'AFF; 1/2" BUTTON CANOPY WITH 6 STRAIGHT ENERGIZED CABLES	WHITE	DRY	N/A	INSTALL SURFACE MOUNTED REMOTE POWER SUPPLY DIRECTLY ABOVE LUMINAIRE	0-10V, 1%	2297	3500K	90	50,000 (L70)	51	45.0	120	SPI LIGHTING	AIP12094 L40W 120-277V 3500K BCE DF_DIR			
'H4'	SUSPENDED LINEAR LED LUMINAIRE; 4'L x 3.54"W x 1.97"H NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	CLEAR ACRYLIC LENS; BATWING DISTRIBUTION; 75 UP; 25 DOWN	SUSPENDED AT 18" BELOW CEILING OR 10' AFF (NO CEILING)	WHITE POWDERCOAT	DAMP	N/A	INTEGRAL	ELDOLED ECO 0-10V, 1%	4436	3500K	80+	60,000 (L90)	130	34.0	120	FLUXWERX	APC-R-A-D-35-W-04-D/S-E1-M-06			
'H8'	SUSPENDED LINEAR LED LUMINAIRE; 8'L x 3.54"W x 1.97"H NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	CLEAR ACRYLIC LENS; BATWING DISTRIBUTION; 75 UP; 25 DOWN	SUSPENDED AT 18" BELOW CEILING OR 10' AFF (NO CEILING)	WHITE POWDERCOAT	DAMP	N/A	INTEGRAL	ELDOLED ECO 0-10V, 1%	8872	3500K	80+	60,000 (L90)	130	68.0	120	FLUXWERX	APC-R-A-D-35-W-08-D/S-E1-M-06			
'J'	SUSPENDED MULTI-PENDANT LED GLOBE WITH INTEGRATED BALL JOINT CONNECTORS; 25"L x 4.5"W x 4"H NOMINAL DIMENSIONS; CANOPY 25"L x 4.5"W x 1.3"H NOMINAL DIMENSIONS	ACRYLIC	AMBIENT LIGHT AND FOCUSED LED SOURCE	SUSPENDED	BLACK	DRY	N/A	INTEGRAL	N/A	1125	3000K	90+	50,000	62	18.0	120	KUZCO LIGHTING	MP47613			
'K'	SUSPENDED LED PENDANT; 3.8DIA x 8"H NOMINAL DIMENSIONS	ALUMINUM	SOFT FOCUS LENS; 48 DEGREE DISTRIBUTION	SUSPENDED	BLACK	DAMP	N/A	INTEGRAL	0-10V	1716	3000K	97	50,000	73	23.5	120	SISTEMALUX	1780C-P-BO-030-50-UNV-52-1725			
'M2'	WALL MOUNTED DIRECT/INDIRECT LED LUMINAIRE; 2'L x 5.1"W x 3.4"D NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	EXTRUDED POLYCARBONATE SPOTLESS LENS	WALL MOUNTED AT 10'AFG	WHITE	WET	N/A	INTEGRAL	0-10V, 1%	1000 LM/FT UP, 750 LM/FT DN	3500K	90	L85 (50,000)	70	36.3	120	AXIS LIGHTING	WBDIWLLED-1000-750-90-35-SO-SO-2-W-120-DP			
'M12'	WALL MOUNTED DIRECT/INDIRECT LED LUMINAIRE; 12'L x 5.1"W x 3.4"D NOMINAL DIMENSIONS	EXTRUDED ALUMINUM	EXTRUDED POLYCARBONATE SPOTLESS LENS	WALL MOUNTED AT 10'AFF	WHITE	WET	N/A	INTEGRAL	0-10V, 1%	1000 LM/FT UP, 750 LM/FT DN	3500K	90	L85 (50,000)	70	217.6	120	AXIS LIGHTING	WBDIWLLED-1000-750-90-35-SO-SO-12-W-12			

## NOTES

- 1 THIS LUMINAIRE SCHEDULE IS NOT COMPLETE WITHOUT A COPY OF THE PROJECT MANUAL CONTAINING THE ELECTRICAL SPECIFICATIONS.
- 2 DIMMING CONTROL PROTOCOL (0-10VDC, LINE VOLTAGE, DALI, ETC.) COMPATIBLE WITH LIGHTING CONTROL SYSTEM AS SPECIFIED AND SHOWN ON DRAWINGS.
- 3 PROVIDE +/- 12 INCH ADJUSTABILITY IN AIRCRAFT CABLE LENGTH WHERE USED.
- 4 COORDINATE ALL CEILING TYPES WITH LUMINAIRE LOCATIONS PRIOR TO ORDERING LUMINAIRES. COORDINATE INSTALLATION WITH REFLECTED CEILING PLAN.
- 5 SPECIFIED MANUFACTURERS ARE BASIS OF DESIGN. SUBMIT ALTERNATES FOR APPROVAL PRIOR TO BID CLOSE.
- 6 PROVIDE SUBMITTALS THAT INCLUDE THE LUMINAIRE, LAMP AND BALLAST/DRIVER INFORMATION OF EACH LUMINAIRE, WITH APPLICABLE OPTIONS CLEARLY CHECKED OR HIGHLIGHTED. SUBMITTALS NOT INCLUDING THIS INFORMATION WILL BE RETURNED AS REJECTED BY THE ENGINEER OF RECORD.
- 7 REMOTE BALLASTS/DRIVERS: UL LISTED FOR THEIR APPLICATION. BALLASTS/DRIVERS MARKED AS UL RECOGNIZED COMPONENT BUT NOT UL LISTED ARE SUBJECT TO REMOVAL AND REPLACEMENT AT NO COST TO OWNER.
- 8 PROVIDE COMMISSIONING OF THE LIGHTING IN ACCORDANCE WITH THE WASHINGTON STATE NON-RESIDENTIAL ENERGY CODE 1513.7.
- 9 LABEL ALL REMOTE DRIVERS TO SHOW LUMINAIRE TYPE IDENTIFICATION AND SOURCE CIRCUIT. PROVIDE WIRING BETWEEN REMOTE DRIVER AND LUMINAIRE AS RECOMMENDED BY MANUFACTURER. DO NOT EXCEED MAXIMUM DISTANCE RECOMMENDED BY MANUFACTURER BETWEEN DRIVER AND FURTHEST LUMINAIRE.



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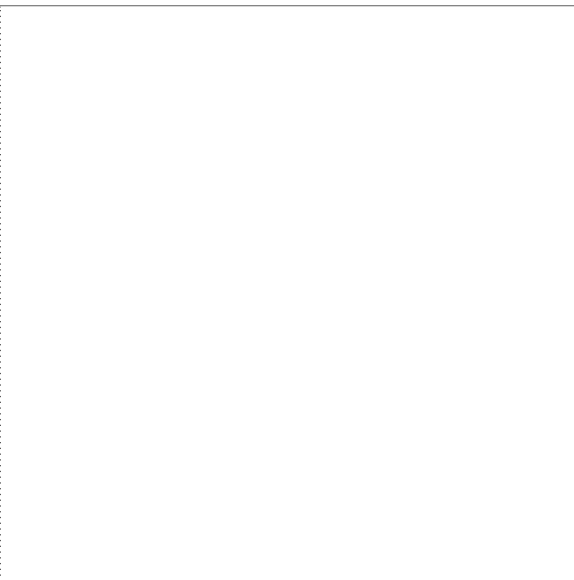
LIGHTING AND RECEPTACLE CONTROL SEQUENCE OF OPERATIONS: SPACE BY SPACE									
Room Name	Occupancy Sensor Type	Lighting Control Network Connected	Photosensor Control	Receptacle Control	Tunable White Control	All Luminaires Configured for Continuous Dimming	Control Functions	Product Basis of Design	Remarks
Fitness	Dual Tech	Yes	Yes	No	No	Yes	Manual on/off and dimming with wall dimmer. Auto dimming within daylight zones with photocell where indicated. Auto off with vacancy sensor. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, EM, PC, DT, DM	
Kitchen	None	Yes	Yes	No	No	Yes	Manual on/off and dimming with wall dimmer. Auto dimming within daylight zones with photocell Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, EM, DM, PC	
Hallways, Lobby, Commons and Vestibules	Dual Tech	Yes	Yes	No	No	Yes	Auto on/off with occupancy sensor and timeclock control. Auto dimming within daylight zones with photocell. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, DT, EM, PC	Lighting Levels and Timeclock Schedule are to be set by the Finetune Mobile App
Admin/Waiting	Dual Tech	Yes	Yes	Yes	No	Yes	Auto on/off with occupancy sensor and timeclock control. Manual on/off and dimming with wall dimmer. Auto dimming within daylight zones with photocell. Normal power loss within zone triggers emergency luminaires to go to full brightness. Plug loads controlled by occupancy sensor.	ALC, DT, EM, PC, DM, R	
Single Occupant Restrooms	Passive Infrared	Yes	No	No	No	Yes	Auto on/off with occupancy sensor. Manual on/off and dimming with wall dimmer. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, IR, EM, DM,	
MDF	Passive Infrared	Yes	No	No	No	Yes	Auto off with occupancy sensor. Manual on/off and dimming with wall station. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, IR, DM, EM	
Electrical and Mechanical Rooms	None	Yes	No	No	No	Yes	Manual on/off and dimming with wall station. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, DM, EM	
Storage and Service Rooms	Passive Infrared	Yes	No	No	No	Yes	Auto on/off with occupancy sensor. Manual on/off and dimming with wall station	ALC, IR, DM	
Media Room	Dual Tech	Yes	Yes	No	No	Yes	Auto off with vacancy sensor. Manual on/off and dimming with wall station. Auto dimming within daylight zones with photocell. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, DT, DM, PC	
Conference Room	Dual Tech	Yes	No	Yes	No	Yes	Auto off with vacancy sensor. Manual on/off and dimming with wall station. Plug loads controlled by occupancy sensor.	ALC, DT, DM, R	
Offices	Dual Tech	Yes	Yes	Yes	No	Yes	Auto off with occupancy sensor. Manual on/off and dimming with wall station. Plug loads controlled by occupancy sensor.	ALC, DT, DM, R	
Small Group and Focus Rooms	Dual Tech	Yes	No	Yes	No	Yes	Auto off with vacancy sensor. Manual on/off and dimming with wall station. Auto dimming within daylight zones with photocell. Plug loads controlled by occupancy sensor.	ALC, DT, DM, R	
Health Room	Dual Tech	Yes	No	No	No	Yes	Auto on/off with occupancy sensor. Manual on/off and dimming with wall station.	ALC, DT, DM	
FCRC Room	Passive Infrared	Yes	No	Yes	No	Yes	Auto on/off with occupancy sensor. Manual on/off and dimming with wall station. Plug loads controlled by occupancy sensor.	ALC, IR, DM, R	
Work Room	Dual Tech	Yes	Yes	Yes	No	Yes	Auto off with vacancy sensor. Manual on/off and dimming with wall station. Auto dimming within daylight zones with photocell. Normal power loss within zone triggers emergency luminaires to go to full brightness. Plug loads controlled by occupancy sensor.	ALC, DT, DM, R, PC, EM	
Classrooms and MS/HS Flex Room	Dual Tech	Yes	No	Yes	Yes	Yes	Auto off with vancancy sensor. Manual on/off, dimming and color tuning with wall station. Plug loads controlled by occupancy sensor.	ALC, DT, TW, R	
All Other Rooms	Dual Tech	Yes	No	No	No	Yes	Auto on/off with occupancy sensor. Manual on/off and dimming with wall station. Where applicable, autodimming within daylight zones with photocell.	ALC, DT, DM, PC	
Building Exterior and Site Lighting	None	Yes	No	No	No	Yes	Auto on/off with Finetune Scheduler. Dimming with Finetune Scheduler. Provide separate zones for building lighting, area lighting and signage. Normal power loss within zone triggers emergency luminaires to go to full brightness.	ALC, EM	Lighting Levels and Timeclock Schedule are to be set by the Finetune Mobile App

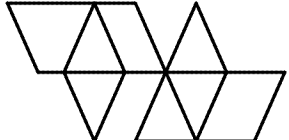
Product Basis of Design Legend

- DM - Dimming Wall Switch - Finelite FTCS-SWITCH-L-DIM  
IR - Ceiling Mounted Passive Infrared Occupancy/Vacancy Sensor - Wattstopper CI-305  
DT - Ceiling Mounted Dual Technology Occupancy/Vacancy Sensor - Wattstopper DT-305  
PC - Photocell and Daylight Sensor Pack - Wattstopper LS-301 and Finelight FTCS-DSP  
TW - Tunable White Scene Selection Wall Station - Finelight - FTCS-CS-TW-S01-L01-W  
EM - Emergency Lighting Relay - Wattstopper ELCU-200  
ALC - Area Lighting Controller - Finelite Lighting Controller with 0-10V dimming and 0-10V tunable white controls - FTCS-LP-10V  
R - Plug Load Controller - Wattstopper BZ-200

General Notes:


1. Emergency lighting dims/on-off with normal lighting unless normal power is lost then emergency luminaires are to turn on and go to full brightness.  
2. Exit signs to be unswitched.  
3. Photosensor dimming zones indicated on drawings.  
4. Contractor to supply and install all area lighting controllers to control all lighting interior and exterior to the building. Locations and quantities are to be determined by manufacturer.  
5. All luminaire Area Lighting Controllers are to be hardwired and installed within concealed accessible locations such as above T-bar ceilings or within service rooms.





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checked by

Checker

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LIGHTING  
CONTROL  
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INTERFACE  
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E-003

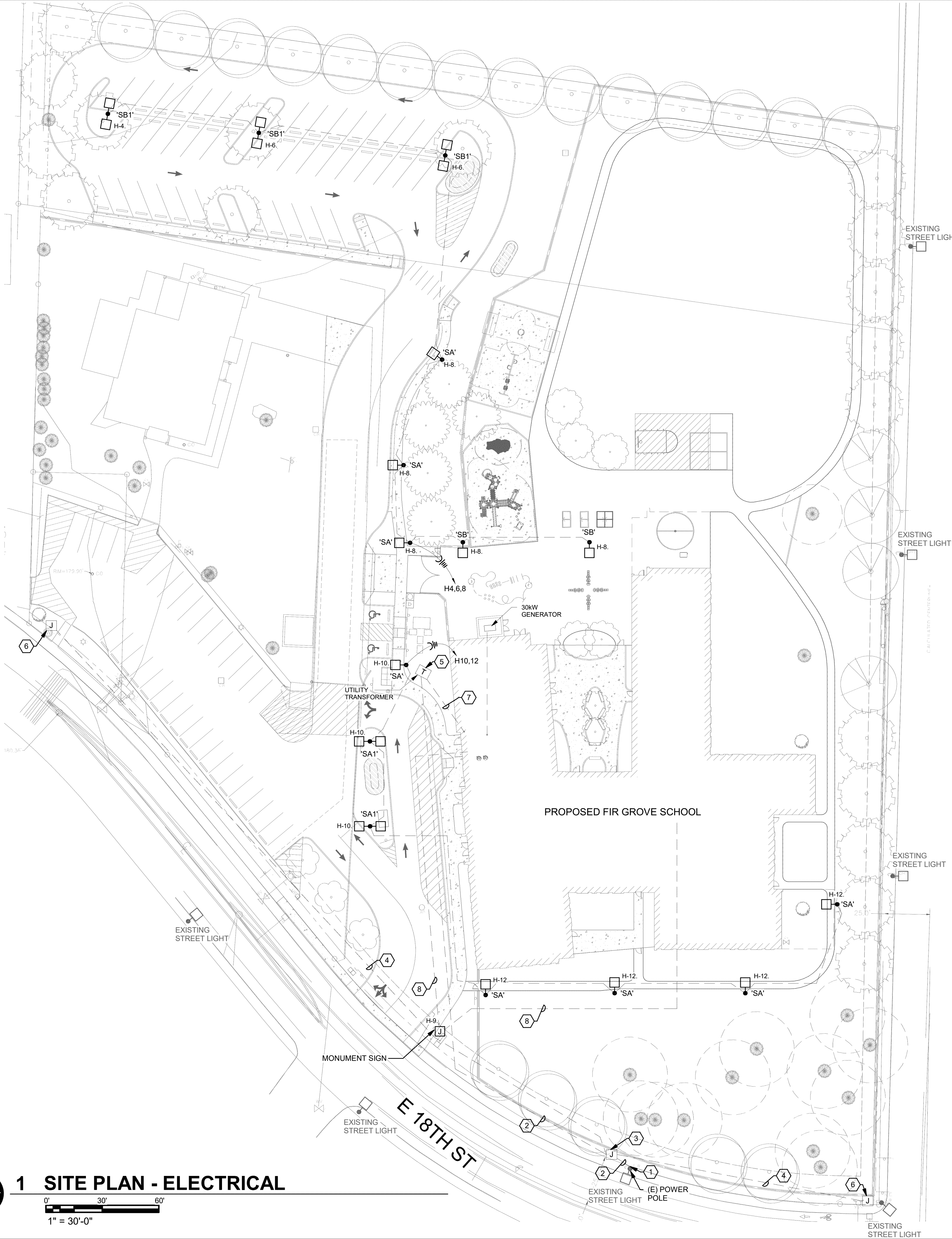
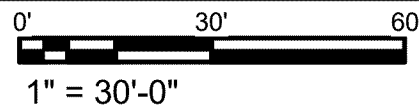
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# 1 SITE PLAN - ELECTRICAL



## GENERAL NOTES

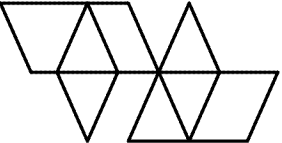
- CONTRACTOR MUST BE ON CPU'S (CLARK PUBLIC UTILITY'S) LIST OF APPROVED CONTRACTORS. ALL CONSTRUCTION TO COMPLY WITH CPU STANDARDS AND BE COMPLETED AS DESIGNED BY CPU. CONTACT CPU FOR FINALIZED DESIGN AND REQUIREMENTS.
- COORDINATE INSTALLATION OF ALL UNDERGROUND FEEDERS TO MAINTAIN MINIMUM CLEARANCES OF 6' FROM GAS LINES THAT RUN BESIDE FEEDERS AND 1' FROM GAS LINES THAT CROSS UNDERGROUND FEEDERS. ALSO MAINTAIN 10' FROM SANITARY, STORM AND WATER LINES THAT RUN PARALLEL TO UNDERGROUND FEEDERS.
- NO WIRE SMALLER THAN NO. 10 AWG SHALL BE USED AS BRANCH CIRCUIT WIRING OF EXTERIOR LIGHTING. SIZE CONDUIT AS PER NEC STANDARDS.
- CONDUIT RUNS ARE SHOWN FOR DIAGRAMMATIC PURPOSES ONLY. CONFIRM AND COORDINATE FINAL LOCATIONS ON-SITE PRIOR TO ROUGH-IN. UNLESS OTHERWISE NOTED CONDUIT MUST BE RIGID PVC.
- THE INSTALLATION OF POLE BASES MUST BE COORDINATED ON-SITE WITH ARCHITECTURAL AND CIVIL TRADES.

## SHEET KEYNOTES

- STUB-UP 4" CONDUIT AT POLE BRACKET. COIL 45' OF PRIMARY AT BASE OF POLE.
- PROVIDE (3) 10APUJ175 (1/0 AL, 175 MIL EPR W/ JACKETED NEUTRAL) IN (1) 4" SCHEDULE 40 CONDUIT.
- PROVIDE UJ3 PER CPU SPEC. UJM-44; ASSIGN #10191
- PROVIDE (1) 4" SCHEDULE 40 CONDUIT.
- PROVIDE 500BL (208Y/120V, 3-PH) XFMR PER CPU SPEC. UT-30; ASSIGN #43204.
- INSTALL CPU PROVIDED LOOP ENCLOSURE, CONTACT CPU TO ARRANGE PICK-UP.
- SEE E-501, ONE-LINE DIAGRAM, FOR CONDUIT AND CONDUCTOR SIZE.
- PROVIDE 2#8CU AND 1#8CU GND IN 2" CONDUIT TO NEW EXTERIOR MONUMENT SIGN FROM PANEL "H" AND PROVIDE MULTIMODE OM3 LOOSE TUBE OUTDOOR RATED FIBER OPTIC CABLE TO MONUMENT SIGN FROM MDF ROOM. RUN FIBER IN 2" RIGID CONDUIT INDOORS AND IN RIGID PVC UNDERGROUND. REFER TO POWER PLANS FOR POWER PANEL LOCATION.

## Incoming Electrical Service Division of Responsibility

	Contractor	Utility	Contacts:
Primary Conduit	X		Power Utility: Charlie Beatty Clark Public Utility cbeatty@clarkpud.com Work Request #: 547100
Primary Conductors	X		
Trenching and Backfill	X		
Transformer	X		
Transformer Pad / Vault	X		
Bollards	X		Telephone Utility: Mandy Stubblefield Centurylink mandy.stubblefield@centurylink.com
Transformer Connections	X		
Secondary Conduit	X		
Secondary Conductors	X		
C/T Enclosure	X		
C/T's		X	Cable T.V. Utility: Bob Millar Comcast bob_millar@Comcast.com Phone: (360) 316-1128
Meter Base	X		
Meter		X	
Electric Room Door Lock Box (obtain from power company)	X		
Reported Fault Current at Transformer			
<b>Notes:</b>			
1. Contact and coordinate all requirements and responsibilities with serving utility companies prior to submitting bid.			
2. All service installation work shall be in strict compliance with the requirements of the serving utilities.			
Disclaimer: Interface Engineering, Inc. has contacted the utilities but has not received in writing the final requirements from Clark Public Utility, [telephone utility] [CATV utility]. These drawings indicate our best estimation of their requirements. Prior to bid and prior to any construction, contact the utilities and obtain in writing their requirements.			



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SITE PLAN -  
ELECTRICAL



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E-100

Scale 1" = 30'-0"



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## SITE DETAIL

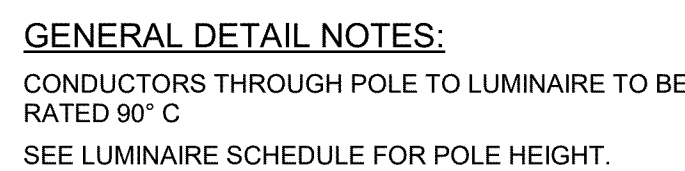
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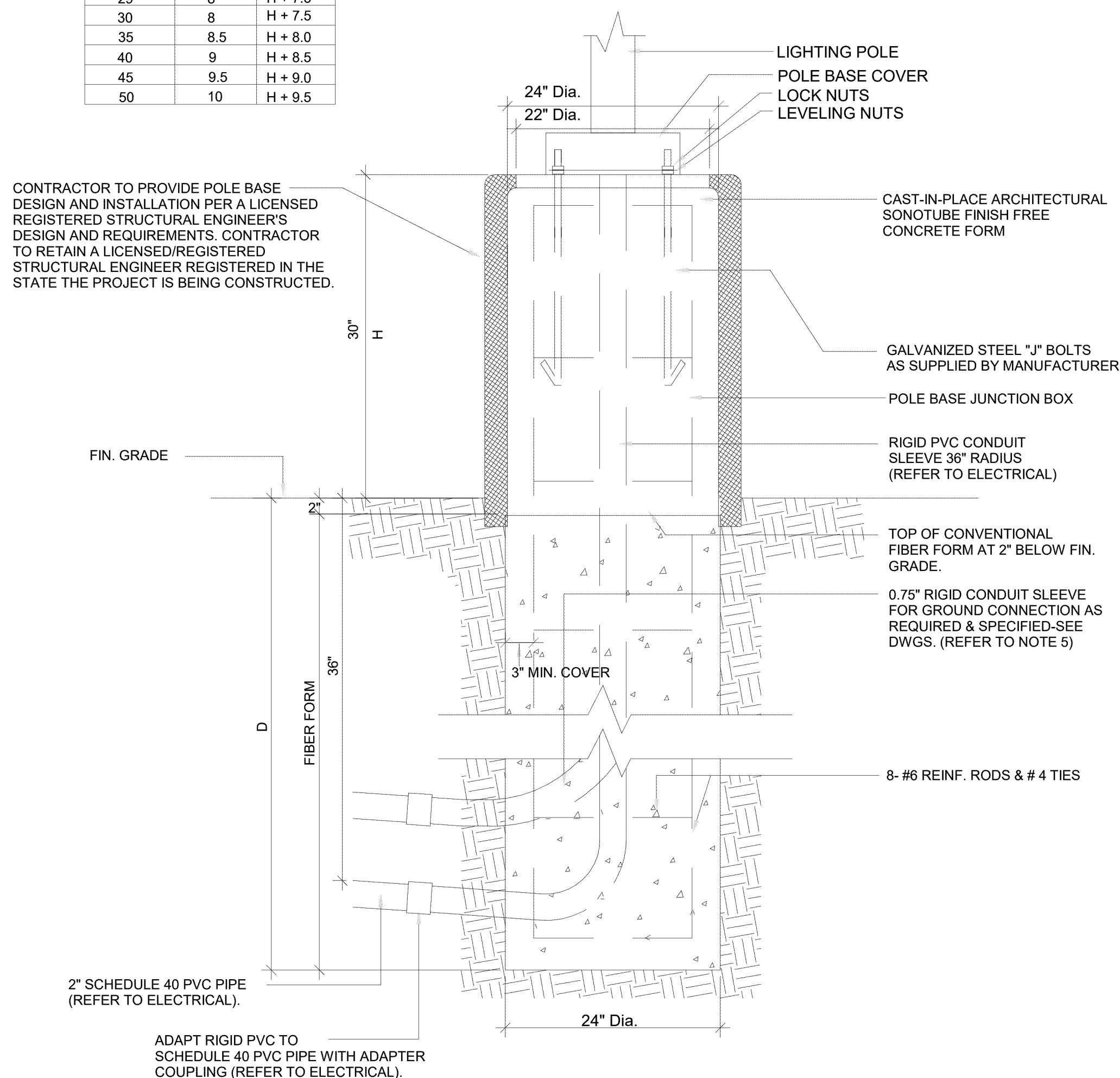
1. ALL DIMENSIONS ARE IN NOMINAL FEET OR INCHES
2. TOP OF FOUNDATION SHALL BE TROWELED SMOOTH & LEVEL.
3. CLASS OF CONCRETE SHALL BE 3000 P.S.I. CONCRETE SHALL BE VIBRATED.
4. MINIMUM OF TWO SLEEVES REQUIRED FOR EACH CONC. FOUNDATION UNLESS OTHERWISE SHOWN.

5. PROVIDE A 0.75" DIA. 10' STEEL COPPER COATED GROUND ROD ADJACENT TO POLES AS SPECIFIED ON PLAN AND CONNECT TO METAL POLE WITH BARE COPPER CONDUCTOR.
6. CONTRACTOR TO VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES.
7. SUBJECT TO SOIL CONDITIONS, REFER TO SOIL REPORT.
8. APPLY FORM RELEASE AGENT TO INSIDE SURFACE OF FORM.



BASE DIMENSIONS	POLE HEIGHT			
	UP TO 15'	UP TO 22'	UP TO 35'	UP TO 40'
'A'	4'- 0"	4'- 0"	6'- 0"	7'- 0"
'B'	18"	24"	24"	24"
'C'	14"	20"	20"	20"

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NO SCALE

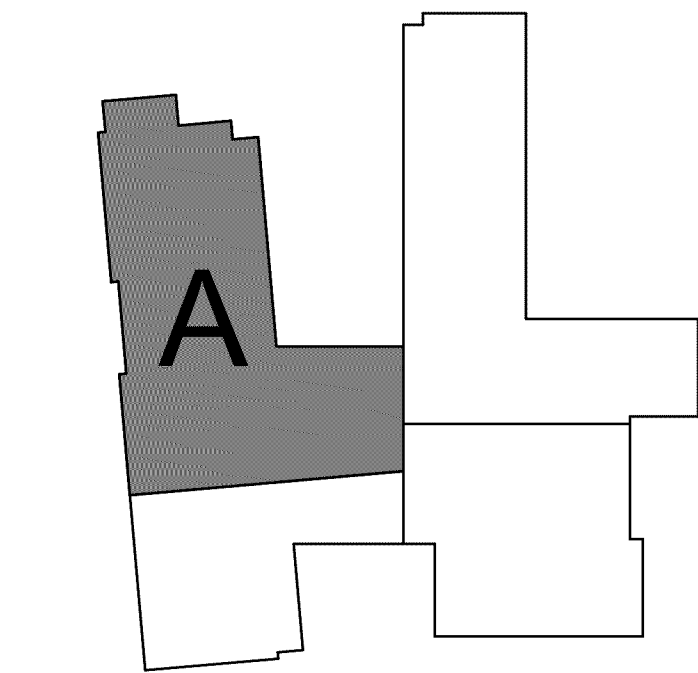
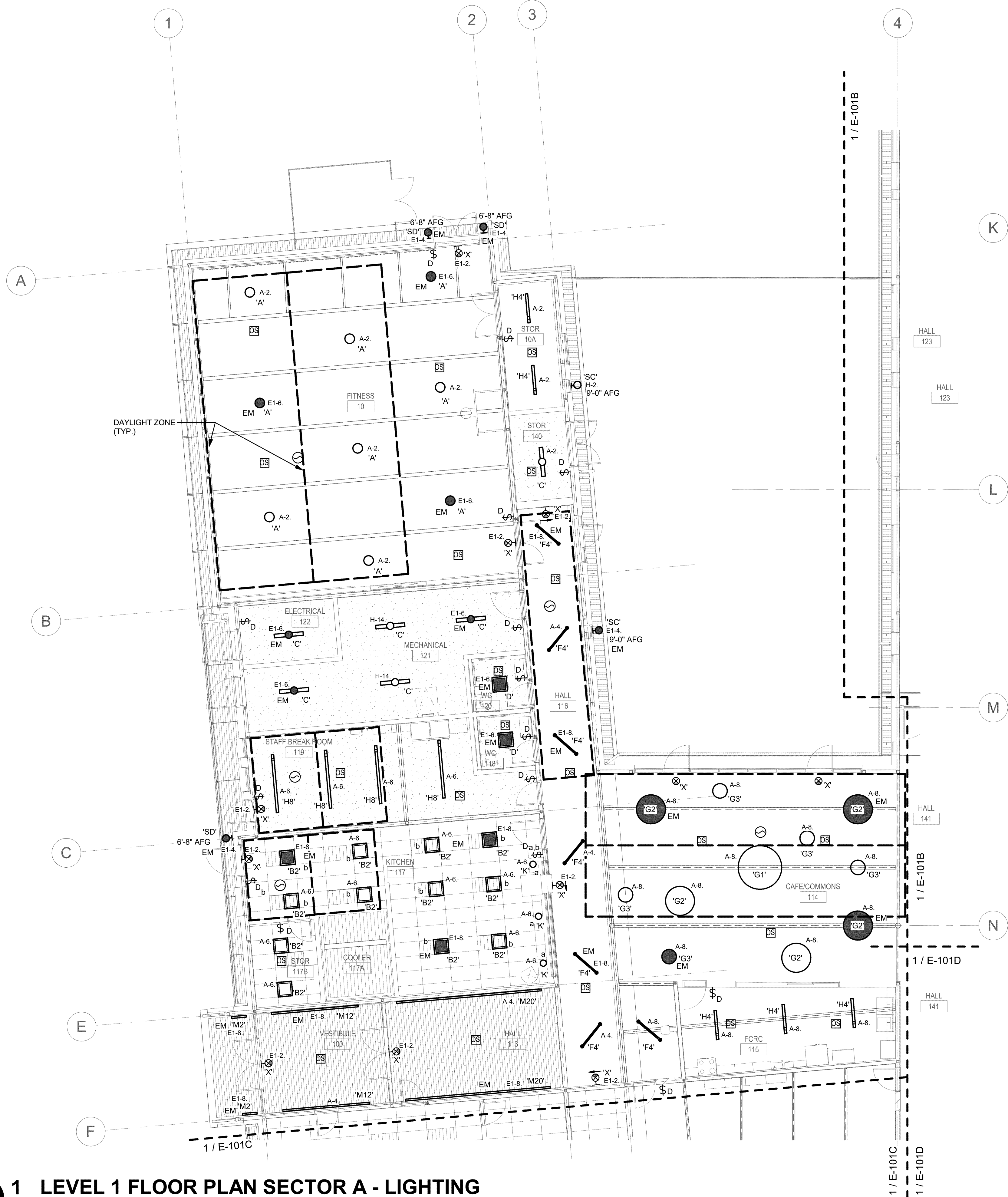


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# 1 LEVEL 1 FLOOR PLAN SECTOR A - LIGHTING

0' 4' 8' 16'  
1/8" = 1'-0"



**INTERFACE**  
ENGINEERING

PROJECT 2019-0017  
CONTACT Cody Bargholz  
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Portland, OR 97204  
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## E-101A

Scale 1/8" = 1'-0"

**LSW**  
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Vancouver, WA 98660  
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drawn by  
Author  
checked by  
Checker

lsw job number  
2018-0029

**FIR GROVE CHILDREN'S CENTER**  
**VANCOUVER PUBLIC SCHOOLS**  
**3200 E 18TH ST**  
**VANCOUVER, WA, 98661**

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**LEVEL 1 FLOOR**  
**PLAN SECTOR A -**  
**LIGHTING**



lsw job number  
2018-0029

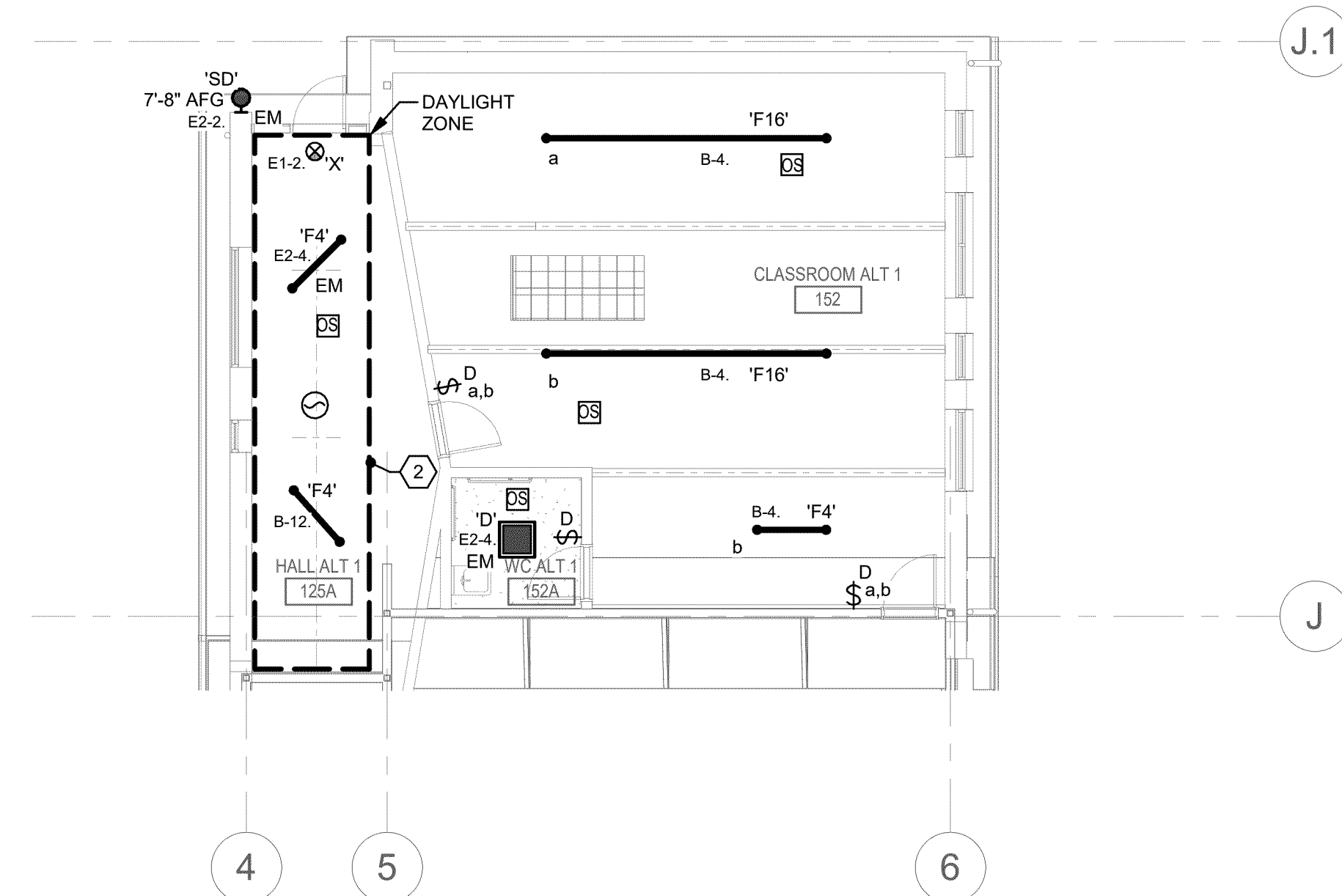
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**LEVEL 1 FLOOR  
PLAN SECTOR  
- LIGHTING**

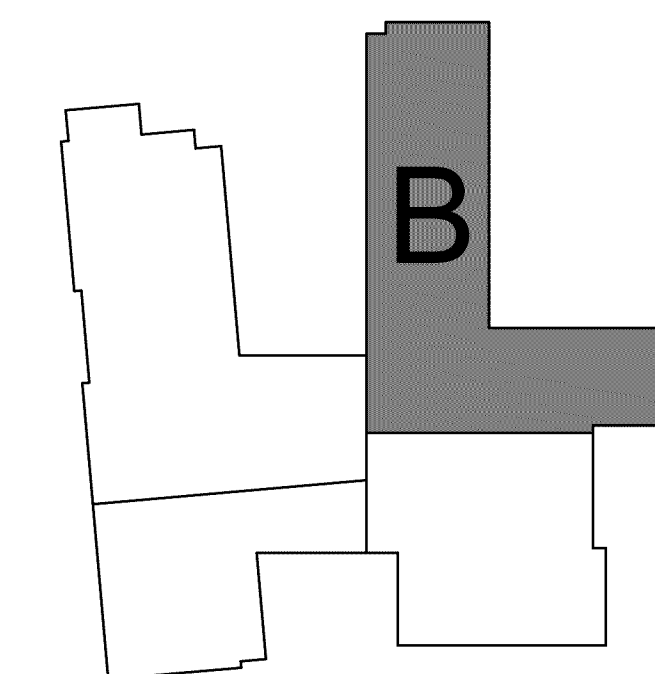
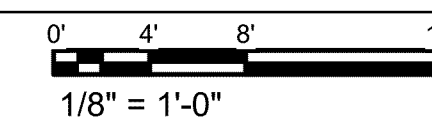
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Scale 1/8" = 1'-0"

Scale  $1/8" = 1'-0"$

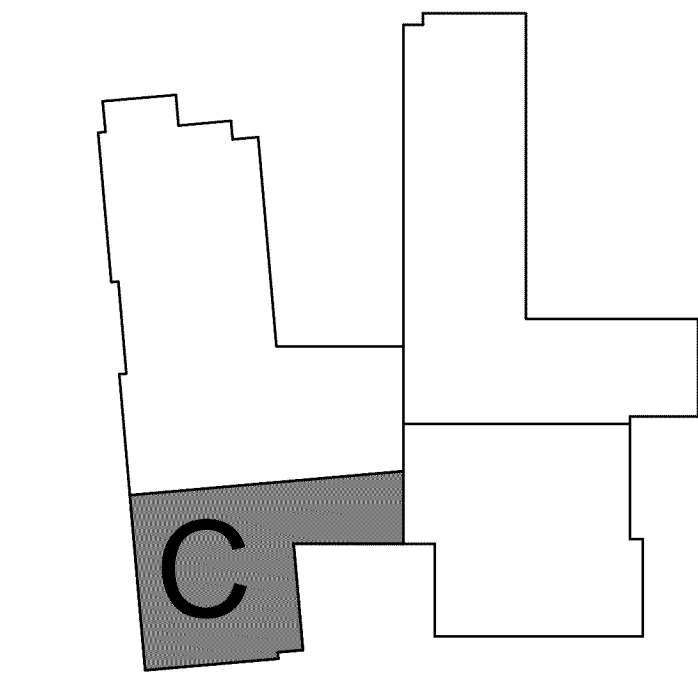
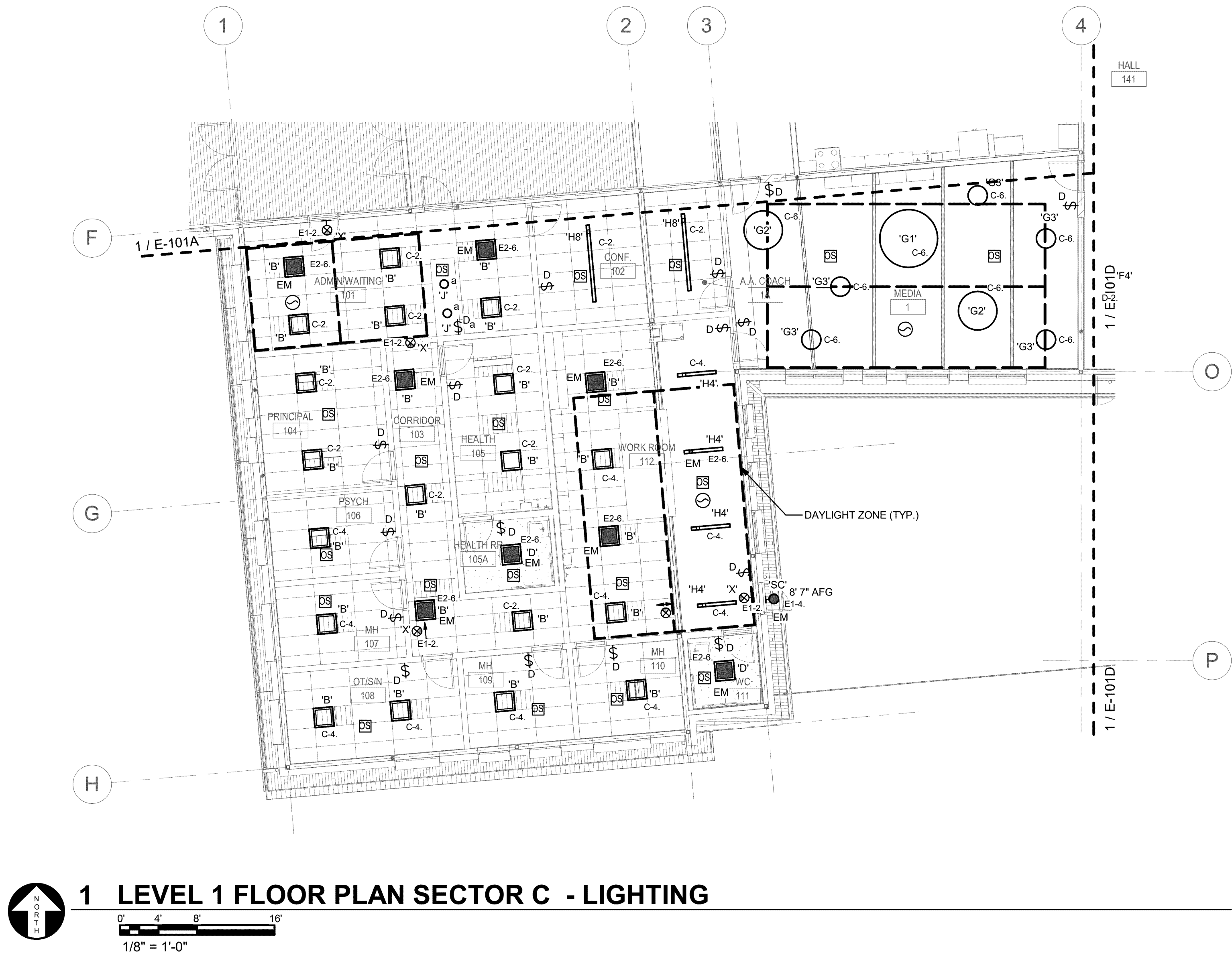


## 2 LEVEL 1 ALT. FLOOR PLAN SECTOR B - LIGHTING





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**E-101C**

Scale 1/8" = 1'-0"

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**LEVEL 1 FLOOR**  
**PLAN SECTOR C**  
**- LIGHTING**

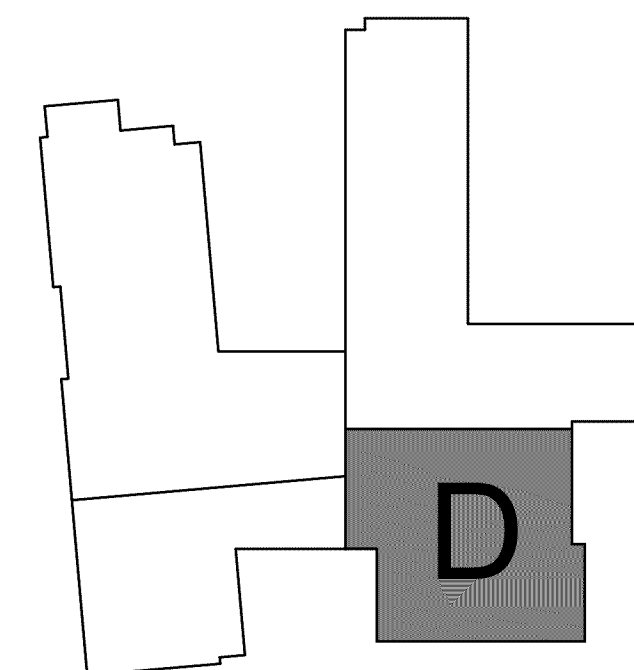


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**LEVEL 1 FLOOR  
PLAN SECTOR D -  
LIGHTING**

Scale      1/8" = 1'-



**INTERFACE  
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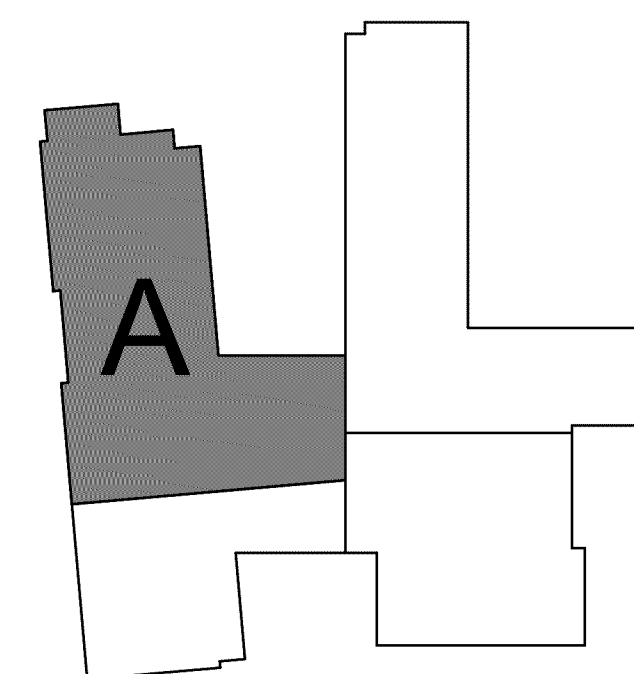
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**2018-0029**

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**LEVEL 1 FLOOR  
PLAN SECTOR A -  
POWER**

# E-201A

Scale  $1/8" = 1'-0"$



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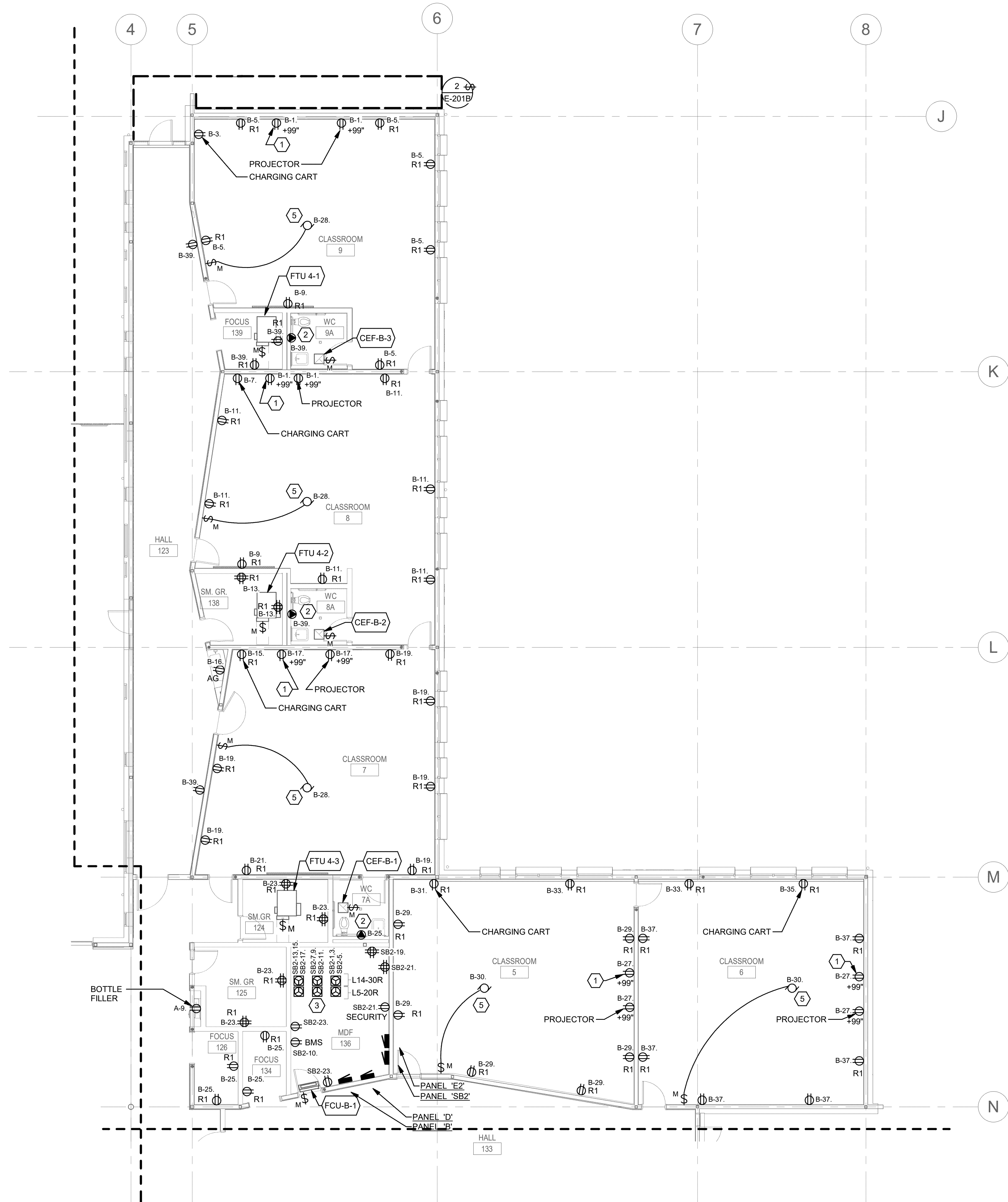


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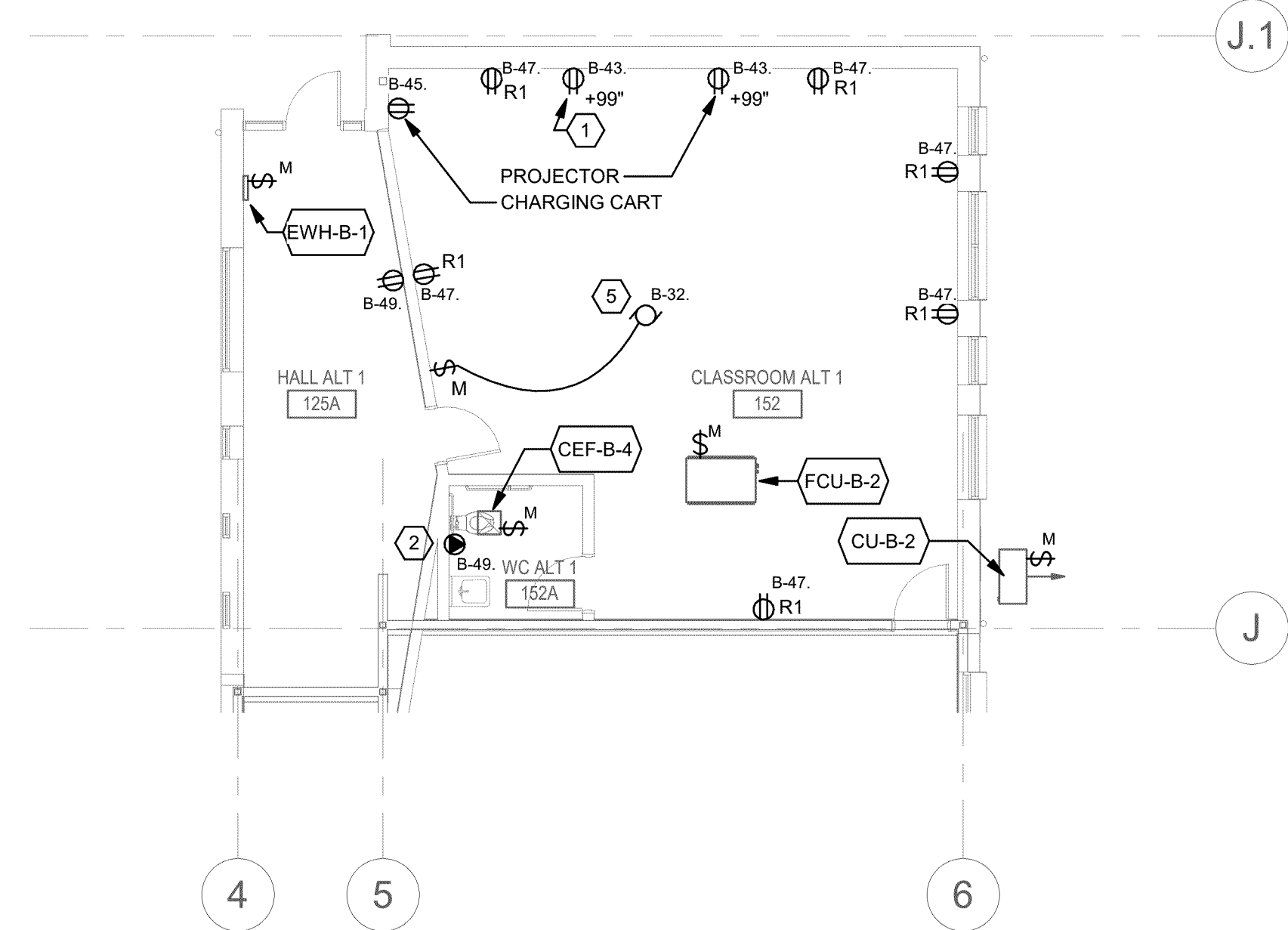
# 1 LEVEL 1 FLOOR PLAN SECTOR B - POWER

0' 4' 8' 16'  
1/8" = 1'-0"



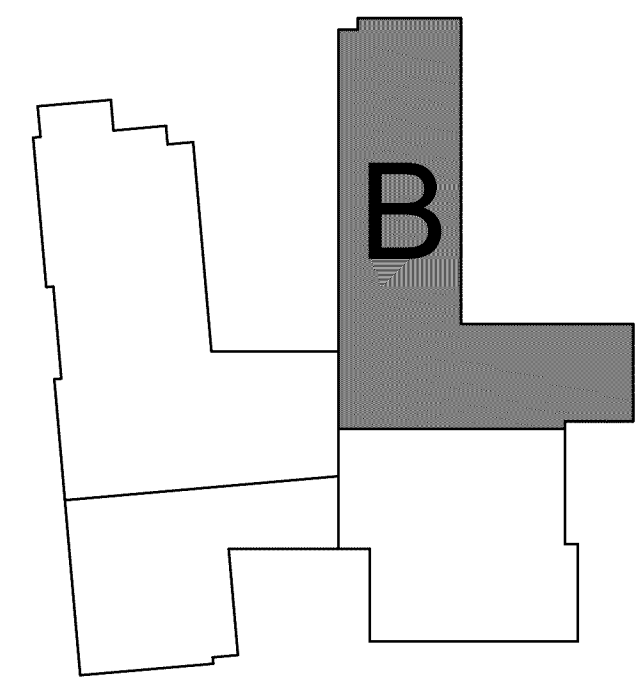
## SHEET KEYNOTES

1. INSTALL RECEPTACLE WITHIN 2' x 2' FRONT ROW WALL MOUNTED BOX. REFER TO TYPICAL TEACHING WALL ELEVATION ON SHEET 1/T-701.
2. PROVIDE CONNECTION TO ELECTRONIC TRAP PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
3. WIRE AND CONNECT RECEPTACLES FROM EACH RACK TO PANEL SB2 USING 3#10 & 2#12 & 2#12GND IN 1" C.
4. NOT USED.
5. PROVIDE CONNECTION TO MOTORIZED SHADE AND LINE VOLTAGE SWITCH. COORDINATE EXACT REQUIREMENTS WITH SHADE MANUFACTURER PRIOR TO ROUGH-IN. FIELD VERIFY LOCATION OF CONTROL SWITCH WITH OWNER'S REPRESENTATIVE. WIRE AND CONNECT FOR A COMPLETE AND OPERABLE SYSTEM.



## 2 LEVEL 1 ALT. FLOOR PLAN SECTOR B - POWER

0' 4' 8' 16'  
1/8" = 1'-0"



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# E-201B

Scale 1/8" = 1'-0"

FIR GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
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LEVEL 1 FLOOR  
PLAN SECTOR B -  
POWER



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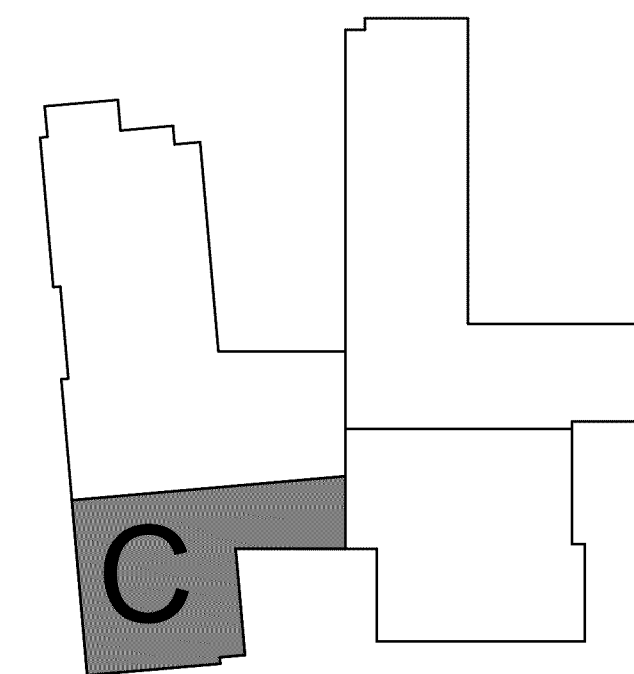
1. PROVIDE CONNECTION TO ELECTRONIC TRAP PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.



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**2018-0029**

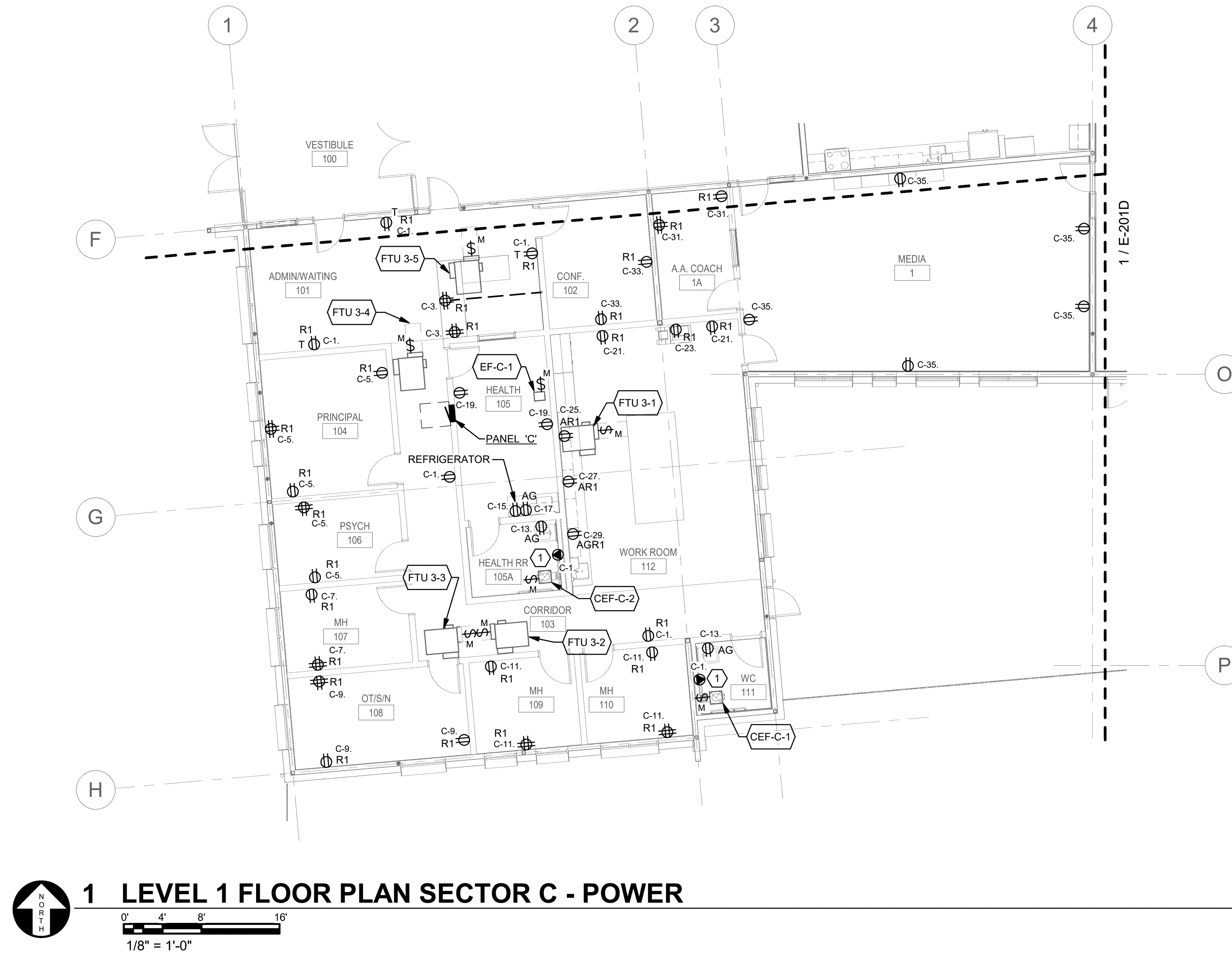
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**LEVEL 1 FLOOR  
PLAN SECTOR C -  
POWER**



E-201C

Scale      1/8" = 1'-0"





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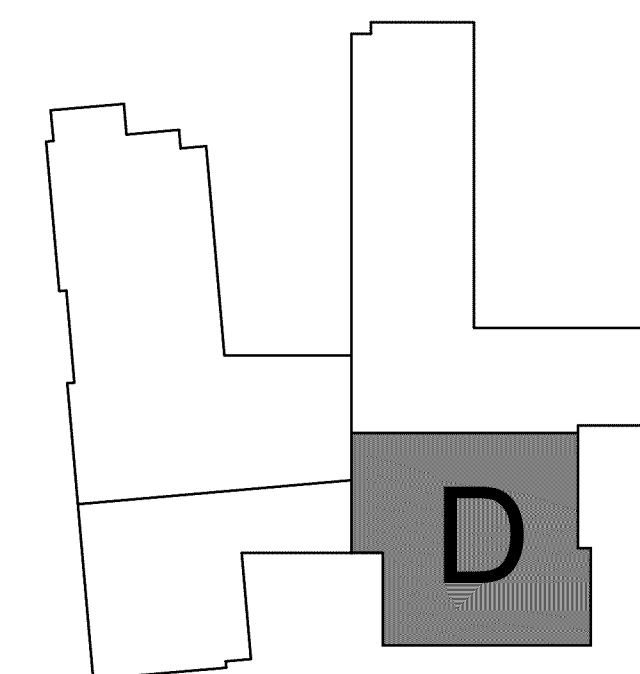
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**LEVEL 1 FLOOR  
PLAN SECTOR  
POWER**

Scale      1/8" = 1'

1. INSTALL RECEPTACLE WITHIN 2' x 2' FRONT ROW WALL MOUNTED BOX. REFER TO TYPICAL TEACHING WALL ELEVATION ON SHEET I/T-701.
2. PROVIDE CONNECTION TO ELECTRONIC TRAP PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
3. PROVIDE CONNECTION TO MOTORIZED SHADE AND LINE VOLTAGE SWITCH. COORDINATE EXACT REQUIREMENTS WITH SHADE MANUFACTURER. PRIOR TO ROUGH-IN, FIELD VERIFY LOCATION OF CONTROL SWITCH WITH OWNER'S REPRESENTATIVE. WIRE AND CONNECT FOR A COMPLETE AND OPERABLE SYSTEM.



**PROJECT** 2019-0017  
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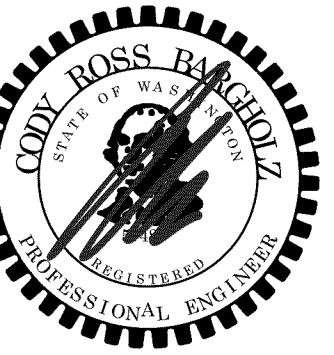
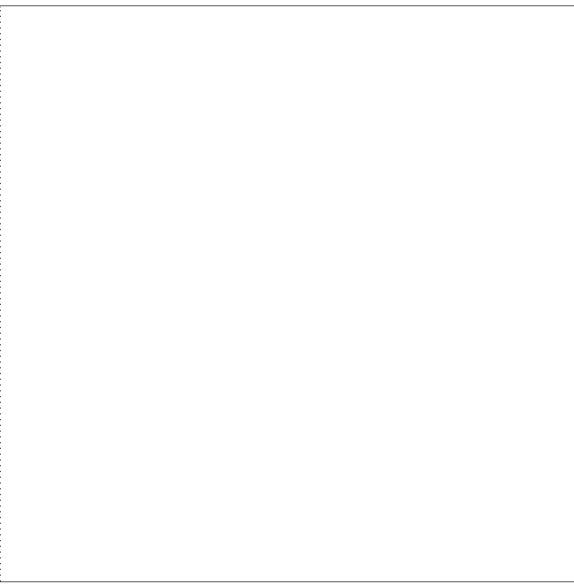
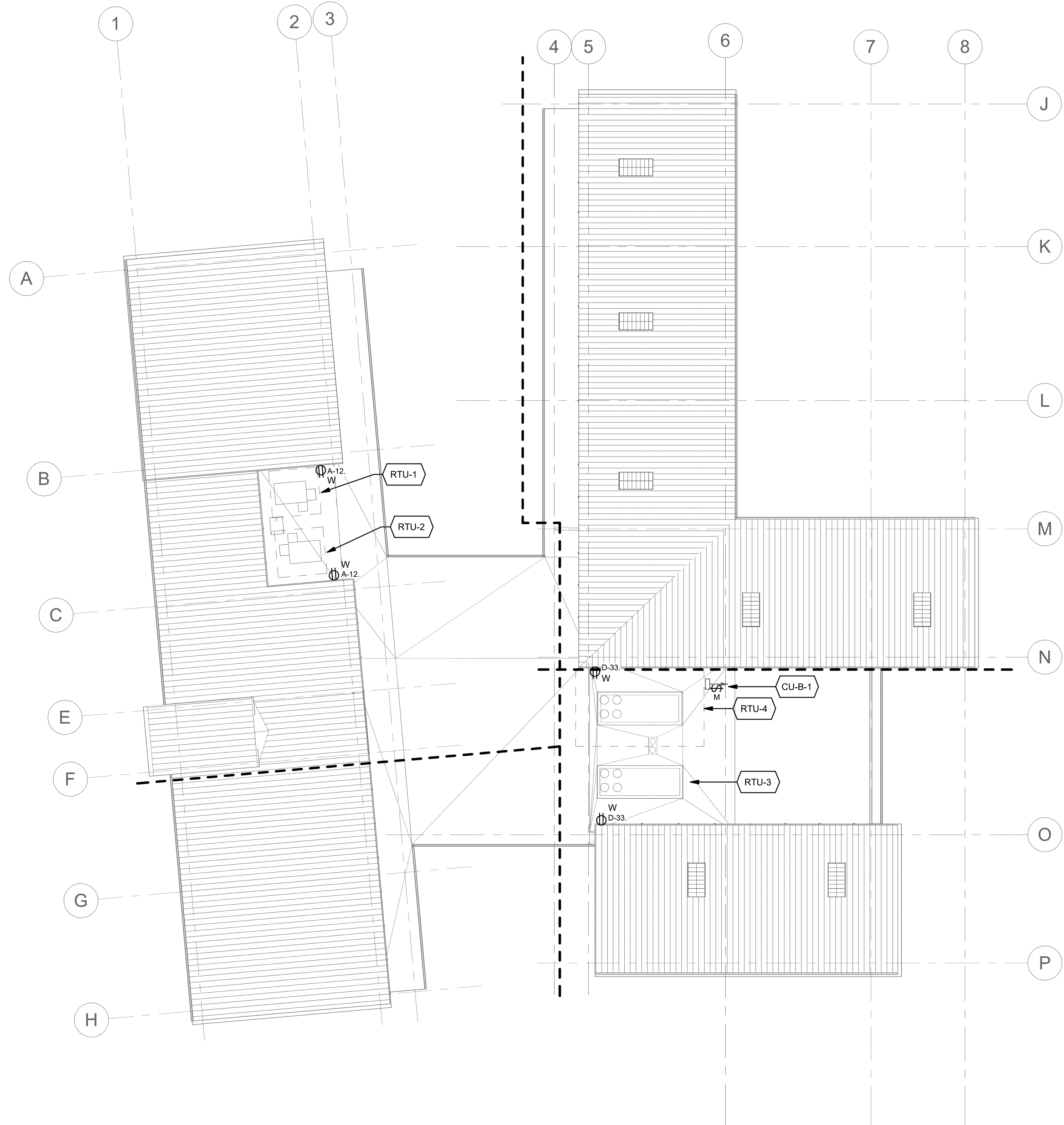


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## 1 OVERALL ROOF PLAN - POWER

0' 8' 16' 32'  
1/16" = 1'-0"



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**2018-0029**

**FIR GROVE CHILDREN'S CENTER  
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**OVERALL ROOF  
PLAN - POWER**



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**E-202**

Scale 1/16" = 1'-0"



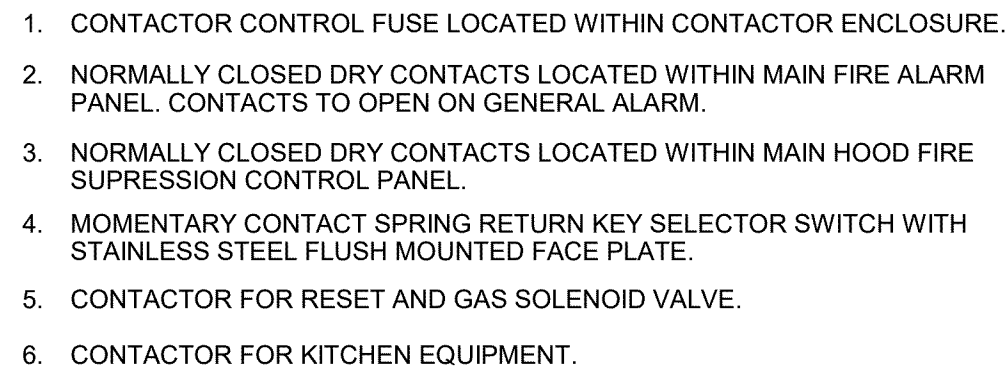
SYMBOL	DESCRIPTION	VOLTS	PH	LOAD (VA)	FLA	HP	BREAKER SIZE	CIRCUIT NUMBER	Feeder Number	NOTES
E1	CUBE ICE MACHINE	120	1	1380.0	11.5		15-1P	K-1	202	
E2	REACH-IN FREEZER	120	1	1344.0	11.2		15-1P	SB1-9	202	
E3	WALK-IN COOLER CONDENSING UNIT	208	3	1728.0	4.8	1	15-3P	SB1-11,13,15	203	
E4	WALK-IN COOLER EVAPORATOR	120	1	240.0	2		15-1P	SB1-17	202	
E5	WALK-IN LIGHTS	120	1	160.0			15-1P	SB1-19	202	
E6	MOBILE HOT HOLDING CABINET	120	1	1440.0	12		15-1P	K-25	202	
E7	ELECTRIC CAN OPENER	120	1	360.0	3		15-1P	K-27	202	SEE DETAIL #2
E8	FIRE PROTECTION SYSTEM	120	1	100.0			15-1P	K-29	202	
E9a	DOUBLE STACK CONVECTION OVENS	208	3	12000.0			45-3P	K-31,33,35	504	SEE DETAIL #2
E9b	DOUBLE STACK CONVECTION OVENS	208	3	12000.0			45-3P	K-37,39,41	504	SEE DETAIL #2
E10	RESIDENTIAL RANGE	208	1	8000.0			50-2P	K-7,9	503	14-50R, SEE DETAIL #2
E11	CANOPY HOOD LIGHTS	120	1	160.0			15-1P	K-2	202	SEE DETAIL #2
E15	DISPOSER	208	3	2808.0	7.8	2	20-3P	K-4,6,8	203	CONNECTIONS TO DISPOSER, SOLENOID & SWITCH
E16	WAREWASHER BOOSTER HEATER	208	3	8500.0			30-3P	K-10,12,14	303	
E17	WAREWASHER (TANK HEAT/MOTORS)	208	3	7812.0	21.7		30-3P	K-16,18,20	304	
E18	WAREWASHER DETERGENT FEED	120	1	1440.0			15-1P	K-22	202	
E19	DISPOSER	208	3	2808.0	7.8	2	20-3P	K-19,21,23	203	CONNECTIONS TO DISPOSER, SOLENOID & SWITCH
E20	CANOPY HOOD ROOM SENSOR CONTROL	120	1	0.0					202	WIRE AND CONNECT TO HOOD SENSOR CONTROL BOARD USING 2 #12 IN 3/4" C
E21	MOBILE MILK COOLER	120	1	324.0	2.7		15-1P	K-24	202	
E22	DROP-IN REFRIGERATED COLD PAN	120	1	468.0	3.9		15-1P	K-26	202	
E23	DROP-IN HOT FOOD WELLS	208	1	3720.0			25-2P	K-28,30	203	
E24	POINT OF SALE SYSTEM	120	1	100.0			15-1P	K-32	202	

A. REFER TO KITCHEN CONSULTANT DRAWINGS FOR EXACT LOCATIONS AND CONNECTION TYPES. COORDINATE CONNECTION WITH SUPPLIED EQUIPMENT AND VENDOR DRAWINGS.

B.

## 1

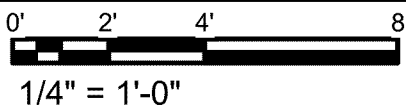
202	2 #12 CU, 1 #12 CU GND., IN 3/4" C.
203	3 #12 CU, 1 #12 CU GND., IN 3/4" C.
303	3 #10 CU, 1 #10 CU GND., IN 3/4" C.
304	4 #10 CU, 1 #10 CU GND., IN 3/4" C.
503	3 #6 CU, 1 #10 CU GND., IN 3/4" C.
504	4 #6 CU, 1 #10 CU GND., IN 1" C.



## NO SCALE

- A. DUPLEX AND QUAD RECEPTACLES IN KITCHEN TO BE GFCI, UNLESS OTHERWISE NOTED.
- B. REFER TO FOOD SERVICE DRAWINGS FOR EQUIPMENT DIMENSIONS AND LOCATION.
- C. THIS DETAIL IS TO BE READ IN CONJUNCTION WITH THE FOOD SERVICE DRAWING PACKAGE. IF A DISCREPANCY BETWEEN THE TWO DRAWING SETS OCCURS ASSUME THE MORE COSTLY OPTION AND IMMEDIATELY SEEK CLARIFICATION FROM THE ENGINEER.

1. PROVIDE CONNECTION TO ELECTRONIC TRAP PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
2. ALL ELECTRICAL EQUIPMENT LOCATED BENEATH TYPE I HOOD IS TO SHUTDOWN UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM. REFER TO DETAIL 2/E-401 FOR INFORMATION.
3. ALL LIGHTING AND SWITCHES FOR THE COOLERS ARE TO BE SUPPLIED BY KITCHEN EQUIPMENT SUPPLIER AND NEED TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
4. PROVIDE AND INSTALL CONDUIT AND WIRE CONNECTING THERMOSTAT, SENSOR, AND EVAPORATOR WITH COOLER, AS INDICATED.
5. PROVIDE 8KW INTERCONNECT BETWEEN LIMIT SWITCH AND WAREWASHER TANK HEAT/MOTORS.
6. INTERLOCK HOOD CANOPY LIGHTS AND HOOD EXHAUST FAN WITH MAKEUP AIR UNIT PER DIVISION 23 DRAWINGS. PROVIDE WALL SWITCH WITH PILOT LIGHT AT 48" AFF.
7. MANUAL FIRE SUPPRESSION PULL STATION. PROVIDE 3/4" ROUGH IN TO FIRE PROTECTION SYSTEM CONTROL PANEL E8.
8. CONTRACTOR TO PROVIDE THERMAL AND WEATHERPROOFING AT ALL ELECTRICAL PENETRATIONS OF THE COOLER.
9. PROVIDE AND INSTALL CONDUIT AND WIRE CONNECTING WAREWASHER CONTROL PANEL AND EXHAUST FAN FOR AUTO FAN ON/OFF DURING EQUIPMENT OPERATION.



lsw job number  
**2018-0029**

**GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
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**ENLARGED  
PLANS -  
ELECTRICAL**



E-401

Scale	As indicated
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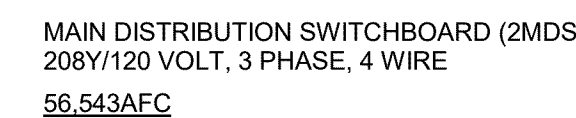
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ONE-LINE  
DIAGRAM -  
ELECTRICAL

Scale	NO SCALE
-------	----------

1. PROVIDE 3-1/2 INCH HIGH CONCRETE HOUSEKEEPING PAD UNDER SWITCHBOARD.
2. CURRENT TRANSFORMER/TERMINAL CABINET PER POWER COMPANY REQUIREMENTS.
3. SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE ON SHEET E-601 FOR WIRING/CONDUIT INFORMATION.
4. PROVIDE SOLID-STATE BREAKER WITH LSI TRIP SETTINGS.



## NO SCALE



MECHANICAL EQUIPMENT CONNECTION SCHEDULE																	
SYMBOL	DESCRIPTION	LOCATION	VOLTS	PH	LOAD(VA)	FLA	HP	MCA	MOCP	WIRE / CONDUIT	BREAKER SIZE	CIRCUIT NUMBER	DISCONNECT BY 26	DISC. RATING	NOTES		
B-1	BOILER	MECHANICAL RM	120	1	1572.0	13.1			0	202	30A-1P	SB1-3	Yes	NEMA 1			
B-2	BOILER	MECHANICAL RM	120	1	1572.0	13.1			0	202	30A-1P	SB1-5	Yes	NEMA 1			
CEF-A-1	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	C-12	Yes	NEMA 1			
CEF-A-2	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	C-14	Yes	NEMA 1			
CEF-B-1	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	B-18	Yes	NEMA 1			
CEF-B-2	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	B-20	Yes	NEMA 1			
CEF-B-3	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	B-22	Yes	NEMA 1			
CEF-B-4	EXHAUST FAN	RESTROOM ALT 1	120	1	16.0				0	202	15A-1P	B-51	Yes	NEMA 1	4		
CEF-C-1	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	B-24	Yes	NEMA 1			
CEF-C-2	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	B-26	Yes	NEMA 1			
CEF-D-1	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	D-35	Yes	NEMA 1			
CEF-D-3	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	D-39	Yes	NEMA 1			
CEF-D-3	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	D-37	Yes	NEMA 1			
CEF-D-4	EXHAUST FAN	RESTROOM	120	1	16.0				0	202	15A-1P	D-41	Yes	NEMA 1			
CP-1.2	CIRCULATION PUMP	MECHANICAL RM	120	1	88.8		1/25		0	202	15A-1P	H-1	Yes	NEMA 1			
CP-3.4	CIRCULATION PUMP	MECHANICAL RM	120	1	27.6		1/25		0	202	15A-1P	H-3	Yes	NEMA 1			
CU-B-1	CONDENSING UNIT	ROOF	208	1	2746.0			16.5	25	203	25A-2P	SB2-2.4	Yes	NEMA 3R			
CU-B-2	CONDENSING UNIT	ROOF	208	1	4842.2			29.1	35	303	35A-2P	B-34.36	Yes	NEMA 3R	4		
EF-A-1	EXHAUST FAN	MECHANICAL RM	120	1	241.0				0	202	15A-1P	A-10	Yes	NEMA 1			
EF-C-1	EXHAUST FAN	HEALTH	120	1	160.0				0	202	15A-1P	C-10	Yes	NEMA 1			
EWHA-1	ELECTRIC HEATER	STORAGE	120	1	500.0				0	202	15A-1P	H-11	Yes	NEMA 1			
EWB-B-1	ELECTRIC HEATER	HALL ALT 1	120	1	500.0				0	202	15A-1P	B-53	Yes	NEMA 1	4		
FCU-B-1	FAN COIL UNIT	MDF	208	1	173.0			0.6	15	203	15A-2P	SB2-6.8	Yes	NEMA 1			
FCU-B-2	FAN COIL UNIT	CLASSRM ALT 1	208	1	482.6			2.9	15	203	15A-2P	B-55.57	Yes	NEMA 1	4		
FTU-3-1	FAN TERMINAL UNIT	CORRIDOR	120	1	696.0		0.25		0	202	20A-1P	C-41	Yes	NEMA 1			
FTU-3-2	FAN TERMINAL UNIT	CORRIDOR	120	1	696.0		0.25		0	202	20A-1P	C-8	Yes	NEMA 1			
FTU-3-3	FAN TERMINAL UNIT	CORRIDOR	120	1	696.0		0.25		0	202	20A-1P	C-8	Yes	NEMA 1			
FTU-3-4	FAN TERMINAL UNIT	CORRIDOR	120	1	696.0		0.25		0	202	20A-1P	C-37	Yes	NEMA 1			
FTU-3-5	FAN TERMINAL UNIT	ADMIN/WAITING	120	1	1176.0		0.5		0	202	20A-1P	C-39	Yes	NEMA 1			
FTU-3-6	FAN TERMINAL UNIT	RESTROOM	120	1	1656.0		0.75		0	202	30A-1P	D-29	Yes	NEMA 1			
FTU-3-7	FAN TERMINAL UNIT	RESTROOM	120	1	1920.0		1		0	202	40A-1P	D-23	Yes	NEMA 1			
FTU-4-1	FAN TERMINAL UNIT	RESTROOM	120	1	1176.0		0.5		0	202	20A-1P	B-41	Yes	NEMA 1			
FTU-4-2	FAN TERMINAL UNIT	RESTROOM	120	1	1176.0		0.5		0	202	20A-1P	B-2	Yes	NEMA 1			
FTU-4-3	FAN TERMINAL UNIT	SMALL GROUP	120	1	1176.0		0.5		0	202	20A-1P	B-14	Yes	NEMA 1			
FTU-4-4	FAN TERMINAL UNIT	STORAGE	120	1	1176.0		0.5		0	202	20A-1P	D-31	Yes	NEMA 1			
FTU-4-5	FAN TERMINAL UNIT	STORAGE	120	1	1656.0		0.75		0	202	30A-1P	D-25	Yes	NEMA 1			
FTU-4-6	FAN TERMINAL UNIT	STORAGE	120	1	1656.0		0.75		0	202	30A-1P	D-27	Yes	NEMA 1			
GWH-1	GAS WATER HEATER	MECHANICAL RM	120	1	1800.0	15			0	202	20A-1P	H-5	Yes	NEMA 1			
GWH-2	GAS WATER HEATER	MECHANICAL RM	120	1	1800.0	15			0	202	20A-1P	H-7	Yes	NEMA 1			
HWP-1	CIRCULATION PUMP	MECHANICAL RM	208	3	6009.0		5		0	203	40A-3P	SB1-2.4,6	No		1		
HWP-2	CIRCULATION PUMP	MECHANICAL RM	208	3	0.0		5		0	203	40A-3P	SB1-21,23,25	No		1		
KEF-1	EXHAUST FAN	ROOF	120	1	1176.0		0.5		0	202	20A-1P	K-3	No		1,2		
KEF-2	EXHAUST FAN	ROOF	120	1	528.0		0.1		0	202	15A-1P	K-5	Yes	NEMA 3R	2,3		
RTU-1	ROOF TOP UNIT	ROOF	208	3	17992.0			51.8	60	603	60A-3P	2MDS-25,26,27	No		1		
RTU-2	ROOF TOP UNIT	ROOF	208	3	16192.8			46.4	60	503	60A-3P	2MDS-28,29,30	No		1		
RTU-3	ROOF TOP UNIT	ROOF	208	3	51984.0			153	175	1753	175A-3P	2MDS-31,32,33	No		1		
RTU-4	ROOF TOP UNIT	ROOF	208	3	71784.3			210	225	2253	225A-3P	2MDS-34,35,36	No		1		

GENERAL MECHANICAL EQUIPMENT CONNECTION NOTE:	
A.	THE ABOVE INFORMATION IS FOR A SPECIFIC MANUFACTURER. ACTUAL MANUFACTURER FOR EQUIPMENT MAY BE DIFFERENT. COORDINATE WITH MECHANICAL EQUIPMENT SUBMITTALS FOR LOADS AND OVER CURRENT PROTECTION REQUIREMENTS PRIOR TO INSTALLATION OF WIRING.
B.	MOCP = MAXIMUM OVER CURRENT PROTECTION. MCA = MINIMUM CIRCUIT AMPACITY
C.	PROVIDE DISCONNECTING MEANS FOR EACH ITEM OF EQUIPMENT LISTED IN THE SCHEDULE ABOVE, EXCEPT AS SPECIFICALLY NOTED OTHERWISE IN SCHEDULE NOTES, BELOW.
MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES	
1	VFD PROVIDED BY MANUFACTURER.
2	INTERLOCK OPERATION WITH ASSOCIATED HOOD. FAN TO RUN WHEN HOOD IS IN USE.
3	INTERLOCK OPERATION WITH ASSOCIATED DISHWASHER. FAN TO RUN WHEN DISHWASHER IS IN USE.
4	PROVIDE SEPARATE, ALTERNATE PRICING FOR THIS SYSTEM, AS PART OF ALTERNATE 1

WIRE/CONDUIT SCHEDULE	
202	2 #12 CU, 1 #12 CU GND., IN 3/4" C.
203	3 #12 CU, 1 #12 CU GND., IN 3/4" C.
303	3 #10 CU, 1 #10 CU GND., IN 3/4" C.
503	3 #6 CU, 1 #10 CU GND., IN 3/4" C.
603	3 #4 CU, 1 #10 CU GND., IN 1" C.
1753	3 #2/0 CU, 1 #6 CU GND., IN 2" C.
2253	3 #4/0 CU, 1 #4 CU GND., IN 2" C.



MAIN SWITCHBOARD: 2MDS									
MAIN CIRCUIT BREAKER: 1000 A BUS AMPACITY: 1000A SERVICE: 120/208 V, 3PH, 4 WIRE A.I.C RATING: 65000 A				MOUNTING ENCLOSURE: ELECTRICAL 122 LOCATION: ELECTRICAL 122 SUPPLY FROM:					
CKT	LOAD DESCRIPTION	Number of Poles	FRAME SIZE	TRIP RATING	Load (VA)				NOTES
					A	B	C		
1,2,3	ATS-E	3	100 A	50 A	1261.5	376.3	1153.8		
4,5,6	ATS-SB	3	100 A	100 A	6288.5	9088.0	6337.5		
7,8,9	PANEL 'H'	3	200 A	125 A	2527.8	1282.6	3000.0		
10,11...	PANEL 'K'	3	200 A	200 A	24357.3	24865.3	18171.3		
13,14...	PANEL 'A'	3	100 A	60 A	9594.7	21037.3	20359.5		
16,17...	PANEL 'B'	3	200 A	110 A	10212.1	9866.8	10816.7		
19,20...	PANEL 'C'	3	200 A	125 A	7010.0	4130.0	4996.0		
22,23...	PANEL 'D'	3	100 A	60 A	7042.9	6146.1	6872.8		
25,26...	RTU-1	3	100 A	60 A	5997.3	5997.3	5997.3		
28,29...	RTU-2	3	100 A	60 A	5397.6	5397.6	5397.6		
31,32...	RTU-3	3	200 A	175 A	17328.0	17328.0	17328.0		
34,35...	RTU-4	3	400 A	225 A	23928.1	23928.1	23928.1		
37	BUSSED SPACE	--	--	--	0.0				
38	BUSSED SPACE	--	--	--		0.0			
39	BUSSED SPACE	--	--	--			0.0		
40									
41									
42									
Load Type Definitions: Motor (125% largest Motor + 100% remaining motor) R = Receptacles (to 10kVA 100%, over 10kVA 50%) E = Existing Load 30-day metered (125%) EL = Elevator (Demand as per NEC Table 620.14)									
K = Kitchen (Demand as per NEC Table 220.56) G = General Load (Non-Continuous)(100%) C = Continuous Load (125%) L = Lighting (125%)									
W=Water Heater (125%) X = X-Rays (Demand per NEC 660.6) H=Heating (100%)									
Load Type	Connected Load	NEC Demand Factor	NEC Demand Load	Panel Totals					
L	9994.6	125.00%	12493.3						
Motor	196271.3	109.14%	214217.4	Total Connected Load: 374747.9					
R	36540.0	63.68%	23270.0	Total NEC Demand: 359648.0					
H	4100.0	100.00%	4100.0	Total Connected Current: 1040 A					
K	66892.0	65.00%	43479.8	Total NEC Demand Current: 998 A					
C	4550.0	125.00%	5687.5						
G	56400.0	100.00%	56400.0						

PANELBOARD: A																			
MAIN LUGS ONLY BUS AMPACITY: 225 EQUIPMENT RATING: 120/208 V, 3PH, 4 WIRE AIC RATING: 65,000 A						MOUNTING: SURFACE ENCLOSURE: TYPE 1 LOCATION: ELECTRICAL 122 SUPPLIED FROM: 2MDS				Accessories:									
										Load (VA)									
CKT	Description/Location	Type	C.B.	Pole	Note	A	B	C	A	B	C	Note	Pole	C.B.	Type	Description/Location	CKT		
1	R - CORRIDOR	R	20 A	1		1,080			1,242			1	20 A	L		L - FITNESS	2		
3	R - COURTYARD	R	20 A	1			360			606		1	20 A	L		L - VESTIBULE	4		
5	R - GYM CONVENIENCE	R	20 A	1				540			820	1	20 A	L		L - BREAK ROOM, KITCHEN	6		
7	R - GYM AV	R	20 A	1		360			873			1	20 A	L		L - CAFE, FCRC	8		
9	R - BOTTLE FILLERS	G	20 A	1	1		400			241		1	15 A	Motor		EF-A-1	10		
11	R - BKRM CONVENIENCE	R	20 A	1				720		360		1	20 A	R		R - ROOFTOP WEST	12		
13	R - MECH CONVENIENCE	R, G	20 A	1		1,650			900			1	20 A	Motor		ADA MOTORIZED DOORS	14		
15	R - BKRM COUNTERTOP	R	20 A	1			180			780		1	20 A	R, G		R - ENTRY PROJECTOR	16		
17	R - BKRM MICROWAVE	G	20 A	1				1,200			180	1	20 A	R		R - FCRC COUNTERTOP	18		
19	R - BKRM COUNTERTOP	R	20 A	1		180			1,200			1	20 A	G		R - FCRC MICROWAVE	20		
21	R - BKRM MICROWAVE	G	20 A	1				1,200		180		1	20 A	R		R - FCRC COUNTERTOP	22		
23	R - BKRM COUNTERTOP	R	20 A	1				180		600		1	20 A	G		R - FCRC DISHWASHER	24		
25	R - BKRM DISHWASHER	G	20 A	1		600			180			1	20 A	R		R - FCRC COUNTERTOP	26		
27	R - COUNTERTOP	R	20 A	1			180			900		1	20 A	G		R - FCRC REFRIGERATOR	28		
29	R - REFRIGERATOR	G	20 A	1				400		180		1	20 A	R		R - FCRC CONVENIENCE	30		
31	R - REFRIGERATOR	G	20 A	1		400			180			1	20 A	R		R - FCRC COUNTERTOP	32		
33	R - FCRC CONVENIENCE	R	20 A	1			360			15,000		2	30 A	G		G - FCRC DRYER	34		
35	R - FCRC COUNTERTOP	R	20 A	1				180			15.0...	--	--	--		--	36		
37	G - FCRC RANGE	G	50 A	2		150			600			1	20 A	G		R - FCRC WASHER	38		
39	--	--	--	--	--		150			500		1	20 A	Mot...		MOTORIZED SHADE CONTROLLER	40		
41	SPARE BREAKER	--	20 A	1				0		0		1	20 A	--		SPARE BREAKER	42		
43	SPARE BREAKER	--	20 A	1		0		0		0		1	20 A	--		SPARE BREAKER	44		
45	SPARE BREAKER	--	20 A	1			0	0		0		1	20 A	--		SPARE BREAKER	46		
47	SPARE BREAKER	--	20 A	1				0		0		--	--	--		BUSSED SPACE	48		
49	BUSSED SPACE	--	--	--	--	0		0		0		--	--	--		BUSSED SPACE	50		
51	BUSSED SPACE	--	--	--	--		0		0	0		--	--	--		BUSSED SPACE	52		
53	BUSSED SPACE	--	--	--	--			0			0	--	--	--		BUSSED SPACE	54		
55	BUSSED SPACE	--	--	--	--	0			0			--	--	--		BUSSED SPACE	56		
57	BUSSED SPACE	--	--	--	--		0			0		--	--	--		BUSSED SPACE	58		
59	BUSSED SPACE	--	--	--	--			0			0	--	--	--		BUSSED SPACE	60		
Total Connected load Ph. A						80 A		Panel Connected Load: 51.0 kVA						141.5 A					
Total Connected load Ph. B						189 A		Total Demand Load: 52.0 kVA						144.3 A					
Total Connected load Ph. C						183 A													
Notes:																			
1. PROVIDE GFCI BREAKER.																			
Load Type Definitions:																			
Motor (125% largest Motor + 100% remaining motors)						K = Kitchen (Demand as per NEC Table 220.56)				C = Continuous Load (125%)				X = X-Rays (Demand per NEC 660.6)					
R = Receptacles (to 10kVA 100%, over 10kVA...						G = General Load (Non-continuous) (100%)				L = Lighting (125%)				H = Heating (100%)					
E = Existing Load 30-day metered (125%)						EL = Elevator (Demand as per NEC Table 620.14) W = Water Heater (125%)													
Load Type		Connected Load		NEC Demand Factor		NEC Demand Load		Panel Totals											
L		3540.5		125.00%		4425.6													
Motor		1641.0		107.62%		1766.0		Total Connected Load: 50991.5 VA											
G		39150.0		100.00%		39150.0		Total NEC Demand: 52001.6 VA											
R		6660.0		100.00%		6660.0		Total Connected Current: 141.5 A											
								Total NEC Demand Current: 144.3 A											

PANELBOARD: B																							
MAIN LUGS ONLY BUS AMPACITY: 225 EQUIPMENT RATING: 120/208 V, 3PH, 4 WIRE AIC RATING: 10,000 A						MOUNTING: SURFACE ENCLOSURE: TYPE 1 LOCATION: MDF 136 SUPPLIED FROM: 2MDS				Accessories:													
CKT	Description/Location	Type	C.B.	Pole	Note	Load (VA)						Note	Pole	C.B.	Type	Description/Location	CKT						
						A	B	C	A	B	C												
1	R - CLASSROOM PROJECTORS	R, G	20 A	1		1,140			1,176				1	20 A	Motor	FTU-4-2	2						
3	R - CLASSROOM CHARGING CART	G	20 A	1			500			119			1	20 A	L	L - CLASSROOMS	4						
5	R - CLASSROOM CONV	R	20 A	1				1,080			60		1	20 A	L	L - CLASSROOM	5						
7	R - CLASSROOM CHARGING CART	G	20 A	1		500			35				1	20 A	L	L - CLASSROOMS	6						
9	R - CLASSROOM CONV	R	20 A	1			360			297			1	20 A	L	L - MDF, SM. GR., FOCUS....	10						
11	R - CLASSROOM CONV	R	20 A	1				1,080			44		1	20 A	L	L - HALLWAY	12						
13	R - SM. GR. CONV	R	20 A	1		360			1,176				1	20 A	Motor	FTU-4-3	14						
15	R - CLASSROOM CHARGING CART	G	20 A	1			500			180			1	20 A	R	R - NORTH HALL COUNTERTOP	16						
17	R - CLASSROOM PROJECTORS	R, G	20 A	1				780			16		1	15 A	Motor	CEF-B-1	18						
19	R - CLASSROOM CONV	R	20 A	1		1,080			16				1	15 A	Motor	CEF-B-2	20						
21	R - CLASSROOM CONV	R	20 A	1			180			16			1	15 A	Motor	CEF-B-3	22						
23	R - SM. GR. CONV	R	20 A	1				720			16		1	15 A	Motor	CEF-C-1	24						
25	R - FOCUS RM. CONV	R, G	20 A	1		1,470			16				1	15 A	Motor	CEF-C-2	26						
27	R - CLASSROOM PROJECTORS	R, G	20 A	1			1,560			396			1	20 A	Motor	MOTORIZED SKYLIGHT SHADES	28						
29	R - CLASSROOM CONV	R	20 A	1				1,080			264		1	20 A	Motor	MOTORIZED SKYLIGHT SHADES	30						
31	R - CLASSROOM CHARGING CART	G	20 A	1		500			132				1	20 A	Motor	MTRZED SKYLIGHT SHADES - ALT	32						
33	R - CLASSROOM CONV	R	20 A	1			360			2,421			2	35 A	Motor	CU-B-2 (ALT 1)	34						
35	R - CLASSROOM CHARGING CART	G	20 A	1				500		2,421		--	--	--	--	--	36						
37	R - CLASSROOM CONV	R	20 A	1		1,080			0			1	20 A	--	--	--	38						
39	R - FOCUS RM, HALL	R, G	20 A	1			2,220			0		1	20 A	--	--	--	40						
41	FTU-4-1	Motor	20 A	1				1,176			0	1	20 A	--	--	--	42						
43	R - CLASSROOM PROJECTORS - ...	R	20 A	1		360			0			1	20 A	--	--	--	44						
45	R - CLSSRM CHARGING CART - ALT	G	20 A	1			500			0		--	--	--	--	--	46						
47	R - CLASSROOM CONV - ALT	R	20 A	1				1,080		0		--	--	--	--	--	48						
49	R - WC, HALL - ALT	R, G	20 A	1		930			0			--	--	--	--	--	50						
51	CEF-B-4 (ALT 1)	Motor	15 A	1			16			0		--	--	--	--	--	52						
53	EW-H-B-1 (ALT 1)	Motor	15 A	1				500		0		--	--	--	--	--	54						
55	FCU-B-2 (ALT 1)	Motor	15 A	2		241			0			--	--	--	--	--	56						
57		--	--	--	--		241			0		--	--	--	--	--	58						
59	BUSSED SPACE	--	--	--	--		0			0		--	--	--	--	--	60						
Total Connected load Ph. A						86 A						Panel Connected Load: 30.9 kVA						85.8 A					
Total Connected load Ph. B						82 A						Total Demand Load: 31.4 kVA						87.1 A					
Total Connected load Ph. C						91 A																	
Notes:																							
Load Type Definitions:																							
Motor (125% largest Motor + 100% remaining motors)						K = Kitchen (Demand as per NEC Table 220.56)						C = Continuous Load (125%)						X = X-Rays (Demand per NEC 660.6)					
R = Receptacles (to 10kVA 100%, over 10kVA...						G = General Load (Non-continuous) (100%)						L = Lighting (125%)						H = Heating (100%)					
E = Existing Load 30-day metered (125%)						EL = Elevator (Demand as per NEC Table 620.14)						W = Water Heater (125%)											
Load Type		Connected Load		NEC Demand Factor		NEC Demand Load		Panel Totals															
L		554.8		125.00%		693.5																	
Motor		10240.8		111.82%		11451.4		Total Connected Load: 30895.6 VA															
G		8400.0		100.00%		8400.0		Total NEC Demand: 31394.9 VA															
R		11700.0		92.74%		10850.0		Total Connected Current: 85.8 A															
												Total NEC Demand Current: 87.1 A											

PANELBOARD: GDP																							
MAIN LUGS ONLY BUS AMPACITY: 225A EQUIPMENT RATING: 120/208 V, 3PH, 4 WIRE AIC RATING:										MOUNTING: SURFACE ENCLOSURE: TYPE 1 LOCATION: ELECTRICAL 122 SUPPLIED FROM:					Accessories:								
Load (VA)																							
CKT	Description/Location	Type	C.B.	Pole	Note	A	B	C	A	B	C	Note	Pole	C.B.	Type	Description/Location	CKT						
1	ATS-E	L	50 A	3		1,261											2						
3	--	--	--	--	--		376										4						
5	--	--	--	--	--			1,154									6						
7	ATS-SB	Mot...	100 A	3		6,289											8						
9	--	--	--	--	--			9,088									10						
11	--	--	--	--	--			6,338									12						
Total Connected load Ph. A						63 A						Panel Connected Load: 24.5 kVA						68.0 A					
Total Connected load Ph. B						79 A						Total Demand Load: 27.1 kVA						75.4 A					
Total Connected load Ph. C						62 A																	
Notes:																							
Load Type Definitions:																							
Motor (125% largest Motor + 100% remaining motors)						K = Kitchen (Demand as per NEC Table 220.56)						C = Continuous Load (125%)						X = X-Rays (Demand per NEC 660.6)					
R = Receptacles (to 10kVA 100%, over 10kVA...						G = General Load (Non-continuous) (100%)						L = Lighting (125%)						H = Heating (100%)					
E = Existing Load 30-day metered (125%)						EL = Elevator (Demand as per NEC Table 620.14)						W = Water Heater (125%)											
Load Type		Connected Load		NEC Demand Factor		NEC Demand Load		Panel Totals															
K		3472.0		80.00%		2777.6																	
L		2791.6		125.00%		3489.5		Total Connected Load: 24505.6 VA															
Motor		12072.0		112.44%		13574.3		Total NEC Demand: 27148.8 VA															
C		4550.0		125.00%		5687.5		Total Connected Current: 68.0 A															
R		1620.0		100.00%		1620.0		Total NEC Demand Current: 75.4 A															

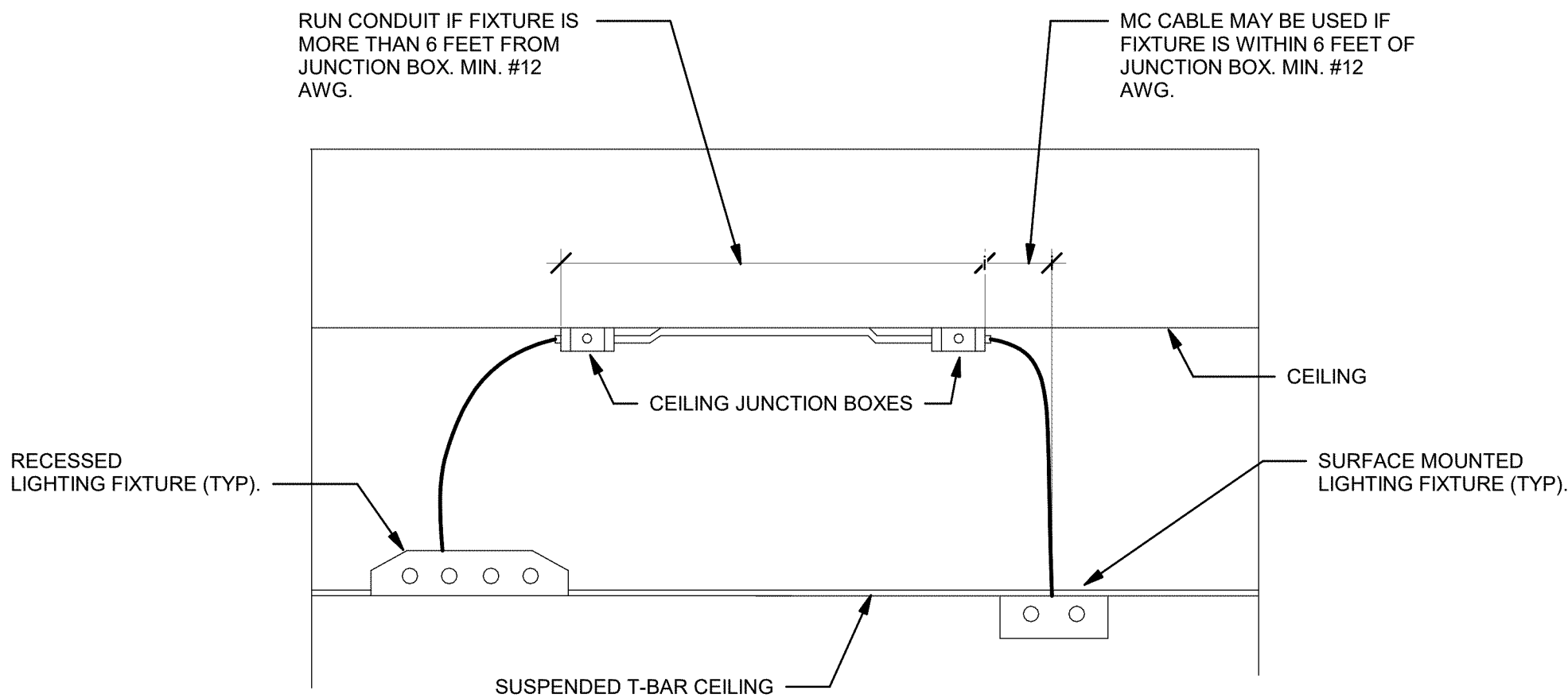










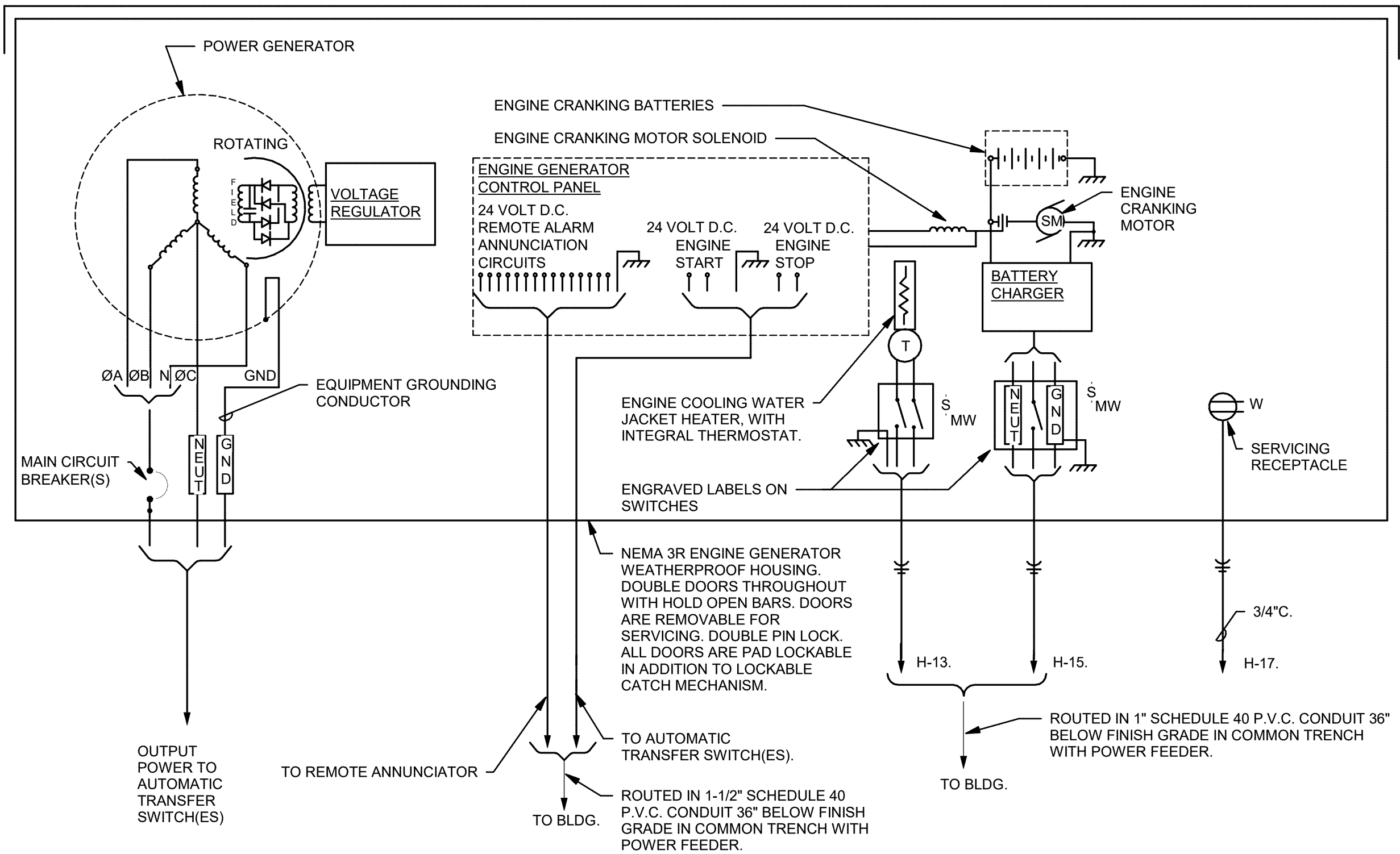


**DETAIL NOTES:**

- (1) MC CABLE IS ONLY PERMITTED FOR FIXTURE DROPS. DO NOT LOOP MC CABLE FROM ONE FIXTURE TO ANOTHER.

**1 LIGHTING DROP - DETAIL**

NO SCALE

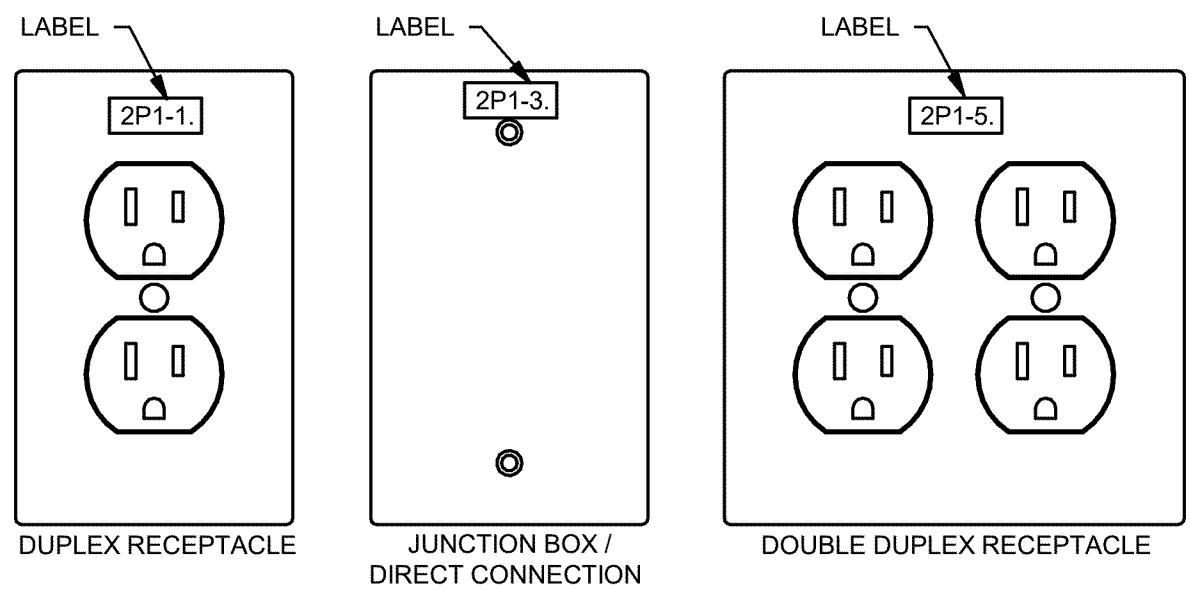


**3 EXTERIOR ENGINE GENERATOR DIAGRAM**

NO SCALE

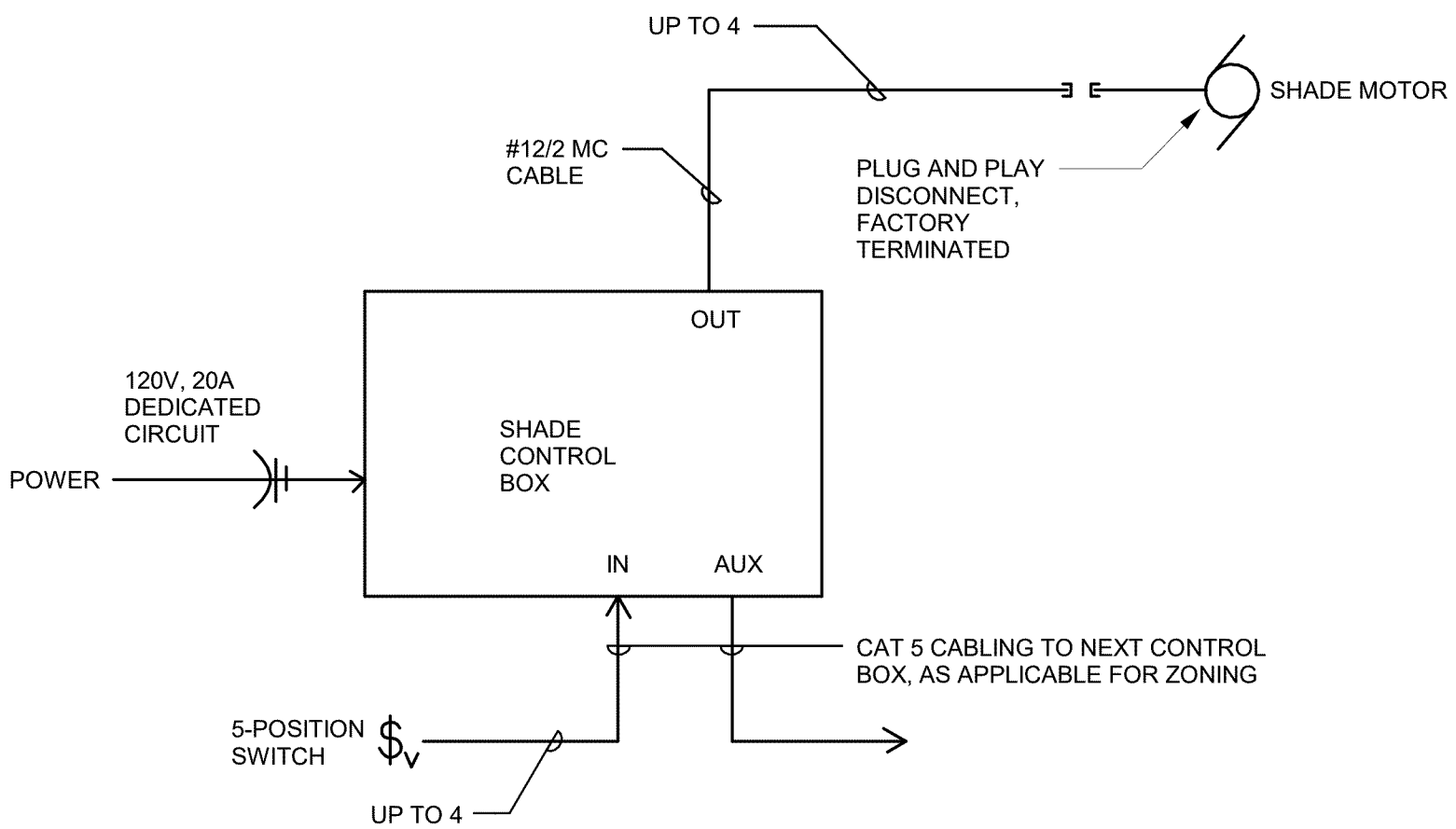
**GENERAL DETAIL NOTES:**

- A. SCHEMATIC BASED ON SHADE CONTROLLER SPECIFICATION – BASIS OF DESIGN: MECHOSHADE IQ/MLC2 SERIES CONTROLLER BOX.
- B. REFER TO FLOOR PLANS FOR ZONING OF SHADES AS CONTROLLED BY 5 POSITION SWITCHES.
- C. PROVIDE INSTALLATION BASED ON OWNER/ARCHITECT APPROVED SHOP DRAWINGS, INDICATING SHADE MOTOR LOCATIONS ON WALL ELEVATIONS, AS WELL AS SWITCH, SHADE MOTOR AND CONTROLLER BOX LOCATIONS ON FLOOR PLANS.
- D. NEC REQUIRED LOCAL DISCONNECT FOR SHADE MOTORS PROVIDED BY PLUG-AND-PLAY DISCONNECT. PROVIDE SUPPLEMENTAL LOCAL TOGGLE SWITCH AS REQUIRED BY LOCAL CODE OFFICIAL.
- E. DO NOT INSTALL WITH EXPOSED CONDUIT OR CABLES IN OCCUPIED SPACES, INCLUDING TO SHADE MOTORS. COORDINATE RECESSED CONDUIT ROUTING IN SHOP DRAWINGS PRIOR TO INSTALLATION.



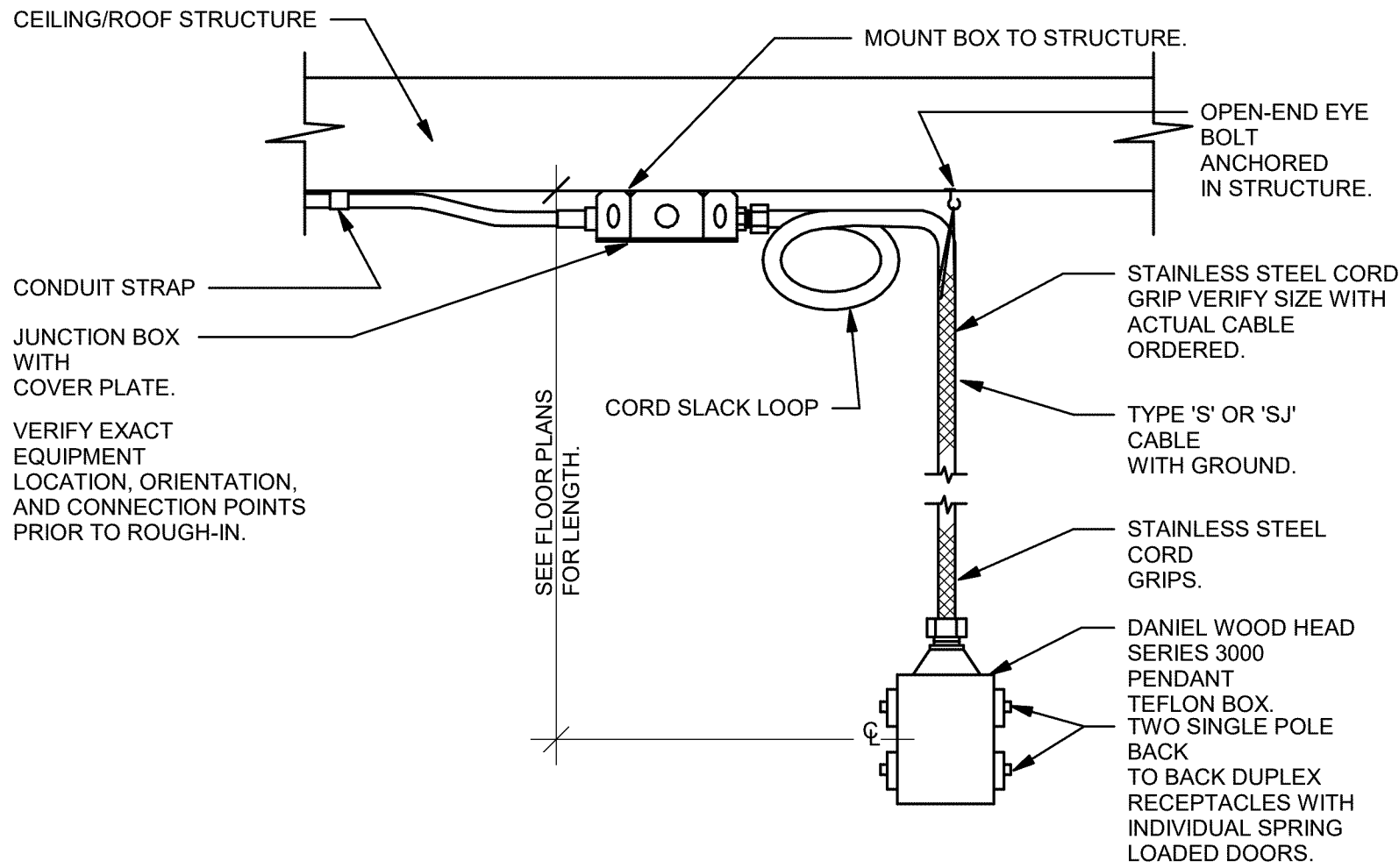
**2 OUTLET LABELING**

NO SCALE



**4 MOTORIZED SHADE CONTROL SCHEMATIC**

NO SCALE

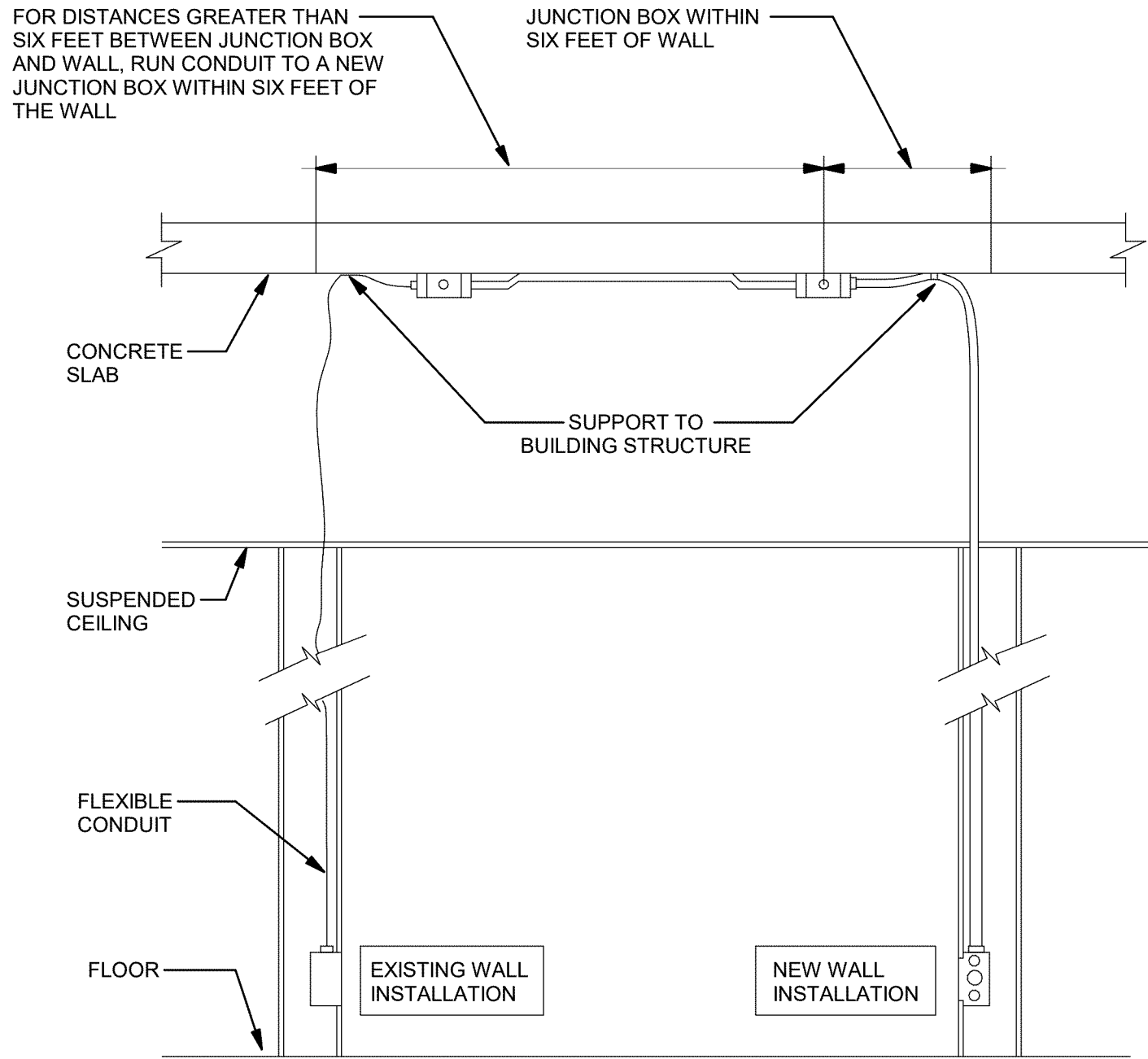


**5 PENDANT MOUNT BACK TO BACK RECEPTACLE**

NO SCALE

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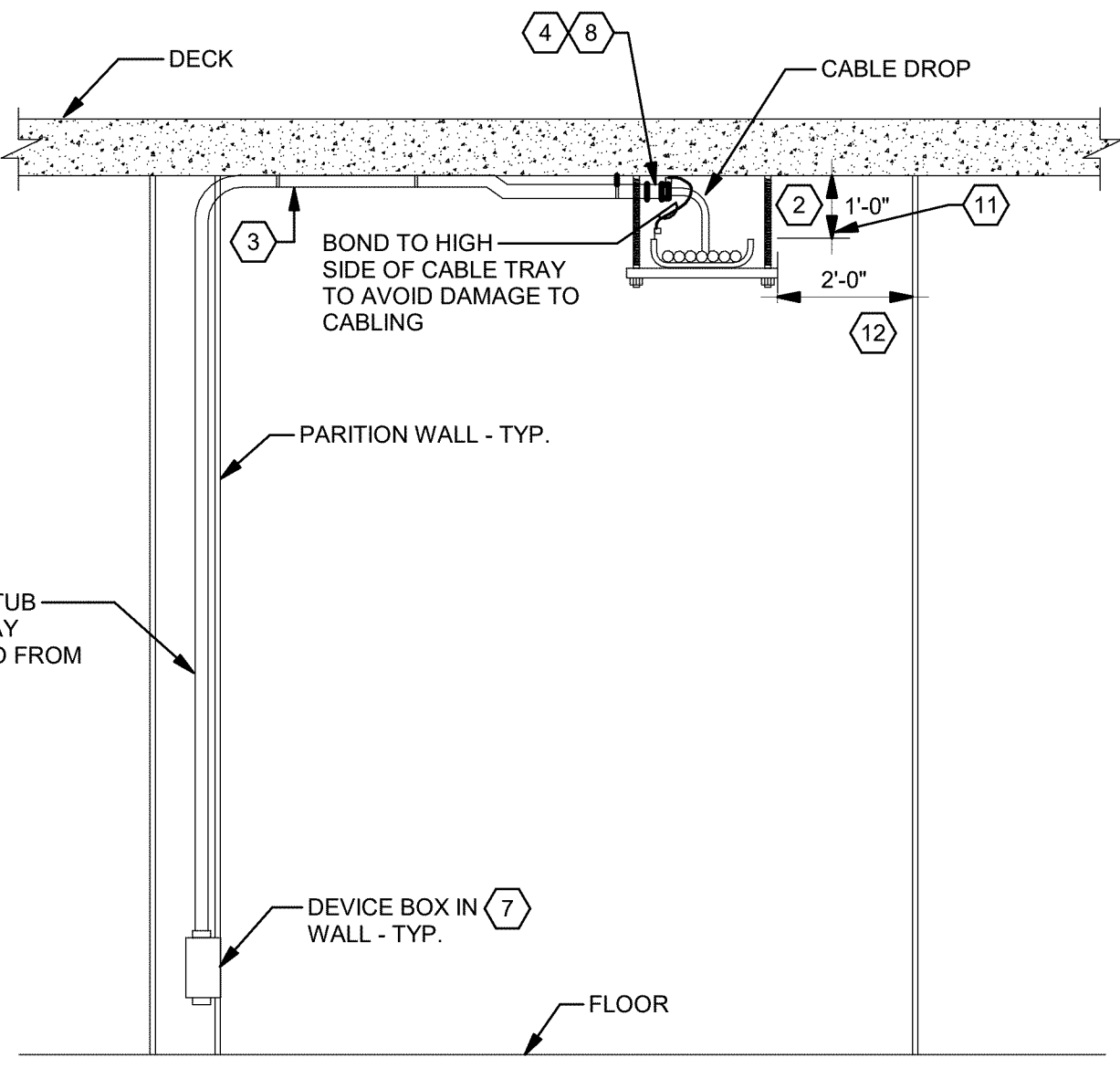


GENERAL DETAIL NOTES:

1. NEW WALL INSTALLATION RUN CONDUIT FROM JUNCTION BOX DOWN TO FIRST DEVICE.
2. EXISTING WALL INSTALLATION RUN FLEX OR MC CABLE FROM JUNCTION BOX DOWN TO DEVICE (IF APPLICABLE).
3. ALL CONDUITS ARE TO BE DIRECTLY SUPPORTED FROM DECK.
4. COORDINATE ROUTE WITH OTHER TRADES TO AVOID CONFLICTS WITH ACCESS.

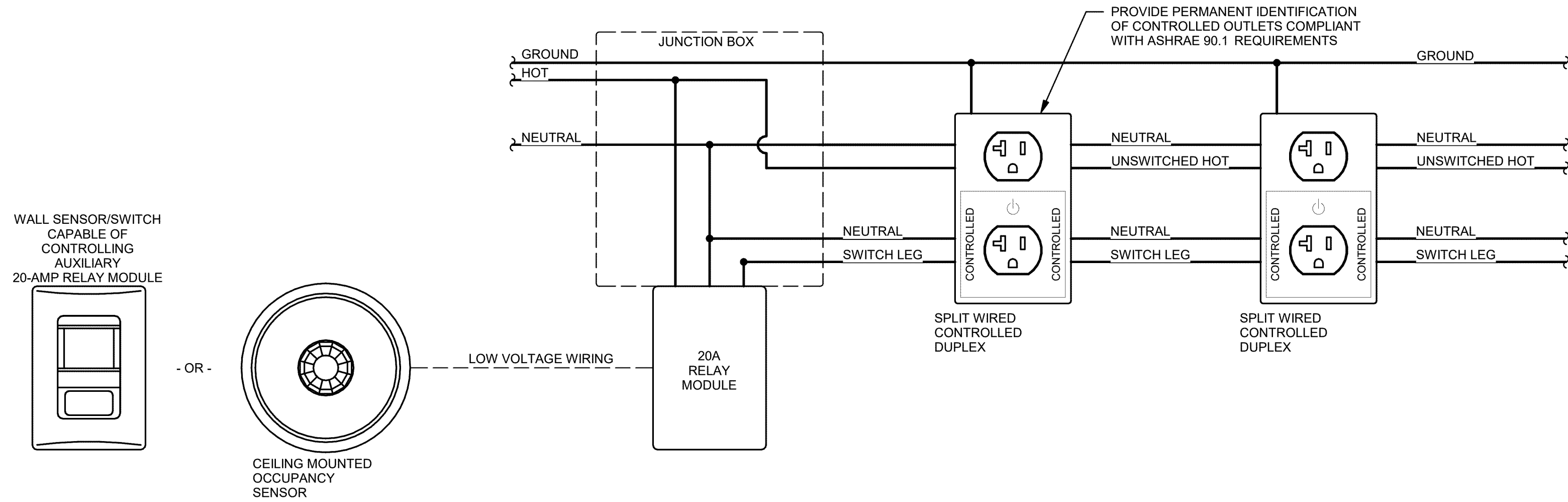
1 POWER DROP DETAIL

NO SCALE



3 CABLE TRAY DROP DETAIL

NO SCALE



2 OCCUPANCY SENSOR CONTROLLED RECEPTACLE DIAGRAM

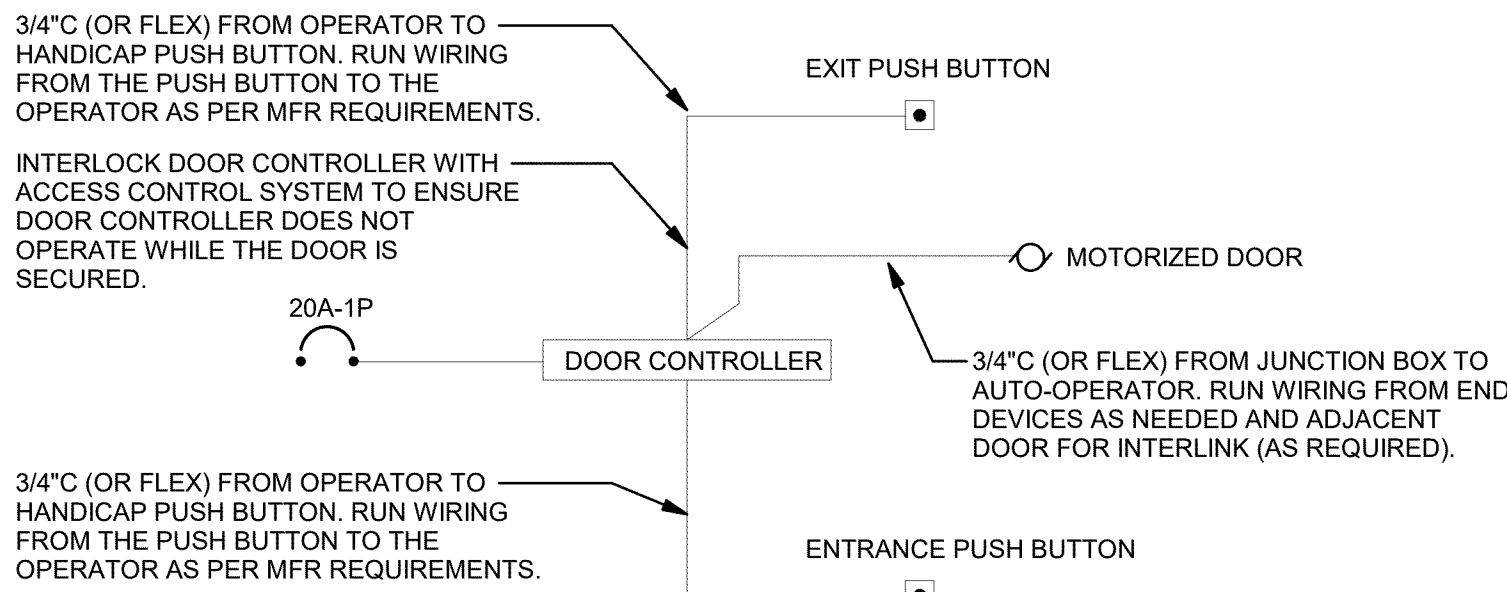
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DETAIL NOTES

1. MAINTAIN ADEQUATE CLEARANCES FROM EMI SOURCES. MINIMUM OF 1'-0" FROM BALLASTS AND 2'-0" FROM MOTORS. COMPLY WITH TIA/EIA 569 REQUIREMENTS.
2. SUPPORT TRAY AT EVERY JOINT AND MIDSPAN i.e.: SPACING OF APPROXIMATELY 5'-0" (FOR EVERY 10'-0" LENGTH OF TRAY).
3. CONDUIT TO BE DIRECTLY SUPPORTED FROM DECK.
4. PROVIDE PLASTIC BUSHING AT ENDS OF CONDUIT TO PROTECT AGAINST CABLE ABRASIONS. USE #12 AWG BONDING CONDUCTOR TO CABLE TRAY.
5. BOND CABLE TRAY TO GROUND BUS IN COMMUNICATION ROOM. PROVIDE #6 AWG BARE COPPER BONDING CONDUCTOR ALONG ENTIRE LENGTH OF TRAY, AND BOND TO EVERY SECTION OF TRAY.
6. WHEN INSTALLING CABLE TRAY, MAINTAIN ADEQUATE CLEARANCES (MINIMUM 1'-0") FROM HEAT SOURCES SUCH AS MECHANICAL HOT AIR DUCTS.
7. IF COMMUNICATION OUTLET IS WITHIN 0'-6" OF A POWER OUTLET, THEN BOND THE TWO OUTLETS.
8. CONDUITS LONGER THAN 24'-6" ARE TO BE BONDED TO CABLE TRAY.
9. CABLE TRAY SHALL BE CABLOFIL, FLEXTRAY OR APPROVED EQUAL.
10. CABLE TRAY SHALL BE INSTALLED USING MANUFACTURER APPROVED SPLICING METHODS.
11. MAINTAIN 1'-0" CLEARANCE FROM THE TOP OF THE CABLE TRAY TO ALL CEILINGS, HEATING DUCTS, AND HEATING EQUIPMENT AND 0'-6" FOR SHORT LENGTH OBSTRUCTIONS.
12. MAINTAIN 2'-0" CLEARANCE ON ONE SIDE OF CABLE TRAYS MOUNTED ADJACENT TO ONE ANOTHER OR TO WALLS OR OTHER OBSTRUCTIONS.

NOTES THIS DETAIL

- A. BASIS OF DESIGN: WATTSTOPPER. REFER TO DIVISION 26 SPECIFICATIONS FOR APPROVED ALTERNATIVE MANUFACTURERS FOR HARDWIRED RECEPTACLE CONTROL (OCCUPANCY SENSOR SECTION).
- B. WHERE AN ENTIRE DUPLEX RECEPTACLE IS CONTROLLED BY SENSOR, LOCATED AN UNSWITCHED DUPLEX RECEPTACLE NO FURTHER THAN SIX FEET AWAY.
- C. FOR EACH ROOM, PROVIDE QUANTITIES OF RELAY MODULES AND WIRING TO SUPPORT SWITCHED POWER OUTLETS ON POWER DRAWINGS, AND PROVIDE FUNCTIONALITY DESCRIBED IN SPECIFICATIONS AND/OR LIGHTING CONTROL MATRIX.
- D. CONTROLLERS, RELAY MODULES AND DEVICES LOCATED IN PLENUM SPACES MUST BE UL 2043 LISTED; USE PLENUM RATED WIRING WHERE ROUTING IS EXPOSED IN PLENUM SPACES.



4 AUTO DOOR OPERATOR DETAIL

NO SCALE



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Author  
checked by  
Checker

lsw job number  
2018-0029

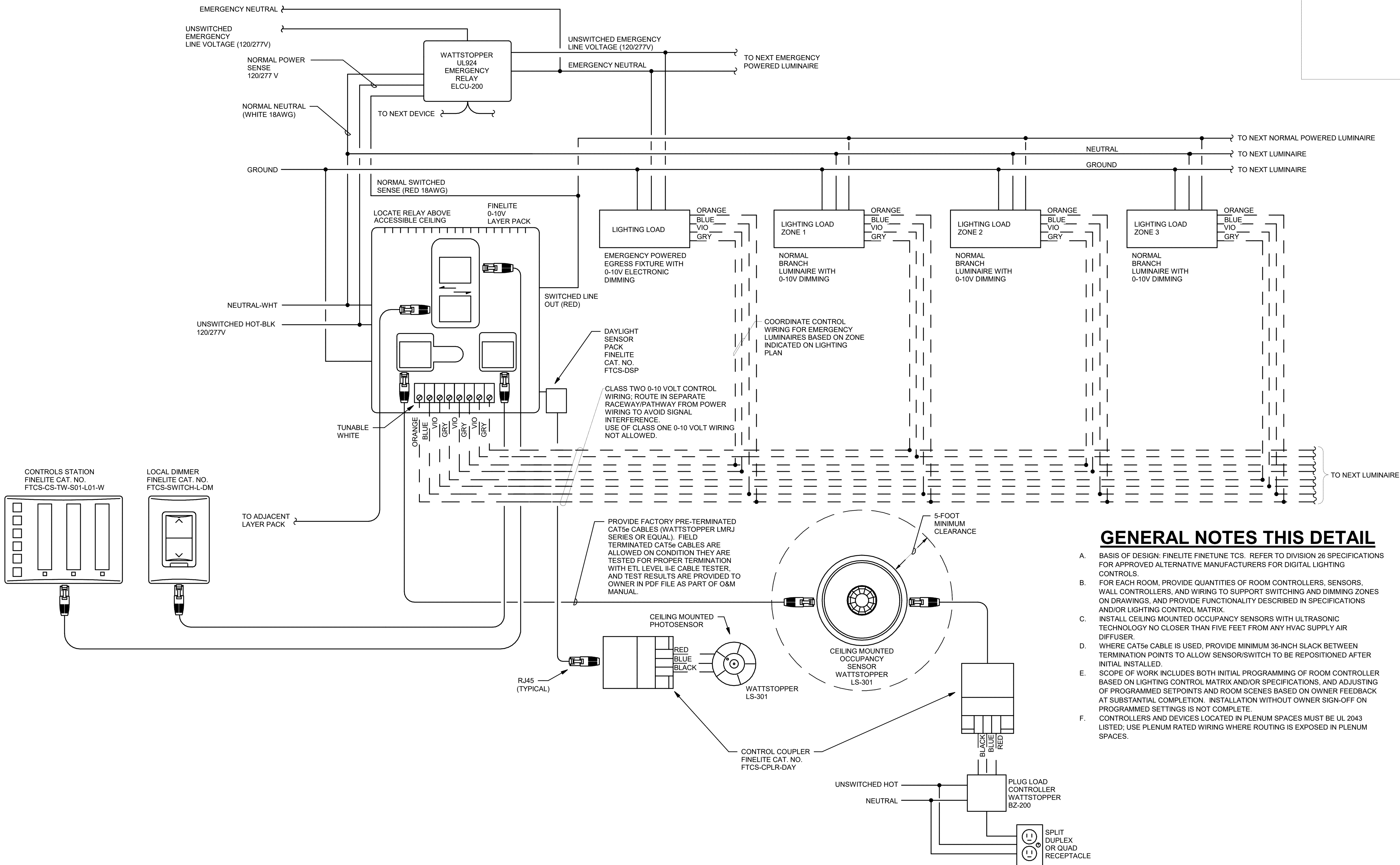
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DETAILS -  
ELECTRICAL

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GENERAL NOTES THIS DETAIL

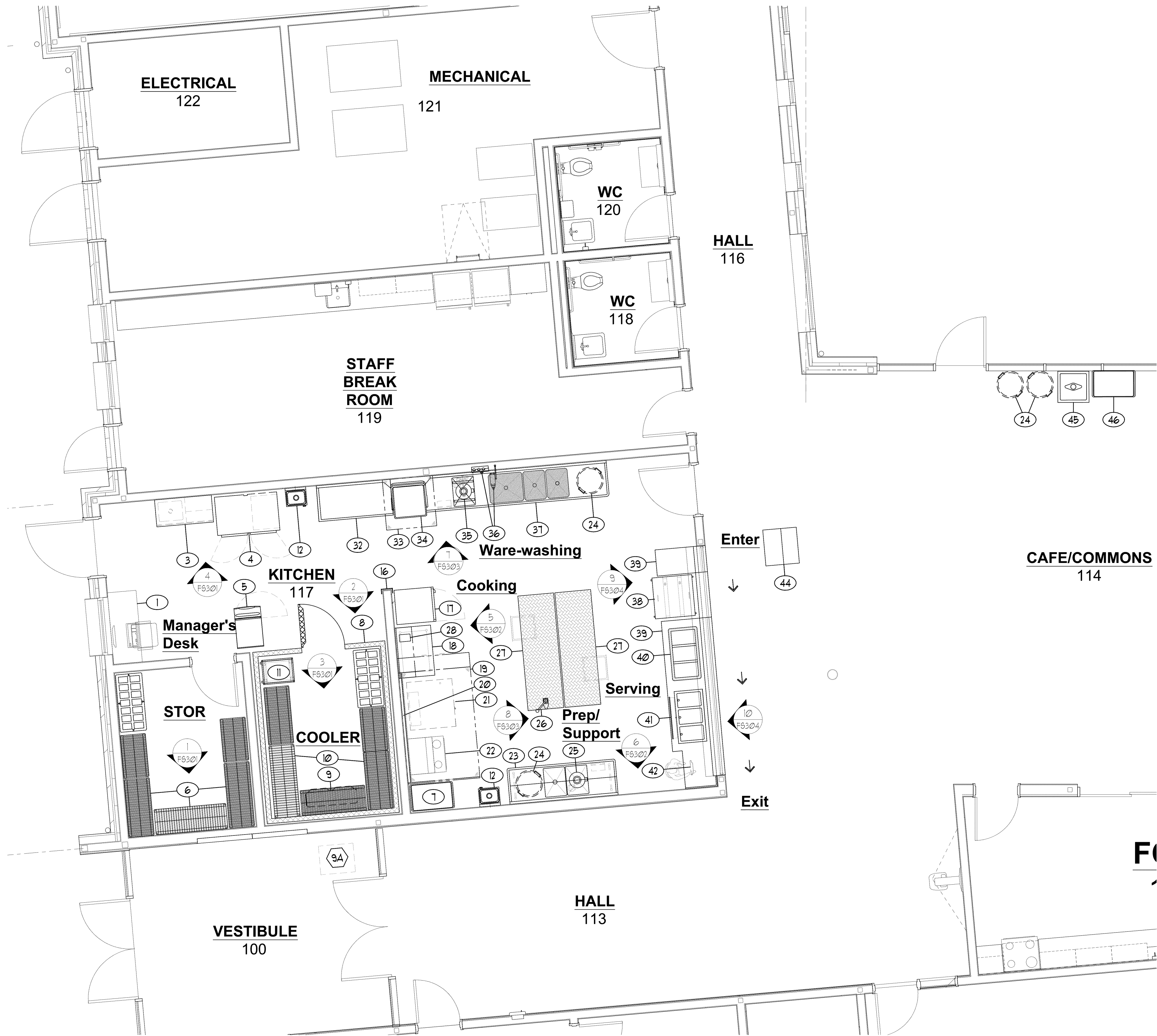
- A. BASIS OF DESIGN: FINELITE FINETUNE TCS. REFER TO DIVISION 26 SPECIFICATIONS FOR APPROVED ALTERNATIVE MANUFACTURERS FOR DIGITAL LIGHTING CONTROLS.
- B. FOR EACH ROOM, PROVIDE QUANTITIES OF ROOM CONTROLLERS, SENSORS, WALL CONTROLLERS, AND WIRING TO SUPPORT SWITCHING AND DIMMING ZONES ON DRAWINGS, AND PROVIDE FUNCTIONALITY DESCRIBED IN SPECIFICATIONS AND/OR LIGHTING CONTROL MATRIX.
- C. INSTALL CEILING MOUNTED OCCUPANCY SENSORS WITH ULTRASONIC TECHNOLOGY NO CLOSER THAN FIVE FEET FROM ANY HVAC SUPPLY AIR DIFFUSER.
- D. WHERE CAT5e CABLE IS USED, PROVIDE MINIMUM 36-INCH SLACK BETWEEN TERMINATION POINTS TO ALLOW SENSOR/SWITCH TO BE REPOSITIONED AFTER INITIAL INSTALLATION.
- E. SCOPE OF WORK INCLUDES BOTH INITIAL PROGRAMMING OF ROOM CONTROLLER BASED ON LIGHTING CONTROL MATRIX AND/OR SPECIFICATIONS, AND ADJUSTING OF PROGRAMMED SETPOINTS AND ROOM SCENES BASED ON OWNER FEEDBACK AT SUBSTANTIAL COMPLETION. INSTALLATION WITHOUT OWNER SIGN-OFF ON PROGRAMMED SETTINGS IS NOT COMPLETE.
- F. CONTROLLERS AND DEVICES LOCATED IN PLENUM SPACES MUST BE UL 2043 LISTED; USE PLENUM RATED WIRING WHERE ROUTING IS EXPOSED IN PLENUM SPACES.

1 TYPICAL 0-10V LIGHTING CONTROLLER WIRING DIAGRAM WITH EMERGENCY POWER - UP TO 3 ZONES AND TUNABLE WHITE CONTROL

NO SCALE

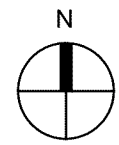
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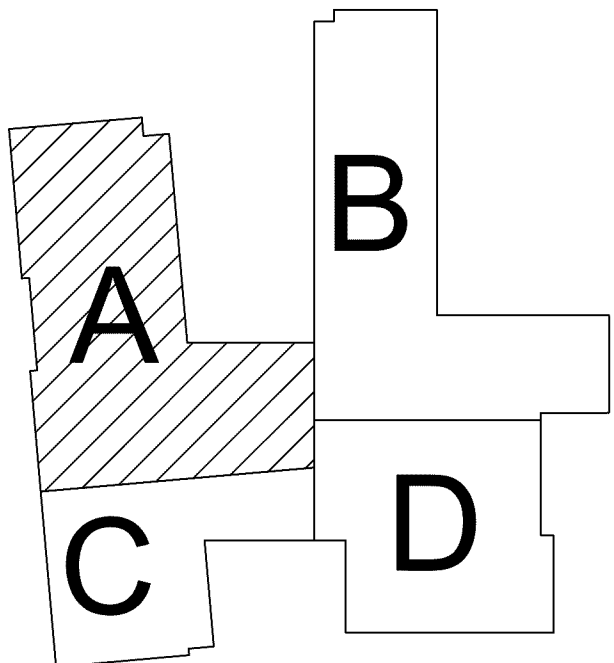


EQUIPMENT SCHEDULE			
ITEM	DESCRIPTION	QUAN.	REMARKS:
1	MANAGERS STATION	1	OWNER FURNISHED & INSTALLED
2	NOT USED	---	---
3	MOP SINK CLOSET	1	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
4	REACH-IN FREEZER	1	OWNER FURNISHED & INSTALLED
5	CUBE ICE MACHINE WITH BIN	1	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
6	DRY STORAGE SHELVING	LOT	OWNER FURNISHED & INSTALLED
7	UTILITY CART	2	OWNER FURNISHED & INSTALLED
8	WALK-IN COLD STORAGE ROOM	1	CONTRACTOR FURNISHED & INSTALLED
9	REFRIGERATION SYSTEM	1	CONTRACTOR FURNISHED & INSTALLED
10	MOBILE WALK-IN COOLER SHELVING	LOT	OWNER FURNISHED & INSTALLED
11	SPEED RACK	1	OWNER FURNISHED & INSTALLED
12	HAND WASHING SINKS	2	CONTRACTOR FURNISHED & INSTALLED
13	NOT USED	---	---
14	NOT USED	---	---
15	NOT USED	---	---
16	CORNER/CHANNEL GUARDS	LOT	CONTRACTOR FURNISHED & INSTALLED
17	MOBILE HOT HOLDING CABINET	1	OWNER FURNISHED & INSTALLED
18	COOK'S SUPPORT WORK TABLE	1	OWNER FURNISHED/CONTRACTOR INSTALLED
19	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	CONTRACTOR FURNISHED & INSTALLED
20	STAINLESS STEEL WALL FLASHING	LOT	CONTRACTOR FURNISHED & INSTALLED
21	DOUBLE STACK CONVECTION OVENS (EXISTING/RELOCATED)	1	OWNER FURNISHED/CONTRACTOR INSTALLED
22	RESIDENTIAL RANGE	1	OWNER FURNISHED/CONTRACTOR INSTALLED
23	VEGETABLE PREP TABLE WITH SINK	1	CONTRACTOR FURNISHED & INSTALLED
24	MOBILE WASTE RECEPTACLES	4	OWNER FURNISHED & INSTALLED
25	DISPOSER	1	CONTRACTOR FURNISHED & INSTALLED
26	MANUAL CAN OPENER	1	OWNER FURNISHED & INSTALLED
27	MOBILE WOOD TOP WORK TABLES	2	OWNER FURNISHED & INSTALLED
28	ELECTRIC CAN OPENER	1	OWNER FURNISHED & INSTALLED
29	NOT USED	---	---
30	NOT USED	---	---
31	NOT USED	---	---
32	CLEAN DISHTABLE	1	CONTRACTOR FURNISHED & INSTALLED
33	WAREWASHER VAPOR HOOD	1	CONTRACTOR FURNISHED & INSTALLED
34	WAREWASHER WITH BOOSTER HEATER	1	CONTRACTOR FURNISHED & INSTALLED
35	DISPOSER	1	CONTRACTOR FURNISHED & INSTALLED
36	HOSE REEL WITH RECESSED CONTROL CABINET	1	CONTRACTOR FURNISHED & INSTALLED
37	SOILED DISHTABLE WITH POT WASHING SINKS	1	CONTRACTOR FURNISHED & INSTALLED
38	MOBILE MILK COOLER	1	OWNER FURNISHED & INSTALLED
39	SERVING COUNTER	1	CONTRACTOR FURNISHED & INSTALLED
40	DROP-IN REFRIGERATED COLD PAN	1	CONTRACTOR FURNISHED & INSTALLED
41	DROP-IN HOT FOOD WELLS	1	CONTRACTOR FURNISHED & INSTALLED
42	POINT OF SALE SYSTEM	LOT	OWNER FURNISHED & INSTALLED
43	NOT USED	---	---
44	MOBILE TRAY CART	1	OWNER FURNISHED & INSTALLED
45	MOBILE MILK DUMPING STATION	1	OWNER FURNISHED & INSTALLED
46	MOBILE SHARE CART	1	OWNER FURNISHED & INSTALLED

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1 LEVEL 1 FOOD SERVICE EQUIPMENT PLAN  
SCALE: 1/4" = 1'-0"



LEVEL 1 FOOD  
SERVICE  
EQUIPMENT  
PLAN

FS-101

Scale

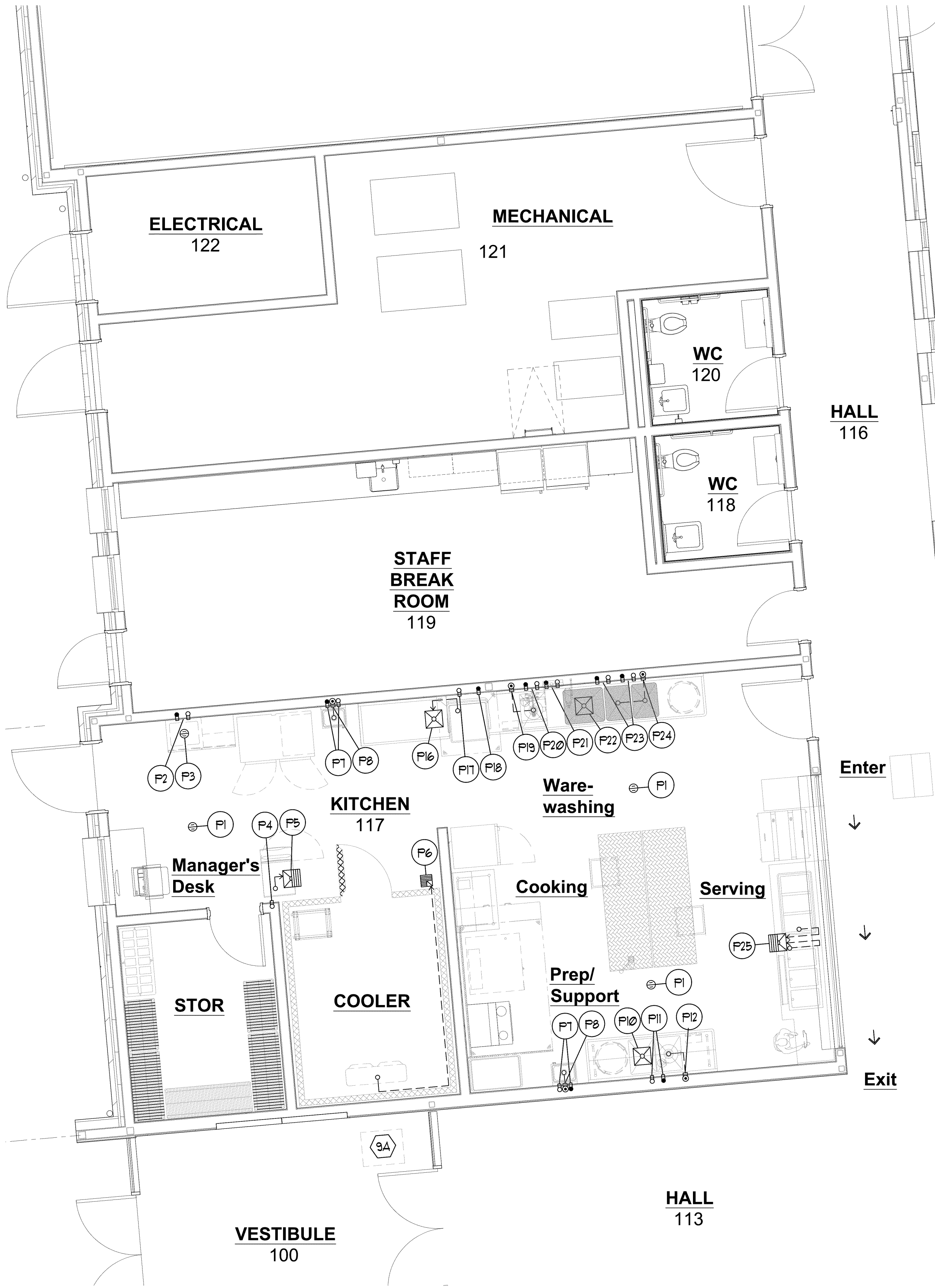


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LB/SH  
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LB  
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PLUMBING SCHEDULE						
ITEM NO.	P. NO.	SIZE	DESCRIPTION	LOCATION	HEIGHT	SERVICE TO :
---	P1	---	FLOOR DRAIN	FLOOR	-1/2"	AREA DRAIN
3	F2	1/2"	HOT & COLD	WALL	36"	MOP SINK CLOSET
3	F3	2"	WASTE	FLOOR	3"	MOP SINK CLOSET
5	F4	1/2"	COLD	WALL	42"	CUBE ICE MACHINE WITH BIN
5	F5	12" x 12"	FLOOR SINK	FLOOR	0"	CUBE ICE MACHINE WITH BIN
9	F6	12" x 12"	FLOOR SINK	FLOOR	0"	WALK-IN COOLER EVAPORATOR DRAIN
12	F7	1/2"	HOT & COLD	WALL	22"	HAND WASHING SINK
12	F8	1-1/2"	WASTE	WALL	20"	HAND WASHING SINK
---	P9	---	NOT USED	---	---	---
23	P10	12" x 12"	FLOOR SINK	FLOOR	0"	(1) SINK DRAIN
23	P11	1/2"	HOT & COLD	WALL	16"	PRE-RINSE FAUCET
25	P12	2"	WASTE	WALL	9"	DISPOSER
---	P13	---	NOT USED	---	---	---
---	P14	---	NOT USED	---	---	---
---	P15	---	NOT USED	---	---	---
34	P16	12" x 12"	FLOOR SINK	FLOOR	0"	WAREWASHER WITH BOOSTER HEATER
34	P17	1/2"	COLD	WALL	12"	WAREWASHER DRAIN WATER TEMPERING
34	P18	3/4"	HOT @ 110°	WALL	12"	WAREWASHER WITH BOOSTER HEATER
35	P19	2"	WASTE	WALL	9"	DISPOSER
37	P20	1/2"	HOT & COLD	WALL	16"	PRE-RINSE FAUCET
36	P21	1/2"	HOT & COLD	WALL	18"	HOSE REEL WITH RECESSED CONTROL CABINET
37	P22	12" x 12"	FLOOR SINK	FLOOR	0"	(1) SINK DRAIN
37	P23	1/2"	HOT & COLD	WALL	16"	SINK FAUCETS
37	P24	2"	WASTE	WALL	9"	(2) SINK DRAINS
40, 41	P25	12" X 12"	FLOOR SINK	FLOOR	0"	DROP-IN REFRIGERATED COLD PAN AND
						DROP-IN HOT WELLS. HALF GRATE

- PLUMBING NOTES
1.

THIS DRAWING IS NOT TO BE USED FOR ESTABLISHING ROUGH-IN LOCATIONS. REFER TO DIMENSIONED DRAWING PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.
2.

UNDER PLUMBING WORK OF DIVISION 22, MAKE ALL ROUGH-INS AND FINAL CONNECTIONS IN CONFORMANCE WITH LOCAL CODES. PROVIDE SHUT-OFF VALVES WITH PERMANENT NAME TAGS IDENTIFYING SUPPLY LINES TO EACH INDIVIDUAL PIECE OF EQUIPMENT. INCLUDE TRAPS, TAIL PIECES, AND LINE STRAINERS AS REQUIRED.
3.

UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL ALL FLOOR SINKS AND AREA DRAINS FLUSH WITH FINISHED FLOOR IF CODE ALLOWS.
4.

UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL GREASE TRAP OR INTERCEPTOR AS REQUIRED.
5.

UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL ALL SINK WASTE LINES. USE COPPER TUBING UNEXPOSED AND PAINTED WHERE LINES ARE VISIBLE. NO PVC PIPING IS ACCEPTABLE.
6.

UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH AND INSTALL ALL INDIRECT WASTE LINES FROM EQUIPMENT LOCATED AT CUSTOM COUNTERS. USE COPPER TUBING AND PAINT VISIBLE LINES. NO PVC PIPING IS ACCEPTABLE.
7.

UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, PROVIDE FAUCETS AT EQUIPMENT. UNDER PLUMBING WORK OF DIVISION 22, INSTALL AND CONNECT FAUCETS.
8.

UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL CHROME PLATED VACUUM BREAKERS OR BACKSYPHONING DEVICES ON SUPPLY LINES TO EQUIPMENT AS REQUIRED BY CODES.
9.

UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL STAINLESS STEEL OR CHROME PLATED ESCUTCHEON PLATES FOR ALL WATER LINES PENETRATING COUNTER TOPS AND BACK SPLASHES.
10.

UNDER PLUMBING WORK OF DIVISION 22, FURNISH PRESSURE REDUCING VALVE FOR ALL GAS AND WATER LINES. MAXIMUM WATER PRESSURE AT BOOSTER HEATER AND DISHWASHER SHALL BE 20 PSI.
11.

UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH AND INSTALL WALK-IN COLD STORAGE ROOM EVAPORATOR COPPER DRAIN LINES. TRAP AT OUTLET END.
12.

UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH GAS QUICK DISCONNECT ASSEMBLIES WITH CABLE RESTRAINTS FOR EACH GAS FIRED COOKING APPLIANCE.
13.

UNDER PLUMBING WORK OF DIVISION 22, PROVIDE 140 DEGREE HOT WATER SUPPLY AT WAREWASHER/ BOOSTER HEATER AND HOSE REEL AS SHOWN. VERIFY REQUIRED TEMPERATURE FOR SUPPLY AT SINK FAUCETS WITH LOCAL AND NATIONAL CODES.
14.

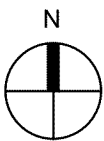
UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL A SOLENOID VALVE ON PRIMARY GAS SUPPLY TO SHUT-OFF EQUIPMENT DURING FIRE SYSTEM ACTIVATION. SOLENOID SHALL BE ACCESSIBLE FOR SERVICING, TESTING, AND RESETING IN THE EVENT OF SYSTEM ACTIVATION.
15.

SEE PLUMBING AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

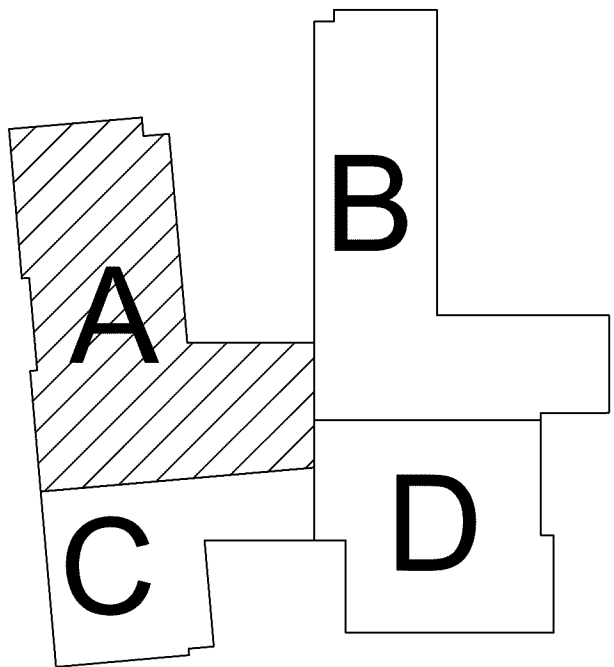
PLUMBING/MECHANICAL SYMBOL LEGEND

COLD WATER	8
HOT WATER	10
WASTE	8
FLOOR DRAIN	10
FLOOR SINK	10

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1 LEVEL 1 FOOD SERVICE PLUMBING PLAN  
SCALE: 1/4" = 1'-0"



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LEVEL 1 FOOD SERVICE PLUMBING PLAN

FS-102

Scale

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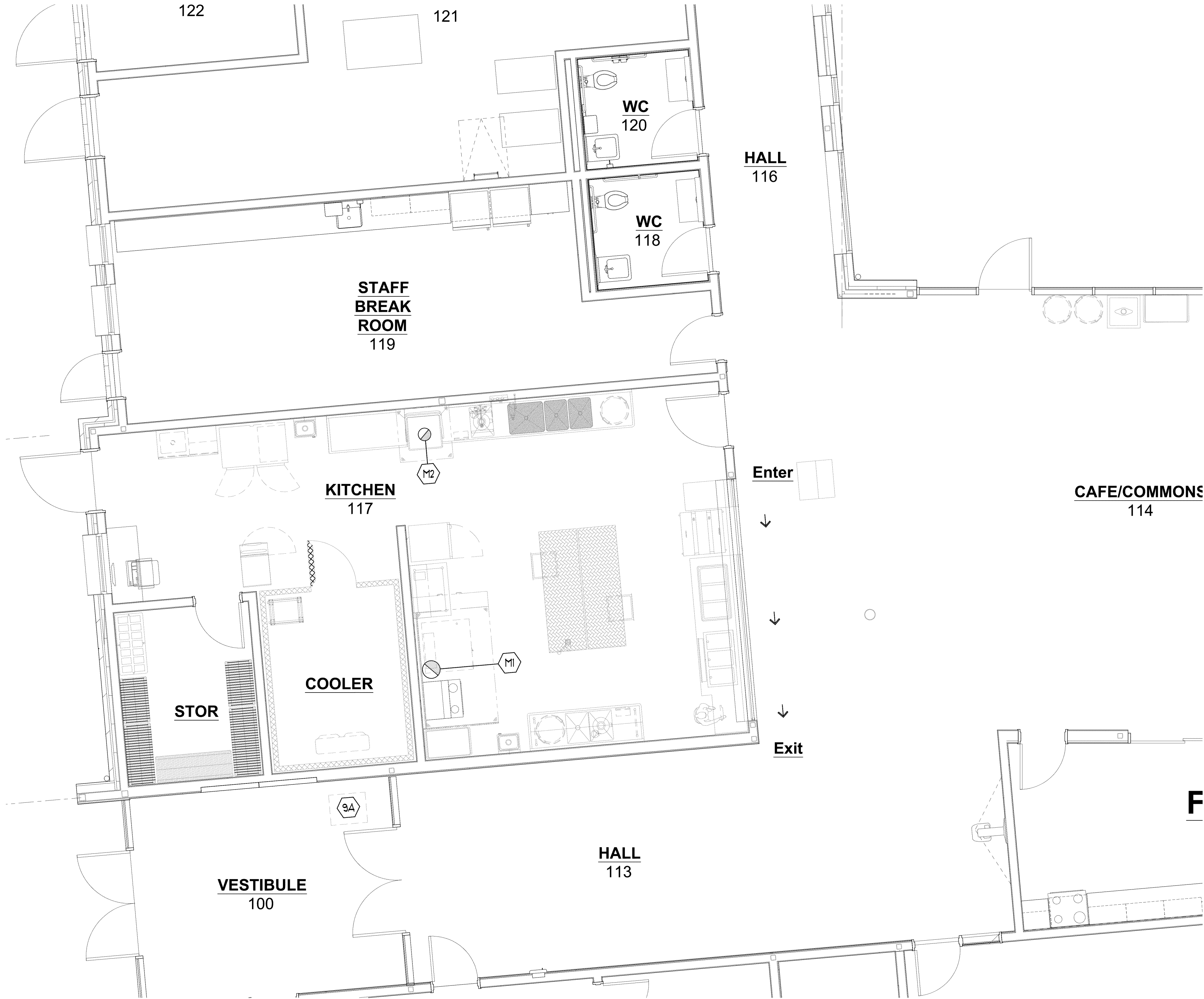
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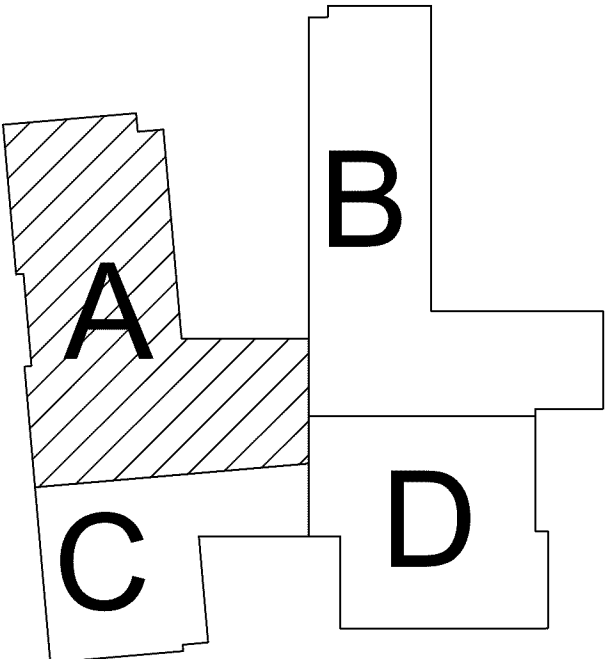
**MECHANICAL NOTES**

M1. ONE (1) 16" DIAMETER TYPE I EXHAUST DUCT CONNECTION AT CANOPY HOOD.  
1,610 CFM WITH -0.620" STATIC PRESSURE AT DUCT COLLAR.

M2. ONE (1) 10" DIAMETER TYPE II EXHAUST DUCT CONNECTION AT VAPOR HOOD.  
525 CFM WITH -0.069" STATIC PRESSURE AT DUCT COLLAR.

**DEPRESS./MECHANICAL  
SYMBOL LEGEND**

EXHAUST DUCT



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**LEVEL 1 FOOD  
SERVICE  
MECHANICAL  
PLAN**

**FS-103**

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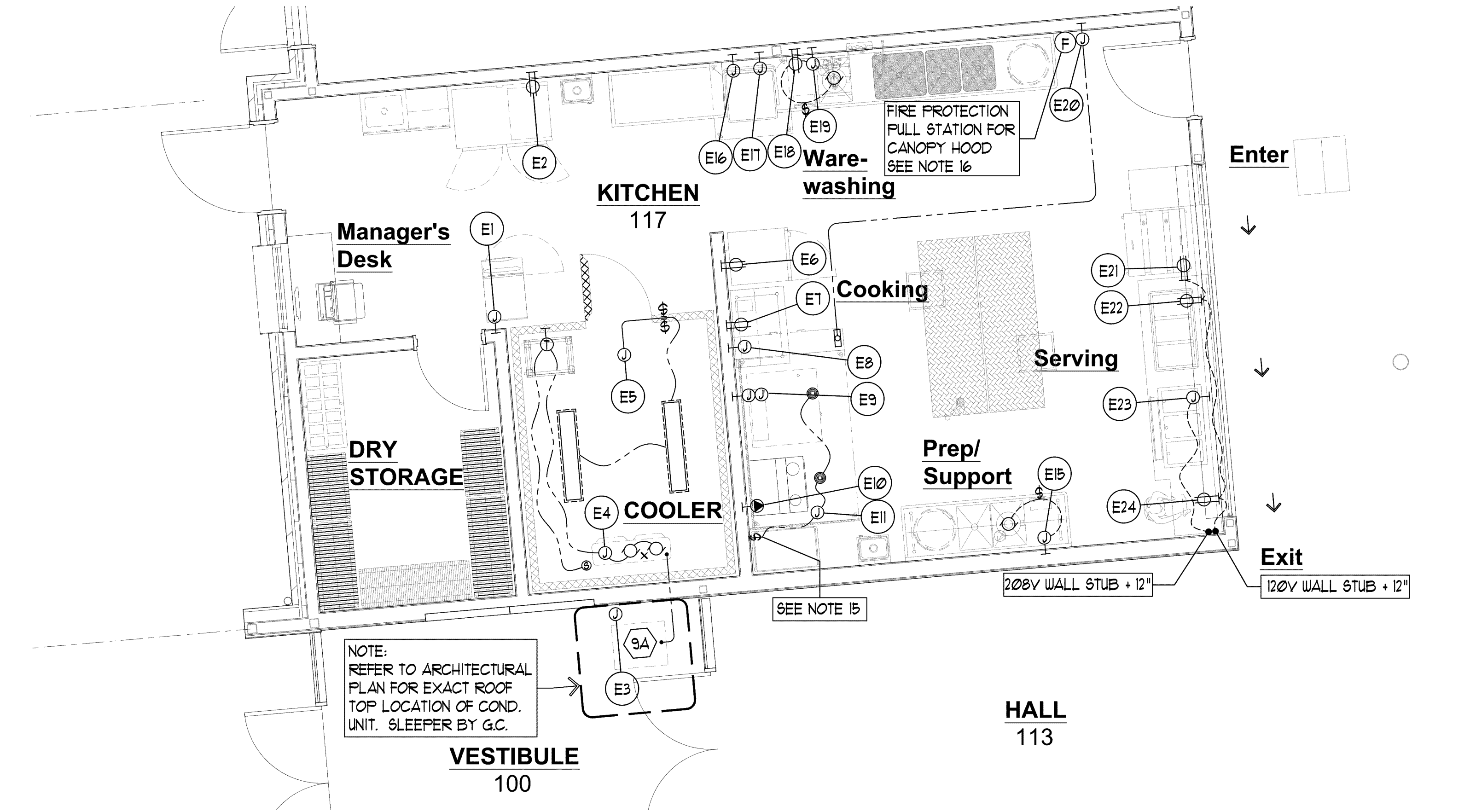


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### FIRE PROTECTION LEGEND

FIRE PROTECTION SYSTEM MANUAL FULL (F)

NOTE:  
LOCATE MANUAL FIRE SUPPRESSION FULL STATIONS PER CODES - DEVICES TO BE LOCATED A MINIMUM OF 10 FEET AND A MAXIMUM OF 20 FEET FROM THE KITCHEN EXHAUST SYSTEM IT SERVES. E.C. TO PROVIDE OCTAGON BOX AND RUN EMPTY CONDUIT TO FIRE SUPPRESSION CONTROL HEAD. MINIMUM 12" RADIUS BENDS IN ANY CHANGE OF DIRECTION. SET FULL STATION BOX @ +48" AFF. TO CENTERLINE. TYPICAL ALL LOCATIONS

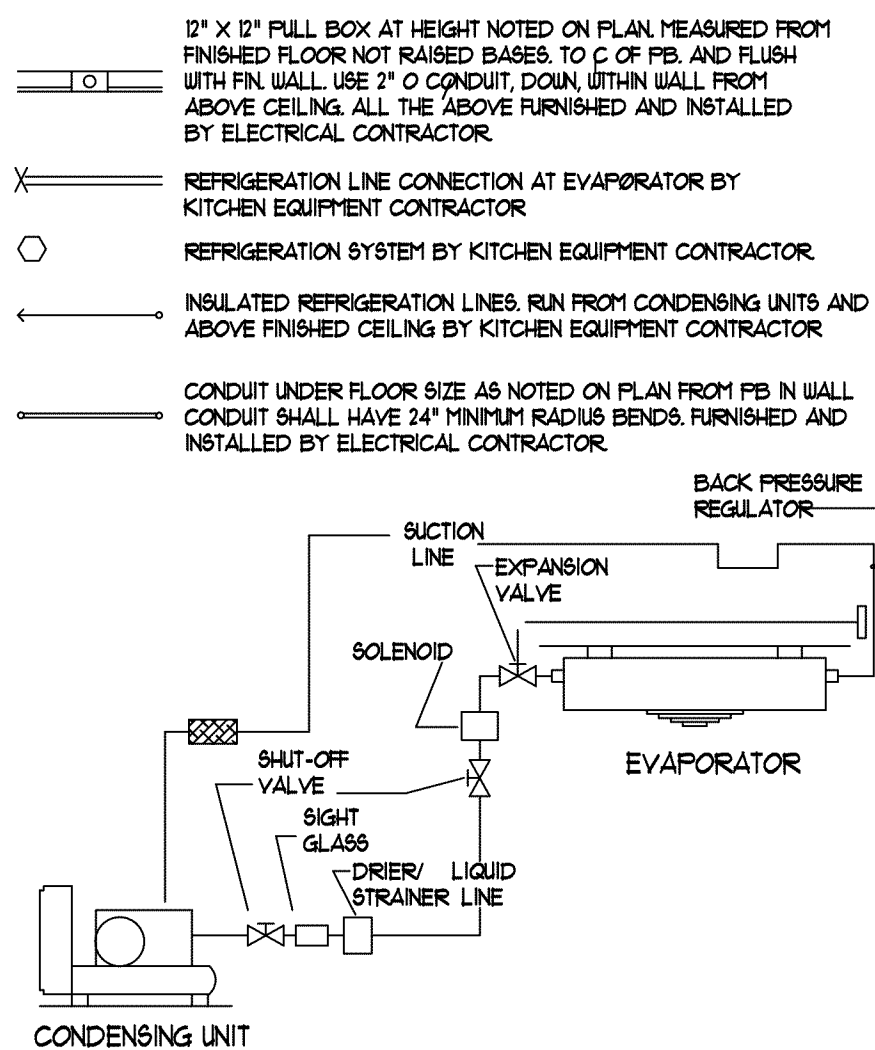
### ELECTRICAL NOTES

- THIS DRAWING IS NOT TO BE USED FOR ESTABLISHING ROUGH-IN LOCATIONS. REFER TO DIMENSIONED DRAWINGS PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.
- UNDER ELECTRICAL WORK OF DIVISION 26, PROVIDE ALL ROUGH-INS AND FINAL CONNECTIONS IN CONFORMANCE WITH LOCAL CODES.
- HOOD LIGHTS ARE FURNISHED UNDER KITCHEN EQUIPMENT, DIVISION 11. UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL SWITCHES AND FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING CONCEALED FROM SIGHT.
- UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING WIRING ACROSS CEILING AS REQUIRED BETWEEN HOODS AND HOOD FIRE CONTROL PANEL.
- WALK-IN COLD STORAGE ROOMS, LIGHTS, AND CEILING MOUNT EVAPORATORS ARE FURNISHED AND INSTALLED UNDER KITCHEN EQUIPMENT, DIVISION 11. UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING ABOVE CEILING CONCEALED FROM SIGHT.
- ALL ELECTRICAL RECEPTACLES SHALL BE MOUNTED HORIZONTALLY ON FIXTURES AND WALLS.
- ALL EVAPORATOR MOTOR CONNECTIONS SHALL BE MADE WITH CONDUIT TO A J-BOX. PLUG-IN TYPE CONNECTIONS WILL NOT BE ACCEPTED.
- COLD STORAGE ROOM EVAPORATOR DRAIN LINES ARE FURNISHED AND INSTALLED UNDER KITCHEN EQUIPMENT, DIVISION 11. TRAP AT OUTLET END.
- REFRIGERATION LINES ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED TO FIT BUILDING CONDITIONS.
- UNDER ELECTRICAL WORK OF DIVISION 26, PROVIDE ALL DISCONNECTS, INTERLOCKS, AND CONTRACTORS REQUIRED BY LOCAL CODES.
- UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL SHUNT TRIP CIRCUIT BREAKERS TO SHUT OFF POWER SUPPLY TO ALL ELECTRICAL COOKING EQUIPMENT DURING FIRE SYSTEM ACTIVATION.
- UNDER WORK OF KITCHEN EQUIPMENT, DIVISION 11, FURNISH AND INSTALL STAINLESS STEEL OR CHROME PLATED ESCUTCHEON PLATES FOR ALL ELECTRICAL CONNECTIONS PENETRATING COUNTER TOPS FOR BELOW COUNTER PLUG-INS.
- UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING WIRING BETWEEN WAREWASHER CONTROL PANEL AND EXHAUST FAN FOR AUTO FAN ON/OFF DURING EQUIPMENT OPERATION.
- UNDER ELECTRICAL WORK OF DIVISION 26, PROVIDE POWER TO EXHAUST FAN ON ROOF AND INTERLOCK WITH MAKE-UP AIR SUPPLY UNIT PER PER MECHANICAL ENG. PLANS. PROVIDE WALL SWITCH WITH PILOT LIGHT @ 48" ABOVE FINISHED FLOOR.
- UNDER ELECTRICAL WORK OF DIVISION 26 LOCATE MANUAL FIRE SUPPRESSION FULL STATION PER CODES. PROVIDE OCTAGON BOX AND RUN EMPTY CONDUIT TO FIRE SUPPRESSION CONTROL HEAD. MINIMUM 12" RADIUS BENDS IN ANY CHANGE OF DIRECTION. SET FULL STATION BOX @ +48" AFF. TO CENTER LINE.

### ELECTRICAL SCHEDULE

ITEM NO.	ENO.	VOLTS	Ø	DESCRIPTION	LOCN.	HEIGHT	SERVICE TO:	RATING	REMARKS
5	E1	120	1	J-BOX	WALL	58"	CUBE ICE MACHINE WITH BIN	11.5 AMPS	---
4	E2	120	1	DCO	WALL	36"	REACH-IN FREEZER	11.2 AMPS	FURNISHED WITH NEMA 5-15P
9	E3	208	3	J-BOX	ROOF	VERIFY	WALK-IN COOLER CONDENSING UNIT	1 HP	---
9	E4	120	1	J-BOX	CEILING	---	WALK-IN COOLER EVAPORATOR	2 AMPS	---
8	E5	120	1	J-BOX	CEILING	---	(2) WALK-IN LIGHTS	160 W	80 W EACH
17	E6	120	1	DCO	WALL	36"	MOBILE HOT HOLDING CABINET	12 AMPS	FURNISHED WITH NEMA 5-15P
28	E7	120	1	DCO	WALL	48"	ELECTRIC CAN OPENER	3 AMPS	DEDICATED CIRCUIT. FURNISHED WITH NEMA 5-15P
19	E8	120	1	J-BOX	WALL	102"	FIRE PROTECTION SYSTEM	1 KW	---
21	E9	208	3	J-BOXES (STACKED)	WALL	12" - 39"	DOUBLE STACK CONVECTION OVENS	24 KW	(12 KW EACH CONN.) - VERIFY ALL REQUIREMENTS WITH OWNER FURN'D. EQUIP.
22	E10	208	1	SCO	WALL	18"	RESIDENTIAL RANGE	VERIFY	VERIFY ALL REQUIREMENTS WITH OWNER FURNISHED EQUIP.
19	E11	120	1	J-BOX	CEILING	---	(2) CANOPY HOOD LIGHTS	160 W	80W EACH
---	E12	---	--	NOT USED	---	---	---	---	---
---	E13	---	--	NOT USED	---	---	---	---	---
---	E14	---	--	NOT USED	---	---	---	---	---
25	E15	208	3	J-BOX	WALL	14"	DISPOSER	2 HP	CONNECTIONS TO DISPOSER, SOLENOID & SWITCH
34	E16	208	3	J-BOX	WALL	18"	WAREWASHER BOOSTER HEATER	8.5 KW	---
34	E17	208	3	J-BOX	WALL	13"	WAREWASHER (TANK HEAT/MOTORS)	2 HP &	& 5 KW
34	E18	120	1	DCO	WALL	64"	WAREWASHER DETERGENT FEED	1440 W	DEDICATED CIRCUIT
35	E19	208	3	J-BOX	WALL	14"	DISPOSER	2 HP	CONNECTIONS TO DISPOSER, SOLENOID & SWITCH
19	E20	96V. GANG	3	J-BOX	WALL	48"	CANOPY HOOD ROOM SENSOR CONTROL	---	WIRE TO HOOD SC CONTROL BOARD W/PROVIDED 2-WIRE LOW VOLT. CABLE
38	E21	120	1	DCO	FIXTURE	24"	MOBILE MILK COOLER	2.7 AMPS	FURNISHED WITH NEMA 5-15P. EXTEND FROM WALL STUB
40	E22	120	1	DCO	FIXTURE	24"	DROP-IN REFRIGERATED COLD FAN	3.9 AMPS	FURNISHED WITH NEMA 5-15P. EXTEND FROM WALL STUB
41	E23	208	1	J-BOX	FIXTURE	24"	DROP-IN HOT FOOD WELLS	3120 W	EXTEND FROM WALL STUB
42	E24	120	1	DCO	FIXTURE	24"	POINT OF SALE SYSTEM	1 KW	ISOLATED AND DEDICATED

### SYMBOLS



### REMOTE, NORMAL TEMP. REF'R. SCHEMATIC

NO SCALE

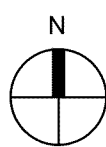
INCLUDE CRANKCASE HEATERS FOR ALL SYSTEMS EXPOSED TO FREEZING WEATHER.

ADD OIL SEPARATORS TO LOW TEMPERATURE SYSTEMS

ALL SYSTEMS DESIGNED FOR +30° AMBIENT

### ELECTRICAL SYMBOL LEGEND

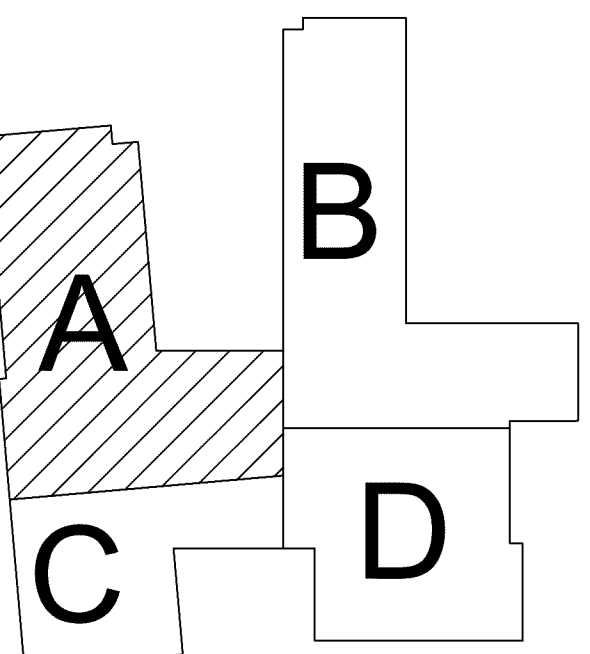
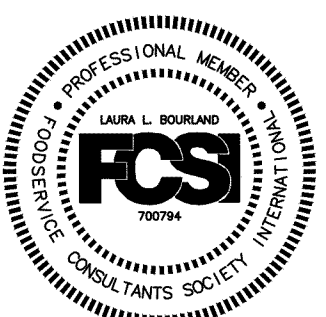
DCO (DUPLEX CONVENIENCE OUTLET)	⊕
J-BOX (JUNCTION BOX)	⊕
SCO	⊕
THERMOSTAT	⊕
SOLENOID	⊕
MOTOR	⊕
SWITCH(S)	⊕
LIGHT	⊕
FLOOR OR CEILING STUB (AS NOTED)	•



1

### LEVEL 1 FOOD SERVICE ELECTRICAL/REFRIGERATION PLAN

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



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LEVEL 1 FOOD SERVICE ELECTRICAL/REFRIGERATION PLAN

FS-104

Scale

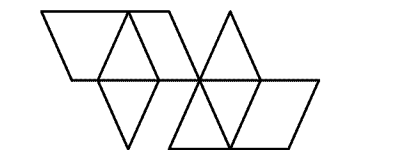
**Fir Grove Children's Center**  
Vancouver Public Schools  
3200 E 18TH ST  
VANCOUVER, WA. 98661

issue date  
10/15/2019  
BID/PERMIT SET  
revisions



drawn by  
LB/SH  
checked by  
LB  
lsw job number  
2018-0029

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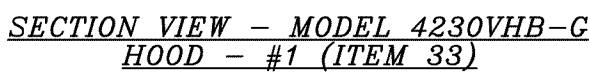


**LSW**  
ARCHITECTS






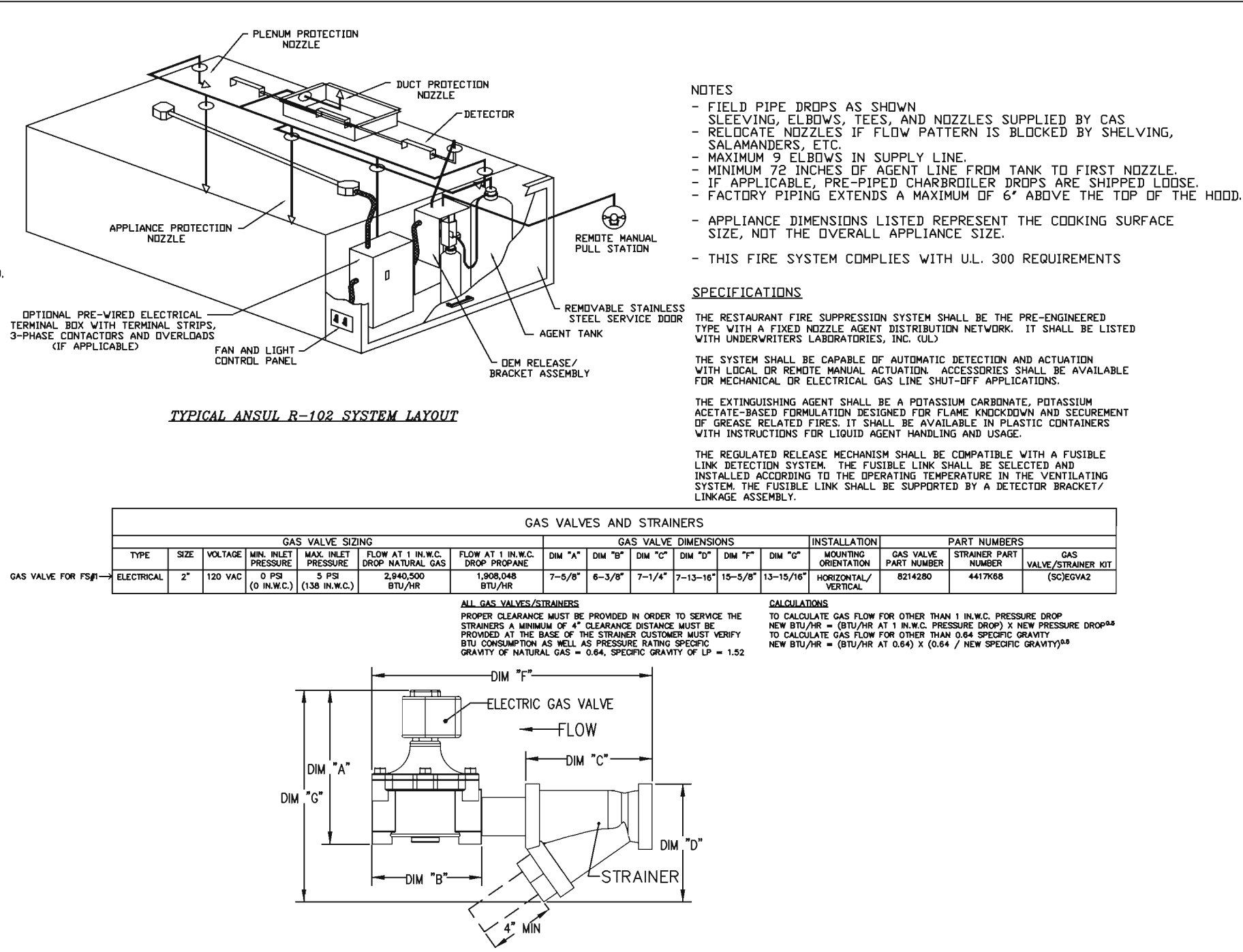
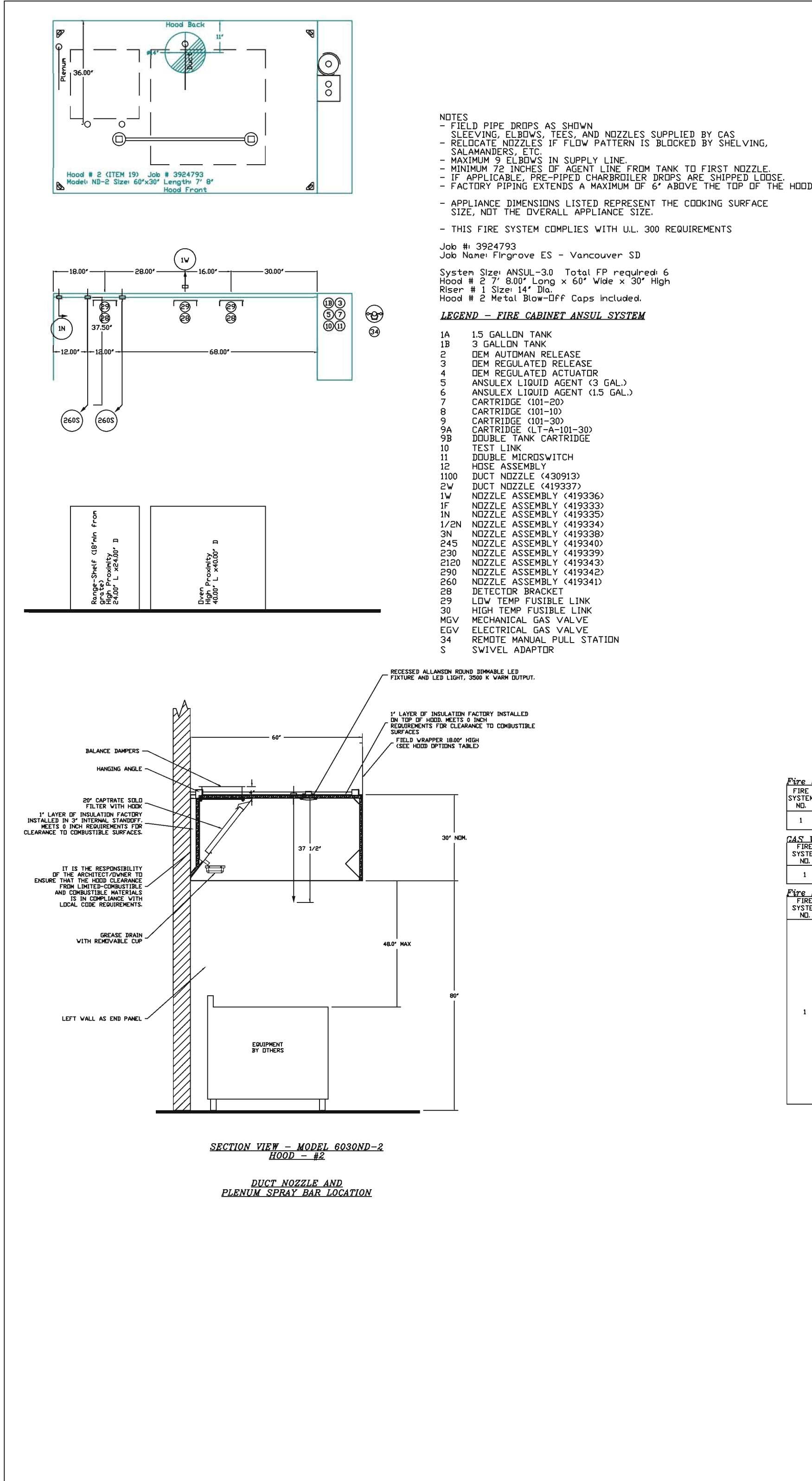




PLAN VIEW - Hood #1 (ITEM 33)  
3' 6.00" LONG 4230VHB-G

REVISIONS	
DESCRIPTION	DATE:
 <b>CAPTIVE AIR</b> www.captiveair.com <b>Seattle Office</b> 1309 Pacific Ave. Everett, WA. 98201 PHONE: (425) 212-5998 FAX: (425) 212-5998 EMAIL: reg85@captiveair.com	
Firgrove ES - Vancouver SD	
VANCOUVER, WA, 98661	
<b>DATE:</b> 7/30/2019	
<b>DWG.#:</b> 3924793	
<b>DRAWN BY:</b> JDC-85	
<b>SCALE:</b> 3/4" = 1'-0"	
<b>MASTER DRAWING</b>	
<b>SHEET NO.</b> 2	





System Information - Job#3924793						
ITEM		Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION
						LOCATION ON HOOD
1		ITEM 31	Ansul R102	3.0	6	Fire Cabinet Right Right

GAS VALVE(S)			
FIRE SYSTEM NO.	Tag	TYPE	SUPPLIED BY
1	ITEM 31	SC Electrical	2800 CaptiveAir Systems

System Parts List Key						
FIRE SYSTEM NO.	Tag	KEY NUMBER - PART DESCRIPTION	QTY. BY FACTORY	QTY. BY DIST.		
1	ITEM 31	0 - 0 - Tank Strap Tank Strap - used for ANSUL Tanks	1	0		
		0 - 0 - U-TANK BRACKET Tank Bracket for Fire system tank installation in utility cabinets	1	0		
		1 - 1 - AT - 3.0 TANK(R102) - 3.0 Gallon SS Tank (For use with Automan Release, Actuator, or SS Enclosure 03-PULCO Mocolo # 30-429862)	1	0		
		3 - 3 - ANS-DEM REGULATED RELEASE - Ansol Regulated Mechanical Release/Bracket Assembly, DEM, R-102, Cartridge Detection Included, Ansol Part # 75493	1	0		
		5 - 5 - L10-30 AGENT - Ansulox Low PH Vet Chemical Agent, 3 Gallon (GL) 79372	0	1		
		7 - 7 - 101-20 CARTRIDGE - Carbon Dioxide 101-20, 3 Gallon Cartridge (R-102)	0	1		
		10 - 10 - T-LINK LINK - Test Link (1 Test Only) Ansol Part # 24916, Mocolo # 20-24916	0	1		
		11 - 11 - MICRO-SSA MICROSWITCH KIT- Includes 2 switches and Mounting Hardware, Single Dual Electronic Switch, One Standard Switch, One Alarm Duty Switch Ansol Part # 437105, Mocolo # 08-437105	1	0		
		27 - 27 - GP5A-1/2 PULLEY SEAL - 1/2" Hood Seal (GL) Ansol Part # 43253, Mocolo # 30-79768	1	0		
		34 - 34 - RPS-A REMOTE PULL STATION - Red composite (without wire rope) 434618 (GL) Mocolo #06-48203	1	0		
		35 - 35 - PE-LT PULLEY ELBOW - Low Temp. Pulley Elbow, Set Screw Type Ansol Part # 415676, Mocolo # 11-415671	2	0		
		36 - 36 - PE-HT PULLEY ELBOW - High Temp Pulley Elbow, Compression Type, Ansol Part # 43253, Mocolo # 10-45771	1	0		

Job # 3924793  
Job Name Firgrove ES - Vancouver SD  
System Size: ANSUL-3.0 Total FP required: 6  
Hood # 2 7' 8.00' Long x 60' Wide x 30' High  
Riser # 1 Size: 0" x 0"

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIR

Seattle Office

1309 Pacific Ave. Everett, WA 98201 PHONE: (425) 712-5598 FAX: (425) 712-5598 EMAIL: [eng@captivair.com](mailto:eng@captivair.com)

Firgrove ES - Vancouver SD

VANCOUVER, WA, 98661

DATE: 7/30/2019

DWG.#: 3924793

DRAWN BY: JDC-85

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

MASTER DRAWING

SHEET NO. 3

# 1 LEVEL 1 FOOD SERVICE CANOPY HOOD DETAILS

SCALE: NO SCALE



LEVEL 1 FOOD SERVICE CANOPY HOOD DETAILS

Scale

FS-203

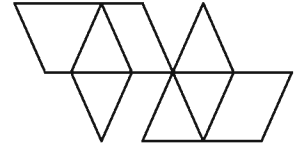
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revisions

Fir Grove Children's Center  
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drawn by LB/SH  
checked by LB  
lsw job number 2018-0029



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LSW-Architects.com



LSW ARCHITECTS





drawn by  
**LB/SH**  
checked by  
**LB**

**Irving Grove Children's Center**  
Vancouver Public Schools  
3200 E 18TH ST  
VANCOUVER, WA. 98661

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revisions

# FS-204

Scale

Field Connection to Router or Ethernet Switch  
OR Factory Wired Connection to Cellular Kit

- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood control panel to allow remote changes to system setting such as VFD Frequencies, ECM speeds, temperature set points, fan and wash schedules, etc.

### Demand Control Ventilation Hood Control Panel Specifications:

- Sequence of Operations:

**Automatic:** The system operates based on the differential between room temperature and the temperature at the hood cavity or exhaust duct collar. Fans activate at a configurable temperature differential threshold. Depending on the job configuration, each fan can be controlled by a different temperature differential threshold. Variable speed motor (such as EC Motors or VFD driven motors) modulate with temperature. If the panel is equipped with variable speed fans and the zone is defined as "dynamic", these will modulate within a user-defined range based on the temperature differential. Panels equipped with variable speed fans and a zone defined as "static" will run at a constant speed that is calculated for the drive. Demand control ventilation systems are capable of modulating exhaust and make up air fan speeds per the requirements outlined in IECC 403.2.8.

- UNLESS SPECIFIED OTHERWISE, ALL FACTORY CORD WIRING IS AWG 18. ALL FACTORY CORD WIRING IS AWG 18.

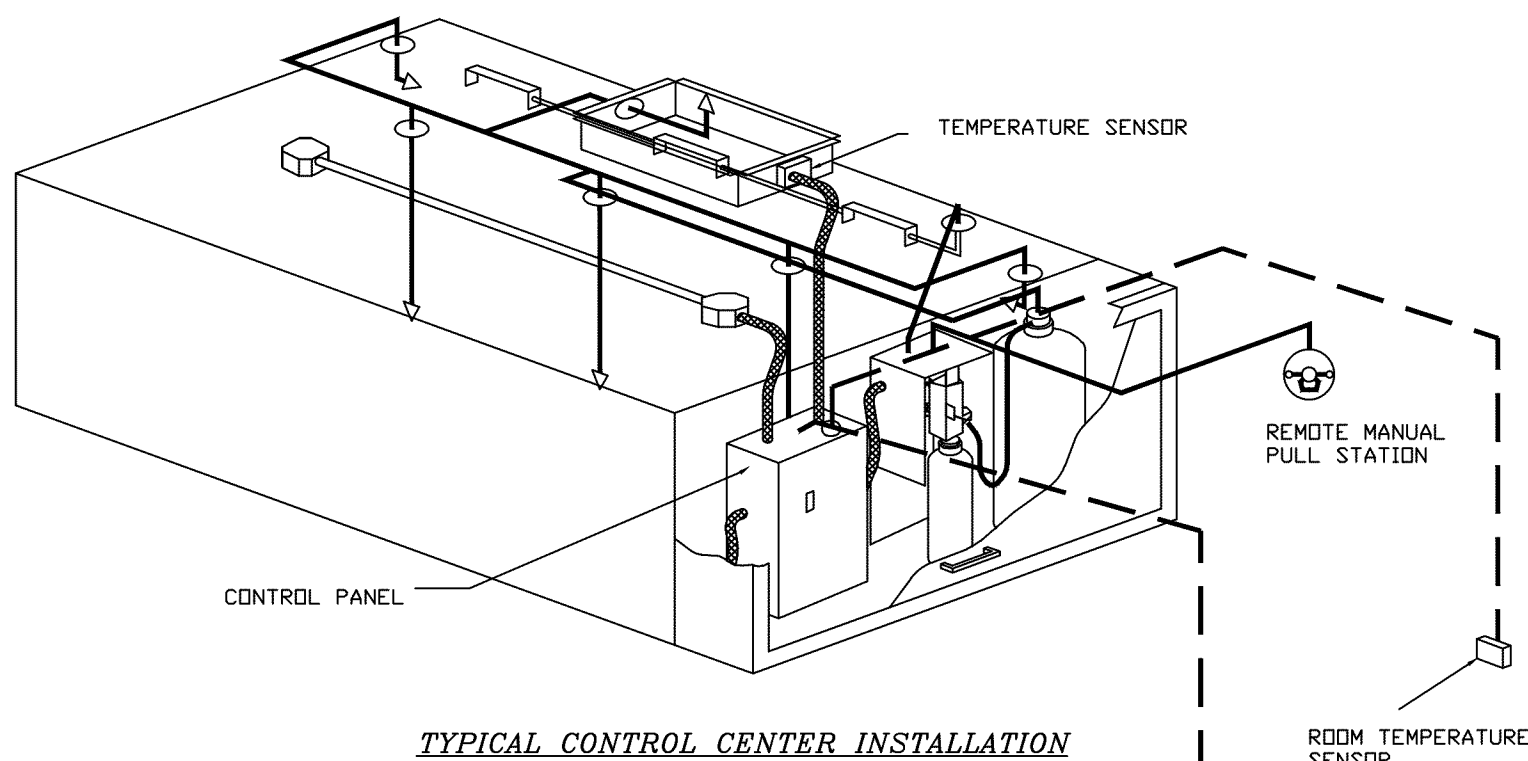
**J9 120V**

1	W	CONTROL INPUT
2	M	120V NEUTRAL
3	W	GROUND
4	M	NEUTRAL, 10A 44
5	W	NEUTRAL, 10A 44
6	M	GROUND
7	M	GROUND
8	M	GROUND
9	M	GROUND
10	M	GROUND
11	M	GROUND
12	M	GROUND
13	M	GROUND
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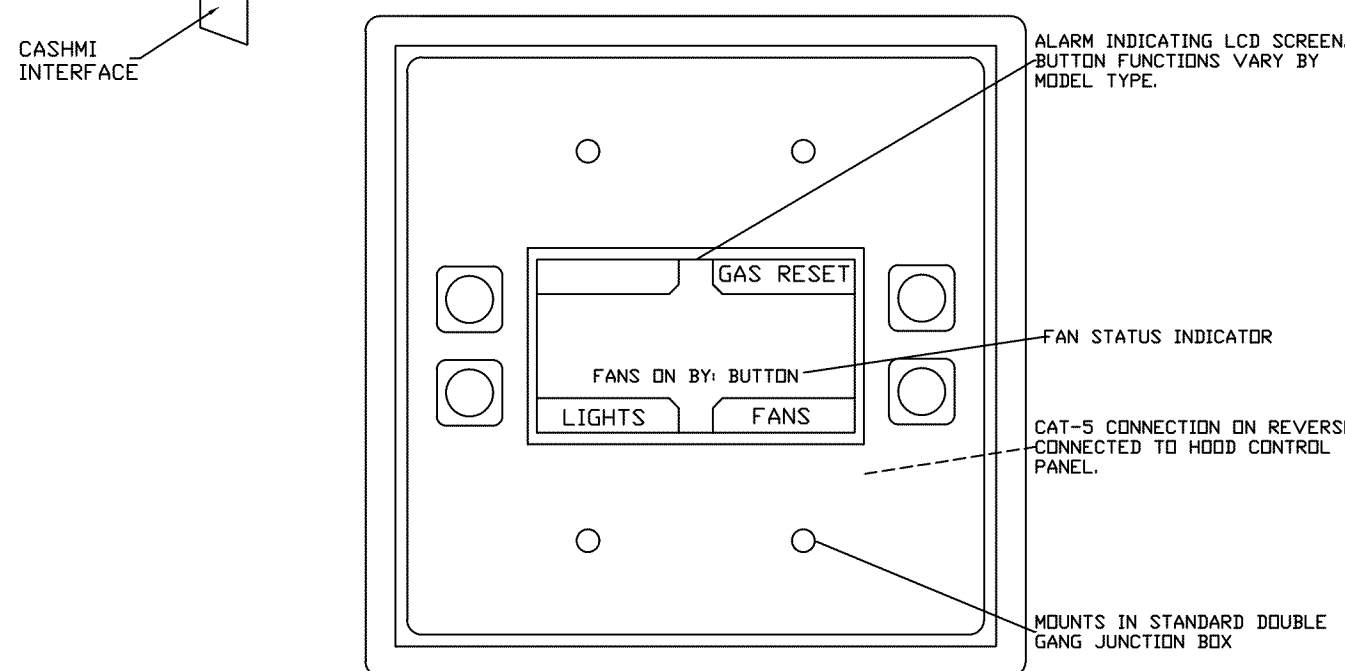
PANEL LID

**J7 120V**

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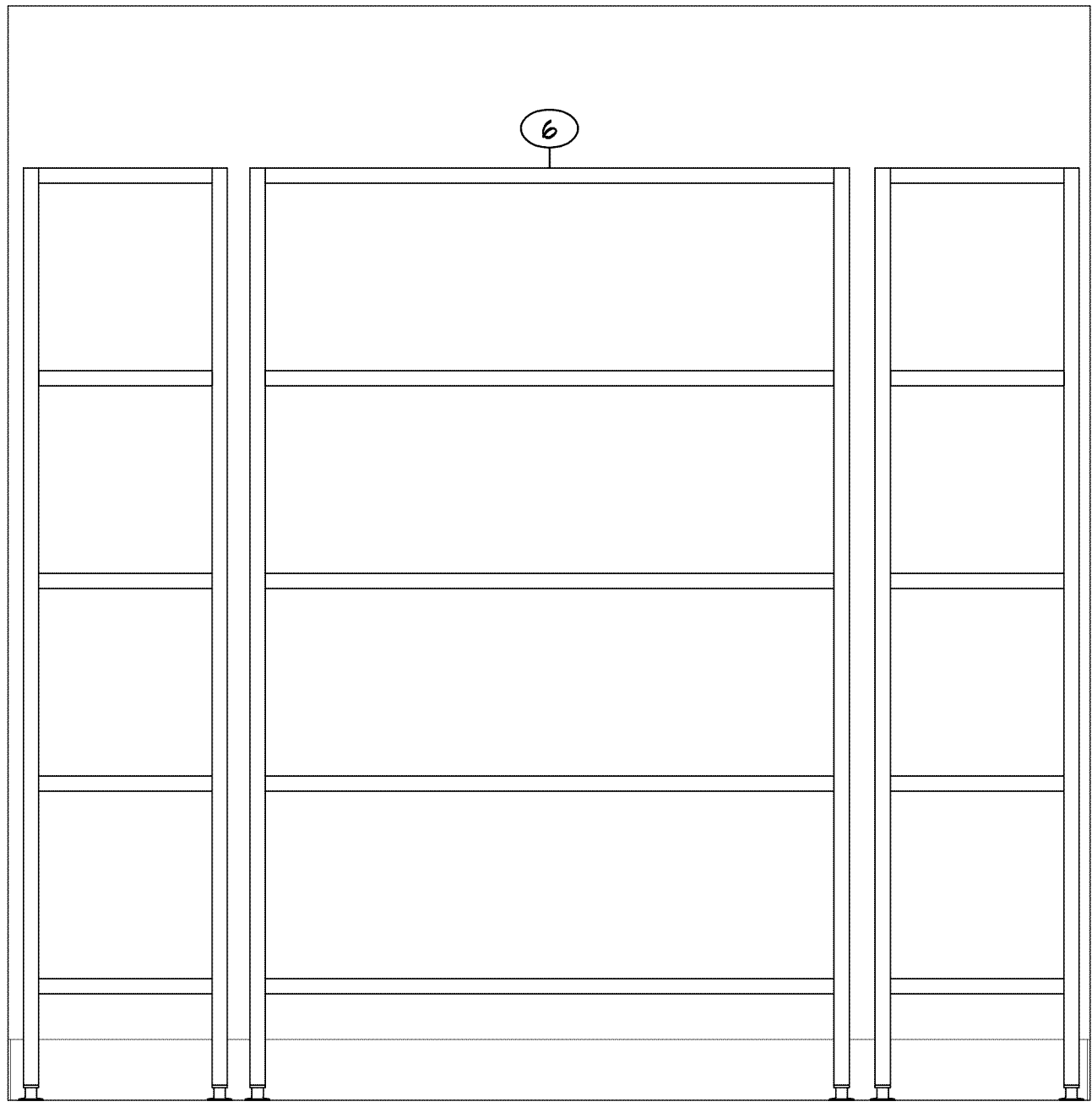
### TYPICAL CONTROL CENTER INSTALLATION



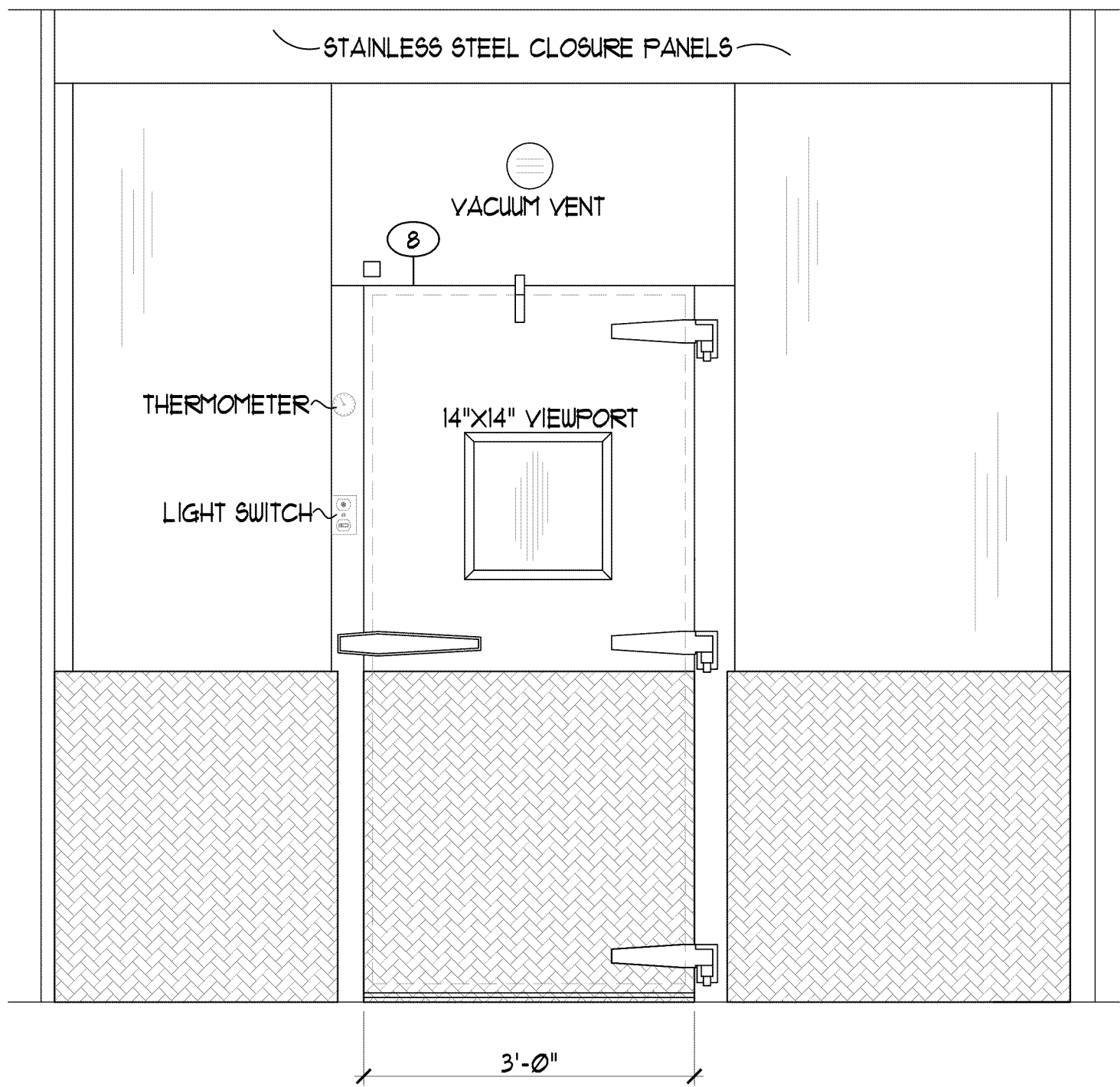
REVISIONS	
DESCRIPTION	DATE:
CAPTIVE ENGINEERING	
www.captiveare.com	
Seattle Office	
1309 Pacific Ave. Everett, WA. 98201 PHONE: (425) 212-5998 FAX: (425) 212-5998 EMAIL: regis@captiveare.com	
Firgrove ES - Vancouver SD VANCOUVER, WA, 98661	DATE: 7/30/2019
DWG.#: 3924793	
DRAWN BY: JDC-85	
SCALE: 3/4" = 1'-0"	
MASTER DRAWING	
SHEET NO.	
4	



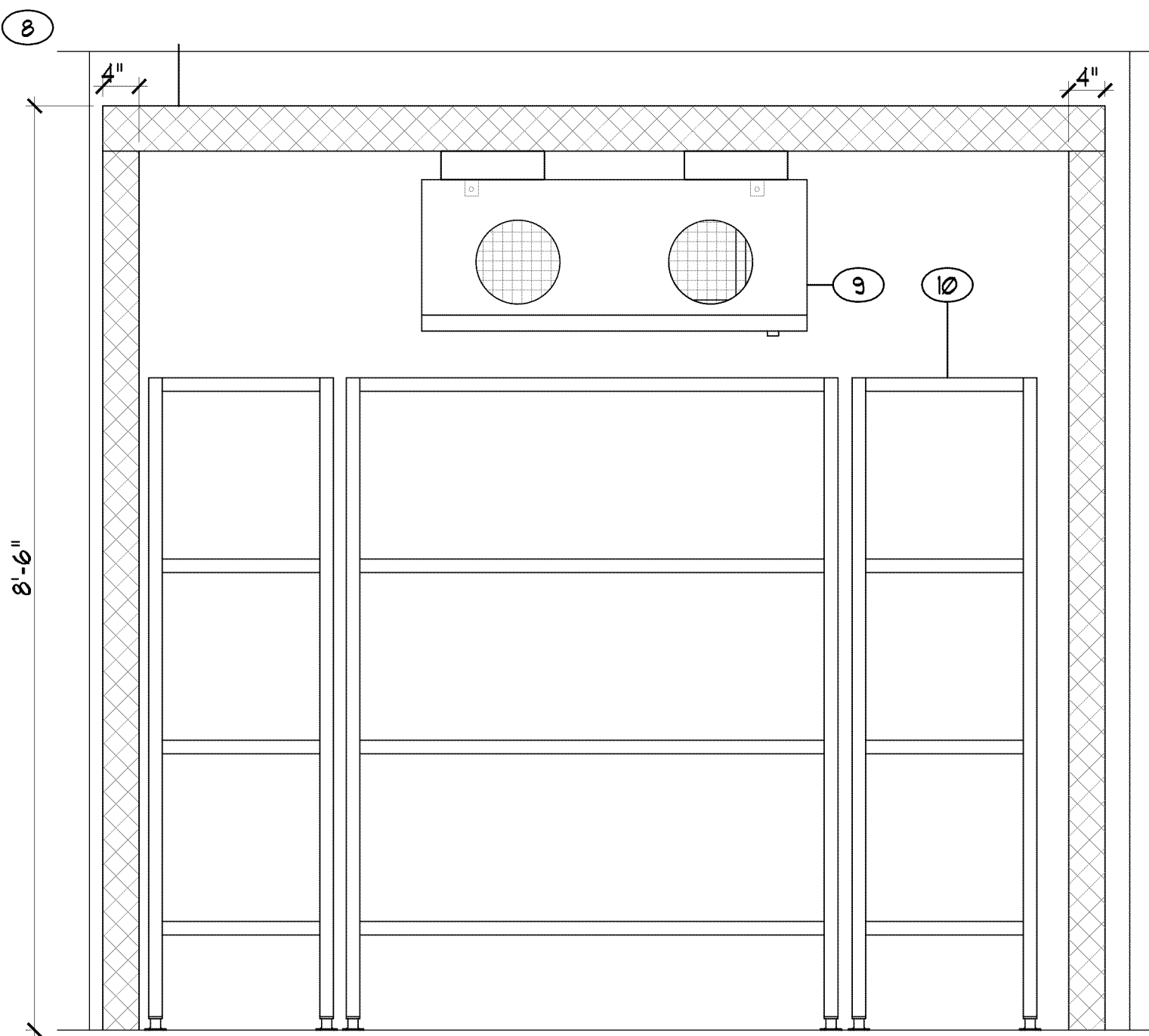




1 ELEVATION DRY STORAGE SHELVING  
3/4" = 1'-0"



2 ELEVATION WALK-IN COOLER - (EXTERIOR)  
3/4" = 1'-0"



3 ELEVATION WALK-IN COOLER - (INTERIOR)  
3/4" = 1'-0"

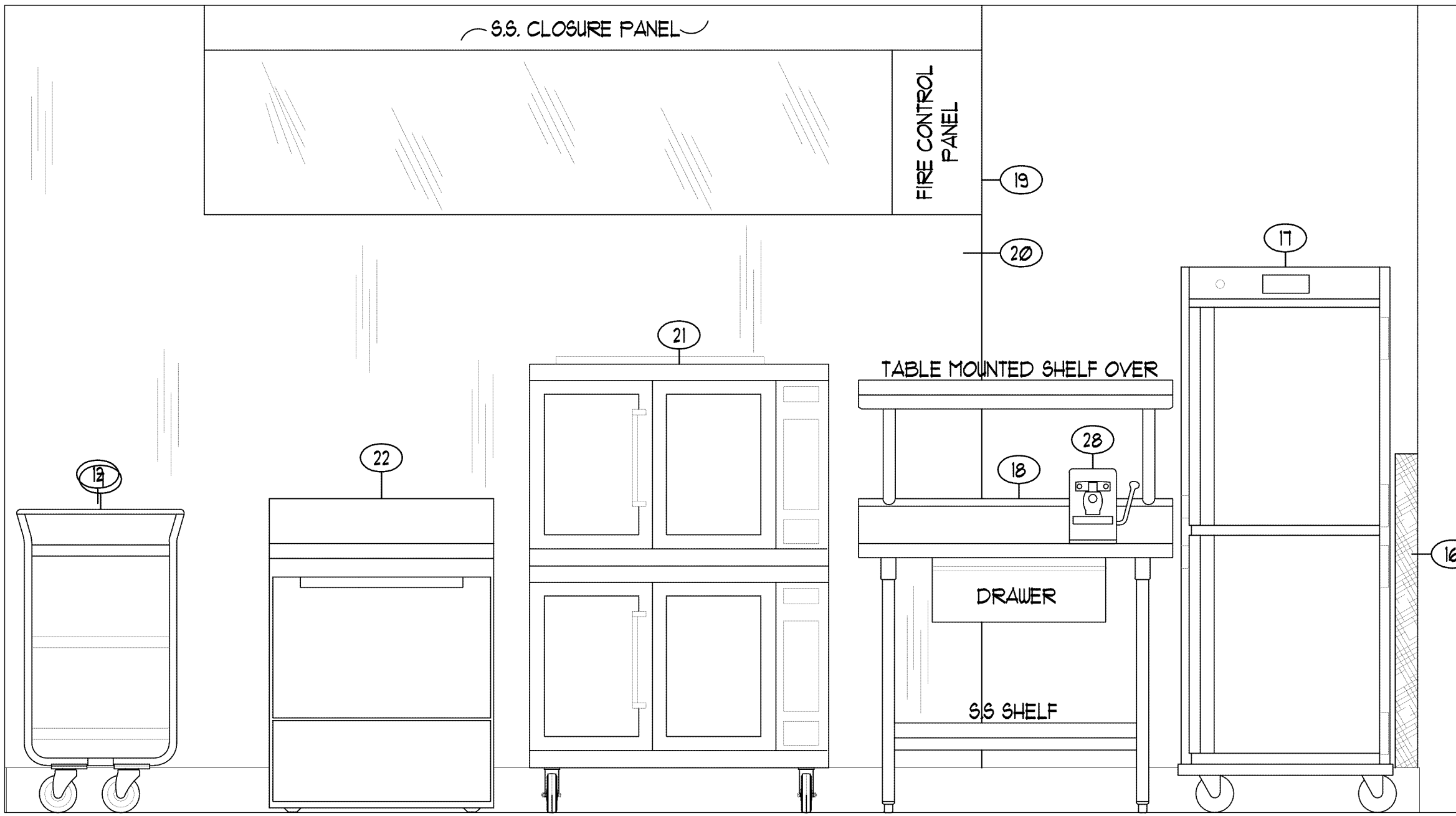


4 ELEVATION JANITORS CABINET AND R. I. FREEZER  
3/4" = 1'-0"

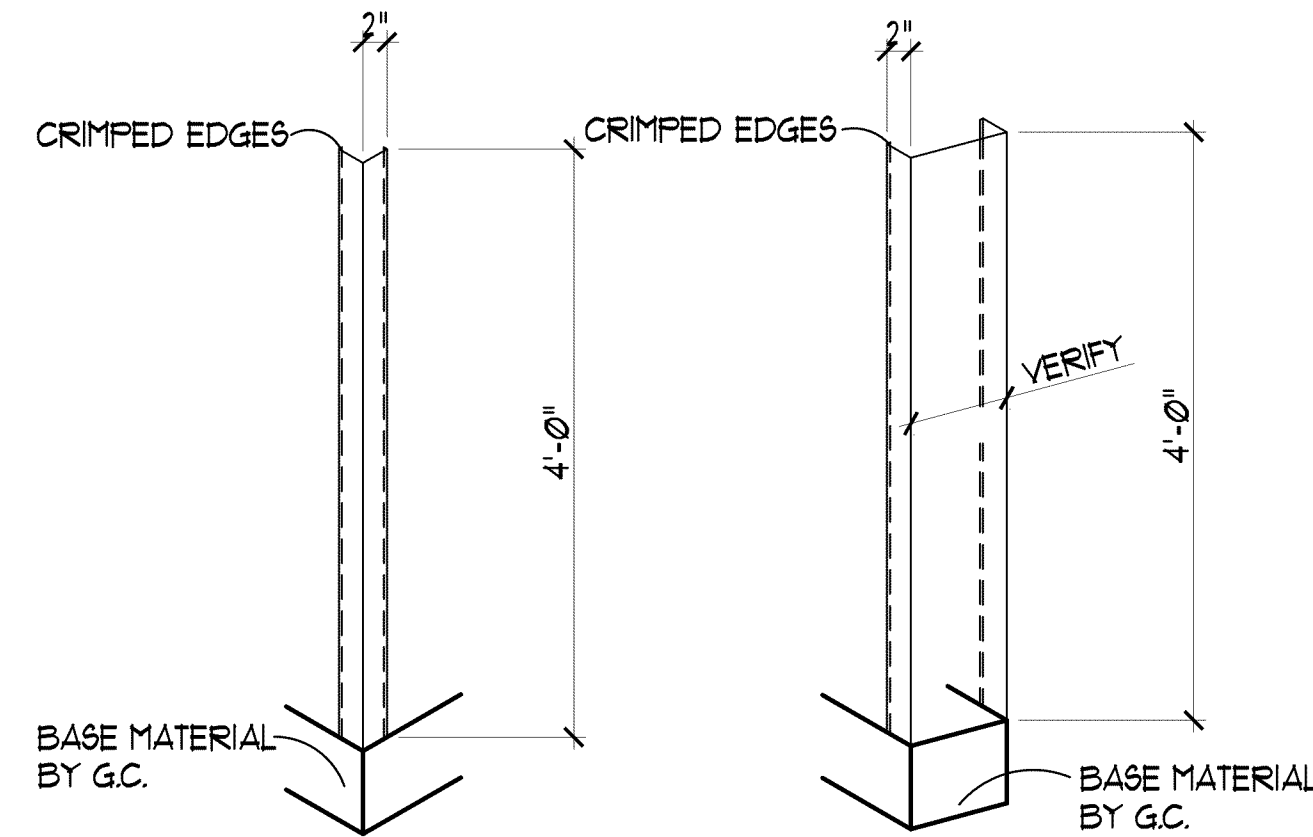
1 LEVEL 1 FOOD SERVICE ELEVATION AND FABRICATION DETAILS  
SCALE: AS NOTED







NOTE: SEE SHEET FS101 FOR LOCATIONS AND QUANTITIES OF THESE ITEMS

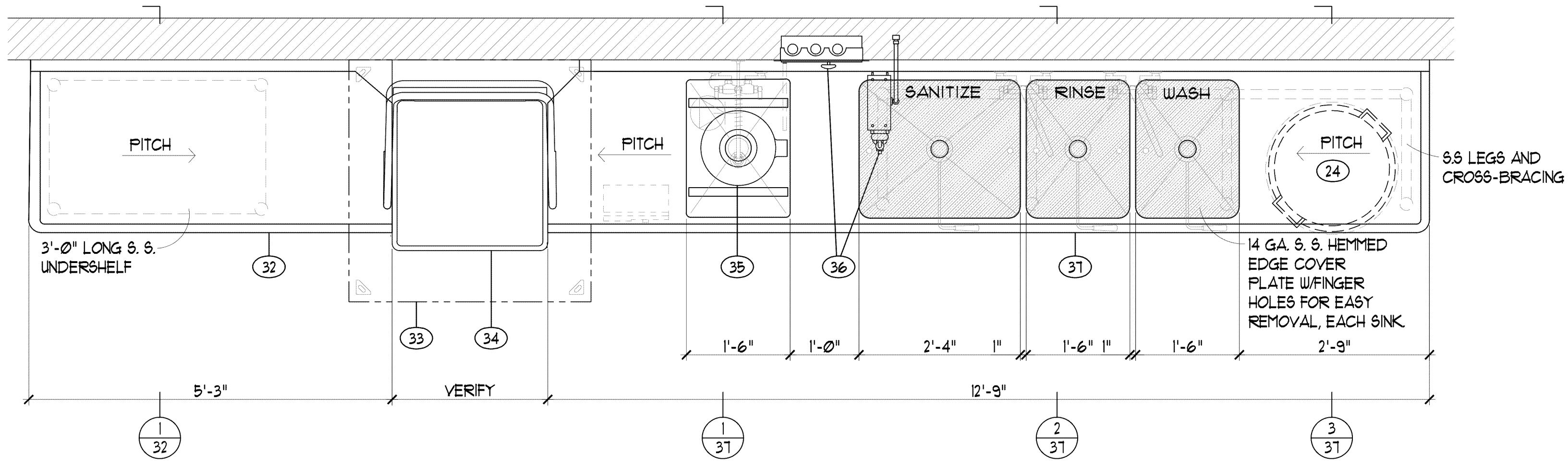
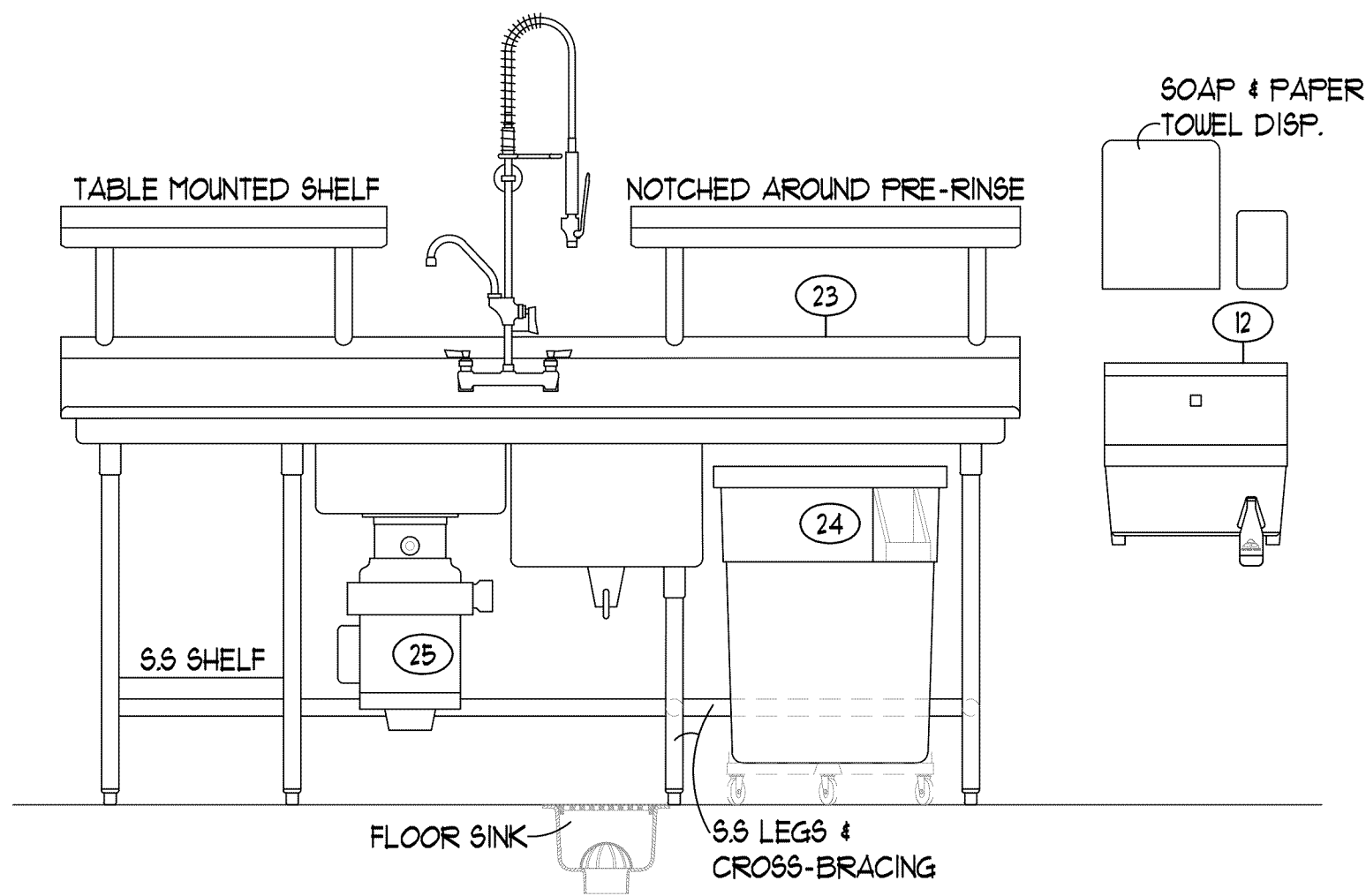


CORNER

CHANNEL

5 ELEVATION HOT CABINET, WORK TABLE & COOKING LINE  
3/4" = 1'-0"

A DETAILS CORNER & CHANNEL GUARDS  
3/4" = 1'-0"



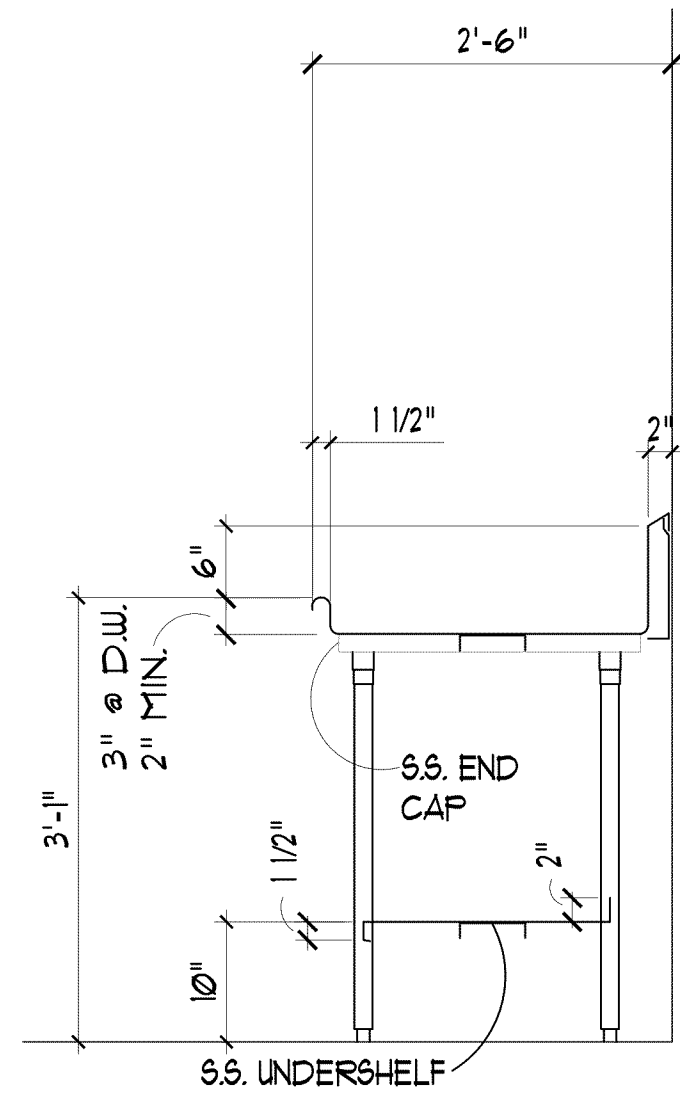
6 ELEVATION VEGETABLE PREP SINK TABLE  
3/4" = 1'-0"

B PLAN VIEW WAREWASHING AREA  
3/4" = 1'-0"

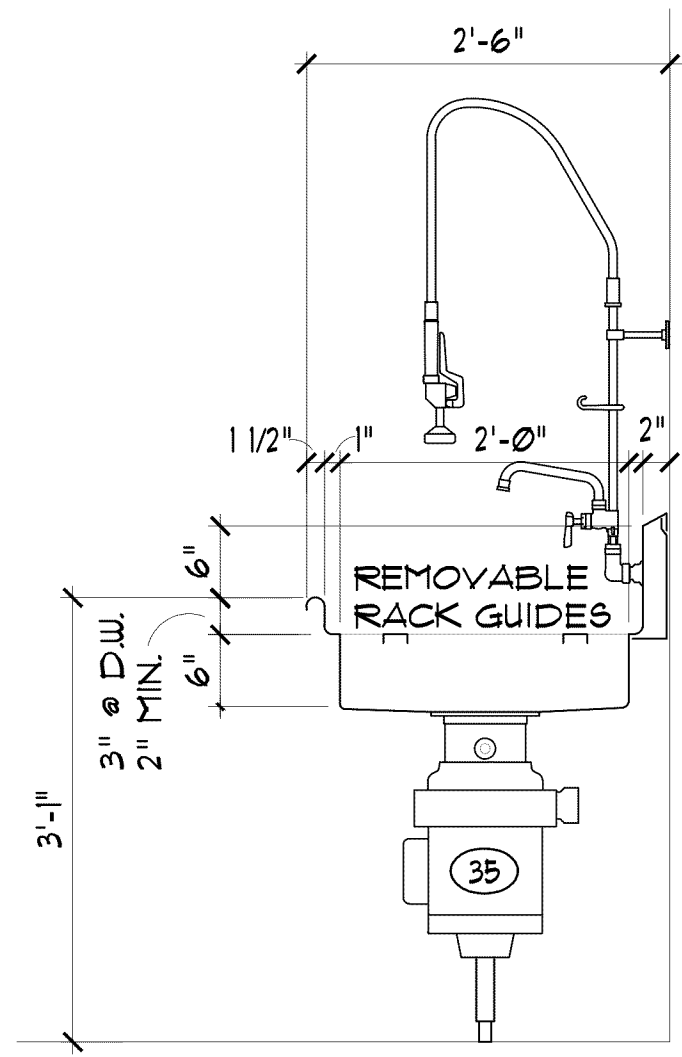
1 LEVEL 1 FOOD SERVICE ELEVATION AND FABRICATION DETAILS  
SCALE: AS NOTED



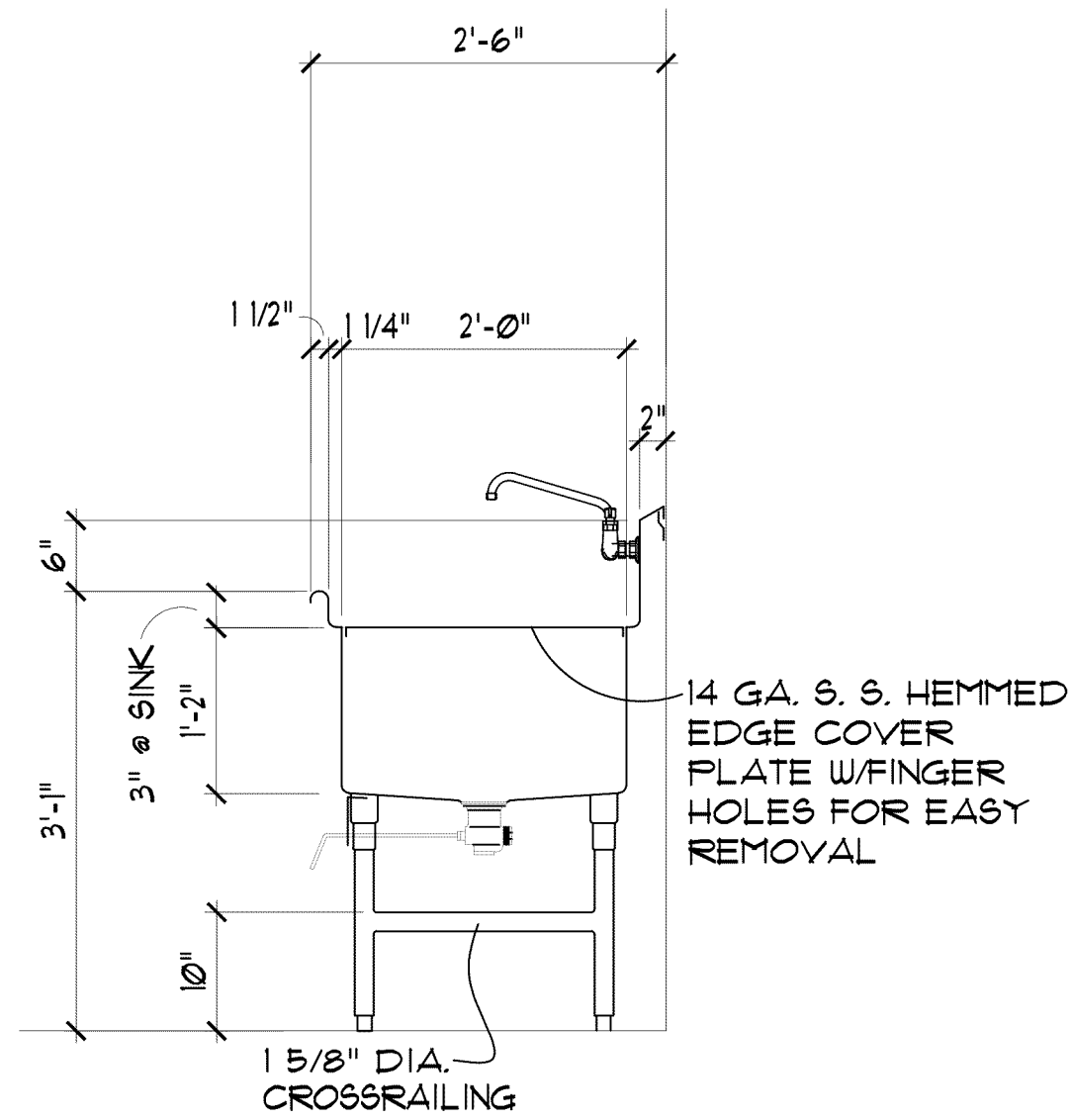




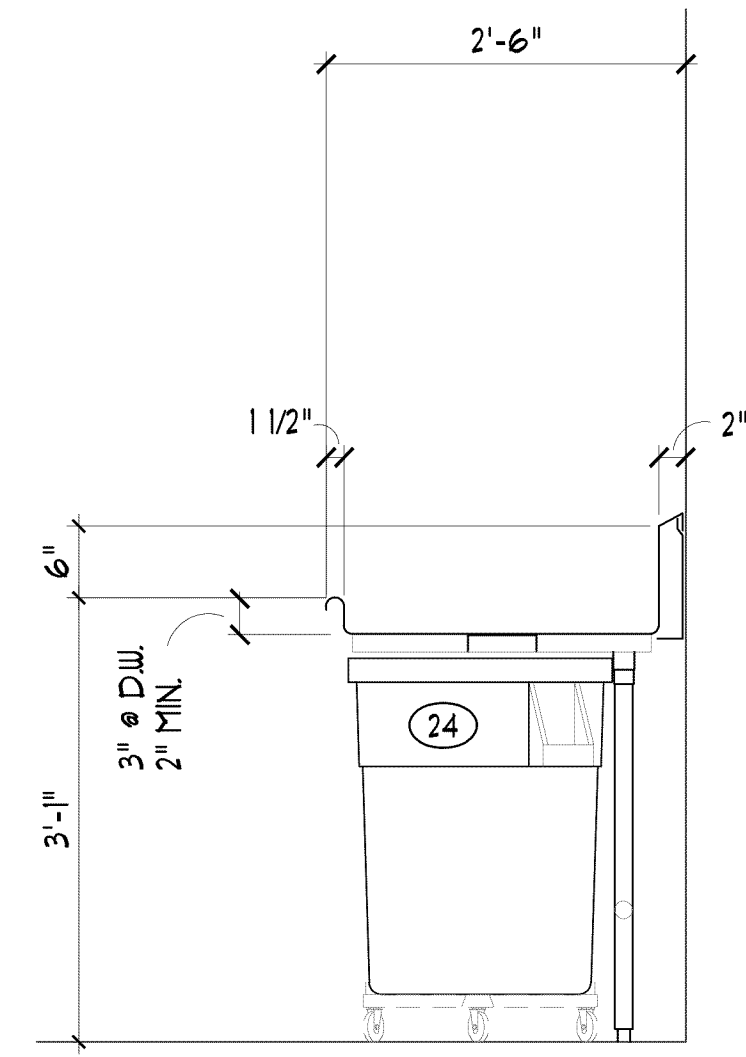
1 SECTION  
3/4" = 1'-0"



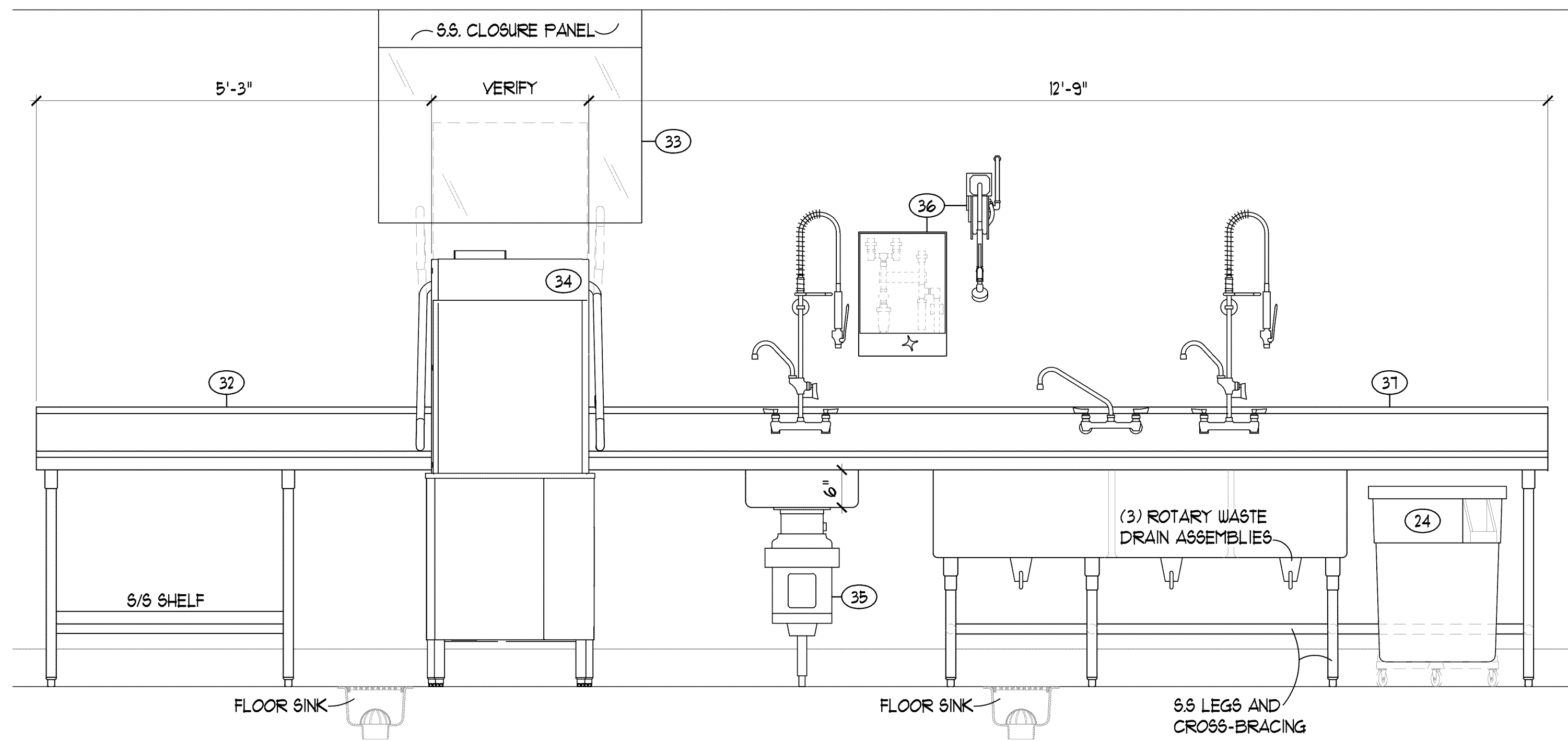
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3/4" = 1'-0"



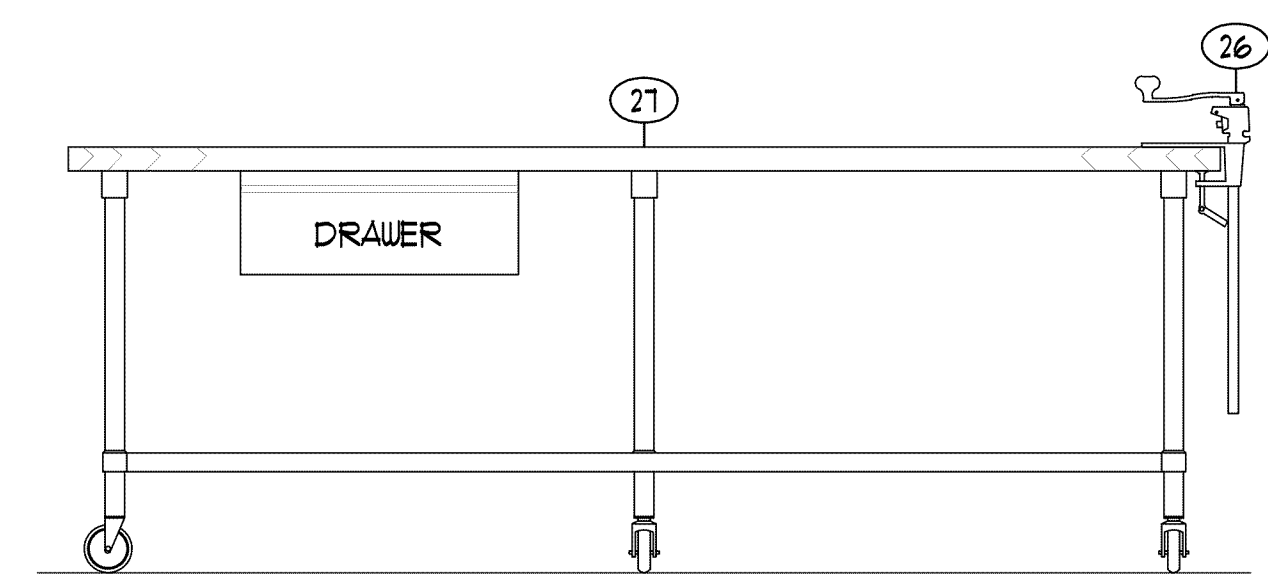
2 SECTION  
3/4" = 1'-0"



3 SECTION  
3/4" = 1'-0"

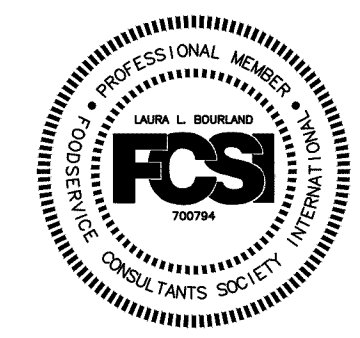


1 ELEVATION CLEAN, SOILED DISHTABLES WITH POT WASHING SINKS AND WAREWASHER  
3/4" = 1'-0"

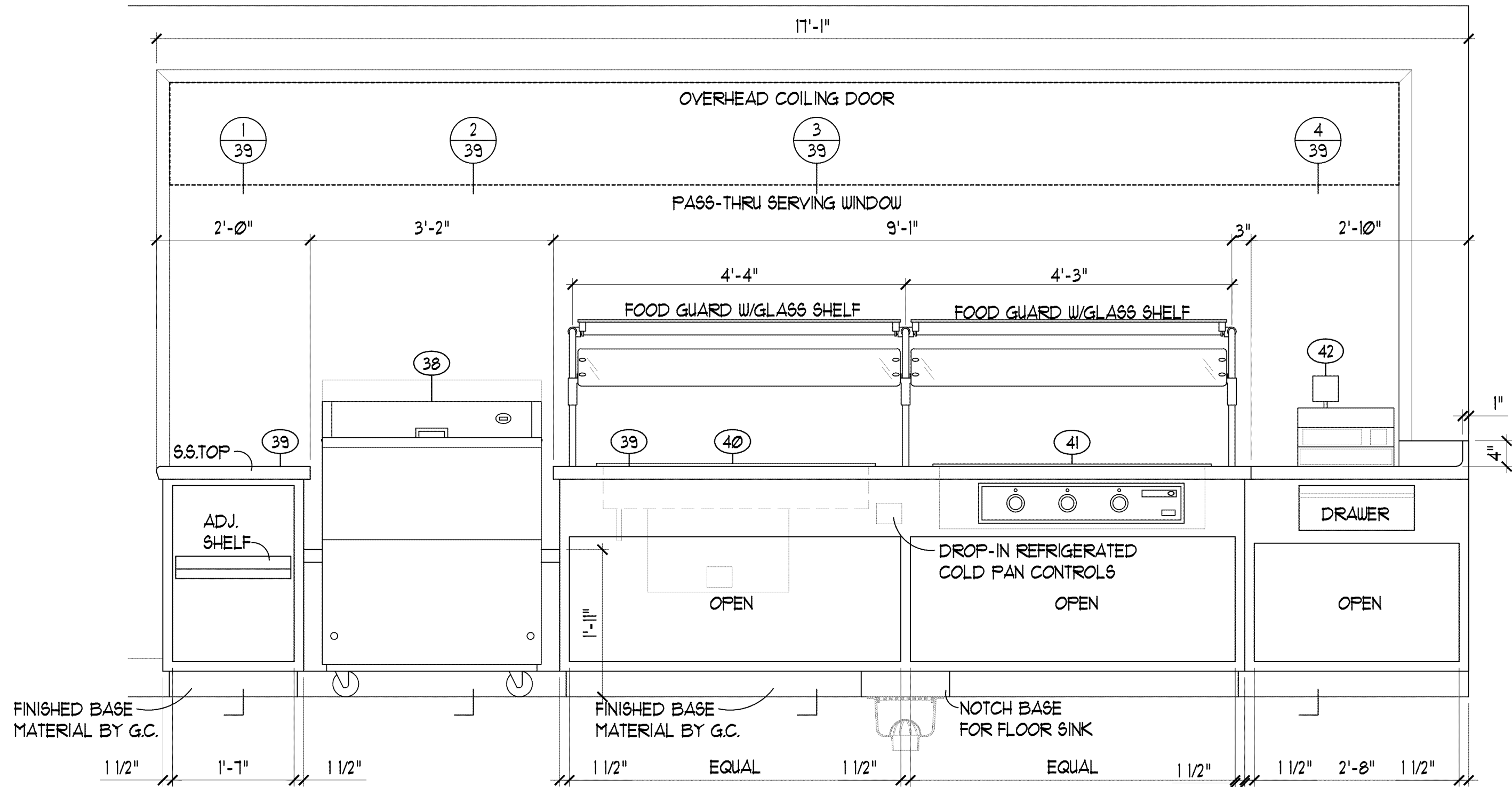


2 ELEVATION BAKER'S TABLE  
3/4" = 1'-0"

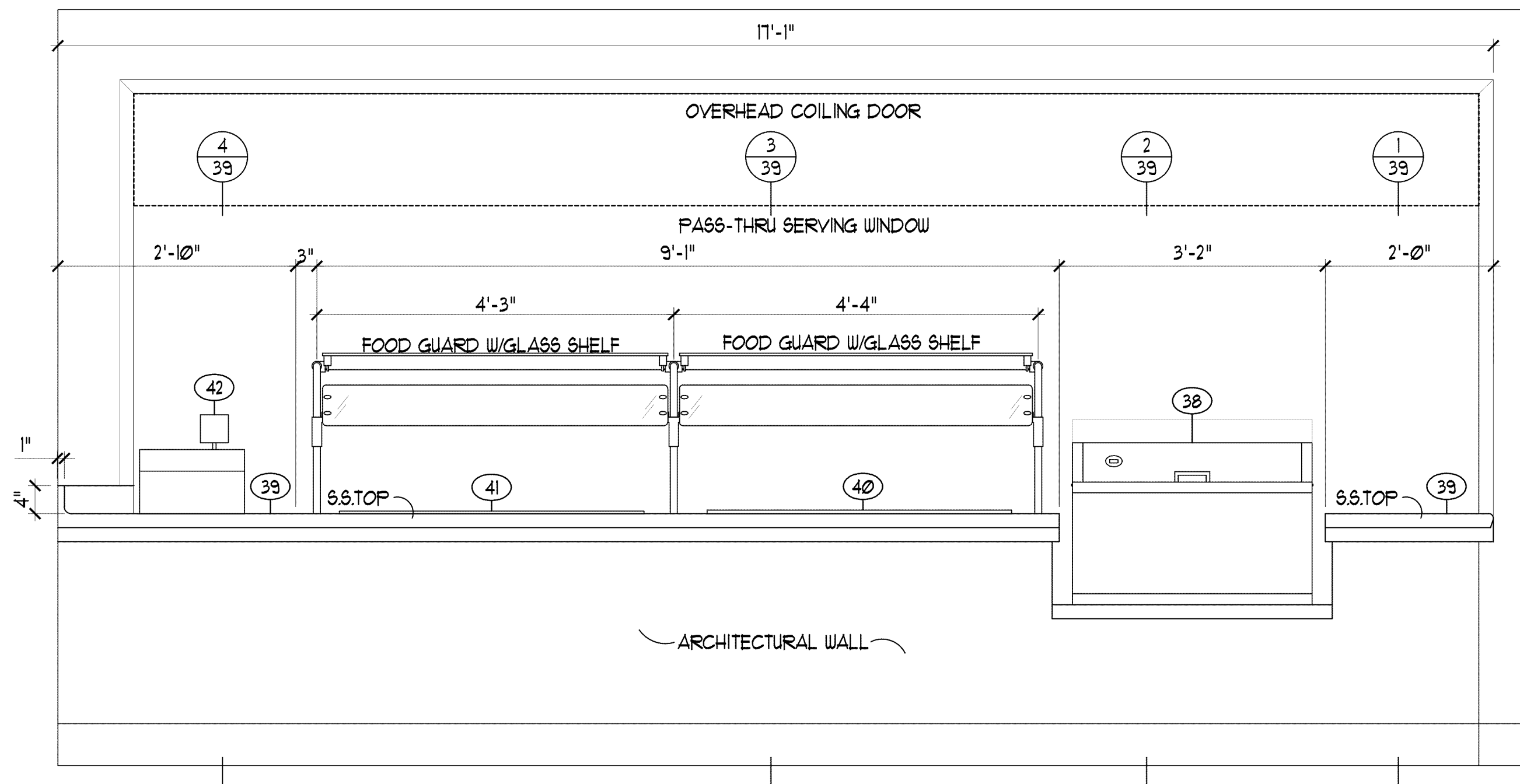
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SCALE: AS NOTED



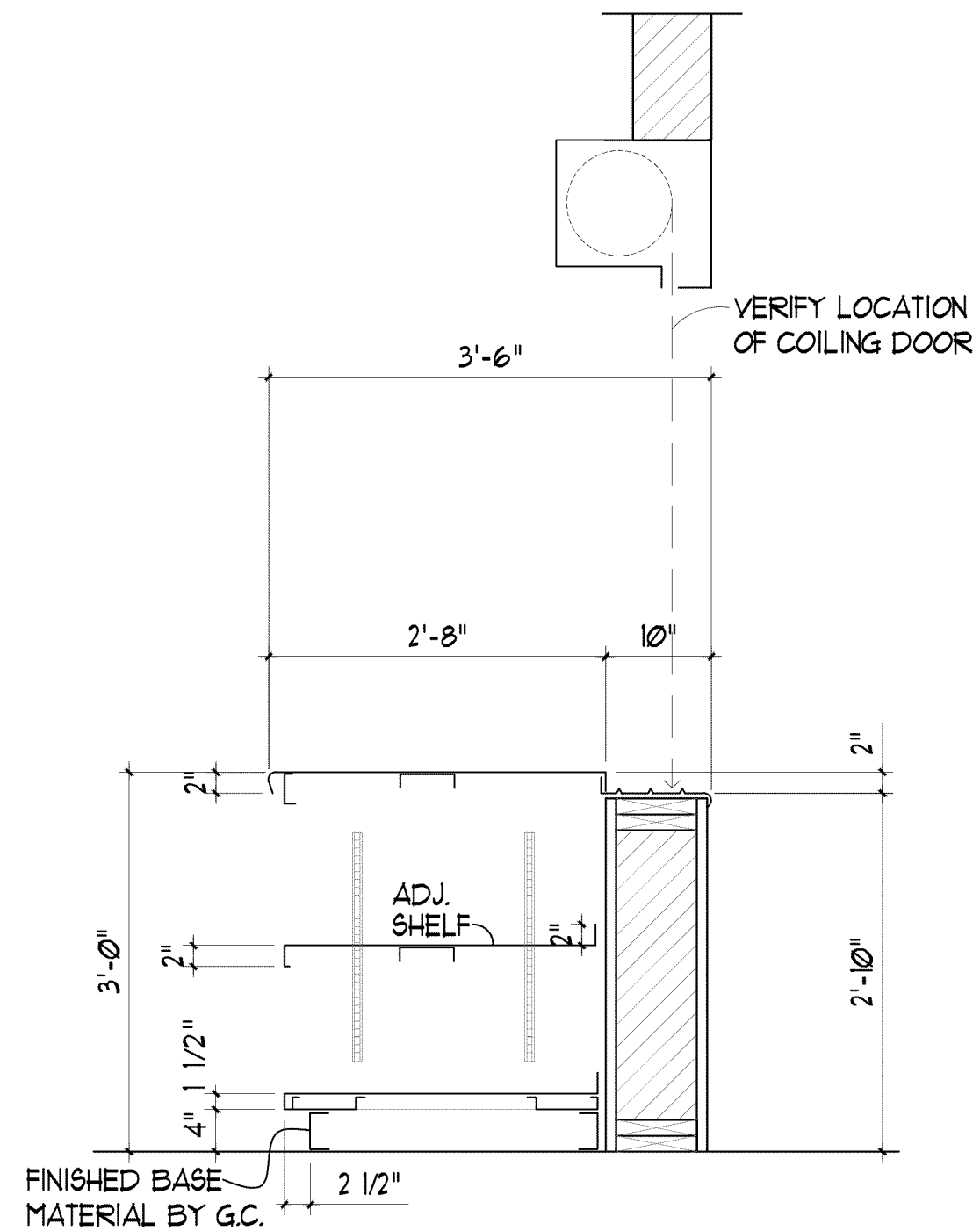




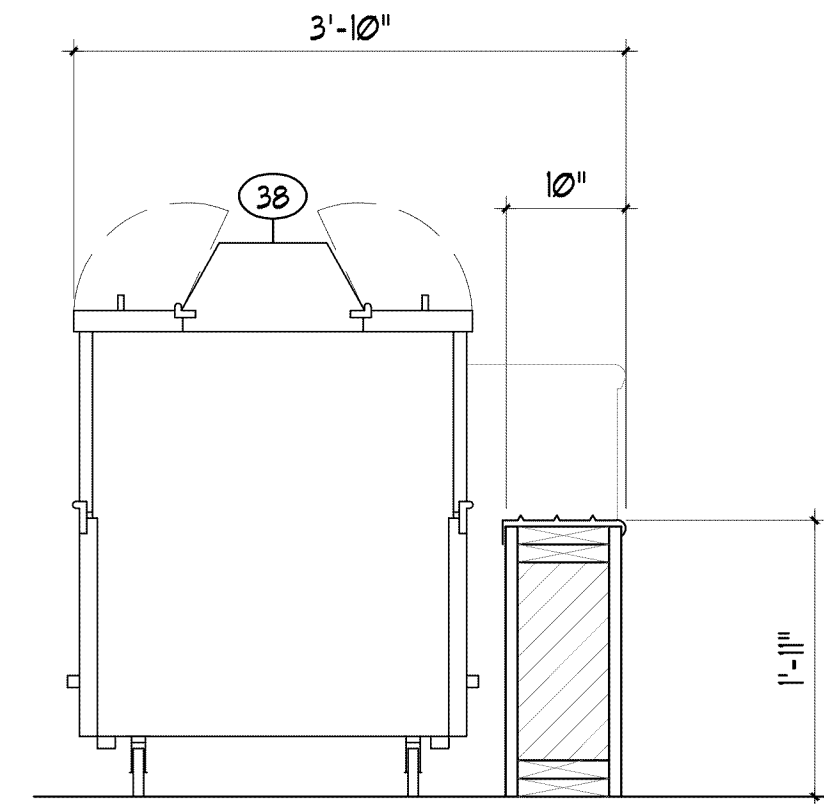
9 ELEVATION SERVING COUNTER (SERVICE SIDE)  
3/4" = 1'-0"



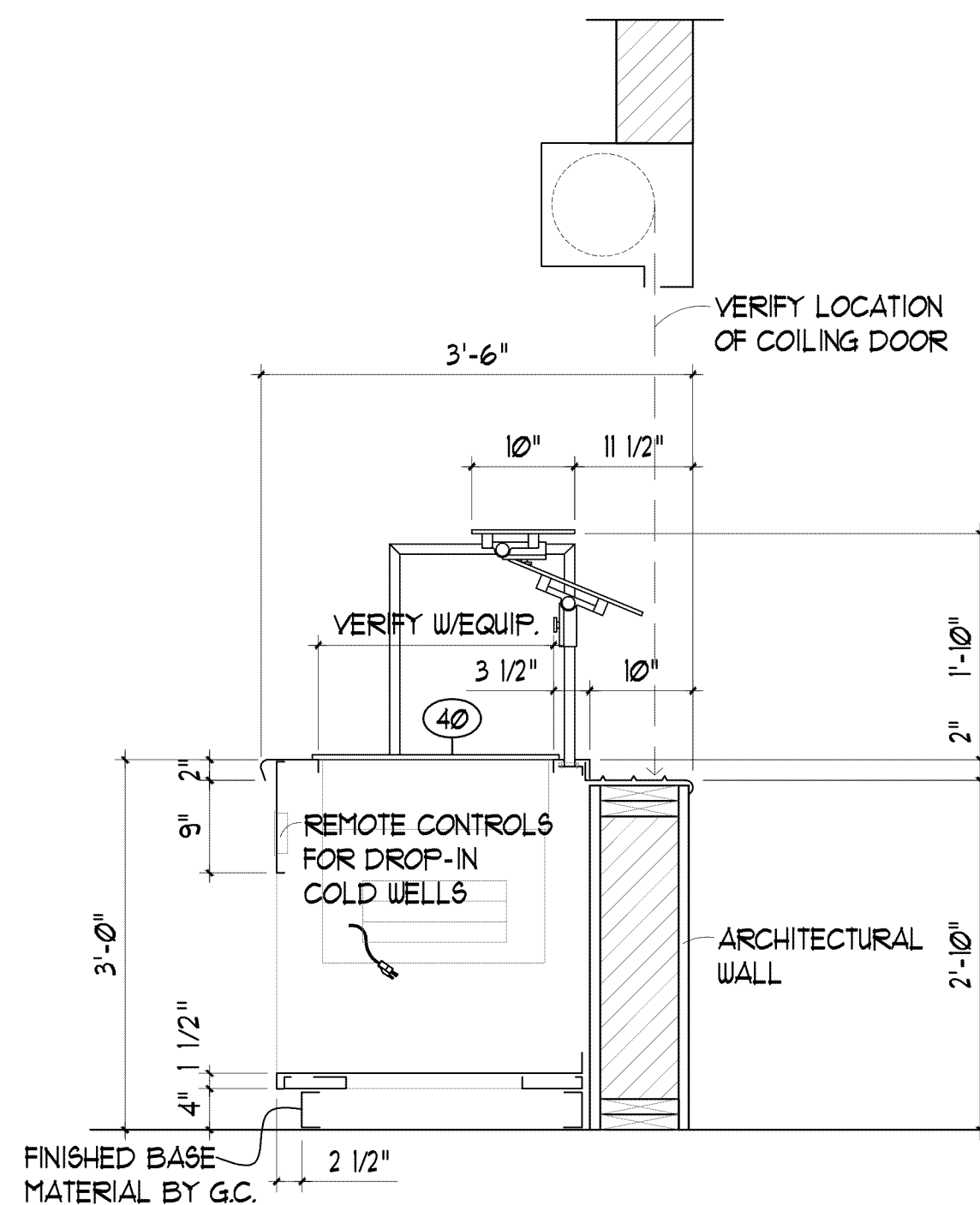
10 ELEVATION SERVING COUNTER (STUDENT SIDE)  
3/4" = 1'-0"



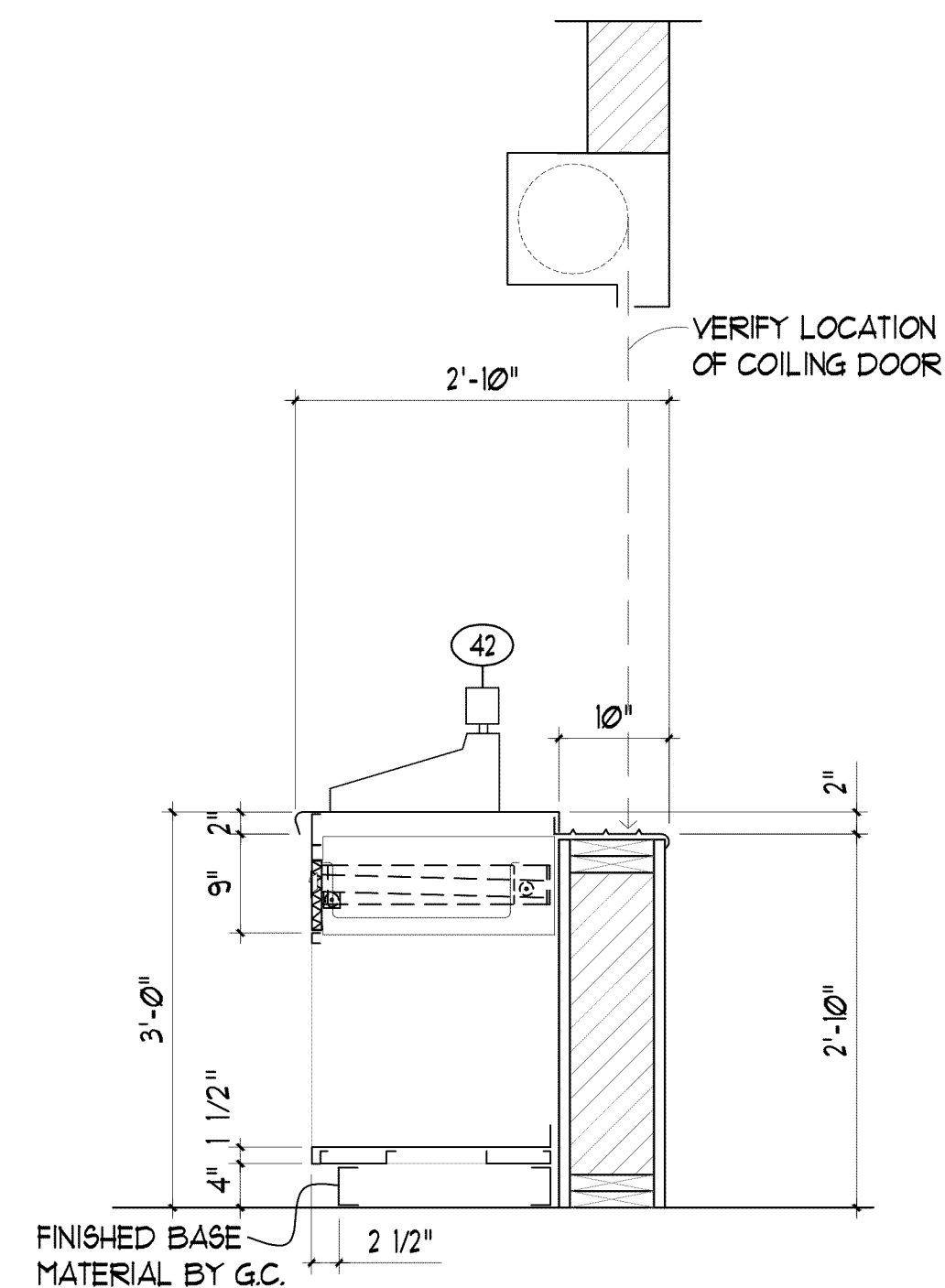
1 SECTION  
3/4" = 1'-0"



2 SECTION  
3/4" = 1'-0"

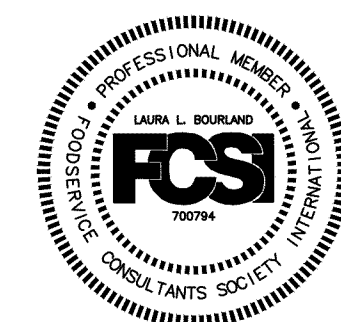


3 SECTION  
3/4" = 1'-0"



4 SECTION  
3/4" = 1'-0"

1 LEVEL 1 FOOD SERVICE ELEVATION AND FABRICATION DETAILS  
SCALE: AS NOTED



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checked by  
LB

LSW job number  
2018-0029

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LEVEL 1 FOOD  
SERVICE  
ELEVATION  
AND  
FABRICATION  
DETAILS

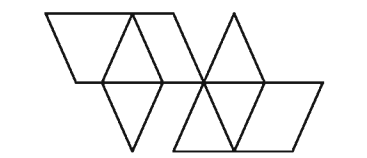
FS-304

Scale

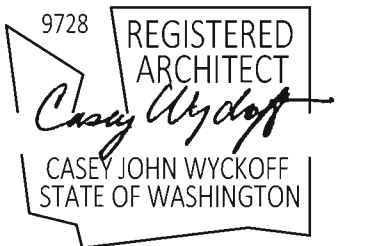


# VANCOUVER PUBLIC SCHOOLS

# PERMIT/BID SET



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drawn by \_\_\_\_\_  
**Author**  
 checked by \_\_\_\_\_  
**Checker**

lsw job number  
**2018-0029**

**FIR GROVE CHILDREN'S CENTER**  
**VANCOUVER PUBLIC SCHOOLS**  
3200 E 18TH ST  
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COVER SHEET

G-000

Scale

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**VANCOUVER PUBLIC SCHOOLS**  
Todd Horenstein & Jennifer Halleck

2901 FALK ROAD  
PO BOX 8937, VANCOUVER WA, 98668-8937  
p. 360.313.1040



## ARCHITECT

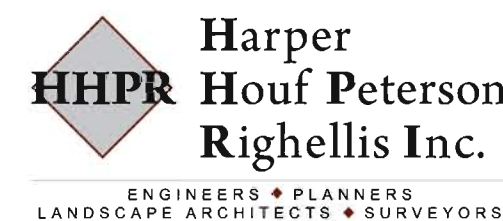
**LSW ARCHITECTS**  
Trevor Weltzer, NCARB, Project Architect: trevorw@lsw-architects.com

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## LANDSCAPE

**NATURE + PLAY DESIGNS**  
Jane Tesner Kleiner, RLA, Principal: natureplaydesigns@gmail.com

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**LISTEN ACOUSTICS™**  
acoustical and audio/visual systems engineering

**ENVELOPE**

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SHEET INDEX

GENERAL	
G-001	SHEET INDEX
G-001A	VICINITY MAP, ABBREVIATIONS, SYMBOLS & LEGENDS
G-002	CODE ANALYSIS - OVERVIEW & PARKING
G-003	CODE ANALYSIS - ALLOWABLE AREA
G-004	CODE ANALYSIS - PLUMBING & DEFERRED SUBMITTALS
G-005	LIFE SAFETY PLAN
CIVIL	
C-100	COVER SHEET
C-101	EXISTING CONDITIONS
C-102	DEMOLITION PLAN
C-201	SITE PLAN
C-202	FIRE RESPONSE PLAN
C-203	SIGNING & STRIPING PLAN
C-301	GRADING AND EROSION CONTROL PLAN
C-302	GRADING ENLARGEMENTS
C-401	STORM DRAINAGE PLAN
C-501	WATER AND SANITARY SEWER PLAN
C-502	WATER PLAN
C-601	PUBLIC STREET IMPROVEMENT PLAN
C-701	SITE DETAILS
C-702	SITE DETAILS
C-703	EROSION CONTROL DETAILS
C-704	STORM DRAINAGE DETAILS
C-705	STORM DRAINAGE DETAILS
C-706	SANITARY SEWER DETAILS
C-707	WATER DETAILS
C-708	STREET IMPROVEMENT DETAILS
C-709	SANITARY SEWER DETAILS
C-710	WATER DETAILS
C-711	WATER DETAILS
C-712	STREET IMPROVEMENT DETAILS
C-713	STREET IMPROVEMENT DETAILS
C-714	SIGNING AND STRIPING DETAILS
LANDSCAPE	
L-100	LANDSCAPE OVERALL PLAN
L-200	LANDSCAPE LAYOUT PLAN
L-300	TREES, VEGETATION & SOILS PLAN
L-400	IRRIGATION PLAN
L-401	IRRIGATION DETAILS
L-501	PLANTING DETAILS
L-502	SITE FEATURES DETAILS
L-503	PLAY FEATURES
L-504	FENCES & GATES DETAILS
L-505	ORNAMENTAL FENCE & GATE DETAILS ADD ALTERNATE
STRUCTURAL	
S000	COVER SHEET
S001	GENERAL NOTES
S002	GENERAL NOTES
S003	GENERAL NOTES
S004	GENERAL NOTES
S101A	FOUNDATION PLAN - SECTOR A
S101AG	GRADE LEVEL FRAMING PLAN - SECTOR A
S101B	FOUNDATION PLAN - SECTOR B
S101BG	GRADE LEVEL FRAMING PLAN - SECTOR B
S101C	FOUNDATION PLAN - SECTOR C
S101CG	GRADE LEVEL FRAMING PLAN - SECTOR C
S101D	FOUNDATION PLAN - SECTOR D
S101DG	GRADE LEVEL FRAMING PLAN - SECTOR D
S112A	ROOF FRAMING PLAN - SECTOR A
S112B	ROOF FRAMING PLAN - SECTOR B
S112C	ROOF FRAMING PLAN - SECTOR C
S112D	ROOF FRAMING PLAN - SECTOR D
S160	ALTERNATE PLANS
S301	FOUNDATION DETAILS
S302	FOUNDATION DETAILS
S303	FOUNDATION DETAILS
S304	FOUNDATION DETAILS
S401	COLD FORMED STEEL FRAMING DETAILS
S402	COLD FORMED STEEL FRAMING DETAILS
S403	COLD FORMED STEEL FRAMING DETAILS
S404	COLD FORMED STEEL FRAMING DETAILS
S405	COLD FORMED STEEL FRAMING DETAILS
S406	COLD FORMED STEEL FRAMING DETAILS
S407	COLD FORMED STEEL FRAMING DETAILS
S501	STEEL FRAMING DETAILS
S502	STEEL FRAMING DETAILS
S601	STEEL METAL DECK ROOF DETAILS
S602	STEEL METAL DECK ROOF DETAILS
S603	ROOF DETAILS
S604	ROOF DETAILS

ARCHITECTURAL	
A-101	OVERALL FLOOR PLAN
A-101A	FLOOR PLAN SECTOR A
A-101B	FLOOR PLAN SECTOR B
A-101C	FLOOR PLAN SECTOR C
A-101D	FLOOR PLAN SECTOR D
A-111A	SLAB JOINTING PLAN SECTOR A
A-111B	SLAB JOINTING PLAN SECTOR B
A-111C	SLAB JOINTING PLAN SECTOR C
A-111D	SLAB JOINTING PLAN SECTOR D
A-121	OVERALL ROOF PLAN
A-121A	ROOF PLAN SECTOR A
A-121B	ROOF PLAN SECTOR B
A-121C	ROOF PLAN SECTOR C
A-121D	ROOF PLAN SECTOR D
A-151	OVERALL REFLECTED CEILING PLAN
A-151A	REFLECTED CEILING PLAN - SECTOR A
A-151B	REFLECTED CEILING PLAN - SECTOR B
A-151C	REFLECTED CEILING PLAN - SECTOR C
A-151D	REFLECTED CEILING PLAN - SECTOR D
A-160	ALTERNATE PLANS
A-170	MOCK-UP
A-201	OVERALL BUILDING ELEVATIONS
A-202	OVERALL BUILDING ELEVATIONS
A-203	BUILDING ELEVATIONS
A-204	BUILDING ELEVATIONS
A-205	BUILDING ELEVATIONS
A-206	BUILDING ELEVATIONS ALTERNATE
A-301	BUILDING SECTIONS
A-302	BUILDING SECTIONS
A-303	BUILDING SECTIONS
A-304	BUILDING SECTIONS
A-305	BUILDING SECTIONS
A-401	ENLARGED PLANS
A-410	ENLARGED PLANS / SITE ENCLOSURES
A-412	ENLARGED PLANS / SITE STRUCTURES
A-413	ENLARGED PLANS AND DETAILS / RECEPTION DESK
A-414	ENLARGED PLANS / SITE STRUCTURES
A-501	EXTERIOR DETAILS
A-502	EXTERIOR DETAILS
A-503	EXTERIOR DETAILS
A-504	EXTERIOR DETAILS
A-505	EXTERIOR DETAILS
A-511	ROOF DETAILS
A-512	ROOF DETAILS
A-513	ROOF DETAILS
A-514	ROOF DETAILS
A-515	ROOF DETAILS
A-516	ROOF DETAILS
A-517	ROOF DETAILS
A-521	INTERIOR DOOR DETAILS
A-525	EXTERIOR DOOR DETAILS
A-531	STOREFRONT DETAILS
A-532	STOREFRONT DETAILS
A-533	STOREFRONT DETAILS
A-534	STOREFRONT & TRANSLUCENT WALL ASSEMBLY DETAILS
A-541	INTERIOR DETAILS
A-542	INTERIOR DETAILS
A-543	CEILING DETAILS
A-544	INTERIOR DETAILS
A-601	PARTITION TYPES
A-602	WALL TYPES
A-611	DOOR AND FRAME ELEVATIONS
A-612	DOOR AND FRAME SCHEDULE
A-621	STOREFRONT TYPES
A-622	STOREFRONT TYPES
A-631	ROOM FINISH SCHEDULE
A-701	INTERIOR ELEVATIONS, MOUNTING HEIGHTS & CASEWORK
A-702	INTERIOR ELEVATIONS
A-703	INTERIOR ELEVATIONS
A-704	INTERIOR ELEVATIONS
A-705	INTERIOR ELEVATIONS
A-706	INTERIOR ELEVATIONS - ALTERNATE

MECHANICAL	
M-001	SYMBOLS LIST AND GENERAL NOTES - MECHANICAL
M-002	SCHEDULES - MECHANICAL
M-003	SCHEDULES - MECHANICAL
M-101A	LEVEL 1 FLOOR PLAN SECTOR A - MECHANICAL
M-101B	LEVEL 1 FLOOR PLAN SECTOR B - MECHANICAL
M-101C	LEVEL 1 FLOOR PLAN SECTOR C - MECHANICAL
M-101D	LEVEL 1 FLOOR PLAN SECTOR D - MECHANICAL
M-121A	ROOF PLAN SECTOR A - MECHANICAL
M-121D	ROOF PLAN SECTOR D - MECHANICAL
M-301A	LEVEL 1 PIPING PLAN SECTOR A - MECHANICAL
M-301B	LEVEL 1 PIPING PLAN SECTOR B - MECHANICAL
M-301C	LEVEL 1 PIPING PLAN SECTOR C - MECHANICAL
M-301D	LEVEL 1 PIPING PLAN SECTOR D - MECHANICAL
M-401	DETAILS - MECHANICAL
M-402	DETAILS - MECHANICAL

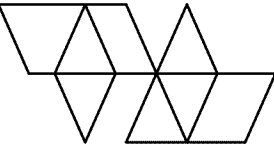
PLUMBING	
P-001	SYMBOLS LIST AND GENERAL NOTES - PLUMBING
P-002	SCHEDULES - PLUMBING
P-100A	UNDERGROUND PLAN SECTOR A - PLUMBING
P-100B	UNDERGROUND PLAN SECTOR B - PLUMBING
P-100C	UNDERGROUND PLAN SECTOR C - PLUMBING
P-100D	UNDERGROUND PLAN SECTOR D - PLUMBING
P-101A	LEVEL 1 FLOOR PLAN SECTOR A - PLUMBING
P-101B	LEVEL 1 FLOOR PLAN SECTOR B - PLUMBING
P-101C	LEVEL 1 FLOOR PLAN SECTOR C - PLUMBING
P-101D	LEVEL 1 FLOOR PLAN SECTOR D - PLUMBING
P-121A	ROOF PLAN SECTOR A - PLUMBING
P-121B	ROOF PLAN SECTOR B - PLUMBING
P-121C	ROOF PLAN SECTOR C - PLUMBING
P-121D	ROOF PLAN SECTOR D - PLUMBING
P-200	ENLARGED PLANS - PLUMBING
P-201	ENLARGED PLANS - PLUMBING
P-202	ENLARGED PLANS - PLUMBING
P-203	ENLARGED PLANS - PLUMBING
P-300	DETAILS - PLUMBING
P-400	NATURAL GAS RISER DIAGRAM

ELECTRICAL	
E-001	SYMBOLS LIST AND GENERAL NOTES - ELECTRICAL
E-002	LUMINAIRE SCHEDULE
E-003	LIGHTING CONTROL MATRIX
E-100	SITE PLAN - ELECTRICAL
E-100.1	SITE DETAILS
E-100.2	SITE DETAILS
E-101A	LEVEL 1 FLOOR PLAN SECTOR A - LIGHTING
E-101B	LEVEL 1 FLOOR PLAN SECTOR B - LIGHTING
E-101C	LEVEL 1 FLOOR PLAN SECTOR C - LIGHTING
E-101D	LEVEL 1 FLOOR PLAN SECTOR D - LIGHTING
E-201A	LEVEL 1 FLOOR PLAN SECTOR A - POWER
E-201B	LEVEL 1 FLOOR PLAN SECTOR B - POWER
E-201C	LEVEL 1 FLOOR PLAN SECTOR C - POWER
E-201D	LEVEL 1 FLOOR PLAN SECTOR D - POWER
E-202	OVERALL ROOF PLAN - POWER
E-401	ENLARGED PLANS - ELECTRICAL
E-501	SINGLE LINE DIAGRAMS - ELECTRICAL
E-601	SCHEDULES - ELECTRICAL
E-602	SCHEDULES - ELECTRICAL
E-603	SCHEDULES - ELECTRICAL
E-604	SCHEDULES - ELECTRICAL
E-701	DETAILS - ELECTRICAL
E-702	DETAILS - ELECTRICAL
E-703	DETAILS - ELECTRICAL

TECHNOLOGY	
T-001	SYMBOLS LIST AND GENERAL NOTES - TECHNOLOGY
T-101A	LEVEL 1 FLOOR PLAN SECTOR A - TECHNOLOGY
T-101B	LEVEL 1 FLOOR PLAN SECTOR B - TECHNOLOGY
T-101C	LEVEL 1 FLOOR PLAN SECTOR C - TECHNOLOGY
T-101D	LEVEL 1 FLOOR PLAN SECTOR D - TECHNOLOGY
T-301	ENLARGED PLANS AND RACK ELEVATIONS - TECHNOLOGY
T-701	DETAILS - TECHNOLOGY

FOOD SERVICE	
FS-101	FOOD SERVICE EQUIPMENT PLAN
FS-102	FOOD SERVICE PLUMBING PLAN
FS-103	FOOD SERVICE MECHANICAL PLAN
FS-104	FOOD SERVICE ELECTRICAL/REFRIGERATION PLAN
FS-201	FOOD SERVICE CANOPY HOOD DETAILS
FS-202	FOOD SERVICE CANOPY HOOD DETAILS
FS-203	FOOD SERVICE CANOPY HOOD DETAILS
FS-204	FOOD SERVICE CANOPY HOOD DETAILS
FS-301	FOOD SERVICE ELEVATION AND FABRICATION DETAILS
FS-302	FOOD SERVICE ELEVATION AND FABRICATION DETAILS
FS-303	FOOD SERVICE ELEVATION AND FABRICATION DETAILS
FS-304	FOOD SERVICE FABRICATION DETAILS





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2018-0029

FIR GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
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issue date

10/15/2019

PERMIT/BID SET

revisions

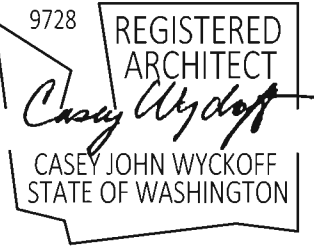
SHEET INDEX

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G-001

Scale





drawn by  


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**Author**  
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**Checker**

lsw job number  
2018-0029

**GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661**

AB	ANCHOR BOLT	FAC	FACTORY FINISH
ADJ	ADJACENT	FB	FACE BRICK
AED	AUTOMATED EXTERNAL DEFIBRILLATOR	FC	FIBER CEMENT
AFF	ABOVE FINISH FLOOR	FD	FLOOR DRAIN
ALT	ALTERNATE	FDN	FOUNDATION
ALUM	ALUMINUM	FE	FIRE EXTINGUISHER
AP	ACOUSTIC PANELS	FEC	FIRE EXTINGUISHER CABINET
APPROX	APPROXIMATE	FIN	FINISH
ARCH	ARCHITECT, ARCHITECTURAL	FIP	FOAMED-IN-PLACE
AUTO	AUTOMATIC	FLR	FLOOR
AVG	AVERAGE	FO	FACE OF
		FRP	FIBERGLASS REINFORCEMENT PANEL
B		FRT	FIRE RETARDANT TREATED
B	BLINDS	FSS	FOLDING SHOWER SEAT
BCS	BABY CHANGING STATION	FT	FOOT OR FEET
BLDG	BUILDING	FTG	FOOTING
BLKG	BLOCKING		
BM	BEAM	G	
BO	BOTTOM OF	GA	GAUGE, GAGE
BRG	BEARING	GALV	GALVANIZED
BUR	BUILT UP ROOF	GB	GRAB BAR
		GC	GENERAL CONTRACTOR
C		GL	GLASS OR GLAZING
CG	CORNER GUARD	GLU-LAM	GLU-LAMINATED
CIP	CAST-IN-PLACE	GWB	GYP SUM WALL BOARD
CJ	CONTROL JOINT	GYP	GYP SUM
CL	CENTER LINE		
CLG	CEILING	H	
CLR	CLEAR, CLEARANCE	HB	HOSE BIB
CLT	CROSS LAMINATED TIMBER	HD	HAND DRYER
CMU	CONCRETE MASONRY UNIT	HDR	HEADER
CO	CLEAN OUT	HDW	HARDWARE
COL	COLUMN	HM	HOLLOW METAL
CONC	CONCRETE	HORIZ	HORIZONTAL
CONST	CONSTRUCTION	HR	HOUR
CONT	CONTINUOUS	HSS	HOLLOW STRUCTURAL SECTION
CPT	CARPET	HT	HEIGHT
CT	COUNTERTOP	HVAC	HEATING/VENTILATION/AIR CONDITIONING
CTR	CENTER		
CW	CURTAIN WALL	I	
		ID	INSIDE DIAMETER
D		IG	INSULATED GLASS UNIT
D	DEPTH OR DRYER	INCL	INCLUDE
DBL	DOUBLE	INFO	INFORMATION
DEMO	DEMOLISH, DEMOLITION	INSUL	INSULATION
DEP	DEPRESSED	INT	INTERIOR
DET	DETAIL		
DF	DRINKING FOUNTAIN	L	
DIA	DIAMETER	L	LENGTH, LONG
DIAG	DIAGONAL	LAB	LABORATORY
DIM	DIMENSION	LAV	LAVATORY
DIV	DIVISION	LB(S)	POUND(S)
DN	DOWN	LVR	LOUVER
DR	DOOR		
DS	DOWNSPOUT	M	
DTL	DETAIL	M	MIRROR
DW	DISHWASHER	MAX	MAXIMUM
DWG	DRAWING	MDF	MEDIUM DENSITY FIBERBOARD
		MECH	MECHANICAL
E		MED	MEDIUM
(E)	EXISTING	MEZZ	MEZZANINE
E	EAST	MFR	MANUFACTURER
EA	EACH	MH	MOP HOLDER
EJ	EXPANSION JOINT	MICRO	MICROWAVE
EL	ELEVATION	MIN	MINIMUM
ELEC	ELECTRICAL	MO	MASONRY OPENING
ELEV	ELEVATOR	MTL	METAL
EMER	EMERGENCY	MULL	MULLION
EQ	EQUAL		
EQUIP	EQUIPMENT	N	
EXP	EXPANSION	N	NORTH
EXT	EXTERIOR	NIC	NOT IN CONTRACT
		NO	NUMBER
		NOM	NOMINAL
		NTS	NOT TO SCALE

O	
OC	ON CENTER
OD	OVERFLOW DRAIN
OFCl	OWNER FURNISHED, CONTRACTOR INSTALLED
OFCl	OWNER FURNISHED, OWNER INSTALLED
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OTA	OPEN TO ABOVE
OTS	OPEN TO STRUCTURE
OWJ	OPEN-WEB JOIST
OWP	OPERABLE WALL PARTITION

P	PAINT
PED	PEDESTAL
PERF	PERFORATED
PERP	PERPENDICULAR
PK	PARKING
PL	PLATE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PR	PAIR
PREFAB	PREFABRICATED
PREFIN	PRE-FINISHED
PROP	PROPERTY
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTDR	PAPER TOWEL DISPENSER AND RECEPTACLE

Q  
QTY QUANTITY

R	
RB	RADIUS OR RISER
RCP	RESILIENT BASE
RD	REFLECTED CEILING PLANE
REF	ROOF DRAIN
REFR	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCE
REV	REVISION, REVISED
RF	RESILIENT FLOORING
RH	ROBE HOOK
RI	RISER
RM	ROOM
RO	ROUGH OPENING
RS	ROLLER SHADES
RTU	ROOF TOP UNIT

S	
SA	SOUTH
SBLK	SELF ADHERED
SC	SPLASH BLOCK
SCD	SOLID CORE
SD	SEAT COVER DISPENSER
SECT	SOAP DISPENSER
SF	SECTION
SHT	SQUARE FOOT
SHTG	SHEET
SHWR	SHEATHING
SIM	SHOWER
SND	SIMILIAR
SNR	SANITARY NAPKIN DISPENSER
SOG	SANITARY NAPKIN RECEPTACLE
SQ	SLAB ON GRADE
SS	SQUARE
STC	STAINLESS STEEL
STD	SOUND TRANSMISSION CLASS
STL	STANDARD
STRT	STEEL
STRUCT	STOREFRONT
SUSP	STRUCTURAL
SYM	SUSPENDED
	SYMMETRICAL

T	
T	TILE
T&G	TONGUE & GROOVE
T/O	TOP OF
TB	TOWEL BAR
TEMP	TEMPERED
THK	THICK, THICKNESS
THRU	THROUGH
TP	TOILET PARTITION
TPD	TOILET PAPER DISPENSER
TPH	TOILET PAPER HOLDER
TR	TREAD
TV	TELEVISION
TYP	TYPICAL

U	
U	URINAL
UON	UNLESS OTHERWISE NOTED

V	
VERT	VERTICAL
VIF	VERIFY IN FIELD

W	
W	WIDTH OR WEST OR WASHER
W/	WITH
W/D	WASHER & DRYER
W/O	WITHOUT
WB	WHITE BOARD
WC	WALL COVERING OR WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WOM	WALK OFF MAT
WP	WALL PADDING
WRB	WATER RESISTIVE BARRIER
WWF	WELDED WIRE FABRIC

"	INCHES
#	NUMBER
%	PERCENT
&	AND
'	FOOT
/	PER
@	AT
±	PLUS OR MINUS
°	ANGLE
Ø	DIAMETER
°	DEGREE
*	SEE NOTES
-	NONE

WALL TYPE NUMBER  
NOMINAL STUD WIDTH OR  
"M" FOR MATCH EXISTING

W3-10-X

"T" FOR THERMAL  
"S" FOR SOUND  
"E" FOR EXISTING  
"N" FOR NONE

WALL TYPE TAG

101 DOOR TAG

# WINDOW TAG

760M CASEWORK TAG

24 36 24  
EXTRA  
SHELF

33 Drawing Title  
SCALE: 1/8" = 1'-0"

VIEW TITLE

# A-# DETAIL #  
BUILDING SECTION

# A-# DETAIL #  
WALL SECTION

# A-# DETAIL #  
DETAIL TAG

# A-# ELEVATION #  
INTERIOR ELEVATION TAG

# A-# ELEVATION #  
BUILDING ELEVATION TAG

Room name ROOM NAME  
101 ROOM NUMBER

ROOM NAME TAG

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## VICINITY MAP, ABBREVIATIONS, SYMBOLS & LEGENDS

G-001A

Scale 12" = 1'-0"



ENERGY CODE SUMMARY		
Typical R-Values Roofs (above deck) Walls Above Grade (steel studs) Walls Below Grade Floors Slab-on-Grade Floors Opaque Doors	R-38ci, minimum R-21+10ci n/a n/a R-10 for 24" (at perimeter) below R-6.8	Document Reference See Wall Types A-602 and specification section 07 21 00 Thermal Insulation " " " " "
Typical U-Values Vertical Fenestration (fixed metal) Vertical Fenestration (doors) Skylights	U-0.38, maximum U-0.60, maximum U-0.50, maximum	See specification section 08 43 13 Aluminum-framed Storefronts and 08 80 00 Glazing. Actual U-value varies with mullion layout. See also 08 45 00 Translucent Wall and Roof Assemblies See specification section 08 45 00 Translucent Wall and Roof Assemblies
C406 Additional Efficiency Package Options	1. More Efficient HVAC performance 2. Reduced lighting power	See WSEC compliance forms
Air Barrier Testing Requirements	Per 2015 WSEC C402.5.1.2	Owner provided testing. See specifications for additional information.
2030 Challenge pEUI	34.7 kBtu/SF/yr	58.6% reduction below baseline 84 EUI (2030 Challenge target of 17 EUI, 80% reduction)

GENERAL CODE INFORMATION	PROJECT PARAMETERS
<b>Applicable Code:</b>	International Building Code 2015 w/ Washington Amendments Washington State Energy Code - Commercial
<b>Accessibility Code:</b>	ADA ICC/ANSI 117.1
<b>Jurisdiction:</b>	Vancouver, Washington

GENERAL PROPERTY INFORMATION		PROJECT PARAMETERS
Site Area:	225,218 sq. Ft. / 5.17 ACRES	Transit Overlay Tier One 20.550
Site address:	Northwest Corner, 18th St & Norris Rd	Transit Overlay Tier Two 20.550
Property ID #:	29845000 & 29875000	Fourth Plain Corridor Overlay District 20.580
Legal Description:		Vancouver Fire District
		Park District B
		Vancouver Sewer District
Section-Township-Range:	SW 1/4 OF THE SW 1/4 OF SECTION 24 AND IN THE NW 1/4 OF THE NW 1/4 OF SECTION 25...	
Urban Growth Area:	City of Vancouver	Vancouver Water District
C-Tran Benefit Area:	Yes	Maplewood Neighborhood
School Impact Fee:	Vancouver, Exempt	
Transportation Impact Fee:	Columbia, Exempt	
Transportation Analysis Zone:	164	
CPU Lighting Utility District:	0	
Zoning:	R-22 (Higher Density Residential) (Public Facility), R-18 (Higher Density Residential)	
Sustainable Design:		

PARKING REQUIREMENTS			ADDITIONAL NOTES
PARKING BALANCE CHECK:	PARKING NEEDED - BASE ZONE REQUIREMENTS		
	Schools	1 space/4 seats or 1 space/8 feet bench length in assembly room (fitness)	35
		(No students drive)	0
	TOTAL REQUIRED		35
	PARKING PROVIDED		
	ON STREET - NOT INCLUDED IN TOTAL PARKING COUNT		Norris Road (~22)
	ON SITE - NOT INCLUDED IN TOTAL PARKING COUNT		34 @ GATE
	ON SITE (ACCESSIBLE)		2
	ON SITE		46
	TOTAL PROVIDED		48

GENERAL BUILDING INFORMATION				PROJECT PARAMETERS
BUILDING SUMMARY:	This project is a K-12 school for students who need additional behavioral or emotional support beyond the scope of special services available at their neighborhood schools. It includes 8 classrooms (9 including alternates), commons, a small fitness space, warming kitchen and family resources center as well as administrative offices.			
BUILDING OCCUPANCIES:	E (A-2)	Section 303.1.3 of IBC: A room or space used for assembly purposes that is associated with an E occupancy is not considered separate occupancy.		
	B			
SEPARATED OR NON-SEPARATED USES:	NON-SEPARATED			
CONSTRUCTION TYPE:	V-B			
FIRE SPRINKLERS:	YES			
BUILDING HEIGHT:	ALLOWABLE:	50 FT	0 INCHES	60 ft height limit per IBC, however City of Vancouver R-22 Zoning permits only 50 ft.
	ACTUAL:	23 FT	0 INCHES	
STORIES:	ALLOWABLE:	2		
	ACTUAL:	1		
ALLOWABLE EXIT ACCESS TRAVEL DISTANCE PER SECTION 1017.2 OF IBC:	250 FT			
COMMON PATH OF EGRESS TRAVEL DISTANCE:	75 FT			
MINIMUM CORRIDOR WIDTH 100+ OCCUPANTS:	ALLOWABLE MINIMUM:	72 INCHES		
	ACTUAL MINIMUM:	84 INCHES		
BUILDING AREAS:	E	22,599 (base)	SF	23,823 including alternate

CODE ANALYSIS GENERAL NOTES
1. FIRE STOPPING IS A BIDDER-DESIGNED OR DESIGN-BUILD SYSTEM. THE DRAWINGS DO NOT SHOW ALL LOCATIONS WHERE FIRE STOPPING IS REQUIRED.



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BASE BID

2015 IBC WITH WASHINGTON AMENDMENTS - CODE EVALUATION FORM - JULY 2016

Name of Building:

Fir Grove Children's Center

Evaluation one story building only

Version of Code: 2015 IBC with Washington...

Code Item:		E	Code Ref:	Chapter 3	Code Commentary:
Building Occupancy:				Chapter 3	
Construction Type:		V-B		Chapter 6	
Fully Sprinklered?		YES			Must be fully sprinklered for E occupancy per 903.2.3 Washington Amendment
Separated or NonSeparated Occupancies		NON-SEPARATED		Section 508	
Allowable Area Non sprinklered building:	NS=	9,500 sf		Table 506.2	NS = Tabular non sprinklered building area per story in accordance with Table 506.2 (square feet).
Allowable Area fully sprinklered building:	S1=	38,000 sf		Table 506.2	S1 = Tabular fully sprinklered single story building area in accordance with Table 506.2 (square feet).
Allowable Area sprinklered 2 or more story building:	SM=	28,500 sf		Table 506.2	SM = Tabular fully sprinklered multi story building area in accordance with Table 506.2 (square feet).
Allowable Height:		50 ft	0 in	Table 504.3	
Actual Height:		23 ft	0 in		
Allowable Number of Stories:		2 stories		Table 504.4	
Actual Number of Stories:		1 stories			

BUILDING AREA MODIFICATIONS:

Calculate "W"

L1=	0	ft	w1=	20	ft	L1*w1=	0.00		Section 506.3	Equation 5-4: W=(L1*w1+ L2*w2+L3*w3.....)/F
L2=	0	ft	w2=	21	ft	L2*w2=	0.00			
L3=	0	ft	w3=	22	ft	L3*w3=	0.00			Ln = Length of a portion of the exterior wall
L4=	0	ft	w4=	23	ft	L4*w4=	0.00			
L5=	0	ft	w5=	24	ft	L5*w5=	0.00			
L6=	0	ft	w6=	25	ft	L6*w6=	0.00			
L7=	0	ft	w7=	26	ft	L7*w7=	0.00			
L8=	0	ft	w8=	27	ft	L8*w8=	0.00			wn=Width (> 20 feet) of a public way or open space associated with that portion of exterior perimeter wall (if width is greater than 30 feet enter 30 for wn)
L9=	0	ft	w9=	28	ft	L9*w9=	0.00			
L10=	0	ft	w10=	29	ft	L10*w10=	0.00			
L11=	1004	ft	w11=	30	ft	L11*w11=	30120.00			
F=	1004	ft				Total	30120			
			W=	30.00	ft					W=TOTAL Ln x wn/F

Calculate "P"

LP1=	0	ft	w1=	less than...	ft			Section 506.3.3	P = Perimeter of entire building (feet)
SUM OF LP DIMENSIONS=	0	ft							LPn=Length of a portion of the exterior wall where the width of a public way or open space associated with that portion of the exterior perimeter wall with width less than 20 feet. The sum of LPn lengths are added to F to determine length P.
F=	1004	ft							
P=	1004	ft							

Frontage increase calculation:

		F=	1004	ft	Section 506.3	Eq 5-5: If = [ F/P - 0.25] W/30 - represents Area increase factor due to frontage increase.
		P=	1004	ft		
		W=	30.00	ft		F = Bldg perimeter that fronts on a public way or open space 20' or more
		If =	75.00%			P= Entire Bldg perimeter
						Width of Public way, as defined by Section 506.3.2

Total Single Story Building Area Modifications:

		S1=	38,000	sf		At = S1 (Tabular fully sprinklered single story building area in accordance with Table 506.2(square feet)
		NS=	9,500	sf		
		If =	75.00%		Section 506.3	
		(NSxIf)=	7,125	sf		If = Area increase factor due to frontage as calculated in accordance with Section 506.3

Total Allowable Single Story Building Area:

		Aa=	45,125	sf		Eq. 5-1: Aa = At + (NSxIf)
--	--	-----	--------	----	--	----------------------------

Actual Area of Single Story Building:

		22,599	sf		Is Actual Area < Allowable Area per Floor?	YES
--	--	--------	----	--	--	-----

Conclusions:

	Does building height comply with allowed height?	YES
	Does number of stories comply with allowed number of stories?	YES
	Does actual building square footage (*including addition) comply with allowed area for one story building?	YES

BASE BID + ALTERNATE 1

2015 IBC WITH WASHINGTON AMENDMENTS - CODE EVALUATION FORM - JULY 2016

Name of Building:

Evaluation one story building only

Version of Code: 2015 IBC with Washington...

Code Item:		E	Code Ref:	Chapter 3	Code Commentary:
Building Occupancy:				Chapter 3	
Construction Type:		V-B		Chapter 6	
Fully Sprinklered?		YES			Must be fully sprinklered for E occupancy per 903.2.3 Washington Amendment
Separated or NonSeparated Occupancies		NON-SEPARATED		Section 508	
Allowable Area Non sprinklered building:	NS=	9,500 sf		Table 506.2	NS = Tabular non sprinklered building area per story in accordance with Table 506.2 (square feet).
Allowable Area fully sprinklered building:	S1=	38,000 sf		Table 506.2	S1 = Tabular fully sprinklered single story building area in accordance with Table 506.2 (square feet).
Allowable Area sprinklered 2 or more story building:	SM=	28,500 sf		Table 506.2	SM = Tabular fully sprinklered multi story building area in accordance with Table 506.2 (square feet).
Allowable Height:		50 ft	0 in	Table 504.3	
Actual Height:		23 ft	0 in		
Allowable Number of Stories:		2 stories		Table 504.4	
Actual Number of Stories:		1 stories			

BUILDING AREA MODIFICATIONS:

Calculate "W"

L1=	0	ft	w1=	20	ft	L1*w1=	0.00		Section 506.3	Equation 5-4: W=(L1*w1+ L2*w2+L3*w3.....)/F
L2=	0	ft	w2=	21	ft	L2*w2=	0.00			
L3=	0	ft	w3=	22	ft	L3*w3=	0.00			Ln = Length of a portion of the exterior wall
L4=	0	ft	w4=	23	ft	L4*w4=	0.00			
L5=	0	ft	w5=	24	ft	L5*w5=	0.00			
L6=	0	ft	w6=	25	ft	L6*w6=	0.00			
L7=	0	ft	w7=	26	ft	L7*w7=	0.00			
L8=	0	ft	w8=	27	ft	L8*w8=	0.00			wn=Width (> 20 feet) of a public way or open space associated with that portion of exterior perimeter wall (if width is greater than 30 feet enter 30 for wn)
L9=	0	ft	w9=	28	ft	L9*w9=	0.00			
L10=	0	ft	w10=	29	ft	L10*w10=	0.00			
L11=	1064	ft	w11=	30	ft	L11*w11=	31920.00			
F=	1064	ft				Total	31920			
			W=	30.00	ft					W=TOTAL Ln x wn/F

Calculate "P"

LP1=	0	ft	w1=	less than...	ft			Section 506.3.3	P = Perimeter of entire building (feet)
SUM OF LP DIMENSIONS=	0	ft							LPn=Length of a portion of the exterior wall where the width of a public way or open space associated with that portion of the exterior perimeter wall with width less than 20 feet. The sum of LPn lengths are added to F to determine length P.
F=	1064	ft							
P=	1064	ft							

Frontage increase calculation:

		F=	1064	ft	Section 506.3	Eq 5-5: If = [ F/P - 0.25] W/30 - represents Area increase factor due to frontage increase.
		P=	1064	ft		
		W=	30.00	ft		F = Bldg perimeter that fronts on a public way or open space 20' or more
		If =	75.00%			P= Entire Bldg perimeter
						Width of Public way, as defined by Section 506.3.2

Total Single Story Building Area Modifications:

		S1=	38,000	sf		At = S1 (Tabular fully sprinklered single story building area in accordance with Table 506.2(square feet)
		NS=	9,500	sf		
		If =	75.00%		Section 506.3	
		(NSxIf)=	7,125	sf		If = Area increase factor due to frontage as calculated in accordance with Section 506.3

Total Allowable Single Story Building Area:

		Aa=	45,125	sf		Eq. 5-1: Aa = At + (NSxIf)
--	--	-----	--------	----	--	----------------------------

Actual Area of Single Story Building:

		23,823	sf		Is Actual Area < Allowable Area per Floor?	YES
--	--	--------	----	--	--	-----

Conclusions:

	Does building height comply with allowed height?	YES
	Does number of stories comply with allowed number of stories?	YES
	Does actual building square footage (*including addition) comply with allowed area for one story building?	YES

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Casey Wyckoff

CASEY JOHN WYCKOFF

STATE OF WASHINGTON

drawn by

Author

checked by

Checker

lsw job number

2018-0029

FIR GROVE CHILDREN'S CENTER

VANCOUVER PUBLIC SCHOOLS

3200 E 18TH ST

VANCOUVER, WA, 98661

issue date

10/15/2019

PERMIT/BID SET

revisions

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CODE ANALYSIS - ALLOWABLE AREA

G-003

Scale



DEFERRED SUBMITTALS	
05 40 00	COLD-FORMED METAL FRAMING
07 41 13	METAL ROOFING PANELS
07 42 13	METAL WALL PANELS
07 46 46	FIBER CEMENT SIDING
07 84 00	FIRESTOPPING
08 40 00	ENTRANCES, STOREFRONT, AND CURTAINWALLS
08 60 00	SKYLIGHTS
09 51 00	ACOUSTICAL SUSPENDED CEILINGS
13 34 10	METAL BUILDING SYSTEMS
22 05 29	HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
23 05 48	VIBRATION AND SEISMIC CONTROLS FOR HVAC
23 38 13	COMMERCIAL KITCHEN HOODS
26 05 29	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS AND EQUIPMENT
28 31 00	FIRE DETECTION AND ALARM

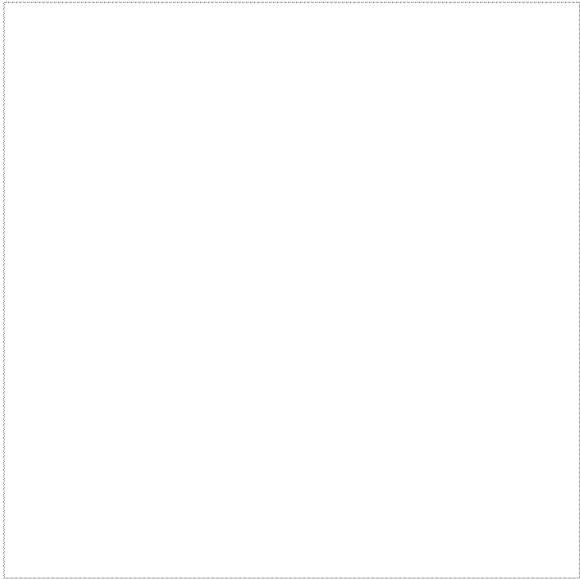
UNDER SEPARATE BUILDING PERMITS	
10 75 10	FLAGPOLES
11 40 00	FOOD SERVICE EQUIPMENT (Clark County Public Health)
11 66 23	GYM EQUIPMENT
21 00 00	FIRE SUPPRESSION SYSTEMS
28 30 00	FIRE DETECTION AND COMMUNICATION
11 68 13	PLAYGROUND EQUIPMENT
	MONUMENT SIGN

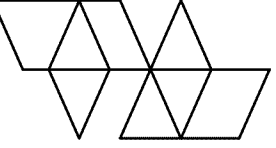
BASE BID

2015 IBC WITH WASHINGTON AMENDMENTS - MINIMUM PLUMBING FIXTURES - JULY 2016											
Version of Code: 2015 IBC with Washington Amendments											
CODE ITEM:						PROVIDED	CODE REFERENCE	CODE COMMENTARY:			
Classification:						EDUCATIONAL					
Building Occupancy:						E	Chapter 3				
Gross area of Building						22,599 Sq. Ft.	Chapter 5				
Occupancy Load						226 People	Table 2902.1	Gross area of Building divided by 100 square feet per person. Table 2902.1 keynote e			
Waterclosets Required											
Ratio Required		Male	1	:	35		4	Waterclosets/Urinals	5	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required
		Female	1	:	25		5	Waterclosets	6	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required
Lavatories Required											
Ratio Required		Male	1	:	85		2	Lavatories	5	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required
		Female	1	:	50		3	Lavatories	6	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required
Single User Restroom							Waterclosets	11	Included in count above - all restrooms are single user.		
							Lavatories	11			
Drinking Fountains/Bottle Filling Stations required											
Required number of waterfountains:						1.15	Drinking Fountains	4+2 Bottle Filling Stations	1 for first 150 occupants plus 1 per each additional 500 occupants		
One bottle filling station is required. Bottle filling station counts as one drinking fountain.											

ALTERNATE #1

2015 IBC WITH WASHINGTON AMENDMENTS - MINIMUM PLUMBING FIXTURES - JULY 2016												
Version of Code: 2015 IBC with Washington Amendments												
CODE ITEM:						PROVIDED	CODE REFERENCE	CODE COMMENTARY:				
Classification:						EDUCATIONAL						
Building Occupancy:						E		Chapter 3				
Gross area of Building						23,823	Sq. Ft.		Chapter 5			
Occupancy Load						238	People		Table 2902.1	Gross area of Building divided by 100 square feet per person. Table 2902.1 keynote e		
Waterclosets Required												
Ratio Required		Male	1	:	35		4	Waterclosets/Urinals	6	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required	
		Female	1	:	25		5	Waterclosets	6	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required	
Lavatories Required												
Ratio Required		Male	1	:	85		2	Lavatories	6	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required	
		Female	1	:	50		3	Lavatories	6	Table 2902.1	Occupancy Load divided by 2 divided by Ratio required	
Single User Restroom							Waterclosets	12	Included in count above - all restrooms are single user.			
							Lavatories	12				
Drinking Fountains/Bottle Filling Stations required												
Required number of waterfountains:						1.18	Drinking Fountains	4+2 Bottle Filling Stations	1 for first 150 occupants plus 1 per each additional 500 occupants			
One bottle filling station is required. Bottle filling station counts as one drinking fountain.												






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REGISTERED ARCHITECT



CASEY JOHN WYCKOFF  
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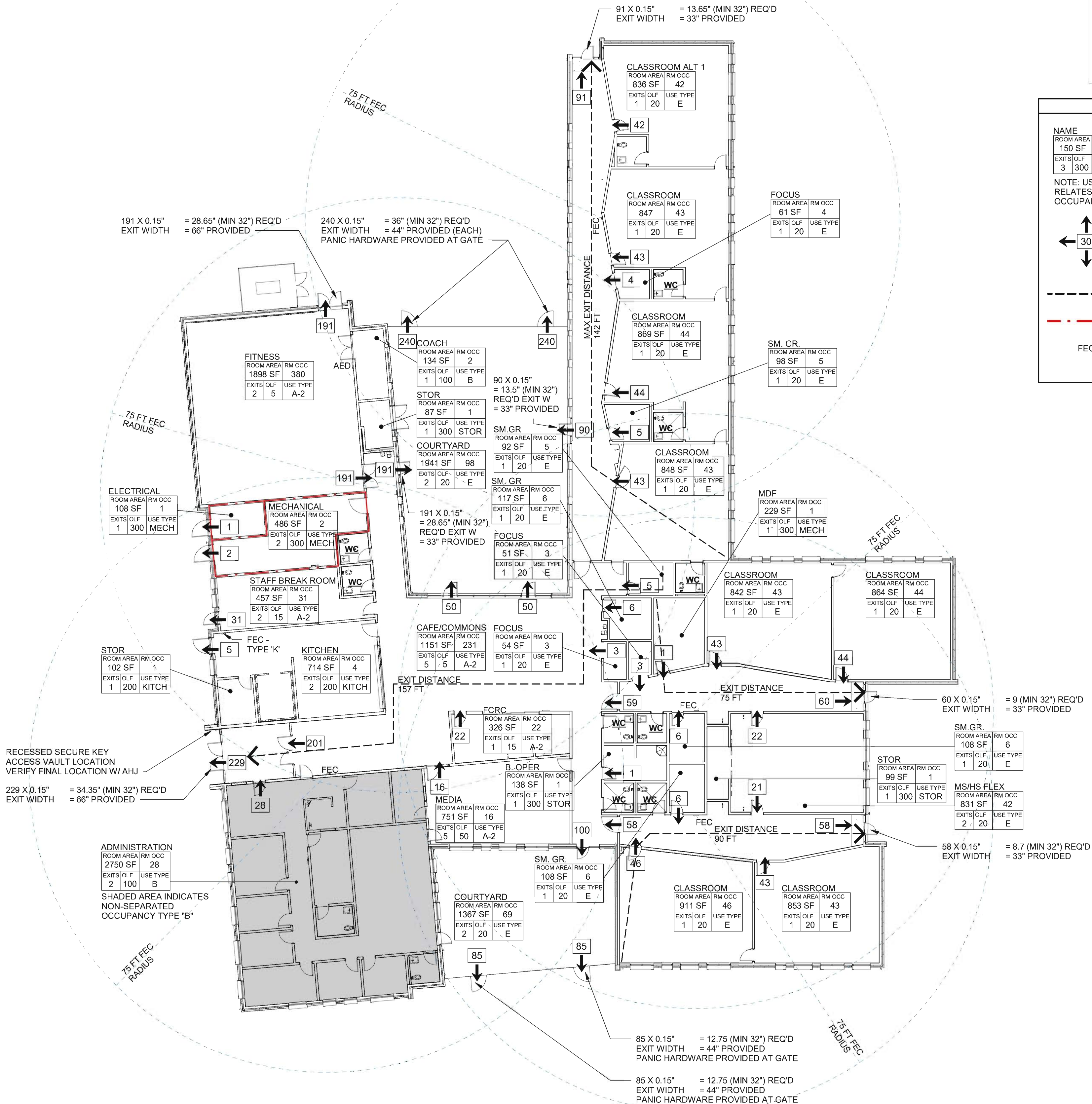
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CODE ANALYSIS -  
PLUMBING &  
DEFERRED  
SUBMITTALS

G-004

Scale

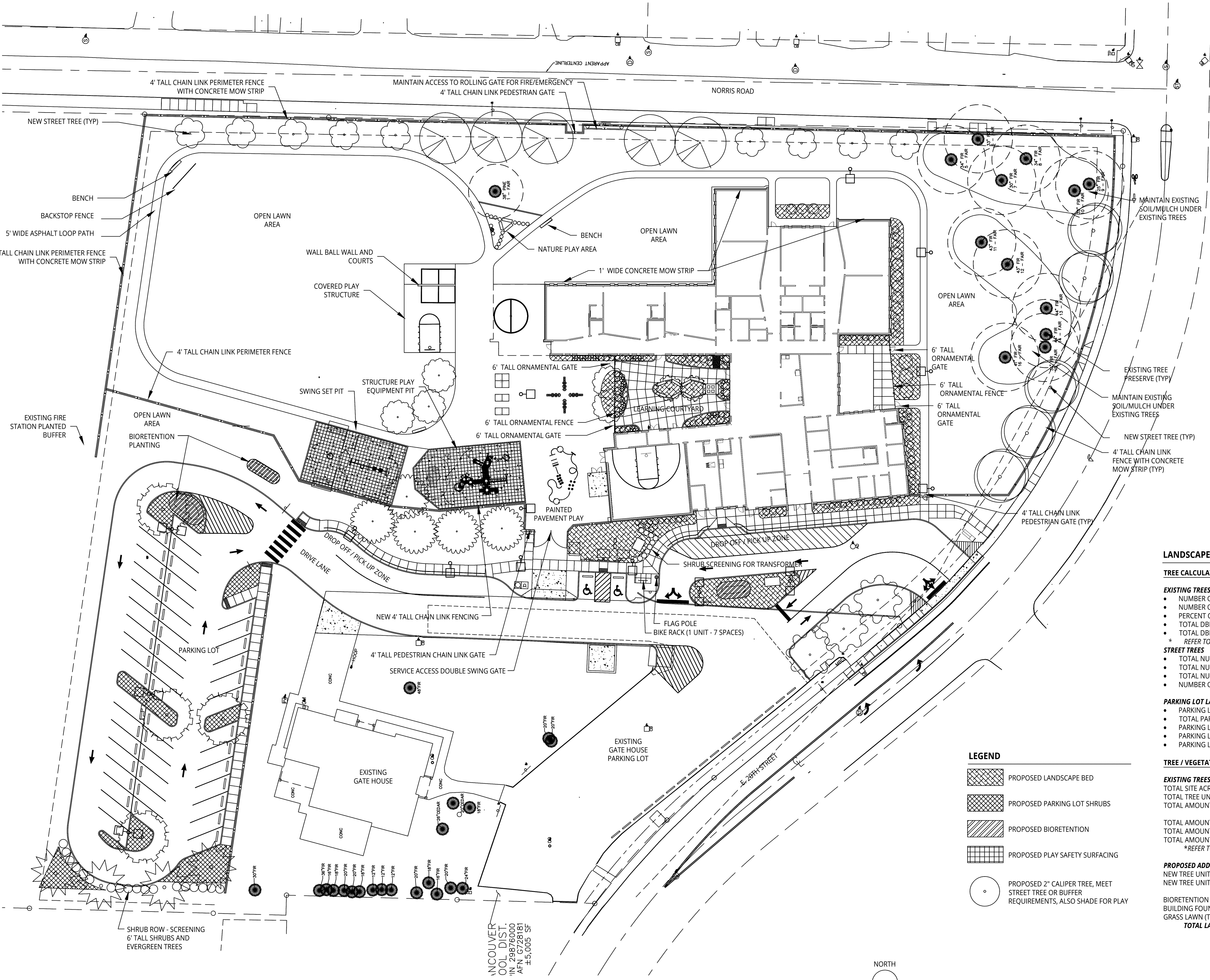




1 LIFE SAFETY PLAN  
SCALE: 1/16" = 1'-0"

CODE SYMBOL LEGEND			
NAME	ROOM AREA   RM OCC	150 SF	10
EXITS   OLF	USE TYPE	3	300 E
OCCUPANCY CODE TAG			
NOTE: USE TYPE INDICATES FUNCTION AS IT RELATES TO IBC TABLE 1004.1.2 OCCUPANCY TYPE E AND B AS INDICATED ON G-002			
<div><div></div><div>30</div><div></div></div> DOOR LIFE SAFETY TAG			
<div><div></div><div></div><div></div></div> EGRESS ARROW			
<div><div></div><div></div><div></div></div> 1HR FIRE SEPARATION			
FEC FIRE EXTINGUISHER CABINET			





TREE NOTES:

- TREE PROTECTION (VMC 20.770 TREE CONSERVATION)**
- NO GRADING OR DISTURBANCE IS PROPOSED IN CRITICAL ROOT ZONE OR DRIP LINE OF EXISTING TREES, MAINTAIN SOIL AND/OR MULCH UNDER EXISTING TREES
  - REFER TO ARBORIST REPORT BY MR. DAVID HUNTER (5.6.19) FOR ADDITIONAL TREE NOTES
  - TREE REMOVAL AND PROTECTION SHOWN ON CIVIL GRADING PLAN
  - VANCOUVER PUBLIC SCHOOLS MAY PRUNE TREES TO BE PRESERVED TO IMPROVE HEALTH AND REMOVE HAZARD BRANCHES, ETC.
- TREE PLANTINGS PER (VMC 20.925 LANDSCAPING)**
- LANDSCAPE MIN. 10% OF NET LOT SIZE
  - BUFFER PLANTINGS TO MEET L-1 BUFFER REQUIREMENTS, 10 FOOT ALONG STREET, 5 FOOT ALONG OTHER PROPERTY LINES (2" DIA. CALIPER TREES - 30' O.C.), EXCEPT WHERE DUPLICATE TO FIRE STATION BUFFER PLANTING
  - TREE UNITS ON SITE (30/AC) ARE MET WITH EXISTING TREE PRESERVATION ON SITE
  - PLANTINGS OPTIMIZE DIVERSITY OF TREE SPECIES, INCLUDING NATIVES
  - TREES SHALL BE MINIMUM OF 10 FEET FROM BUILDINGS TO PROVIDE FOR MATURE ROOT GROWTH
  - PARKING AND STREET TREES PER APPROVED CITY OF VANCOUVER LIST
  - OFF-STREET PARKING SHALL BE SCREENED WITH SITE-OBSCURING SCREENING - PUBLIC STREETS 3' HT., OTHER USES 6' HT. SHRUBS
  - ALL NEW LANDSCAPED AREAS SHALL HAVE COMPOST AMENDED SOILS
  - ALL LANDSCAPED AREAS SHALL HAVE 3 INCHES OF COMPOST APPLIED TO TOP OF LANDSCAPE BED, KEEP COMPOST 3" FROM PLANT TRUNK/STEM/BASE
- TREE REPLACEMENT STANDARDS**
- NEW TREES ON SITE WILL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK GRADE NO. 1 OR BETTER, ADDITIONAL INFORMATION IN CITY OF VANCOUVER TREE MANUAL
  - SPACING WILL ALLOW FOR MATURE SIZE OF TREE (ROOTS AND CANOPY)
  - TREES WILL BE WATERED DURING THE ESTABLISHMENT PERIOD (TWO GROWING SEASONS) AND BE INSTALLED PER CITY STANDARDS, INCLUDING STAKING, FERTILIZATION AND MULCHING
- PROTECTION OF EXISTING MATERIALS DURING CONSTRUCTION**
- THERE WILL BE NO ACTIVITY OR STORING OF MATERIALS WITHIN THE PROTECTED AREA OF EXISTING TREES TO REMAIN
  - PROTECTIVE BARRIERS SHALL MEET CITY OF VANCOUVER STANDARDS FOR ALL PRESERVED TREES. LOCATIONS SHOWN ON CIVIL DEMOLITION / GRADING PLAN
  - MINIMIZE COMPACTION OF EXISTING SOILS IN AREAS THAT WILL BE FUTURE LAWN, PLANTING BEDS, AND BUFFER PLANTINGS. STAGE MATERIALS AND PARK VEHICLES ONLY IN DESIGNATED LOCATIONS.
- GENERAL LANDSCAPE NOTES**
- BIORETENTION PLANTINGS SHALL CONSIST OF LOW EVERGREEN PLANTS THAT COMPLY WITH CITY OF VANCOUVER STORMWATER REQUIREMENTS
  - ALL LANDSCAPE AREA SHALL BE IRRIGATED, INCLUDING SHRUB BEDS AND LAWN AREAS
  - BIKE PARKING WILL BE NORTH OF THE ENTRY PLAZA, 7 PARKING SPACES (HUNTCO RAMBLER, BLACK)

LANDSCAPE NARRATIVE

**TREE CALCULATIONS:**

<b>EXISTING TREES ON SITE</b>	
• NUMBER OF EXISTING TREES ON SITE *	17
• NUMBER OF EXISTING TREES REMOVED	4 (DUE TO DEVELOPMENT CONFLICT, POOR HEALTH*)
• PERCENT OF EXISTING TREES REMOVED	23.5%
• TOTAL DBH OF EXISTING TREES	613
• TOTAL DBH OF EXISTING TREES TO BE REMOVED	140
* REFER TO ARBORIST REPORT 5.6.19, D. HUNTER, CIVIL PLAN FOR TREE REMOVAL PLAN	
<b>STREET TREES</b>	
• TOTAL NUMBER OF EXISTING STREET TREES (NORRIS)	3
• TOTAL NUMBER OF EXISTING STREET TREES (18TH/20TH)	4
• TOTAL NUMBER OF EXISTING STREET TREES RETAINED	7
• NUMBER OF ADDITIONAL STREET TREES (L-1 REQ'D)	22 (30 O.C., OUT OF DRIVEWAY SIGHT DISTANCE TRIANGLE)

<b>PARKING LOT LANDSCAPING</b>	
• PARKING LOT SPACES	46 STANDARD STALLS, 2 ADA STALLS
• TOTAL PARKING LOT PAVING (W/ DRIVE LANES)	19,987 SF
• PARKING LOT LANDSCAPING PROPOSED	+2,732 SF (10% OF LOT = 1,998 SF REQUIRED)
• PARKING LOT TREES	5 (MIN. 2" CAL.) (5 REQUIRED)
• PARKING LOT SHRUBS	126 (91 REQUIRED, PER 1 EVERY 30 SF OF LANDSCAPING)

**TREE / VEGETATION CALCULATIONS:**

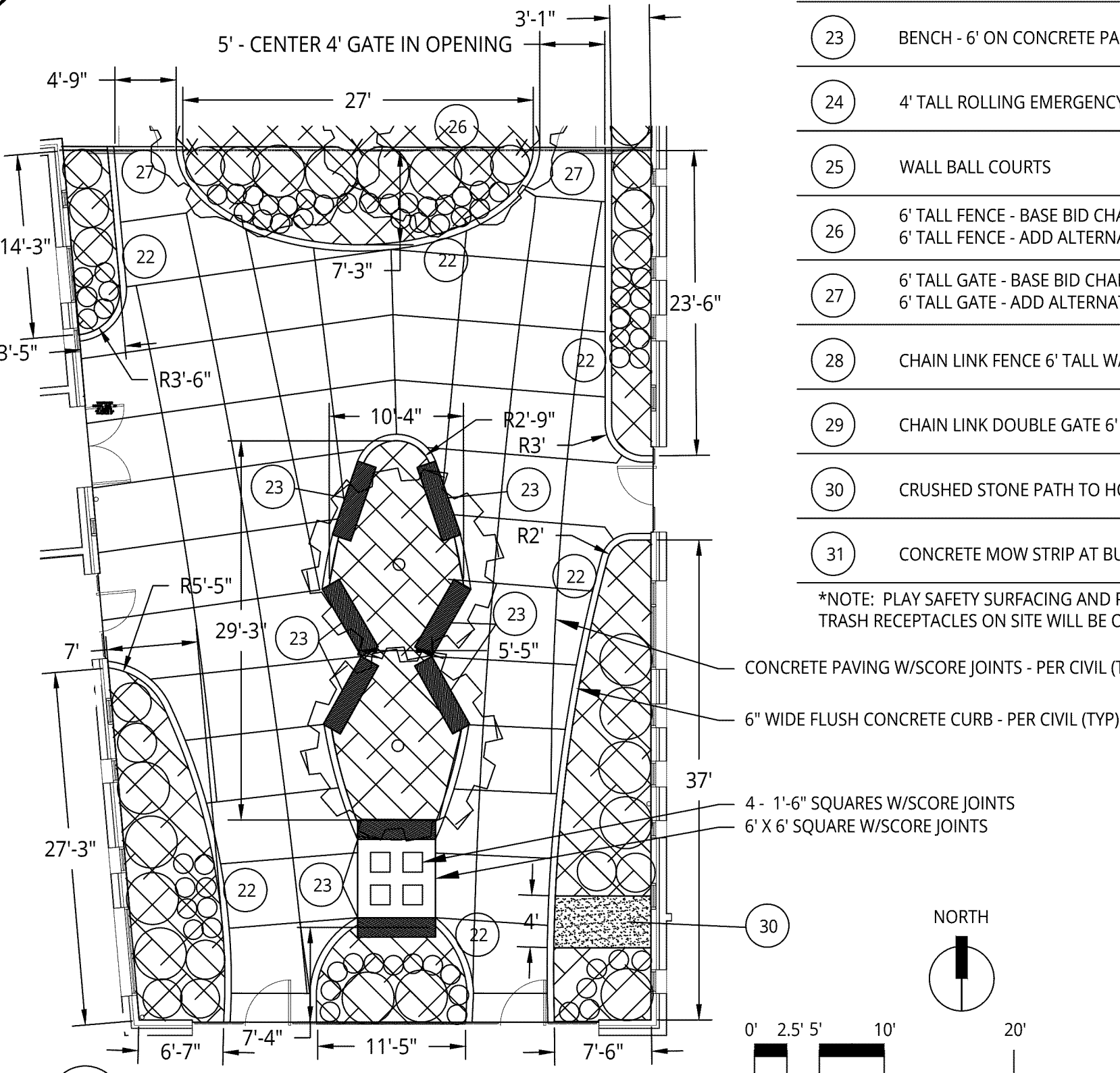
<b>EXISTING TREES ON SITE</b>	
TOTAL SITE ACREAGE:	4.23 ACRES
TOTAL TREE UNITS REQUIRED:	4.23 X 30 = 126.9 TREE UNITS
TOTAL AMOUNT OF EVERGREEN UNITS REQUIRED:	126.9 X 0.60 = 76.14 TREE UNITS

TOTAL AMOUNT OF EXISTING TREE UNITS TO BE PRESERVED:	168 *
TOTAL AMOUNT OF EXISTING TREE UNITS TO BE REMOVED:	36.5 *
TOTAL AMOUNT OF EXISTING T.U. TO BE PRESERVED (EVERGREEN):	154 *
*REFER TO ARBORIST REPORT FOR CALCULATIONS	

<b>PROPOSED ADDITIONAL TREE UNITS ON SITE</b>	
NEW TREE UNITS REQUIRED TO MEET DENSITY:	0 T.U. (32 PROVIDED)
NEW TREE UNITS REQUIRED TO BE EVERGREEN:	0 T.U. (4 PROVIDED)

BIORETENTION PLANTINGS:	574 SF
BUILDING FOUNDATION/LANDSCAPE BEDS:	5,367 SF
GRASS LAWN (TO BE MOWN)	75,537 SF (1.73 AC)
<b>TOTAL LANDSCAPE PERCENTAGE:</b>	<b>44.2 % OF 4.23 ACRES</b>

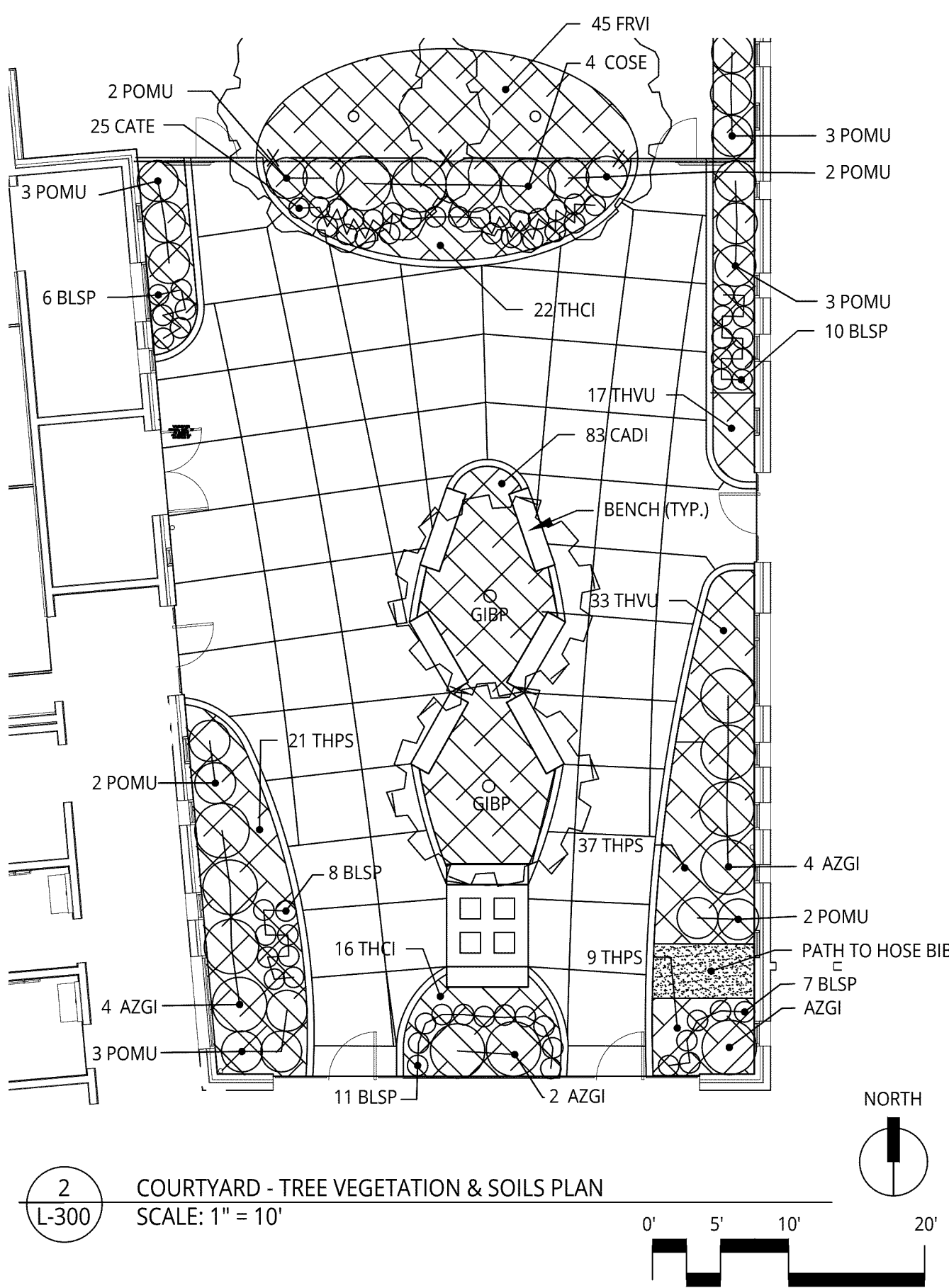




\*NOTE: PLAY SAFETY SURFACING AND PLAY EQUIPMENT ARE OFOI  
TRASH RECEPTACLES ON SITE WILL BE OFOI

## LANDSCAPE LAYOUT PLAN









*Justin Klein*  
drawn by  
**JTK**  
checked by  
**JTK**

lsw job number  
**2018-0029**

**FIR GROVE CHILDREN'S CENTER**  
**VANCOUVER PUBLIC SCHOOLS**  
**18TH ST & NORRIS RD**  
**VANCOUVER, WA, 98661**

issue date

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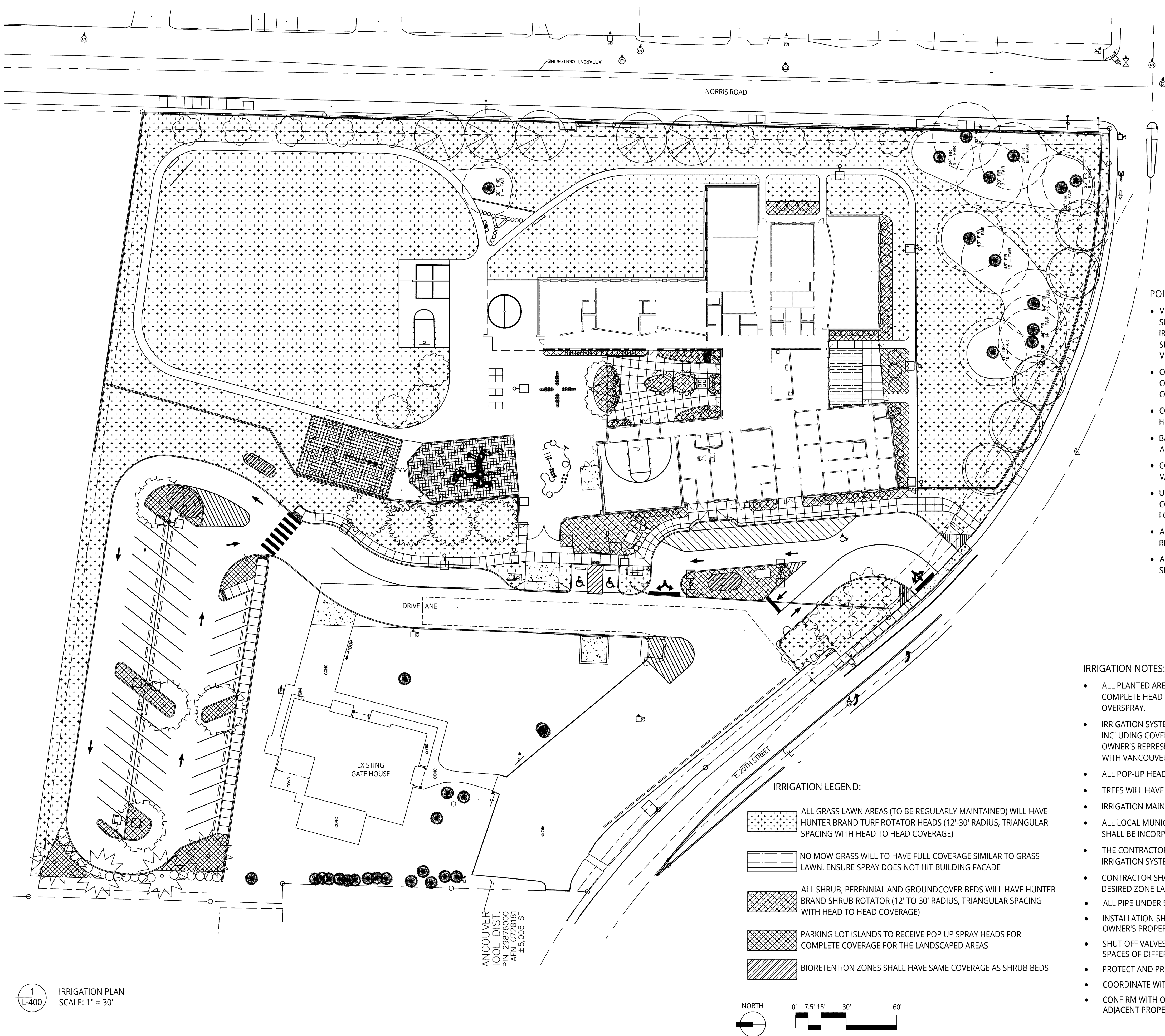
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## IRRIGATION PLAN

# L-400



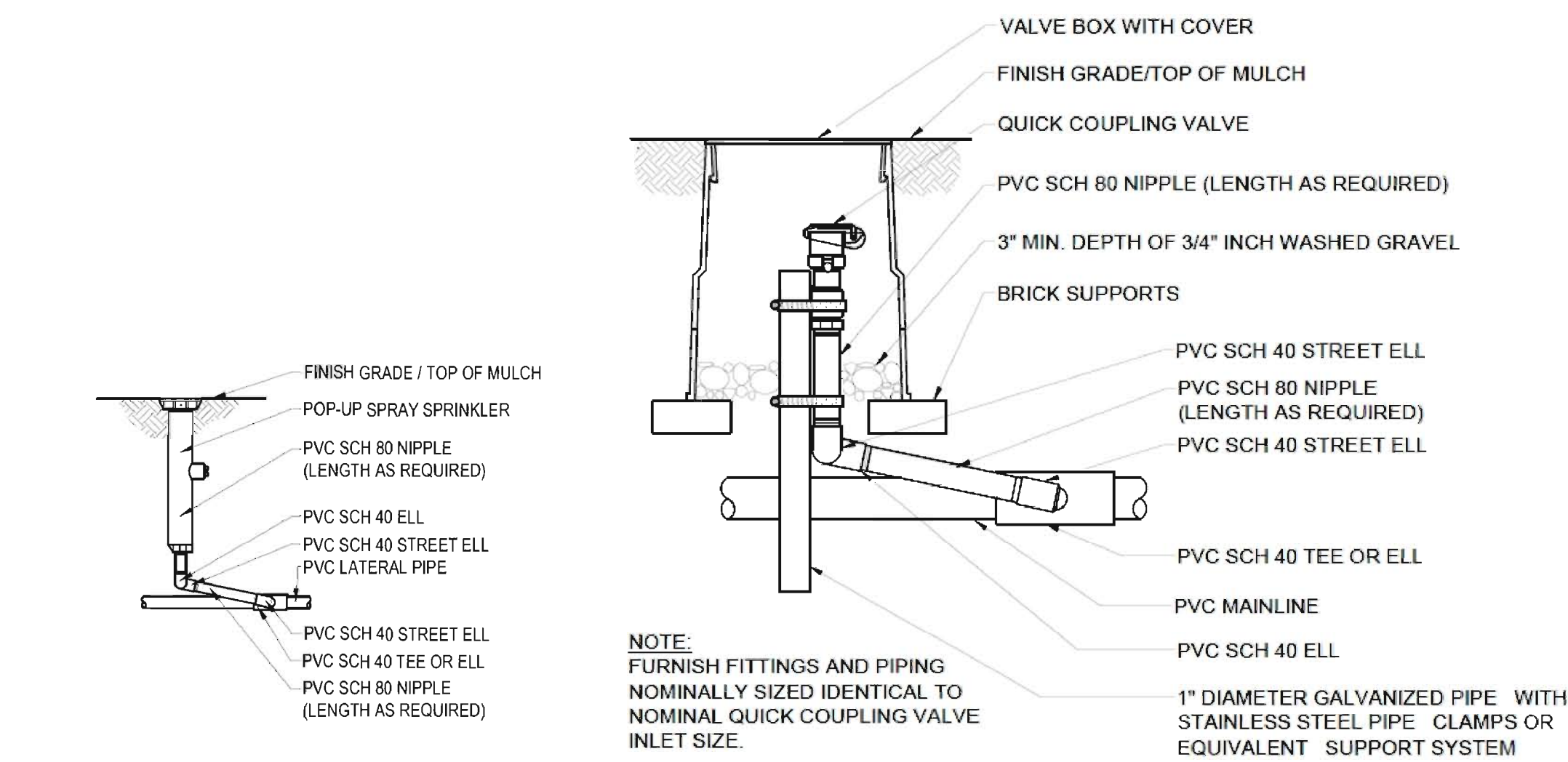
POINT OF CONTACT NOTES:

- VERIFY STATIC AND DYNAMIC PRESSURE AT P.O.C AT COMMENCEMENT OF CONTRACT.
- SUBMIT WRITTEN REPORT TO OWNER'S REPRESENTATIVE PRIOR TO BEGINNING OF WORK.
- IRRIGATION SYSTEM DESIGN SHALL BE BASED ON MINIMUM OPERATING PRESSURE OF SPRINKLER HEADS AND MAXIMUM FLOW DEMAND OF THE SYSTEM. CONTRACTOR SHALL VERIFY AVAILABLE WATER PRESSURE IS SUFFICIENT TO PROPERLY OPERATE THE SYSTEM.
- CONTRACTOR SHALL VERIFY LOCATION OF OTHER UTILITY EQUIPMENT, FIELD CONDITIONS AND SITE FEATURES PRIOR TO FINAL DESIGN LAYOUT TO ENSURE COMPATIBILITY WITH PLACEMENT OF ALL IRRIGATION EQUIPMENT.
- CONTROLLER AND BACKFLOW PREVENTER TO BE HUNTER PER VPS STANDARD EQUIPMENT, FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- BACK FLOW INSTALLATION SHALL CONFORM TO CITY OF VANCOUVER BACKFLOW ASSEMBLY INSTALLATION REQUIREMENTS.
- CONFIRM WITH CIVIL ENGINEER LOCATION FOR WATER CONNECTION, METER, SHUTOFF VALVES, AND CONTROL BOX ; & ELECTRICAL ENGINEER FOR CONTROL BOX.
- USE OF BOOSTER PUMP SHALL BE CONFIRMED PRIOR TO THE START OF WORK. COORDINATE WITH CIVIL AND ELECTRICAL REPRESENTATIVES TO VERIFY PROPER FINAL LOCATION OF PUMP, IF NEEDED.
- ALL POINT OF CONTACT EQUIPMENT AND LAYOUT TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK.
- ALL WORK RELATED TO IRRIGATION DESIGN, LAYOUT, INSTALLATION AND MAINTENANCE SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS, CODES AND LAWS.

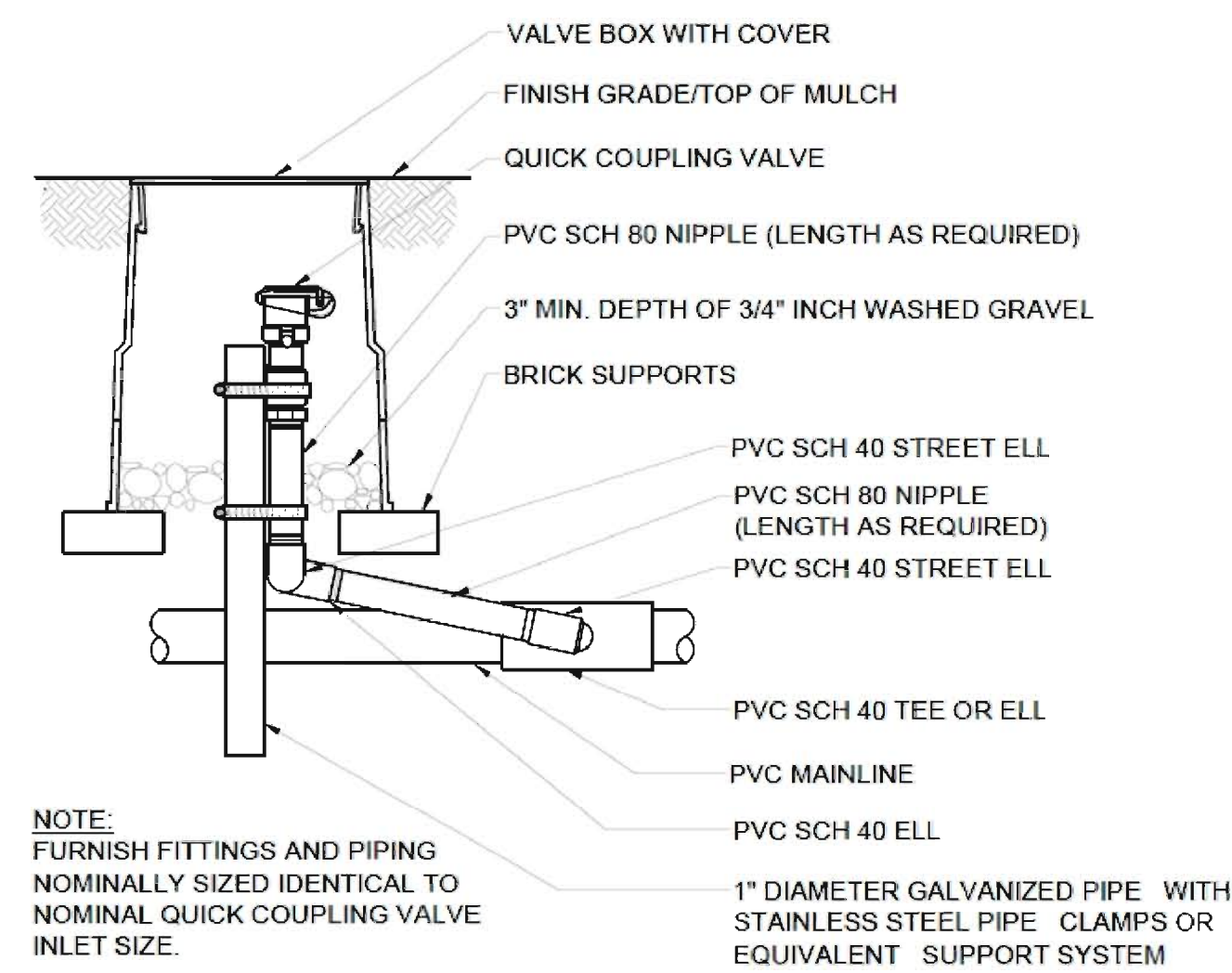
## IRRIGATION NOTES:

- ALL PLANTED AREAS ARE TO BE IRRIGATED WITH A PERMANENT AUTOMATIC IRRIGATION SYSTEM. PROVIDE COMPLETE HEAD TO HEAD COVERAGE TO ENSURE VIABILITY OF ALL PLANTINGS AND GRASS WITH MINIMUM OVERSPRAY.
- IRRIGATION SYSTEM WILL BE DESIGN/BUILD BY CONTRACTOR TO MEET VANCOUVER PUBLIC SCHOOLS STANDARDS, INCLUDING COVERAGE AND ZONE LAYOUTS. ALL EQUIPMENT SHALL BE HUNTER INDUSTRY UNLESS APPROVED BY OWNER'S REPRESENTATIVE IN WRITING. ALL EQUIPMENT SHALL BE LATEST AVAILABLE NEW PRODUCTS TO COMPLY WITH VANCOUVER PUBLIC SCHOOLS EQUIPMENT AND IRRIGATION OPERATING PROCEDURES.
- ALL POP-UP HEADS TO AVOID SPRAY TO BUILDING, PAVEMENT AND OTHER HARD SURFACES
- TREES WILL HAVE MULTI-STREAM BUBBLER, 4" POP-UP TO ESTABLISH TREES
- IRRIGATION MAINLINE WILL BE PVC SCHEDULE 40
- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING ANY PORTION OF THIS WORK SHALL BE INCORPORATED BY THE CONTRACTOR
- THE CONTRACTOR SHALL VERIFY ALL UTILITIES, STRUCTURES AND SERVICE PRIOR TO DESIGN-BUILD OF THE IRRIGATION SYSTEM
- CONTRACTOR SHALL WORK WITH OWNER'S REPRESENTATIVE & DISTRICT IRRIGATION STAFF TO DETERMINE DESIRED ZONE LAYOUT FOR ALL AREAS (OWNER'S REPRESENTATIVE TO APPROVE ZONES PRIOR TO INSTALLATION)
- ALL PIPE UNDER BUILDINGS, ROADS, WALKS, PARKING AREAS OR OTHER PAVED SURFACES SHALL BE SLEEVED.
- INSTALLATION SHALL BE LOCATED ON OWNER'S PROPERTY OWNER AND SPRAY SHALL BE DIRECTED TOWARDS OWNER'S PROPERTY TO AVOID WATER ONTO ADJACENT PROPERTIES.
- SHUT OFF VALVES SHALL BE LOCATED AT ALL MAJOR MAINLINE CROSSINGS UNDER ROADWAYS. LARGE DEFINED SPACES OF DIFFERENT USES SHALL HAVE SHUT OFF VALVES FOR ISOLATION DURING MAINTENANCE PERIODS.
- PROTECT AND PRESERVE ALL EXISTING MATERIALS ON SITE DURING INSTALLATION.
- COORDINATE WITH CIVIL ENGINEER FOR ANY WORK IN THE EXISTING RIGHT-OF-WAY.
- CONFIRM WITH OWNER'S REPRESENTATIVE WHEN WORKING WITHIN THE DRILIPE OF EXISTING TREES ON ADJACENT PROPERTIES TO ENSURE MINIMAL DAMAGE TO EXISTING TREE(S).

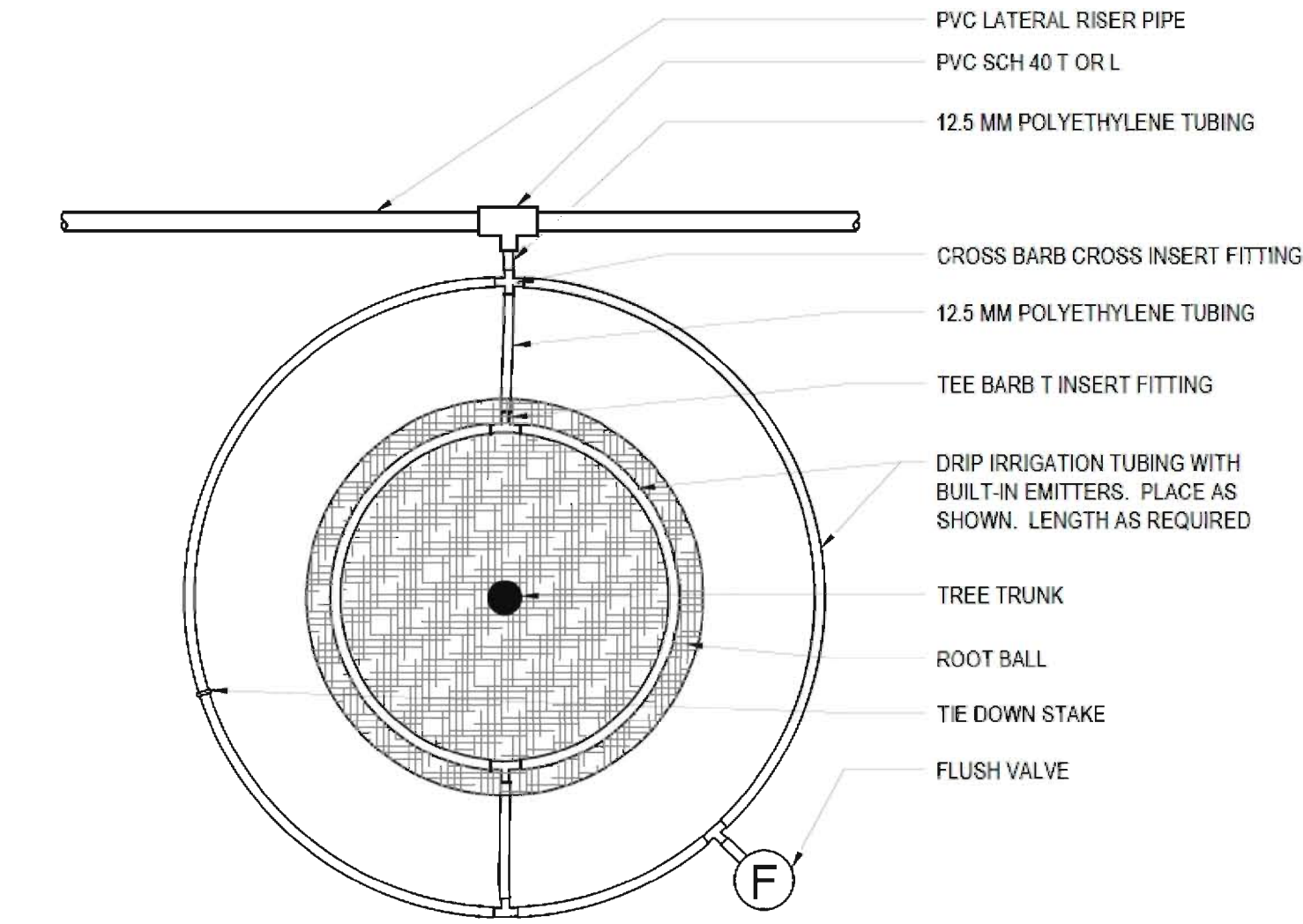




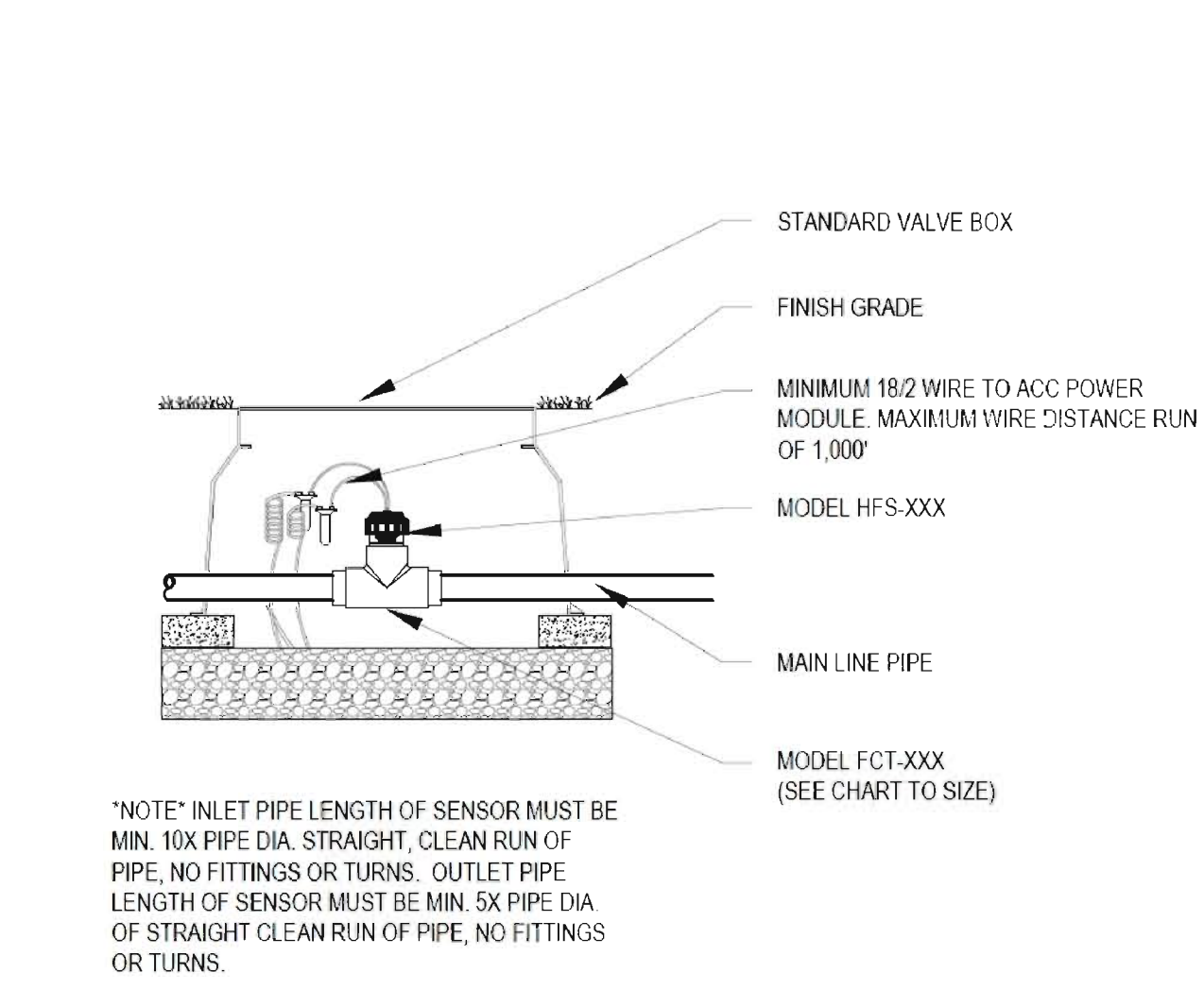
1 POP-UP SPRAYER AND ROTOR HEAD  
NOT TO SCALE



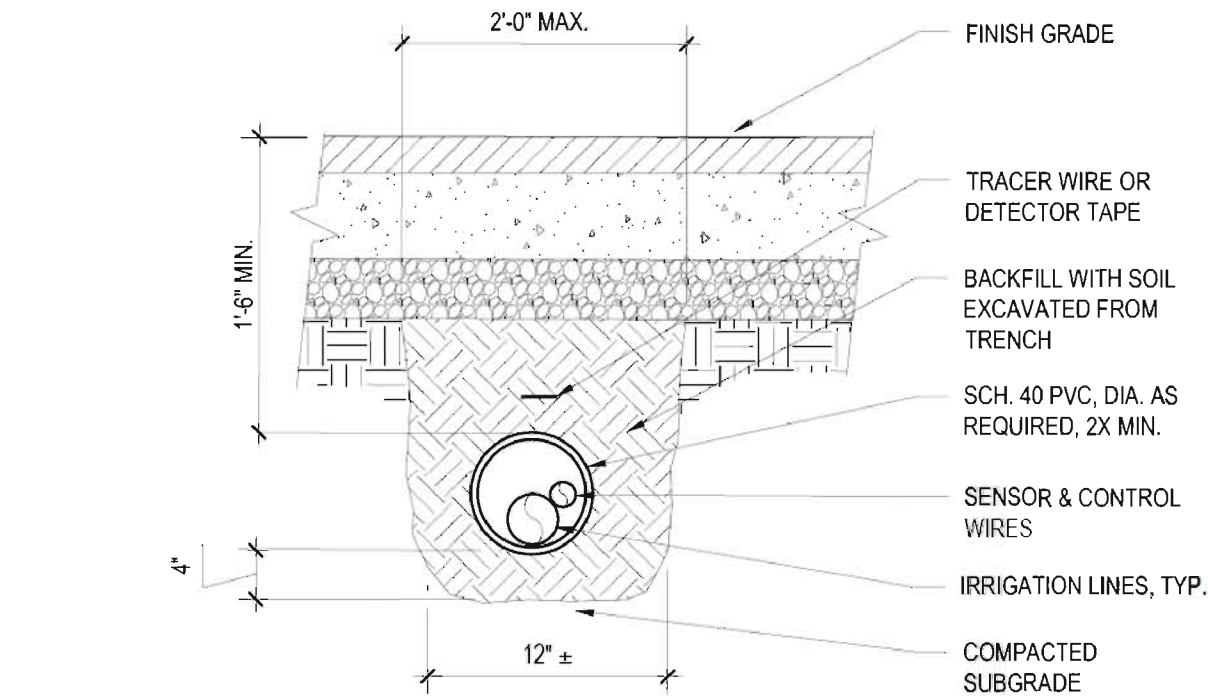
2 QUICK COUPLER  
NOT TO SCALE



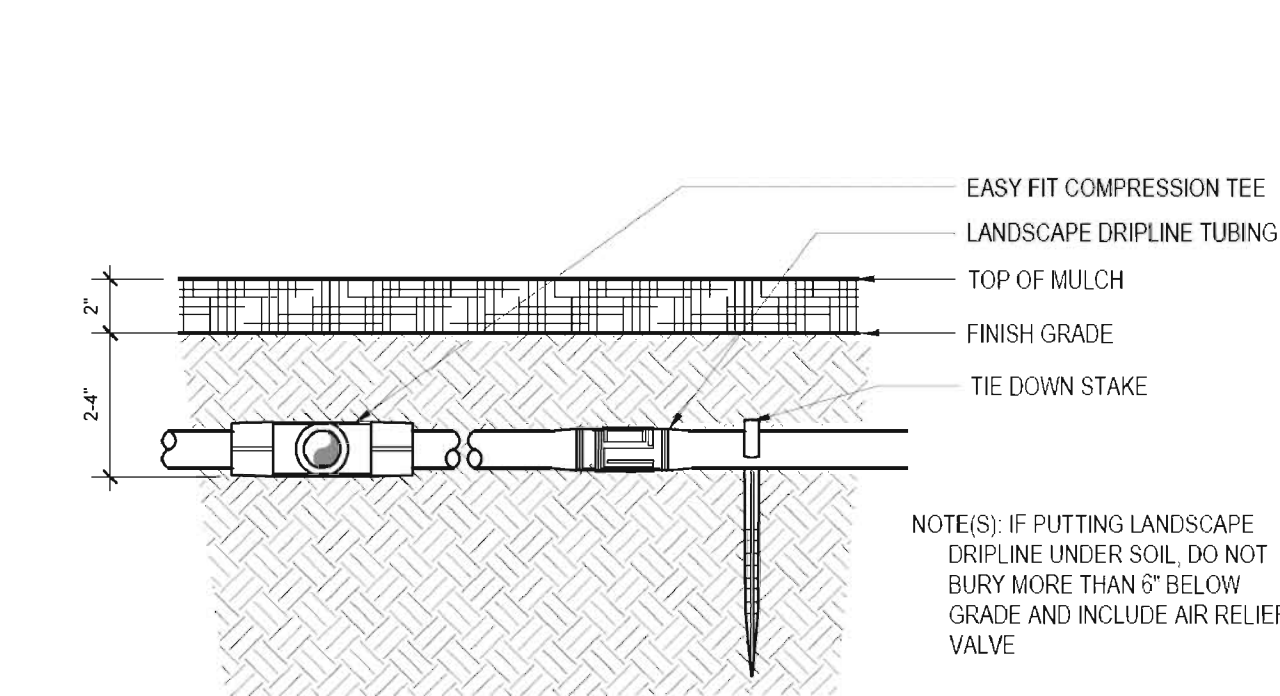
3 DRIP LINE - TREE RINGS  
NOT TO SCALE



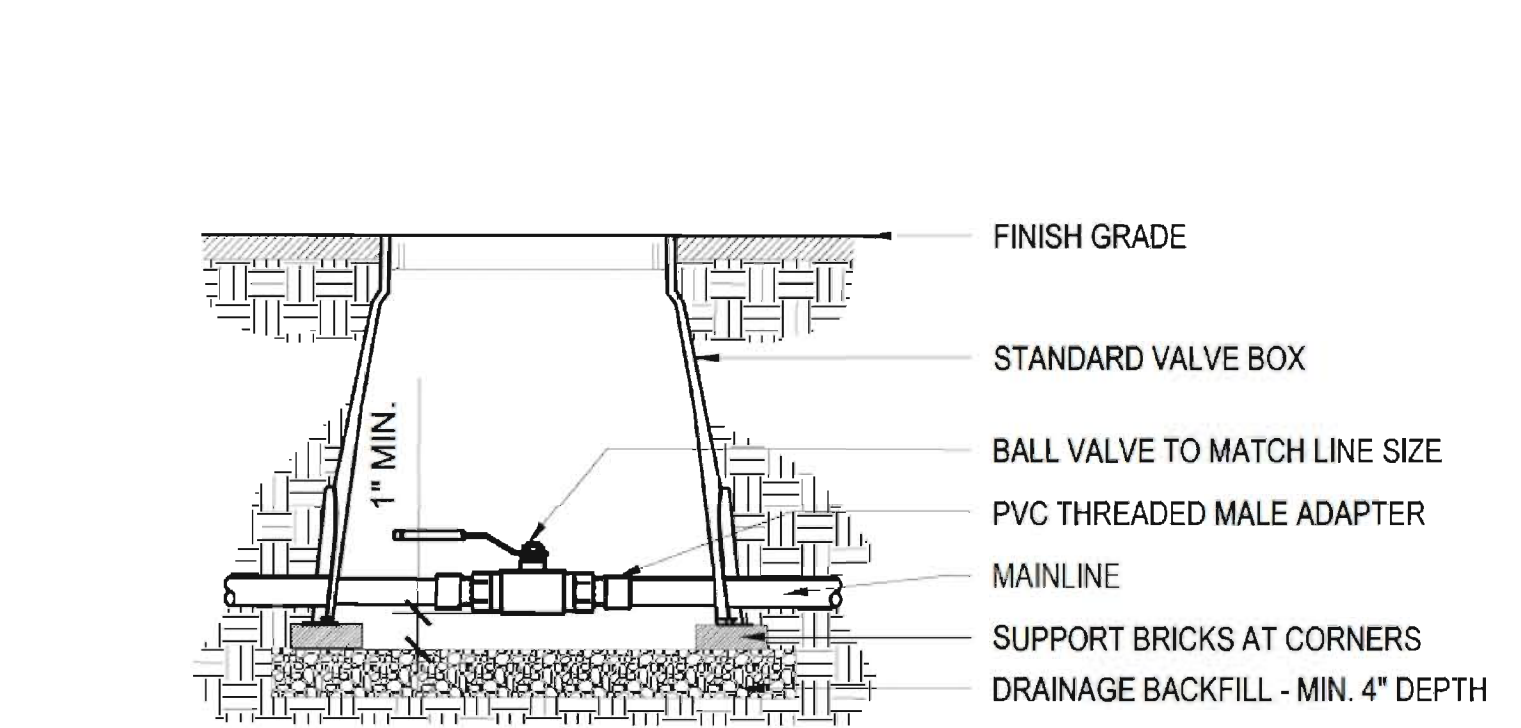
4 FLOW SENSOR  
NOT TO SCALE



5 IRRIGATION LINE SLEEVE AND TRENCH  
NOT TO SCALE

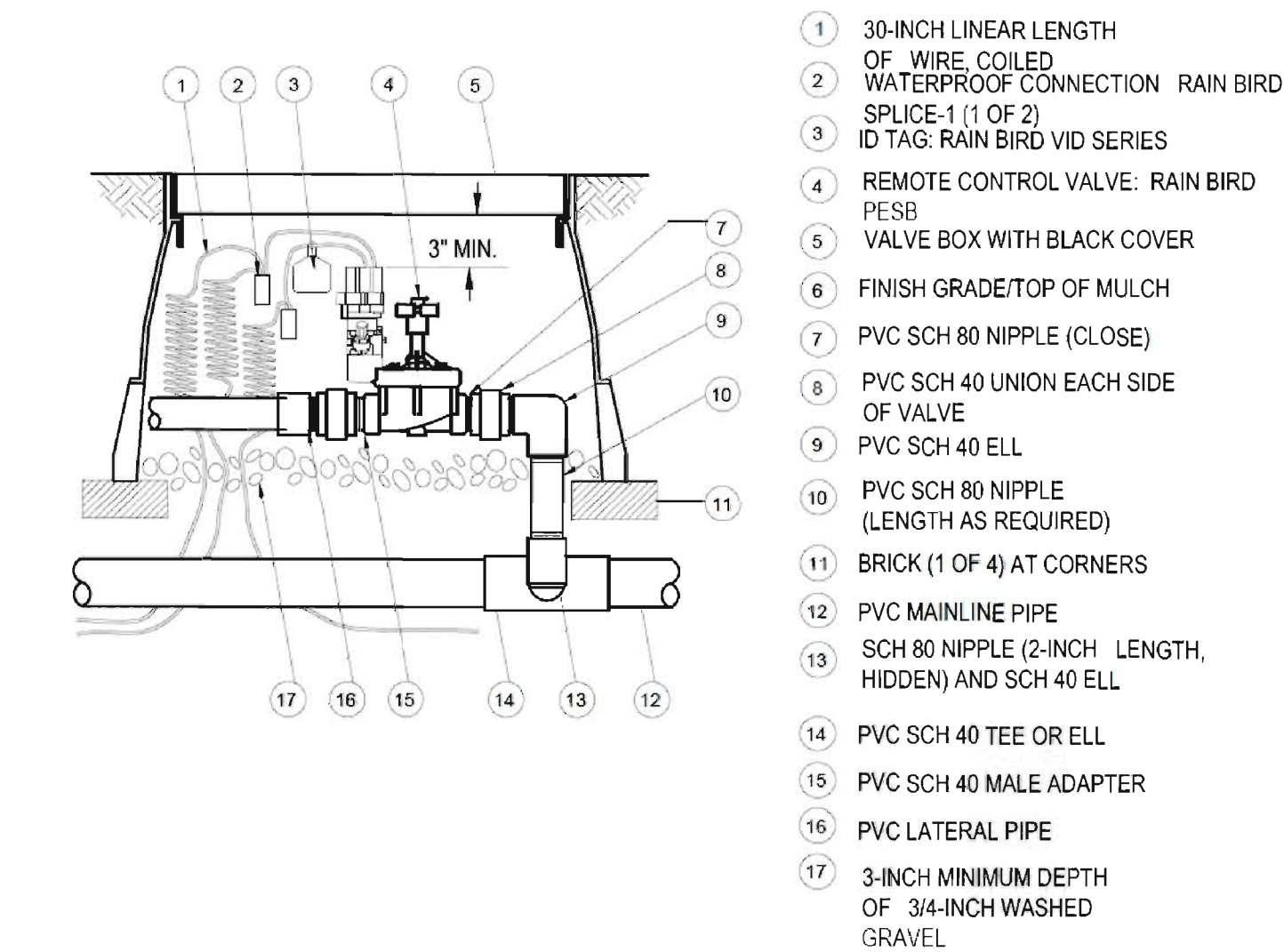


6 DRIP LINE CONNECTION  
NOT TO SCALE



7 MANUAL VALVE  
NOT TO SCALE

- NOTE:**
- ALL IRRIGATION SHALL COMPLY WITH VANCOUVER PUBLIC SCHOOLS STANDARDS FOR MATERIALS, PARTS, CONNECTIONS AND RELATED ELEMENTS FOR THIS WORK. ALL DESIGN TO BE CONSISTENT WITH ZONE LAYOUT, POINT OF CONNECTION, PIPE LAYOUT AND HEAD LOCATIONS CONSISTENT WITH VPS STANDARDS.
  - THESE DETAILS ARE FOR REFERENCE FOR THE CONTRACTOR FOR DESIGN BUILD INSTALLATION OF IRRIGATION SYSTEM.
  - CONTRACTOR TO SELECT HEAD TYPE BASED ON SIZE OF SPACE TO WATER.
  - CONTRACTOR TO SHOW ZONE LAYOUT, IRRIGATION SCHEDULE, SLEEVING, PIPE SIZING, CONTROLLER INFORMATION AND REMOTE CONTROL VALVE INFORMATION (NUMBER, GPM, VALVE SIZE).
  - OWNER'S REPRESENTATIVE TO APPROVAL ALL IRRIGATION SUBMITTALS PRIOR TO INSTALLATION OF SYSTEM.
  - REFER TO CIVIL DRAWINGS FOR POINT OF CONNECTION TO WATER SERVICE, BOOSTER PUMP, METER, ETC.
  - REFER TO ELECTRICAL PLANS FOR INFORMATION ON POWER SUPPLY TO CONTROLLER.
  - DESIGN OF IRRIGATION SHALL BE FOR PERMANENT IRRIGATION SYSTEM. ALL IRRIGATION SYSTEMS SHALL BE IN PLACE PRIOR TO PLANTING TO ENSURE ALL PLANTINGS ARE FULLY ESTABLISHED.



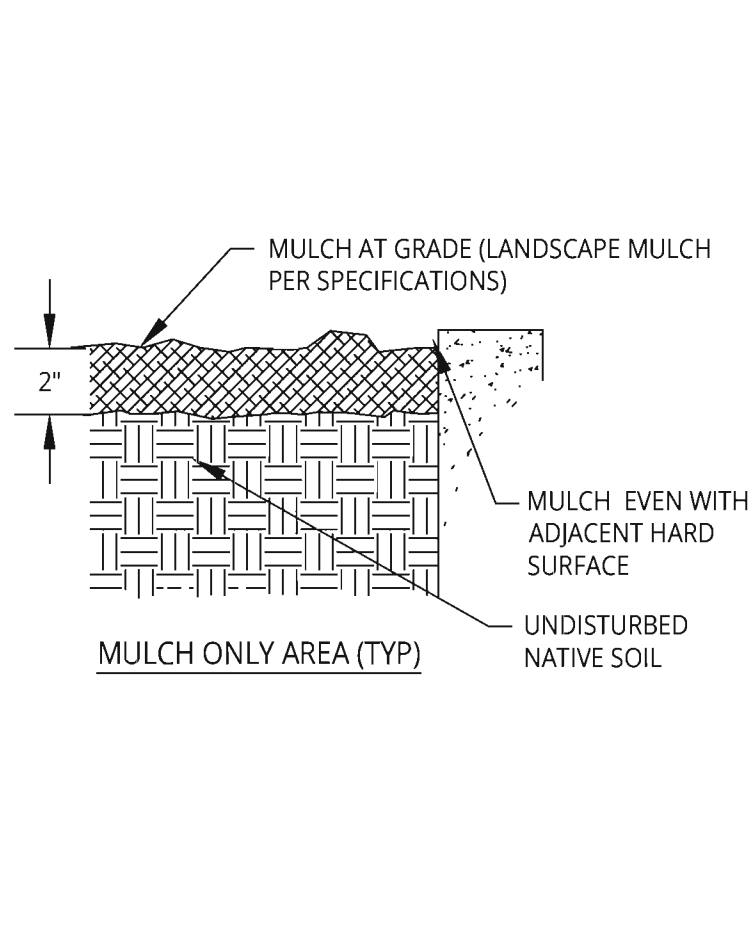
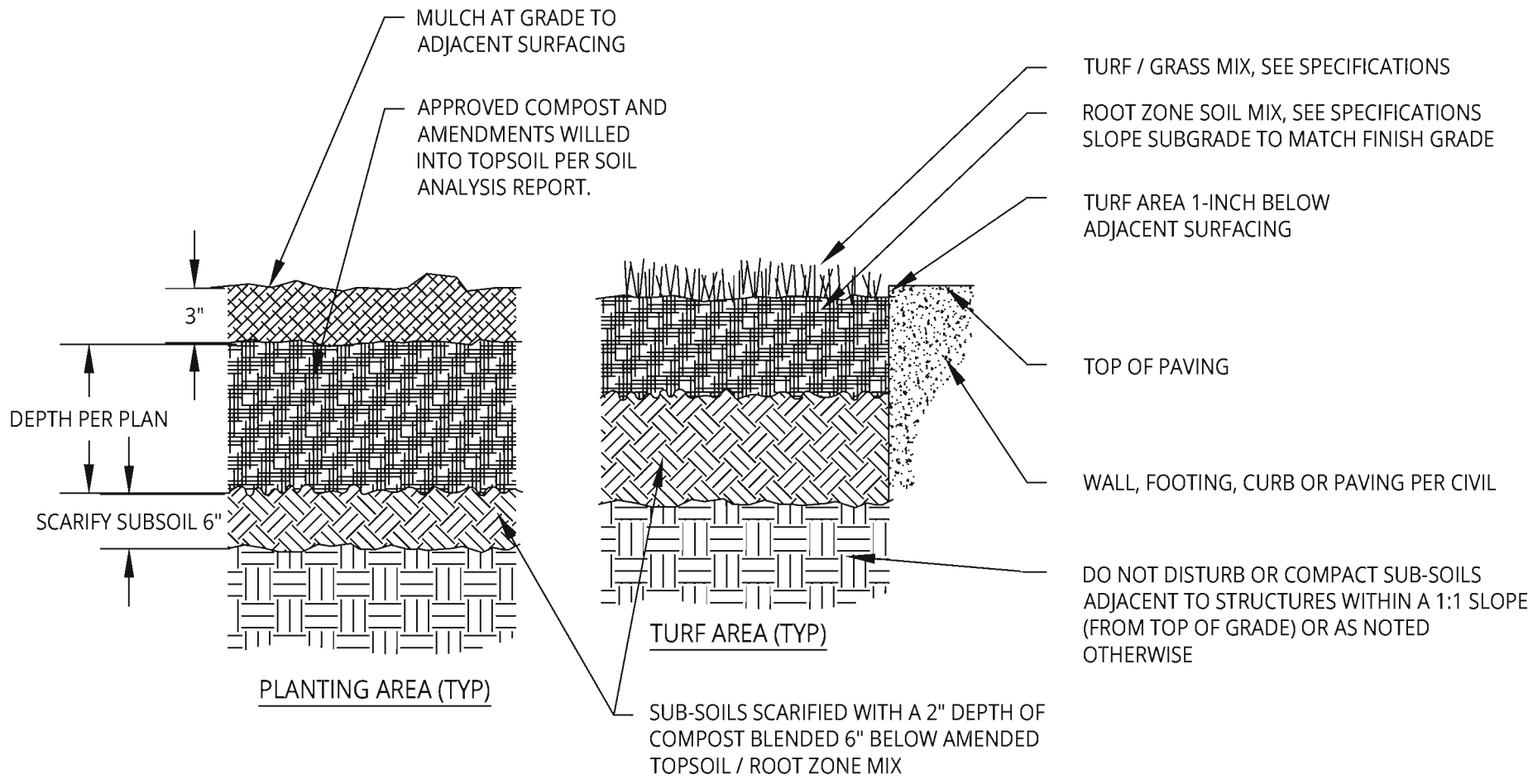
8 REMOTE CONTROL VALVE, SIM. AT MASTER VALVE  
NOT TO SCALE



TREE BACKFILL AMENDED AS FOLLOWS: <ul style="list-style-type: none"><li>• 3 PARTS OF EXISTING TOPSOIL</li><li>• 1 PART COMPOST</li><li>• AS SPECIFIED, SEE CHART BELOW</li></ul>	
CALIPER SIZE	PERMAMATRIX POUNDS REQUIRED (DRY)
1.0"	5.00
1.5"	7.50
2.0"	10.00
2.5"	20.00
3.0"	30.00
3.5"	50.00

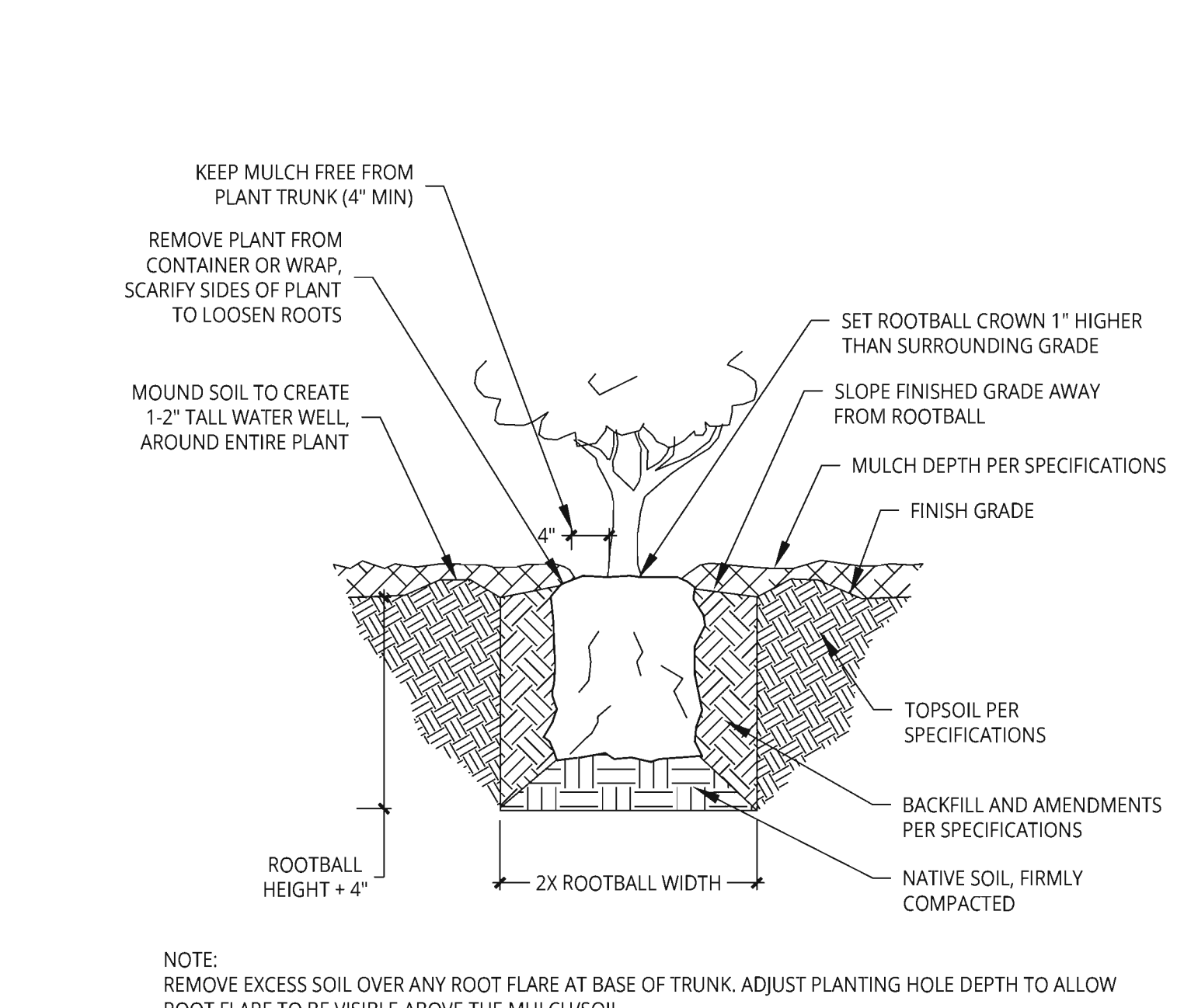
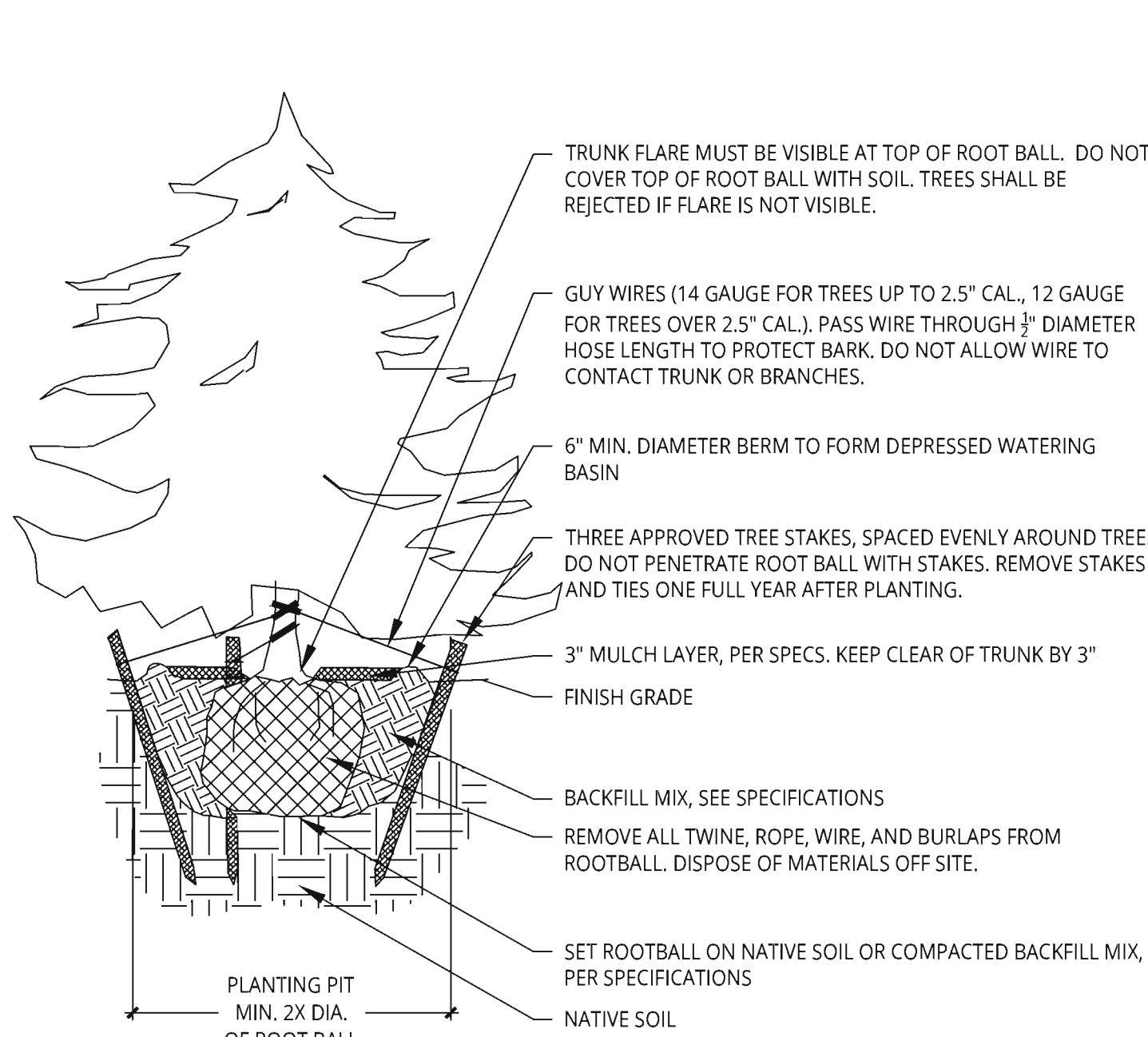
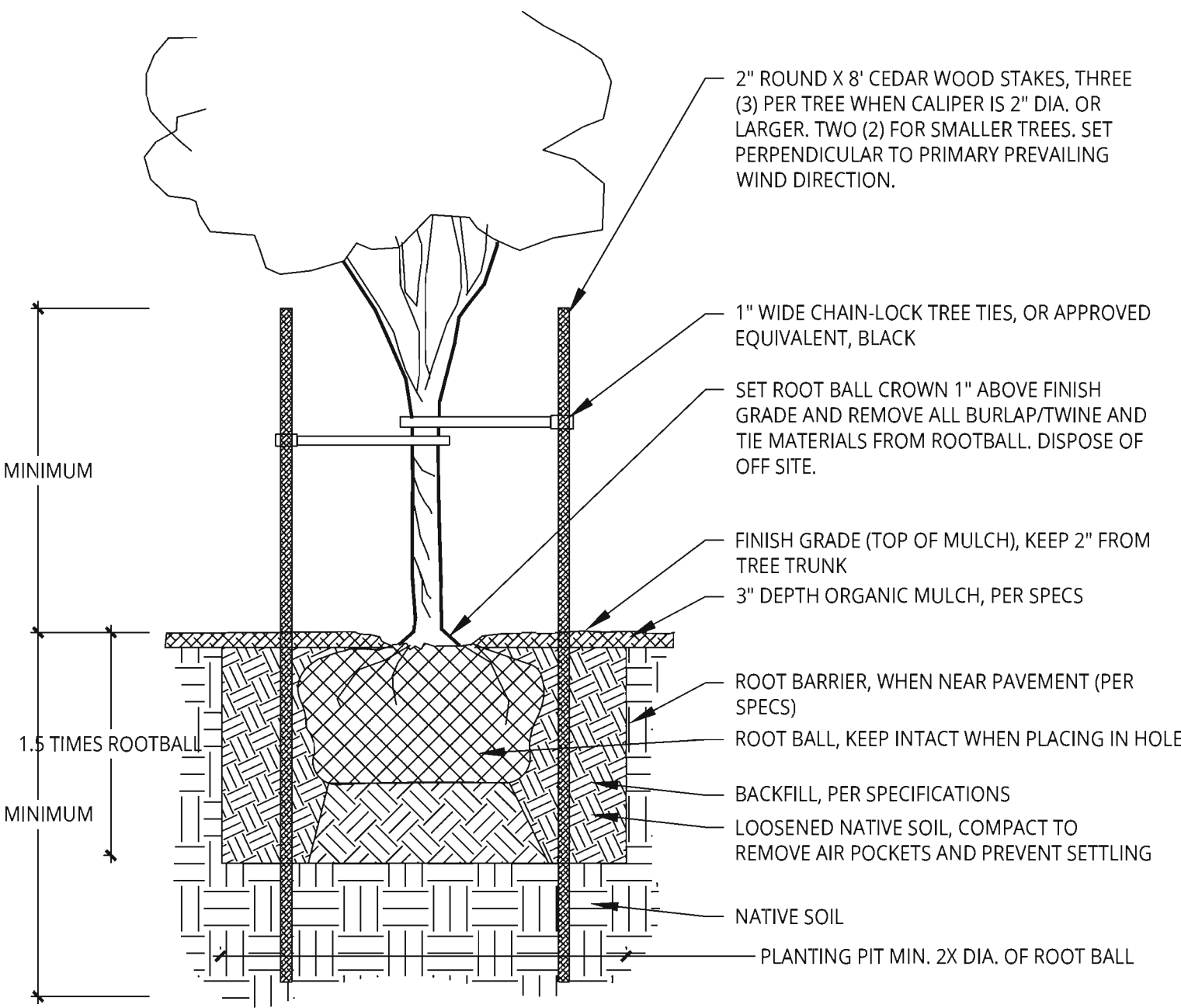
SHRUB, GRASSES AND GROUNDCOVER BACKFILL, AMENDED AS FOLLOWS: <ul style="list-style-type: none"><li>• 3 PARTS OF EXISTING TOPSOIL</li><li>• 1 PART COMPOST</li><li>• AS SPECIFIED, SEE CHART BELOW</li></ul>	
CONTAINER SIZE	PERMAMATRIX POUNDS REQUIRED (DRY)
PLUG	0.05
4-INCH	0.20
1-GAL.	0.50
2-GAL.	0.75
3-GAL.	1.25
6-GAL.	1.50
15-GAL.	5.00

PERMAMATRIX AVAILABLE LOCALLY FROM SUNMARK ENVIRONMENTAL  
503-241-7333



## 1 PLANTING BACKFILL - SOIL AMENDMENT

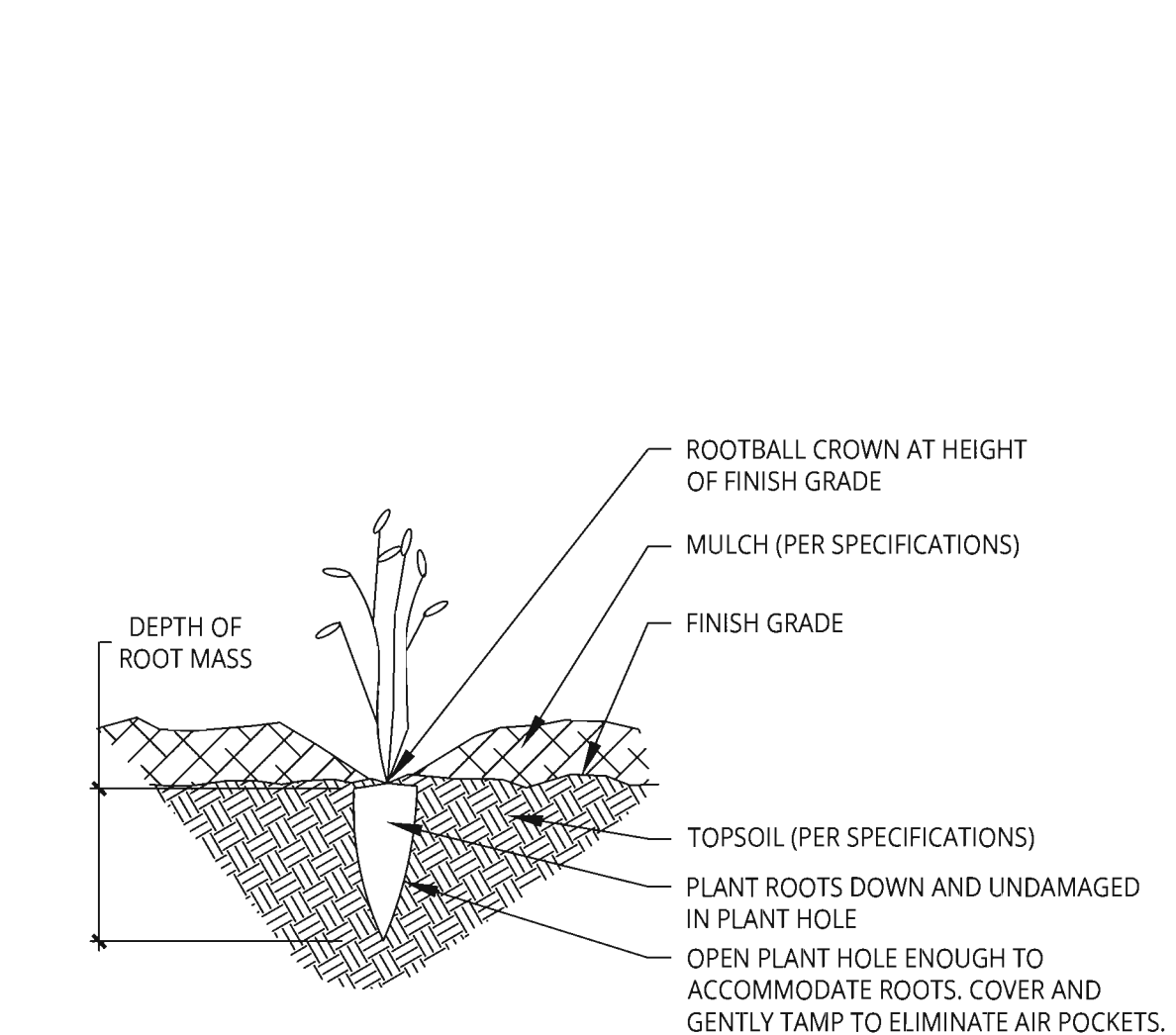
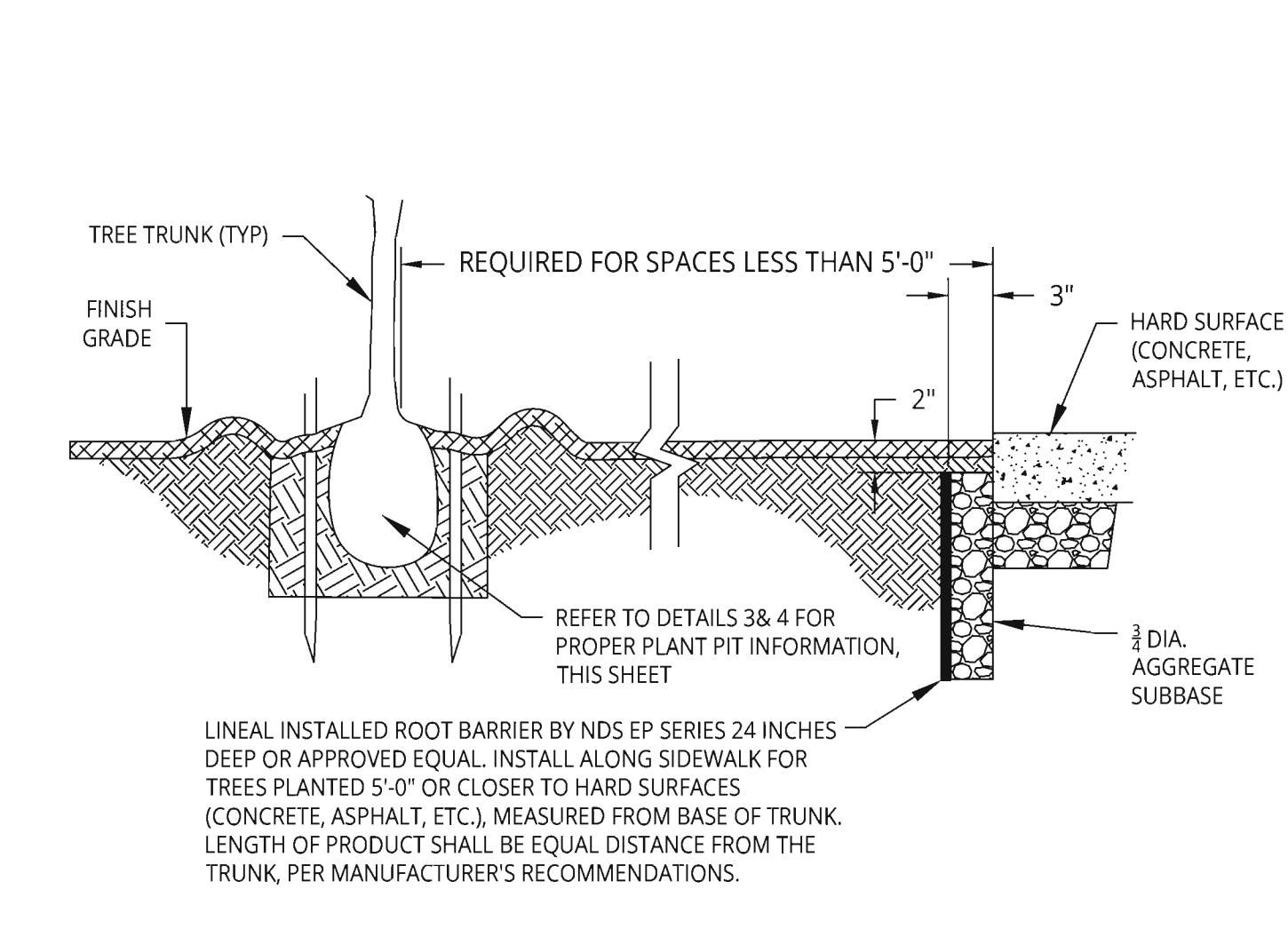
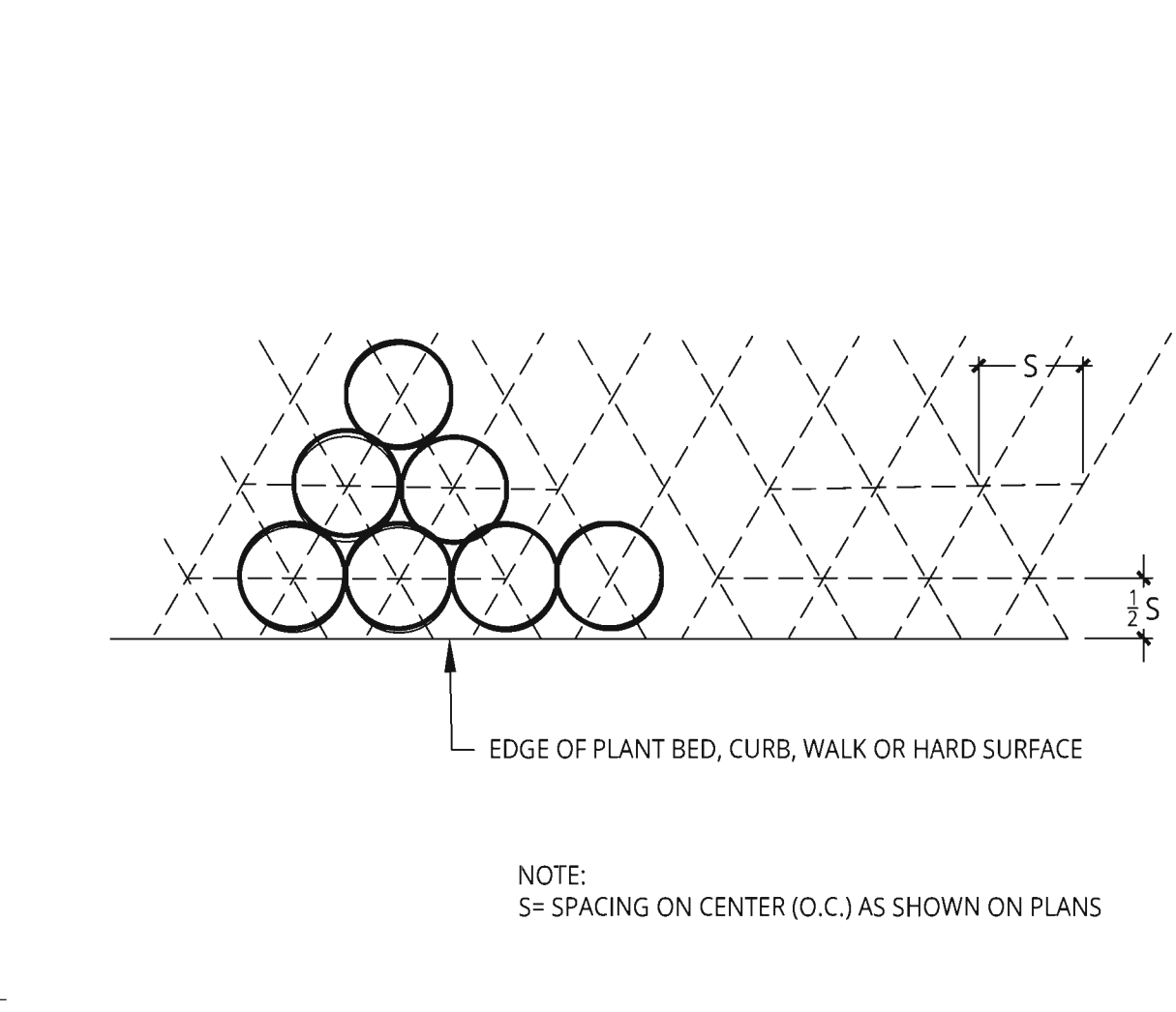
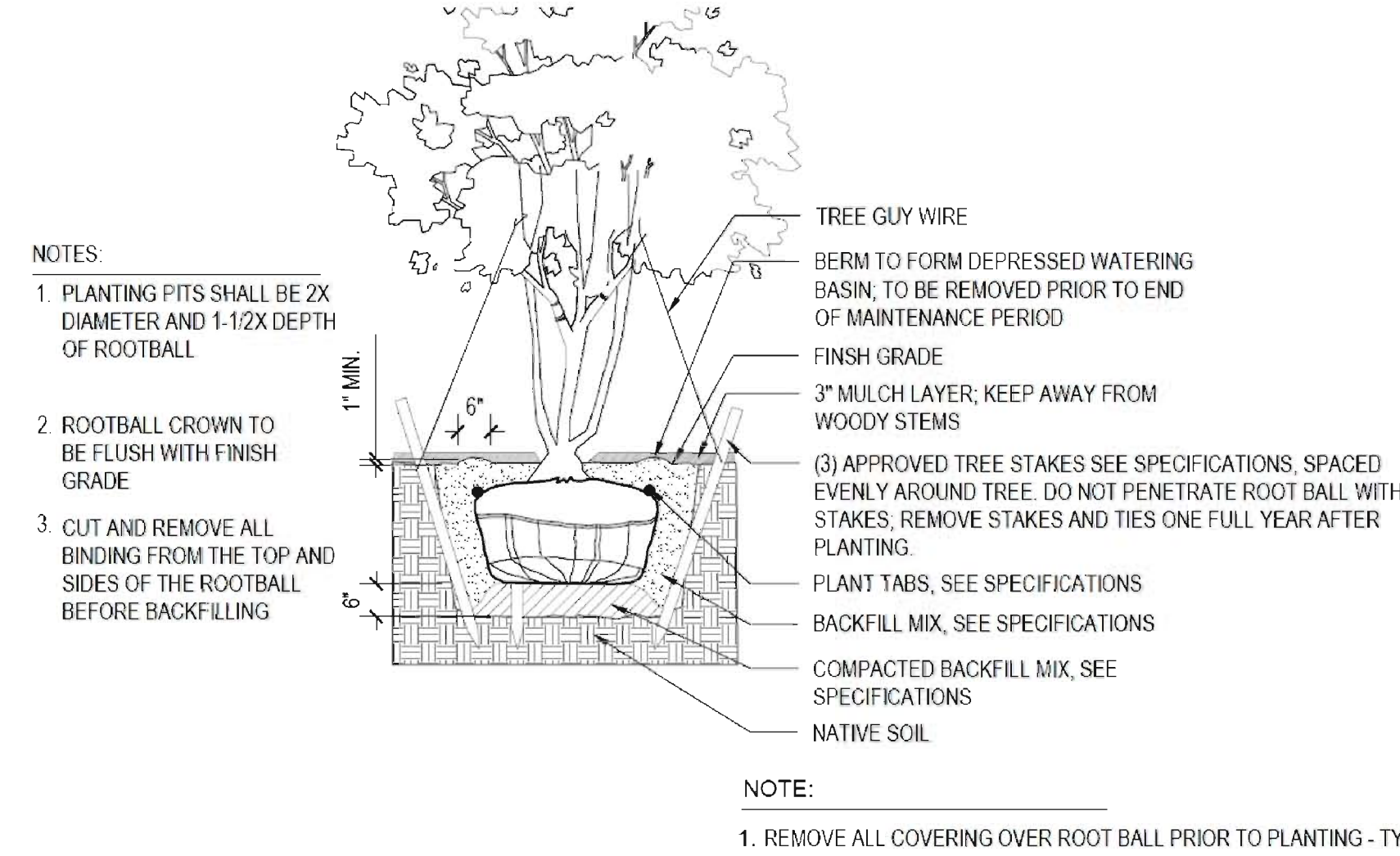
## 2 SOIL, AMENDMENT, MULCH PREPARATION



## 3 DECIDUOUS TREE PLANTING - VPS STANDARD

## 4 EVERGREEN TREE PLANTING - VPS STANDARD

## 5 SHRUB PLANTING - VPS STANDARD



## 6 MULTI-STEM TREE PLANTING - VPS STANDARD

## 7 MASS PLANTING (PERENNIAL, GROUNDCOVER, PLUG)

## 8 ROOT BARRIER FOR TREES NEAR PAVEMENT

## 9 PLUG PLANTING - VPS STANDARD

- GENERAL NOTES:**  
REFER TO CIVIL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL SITEWORK INFORMATION, INCLUDING UTILITY AND SITE FEATURE LOCATIONS.
- DO NOT PROCEED WITH PLANTING OPERATIONS WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN PROCESS. BRING SUCH CONDITIONS IMMEDIATELY TO ATTENTION OF OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. ASSUME FULL RESPONSIBILITY FOR COSTS INCURRED AND REQUIRED MODIFICATIONS DUE TO LACK OF PROVIDING SUCH NOTIFICATION.
  - ALL SOILS DISTURBED DURING CONSTRUCTION SHALL BE LOOSENED AND AMENDED PER SPECIFICATIONS. SUBSOIL SHALL BE LOOSENED 4" BELOW AMENDED LAYER (EXCEPT WHERE ROOT DAMAGE TO EXISTING TREES COULD OCCUR).
  - ENSURE THAT FINISH GRADE ELEVATIONS OF PLANTING AREAS ARE SET AT THE PROPER ELEVATIONS RELATIVE TO PAVING FINISH SURFACE ELEVATIONS, UTILITY COVERS AND CURBS. SHRUBS PLANTING AREAS AT 2" BELOW AND LAWN 1" BELOW ADJACENT GRADE. NOTIFY OWNER OF ANY DISCREPANCIES.
  - ASSURE POSITIVE DRAINAGE IN ALL PLANTING AREAS TO DRAIN AWAY FROM BUILDING, 2% MINIMUM.
  - PLANT MATERIAL (I.E. TREES, SHRUBS AND GROUNDCOVERS) MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION TO ENSURE SPECIES AND QUALITY. PLANT MATERIAL INSTALLED WITHOUT OWNER'S AUTHORIZED REPRESENTATIVE'S APPROVAL MAY BE SUBJECT TO REMOVAL AND REPLACEMENT WITH RELATED COSTS BORNE BY CONTRACTOR.
  - FINAL LOCATIONS OF PLANT MATERIALS ARE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. PERFORM THE FOLLOWING BEFORE BEGINNING PLANTING PIT EXCAVATION:
    - SHRUBS - PLACE ACTUAL PLANT CONTAINERS ON-SITE IN "FINAL" LOCATIONS.
    - STAKE CENTER OF TREE.

- PLANTING SHALL NOT BE PERFORMED UNTIL PRE-PLANTING SOIL AMENDMENTS ARE COMPLETE AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF PLANTING AREAS ON-SITE AND THOSE AREAS INDICATED ON DRAWINGS, CONTACT OWNER'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO OWNER'S REPRESENTATIVE IN A TIMELY FASHION MAY RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE PLANT MATERIALS OR AT WORST CASE, BECOME UNABLE TO CHARGE OWNER FOR PLANT MATERIAL ALREADY PLANTED.
- ALL PLANTING AREAS SHALL RECEIVE SOIL AMENDMENTS AND FINISH COMPOST PER DETAILS AND SPECIFICATIONS.
- AN AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED WITHIN ALL PLANTING AREAS PROVIDING HEAD TO HEAD COVERAGE.
- PROVIDE ROOT CONTROL BARRIERS FOR ALL TREES PLANTED WITHIN 5' OF A HARDSCAPE EDGE SUCH AS PAVING, CURBS, WALLS, STEPS, ETC. (REFER TO PLANTING DETAIL).
- INSTALL PLANT MATERIAL WITH ITS BEST SIDE FACING PREDOMINATE VIEW OF PUBLIC.
- PROVIDE THE PROPER SETBACK BETWEEN UTILITIES AND TREES - CONTACT OWNER'S REPRESENTATIVE TO COORDINATE WITH CITY INSPECTOR FOR REQUIRED SETBACKS IN THE CASE THAT THE DRAWINGS ARE NOT CLEAR.
- PRUNE DAMAGE MATERIALS PER SPECIFICATIONS TO MAINTAIN HEALTH AND VIGOR OF PLANTS.
- ENSURE ALL PLANT MATERIALS ARE KEPT PROTECTED FROM ADVERSE WEATHER AND CONSTRUCTION ACTIVITIES THAT WOULD AFFECT THE HEALTH OF THE PLANTS. KEEP WATERED UNTIL IRRIGATION SYSTEM IS INSTALLED TO MAINTAIN PLANT HEALTH.

**LSW ARCHITECTS**

LSW Architects, PC  
610 Esther St., Suite 200  
Vancouver, WA 98660  
360.694.8571  
LSWArchitects.com

**nature + play designs**  
PO BOX 666, VANCOUVER, WA 98666  
www.natureplaydesign.com  
(800)771-2025

**STATE OF WASHINGTON**  
LANDSCAPE ARCHITECT  
J. T. K. JTK  
drawn by  
checked by  
JTK

lsw job number  
2018-0029

## FIR GROVE CHILDREN'S CENTER VANCOUVER PUBLIC SCHOOLS 18TH ST & NORRIS RD VANCOUVER, WA, 98661

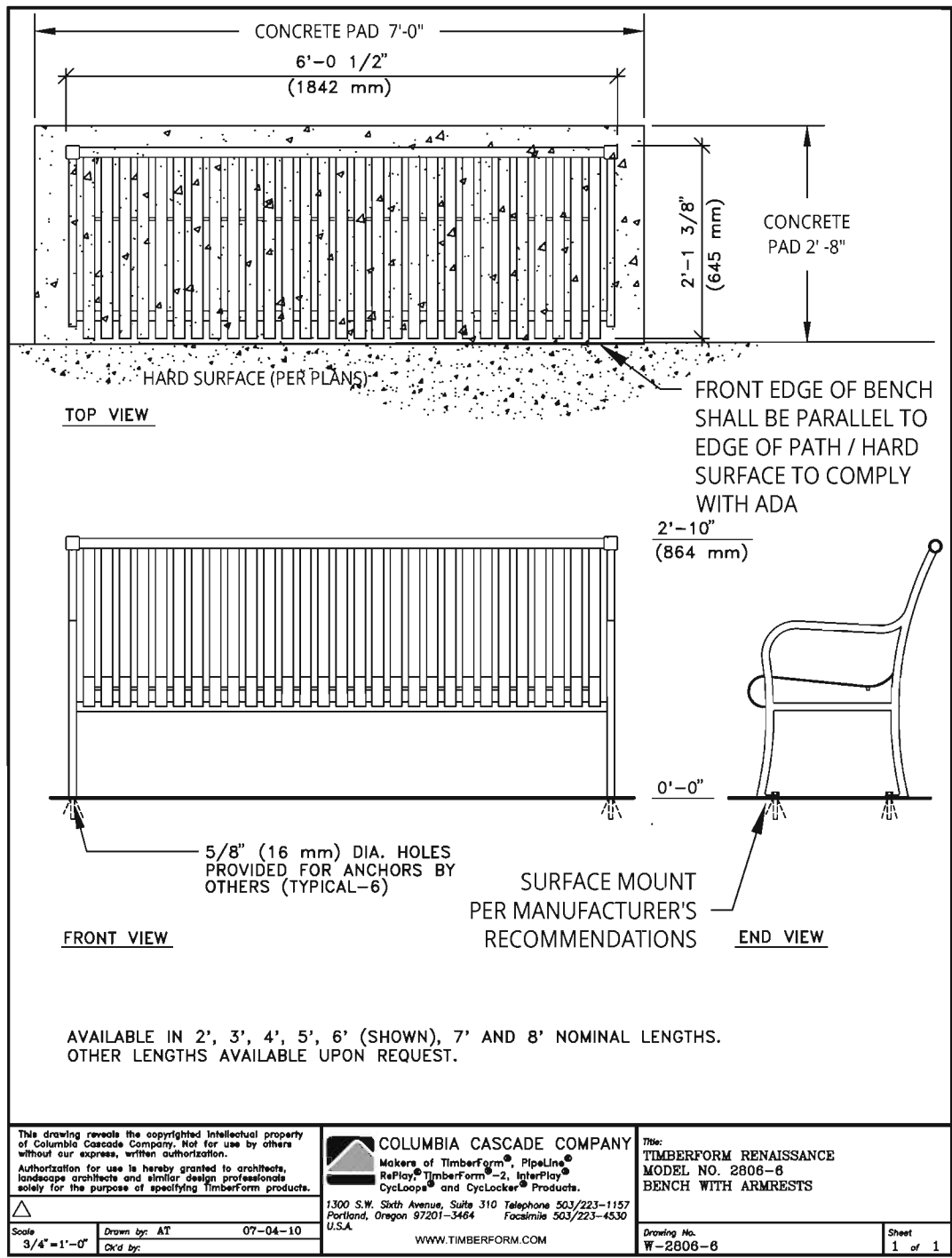
issue date  
**BID/PERMIT SET**  
**10/15/2019**  
revisions

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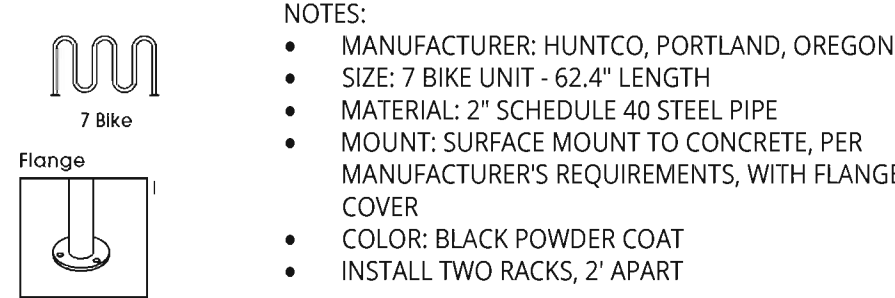
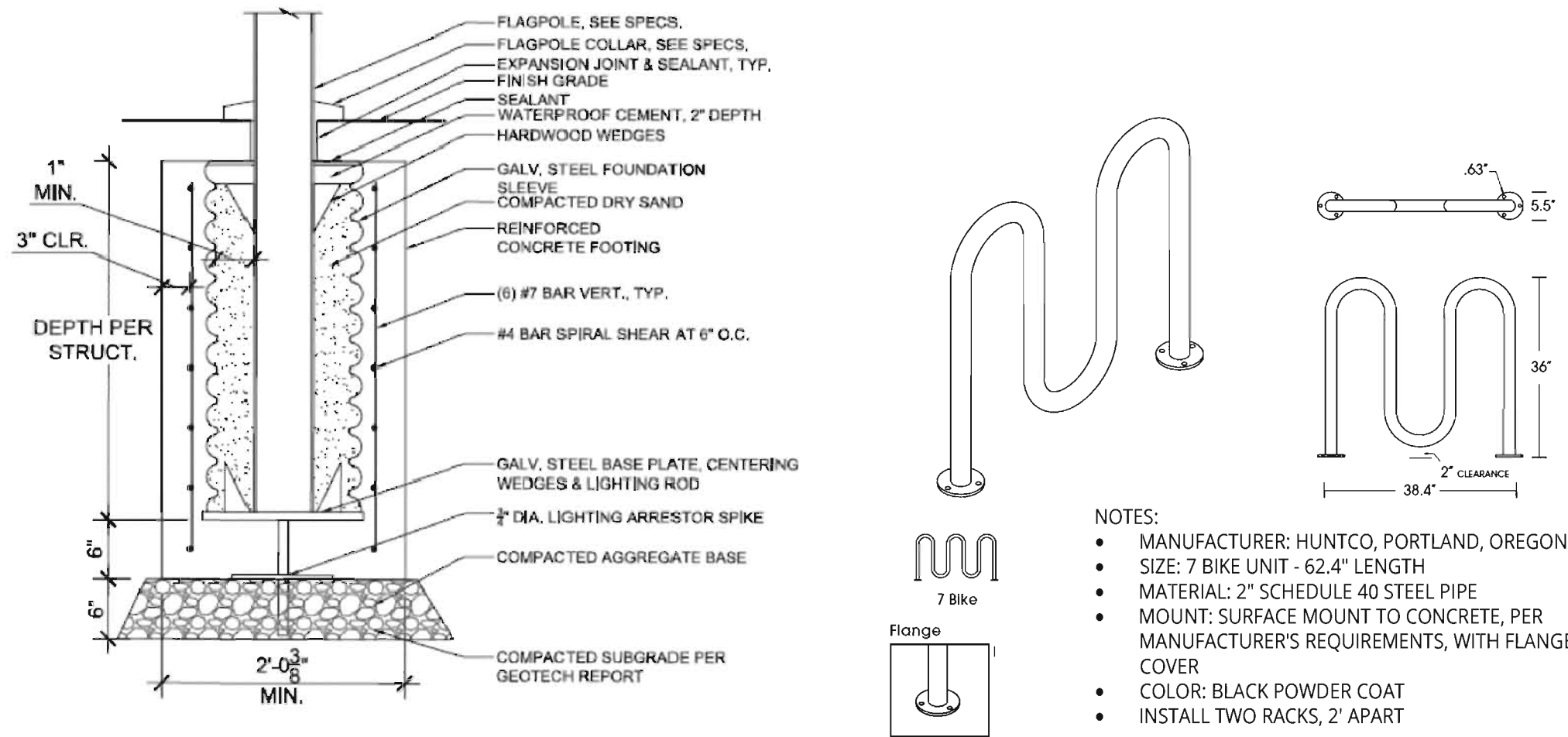
**PLANTING DETAILS**

## L-501

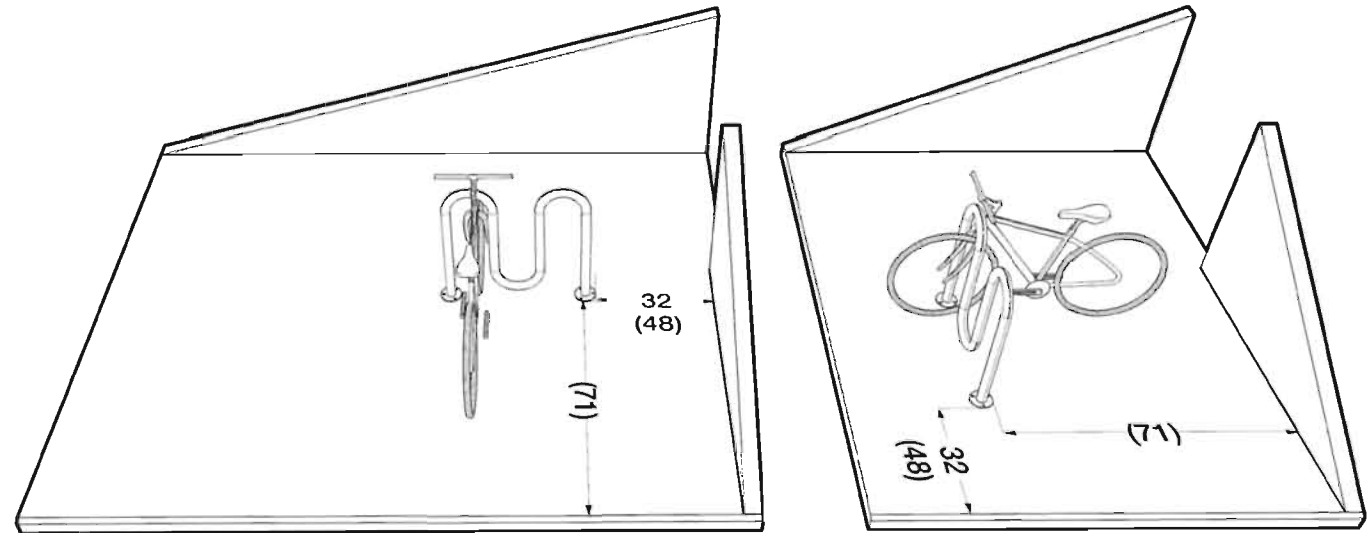
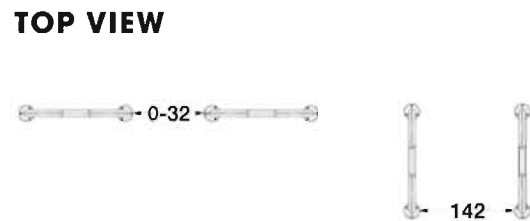




- NOTES:
- MANUFACTURER: COLUMBIA CASCADE, VANCOUVER
  - SIZE: 6' LENGTH
  - MATERIAL: STEEL
  - MOUNT: SURFACE MOUNT TO CONCRETE, PER MANUFACTURER'S REQUIREMENTS, WITH FLANGE COVER
  - COLOR: BLACK POWDER COAT



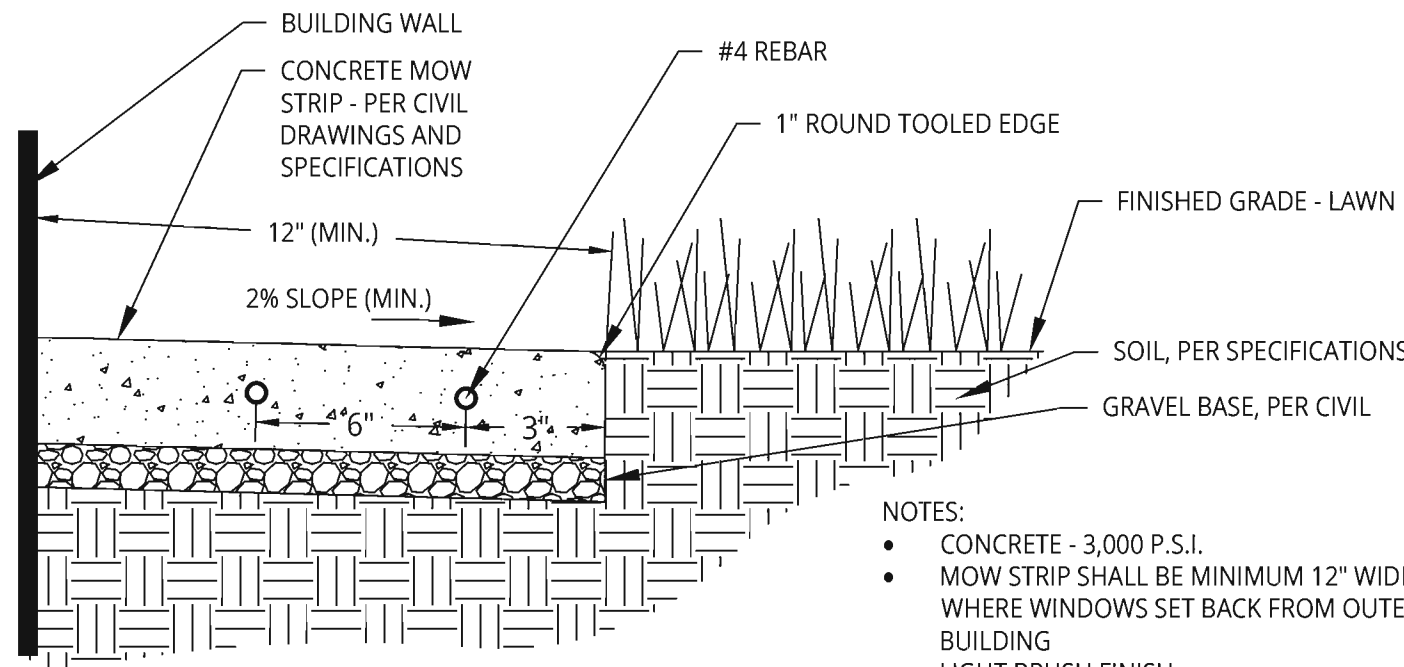
- NOTES:
- "Bike" is 70"
  - # Minimum Spacing (IN INCHES)
  - (#) Recommended Spacing (IN INCHES)



2 FLAGPOLE BASE / MOUNTING - VPS STANDARD  
L-502 NOT TO SCALE

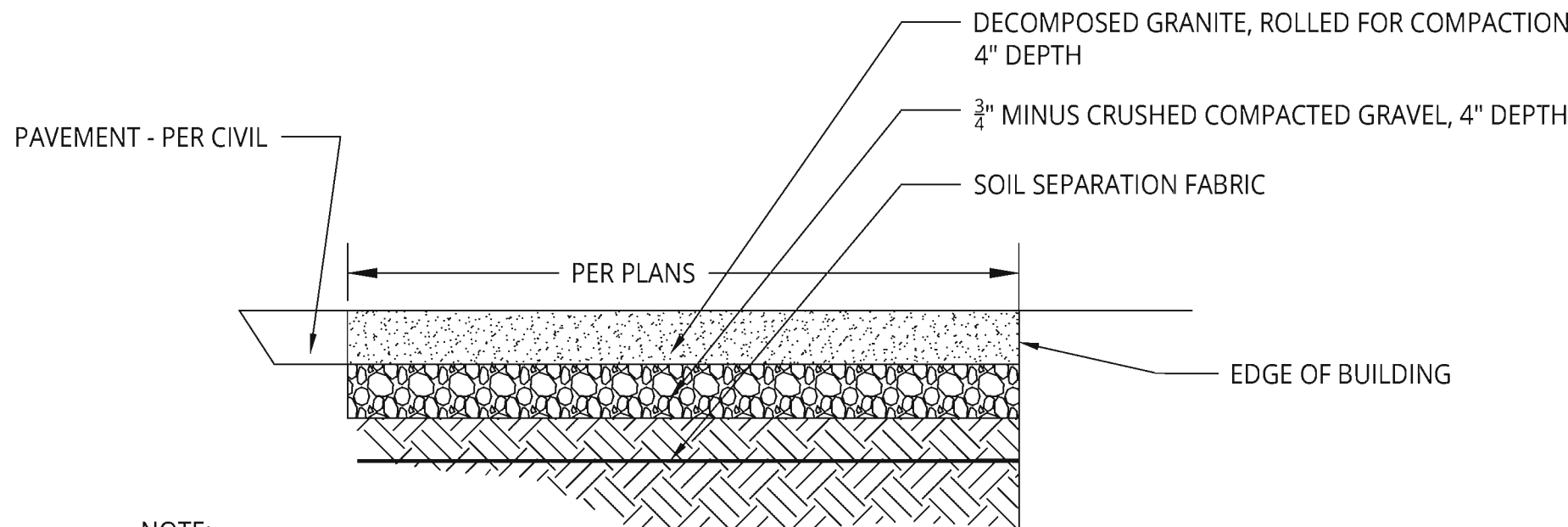
3 BIKE RACK  
L-502 NOT TO SCALE

1 BENCH  
L-502 NOT TO SCALE



- NOTES:
- CONCRETE - 3,000 P.S.I.
  - MOW STRIP SHALL BE MINIMUM 12" WIDE, MAY BE WIDER WHERE WINDOWS SET BACK FROM OUTER FACADE OF BUILDING
  - LIGHT BRUSH FINISH
  - SCORE CONTROL JOINT EVERY 10'

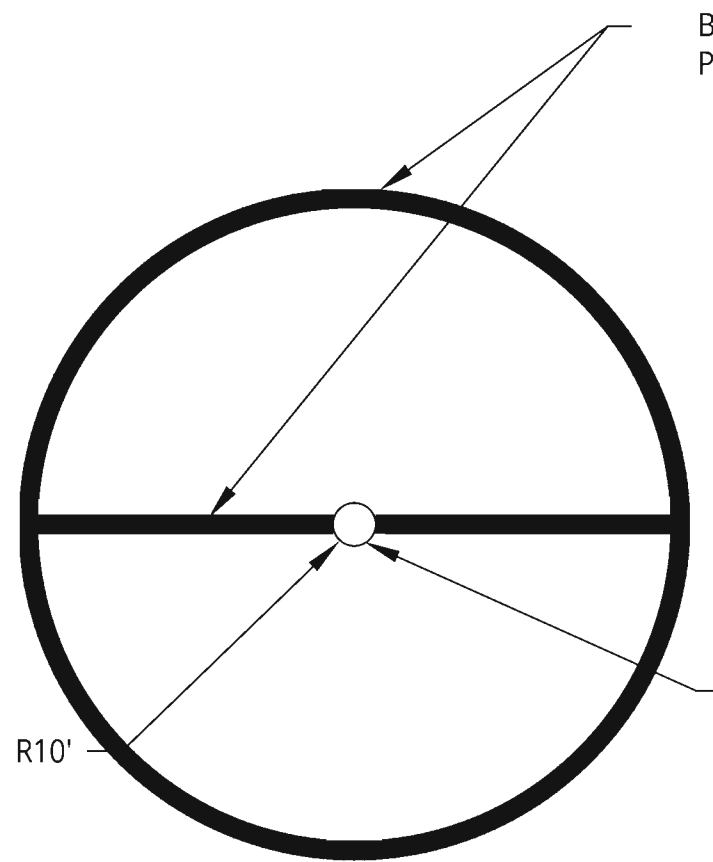
4 CONCRETE MOW STRIP ADJACENT TO BUILDING  
L-502 NOT TO SCALE



- NOTE:
- SURFACING FOR LEARNING COURTYARD PATH TO HOSE BIB - DIMENSIONS PER PLANS.
  - USE BINDING AGENT PER SPECIFICATIONS TO COMPACT AND BIND SURFACE TO PREVENT TRACKING OF MATERIAL.
  - FINAL SURFACE GRADE AND SLOPE TO COMPLY WITH ADA GUIDELINES, DRAIN AWAY FROM BUILDING FACE.
  - EDGING: EDGE OF PAVEMENT WHERE SHOWN ON PLANS OR FLUSH CONCRETE CURB PER CIVIL PLANS.

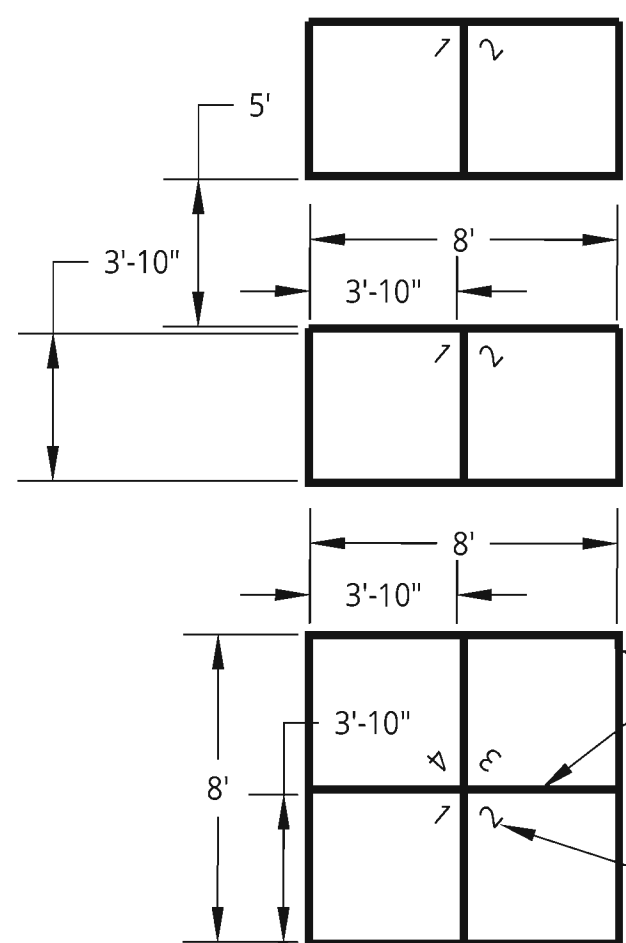
5 CRUSHED GRAVEL PATH  
L-502 NOT TO SCALE





BOUNDARY AND CENTER LINE SHALL BE 4" WIDE SOLID WHITE PAINTED LINES WITH ASPHALT PAVEMENT PAINT

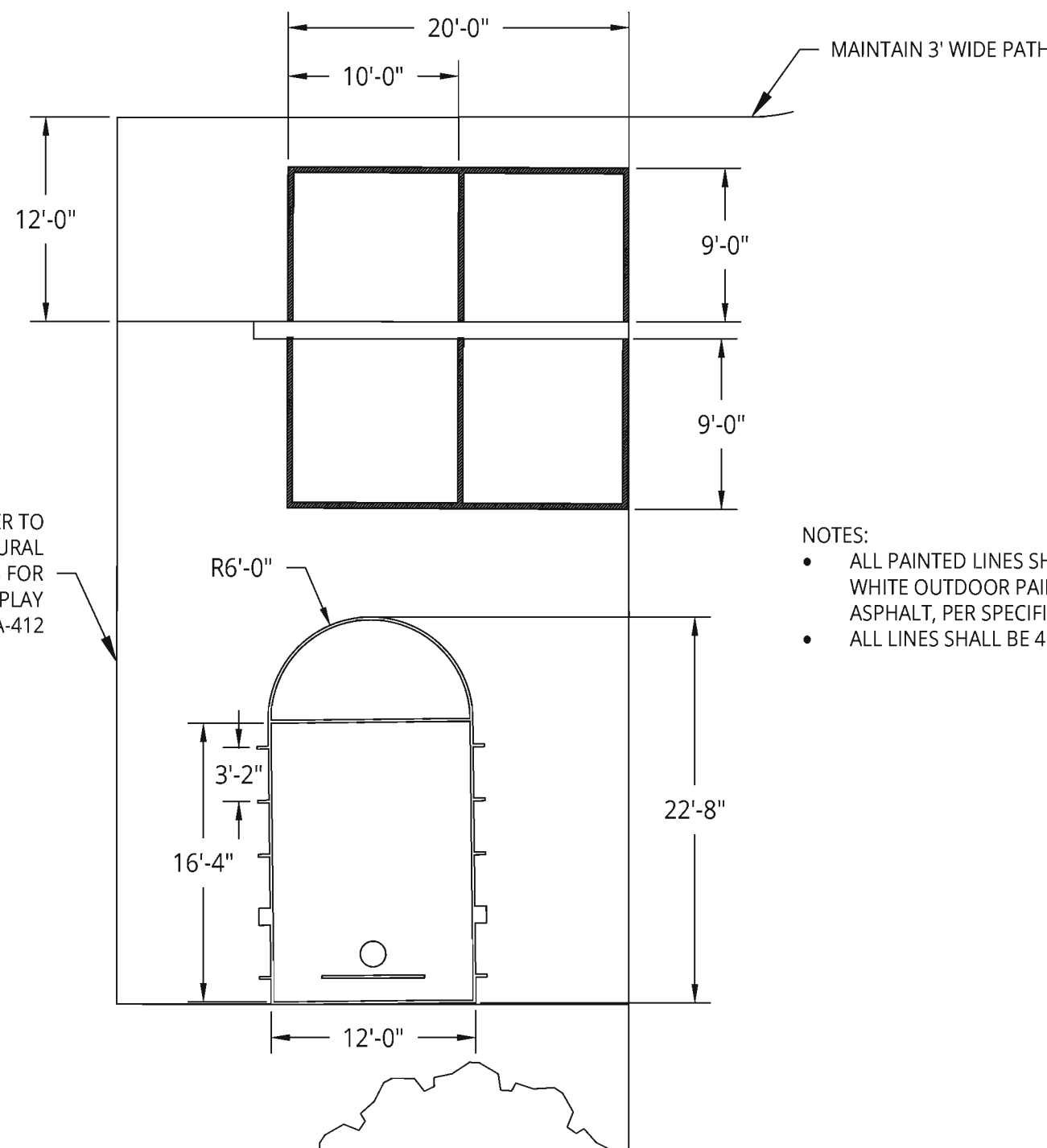
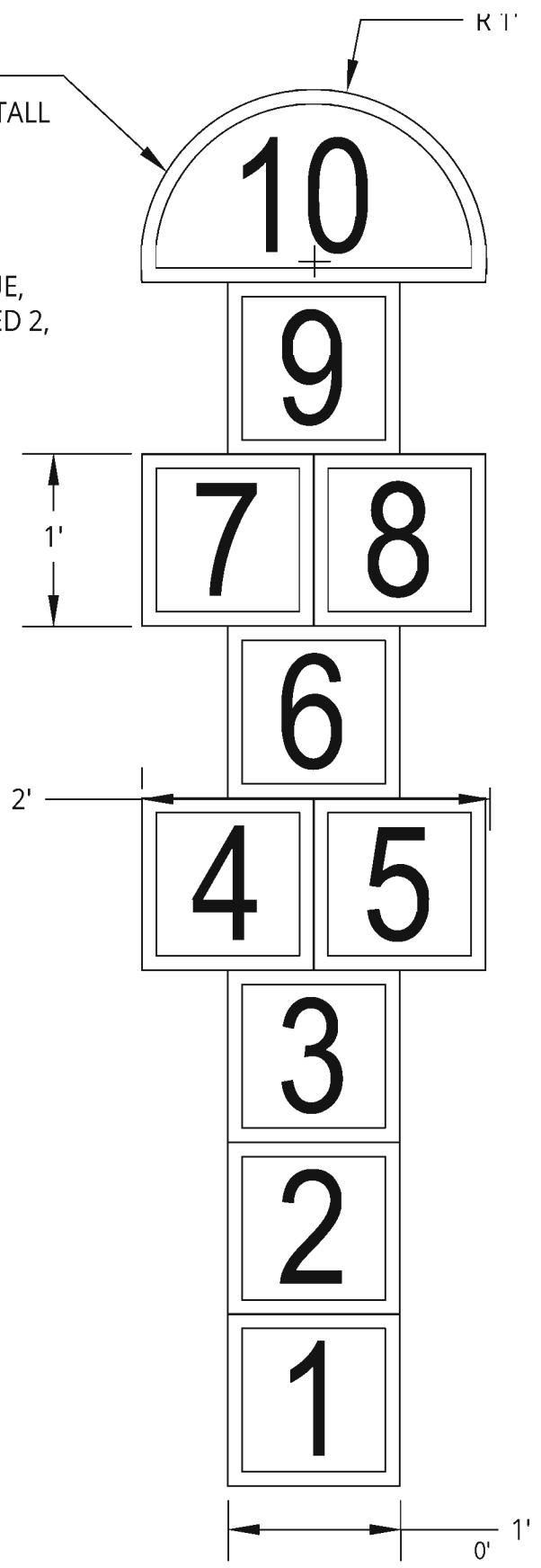
TETHERBALL POST SHALL BE CONSTRUCTED OF 2 3/8" O.D. X 13 GAUGE WALL GALVANIZED STEEL TUBING. BASE OF POST SHALL HAVE A PLATE WELDED TO ENSURE POST DOES NOT SPIN WHEN INSTALLED IN A CONCRETE FOOTING. THE POST SHALL BE A TOTAL OF 12 FEET LONG WITH 2 FEET IN GROUND IN THE CONCRETE FOOTING, INSTALLED PER MANUFACTURERS INSTRUCTIONS. (TYP.)



BOUNDARY AND CENTER LINES SHALL BE 4" WIDE SOLID WHITE PAINTED LINES WITH ASPHALT PAVEMENT PAINT (TYP.)

NUMBERS SHALL BE 2" WIDE WHITE ASPHALT PAVEMENT PAINT, 8" TALL, ARIAL FONT (TYP.)

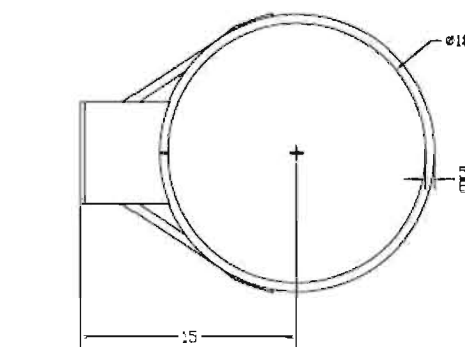
- HOPSCOTCH:
- ARIAL NARROW FONT - 8" TALL NUMBERS
  - BORDER - WHITE PAINT 1" WIDE
  - INTERIOR BOX COLOR ALTERNATES RED AND BLUE, STARTING WITH BLUE 1, RED 2, ETC.



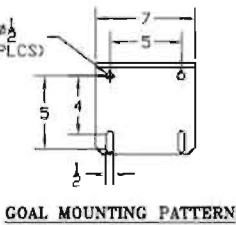
- NOTES:
- ALL PAINTED LINES SHALL BE WHITE OUTDOOR PAINT FOR ASPHALT, PER SPECIFICATIONS
  - ALL LINES SHALL BE 4" WIDE

## STEEL BACKBOARD

PART# 0413082



SPALDING



## ROUGHNECK GORILLA GOAL

DO NOT SCALE MODEL # 0411556

SPALDING

NOTE: UTILIZE SPALDING BRAND MOUNTING BRACKET TO ATTACH TO POST 8406S MODEL.

### SPALDING SPECIFICATIONS

DATE: 01/01/06

MODEL NUMBER: 411556

DESCRIPTION: Roughneck Gorilla Goal

#### SPECIFICATIONS:

Fixed rim shall be made of 5/8" round alloy steel to make an 18" inside diameter ring.  
Goal shall have 5/8" cold rolled steel braces for superior strength.  
Goal shall have "T-Tie" net attachments for heavy duty loads.  
Goal shall be electrostatically powder coated orange.  
Nylon net and mounting hardware included.  
Goal shall have a universal mounting pattern (5" x 5" and 5" x 4") for attachment to any backboard with these mounting dimensions.  
Goal shall have an unconditional lifetime warranty. Warranty not valid if used in a way not intended.  
Shipping weight: 16 lbs.

### SPALDING SPECIFICATIONS

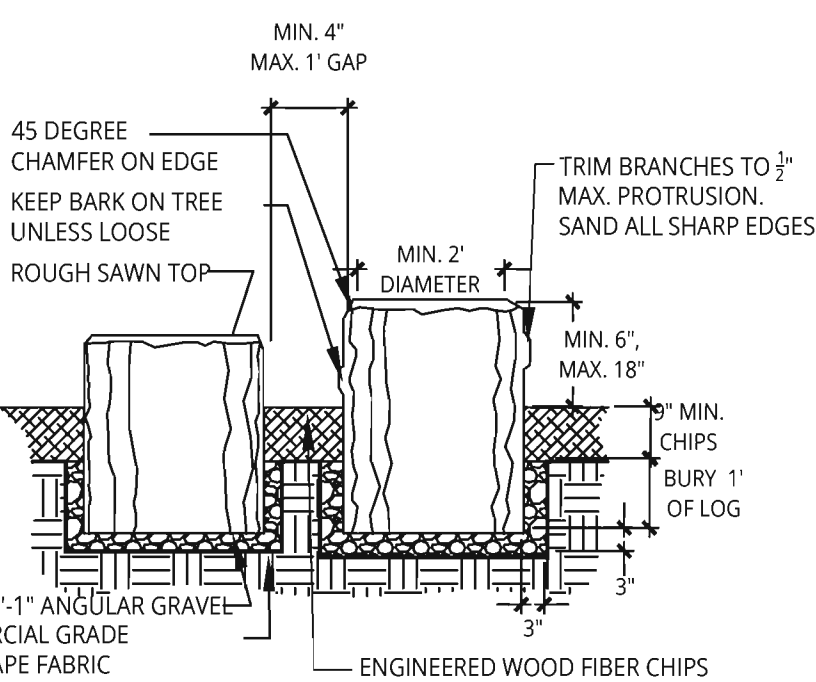
DATE: 01/01/06

MODEL NUMBER: 411556

DESCRIPTION: Steel Backboard

#### SPECIFICATIONS:

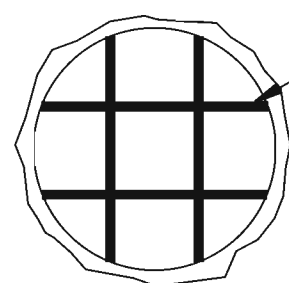
Backboard shall be regulation size 45" x 72".  
The backboard shall be constructed from a single piece of 12 gauge steel. The steel shall have a 1-1/2" deep flange.  
Rigid channel reinforcements welded on the back of the board make it a durable and vibration free unit.  
Horizontal channels have key-hole slots with bolt keeper on 30" vertical and 63" horizontal centers for mounting the board.  
The backboard shall be front mount style, using front mount style goals. The goal mounting pattern shall be 5" x 4" on center.  
The backboard shall be seven channel and phosphate treated to ensure an ideal paint to metal bond. The backboard shall be finished with a white electrostatically applied powder coat finish. Can be supplied with a graphite-resistant polymer in the finish at an additional charge.  
The backboard shall have a 5 year warranty. The warranty is extended to lifetime on direct mounts.  
Shipping weight: 135 lbs.



## B - NATURE PLAY LOGS - SECTION VIEW

NOT TO SCALE

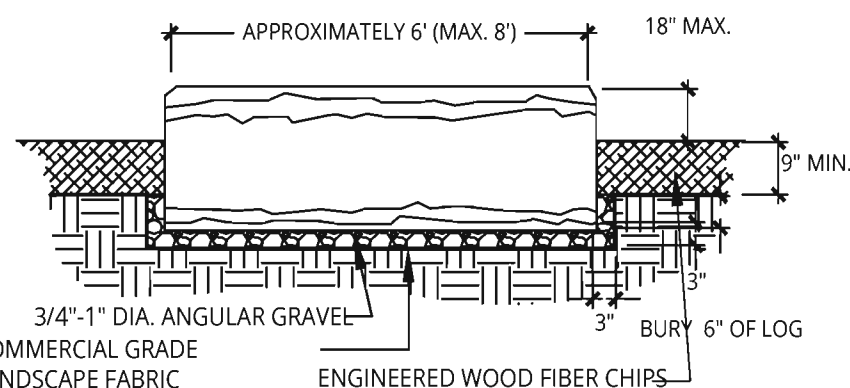
- NOTE:
1. FOR LOGS, USE HARDWOOD SALVAGED FROM SITE OR APPROVED EQUIVALENT SUCH AS FIR OR OAK.
  2. DO NOT REMOVE BARK EXCEPT AS SHOWN IN THESE DETAILS (TOP OF NATURE PLAY LOGS OK TO REMOVE).
  3. REMOVE ALL BRANCHES AND PROTRUSIONS FLUSH WITH TRUNK AND SAND ALL SHARP EDGES.
  4. TREE SHOULD BE FREE OF ROT, FUNGUS OR DAMAGE THAT AFFECTS THE INTEGRITY OF THE LOGS.
  5. LOGS SHALL BE EVENLY SET ON BASE WITH NO TIPPING OR ROCKING MOTION.



WHITE ACRYLIC PAINT, 1" WIDE LINES (TYP.)  
SEAL TOP OF LOG WITH CLEAR SEALER, PER MANUFACTURER'S RECOMMENDATIONS

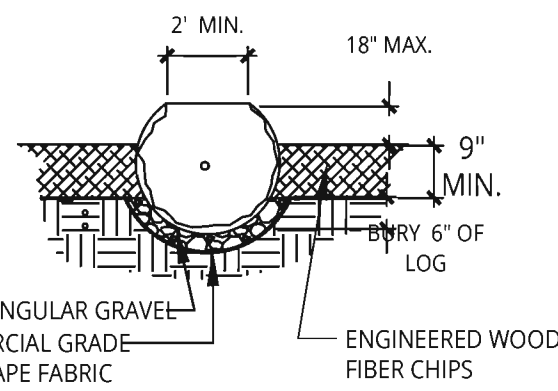
## C - TIC TAC TOE LOG - PLAN VIEW

NOT TO SCALE



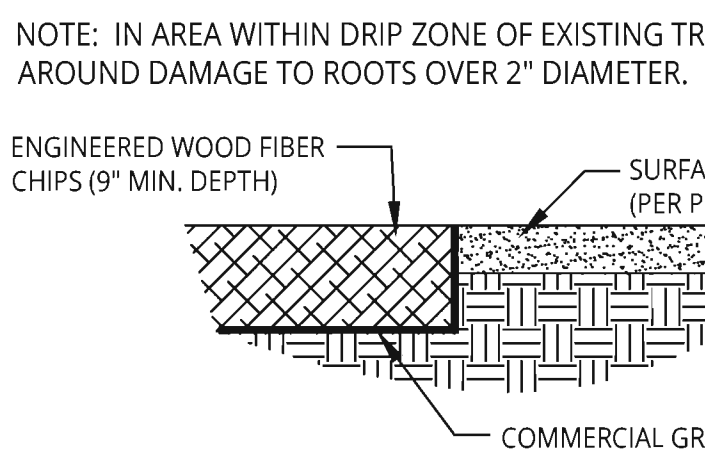
## D - NATURE PLAY LOGS - SECTION VIEW

NOT TO SCALE



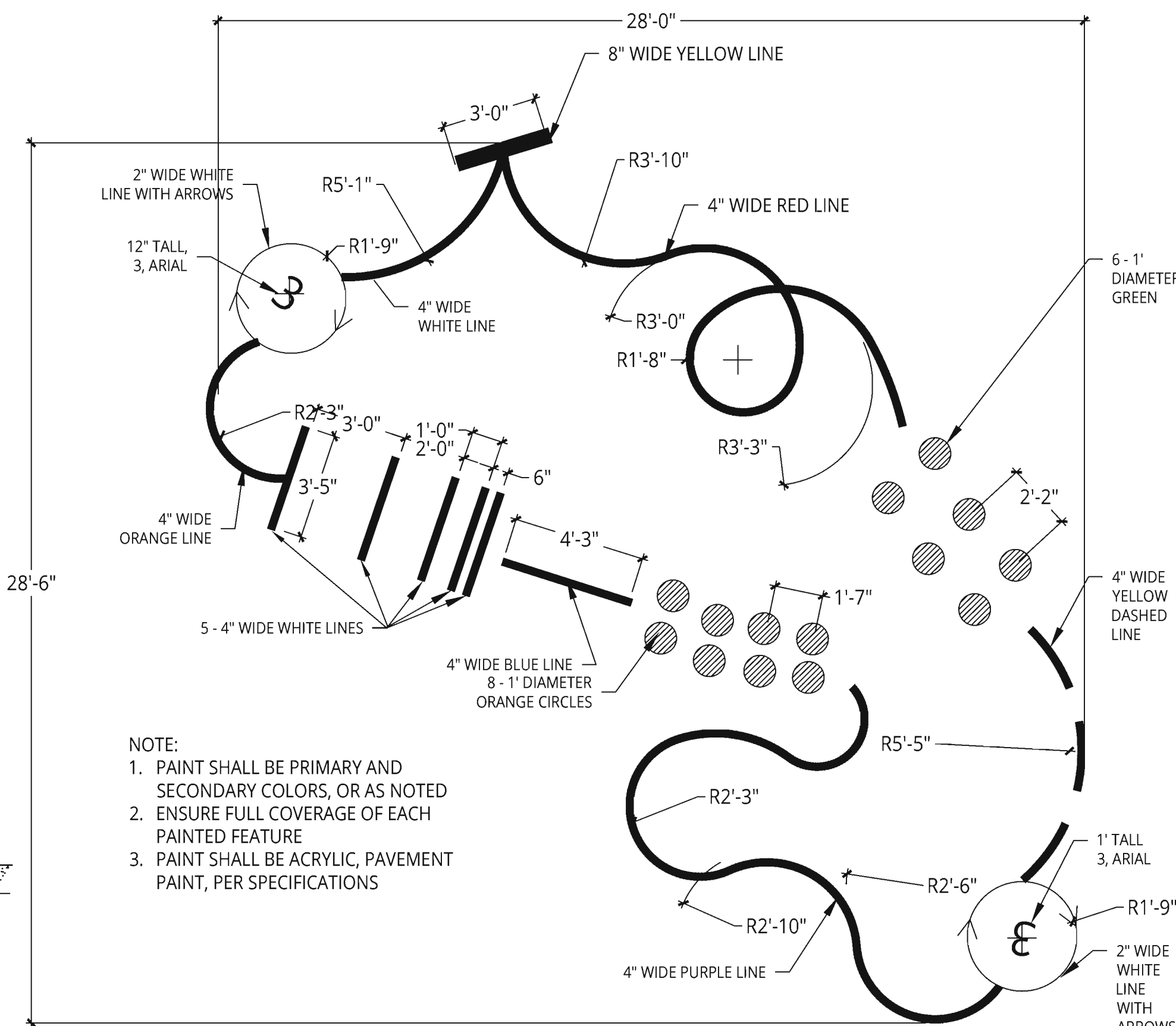
## E - NATURE PLAY LOGS - SECTION VIEW

NOT TO SCALE



## F - SURFACING - SECTION VIEW

NOT TO SCALE



- NOTE:
1. PAINT SHALL BE PRIMARY AND SECONDARY COLORS, OR AS NOTED
  2. ENSURE FULL COVERAGE OF EACH PAINTED FEATURE
  3. PAINT SHALL BE ACRYLIC, PAVEMENT PAINT, PER SPECIFICATIONS

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JTK  
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lsw job number  
2018-0029

FIR GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
18TH ST & NORRIS RD  
VANCOUVER, WA, 98661

issue date

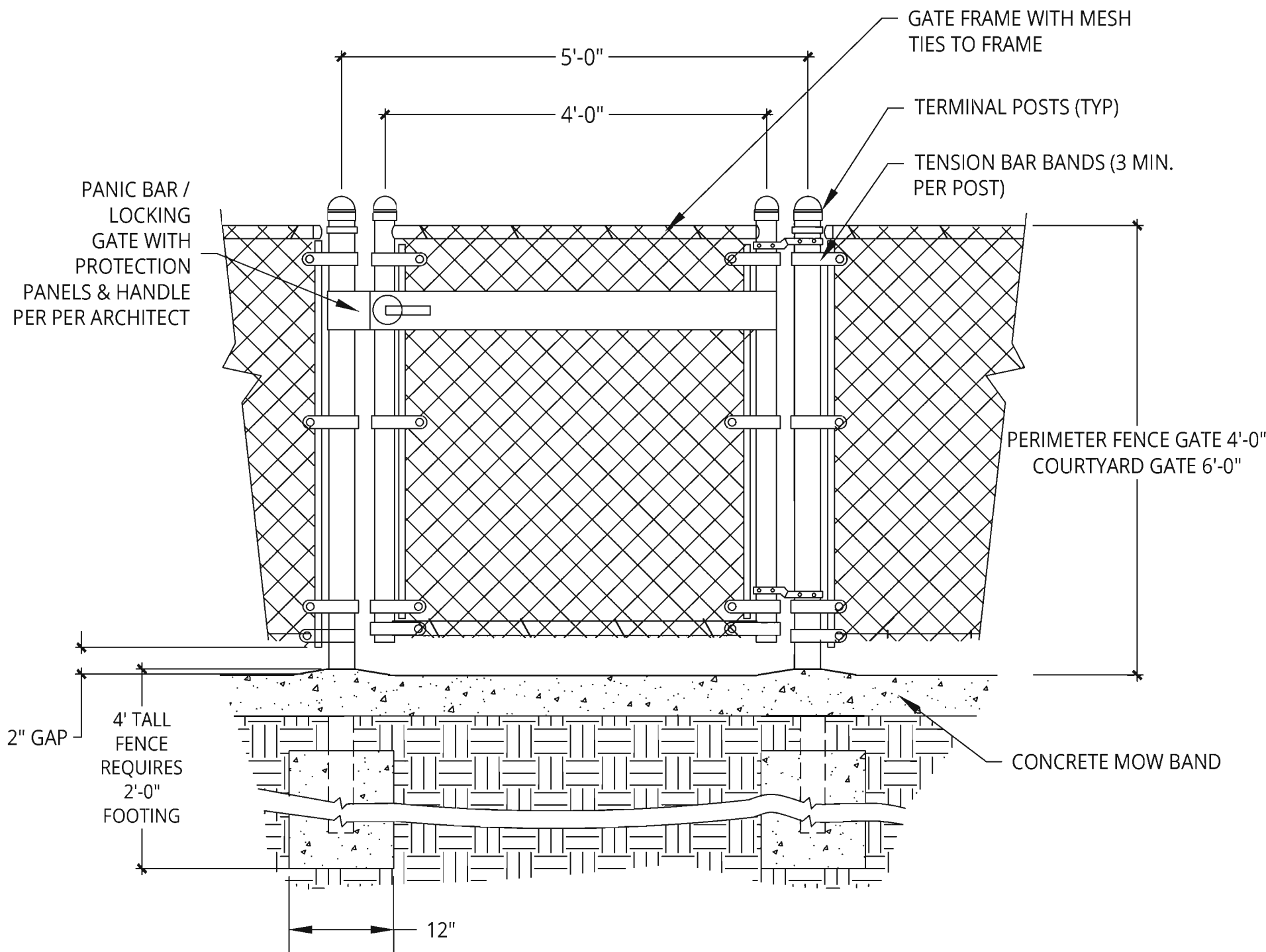
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PLAY FEATURES  
DETAILS

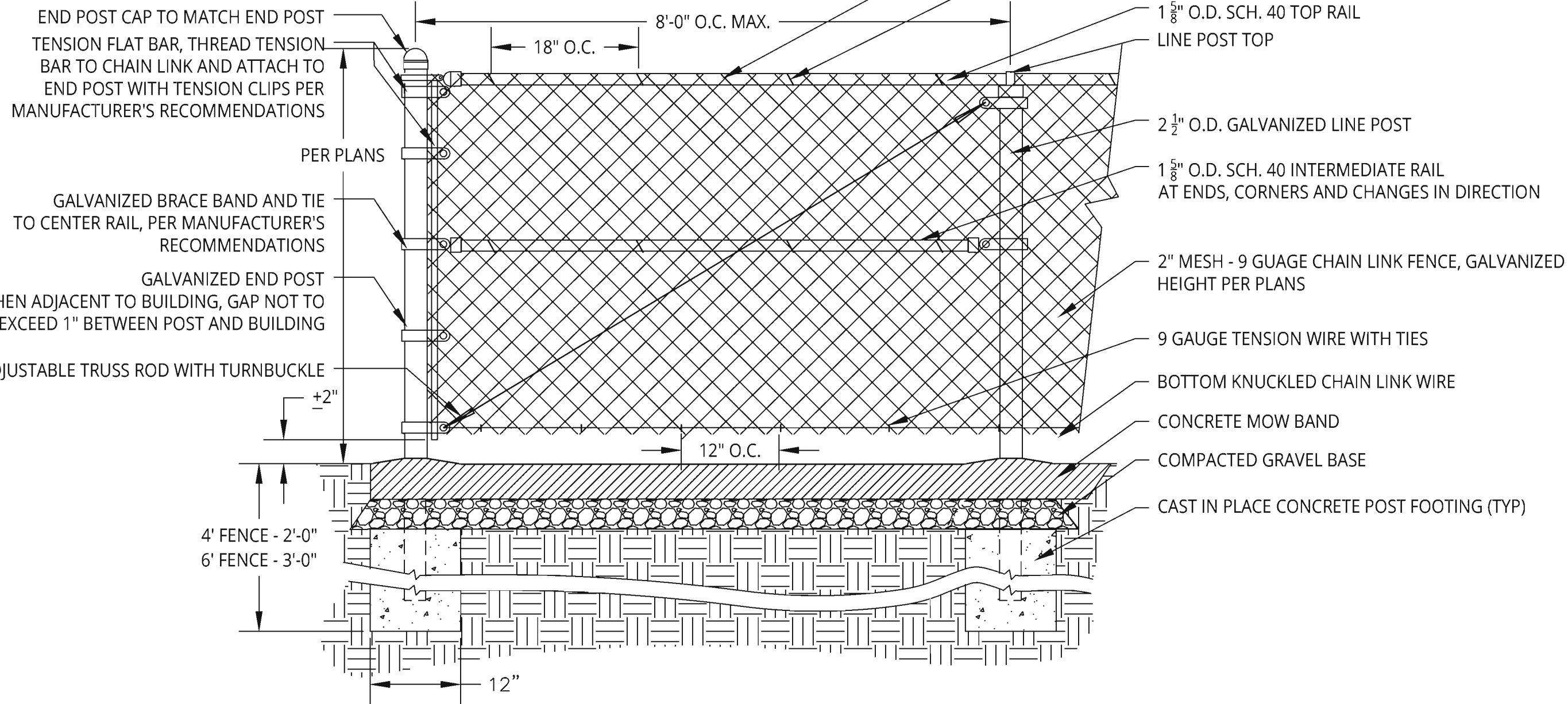




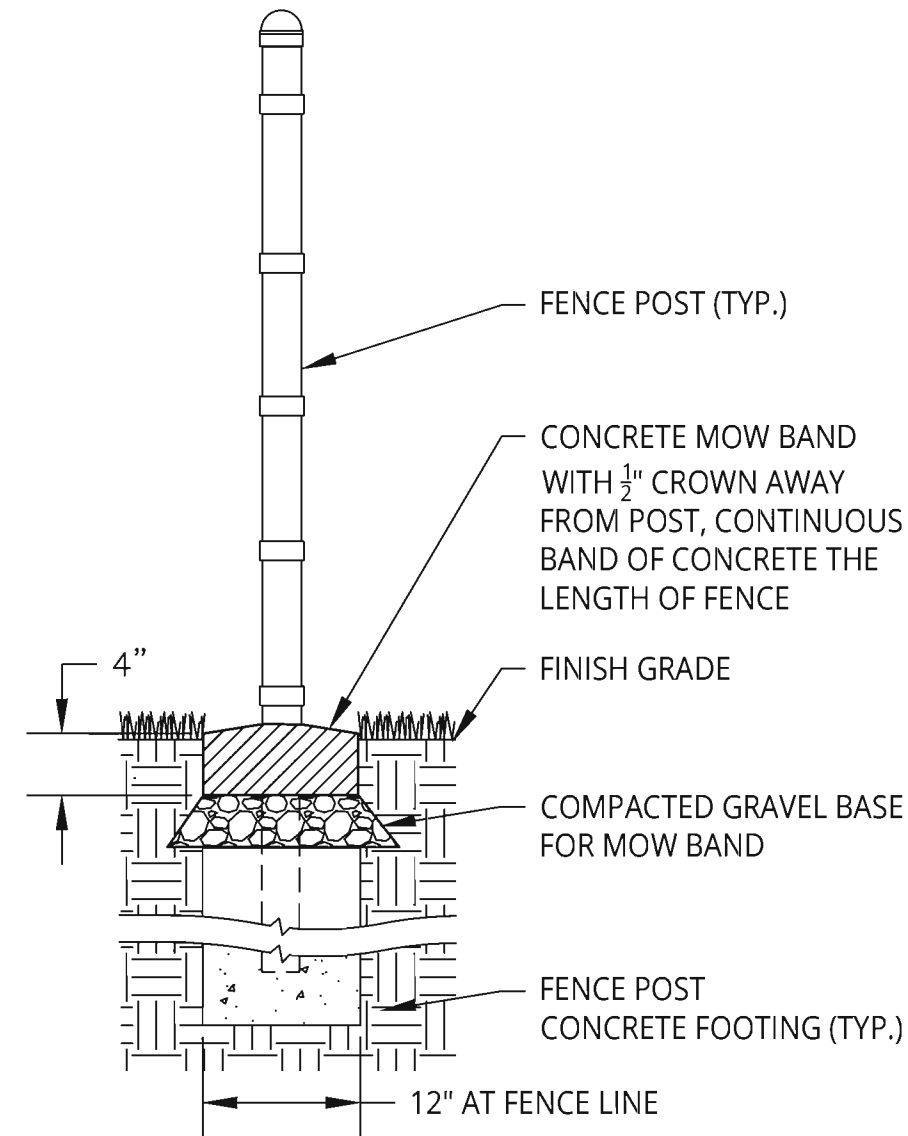
1  
L-504  
PEDESTRIAN CHAIN LINK GATE  
NOT TO SCALE

NOTES:

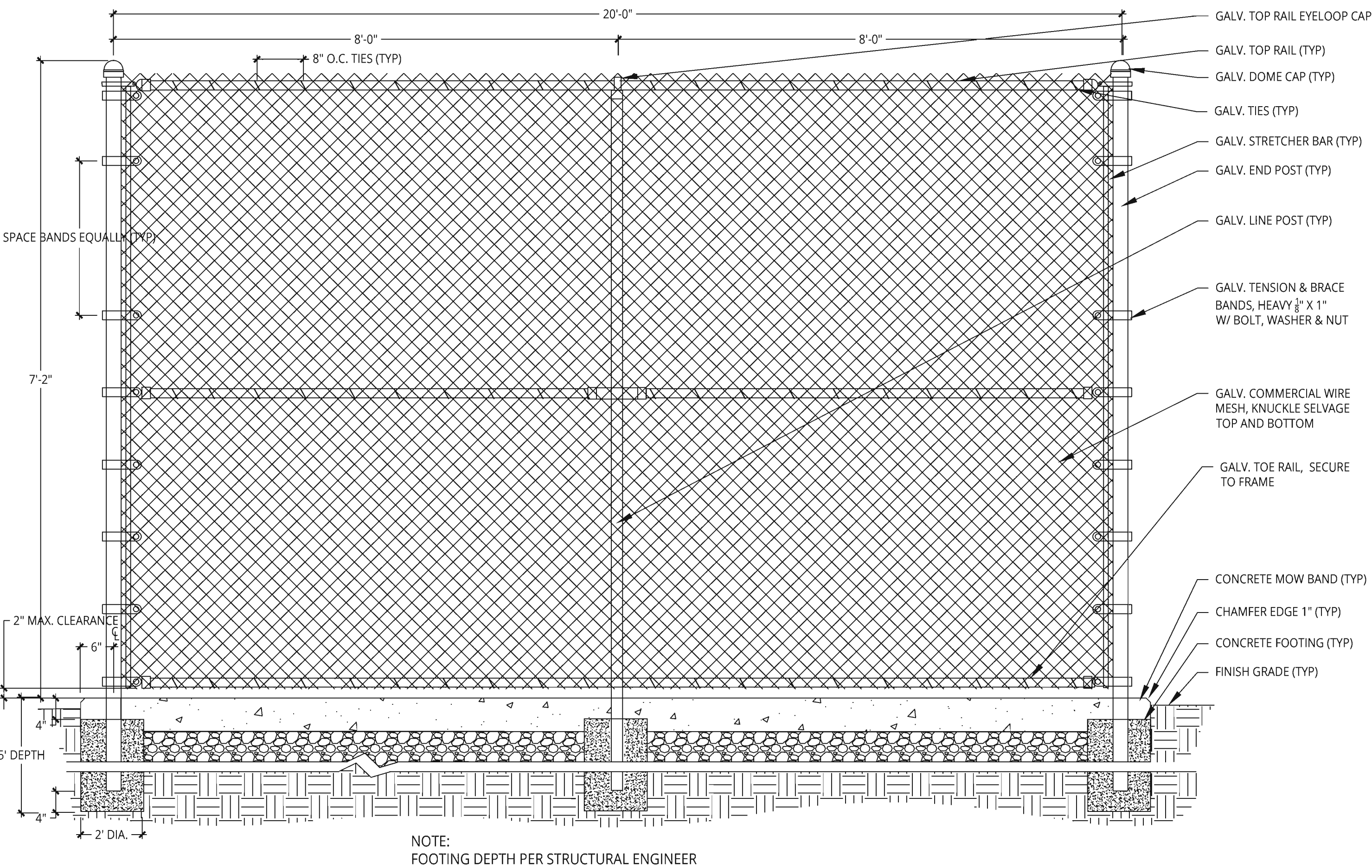
- CONCRETE FOOTINGS SHALL BE 2,500 P.S.I. CONCRETE
- NOTE THE VARIOUS FOOTING DEPTH BASED ON HEIGHT OF FENCE
- ALL FOOTINGS SHALL BE POURED AGAINST COMPACTED FILL OR FIRM UNDISTURBED NATIVE SOIL
- ALL FENCING AND COMPONENTS TO BE GALVANIZED STEEL
- REFER TO CIVIL AND STRUCTURAL ENGINEER FOR ADDITIONAL INFORMATION, AS NOTED
- GENERATOR AND TRASH ENCLOSURES TO INCLUDE PRIVACY SLATS, SECURED, PER SPECIFICATIONS
- REFER TO A-410 FOR GATES/FENCE AT TRASH ENCLOSURE
- ALL PERIMETER FENCE TO BE 4'-0" TALL ABOVE FINISH GRADE; GENERATOR PERIMETER 6'-0" TALL ABOVE GRADE
- GENERATOR FENCE/GATE TO HAVE LOCK-TOP STYLE PRIVACY SLATS - COLOR TO BE SELECTED FROM MANUFACTURER'S STANDARD FINISHES



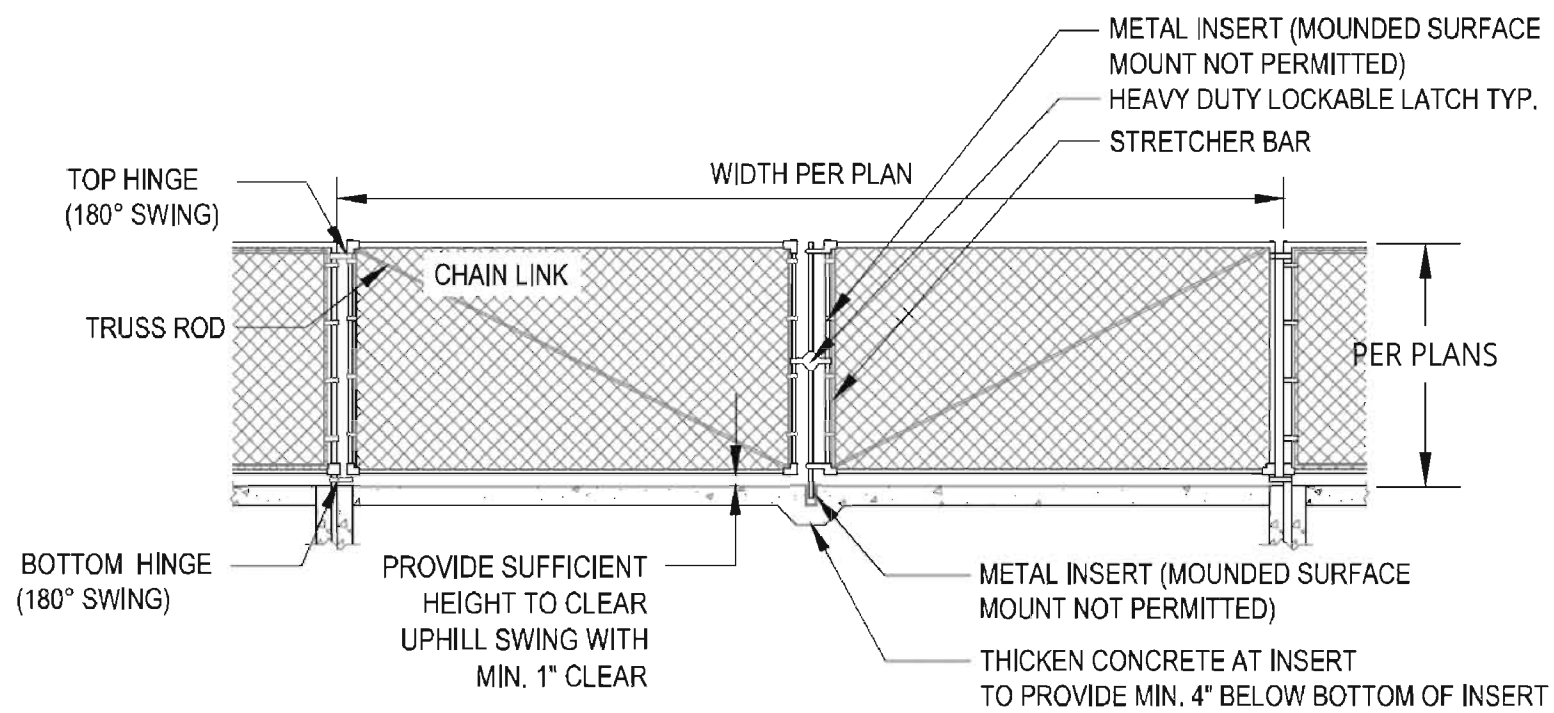
2  
L-504  
GALVANIZED CHAIN LINK FENCE  
NOT TO SCALE



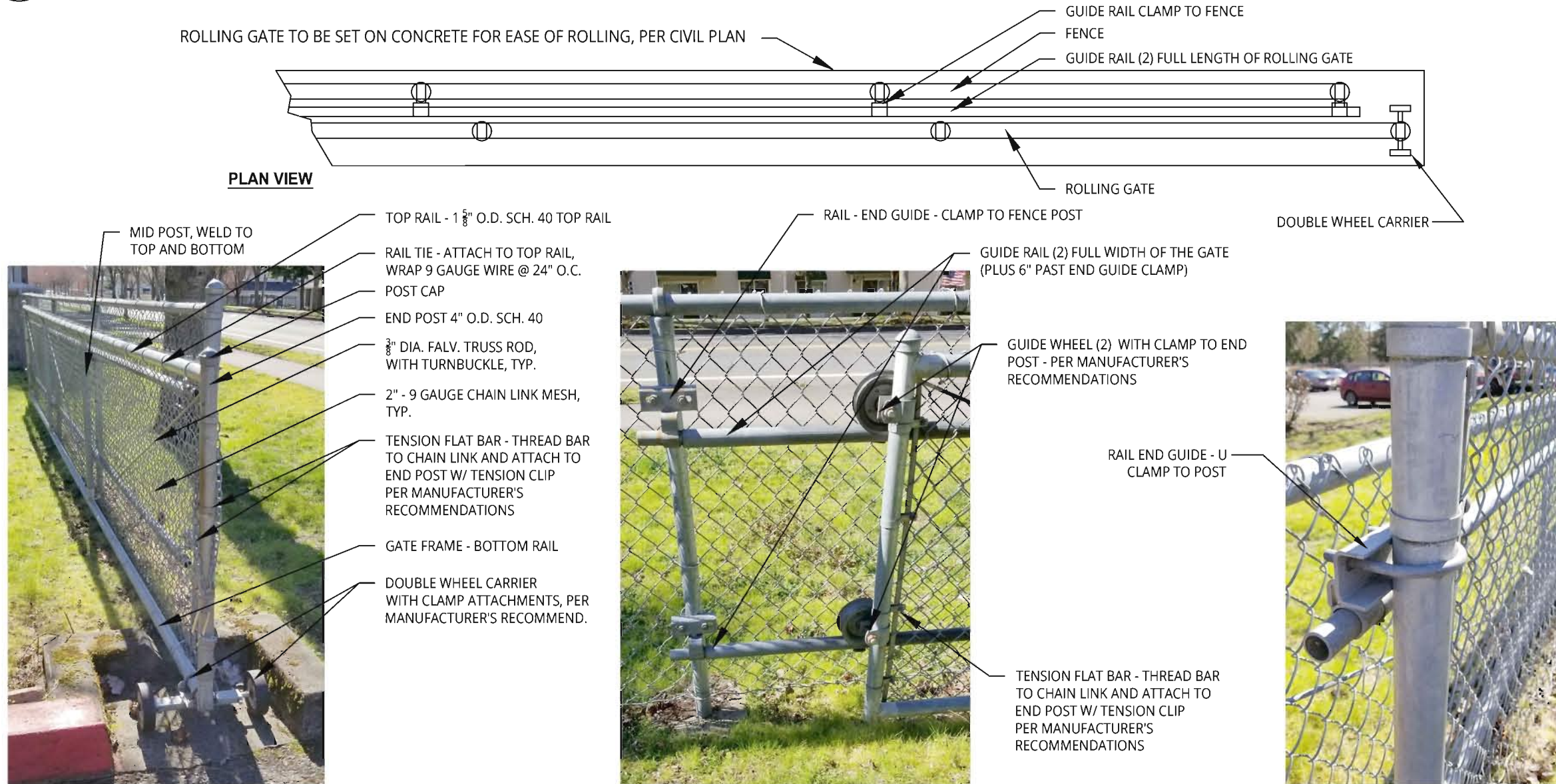
3  
L-504  
CONCRETE MOW STRIP AT FENCE  
NOT TO SCALE



4  
L-504  
CHAIN LINK BACK STOP  
NOT TO SCALE



5  
L-504  
CHAIN LINK DOUBLE SWING MAINTENANCE GATE - VPS STANDARD  
NOT TO SCALE



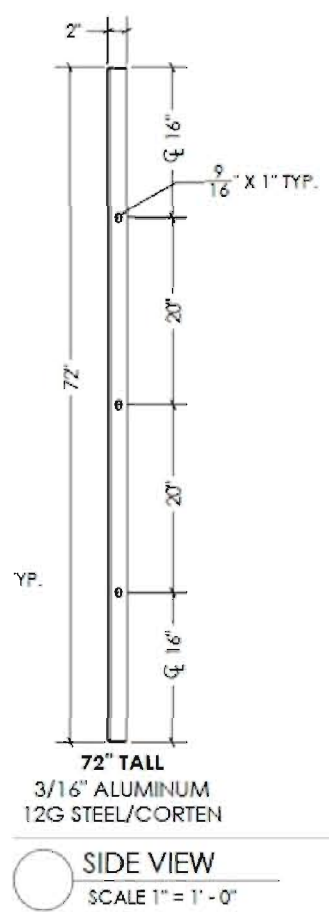
6  
L-504  
4' TALL ROLLING EMERGENCY ACCESS GATE  
NOT TO SCALE

ALL ROLLING GATES WILL BE MOUNTED OVER CONCRETE MOW BAND.

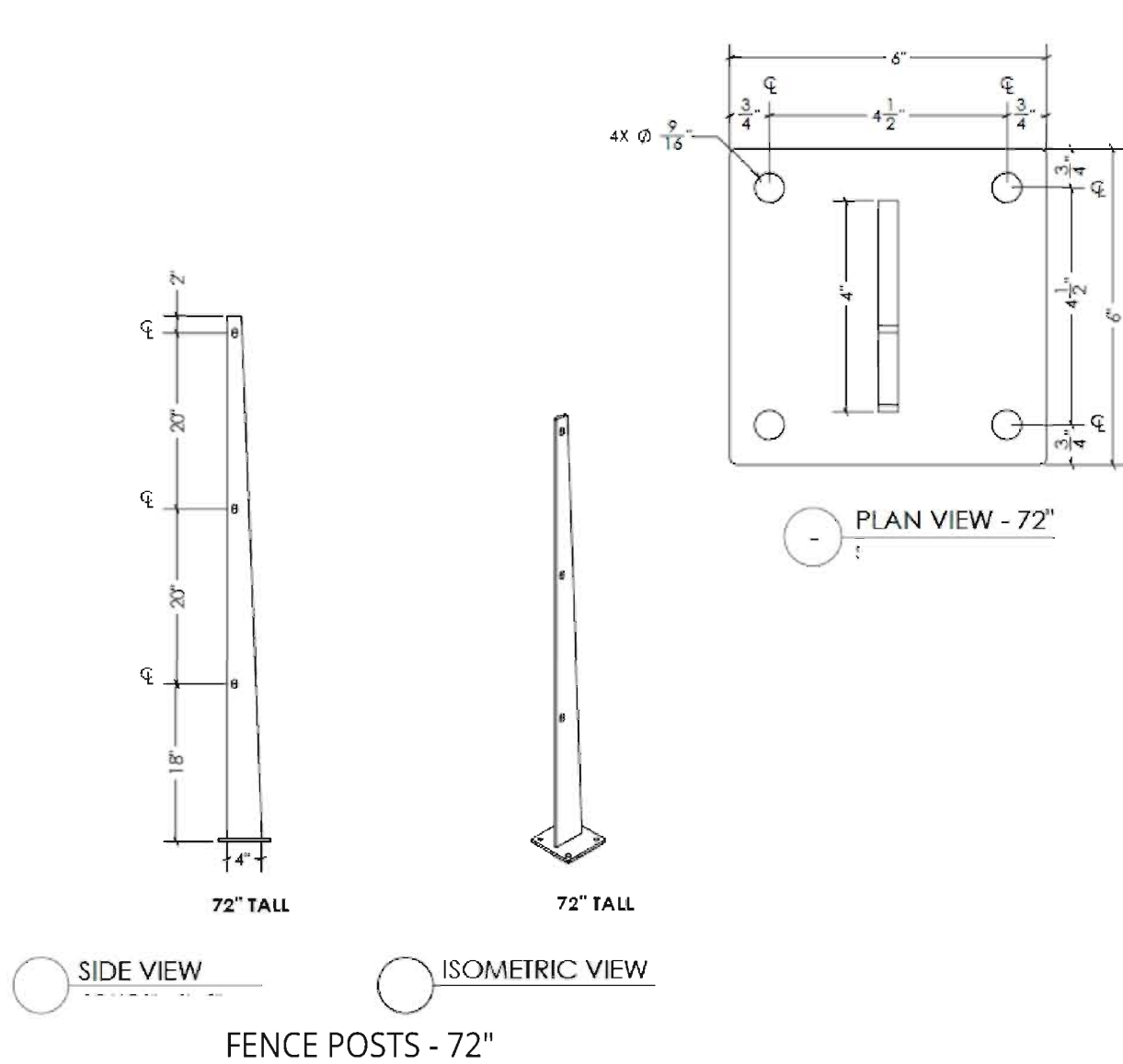




**FENCE A1**  
QUANTITIES SHOWN FOR  
SINGLE POST (SPACED  
EVERY 4')



PART NO.		SHEET NO.		PART		DESCRIPTION		WIDTH	HEIGHT	DEPTH	THICKNESS	MATERIAL	FINISH
1	0.5	FENCE PANEL	4 BEND PANEL (ALUMINUM OPTION)	48"	72"	2"	3/16"					ALUMINUM	TD + PRIMER
2	0.5	FENCE PANEL	4 BEND PANEL (STEEL OPTION)	48"	72"	2"	12 GAUGE					STEEL	TD + PRIMER
3	0.5	FENCE PANEL	4 BEND PANEL (CORTEN OPTION)	48"	72"	2"	12 GAUGE					CORTEN	TD + PRIMER
2	0.6	BLADE	BLADE WITH WELDED 6 X 3/8" BASE PLATE	-	60"	4"	1/4"					SST	TD + PRIMER
3	0.7	POST	2"x4" TUBE POST WITH WELDED 6 X 3/8" BASE PLATE	2"	74"	4"	12 GAUGE					SST	TD + PRIMER
5	-	POST CAP	2"x4" POST CAP	2"	-	4"	-					SST	-
7	-	HARDWARE	1/2" HARDWARE	-	-	-	-					SST	-
8	-	HARDWARE	1/4" SELF TAPPING SCREW	-	-	-	-					SST	-

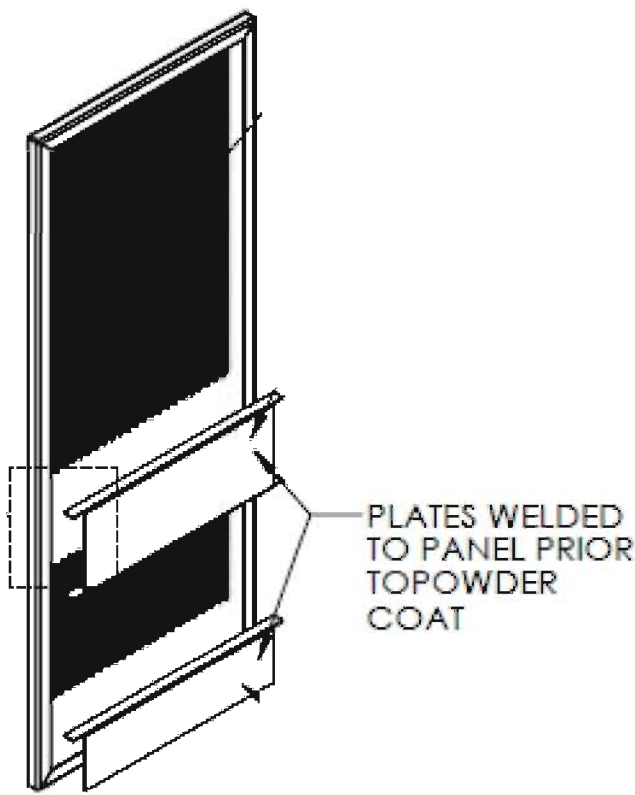


NOTES:

- ORNAMENTAL FENCE BY BOK MODERN  
WWW.BOKMODERN.COM
- COLOR: COLOR TO BE SELECTED FROM  
MANUFACTURER'S STANDARD FINISHES
- SIZE: 6' TALL
- MOUNTING MATERIALS TO BE DETERMINED  
BY ARCHITECT BASED ON  
MANUFACTURER'S RECOMMENDATIONS
- LEARNING COURTYARD - APPROX. 34'-4" LF
- SOUTH COURTYARD - APPROX. 29' LF

ORNAMENTAL FENCE - 6' TALL - ADD ALTERNATE

NOT TO SCALE



- ORNAMENTAL GATE: FRAME WITH PANEL MATCHING FENCE DESIGN, BY BOK MODERN [WWW.BOKMODERN.COM](http://WWW.BOKMODERN.COM)
- COLOR: TO BE DETERMINED BY ARCHITECT, MAY BE DIFFERENT THAN ADJACENT FENCE
- SIZE: 6'-0" TALL, 4' WIDE
- MOUNTING MATERIALS TO BE DETERMINED BY ARCHITECT
- LOCKING HARDWARE AND PANIC BAR HARDWARE TO BE DETERMINED BY ARCHITECT
- PROTECTION PLATES PER MANUFACTURER, INCLUDING MOUNTING HARDWARE
- TOTAL GATES:
  - • LEARNING COURTYARD - 2
  - • SOUTH COURTYARD - 2

## EXPLODED ISO REAR

ORNAMENTAL GATE - 6' TALL - ADD ALTERNATE

NOT TO SCALE

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ORNAMENTAL  
FENCE & GATE  
DETAILS  
ADD ALTERNATE 2

# L-505



MECHANICAL SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.

Abbreviations

AFF	ABOVE FINISHED FLOOR
AD	ACCESS DOOR
A/C	AIR CONDITION(ED)
AHU	AIR HANDLING UNIT
BDD	BACKDRAFT DAMPER
BFP	BACKFLOW PREVENTER
BFF	BELOW FINISHED FLOOR
B	BOILER
BHP	BRAKE HORSEPOWER
CD	CEILING DIFFUSER
CL	CENTERLINE
CV	CHECK VALVE
CH	CHILLER
COP	COEFFICIENT OF PERFORMANCE
CW	COLD WATER
CD	CONDENSATE DRAIN
CU	CONDENSING UNIT
CONT.	CONTINUATION
CT	COOLING TOWER
DB	DECIBEL
DP	DEW POINT, DIFFERENTIAL PRESSURE
DIA	DIAMETER
DX	DIRECT EXPANSION
DG	DOOR GRILLE
D	DROP
DB	DRY BULB
EFF	EFFICIENT
ELECT	ELECTRICAL
EL	ELEVATION
EER	ENERGY EFFICIENCY RATING
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EF	EXHAUST FAN
(E)	EXISTING
FA	FACE AREA
F	FAHRENHEIT
FC	FAN COIL
FT	FEET
FS	FEET PER MINUTE
FPS	FEET PER SECOND
FPI	FINS PER INCH
FD	FIRE DAMPER
FC	FLEXIBLE CONNECTOR
FLA	FULL LOAD AMPS
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HEAT PUMP
HTR	HEATER
HTG	HEATING
HP	HORSEPOWER
HWC	HOT WATER COIL
IN	INCHES
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
KW	KILOWATT
LH	LATENT HEAT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MW	MAKE-UP WATER
MAX	MAXIMUM
MIN	MINIMUM
MA	MIXED AIR
MS	MOTOR STARTER
MD	MOTORIZED DAMPER
MH	MOUNTING HEIGHT
(N)	NEW
NC	NOISE CRITERIA
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO.	NUMBER
OC	ON CENTER
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
PH	PHASE
LBS.	POUNDS
PSI	POUNDS PER SQUARE INCH
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
P	PUMP
QTY	QUANTITY
REF	REFRIGERANT
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RH	RELATIVE HUMIDITY
RLD	RELIEF DAMPER
(R)	RELOCATE/RELOCATED LOCATION
RET	RETURN
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
R	RISE
SEER	SEASONAL ENERGY EFFICIENCY RATING
SH	SENSIBLE HEAT
SOV	SHUT OFF VALVE
SF	SQUARE FEET
SP	STATIC PRESSURE
SA	SUPPLY AIR
T, TEMP	TEMPERATURE
TD	TEMPERATURE DIFFERENCE
MBH	THOUSAND BTU'S PER HOUR
TH	TOTAL HEAT
TP	TOTAL PRESSURE
UD	UNDERCUT DOOR
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
V	VOLT
VD	VOLUME DAMPER (HAND OPERATOR)
WC	WATER COLUMN
W	WATT
WB	WET BULB
W/	WITH

Dampers

	FIRE DAMPER
	FIRE/SMOKE DAMPER
	MOTORIZED DAMPER
	SMOKE DAMPER
	VOLUME DAMPER

Diffusers and Grilles

	DIFFUSER OR GRILLE IDENTIFICATION
	EXHAUST AIR
	RETURN AIR
	SUPPLY AIR

Ductwork Fittings

	ACOUSTICALLY LINED DUCT (SIZES SHOWN ARE NET INSIDE)
	BELLMOUTH
	CONCENTRIC SQUARE TO ROUND
	CONCENTRIC TRANSITION, RECTANGULAR OR ROUND
	ECCENTRIC TRANSITION, RECTANGULAR OR ROUND
	FLEXIBLE CONNECTION
	NON-SYMMETRICAL WYE
	RECTANGULAR DUCT DROP
	RECTANGULAR DUCT RISER
	RECTANGULAR MAIN WITH RECTANGULAR BRANCH
	RECTANGULAR MAIN WITH ROUND BRANCH
	RECTANGULAR OFFSET LESS THAN 15% Slope
	RECTANGULAR OFFSET MORE THAN 15% Slope
	ROUND DUCT DROP
	ROUND DUCT RISER
	ROUND DUCT WITH ROUND BRANCH
	ROUND WYE
	SYMMETRICAL WYE
	MITERED ELBOW WITH TURNING VANES
	RADIUSED ELBOW

Equipment

	CHILLER, AIR COOLED
	CHILLER, WATER COOLED
	COOLING TOWER

General

	LIMIT OF DEMOLITION
	DEMOLISH
	EXISTING WORK
	NEW WORK
	RECTANGULAR DUCT SIZING
	ROUND DUCT SIZING

Piping Fittings, Appurtenances and Equipment

	AIR SEPARATOR
	AUTOMATIC AIR VENT
	BACKFLOW PREVENTER
	CAP
	CONTINUATION
	EXPANSION JOINT
	EXPANSION LOOP
	EXPANSION TANK
	FLOW SWITCH
	HEAT EXCHANGER
	HOSE BIBB
	MANUAL AIR VENT
	PIPE BELOW GRADE
	PIPE DROP
	PIPE REMOVED IN DEMOLITION
	PIPE RISE
	PIPE TO DRAIN
	PRESSURE GAUGE WITH COCK
	PRESSURE RELIEF VALVE
	PRESSURE SENSOR
	PUMP

	SHOCK ABSORBER
	T&P RELIEF VALVE WITH PIPE TO DRAIN
	TEE DOWN ON PIPE
	TEE UP ON PIPE
	TEMPERATURE SENSOR
	TEST PORT (PETIE'S PLUG OR EQUAL)
	THERMOMETER
	VENT TO ATMOSPHERE
	WATER METER

Piping Systems

	CHILLED WATER RETURN
	CHILLED WATER SUPPLY
	CONDENSER WATER RETURN
	CONDENSER WATER SUPPLY
	HEATING WATER RETURN
	HEATING WATER SUPPLY
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION

Piping Valves

	BALANCING VALVE
	CHECK VALVE
	CONTROL VALVE
	GATE VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE
	QUARTER TURN VALVE
	VALVE, GENERAL

GENERAL NOTES

- A. PROVIDE ACCESS PANELS FOR ACCESS TO CONCEALED EQUIPMENT, JUNCTION BOXES, AND CONTROLS. QUANTITY AND LOCATION OF ACCESS PANELS IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH AS-BUILT CONDITIONS AND MAY NOT BE INDICATED ON THE DRAWINGS. SUBMIT PROPOSED ACCESS PANEL LAYOUT TO ARCHITECT, PRIOR TO INSTALLATION, FOR CONFIRMATION OF DESIGN INTENT.
- B. INSTALL ALL EQUIPMENT SUCH THAT MANUFACTURER RECOMMENDED CLEARANCES ARE MAINTAINED.
- C. PROVIDE ALUMINUM DUCT IN ANY WET OR MOIST LOCATIONS.
- D. COORDINATE EXACT LOCATION OF AIR DISTRIBUTION GRILLES WITH ARCHITECT AND REFLECTED CEILING PLAN, PRIOR TO INSTALLATION.
- E. PROVIDE 1-HOUR FIRE WRAP FOR GREASE EXHAUST DUCT. PROVIDE CLEANOUTS PER NFPA 96. SLOPE ALL HORIZONTAL RUNS TOWARD HOOD, AT A MINIMUM OF 2 PERCENT SLOPE. DUCT CONSTRUCTION TO BE WELDED STEEL.
- F. MAINTAIN A MINIMUM SEPARATION OF 10'-0" BETWEEN ALL EXHAUST OUTLET LOCATIONS AND MECHANICAL AIR INTAKES.
- G. PROVIDE MANUAL BALANCING DAMPER AT BRANCH TAKE-OFF LOCATIONS FOR ALL DUCTS REQUIRING AIR BALANCING INSTALLED ABOVE ACCESSIBLE CEILINGS..
- H. MAINTAIN A MINIMUM 36" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS FOR HVAC EQUIPMENT INSTALLED ABOVE THE CEILING.
- I. COORDINATE DUCT PENETRATION THROUGH RATED ASSEMBLIES. PROVIDE FIRE OR FIRE/SMOKE DAMPERS AS REQUIRED.
- J. PROVIDE REMOTE, CABLE-OPERATED BALANCING DAMPER FOR DUCTS SERVING GRILLES/DEVICES LOCATED IN INACCESSIBLE CEILINGS.
- K. INSTALL ACCESS PANELS PER EQUIPMENT MANUFACTURER'S REQUIREMENTS, AS WELL AS MECHANICAL AND ELECTRICAL CODE REQUIREMENTS.
- L. RUNOUTS TO DIFFUSERS AND GRILLES SAME SIZE AS NECK DIMENSIONS SHOWN ON PLANS, UNLESS OTHERWISE NOTED. TRANSITION FROM DUCT SIZE SHOWN TO DIFFUSER NECK SIZE A MINIMUM OF 2 FEET BEFORE OUTLET OR INSTALL DUCT THE SAME SIZE AS OUTLET, AT CONTRACTOR'S OPTION.
- M. PROVIDE BRANCH DUCT SIZE EQUAL TO INLET SIZE OF TERMINAL UNITS UNLESS OTHERWISE NOTED.

SHEET INDEX

M-001	SYMBOLS LIST AND GENERAL NOTES - MECHANICAL
M-002	SCHEDULES - MECHANICAL
M-003	SCHEDULES - MECHANICAL
M-101A	LEVEL 1 FLOOR PLAN SECTOR A - MECHANICAL
M-101B	LEVEL 1 FLOOR PLAN SECTOR B - MECHANICAL
M-101C	LEVEL 1 FLOOR PLAN SECTOR C - MECHANICAL
M-101D	LEVEL 1 FLOOR PLAN SECTOR D - MECHANICAL
M-121A	ROOF PLAN SECTOR A - MECHANICAL
M-121D	ROOF PLAN SECTOR D - MECHANICAL
M-301A	LEVEL 1 PIPING PLAN SECTOR A - MECHANICAL
M-301B	LEVEL 1 PIPING PLAN SECTOR B - MECHANICAL
M-301C	LEVEL 1 PIPING PLAN SECTOR C - MECHANICAL
M-301D	LEVEL 1 PIPING PLAN SECTOR D - MECHANICAL

M-401	DETAILS - MECHANICAL
M-402	DETAILS - MECHANICAL

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SYMBOLS LIST  
AND GENERAL  
NOTES -  
MECHANICAL

M-001

Scale



BOILER SCHEDULE																		
SYMBOL	LOCATION	BASIS OF DESIGN		MAX GROSS INPUT (MBH)	MAX GROSS OUTPUT (MBH)	MIN EFF (AFUE)	TURN DOWN RATIO	FLOW RATE (GPM)	EWT (°F)	LWT (°F)	ELECTRICAL			WATER PRESSURE DROP (FT H2O)	EMERGENCY POWER	CONTROLS REF	MAX WT (LBS)	COMMENTS
		MFR	MODEL								VOLTS	PH	BOILER FLA					
B-1	MECH/ELEC 104	HYDROTHERM	KN-6	600	576.6	96	5:1	30	110	140	120	1	13.9	0.50	Y	230900	1300	PROVIDE WITH CONDENSATE DRAIN KIT, INCLUDING NEUTRALIZER AS REQUIRED.
B-2	MECH/ELEC 104	HYDROTHERM	KN-6	600	576.6	96	5:1	30	110	140	120	1	13.9	0.50	Y	230900	1300	PROVIDE WITH CONDENSATE DRAIN KIT, INCLUDING NEUTRALIZER AS REQUIRED.

PUMP SCHEDULE														
SYMBOL	LOCATION	BASIS OF DESIGN		PUMP TYPE	RPM	FLOW RATE (GPM)	HEAD (FT. H2O)	ELECTRICAL			VFD (Y/N)	CONTROLS REF	MAX WT (LBS)	NOTES
		MFR	MODEL					VOLTS	PH	MHP				
HWP-1	MECH/ELEC - 104	TACO	FI 2506D	BASE MOUNTED	1160	125	20	208	3	1	Y	230900	400	1,2
HWP-2	MECH/ELEC - 104	TACO	FI 2506D	BASE MOUNTED	1160	125	20	208	3	1	Y	230900	400	1,2
NOTES: 1 FOR PUMPS WITH VFD MOTORS, DO NOT CUT THE SPECIFIED IMPELLER SIZE FOR SYSTEM BALANCING 2 PROVIDE WITH 4-INCH CONCRETE HOUSEKEEPING PAD.														

PACKAGED ROOFTOP AIR CONDITIONING UNIT SCHEDULE (HOT WATER COIL)																																								
SYMBOL	AREA SERVED	BASIS OF DESIGN		SUPPLY FAN					EXHAUST FAN				DX COOLING COIL						HOT WATER HEATING COIL								GAS FURNACE					FINAL FILTER		ELECTRICAL				EMERG. POWER (Y/N)	MAX WT (LBS)	NOTES
		MFR	MODEL	TOTAL CFM	MIN OSA CFM	TSP (IN H2O)	MHP	VFD (Y/N)	TOTAL CFM	TSP (IN H2O)	MHP	VFD (Y/N)	TOTAL CAP (MBH)	SENS CAP (MBH)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	MIN CAP (MBH)	WATER FLOW (GPM)	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	APD (IN H2O)	WPD (FT H2O)	HW MIN BRANCH PIPE SIZE	INPUT	OUTPUT	MIN	EAT	LAT	EFF MERV	VOLTS	PH	MCA	MOCP			
																												(MBH)	(MBH)	EFF.	(°F)	(°F)								
RTU-1	FITNESS - 103	JCI	J07ZJN	2600	850	1.5	3	N	2600	0.75	0.75	N	90.6	76	80	67	55	46	N/A								120	96	0.8	57	91	8	208	3	51.8	60	N	1350	1,2,3,4,5,6,7,8,9	
RTU-2	KITCHEN - 108	JCI	JA5ZJN	1750	350	1.25	2	N	1750	0.5	0.5	N	60.3	46.5	80	67	55	46	N/A								120	97	0.8	57	91	8	208	3	46.4	60	N	1100	1,2,3,4,5,6,7,8,9	
RTU-3	ADMIN	JCI	GVA1L	8500	3750	3.25	10	Y	8500	1.25	7.5	Y	279	266	80	67	55	46	161	10	140	110	52	65	0.16	0.8	1.5	N/A					8	208	3	154	175	N	1500	1,2,3,4,5,6,7,8,10
RTU-4	CLASSROOMS	JCI	GVB1L	11500	5000	4	15	Y	11500	1.75	15	Y	355	347	80	67	55	46	174	10	140	110	52	65	0.32	0.8	1.5	N/A					8	208	3	210	225	N	1650	1,2,3,4,5,6,7,8,10
NOTES:																																								
1 TSP INCLUDES FILTER DP																6 PROVIDE FACTORY MOUNTED FUSED DISCONNECT																								
2 PROVIDE WITH 2" MERV-8 FILTER																7 PROVIDE VFDs FOR SUPPLY AND EXHAUST FANS																								
3 18" HIGH SEISMICALLY CALCULATED ROOF CURB WITH (MIN.) 2" DEFLECTION SPRING ISOLATION. CURBS TO SHIP FULLY ASSEMBLED WITH SEISMIC TIE-DOWN BRACKETS.																8 PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT. INTERLOCK WITH FIRE ALARM SYSTEM. UNIT TO SHUT DOWN UPON DETECTION OF SMOKE.																								
4 PROVIDE 0-100% MODULATING AIR ECONOMIZER, WITH 0-100% MODULATING POWER EXHAUST.																9 SIDE DUCT CONNECTIONS FOR HORIZONTAL DUCT ROUTING FROM UNIT																								
5 OUTSIDE AIR TEMPERATURE FOR COOLING = 92F, HEATING = 22F																10 PROVIDE STANDARD CURB ON TOP OF CONCRETE TUB FOR BOTTOM OF UNIT DUCT CONNECTIONS.																								

SINGLE DUCT TERMINAL UNIT SCHEDULE																
SYMBOL	AREA SERVED	BASIS OF DESIGN		INLET SIZE (IN)	COOLING AIRFLOW		TU SP (IN H2O)	HOT WATER HEATING COIL								NOTES
		MFR	MODEL		MAX HTG CFM	MIN CFM		MAX HTG CFM	MIN CAP (MBH)	WATER FLOW (GPM)	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	HW MIN BRANCH PIPE SIZE	
TU-3-1	FORC - 115	JCI	TSS	08	465	150	1	165	6.2	0.5	140	110	65	90	3/4	1
TU-3-2	CONFERENCE - 102	JCI	TSS	06	250	75	1	155	5.6	0.5	140	110	65	90	3/4	1
TU-3-3	HEALTH - 105	JCI	TSS	08	365	125	1	155	6.0	0.5	140	110	65	90	3/4	1
TU-4-1	CLASSROOM - 5	JCI	TSS	10	1050	475	1	750	28.5	1.9	140	110	65	90	3/4	1
TU-4-2	CLASSROOM - 6	JCI	TSS	10	1050	475	1	775	29.2	1.9	140	110	65	90	3/4	1
TU-4-3	B OPER - 128	JCI	TSS	08	345	235	1	235	9.4	0.6	140	110	65	90	3/4	1
TU-4-4	HALL - 123	JCI	TSS	06	525	345	1	345	13.0	1.6	140	110	65	90	3/4	1
TU-4-5	FOCUS - 126	JCI	TSS	06	400	160	1	160	6.6	0.4	140	110	65	90	3/4	1
NOTES: 1 PROVIDE 3-WAY CONTROL VALVE FOR TERMINAL UNIT AT THE END OF A PIPING RUN. 2-WAY CONTROL VALVE IN ALL OTHER LOCATIONS.																

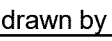
SYMBOL	AREA SERVED	BASIS OF DESIGN		INLET SIZE (IN)	AIRFLOW		SERIES/ PARALLEL	FAN		TU SP (IN H2O)	HOT WATER HEATING COIL										NOTES
		MFR	MODEL		MAX CFM	MIN CFM		CFM	MHP		MAX HTG CFM	MIN CAP (MBH)	WATER PD (FT. WG)	WATER FLOW (GPM)	EWI T (°F)	LWT T (°F)	EAT T (°F)	LAT T (°F)	HW MIN BRANCH PIPE SIZE		
FTU-3-1	WORK ROOM - 123	JCI	TVS	10	750	275	PARALLEL	475	1/3	0.5	375	20.5	0.5	1.5	140	112.1	69	90	3/4	1,2,3	
FTU-3-2	MH - 109	JCI	TVS	8	580	175	PARALLEL	405	1/3	0.5	355	15.1	0.2	1.0	140	108.6	70	90	3/4	1,2,3	
FTU-3-3	MH - 107	JCI	TVS	8	720	215	PARALLEL	505	1/3	0.5	475	18.3	0.3	1.2	140	107.8	70	90	3/4	1,2,3	
FTU-3-4	PRINCIPAL - 104	JCI	TVS	8	700	215	PARALLEL	485	1/3	0.5	485	18.6	0.3	1.2	140	107.8	70	90	3/4	1,2,3	
FTU-3-5	ADMIN WAITING - 101	JCI	TVS	10	910	405	PARALLEL	505	1/3	0.5	465	24.3	0.3	1.5	140	106.4	69	90	3/4	1,2,3	
FTU-3-6	MEDIA - 1	JCI	TVS	14	1710	775	PARALLEL	935	1/2	0.5	835	45.1	1.2	3.4	140	113.1	69	90	3/4	1,2,3	
FTU-3-7	Café Commons - 114	JCI	TVS	16	2790	1235	PARALLEL	1555	1	0.5	2170	55.1	6.5	4.2	140	113.2	69	90	3/4	1,2,3	
FTU-4-1	CLASSROOM - 9	JCI	TVS	10	1050	575	PARALLEL	475	1/2	0.5	985	37.8	1.0	2.4	140	107.9	68	90	3/4	1,2,3	
FTU-4-2	CLASSROOM - 8	JCI	TVS	10	1050	575	PARALLEL	475	1/2	0.5	985	37.8	1.0	2.4	140	107.9	68	90	3/4	1,2,3	
FTU-4-3	CLASSROOM - 7	JCI	TVS	10	1130	625	PARALLEL	505	1/2	0.5	985	37.8	1.0	2.4	140	107.9	68	90	3/4	1,2,3	
FTU-4-4	MS HS FLEX - 4	JCI	TVS	14	1250	675	PARALLEL	575	1/2	0.5	815	40.2	0.8	2.4	140	105.5	68	90	3/4	1,2,3	
FTU-4-5	CLASSROOM - 3	JCI	TVS	10	1490	715	PARALLEL	775	1/2	0.5	1000	42.4	0.7	2.5	140	105.3	69	90	3/4	1,2,3	
FTU-4-6	CLASSROOM - 2	JCI	TVS	10	1390	715	PARALLEL	675	1/2	0.5	1000	42.4	0.7	2.5	140	105.3	68	90	3/4	1,2,3	
NOTES:																					
1 PROVIDE 3-WAY CONTROL VALVE FOR TERMINAL UNIT AT THE END OF A PIPING RUN. 2-WAY CONTROL VALVE IN ALL OTHER LOCATIONS.																					
2 120V/1PH POWER																					
3 PROVIDE ECM FAN MOTOR																					

FAN SCHEDULE																		
SYMBOL	AREA SERVED	BASIS OF DESIGN		TYPE	DRIVE	AIR FLOW (CFM)	TSP (IN H2O)	MAX RPM	SOUND (SONES)	ELECTRICAL			EMERGENCY POWER (Y/N)	VFD (Y/N)	MAX WT (LBS)	NOTES		
		MFR	MODEL							VOLTS	PH	MHP (WATTS)						
KEF-1	KITCHEN TYPE-I HOOD	GREENHECK	CW-121-VG	WALL-MOUNTED	DIRECT	1610	0.95	1725	17.1	120	1	0.5	N	Y	100	1,2,3,4		
KEF-2	KITCHEN TYPE-II HOOD	GREENHECK	CW-090-VG	WALL-MOUNTED	DIRECT	525	0.5	1725	7.6	120	1	0.1	N	N	75	1,2,3,5		
CEF-A-1	WC - 120	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-A-2	WC - 118	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-B-1	WC - 7A	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-B-2	WC - 8A	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-B-3	WC - 9A	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-B-4	WC ALT 1 - 152A	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6,7		
CEF-C-1	WC - 111	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-C-2	HEALTH RR - 105A	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-D-1	WC - 129	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-D-2	WC - 131	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-D-3	WC - 127	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
CEF-D-4	WC - 135	GREENHECK	SP-A90	CEILING	DIRECT	75	0.25	900	0.4	120	1	(16)	N	N	25	6		
EF-A-1	ELECTRICAL - 122	GREENHECK	CSP-A1050-VG	INLINE	DIRECT	730	0.5	1225	1.4	120	1	(241)	N	N	75	6		
EF-C-1	WORK ROOM - 112	GREENHECK	CSP-A510-VG	INLINE	DIRECT	470	0.35	1275	1.4	120	1	(160)	N	N	55	6		
NOTES:																		
1	UNIT TO BE LISTED TO UL-762 FOR GREASE EXHAUST					4	PROVIDE WITH MOTORIZED DAMPER, FOR FAN AIRFLOW OVER 300 CFM.											
2	INTERLOCK OPERATION WITH ASSOCIATED HOOD. FAN TO RUN WHEN HOOD IS IN USE.					5	INTERLOCK OPERATION WITH ASSOCIATED DISHWASHER. FAN TO RUN WHEN DISHWASHER IS IN USE.											
3	PROVIDE WITH GREASE CUP AND HINGED, VENTED BASE.					6	FAN TO RUN CONTINUOUSLY DURING OCCUPIED HOURS											
						7	PROVIDE SEPARATE, ALTERNATE PRICING FOR THIS SYSTEM, AS PART OF ALTERNATE 1											

ELECTRIC HEATER SCHEDULE										
SYMBOL	AREA SERVED	BASIS OF DESIGN		TYPE	ELECTRICAL				MAX WT (LBS)	NOTES
		MFR	MODEL		VOLTS	PH	HEAT WATTS	STAGES		
EW-H-A-1	STOR - 140	QMARK	CWH1101DSF	RECESSED WALL	120	1	500	1	50	1
EW-H-B-1	HALL ALT 1 - 125A	QMARK	CWH1101DSF	RECESSED WALL	120	1	500	1	50	1,2
NOTES:										
1	PROVIDE WITH INTEGRAL THERMOSTAT									
2	PROVIDE SEPARATE, ALTERNATE PRICING FOR THIS SYSTEM, AS PART OF ALTERNATE 1									



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**Checker**

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**2018-0029**

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issue date

**10/15/2019**

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## SCHEDULES - MECHANICAL


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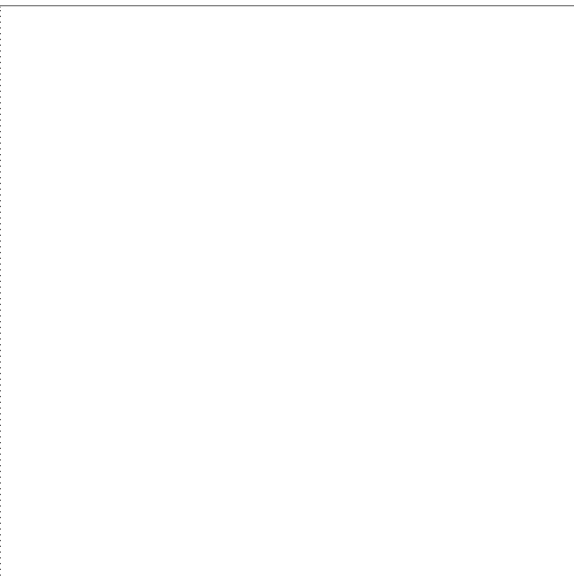
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Scale      12" = 1'-0"



FAN COIL SCHEDULE (DX)														
SYMBOL	AREA SERVED	BASIS OF DESIGN		ASSOC CU	SUPPLY FAN	DX COOLING COIL			ELECTRICAL				MAX WT (LBS)	NOTES
		MFR	MODEL		TOTAL CFM	NOM TONS	TOTAL CAP (MBH)	SENS CAP (MBH)	VOLTS	PH	MCA	MOCP		
FCU-B-1	MDF - 136	DAIKIN	FAQ24	CU-B-1	635	2	24	18	208	1	0.6	15	50	1
FCU-B-2	CLASSROOM ALT 1 - 152	DAIKIN	FBQ36PVJU	CU-B-2	1130	3	36	27	208	1	2.9	15	150	2
NOTES: 1 DIV. 23 TO PROVIDE CONDENSATE PUMP. SEE PLUMBING PLANS FOR CONDENSATE REMOVAL 2 PROVIDE SEPARATE, ALTERNATE PRICING FOR THIS SYSTEM, AS PART OF ALTERNATE 1														

CONDENSING UNIT SCHEDULE														
SYMBOL	AREA SERVED	BASIS OF DESIGN		ASSOC FAN	AIR SOURCE CONDENSER				ELECTRICAL				MAX WT (LBS)	NOTES
		MFR	MODEL		NOM TONS	CAP (MBH)	AMBIENT DB (°F)	SEER	VOLTS	PH	MCA	MOCP		
CU-B-1	MDF - 136	DAIKIN	RZQ24	FCU-B-1	2	24	95	17.6	208	1	16.5	25	200	
CU-B-2	CLASSROOM ALT 1 - 152	DAIKIN	RZQ36	FCU-B-2	3	36	95	17.5	208	1	29.1	35	250	1
NOTES														
1 PROVIDE SEPARATE, ALTERNATE PRICING FOR THIS SYSTEM, AS PART OF ALTERNATE 1														



DIFFUSER, REGISTER AND GRILLE SCHEDULE							
SYMBOL	TYPE	FACE	FRAME	DAMPER	FINISH	BASIS OF DESIGN	NOTES
CD-1	CEILING DIFFUSER	PERFORATED	LAY-IN	NONE	WHITE	TITUS PCS	1
CD-2	CEILING DIFFUSER	PERFORATED	SURFACE	OBD	WHITE	TITUS PCS	1
CEG-1	CEILING EXHAUST GRILLE	PERFORATED	LAY-IN	NONE	WHITE	TITUS PAR	1
CEG-2	CEILING EXHAUST GRILLE	PERFORATED	SURFACE	NONE	WHITE	TITUS PAR	1
CRG-1	CEILING RETURN GRILLE	PERFORATED	LAY-IN	NONE	WHITE	TITUS PAR	1
CRG-2	CEILING RETURN GRILLE	PERFORATED	SURFACE	NONE	WHITE	TITUS PAR	1
DL-1	DRUM LOUVER	VERT. ADJUST	1/4" BORDER	NONE	WHITE	TITUS DL	1
RG-1	RETURN GRILLE	FIXED BAR 35 DEG. DEFL.	1/4" BORDER	NONE	WHITE	TITUS 350R	1
RG-2	HEAVY DUTY RETURN GRILLE	FIXED BAR 30 DEG. DEFL.	SURFACE	NONE	WHITE	TITUS 63F	1.2
SG-1	SUPPLY GRILLE	DOUBLE DEFL.	1/4" BORDER	NONE	WHITE	TITUS 300R	1
ER-1	EXHAUST REGISTER	FIXED BAR	1/4" BORDER	OBD	WHITE	TITUS 350R	
TG-1	TRANSFER GRILLE	FIXED BAR	1/4" BORDER	NONE	WHITE	TITUS 350R	1
NOTES: 1 COORDINATE EXACT QUANTITY, DIMENSION, FRAME TYPE, AND DAMPER REQUIREMENTS WITH OVERALL MECHANICAL AND ARCHITECTURAL CEILING PLANS. 2 HEAVY DUTY, ANTI-CORROSION							

OUTSIDE AIR VENTILATION SCHEDULE											
HVAC UNIT	ROOM	Az NET OCCUPIABLE FLOOR AREA (SF)	Rp PEOPLE OUTDOOR AIR RATE (CFM / PERSON)	Ra AREA OUTDOOR AIR FLOW RATE (CFM/SQ FT)	DEFAULT OCCUPANT DENSITY (#/1000SF)	DEFAULT ZONE POPULATION	Pz ACTUAL ZONE POPULATION	Vbz BREATHING ZONE OUTDOOR AIRFLOW (CFM)	EZ ZONE AIR DISTRIBUTION EFFECTIVENESS	Voz ZONE OUTDOOR AIRFLOW (CFM)	OSA PROVIDED (CFM)
RTU-1	10 - FITNESS	1,871	0	0.30	0	0	0	561	0.8	702	830
	10A - STORAGE	134	5	0.06	5	1	1	13	0.8	16	20
<b>TOTAL</b>											<b>850</b>
RTU-2	117 - KITCHEN	714	5	0.06	5	4	4	63	0.8	79	320
	117B - STORAGE	102	0	0.12	0	0	0	12	0.8	15	30
<b>TOTAL</b>											<b>350</b>
RTU-3	1 - MEDIA	750	10	0.18	25	19	19	325	0.8	406	700
	1A - AA COACH	244	5	0.06	5	2	1	20	0.8	25	50
	101 - ADMIN WAITING	382	5	0.06	30	12	12	83	0.8	104	180
	102 - CONFERENCE	144	5	0.06	50	8	8	49	0.8	61	110
	103 - CORRIDOR	342	0	0.06	0	0	0	21	0.8	26	55
	104 - PRINCIPAL	186	5	0.06	5	1	1	16	0.8	20	35
	105 - HEALTH	180	5	0.06	5	1	1	16	0.8	20	35
	106 - PSYCH	109	5	0.06	5	1	1	12	0.8	14	25
	107 - MH	109	5	0.06	5	1	1	12	0.8	14	25
	108 - OT S N	171	5	0.06	5	1	1	15	0.8	19	35
	109 - MH	102	5	0.06	5	1	1	11	0.8	14	25
	110 - MH	102	5	0.06	5	1	1	11	0.8	14	25
	112 - WORK ROOM	522	5	0.06	4	3	3	46	0.8	58	105
	113 - HALL	555	0	0.06	0	0	0	33	0.8	42	80
	114 - CAFÉ COMMONS	1135	7.5	0.06	100	114	114	923	0.8	1,154	1985
	115 - FCRC	326	5	0.06	5	2	2	30	0.8	37	70
	116 - HALL	518	0	0.06	0	0	0	31	0.8	39	70
	119 - STAFF BREAK ROOM	457	5	0.06	5	3	3	42	0.8	53	95
	141 - HALL	325	0	0.06	0	0	0	20	0.8	24	45
<b>TOTAL</b>											<b>3,750</b>
RTU-4	123 - HALL	884	0	0.06	0	0	0	53	0.8	66	90
	124 - SM GR	92	5	0.06	5	1	1	11	0.8	13	15
	125 - SM GR	117	5	0.06	5	1	1	12	0.8	15	20
	126 - FOCUS	55	5	0.06	5	1	1	8	0.8	10	15
	128 - B OPER	138	5	0.06	5	1	1	13	0.8	17	20
	130 - HALL	586	0	0.06	0	0	0	35	0.8	44	60
	132 - SM GR	108	5	0.06	5	1	1	11	0.8	14	20
	133 - HALL	586	0	0.06	0	0	0	35	0.8	44	60
	134 - FOCUS	51	5	0.06	5	1	1	8	0.8	10	15
	137 - SM GR	108	5	0.06	5	1	1	11	0.8	14	20
	138 - SM GR	98	5	0.06	5	1	1	11	0.8	14	20
	139 - FOCUS	61	5	0.06	5	1	1	9	0.8	11	20
	141 - HALL	325	0	0.06	0	0	0	20	0.8	24	35
	2 - CLASSROOM	913	10	0.12	25	23	23	340	0.8	424	600
	3 - CLASSROOM	853	10	0.12	25	22	22	322	0.8	403	570
	4 - MS HS FLEX	831	10	0.12	25	21	21	310	0.8	387	550
	4A - STORAGE	107	0	0.12	0	0	0	13	0.8	16	20
	5 - CLASSROOM	842	10	0.12	25	22	22	321	0.8	401	565
	6 - CLASSROOM	864	10	0.12	25	22	22	324	0.8	405	575
	7 - CLASSROOM	848	10	0.12	25	22	22	322	0.8	402	570
	8 - CLASSROOM	869	10	0.12	25	22	22	324	0.8	405	570
	9 - CLASSROOM	846	10	0.12	25	22	22	322	0.8	402	570
<b>TOTAL</b>											<b>5,000</b>

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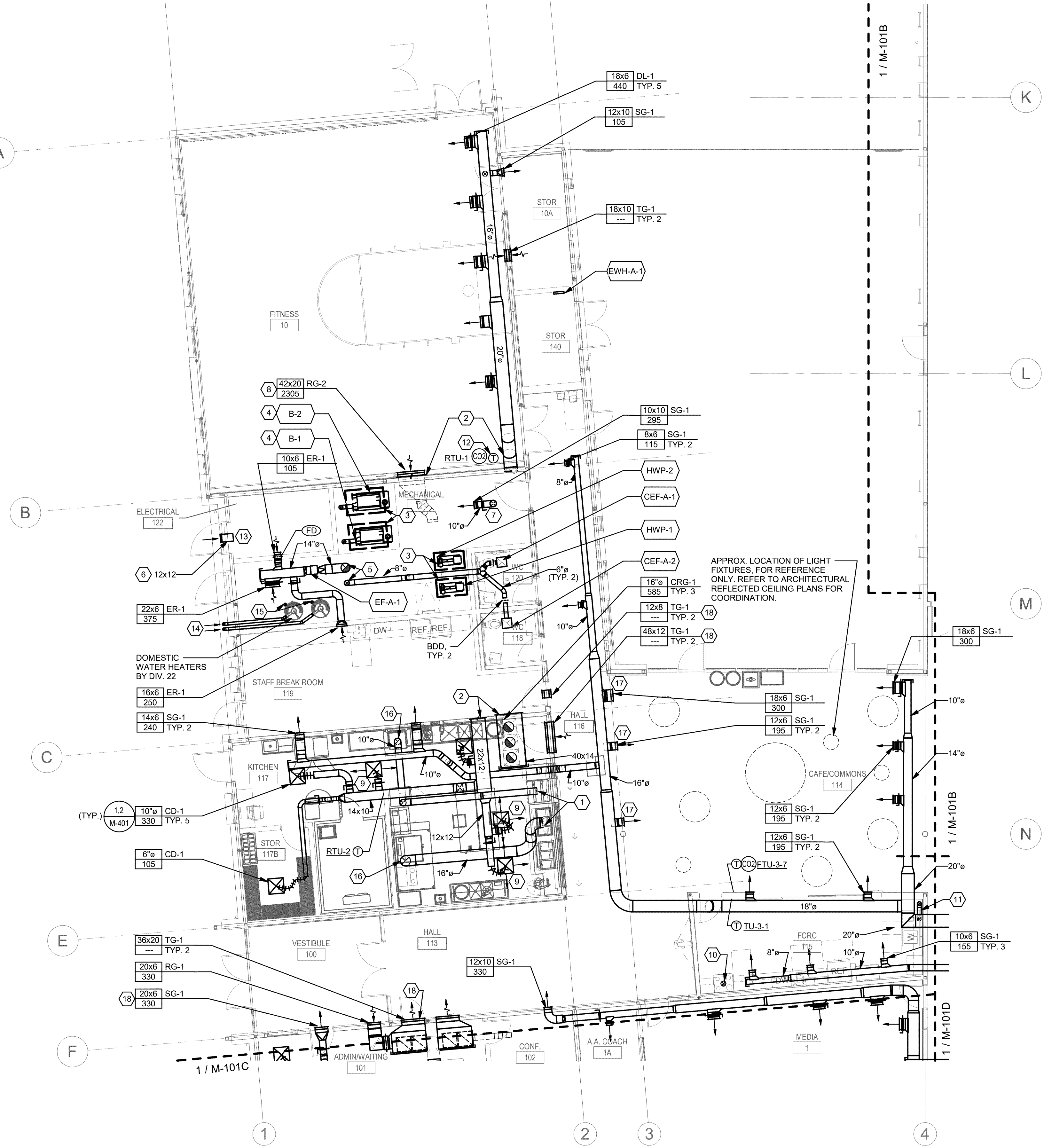
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M-003  
Scale 12" = 1'-0"



SHEET KEYNOTES

- KITCHEN EXHAUST DUCTS THROUGH SIDEWALL OF ROOF OVERHANG ABOVE. SEE M-121A FOR CONTINUATION.
- SUPPLY AND RETURN AIR DUCTS THROUGH SIDEWALL OF ROOF OVERHANG, FROM ROOFTOP HVAC UNIT ABOVE. SEE M-121A FOR CONTINUATION.
- CONCRETE HOUSEKEEPING PAD EXTENDING 6-INCHES ALL DIRECTIONS FROM EQUIPMENT FOOTPRINT
- ROUTE BOILER FLUE AND INTAKE UP TO ROOF LEVEL. SEE M-121A FOR CONTINUATION.
- ROUTE EXHAUST DUCT UP THRU ROOF. SEE M-121A FOR CONTINUATION.
- INTAKE LOUVER IN EXTERIOR WALL, CENTERED ABOVE DOOR, RUSKIN ELF6375DX, OR EQUAL. SIZE AS INDICATED ON DRAWINGS.
- SUPPLY DUCT DOWN FROM RTU-1 MAIN SUPPLY DUCT ON ROOF ABOVE. SEE M-121A FOR CONTINUATION.
- MOUNT GRILLE AT APPROXIMATELY 14'-0" (AFF). COORDINATE EXACT MOUNTING ELEVATION WITH ARCHTECTURAL ELEVATION DETAILS.
- PROVIDE DIFFUSER WITH THROW-PATTERN AS INDICATED ON FLOORPLAN.
- ROUTE DOMESTIC-TYPE RANGE EXHAUST UP THRU ROOF. SIZE AND TERMINATE PER MANUFACTURER'S REQUIREMENTS.
- ROUTE DRYER VENT DUCTWORK UP THRU ROOF. SIZE AND TERMINATE PER MANUFACTURER'S REQUIREMENTS.
- PROVIDE WIRE METAL PROTECTIVE GUARD FOR WALL-MOUNTED THERMOSTAT IN GYM.
- PROVIDE 1/2"x1/2" WIRE MESH OVER OPEN END OF DUCT
- DOMESTIC WATER HEATER COMBUSTION AIR INTAKE THRU EXTERIOR WALL. SIZE AND TERMINATE PER WATER HEATER MANUFACTURER'S REQUIREMENTS. WATER HEATERS BY DIV. 22.
- DOMESTIC WATER HEATER FLUES THRU ROOF. SEE M-121A FOR CONTINUATION. WATER HEATERS BY DIV. 22.
- ROUTE EXHAUST DUCT TO CONNECTION AT EXHAUST HOOD. SEE FOOD SERVICE PLANS FOR HOOD INFORMATION. HOODS BY OTHERS.
- TAP BRANCH DUCT AT 45 DEGREES BELOW HORIZONTAL, FROM MAIN ROUND SUPPLY DUCT
- CENTER WALL-MOUNTED GRILLE ABOVE DOOR BELOW.



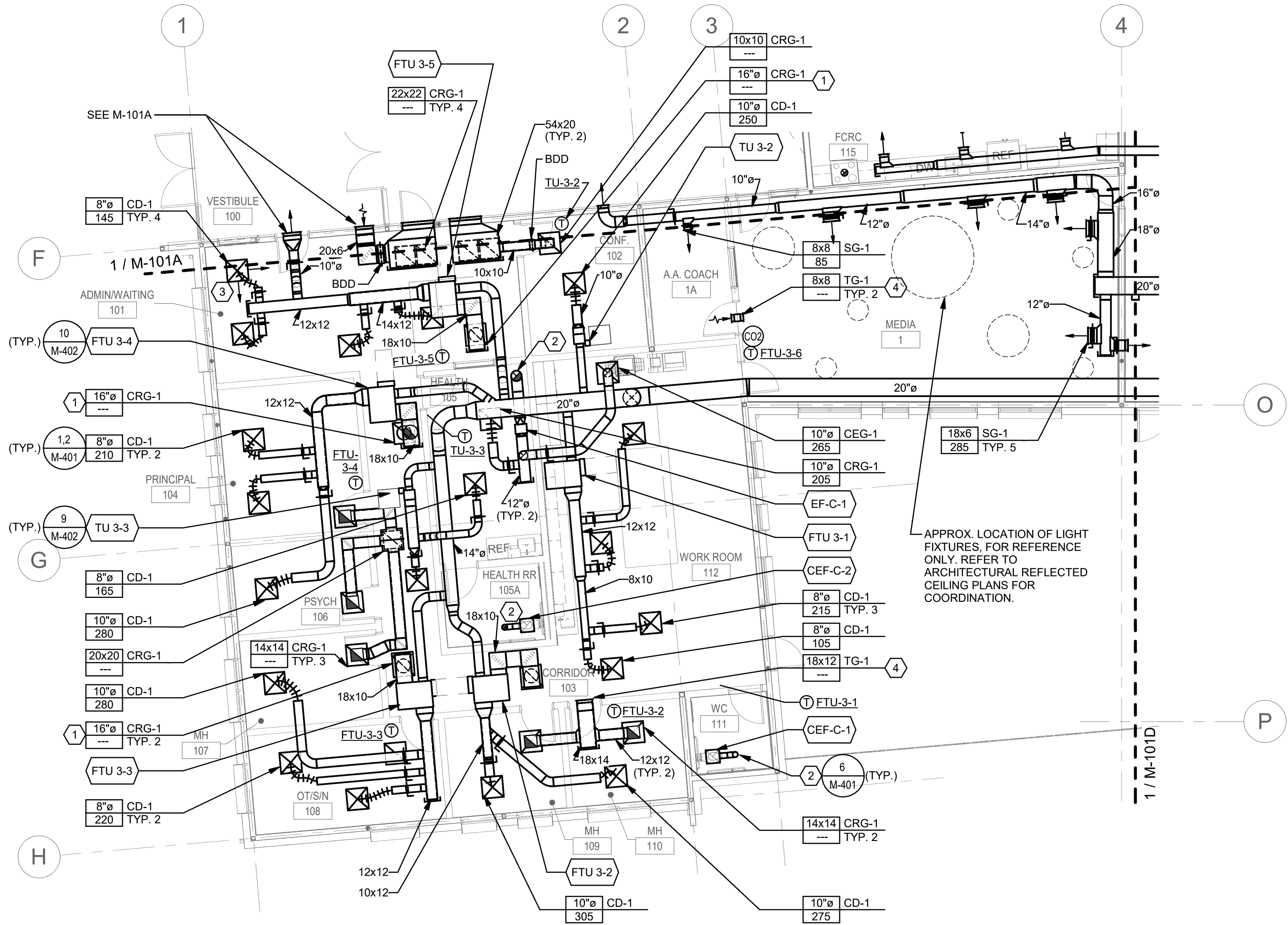




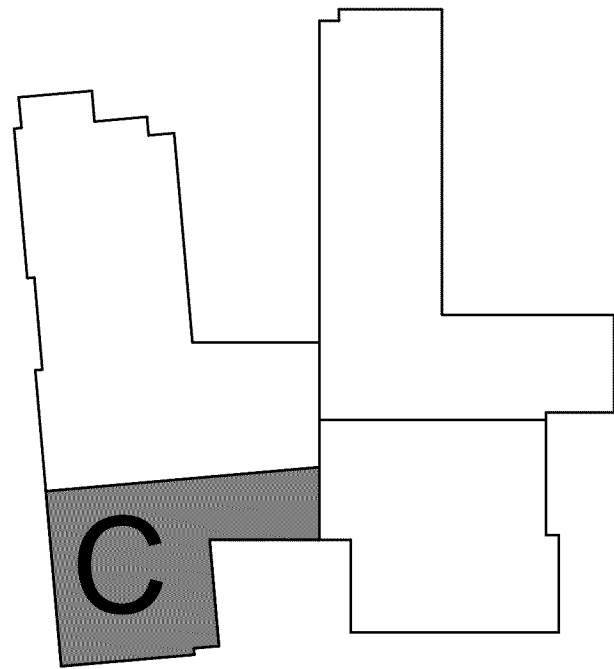


SHEET KEYNOTES

- BALANCE FILTER RETURN GRILLE TO THE CORRESPONDING FAN AIRFLOW(S) INDICATED ON THE FAN POWERED TERMINAL UNIT SCHEDULE.
- ROUTE EXHAUST DUCT UP THRU ROOF. TERMINATE WITH A RAIN CAP.
- PROVIDE DIFFUSER WITH THROW-PATTERN AS INDICATED ON FLOORPLAN.
- CENTER WALL-MOUNTED GRILLE ABOVE DOOR BELOW.



1 LEVEL 1 MECHANICAL PLAN - SECTOR C



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LEVEL 1 FLOOR  
PLAN SECTOR C -  
MECHANICAL

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M-101C

Scale 1/8" = 1'-0"



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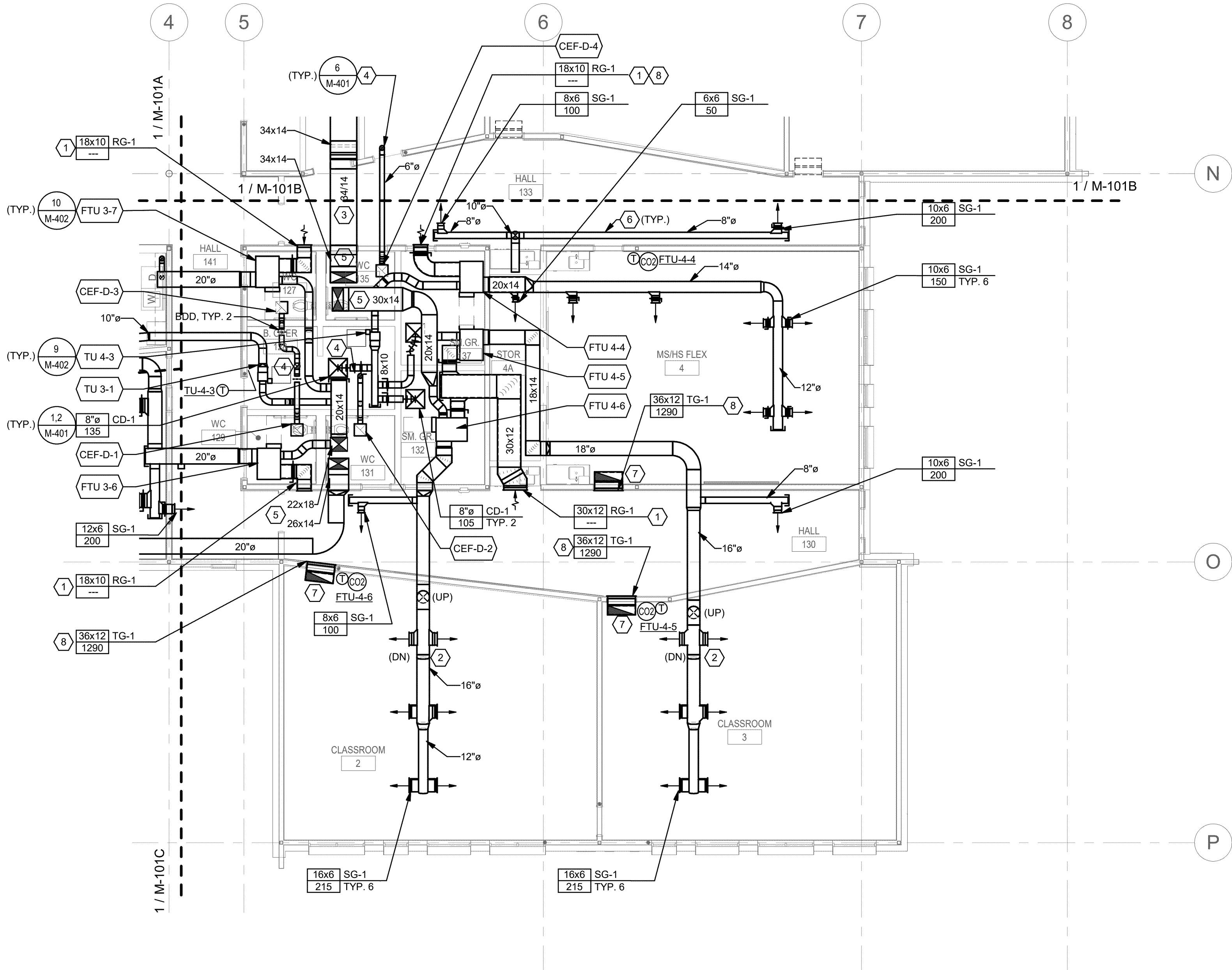
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SHEET KEYNOTES

- BALANCE FILTER RETURN GRILLE TO THE CORRESPONDING FAN AIRFLOW(S) INDICATED ON THE FAN POWERED TERMINAL UNIT SCHEDULE.
- TURN DUCT UP AND ROUTE AS HIGH AS POSSIBLE. SLOPE DUCTWORK TO MATCH SLOPE OF STRUCTURE ABOVE.
- FLAT OVAL DUCT IN HALL WHERE EXPOSED IN AN OPEN CEILING AREA.
- ROUTE EXHAUST DUCT UP THRU ROOF. TERMINATE WITH A RAIN CAP. SEE M-121D FOR CONTINUATION.
- ROUTE DUCT DOWN FROM ROOFTOP HVAC UNIT ABOVE. SEE M-121D FOR CONTINUATION.
- ROUTE DUCTS AS HIGH AS POSSIBLE.
- INTERNALLY LINED SOUND BOOT. TURN DUCT UP TO ENSURE GRILLE IS SIGHT-PROOF ON HALLWAY SIDE.
- CENTER WALL-MOUNTED GRILLE ABOVE DOOR BELOW.

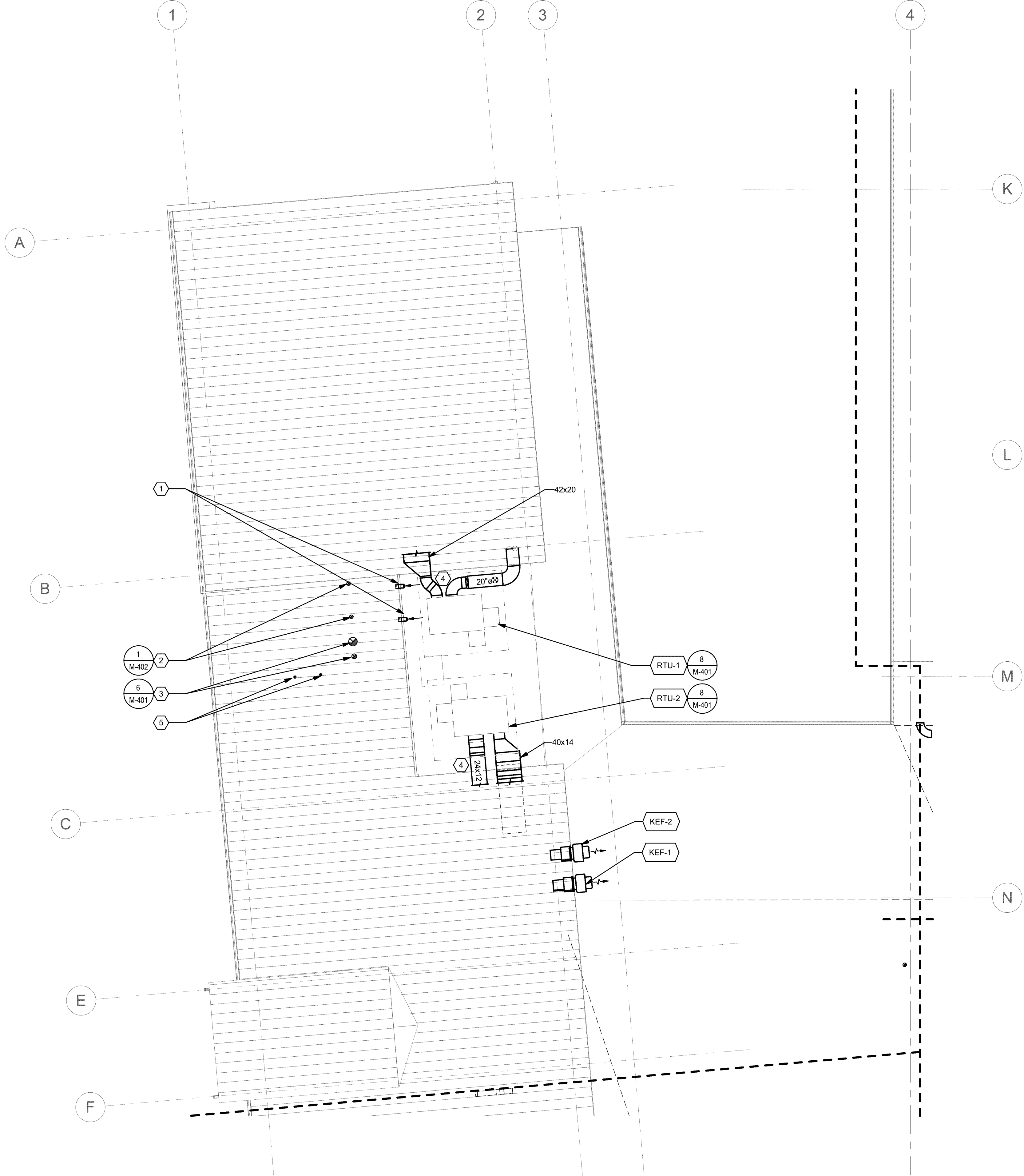


1 LEVEL 1 MECHANICAL PLAN - SECTOR D

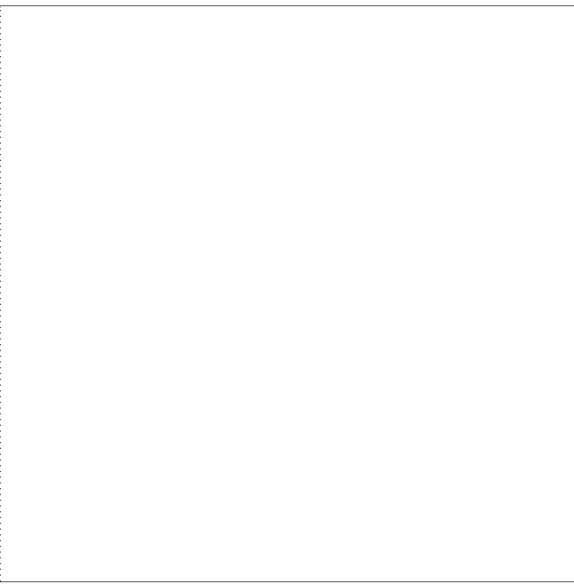
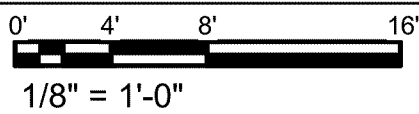


SHEET KEYNOTES

1. BOILER COMBUSTION INTAKE THROUGH SIDEWALL OF ROOFWELL. SIZE AND TERMINATE PER BOILER MANUFACTURER'S REQUIREMENTS.
2. BOILER FLUE UP THRU SLOPED ROOF. SIZE AND TERMINATE PER BOILER MANUFACTURER'S REQUIREMENTS.
3. EXHAUST DUCT UP THROUGH SLOPED ROOF FROM BELOW. TERMINATE WITH A RAIN CAP.
4. ROUTE SUPPLY AND RETURN AIR DUCTWORK THROUGH SIDEWALL OF ROOF OVERHANG INTO THE BUILDING. SEE M-101A FOR CONTINUATION.
5. DOMESTIC WATER HEATER FLUES THRU ROOF. SIZE AND TERMINATE PER WATER HEATER MANUFACTURER'S REQUIREMENTS. WATER HEATERS BY DIV. 22.



1 T.O. PLATE MECHANICAL PLAN - SECTOR A



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checked by  
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lsw job number  
2018-0029

FIR GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661

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ROOF PLAN  
SECTOR A -  
MECHANICAL



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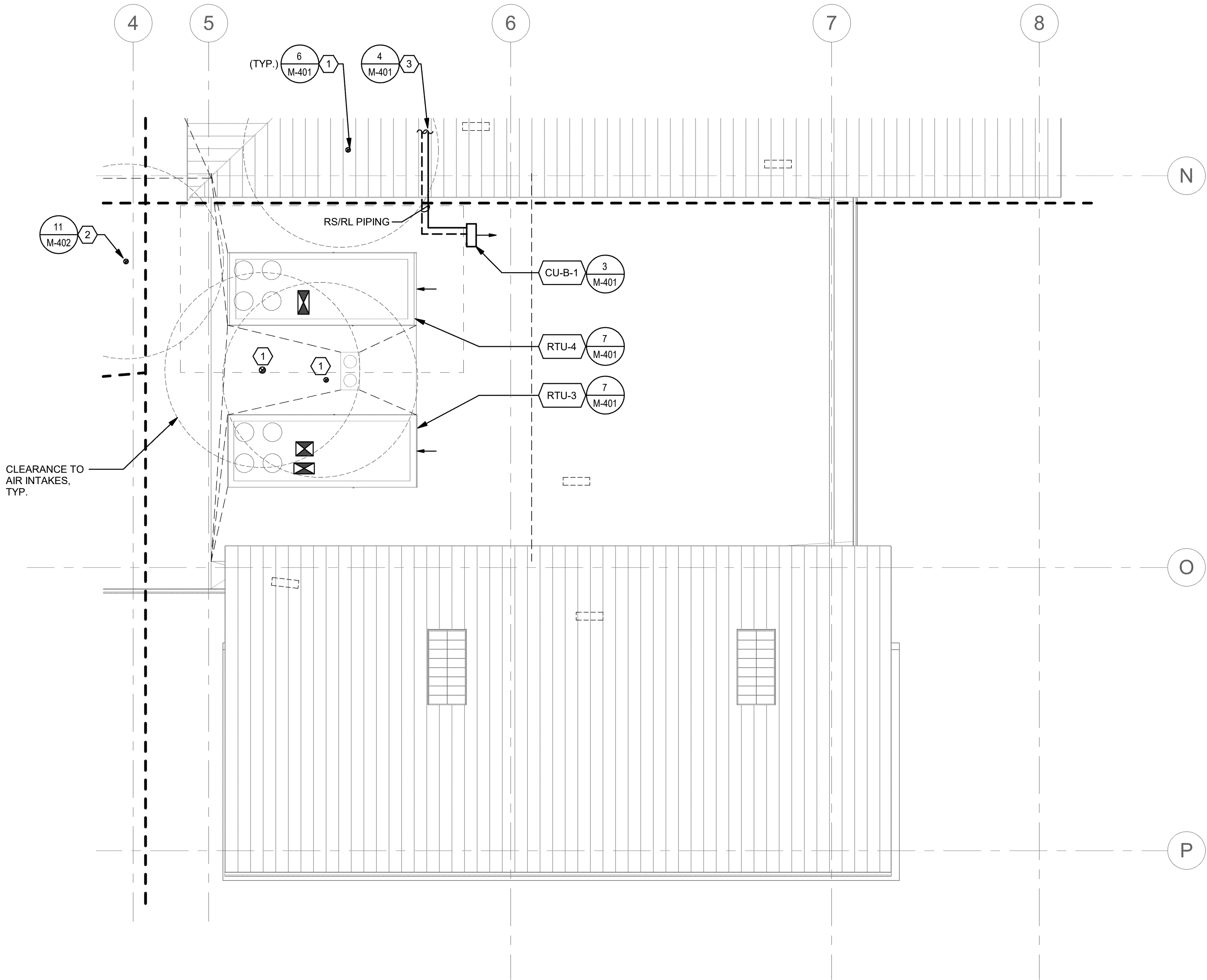
M-121A

Scale 1/8" = 1'-0"



SHEET KEYNOTES

1. EXHAUST DUCT UP THRU ROOF FROM BELOW. SEE M-101D FOR CONTINUATION. TERMINATE WITH A RAIN CAP.
2. DRYER VENT DUCT UP THRU ROOF FROM BELOW. SEE M-101A FOR CONTINUATION. SIZE AND TERMINATE PER DRYER MANUFACTURER'S REQUIREMENTS.
3. ROUTE RS/RL PIPING DOWN TO FCU-B-1 BELOW. SEE M-101B FOR CONTINUATION.



1 T.O. PLATE MECHANICAL PLAN - SECTOR D

0' 4' 8' 16'  
1/8" = 1'-0"



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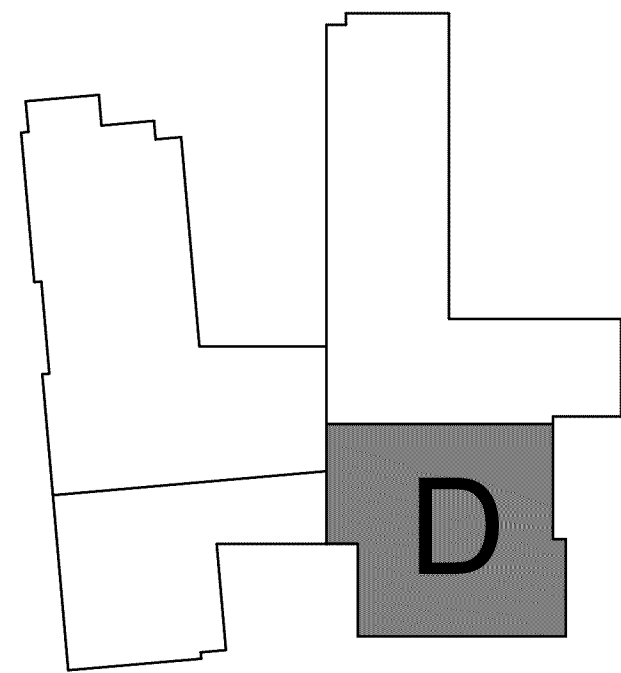
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**ROOF PLAN  
SECTOR D -  
MECHANICAL**

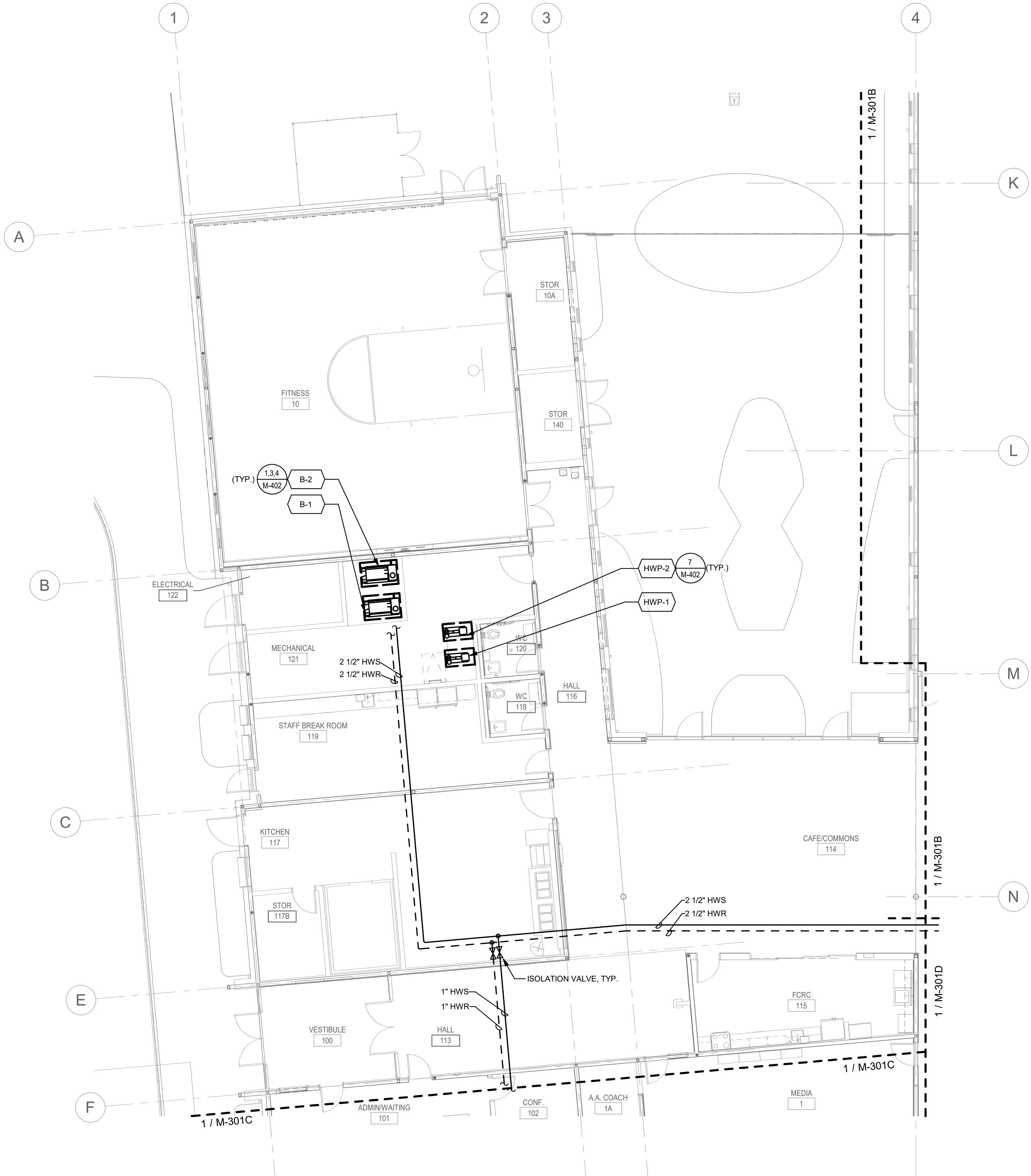




10/9/2019 12:10:51 PM

**SHEET KEYNOTES**

1. HWS/R PIPING UP TO HEATING COIL CONNECTION AT ROOFTOP HVAC UNIT ABOVE.



**1 LEVEL 1 MECHANICAL PIPING PLAN - SECTOR A**



0' 4' 8' 16'  
1/8" = 1'-0"



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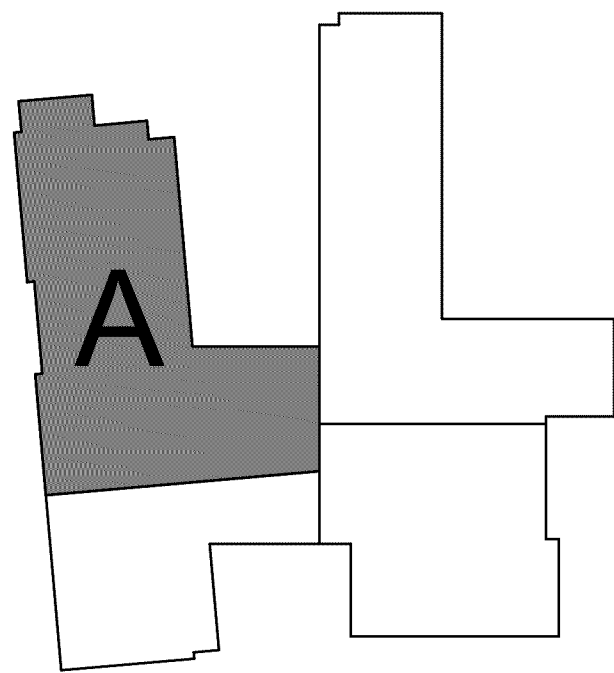
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**LEVEL 1 PIPING  
PLAN SECTOR A -  
MECHANICAL**



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**M-301A**

Scale 1/8" = 1'-0"



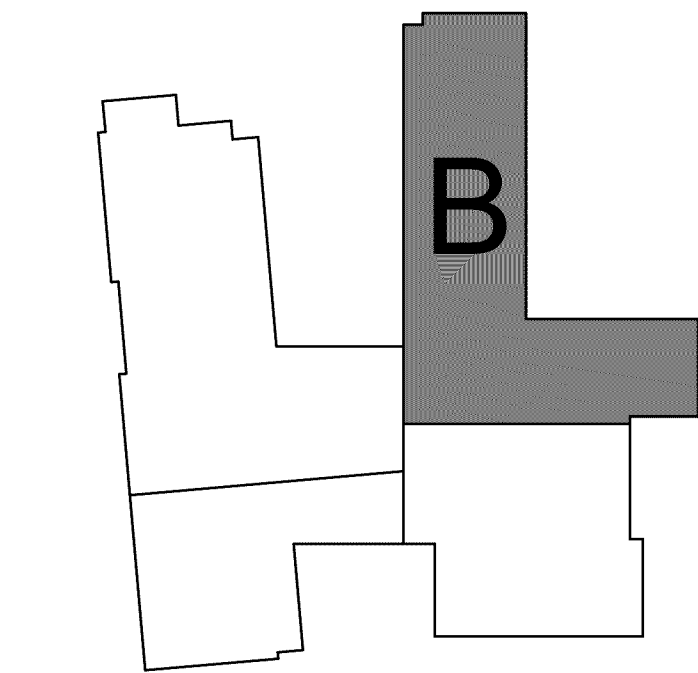
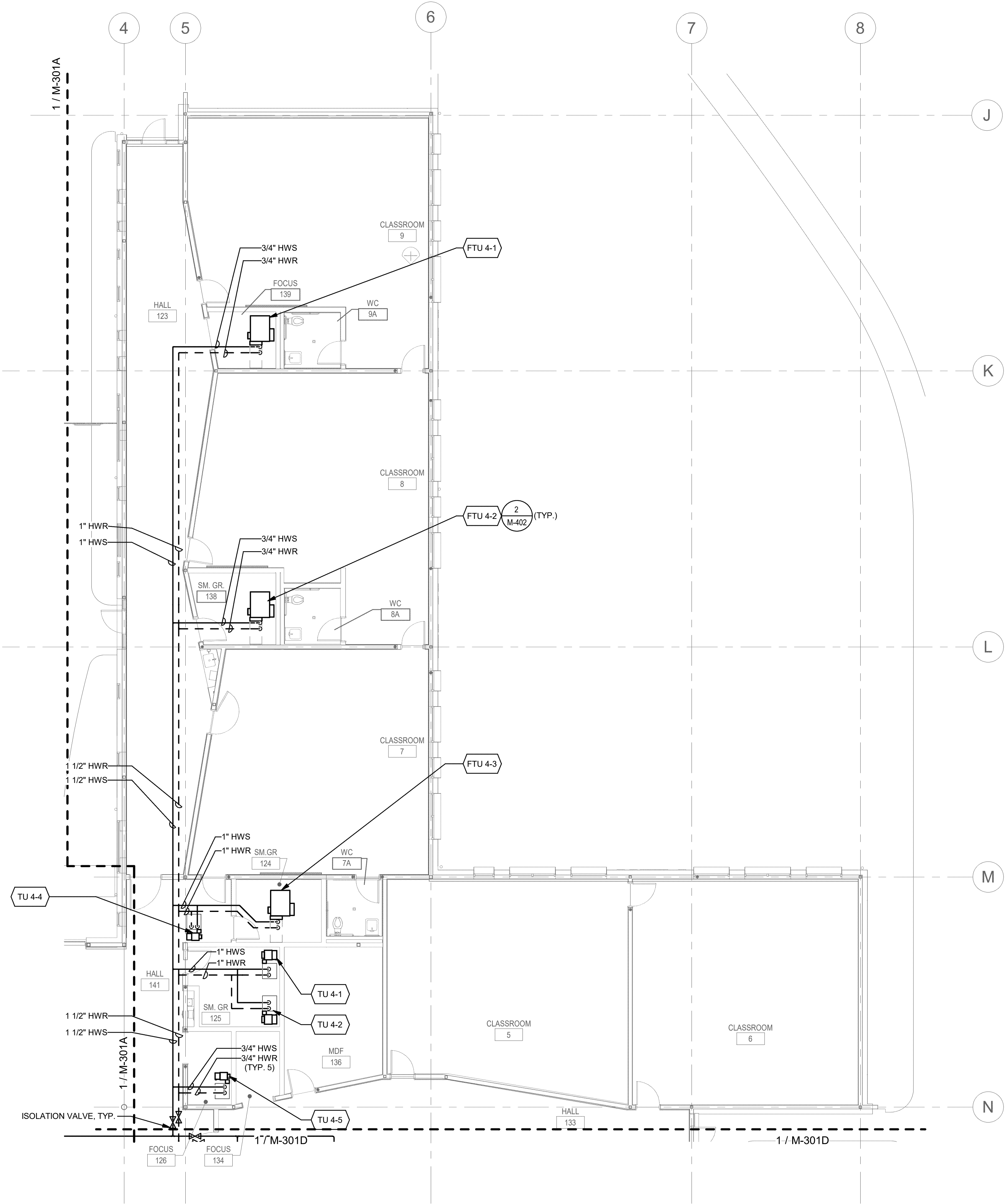
10/9/2019 12:10:53 PM



# 1 LEVEL 1 MECHANICAL PIPING PLAN - SECTOR B

0' 4' 8' 16'

1/8" = 1'-0"



**INTERFACE**  
ENGINEERING

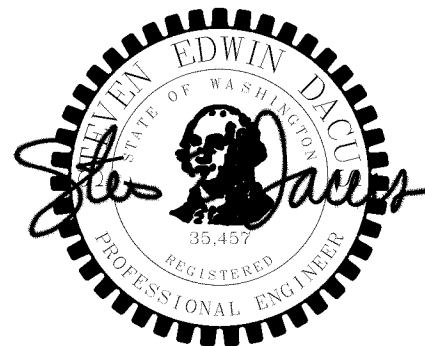
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## M-301B

Scale 1/8" = 1'-0"

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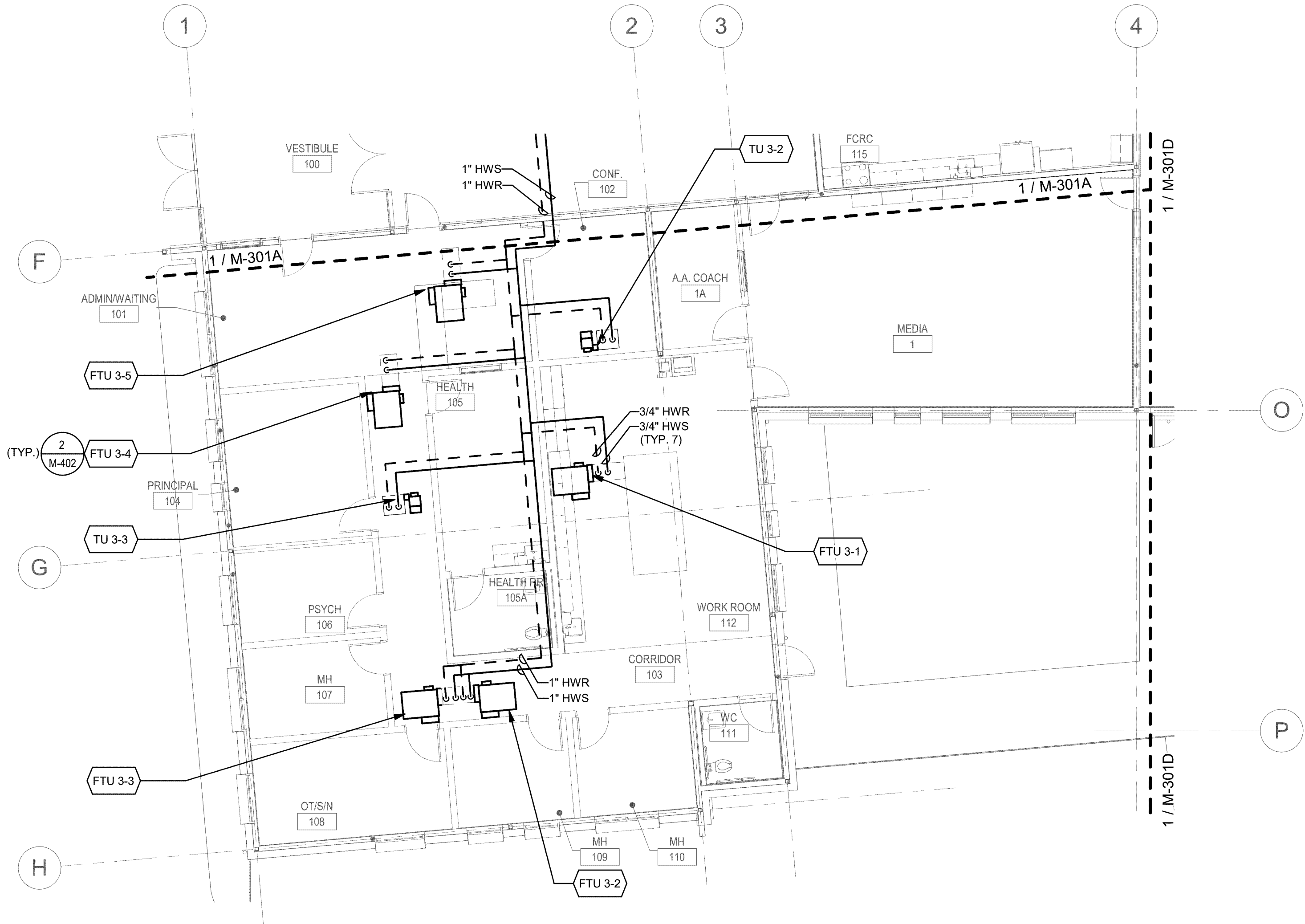
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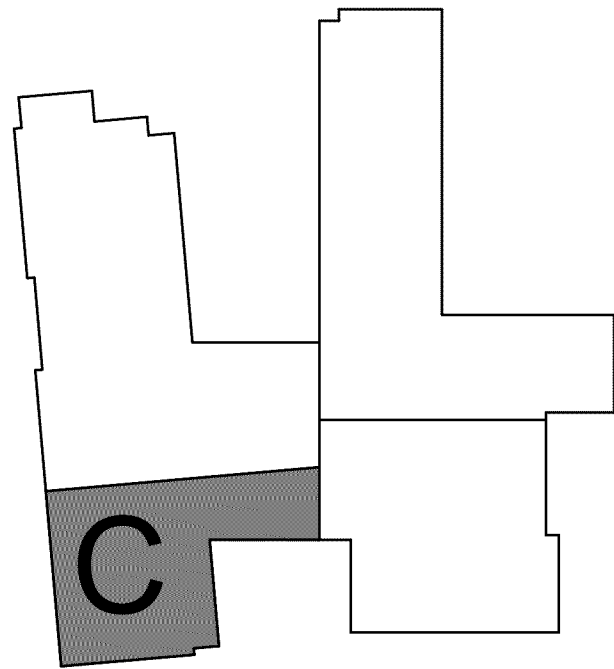
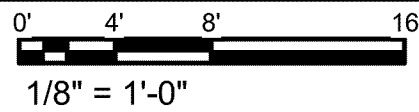
**LEVEL 1 PIPING**  
**PLAN SECTOR B -**  
**MECHANICAL**



10/9/2019 12:10:55 PM



**1 LEVEL 1 MECHANICAL PIPING PLAN - SECTOR C**



**INTERFACE**  
ENGINEERING  
PROJECT 2019-0017  
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Portland, OR 97204  
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**LEVEL 1 PIPING  
PLAN SECTOR C -  
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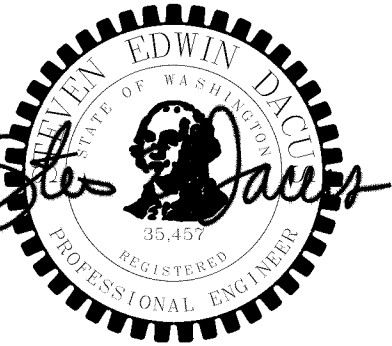
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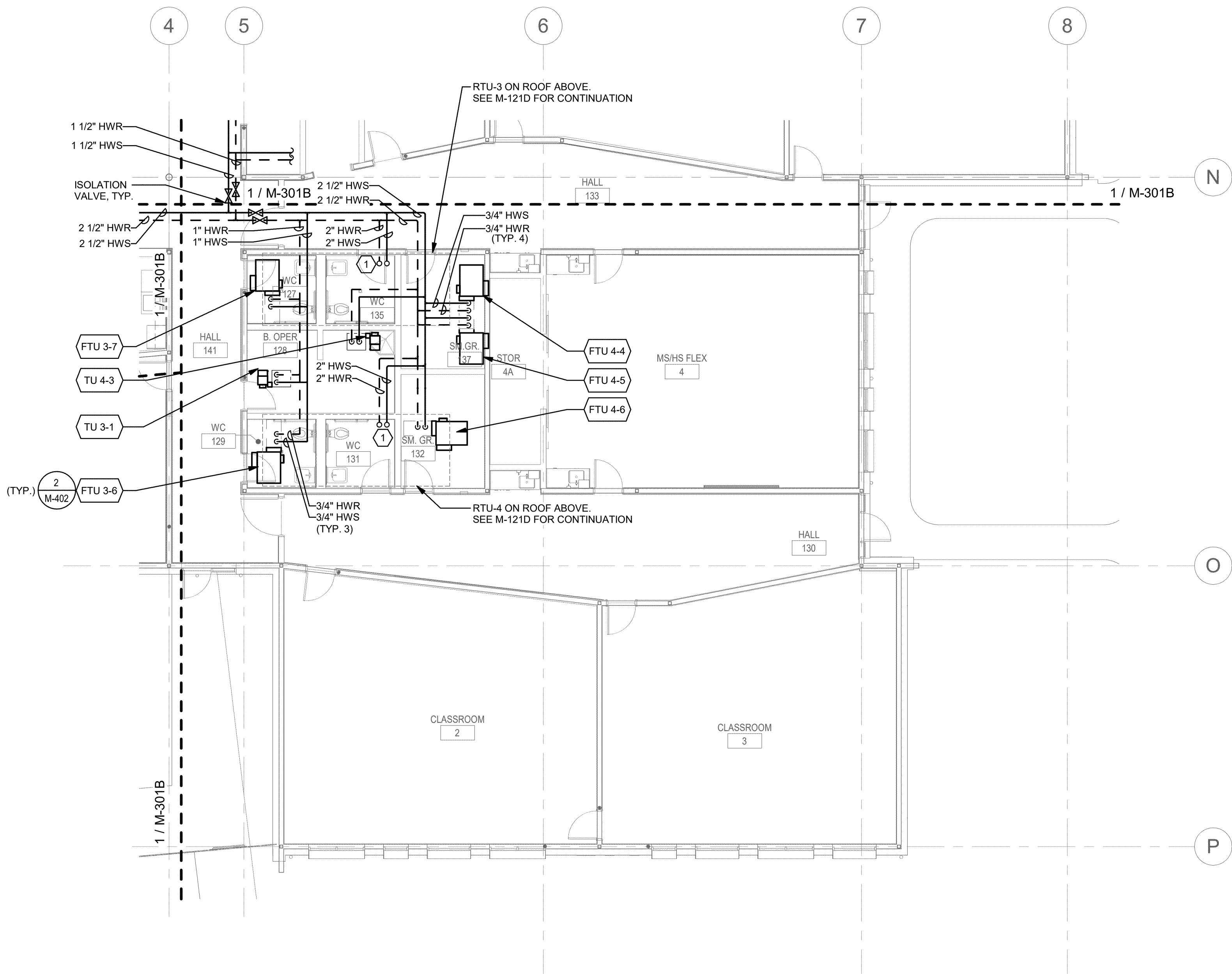
**LSW** Architects, PC  
610 Esther St., Suite 200  
Vancouver, WA 98660  
360.694.8571  
LSW-Architects.com

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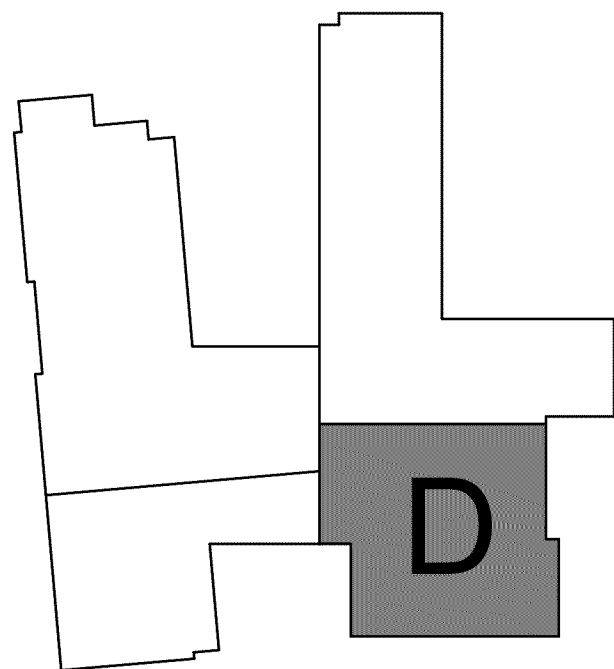
SHEET KEYNOTES

1. HWS/R PIPING UP TO HEATING COIL CONNECTION AT ROOFTOP HVAC UNIT ABOVE.



1 LEVEL 1 MECHANICAL PIPING PLAN - SECTOR D

0' 4' 8' 16'  
1/8" = 1'-0"



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Scale 1/8" = 1'-0"



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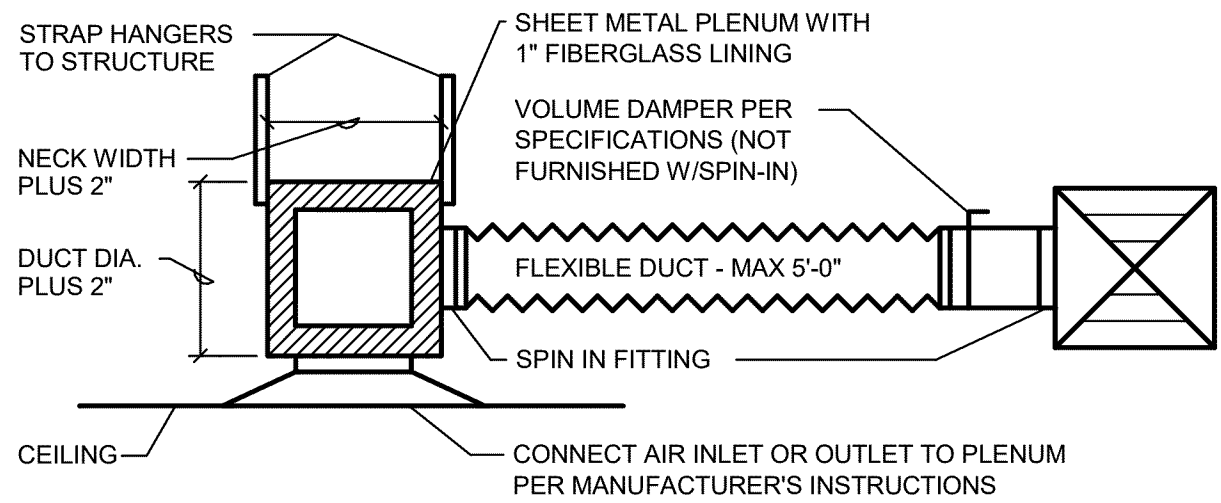
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LEVEL 1 PIPING  
PLAN SECTOR D -  
MECHANICAL

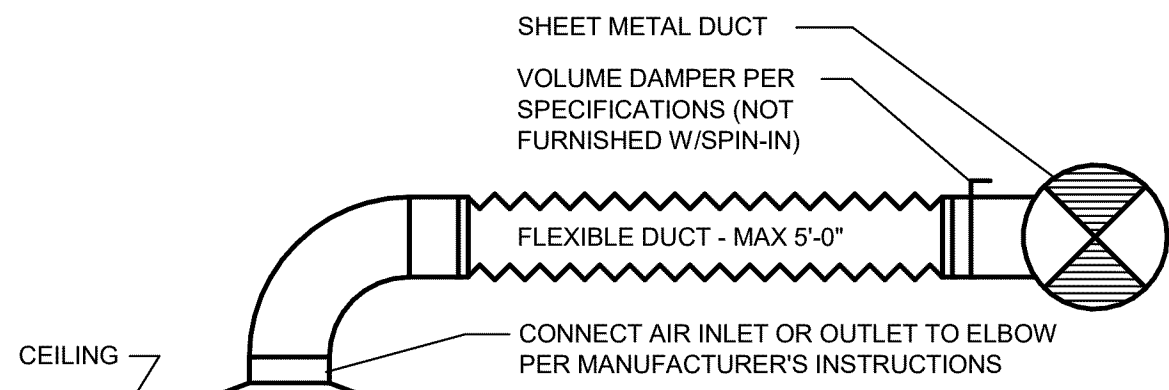
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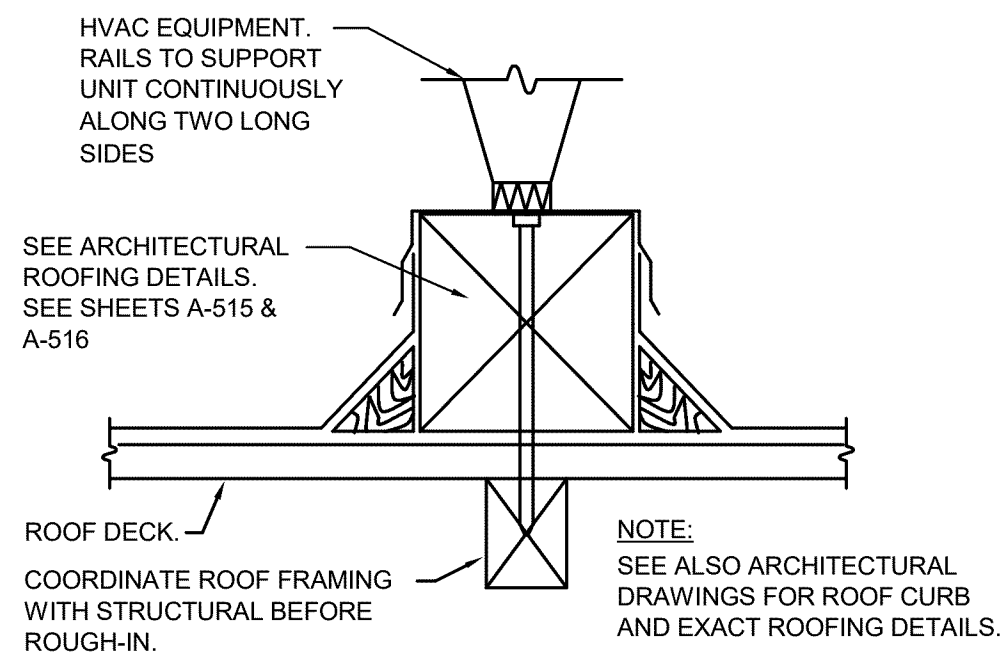




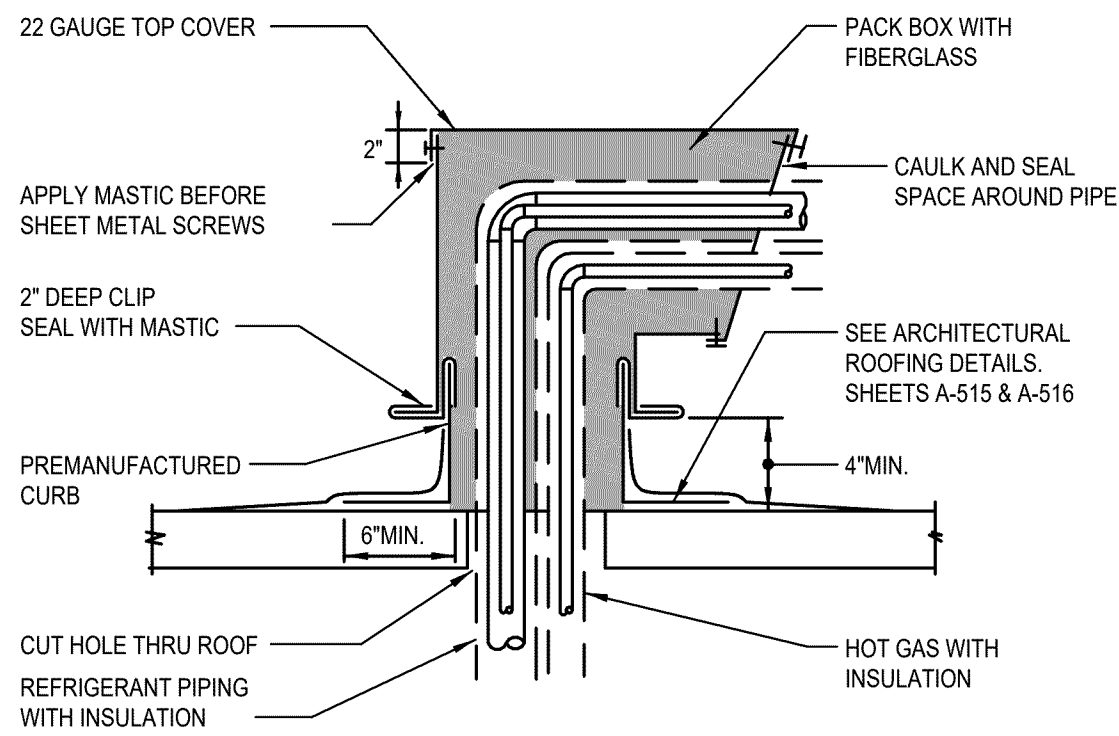
**1 AIR INLET OR OUTLET SQUARE NECK**  
NO SCALE



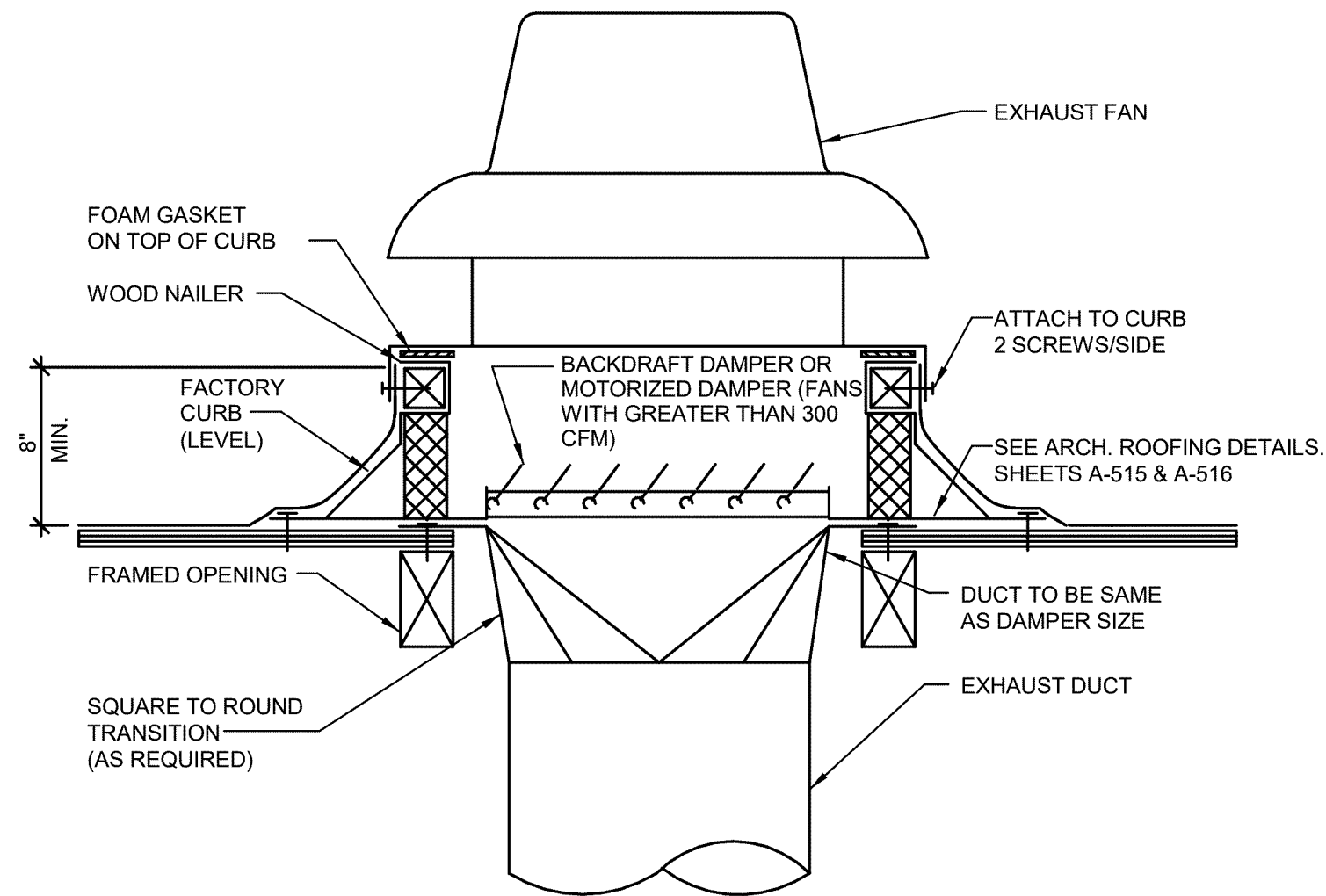
**2 AIR INLET OR OUTLET ROUND NECK**  
NO SCALE



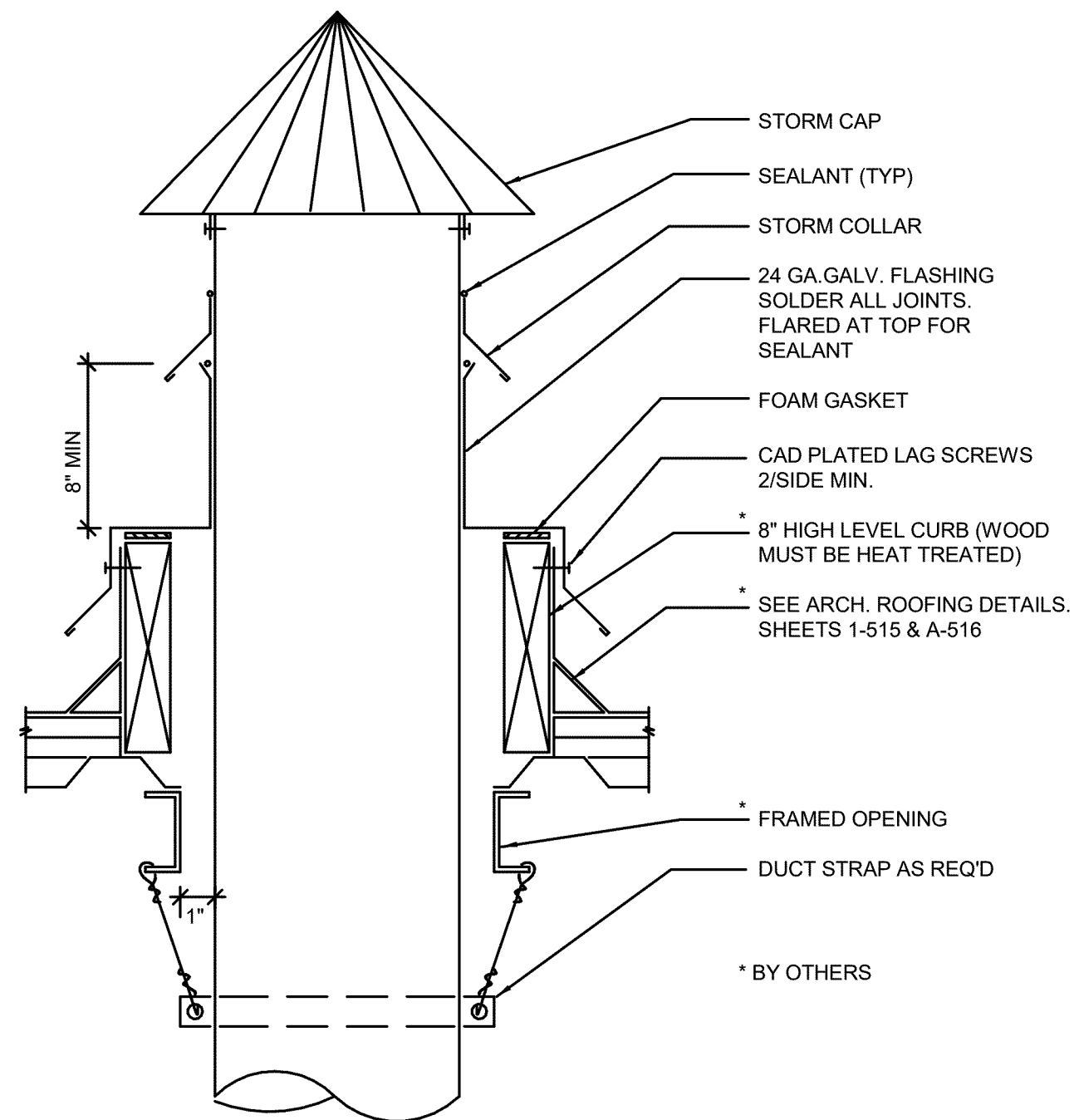
**3 CONDENSING UNIT CURB**  
NO SCALE



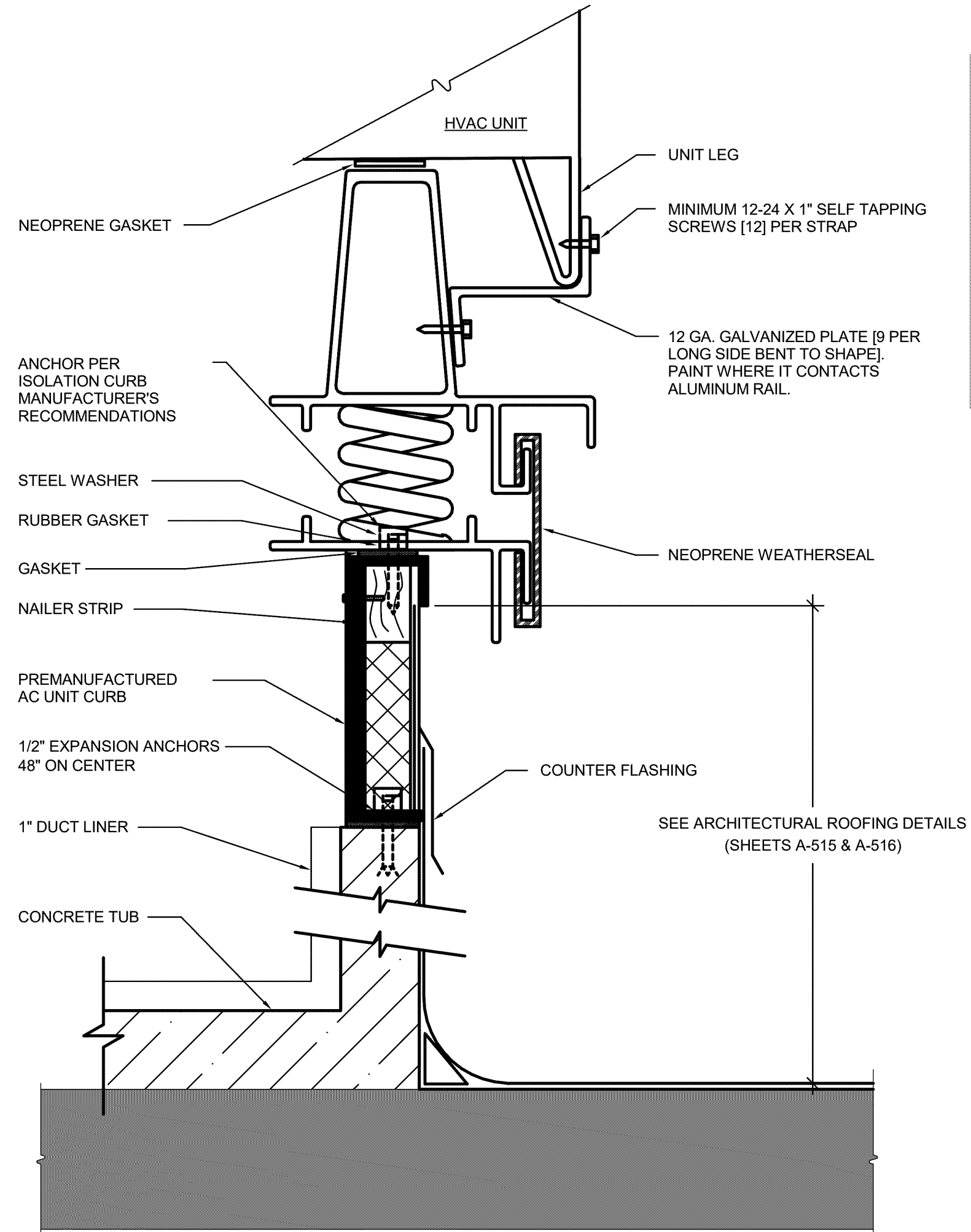
**4 ROOF JACK FOR PIPES THRU ROOF**  
NO SCALE



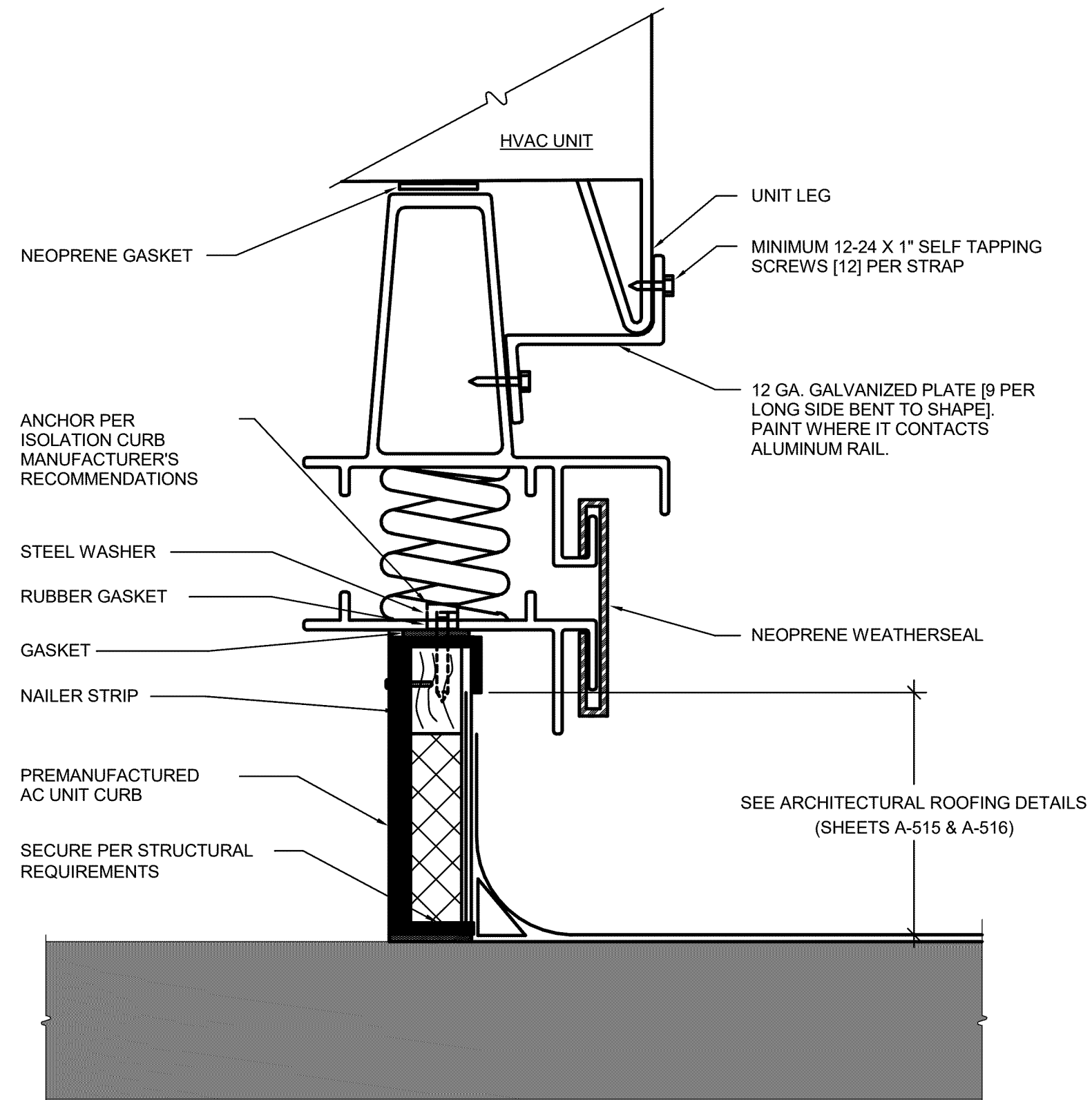
**5 FLAT ROOF MOUNTED EXHAUST FAN DETAIL**  
NO SCALE



**6 EXHAUST DUCT THRU ROOF**  
NO SCALE



**7 AC UNIT CONCRETE CURB W/ SPRING (RTU-3 & RTU-4)**  
NO SCALE



**8 AC UNIT CURB W/SPRING (RTU-1 & RTU-2)**  
NO SCALE



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checked by  
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**DETAILS -  
MECHANICAL**

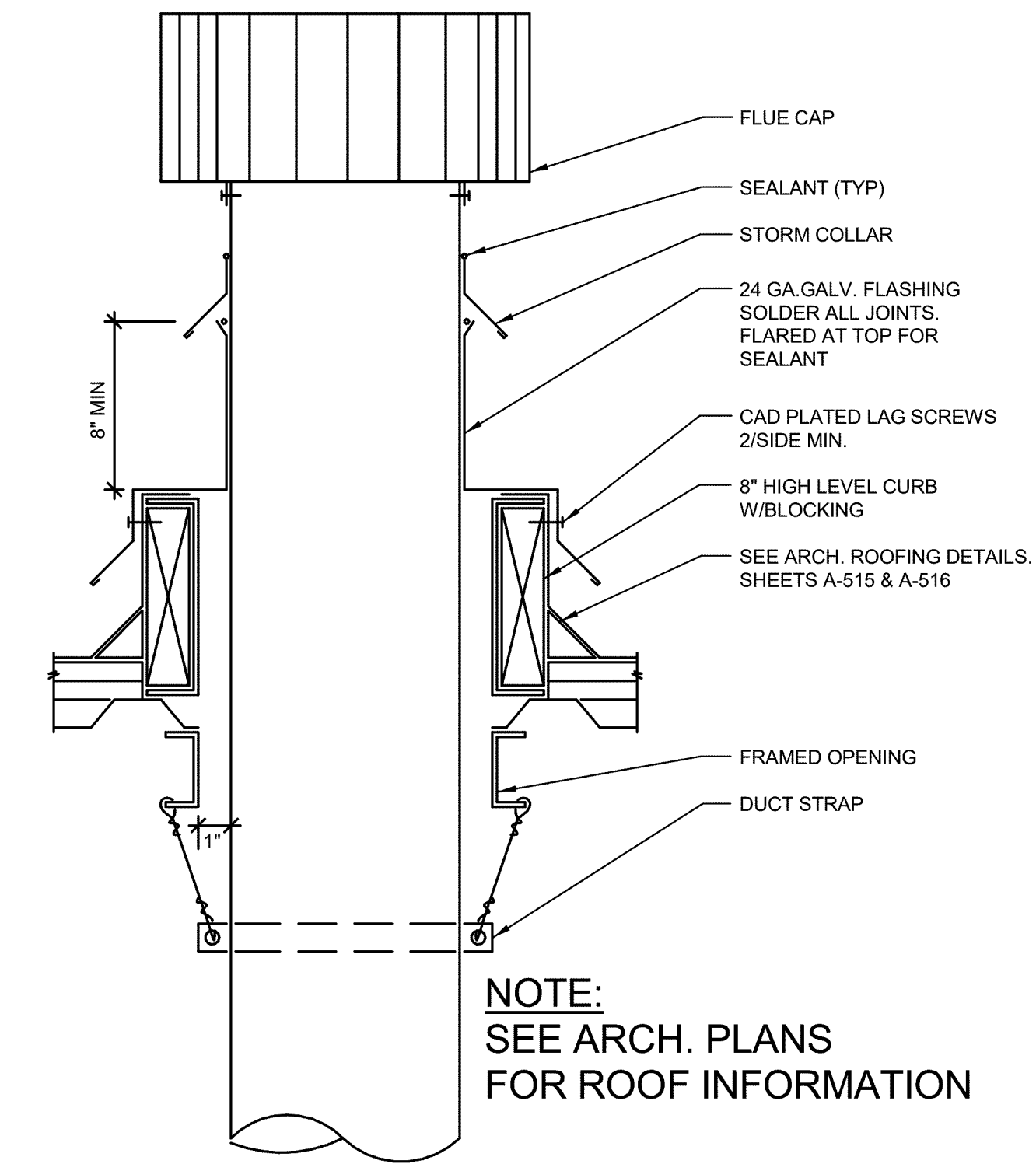


PROJECT 2019-0017  
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**M-401**

Scale **12" = 1'-0"**

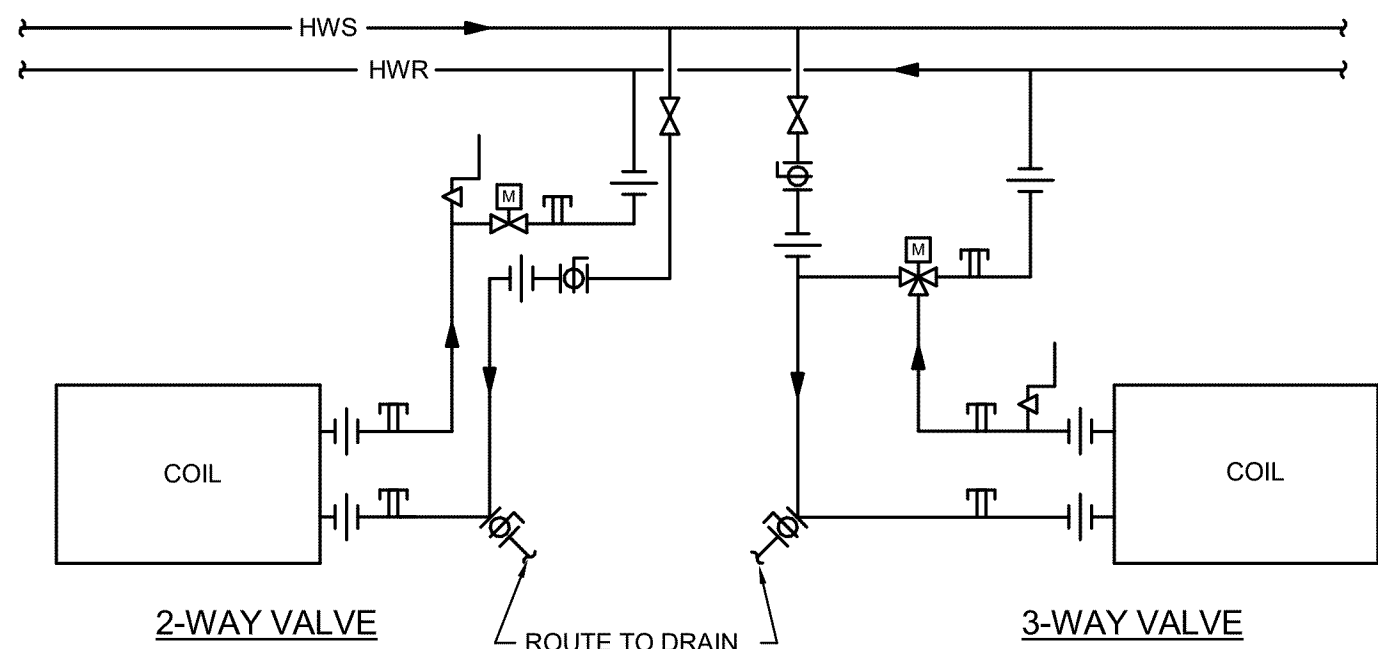




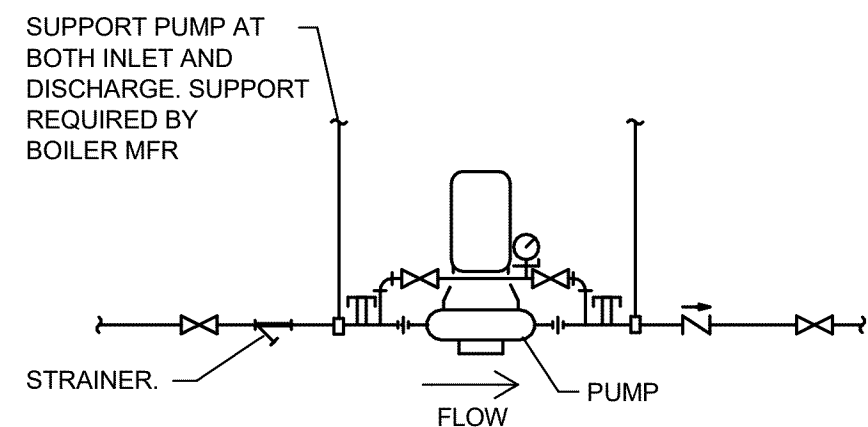
**1 BOILER FLUE THRU ROOF**  
NO SCALE

**GENERAL DETAIL NOTES**

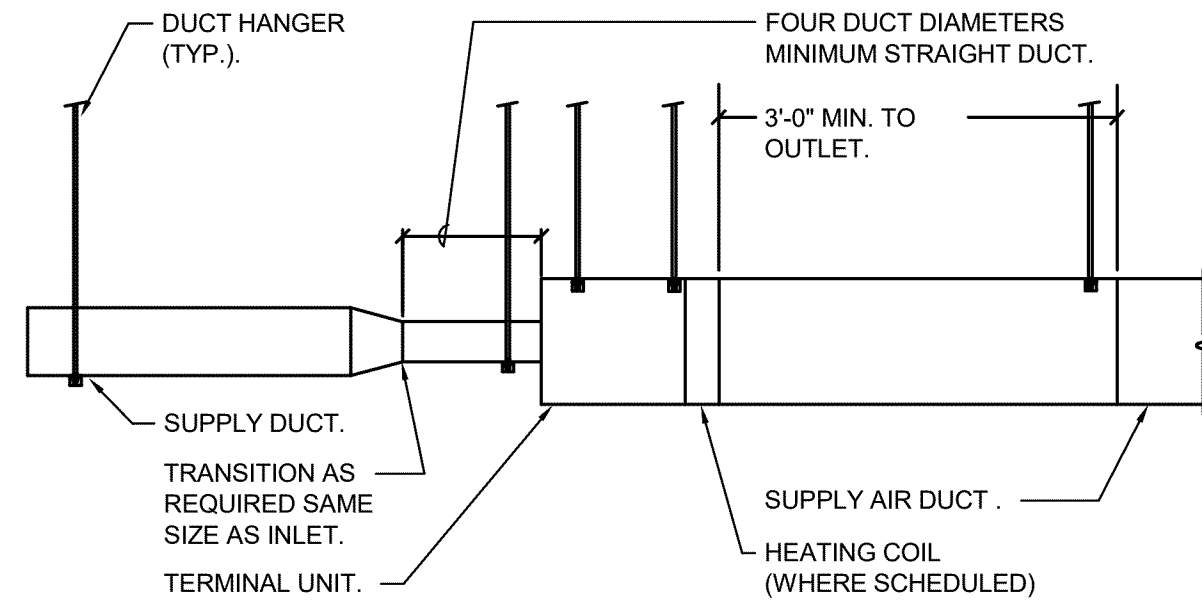
- A. TWO-WAY VALVES TYPICAL. USE THREE-WAY VALVES WHERE NOTED.
- B. TYPICAL FOR AIR HANDLER UNITS & REHEAT COILS.
- C. CONTROL VALVES TO BE PRESSURE INDEPENDENT TYPE.



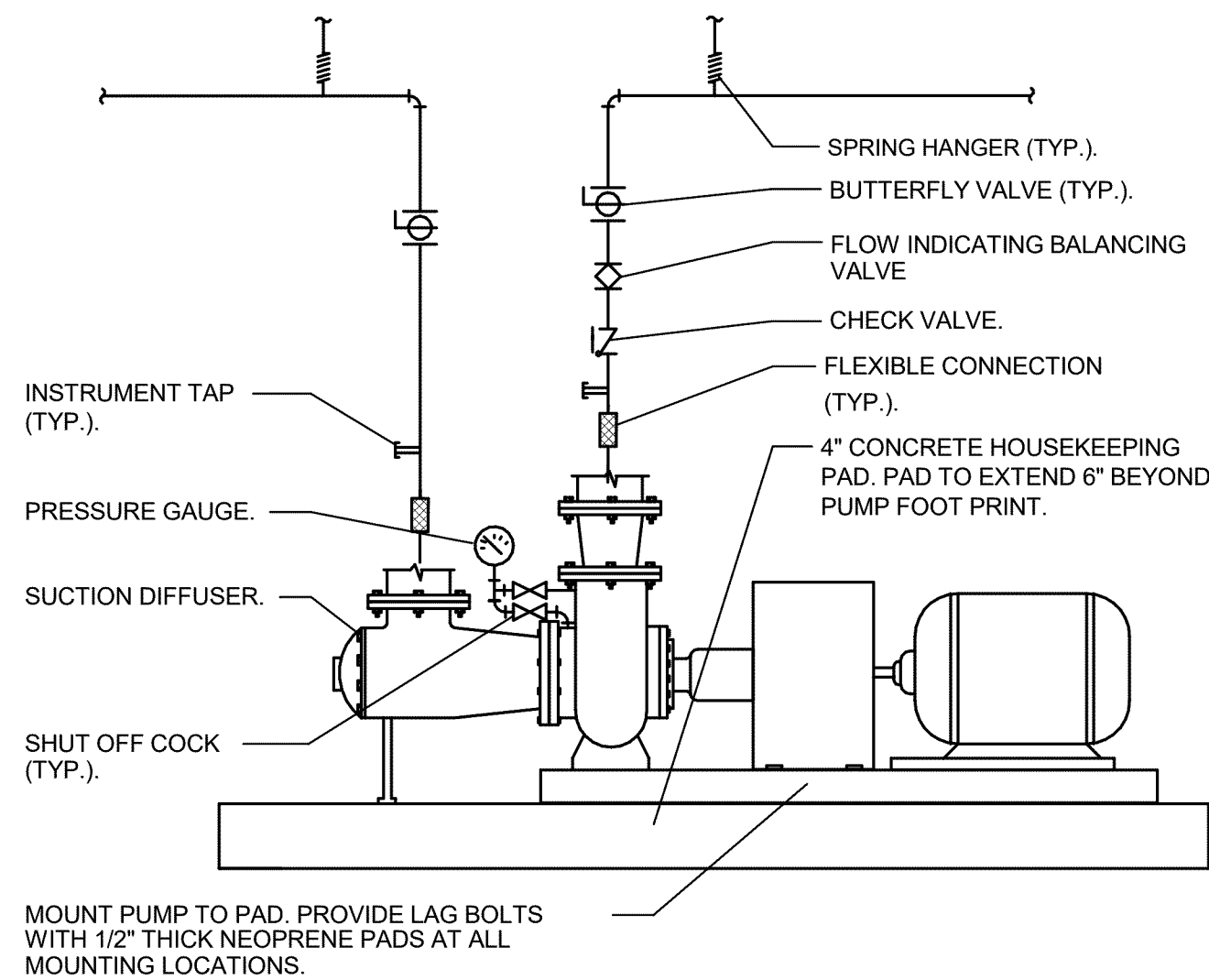
**2 HEATING COIL PIPING**  
NO SCALE



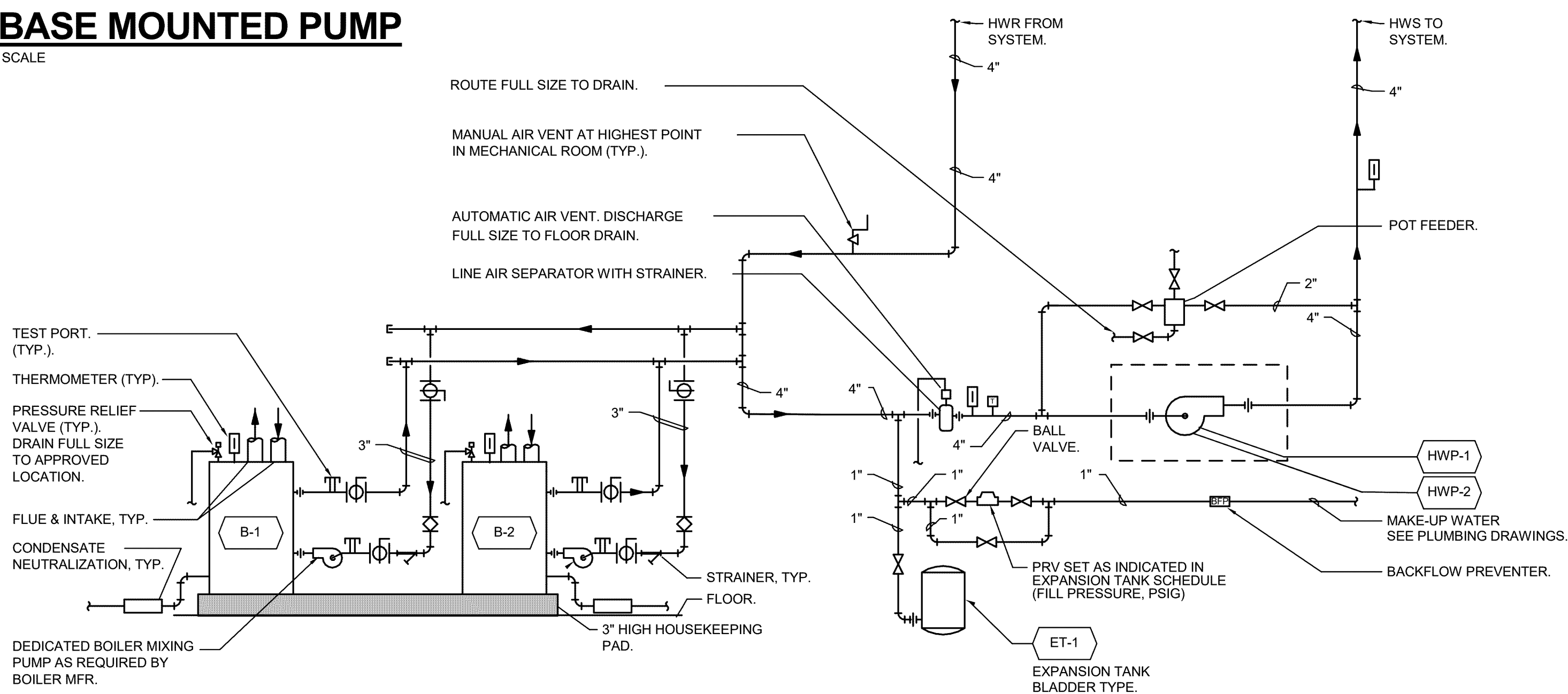
**3 BOILER PUMP**  
NO SCALE



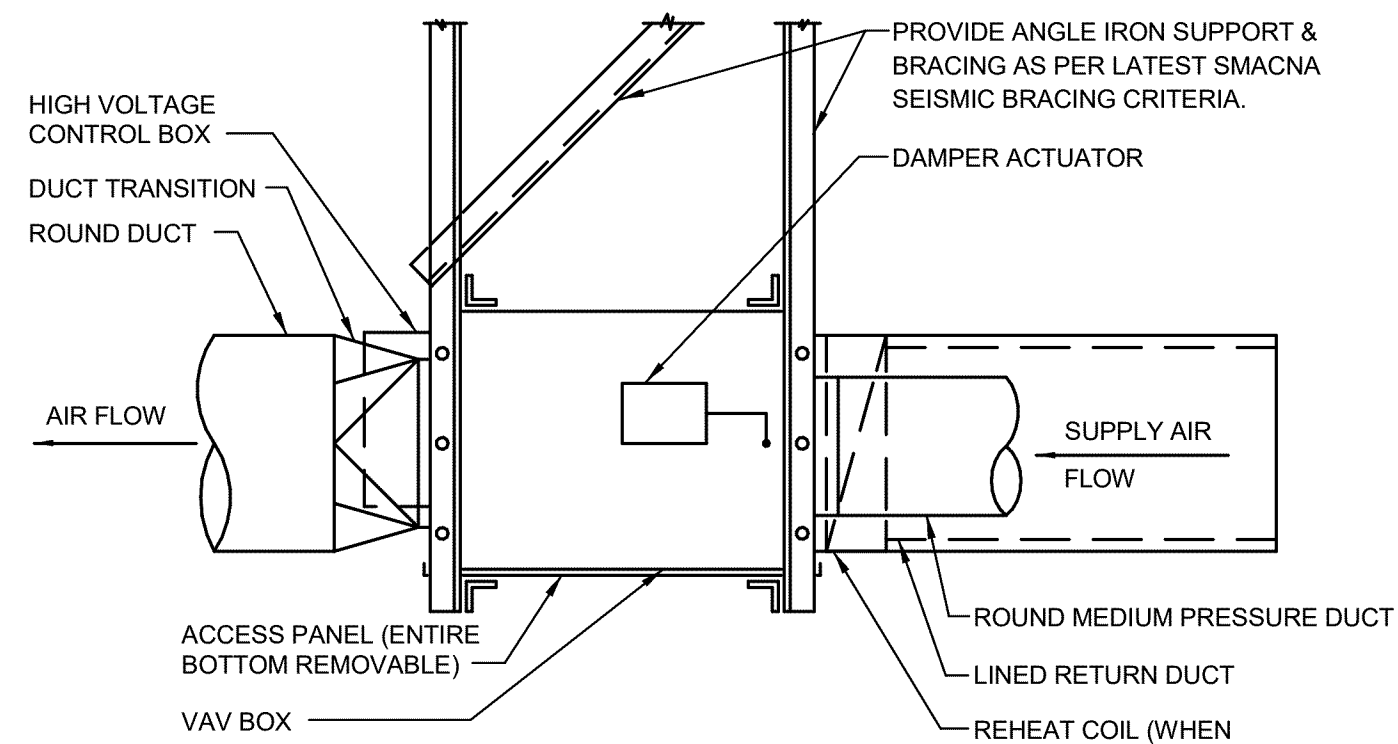
**9 TERMINAL UNIT**  
NO SCALE



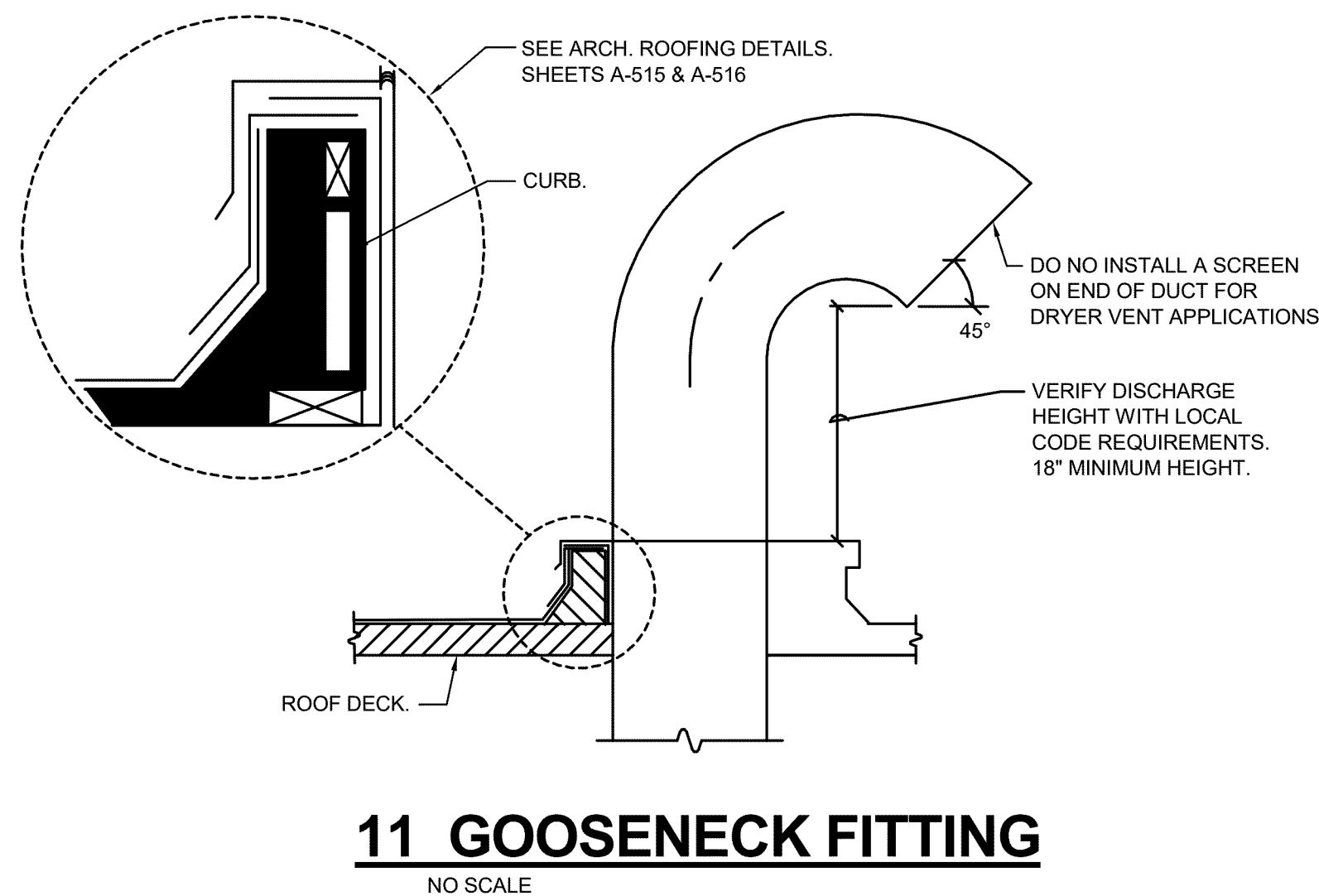
**7 BASE MOUNTED PUMP**  
NO SCALE



**4 BOILER PIPING DIAGRAM**  
NO SCALE



**10 FAN POWERED VAV TERMINAL UNIT**  
NO SCALE



**11 GOOSENECK FITTING**  
NO SCALE



PLUMBING SYMBOL LIST

Abbreviations

AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BV	BALANCING VALVE
BFF	BELOW FINISHED FLOOR
BTUH	BRITISH THERMAL UNITS PER HOUR
BLDG	BUILDING
CV	CHECK VALVE
CP	CIRCULATION PUMP
CO	CLEANOUT
CW	COLD WATER
CD	CONDENSATE DRAIN
CONT.	CONTINUATION
CFH	CUBIC FEET PER HOUR
DN	DOWN
DSN	DOWNSPOUT NOZZLE
D	DRAIN
DFU	DRAINAGE FIXTURE UNIT
DWV	DRAINAGE, WASTE AND VENT
DF	DRINKING FOUNTAIN
FT	FEET
FPS	FEET PER SECOND
FFE	FINISHED FLOOR ELEVATION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK, FLOW SWITCH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GAS WATER HEATER
GW	GREASE WASTE
HD	HEAD, HUB DRAIN
HP	HEAT PUMP, HORSE POWER, HOUSEKEEPING PAD
HZ	HERTZ
HB	HOSE BIBB
HW	HOT WATER
HWFU	HOT WATER FIXTURE UNIT
HWR	HOT WATER RETURN
IN, "	INCHES
IW	INDIRECT WASTE
INV	INVERT ELEVATION
KW	KILOWATT
L	LAVATORY
MIN	MINIMUM
N	NORTH
N/A	NOT APPLICABLE
NTS	NOT TO SCALE
NO.	NUMBER
OD	OVERFLOW DRAIN, OUTSIDE DIAMETER
PH	PHASE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RD	ROOF DRAIN
SAN	SANITARY
SF	SQUARE FEET
SD	STORM DRAIN
T&P	TEMPERATURE AND PRESSURE
T	TEMPERATURE, THERMOMETER
TP	TRAP PRIMER, TOTAL PRESSURE
TYP	TYPICAL
V	VACUUM, VENT, VOLT
VTR	VENT THRU ROOF
WCO	WALL CLEANOUT
WC	WATER COLUMN
WHA	WATER HAMMER ARRESTOR
WH	WATER HEATER, WALL HYDRANT
WSFU	WATER SUPPLY FIXTURE UNIT

General

	CONTINUATION
	EQUIPMENT IDENTIFICATION
	KEYED NOTE
	AQUASTAT
	CAP
	CLEANOUT TO GRADE
	DOWNSPOUT NOZZLE
	FLOOR CLEANOUT
	FLOOR DRAIN
	FLOOR SINK
	FLOW DIRECTION
	HOSE BIBB / WALL HYDRANT
	HUB DRAIN
	OVERFLOW ROOF DRAIN
	PIPE DROP
	PIPE RISE
	PRESSURE GAUGE WITH COCK
	PUMP
	ROOF DRAIN
	SHOCK ABSORBER / WATER HAMMER ARRESTOR
	T&P RELIEF VALVE WITH PIPE TO DRAIN
	TEE DOWN ON PIPE
	TEE UP ON PIPE
	TEST PORT
	THERMOMETER
	TRAP PRIMER MANIFOLD
	UNION
	VENT THROUGH ROOF
	WALL CLEANOUT

Piping Systems

	COLD WATER PIPING
	CONDENSATE / INDIRECT DRAIN PIPING
	FIRE PROTECTION PIPING
	GREASE WASTE ABOVE GRADE OR FINISHED FLOOR
	GREASE WASTE BELOW GRADE OR FINISHED FLOOR

	HOT WATER PIPING
	HOT WATER RETURN PIPING
	NATURAL GAS PIPING
	OVERFLOW DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
	SANITARY VENT PIPING
	SANITARY WASTE OR SOIL PIPING ABOVE GRADE OR FINISHED FLOOR
	SANITARY WASTE OR SOIL PIPING BELOW GRADE OR FINISHED FLOOR
	STORM DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
	STORM DRAIN PIPING BELOW GRADE OR FINISHED FLOOR
	TRAP PRIMER PIPING

Valves

	BACKFLOW PREVENTER
	BALANCING VALVE
	CHECK VALVE
	EARTHQUAKE GAS VALVE
	ELECTRONIC SOLENOID VALVE
	NATURAL GAS PIPING CONNECTION ASSEMBLY
	SHUTOFF VALVE, GENERAL

GENERAL NOTES

- A. ALL WORK UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT 2015 EDITION OF THE UNIFORM PLUMBING CODE AND ALL STATE, COUNTY AND NATIONAL CODES AND STANDARDS ADOPTED BY THE LOCAL JURISDICTIONS INCLUDING APPLICABLE AMENDMENTS.
- B. COORDINATE INSTALLATION OF PIPING, FIXTURES, EQUIPMENT AND THE LIKE BELOW AND ABOVE GRADE WITH STRUCTURAL COMPONENTS AND OTHER SYSTEMS INSTALLATION.
- C. COORDINATE FIXTURES, EQUIPMENT, PIPE ROUGH-IN/CONNECTION LOCATIONS AND DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- D. INSTALL ALL VALVES FOR SERVICE ACCESSIBILITY. VALVES INSTALLED ABOVE CEILING SHALL BE WITHIN 18" OF CEILING. PROVIDE ACCESS PANELS FOR ALL VALVES AND PLUMBING COMPONENTS NEEDING ACCESS WHERE INSTALLED ABOVE NON-ACCESSIBLE CEILINGS. COORDINATE PANEL LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. SEE SPECIFICATIONS FOR SIZES AND ADDITIONAL REQUIREMENTS.
- E. ALL WASTE PIPE TO SLOPE MINIMUM OF 1/4" PER FOOT, UNLESS NOTED OTHERWISE.
- F. PROVIDE WATER HAMMER ARRESTERS ON ALL DOMESTIC WATER BRANCH PIPING SERVING QUICK CLOSING VALVES SUCH AS, FLUSH VALVES, SOLENOID VALVES TO ICEMAKERS AND DISHWASHERS, SENSOR ACTIVATED FAUCETS, SINGLE HANDLE FAUCETS AND SINGLE HANDLE SHOWER VALVES.
- G. EXCEPT FOR SHOWER DRAINS, ALL FLOOR DRAINS, FLOOR SINKS, AND OTHER INDIRECT WASTE RECEPTORS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM SHALL BE PROVIDED WITH AN AUTOMATIC TRAP PRIMER.
- H. PERMANENT VACUUM BREAKERS SHALL BE INCLUDED IN ALL HOSE BIBBS.
- I. DRAINAGE PIPING SERVING FIXTURES THAT ARE LOCATED BELOW THE ELEVATION OF THE NEXT UPSTREAM MANHOLE SHALL BE PROVIDED WITH A BACKWATER VALVE. FIXTURES ABOVE THAT LEVEL SHALL NOT DISCHARGE THROUGH THIS VALVE.
- J. SEWER VENTS SHALL TERMINATE AT LEAST 10 FEET HORIZONTALLY FROM AND AT LEAST 3 FEET ABOVE OPENABLE WINDOWS, DOOR OPENINGS, AIR INTAKES OR VENT SHAFTS. VENTS MUST BE AT LEAST 3 FEET FROM PROPERTY LINE.
- K. PIPING PENETRATIONS AT THE FIRE RESISTIVE ASSEMBLIES SHALL BE INSPECTED TO VERIFY COMPLIANCE WITH THE FIRE RESISTANCE RATING.
- L. INDIRECT WASTE SHALL DISCHARGE TO THE BUILDING DRAINAGE THROUGH AN APPROVED AIR GAP OR AIR BREAK WITH A MINIMUM 1" DISTANCE FROM THE LOWEST POINT OF INDIRECT PIPE TO THE FLOOD LEVEL RIM OF THE RECEPTOR.

WATER SERVICE CALCULATION

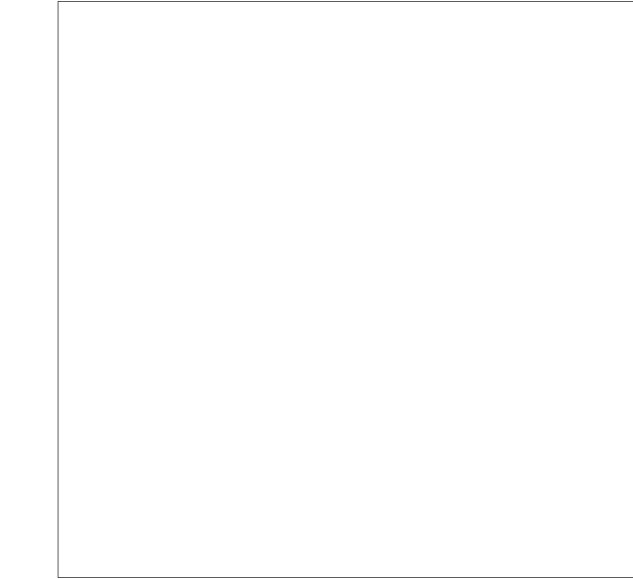
PEEK DEMAND CALCULATION (GPM)				
WATER SYSTEM		CW	HW	
TOTAL SUPPLY FIXTURE UNITS (SFUs)		103	32	
TOTAL FLOW (SFUs TO GPM)		67 GPM	42 GPM	
QTY.	MISC. DEMAND DESCRIPTION	TOTAL	CW	HW
--	--	--	--	--
1 EA.	HVAC MAKE-UP (2 GPM)	2 GPM	2 GPM	0
1 EA.	IRRIGATION FLOW (20 GPM)	20 GPM	20 GPM	0
PEAK BUILDING DEMAND TOTALS		109 GPM	42 GPM	

WATER SUPPLY FLOW TEST DATA			
	STATIC	RESIDUAL	FLOW
TEST CONDUCTED 15-JAN-2019	60 PSI	34 PSI	1,307 GPM

PRESSURE CALCULATION (PSI)		
6 FT.	(A) MINIMUM SERVICE PRESSURE @ PEEK FLOW OF 102 GPM	59.0 PSI
	(B) STATIC HEAD LOSS X .433 PSI	3.0 PSI
	(C) WATER METER PRESSURE DROP	10.0 PSI
	(D) BACK FLOW PREVENTER	8.0 PSI
	(E) PRESSURE REQUIRED AT FIXTURE	30.0 PSI
	PRESSURE AVAILABLE FOR FRICTION LOSS (A-B-C-D-E)	8.0 PSI
320 FT.	TOTAL EQUIVALENT PIPE LENGTH X 1.25	400 FT.
	PRESSURE FOR FRICTION LOSS (8.0 PSI x 100 FT./320 FT.)	2.5 PSI
SYSTEM SIZED FOR 2.5 PSI PRESSURE LOSS PER 100 FT.		
DOMESTIC WATER SERVICE SIZE		3 IN.

UPC WATER SERVICE CALCULATIONS

PRIVATE INDIVIDUAL DWELLING	PUBLIC GENERAL USE	PUBLIC HEAVY USE ASSEMBLY	DESCRIPTION	WATER SUPPLY FIXTURE UNITS				DRAINAGE FIXTURE UNITS					
				TABLE A-2			TOTAL FIXTURE UNITS		TABLE 7-3			TOTAL DFU	
				PRIVATE INDIVIDUAL DWELLING	PUBLIC GENERAL USE	PUBLIC HEAVY USE ASSEMBLY	COLD WATER	.75 HOT WATER	PRIVATE INDIVIDUAL DWELLING	PUBLIC GENERAL USE	PUBLIC HEAVY USE ASSEMBLY		
0	1	0	CLOTHESWASHER DOMESTIC	4	4	0	4	3	3	3	3	3	
0	2	0	DISHWASHER, DOMESTIC	1.5	1.5	0	3	2.25	2	2	2	4	
0	4	0	DRINKING FOUNTAIN OR WATER COOLER	0	0.5	0.75	2	0	0.5	0.5	1	2	
0	4	0	FLOOR DRAIN	0	0	0	0	0	2	2	2	8	
0	12	0	FLOOR DRAIN, EMERGENCY	0	0	0	0	0	0	0	0	0	
0	1	0	FOOD-WASTE-GRINDER, COMMERCIAL	0	0	0	0	0	0	3	3	3	
0	1	0	HOSE BIBB	2.5	2.5	2.5	2.5	0	0	0	0	0	
0	6	0	HOSE BIBB, EACH ADDITIONAL	1	1	1	6	0	0	0	0	0	
0	4	0	KITCHEN SINK	1.5	1.5	0	6	4.5	2	2	0	8	
0	10	0	LAVATORY	1	1	1	10	7.5	1	1	1	10	
0	4	0	RECEPTOR, INC. WASTE, 3" TRAP	0	0	0	0	0	0	4	4	16	
0	0	0	RECEPTOR, IND. WASTE, 2" TRAP	0	0	0	0	0	0	2	2	0	
0	1	0	SERVICE SINK OR MOP BASIN	1.5	3	0	3	2.25	0	3	3	3	
0	8	0	SINK	1	2	0	16	12	1	2	2	16	
0	10	0	WATER CLOSET, 1.6 GPF OR LESS, FLUSHOMETER VALVE	5	5	8	50	0	3	4	6	40	
Grand total								102.5	31.5				113

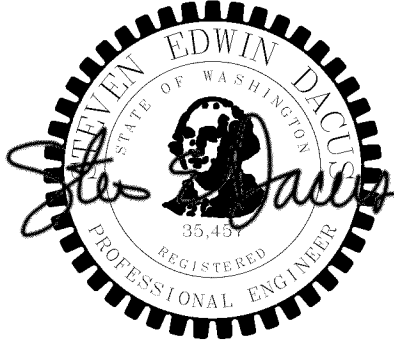


SHEET INDEX

P-001	SYMBOLS LIST AND GENERAL NOTES - PLUMBING
P-002	SCHEDULES - PLUMBING
P-100A	UNDERGROUND PLAN SECTOR A - PLUMBING
P-100B	UNDERGROUND PLAN SECTOR B - PLUMBING
P-100C	UNDERGROUND PLAN SECTOR C - PLUMBING
P-100D	UNDERGROUND PLAN SECTOR D - PLUMBING
P-101A	LEVEL 1 FLOOR PLAN SECTOR A - PLUMBING
P-101B	LEVEL 1 FLOOR PLAN SECTOR B - PLUMBING
P-101C	LEVEL 1 FLOOR PLAN SECTOR C - PLUMBING
P-101D	LEVEL 1 FLOOR PLAN SECTOR D - PLUMBING
P-121A	ROOF PLAN SECTOR A - PLUMBING
P-121B	ROOF PLAN SECTOR B - PLUMBING
P-121C	ROOF PLAN SECTOR C - PLUMBING
P-121D	ROOF PLAN SECTOR D - PLUMBING
P-200	UNDERGROUND ENLARGED PLAN - PLUMBING
P-201	ENLARGED PLANS - PLUMBING
P-202	ENLARGED PLANS - PLUMBING
P-203	ALTERNATE PLANS - PLUMBING
P-300	DETAILS - PLUMBING
P-400	NATURAL GAS RISER DIAGRAM



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SYMBOLS LIST  
AND GENERAL  
NOTES -  
PLUMBING



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P-001

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PLUMBING FIXTURE SCHEDULE										
SYMBOL	FIXTURE TYPE	DESCRIPTION	BASIS OF DESIGN			CONNECTION				NOTES
			MFR	MODEL	ACCESSORIES	W	V	CW	HW	
DF-1	DRINKING FOUNTAIN/BOTTLE FILLER	WALL MOUNTED, BI-LEVEL, NON-REFRIGERATED, LIGHT GRAY, FRONT/SIDE BUBBLER PUSHBUTTONS, ELECTRONIC BOTTLE FILLER	ELKAY	LZSTLDDWSLK		2"	1-1/2"	1/2"	--	VERIFY RIGHT OR LEFT HAND LOW BOWL CONFIGURATION
DSN-1	DOWNSPOUT NOZZLE	NICKEL BRONZE BODY, DECORATIVE FLANGE AND OUTLET NOZZLE	ZURN	Z199		4"	--	--	--	INSTALL AT 18" ABOVE OUTSIDE FINISHED GRADE
FD-1	FLOOR DRAIN (FINISHED FLOORS / SHOWERS)	CAST IRON BODY, FLASHING COLLAR, 6-INCH ADJUSTABLE NICKEL BRONZE STRAINER HEAD, TRAP PRIMER, VANDAL PROOF TOP	JR SMITH	2005Y-A-06-U-NB	PROVIDE PRIMER TAP ON P-TRAP	3"	2"	--	--	
FD-2	FLOOR DRAIN (UNFINISHED FLOORS / MECHANICAL ROOMS)	CAST IRON BODY, FLASHING COLLAR, 8-1/2-INCH ROUND ADJUSTABLE TOP, BAR GRATE, SEDIMENT BUCKET, TRAP PRIMER	JR SMITH	2350Y	PROVIDE PRIMER TAP ON P-TRAP	3"	2"	--	--	
FS-1	FLOOR SINK	CAST IRON FLANGED RECEPTOR, SEEPAGE HOLES, ACID RESISTANT COATED INTERIOR, NICKEL BRONZE RIM, 1/2-GRATE, ALUMINUM DOME BOTTOM STRAINER, 10-INCH DEEP	JR SMITH	3160Y-12	PROVIDE PRIMER TAP ON P-TRAP	4"	2"	--	--	
IMB-1	ICE MAKER OUTLET BOX	FIRE RATED ABS BOX/FRAME, NO-LEAD VALVES WITH WATER HAMMER ARRESTORS	SIOUX CHIEF	696RG1010MF		--	--	1/2"	--	
L-1	LAVATORY	WALL MOUNTED, VITREOUS CHINA, 3-HOLE PUNCH, 4-INCH CENTERS, FRONT OVERFLOW	AMERICAN STANDARD	355.012	FAUCET (SINGLE TEMP METERING); AMERICAN STANDARD 1340.107, PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVE (SEE PLUMBING DEVICES SCHEDULE - PMV-1)	2"	1-1/2"	1/2"	1/2"	
MS-1	MOP SINK	FLOOR MOUNTED, TERRAZZO, 24-INCHES X 24-INCHES X 10-INCHES	STERN WILLIAMS	MTB-2424	FAUCET (MOP SINK); CHICAGO 540-LD897SWXFABCP (PROVIDE WITH CHICAGO GCJKABCP INTEGRAL CHECKS) VINYL BUMPER GUARDS, MOP HANGER & SPLASH PANELS	3"	2"	1/2"	1/2"	
OD-1	ROOF DRAIN (OVERFLOW DRAIN)	LARGE AREA, EPOXY COATED CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, UNDER DECK CLAMP, EXTENSION, SUMP RECEIVER, 2-INCH WATER DAM, ALUMINUM DOME	JR SMITH	1080-AD-C-E-R-Y		4"	--	--	--	
RD-1	ROOF DRAIN	LARGE AREA, EPOXY COATED CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, UNDER DECK CLAMP, EXTENSION, SUMP RECEIVER, ALUMINUM DOME	JR SMITH	1010-AD-C-E-R-Y		4"	--	--	--	
S-1	SINK	DROP IN, SINGLE BOWL, VITREOUS CHINA, 8-INCH CENTERS, 20-3/8-INCHES X 17-3/8-INCHES X 5-5/8-INCHES DEEP, BARRIER FREE	AMERICAN STANDARD	0475.020	FAUCET WITH WRIST BLADE HANDLES, DECK MOUNTED: CHICAGO 201-AGN8AE36-317ABCP, PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVE (SEE PLUMBING DEVICES SCHEDULE - PMV-1)	2"	1-1/2"	1/2"	1/2"	
S-2	SINK	DROP-IN, DOUBLE BOWL, 18 GAUGE STAINLESS STEEL, 33-INCHES X 19-1/2-INCHES X 8-1/2-INCHES DEEP, 36-INCH MINIMUM CABINET SIZE, BARRIER FREE	ELKAY	LRADQ33196SPD	FAUCET WITH WRIST BLADE HANDLES, DECK MOUNTED: CHICAGO 201-AGN8AE36-317ABCP, PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVE (SEE PLUMBING DEVICES SCHEDULE - PMV-1)	2"	1-1/2"	1/2"	1/2"	
WC-1	WATER CLOSET	WALL MOUNTED, VITREOUS CHINA, TOP SPUD, FLUSHOMETER, STANDARD MOUNTING HEIGHT	SLOAN	ST-2459	FLUSH VALVE (MANUAL, 1.28 GPF, DIAPHRAGM); SLOANROYAL 111-1.28 SEAT (BARRIER FREE, COMMERCIAL WEIGHT, EXTRA HEAVY-DUTY SOLID PLASTIC WITH STAINLESS STEEL CHECK HINGE); BEMIS 1655SSC-000	4"	2"	1"	--	
WC-2	WATER CLOSET	WALL MOUNTED, VITREOUS CHINA, TOP SPUD, FLUSHOMETER, BARRIER FREE MOUNTING HEIGHT	SLOAN	ST-2459	FLUSH VALVE (MANUAL, 1.28 GPF, DIAPHRAGM); SLOANROYAL 111-1.28 SEAT (BARRIER FREE, COMMERCIAL WEIGHT, EXTRA HEAVY-DUTY SOLID PLASTIC WITH STAINLESS STEEL CHECK HINGE); BEMIS 1655SSC-000	4"	2"	1"	--	
WH-1	WALL HYDRANT	ENCASED, NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING, BRASS FINISH BOX/DOOR ASSEMBLY, DOUBLE CHECK BACKFLOW PREVENTER	WOODFORD	B67-P-BR		--	--	3/4"	--	
WM-1	WASHING MACHINE OUTLET BOX	ABS BOX/FRAME, NO-LEAD VALVES WITH WATER HAMMER ARRESTORS, 1/2" FEMALE SWEAT CONNECTIONS	SIOUX CHIEF	696-G2313MF		2"	1-1/2"	1/2"	1/2"	
SEE ARCHITECTURAL PLANS FOR ALL PLUMBING FIXTURE MOUNTING HEIGHTS AND LOCATIONS										

SYMBOL	FIXTURE TYPE	DESCRIPTION	BASIS OF DESIGN			NOTES
			MFR	MODEL	ACCESSORIES	
CT-1	CONDENSATE NEUTRALIZING TUBE	1.7 GPH FLOW RATE, HORIZONTAL MOUNTING, 2" CLEAR POLYPROPYLENE PRE-CHARGED MAGNESIUM HYDROXIDE PELLET TUBE	JJM BOILER WORKS	CBM225	TUBE CLAMPS	ANCHOR UNI-STRUT TO FLOOR SLAB AND ATTACH TUBE USING MANUFACTURER SUPPLIED TUBE CLAMPS. ROUTE CHEMICAL RESISTANT DRAIN PIPING, FULL SIZE, FROM EQUIPMENT TO TUBE AND DRAIN PIPING FROM TUBE TO INDIRECT DISCHARGE AT FLOOR DRAIN.
CT-2	CONDENSATE NEUTRALIZING TUBE	16 GPH FLOW RATE, HORIZONTAL MOUNTING, 4" PVC PRE-CHARGED MAGNESIUM HYDROXIDE PELLET TUBE	JJM BOILER WORKS	JM-20	CHANNEL STRUT MOUNTS, STRUT CLAMPS	ANCHOR CHANNEL TO FLOOR SLAB AND ATTACH TUBE USING MANUFACTURER SUPPLIED STRUT CLAMPS. ROUTE CHEMICAL RESISTANT DRAIN PIPING, FULL SIZE, FROM EQUIPMENT TO TUBE AND DRAIN PIPING FROM TUBE TO INDIRECT DISCHARGE AT FLOOR DRAIN.
ET-1	DOMESTIC WATER EXPANSION TANK - ASME	14 GALLON CAPACITY, WELDED STEEL CONSTRUCTION, HEAVY-DUTY BUTYL DIAPHRAGM, SEPERATE REGID POLYPROPYLENE-LINED WATER RESERVOIR, AIR-CHARGING VALVE, ASME CERTIFIED.	AMTROL	ST-30VC		
GI-1	GREASE INTERCEPTOR	1,000 GALLON, PRE-CAST CONCRETE	COLUMBIA PRE-CAST	577		
MMV-1	MASTER MIXING VALVE	FULL PACKAGE SYSTEM WITH HIGH/LOW FLOW MIXING VALVES, GAUGES, VALVES, UNIONS AND OTHER CONNECTIONS, EXPOSED. 1 GPM TO 72 GPM AT 10 PSI MAX FALLOFF. SYSTEM PEAK = 62 GPM AT 9 PSI FALLOFF.	LEONARD	TM-186-15020-PRV		
PMV-1	POINT-OF-USE MIXING VALVE	THERMOSTATIC MIXING VALVE. ASSE 1070 COMPLIANT, INTEGRAL CHECK VALVE, LEAD FREE	WATTS	LFMMV		SET OUTLET TEMPERATURE TO 120°F
WHA-1	WATER HAMMER ARRESTOR	PISTON TYPE WATER HAMMER ARRESTOR, TYPE 'L' HARD DRAWN COPPER BARREL, EPDM O-RINGS, MAINTENANCE FREE	PRECISION PLUMBING PRODUCTS	SC SERIES		SIZE PER PDI STANDARDS

WATER HEATER SCHEDULE											
SYMBOL	EQUIPMENT TYPE	LOCATION/ SERVING	BASIS OF DESIGN		TANK CAPACITY (GALLONS)	GAS DATA INPUT (MBH)	RECOVERY RATE (GPH)	ELECTRICAL			NOTES
			MFR	MODEL				VOLTS	PH	AMPS	
GWH-1	HIGH EFFICIENCY (95%) NATURAL GAS FIRED WATER HEATER	MECH RM 104/DOM. HW	AO SMITH	BTH-120	100	120	214	120	1	15	1390
GWH-2	HIGH EFFICIENCY (95%) NATURAL GAS FIRED WATER HEATER	MECH RM 104/DOM. HW	AO SMITH	BTH-120	100	120	214	120	1	15	1390

PLUMBING PUMP SCHEDULE											
SYMBOL	EQUIPMENT TYPE	LOCATION/ SERVING	BASIS OF DESIGN		FLOW RATE (GPM)	HEAD (FT H2O)	ELECTRICAL				NOTES
			MFR	MODEL			VOLTS	PH	AMPS	HP	
CP-1	DOMESTIC HOT WATER CIRCULATION PUMP	MECH RM 121/BLDG. DOM. HW	GRUNDFOS	UPS 15-58	6	12.00	115	1	0.75	1/25	
CP-2	DOMESTIC HOT WATER CIRCULATION PUMP	MECH RM 121/BLDG. DOM. HW	GRUNDFOS	UPS 15-58	6	12.00	115	1	0.75	1/25	
CP-3	DOMESTIC HOT WATER CIRCULATION PUMP	MECH RM 112/KITCHEN DOM. HW	GRUNDFOS	UPS 15-10	1	5.00	115	1	0.23	1/25	
CP-4	DOMESTIC HOT WATER CIRCULATION PUMP	MECH RM 112/KITCHEN DOM. HW	GRUNDFOS	UPS 15-10	1	5.00	115	1	0.23	1/25	

MISCELLANEOUS PLUMBING EQUIPMENT SCHEDULE										
SYMBOL	EQUIPMENT TYPE	LOCATION/SERVING	BASIS OF DESIGN		ELECTRICAL				NOTES	
			MFR	MODEL	VOLTS	PH	AMPS	HP		
TP-1	ELECTRONIC TRAP PRIMER	SEE FLOOR PLANS/SAN TRAPS	PRECISION PLUMBING PRODUCTS	MP-500	120	1	6.3	--	INSTALL WITH CONTROLLER IN AN ACCESSIBLE LOCATION	



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**UNDERGROUND  
PLAN SECTOR A -  
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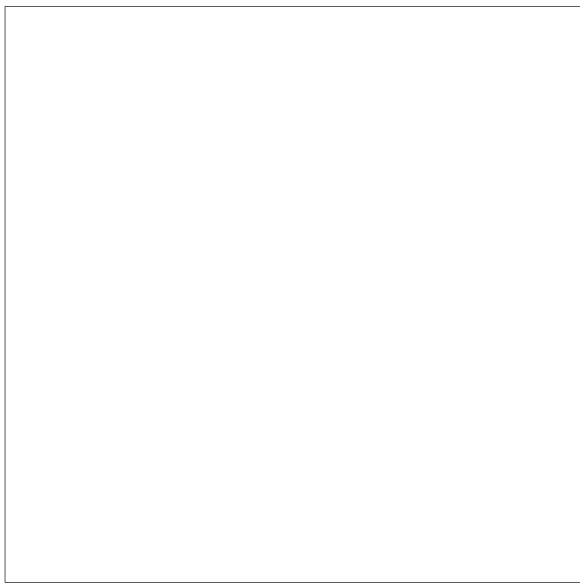
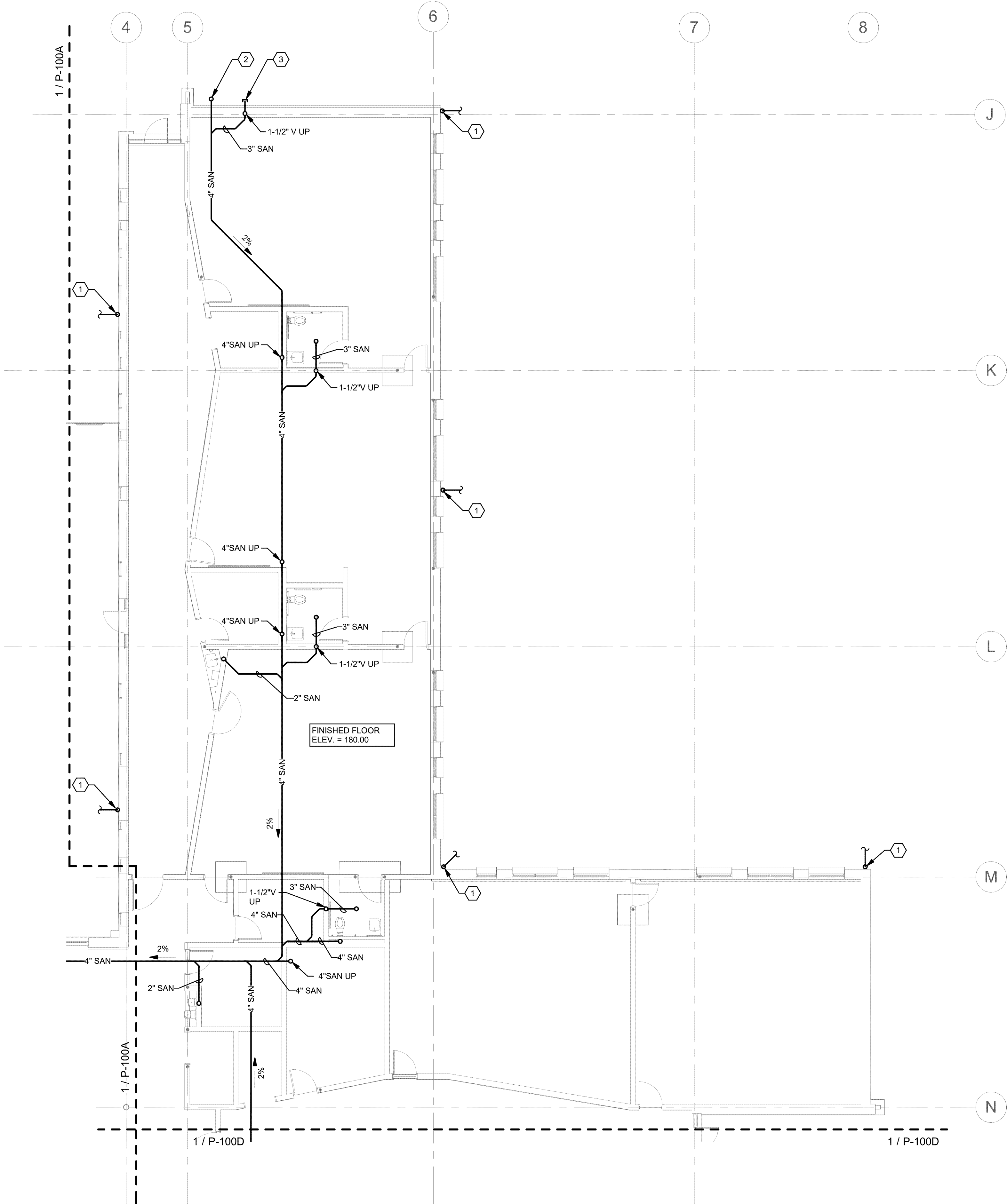


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# 1 LEVEL 1 FLOOR PLAN SECTOR B - PLUMBING

0' 4' 8' 16'  
1/8" = 1'-0"



## SHEET KEYNOTES

1. DOWNSPOUT TRANSITION TO UNDERGROUND, SEE DETAIL 4/P-300. COORDINATE LOCATION AND REQUIREMENTS WITH ARCHITECTURAL AND CIVIL PRIOR TO INSTALLATION.  
BASE BID: PROVIDE CLEAN OUT TO GRADE. SEE SHEET P-203 FOR WORK ASSOCIATED WITH ALTERNATE 1.
2. BASE BID: EXTEND PIPING BEYOND THE FOUNDATION, CAP FOR FUTURE CONNECTION AND PROVIDE A MARKER AT GRADE TO IDENTIFY PIPING LOCATION. SEE SHEET P-203 FOR WORK ASSOCIATED WITH ALTERNATE 1.
- 3.

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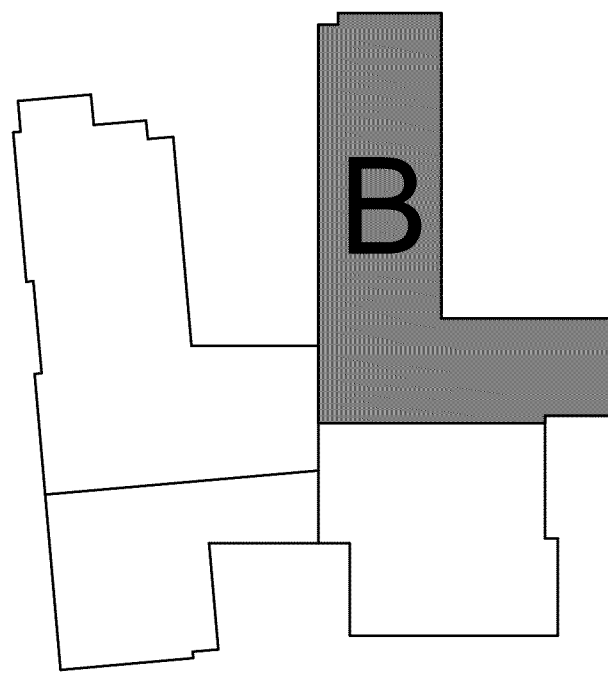
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**PLAN SECTOR B -**  
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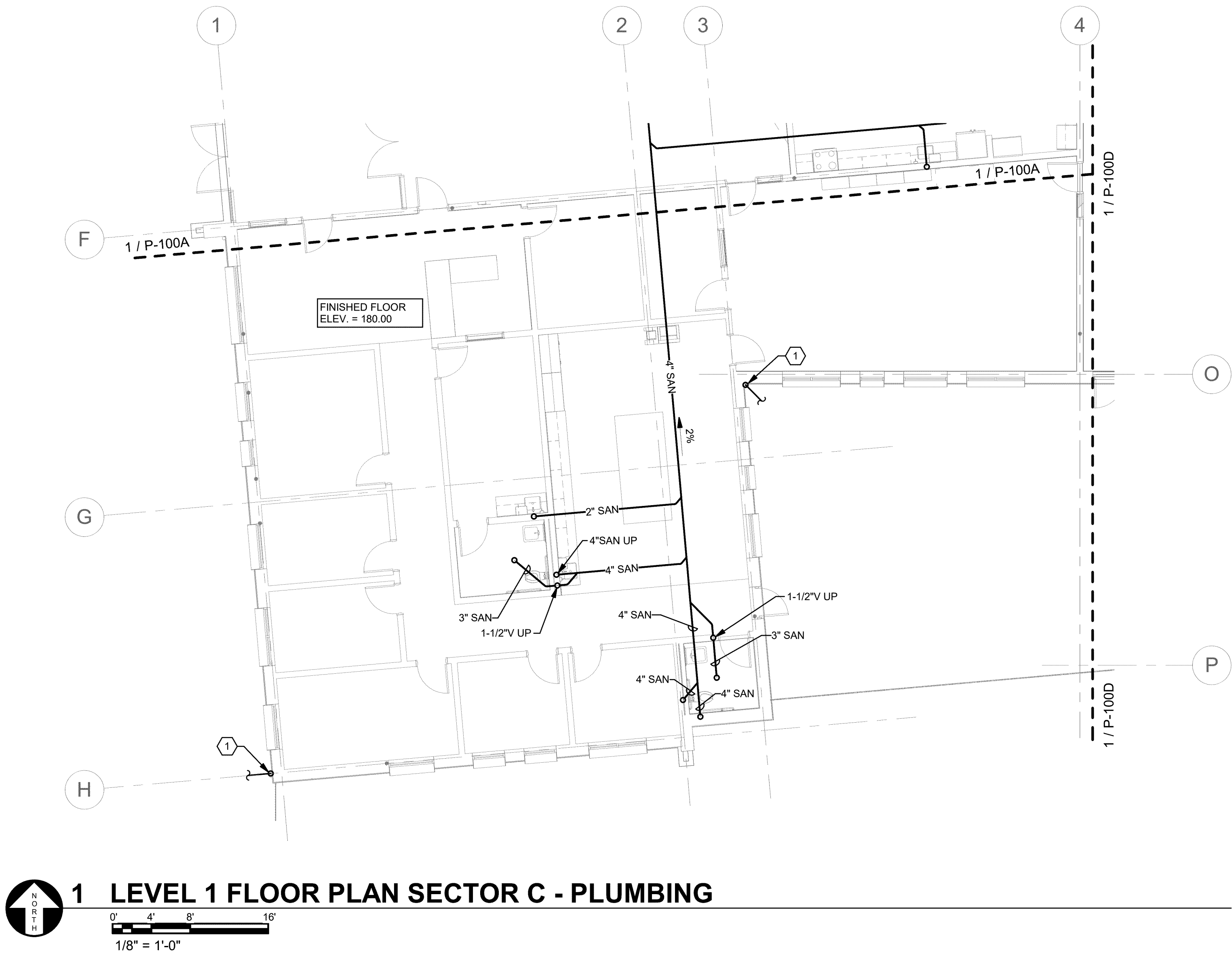
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### UNDERGROUND PLAN SECTOR D - PLUMBING

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## 1 LEVEL 1 FLOOR PLAN SECTOR D - PLUMBING

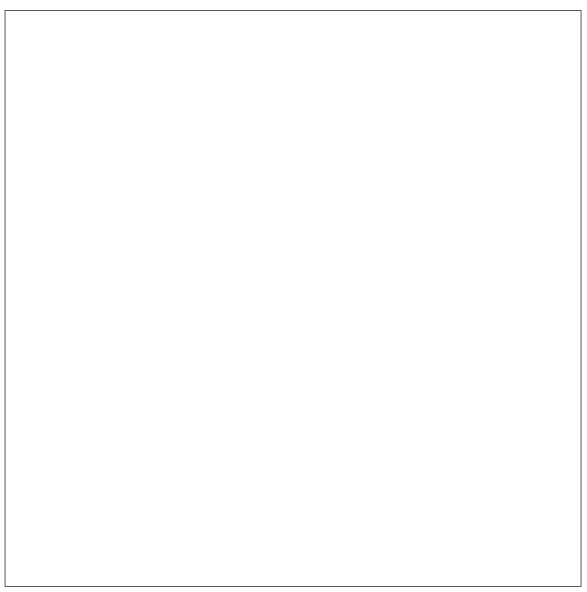


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# 1 LEVEL 1 FLOOR PLAN SECTOR A - PLUMBING

0' 4' 8' 16'  
1/8" = 1'-0"

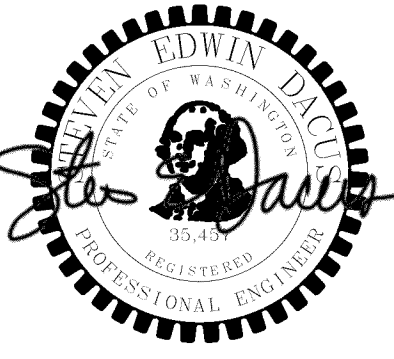


## SHEET KEYNOTES

- 1/2" HOT & COLD WATER DOWN, 2" SANITARY SEWER DOWN, 1-1/2" VENT UP. ROUTE 1/2" HOT WATER SUPPLY PIPING TO CONNECTION WITH DISHWASHER. ROUTE DISHWASHER DRAIN TO CONNECTION WITH SINK TAILPIECE UTILIZING A FIXED AIR GAP FITTING.
- SET BALANCING VALVE AT 0.5 GPM FLOW RATE.

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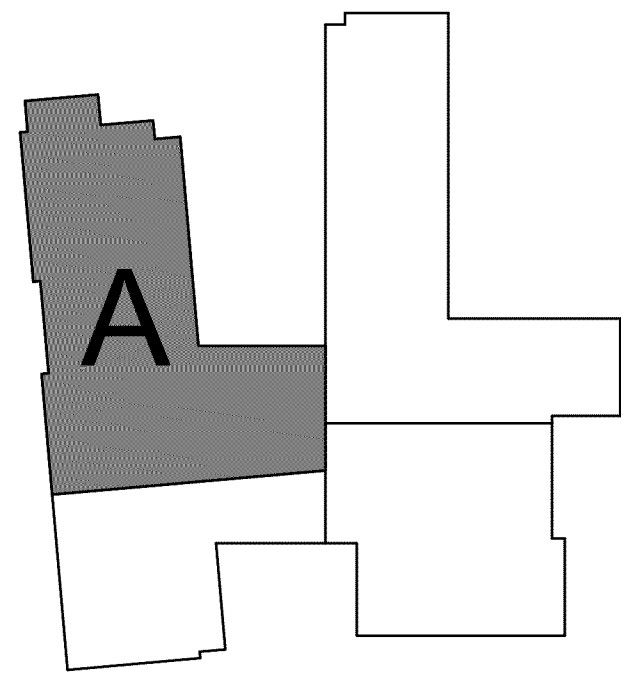


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**LEVEL 1 FLOOR  
PLAN SECTOR A -  
PLUMBING**

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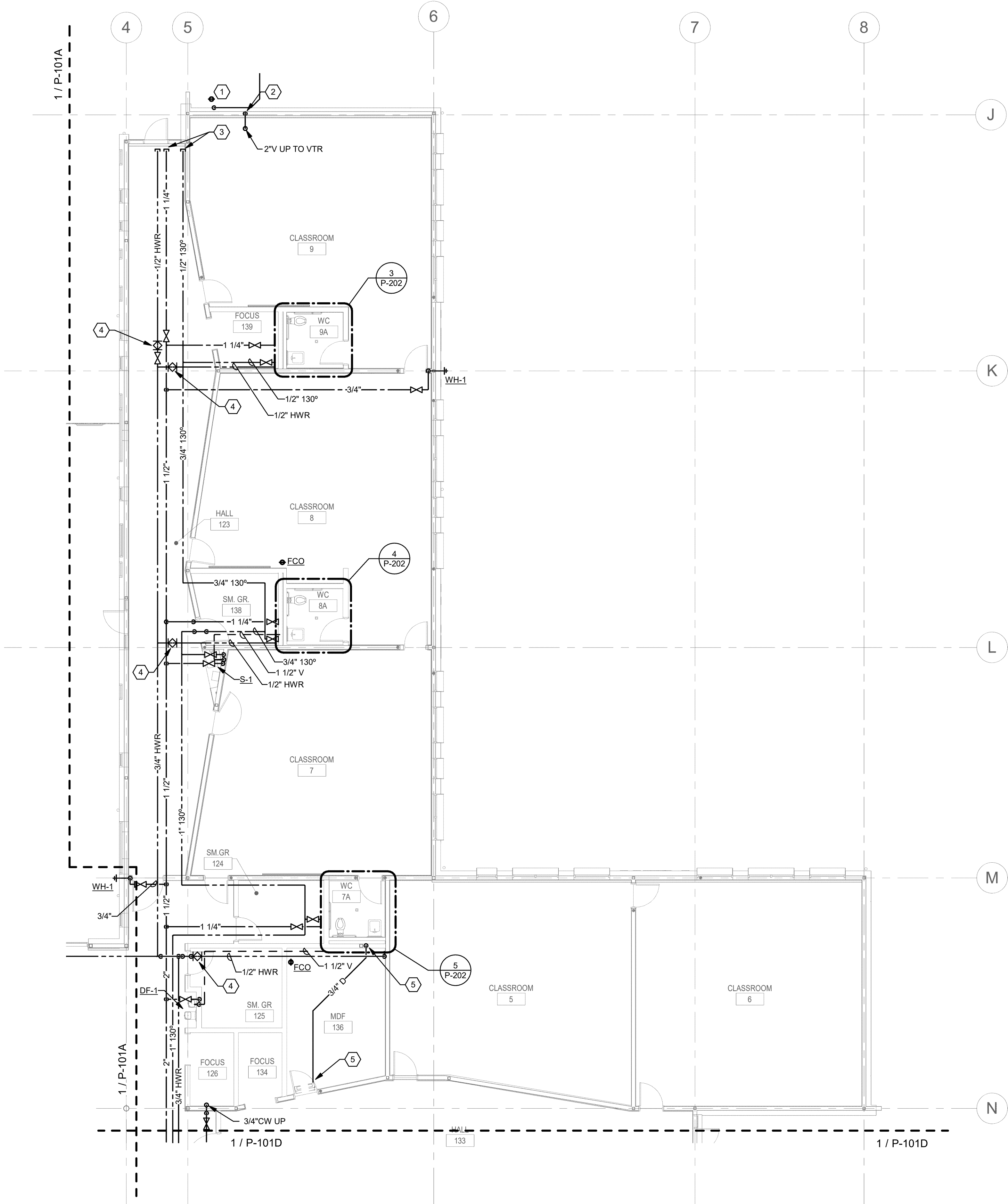
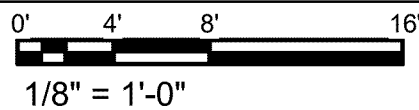
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## 1 LEVEL 1 FLOOR PLAN SECTOR B - PLUMBING



### SHEET KEYNOTES

1. BASE BID: PROVIDE CLEAN OUT TO GRADE (COTG). SEE SHEET P-203 FOR WORK ASSOCIATED WITH ALTERNATE 1.
2. BASE BID: 1-1/2" VENT PIPING DOWN WITH 2" CAPPED TEE IN WALL FOR FUTURE CONNECTION. SEE SHEET P-203 FOR WORK ASSOCIATED WITH ALTERNATE 1.
3. BASE BID: CAP WATER PIPING FOR FUTURE CONNECTION. SEE SHEET P-203 FOR WORK ASSOCIATED WITH ALTERNATE 1.
4. SET BALANCING VALVE AT 0.5 GPM FLOW RATE.
5. ROUTE 3/4" CONDENSATE DRAIN PIPING FROM HVAC EQUIPMENT TO CONDENSATE TRAP AT LAVATORY (JR SMITT - FIGURE 9200 OR EQUAL).

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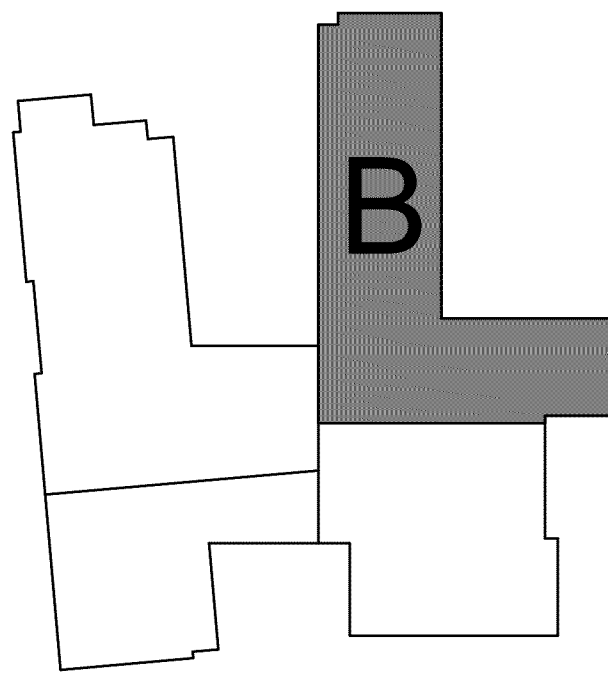
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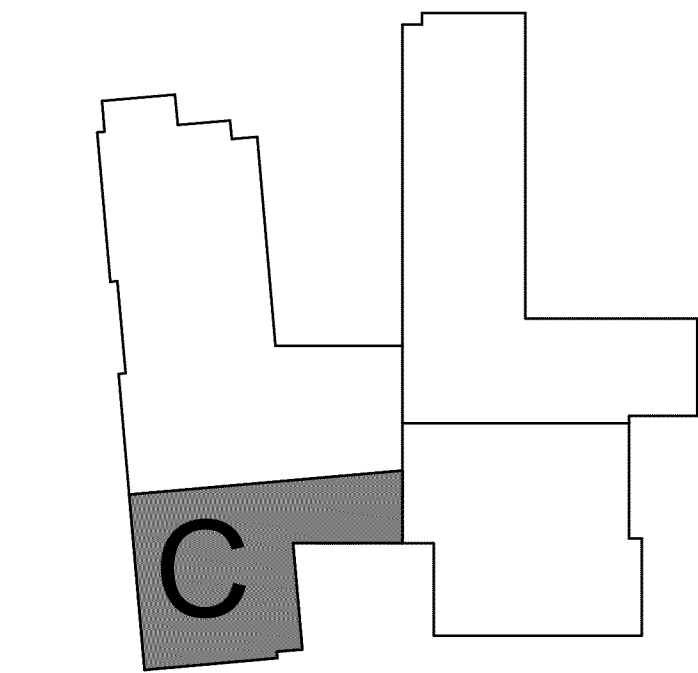
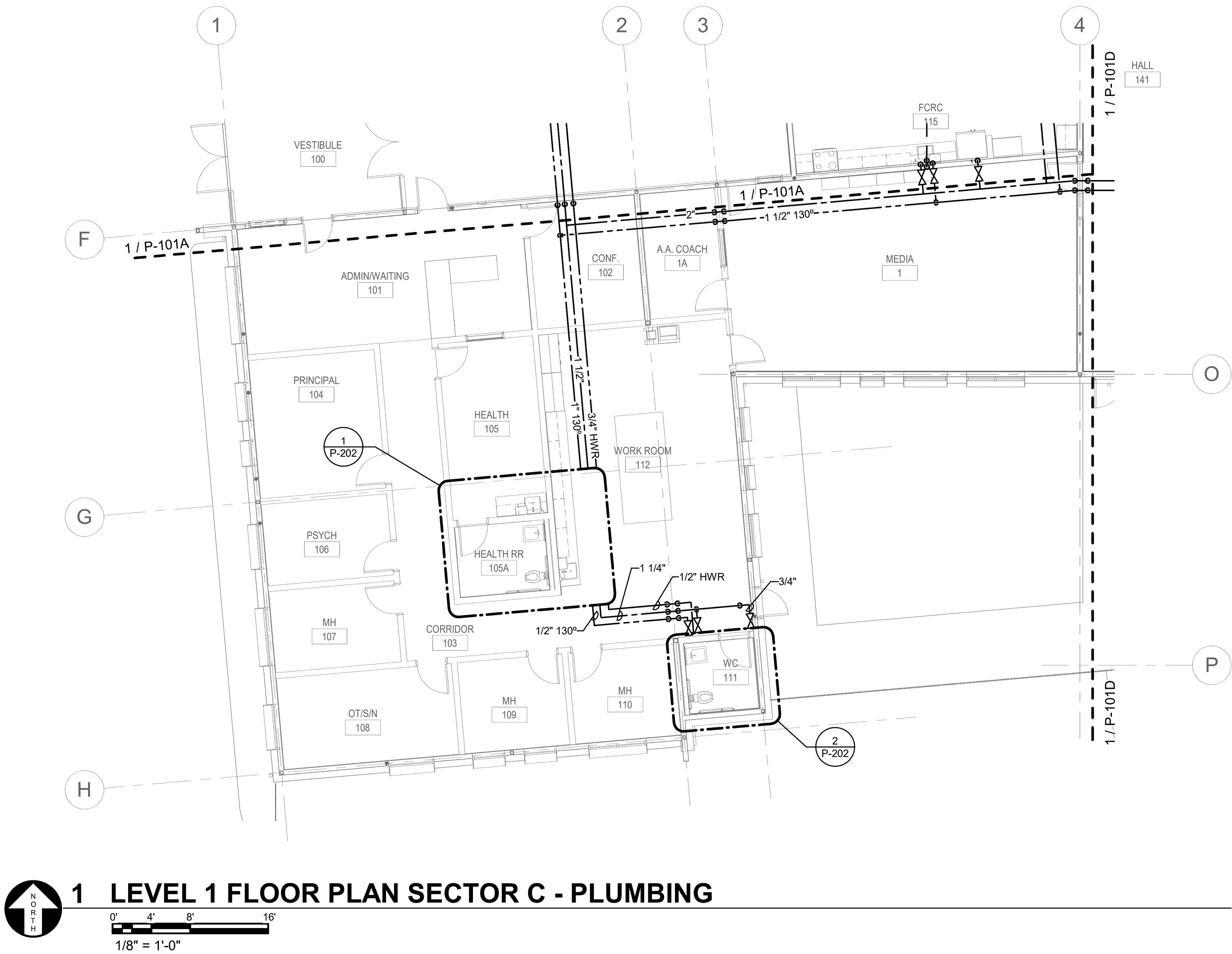
# P-101B

Scale 1/8" = 1'-0"





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**P-101C**

Scale 1/8" = 1'-0"

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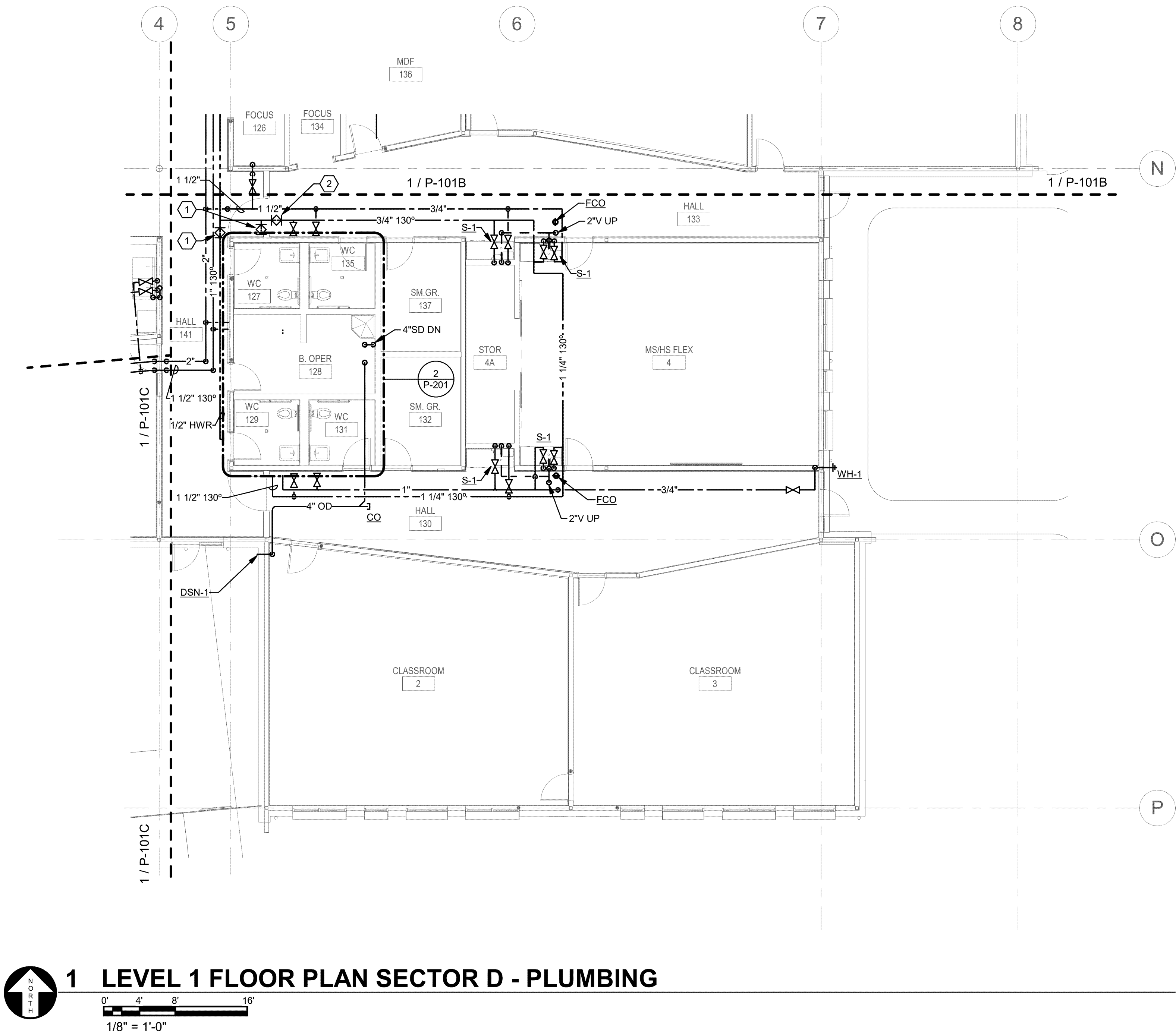
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**LEVEL 1 FLOOR  
PLAN SECTOR C -  
PLUMBING**



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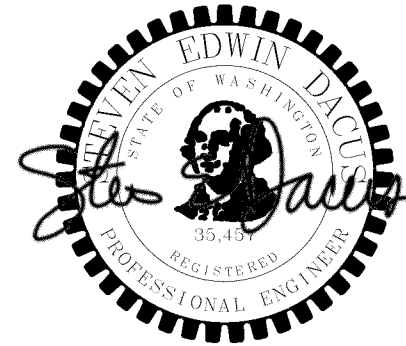
**1 LEVEL 1 FLOOR PLAN SECTOR D - PLUMBING**

0' 4' 8' 16'

1/8" = 1'-0"

## SHEET KEYNOTES

1. SET BALANCING VALVE AT 0.5 GPM FLOW RATE.
2. SET BALANCING VALVE AT 1.0 GPM FLOW RATE.



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**LEVEL 1 FLOOR  
PLAN SECTOR D -  
PLUMBING**



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**P-101D**

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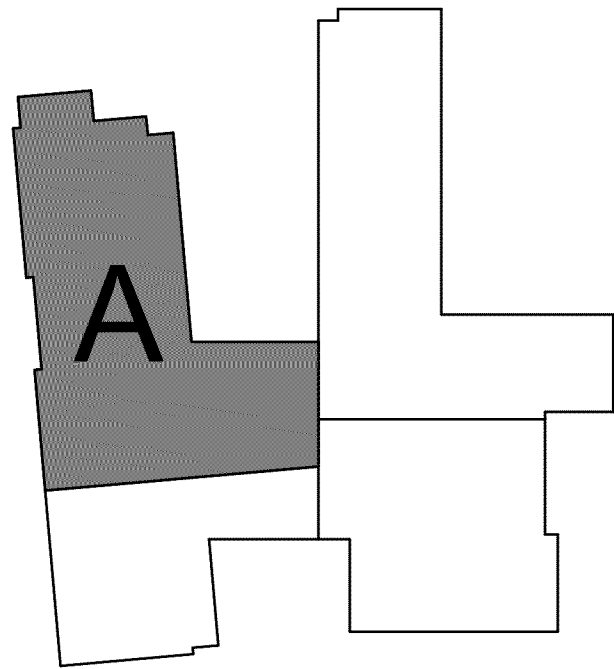
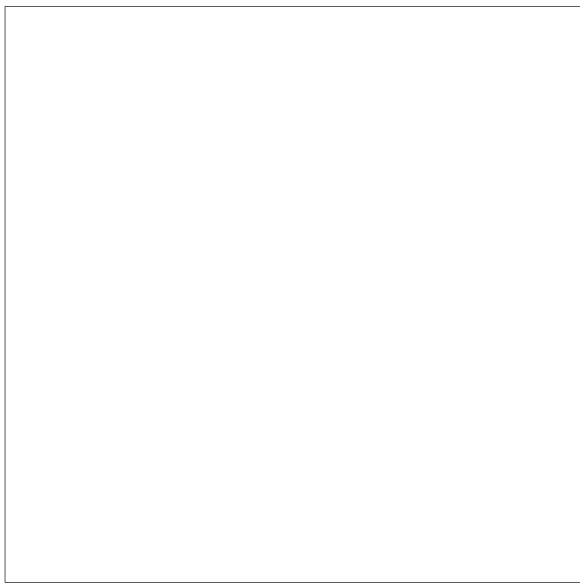


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# 1 ROOF PLAN SECTOR A - PLUMBING

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1/8" = 1'-0"

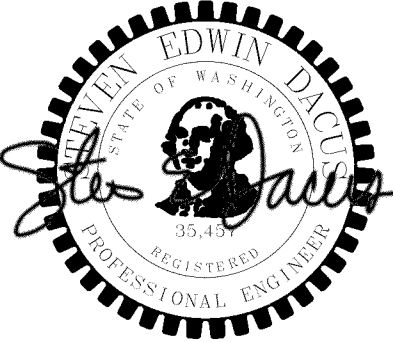


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## P-121A

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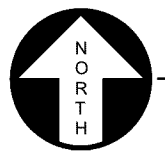
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**ROOF PLAN  
SECTOR A -  
PLUMBING**

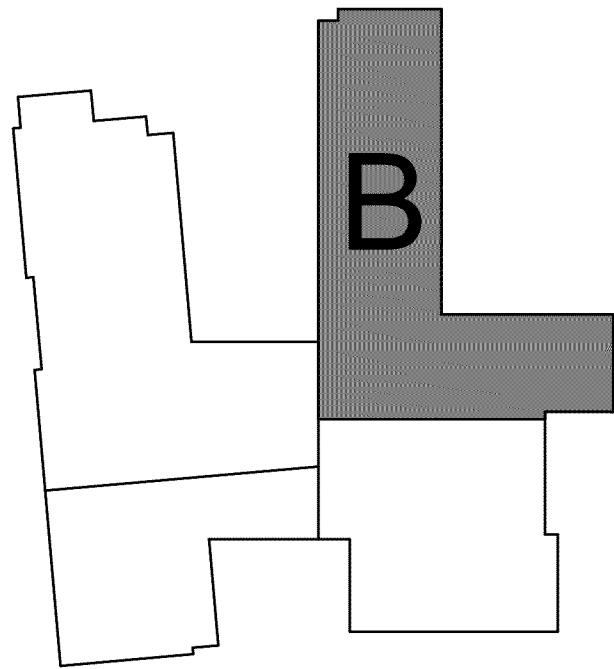
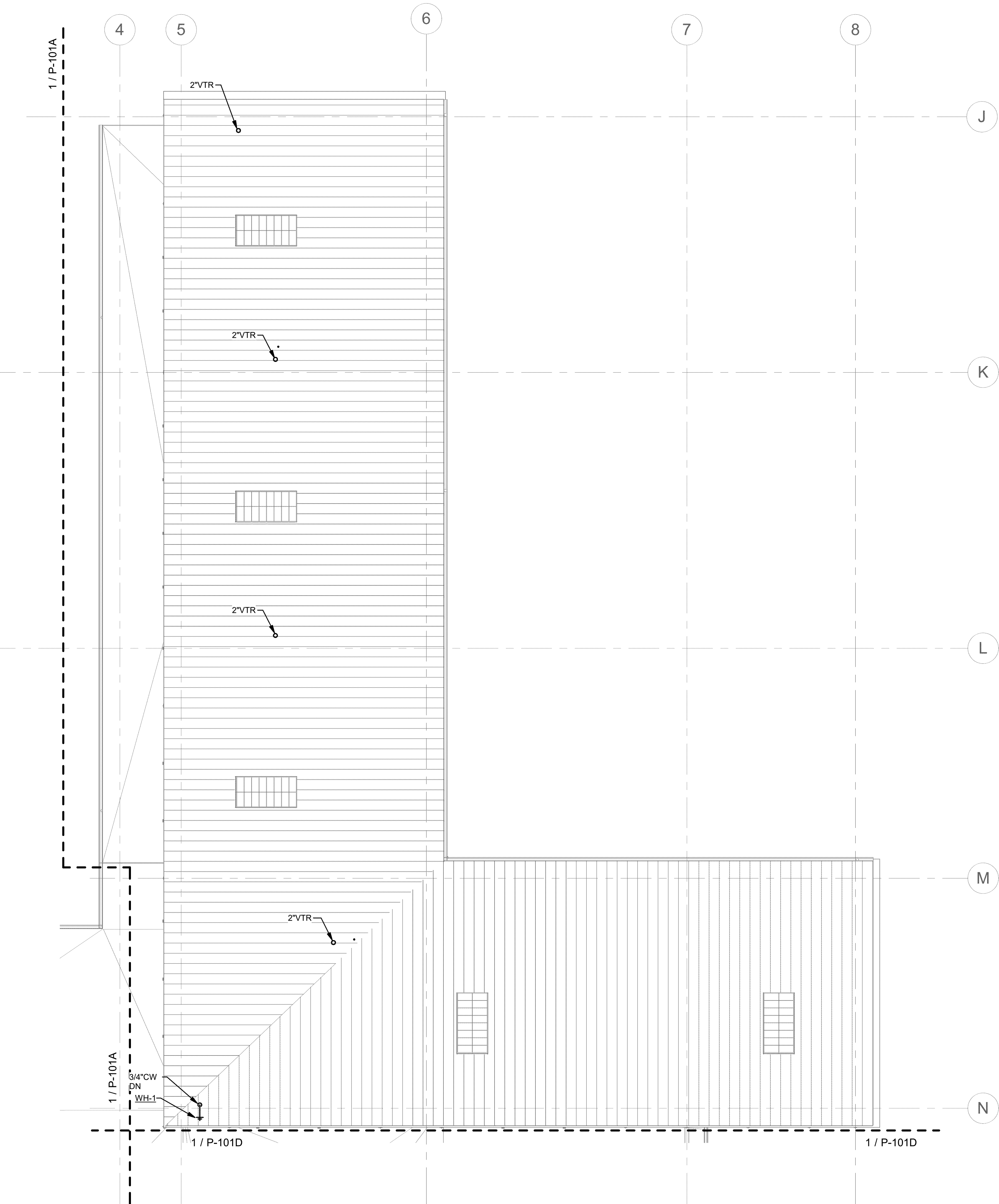
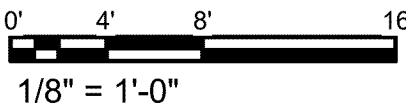


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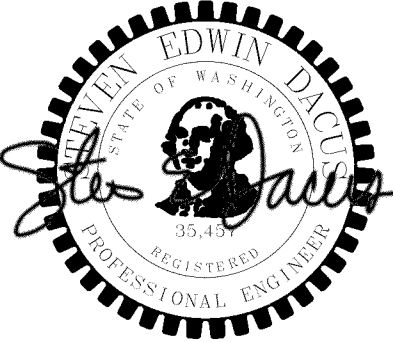
ROOF PLAN SECTOR B - PLUMBING



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Scale 1/8" = 1'-0"

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**ROOF PLAN  
SECTOR B -  
PLUMBING**

**P-121B**



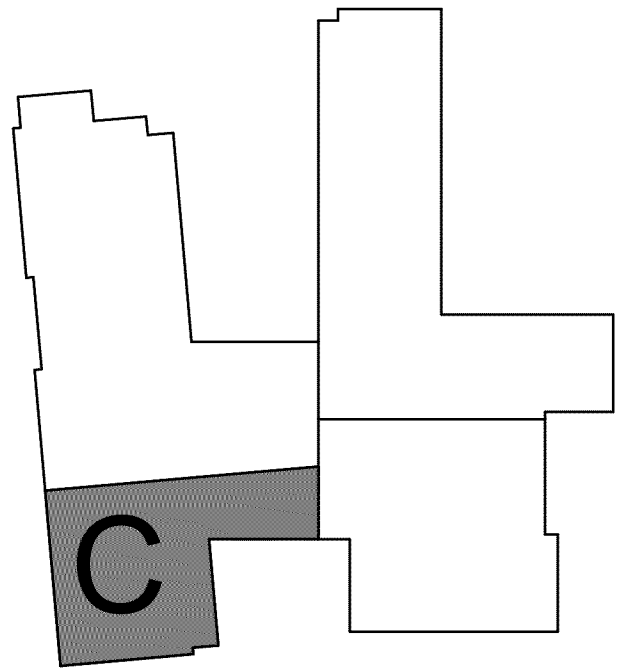
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### ROOF PLAN SECTOR C - PLUMBING

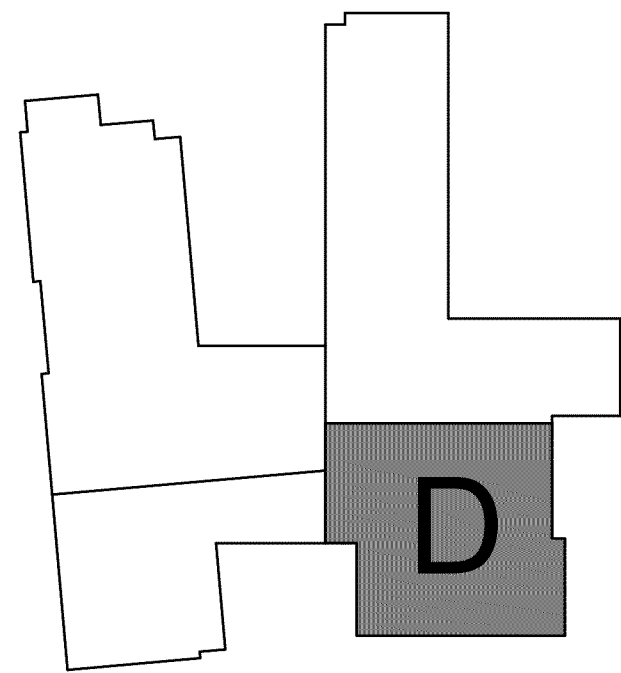
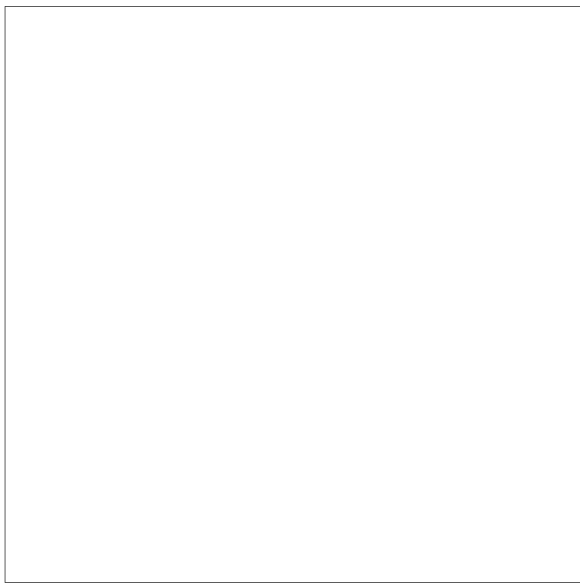
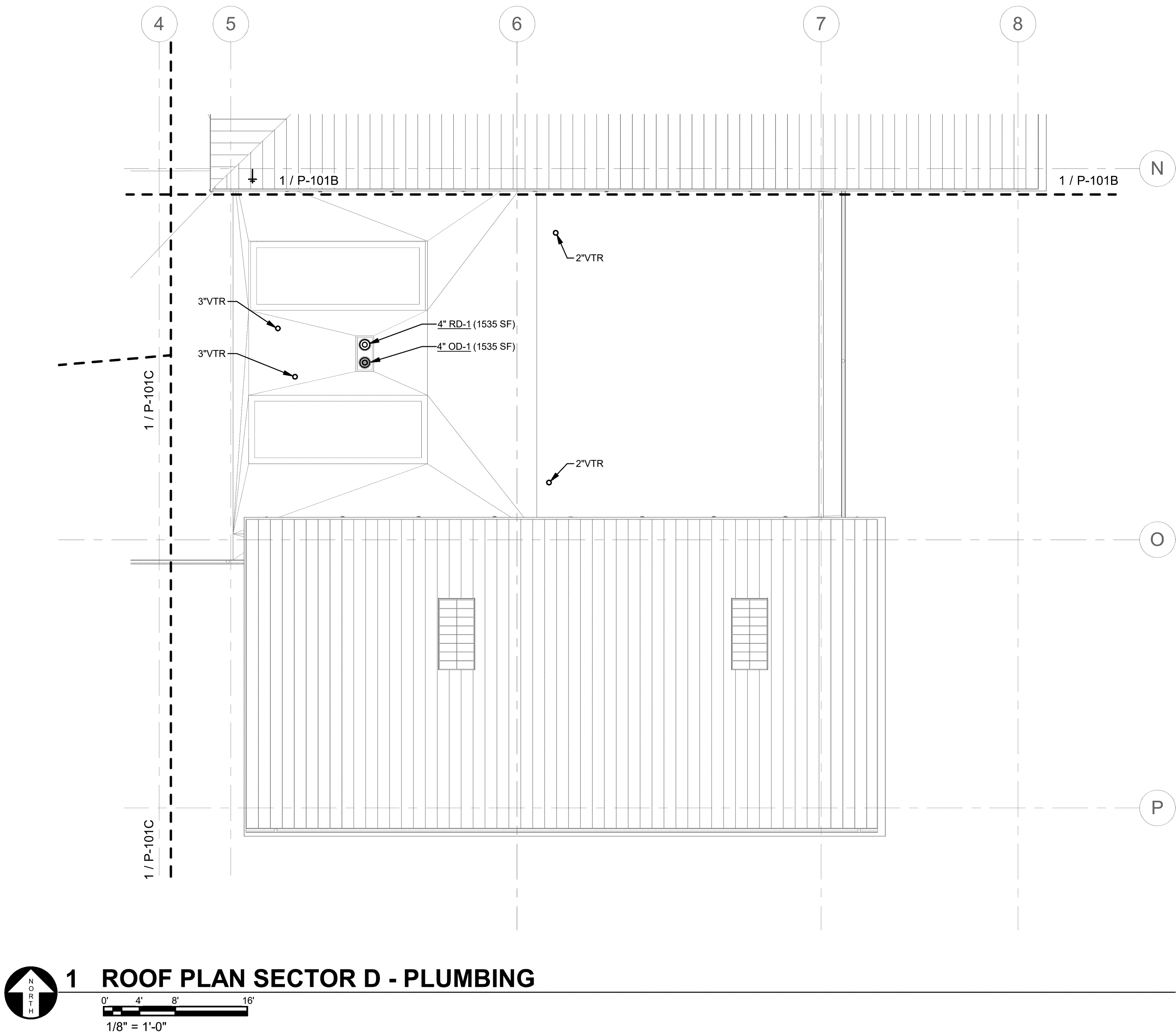
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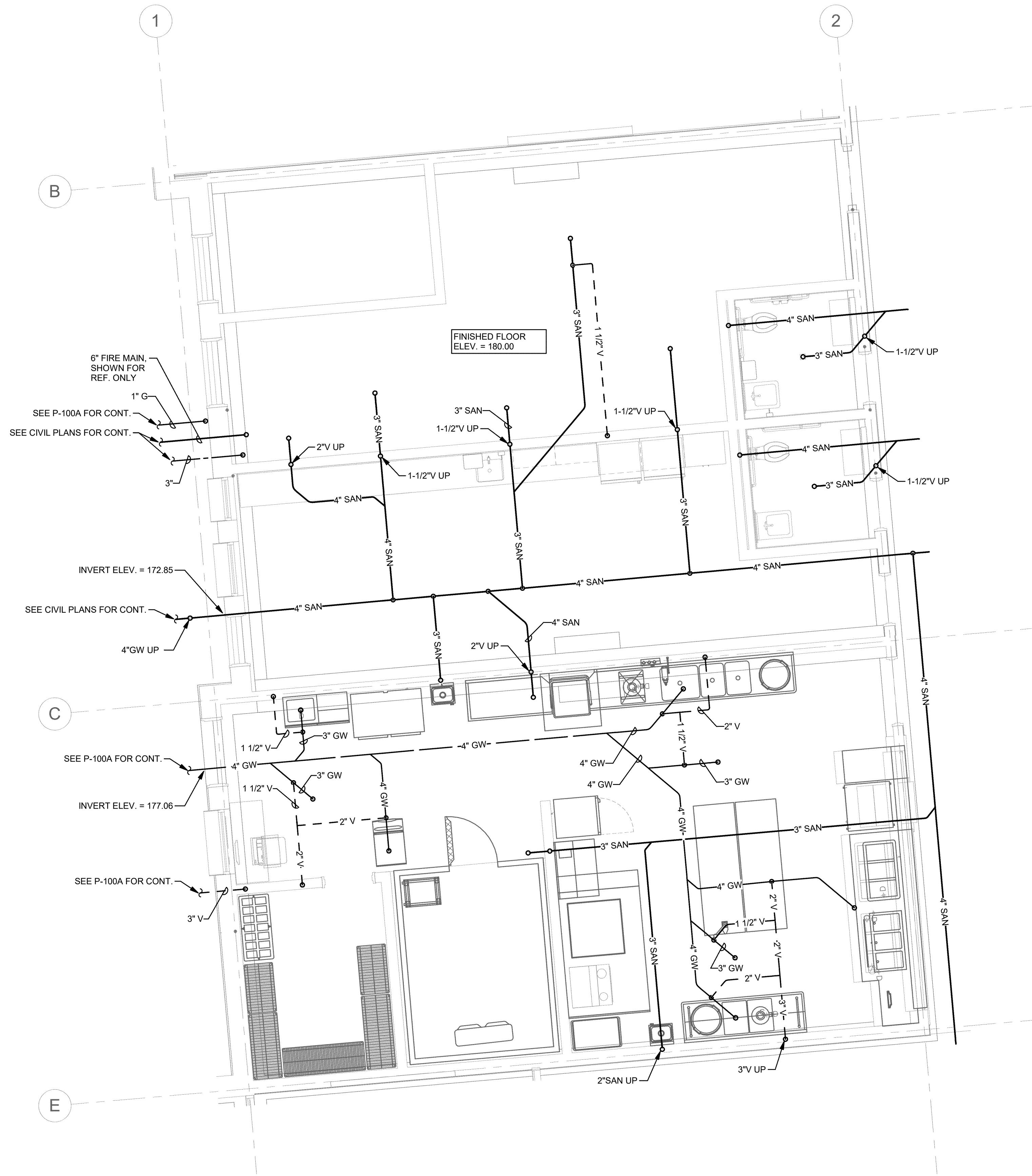
**ROOF PLAN  
SECTOR D -  
PLUMBING**

**P-121D**

Scale 1/8" = 1'-0"



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# 1 UNDERGROUND ENLARGED PLAN - PLUMBING

0' 4' 8' 16'  
1/4" = 1'-0"

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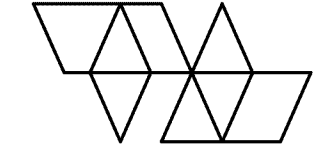
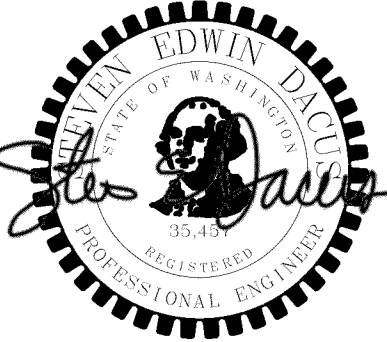
Scale 1/4" = 1'-0"

UNDERGROUND  
ENLARGED PLAN  
- PLUMBING

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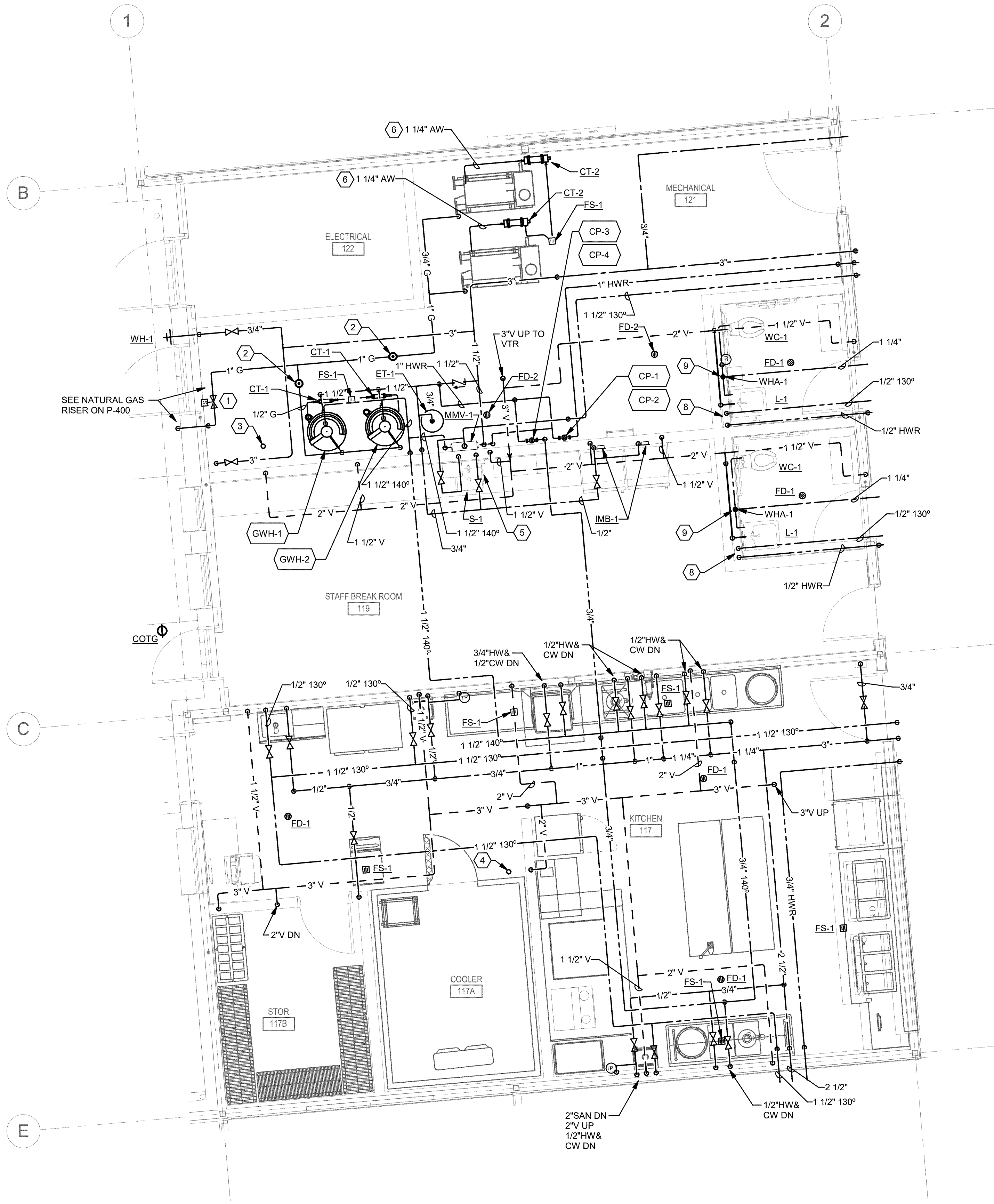


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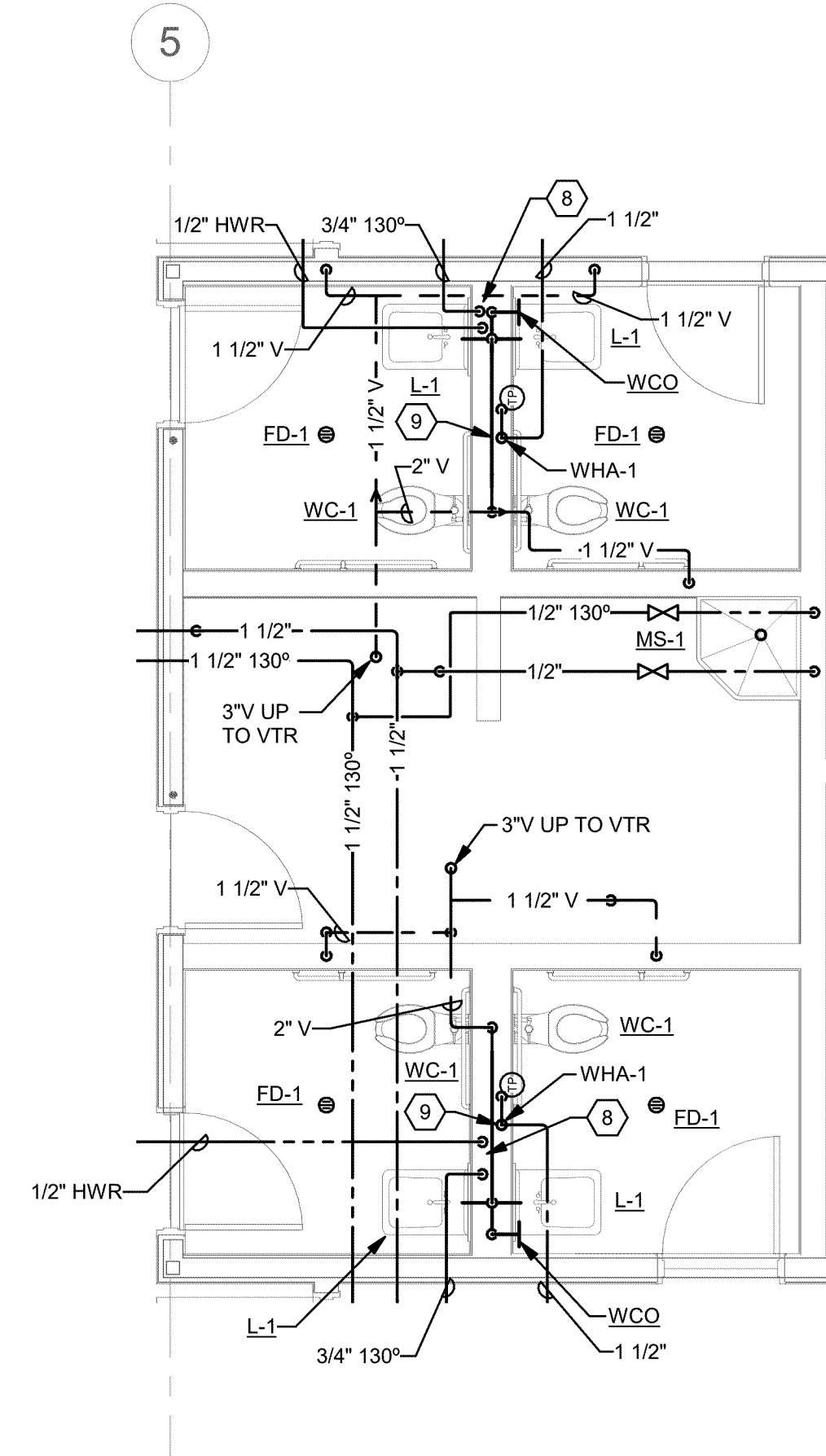


1 ENLARGED PLAN - PLUMBING

0' 4' 8' 16'  
1/4" = 1'-0"

## SHEET KEYNOTES

1. EMERGENCY GAS SHUT-OFF SOLENOID VALVE. INTERCONNECT WITH EMERGENCY PUSH BUTTON. COORDINATE WITH DIVISION 23 & 26.
2. NATURAL GAS PRESSURE REGULATOR, 2 PSI TO 14"W/C
3. 4 INCH HUB DRAIN FOR FIRE SPRINKLER MAIN DRAIN. EXTEND 2" ABOVE FINISHED FLOOR.
4. 3" INCH HUB DRAIN FOR WALK-IN COOLER EVAPORATOR DRAIN. EXTEND 2" ABOVE FINISHED FLOOR.
5. ROUTE 1/2" HOT WATER SUPPLY PIPING TO CONNECTION WITH DISHWASHER. ROUTE DISHWASHER DRAIN TO CONNECTION WITH SINK TAILPIECE UTILIZING A FIXED AIR GAP FITTING.
6. ROUTE 1-1/4" ACID RESISTANT WASTE PIPING FROM CONDENSATE DRAIN CONNECTION AT BOILER TO CONDENSATE NEUTRALIZATION TUBE (CT-2). ROUTE 1-1/4" DWV PIPING FROM CT-2 TO INDIRECT DISCHARGE AT FLOOR SINK. COORDINATE EXACT LOCATION OF CT-2 WITH BOILER DRAIN CONNECTION LOCATION, HVAC EQUIPMENT AND HOUSE KEEPING PAD.
7. ROUTE PIPING DOWN IN WALL TO CONNECTION WITH KITCHEN EQUIPMENT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH FOOD SERVICE PLANS.
8. ROUTE HOT WATER PIPING DOWN IN WALL WITHIN 2 FT. OF FIXTURE SUPPLY STOP. PROVIDE 1/2" HOT WATER CONNECTION TO SUPPLY STOP (MAX. BRANCH LENGTH 2 FT.). ROUTE HOT WATER RETURN PIPING BACK UP TO ABOVE AS SHOWN. SEE DETAIL 5/P-300.
9. ROUTE COLD WATER PIPING DOWN IN CHASE. ROUTE 1/2" TO EACH L-1 & 1-1/4" TO EACH WC-2.



2 ENLARGED PLAN - SECTOR D - PLUMBING

0' 4' 8' 16'  
1/4" = 1'-0"



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**ENLARGED  
PLANS -  
PLUMBING**



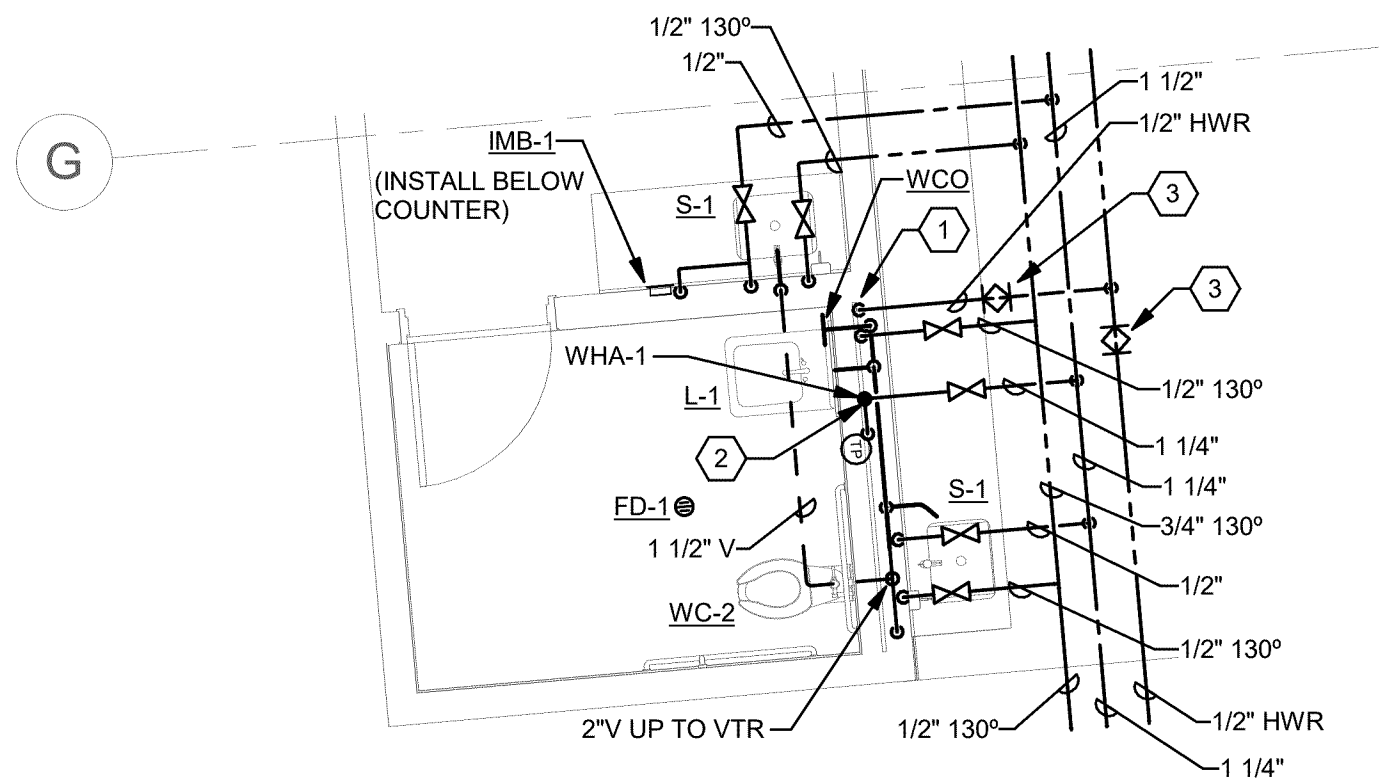
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**P-201**

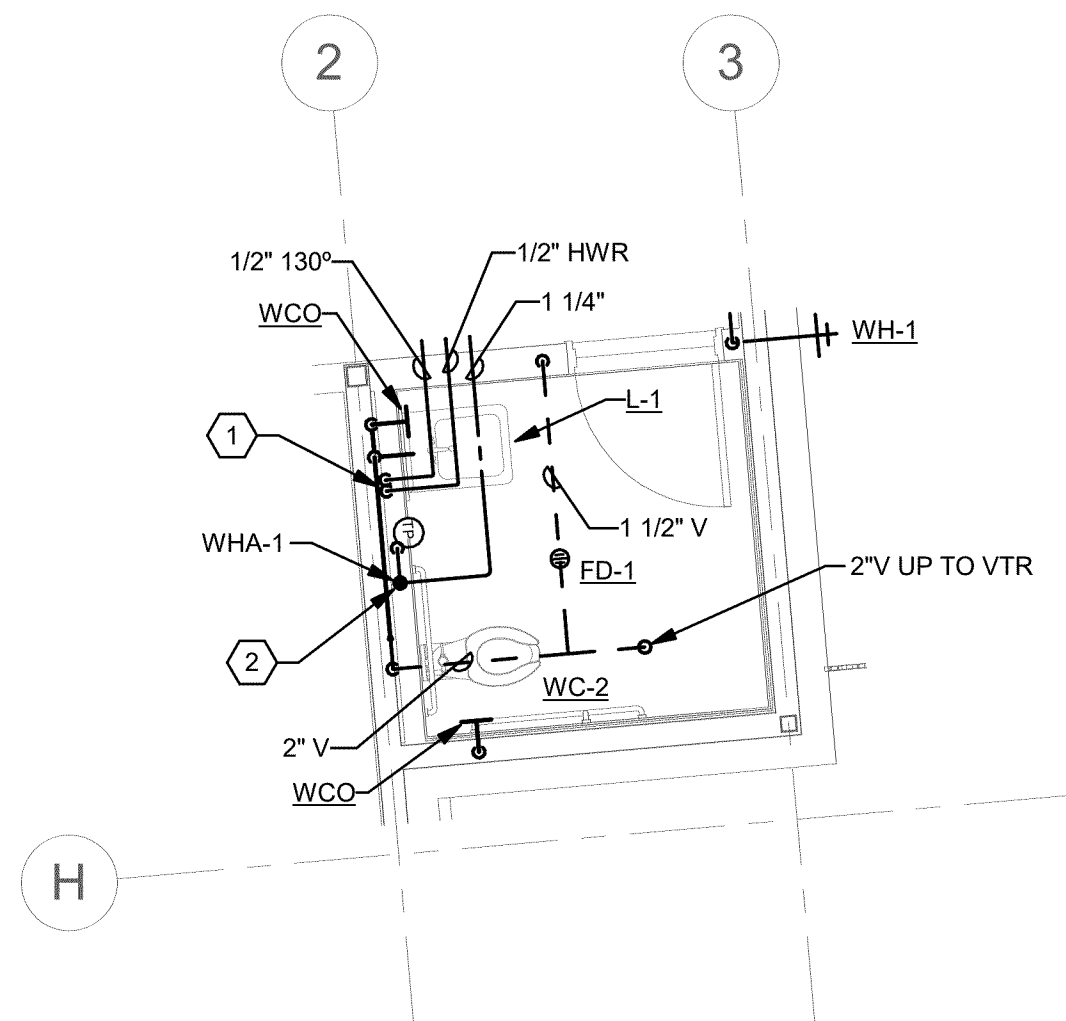
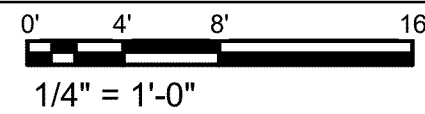
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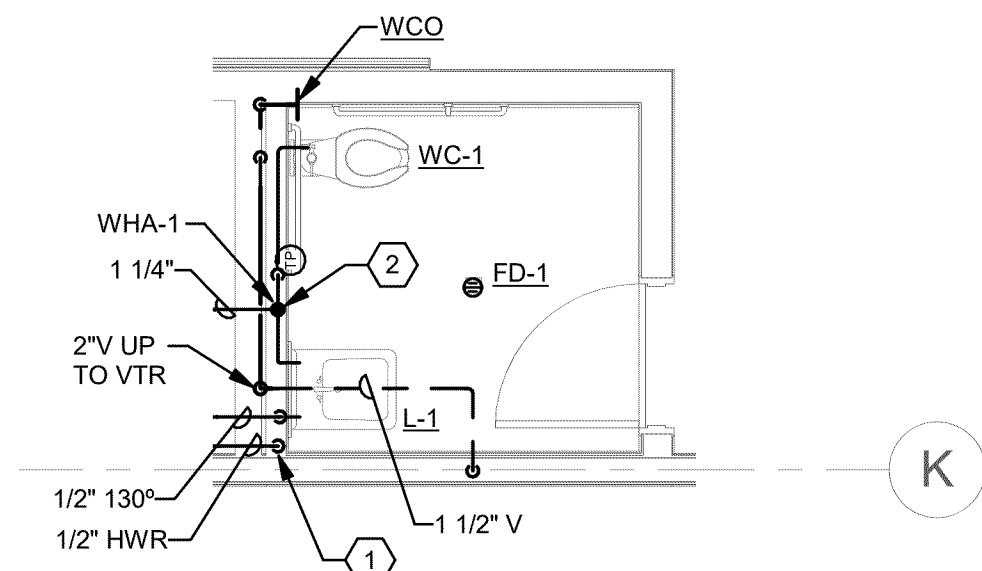
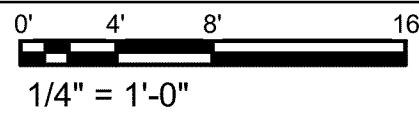
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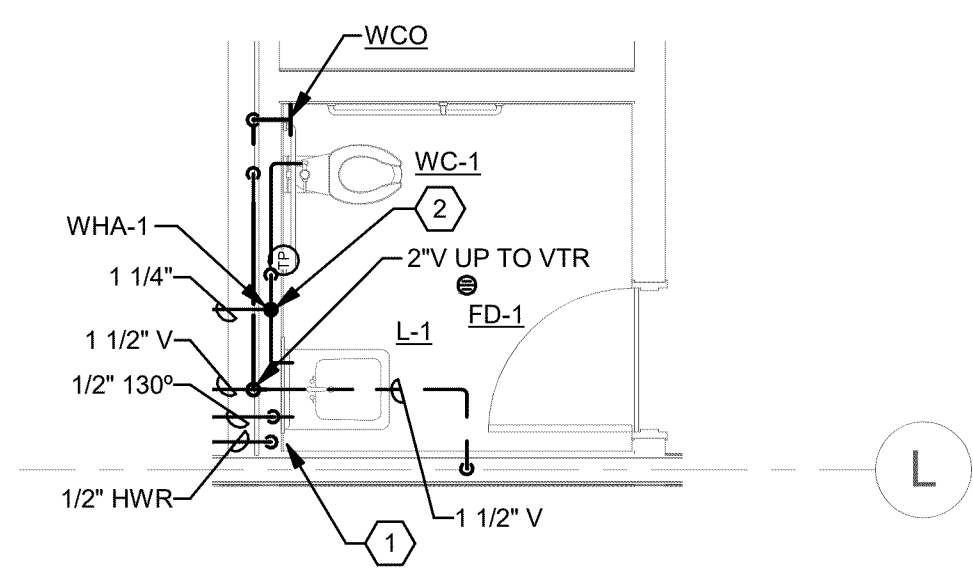
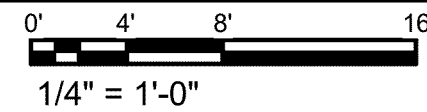
1 HEALTH RESTROOM 105A - ENLARGED PLAN - PLUMBING



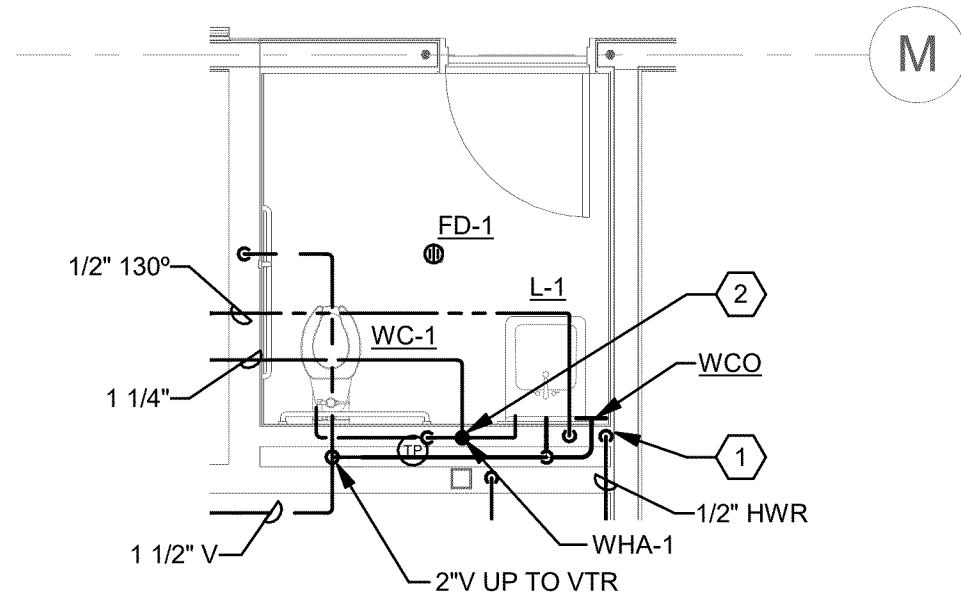
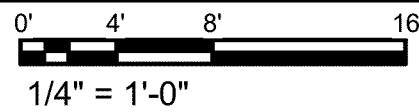
2 RESTROOM 111 - ENLARGED PLAN - PLUMBING



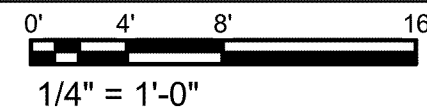
3 RESTROOM 9A - ENLARGED PLAN - PLUMBING



4 RESTROOM 8A - ENLARGED PLAN - PLUMBING

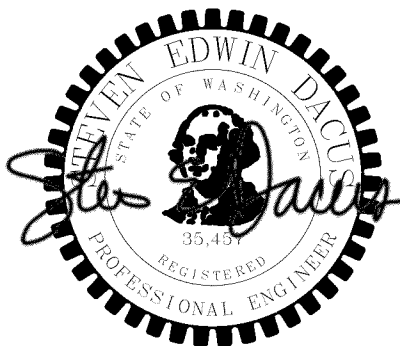


5 RESTROOM 7A - ENLARGED PLAN - PLUMBING



## SHEET KEYNOTES

- ROUTE HOT WATER PIPING DOWN IN WALL WITHIN 2 FT. OF FIXTURE SUPPLY STOP. PROVIDE 1/2" HOT WATER CONNECTION TO SUPPLY STOP (MAX. BRANCH LENGTH 2 FT.). ROUTE HOT WATER RETURN PIPING BACK UP TO ABOVE AS SHOWN. SEE DETAIL 5/P-300.
- ROUTE COLD WATER PIPING DOWN IN CHASE. ROUTE 1/2" TO L-1 & 1-1/4" TO WC-2.
- SET BALANCING VALVE AT 0.5 GPM FLOW RATE.



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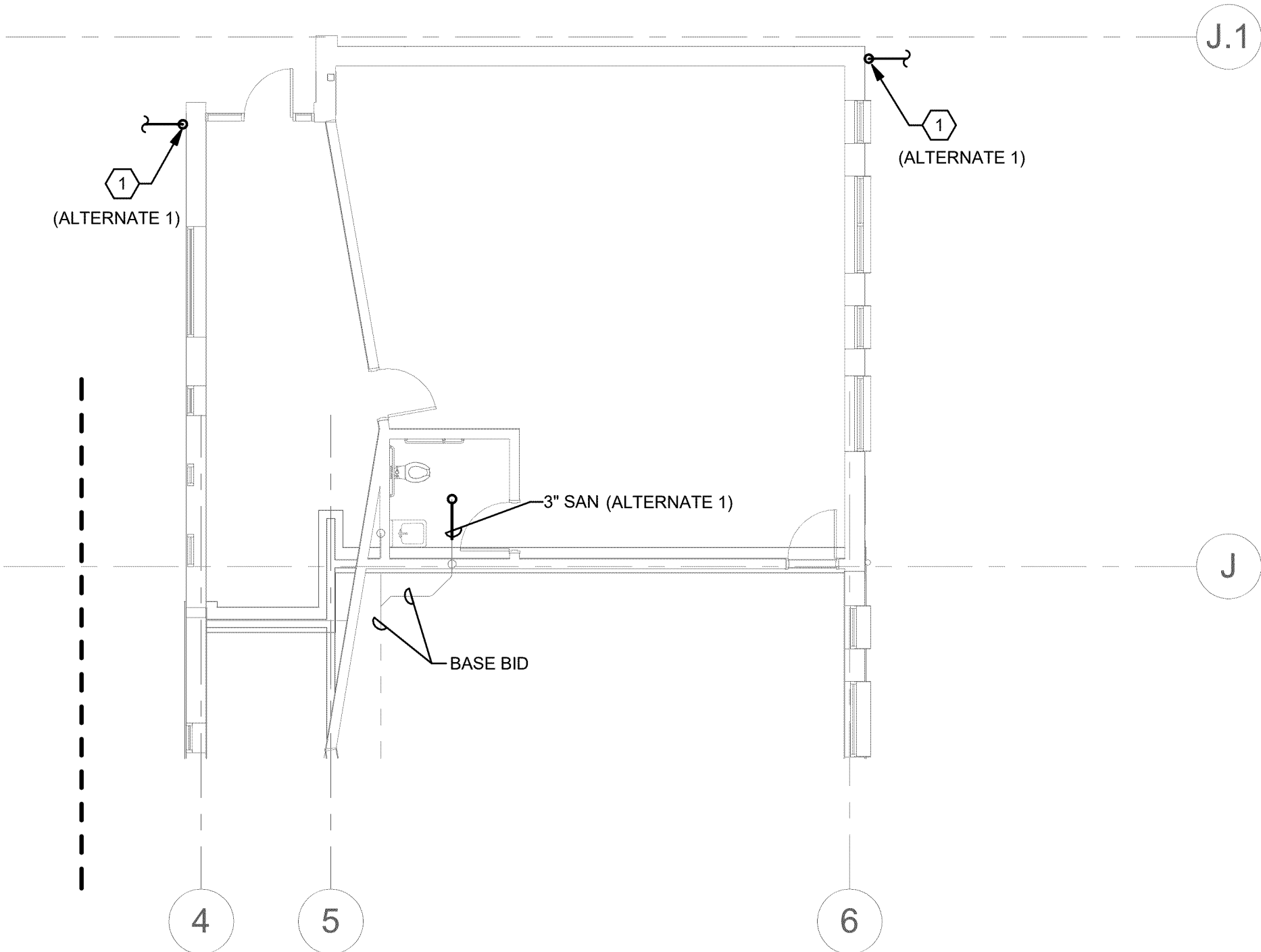
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**P-202**

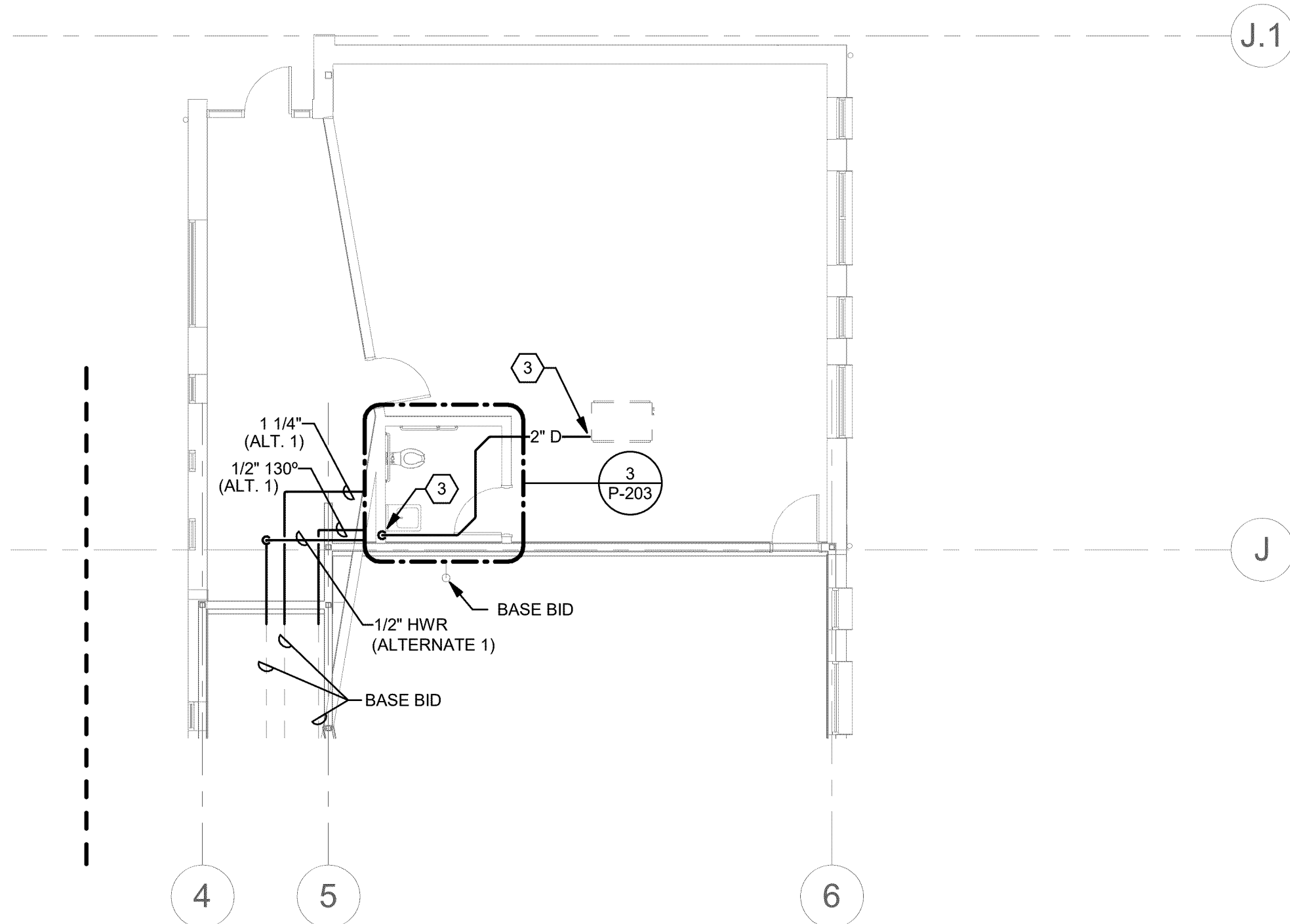
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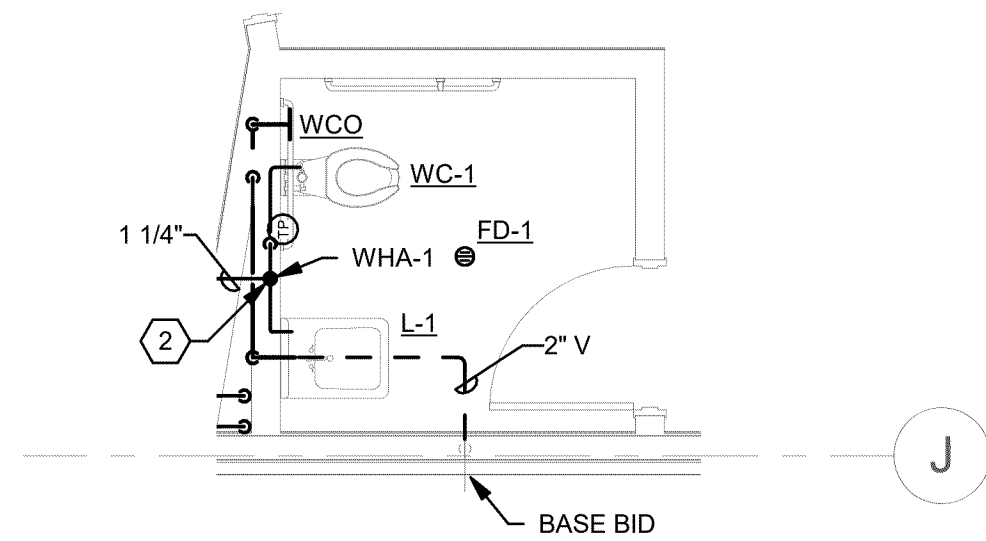
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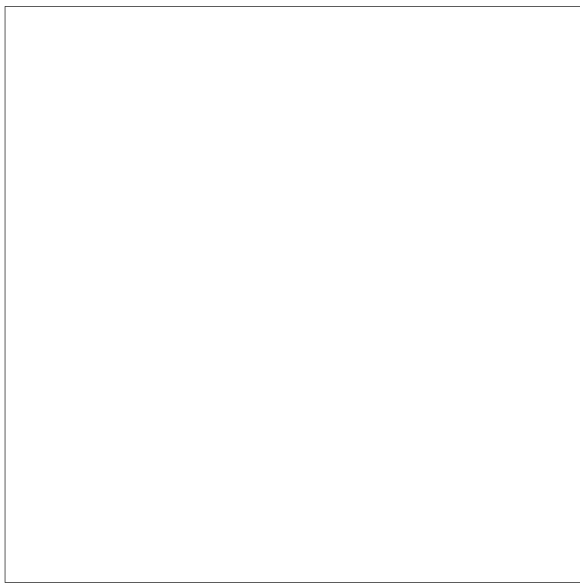
1 UNDERGROUND PLAN - PLUMBING (ALTERNATE 1)



2 LEVEL 1 FLOOR PLAN - PLUMBING (ALTERNATE 1)



3 ENLARGED PLAN - PLUMBING (ALTERNATE 1)



## SHEET KEYNOTES

1. DOWNSPOUT TRANSITION TO UNDERGROUND, SEE DETAIL 4/P-300. COORDINATE LOCATION AND REQUIREMENTS WITH ARCHITECTURAL AND CIVIL PRIOR TO INSTALLATION.
2. ROUTE COLD WATER PIPING DOWN IN CHASE. ROUTE 1/2" TO L-1 & 1-1/4" TO WC-2.
3. ROUTE 3/4" CONDENSATE DRAIN PIPING FROM HVAC EQUIPMENT TO CONDENSATE TRAP AT LAVATORY (JR SMITT - FIGURE 9200 OR EQUAL).

## GENERAL NOTES

1. ALL WORK SHOWN THIS PLAN IS ALTERNATE 1, UNLESS NOTED OTHERWISE.



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ALTERNATE  
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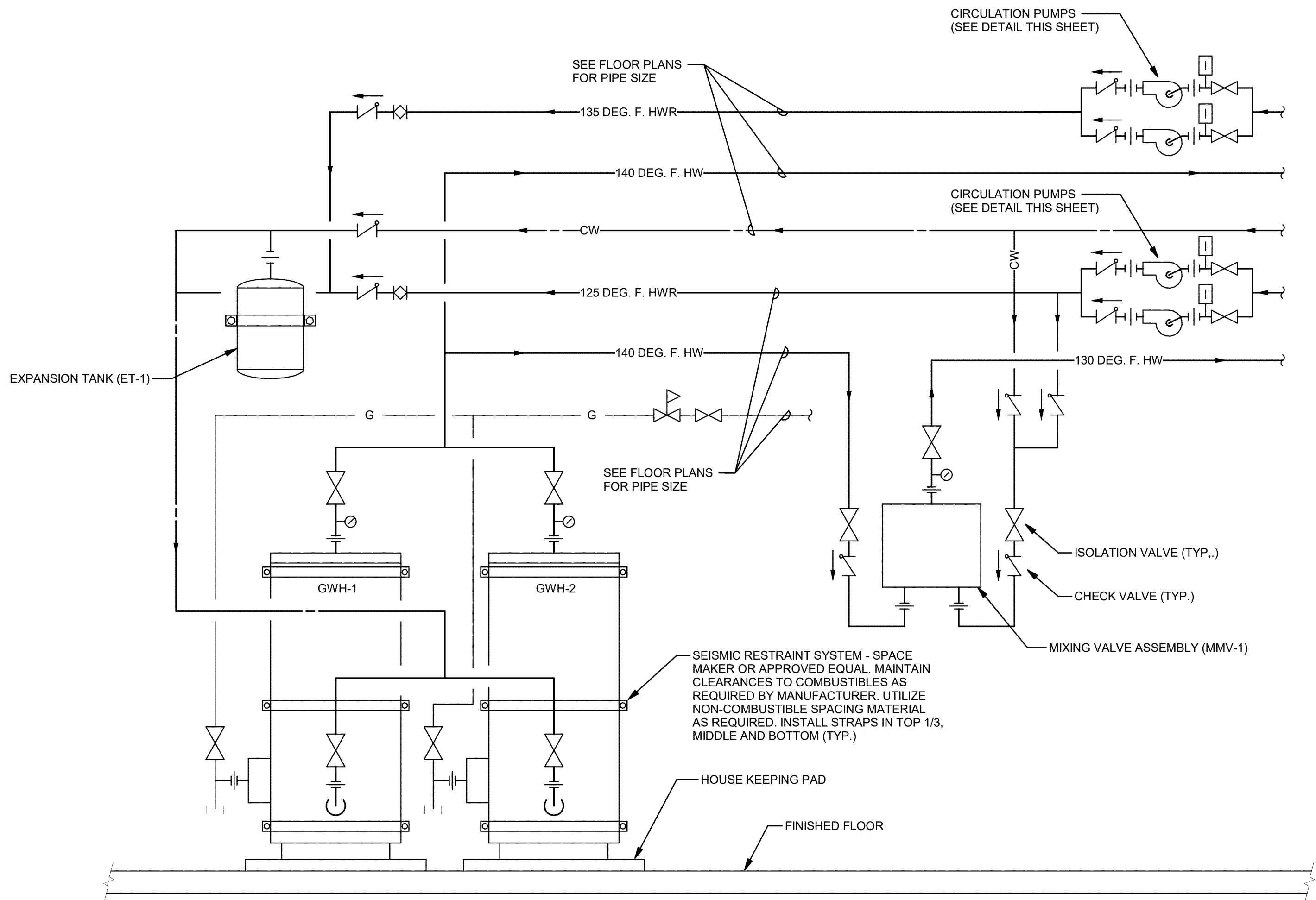


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P-203

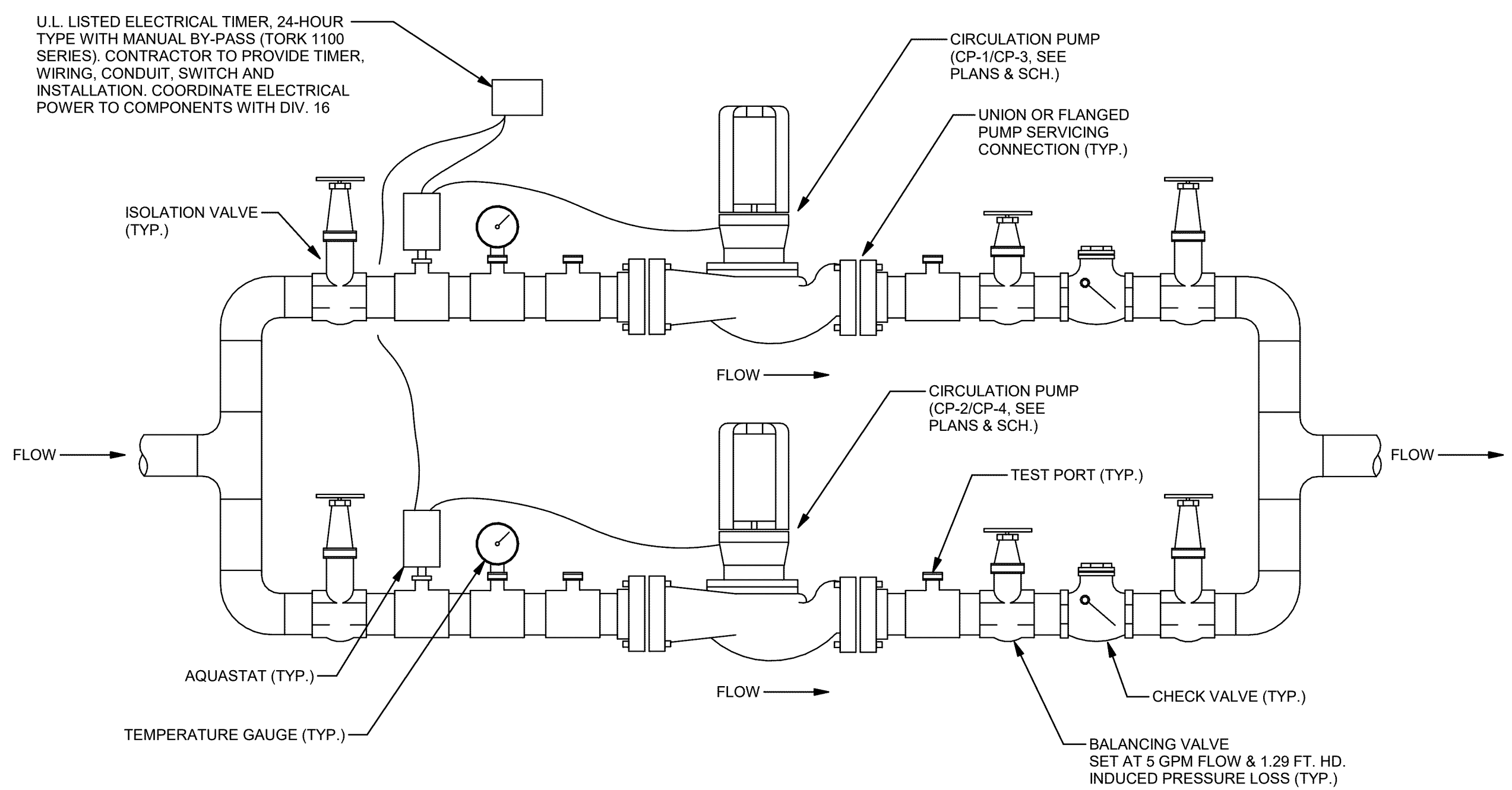
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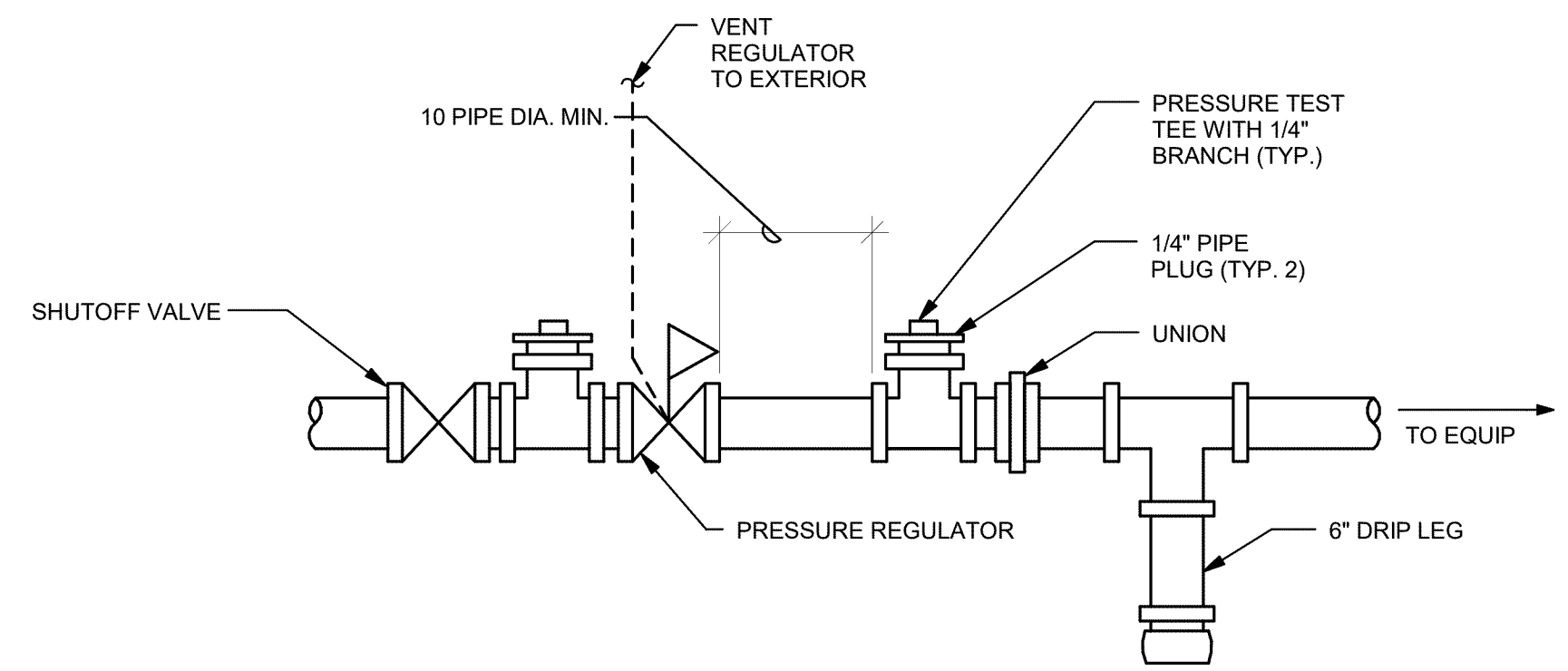
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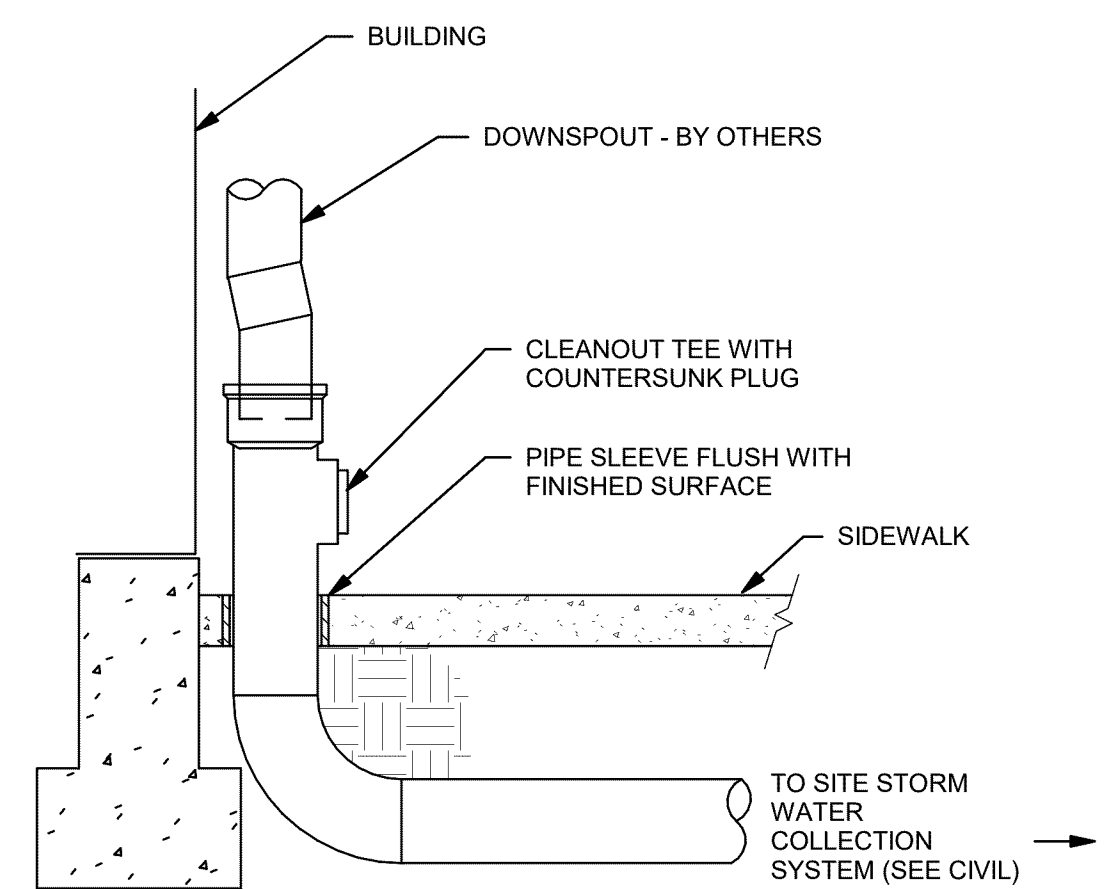
## 3 CIRCULATION PUMPS

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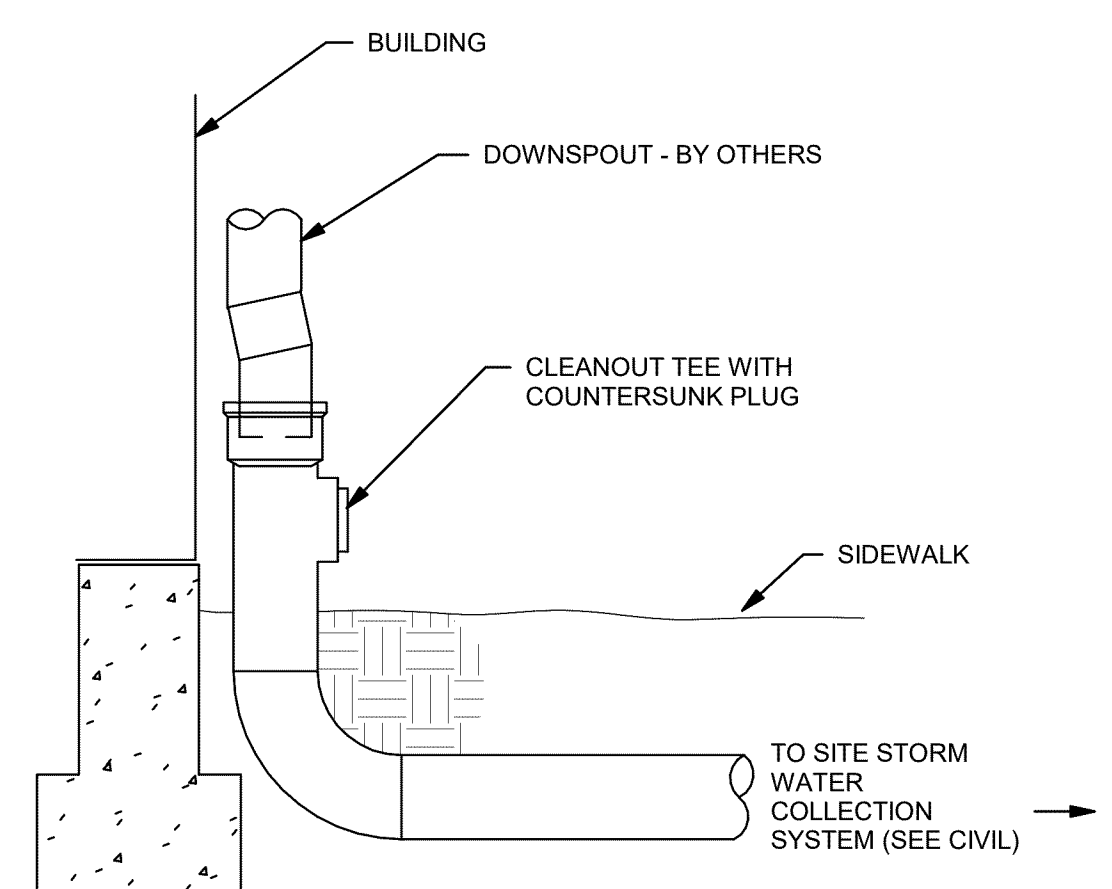


## 2 GAS CONNECTION

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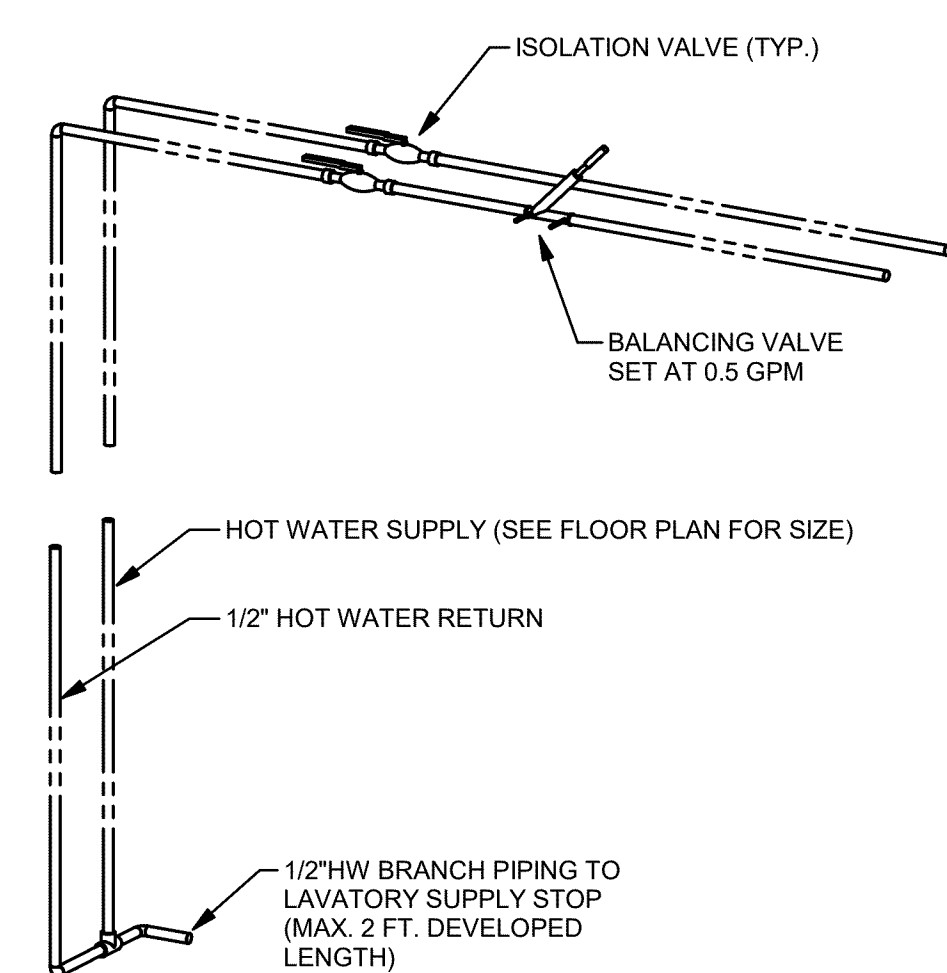
### AT SIDEWALK



### AT GRADE

## 4 DOWNSPOUT TRANSITION

NO SCALE



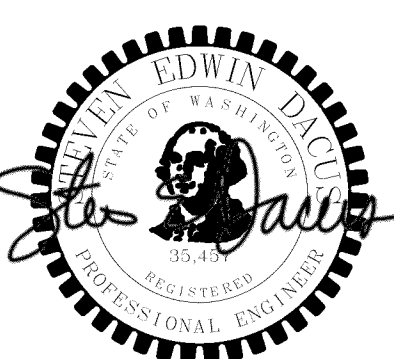
## 5 LAVATORY HW PIPING

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**DETAILS -  
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**P-300**

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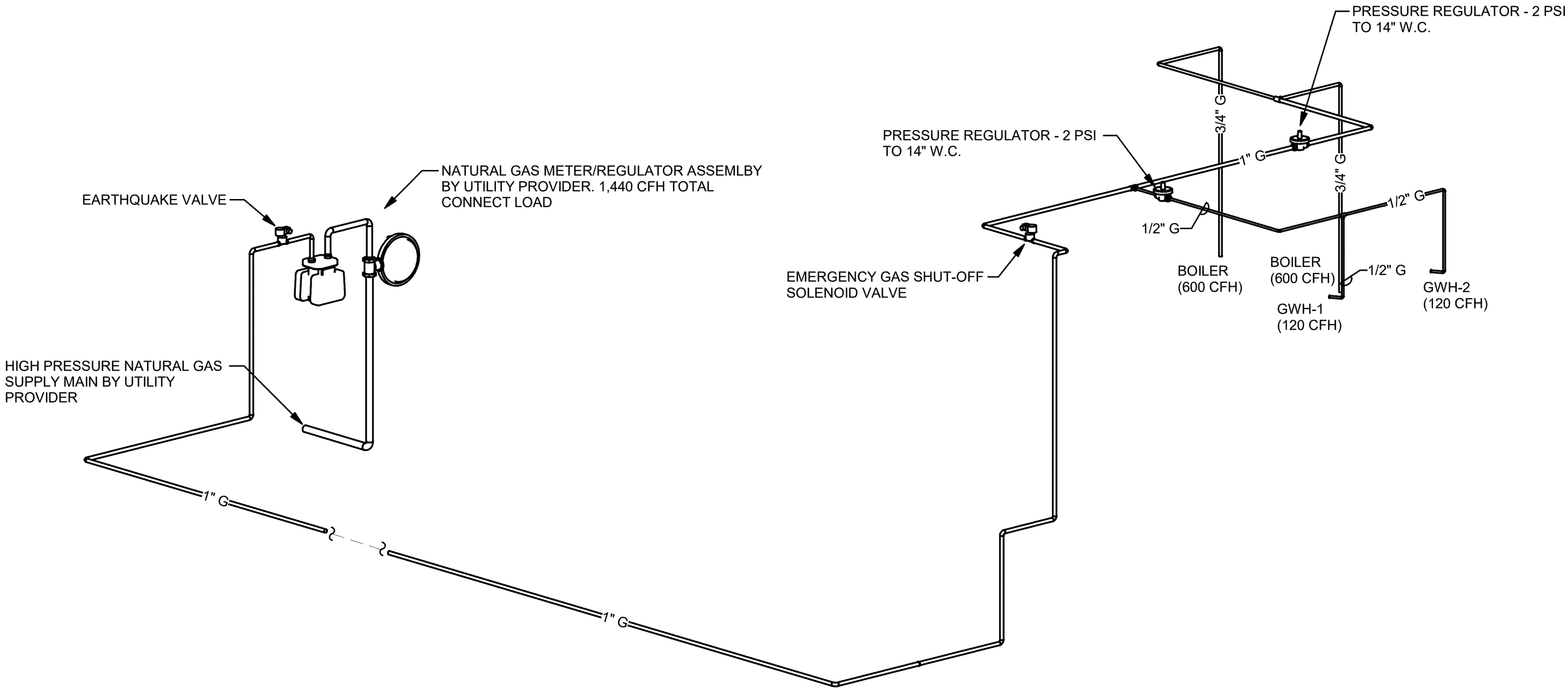
NATURAL GAS PIPE SIZING TABLES

Sch. 40 Metallic				Gas			Natural Gas		
				Inlet Pressure (PSI)			2		
				Pressure Drop (PSI)			1		
				Specific Gravity			0.60		
Pipe Size (in.)									
Nominal	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
Actual ID <sup>1</sup>	0.622	0.824	1.049	1.38	1.61	2.067	2.469	3.068	4.026
Length (ft.)	Maximum Capacity in Cubic Feet of Gas per Hour								
10	1,596	3,339	6,292	12,924	19,369	37,318	59,496	105,217	214,707
20	1,097	2,295	4,325	8,884	13,315	25,654	40,901	72,331	147,600
30	881	1,843	3,474	7,135	10,694	20,604	32,849	58,092	118,543
40	754	1,578	2,973	6,108	9,153	17,636	28,117	49,724	101,467
50	668	1,399	2,635	5,413	8,113	15,631	24,921	44,072	89,935
60	606	1,267	2,388	4,905	7,351	14,164	22,582	39,935	81,492
70	557	1,166	2,197	4,513	6,764	13,031	20,776	36,742	74,975
80	518	1,085	2,044	4,199	6,292	12,124	19,329	34,182	69,753
90	486	1,018	1,918	3,940	5,904	11,376	18,136	32,073	65,449
100	460	961	1,812	3,721	5,577	10,746	17,132	30,297	61,825
125	407	852	1,606	3,298	4,943	9,524	15,185	26,854	54,798
150	369	772	1,455	2,989	4,479	8,630	13,759	24,333	49,654
175	340	710	1,339	2,750	4,121	7,940	12,659	22,387	45,683
200	316	661	1,245	2,558	3,834	7,387	11,777	20,828	42,501

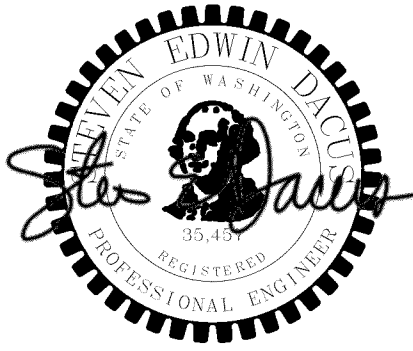
Table capacities for copper tubing are based on type K copper tubing inside diameter, which has the smallest inside diameter of the copper tubing products.

Sch. 40 Metallic				Gas			Natural Gas		
				Inlet Pressure (In. W.C.)			14		
				Pressure Drop (In. W.C.)			3		
				Specific Gravity			0.60		
Pipe Size (in.)									
Nominal	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
Actual ID <sup>1</sup>	0.622	0.824	1.049	1.38	1.61	2.067	2.469	3.068	4.026
Length (ft.)	Maximum Capacity in Cubic Feet of Gas per Hour								
10	456	954	1,797	3,691	5,532	10,659	16,994	30,053	61,326
20	313	656	1,235	2,538	3,803	7,327	11,682	20,660	42,158
30	252	527	992	2,038	3,054	5,885	9,382	16,593	33,859
40	215	451	849	1,744	2,614	5,037	8,031	14,202	28,982
50	191	399	753	1,546	2,317	4,465	7,118	12,588	25,688
60	173	362	682	1,401	2,100	4,046	6,450	11,407	23,276
70	159	333	628	1,289	1,932	3,722	5,934	10,494	21,415
80	148	310	584	1,199	1,797	3,463	5,521	9,763	19,923
90	139	291	548	1,125	1,686	3,249	5,180	9,161	18,694
100	131	275	517	1,063	1,593	3,069	4,893	8,654	17,659
125	116	243	459	942	1,412	2,720	4,337	7,670	15,652
150	105	221	416	854	1,279	2,465	3,930	6,950	14,183
175	97	203	382	785	1,177	2,268	3,616	6,394	13,048
200	90	189	356	731	1,095	2,110	3,364	5,949	12,140

Table capacities for copper tubing are based on type K copper tubing inside diameter, which has the smallest inside diameter of the copper tubing products.



1 NATURAL GAS RISER



drawn by  
**Author**  
checked by  
**Checker**

lsw job number  
**2018-0029**

**FIR GROVE CHILDREN'S CENTER**  
**VANCOUVER PUBLIC SCHOOLS**  
**3200 E 18TH ST**  
**VANCOUVER, WA, 98661**

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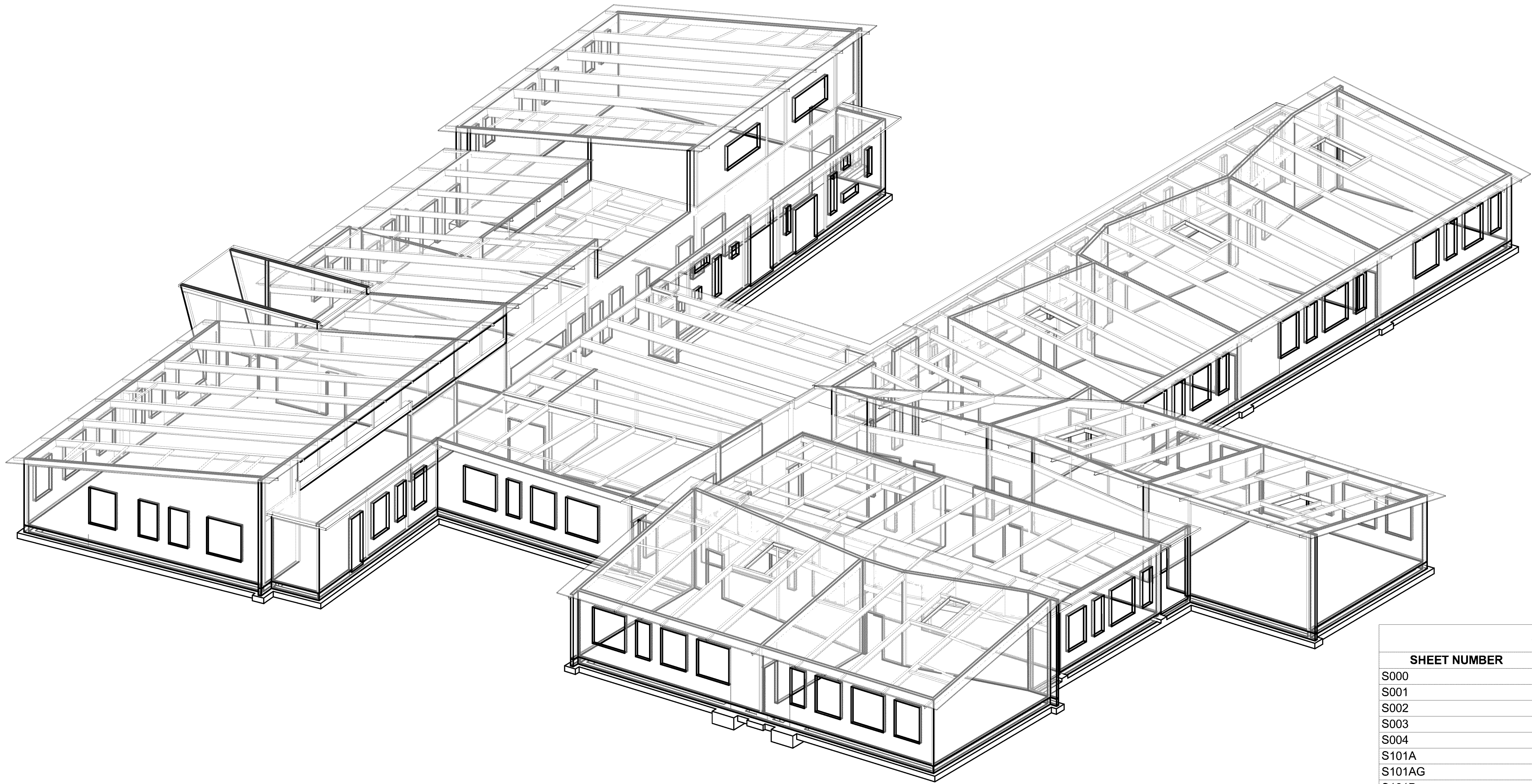
**NATURAL GAS  
RISER DIAGRAM**

**P-400**

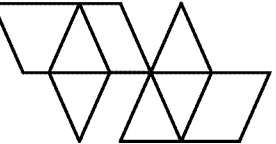
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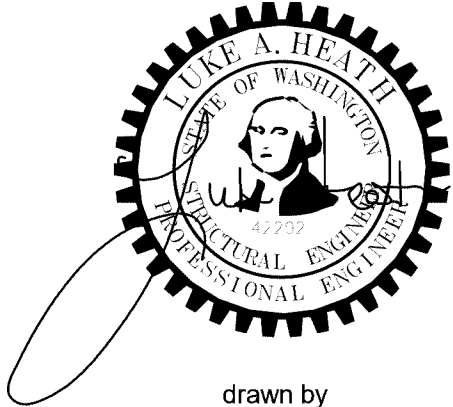
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STRUCTURAL DRAWING INDEX	
SHEET NUMBER	SHEET DESCRIPTION
S000	COVER SHEET
S001	GENERAL NOTES
S002	GENERAL NOTES
S003	GENERAL NOTES
S004	GENERAL NOTES
S101A	FOUNDATION PLAN - SECTOR A
S101AG	GRADE LEVEL FRAMING PLAN - SECTOR A
S101B	FOUNDATION PLAN - SECTOR B
S101BG	GRADE LEVEL FRAMING PLAN - SECTOR B
S101C	FOUNDATION PLAN - SECTOR C
S101CG	GRADE LEVEL FRAMING PLAN - SECTOR C
S101D	FOUNDATION PLAN - SECTOR D
S101DG	GRADE LEVEL FRAMING PLAN - SECTOR D
S112A	ROOF FRAMING PLAN - SECTOR A
S112B	ROOF FRAMING PLAN - SECTOR B
S112C	ROOF FRAMING PLAN - SECTOR C
S112D	ROOF FRAMING PLAN - SECTOR D
S160	ALTERNATE PLANS
S301	FOUNDATION DETAILS
S302	FOUNDATION DETAILS
S303	FOUNDATION DETAILS
S304	FOUNDATION DETAILS
S401	COLD FORMED STEEL FRAMING DETAILS
S402	COLD FORMED STEEL FRAMING DETAILS
S403	COLD FORMED STEEL FRAMING DETAILS
S404	COLD FORMED STEEL FRAMING DETAILS
S405	COLD FORMED STEEL FRAMING DETAILS
S406	COLD FORMED STEEL FRAMING DETAILS
S407	COLD FORMED STEEL FRAMING DETAILS
S501	STEEL FRAMING DETAILS
S502	STEEL FRAMING DETAILS
S601	STEEL METAL DECK ROOF DETAILS
S602	ROOF DETAILS
S603	ROOF DETAILS
S604	ROOF DETAILS
Grand total: 35	



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EXTERIOR WALL AND BEARING WALL COLD-FORMED STEEL FRAMING: COLD-FORMED STEEL FRAMING MEMBERS SHALL MEET THE TYPE, SIZE AND THICKNESS AS INDICATED ON THE STRUCTURAL PLANS AND SPECIFICATIONS.

INTERIOR NON-BEARING WALL, CEILING, SOFFIT, AND OTHER MISC. COLD-FORMED STEEL FRAMING: COLD-FORMED STEEL FRAMING MEMBERS SHALL MEET THE TYPE, SIZE, AND THICKNESS AS INDICATED IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS, AND SHALL CONFORM TO THE MINIMUM PERSCRIPTIVE REQUIREMENTS OF THE GYPSUM CONSTRUCTION HANDBOOK BY CGC, INC. FRAMING CONDITIONS THAT EXCEED THE WEIGHT, SPAN OR HEIGHT LIMITATIONS SHALL BE CONSTRUCTED USING APPLICABLE DETAILS ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, FABRICATION AND ERECTION OF ALL COLD-FORMED FRAMING NOT SPECIFICALLY DETAILED IN THE GYPSUM CONSTRUCTION HANDBOOK OR ON THE STRUCTURAL DRAWINGS. THE DESIGN AND DETAILING OF THE COLD-FORMED STEEL FRAMING AND CONNECTION TO THE STRUCTURE SHALL BE PREPARED UNDER THE DIRECTION OF AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF PROJECT AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

COLD-FORMED STEEL FRAMING SUBSTITUTION: AT THE CONTRACTOR'S OPTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, FABRICATION AND ERECTION OF THE INTERIOR NON-BEARING COLD-FORMED STEEL FRAMING NOT OCCURING AT BRICK VENEER AND THE CONNECTION OF THE COLD-FORMED STEEL FRAMING TO THE STRUCTURE. THE DESIGN AND DETAILING OF THE COLD-FORMED STEEL FRAMING AND CONNECTION TO THE STRUCTURE SHALL BE PREPARED UNDER THE DIRECTION OF AND STAMPED BY A <STRUCTURAL/PROFESSIONAL> ENGINEER LICENSED IN THE STATE OF PROJECT AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

POWDER ACTUATED FASTENERS: SHALL BE X-U UNIVERSAL KNURLED SHANK FASTENER BY HILTI OR PRE-APPROVED EQUAL. INSTALL PER ALL MANUFACTURER'S PUBLISHED RECOMMENDATIONS. COLD-FORMED STEEL TO STRUCTURAL STEEL: UNLESS NOTED OTHERWISE, PROVIDE 0.157" SHANK DIAMETER X-U LOW-VELOCITY FASTENER - FASTENER TIP SHALL PENETRATE STRUCTURAL STEEL. COLD-FORMED STEEL TO CONCRETE: UNLESS NOTED OTHERWISE, PROVIDE 0.157" SHANK DIAMETER X-U LOW-VELOCITY FASTENER - EMBED 1-1/2" MINIMUM INTO CONCRETE, UNLESS NOTED OTHERWISE.

SLIP CONNECTIONS: THE STEEL NETWORK "VERTICLIP" OR PRE-APPROVED EQUAL. MATCH CLIP WITH STUD SIZE AND THICKNESS. ATTACH PER MANUFACTURER'S REQUIREMENTS.

CARPENTRY:

NAILS: CONNECTION DESIGNS ARE BASED ON "COMMON WIRE" NAILS WITH THE FOLLOWING PROPERTIES:

PENNYWEIGHT	DIAMETER (INCHES)	LENGTH (INCHES)	TRACKER** EMBOSSED HEAD / COLOR
8d	0.131	2-1/2	3 / BLUE
10d	0.148	3	4 / WHITE
16d	0.162	3-1/2	6 / ORANGE
20d	0.192	4	-

FOR DIAPHRAGM OR SHEAR WALL NAILING THE FOLLOWING FASTENER TYPES MAY BE USED AT EQUIVALENT SPACING TO THAT SPECIFIED ON PLANS

FASTENER TYPE	DIAMETER (INCHES)	LENGTH (INCHES)	EQUIVALENT SPACING (INCHES)			TRACKER** EMBOSSED HEAD / COLOR
8d COMMON WIRE	0.131	2-1/2	6	4	3	3 / BLUE
8d "DIPPED GALV. BOX"	0.131	2-1/2	6	4	3	E3 / NONE
8d "SHINY BOX"	0.113	2-1/2	4-1/2	3	2-1/2	1 / BLUE
12 GA. STAPLES	0.1055	1-7/8*	6	5-1/2	4	-
14 GA. STAPLES	0.080	1-1/2*	6	4	3	-
15 GA STAPLES	0.072	1-1/2*	5	3	2-1/2	-
10d COMMON WIRE	0.148	3	6	4	3	4 / WHITE
10d "HOT DIPPED GALV. BOX"	0.148	3	6	4	3	F4 / NONE
10d "SHINY BOX"	0.128	3	4-1/2	3	2-1/4	3 / WHITE

\*BASED ON 15/32" PLYWOOD OR OSB.

\*\*REFERENCE TO EMBOSSED HEAD / COLOR CODED NAILS PER TRACKERS SYSTEM.

WOOD SHEATHING (STRUCTURAL): SHEATHING ON ROOF SURFACES SHALL BE PLYWOOD ONLY. SHEATHING ON WALLS SHALL BE PLYWOOD OR ORIENTED STRAND BOARD (OSB). PLYWOOD SHEATHING SHALL BE 5-PLY MINIMUM WHERE INDICATED AS PERFORMANCE CATEGORY 3/4" OR THICKER. WOOD SHEATHING SHALL BE "STRUCTURAL I" CONFORMING TO PS1-09 AND/OR PS2-10. ALL PANELS SHALL BEAR THE STAMP OF AN APPROVED GRADING AGENCY. SPAN RATING SHALL BE PROVIDED AS FOLLOWS: WALLS (32/16); ALL WOOD SHEATHED WALLS SHALL BE BLOCKED AT ALL PANEL EDGES UNLESS NOTED OTHERWISE.

FRAMING LUMBER: STANDARDS. EACH PIECE SHALL BEAR THE GRADE TRADEMARK OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB), WESTERN WOOD PRODUCTS ASSOCIATION (WWPA), OR OTHER AGENCY ACCREDITED BY THE AMERICAN LUMBER STANDARD COMMITTEE (ALSC) TO GRADE UNDER ALSCE CERTIFIED GRADING RULES.

SPECIES AND GRADE (BASE DESIGN VALUE)

1.

4x T&G DECKING: "DOUG FIR-LARCH" COMMERCIAL (Fb=1450 PSI, E=1700 KSI) 1
2.

THE MINIMUM GRADE OF ALL OTHER STRUCTURAL FRAMING. "DOUG FIR-LARCH" NO. 2 (Fb= 900 PSI, Fc=1350 PSI), OR "HEM-FIR" NO. 1 (Fb=975 PSI, Fc=1350 PSI).
3.

UTILITY & STANDARD GRADES NOT PERMITTED.

PRESERVATIVE TREATED WOOD REQUIREMENTS:

TREATMENTS OTHER THAN THOSE LISTED BELOW ARE NOT PERMITTED.

EXPOSURE	WET	APPLICATION	SPECIFIED MATERIAL	PRESERVATIVE TREATMENT (1)	CONNECTORS & FASTENERS (2)(3)
		FRAMING, DECKING, POSTS & LEDGERS	2x. & 4x (FIR)	ACQ, CBA, CA	GALV (G185)
			2x. & 4x (CEDAR)	NONE	GALV (G90)

1.

CCA: CHROMATED COPPER ARSENATE NOT PERMITTED  
SBX: DOT SODIUM BORATE  
ACQ: ALKALINE COPPER QUAT  
CBA & CA: COPPER AZOLE

FIR: DOUG-FIR OR HEM-FIR  
SP: SOUTHERN PINE
2.

G60, G90 & G185 PER ASTM A653 FOR COLD-FORMED STEEL CONNECTORS. BATCH/POST HOT-DIP GALVANIZED PER ASTM A123 FOR CONNECTORS AND ASTM A153 STRUCTURAL STEEL CONNECTORS. HOT-DIP GALVANIZED PER ASTM A153 FOR FASTENERS OR MECHANICALLY GALVANIZED FASTENERS PER ASTM B695, CLASS 55 OR GREATER.

MISCELLANEOUS:

PRE-APPROVED SUBSTITUTIONS: SUBSTITUTIONS MAY BE ALLOWED ONLY IF THEY MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND THE SPECIFICATIONS, AND IF COMPLETE WRITTEN ENGINEERING DATA FOR EACH CONDITION REQUIRED FOR THIS PROJECT IS PROVIDED TO THE STRUCTURAL ENGINEER TWO WEEKS PRIOR TO BID DATE AND APPROVED IN WRITTEN ADDENDA BY THE ARCHITECT. DATA IS TO INDICATE CODE BASIS BY YEAR, AUTHORITY FOR STRESSES AND STRESS INCREASES, IF ANY, AND AMOUNT OF EXPECTED DEFLECTION FOR FLEXURAL MEMBERS UNDER (1) TOTAL LOAD AND (2) LIVE LOAD ONLY. ALL INCREASED COSTS IN MECHANICAL, SPRINKLER, ELECTRICAL OR GENERAL INSTALLATION AND ANY ARCHITECTURAL OR STRUCTURAL REDESIGN RESULTING FROM SUBSTITUTION SHALL BE BORNE BY THE GENERAL CONTRACTOR.

PRE-ENGINEERED METAL BUILDING THE BUILDING, FOUNDATIONS, AND THE SLAB SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF THE PROJECT. REFER TO THE ARCHITECTURAL PLANS FOR REQUIREMENTS.

SHOP DRAWINGS/SUBMITTALS

THE FOLLOWING SHOP DRAWINGS/SUBMITTALS SHALL BE PROVIDED FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OR DELIVERY.

	STRUCTURAL ENGR.	BLDG. DEPT.
1. CONCRETE MIX DESIGNS	X	X
2. REINFORCING STEEL SHOP DRAWINGS	X	
3. VENEER ANCHORAGE SYSTEMS	X	X
4. STRUCTURAL STEEL	X	X
5. METAL DECK	X	X
6. COLD-FORMED STEEL FRAMING	X	X
7. MISCELLANEOUS STEEL	X	X
8. CONTRACTOR'S STATEMENT OF RESPONSIBILITY	X	X
9. PRE-ENGINEERED BUILDING AND FOUNDATIONS	X	X

DEFERRED SUBMITTALS

THE FOLLOWING ARE NOT INCLUDED WITH THE BUILDING PERMIT DRAWINGS AND SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL AS A DEFERRED SUBMITTAL. SUBMITTALS SHALL BEAR THE SEAL OF AN ENGINEER LICENSED IN THE STATE OF THE PROJECT AS NOTED.

	ENGINEER STAMP REQUIRED
1. FALL RESTRAINTS	SE
2. PRE-ENGINEERED METAL BUILDING	SE
3. PRE-ENGINEERED BUILDING AND FOUNDATIONS	SE

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT TESTING LABORATORY PER THE REQUIREMENTS OF IBC CHAPTER 17 AND THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION AND THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SUBMIT INSPECTION REPORTS AND A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL FOR THE ITEMS LISTED IN THE QUALITY ASSURANCE/SPECIAL INSPECTION SECTION:

GENERAL NOTES



SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED PER THE REQUIREMENTS OF IBC SECTION 1704 AND 1705 AND AS NOTED HEREIN.

TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM. REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.

- » PERIODIC VISUAL OBSERVATION OF STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES.
- » REVIEW OF TESTING AND INSPECTION REPORTS.
- » REPORTS SHALL BE PREPARED FOR EACH SITE VISIT AND SHALL BE DISTRIBUTED TO ARCHITECT.

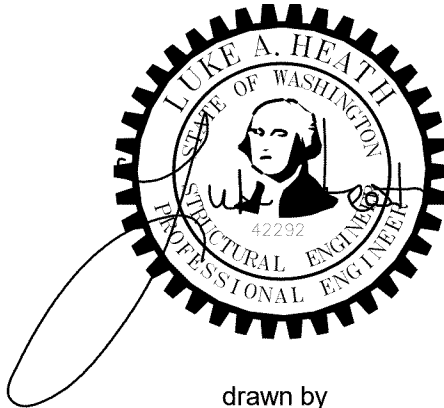
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# S004

Scale      12" = 1'-0"



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**WAGROVE CHILDREN'S CENTER**  
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FOUNDATION NOTES

1.

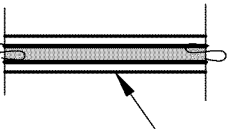
COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2.

REFERENCE ELEVATION - CIVIL 100.00 = ARCHITECTURAL 0'-0".
3.

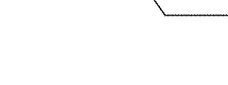
TOP OF SLAB = 0'-0" UNLESS NOTED OTHERWISE.
4.

TOP OF FOOTING ELEVATIONS = -1'-2"

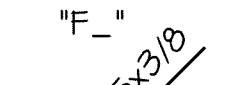
UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.
5.




INDICATES CONCRETE STEM WALL. FOR TOP OF WALL REQUIREMENTS AND CALLOUTS - SEE GRADE LEVEL FRAMING PLANS.
6.



INDICATES CONTINUOUS CONCRETE WALL FOOTING. FOR TYPICAL FOOTING AND STEM WALL DETAILS - SEE SHEETS S302 AND S303. FOOTING WIDTH ("W") = 1'-6" UNLESS NOTED OTHERWISE ON PLAN. CENTER FOOTINGS ON CONCRETE STEM WALL. EXTEND FOOTINGS 6" MINIMUM PAST ENDS OF WALL UNLESS NOTED OTHERWISE.
7.




INDICATES CONCRETE SPREAD FOOTING. FOR SCHEDULE - SEE 5/S303.
8.



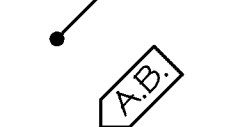
INDICATES STEEL COLUMNS ORIGINATING AT FOUNDATION LEVEL. ALL COLUMNS ARE CONTINUOUS TO ROOF UNLESS NOTED OTHERWISE. FOR TYPICAL ANCHOR ROD/BOLT DETAIL - SEE 6/S303.
9.

FOR TYPICAL FOUNDATION DETAILS - SEE SHEETS S301, S302, S303, AND S304.
10.

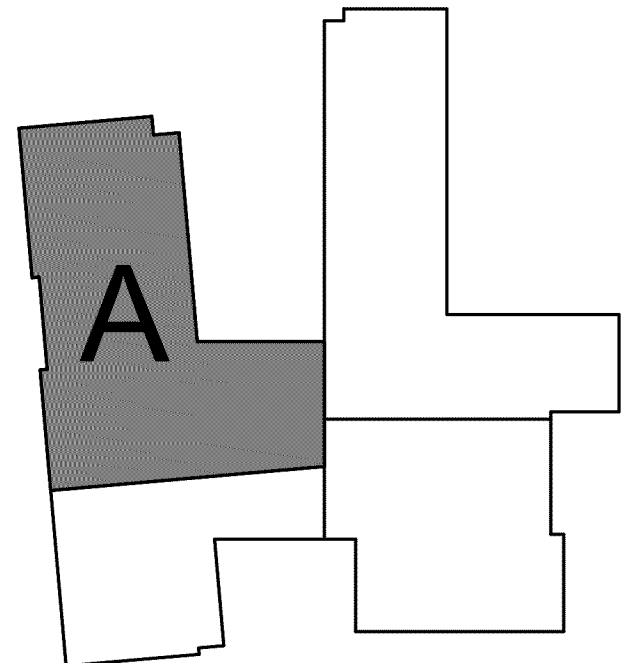
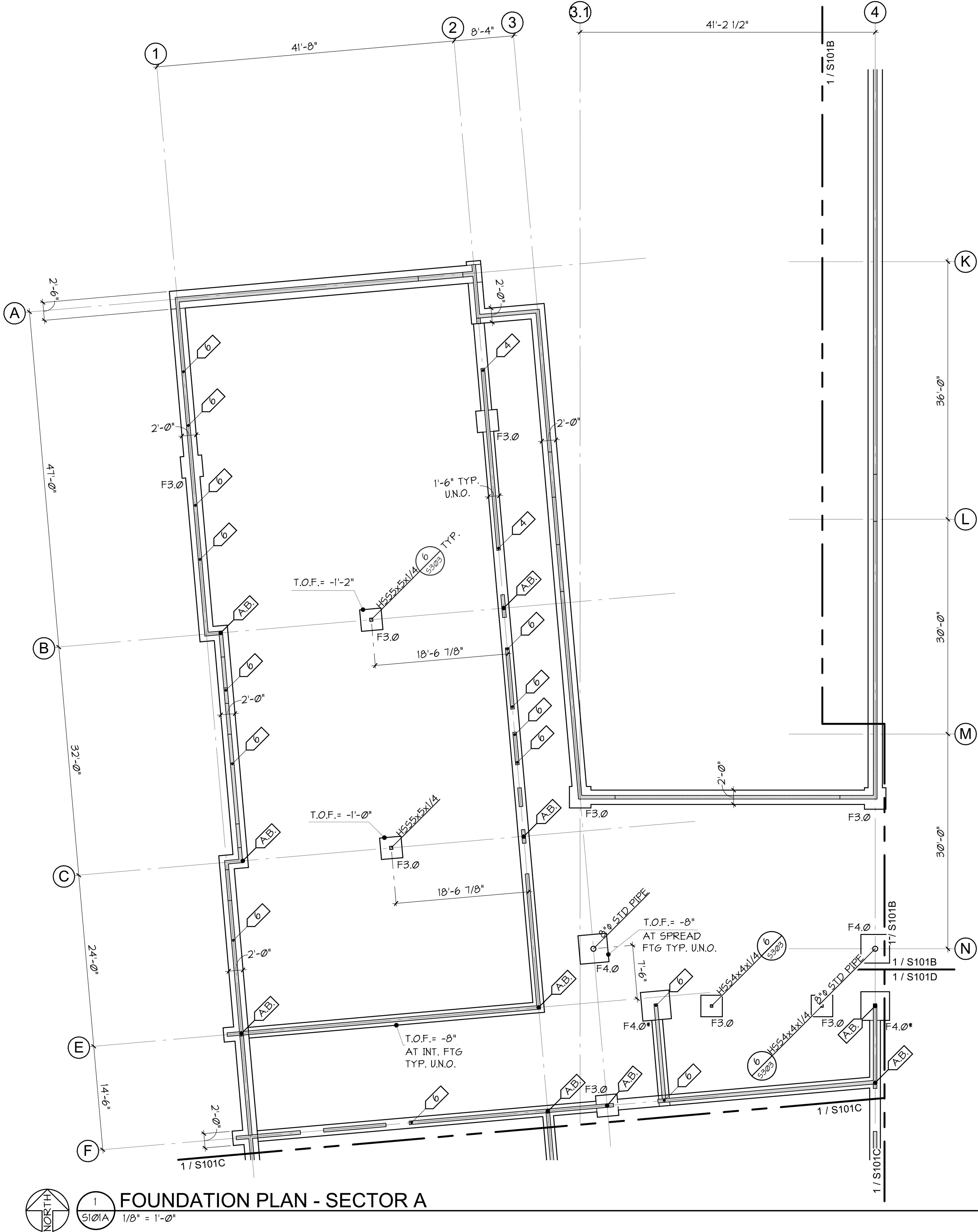
FOR TYPICAL PLACEMENT OF STEM WALL REINFORCEMENT, STEPS IN FOOTING, AND FOUNDATION CONSTRUCTION JOINTS - SEE DETAILS 4/S302, 1/S302, AND 5/S302.
9.



INDICATES HOLDOWN - SEE 2/S401 FOR SCHEDULE.
10.



INDICATES ANCHOR RODS EXTENDING INTO FOOTING FROM COLUMN ABOVE - SEE 1/S304.



S101A

Scale 1/8" = 1'-0"

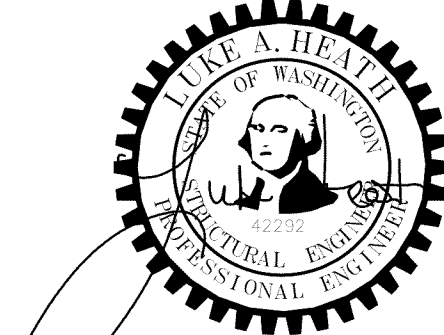
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FOUNDATION  
PLAN -  
SECTOR A

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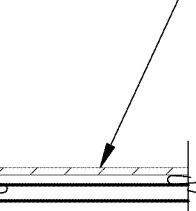
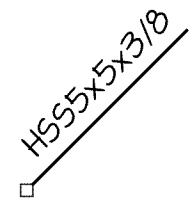



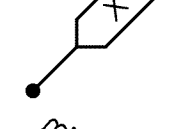

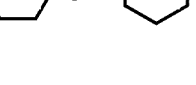
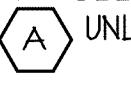
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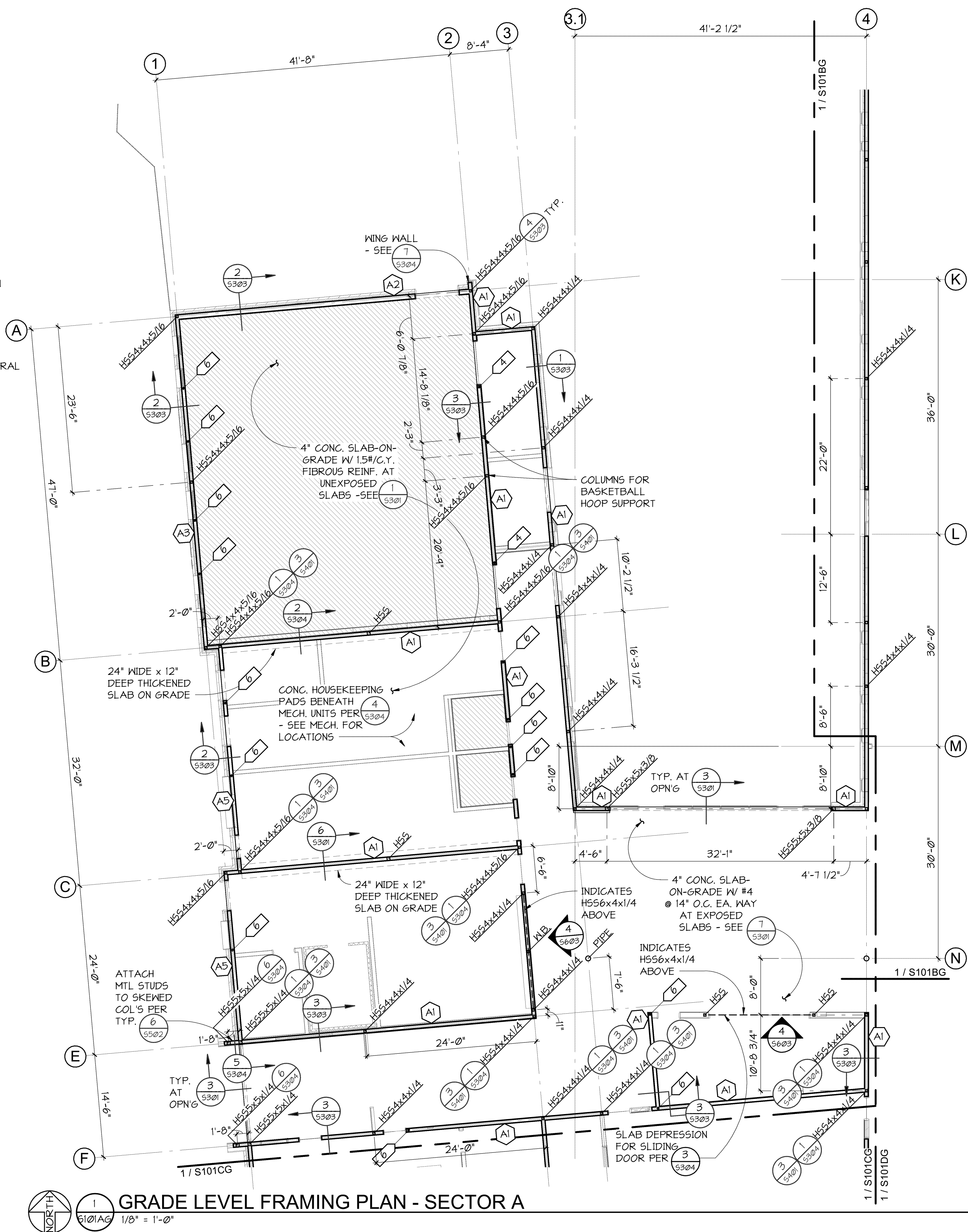


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GRADE LEVEL FRAMING NOTES

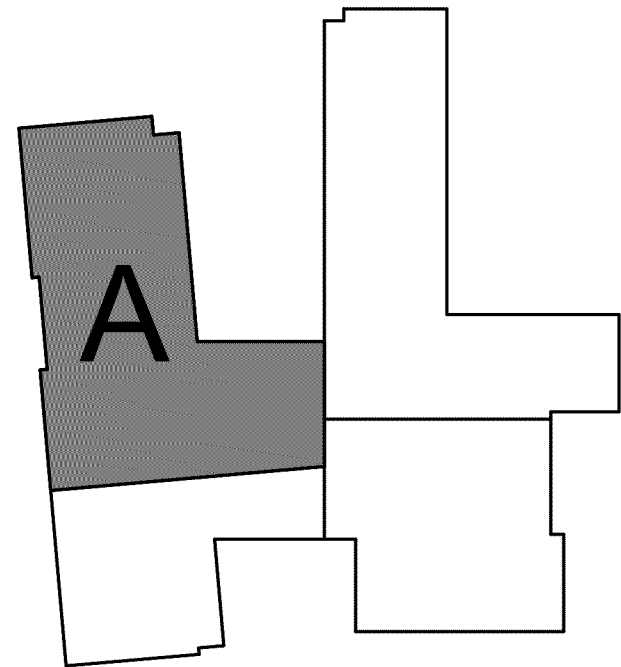
1. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. TOP OF SLAB = 0'-0" ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE.

3.  INDICATES 600S137-33 AT 16" ON CENTER METAL STUD WALL UNLESS NOTED OTHERWISE IN PLANS OR DETAILS. ALL STUD WALLS WITH VENEER SHALL BE 43 MIL MIN. FOR SCHEDULE - SEE 1/5403. FOR TYPICAL METAL STUD WALL DETAILS - SEE SHEETS 5401 THROUGH 5407.
4.  INDICATES STEEL COLUMNS ORIGINATING AT GRADE LEVEL UNLESS SHOWN ON FOUNDATION PLAN. ALL COLUMNS ARE CONTINUOUS TO ROOF UNLESS NOTED OTHERWISE. FOR TYPICAL ANCHOR ROD/BOLT DETAIL - SEE 4/5303.
5.  INDICATES TYPE OF CONTINUOUS COLUMN FROM LEVEL BELOW AND CONTINUING ON TO LEVEL ABOVE.
6.  INDICATES SLOPED AND/OR DEPRESSED SLAB-ON-GRADE - SEE ARCHITECTURAL FOR EXACT LOCATIONS. FOR TYPICAL REINFORCING - SEE 5/5301.
7. FOR TYPICAL CONCRETE SLAB-ON-GRADE DETAILS - SEE SHEET 5301.
8.  INDICATES NON-STRUCTURAL STUD WALLS. ALL WALLS ARE NOT SHOWN. FOR LOCATION SEE ARCHITECTURAL. FOR BRACING AT TOPS OF WALLS SEE SHEET 5406. FOR SCHEDULE SEE 4/5405 AND FOR TYPICAL FRAMING SEE SHEETS 5401 THROUGH 5407.
9. FOR SITE STRUCTURES INCLUDING PLAYSHEDS, SITE SIGNS, ETC. - SEE ARCHITECTURAL.
10. FOR TYPICAL SITE CONCRETE MASONRY UNIT SCREEN WALL - SEE 9/5301. SEE ARCHITECTURAL FOR LOCATIONS ON SITE.
11.  INDICATES HOLDOWN - SEE 2/5401 FOR SCHEDULE.
12.  INDICATES WALL BRACE SUPPORT COLUMN - SEE 1/5407.
12.  INDICATES SPECIAL SHEATHING REQUIREMENT - SEE 1/5403 FOR SCHEDULE. ALL EXTERIOR WALLS TO MEET SHEATHING  UNLESS NOTED OTHERWISE.



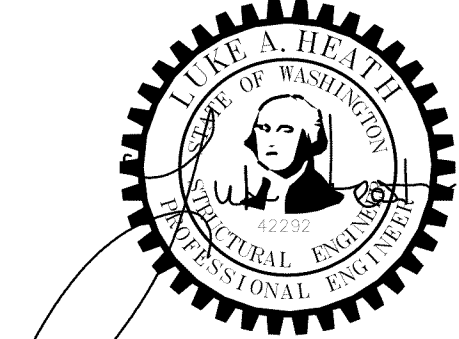
GRADE LEVEL FRAMING PLAN - SECTOR A

1/8" = 1'-0"



S101AG

Scale 1/8" = 1'-0"



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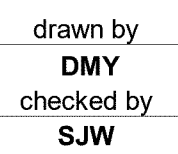
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GRADE LEVEL  
FRAMING PLAN -  
SECTOR A

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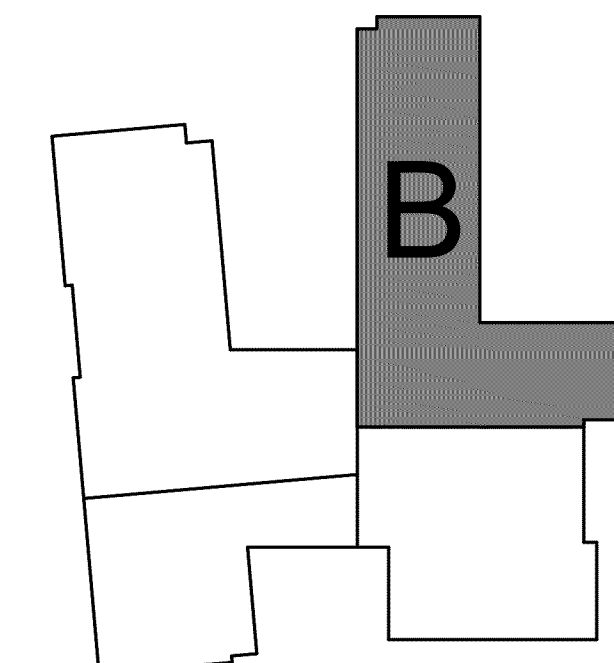
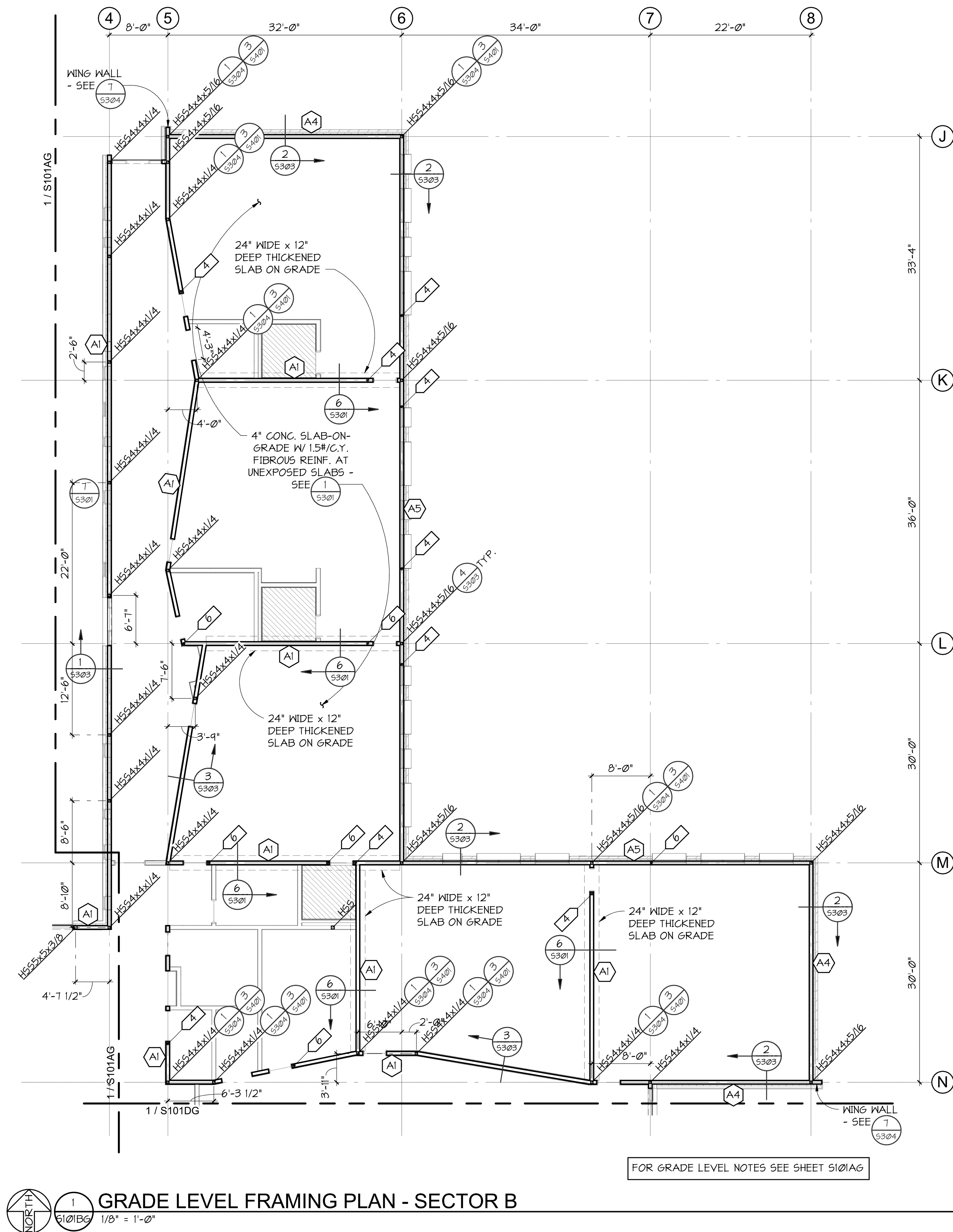
**FOUNDATION  
PLAN -  
SECTOR B**

S101B

Scale  $1/8" = 1'-0"$

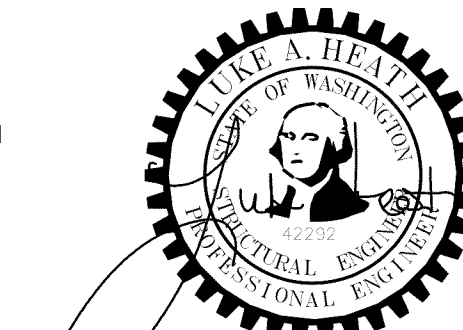
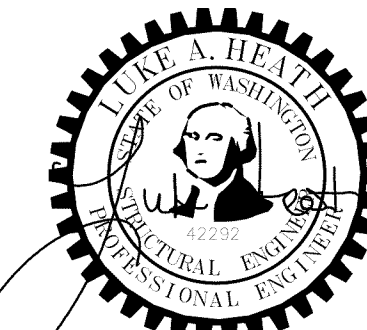
Scale  $1/8" = 1'-0"$





S101BG

Scale  $1/8" = 1'-0"$



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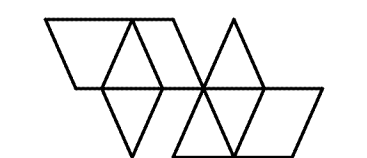
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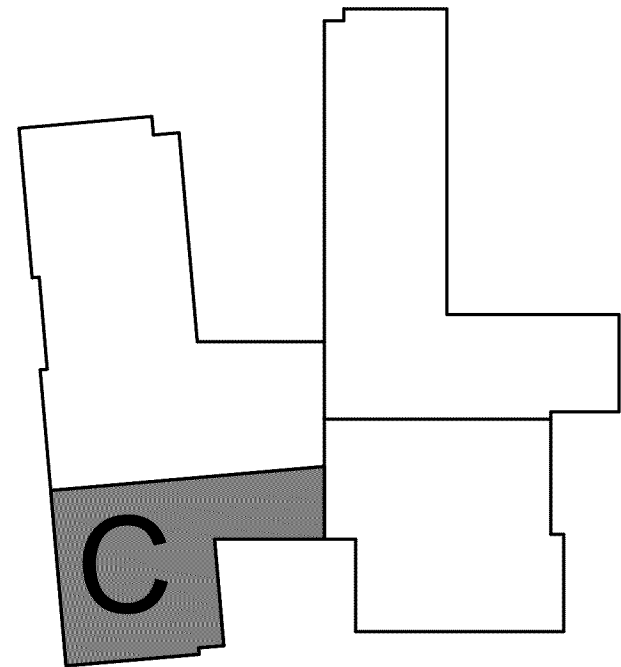
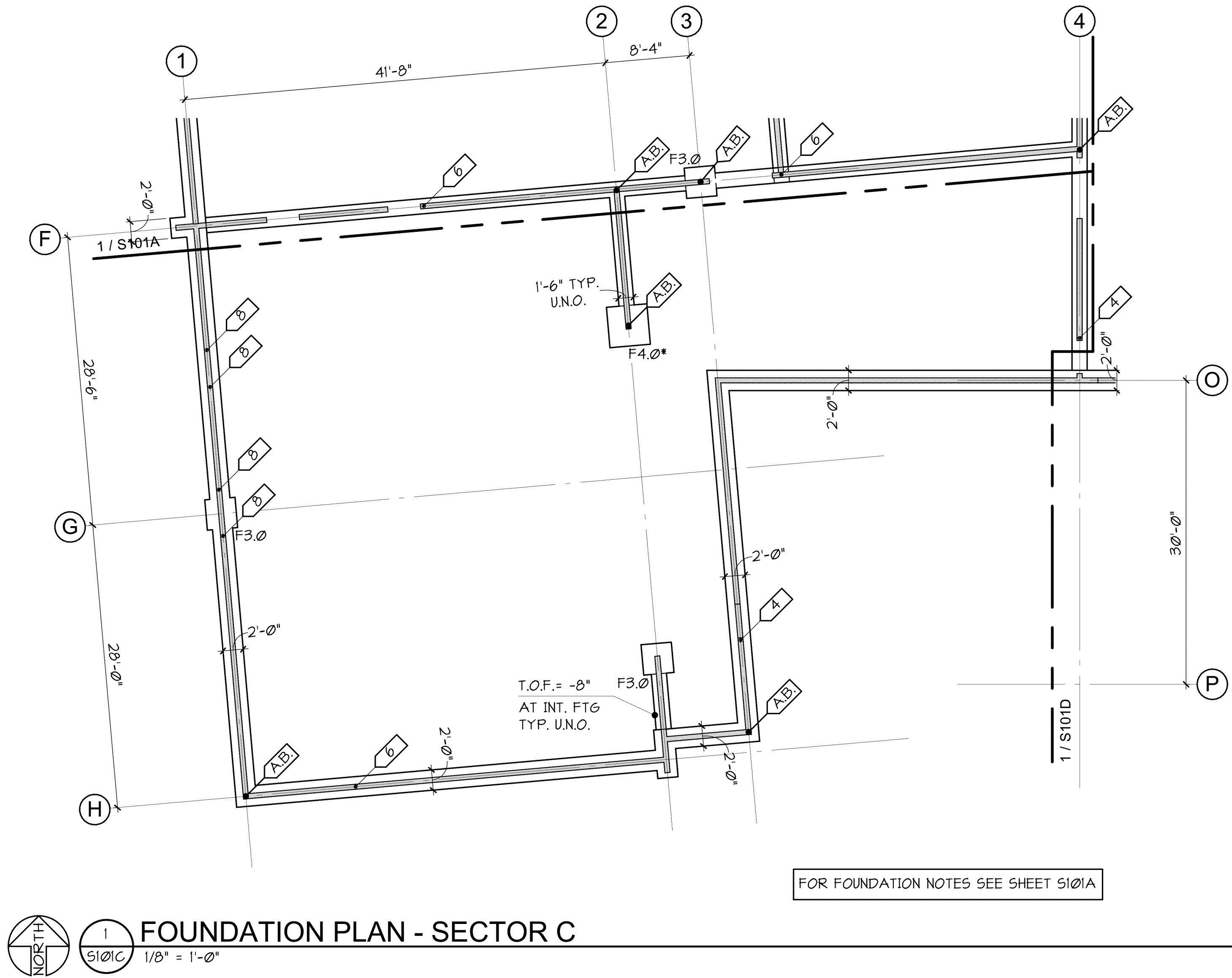
**GRADE LEVEL  
FRAMING PLAN -  
SECTOR B**



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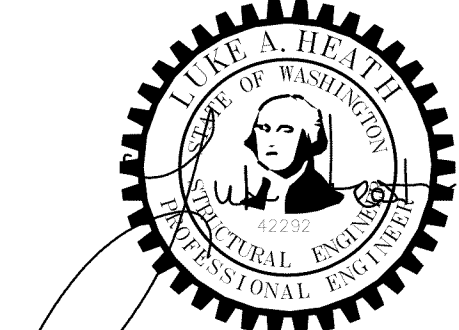


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S101C

Scale 1/8" = 1'-0"



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FOUNDATION  
PLAN -  
SECTOR C



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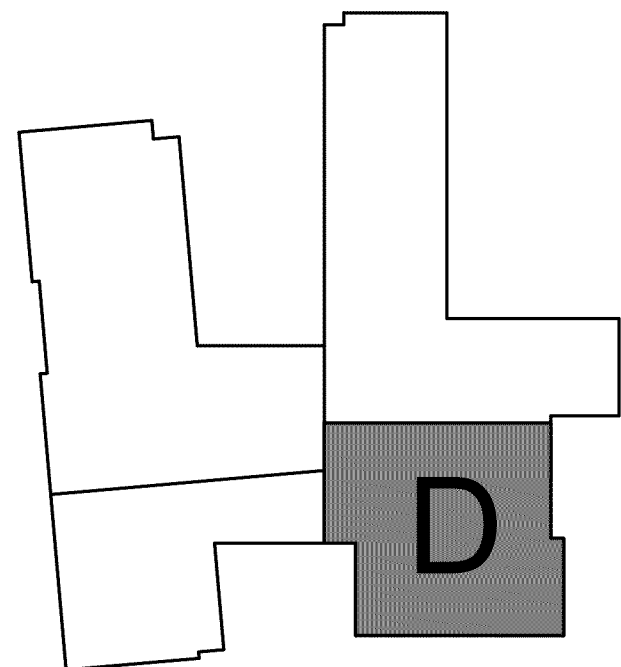
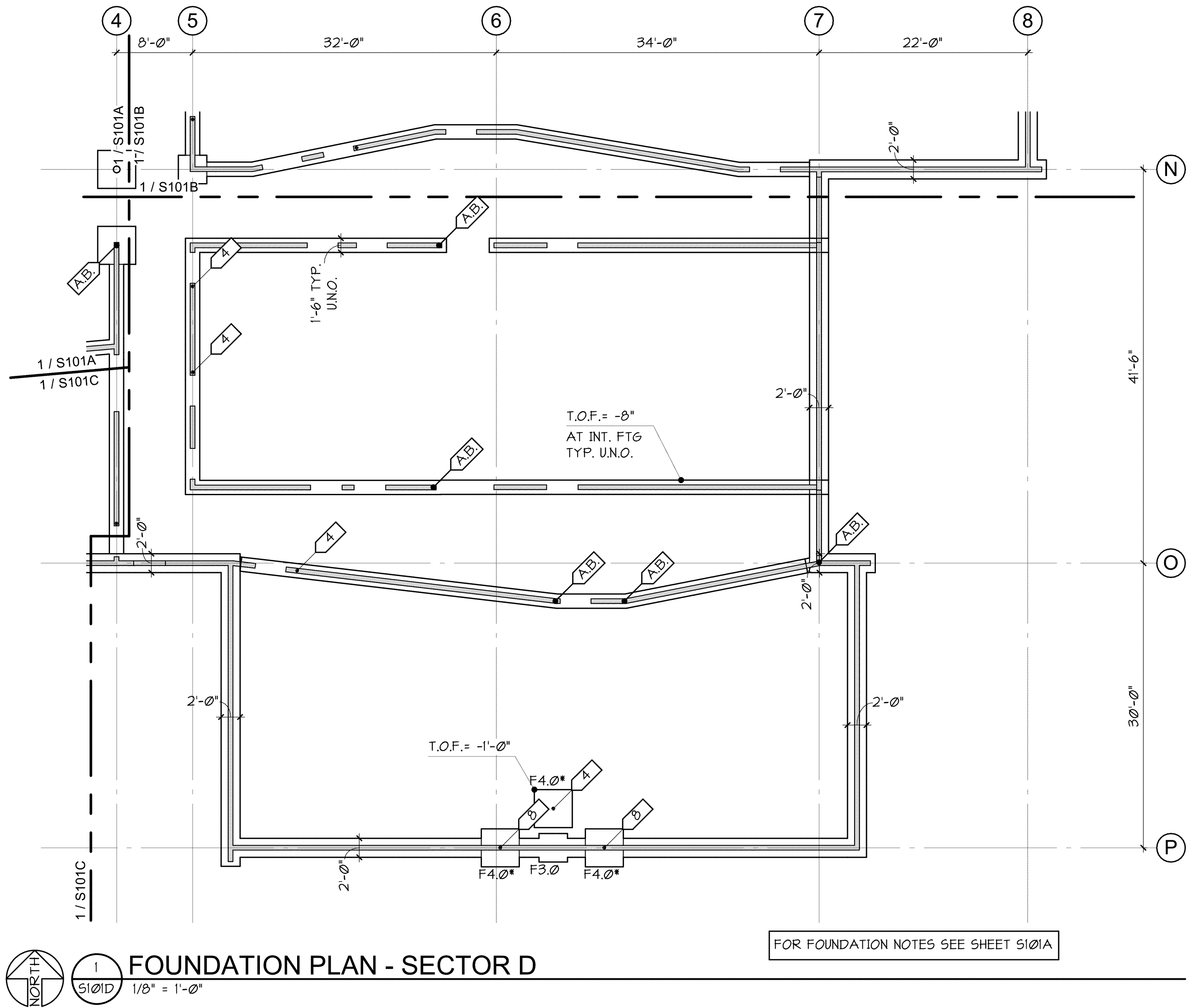
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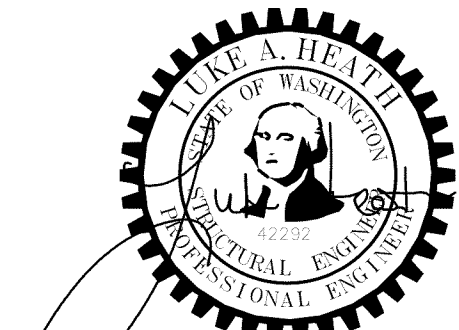
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FOUNDATION  
PLAN -  
SECTOR D

S101D

Scale 1/8" = 1'-0"



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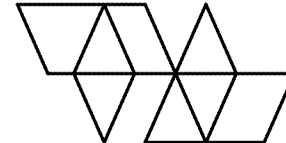
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FOUNDATION  
PLAN -  
SECTOR D

S101D

Scale 1/8" = 1'-0"

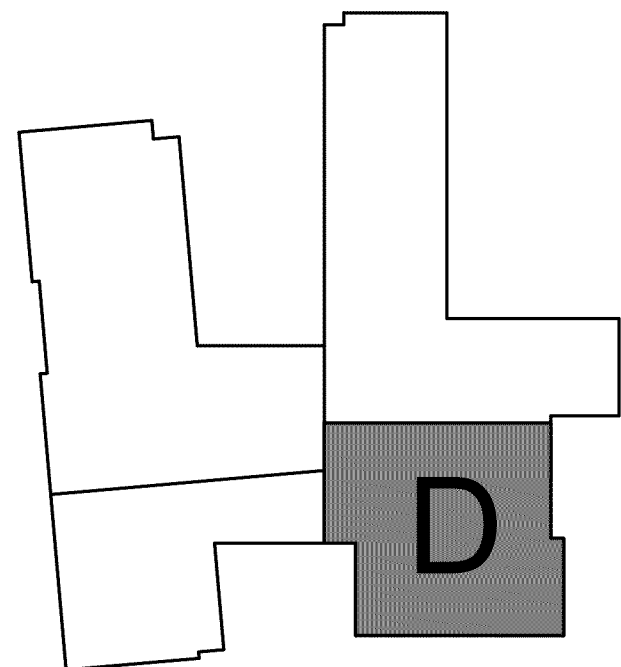
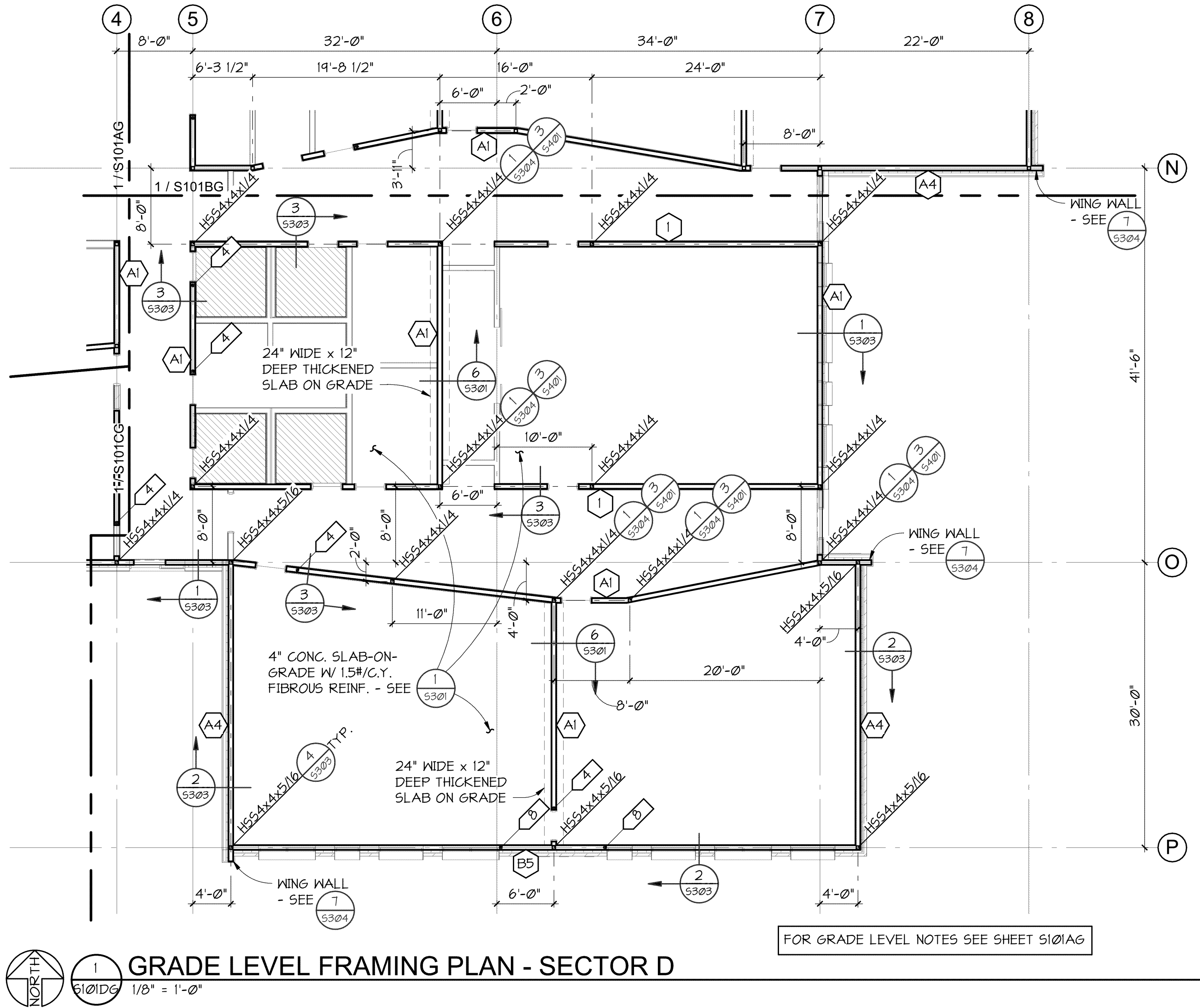


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GRADE LEVEL  
FRAMING PLAN -  
SECTOR D

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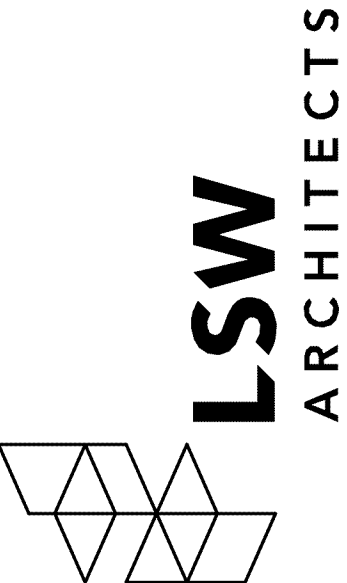
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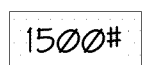

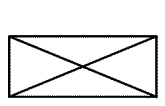
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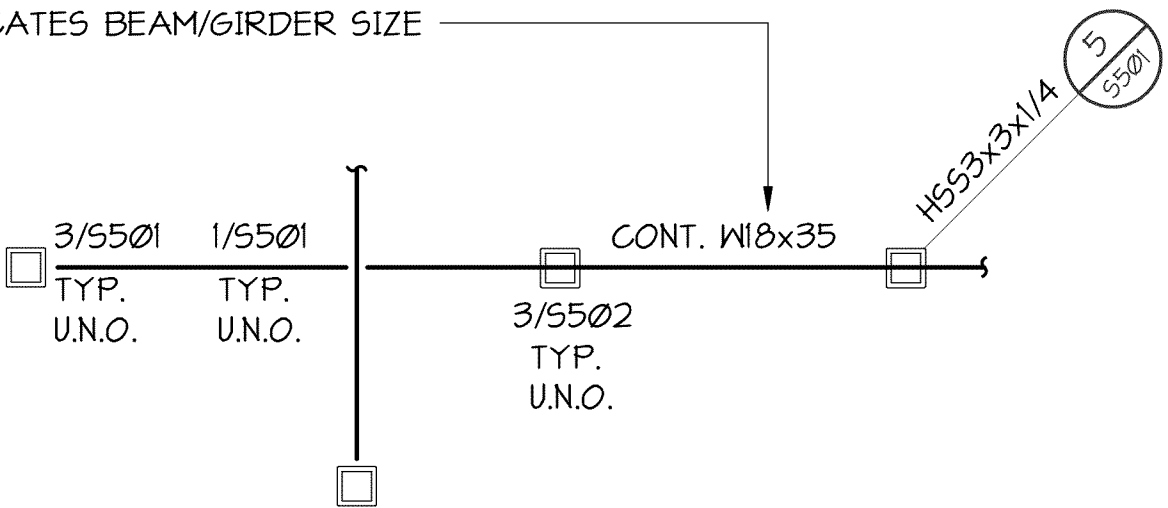


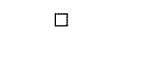
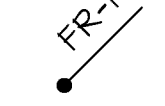
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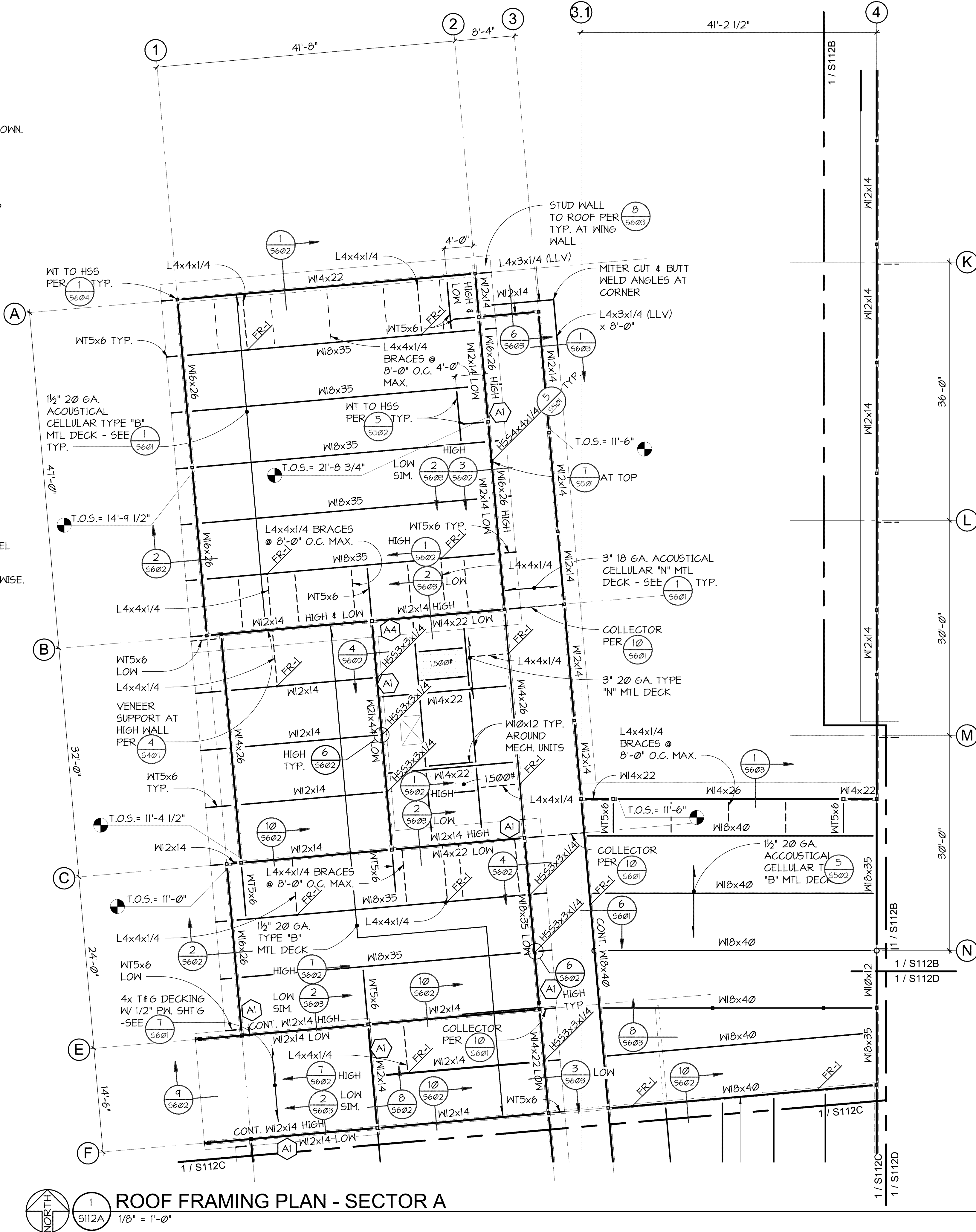
ROOF FRAMING NOTES

1.  INDICATES WALL BELOW EXTENDING TO ROOF STRUCTURE.
2.  INDICATES MECHANICAL UNIT ON ROOF STRUCTURE WITH MAXIMUM WEIGHT SHOWN.
3.  INDICATES DIRECTION OF SPAN FOR METAL DECK. FOR TYPICAL METAL DECK - SEE SHEET S601.
4.  INDICATES PENETRATION IN ROOF. NOT ALL OPENINGS ARE SHOWN. FOR ADDITIONAL MISCELLANEOUS OPENINGS IN ROOF - SEE ARCHITECTURAL AND MECHANICAL DRAWINGS. SEE 2/S601 AND 5/S601 FOR TYPICAL SUPPORT AROUND OPENINGS.
5. FOR TYPICAL STEEL CONNECTION DETAILS - SEE SHEET S501.

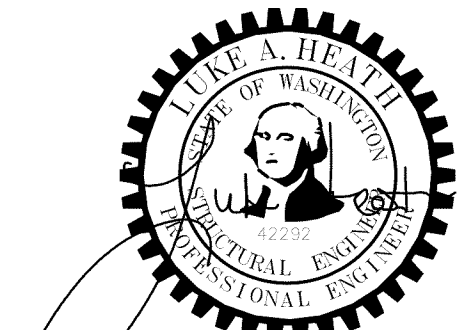
INDICATES BEAM/GIRDER SIZE



6.  INDICATES STEEL COLUMN DISCONTINUING AT ROOF LEVEL.
7.  INDICATES FALL RESTRAINT ON ROOF STRUCTURE. FOR TYPICAL DETAIL - SEE 4/S601. LOCATE EXACT DIMENSIONS PER ARCHITECT AND FALL RESTRAINT PROVIDER.
8. SEE ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS/ORNAMENTAL (NON-STRUCTURAL) STEEL THROUGHOUT THE BUILDING.
9. STEEL MEMBERS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS UNLESS NOTED OTHERWISE.





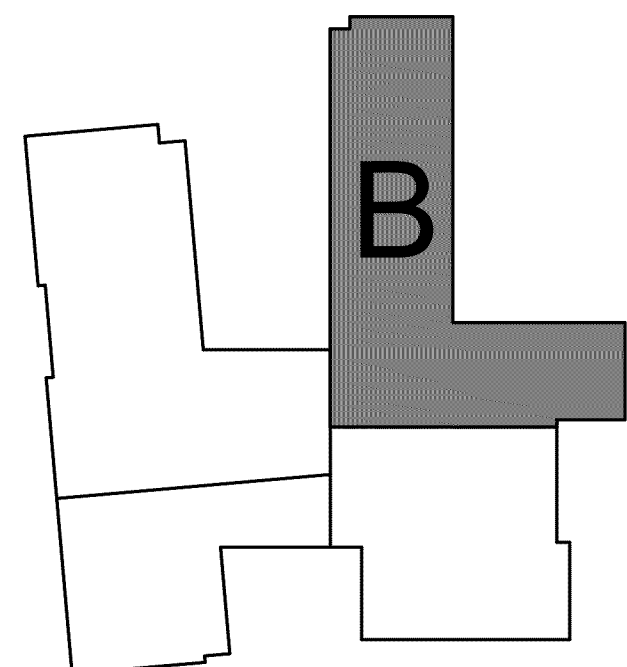


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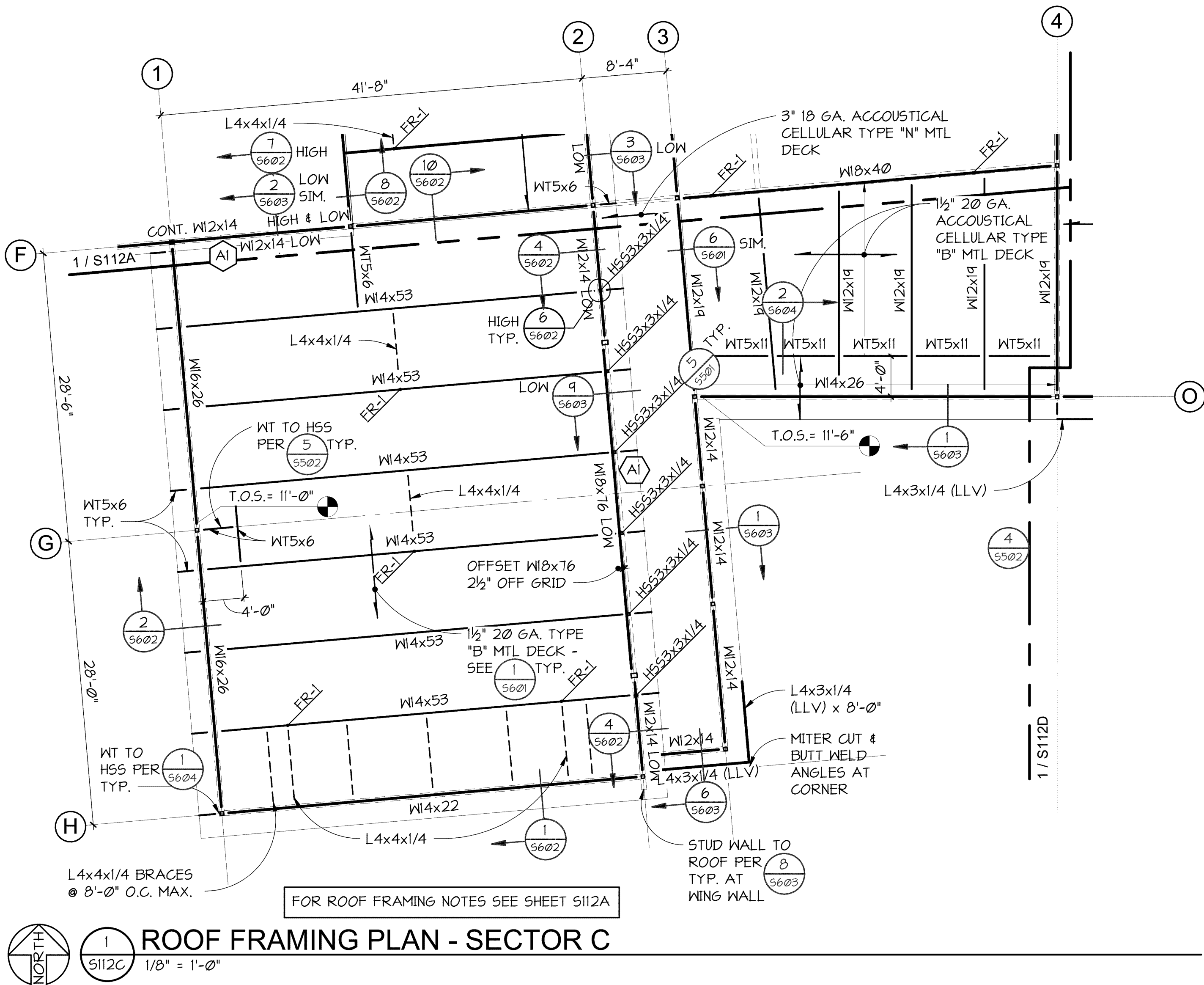
**ROOF FRAMING  
PLAN -  
SECTOR B**

Scale      1/8" = 1'-0"





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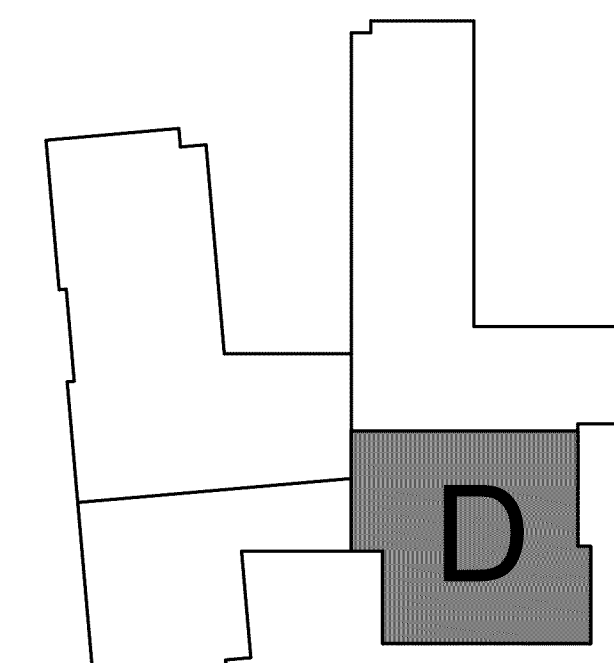


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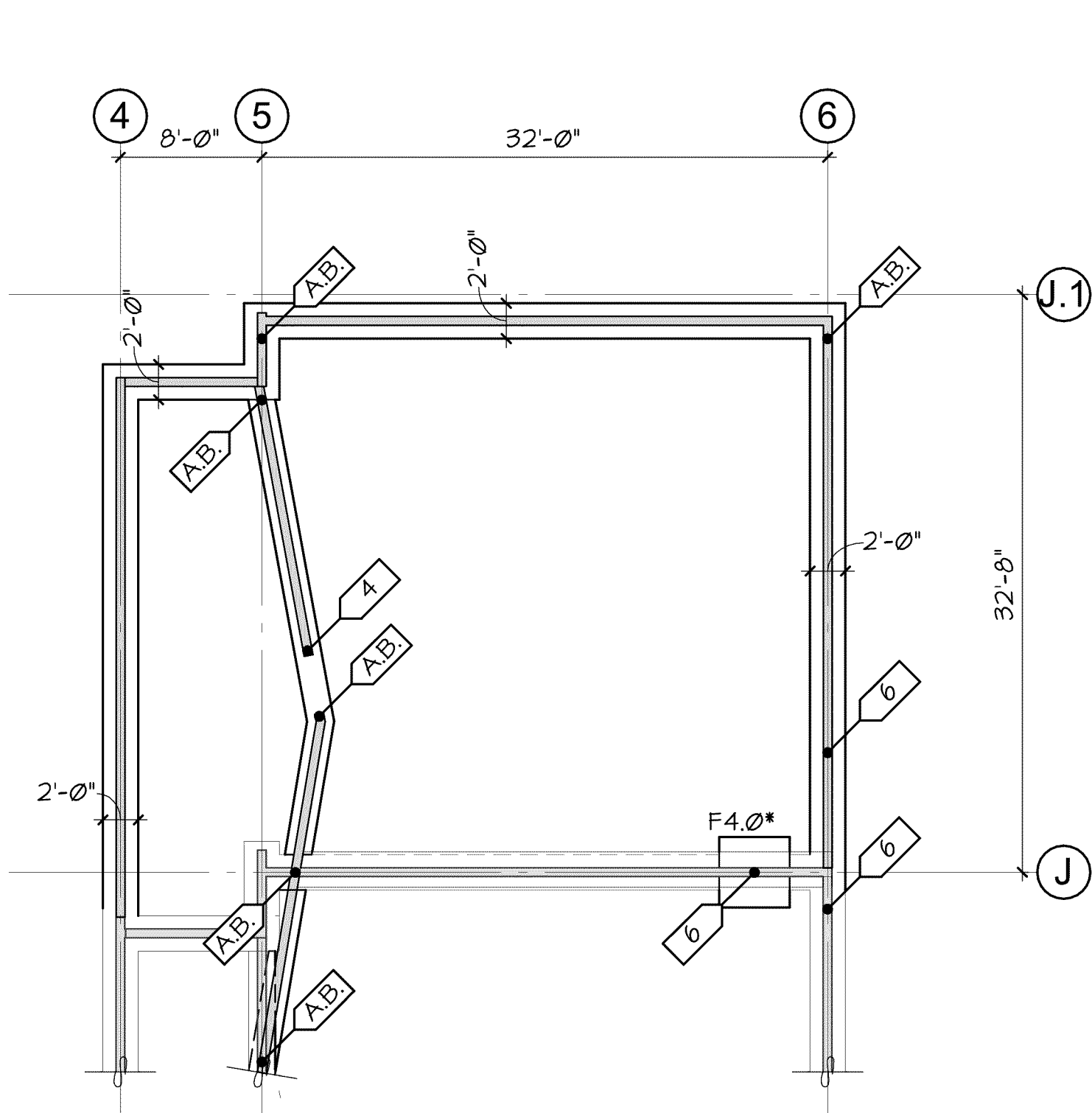
ROOF FRAMING  
PLAN -  
SECTOR D

Scale  $1/8" = 1'-0"$

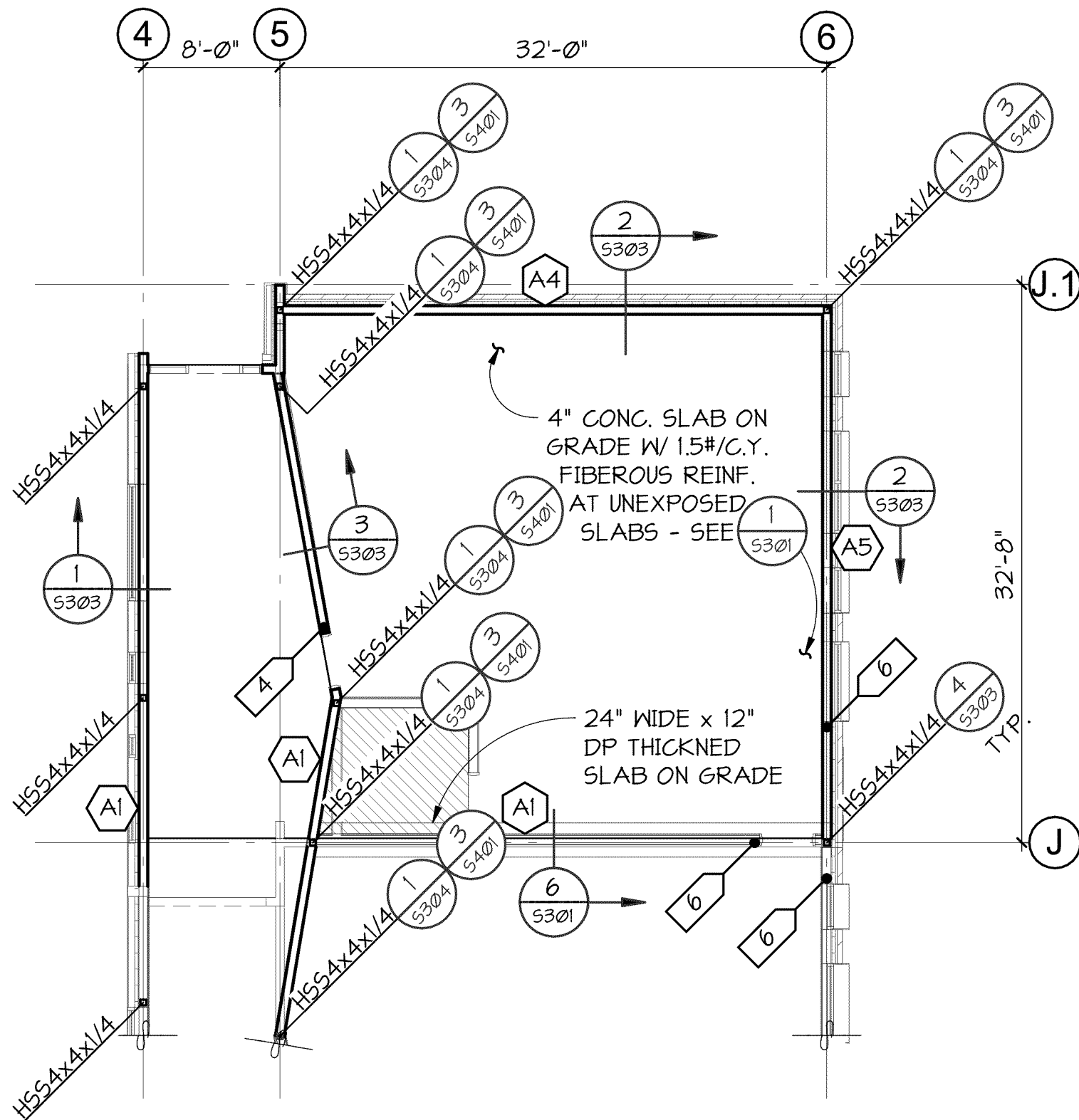




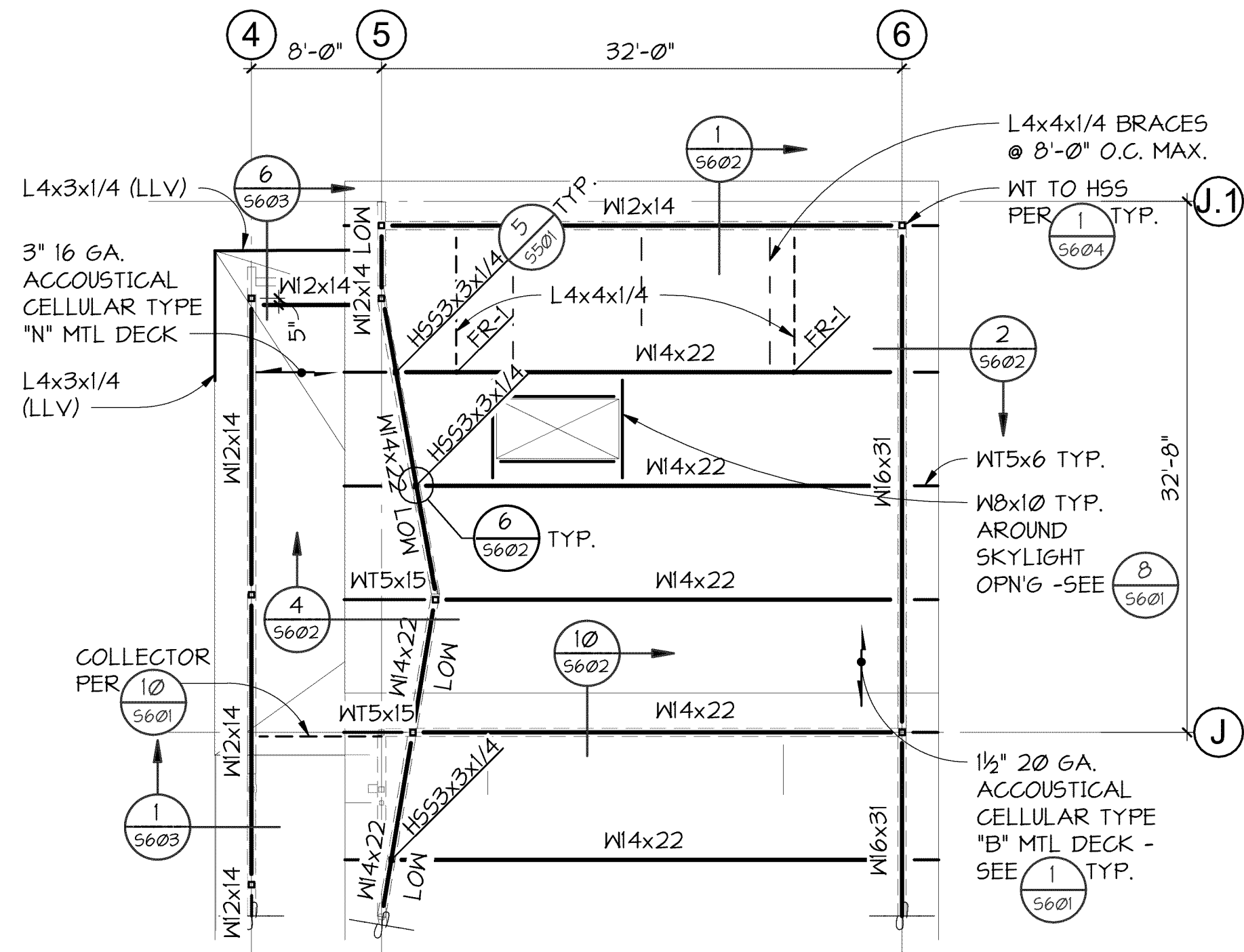
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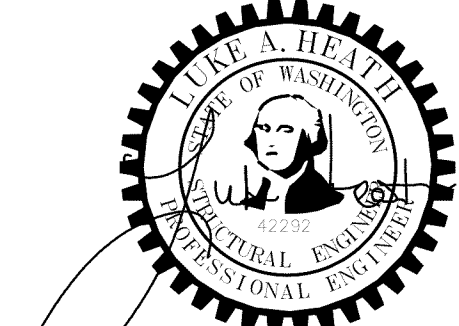
1 FOUNDATION PLAN - ALTERNATE  
5/16 Ø 1/8" = 1'-0"



2 GRADE LEVEL FRAMING PLAN - ALTERNATE  
5/16 Ø 1/8" = 1'-0"



3 ROOF FRAMING PLAN - ALTERNATE  
5/16 Ø 1/8" = 1'-0"



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ALTERNATE  
PLANS

S160

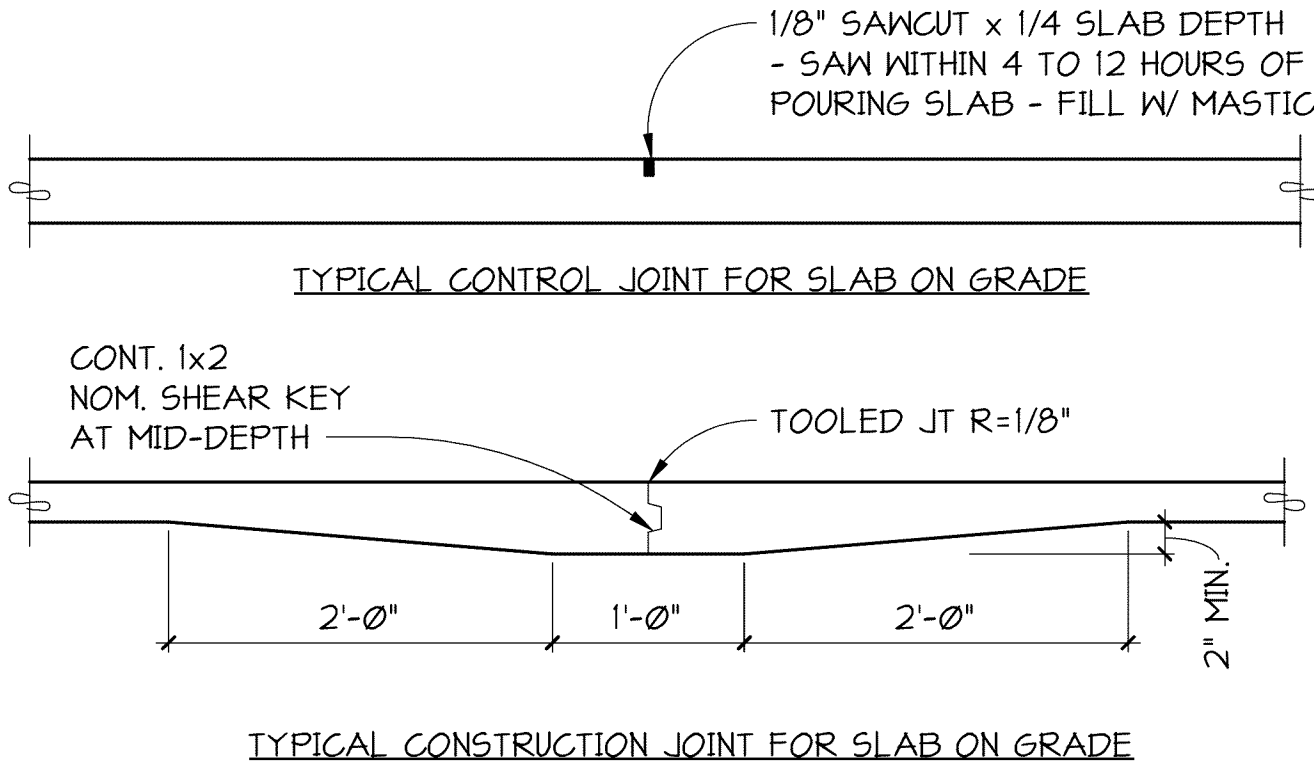
Scale 1/8" = 1'-0"

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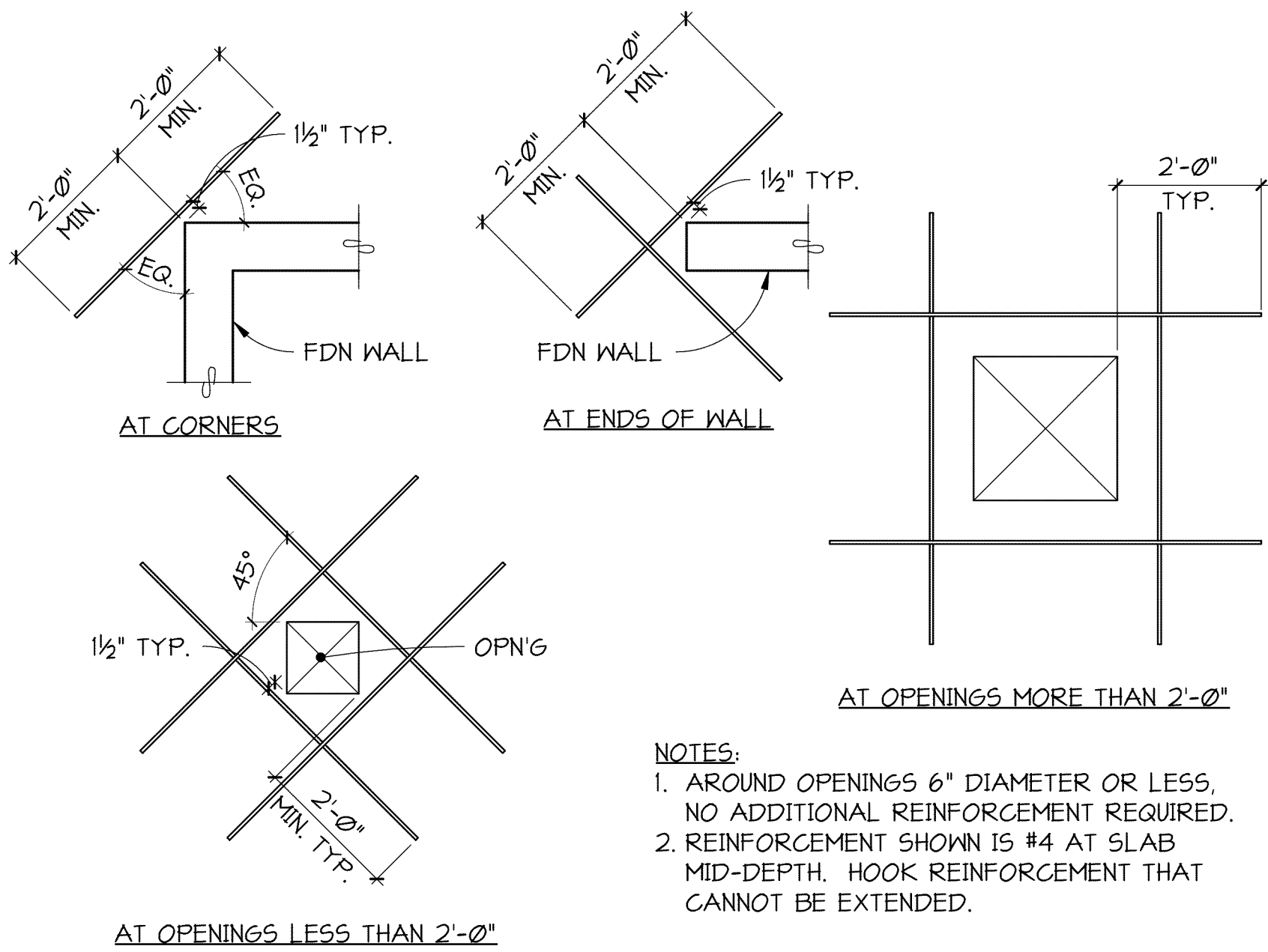
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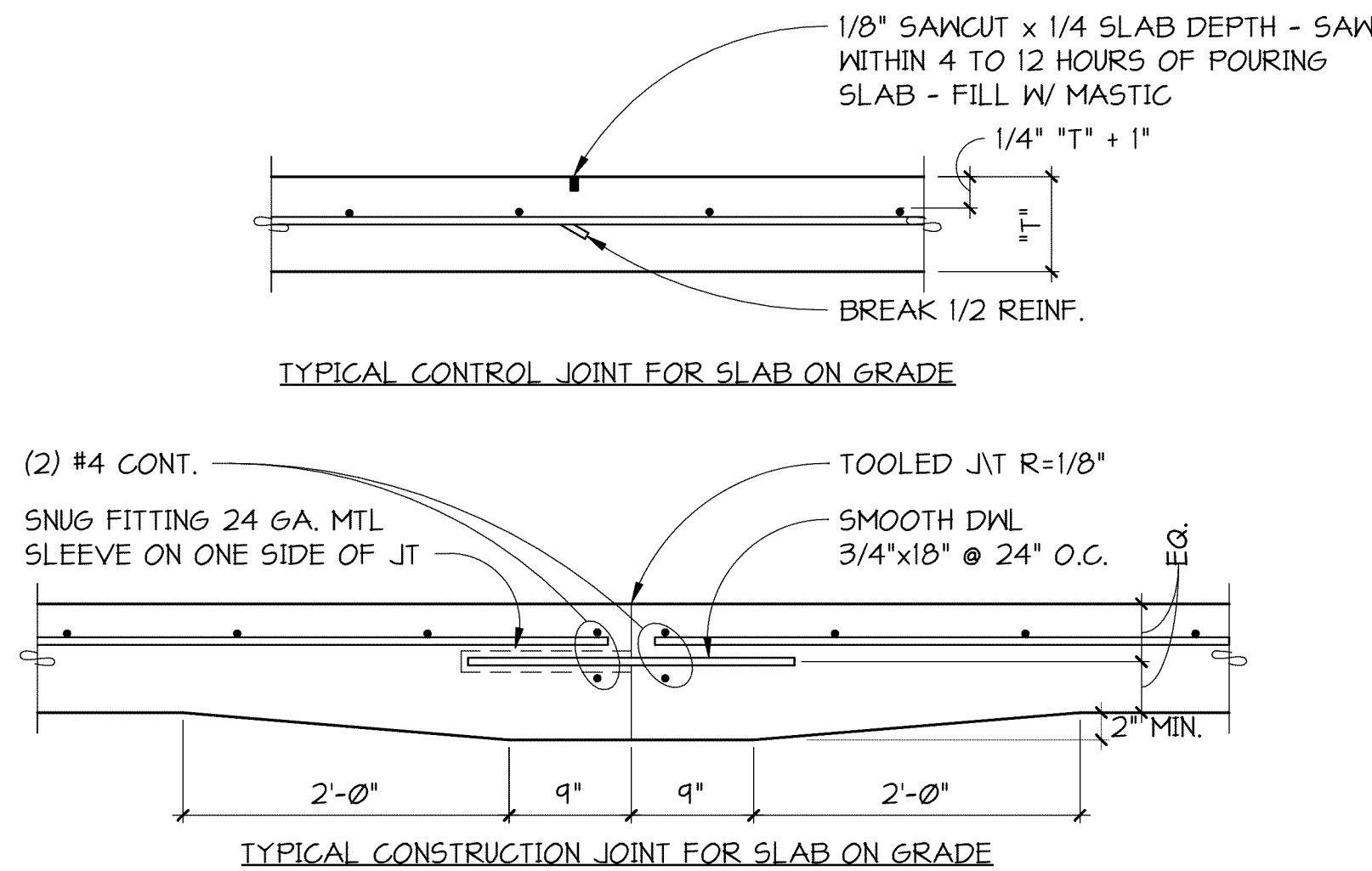
NOTE:  
LOCATE JOINTS AT NON-BEARING  
WALLS WHERE POSSIBLE - SUBMIT  
PATTERN TO ARCHITECT FOR  
APPROVAL.



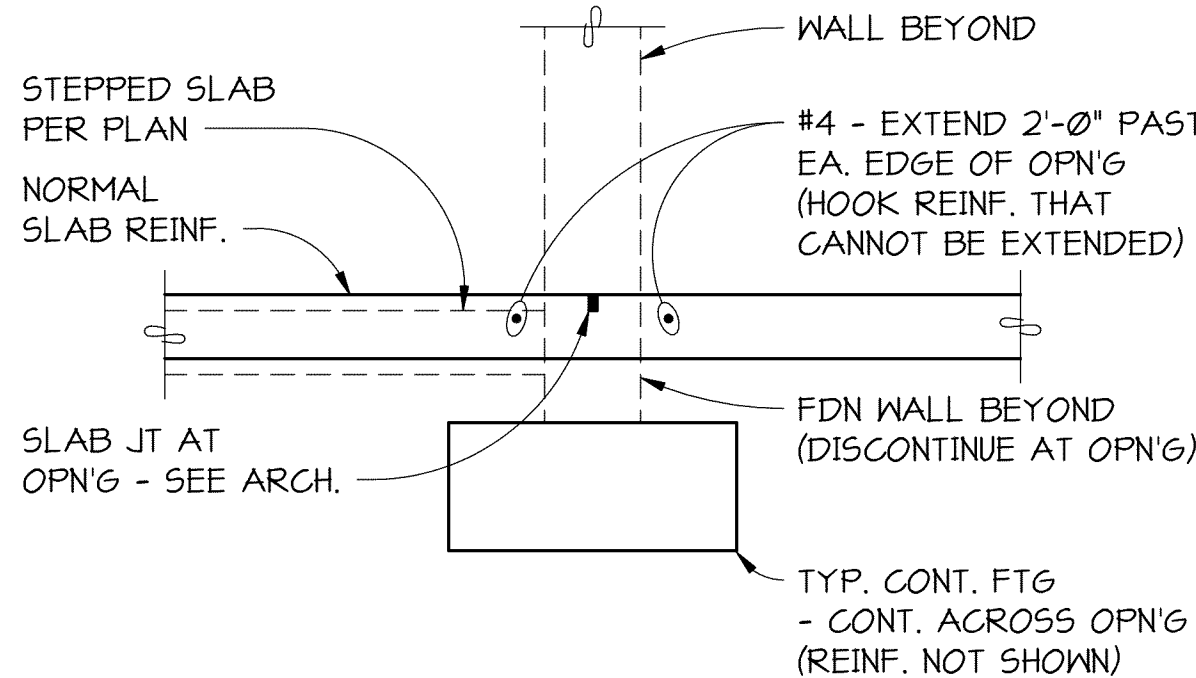
1 SECTION  
S301 NO SCALE



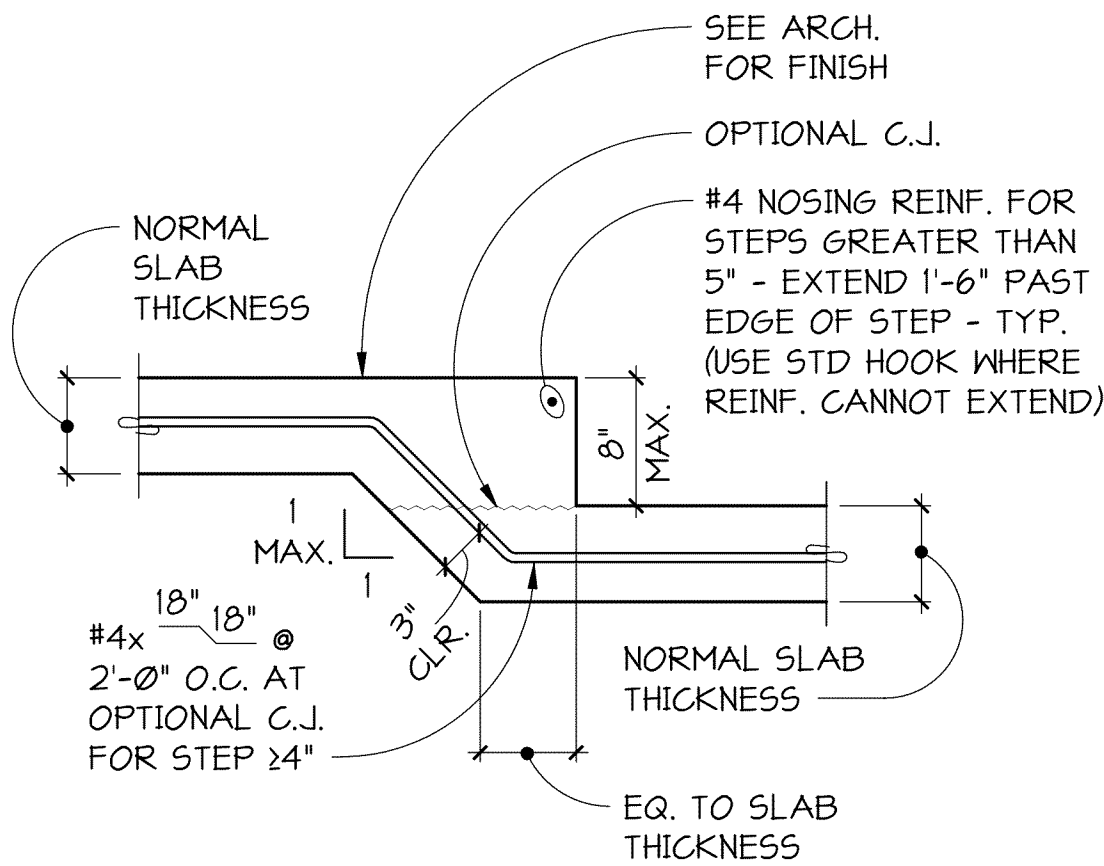
4 PLAN DETAILS  
S301 NO SCALE



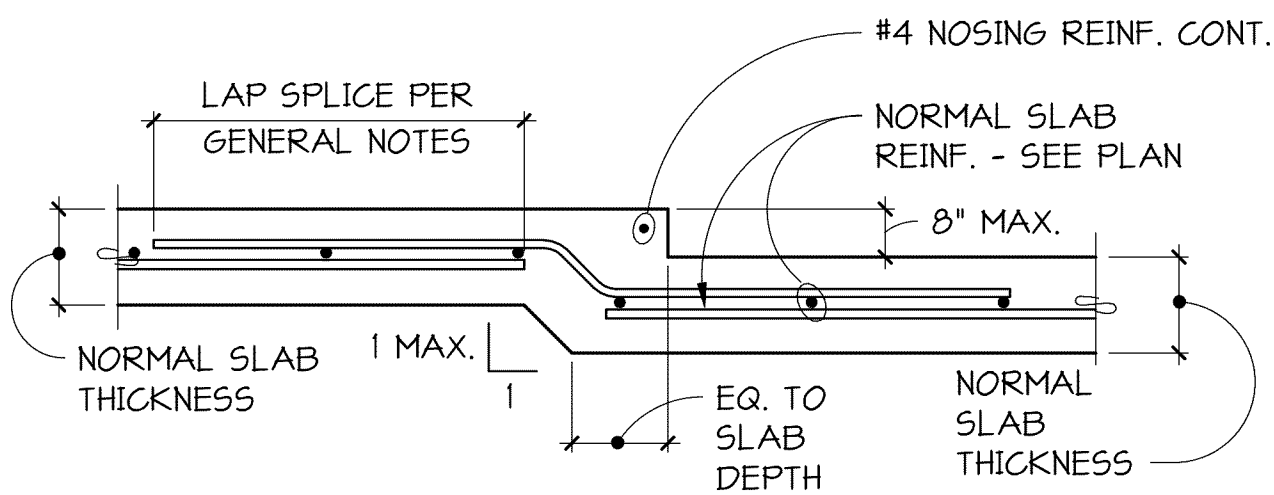
7 SECTION  
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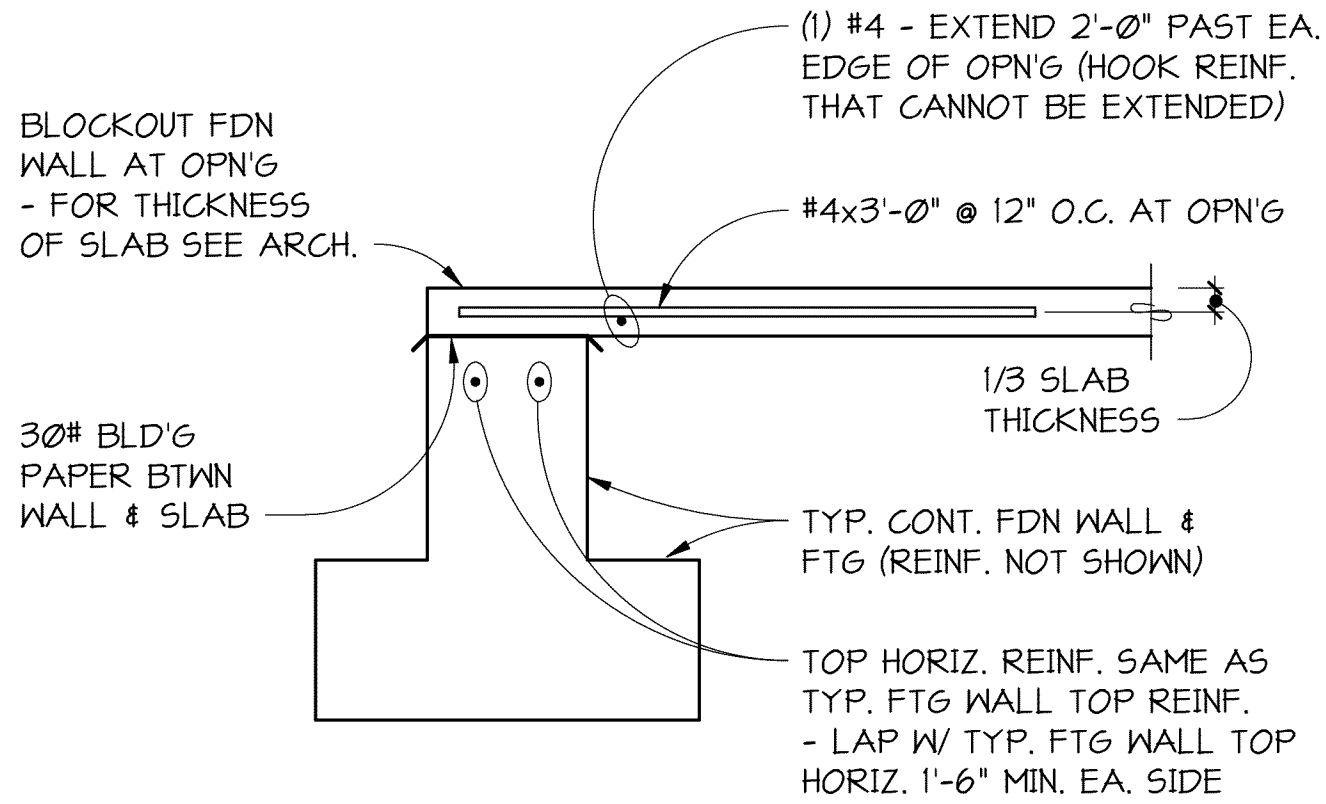
2 SECTION  
S301 NO SCALE



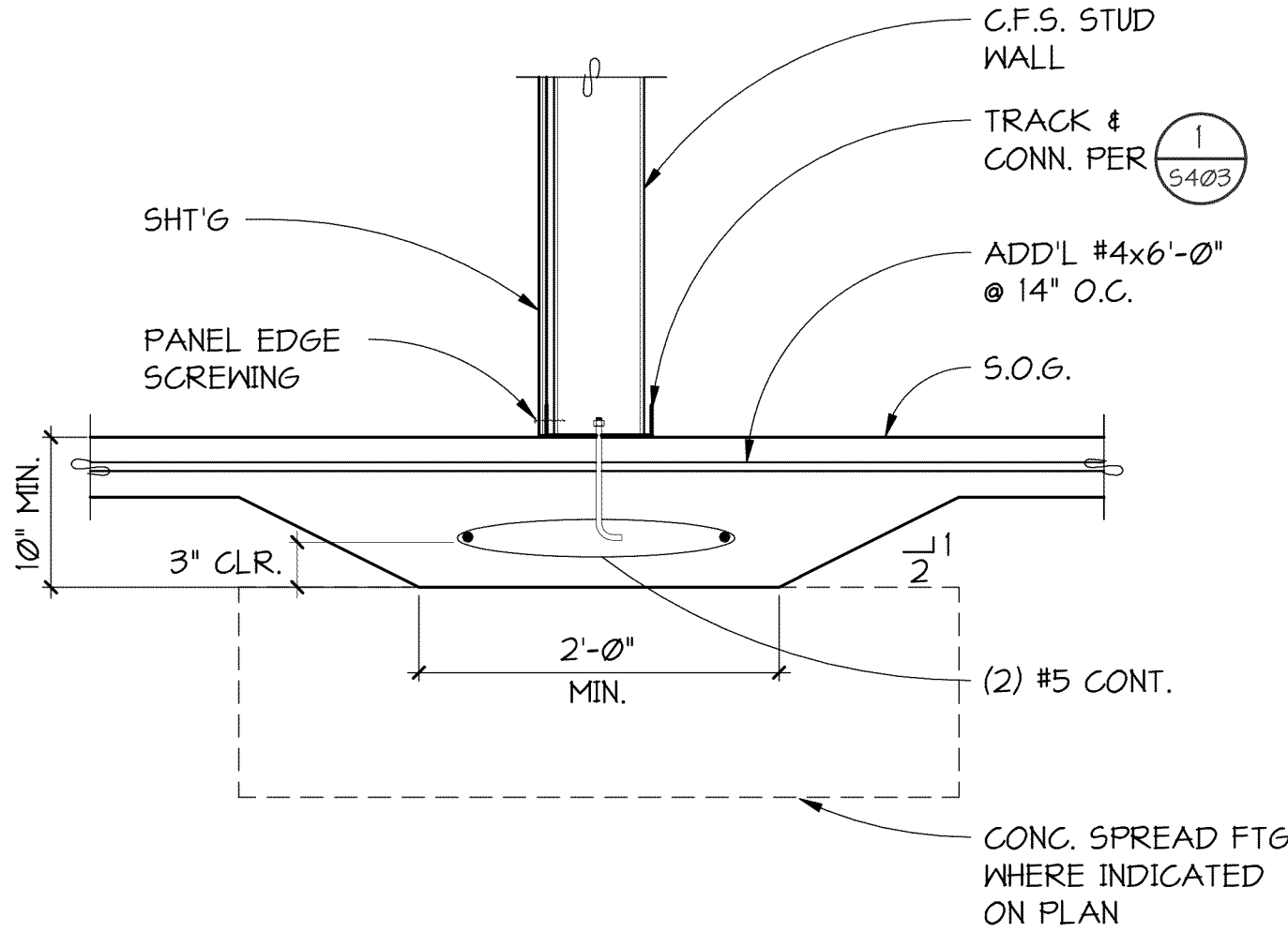
5 DETAIL  
S301 NO SCALE



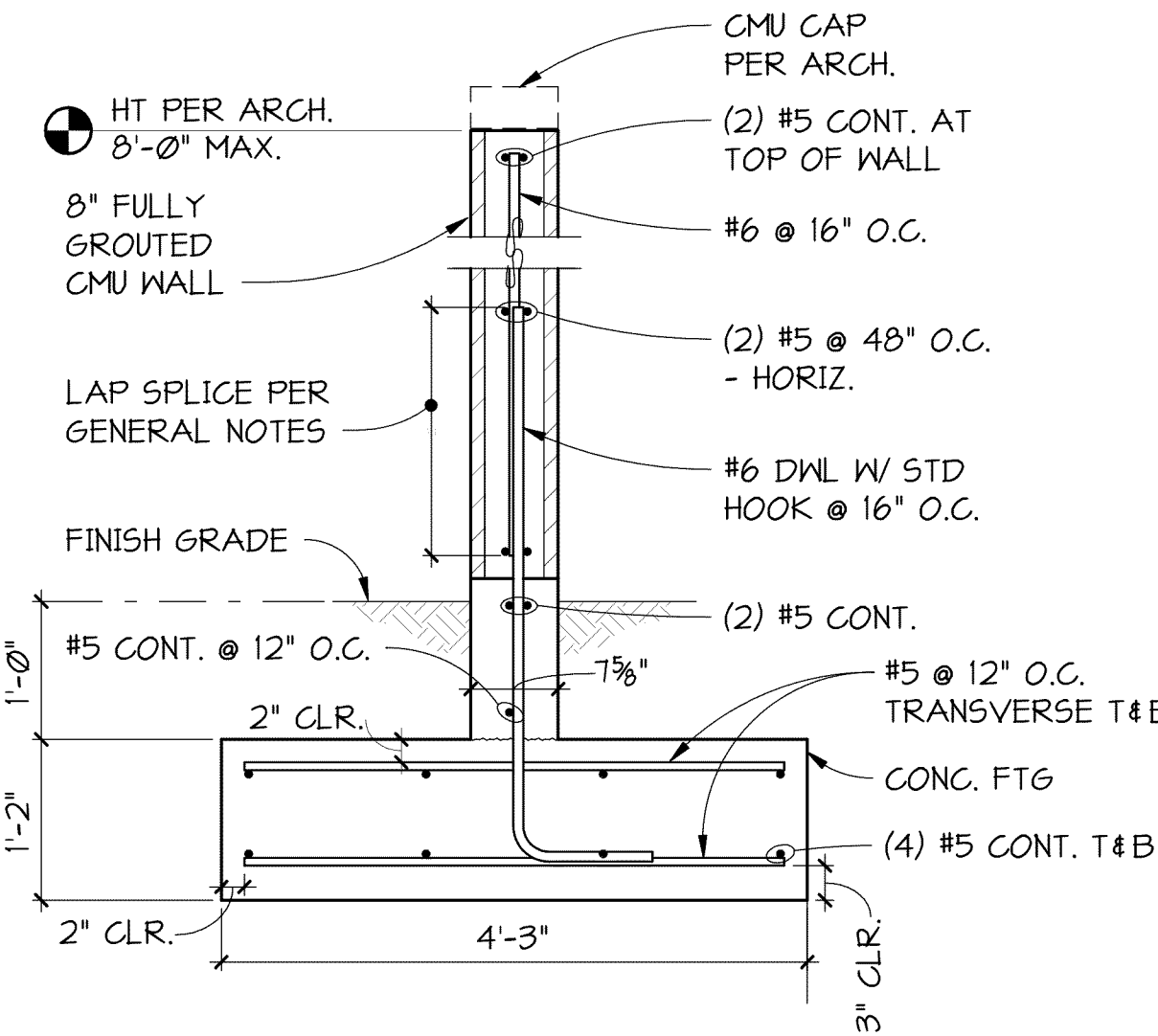
8 SECTION  
S301 NO SCALE



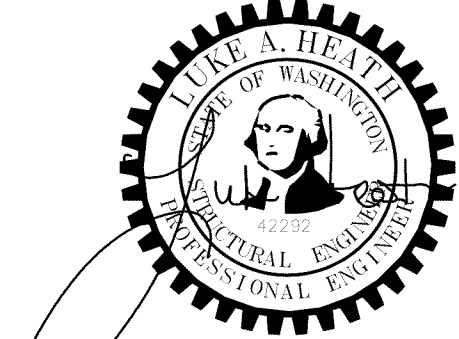
3 SECTION  
S301 NO SCALE



6 SECTION  
S301 NO SCALE



9 SECTION  
S301 3/4" = 1'-0"



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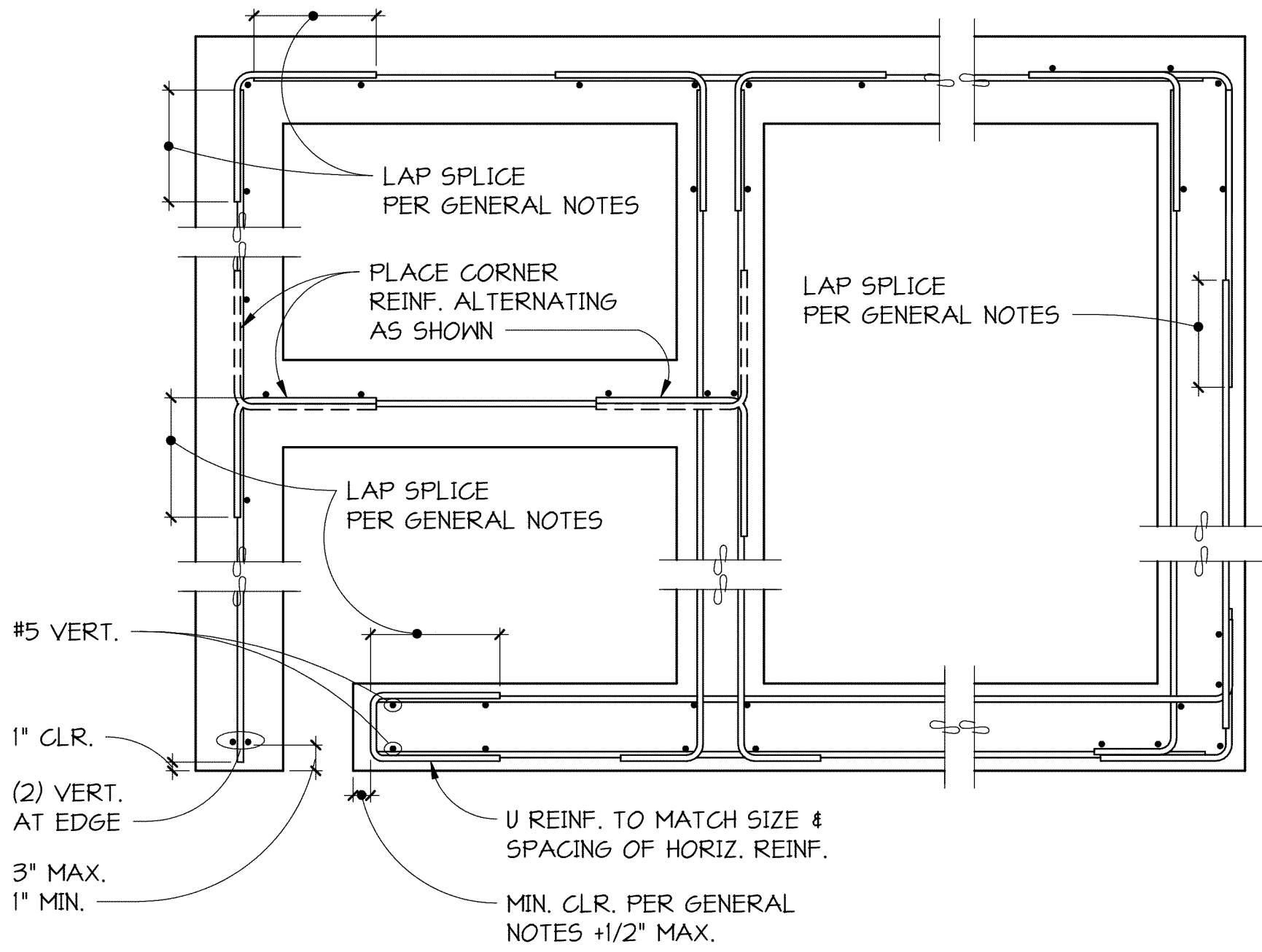
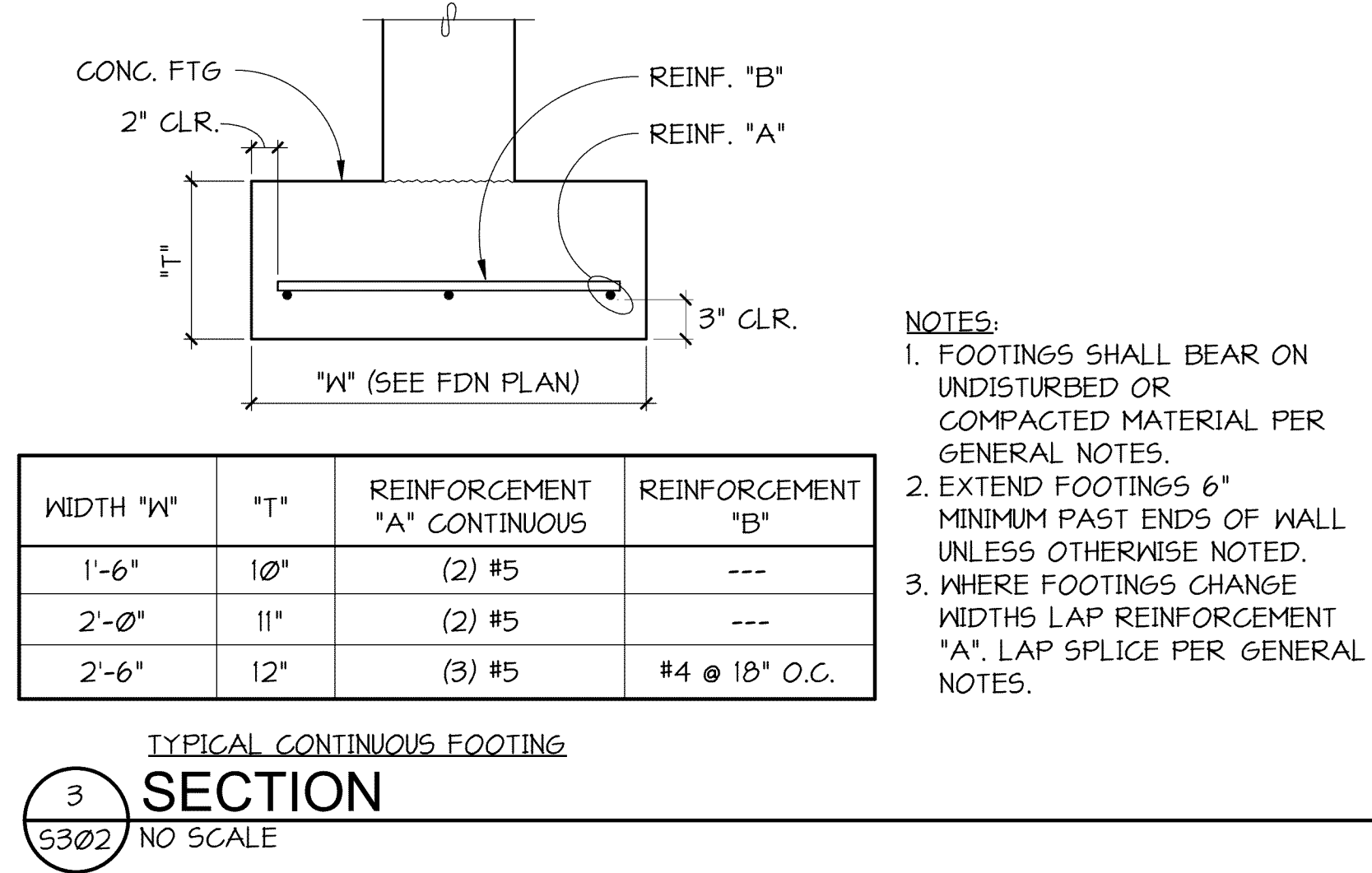
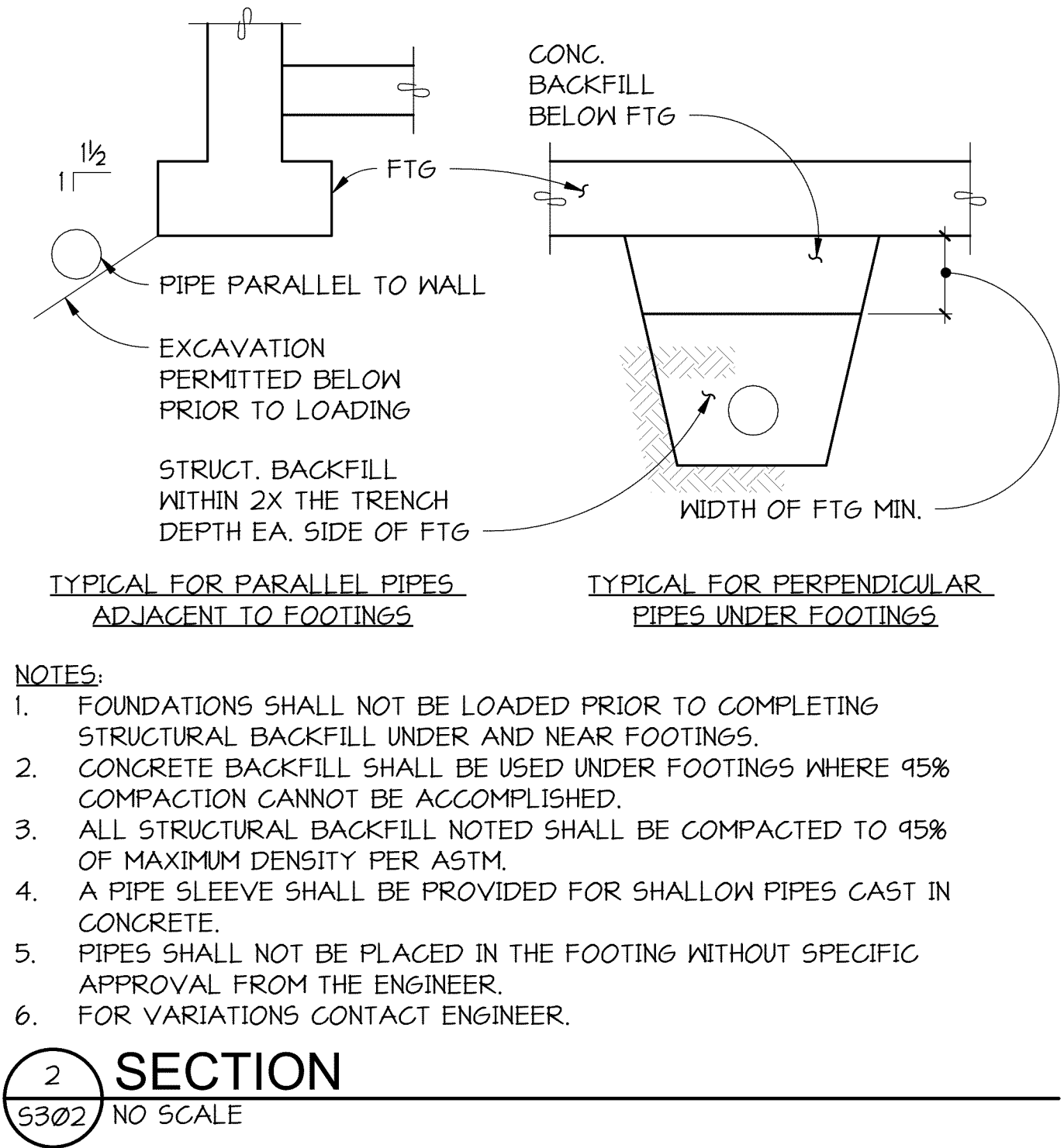
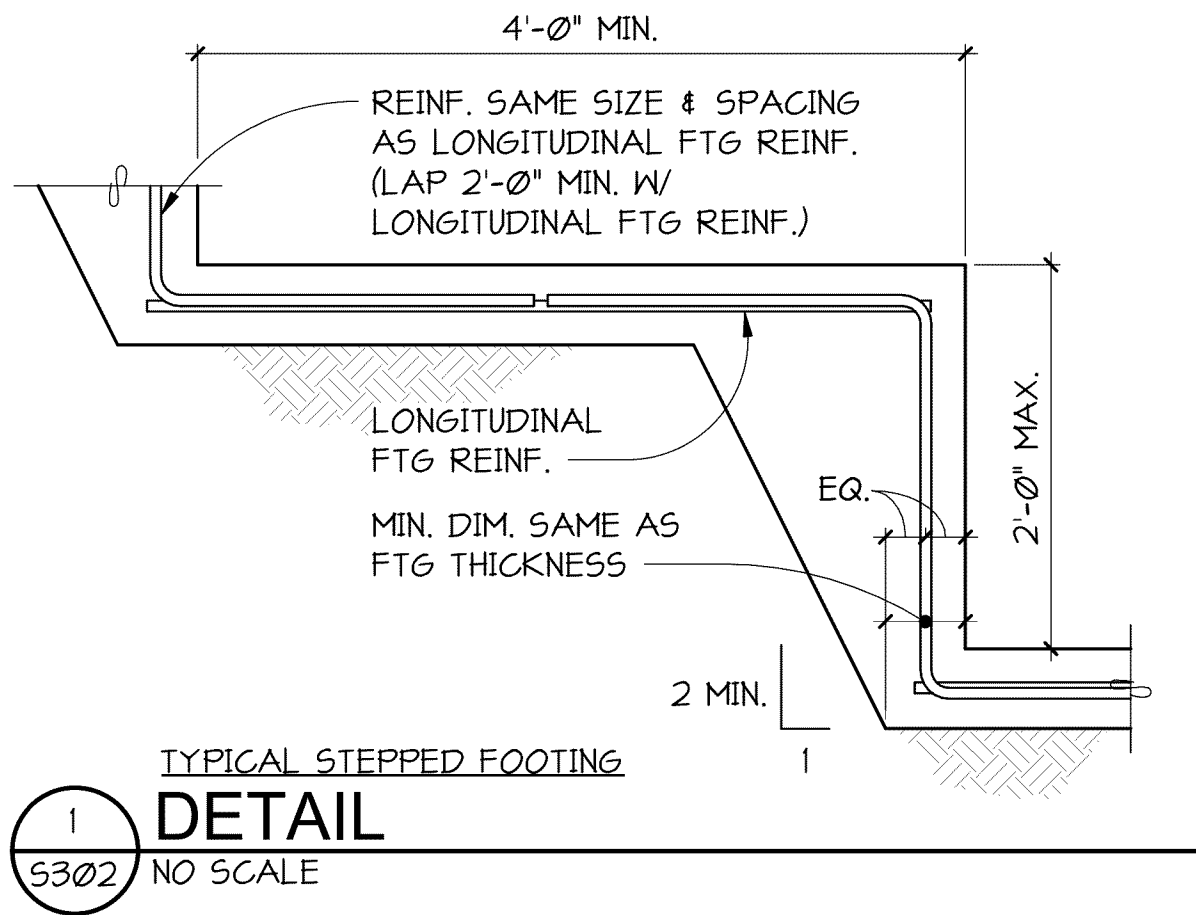
FOUNDATION  
DETAILS

S301

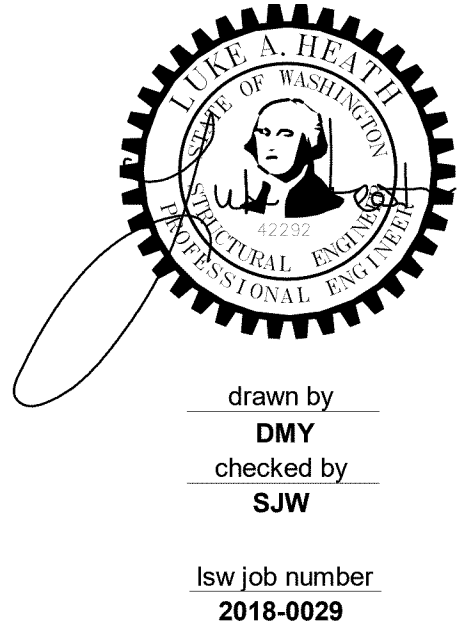
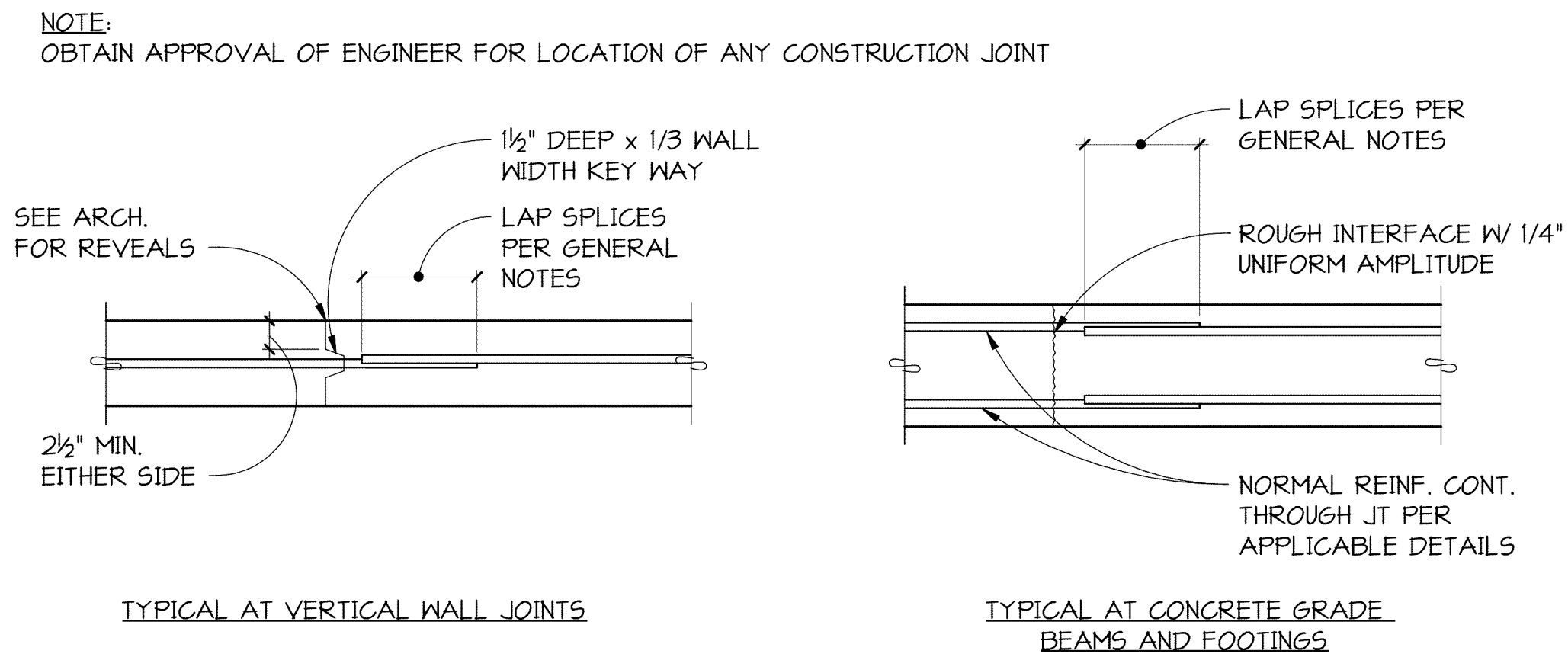
Scale As indicated



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- NOTES:  
1. VERTICAL REINFORCEMENT SHOWN IS ADDITIONAL IF NORMAL STEM WALL REINFORCEMENT IS NOT IN PROPER LOCATION.  
2. CORNER REINFORCEMENT IS SAME SIZE AND SPACING AS HORIZONTAL REINFORCEMENT.  
3. STANDARD HOOK MAY BE SUBSTITUTED FOR CORNER REINFORCEMENT - SEE NOTE #5.  
4. REINFORCEMENT AT ALL CORNERS, ENDS, AND INTERSECTIONS OF WALLS SHALL BE PLACED IN ACCORDANCE WITH APPROPRIATE DETAIL SHOWN.  
5. USE STANDARD HOOK FOR EMBEDMENT LESS THAN 24" PAST FACE OF WALL.



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FOUNDATION DETAILS

S302  
Scale As indicated



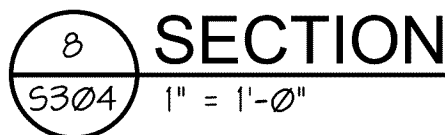
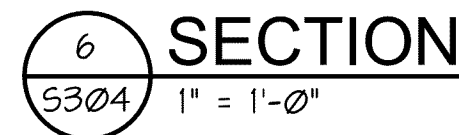
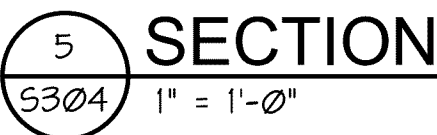




$$\frac{4}{5303}$$

$$\frac{2}{401}$$

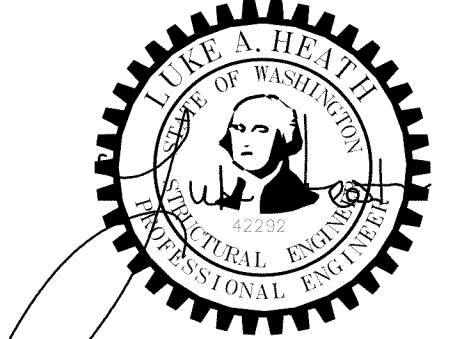

3 SECTION  
5304 1" = 1'-0"



A geometric pattern consisting of several triangles. On the left, a large triangle is formed by four smaller triangles. To its right, a horizontal row of four triangles is shown, with the first triangle overlapping the right side of the large triangle. The triangles are arranged in a way that suggests a larger, repeating pattern.



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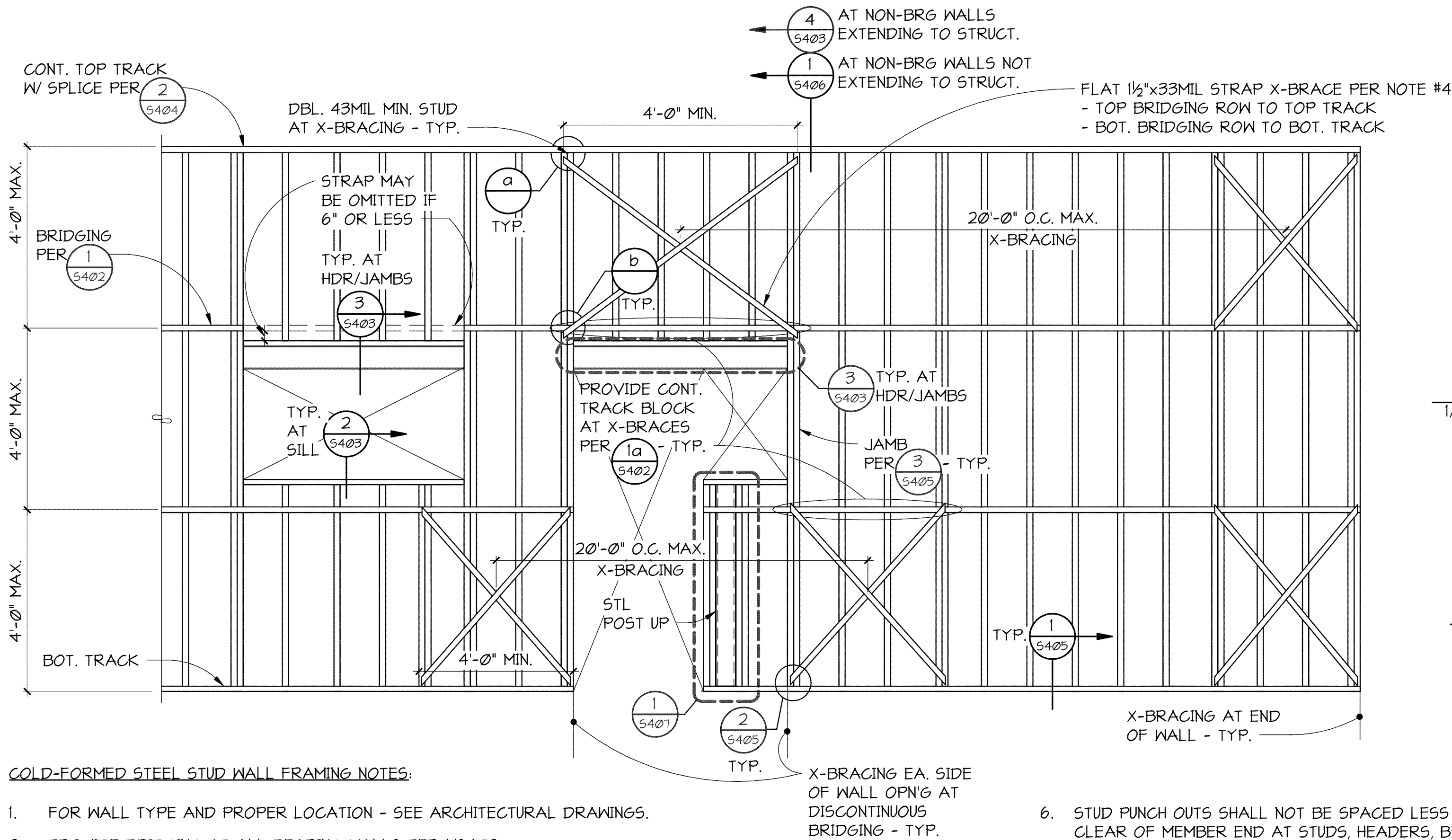
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## FOUNDATION DETAILS

Scale 1" = 1'-0"



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COLD-FORMED STEEL STUD WALL FRAMING NOTES:

- FOR WALL TYPE AND PROPER LOCATION - SEE ARCHITECTURAL DRAWINGS.
- PROVIDE BRIDGING AT ALL BEARING WALLS PER 1/S402.
- FOR TYPICAL COLD-FORMED STEEL JOIST CEILING FRAMING SCHEDULE AND DETAIL - SEE 4/S406.
- PROVIDE FLAT STRAP X-BRACING AS SHOWN AT ALL BEARING WALLS. ALL BRIDGING SHALL BE SUPPORTED BY X-BRACING. PROVIDE MULTIPLE HEIGHT X-BRACING AS REQUIRED. X-BRACING SHALL OCCUR ON SAME SIDE OF WALL. INSTALL X-BRACING AND BRIDGING PRIOR TO INSATLLATION OF SUPPORTED FRAMING. X-BRACING SHALL OCCUR AT WALL ENDS. X-BRACING SHALL OCCUR AT EACH SIDE OF OPENINGS. X-BRACING SHALL OCCUR AT ALL BRIDGING DISCONTINUITIES. PROVIDE CONTINUOUS TRACK BLOCK AT X-BRACING FOR DETAIL - SEE 1/S402.
- ALL WELDS SHALL BE 1/8" FILLET MAXIMUM. FOR MATERIALS THINNER THAN Ø.15", EFFECTIVE THROAT SHALL NOT BE LESS THAN THINNEST MATERIAL. WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE -- SHEET METAL" AWS D1.3.

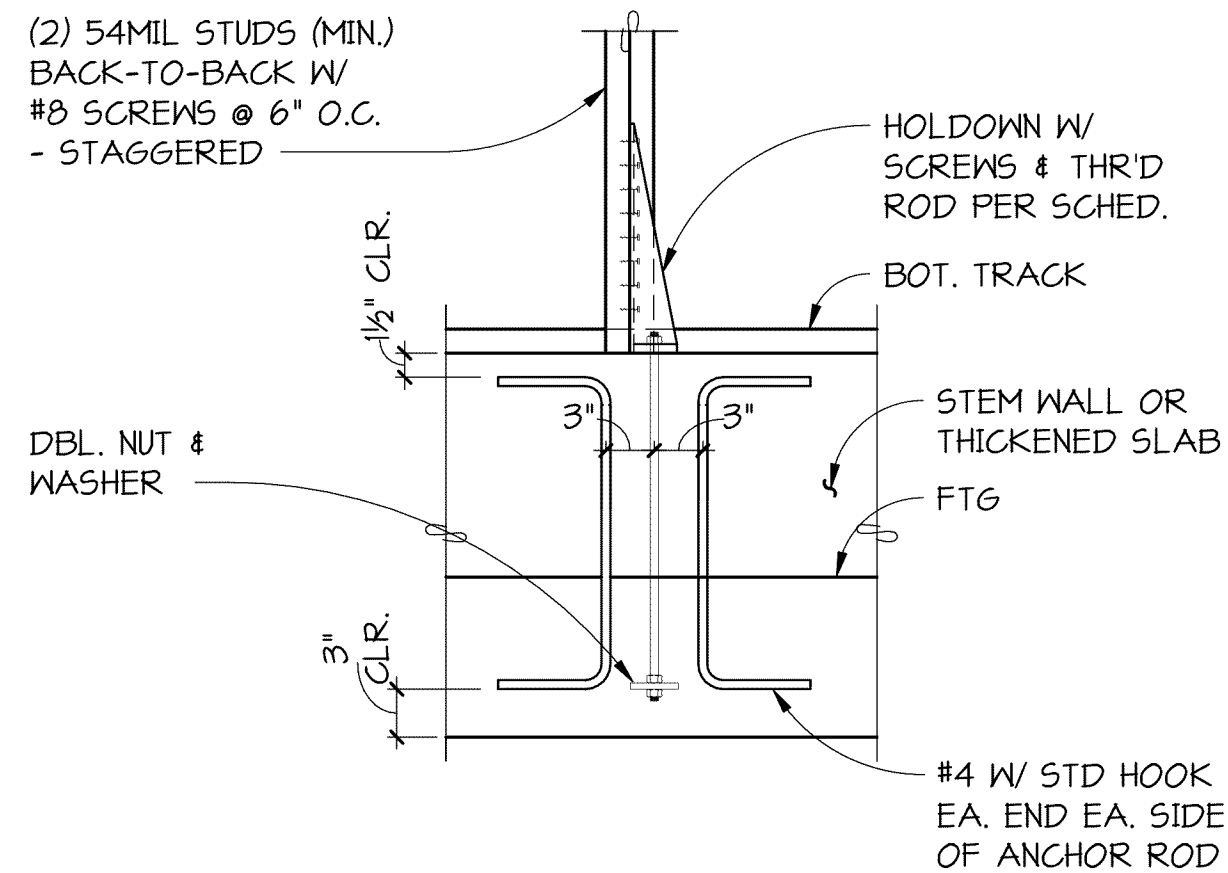
TYPICAL BEARING COLD-FORMED STEEL STUD WALL FRAMING

1 ELEVATION  
S401 NO SCALE

TYPICAL HOLDDOWNS			
MARK	SIZE	SCREWS	THREADED ROD
<4>	S/HDU4	(6) #14	5/8"φ
<6>	S/HDU6	(12) #14	5/8"φ
<8>	S/HD8S	(17) #14	7/8"φ

NOTES:

- SEE FOUNDATION PLANS FOR HOLDOWN LOCATIONS.
- ALL HOLDDOWNS NOT OCCURING AT WALL CORNER SHALL BE LOCATED AT THE EDGE OF A WINDOW OR A DOOR. EDGE SCREW EACH HOLDOWN STUD.
- STEP FOOTINGS AS REQUIRED TO MEET EMBEDMENT REQUIREMENTS PER 1/S302.

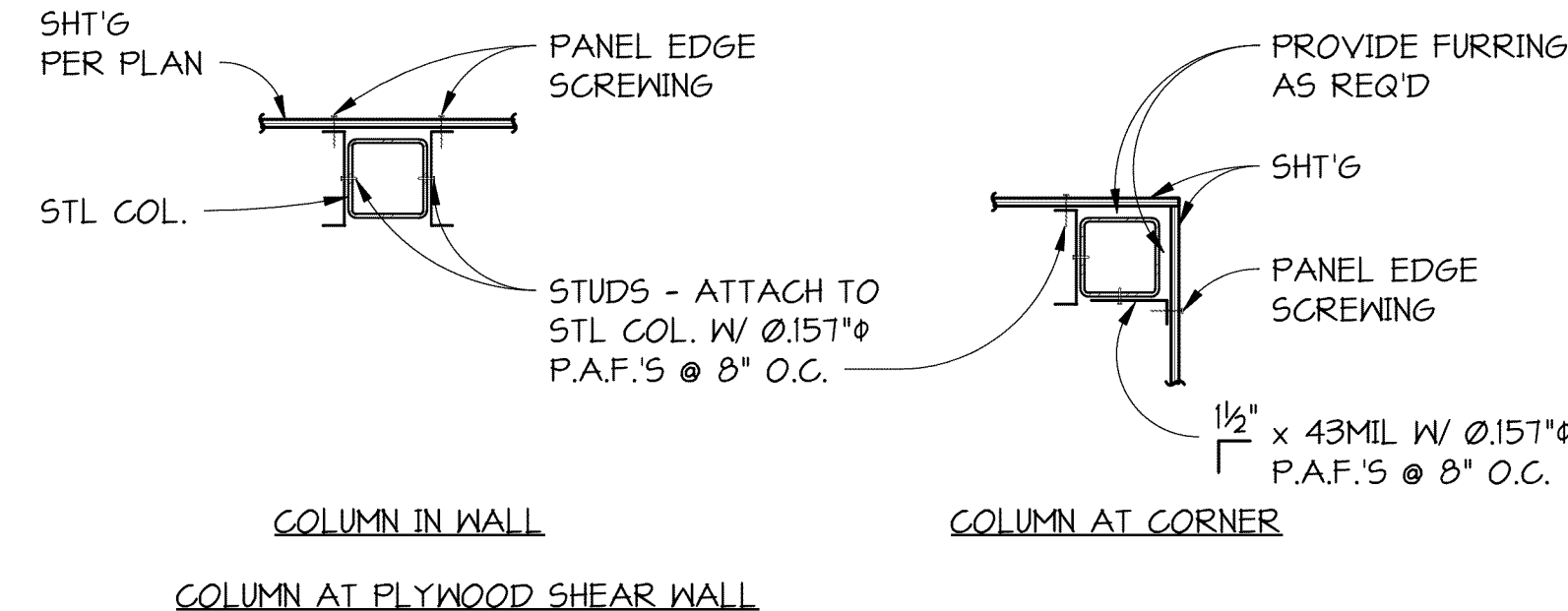


TYPICAL FOUNDATION ANCHOR ROD HOLDOWN

2 DETAIL  
S401 NO SCALE

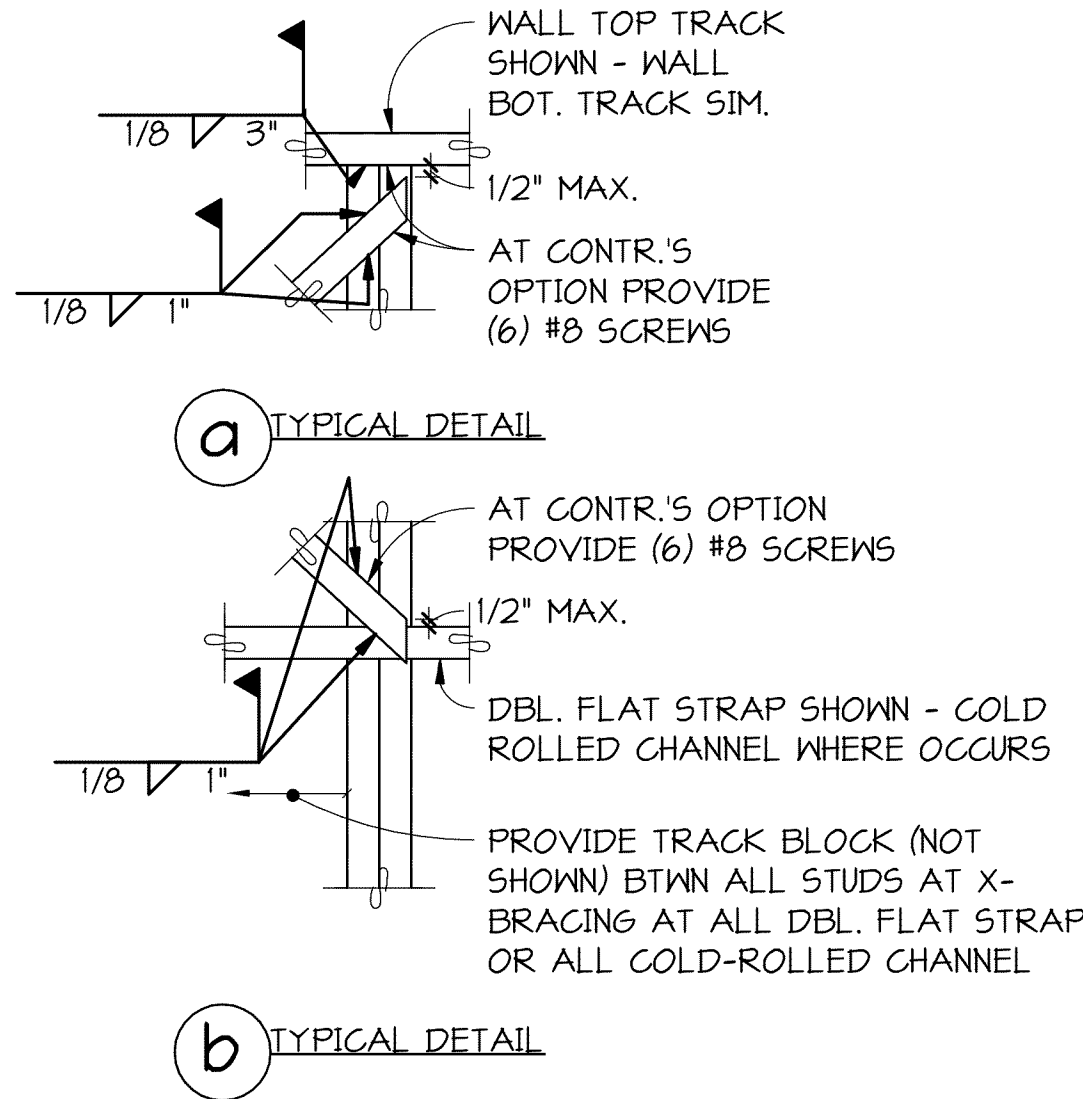
- STUD PUNCH OUTS SHALL NOT BE SPACED LESS THAN 24" ON CENTER NOR WITHIN 10" CLEAR OF MEMBER END AT STUDS, HEADERS, BEAMS, JOISTS, ETCETERA FOR TYPICAL ALLOWABLE PUNCHOUT DETAIL - SEE 1/S404.
- SCREWS SHALL BE THREAD-FORMING OR THREAD-CUTTING, WITH OR WITHOUT A SELF DRILLING POINT. SCREWS SHALL BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MINIMUM SPACING IS THREE SCREW DIAMETERS. A MINIMUM OF (3) THREADS SHALL BE ENGAGED.
- FOR TYPICAL COLD-FORMED STEEL WALL CORNER REQUIREMENTS - SEE 2/S404.
- FOR SHEAR WALL REQUIREMENTS AND SPECIAL STUD SIZE/SPACING AT BEARING WALL REQUIREMENTS - SEE 1/S403 AS REQUIRED.
- FOR POWDER ACTUATED FASTENER REQUIREMENTS - SEE GENERAL NOTES.

3 SECTION  
S401 1" = 1'-0"



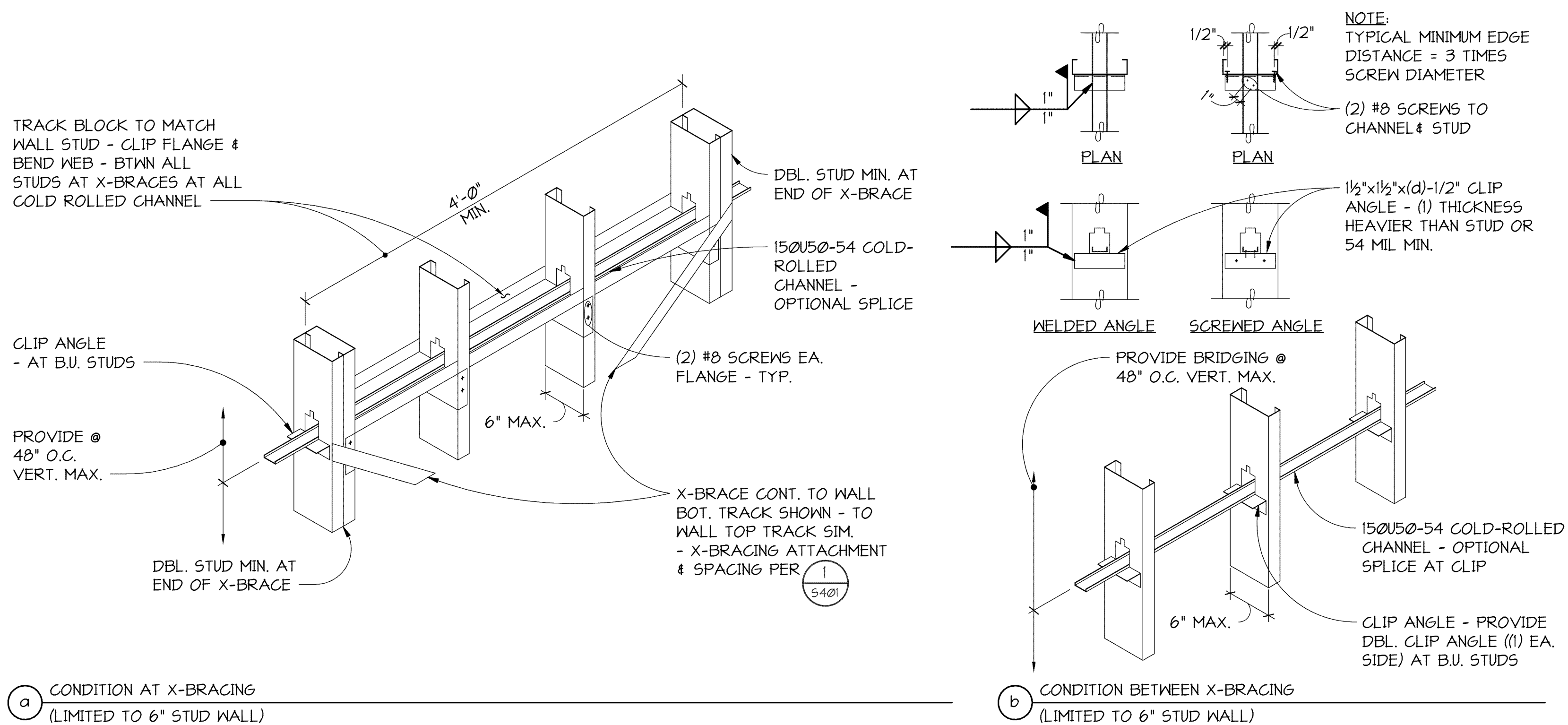
COLUMN AT PLYWOOD SHEAR WALL

MILS/GAGE SCHEDULE		
MILS	MINIMUM THICKNESS	GAGE
18	Ø188	25
30	Ø312	20
33	Ø346	20
43	Ø451	18
54	Ø566	16
68	Ø713	14
97	Ø1017	12

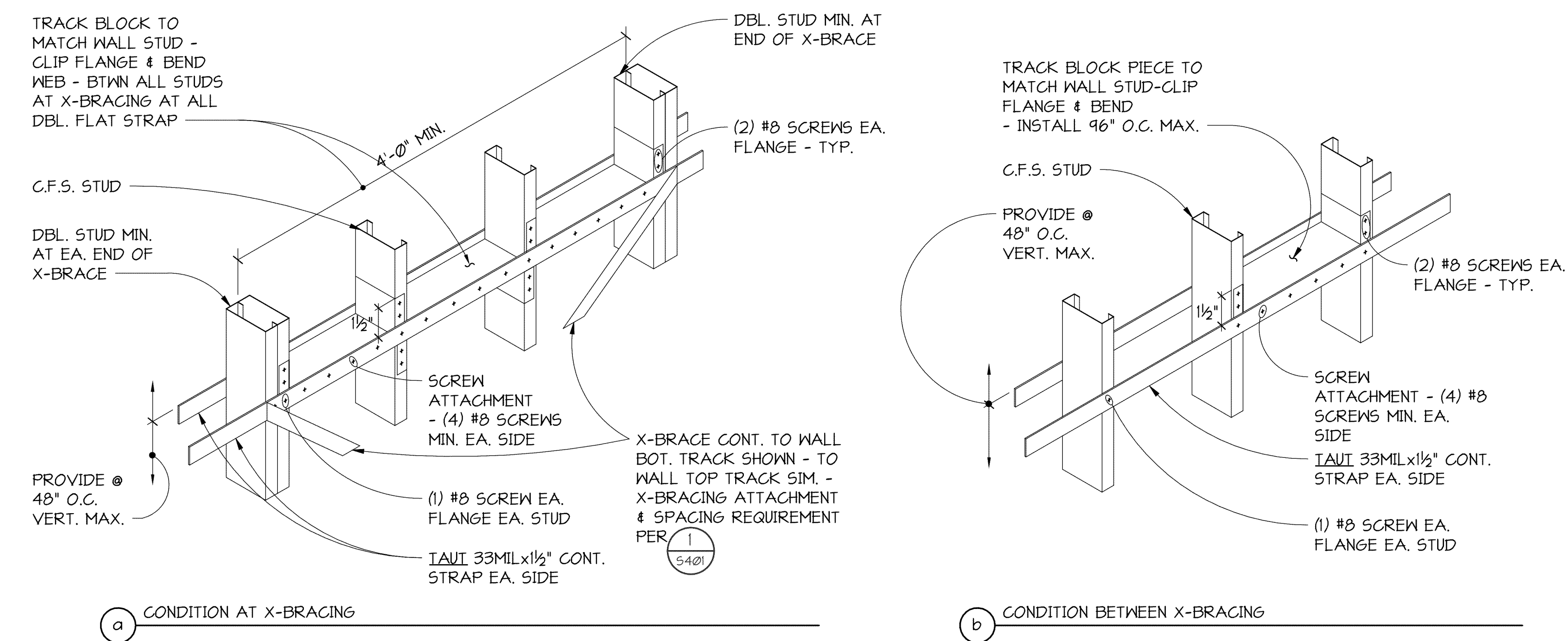


b TYPICAL DETAIL





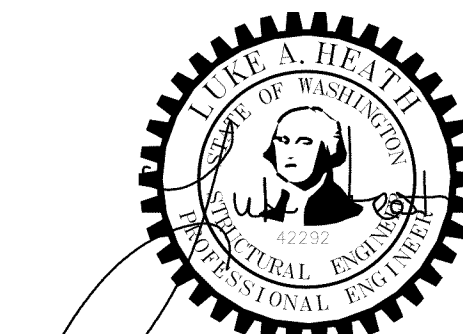
TYPICAL BRIDGING WITH COLD-ROLLED CHANNEL AT BEARING WALL (LIMITED TO 6" MAXIMUM STUD WALL)



TYPICAL BRIDGING WITH DOUBLE FLAT STRAP AT BEARING WALL

1  
5402

**DETAIL**  
NO SCALE



drawn by  
**DMY**  
checked by  
**SJW**

lsw job number  
**2018-0029**

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## COLD FORMED STEEL FRAMING DETAILS

S402

Scale 1" = 1'-0"



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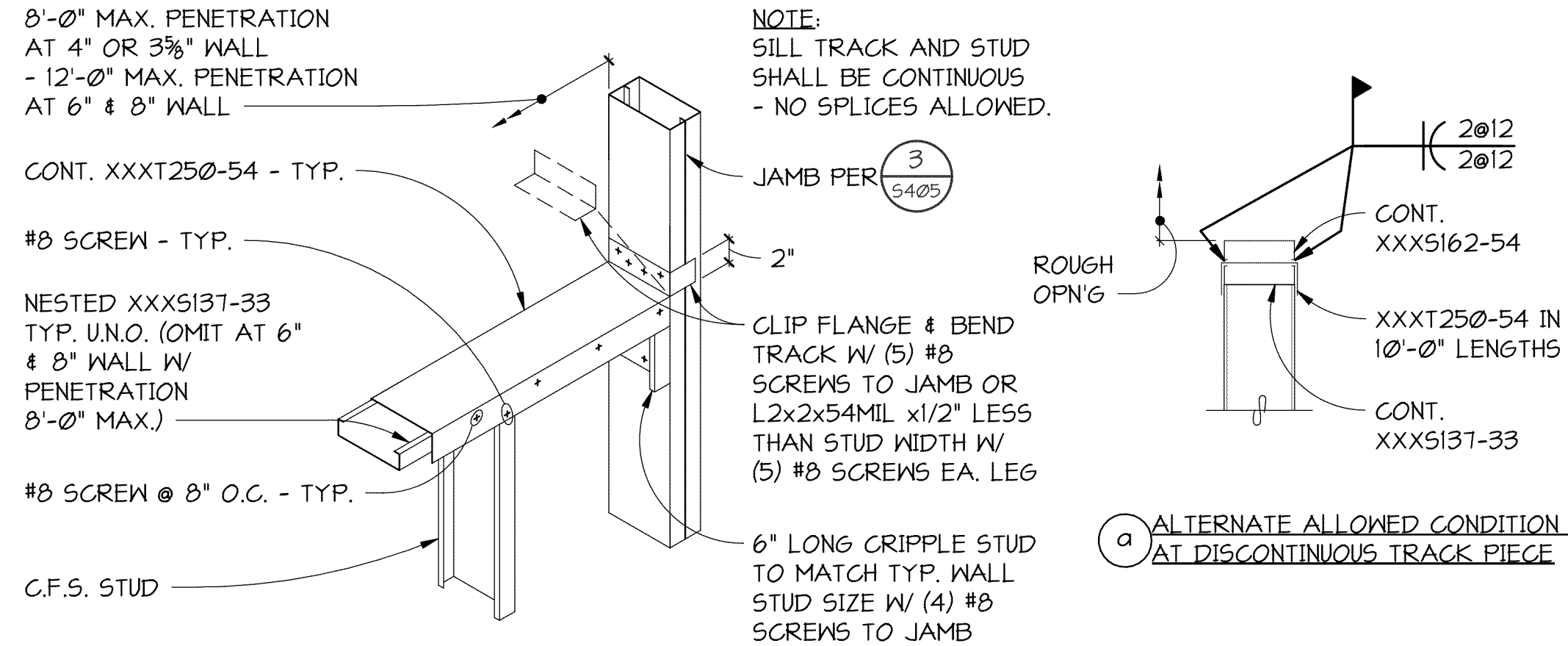
COLD-FORMED STEEL STUD WALL CONSTRUCTION SCHEDULE						
TABLE 1 - SHEAR WALL REQUIREMENTS						
MARK	WALL SHEATHING	SIDES WITH SHEATHING	SHEATHING FASTENING	EDGE FASTENING <sup>25</sup> ON CENTER SPACING	FIELD FASTENING ON <sup>5</sup> CENTER SPACING	5/8" ADHESIVE ANCHOR SPACING (EMBED 5") PER 1/54.05
(A)	15/32" PLYWOOD	(1)	#8 SCREW	6"	12"	32"
(B)	15/32" PLYWOOD	(1)	#8 SCREW	4"	12"	32"

TABLE 2 - STUD REQUIREMENTS	
MARK	STUD SIZE AND SPACING
(1)	600S137-33 @ 16" O.C.
(2)	800S250-54 @ 16" O.C.
(3)	600S200-43 @ 16" O.C.
(4)	600S250-54 @ 16" O.C.
(5)	600S162-43 @ 16" O.C.

- NOTES:
- FIRST CHARACTER INDICATES SPECIAL SHEAR WALL REQUIREMENTS PER TABLE 1
- SECOND CHARACTER INDICATES SPECIAL STUD FRAMING PER TABLE 2
1. (X) INDICATES STRUCTURAL WALL MARK. STUDS SHALL ALIGN WITH JOISTS AND STUDS ABOVE. FOR NUMBER OF STUDS REQUIRED BELOW JOIST/STUD ABOVE - SEE SCHEDULE. FOR TYPICAL WALL STUD BRIDGING DETAIL AND ADDITIONAL WALL FRAMING REQUIREMENTS - SEE 1/5402 AND 1/5401.
2. ALL EXTERIOR AND INTERIOR WALL DESIGNATED AS SHEAR WALL SHALL BE BLOCKED AT ALL UNSUPPORTED PANEL EDGES. EDGE FASTENING APPLIES TO TOP AND BOTTOM TRACK, PANEL VERTICAL AND HORIZONTAL JOINTS, WALL CORNERS, HOLDOWN ANCHOR STUDS, AND WALL END STUDS. SHEAR WALL STUD FLANGE WIDTH SHALL BE S162 MINIMUM. BLOCKING SHALL MATCH THICKNESS OF WALL STUDx1½" WIDE MINIMUM.
3. ADDITIONAL REQUIREMENTS AT WALL PENETRATIONS - FOR TYPICAL DETAILS - SEE 1/5401.
4. SHEATHING PANELS MAY BE INSTALLED PARALLEL OR PERPENDICULAR TO FRAMING.
5. SCREWS SHALL BE SELF-DRILLING - SELF-TAPPING FLAT HEAD SCREW WITH MINIMUM Ø.292" HEAD DIAMETER.
6. PROVIDE 3"x3"x1/4" PLATE WASHER AT EACH ADHESIVE ANCHOR - WELD TO TRACK WITH FILLET ALL AROUND. DISTANCE FROM ANCHOR TO END OF TRACK TO BE 6" MAXIMUM, 3" MINIMUM.
7. PROVIDE 43MIL MINIMUM AT ALL STUD WALLS WITH VENEER.

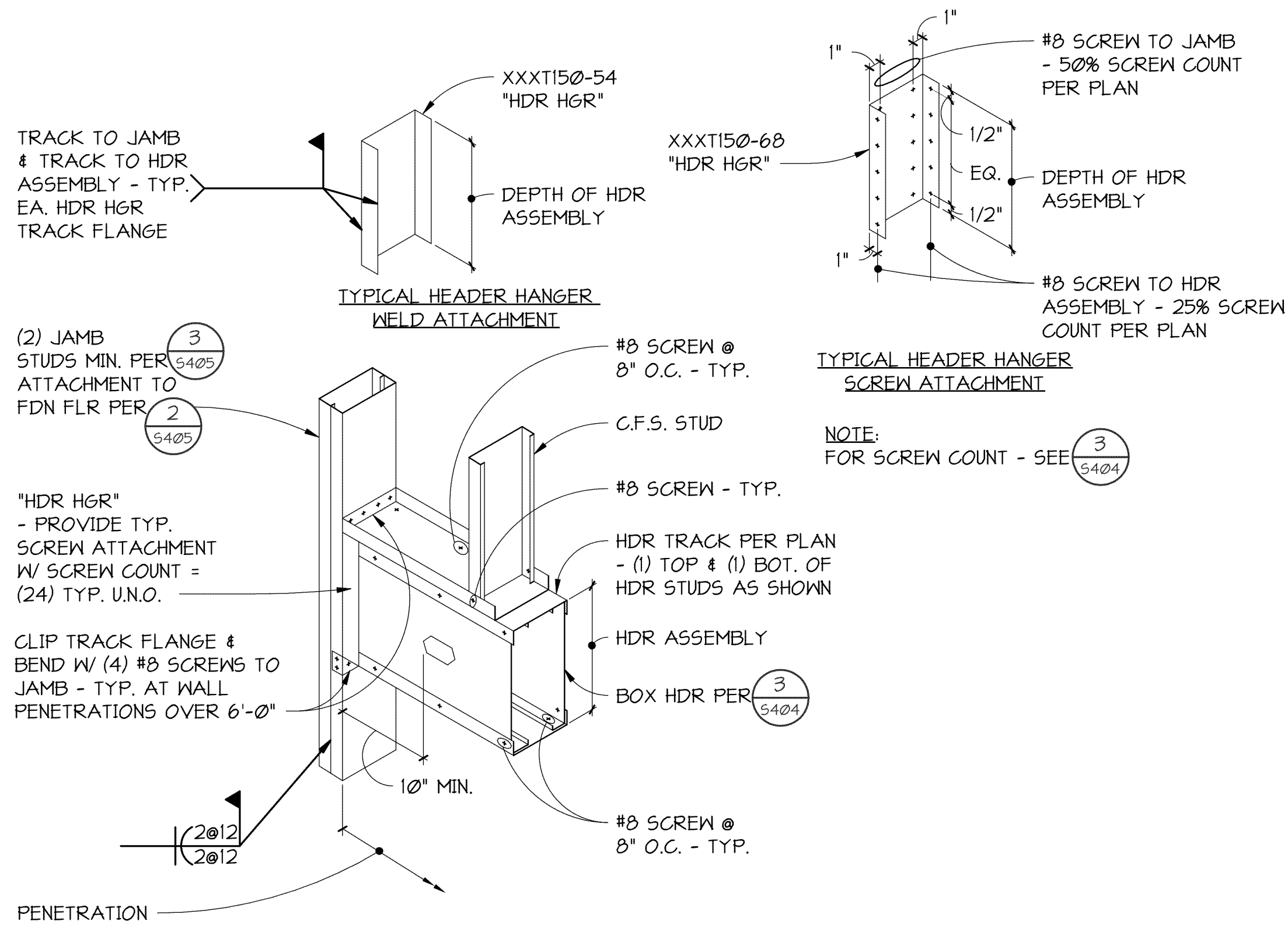
## 1 SCHEDULE

5403 NO SCALE



## 2 DETAIL

5403 1" = 1'-0"



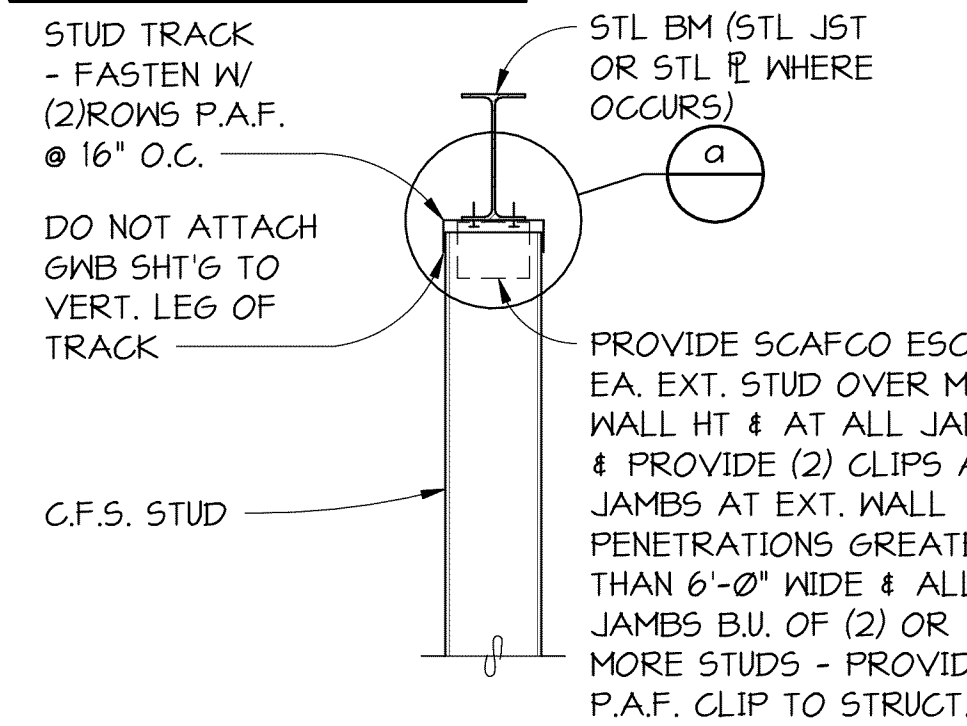
## 3 DETAIL

5403 1" = 1'-0"

SLOTTED TOP TRACK THICKNESS			
2½" TRACK WITH ¾" GAP			
TRACK THICKNESS (MILS)	ALLOWABLE LOAD (POUNDS)	EXTERIOR WALL HEIGHT	INTERIOR WALL HEIGHT
33	106	10'-7"	31'-10"
43	174	17'-5"	52'-4"
54	344	34'-5"	
68	475	47'-7"	

3½" TRACK WITH 1" GAP			
TRACK THICKNESS (MILS)	ALLOWBLE LOAD (POUNDS)	EXTERIOR WALL HEIGHT	INTERIOR WALL HEIGHT
33	47	NOT ALLOWED	14'-1"
43	92	NOT ALLOWED	27'-8"
54	177	17'-11"	
68	249	29'-11"	

*DISTANCE BETWEEN WALL STUD SUPPORTS	
STUD THICKNESS	ALLOWABLE LOAD
33	531#
43	754#
54	1110#
54	1569#

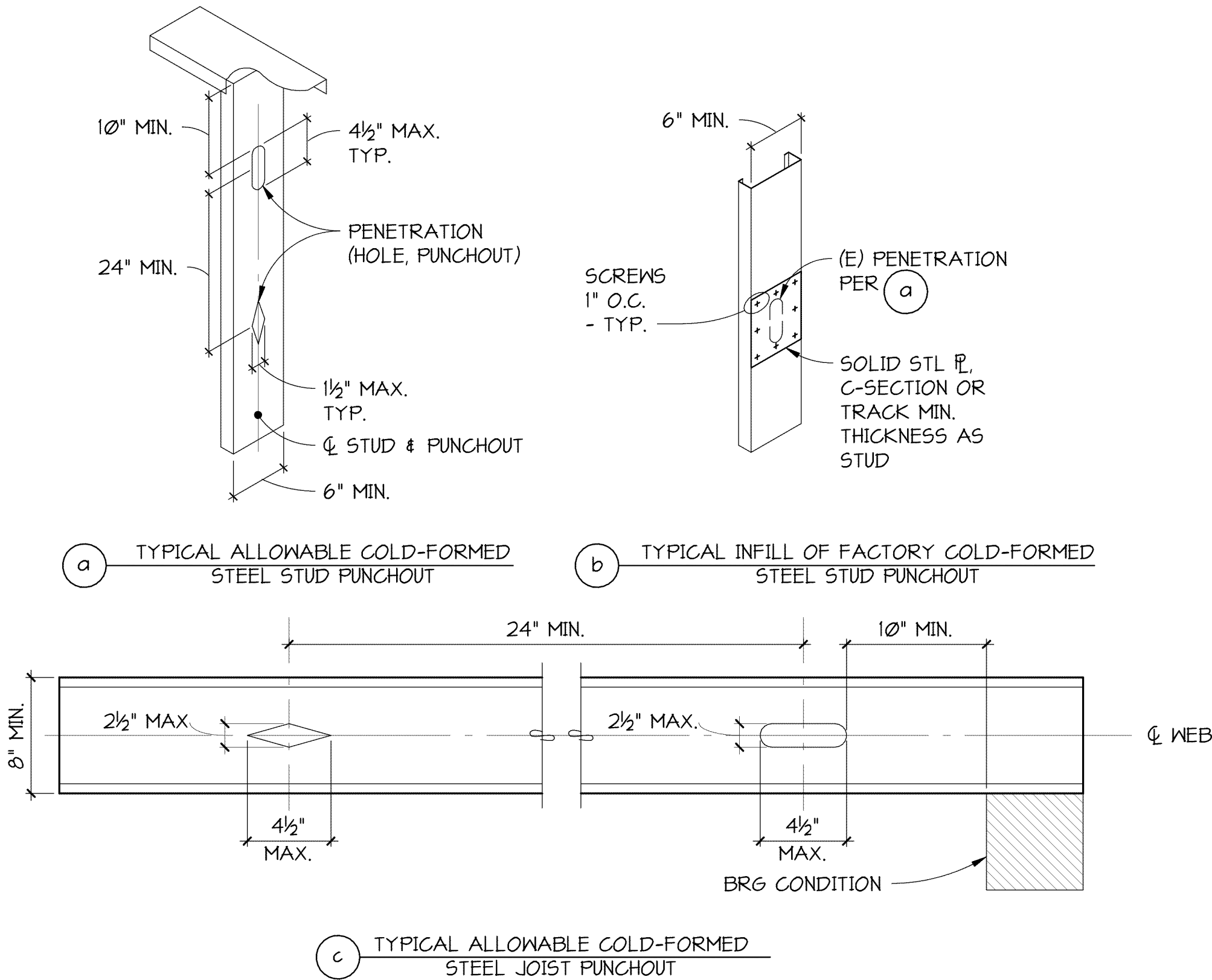


## 4 DETAIL

5403 1" = 1'-0"

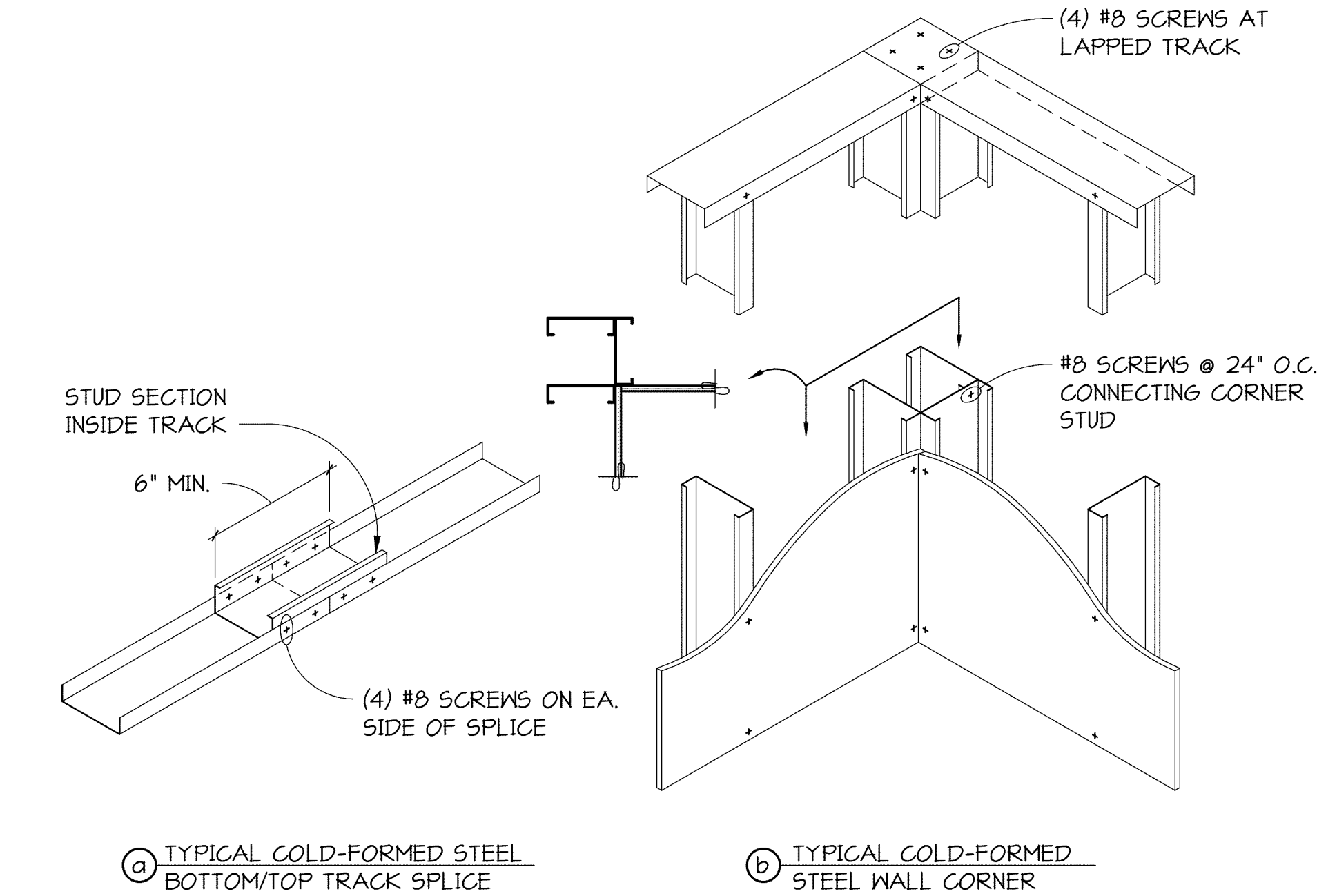


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1  
S404

DETAIL  
NO SCALE



2  
S404

DETAIL  
NO SCALE

BOX HEADER SCHEDULE		
MAXIMUM WIDTH OF OPENING	HEADER CONFIGURATION	MINIMUM SCREWS
6'-0"	8005162-54	(24)
8'-0"	8005200-68	(32)
10'-0"	10005250-68	(40)

NOTE:  
1. SEE 3/5403 FOR BOX HEADER DETAILING.

3  
S404

SCHEDULE  
NO SCALE

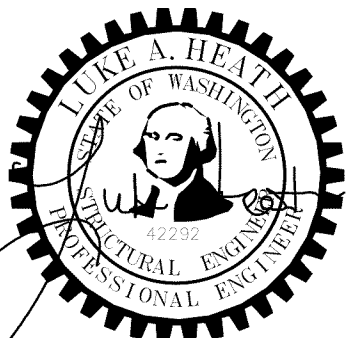












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A diagram of a rectangular block with diagonal hatching. A dimension line at the bottom indicates a width of  $3/4"$ . A small vertical line is shown on the right side of the block.

**2** **DETAIL**  
S4Ø7 1 1/2" = 1'-Ø"

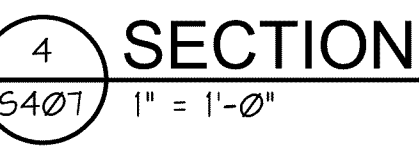
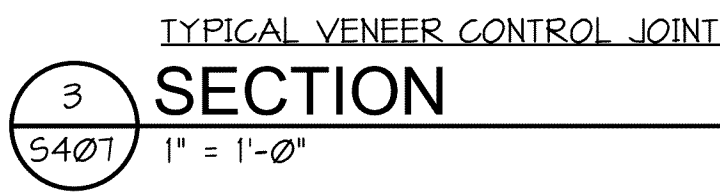
(a) CONDITION AT STEEL POST UP



1  
5407

DETAIL

1" = 1'-0"



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## COLD FORMED STEEL FRAMING DETAILS

S407

Scale      **As indicated**



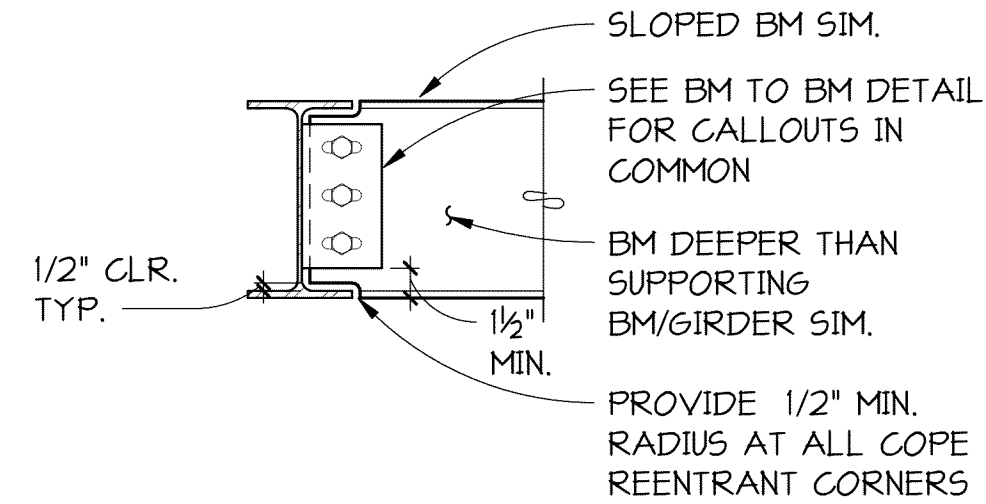
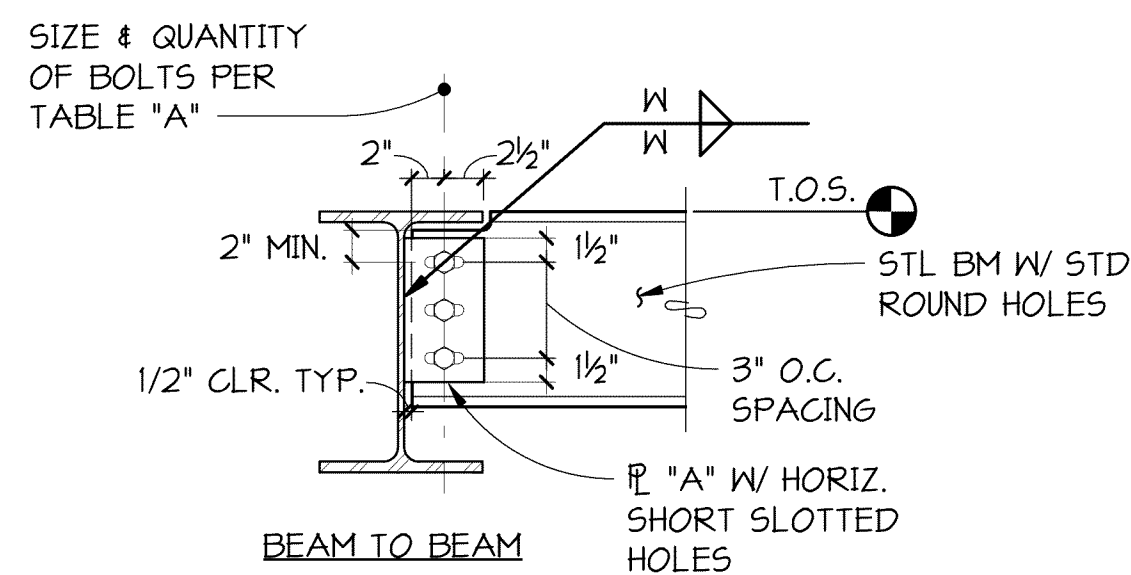


TABLE A			
SUPPORTED BEAM SIZE	QUANTITY OF 7/8" DIAMETER A325N BOLTS	SHEAR PLATE THICKNESS "A"	WELD "W" NOTE 1.
W8, W10	2	3/8"	5/16"
W12, W14	3	3/8"	5/16"
W16, W18	4	3/8"	5/16"
W21	5	3/8"	5/16"
W24	6	3/8"	5/16"

NOTE:  
1. WELD SIZE SHOWN IS FOR BEAM/GIRDERS FRAMING PERPENDICULAR INTO SUPPORTS. FOR SKEWED FRAMING CONNECTIONS - SEE TYPICAL STEEL DETAIL (2)

TYPICAL STEEL DETAIL

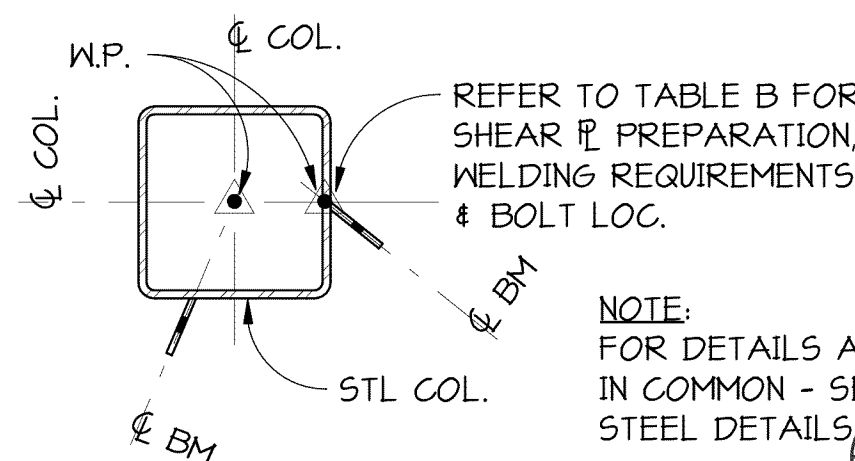
1  
5501

**DETAIL**  
NO SCALE



TABLE B					
"t"	SKEW ANGLE $\phi$	DETAIL CASE	X	$W_N$	$W_F$
3/8"	$\phi \leq 2^\circ$	CASE I	$X \leq 1/2$	5/16	5/16
3/8"	$2^\circ < \phi \leq 11^\circ$	CASE I	$1/2 < X \leq 2\frac{1}{2}$	3/8	5/16
3/8"	$11^\circ < \phi \leq 25^\circ$	CASE I	$2\frac{1}{2} < X \leq 5\frac{1}{2}$	1/2	5/16
3/8"	$25^\circ < \phi \leq 30^\circ$	CASE I	$5\frac{1}{2} < X \leq 7$	9/16	5/16
3/8"	$30^\circ < \phi < 45^\circ$	CASE II	$7 < X < 12$	3/8	5/16
3/8"	$\phi = 45^\circ$	CASE III	$X = 12$	1/4*	5/16
3/8"	$\phi > 45^\circ$	CASE IV	$X < 12$	CP	-

NOTES:

1. THE NUT MAY BE PLACED ON THE ACUTE ANGLE SIDE OF SHEAR PLATE. WHEN THIS SITUATION OCCURS, THE BOLT ASSEMBLY MAY BE INSTALLED AS SNUG TIGHT IN LIEU OF FULLY PRETENSIONED.
2. PROVIDE A COMPLETE PENETRATION WELD OF THE SHEAR PLATE TO THE SUPPORTING MEMBER WHERE THERE IS INSUFFICIENT CLEARANCE TO PLACE FILLET WELDS ON BOTH SIDES OF THE SHEAR PLATE.

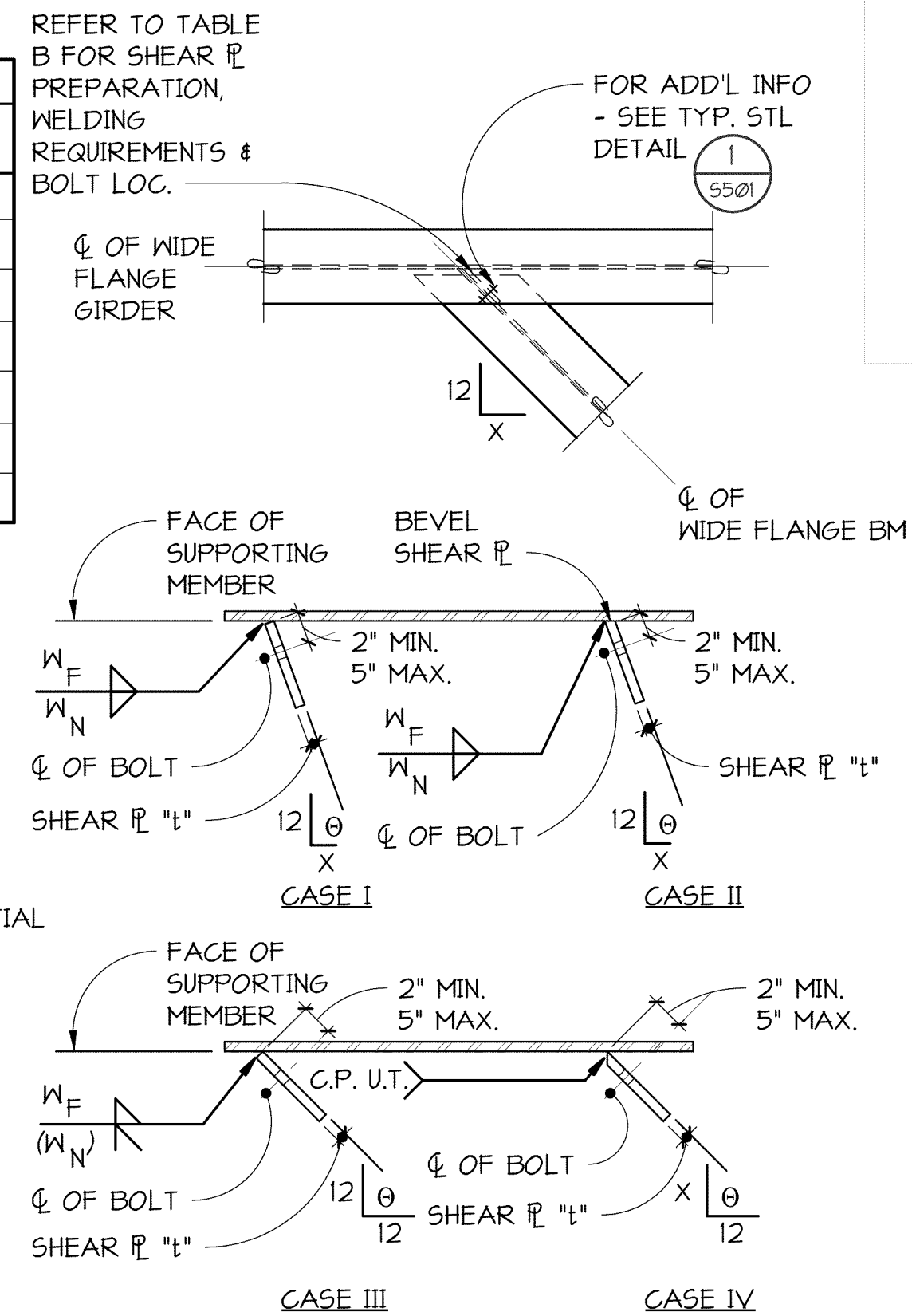


\*W N IS THE EFFECTIVE THROAT OF A PARTIAL PENETRATION WELD

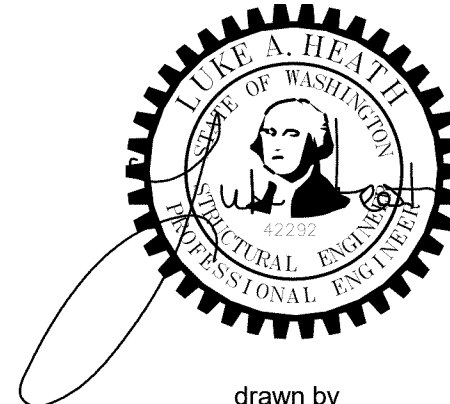
**NOTE:**  
FOR DETAILS AND CALLOUTS  
IN COMMON - SEE TYPICAL  
STEEL DETAILS  AND 

### TYPICAL STEEL DETAIL AT ANGLED CONNECTIONS

2 DETAIL  
5501 1" = 1'-0"



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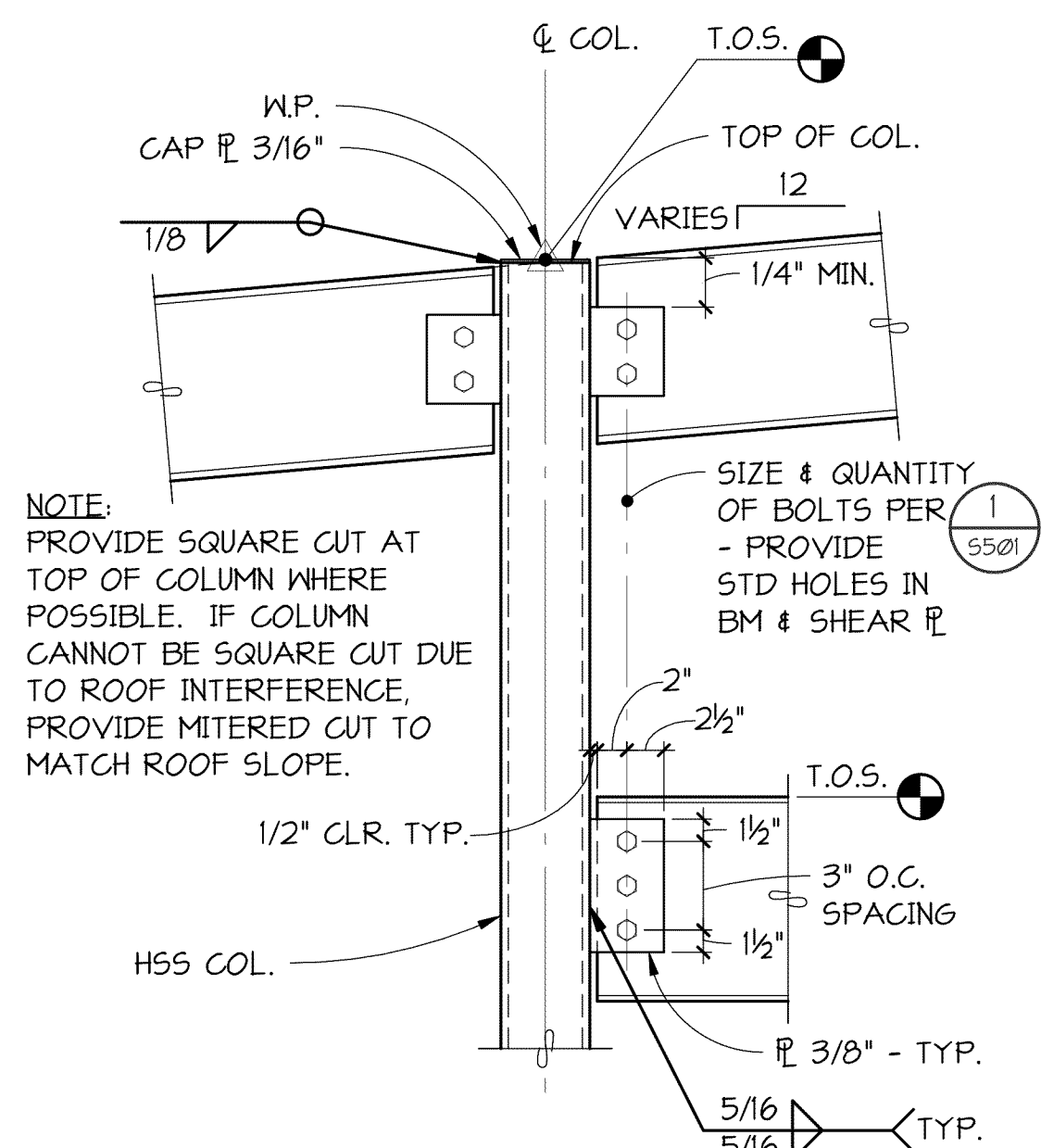
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## STEEL FRAMING DETAILS

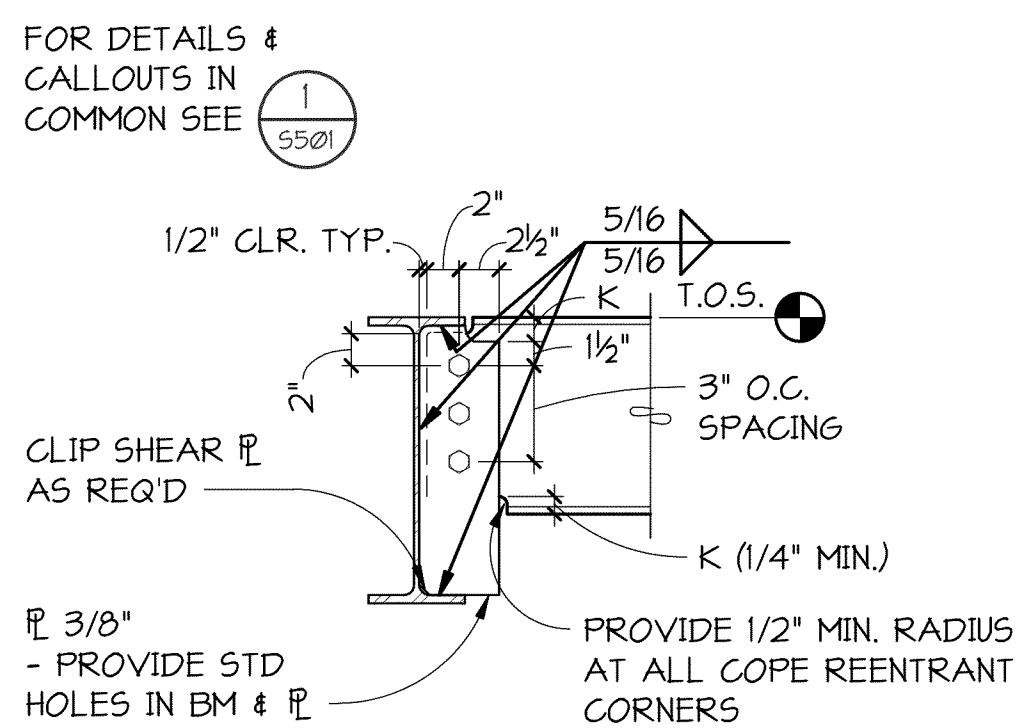
# S501

Scale      1" = 1'-0"



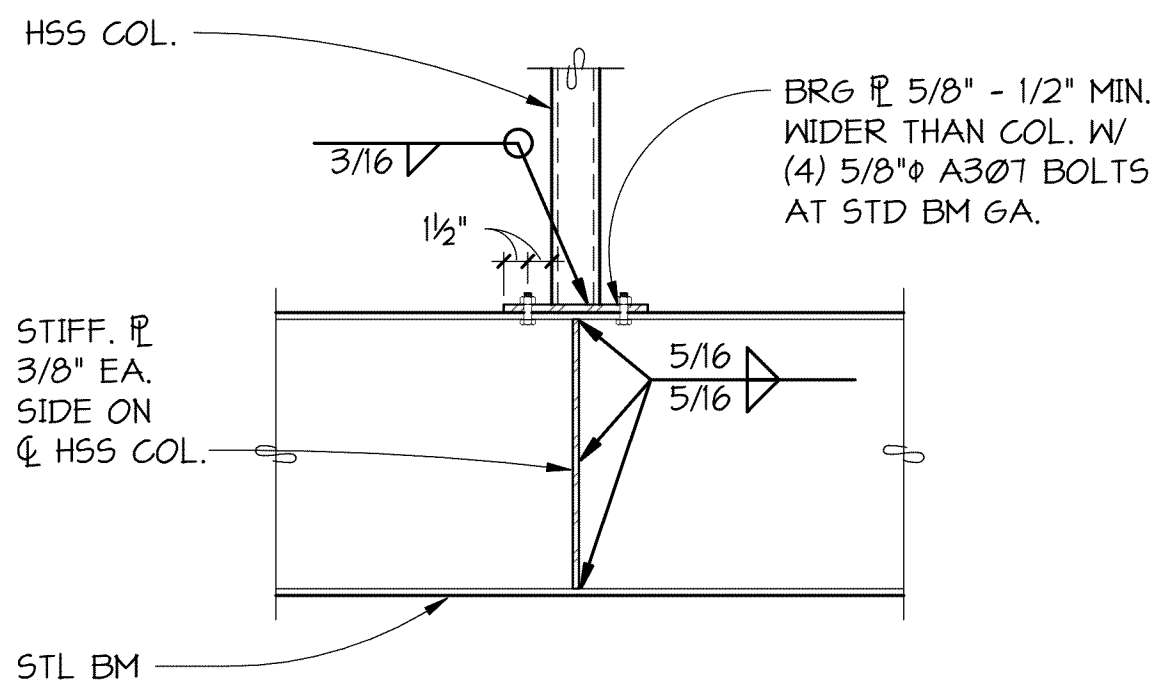
### TYPICAL BEAM FRAMING INTO HOLLOW STRUCTURAL STEEL COLUMN

3 DETAIL  
S501 NO SCALE



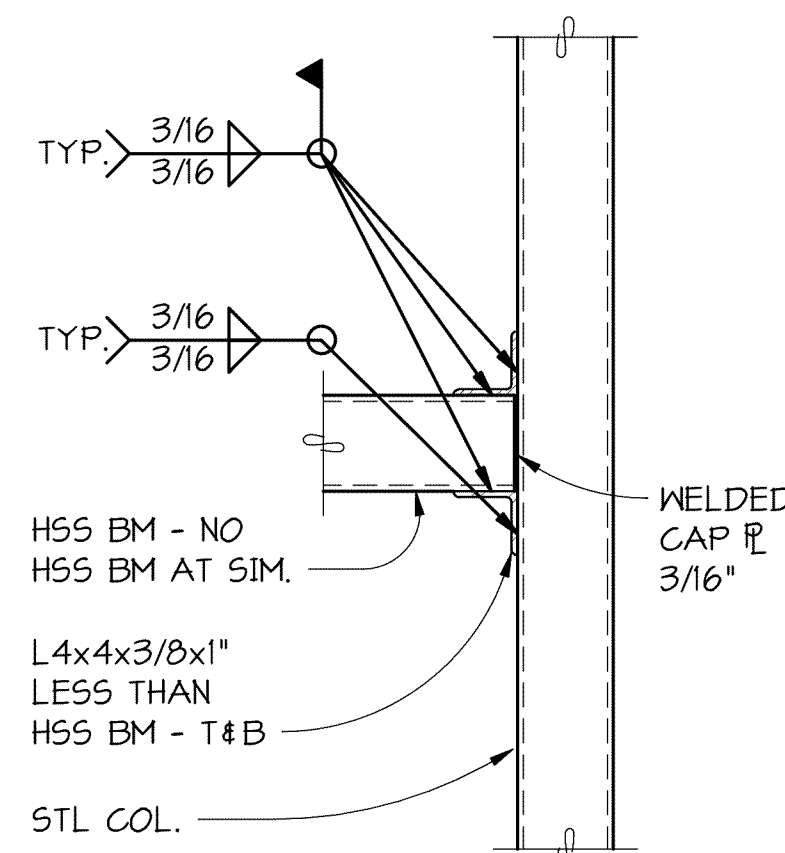
TYPICAL BEAM FRAMING AT FULL-DEPTH SHEAR PLATE

4 DETAIL  
S501 NO SCALE



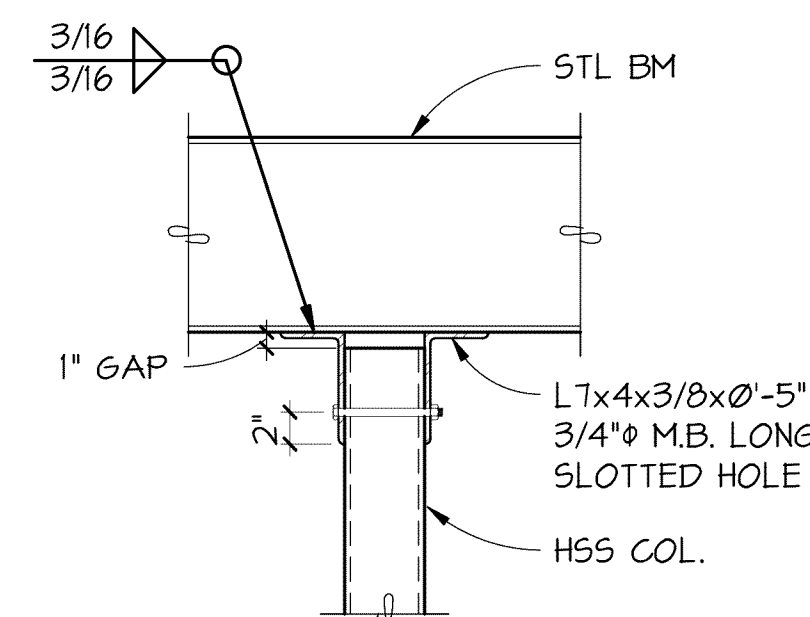
TYPICAL STEEL BEAM CONNECTION TO COLUMN ABOVE

5  
5501 1" = 1'-0"



TYPICAL HOLLOW STRUCTURAL SECTION  
HORIZONTAL TO COLUMN CONNECTION

6 SECTION



LEVEL STEEL BEAM

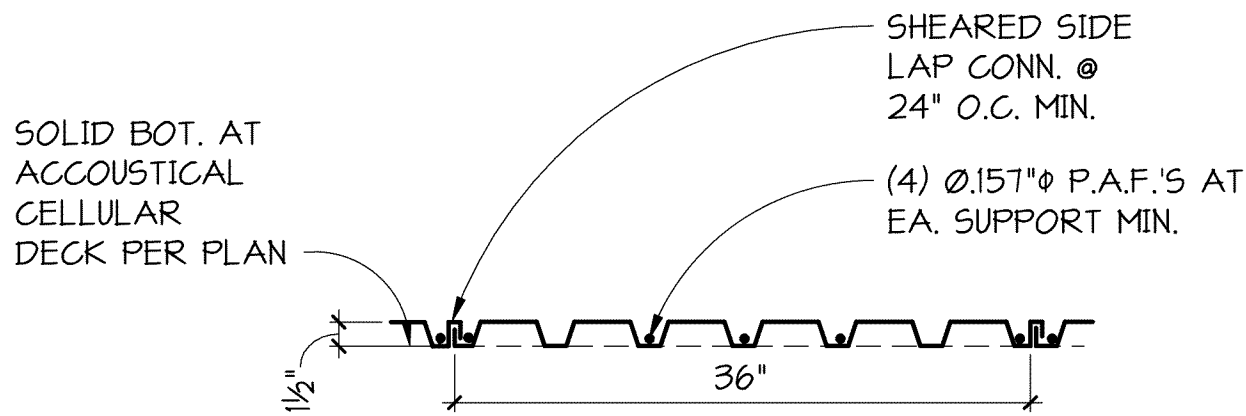
7 SECTION







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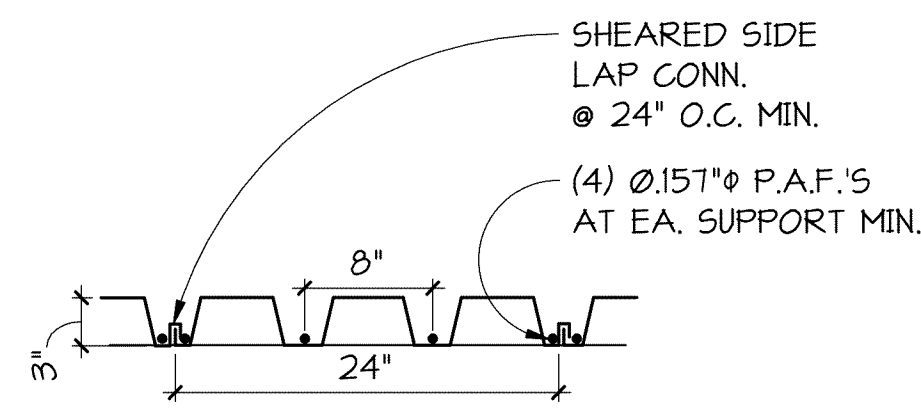


TYPE "B" DECK PROPERTIES		
GAGE	I = (in. <sup>4</sup> /ft.)	+S/-S = (in. <sup>3</sup> /ft)
20	.216	.235/.248
18	.302	.322/.335

ACCOUSTICAL CELLULAR TYPE "B" DECK PROPERTIES		
20	.416	.279/.382

NOTES:

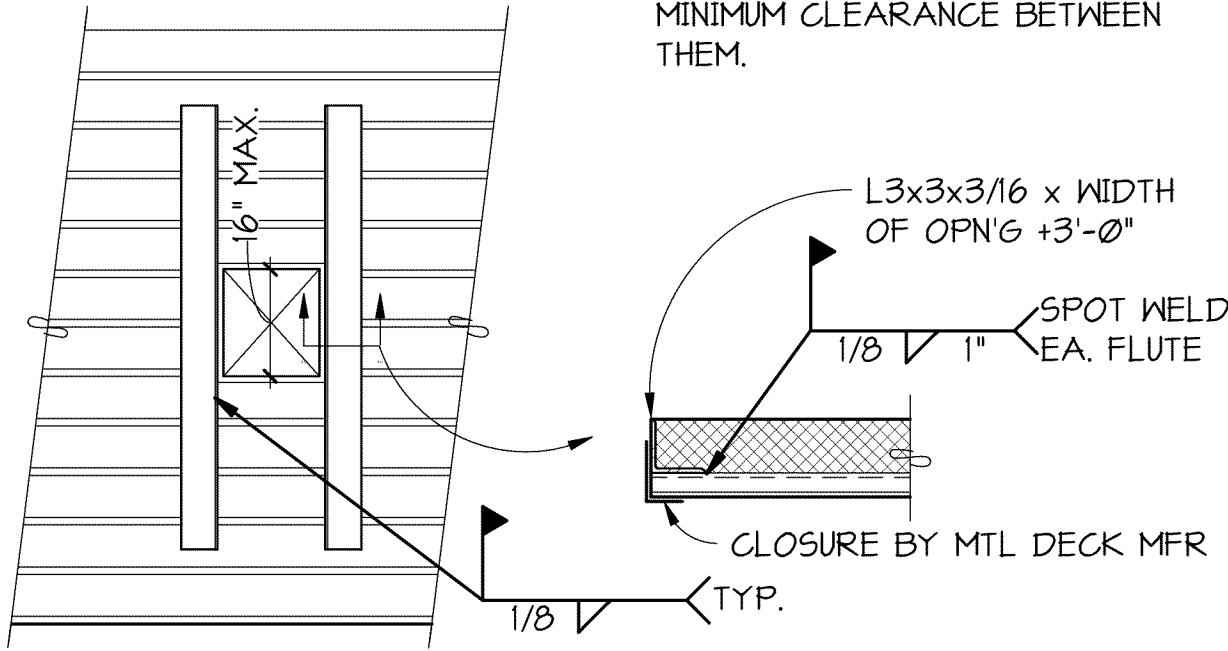
- (2) SPAN MINIMUM, (3) PREFERRED.
- AT SUPPORTS PARALLEL TO CORRUGATIONS, PROVIDE PUDDLE WELDS AT 24" ON CENTER MAXIMUM.
- "SHEARED SIDE LAP" CONNECTION REFERS TO "PUNCHLOK" BY VERCO DECKING, INC. OR "DELTA GRIP" BY ASC STEEL DECK, OR PRE-APPROVED EQUAL.
- MINIMUM DECK PROPERTIES AND WELD PATTERN SHOWN. PROVIDE HEAVIER GAGE AND/OR WELD PATTERN AS REQUIRED TO DEVELOP DIAPHRAGM SHEARS.
- DIAPHRAGM TO BE CAPABLE OF RESISTING 500 PLF OF SHEAR LOAD MINIMUM.



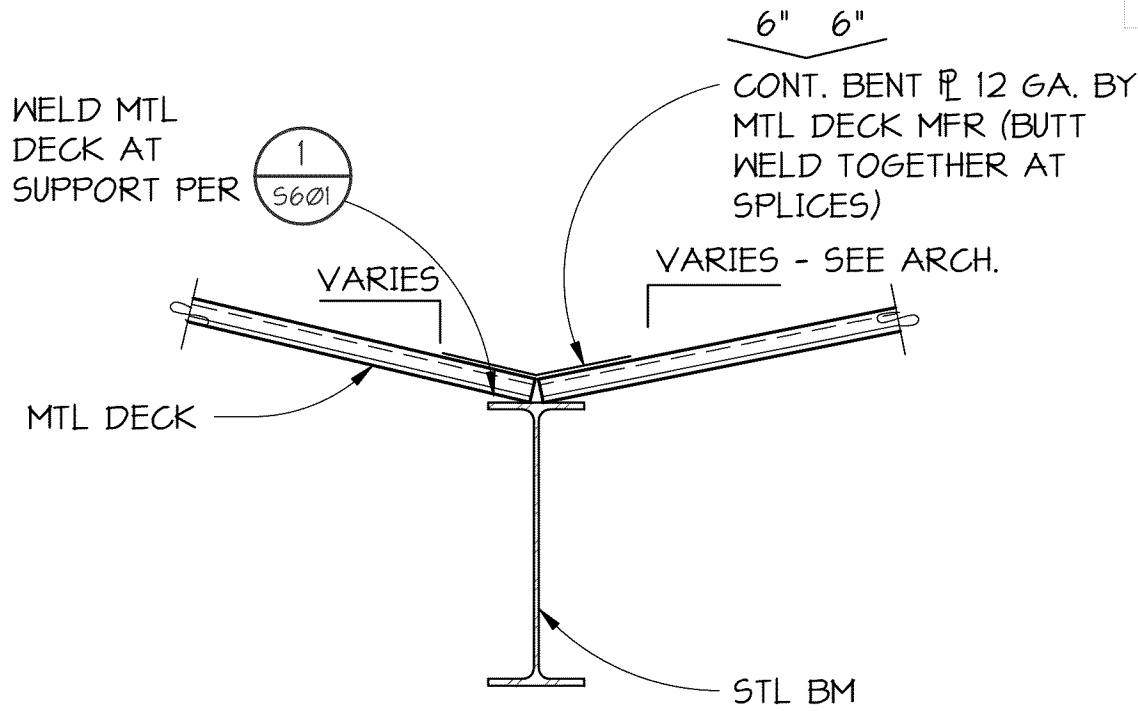
ACCOUSTICAL CELLULAR TYPE "N" DECK PROPERTIES		
GAGE	I = (in. <sup>4</sup> /ft.)	+S/-S = (in. <sup>3</sup> /ft)
20	1.579	0.505/0.709
18	2.194	0.824/1.030

NOTES:

- OPENINGS LESS THAN 6"x6" REQUIRE NO FRAMING.
- FOR OPENINGS GREATER THAN 16" OR 15 POUNDS LOAD - SEE OPENINGS SHALL HAVE 20" MINIMUM CLEARANCE BETWEEN THEM.



TYPICAL AT ISOLATED OPENINGS IN NON-COMPOSITE METAL DECK LESS THAN 16 INCH SQUARE



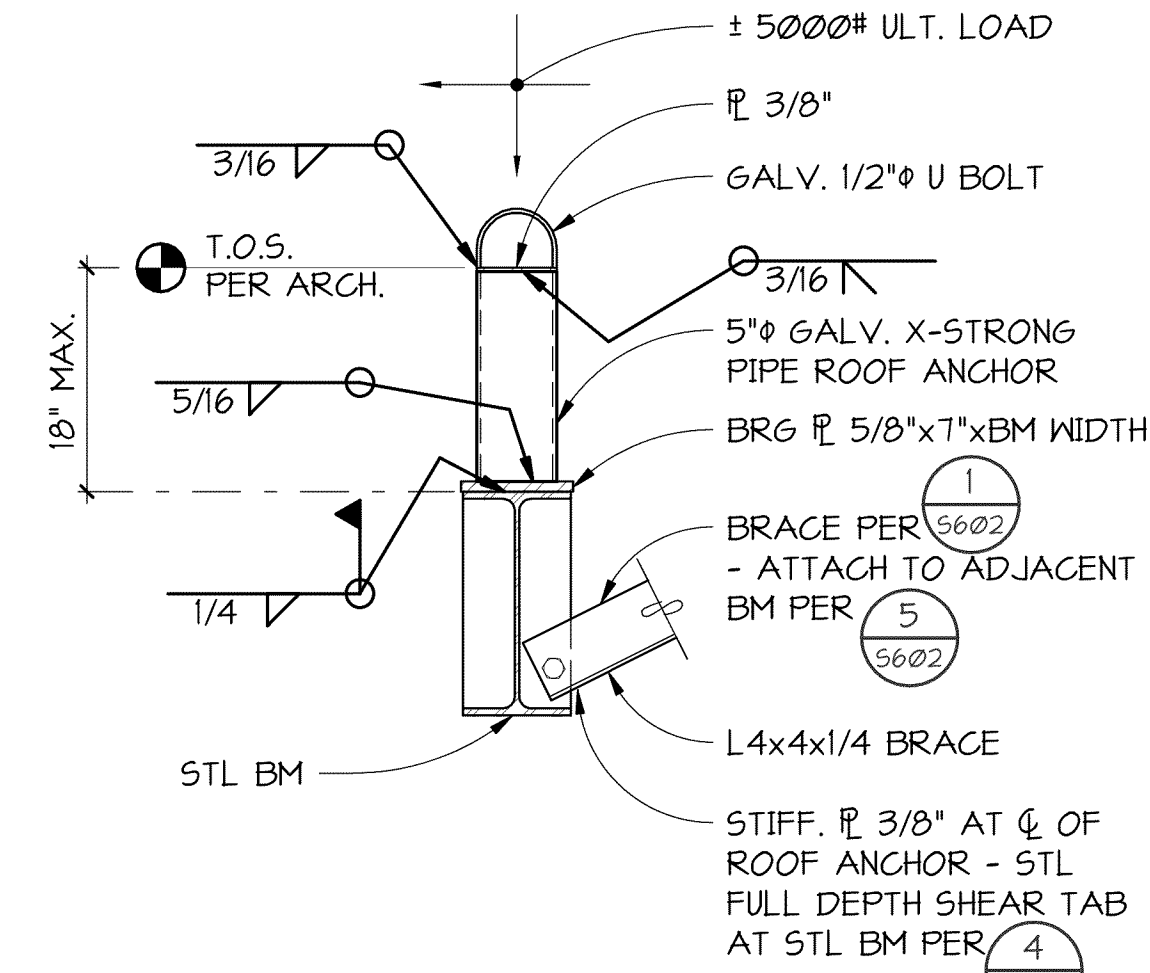
TYPICAL CONNECTION OF METAL DECK AT VALLEY

TYPICAL ROOF METAL DECK

1  
5601  
DETAIL  
NO SCALE

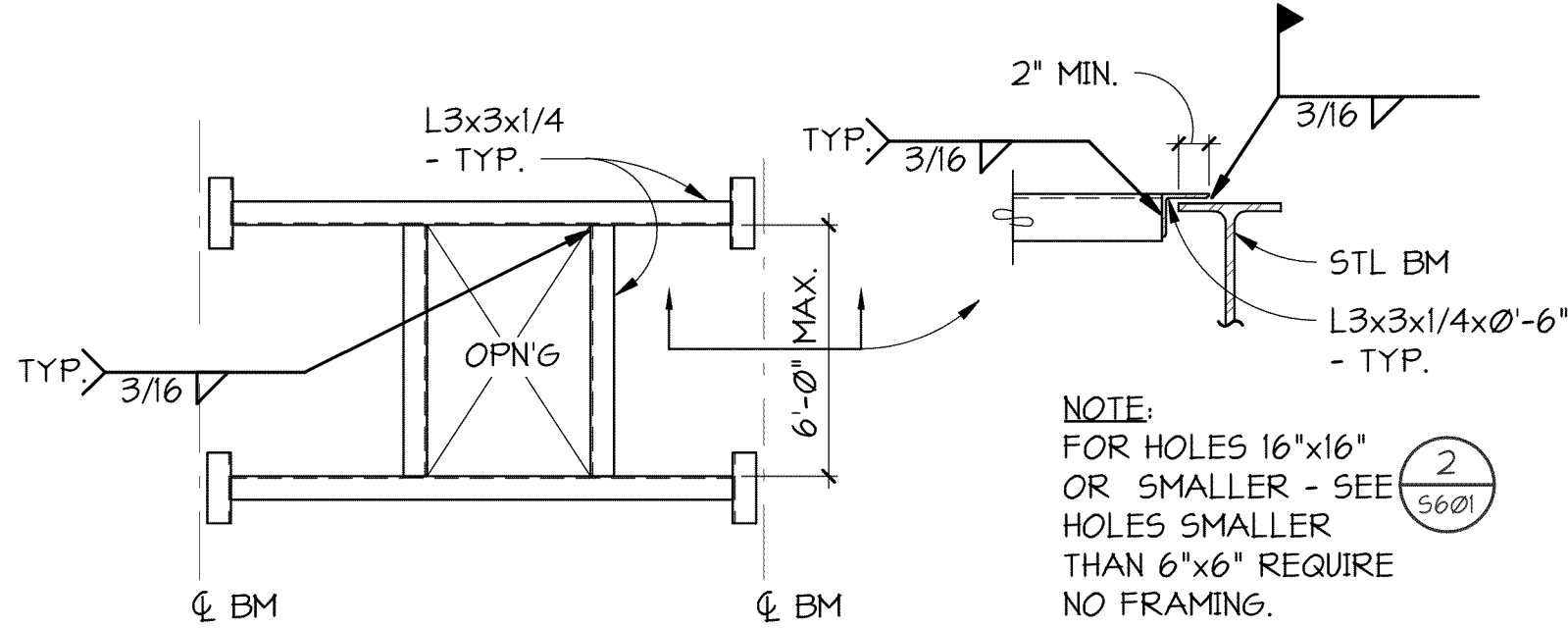
2  
5601  
DETAIL  
NO SCALE

3  
5601  
SECTION  
NO SCALE



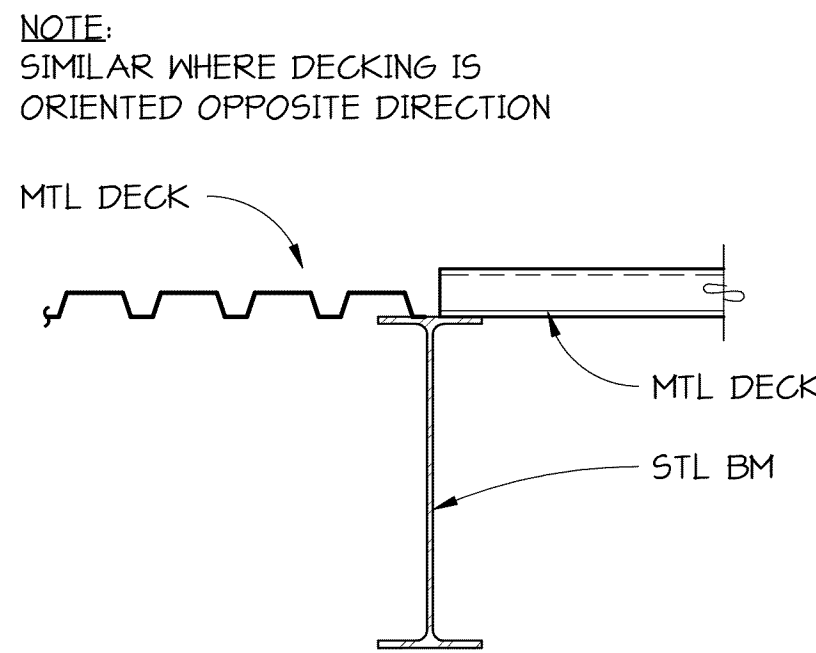
ROOF ANCHOR AT STEEL BEAM: FR-1

4  
5601  
SECTION  
NO SCALE



TYPICAL FRAMING AT OPENINGS IN METAL ROOF DECK (MAXIMUM LOAD = 600 POUNDS)

5  
5601  
DETAIL  
NO SCALE



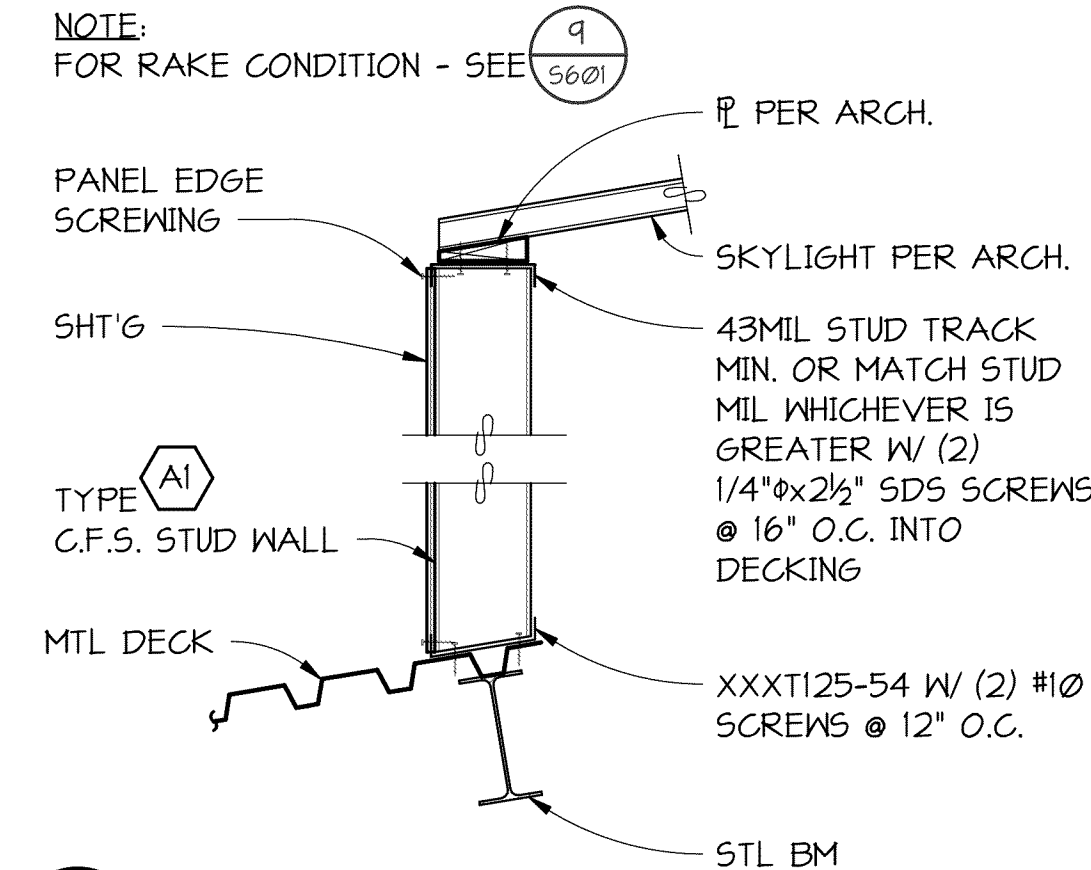
PROVIDE 10d NAILS @ 6" O.C. AROUND SHT'G EDGES & 12" O.C. IN EA. DIRECTION IN FIELD INTO DECKING

4x DECKING - ATTACH TO SUPPORTS PER ASSOCIATED DETAILS

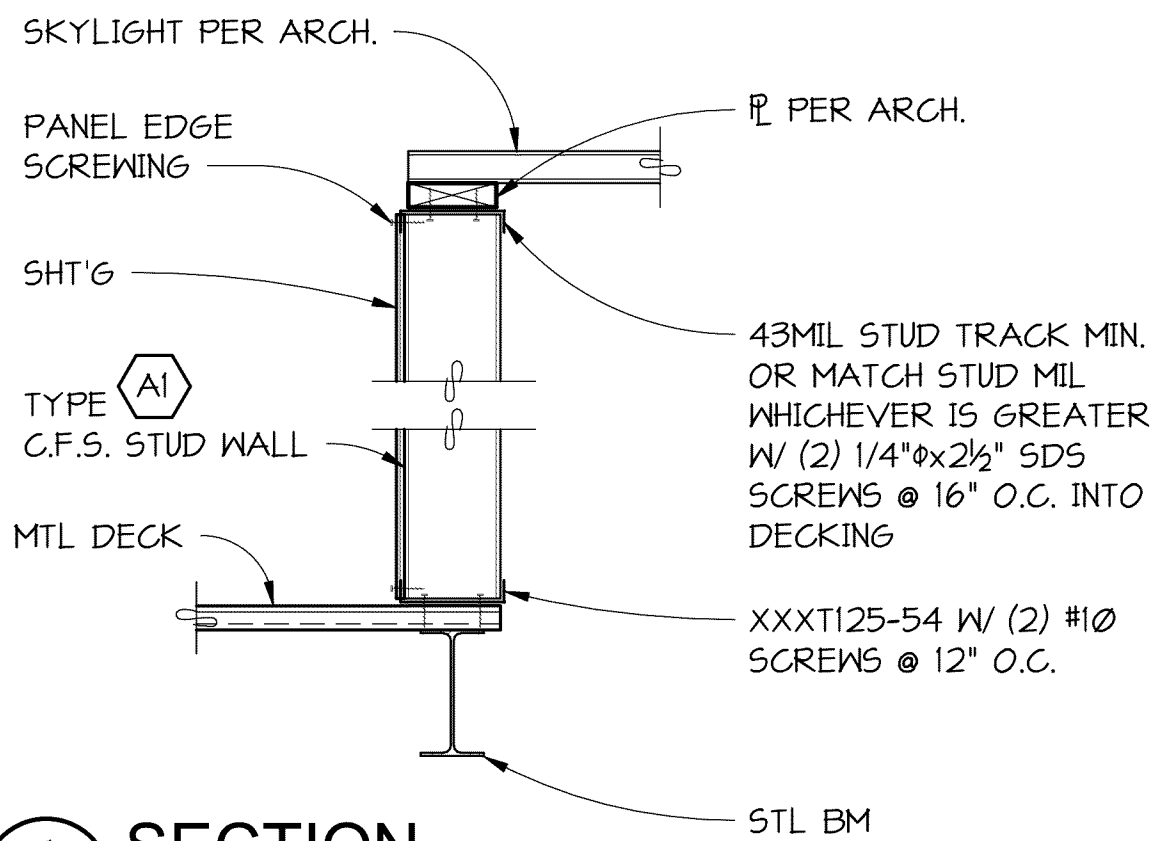
NOTE: DECKING SHALL BE INSTALLED WITH WITH SIMPLE SPAN LAYUP AND WITH TONGUES UP THE SLOPE.

TYPICAL ROOF DECKING LAYOUT AND FASTENERS

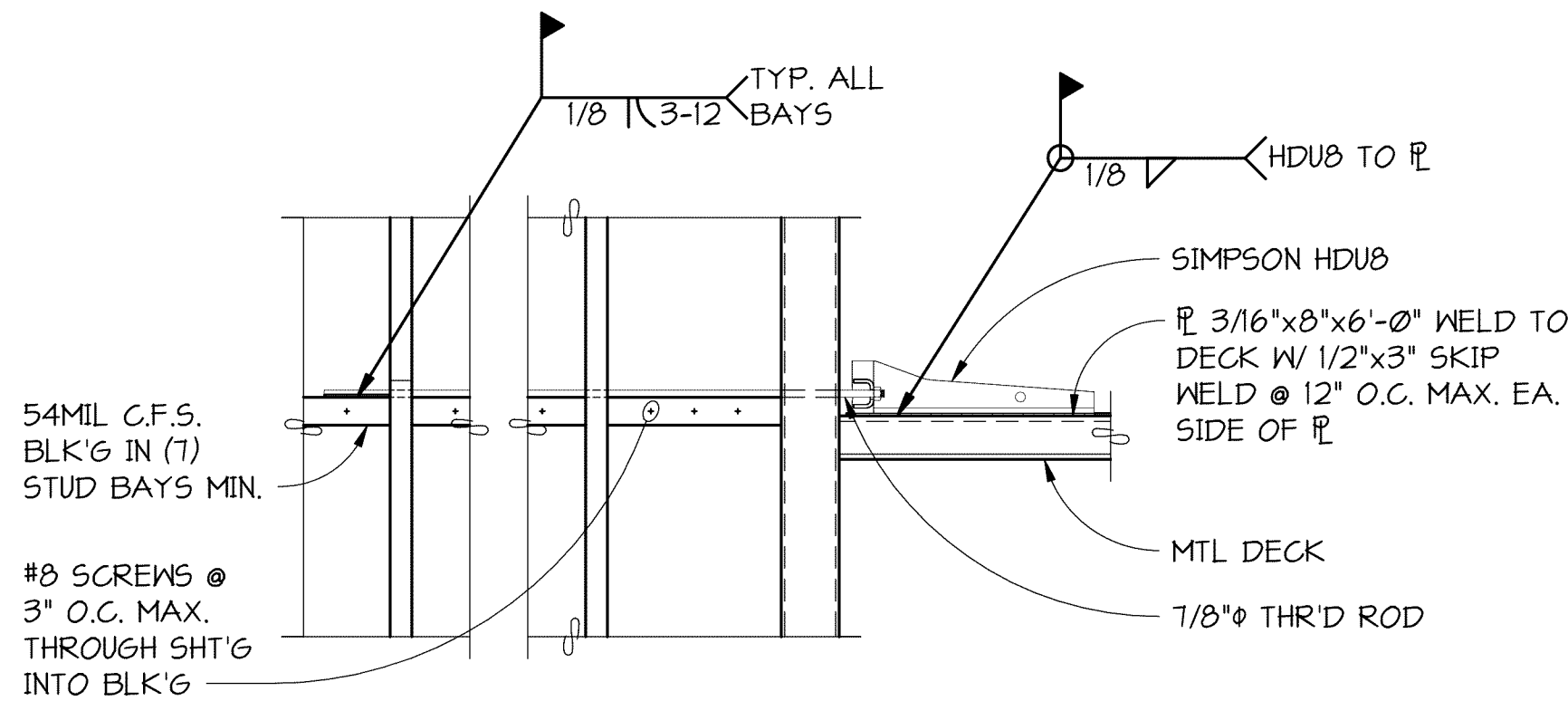
7  
5601  
SECTION  
NO SCALE



8  
5601  
SECTION  
1" = 1'-0"



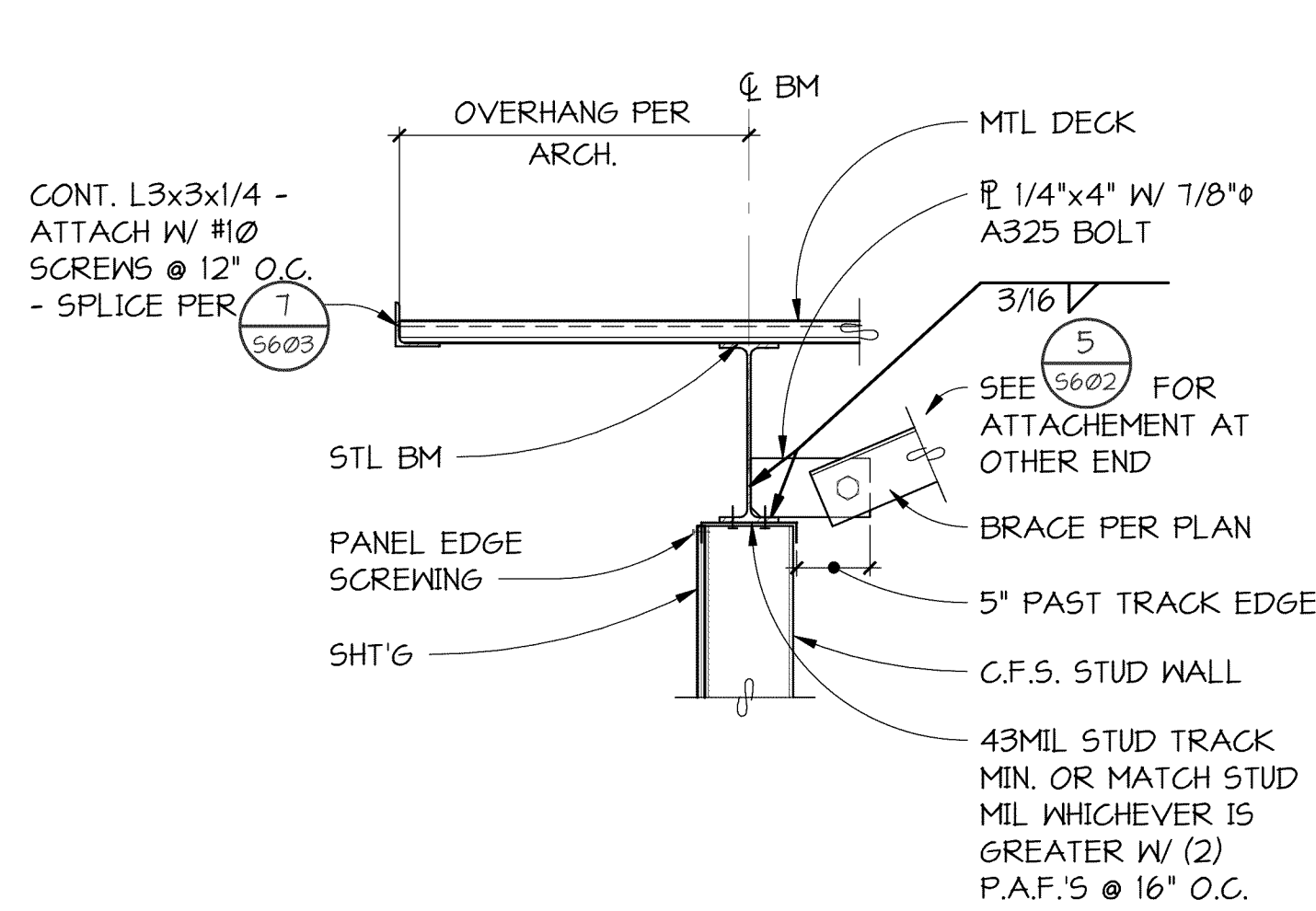
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5601  
SECTION  
1" = 1'-0"



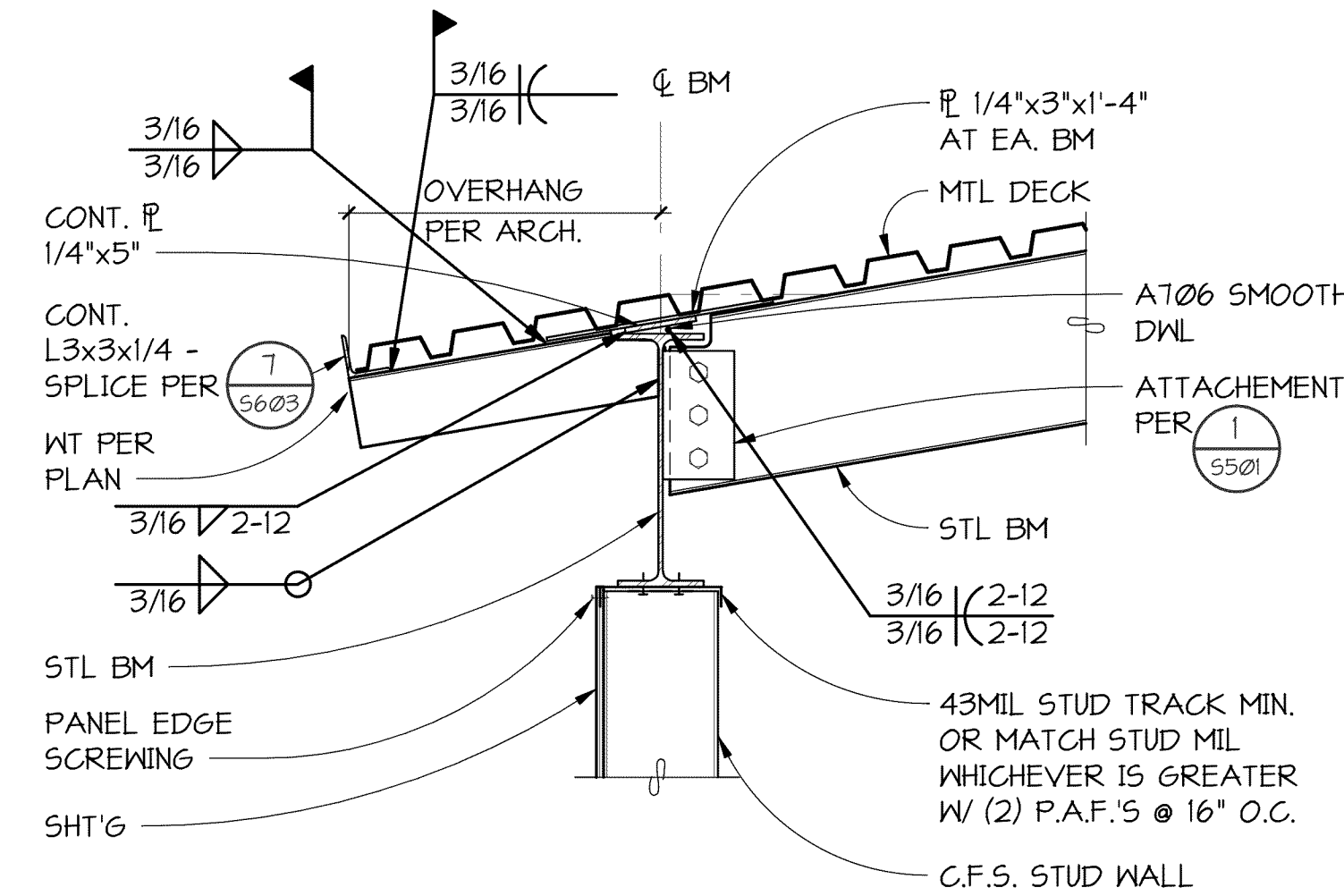
10  
5601  
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1" = 1'-0"



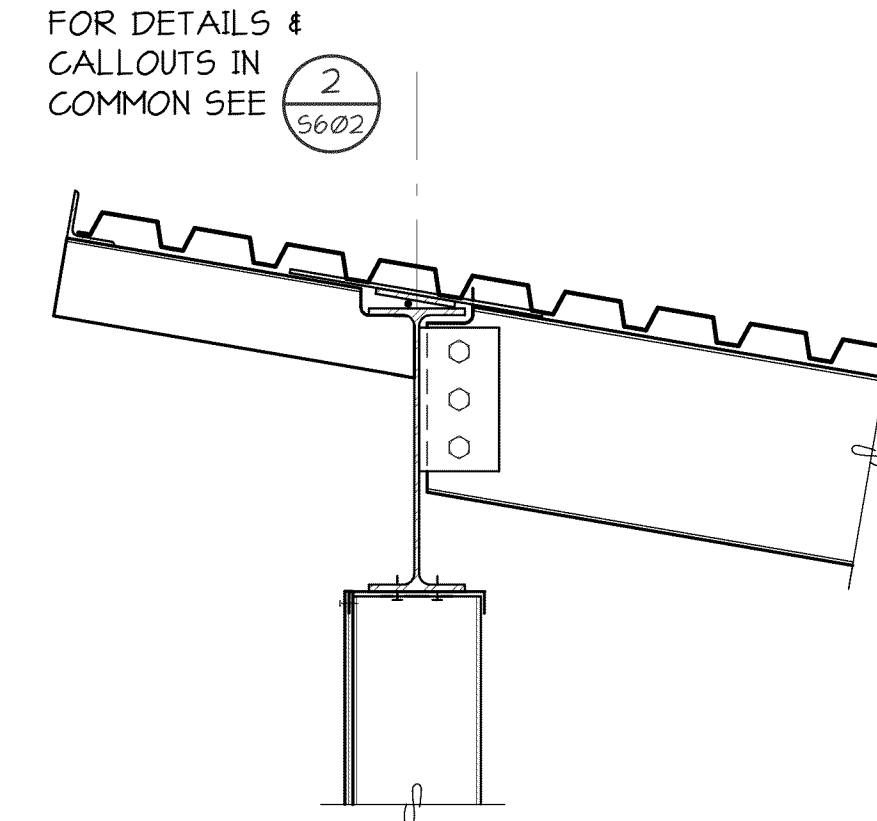
10/15/2019 1:52:02 PM C:\\_Revit Models\19190 Fir Grove Childrens Center (2019) (Central)\_dyoungblood@pcs-structural.com.rvt



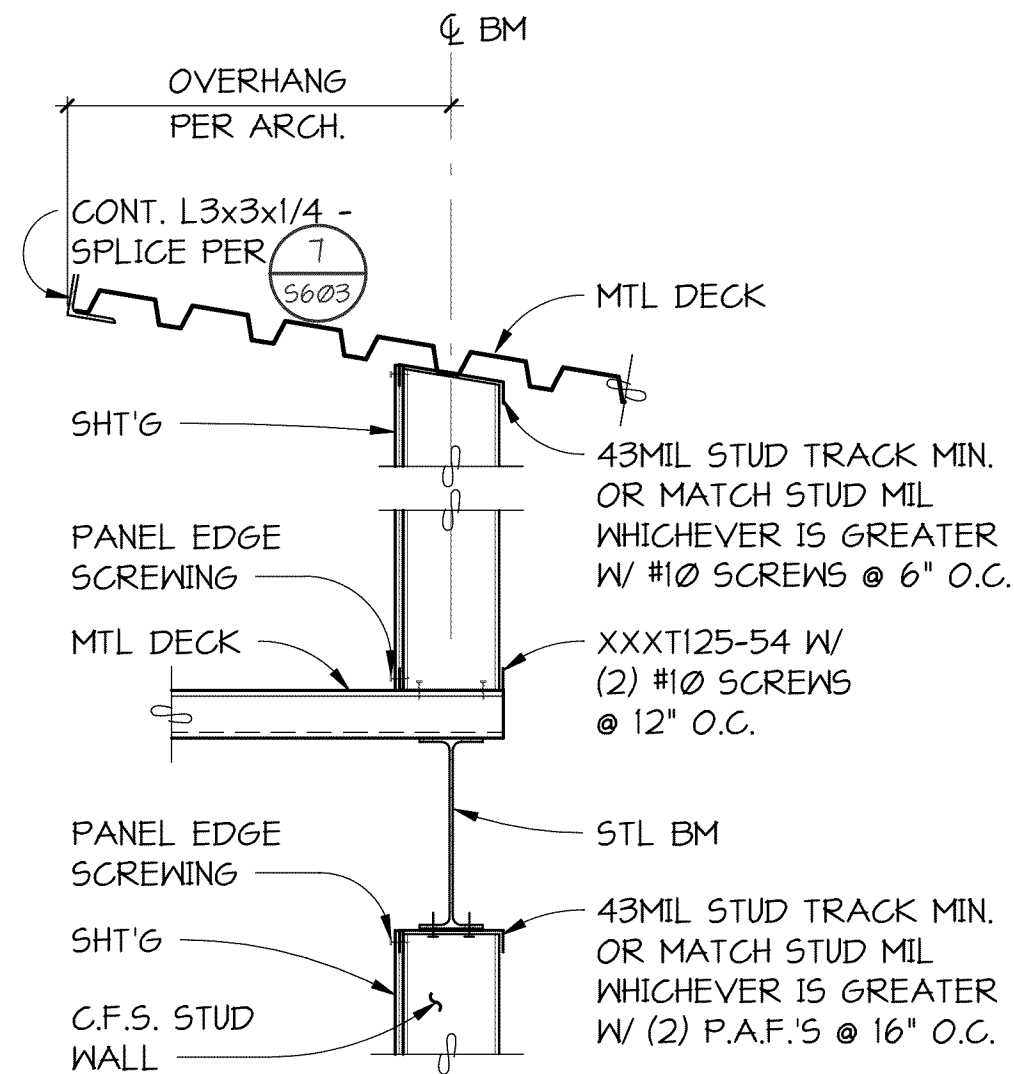
1 SECTION  
5602 1" = 1'-0"



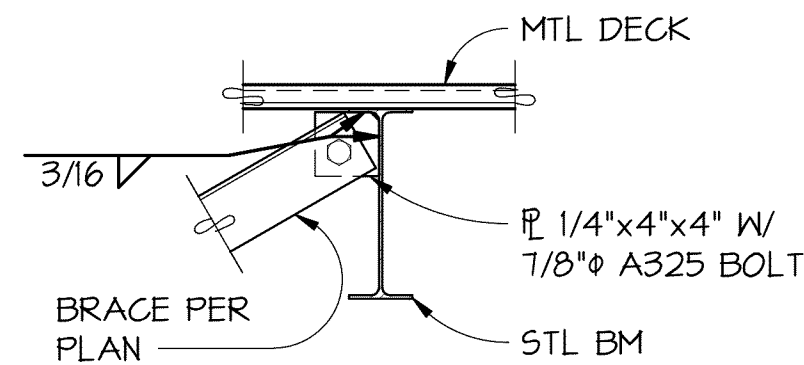
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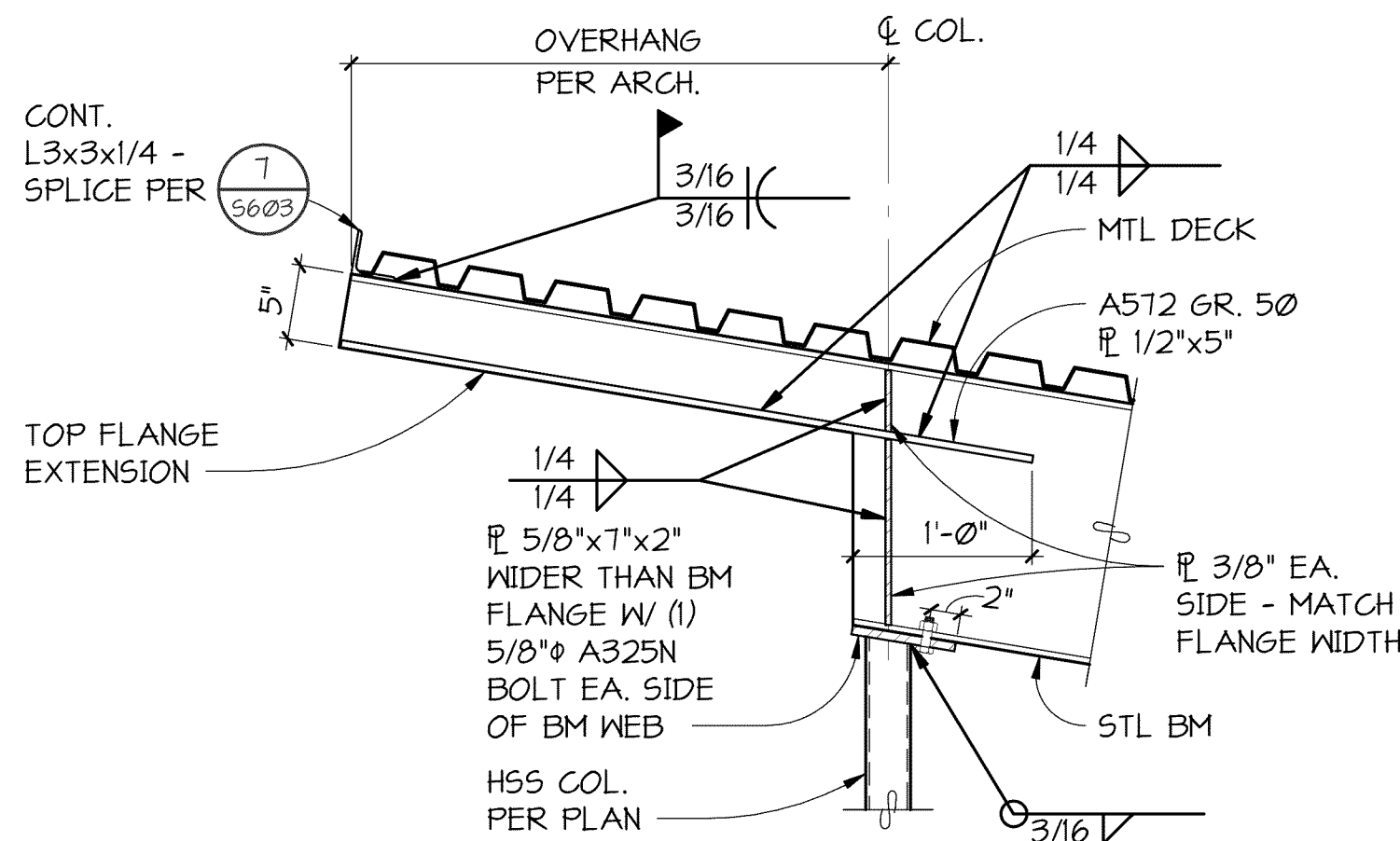
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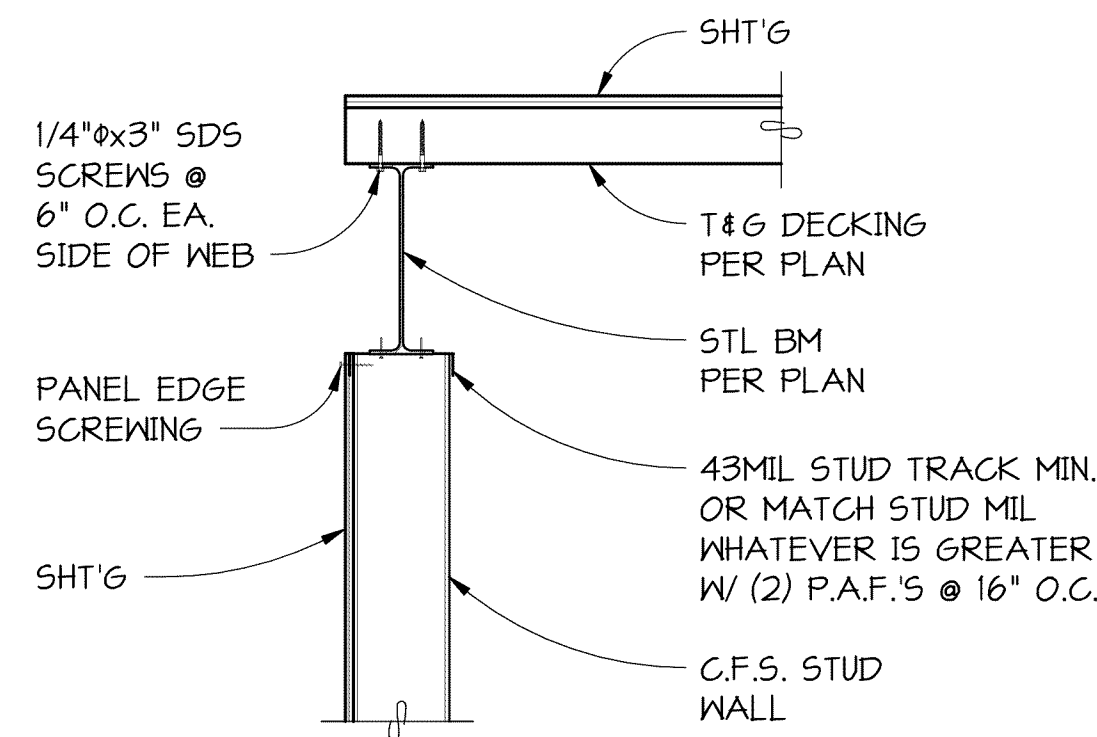
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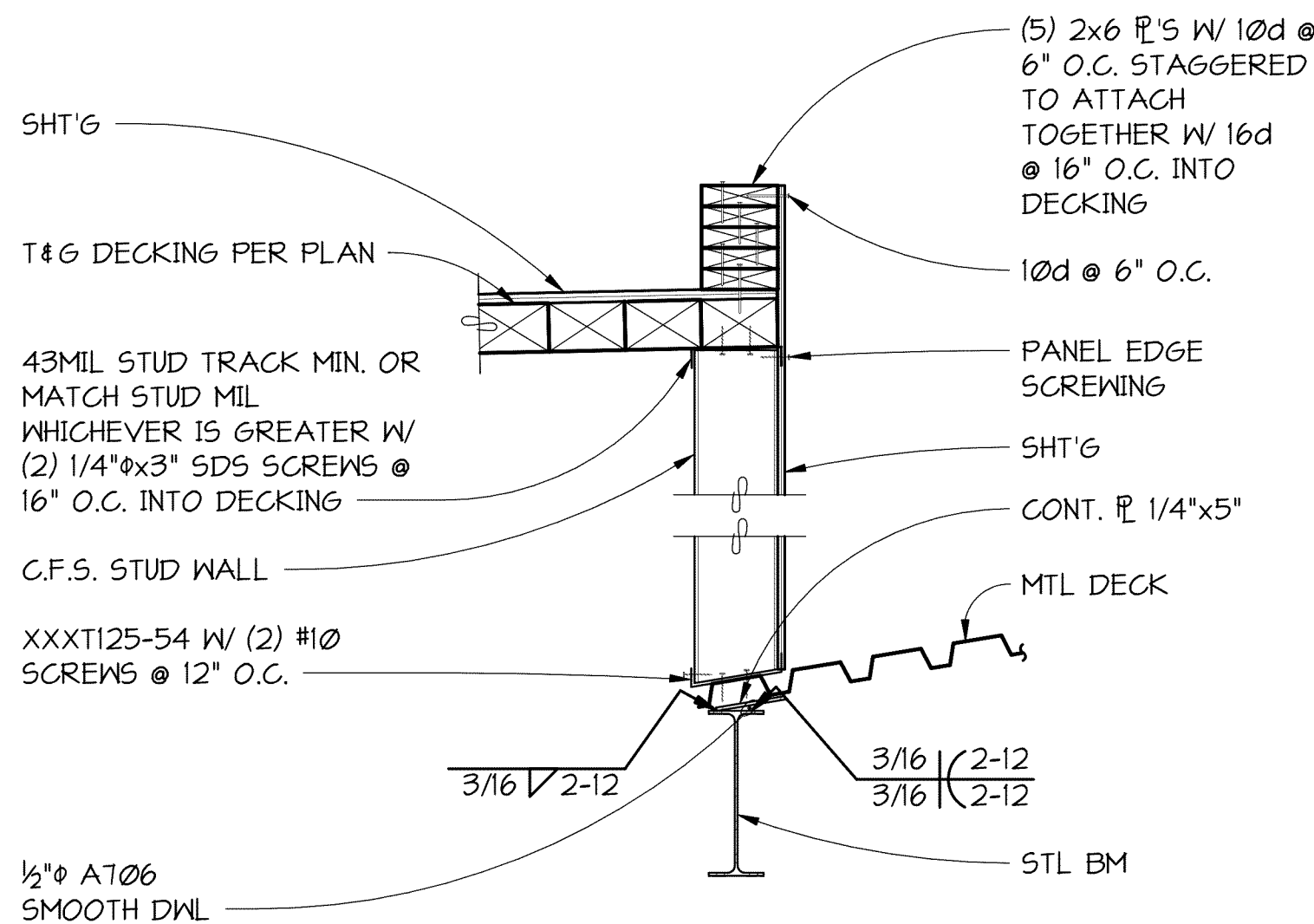
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5602 1" = 1'-0"



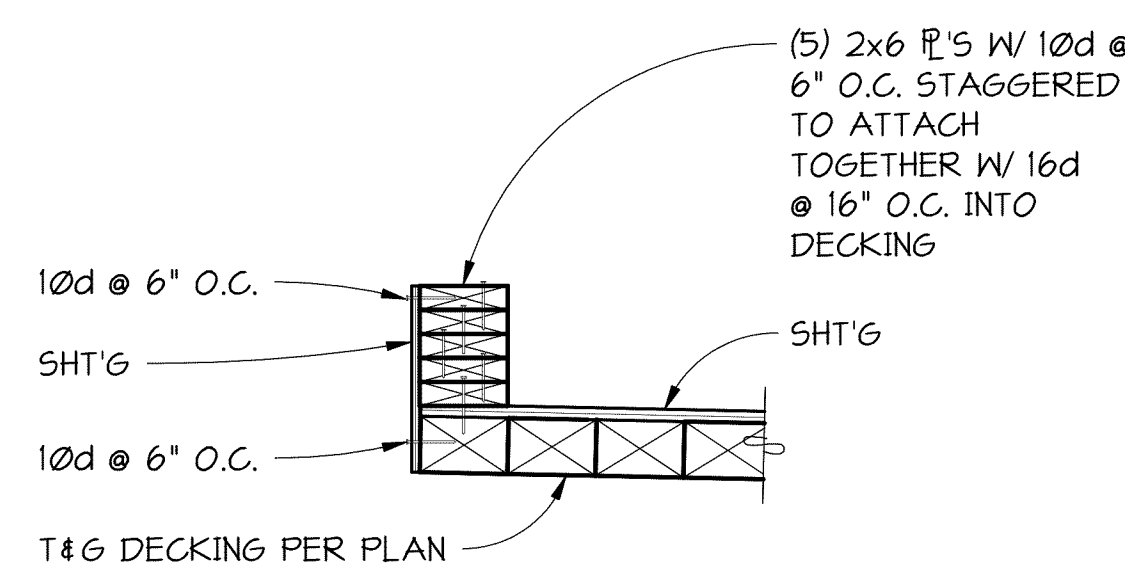
6 SECTION  
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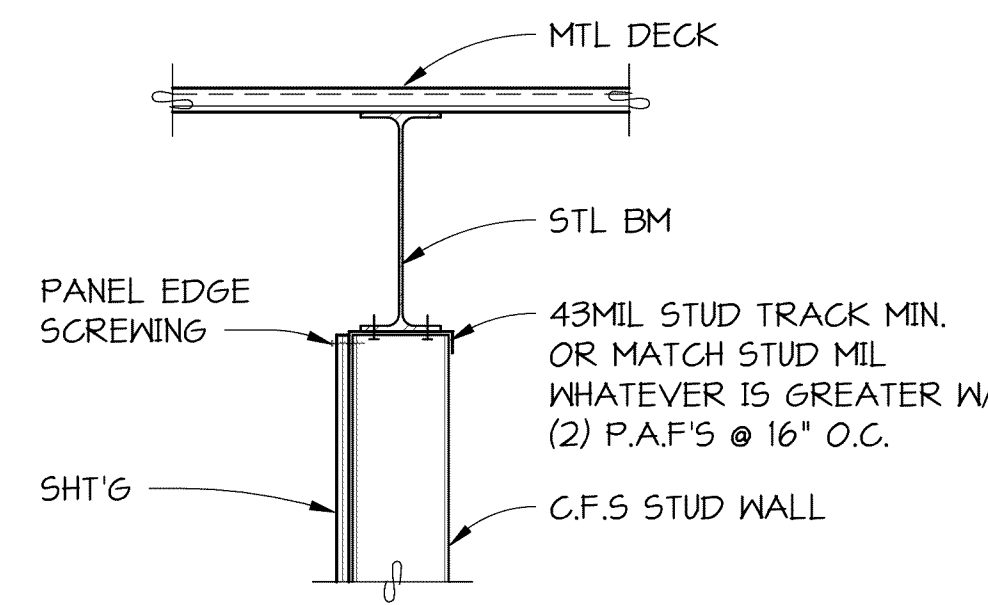
7 SECTION  
5602 1" = 1'-0"



8 SECTION  
5602 1" = 1'-0"

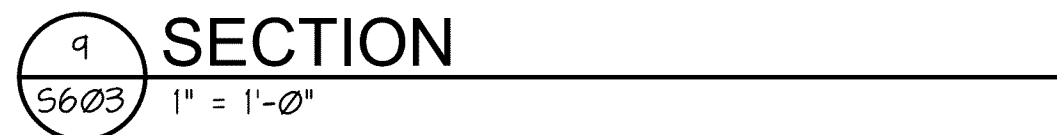
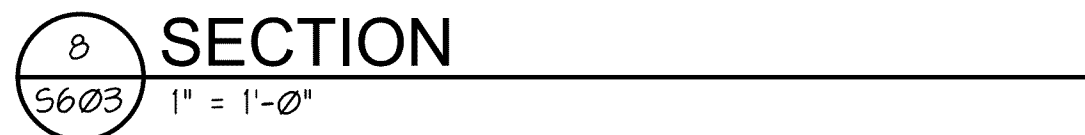
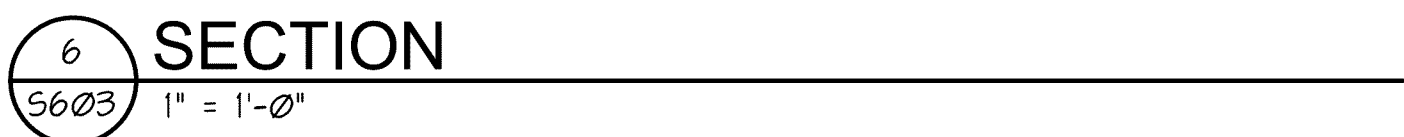
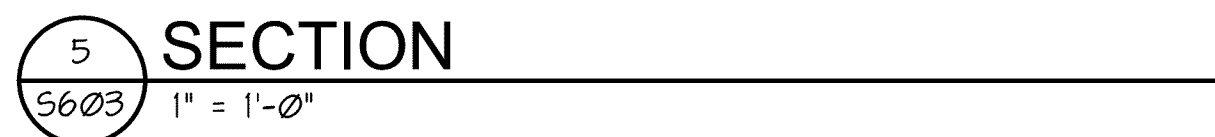
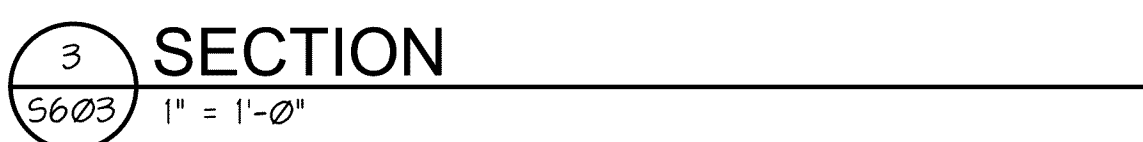
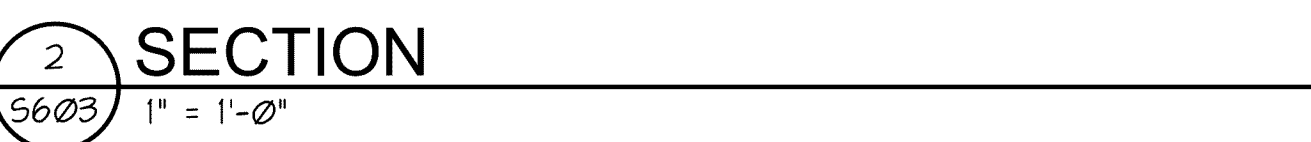
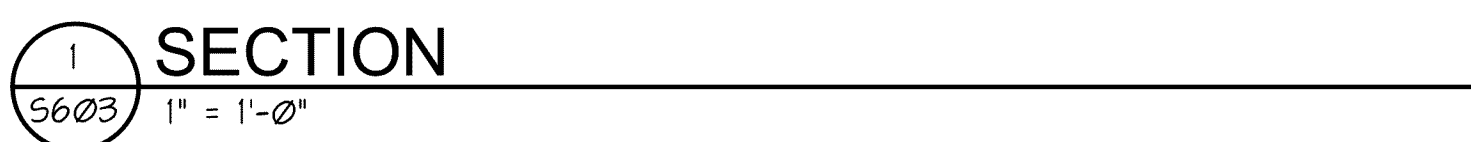


9 SECTION  
5602 1" = 1'-0"




10 SECTION  
5602 1" = 1'-0"






NOTE:  
SIMILAR WHERE DECKING IS RUNNING  
PERPENDICULAR TO STEEL BEAM

FOR DETAILS &  
CALLOUTS IN  
COMMON SEE 

CONT. L4x3x1/4  
(LLV) - ATTACH  
W/ #10 SCREWS @  
12" O.C. - FOR  
ATTACHMENT TO  
WF AT BLD'G SEE

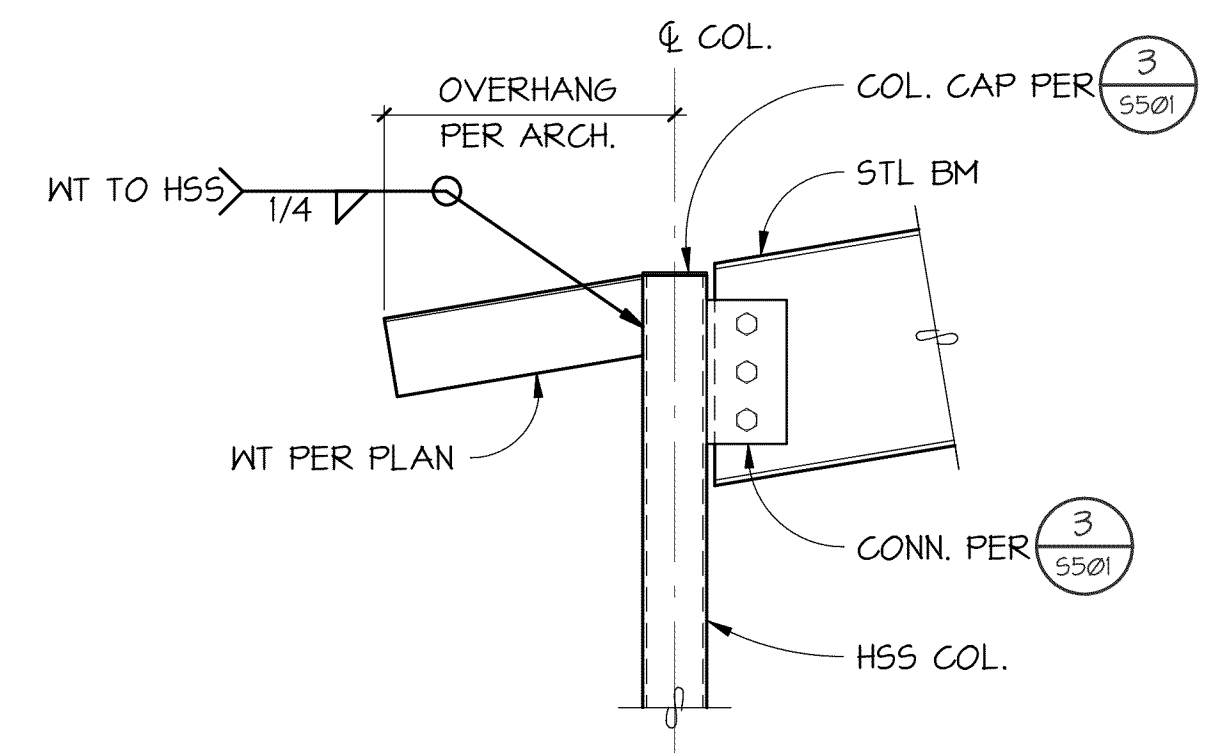
SEE  FOR DETAILS  
& CALLOUTS  
IN COMMON

OUTSIDE FACE  
OF STUD & OUTSIDE  
EDGE OF FLANGE

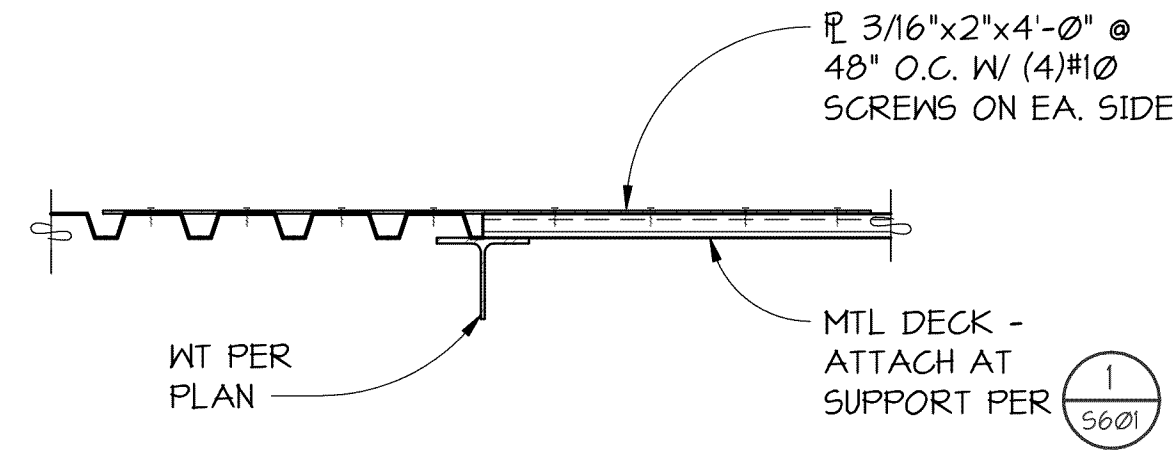
2½" OFFSET



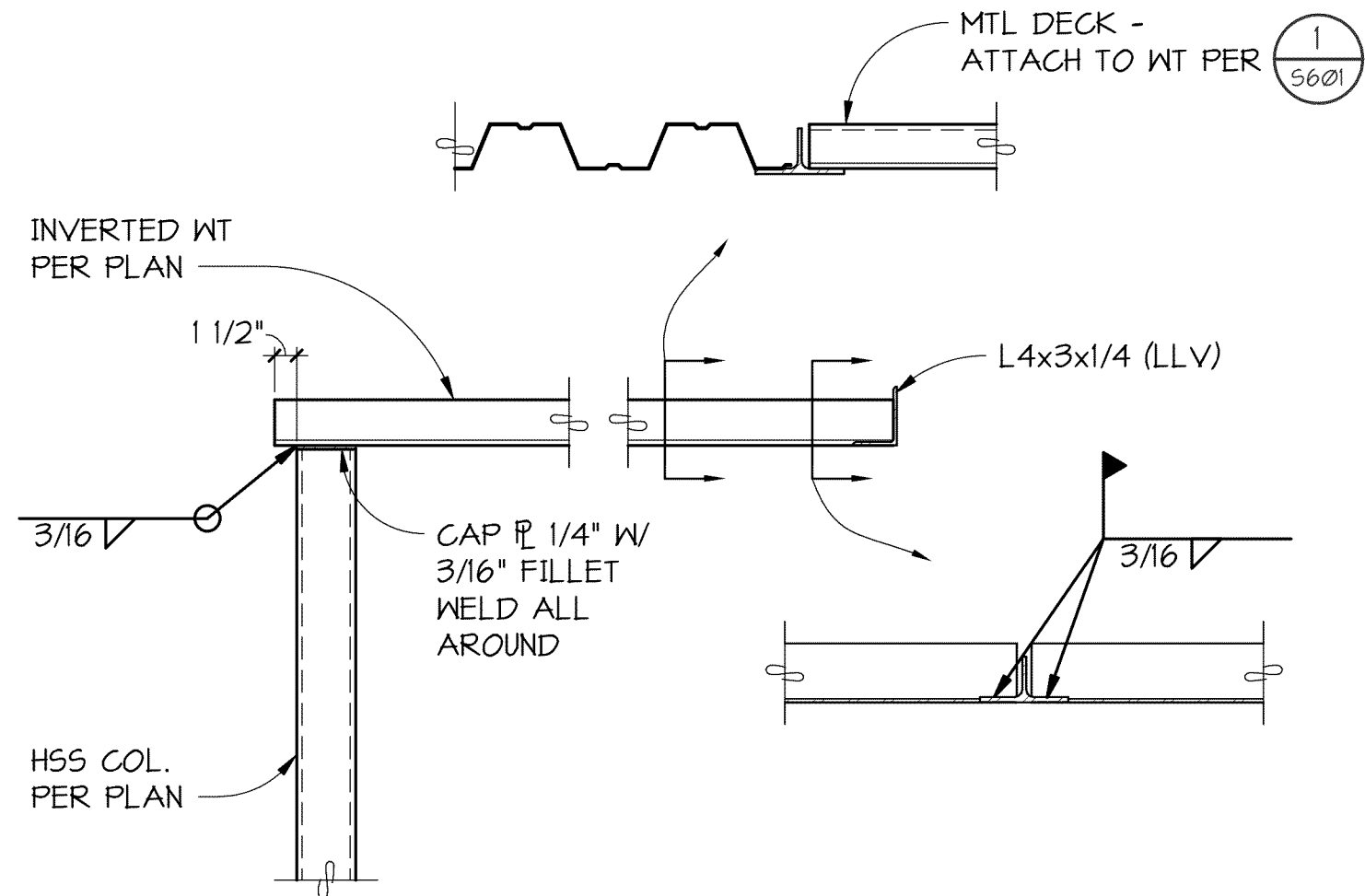
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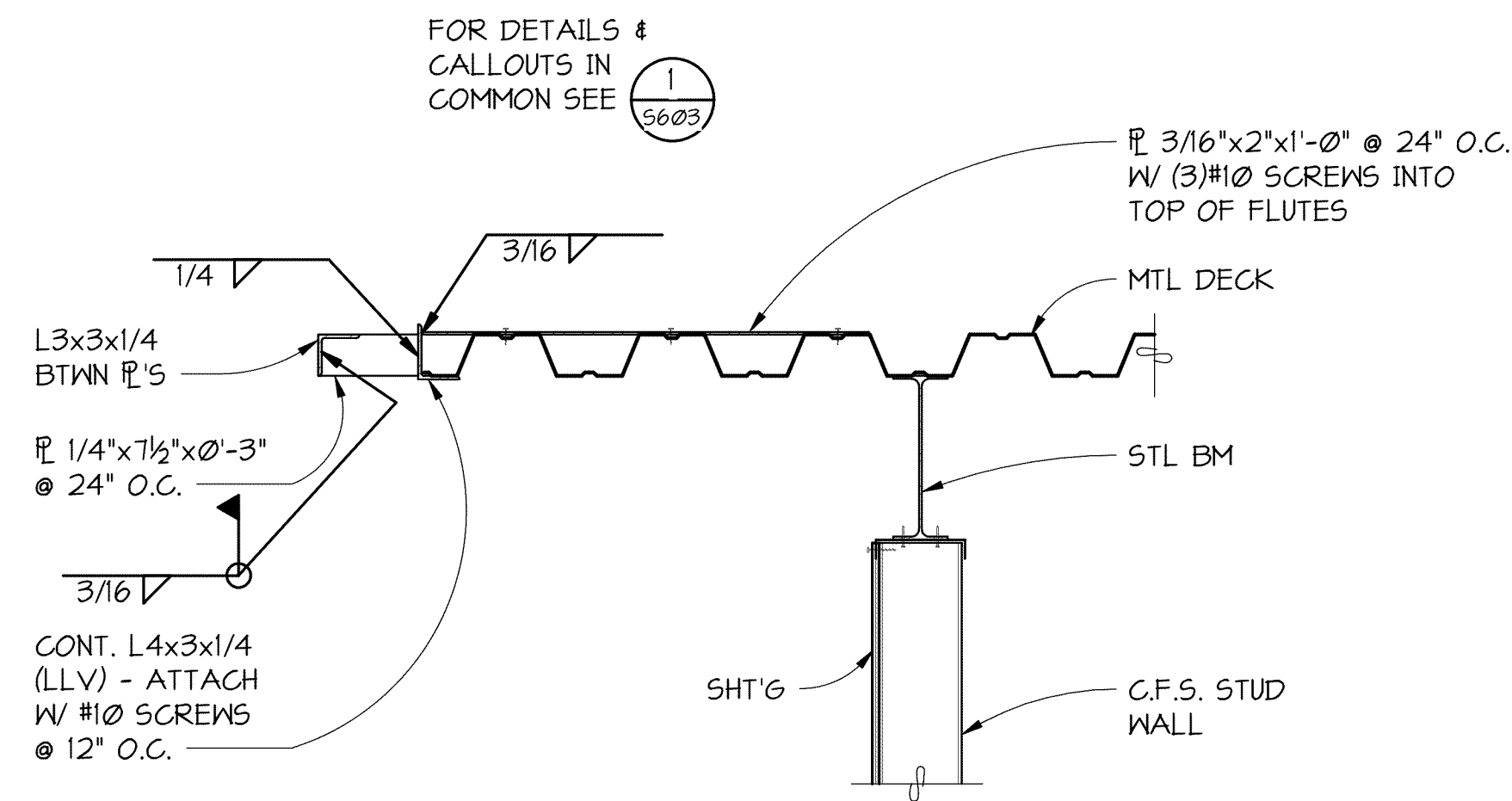
1  
5604 SECTION  
1" = 1'-0"



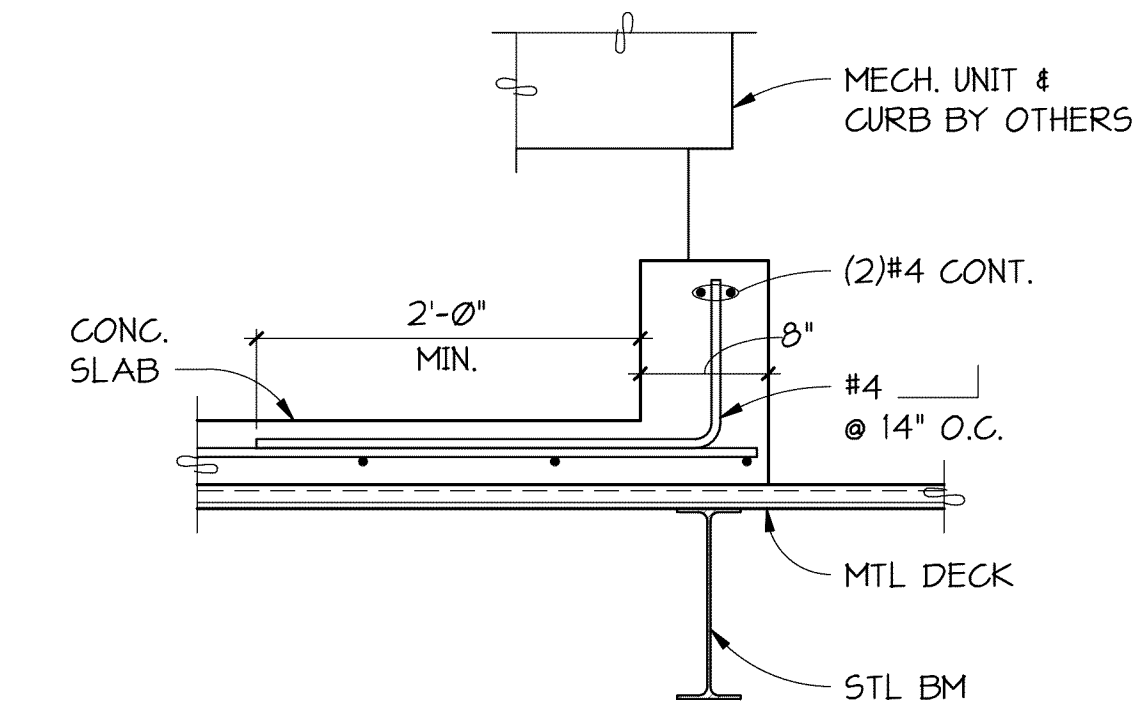
2  
5604 SECTION  
1" = 1'-0"



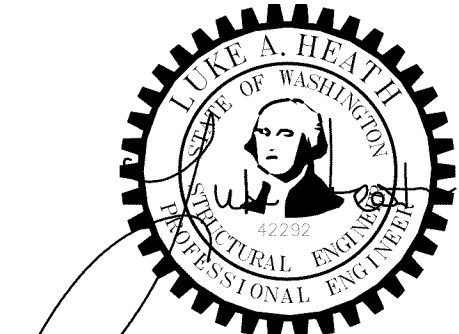
3  
5604 SECTION  
1" = 1'-0"



4  
5604 SECTION  
1" = 1'-0"



5  
5604 SECTION  
1" = 1'-0"



drawn by  
DMY  
checked by  
SJW

lsw job number  
2018-0029

FIR GROVE CHILDREN'S CENTER  
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ROOF DETAILS

S604

Scale 1" = 1'-0"






TECHNOLOGY SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.





Abbreviations

AFF	ABOVE FINISHED FLOOR
AV	AUDIO VISUAL
ATS	AUTOMATIC TRANSFER SWITCH
BC	BARE COPPER
CATV	CABLE TELEVISION
CAT	CATEGORY
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
COAX	COAXIAL
COM	COMMUNICATION
C	CONDUIT
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CNTL	CONTROL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CT	CURRENT TRANSFORMER
EA	EACH
E	EMERGENCY
(E)	EXISTING
LC	FIBER OPTIC CONNECTOR
SC	FIBER OPTIC CONNECTOR
FDU	FIBER OPTIC DISTRIBUTION UNIT
FF	FINISH FLOOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FT	FOOT, FEET
GRC	GALVANIZED RIGID STEEL CONDUIT
ANMW	GEL-FILLED UNDERGROUND CABLE
G, GND	GROUND
HH	HANDHOLE
IN	INCH, INCHES
IT	INFORMATION TECHNOLOGY
IDF	INTERMEDIATE DISTRIBUTION FRAME
IMC	INTERMEDIATE METAL CONDUIT
LAN	LOCAL AREA NETWORK
LV	LOW VOLTAGE
MDF	MAIN DISTRIBUTION FRAME
MSB	MAIN SWITCHBOARD
MTS	MANUAL TRANSFER SWITCH
MATV	MASTER ANTENNA TELEVISION
MISC	MISCELLANEOUS
M	MOTOR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NA	NOT APPLICABLE
NTS	NOT TO SCALE
OSP	OUTSIDE PLANT
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PTZ	PAN, TILT, ZOOM
PNL	PANEL
PVC	POLY-VINYL-CHLORIDE
POE	POWER OVER ETHERNET
PBX	PRIVATE BRANCH EXCHANGE
QTY	QUANTITY
RFI	REQUEST FOR INFORMATION
RM	ROOM
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
TELE	TELEPHONE
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UPS	UNINTERRUPTABLE POWER SUPPLY
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WI-FI	WIRELESS FIDELITY
W/	WITH
W/O	WITHOUT




Audio/Video

	CEILING MOUNTED PROJECTOR AND BRACKET
	FLUSH MOUNTED AUDIO REINFORCEMENT SPEAKER IN CEILING WITH 1" C TO ACCESSIBLE CEILING AND CABLING PER SPECIFICATIONS
	SURFACE MOUNTED AUDIO REINFORCEMENT SPEAKER ON WALL WITH 1" C TO ACCESSIBLE CEILING AND CABLING PER SPECIFICATIONS

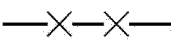
Electronic Security

	DOOR POSITION SWITCH/CONTACT WITH 3/4" C TO ACCESSIBLE CEILING; PATHWAY ONLY
	ELECTRIC LATCH CONNECTION WITH 3/4" C TO ACCESSIBLE CEILING; PATHWAY ONLY
	VIDEO SURVEILLANCE CAMERA WITH 1" C TO ACCESSIBLE CEILING SPACE; PATHWAY ONLY
	WALL MOUNTED ACCESS CONTROL CARD READER WITH 3/4" C TO ACCESSIBLE CEILING; PATHWAY ONLY




Equipment

	2-POST EQUIPMENT RACK
	DOUBLE-SIDED VERTICAL WIRE MANAGEMENT
	MAJOR EQUIPMENT, CABINETS OR PANELS

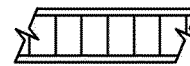

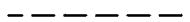





General





	DEMOLISH
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Paging/Intercom




	BUILDING INTERCOM CALL BUTTON WITH 3/4"C TO ACCESSIBLE CEILING SPACE AND CABLING PER SPECIFICATIONS. MOUNT 48" AFF.
	CEILING SPEAKER WITH 1/2" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM
	FLUSH MOUNTED WALL SPEAKER WITH 1"C. TO ACCESSIBLE CEILING SPACE AND CABLING PER SPECIFICATIONS. HEIGHT AS INDICATED.
	SPEAKER VOLUME CONTROL WITH 3/4"C TO ACCESSIBLE CEILING SPACE AND CABLING PER SPECIFICATIONS. MOUNT 48" AFF.
	WALL MOUNTED SECONDARY CLOCK. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS

Raceways



	CABLE RUNWAY, WIDTH AS INDICATED
	CONDUIT AND CONDUCTORS ABOVE GRADE
	CONDUIT AND CONDUCTORS BELOW GRADE OR SLAB
	CONDUIT DOWN
	CONDUIT SLEEVE
	CONDUIT UP
	CONDUIT/WIRING CONTINUATION
	FLEXIBLE CONDUIT

	HANDHOLE
	PULL BOX
	TELECOMMUNICATIONS VAULT
	TELEPHONE BACKBOARD

Reference Symbols

	DETAIL NUMBER AND SHEET LOCATION
	KEYED NOTES
	SECTION NUMBER AND SHEET LOCATION

Telecommunications

	STANDARD COMMUNICATIONS OUTLET WITH (2) CAT6 CABLE(S) TO NEAREST MDF/IDF AND 1"C. TO ACCESSIBLE CEILING SPACE.  ALTERNATE COMMUNICATIONS OUTLET (X): A = ABOVE COUNTER WITH (2) CAT6 CABLE(S) TO NEAREST TELECOM ROOM AND 1"C. TO ACCESSIBLE CEILING SPACE. C = SINGLE GANG BOX, FLUSH IN CEILING, MOUNTED TO TILE BRIDGE WITH (2) CAT6 CABLE(S) TO NEAREST TELECOM ROOM. W = LOCATION FOR FLUSH MOUNT WIRELESS ACCESS POINT OUTLET WITH (1) CAT6A CABLE TO NEAREST TELECOM ROOM AND 1"C. ACCESSIBLE CEILING SPACE, UON. # = XX CAT 6 CABLES TO NEAREST TELECOM ROOM AND 1" C TO ACCESSIBLE CEILING SPACE
	FLUSH FLOOR COMBINATION COMMUNICATIONS OUTLET WITH (4) UL LISTED, INDOOR/OUTDOOR RATED CAT6 CABLE(S) AND 1" UNDER SLAB CONDUIT TO NEAREST TELECOM ROOM, UON.

GENERAL TECHNOLOGY NOTES

- A. COMMUNICATIONS RACEWAYS, TRAYS, AND OUTLETS ARE SHOWN DIAGRAMMATICALLY. LOCATIONS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. FIELD COORDINATE ALL WORK WITH OTHER TRADES.
- B. CONSTRUCTION DETAILS SHOW TYPICAL INSTALLATION, UON, AND APPLY TO ALL COMMUNICATIONS WORK INCLUDED IN THE SUMMARY OF WORK FOR THIS PACKAGE EVEN THOUGH NOT SPECIFICALLY REFERENCED ON THE PLAN DRAWINGS.
- C. THE TECHNOLOGY DRAWINGS ARE PART OF A LARGER SET OF DRAWINGS WHICH, WHEN COMPLETE, CONSISTS OF DRAWINGS LISTED BY THE "INDEX OF DRAWINGS." PARTIAL SETS OF DRAWINGS NOT INCLUSIVE OF ALL DISCIPLINES ARE INCOMPLETE AND SHOULD NOT BE DISTRIBUTED OR UTILIZED.
- D. INSTALL PULL STRINGS IN ALL CONDUITS AT THE TIME OF CONDUIT AND CABLE INSTALLATION.
- E. COORDINATE ALL DOOR ACCESS CONTROL FUNCTIONS WITH ADA DOOR ACTUATOR FUNCTION SUCH THAT DOOR MOTOR WILL NOT OPERATE WITHOUT PRIOR VALID CARD READ DURING SECURE MODE OPERATION.

PRICING NOTES

1. INCLUDE PRICING FOR (12) TWELVE - 360 DEGREE VIDEO SURVEILLANCE CAMERAS AND ASSOCIATED MOUNTS

SHEET INDEX

T-001	SYMBOLS LIST AND GENERAL NOTES - TECHNOLOGY
T-101A	LEVEL 1 FLOOR PLAN SECTOR A - TECHNOLOGY
T-101B	LEVEL 1 FLOOR PLAN SECTOR B - TECHNOLOGY
T-101C	LEVEL 1 FLOOR PLAN SECTOR C - TECHNOLOGY
T-101D	LEVEL 1 FLOOR PLAN SECTOR D - TECHNOLOGY
T-301	ENLARGED PLANS - TECHNOLOGY
T-701	DETAILS - TECHNOLOGY



PROJECT 2019-0017  
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SYMBOLS LIST  
AND GENERAL  
NOTES -  
TECHNOLOGY



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Author  
checked by  
Checker

lsw job number  
2018-0029

FIR GROVE CHILDREN'S CENTER  
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3200 E 18TH ST  
VANCOUVER, WA, 98661

T-001

Scale 12" = 1'-0"

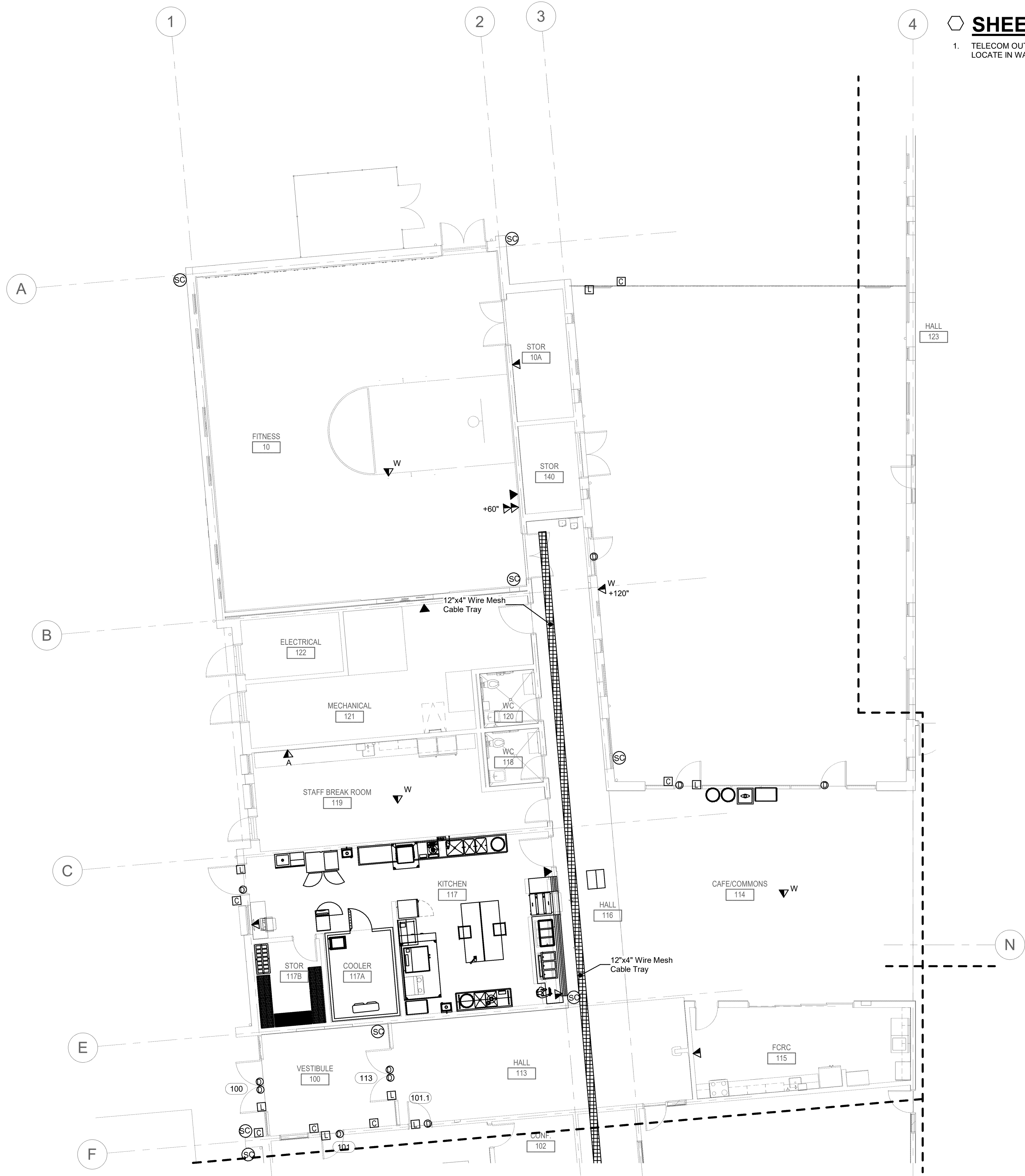


10/9/19 2:40:31 PM



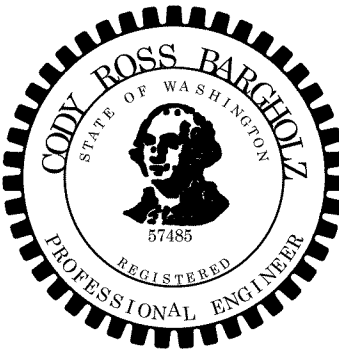
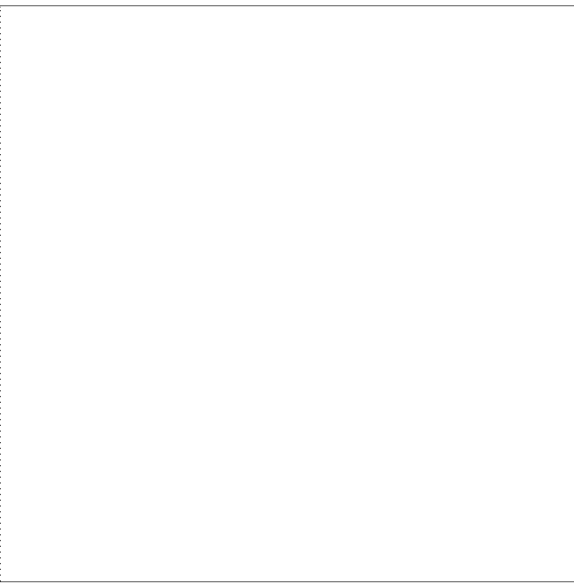
# 1 LEVEL 1 FLOOR PLAN SECTOR A - TECHNOLOGY

0' 4' 8' 16'  
1/8" = 1'-0"



## SHEET KEYNOTES

1. TELECOM OUTLET FOR FRONT ROW SYSTEM.  
LOCATE IN WALL MOUNT BOX; RE: 1/T-701



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Author

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**LEVEL 1 FLOOR  
PLAN SECTOR A -  
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# T-101A

Scale 1/8" = 1'-0"

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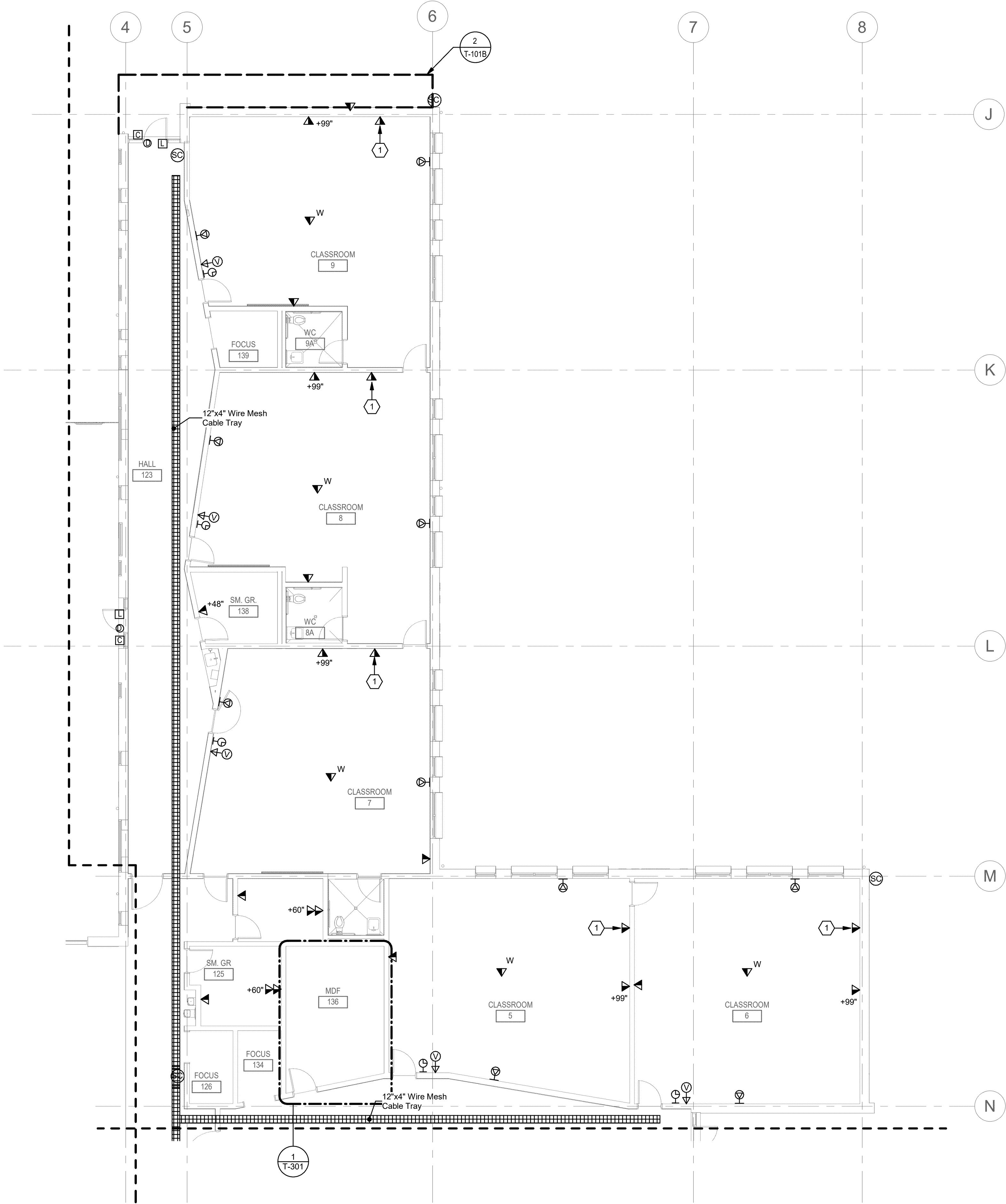
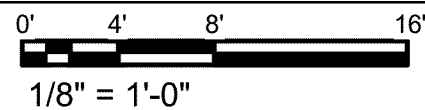
LSW Architects, PC  
610 Esther St., Suite 200  
Vancouver, WA 98660  
360.694.8571  
LSW-Architects.com



10/9/19 2:40:32 PM

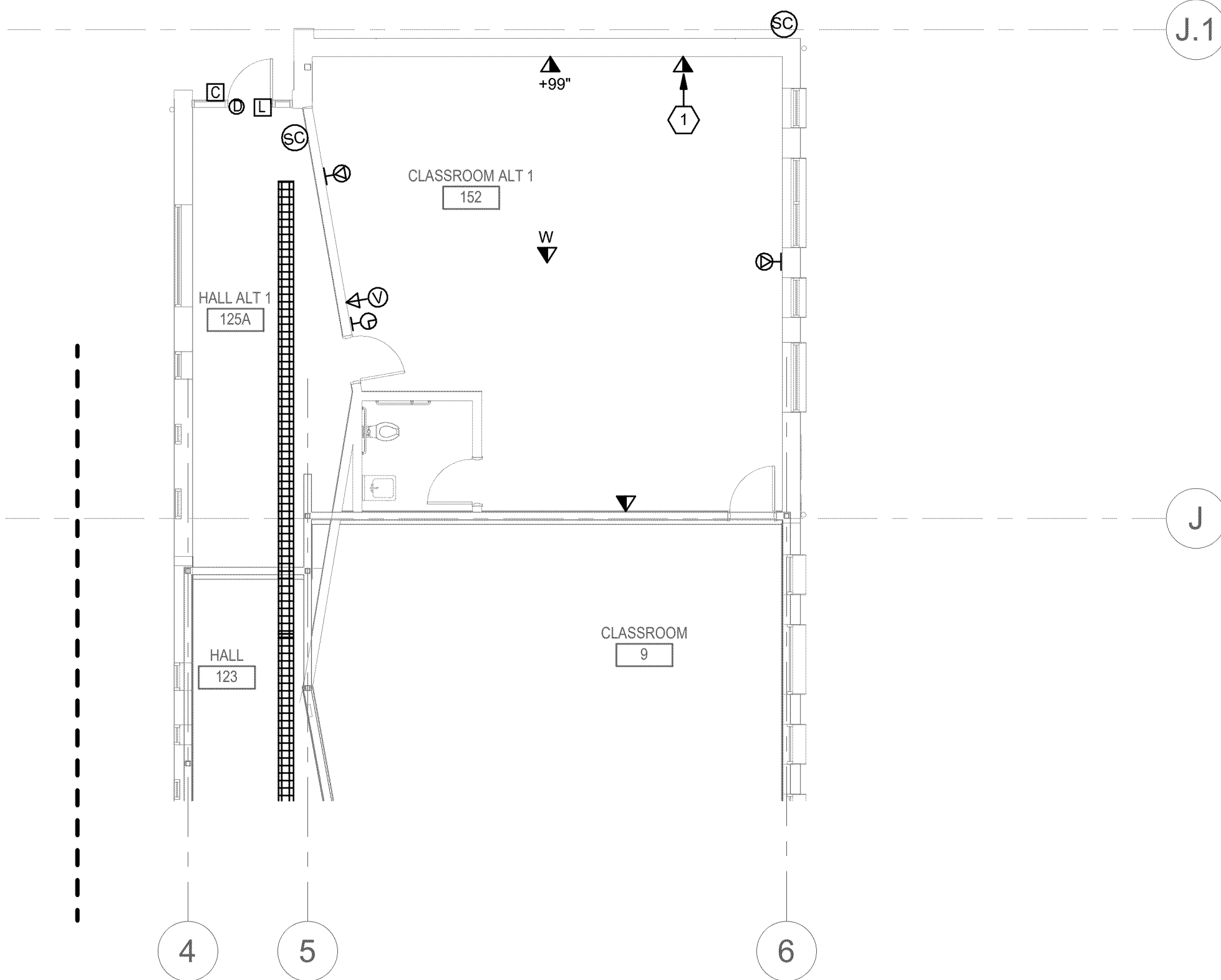
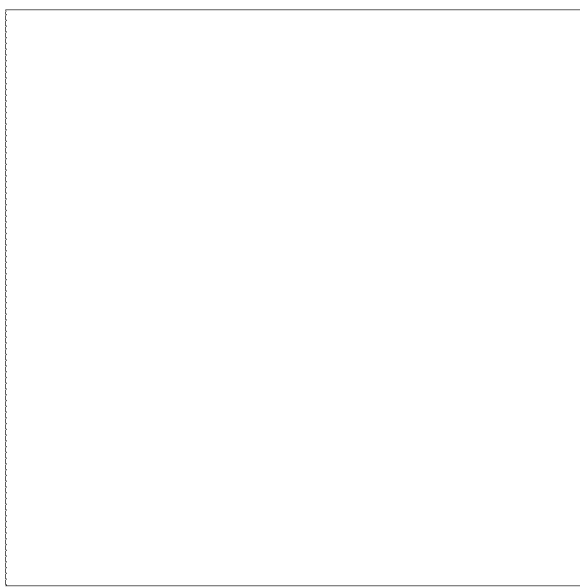


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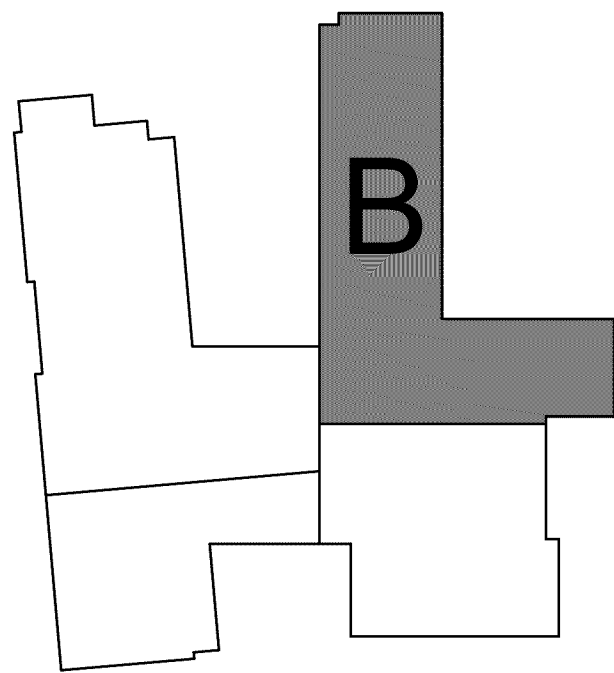
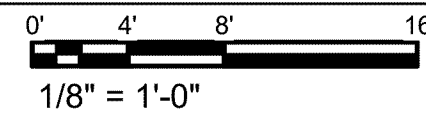


## SHEET KEYNOTES

- TELECOM OUTLET FOR FRONT ROW SYSTEM.  
LOCATE IN WALL MOUNT BOX; RE: 1/T-701



## 2 LEVEL 1 ALT. FLOOR PLAN SECTOR B - TECHNOLOGY



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# T-101B

Scale 1/8" = 1'-0"



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PLAN SECTOR B  
- TECHNOLOGY**

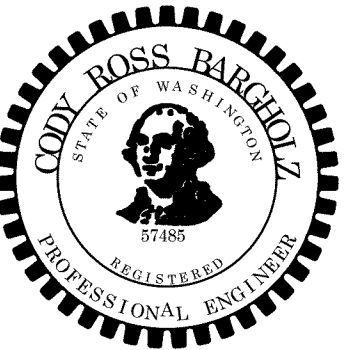
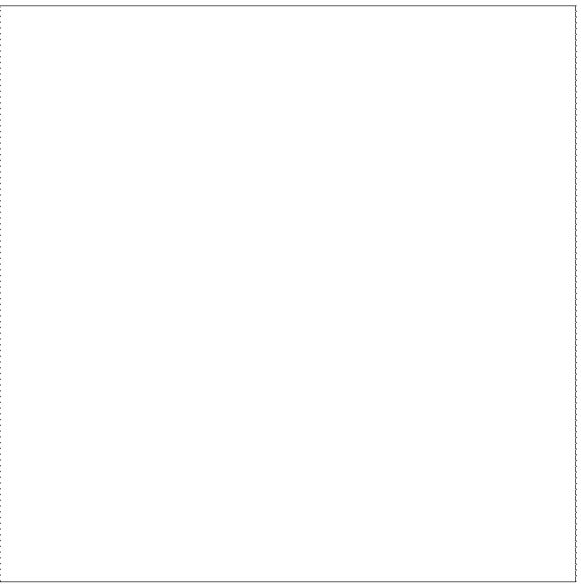
**LSW**  
ARCHITECTS

LSW Architects, PC  
610 Esther St., Suite 200  
Vancouver, WA 98660  
360.694.8571  
LSW-Architects.com



SHEET KEYNOTES

1. TELECOM OUTLET FOR FRONT ROW SYSTEM.  
LOCATE IN WALL MOUNT BOX; RE: 1/T-701



drawn by  
**Author**  
checked by  
**Checker**

lsw job number  
**2018-0029**

**FIR GROVE CHILDREN'S CENTER  
VANCOUVER PUBLIC SCHOOLS  
3200 E 18TH ST  
VANCOUVER, WA, 98661**

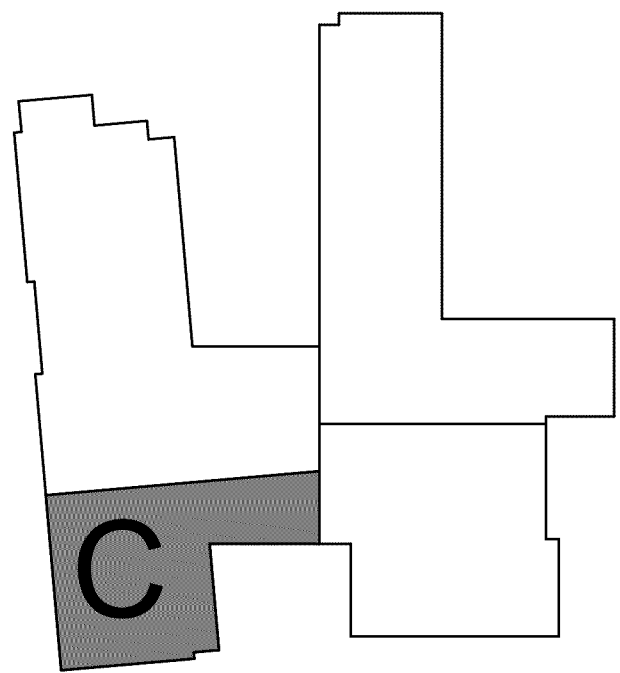
issue date  
**10/15/2019**

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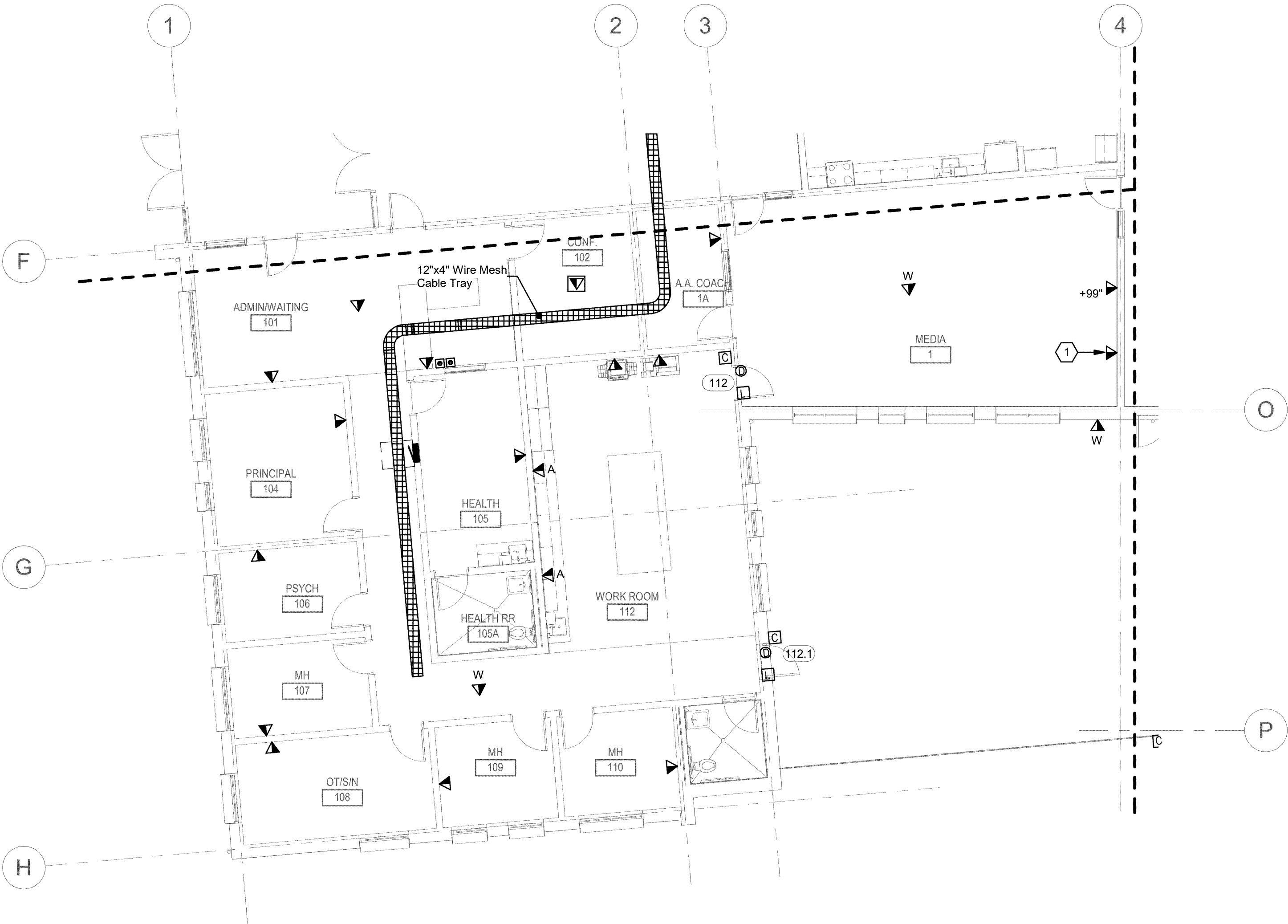
**LEVEL 1 FLOOR  
PLAN SECTOR C  
- TECHNOLOGY**



PROJECT 2019-0017  
CONTACT Darcy Tucker  
100 SW Main Street, Suite 1600  
Portland, OR 97204  
TEL 503.382.2266  
www.interfaceengineering.com

**T-101C**

Scale 1/8" = 1'-0"



**1 LEVEL 1 FLOOR PLAN SECTOR C - TECHNOLOGY**

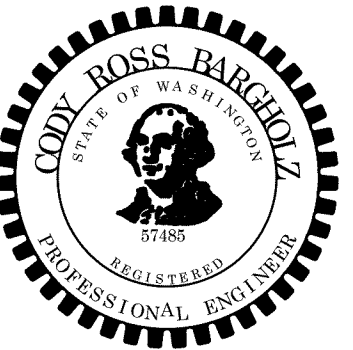
0' 4' 8' 16'  
1/8" = 1'-0"



10/9/19 2:40:35 PM

**SHEET KEYNOTES**

1. TELECOM OUTLET FOR FRONT ROW SYSTEM.  
LOCATE IN WALL MOUNT BOX; RE: 1/T-701



drawn by  
**Author**  
checked by  
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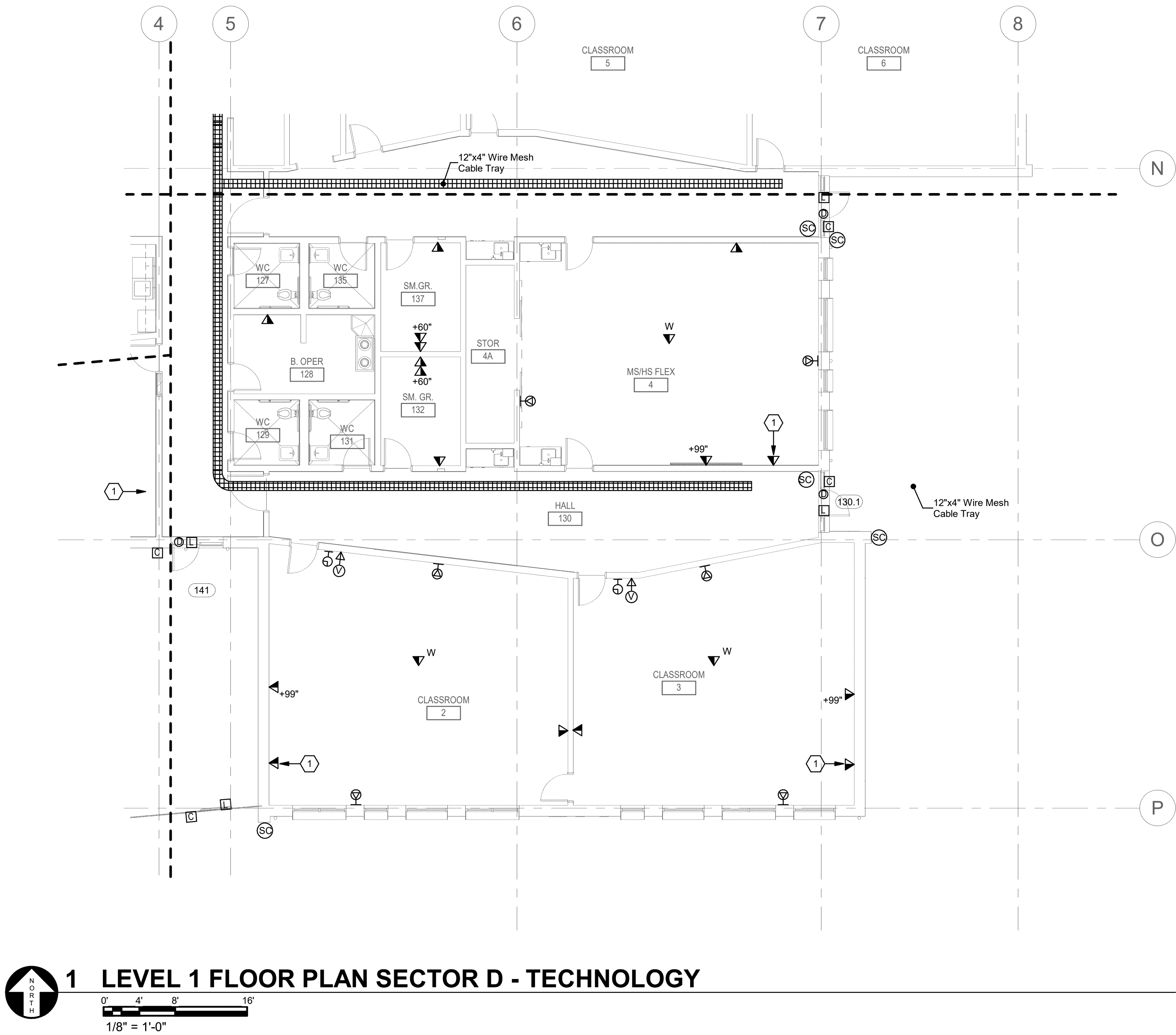
**LEVEL 1 FLOOR  
PLAN SECTOR D -  
TECHNOLOGY**



PROJECT 2019-0017  
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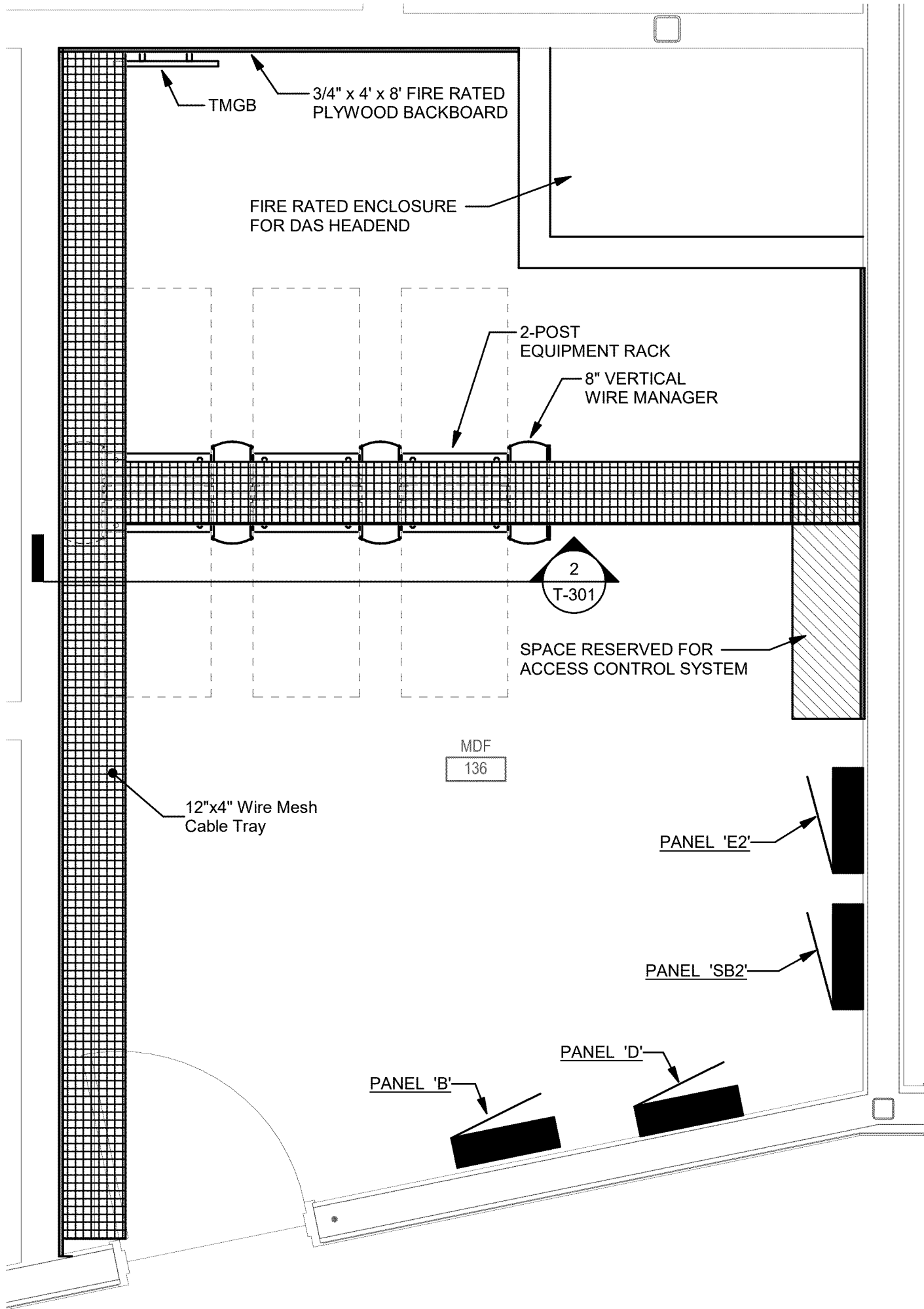
**T-101D**

Scale 1/8" = 1'-0"

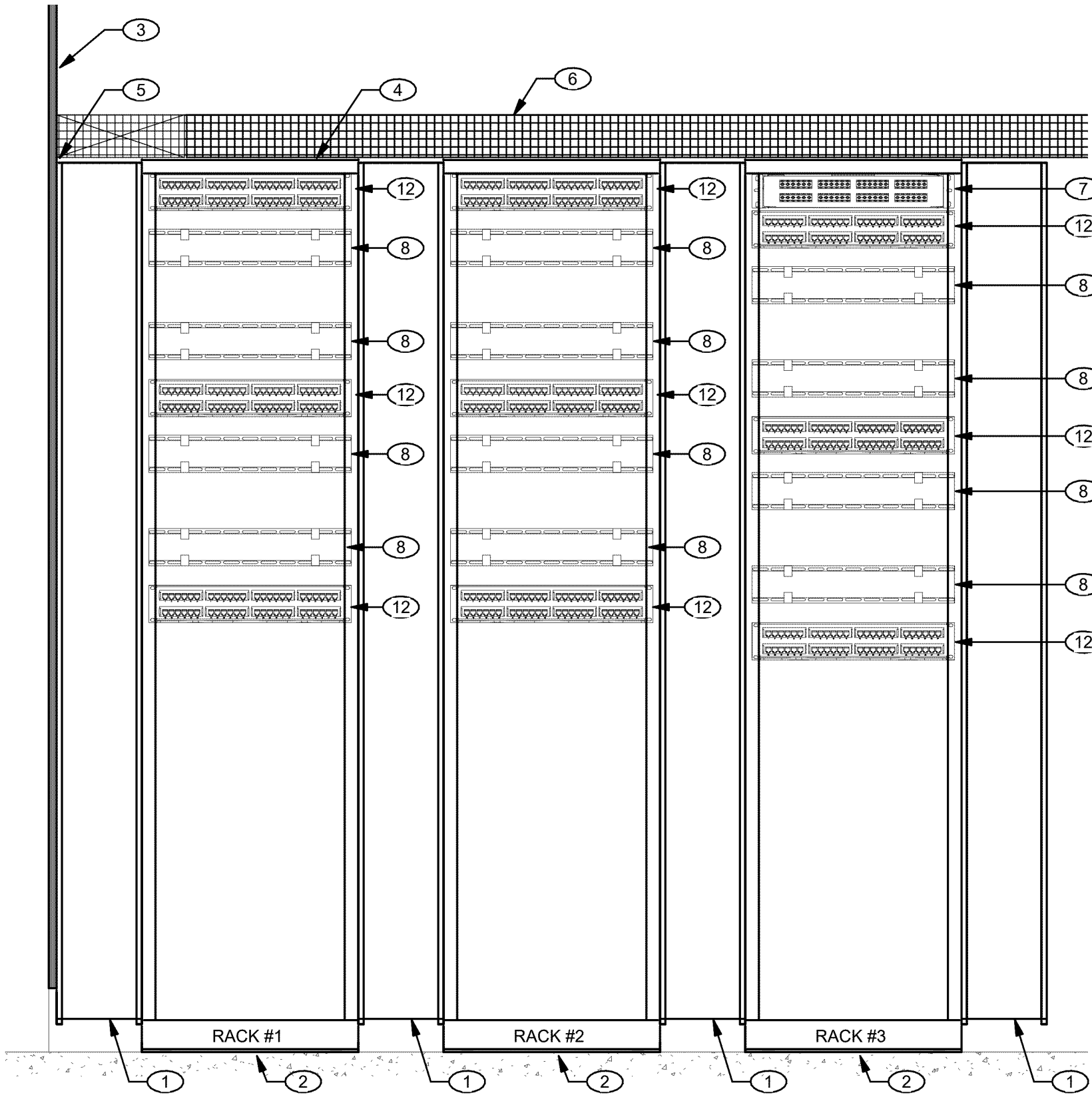


**1 LEVEL 1 FLOOR PLAN SECTOR D - TECHNOLOGY**





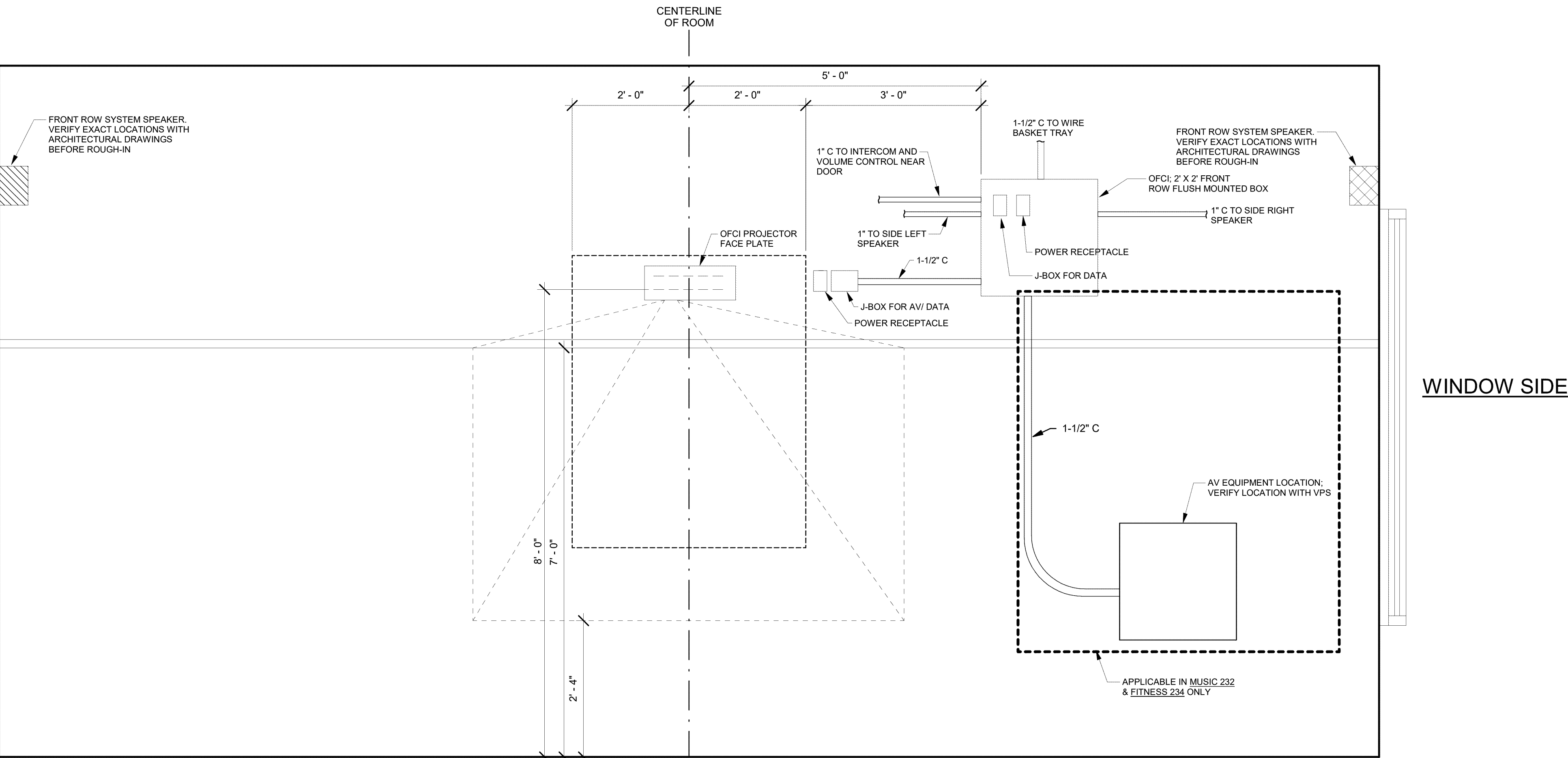
1 ENLARGED PLAN MECH/ELEC 136



2 MDF 136 EQUIPMENT ELEVATION

EQUIPMENT SCHEDULE		
Equipment ID	Description	Notes
1	19" Wide x 84" High, 29" Deep, 2 Post Equipment Rack, UL Listed, Black Finish	
2	6" Wide x 84" High Double Sided Vertical Cable Manager, Black Finish	
3	Rack Radius Drop	
4	4' x 8' x 3/4" ACX Fire Retardent backboard	
5	Wall Angle Support Kit	
6	UL Classified 12" Cable Runway	
7	2U Fiber Distribution Unit	
8	48 Port, Category 6 Patch Panel	
9	1U Horizontal Cable Manager	
10	2U Horizontal Cable Manager	
11	48 Port, Category 6A Patch Panel	





- NOTES THIS DETAIL:
1. THE FRONT ROW SYSTEM IS OFCL
  2. THE WALL MOUNT PROJECTOR IS OFCL
  3. REFER TO FLOOR PLANS FOR DEVICE LOCATIONS.
  4. TELECOM, POWER, BACKBOXES AND CONDUIT PATHWAYS ARE OFCL

1 TYPICAL TEACHING WALL AV ELEVATION

3/4" = 1'-0"

