





MID. POINT OF ROOF

9'-1 1/8"

1'-8 3/4"

9'-1 1/8"

34'-9 11/16"

1'-8 3/4"

9'-1 1/8"

9'-1 1/8"

ROYAL ESTATE HORIZONTAL VINYL SIDING. COLOR: WHITE

VINYL SOFFIT AND FASCIA. COLOR: RIVERWAY

'GAF TIMBERLINE' ASPHALT SHINGLES. COLOR: NATURAL SHADOW CHARCOAL

ROYAL ESTATE CEDAR SHAKE LOOK HORIZONTAL VINYL SIDING. COLOR: WHITE

VINYL TRIM. COLOR: RIVERWAY

ROYAL ESTATE HORIZONTAL VINYL SIDING. COLOR: WHITE

VINYL SOFFIT AND FASCIA. COLOR: RIVERWAY

ROYAL ESTATE HORIZONTAL VINYL SIDING. COLOR: WHITE

**OPAQUE THERMAL ENVELOPE REQUIREMENTS PER 2020 MN ENERGY CODE**  
[PER TABLE R402.1.1 - INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT]

OPAQUE ELEMENTS	REQUIRED VALUES	PROPOSED VALUES
ROOF - ATTIC:	R-49	R-49
WALLS, ABOVE GRADE - WOOD FRAMED:	R-20	R-20
WALLS, BELOW GRADE - POURED CONCRETE:	R-10	R-1.5 + R-5 = R-12.5
FLOOR - TRUSS/FRAMING:	R-20	R-20 + R-1.5 = R-21.5
FLOOR - TRUSS/FRAMING OVER GARAGE:	R-30	R-49
FLOOR - TRUSS/FRAMING AT CANTILEVER:	R-30	R-49
VERTICAL FENESTRATION - FIXED:	MAXIMUM U-0.32 U-FACTOR	MAXIMUM U-0.30 U-FACTOR
VERTICAL FENESTRATION - OPERABLE:	MAXIMUM U-0.32 U-FACTOR	MAXIMUM U-0.30 U-FACTOR
VERTICAL FENESTRATION - ENTRANCE DOORS:	MAXIMUM U-0.32 U-FACTOR	MAXIMUM U-0.30 U-FACTOR

NOTE: PROPOSED VALUES MEET OR EXCEED REQUIRED VALUES FROM TABLE R402.1.1 AND OPAQUE THERMAL ENVELOPE REQUIREMENTS PER 2020 MN ENERGY CODE.

**FRONT ELEVATION**

SCALE 1/4" = 1'-0"

**GENERAL STRUCTURAL NOTE:**

SEE SUPPLEMENTAL STRUCTURAL SHEETS S1 AND N1.O FOR CONTINUOUSLY SHEATHED PORTAL FRAME PANELS ON EACH SIDE OF GARAGE DOORS AND STRUCTURAL NOTES TO APPLY TO ENTIRE BUILDING CONSTRUCTION.

**ATTIC VENTILATION NOTE:**

144 SQ.FT. OF ATTIC PER UNIT

PROVIDE 144 SQ.FT./300 + 2.5 SQ.FT. OF ATTIC VENTILATION FOR EACH UNIT IN ROOF WITHIN THREE FEET OF RIDGE MEASURED VERTICALLY IN ACCORDANCE WITH SECTION R806, 2020 MN RESIDENTIAL CODE

PROVIDE 144 SQ.FT./300 + 2.5 SQ.FT. OF ATTIC VENTILATION FOR EACH UNIT IN OVERHANG SOFFIT IN ACCORDANCE WITH SECTION R806, 2020 MN RESIDENTIAL CODE

**CODE SUMMARY**

**SCOPE OF WORK:** NEW 4-UNIT THREE STORY TOWNHOME BUILDING

**APPLICABLE CODES:** 2020 MINNESOTA RESIDENTIAL BUILDING CODE  
MN RULES, CHAPTER 1346, MINNESOTA MECHANICAL CODE  
MN RULES, CHAPTER 4714, MINNESOTA PLUMBING CODE  
2020 MINNESOTA ELECTRIC CODE

**OCCUPANCY TYPE:** IRC-3 (2020 MN RESIDENTIAL BUILDING CODE SECTION R300)

**FIRE SEPARATION:** TOWNHOUSE DOUBLE WALL BETWEEN UNITS PER 2020 MINNESOTA RESIDENTIAL CODE SECTION R302.2, AND IN ACCORDANCE WITH UL 263 FIRE WALL ASSEMBLY, POURED CONCRETE WALL BETWEEN UNITS ON FIRST FLOOR.

**SMOKE AND CO2 PROTECTION:** SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS TO BE INSTALLED AND COMPLY WITH SECTIONS 314 AND 315 OF THE 2020 MINNESOTA BUILDING CODE

**NUMBER OF EXITS REQUIRED:** 1 PER UNIT PER MN RESIDENTIAL BUILDING CODE SECTION R311

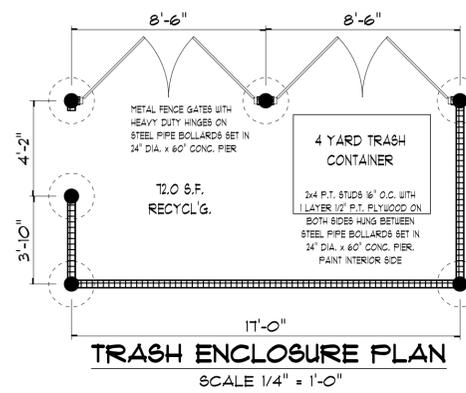
**PLUMBING FIXTURES- (2020 MN RESIDENTIAL PLUMBING CODE)**

REQUIRED PLUMBING FIXTURES PER UNIT:  
1 WATER CLOSET  
1 LAV  
1 KITCHEN SINK  
1 BATHUB OR 1 SHOWER  
PLUMBING FIXTURES PROVIDED:  
3 WATER CLOSETS  
3 LAVS  
3 KITCHEN SINKS  
1 BATHUB AND 2 SHOWERS  
1 LAUNDRY SINK AND WASHER HOOK-UP

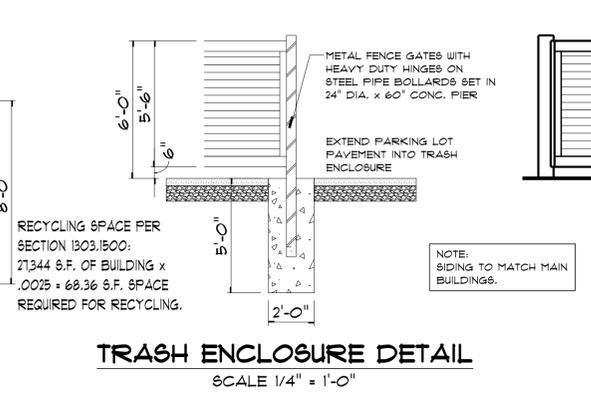
**AUTOMATIC SPRINKLER:** NEW INSTALLED THROUGHOUT PER NFPA 13D AND 2020 MN RESIDENTIAL BUILDING CODE SECTION 7804

**GENERAL NOTES**

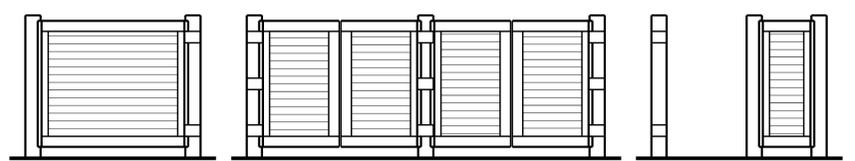
1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND EXISTING BUILDING CONDITIONS.
2. SIMILAR MATERIALS INDICATED ON DIFFERENT PLANS, SECTIONS, AND DETAILS, AND ANNOTATED ON ONE OR MORE PLAN, SECTION OR DETAIL SHALL BE CONSIDERED ANNOTATED, NOTED OR LABELED COMPLETELY ON ALL PLANS, SECTION AND DETAILS.
3. IN THE CASE OF AMBIGUITIES, DISCREPANCIES OR IRREGULARITIES IN THE DRAWINGS, SPECIFICATIONS, MANUFACTURING INSTRUCTIONS, SITE CONDITIONS OR APPLICABLE CODES AND STANDARDS, REQUEST CLARIFICATION FROM THE ARCHITECT OR ENGINEER BEFORE PROCEEDING. THE COST OF CORRECTING WORK DONE AS A RESULT OF PROCEEDING WITHOUT OBTAINING CLARIFICATION WILL BE BORNE SOLELY BY THE CONTRACTOR.
4. THE CONTRACTOR AND/OR OWNER MUST VERIFY AND CHECK ALL NOTES, FLOOR PLANS, ELEVATIONS, SECTIONS AND DETAILS AND NOTIFY THE ARCHITECT OF ANY ERRORS OR OMISSIONS FOR POSSIBLE CORRECTION PRIOR TO THE START OF CONSTRUCTION.
5. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE BUILDING CODES AND ORDINANCES. CONTRACTOR TO VERIFY CODES AND BE RESPONSIBLE FOR SAME.
6. SEE CONSTRUCTION DOCUMENTS FOR ADDITIONAL INFORMATION.
7. MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER DRAWINGS TO BE PROVIDED BY THE CONTRACTORS PROVIDING THOSE SERVICES. THESE CONTRACTORS AND THE GENERAL CONTRACTOR TO BE RESPONSIBLE FOR VERIFYING THEIR REQUIREMENTS WORK WITH THE ARCHITECTURAL AND STRUCTURAL PLANS.



**TRASH ENCLOSURE PLAN**  
SCALE 1/4" = 1'-0"



**TRASH ENCLOSURE DETAIL**  
SCALE 1/4" = 1'-0"



**TRASH ENCLOSURE ELEVATIONS**  
SCALE 1/4" = 1'-0"

**SHEET INDEX**

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A8	CROSS AND WALL SECTIONS

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11th Avenue East Maplewood



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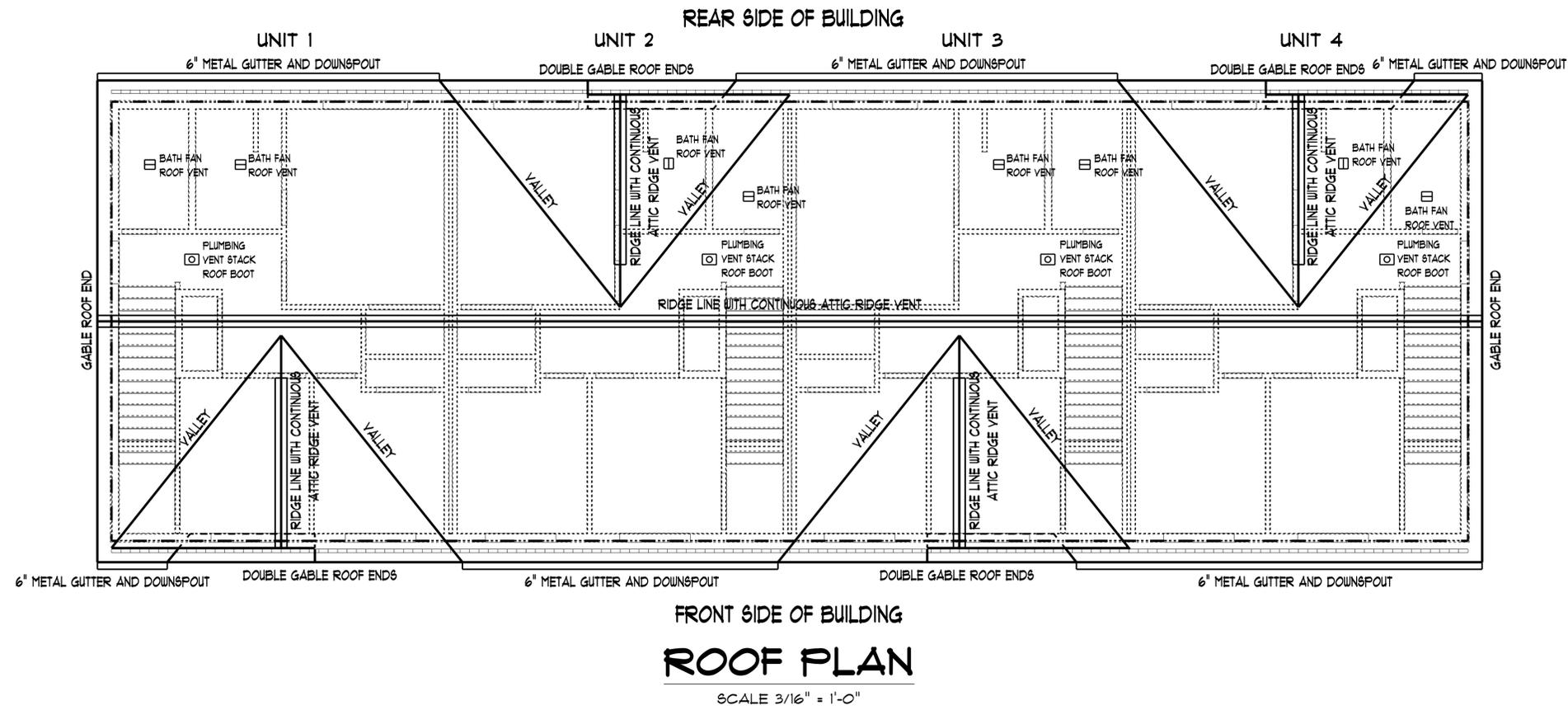
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**A1**

A1 OF 8





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Plan Date  
**PRE-FINAL 3-21-23**

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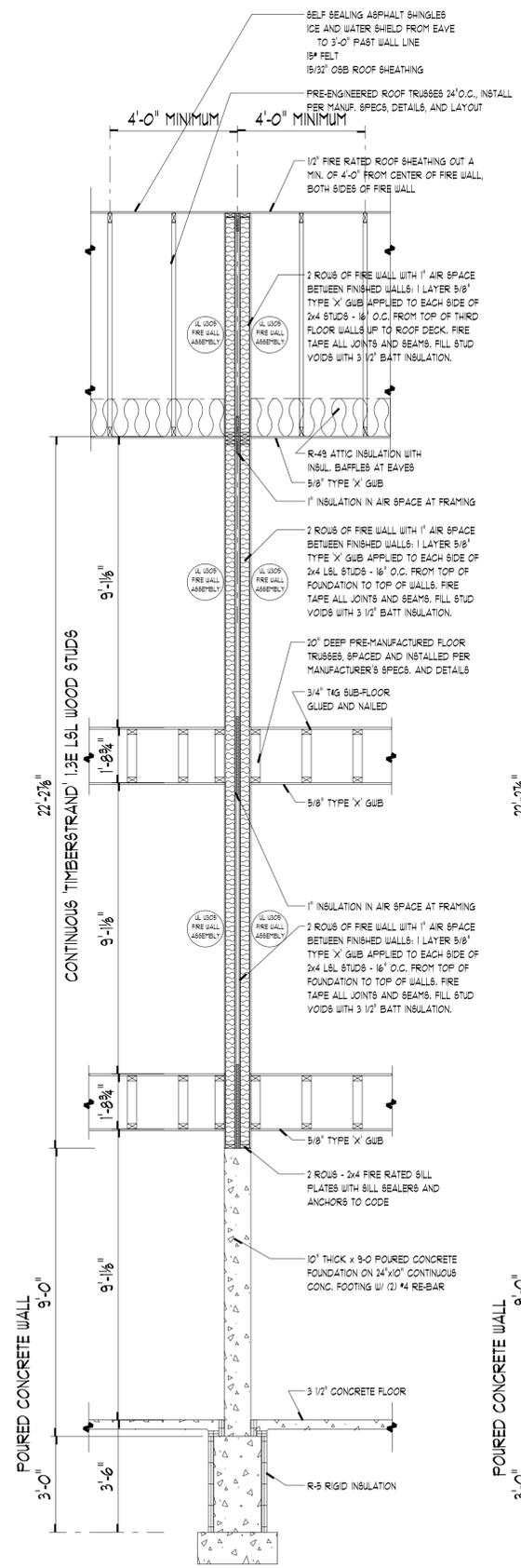
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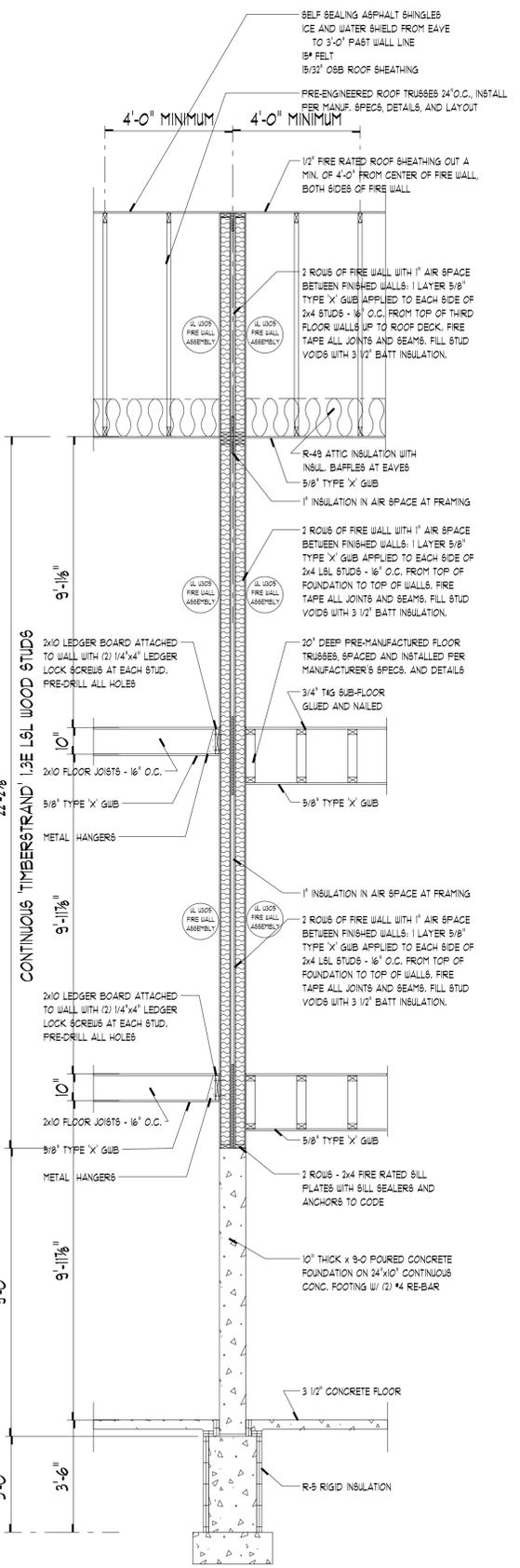
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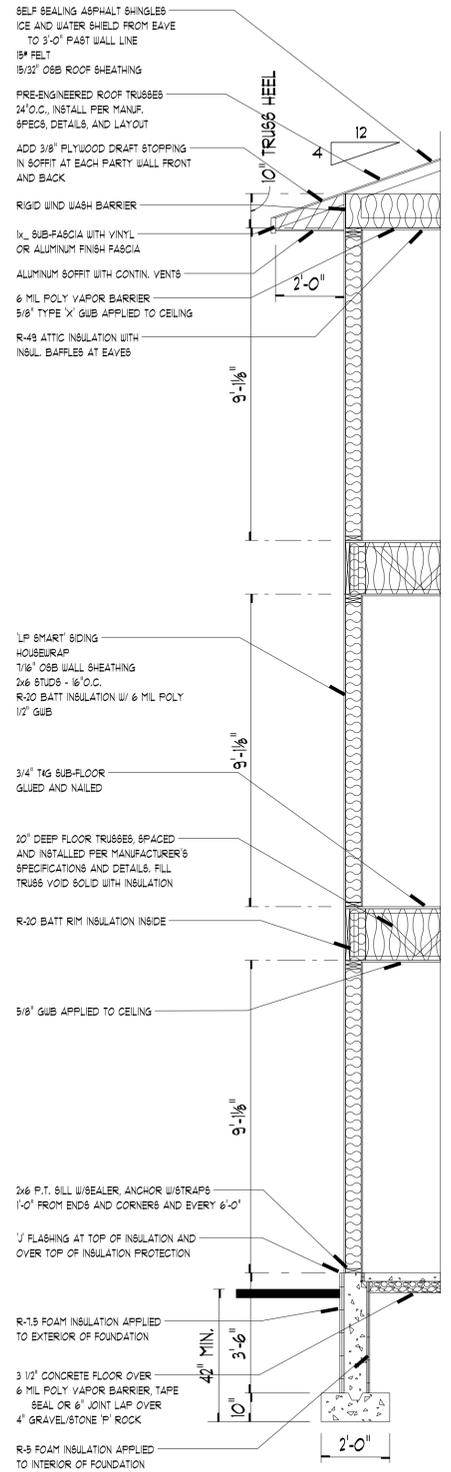
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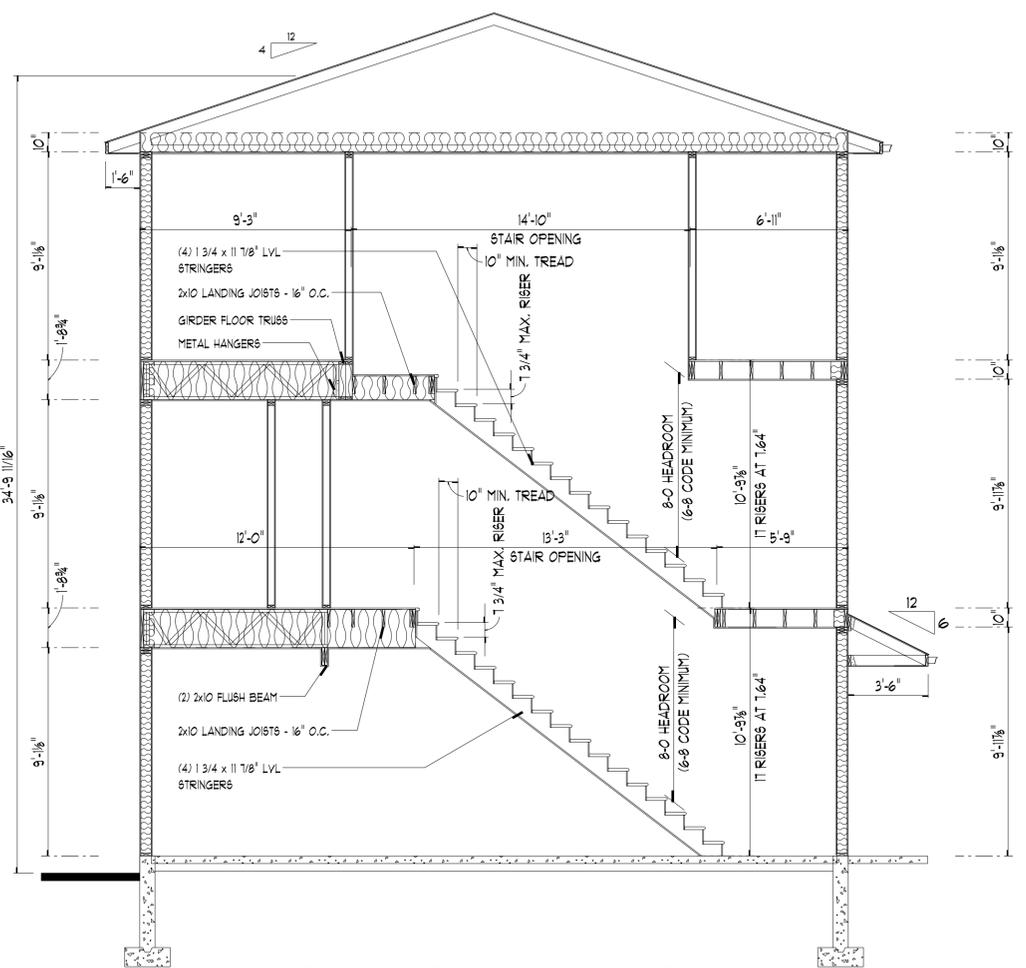
**PARTY WALL SECTION**  
SCALE 3/8" = 1'-0"



**PARTY WALL SECTION at STAIRS**  
SCALE 3/8" = 1'-0"



**TYPICAL WALL SECTION**  
SCALE 3/8" = 1'-0"



**CROSS SECTION AT STAIRS**  
SCALE 1/4" = 1'-0"

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**A8**  
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