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NILAMPRAJ (RAJ) PATEL 100621

NAME SIGNATURE BCIN

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RPDS 111189

FIRM NAME BCIN

**RPDS**  
**INTEGRATED DESIGN FIRM**  
 7895 Tranmere Dr., Suite 203, Mississauga ON, L5S1V9  
 Email: contact@rpdstudio.ca  
 Phone: 647-556-2596

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2	Reissued For Review	2022/11/25
1	Issued For Review	2022/11/04
No.:	Issued For:	Date:

Client Name:

Drawing Title:

COVER SHEET

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:

Drawn by:

DA/MJ

Checked by:

RP

Project No.:

Date:

2022/10/21

Drawing No.:

A00



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(ARTISTIC EXPRESSION VIEW)

SB-12 ENERGY EFFICIENCY DESIGN MATRIX		
PERFORMANCE COMPLIANCE	SPACE HEATING FUEL	
	<input checked="" type="checkbox"/> GAS	<input type="checkbox"/> OIL
	<input type="checkbox"/> ELECTRIC	<input type="checkbox"/> PROPANE
	<input type="checkbox"/> EARTH	<input type="checkbox"/> SOLID FUEL
BUILDING COMPONENT	REQUIRED	PROPOSED
INSULATION RSI (R) VALUE		
CEILING W/ ATTIC SPACE	10.56 (R60)	10.56 (R60)
CEILING W/O ATTIC SPACE	5.46 (R31)	5.46 (R31)
EXPOSED FLOOR	5.46 (R31)	5.46 (R31)
WALLS ABOVE GRADE	3.87 (R22)	3.87 (R22)
BASEMENT WALLS	3.52 ci (R20 ci)	3.52 ci (R20 ci)
BELOW GRADE SLAB ENTIRE SURFACE >600mm BELOW GRADE	-	-
EDGE OF BELOW GRADE SLAB < 600mm BELOW GRADE	1.76 (R10)	1.76 (R10)
HEATED SLAB < 600mm BELOW GRADE	1.76 (R10)	1.76 (R10)
WINDOWS & DOORS		
WINDOWS SLIDING GLASS DOORS (MAX U-VALUE / MIN. ER)	1.6	1.6
SKYLIGHTS (MAX. U-VALUE)	2.8	2.8
APPLIANCE EFFICIENCY		
SPACE HEATING EQUIP. (AFUE%)	96%	96%
HRV. EFFICIENCY (%)	75%	75%
DHW HEATER (EF)	0.80	0.80



**BILD**



PLEASE REFER TO GRADING PLAN FOR GRADING ELEVATIONS.

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NILAMRAJ (RAJ) PATEL 100621  
 NAME SIGNATURE BCIN  
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 1 Issued For Review 2022/11/04  
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Drawing Title:

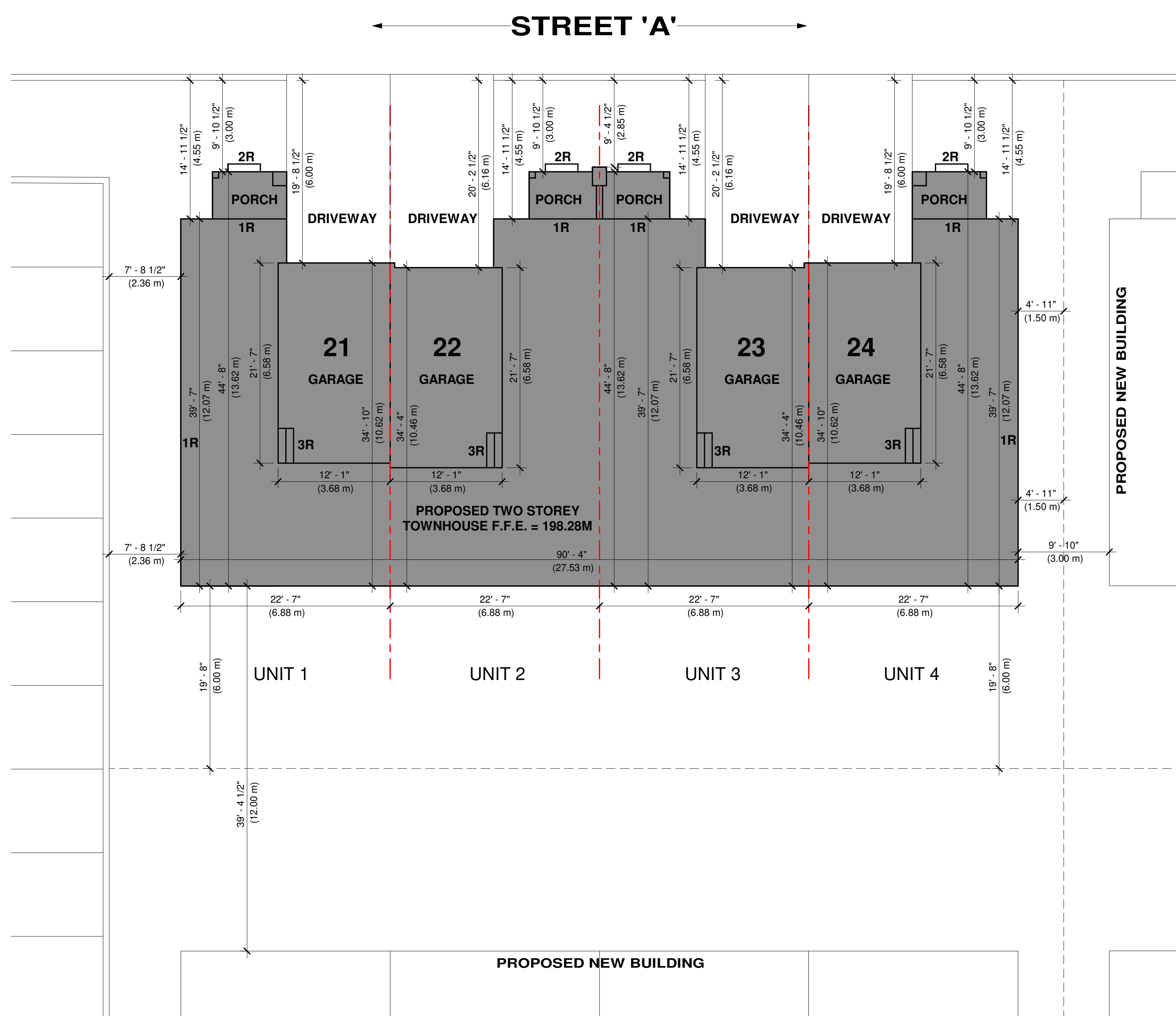
ENLARGED SITE PLAN

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:  
 Drawn by: DA/MJ  
 Checked by: RP  
 Project No.:  
 Date: 2022/10/21  
 Drawing No.: **A02**



**198.28M. = +/- 0'-0" F.F.L.**  
 198.28 METER REFERS TO +/- 0'-0" OF FINISHED MAIN FLOOR LEVEL OF THE HOUSE, REFER GRADING PLAN FOR GRADING LEVELS

SITE BASE INFORMATION TAKEN FROM LOT GRADING PLAN DATED 2022-08-29 AND SITE PLAN DATED 2022-07-04 BY UPPER CANADA CONSULTANTS.  
 LOCATION LOT 21-24  
 CITY OF NIAGARA FALLS

SITE DATA		
FRONT SET BACK	4.55 M	14'-11 1/2"
REAR SET BACK	6.00 M	19'-8"
RIGHT SIDE SET BACK	2.36 M	7'-8 1/2"
LEFT SIDE SET BACK	1.50 M	4'-11"
HEIGHT OF BUILDING	8.47 M	27'-9 1/2"

FLOOR AREA		
UNIT 1 & 4 (LOT - 21 & 24)		
FIRST FLOOR	51.68 SQM	556.30 SQFT
SECOND FLOOR	76.36 SQM	821.90 SQFT
<b>TOTAL AREA</b>	<b>128.04 SQM</b>	<b>1378.20 SQFT</b>
<b>TOTAL AREA (TWO UNIT)</b>	<b>256.08 SQM</b>	<b>2756.40 SQFT</b>
UNIT 2 & 3 (LOT - 22 & 23)		
FIRST FLOOR	55.70 SQM	599.50 SQFT
SECOND FLOOR	77.26 SQM	831.64 SQFT
<b>TOTAL AREA</b>	<b>132.96 SQM</b>	<b>1431.24 SQFT</b>
<b>TOTAL AREA (TWO UNIT)</b>	<b>265.92 SQM</b>	<b>2862.48 SQFT</b>
<b>GRAND TOTAL</b>	<b>522.00 SQM</b>	<b>5618.86 SQFT</b>



COLUMN/POST	
COLUMN TYPE	COLUMN SIZE
C1	HSC 102DIA.X6.4 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
C2	HSS 102X102X4.8 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
C3	HSS 127X127X4.8(5"X5"X3/16") (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
P1	6X6 S-P-F NO.2
P2	2-2X6 S-P-F
P3	3-2X6 S-P-F
P4	4-2X6 S-P-F
P5	4-2X4 S-P-F

FOOTING	
FOOTING TYPE	FOOTING SIZE
F1	48"X48"X10" c/w 5-10M BARS EA WAY BOTTOM
SF1	20"X6" STRIP FTG.
SF2	22"X6" STRIP FTG.
SF3	24"X6" STRIP FTG.
SF4	22"X8" STRIP FTG.

BASE PLATE SCHEDULE	
BASE PLATE TYPE	LOCATION
9"X5"X3/8" c/w 2-5/8" ANCHORS	C1(FOUNDATION WALL)
8"X8"X1/2" c/w 2-5/8" ANCHORS	C1(FOOTING PAD)

MAX. ALLOWED SPAN OF 2X10 FLOOR JOISTS AS PER OBC TABLE A-1 (WITH STRAPPING & BRIDGING)		
JOIST SPACING	MAXIMUM SPAN	
2X10 @ 16" O.C.	14'-0"	
2X10 @ 12" O.C.	15'-0"	

AS PER OBC TABLE A-2 (WITHOUT STRAPPING & BRIDGING)		
JOIST SPACING	MAXIMUM SPAN	
2X10 @ 16" O.C.	13'-0"	
2X10 @ 12" O.C.	13'-8"	

NOTE:  
 • STRIP FOOTING UNDER LOAD BEARING WALLS MUST HAVE A 6" PROJECTION ON EACH SIDE, AND 8" OR 10" THICK AND 20 MPa POURED CONC. W/ CONT. KEY TO BEAR ON UNDISTURBED SOIL W/ BEARING CAPACITY 150 kPa (3000 psf) MIN - TYPICAL.  
 • ALL FOOTING TO BEAR ON UNDISTURBED SOIL, ROCK OR ENGINEERED FILL CERTIFIED BY SOIL ENGINEER.  
 • MIN. SOIL BEARING CAPACITY = SLS 150 kPa (3000 psf) & TO BE VERIFIED BY SOIL ENGINEER PRIOR TO POURING THE FOOTING  
 (\*) - SPECIFICATIONS PROVIDED BY MANUFACTURER

STRUCTURAL NOTE:  
 STRUCTURE ENGINEER TAKES RESPONSIBILITY FOR ALL STRUCTURAL DESIGN INCLUDING BUT NOT LIMITED TO CONCRETE, FOUNDATION, FOOTING, BEAM, LINTEL, COLUMN, AND OTHER STRUCTURAL DETAILS/DESIGN REFER TO ADDITIONAL DETAILS ON ENGINEERING DETAIL SEE STRUCTURAL SHEET

FOR SUPPLIER:  
 SUPPLIER TAKES RESPONSIBILITY FOR FRAMING OF ALL ENGINEERED LUMBER PRODUCTS INCLUDING FLOOR JOIST, TRUSSES, PRE-ENG. LVL, BEAM AND LINTEL (IF DIFFERENT FROM THE PROPOSED SIZE) AND WILL PROVIDE APPROVED LAYOUT, REVIEWED AND STAMPED BY ENGINEER.  
 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.

FOR STEEL & WOOD LINTEL SCHEDULE : SEE SHEET A10

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NILAMRAJ (RAJ) PATEL 100621

NAME SIGNATURE BCIN

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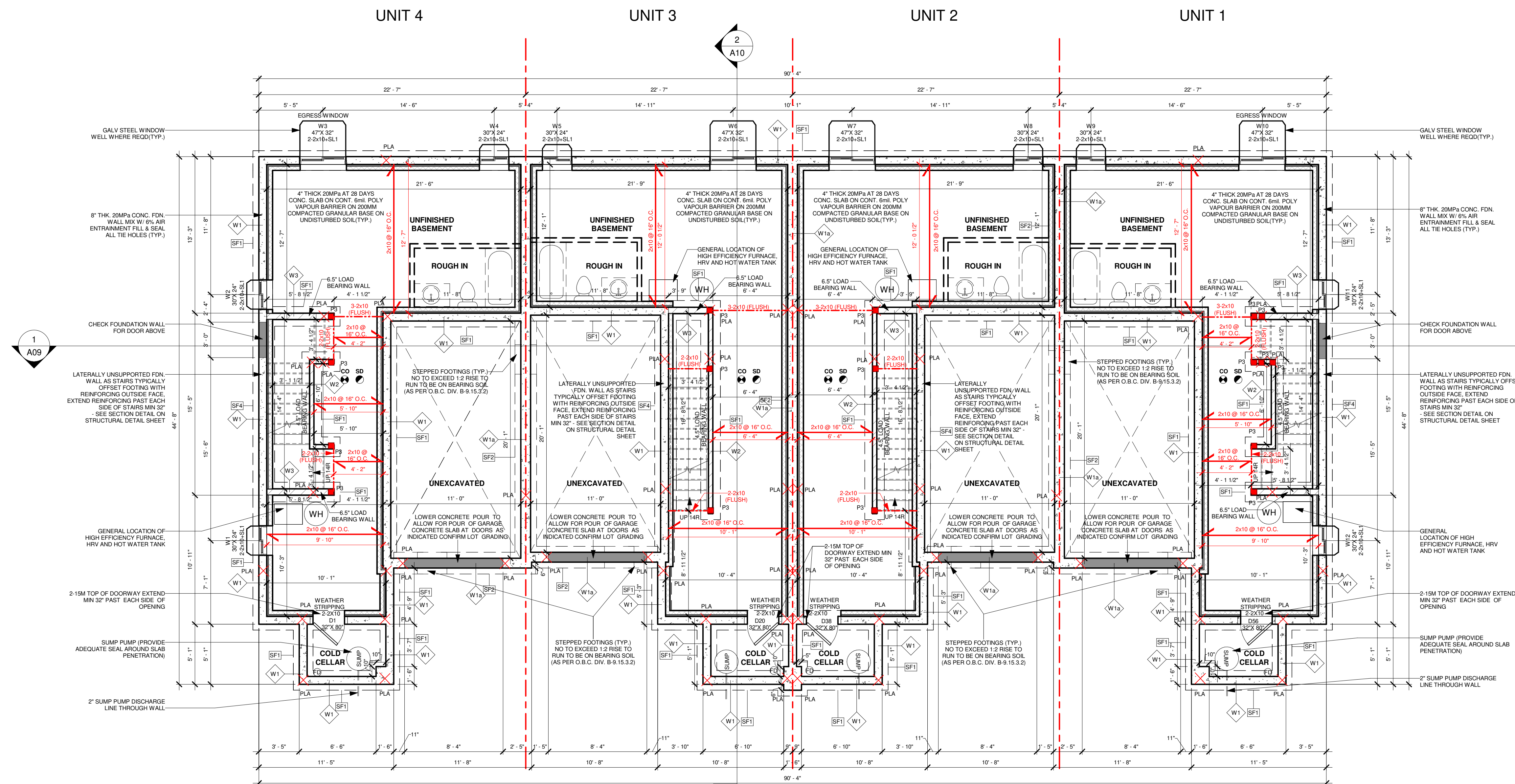
RPDS 111189

FIRM NAME SIGNATURE BCIN

**RPDS**  
 INTEGRATED DESIGN FIRM  
 7895 Trimmer Dr., Suite 203, Mississauga ON, L5S1V9  
 Email: contact@rpdstudio.ca  
 Phone: 647-556-2596

No.:	Revision:	Date:
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1 BASEMENT PLAN  
 3/16" = 1'-0"

2	Reissued For Review	2022/11/25
1	Issued For Review	2022/11/04
No.:	Issued For:	Date:

Drawing Title:

BASEMENT PLAN

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

	Scale:
	Drawn by: DA/MJ
	Checked by: RP
	Project No.:
	Date: 2022/10/21
	Drawing No.: A03



COLUMN/POST	
COLUMN TYPE	COLUMN SIZE
C1	HSC 102DIA X6.4 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
C2	HSS 102X102X4.8 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
C3	HSS 127X127X4.8 (5"X5"X3/16") (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
P1	6X6 S-P-F NO.2
P2	2-2X6 S-P-F
P3	3-2X6 S-P-F
P4	4-2X6 S-P-F
P5	4-2X4 S-P-F

**MAX. ALLOWED SPAN OF 2X10 FLOOR JOISTS AS PER OBC TABLE A-1 (WITH STRAPPING & BRIDGING)**

JOIST SPACING	MAXIMUM SPAN
2X10 @ 16" O.C.	14'-0"
2X10 @ 12" O.C.	15'-0"

**AS PER OBC TABLE A-2 (WITHOUT STRAPPING & BRIDGING)**

JOIST SPACING	MAXIMUM SPAN
2X10 @ 16" O.C.	13'-0"
2X10 @ 12" O.C.	13'-8"

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 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.

FOR STEEL & WOOD LINTEL SCHEDULE : SEE SHEET A10

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NILAMRAJ (RAJ) PATEL 100621

NAME SIGNATURE BCIN

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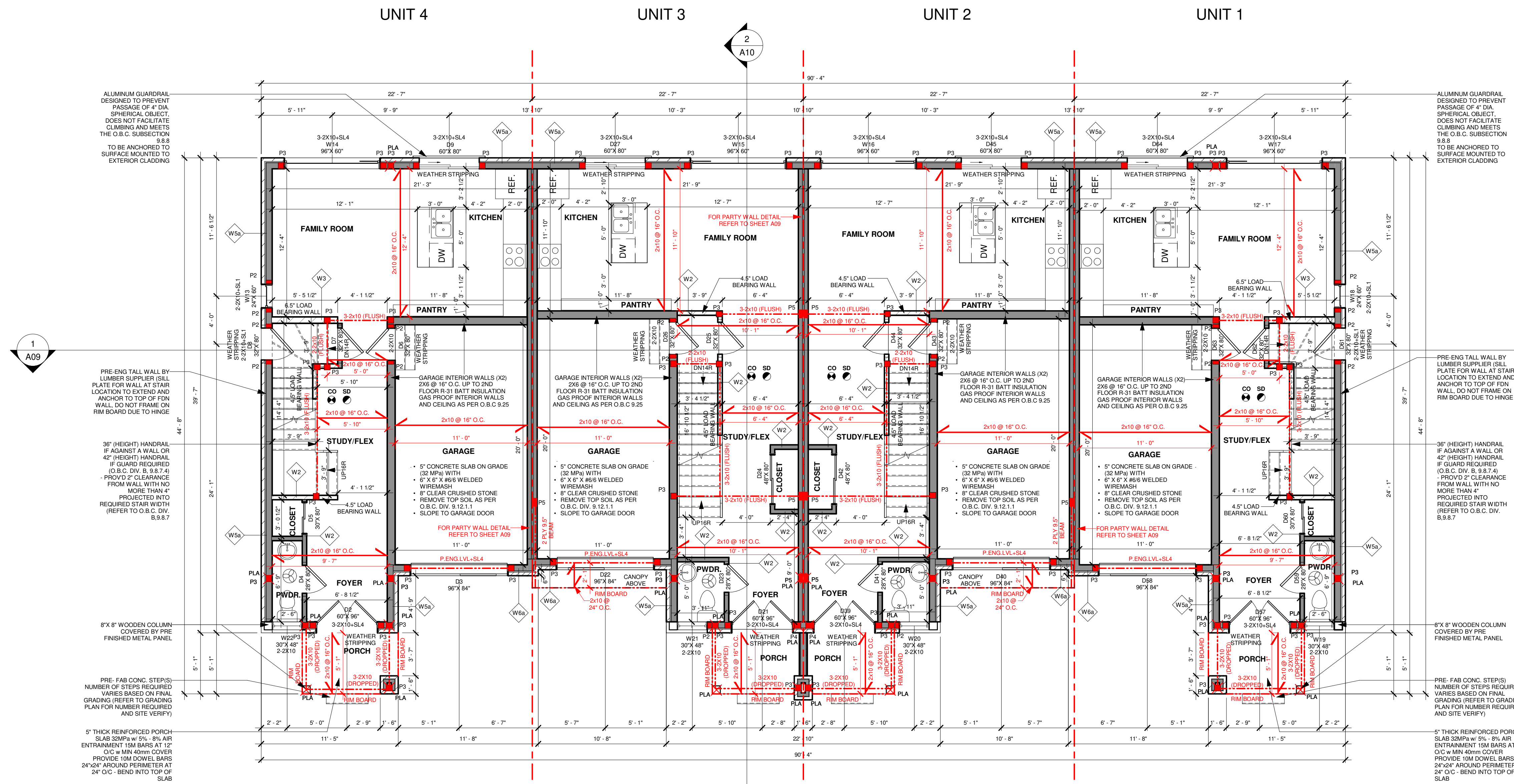
RPDS 111189

FIRM NAME BCIN

**RPDS**  
 INTEGRATED DESIGN FIRM  
 7895 Trannere Dr., Suite 203, Mississauga ON, L5S1V9  
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No.:	Issued For:	Date:

Client Name:

Drawing Title:

FIRST FLOOR PLAN

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:  
 Drawn by: DA/MJ  
 Checked by: RP  
 Project No.:  
 Date: 2022/10/21  
 Drawing No.: A04



COLUMN/POST	
COLUMN TYPE	COLUMN SIZE
C1	HSC 102DIA X6.4 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
C2	HSS 102X102X4.8 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
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P1	6X6 S-P-F NO.2
P2	2-2X6 S-P-F
P3	3-2X6 S-P-F
P4	4-2X6 S-P-F
P5	4-2X4 S-P-F

MAX. ALLOWED SPAN OF 2X10 FLOOR JOISTS AS PER OBC TABLE A-1 (WITH STRAPPING & BRIDGING)	
JOIST SPACING	MAXIMUM SPAN
2X10 @ 16" O.C.	14'-0"
2X10 @ 12" O.C.	15'-0"

AS PER OBC TABLE A-2 (WITHOUT STRAPPING & BRIDGING)	
JOIST SPACING	MAXIMUM SPAN
2X10 @ 16" O.C.	13'-0"
2X10 @ 12" O.C.	13'-8"

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 JOIST SIZES MENTIONED ON FLOOR PLAN.

FOR STEEL & WOOD LINTEL SCHEDULE: SEE SHEET A10

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NAME SIGNATURE BCIN

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Drawing Title:


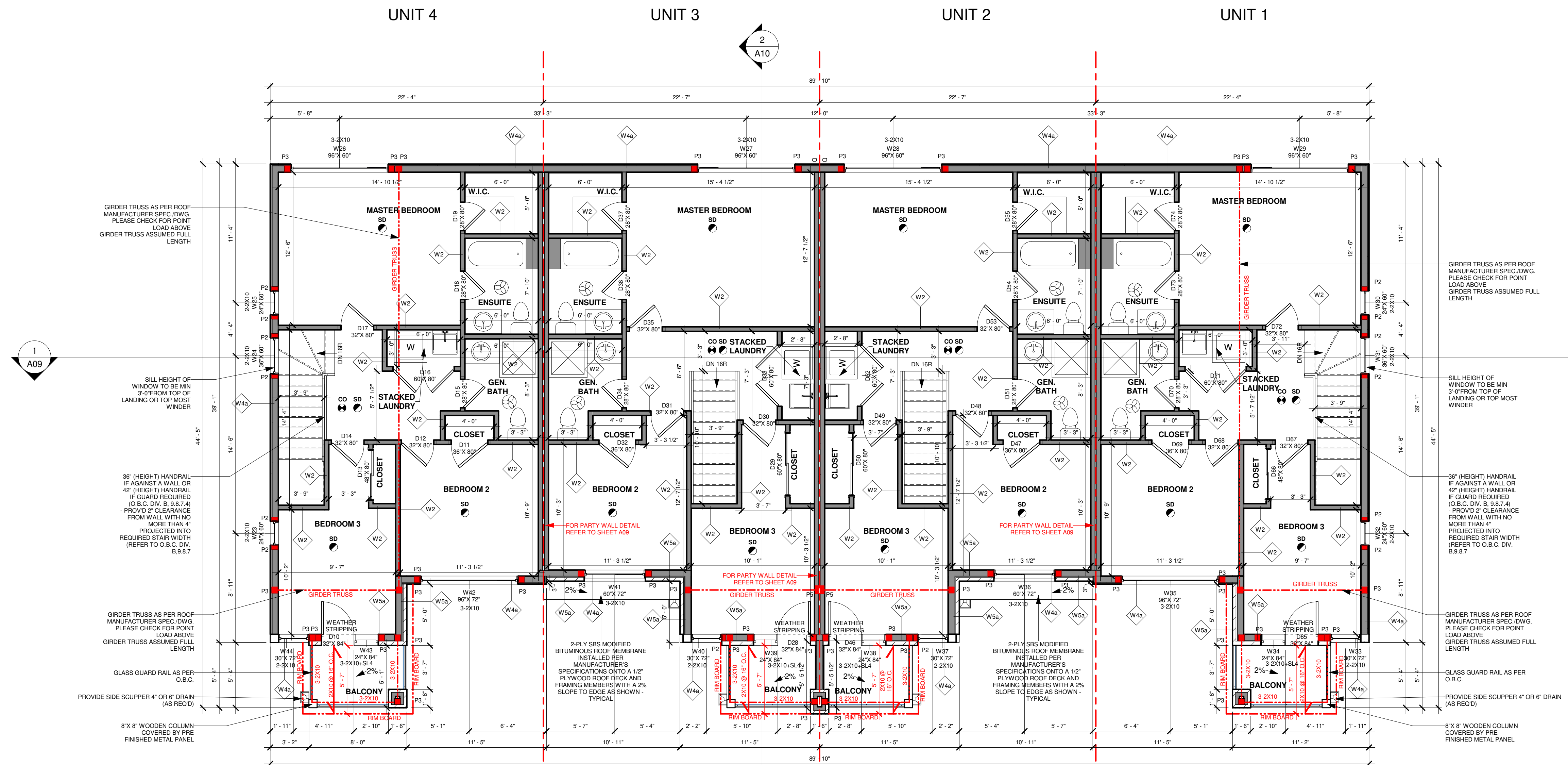
SECOND FLOOR PLAN

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:  
 Drawn by: DA/MJ  
 Checked by: RP  
 Project No.:  
 Date: 2022/10/21  
 Drawing No.: A05

COLUMN/POST	
COLUMN TYPE	COLUMN SIZE
C1	HSC 102DIA X6.4 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
C2	HSS 102X102X4.8 (FOR BASE PLATE AND ANCHOR BOLT SPECS, REFER TO STRUCTURAL DRAWINGS)
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P1	6X6 S-P-F NO.2
P2	2-2X6 S-P-F
P3	3-2X6 S-P-F
P4	4-2X6 S-P-F
P5	4-2X4 S-P-F

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 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.

FOR STEEL & WOOD LINTEL SCHEDULE : SEE SHEET A10

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Client Name:

Drawing Title:

ROOF PLAN

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:

Drawn by:

DA/MJ

Checked by:

RP

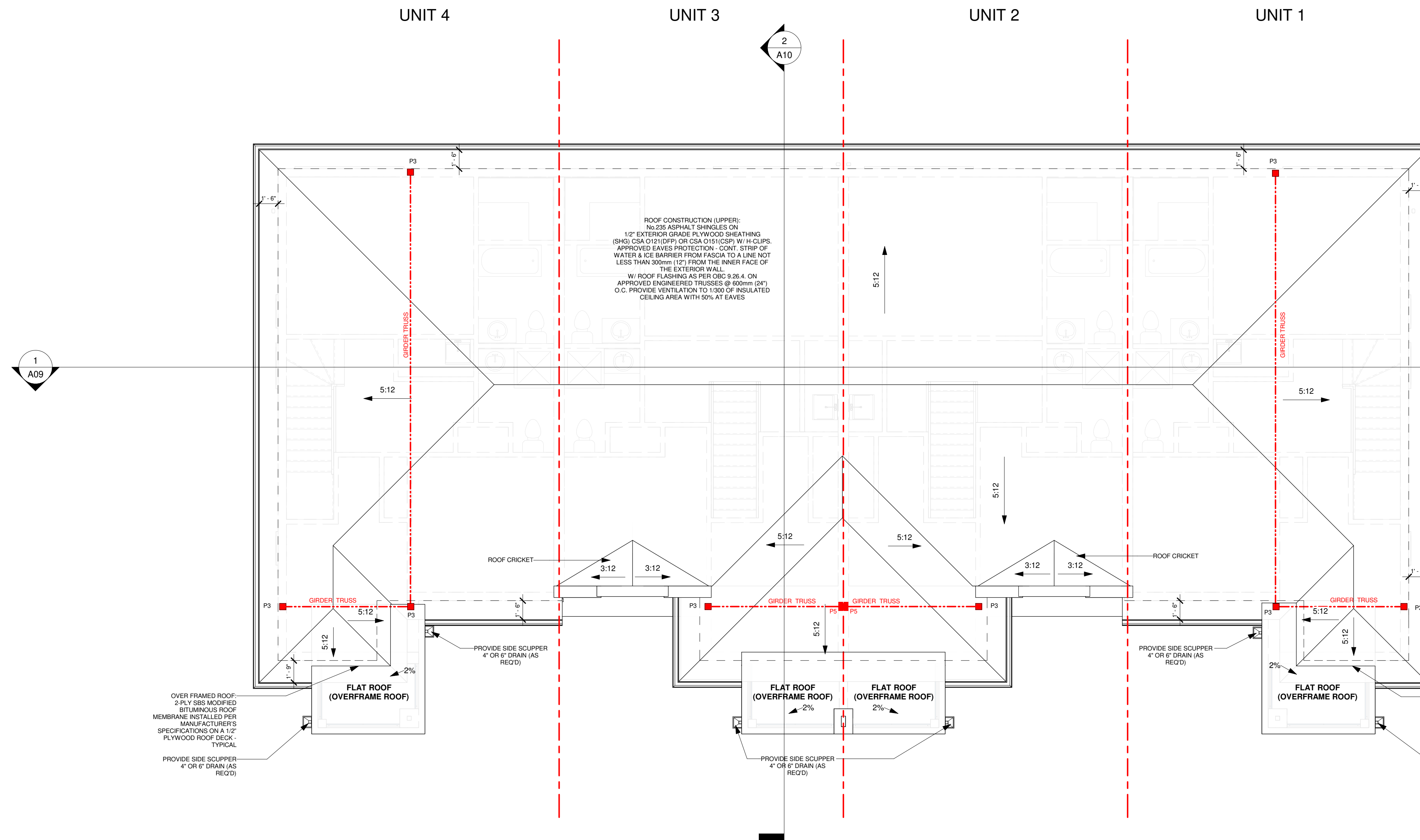
Project No.:

Date:

2022/10/21

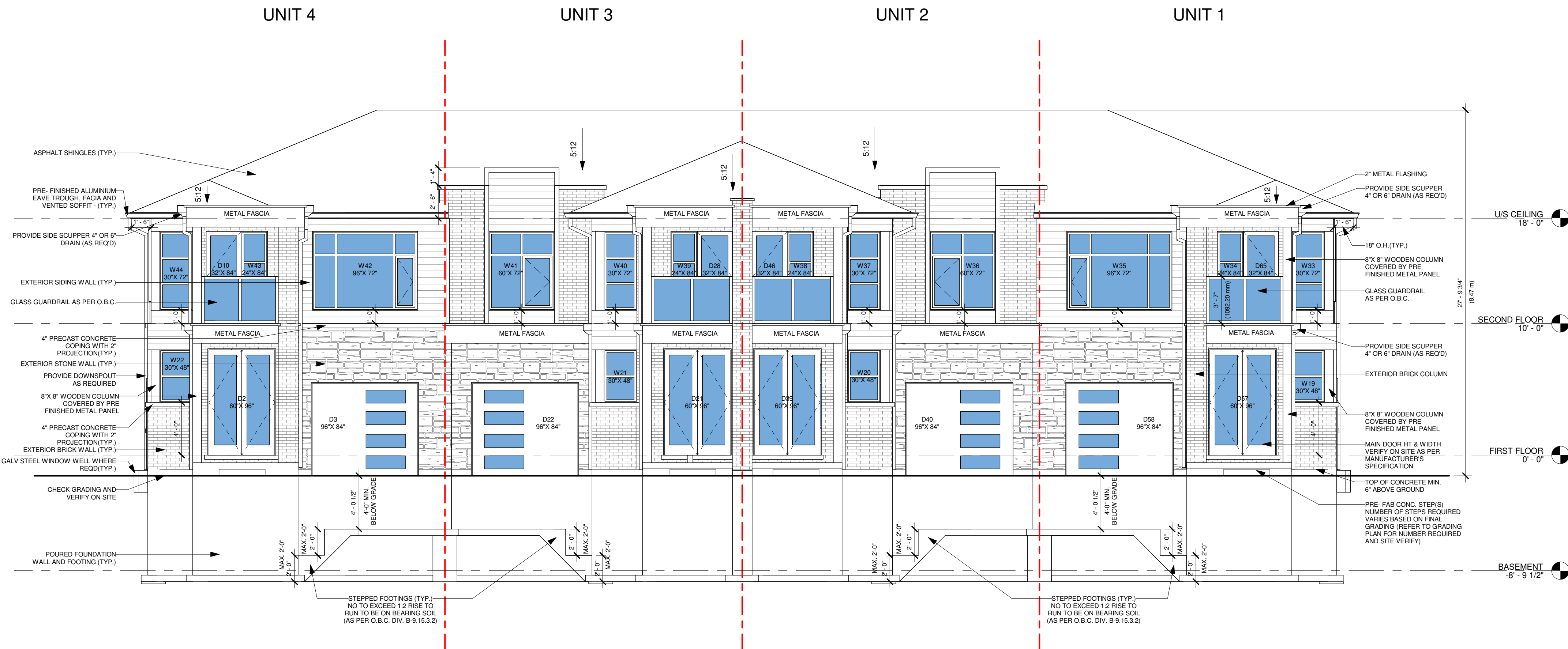
Drawing No.:

A06



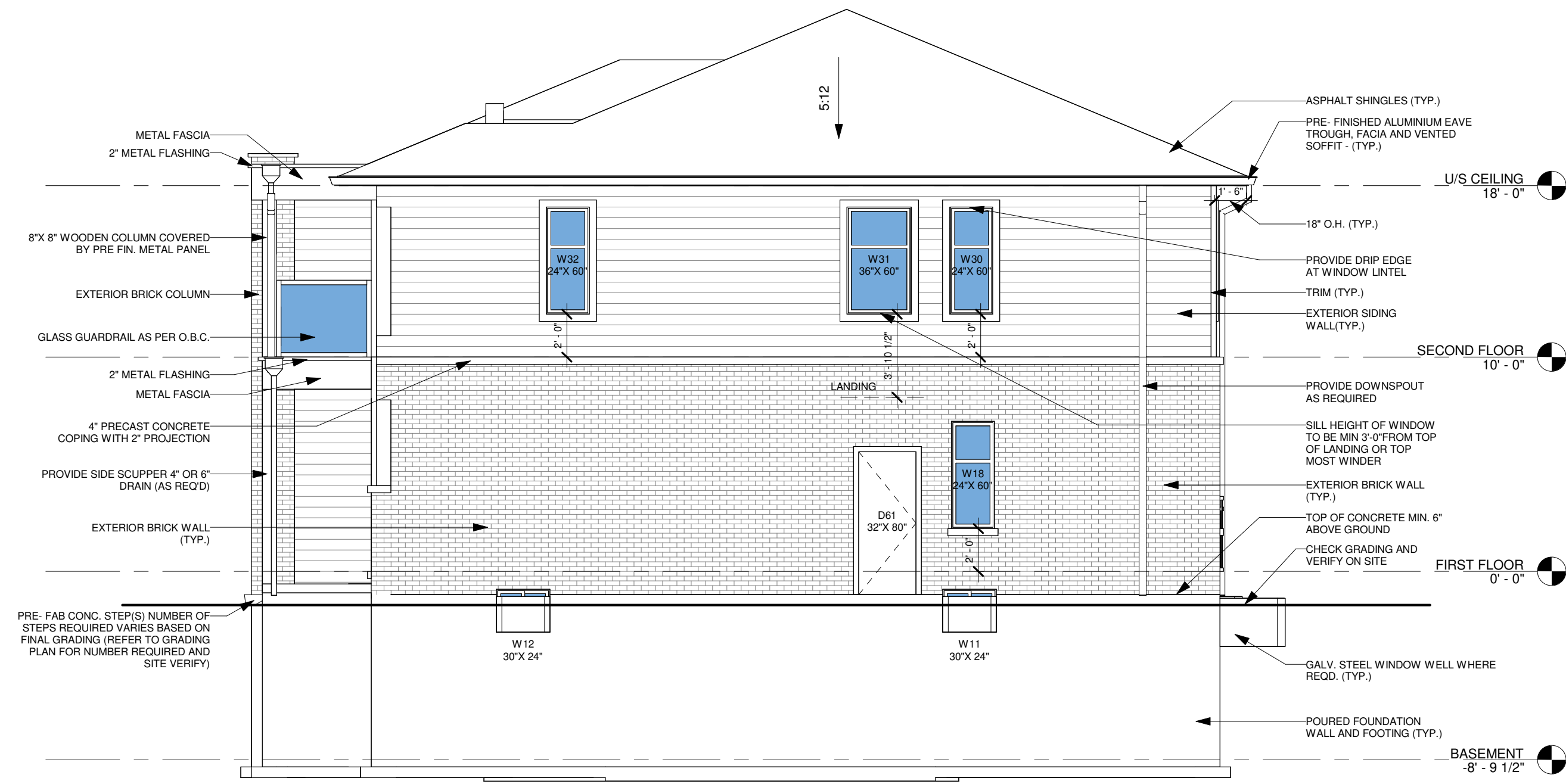


FOR SUPPLIER:  
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 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.



① FRONT ELEVATION  
 3/16" = 1'-0"

AS LOT IS CORNER LOT, RIGHT SIDE OPENING CALCULATION IS NOT REQUIRED.



② RIGHT SIDE ELEVATION  
 3/16" = 1'-0"

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 QUALIFICATION INFORMATION REQUIRED UNLESS THE DESIGN IN EXEMPT UNDER DIVISION C - 3.2.5.1 OF THE 2012 ONTARIO BUILDING CODE.

NILAMRAJ (RAJ) PATEL	100621
NAME	SIGNATURE
	BCIN
REGISTRATION INFORMATION REQUIRED UNLESS THE DESIGN IS EXEMPT UNDER DIVISION C - 3.2.4.1 OF THE 2012 ONTARIO BUILDING CODE.	
RPDS	111189
FIRM NAME	BCIN

**RPDS**  
 INTEGRATED DESIGN FIRM  
 7895 Trimmere Dr., Suite 203, Mississauga ON, L5S1V9  
 Email: contact@rpdstudio.ca  
 Phone: 647-556-2596

No.:	Revision:	Date:
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2	ReIssued For Review	2022/11/25
1	Issued For Review	2022/11/04
No.:	Issued For:	Date:

Client Name:

Drawing Title:

FRONT & RIGHT SIDE ELEVATION

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:

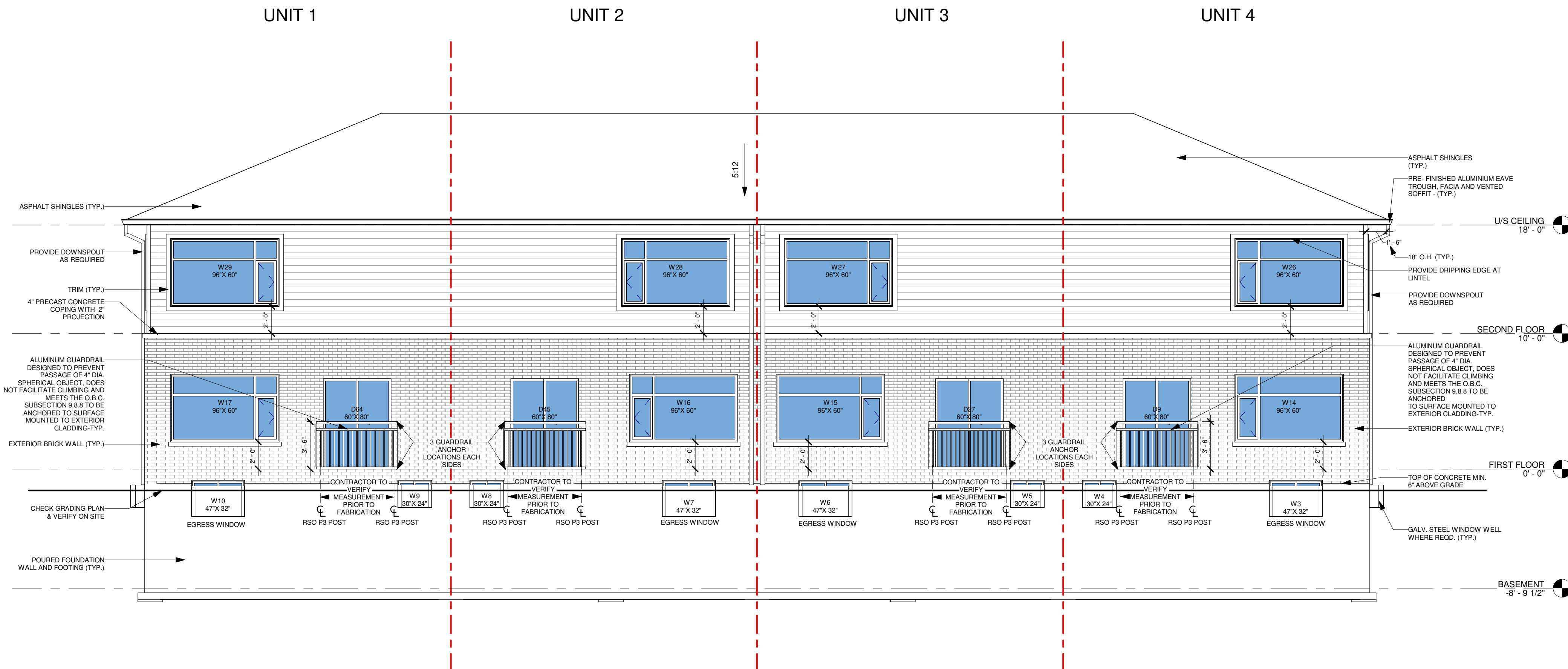
Drawn by:  
 DA/MJ  
 Checked by:  
 RP  
 Project No.:

Date:  
 2022/10/21  
 Drawing No.:



A07

FOR SUPPLIER:  
 SUPPLIER TAKES RESPONSIBILITY FOR FRAMING OF ALL ENGINEERED LUMBER PRODUCTS INCLUDING FLOOR JOIST, TRUSSES, PRE-ENG LVL, BEAM AND LINTEL (IF DIFFERENT, FROM THE PROPOSED SIZE) AND WILL PROVIDE APPROVED LAYOUT, REVIEWED AND STAMPED BY ENGINEER.  
 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.

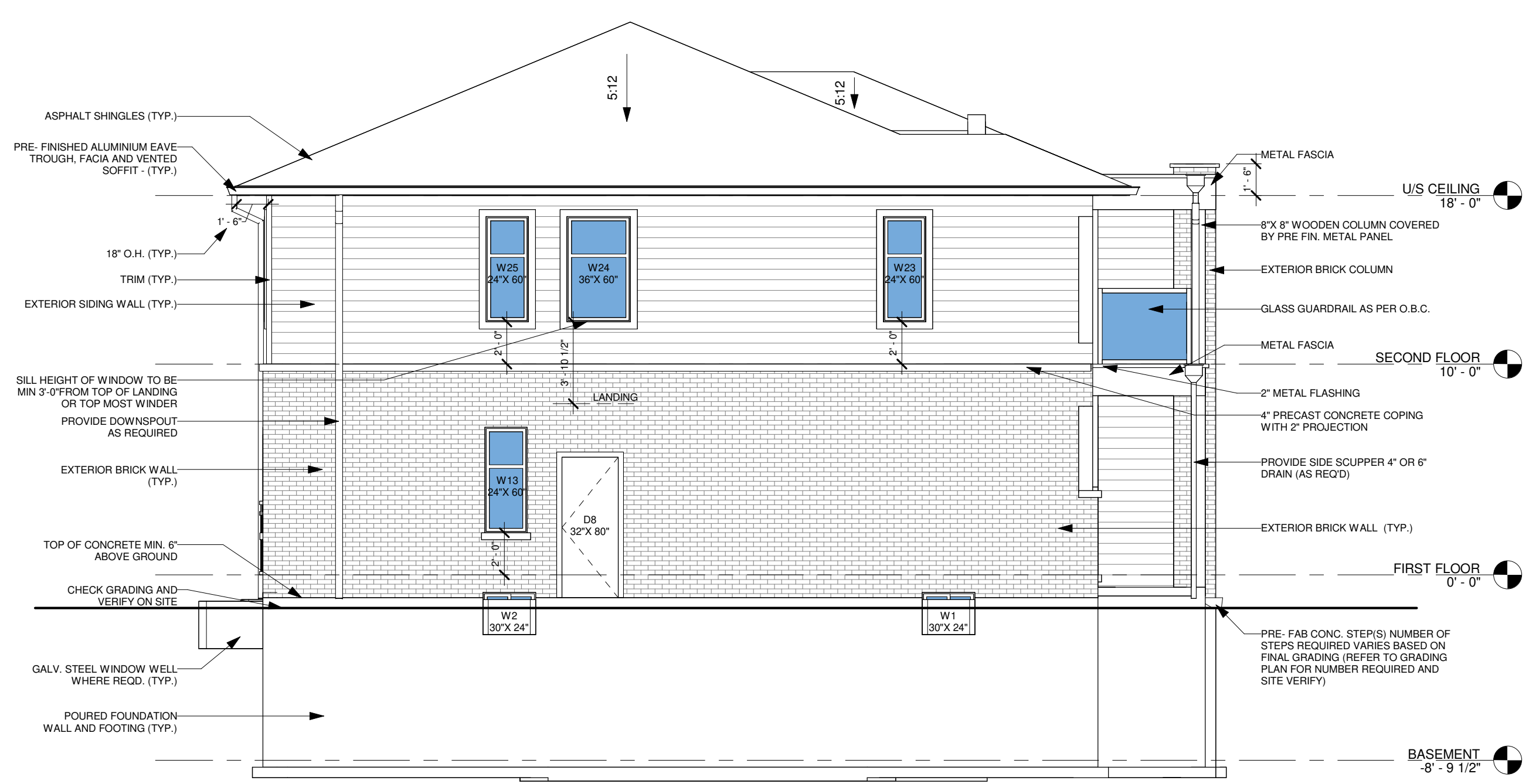


1 REAR ELEVATION  
 3/16" = 1'-0"

LEFT SIDE OPENING CALCULATION	
%UNPROTECTED OPENING	DATA
1. WALL AREA	769.53 SQFT
2. LIMITING DISTANCE	4'-11" (1.5 M)
3. ALLOWABLE OPENINGS	61.56 SQFT (8%)
4. PROVIDED OPENINGS	48.71 SQFT (6.33%)

FOR GARAGE, BASEMENT, FF AND PORCH GRADING LEVEL REFER TO GRADING PLAN. IN SITUATION OF DISCREPANCY BETWEEN ARCHITECTURAL DRAWING SET AND CIVIL SET, FOLLOW THE CIVIL SET (GRADING PLAN)

WINDOW SUPPLIER TO ENSURE DOORS & WINDOWS ARE AS PER OBC STANDARD INCLUDING MINIMUM OPENABLE OPENINGS



2 LEFT SIDE ELEVATION  
 3/16" = 1'-0"

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NILAMRAJ (RAJ) PATEL	100621
NAME	SIGNATURE
	BCIN
REGISTRATION INFORMATION REQUIRED UNLESS THE DESIGN IS EXEMPT UNDER DIVISION C - 3.2.4.1 OF THE 2012 ONTARIO BUILDING CODE.	
RPDS	111189
FIRM NAME	BCIN

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No.:	Revision:	Date:
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No.:	Issued For:	Date:

Client Name:

Drawing Title:

REAR & LEFT SIDE ELEVATION

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:

Drawn by:  
 DA/MJ  
 Checked by:  
 RP  
 Project No.:

Date:  
 2022/10/21  
 Drawing No.:



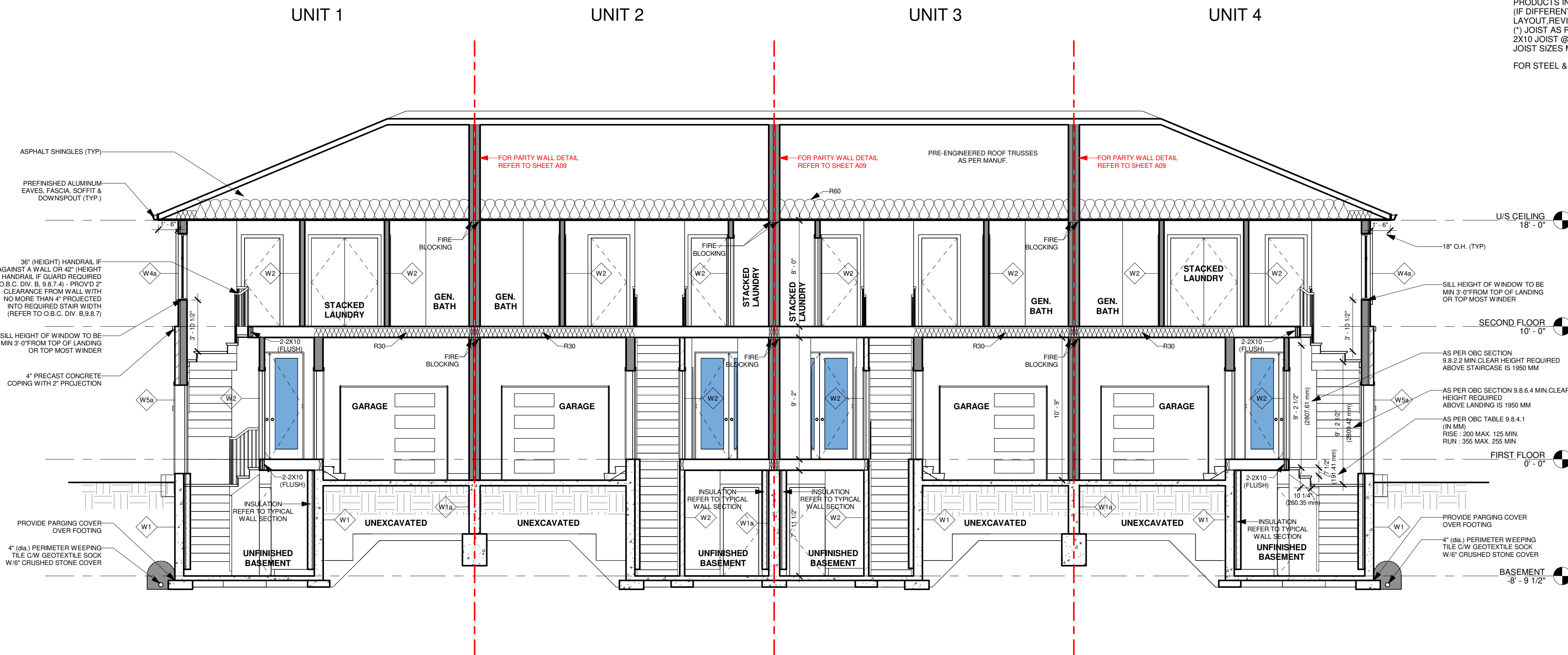
A08



STRUCTURAL NOTE:  
 STRUCTURE ENGINEER TAKES RESPONSIBILITY FOR ALL STRUCTURAL DESIGN INCLUDING BUT NOT LIMITED TO CONCRETE, FOUNDATION, FOOTING, BEAM, LINTEL, COLUMN, AND OTHER STRUCTURAL DETAILS/DESIGN REFER TO ADDITIONAL DETAILS ON ENGINEERING DETAIL SEE STRUCTURAL SHEET

FOR SUPPLIER:  
 SUPPLIER TAKES RESPONSIBILITY FOR FRAMING OF ALL ENGINEERED LUMBER PRODUCTS INCLUDING FLOOR JOIST, TRUSSES, PRE-ENG LVL, BEAM AND LINTEL (IF DIFFERENT FROM THE PROPOSED SIZE) AND WILL PROVIDE APPROVED LAYOUT, REVIEWED AND STAMPED BY ENGINEER.  
 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.

FOR STEEL & WOOD LINTEL SCHEDULE : SEE SHEET A10



SECTION 1  
 3/16" = 1'-0"

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 QUALIFICATION INFORMATION REQUIRED UNLESS THE DESIGN IN EXEMPT UNDER DIVISION C - 3.2.5.1 OF THE 2012 ONTARIO BUILDING CODE.

NILAMRAJ (RAJ) PATEL 100621  
 NAME SIGNATURE BCIN  
 REGISTRATION INFORMATION REQUIRED UNLESS THE DESIGN IS EXEMPT UNDER DIVISION C - 3.2.4.1 OF THE 2012 ONTARIO BUILDING CODE.  
 RPDS 111189  
 FIRM NAME SIGNATURE BCIN

**RPDS**  
 INTEGRATED DESIGN FIRM  
 7895 Trimmere Dr., Suite 203, Mississauga ON, L5S1V9  
 Email: contact@rpdstudio.ca  
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Client Name:

Drawing Title:

HOUSE SECTION & PARTY WALL DETAILS

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

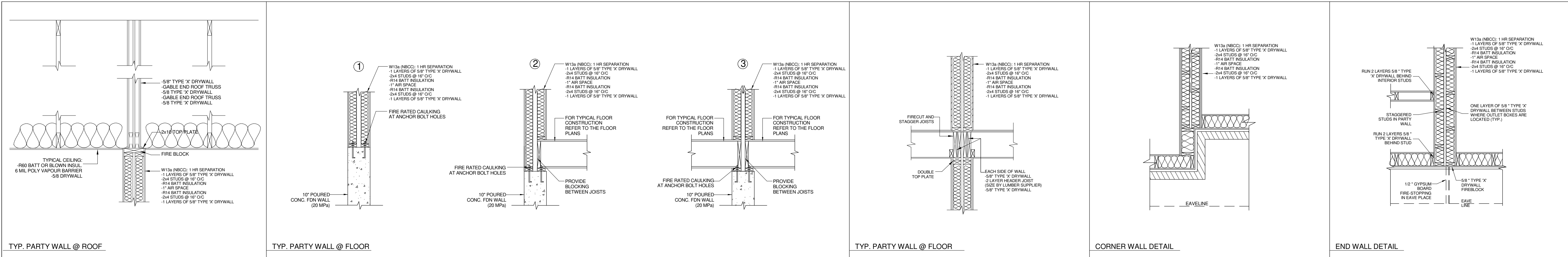
Scale:

Drawn by:  
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Date:  
 2022/10/21  
 Drawing No.:



A09





STRUCTURAL NOTE:  
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 STRUCTURAL DESIGN INCLUDING BUT NOT LIMITED TO  
 CONCRETE, FOUNDATION, FOOTING, BEAM, LINTEL,  
 COLUMN, AND OTHER STRUCTURAL DETAILS/DESIGN.  
 REFER TO ADDITIONAL DETAILS ON ENGINEERING DETAIL.  
 SEE STRUCTURAL SHEET.

FOR SUPPLIER:  
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 (IF DIFFERENT FROM THE PROPOSED SIZE) AND WILL PROVIDE APPROVED  
 LAYOUT REVIEWED AND STAMPED BY ENGINEER.  
 (\*) JOIST AS PER SUPPLIER'S SPECIFICATION AND APPROVED DRAWINGS.  
 2X10 JOIST @ 16" O.C.  
 JOIST SIZES MENTIONED ON FLOOR PLAN.

FOR STEEL & WOOD LINTEL SCHEDULE : SEE SHEET A10

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 ONTARIO BUILDING CODE.

NILAMRAJ (RAJ) PATEL 100621

NAME SIGNATURE BCIN

REGISTRATION INFORMATION REQUIRED UNLESS THE DESIGN IS  
 EXEMPT UNDER DIVISION C - 3.2.4.1 OF THE 2012 ONTARIO  
 BUILDING CODE.

RPDS 111189

FIRM NAME BCIN

**RPDS**  
 INTEGRATED DESIGN FIRM  
 7895 Tranmere Dr., Suite 203, Mississauga ON, L5S1V9  
 Email: contact@rpdstudio.ca  
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Client Name:

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HOUSE SECTION & LINTEL  
 SCHEDULES

Project:

**JAMES**

PROPOSED TWO STOREY  
 TOWNHOUSE, LOT 21 & 24,  
 DORCHESTER ROAD, CITY  
 OF NIAGARA FALLS

Scale:

Drawn by:

DA/MJ

Checked by:

RP

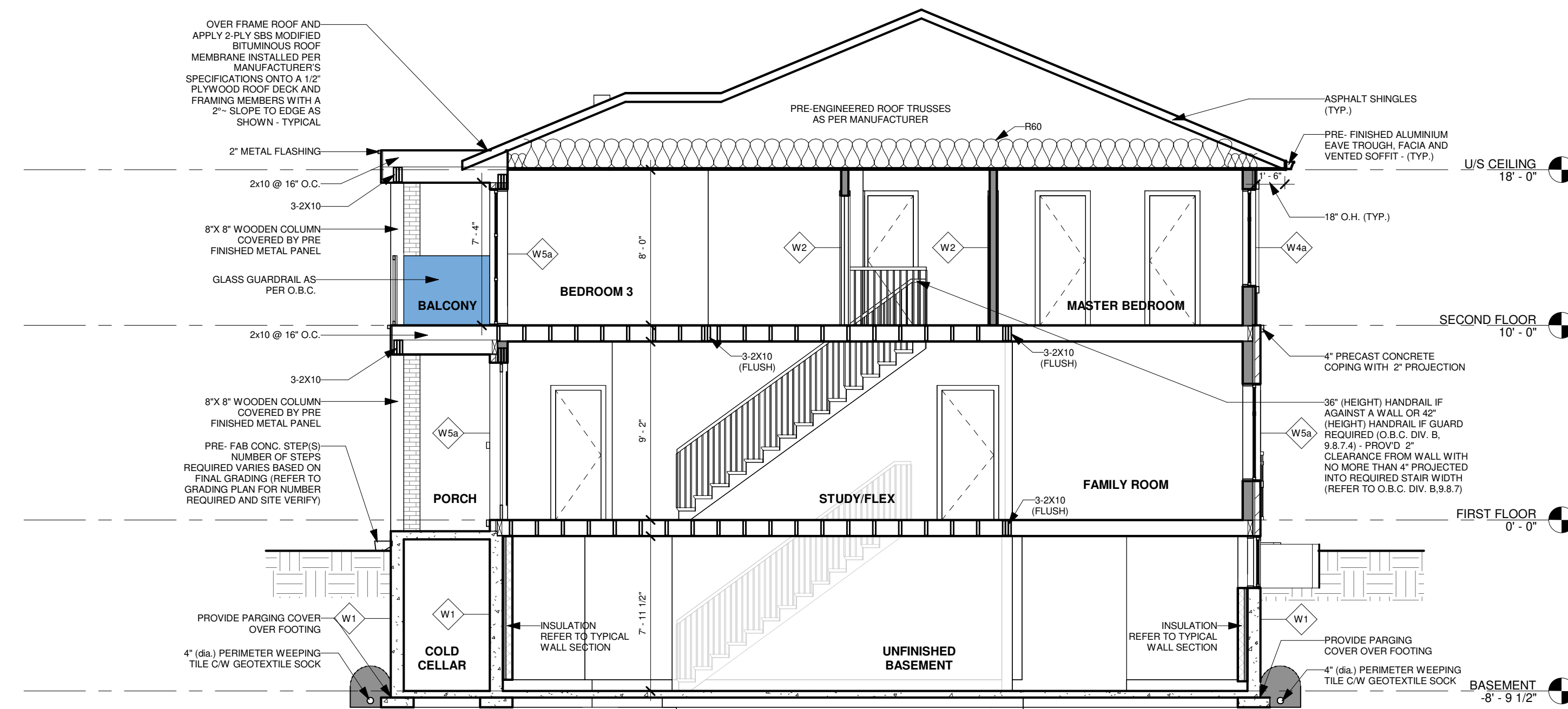
Project No.:

Date:

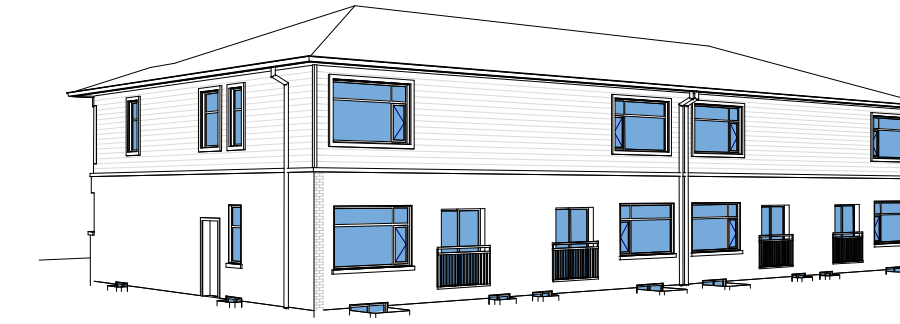
2022/10/21

Drawing No.:

A10



SECTION 2  
 3/16" = 1'-0"



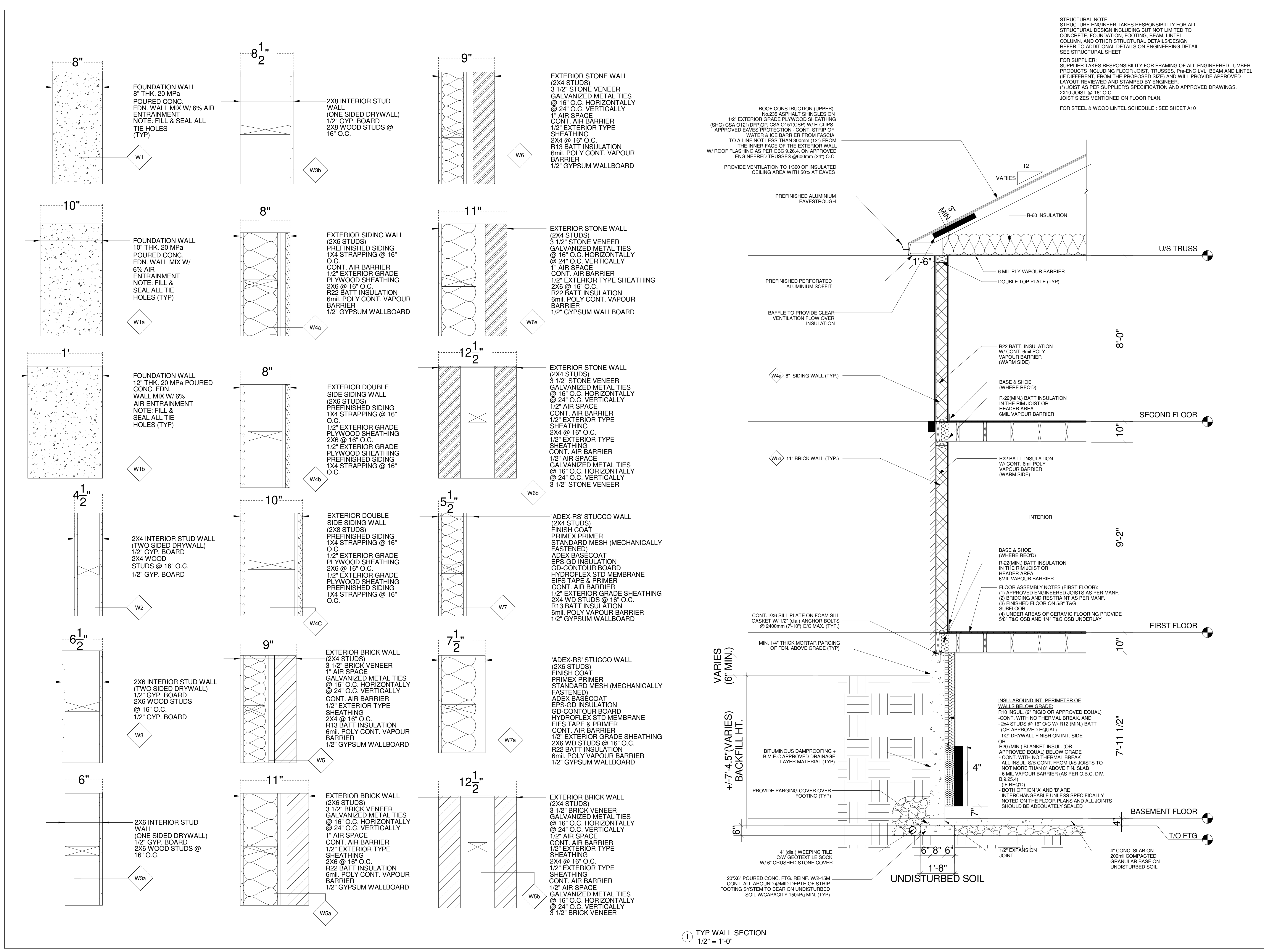
WOOD LINTEL SCHEDULE		MAXIMUM SPAN, m.				
LINTEL SUPPORTING	LINTEL SIZE	EXTERIOR WALLS				
		SPECIFIED SNOW LOAD, kPa				
		1.0	1.5	2.0	2.5	3.0
LIMITED ATTIC STORAGE AND CEILING	2-1 1/2 x 3 1/2 (L1-2-2x4) 2-1 1/2 x 5 1/2 (L2-2-2x6) 2-1 1/2 x 7 1/4 (L3-2-2x8) 2-1 1/2 x 9 1/4 (L4-2-2x10) 2-1 1/2 x 11 1/4 (L5-2-2x12)					
ROOF AND CEILING ONLY (TRIBUTARY WIDTH OF 0.6 M MAXIMUM)	2-1 1/2 x 3 1/2 (L1-2-2x4) 2-1 1/2 x 5 1/2 (L2-2-2x6) 2-1 1/2 x 7 1/4 (L3-2-2x8) 2-1 1/2 x 9 1/4 (L4-2-2x10) 2-1 1/2 x 11 1/4 (L5-2-2x12)	8'-4"	7'-4"	6'-8"	6'-2"	5'-10"
ROOF AND CEILING, AND 1 STOREY	2-1 1/2 x 3 1/2 (L1-2-2x4) 2-1 1/2 x 5 1/2 (L2-2-2x6) 2-1 1/2 x 7 1/4 (L3-2-2x8) 2-1 1/2 x 9 1/4 (L4-2-2x10) 2-1 1/2 x 11 1/4 (L5-2-2x12)	4'-2"	3'-8"	3'-4"	3'-1"	2'-10"
ROOF, CEILING AND 2 STOREYS	2-1 1/2 x 3 1/2 (L1-2-2x4) 2-1 1/2 x 5 1/2 (L2-2-2x6) 2-1 1/2 x 7 1/4 (L3-2-2x8) 2-1 1/2 x 9 1/4 (L4-2-2x10) 2-1 1/2 x 11 1/4 (L5-2-2x12)	3'-5"	3'-2"	2'-11"	2'-9"	2'-7"
ROOF, CEILING AND 3 STOREYS	2-1 1/2 x 3 1/2 (L1-2-2x4) 2-1 1/2 x 5 1/2 (L2-2-2x6) 2-1 1/2 x 7 1/4 (L3-2-2x8) 2-1 1/2 x 9 1/4 (L4-2-2x10) 2-1 1/2 x 11 1/4 (L5-2-2x12)	4'-11"	4'-6"	4'-2"	3'-11"	3'-9"

WOOD LINTEL SCHEDULE	
	MIN. ANGLE SIZE
L1	2-2 X 4
L2	2-2 X 6
L3	2-2 X 8
L4	2-2 X 10
L5	2-2 X 12

STEEL LINTEL ANGLE SCHEDULE			
FOR STEEL LINTEL SUPPORTING MASONRY VENEER (O.B.C. 9.20.5.2(B))			
MIN. ANGLE SIZE	MAX. ALLOWABLE SPAN		
	FOR BRICK (2 3/4")	FOR BRICK (3 1/2")	FOR STONE
SL1 L-3 1/2" x 3 1/2" x 1/4"	8'-6" OR LESS	8'-1" OR LESS	7'-9" OR LESS
SL2 L-4" x 3 1/2" x 1/4"	9'-2"	8'-9"	8'-2"
SL3 L-4 7/8" x 3 1/2" x 5/16"	11'-5"	10'-10"	10'-1"
SL4 L-4 7/8" x 3 1/2" x 3/8"	11'-11"	11'-5"	10'-8"
SL5 L-4 7/8" x 3 1/2" x 1/2"	12'-7"	11'-9"	10'-11"
SL6 L-5 7/8" x 3 1/2" x 3/8"	13'-4"	12'-7"	11'-8"
SL7 L-5 7/8" x 3 1/2" x 1/2"	14'-2"	13'-5"	12'-5"
SL8 L-5 7/8" x 4" x 1/2"	14'-4"	13'-6"	12'-7"
SL9 L-7 1/8" x 4" x 3/8"	15'-0"	14'-1"	13'-1"
SL10 L-7 1/8" x 4" x 1/2"	16'-0"	15'-1"	14'-0"

STEEL LINTEL SCHEDULE			
FOR STEEL BEAMS SUPPORTING MASONRY VENEER (O.B.C. 9.20.5.2(C))			
SECTION	2 3/4" BRICK	3 1/2" BRICK	4" STONE
W 6 x 15	13'-11"	13'-5"	12'-11"
W 6 x 20	15'-4"	14'-10"	14'-2"
W 8 x 18	17'-3"	16'-8"	15'-10"
W 8 x 21	18'-3"	17'-7"	16'-9"
W 8 x 24	18'-9"	18'-0"	17'-2"





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NILAMRAJ (RAJ) PATEL	100621
NAME	SIGNATURE
	BCIN
REGISTRATION INFORMATION REQUIRED UNLESS THE DESIGN IS EXEMPT UNDER DIVISION C - 3.2.4.1 OF THE 2012 ONTARIO BUILDING CODE.	
RPDS	111189
FIRM NAME	BCIN

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No.:	Issued For:	Date:

Client Name: \_\_\_\_\_  
 Drawing Title: \_\_\_\_\_

**TYPICAL WALL SECTION & WALL SCHEDULE**

Project: **JAMES**  
**PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS**

Scale:	Drawn by:
	DA/MJ
	Checked by:
	RP
	Project No.:
	Date:
	2022/10/21
	Drawing No.:
	<b>A11</b>





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NILAMRAJ (RAJ) PATEL 100621

NAME SIGNATURE BCIN

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RPDS 111189

FIRM NAME BCIN

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Client Name:

Drawing Title:

TYPICAL DETAILS

Project:

**JAMES**

PROPOSED TWO STOREY TOWNHOUSE, LOT 21 & 24, DORCHESTER ROAD, CITY OF NIAGARA FALLS

Scale:

Drawn by:

DA/MJ

Checked by:

RP

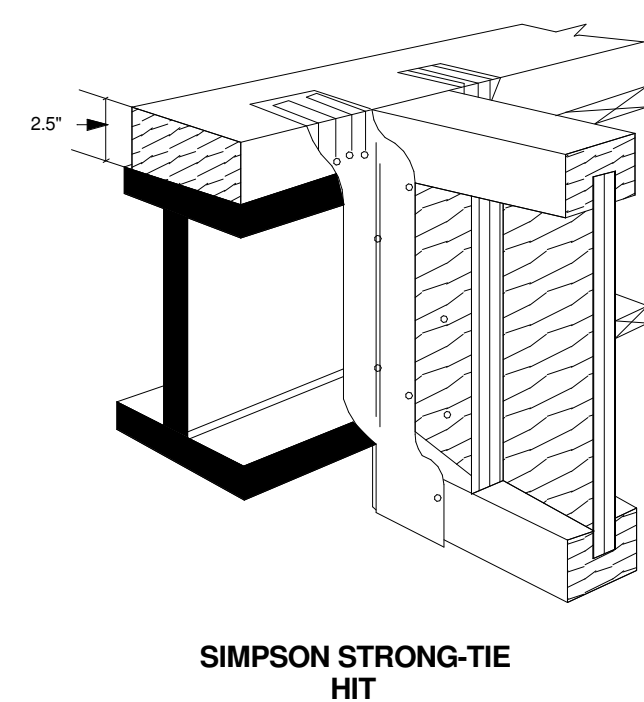
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Date:

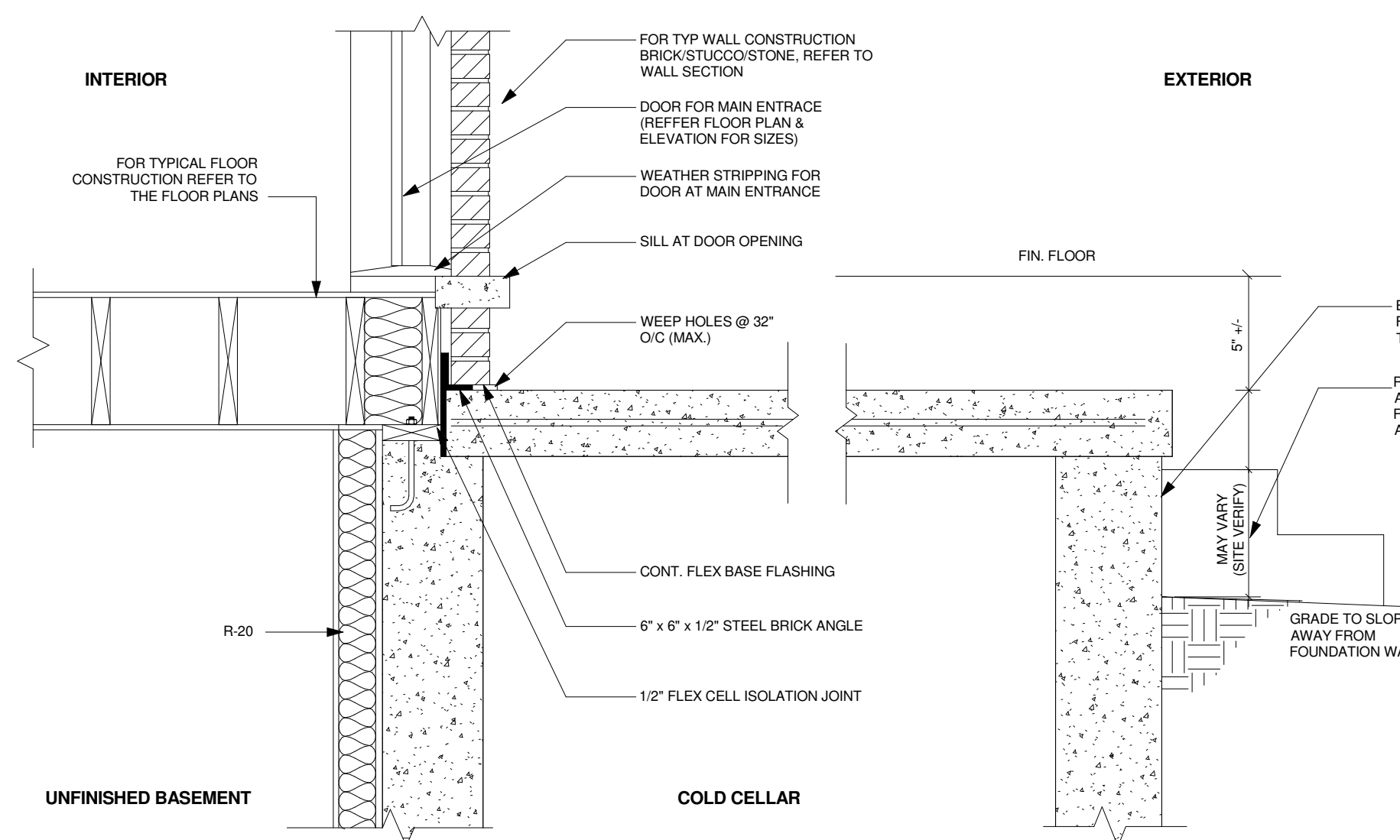
2022/10/21

Drawing No.:

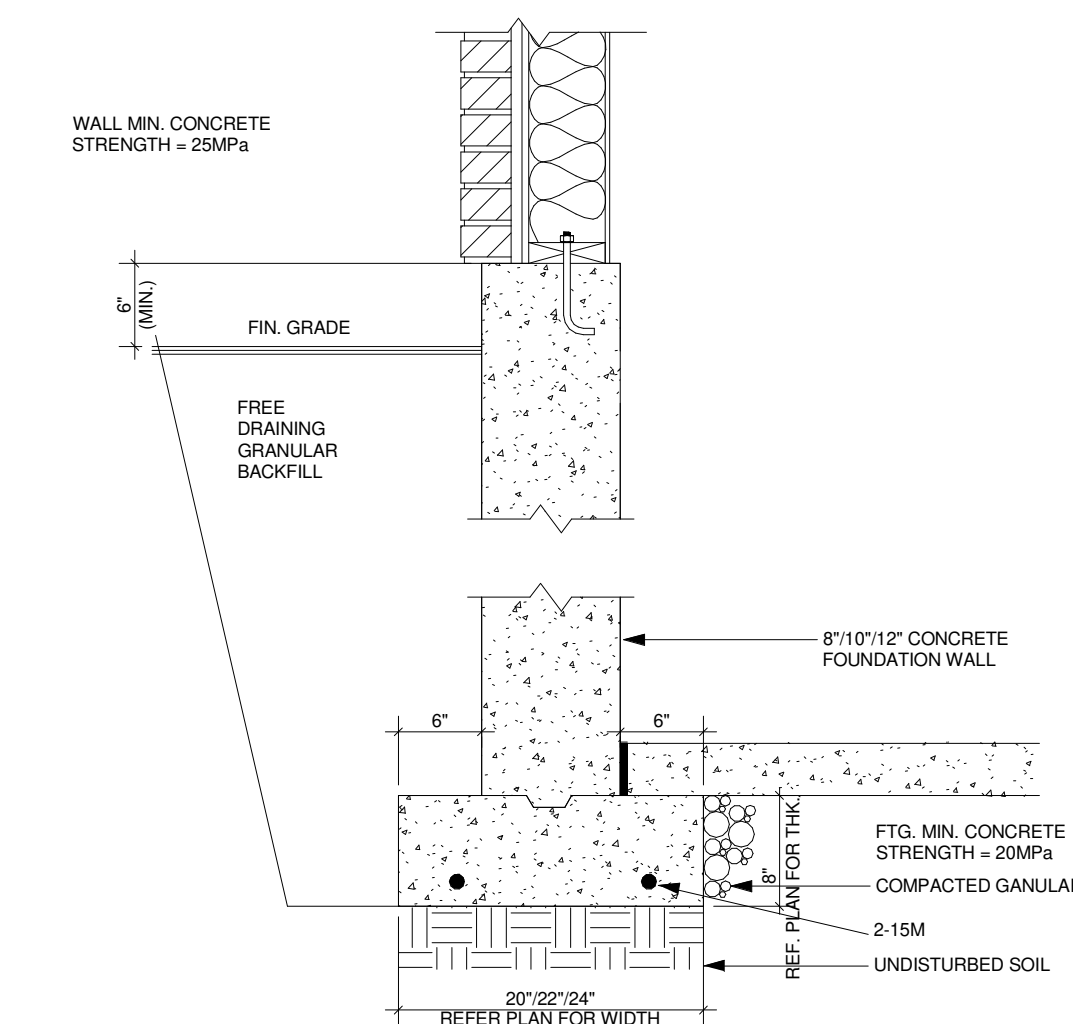
A12



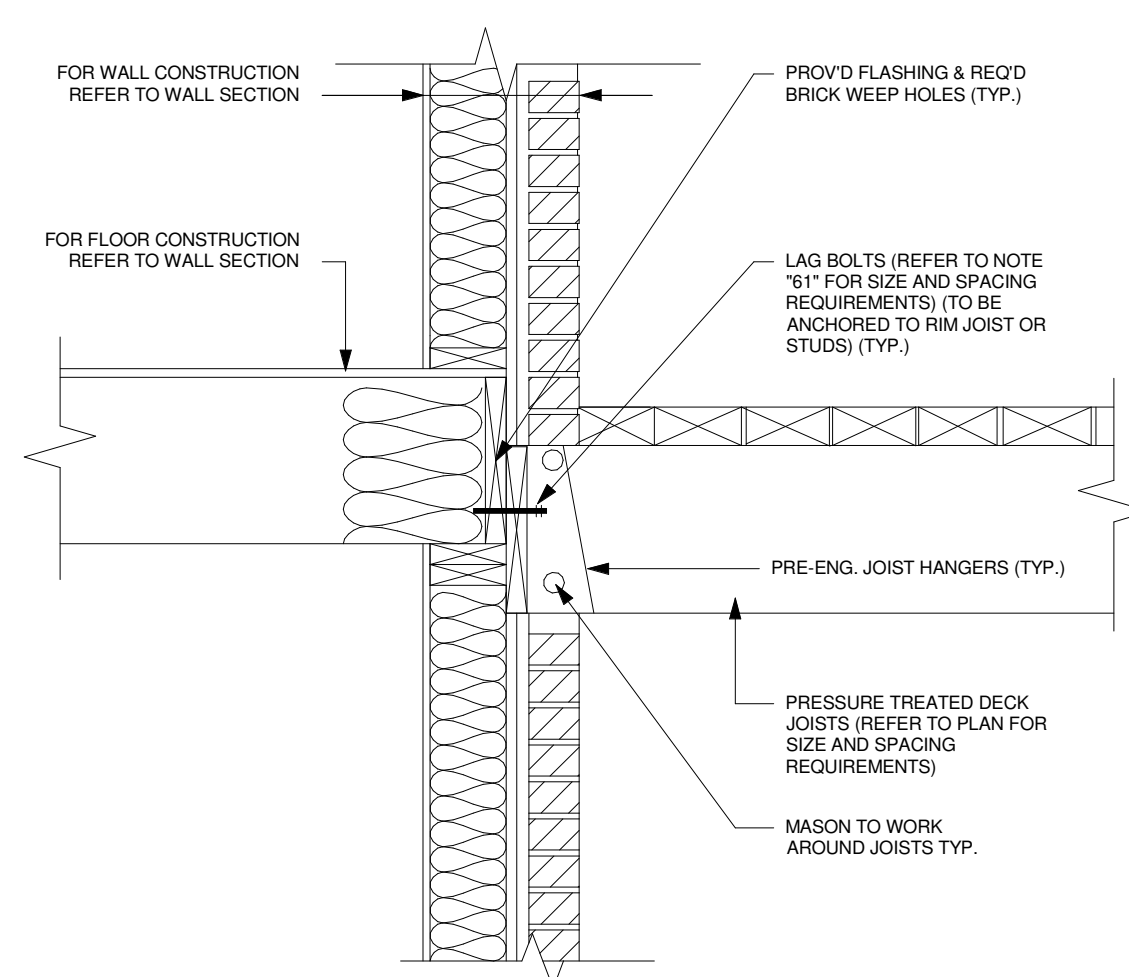
1 TYP. JOIST TO FLUSH BEAM CONNECTION DETAIL  
 A-12 N.T.S



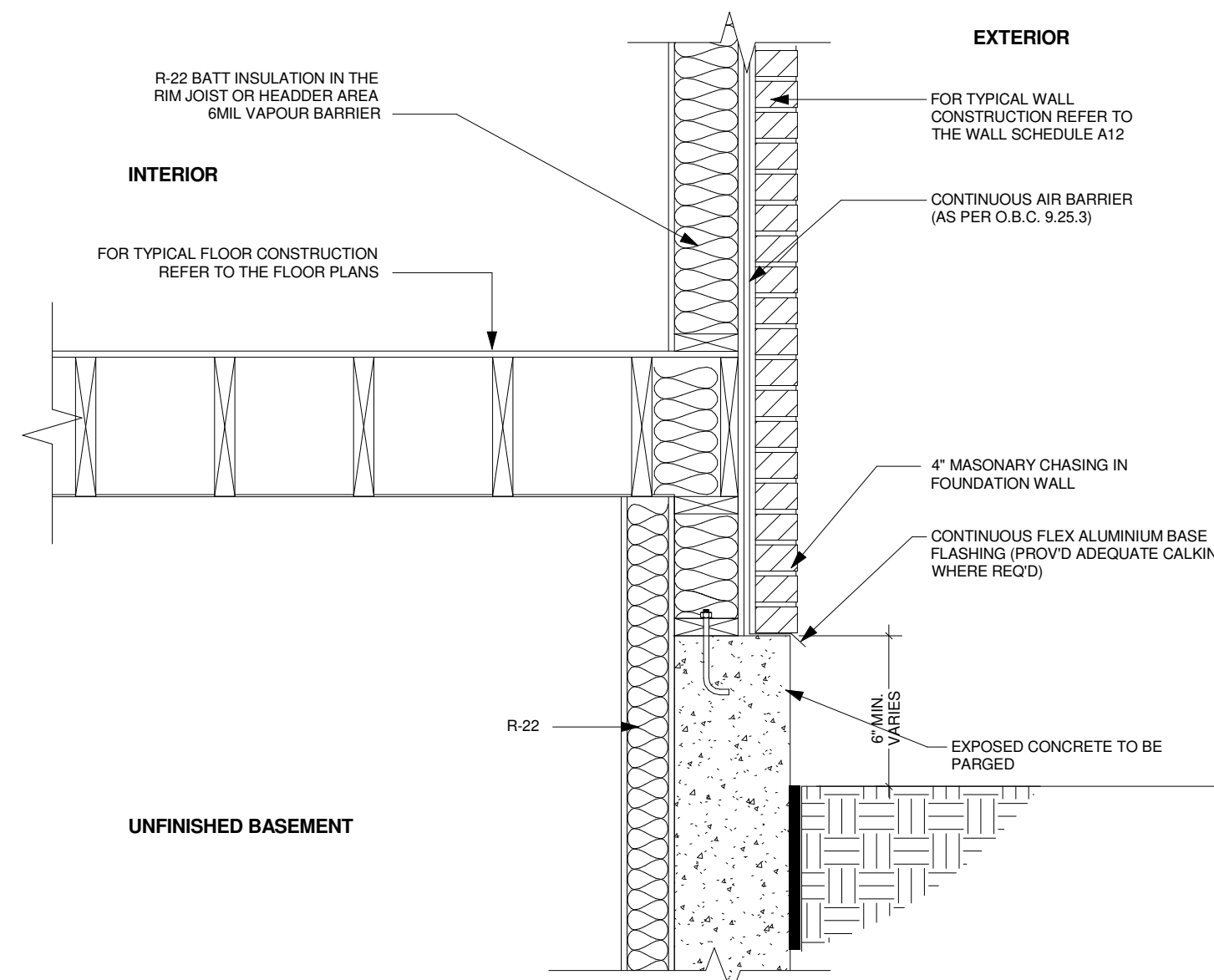
2 TYP. ENTRY PORCH SLAB DETAIL  
 A-12 N.T.S



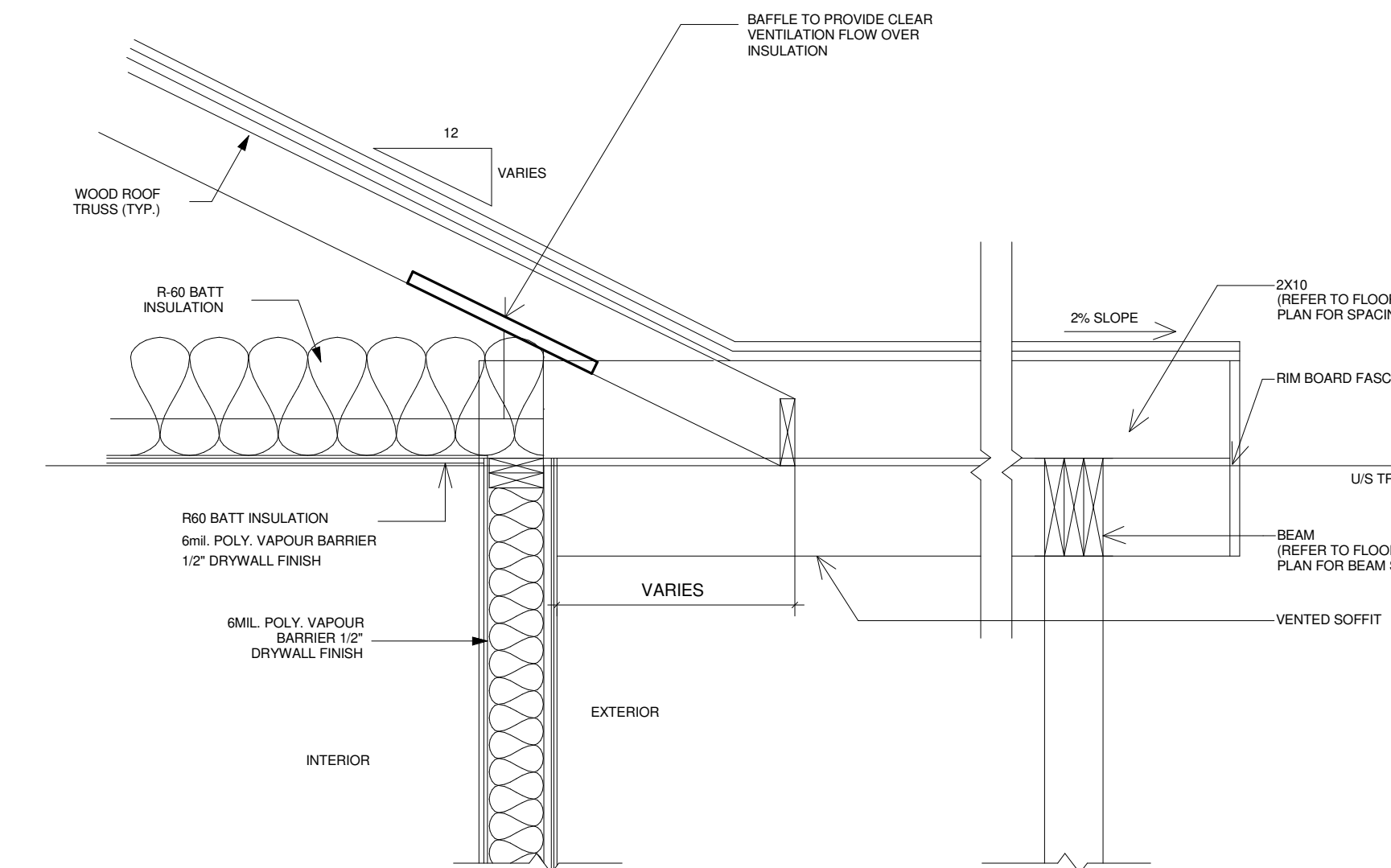
3 TYP. WALL FOUNDATION - STRIP FOOTING  
 A-12 N.T.S



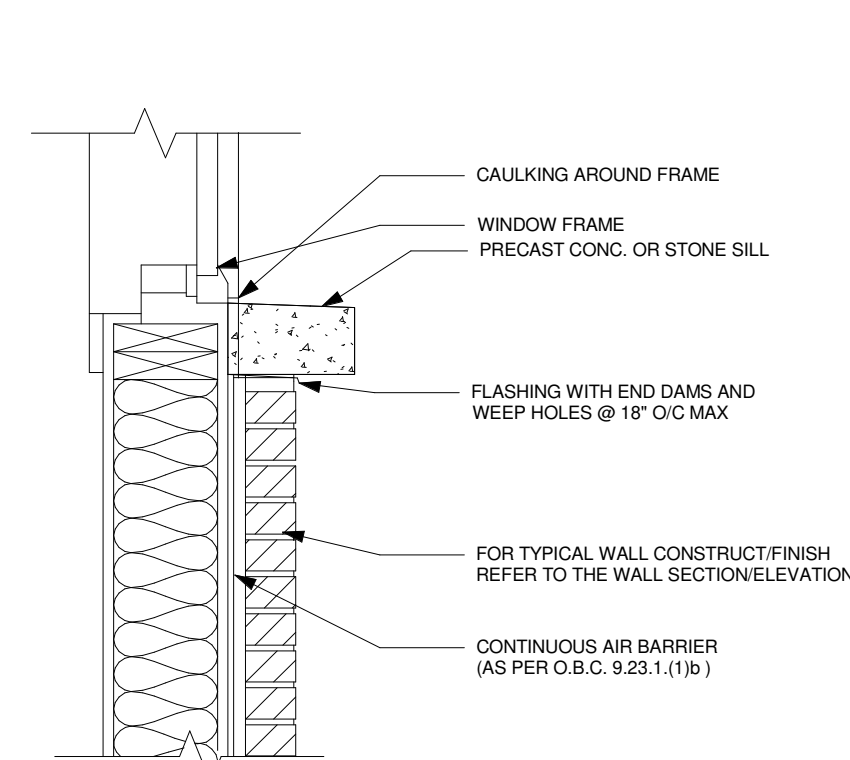
4 TYP. DECK CONNECTION @ EXTERIOR WALL  
 A-12 N.T.S



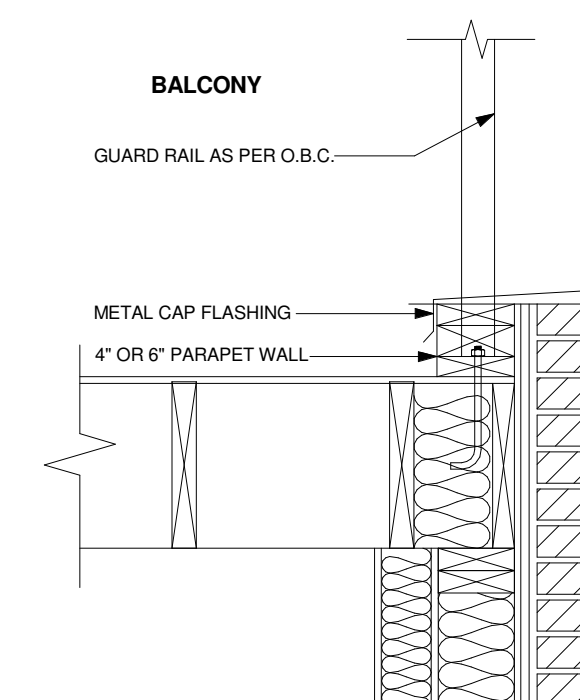
5 TYP. FLOOR JOIST TO FOUNDATION CONNECTION DETAIL  
 A-12 N.T.S



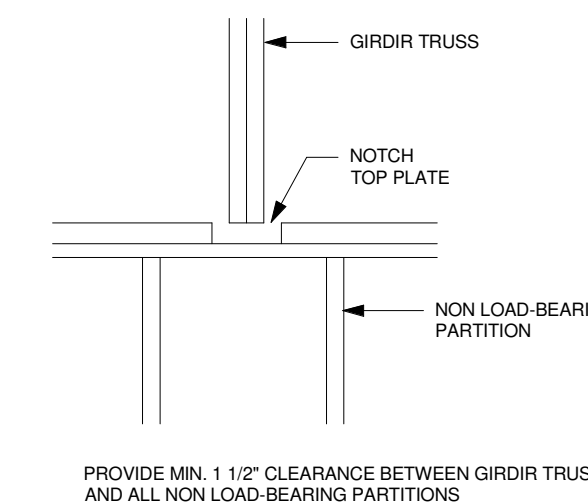
6 OVER FRAMING DETAIL (OR AS PER TRUSS MANUFACTURER'S DRAWING)  
 A-12 N.T.S



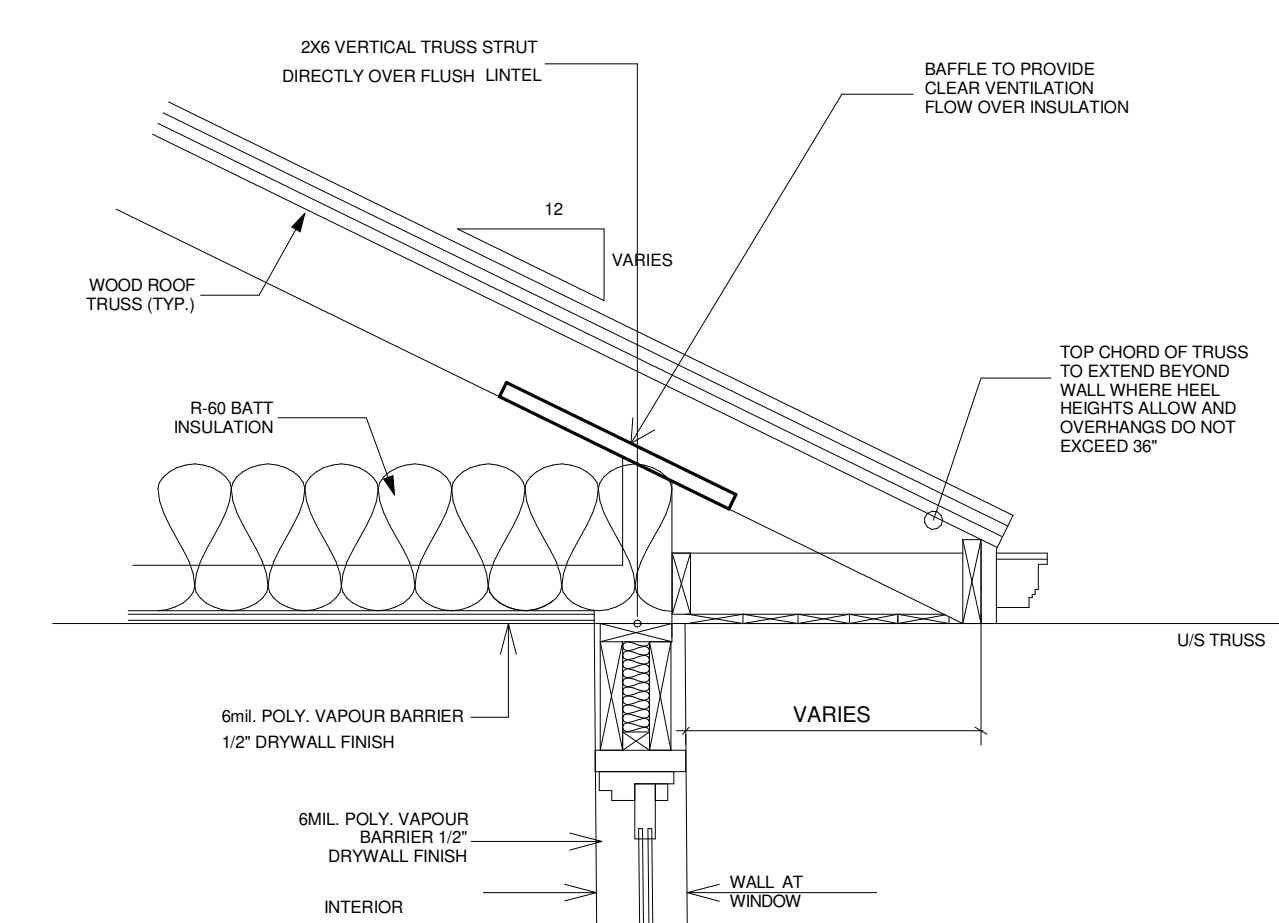
7 TYP. SILL DETAIL  
 A-12 N.T.S



8 BALCONY AND PARAPET DETAIL  
 A-12 N.T.S



9 TYP. GIRDIR TRUSS @ NON LOAD-BEARING PARTITIONS  
 A-12 N.T.S



10 OVERHANG DETAIL AT LINTEL (OR AS PER TRUSS MANUFACTURER'S DRAWING)  
 A-12 N.T.S



BILD



## EXCAVATION AND BACKFILL

- EXCAVATION SHALL BE UNDERTAKEN IN SUCH A MANNER SO AS TO AVOID ANY DAMAGE TO EXISTING STRUCTURES ADJACENT, ADJACENT PROPERTY AND UTILITIES.

- THE TOPSOIL AND VEGETABLE MATTER IN UNEXCAVATED AREAS UNDER A BUILDING SHALL BE REMOVED. THE BOTTOM OF EXCAVATIONS FOR FOUNDATIONS SHALL BE FREE OF ALL ORGANIC MATERIAL.

- IF TERMITES ARE KNOWN TO EXIST, ALL STUMPS, ROOTS AND WOOD DEBRIS SHALL BE REMOVED TO A MINIMUM DEPTH OF 11 3/4" IN EXCAVATED AREAS UNDER A BUILDING, AND THE CLEARANCE BETWEEN UNTREATED STRUCTURAL WOOD ELEMENTS AND THE GROUND SHALL BE NOT LESS THAN 17 3/4".

- BACKFILL WITHIN 23 5/8" OF THE FOUNDATION WALLS SHALL BE FREE OF DELETERIOUS DEBRIS AND BOULDERS OVER 9 7/8" IN DIAMETER.

## DAMP-PROOFING AND DRAINAGE

- IN NORMAL SOIL CONDITIONS, THE EXTERIOR SURFACES OF FOUNDATIONS WALLS ENCLOSING BASEMENTS AND CRAWL SPACES SHALL BE DAMP-PROOFED. WHERE HYDROSTATIC PRESSURE OCCURS, A WATERPROOFING SYSTEM IS REQUIRED.

- MASONRY FOUNDATION WALLS SHALL BE PARGED WITH 1/4" OF MORTAR COVERED OVER THE FOOTING PRIOR TO DAMP-PROOFING.

- 4" FOUNDATION DRAINS SHALL BE LAID ON LEVEL UNDISTURBED GROUND ADJACENT TO THE FOOTINGS AT OR BELOW THE TOP OF THE BASEMENT SLAB OR CRAWL SPACE FLOOR, AND SHALL BE COVERED WITH 6" OF CRUSHED STONE. FOUNDATION DRAINS SHALL DRAIN TO A STORM SEWER, DRAINAGE DITCH, DRY WELL OR SUMP.

- WINDOW WELLS SHALL BE DRAINED TO THE FOOTING.

- DOWNSPOUTS NOT DIRECTLY CONNECTED TO A STORM SEWER SHALL HAVE EXTENSIONS TO CARRY THE WATER AWAY FROM THE BUILDING, AND PROVISIONS SHALL BE MADE TO PREVENT SOIL EROSION.

- CONCRETE SLABS IN ATTACHED GARAGES SHALL BE SLOPED TO DRAIN TO THE EXTERIOR.

- THE BUILDING SITE SHALL BE GRADED SO THAT SURFACE, SUMP AND ROOF DRAINAGE WILL NOT ACCUMULATE AT OR NEAR THE BUILDING AND WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES.

## FOUNDATION WALLS

- TO BE POURED CONCRETE, UNIT MASONRY OR PRESERVED WOOD (SEE DRAWINGS FOR TYPE AND THICKNESS)

- DAMP-PROOFING SHALL BE A HEAVY COAT OF BITUMINOUS MATERIAL.

- FOUNDATION WALL TO EXTEND MINIMUM 6" ABOVE FINISHED GRADE.

- A DRAINAGE LAYER IS REQUIRED ON THE OUTSIDE OF A FOUNDATION WALL WHERE THE INTERIOR INSULATION EXTENDS MORE THAN 2'-11" BELOW EXTERIOR GRADE. A DRAINAGE LAYER SHALL CONSIST OF:  
- MIN. 3/4" MINERAL FIBRE INSULATION WITH MIN. DENSITY OF 3.8 LB/SF  
- MIN. 4" OF FREE DRAINAGE GRANULAR MATERIAL, OR  
- AN APPROVED SYSTEM WHICH PROVIDES EQUIVALENT PERFORMANCE

- FOUNDATIONS WALLS SHALL BE BRACED OR HAVE THE FLOOR JOISTS INSTALLED BEFORE BACKFILLING.

## FOOTINGS

- MINIMUM 20 MPa POURED CONCRETE.

- MINIMUM 48" BELOW FINISHED GRADE.

- FOOTINGS SHALL BE FOUNDED ON NATURAL UNDISTURBED SOIL, ROCK OR COMPACTED GRANULAR FILL WITH MINIMUM BEARING CAPACITY OF 75 KPa

- INCREASE FOOTING WIDTH BY 2 5/8" FOR EACH STOREY OF BRICK VENEER SUPPORTED, AND BY 5 1/8" FOR EACH STOREY OF MASONRY.

- THE PROJECTION OF AN UNREINFORCED FOOTING BEYOND THE UNSUPPORTED SHALL NOT BE GREATER THAN IT THICKNESS.

## STEP FOOTINGS

- VERTICAL RISE  
23 5/8" MAX. FOR FIRM SOILS  
15 3/4" MAX. FOR SAND OR GRAVEL

- HORIZONTAL RUN  
23 5/8" MIN.

## CONCRETE FLOOR SLABS

- GARAGE, CARPORT AND EXTERIOR SLABS AND EXTERIOR STEPS SHALL BE 4650PSI (32MPa) CONCRETE WITH 5-8% AIR ENTRAINMENT C/W 6X6 WELDED WIREMESH  
- MINIMUM 5" THICK, PLACED ON A MINIMUM 4" OF COARSE, CLEAN, GRANULAR MATERIAL.

- ALL FILL OTHER THAN COARSE CLEAN MATERIAL PLACED BENEATH CONCRETE SLABS SHALL BE COMPACTED TO PROVIDE UNIFORM SUPPORT.

## MASONRY VENEER

- MINIMUM 2 3/4" THICK IF JOINTS ARE NOT RAKED AND 3 1/2" THICK IF JOINTS ARE RAKED.

- MINIMUM 1" AIR SPACE TO SHEATHING.

- PROVIDE WEEP HOLES @ 31 1/2" O.C. AT THE BOTTOM OF THE CAVITY AND OVER DOORS AND WINDOWS.

- DIRECT DRAINAGE THROUGH WEEP HOLES WITH 20ml. POLY FLASHING EXTENDING MINIMUM 5 7/8" UP BEHIND THE SHEATHING PAPER.

- VENEER TIES MINIMUM 0.030" THICK X 7/8" WIDE CORROSION RESISTANT STRAPS SPACED @ 23 5/8" VERTICALLY AND 15 3/4" VERTICALLY.

- FASTEN TIES WITH CORROSION RESISTANT 0 125" DIAMETER SCREWS OR SPIRAL NAILS WHICH PENETRATE AT LEAST 1 3/16" INTO STUDS.

## MASONRY WALLS

- WHERE CONSTRUCTED OF 3 1/2" BRICK, WALL SHALL BE BONDED WITH HEADER COURSE EVERY 6TH COURSE.

- PROVIDE 2" SOLID MASONRY OR CONTINUOUS 1 1/2" PLATE UNDER ALL ROOF AND FLOOR FRAMING MEMBERS.

- PROVIDE 7 1/2" SOLID MASONRY UNDER BEAMS AND COLUMNS.

- MASONRY WALLS TO BE TIED TO EACH TIER OF JOISTS WITH 1 9/16" X 3/16" CORROSION RESISTANT STEEL STRAPS, KEYED MINIMUM 4" INTO MASONRY. WHEN JOISTS ARE PARALLEL TO WALL, TIES ARE TO EXTEND ACHROSS AT LEAST 3 JOISTS @ 6-7 O.C.

- INSIDE BACK OF WALL TO BE PARGED AND COVERED WITH No.15 BREATHER-TYPE ASPHALT PAPER.

- FOR REDUCED FOUNDATION WALLS TO ALLOW A BRICK FACING WHILE MAINTAINING LATERAL SUPPORT, THE MINIMUM 3 1/2" BRICK TO MINIMUM 3 1/2" BACK-UP BLOCK WITH CORROSION RESISTANT TIES AT LEAST 0.028in2 IN CROSS SECTION AREA, SPACED 7 7/8" VERTICALLY AND 2-11" HORIZONTALLY, WITH JOINTS COMPLETELY FILLED WITH MORTAR.

- MASONRY OVER OPENINGS SHALL BE SUPPORTED ON CORROSION RESISTANT OR PRIME PAINTED STEEL LINTELS WITH A MINIMUM OF 5 7/8" END BEARING.

## WOOD FRAME CONSTRUCTION

- ALL LUMBER SHALL BE SPRUCE-PINE-FIR No. 1&2, AND SHALL BE IDENTIFIED BY A GRADE STAMP.

- MAXIMUM MOISTURE CONTENT 19% AT TIME OF INSTALLATION.

- WOOD FRAMING MEMBERS WHICH ARE SUPPORTED ON CONCRETE IN DIRECT CONTACT WITH SOIL SHALL BE SEPARATED FROM THE CONCRETE WITH 6mil. POLYETHYLENE.

## WALLS

- EXTERIOR WALLS SHALL CONSIST OF:  
- CLADDING  
- CONT. AIR BARRIER  
- 7/16" EXTERIOR GRADE SHEATHING  
- 2X6 STUDS @ 16 O.C.  
- 2X6 BOTTOM PLATE AND DOUBLE 2X6 TOP PLATE

- INTERIOR LOADBEARING WALLS SHALL CONSIST OF:  
- 2X4 STUDS @ 16" O.C.  
- 2X4 BOTTOM PLATE AND DOUBLE 2X4 TOP PLATE  
- 2X4 MID-GIRTS IF NOT SHEATHED  
- 1/2" GYPSUM WALLBOARD

## FLOORS

- SEE FLOOR PLANS FOR FLOOR JOIST SIZE AND SPACING.

- JOISTS TO HAVE MINIMUM 1 1/2" OF END BEARING.

- JOISTS SHALL BEAR ON A SILL PLATE FIXED TO FOUNDATION WITH 1/2" ANCHOR BOLTS @ 7-10" O.C.

- HEADER JOISTS BETWEEN 3'-11" AND 10'-6" IN LENGTH SHALL BE DOUBLED. HEADER JOISTS EXCEEDING 10'-6" SHALL BE SIZED BY CALCULATIONS.  
- TRIMMER JOISTS SHALL BE DOUBLED WHEN SUPPORTED HEADER IS BETWEEN 2'-7" AND 5'-7". TRIMMER JOISTS SHALL BE SIZED BY CALCULATIONS WHEN SUPPORTED HEADER EXCEEDS 6'-7".

- 2X2 CROSS BRIDGING REQUIRED NOT MORE THAN 6'-11" FROM EACH SUPPORT AND FROM OTHER ROWS OF BRIDGING.

- JOISTS SHALL BE SUPPORTED ON JOIST HANGERS AT ALL FLUSH BEAMS, TRIMMERS, AND HEADERS.

- JOISTS LOCATED UNDER PARALLEL NON-LOADBEARING PARTITIONS SHALL BE DOUBLED.

## ROOFING

- FASTENERS FOR ROOFING SHALL BE CORROSION RESISTANT. ROOFING NAILS SHALL PENETRATE THROUGH OR AT LEAST 1/2" INTO ROOF SHEATHING.

- EVERY ASPHALT SHINGLE SHALL BE FASTENED WITH AT LEAST 4 NAILS.

- EAVES PROTECTION SHALL EXTEND 2'-6" FROM THE INSIDE FACE OF THE EXTERIOR WALL, AND SHALL CONSIST OF TYPE M OR TYPE S ROLL ROOFING LAID MINIMUM 4" HEAD AND END LAPS CEMENTED TOGETHER, OR GLASS FIBRE OR POLYESTER FIBRE COATED BASE SHEETS OR SELF SEALING COMPOSITE MEMBRANES CONSISTING OF MODIFIED BITUMINOUS COATED MATERIAL. EAVE PROTECTION IS NOT REQUIRED FOR UNHEATED BUILDING.

- OPEN VALLEYS SHALL BE FLASHED WITH 2 LAYERS OF ROLL ROOFING, OR 1 LAYER OF SHEET METAL. MINIMUM 23 5/8" WIDE.

- FLASHING SHALL BE PROVIDED AT THE INTERSECTION OF SHINGLE ROOFS WITH EXTERIOR WALLS AND CHIMNEYS.

- SHEET METAL FLASHING SHALL CONSIST OF NOT LESS THAN 1/16" SHEET LEAD, 0.013" GALVANIZED STEEL, 0.018" COPPER, 0.018" ZINC, OR 0.019" ALUMINUM.

## INSULATION & WEATHERPROOFING

- AS PER OBC SB-12 -PACKAGE A1

CEILING WITH ATTIC R60  
ROOF WITHOUT ATTIC R31  
EXTERIOR WALL R22  
FOUNDATION WALL R20  
EXPOSED FLOOR/R10 SLABS ON GRADE R10 (UNHEATED)  
R10 (HEATED)  
SUPPLY DUCTS IN UNHEATED SPACESR12

- INSULATION SHALL BE PROTECTED WITH GYPSUM WALLBOARD OR AN EQUIVALENT INTERIOR FINISH, EXCEPT FOR UNFINISHED BASEMENTS WHERE 6mil. POLY IS SUFFICIENT FOR FIBREGLASS TYPE INSULATIONS.

- DUCTS PASSING THROUGH UNHEATED SPACE SHALL BE MADE AIRTIGHT WITH TAPE OR SEALANT.

- WEATHERSTRIPPING SHALL BE PROVIDED FOR ALL EXTERIOR DOORS AND WINDOWS BETWEEN THE FRAME AND THE EXTERIOR CLADDING.  
- WEATHERSTRIPPING SHALL BE PROVIDED ON ALL DOORS AND ACCESS HATCHES TO THE EXTERIOR, EXCEPT DOORS FROM A GARAGE TO THE EXTERIOR.

- EXTERIOR WALLS, CEILINGS AND FLOORS SHALL BE CONSTRUCTED SO AS TO PROVIDE A CONTINUOUS BARRIER TO THE PASSAGE OF WATER VAPOUR FROM THE INTERIOR AND TO THE LEAKAGE OF AIR FROM THE EXTERIOR.

## DOORS AND WINDOWS

- EVERY FLOOR LEVEL CONTAINING A BEDROOM AND NOT SERVED BY AN EXTERIOR DOOR SHALL CONTAIN AT LEAST 1 WINDOW HAVING AN UNOBSTRUCTED OPEN AREA OF 3.8 SF AND NO DIMENSION LESS THAN 15", WHICH IS OPERABLE FROM THE INSIDE WITHOUT TOOLS.

- EXTERIOR HOUSE DOORS AND WINDOWS WITHIN 6'-7" FROM GRADE SHALL BE CONSTRUCTED TO RESIST FORCED ENTRY. DOORS SHALL HAVE A DEADBOLT LOCK.

- THE PRINCIPAL ENTRY DOOR SHALL HAVE EITHER A DOOR VIEWER, TRANSPARENT GLAZING OR A SIDELIGHT.

## COLUMNS, BEAMS & LINTELS

- STEEL BEAMS AND COLUMNS SHALL BE SHOP PRIMED.

- MINIMUM 3 1/2" END BEARING FOR WOOD AND STEEL BEAMS, WITH 7 7/8" SOLID MASONRY BENEATH THE BEAM.

- STEEL COLUMNS TO HAVE A MINIMUM OUTSIDE DIAMETER OF 3 1/2" AND MINIMUM WALL THICKNESS OF 1/4".

- WOOD COLUMNS FOR CARPORTS AND GARAGES SHALL BE MINIMUM 3 1/2" X 3 1/2" IN ALL OTHER CASES EITHER 5 1/2" X 5 1/2" OR 7 1/4" ROUND, UNLESS CALCULATIONS BASED ON ACTUAL LOADS SHOW LESSER SIZES ARE ADEQUATE. ALL COLUMNS SHALL BE NOT LESS THAN THE WIDTH OF THE SUPPORTED MEMBER.

- MASONRY COLUMNS SHALL BE MINIMUM OF 1 3/8" X 11 3/8" OR 9 1/2" X 15".

- PROVIDE SOLID BLOCKING THE FULL WIDTH OF THE SUPPORTED MEMBER UNDER ALL CONCENTRATED LOADS.

## NOTCHING & DRILLING OF TRUSSES, JOISTS, RAFTERS

REFER TO DATA SHEET BY LVL.

## SMOKE AND CARBON MONOXIDE DETECTORS/ALARMS

AT LEAST ONE SMOKE ALARM SHALL BE INSTALLED ON OR NEAR THE CEILING OF EACH BEDROOM AND BASEMENT LEVEL, 2'-11" OR MORE ABOVE AN ADJACENT LEVEL.

- SMOKE ALARMS SHALL BE INTERCONNECTED IN ELECTRICAL CIRCUIT WITH BATTERY BACKUP AND LOCATED SUCH THAT ONE IS WITHIN 16'-5" OF EVERY BEDROOM DOOR, IN EVERY BEDROOM, AND NO MORE THAN 49'-3" TRAVEL DISTANCE FROM ANY POINT ON A FLOOR. SMOKE ALARMS SHALL HAVE A VISUAL, SIGNALLING COMPONENT CONFORMING TO THE REQUIREMENTS OF NFPA 72 "NATIONAL FIRE ALARM AND SIGNALLING CODE"

- A CARBON MONOXIDE DETECTOR SHALL BE INSTALLED ON OR NEAR THE CEILING IN EVERY ROOM CONTAINING A SOLID FUEL BURNING FIREPLACES OR STOVE.

## GARAGE GASPROOFING

- THE WALLS AND CEILING OF AN ATTACHED GARAGE SHALL BE CONSTRUCTED AND SEALED SO AS TO PROVIDE AN EFFECTIVE BARRIER TO EXHAUST FUMES.

- ALL PLUMBING AND OTHER PENETRATIONS THROUGH THE WALLS AND CEILING SHALL BE CAULKED

- DOORS BETWEEN DWELLING AND ATTACHED GARAGE MAY NOT OPEN INTO A BEDROOM AND SHALL BE WEATHERSTRIPPED AND HAVE A SELF-CLOSER.

## ROOF & CEILINGS

- SEE DRAWING A-03 FOR RAFTER, ROOF JOIST AND CEILING JOIST SIZE AND REQUIREMENTS.

- HIP AND VALLEY RAFTER SHALL BE 2" DEEPER THAN COMMON RAFTERS.

- 2X4 COLLAR TIES @ RAFTER SPACING WITH 1X4 CONTINUOUS BRACE AT MID SPAN IF COLLAR EXCEEDS 7'-10" IN LENGTH.

- SEE DRAWING A-03 FOR ROOF SHEATHING REQUIREMENTS.

## ACCESS TO ATTICS AND CRAWL SPACES

- ACCESS HATCH MINIMUM 19 3/4" X 2'-4" TO BE PROVIDED TO EVERY CRAWL SPACE AND EVERY ROOF SPACE WHICH IS 108 SF OR MORE IN AREA AND MORE THAN 23 5/8" IN HEIGHT.

## STAIRS

- MINIMUM RISE 125 MM (OBC TABLE 9.8.4.1)  
- MINIMUM RUN 255 MM  
- MINIMUM HEADROOM 1950 MM  
- MINIMUM WIDTH 860 MM

- TAPERED STAIRS SHALL HAVE A RUN THAT (OBC 9.8.4.3) a) IS NOT LESS THAN 150 MM AT THE NARROW END OF THE TREAD, & b) COMPLIES WITH THE DIMENSIONS FOR RECTANGULAR TREADS SPECIFIED IN TABLE 9.8.4.1, WHEN MEASURED AT A POINT 300 MM FROM THE CENTRE LINE OF THE INSIDE HANDRAIL.

- WINDERS (OBC 9.8.4.5) WHICH CONVERGE TO A POINT IN STAIRS MUST TURN THROUGH AN ANGLE OF NO MORE THAN 90(deg.) WITH NO LESS THAN 30(deg.) OR MORE THAN 45(deg.) PER TREAD. SETS OF WINDERS MUST BE SEPARATED BY 3'-11" ALONG THE RUN OF THE STAIR.

- A LANDING SHALL BE (OBC 9.8.6.3) a) AT LEAST AS WIDE AS THE WIDTH OF THE STAIR OR RAMP IN WHICH THEY OCCUR, AND b) AT LEAST AS LONG AS THE WIDTH OF THE STAIR OR RAMP IN WHICH THEY OCCUR.

- THE CLEAR HEIGHT OVER LANDINGS SHALL BE NOT LESS THAN 1950 mm (OBC 9.8.6.4) STEPS IN SHALL BE NOT LESS THAN 1950 mm (OBC 9.8.2.2) STEPS IN SPIRAL STAIRS SHALL BE NOT LESS THAN 1980 mm (OBC 9.8.4.5A)

- EXTERIOR CONCRETE STAIRS WITH MORE THAN 2 RISERS REQUIRE FOUNDATIONS.

## HANDRAILS AND GUARDS

- A HANDRAIL IS REQUIRED FOR INTERIOR STAIRS CONTAINING MORE THAN 2 RISERS AND EXTERIOR STAIRS CONTAINING MORE THAN 3 RISERS.

- GUARDS ARE REQUIRED AROUND EVERY ACCESSIBLE SURFACE WHICH IS MORE THAN 23 5/8" ABOVE THE ADJACENT LEVEL.

- INTERIOR AND EXTERIOR GUARDS MIN. 2'-11 1/2" HIGH. EXTERIOR GUARDS SHALL BE 3'-1.8" HIGH WHERE HEIGHT ABOVE ADJACENT SURFACES EXCEEDS 5'-11"

- GUARDS SHALL HAVE NO OPENINGS GREATER THAN 4" AND NO MEMBER BETWEEN 4" AND 2'-11 1/2" THAT WILL FACILITATE CLIMBING.

## PLUMBING - SEE FLOOR PLANS

- EVERY DWELLING REQUIRES A KITCHEN SINK, LAVATORY, WATER CLOSET, BATHTUB OR SHOWER STALL AND THE INSTALLATION OR AVAILABILITY OF LAUNDRY FACILITIES.

- A FLOOR DRAIN SHALL BE INSTALLED IN THE BASEMENT, AND CONNECTED TO THE SANITARY SEWER WHERE GRAVITY DRAINAGE IS POSSIBLE. IN OTHER CASES, IT SHALL BE CONNECTED TO A STORM DRAINAGE SYSTEM, DITCH OR DRY WELL.

## NATURAL VENTILATION

- EVERY ROOF SPACE ABOVE AN INSULATED CEILING SHALL BE VENTILATED WITH UNOBSTRUCTED OPENINGS EQUAL TO NOT LESS THAN 1/300 OF INSULATED AREA.

- INSULATED ROOF SPACES NOT INCORPORATING AN ATTIC SHALL BE VENTILATED WITH UNOBSTRUCTED OPENINGS EQUAL TO NOT LESS THAN 1/150 OF INSULATED AREA.

- ROOF VENTS SHALL BE UNIFORMLY DISTRIBUTED AND DESIGNED TO PREVENT THE ENTRY OF RAIN, SNOW OR INSECTS.

- UNHEATED CRAWL SPACES SHALL BE PROVIDED WITH 1.1 SF OF VENTILATION FOR EACH 536 SF.

- MINIMUM NATURAL VENTILATION AREAS, WHERE MECHANICAL VENTILATION IS NOT PROVIDED, ARE:  
BATHROOMS 0.97 SF  
OTHER ROOMS 3 SF  
UNFINISHED BASEMENTS 0.2% OF FLOOR AREA

## EXTERIOR WALLS

- NO WINDOWS OR OTHER UNPROTECTED OPENINGS ARE PERMITTED IN EXTERIOR WALLS LESS THAN 3'-11" FROM PROPERTY LINES.

- 5/8" FIRE RATED DRYWALL SHALL BE INSTALLED ON THE INSIDE FACE OF ATTACHED GARAGE EXTERIOR WALLS AND GABLE ENDS OF ROOFS WHICH ARE LESS THAN 3'-11" FROM PROPERTY LINES.

- NON COMBUSTIBLE CLADDING SHALL BE INSTALLED ON ALL EXTERIOR WALLS LESS THAN 23 5/8" FROM PROPERTY LINES.

## CERAMIC TILE

- WHEN CERAMIC TILE IS APPLIED TO A MORTAR BED WITH ADHESIVE, THE BED SHALL BE A MINIMUM OF 1/2" THICK & REINFORCED WITH GALVANIZED DIAMOND MESH LATH, APPLIED OVER POLYETHYLENE ON SUBFLOORING ON JOISTS AT NO MORE THAN 16'-0 O.C. WITH AT LEAST 2 ROWS OR CROSS BRIDGING.

## ELECTRICAL

- AN EXTERIOR LIGHT CONTROLLED BY AN INTERIOR SWITCH IS REQUIRED AT EVERY ENTRANCE.

- A LIGHT CONTROLLED BY A SWITCH IS REQUIRED IN EVERY KITCHEN, BEDROOM, LIVING ROOM, UTILITY ROOM, LAUNDRY ROOM, DINING ROOM, BATHROOM, VESTIBULE, HALLWAY, GARAGE AND CARPORT. A SWITCHED RECEPTACLE MAY BE PROVIDED INSTEAD OF A LIGHT IN BEDROOMS AND LIVING ROOMS

- STAIRS SHALL BE LIGHTED, AND EXCEPT WHERE SERVING AN UNFINISHED BASEMENT SHALL BE CONTROLLED BY A 3 WAY SWITCH AT THE HEAD AND FOOT OF THE STAIRS.

- BASEMENTS REQUIRE A LIGHT FOR EACH 323 SF, CONTROLLED BY A SWITCH AT THE HEAD OF THE STAIRS.

## MECHANICAL VENTILATION

- A MECHANICAL VENTILATION SYSTEM IS REQUIRED WITH A TOTAL CAPACITY AT LEAST EQUAL TO THE SUM OF:  
- 10 CFM EACH FOR BASEMENT AND MASTER BEDROOM  
- 5 CFM FOR EACH OTHER ROOM

- A PRINCIPLE DWELLING EXHAUST FAN SHALL BE INSTALLED AND CONTROLLED BY A CENTRALLY LOCATED SWITCH IDENTIFIED AS SUCH.

- SUPPLEMENTAL EXHAUST SHALL BE INSTALLED SO THAT THE TOTAL CAPACITY OF ALL KITCHEN, BATHROOM AND OTHER EXHAUSTS, LESS THE PRINCIPAL EXHAUST, IS NOT LESS THAN THE TOTAL REQUIRE CAPACITY.

- A HEAT RECOVERY VENTILATOR MAY BE EMPLOYED IN LIEU OF EXHAUST TO PROVIDE VENTILATION. AN HRV IS REQUIRED IF ANY SOLID FUEL BURNING APPLIANCES ARE INSTALLED.

- SUPPLY AIR INTAKES SHALL BE LOCATED SO AS TO AVOID CONTAMINATION FROM EXHAUST OUTLETS.

## DRAWING NOTES

1. FINISHED FLOOR ELEVATION 0'-0" SHOWN ON ARCHITECTURAL DRAWINGS REFERS TO TOP OF PLYWOOD SUBFLOORING, AND REFERENCE SURVEYOR OF RECORD DOCUMENTS FOR ELEVATION ABOVE SEA LEVEL.

2. WHEN REFERENCE IS MADE TO A PARTICULAR MANUFACTURED SYSTEM, ALL PARTS AND MATERIALS APPLICABLE SHALL BE SUPPLIED AND INSTALLED.

3. IF THE CONTRACTOR OBSERVES ANY ERRORS, DISCREPANCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS, HE SHALL PROMPTLY NOTIFY THE LICENSED DESIGNER. THE CONTRACTOR PROCEEDS WITH WORK AFFECTED BY SUCH ERRORS, DISCREPANCIES, OR OMISSIONS WITHOUT RECEIVING CLARIFICATION, HE DOES SO AT HIS OWN SUCH CIRCUMSTANCES MADE BY THE CONTRACTOR, PRIOR TO APPROVAL BY RISK. ANY ADJUSTMENTS INVOLVING THE LICENSED DESIGNER, SHALL BE AT THE CONTRACTOR'S RISK AND ANY COMPLICATIONS OR DISPUTES ARISING THEREFROM SHALL BE AT THE CONTRACTOR'S EXPENSE.

4. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY, TOOL OR SPECIAL KNOWLEDGE.

5. FIRE DEPARTMENT ACCESS AND WATER TO SITE SHALL BE MAINTAINED DURING CONSTRUCTION.

6. MAINTAIN MINIMUM 6" VERTICAL DISTANCE BETWEEN FINISH FLOOR AND ADJACENT GRADES, SLOPE MIN. 2%.

7. GLAZING IN DOORS, ADJACENT TO DOORS, AND CLOSER THAN 18" TO FINISH FLOOR SHALL BE TEMPERED.

8. THE CONTRACTOR SHALL PROVIDE ALL WORK NECESSARY TO COMPLETE A WEATHER TIGHT, FINISHED PRODUCT.

9. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

10. CONTRACTORS SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.

11. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES BEFORE STARTING WORK.

12. THE STARTING OF WORK BY ANY CONTRACTOR OR SUB-CONTRACTOR SHALL BE CONSIDERED PRIMA FACIE EVIDENCE THAT HE HAS INSPECTED AND ACCEPTED ALL CONDITIONS INVOLVED IN HIS WORK AND FINDS THEM SATISFACTORY.

13. ALL COMPONENTS, EQUIPMENT, PRODUCTS SHALL BE INSTALLED PER LICENSED DESIGNER AND MANUFACTURERS PRINTED INSTRUCTIONS.

14. AT THE JUNCTURE OF ALL DISSIMILAR MATERIALS, PROVIDE PROTECTIVE SEALANT TO COATINGS AS APPLICABLE PER PLANS AND SPECS.

15. PROVIDE ALL FIRE BLOCKING, FIRE STOPS AND DRAFT STOPS IN FLOORS, WALLS, PLENUMS AND ATTICS AS REQUIRED BY CODE.

16. ANY CHANGE IN ALL PLANS OR SPECS MUST BE FIRST APPROVED BY LICENSED DESIGNER IN WRITING.

17. DOORS AND WINDOWS ARE TO COMPLY WITH "RESISTANCE TO FORCED ENTRY" REQUIREMENTS - OBC 9.6.6.

18. LIGHTING AND ELECTRICAL FACILITIES - OBC 9.3.4.

19. GRAB BAR REINFORCEMENT & GRAB BAR INSTALLATION SPECIFICATIONS SHALL BE AS PER OBC 3.8.38.

+	NFHB	NON-FREEZE HOSE BIB
⊗	FD	EXHAUST FAN
⊕	FD	FLOOR DRAIN
●	SD	SMOKE DETECTOR (INTERCONNECTED)
⊗	CO	CARBON MONOXIDE DETECTOR (INTERCONNECTED)
⊠	SB	SOLID BEARING
X	PLA	POINT LOAD ABOVE

## ACRONYMS

A B	ANCHOR BOLT
AFF	ABOVE FINISHED FLOOR
BRG. PL	BEARING PLATE
DJ	DOUBLE JOIST
EST	ESTIMATED
E.I.F.S	EXTERIOR INSULATION FINISH SYSTEM
FDN	FOUNDATION
FD	FLOOR DRAIN
FTG	FOOTING
GT	GIRDER TREATED LUMBER
HRV	HEAT RETURN VENTILATION UNIT
HWT	HOT WATER TANK
LVL	LAMINATED VENEER LUMBER
OH	OVERHEAD
PLA	POINT LOAD ABOVE
PT	PRESSURE TREATED LUMBER
PWDR	POWDER ROOM
REQ'D	REQUIRED
RO	ROUGH OPENING
RT	ROOF TRUSS
SPEC.	SPECIFICATIONS
TJ	TRIPLE JOIST
TYP	TYPICAL
T/O	TOP OF
UIS	UNDER SIDE
WD	WOOD
W.I.C	WALK IN CLOSET
O.H	OVER HANG

## ANCHOR BOLT SPACING

O.B.C. TABLE 9.20.17.5

MAX CLEAR FLOOR SPAN	STAGGERED 1/2" ANCHOR BOLTS	STAGGERED 5/8" ANCHOR BOLTS
8'-0"	18"	20"
9'-10"	16"	18"
13'-1.5"	12"	16"
16'-4"	11"	13"



**DOOR SCHEDULE**

Mark	Width	Height
------	-------	--------

D1	2' - 8"	6' - 8"
D2	5' - 0"	8' - 0"
D3	8' - 0"	7' - 0"
D4	2' - 4"	6' - 8"
D5	2' - 6"	6' - 8"
D6	2' - 8"	6' - 8"
D7	2' - 8"	6' - 8"
D8	2' - 8"	6' - 8"
D9	5' - 0"	6' - 8"
D10	2' - 8"	7' - 0"
D11	3' - 0"	6' - 8"
D12	2' - 8"	6' - 8"
D13	4' - 0"	6' - 8"
D14	2' - 8"	6' - 8"
D15	2' - 4"	6' - 8"
D16	5' - 0"	6' - 8"
D17	2' - 8"	6' - 8"
D18	2' - 4"	6' - 8"
D19	2' - 4"	6' - 8"
D20	2' - 8"	6' - 8"
D21	5' - 0"	8' - 0"
D22	8' - 0"	7' - 0"
D23	2' - 4"	6' - 8"
D24	4' - 0"	6' - 8"
D25	2' - 8"	6' - 8"
D26	2' - 8"	6' - 8"
D27	5' - 0"	6' - 8"
D28	2' - 8"	7' - 0"
D29	5' - 0"	6' - 8"
D30	2' - 8"	6' - 8"
D31	2' - 8"	6' - 8"
D32	3' - 0"	6' - 8"
D33	5' - 0"	6' - 8"
D34	2' - 4"	6' - 8"
D35	2' - 8"	6' - 8"
D36	2' - 4"	6' - 8"
D37	2' - 4"	6' - 8"

**DOOR SCHEDULE**

Mark	Width	Height
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D38	2' - 8"	6' - 8"
D39	5' - 0"	8' - 0"
D40	8' - 0"	7' - 0"
D41	2' - 4"	6' - 8"
D42	4' - 0"	6' - 8"
D43	2' - 8"	6' - 8"
D44	2' - 8"	6' - 8"
D45	5' - 0"	6' - 8"
D46	2' - 8"	7' - 0"
D47	3' - 0"	6' - 8"
D48	2' - 8"	6' - 8"
D49	2' - 8"	6' - 8"
D50	5' - 0"	6' - 8"
D51	2' - 4"	6' - 8"
D52	5' - 0"	6' - 8"
D53	2' - 8"	6' - 8"
D54	2' - 4"	6' - 8"
D55	2' - 4"	6' - 8"
D56	2' - 8"	6' - 8"
D57	5' - 0"	8' - 0"
D58	8' - 0"	7' - 0"
D59	2' - 4"	6' - 8"
D60	2' - 6"	6' - 8"
D61	2' - 8"	6' - 8"
D62	2' - 8"	6' - 8"
D63	2' - 8"	6' - 8"
D64	5' - 0"	6' - 8"
D65	2' - 8"	7' - 0"
D66	4' - 0"	6' - 8"
D67	2' - 8"	6' - 8"
D68	2' - 8"	6' - 8"
D69	3' - 0"	6' - 8"
D70	2' - 4"	6' - 8"
D71	5' - 0"	6' - 8"
D72	2' - 8"	6' - 8"
D73	2' - 4"	6' - 8"
D74	2' - 4"	6' - 8"

**WINDOW SCHEDULE**

Mark	Width	Height
------	-------	--------

W1	2' - 6"	2' - 0"
W2	2' - 6"	2' - 0"
W3	3' - 11"	2' - 8"
W4	2' - 6"	2' - 0"
W5	2' - 6"	2' - 0"
W6	3' - 11"	2' - 8"
W7	3' - 11"	2' - 8"
W8	2' - 6"	2' - 0"
W9	2' - 6"	2' - 0"
W10	3' - 11"	2' - 8"
W11	2' - 6"	2' - 0"
W12	2' - 6"	2' - 0"
W13	2' - 0"	5' - 0"
W14	8' - 0"	5' - 0"
W15	8' - 0"	5' - 0"
W16	8' - 0"	5' - 0"
W17	8' - 0"	5' - 0"
W18	2' - 0"	5' - 0"
W19	2' - 6"	4' - 0"
W20	2' - 6"	4' - 0"
W21	2' - 6"	4' - 0"
W22	2' - 6"	4' - 0"

**WINDOW SCHEDULE**

Mark	Width	Height
------	-------	--------

W23	2' - 0"	5' - 0"
W24	3' - 0"	5' - 0"
W25	2' - 0"	5' - 0"
W26	8' - 0"	5' - 0"
W27	8' - 0"	5' - 0"
W28	8' - 0"	5' - 0"
W29	8' - 0"	5' - 0"
W30	2' - 0"	5' - 0"
W31	3' - 0"	5' - 0"
W32	2' - 0"	5' - 0"
W33	2' - 6"	6' - 0"
W34	2' - 0"	7' - 0"
W35	8' - 0"	6' - 0"
W36	5' - 0"	6' - 0"
W37	2' - 6"	6' - 0"
W38	2' - 0"	7' - 0"
W39	2' - 0"	7' - 0"
W40	2' - 6"	6' - 0"
W41	5' - 0"	6' - 0"
W42	8' - 0"	6' - 0"
W43	2' - 0"	7' - 0"
W44	2' - 6"	6' - 0"

DOOR & WINDOW SCHEDULES ARE FOR REFERENCE ONLY.  
DESIGNER IS NOT LIABLE FOR ANY DISCREPANCY.

WINDOW SUPPLIER TO ENSURE DOORS & WINDOWS ARE AS PER  
OBC STANDARD INCLUDING MINIMUM OPENABLE OPENINGS

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THE UNDERSIGNED HAS REVIEWED AND TAKEN RESPONSIBILITY FOR THIS DESIGN AND HAS THE QUALIFICATION AND MEETS THE REQUIREMENTS SET OUT IN ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION REQUIRED UNLESS THE DESIGN IS EXEMPT UNDER DIVISION C - 3.2.5.1 OF THE 2012 ONTARIO BUILDING CODE.

NILAMRAJ (RAJ) PATEL 100621

NAME SIGNATURE BCIN

REGISTRATION INFORMATION REQUIRED UNLESS THE DESIGN IS EXEMPT UNDER DIVISION C - 3.2.4.1 OF THE 2012 ONTARIO BUILDING CODE.

RPDS 111189

FIRM NAME BCIN



No.: Revision: Date:

FOR REVIEW ONLY  
(NOT FOR PERMIT)

2 ReIssued For Review 2022/11/25

1 Issued For Review 2022/11/04

No.: Issued For: Date:

Client Name:

Drawing Title:

DOOR & WINDOW  
SCHEDULE

Project:

**JAMES**

PROPOSED TWO STOREY  
TOWNHOUSE, LOT 21 & 24,  
DORCHESTER ROAD, CITY  
OF NIAGARA FALLS

Scale:

Drawn by:

DA/MJ

Checked by:

RP

Project No.:

Date:

2022/10/21

Drawing No.:

A14



**BILD**