

GENERAL STRUCTURAL NOTES

DIVISION 1: GENERAL

DESIGN, FABRICATION, CONSTRUCTION, AND INSTALLATION OF ALL COMPONENTS SHALL BE IN CONFORMANCE WITH THE ONTARIO BUILDING CODE LATEST REVISIONS, PART 9  
IMPORTANCE CATEGORY: NORMAL  
GROUND SNOW LOAD  $S_s = 1.2 \text{ kPa}$   
GROUND RAIN LOAD  $S_r = 0.4 \text{ kPa}$   
WIND LOAD  $q_{50} = 0.44 \text{ kPa}$   
SEISMIC DATA:  $S_a(0.2) = 0.310$ ,  $S_a(0.5) = 0.160$ ,  $S_a(1.0) = 0.063$ ,  
 $S_a(2.0) = 0.022$  PGA = 0.170  
GROUND FLOOR LIVE LOAD = 4.8 kPa  
DEAD AND LIVE LOADS FROM EQUIPMENT AS SPECIFIED BY MANUFACTURER

DIVISION 2: SITEWORK, EXCAVATION, AND BACKFILLING

THE AREA BELOW NEW FOOTINGS SHALL BE EXCAVATED TO UNDISTURBED SOIL AT LEAST 1.2 M BELOW FINAL GRADE WHERE REQUIRED FOR FROST PROTECTION. INSULATION MAY BE USED FOR FROST PROTECTION.

ALL EXCAVATIONS INSIDE THE BUILDING OR UNDER CONCRETE SLABS SHALL BE BACKFILLED WITH GRANULAR "A" PLACED AND COMPACTED IN MAXIMUM 200 mm LIFTS TO ELEVATION ACHIEVING AT LEAST 98% STANDARD PROCTOR DENSITY OR WITH 20 mm CLEAR STONE LEVELLED AND HAND RAKED. TESTING TO BE DONE BY INDEPENDENT AGENCY IF REQUESTED BY THE OWNER.

FOOTINGS ARE DESIGNED TO BEAR ON SOIL HAVING A MINIMUM BEARING CAPACITY OF 120 kPa.

DIVISION 3: CAST-IN-PLACE AND PRECAST CONCRETE

ALL CONCRETE AND FORMWORK SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF CAN/CSA A-23.1 AND A23.3. PRECAST CONCRETE SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGNER FOR APPROVAL PRIOR TO MANUFACTURING.

CONCRETE FOR FOUNDATIONS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AT 28 DAYS.

CONCRETE FOR INTERIOR SLABS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS.

CONCRETE EXPOSED TO FREEZE-THAW ACTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa AT 28 DAYS AND SHALL HAVE AIR ENTRAINMENT OF 4-6%.

SLUMP SHALL BE A MINIMUM OF 75 mm AND A MAXIMUM OF 100 mm UNLESS PLASTICIZERS ARE USED. TESTING TO BE DONE BY INDEPENDENT AGENCY IF REQUESTED BY THE OWNER.

REINFORCING STEEL SHALL HAVE A MINIMUM STRENGTH OF 400 MPa UNLESS OTHERWISE NOTED AND SHALL BE PROPERLY SUPPORTED IN FORMS OR ON CHAIRS.

MINIMUM COVER ON REINFORCING STEEL TO BE 65 mm IN FOOTINGS AND SLABS ON GRADE AND 40 mm IN WALLS AND PIERS.

DIVISION 6: WOOD

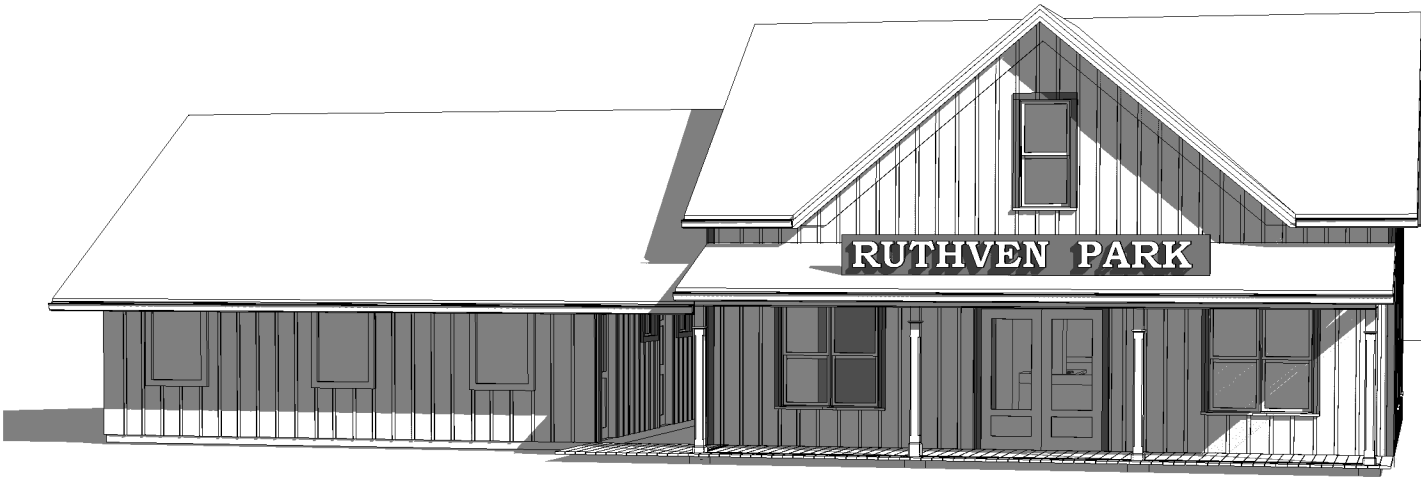
WOOD FRAMING DESIGN AND FABRICATION SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF CSA-O86.

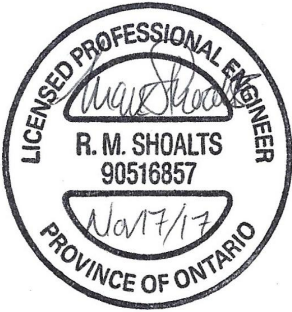

PLYWOOD, OSB, AND ENGINEERED WOOD PRODUCTS SHALL BE CERTIFIED IN ACCORDANCE WITH CSA O121, O122, O151, O325, OR O437 AS APPLICABLE.

PRE-ENGINEERED WOOD TRUSSES TO BE DESIGNED AND FABRICATED TO TPIC STANDARDS AND MANUFACTURER TO BE A MEMBER IN GOOD STANDING.

TRUSS AND ENGINEERED WOOD PRODUCT SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION OR INSTALLATION.

PROPOSED NEW ADMINISTRATION CENTRE  
RUTHVEN PARK - NATIONAL HISTORICAL SITE  
243 Haldimand Hwy#54  
Cayuga, ON



	 <b>P.O. BOX 218 FENWICK, ON L0S 1C0 905-892-2110</b>	project <b>NEW ADMIN CENTRE RUTHVEN PARK</b>	
		drawing <b>COVER SHEET</b>	
drawn by D. GREENWOOD	checked by M. SHOALTS	date JULY 14, 2017	scale 1" = 40'-0"
		sheet <b>A0</b>	

PROJECT CODE CONFORMANCE												
Item	Ontario Building Code Data Matrix Parts 3 & 9							Ontario Building Code Reference				
1	Project Description				<input type="checkbox"/> New <input checked="" type="checkbox"/> Addition <input type="checkbox"/> Change of Use <input type="checkbox"/> Alteration		<input type="checkbox"/> Part 11 11.1 to 11.4	<input type="checkbox"/> Part 3 2.1.1		<input checked="" type="checkbox"/> Part 9 2.1.1 9.10.1.3		
2	Major Occupancy(s)    D							3.1.2.1.(1)		9.10.2		
3	Building Area (m²)    Existing: 73    New: 95    Total: 168							1.1.3.2		1.1.3.2		
4	Gross Area (m²)    Existing: 73    New: 95    Total: 168							1.1.3.2		1.1.3.2		
5	Number of Storeys    Above Grade: 1    Below Grade: 0							3.2.1.1 & 1.1.3.2		2.1.1.3		
7	Number of Streets / Fire Fighter Access    2							3.2.2.10 & 3.2.5		9.10.19		
8	Building Classification							3.2.2.20-83		9.10.4		
9	Sprinkler System Proposed				<input type="checkbox"/> Entire Building <input type="checkbox"/> Basement Only <input type="checkbox"/> In Lieu of Roof Rating <input checked="" type="checkbox"/> Not Required			3.2.2.20-83 3.2.1.5 3.2.2.17		9.10.8		
10	Standpipe Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							3.2.9		N/A		
11	Fire Alarm Required    Yes <input checked="" type="checkbox"/> No							3.2.4		9.10.7.2		
12	Water Service/Supply is Adequate <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							3.2.5.7		N/A		
13	High Building <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							3.2.6		N/A		
14	Permitted Construction <input checked="" type="checkbox"/> Combustible <input type="checkbox"/> Non-Combustible <input type="checkbox"/> Both Actual Construction <input checked="" type="checkbox"/> Combustible <input type="checkbox"/> Non-Combustible <input type="checkbox"/> Both							3.2.2.20-83		9.10.6		
15	Mezzanine(s) Area (m²)    6							3.2.1.1.(3)-(8)		9.10.4.1		
16	Occupant Load Based on <input checked="" type="checkbox"/> m²/person <input type="checkbox"/> Design of Building							3.1.16		9.9.1.3		
	1st Floor		Occupancy		-	Load		-	persons			
	1st Floor		Occupancy		D	Load		12	persons			
	2nd Floor		Occupancy		-	Load		-	persons			
	2nd Floor		Occupancy		-	Load		-	persons			
17	Barrier-Free Design <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain)							3.8		9.5.2		
18	Hazardous Substances <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							3.3.1.2 & 3.3.1.19		9.10.1.3 (4)		
19	Required Fire Resistance Rating (FRR)	Horizontal Assemblies			Listed Design No. or Description (SB-2)		3.2.2.20-83 & 3.2.1.4		9.10.8		9.10.9	
FRR (Hours)												
Floors		N/R	Hours									
Roof		N/R	Hours									
Mezzanine		N/R	Hours									
FRR of Supporting Members			Listed Design No. or Description (SB-2)									
Floors		N/R	Hours									
		Roof	N/R	Hours								
		Mezzanine	N/R	Hours								
20	Spatial Separation - Construction of Exterior Walls							3.2.3		9.10.14		
	Wall	Area of EBF (m²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed Max. % of Openings	FRR (Hours)	Listed Design or Description	Comb. Const.	Comb. Const. Nonc. Cladding	Non-Comb. Const.	
	North	28	>30	3	100	10						
	South	-										
	East	35	>30	3	100	28						
	West	28	>30	3	100	28						
21	Other - Describe -											

WINDOW SCHEDULE				
Window Type	Window Description	Width	Height	Count
W1	5' 0" x 5' 4" - DOUBLE - DOUBLE HUNG WINDOW	5' - 0"	5' - 4"	4
W2	2' 6" x 5' 4" - DOUBLE HUNG WINDOW	2' - 6"	5' - 4"	2
W3	2' 6" x 5' 4" - FIXED DUMMY WINDOW	2' - 6"	5' - 4"	1
W4	2' 0" x 3' 0" - FIXED INTERIOR WINDOW	2' - 0"	3' - 0"	1

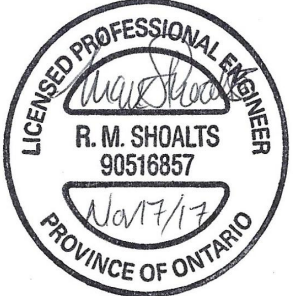
DOOR SCHEDULE							
Mark	Function	Door Description	Swing	Door Width	Door Height	count	Hardware notes
1	EXTERIOR	DOUBLE GLASS - EXTERIOR SWING DOOR	LH & RH	6' - 0"	7' - 0"	1	
2	EXTERIOR	DOUBLE GLASS - EXTERIOR - I OPERATOR	LH	3' - 0"	7' - 0"	1	
3	INTERIOR	INTERIOR WOOD DOOR	LH	3' - 0"	7' - 0"	3	
4	INTERIOR	INTERIOR WOOD DOOR	RH	3' - 0"	7' - 0"	2	
5	INTERIOR	INTERIOR WOOD POCKET DOOR		2' - 8"	6' - 10"	2	

WINDOWS TO BE VINYLWITH WOOD INTERIOR JAMB EXTENSIONS IN STANDARD SIZES MEETING THE SCHEDULE AS CLOSELY AS POSSIBLE. STYLE AND CONFIGURATION TO BE AS SHOWN ON THE ELEVATIONS.

EXTERIOR DOORS TO BE FIBREGLASS DOORS IN CLAD WOOD FRAMES. ENTRANCE DOOR TO HAVE BARRIER-FREE OPERATOR MEETING O.B.C. 3.8. EXTERIOR DOORS HAVE DEADLOCKS KEYED ALIKE. FRONT ENTRANCE TO HAVE DEADLOCK, EXTERIOR PULL, AND INTERIOR PUSH ON ACTIVE LEAF, FLUSH BOLTS ON INACTIVE LEAF. REAR DOOR TO HAVE DEADLOCK AND PASSAGE SET. ALL LOCKS KEYED TO MASTER.

DOOR AND WINDOW PERFORMANCE TO MEET O.B.C. 9.7.4.

INTERIOR DOORS TO BE 1 3/8" HARDBOARD PANEL DOORS IN STANDARD CONFIGURATION TO OWNERS CHOICE WITH 2 3/4" WIDE PAINT GRADE TRIM AND 4 1/4" PAINT GRADE BASEBOARD. INDIVIDUAL OFFICE DOORS TO HAVE KEY-IN-KNOB LOCKSETS KEYED DIFFERENTLY AND MASTER-KEYED. WASHROOM TO HAVE PRIVACY SET.



**SHOALTS**

P.O. BOX 218  
FENWICK, ON  
L0S 1C0  
905-892-2110

project

NEW ADMIN CENTRE  
RUTHVEN PARK

drawing

MATRIX & SCHEDULES

drawn by

D.  
GREENWOOD

checked by

M. SHOALTS

date

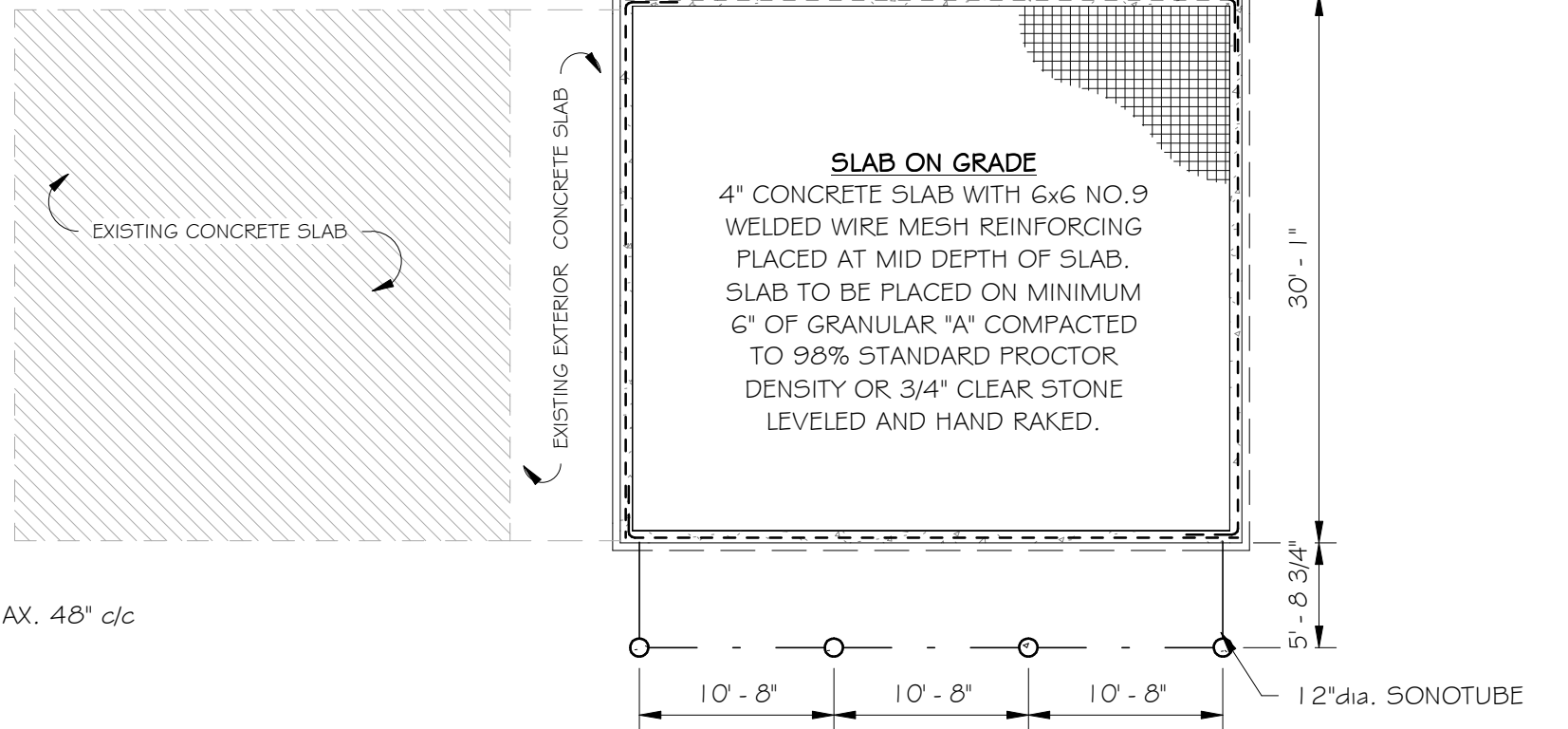
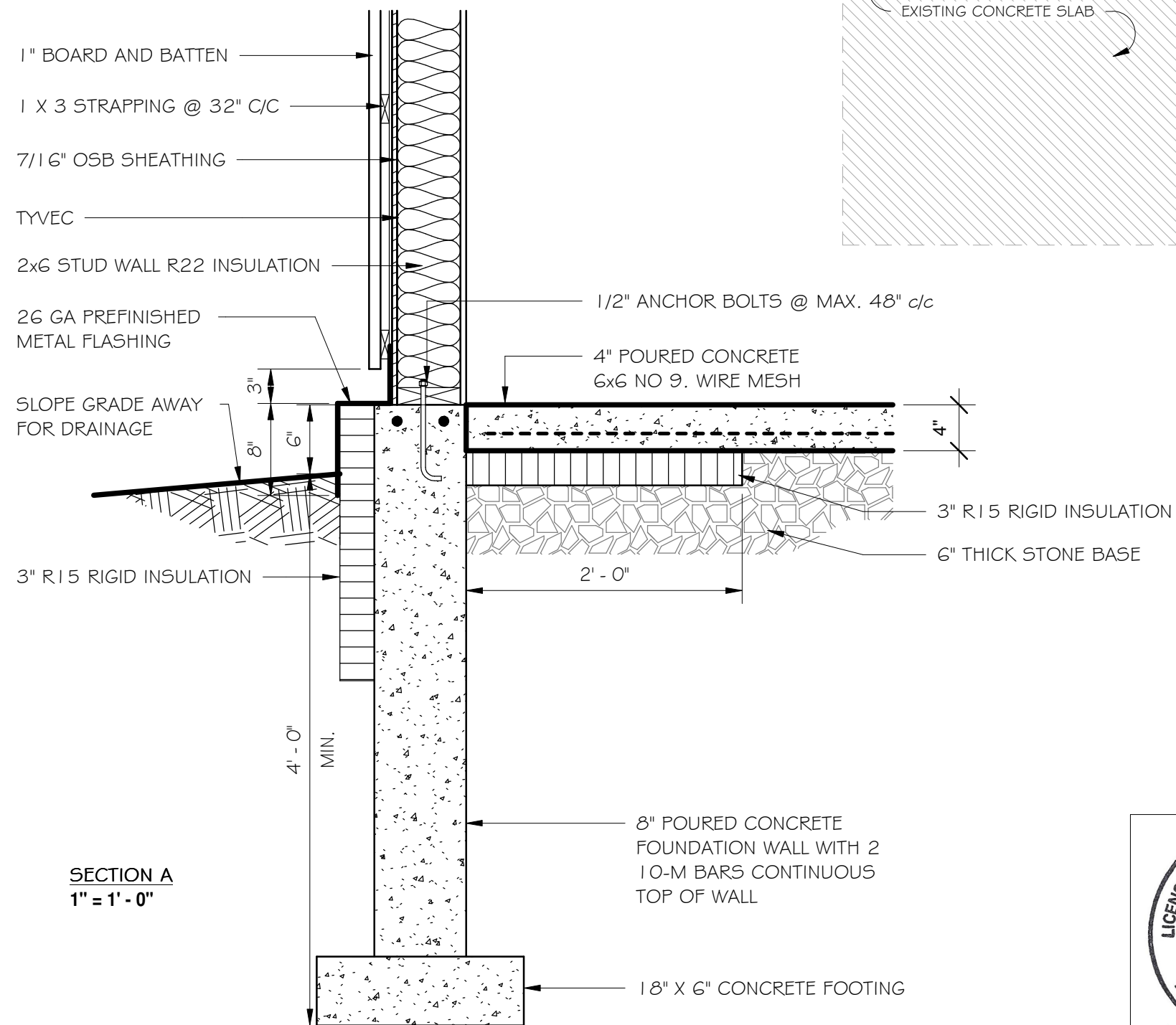
JULY 14, 2017

scale

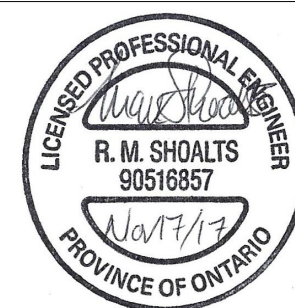
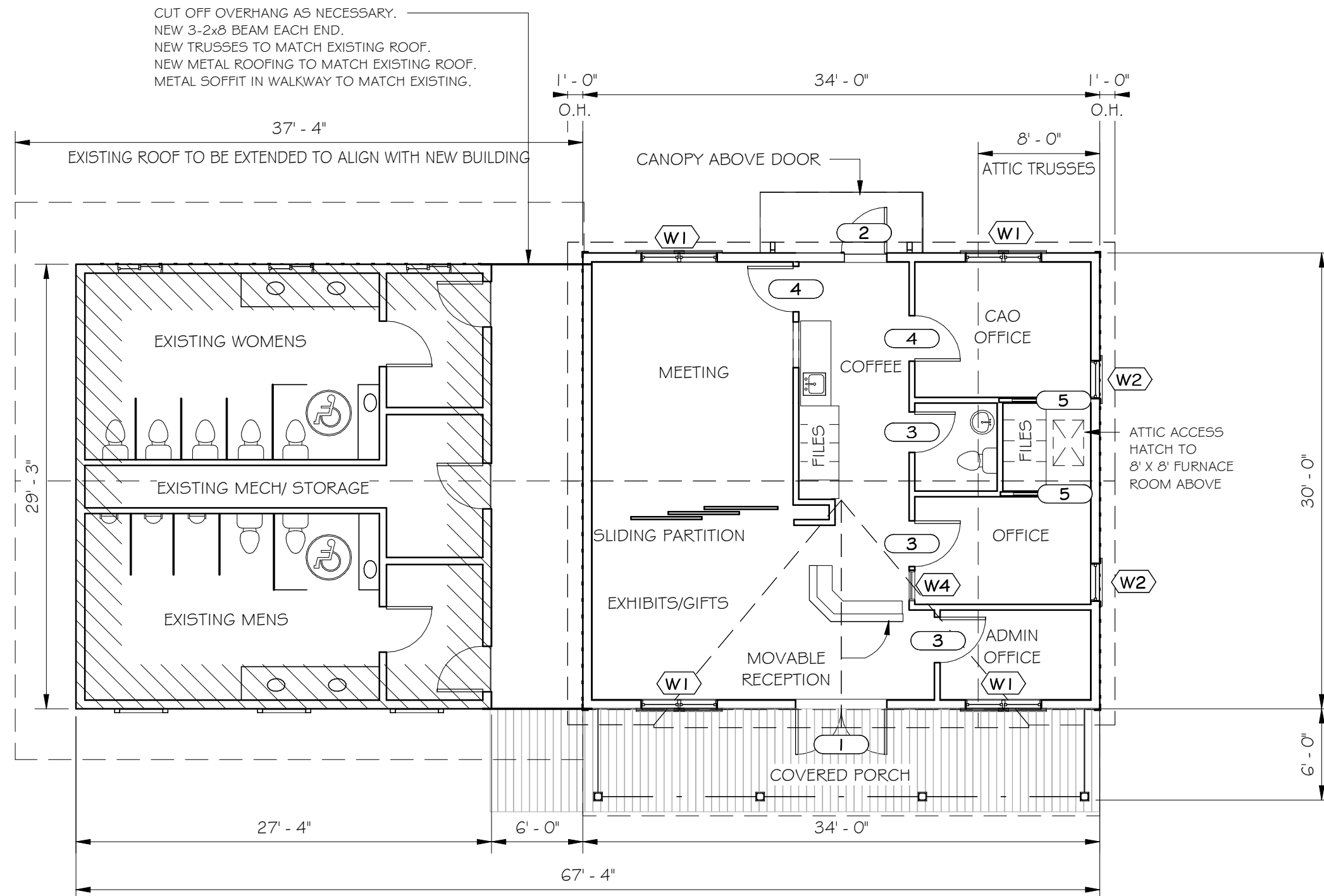
1/2" = 1'-0"

sheet

A1



	<b>SHOALTS</b> P.O. BOX 218 FENWICK, ON L0S 1C0 905-892-2110	project NEW ADMIN CENTRE RUTHVEN PARK		
		drawing FOUNDATION / SLAB DETAILS		
drawn by D. GREENWOOD	checked by M. SHOALTS	date JULY 14, 2017	scale As indicated	sheet A2



**SHOALTS**

P.O.BOX 218  
FENWICK, ON  
L0S 1C0  
905-892-2110

drawn by  
D.  
GREENWOOD

checked by	M. SHOALTS
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project

NEW ADMIN CENTRE  
RUTHVEN PARK

drawing

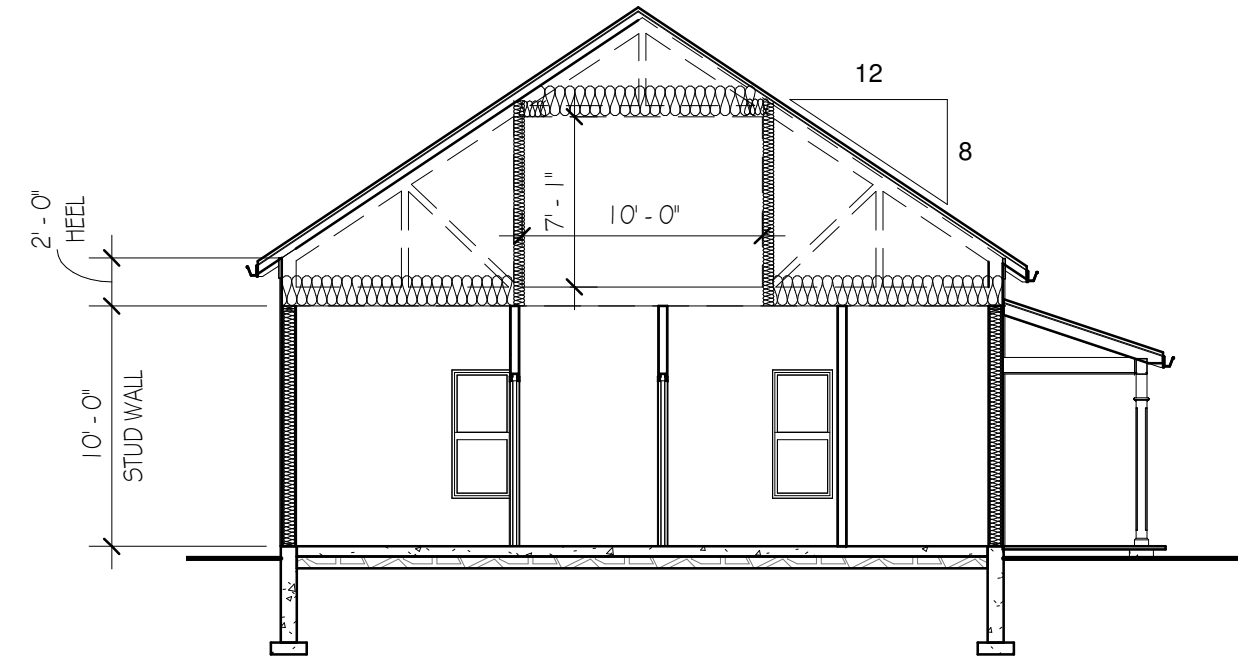
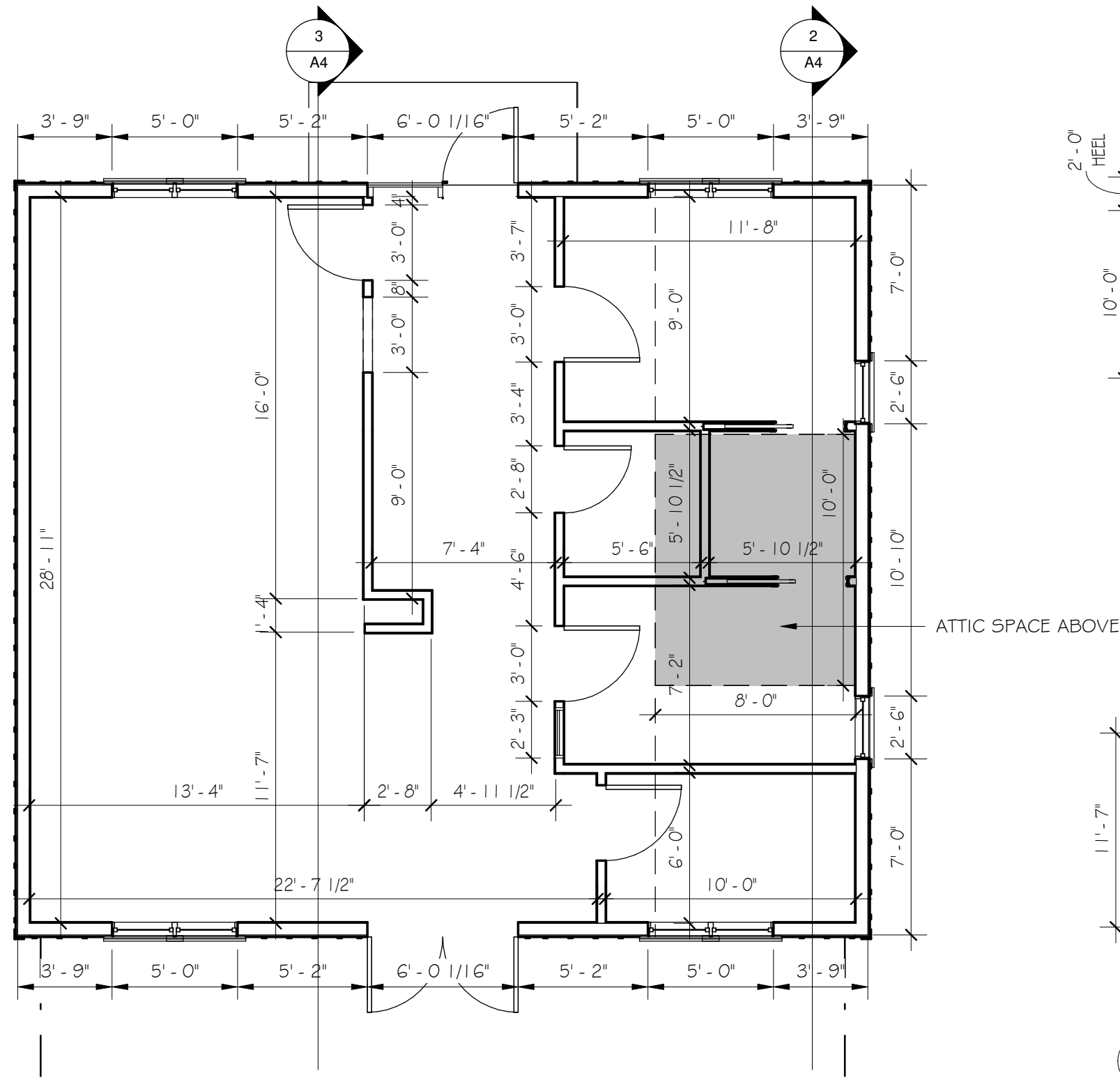
FLOOR PLAN

date	JULY 14, 2017
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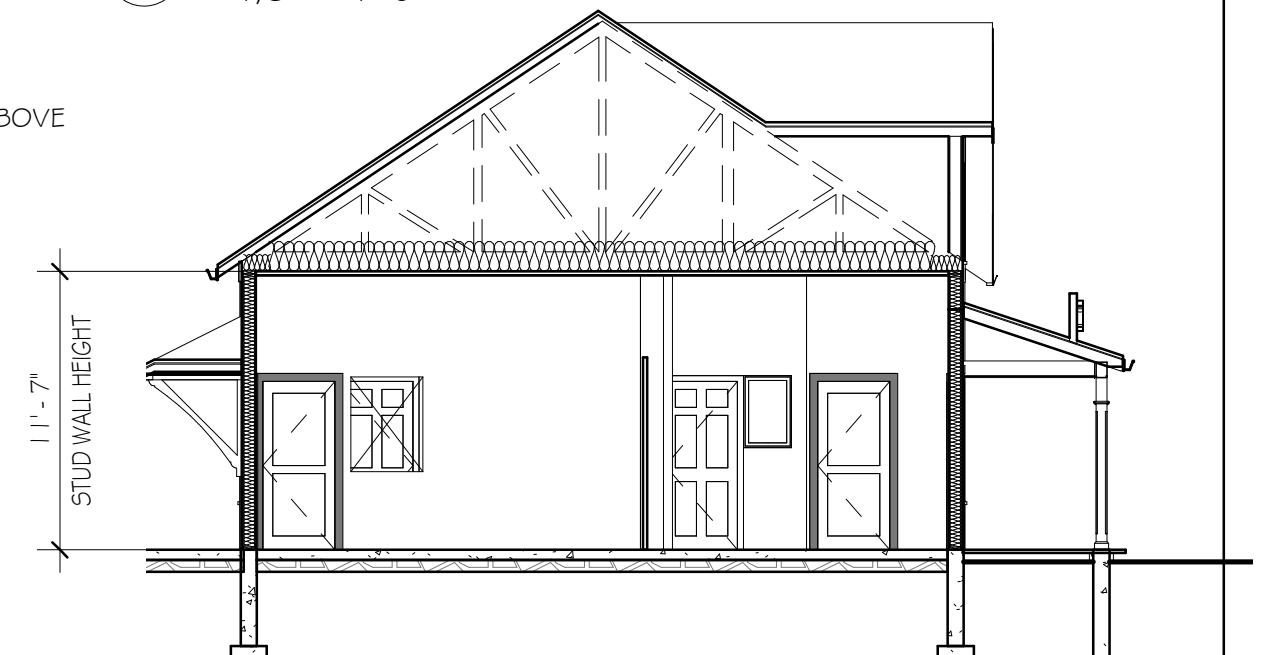
scale	$1/8" = 1'-0"$
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sheet  
**A3**



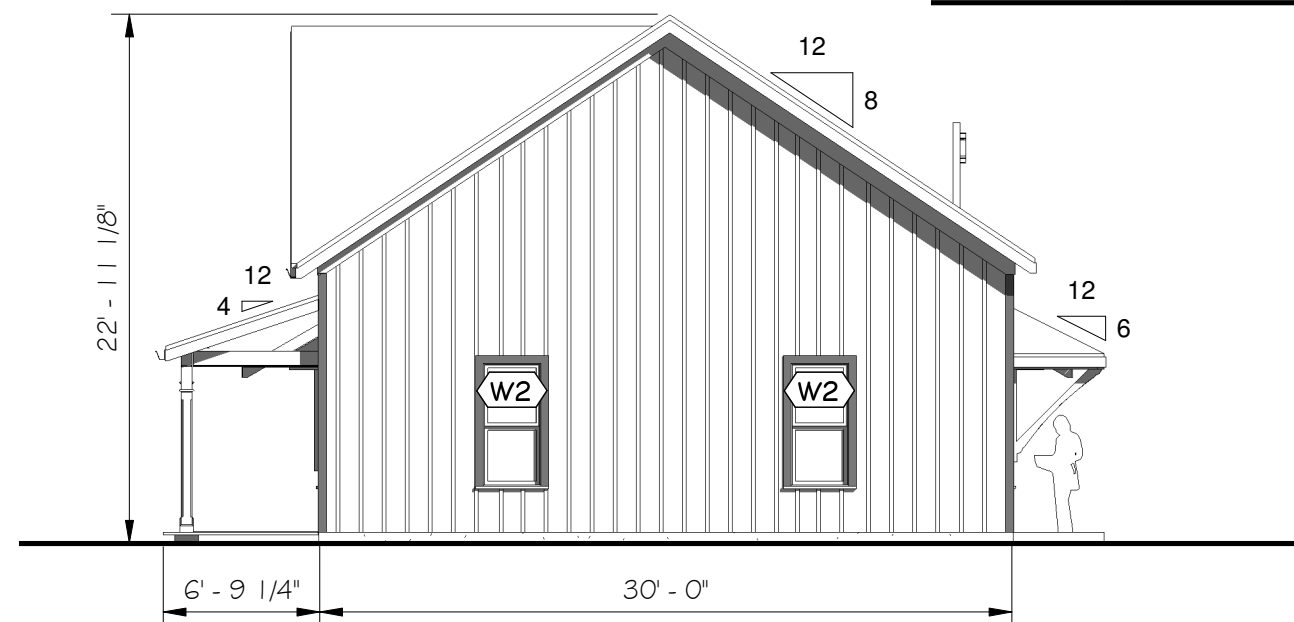
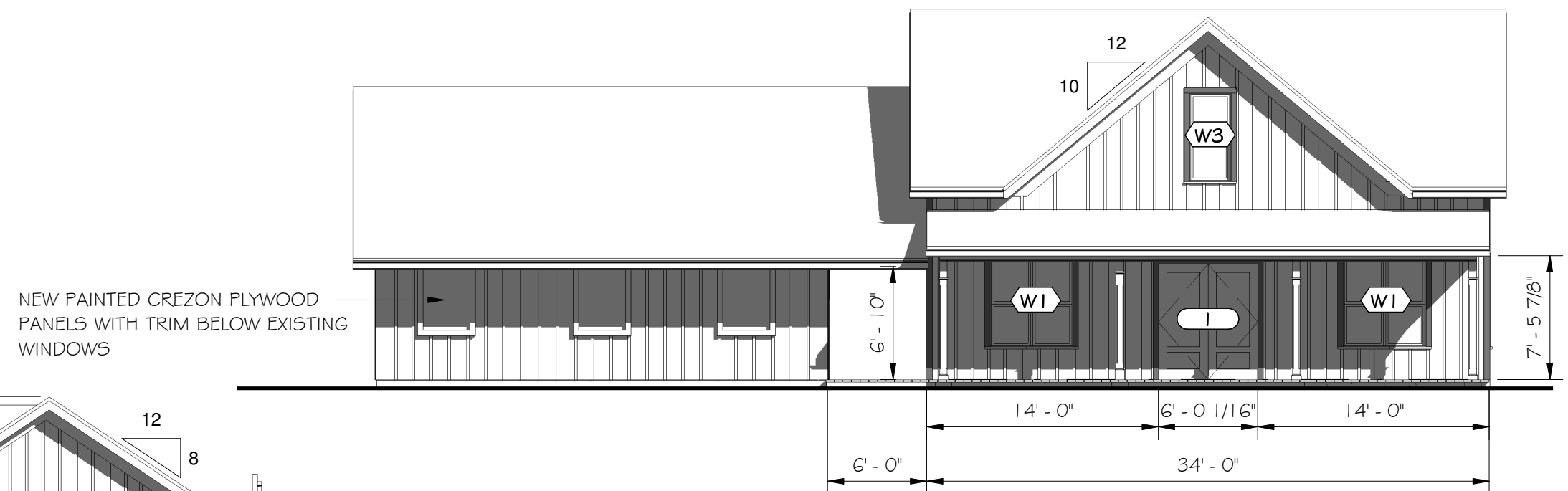
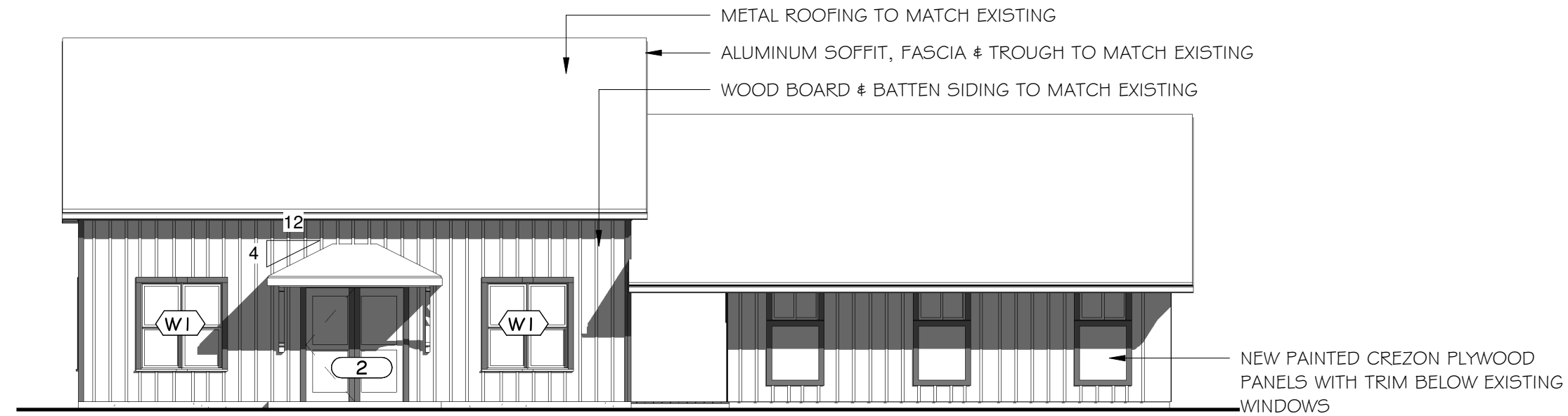


2 FRAMING SECTION THROUGH ATTIC TRUSSES  
1/8" = 1'-0"

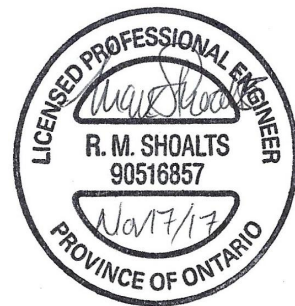
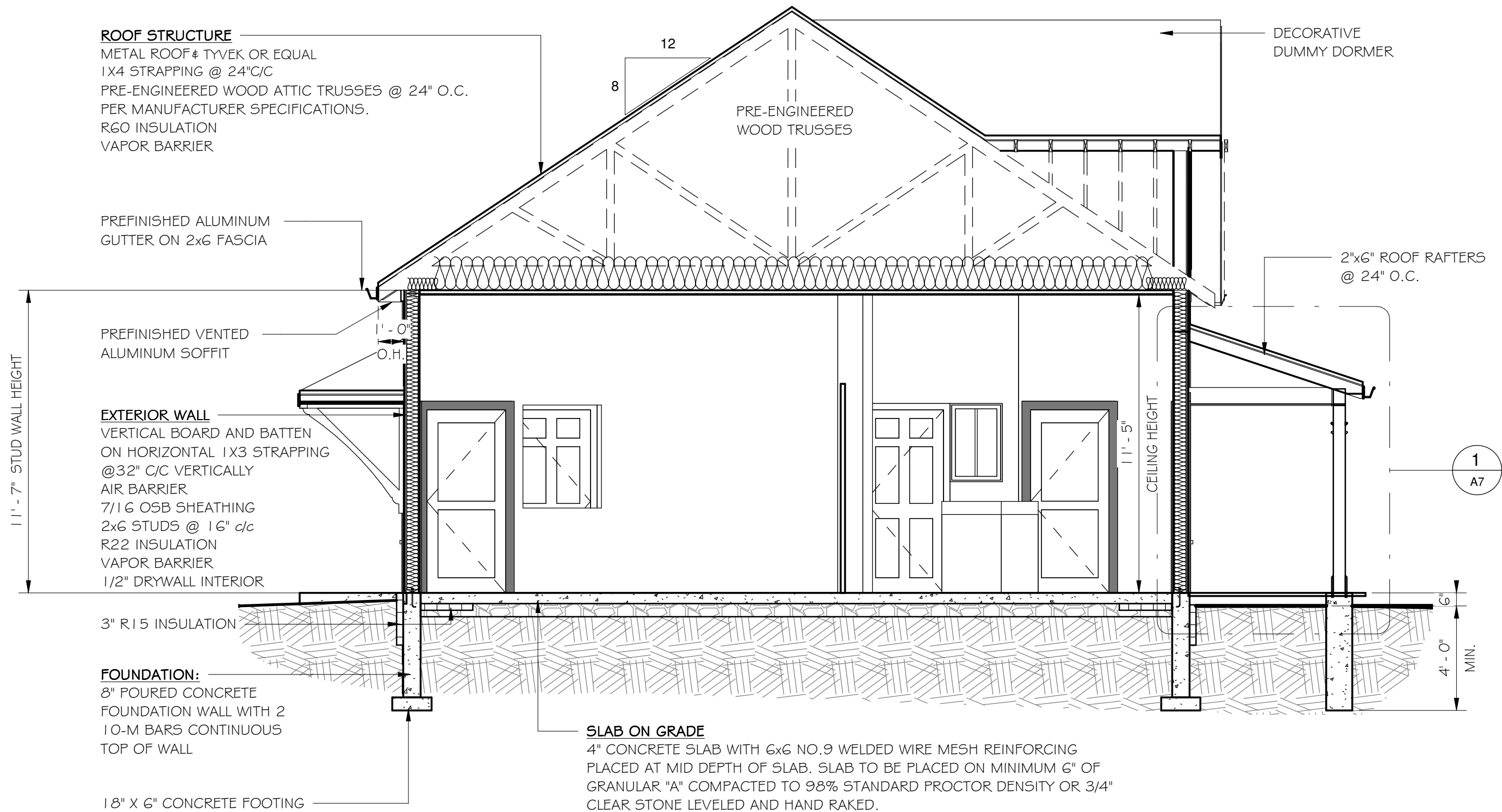


3 FRAMING SECTION THROUGH TRUSSES  
1/8" = 1'-0"

	<b>SHOALTS</b>		project NEW ADMIN CENTRE RUTHVEN PARK	
	P.O. BOX 218 FENWICK, ON L0S 1C0 905-892-2110		drawing FRAMING PLAN	
drawn by D. GREENWOOD	checked by M. SHOALTS	date JULY 14, 2017	scale As indicated	sheet A4



	<b>SHOALTS</b> P.O. BOX 218 FENWICK, ON L0S 1C0 905-892-2110	project NEW ADMIN CENTRE RUTHVEN PARK		
		drawing ELEVATIONS		
drawn by D. GREENWOOD	checked by M. SHOALTS	date JULY 14, 2017	scale 1 : 100	sheet <b>A5</b>



**SHOALTS**  
P.O. BOX 218  
FENWICK, ON  
L0S 1C0  
905-892-2110

drawn by  
D. GREENWOOD

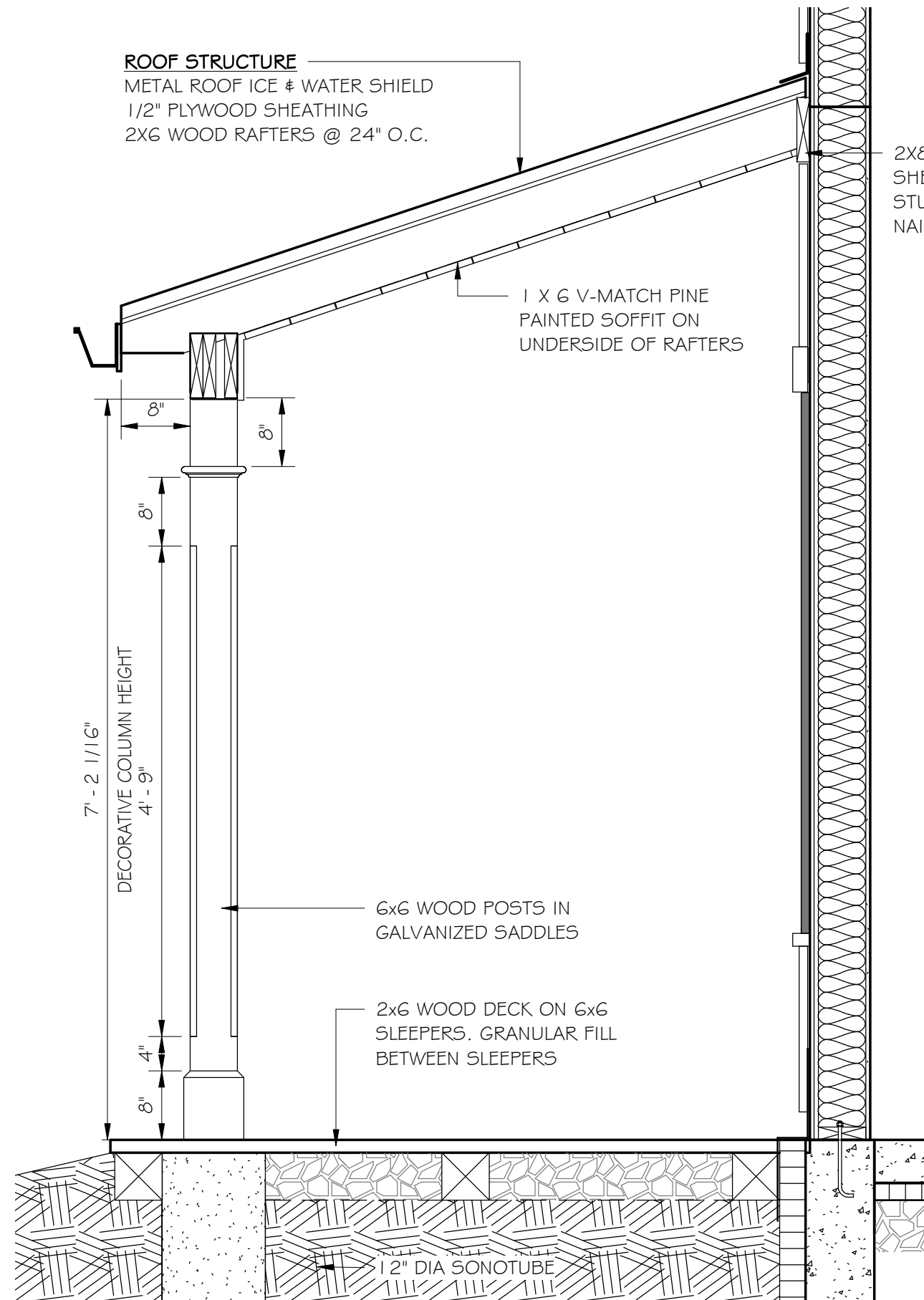
checked by  
M. SHOALTS

date  
JULY 14, 2017

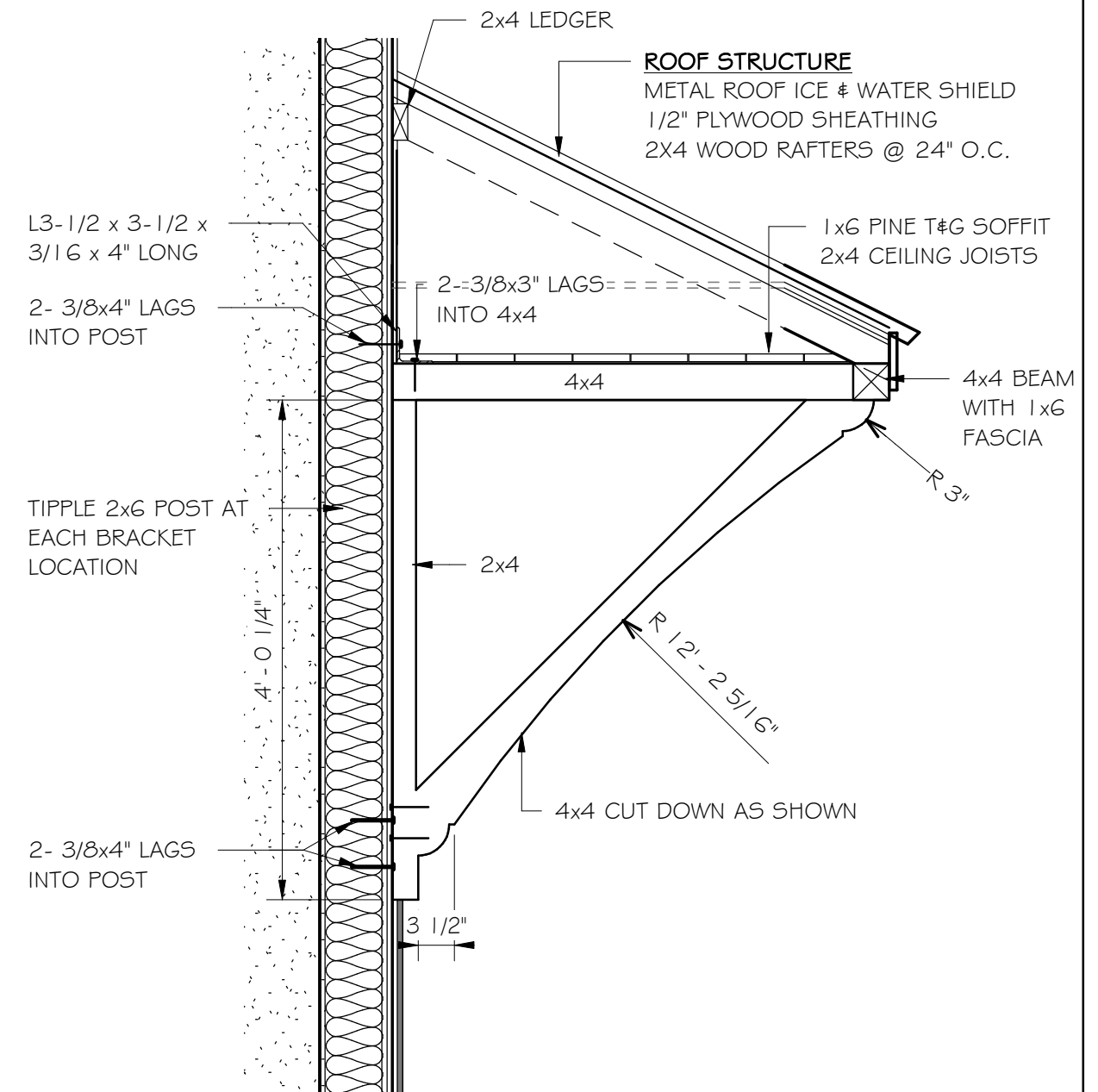
scale  
1/4" = 1'-0"

sheet  
**A6**

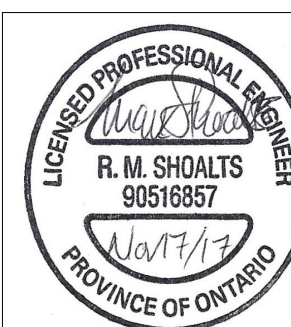
project  
NEW ADMIN CENTRE  
RUTHVEN PARK  
drawing  
BUILDING SECTION



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



2 CANOPY SUPPORT DETAIL  
 3/4" = 1'-0"



**SHOALTS**

P.O. BOX 218  
 FENWICK, ON  
 L0S 1C0  
 905-892-2110

drawn by  
 D. GREENWOOD

checked by  
 M. SHOALTS

date  
 JULY 14, 2017

scale  
 3/4" = 1'-0"

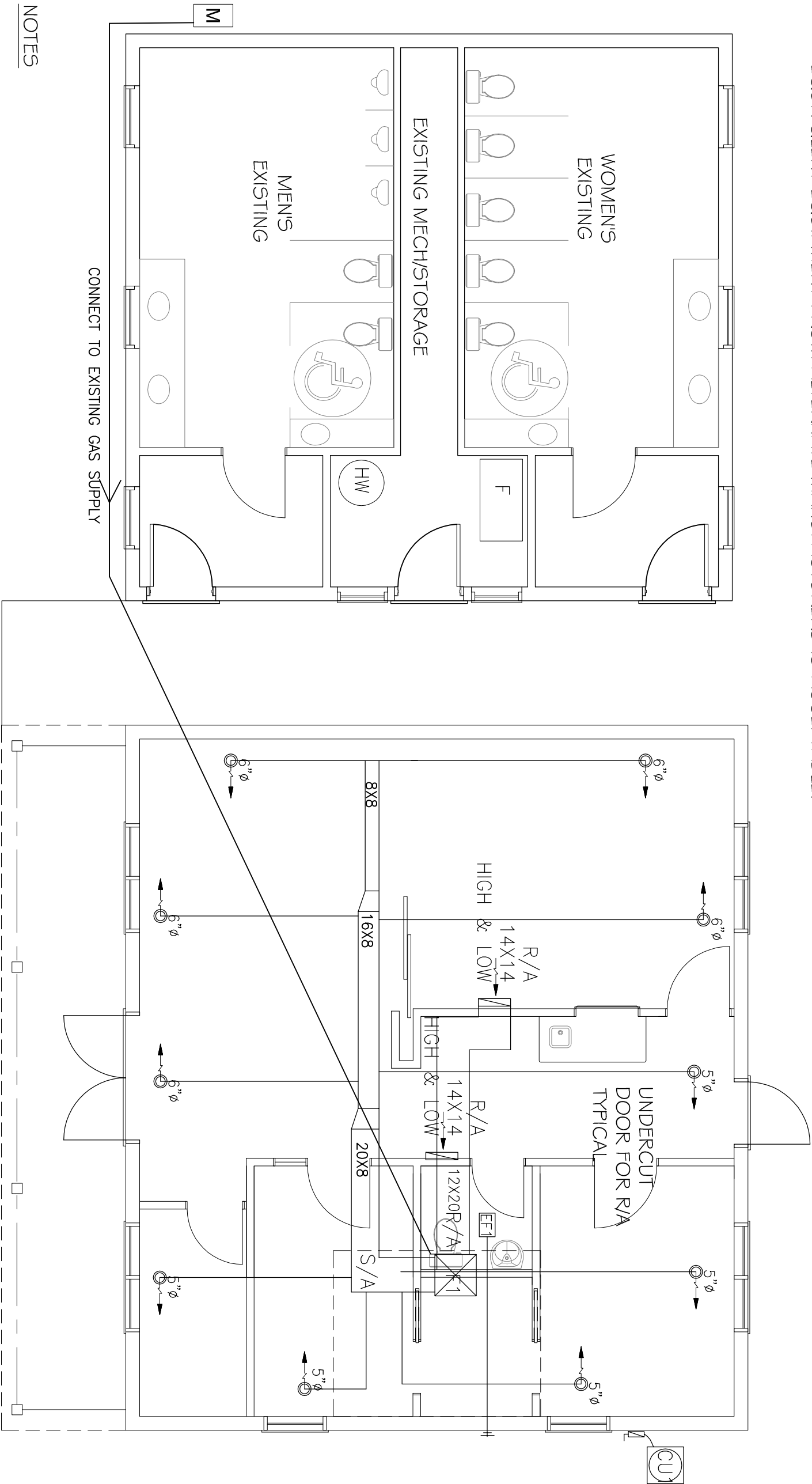
sheet  
**A7**

project  
 NEW ADMIN CENTRE  
 RUTHVEN PARK

drawing  
 DETAILS



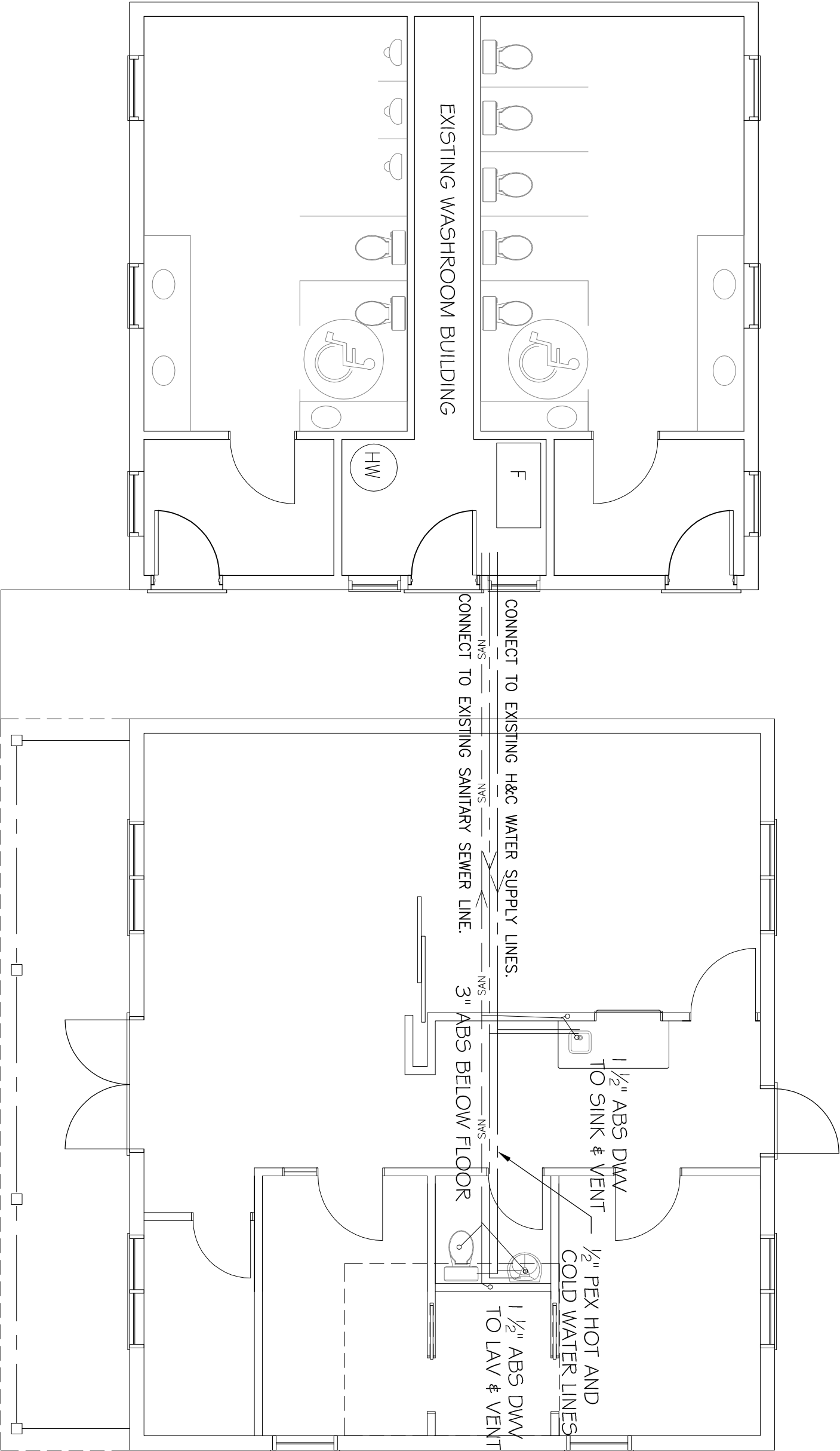
FURNACE F1 TO BE KEEPWRITE HI EFFICIENCY GAS-FIRED CONDENSING FURNACE N9MSE0601714A WITH CUI ASI 1 ½ TON AC.  
EF1 TO BE BROAN XB90C 90 CFM CW BACKDRAFT DAMPER.  
EQUIVALENT EQUIPMENT FROM ALTERNATE MANUFACTURERS IS ACCEPTABLE.



NOTES

FURNACE TO BE INSTALLED IN ATTIC ROOM.  
DUCTWORK TO BE RUN IN ATTIC SPACE AND INSULATED WITH 3"  
(R2 I) SPRAY-FOAM INSULATION PRIOR TO ATTIC BEING INSULATED.  
ALL DIFFUSERS TO BE ADJUSTABLE FOR BALANCING.  
THERMOSTAT TO BE FULLY PROGRAMMABLE.  
EXHAUST FAN DUCT TO BE INSULATED.

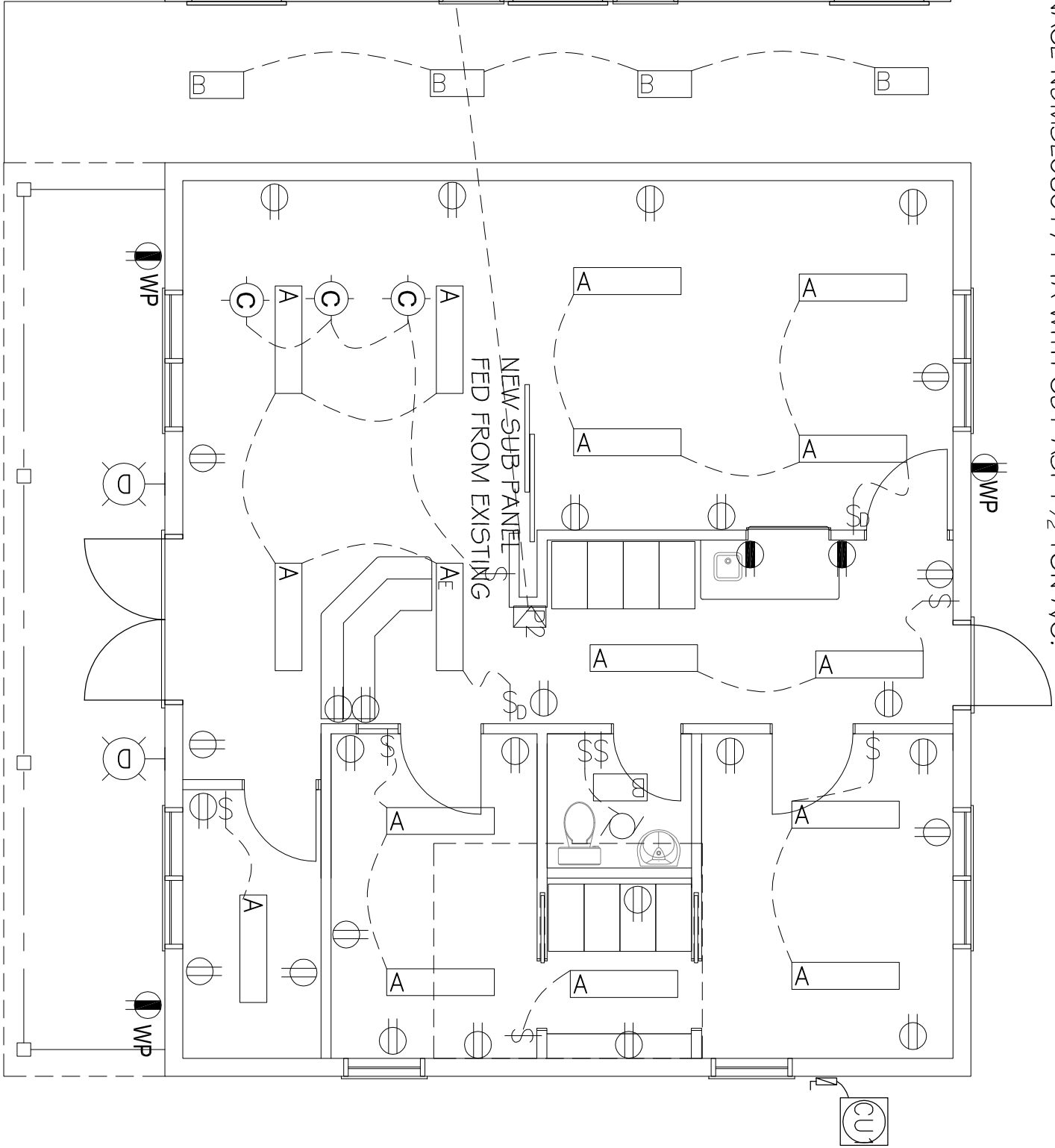
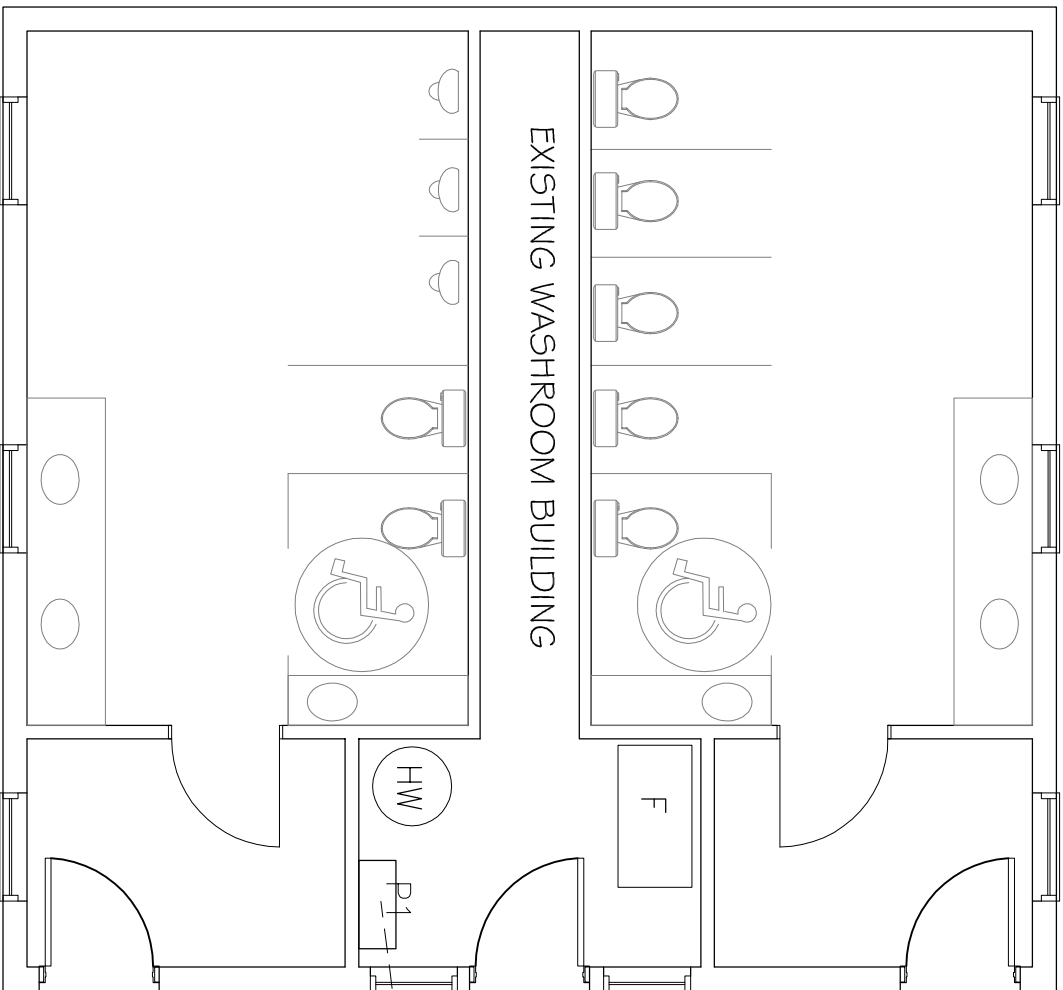
		<b>SHOALTS</b> ENGINEERING		project NEW ADMIN CENTRE RUTHVEN PARK	
P.O. BOX 218 FENWICK, ON L0S 1G0 905-892-2110		drawing HVAC PLAN			
drawn by RM/S	checked by	date JULY 29, 2017 REV JAN, 10/18	scale AS NOTED	sheet M1	


















TOILET TO BE PROFICIENCY N7717 HI EFF  
ELONGATED BOWL 3.0 LPF, WHITE WITH  
ZURN Z59575T5-EL WHITE OPEN FRONT SEAT OR EQUAL.  
LAVATORY TO BE ZURN Z5114 20X17 VITREOUS CHINA,  
4" CENTRES WITH MOEN 8433 LEVER ONE-HANDLE FAUCET,  
0.5 GPM AERATOR OR EQUAL.  
KITCHENETTE SINK TO BE KINDRED QSL 20207 STAINLESS STEEL  
SINK WITH MOEN 67425 FAUCET OR EQUAL.

		<b>SHOALTS</b> ENGINEERING		project NEW ADMIN CENTRE RUTHVEN PARK	
P.O. BOX 218 FENWICK, ON L0S 1C0 905-892-2110		drawing PLUMBING PLAN			
drawn by R/S	checked by	date AUG. 15, 2017	scale AS NOTED	sheet M2	

FURNACE F1 TO BE KEPRITE HI EFFICIENCY GAS-FIRED CONDENSING FURNACE N9M5E060171 4A WITH CU1 ASI 1 1/2 TON A/C EF1 TO BE BROAN XB90C 90 CFM C/W BACKDRAFT DAMPER.  
EQUIVALENT EQUIPMENT BY OTHER MANUFACTURERS IS ACCEPTABLE.



ELECTRICAL LEGEND	
LIGHTING	
A 	STANPRO SURFACE MOUNTED LED FIXTURE L2WSN-48LST-A-35K-DIM2
IK 	STANPRO LED FIXTURE L2WSN-48LST-A-35K-DIM2-DL BATTERY BACKUP FOR EMERGENCY LIGHTING
E 	STANPRO SURFACE MOUNTED LED FIXTURE IFR-LST-W/40K WITH PHOTO CELL CONTROL
	DIRECTIONAL SURFACE-MOUNTED LIGHTING ALLOW \$125 PER FIXTURE
	LED WALLPACK LITHONIA OLWX1
XI 	EXIT LIGHT - STANPRO RMS- GREEN RUNNING MAN
EQUIVALENT FIXTURES BY OTHER MANUFACTURERS ARE ACCEPTABLE	
RECEPTACLES	
	DUPLEX RECEPTACLE, 15A/125V - LOW MOUNTING HEIGHT
	"WP" = WEATHER PROOF "F" = FLOOR MOUNTED
	DUPLEX RECEPTACLE, 15A/125V - SPLIT CIRCUIT TYPE
	DUPLEX RECEPTACLE - SPECIAL MOUNTING HEIGHT
	DUPLEX RECEPTACLE, 15A/125V - ISOLATED GROUND TYPE
	DUPLEX RECEPTACLE, 15A/125V - ISOLATED FAULT TYPE
POWER	
	100 AMP 120-240V 24 CWT ELECTRICAL PANEL, FLUSH MTD.
\$ 	TOGGLE SWITCH STROKES = NUMBER GANGED "3" = 3 WAY "4" = 4 WAY "D" = 1500W DIMMER "K" = KEY OPERATED "DS" = DOOR SWITCH "V" = 347V
	DISCONNECT SWITCH, WEATHERPROOF IF NECESSARY
THE ABOVE SYMBOLS ARE STANDARDS AND MAY APPLY TO THIS PROJECT. REFER TO THE DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAILS ON USE AND APPLICATIONS.	

WIRING OF NEW HVAC EQUIPMENT NOT SHOWN ON PLAN (FOR CLARITY);  
FURNACE IS IN ATTIC FURNACE ROOM

NOTE: TELEPHONE AND DATA WIRING IS TO BE INSTALLED WITH A TOTAL OF 12 JACKS FOR EACH, ALL WITH HOME RUNS OF CAT6 CABLE TO PANELS IN THE FURNACE ROOM

SECURITY SYSTEM WIRING IS TO BE INCLUDED AND CONNECTED TO THE EXISTING SYSTEM AS AN ADDITIONAL ZONE.

DOOR AND WINDOW CONTACTS ARE NOT REQUIRED. A KEYPAD AND 2 MOTION DETECTORS ARE SUFFICIENT.



**SHOALTS**  
ENGINEERING

P.O.BOX 218  
FENWICK, ON  
L0S 1G0  
905-892-2110

project  
drawing

NEW ADMIN CENTRE  
RUTHVEN PARK

# ELECTRICAL PLAN

drawn by

checked by

date

scale

sheet

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