

OBC MATRIX - PART 3  
FIRE PROTECTION, OCCUPANT SAFETY AND ACCESSIBILITY:

ONTARIO BUILDING CODE DATA MATRIX									
PART 3 - FIRE PROTECTION, OCCUPANT SAFETY AND ACCESSIBILITY									
Name of Practice		a+LINK Architecture Inc.							
Address 1		126 Wellington Road							
Address 2		London, ON N6C 4E3							
Contact		Michael Holt, OAA							
Name of Project		Strathroy-Caradoc Fire Station No. 1							
Location/Address		220 East Centre Street, Strathroy, ON							
Date		2023-03-03				Seal & Signature			
3.00	BUILDING CODE VERSION	O Reg. 332/12				LAST AMENDMENT		O Reg. 451/22	
3.01	PROJECT TYPE	New Construction							[A] 1.1.2.
		New Fire Station - 1 Storey + Mezzanine, w ith Storage Garage, Offices, Support Spaces and preparing for a Future Dorm. The existing Fire Station is to be Demolished							
3.02	MAJOR OCCUPANCY CLASSIFICATION	OCCUPANCY		USE		3.1.2.1.(1)			
		NEW FIRE STATION F3		Low Hazard Industrial		Apparatus Bay, Storage Garage, Support Spaces, Open Mezz.			
		D		Business & Personal Services		Administration, Offices & Training Room			
		C		Residential		Enclosed Mezzanine for Future fit-up of Dorms			
3.03	SUPERIMPOSED MAJOR OCCUPANCIES	NEW STORAGE BUILDING F3		Low Hazard Industrial		Storage Building - Separate Building			
		NO		Future C - Dorms, above D Offices		3.2.2.7.			
3.04	BUILDING AREA (m²)	DESCRIPTION		EXISTING		NEW		TOTAL [A] 1.4.1.2.	
		New Fire Station		0.00		1089.70		1,089.70	
		New Storage Building		0.00		120.00		120.00	
		TOTAL		-		1,209.70		1,209.70	
3.05	GROSS AREA (m²)	DESCRIPTION		EXISTING		NEW		TOTAL [A] 1.4.1.2.	
		New Fire Station - Ground Floor		0.00		1089.70		1,089.70	
		New Fire Station - Open Mezzanine		0.00		119.37		119.40	
		New Fire Station - Enclosed Mezzanine		0.00		111.48		111.50	
3.06	MEZZANINE AREA (m²)	NEW STORAGE BUILDING - Ground Floor		0.00		120.00		120.00	
		TOTAL		-		1,440.60		1,440.60	
		DESCRIPTION		EXISTING		NEW		TOTAL 3.2.1.1.	
		New Fire Station - Open Mezzanine		0.00		119.37		119.40	
3.07	BUILDING HEIGHT	1 + Mezzanine		STOREY'S ABOVE GRADE		11.25 (m) ABOVE GRADE		[A] 1.4.1.2. & 3.2.1.1.	
		0		STOREY'S BELOW GRADE					
		No							
		STREET(S)							
3.08	HIGH BUILDING	-							
		NUMBER OF STREETS/ FIREFIGHTER ACCESS		STREET(S)					
3.09	BUILDING CLASSIFICATION	3.2.2.79.		Group F, Division 3, up to 2 Storeys, Sprinklered				3.2.2.20-83.	
		3.2.2.56.		Group D, up to 2 Storeys, Sprinklered					
		3.2.2.48		Group C, up to 3 Storeys, Sprinklered					
3.10	SPRINKLER SYSTEM	Required		PROVIDED		Entire Building		3.2.1.5. & 3.2.2.17.	
		DESCRIBE		The New Fire Station w ill be Sprinklered - Wet System NFPA 13.					
				The New Storage Building w ill not be Sprinklered.					
3.11	STANDPIPE SYSTEM	Not Required						3.2.9.	
3.12	FIRE ALARM SYSTEM	Required		TYPE PROVIDED		Single Stage		3.2.4.	
3.13	WATER SERVICE SUPPLY IS ADEQUATE	Yes							
3.14	CONSTRUCTION TYPE	RESTRICTIONS		Combustible Permitted				3.2.2.2.20-83.	
		ACTUAL		Noncombustible		HEAVY TIMBER CONSTRUCTION		NA	
3.15	IMPORTANCE CATEGORY	Post-Disaster		-				4.1.2.1.(3), 74.1.2.1.B.	
3.16	SEISMIC HAZARD INDEX (I <sub>s</sub> , F <sub>s</sub> , S <sub>e</sub> (0.2)) =	0.00		Seismic Design Not Required for Table 4.1.8.18. Items 6 to 21				4.1.8.18.(1)	
3.17	OCCUPANT LOAD	FLOOR LEV./BLA/AREA		OCCUPANCY TYPE		BASED ON		OCCUPANT LOAD (PERSONS)	
		Ground Floor		Office - D		Design of space		5	
		Ground Floor		Apparatus Bay - F3		Design of space		-	
		Mezzanine		Dorms - C		Design of space		4	
3.18	OCCUPANT LOAD	Mezzanine		Storage - F3		Design of space		-	
		Storage Garage		Storage Garage - F3		Design of space		-	
		TOTAL						9	
3.19	BARRIER-FREE DESIGN	Yes		All D Occupancy Offices areas and Training are Accessible.				3.8.	
3.20	HAZARDOUS SUBSTANCES	No						3.3.1.2. & 3.3.1.19.	
3.21	REQUIRED FIRE RESISTANCE RATINGS	HORIZONTAL ASSEMBLY		RATING (H)		SUPPORTING ASSEMBLY (H)		NONCOMBUSTIBLE IN LIEU OF RATING?	
		FLOORS OVER BSMT		NA				-	
		FLOORS		0.75		0.75		YES	
		MEZZANINE		0.75		0.75		YES	
3.22	SPATIAL SEPARATION	ROOF		NA				-	
		WALL		EBF AREA (m²)		L.D. (m)		Percentage	
		NEW FIRE STATION		North - F3 - Apparatus Bay		201.40		9.0 deemed	
		SPRINKLERED BUILDING		North - D - Office		41.18		39.99	
3.23	PLUMBING FIXTURE REQUIREMENTS	Ratio:		MALE/FEMALE = 50:50 EXCEPT AS NOTED OTHERWISE				3.7.4.	
		FLOOR LEV./BLA/AREA		OCCUPANT LOAD		OBC SENTENCE		FIXTURES REQUIRED	
		D - Office				5		3.7.4.7	
		D - Universal Washroom				3.8.3.12		1 UW	
3.24	ENERGY EFFICIENCY	F3 - Crew Washrooms				4		3.7.4.9	
		C - Future Dorms at Mezz. - Rough in Only				4		3.7.4.6	
								1, for up to 9p	
								2 - rough-in	
3.25	ENERGY EFFICIENCY	TOTAL WASHROOMS		1 Unisex (1T + 1S), 1 Universal W/R (1T + 1S), 3 Unisex Crew W/Rs (3T + 3S + 3Shower)					
		COMPLIANCE PATH		SB-10 PRESCRIPTIVE - CHART SBS 5-5 (1.P.)					
		CLIMATIC ZONE		5A					

# Strathroy-Caradoc Fire Station No.1

220 East Centre Street, Strathroy, ON

KEY PLAN AERIAL:



OBC MATRIX - NOTES:

3.25	NOTES
REVIEW OF THE BUILDING IS BASED ON THE 2012 ONTARIO BUILDING CODE, LATEST EDITION	
PART 3 NOTES:	
OCCUPANCY LOADING:	
The Fire Department has 9 Employees total, this includes the Administration Staff and 5 Crew Members.	
ACCESS: Principal, Fire Fighter's and Barrier-free Entrance located facing East Centre Street.	
Training Entrance on the East Elevation to also be Barrier-free.	
EXITING: Based on Travel Distance, meets 45m (147') per 3.4.2.5(1)(c), Sprinklered.	
per 3.3.1.3, Fixed Ladder provided as means of egress from roof for service personnel.	
EXIT WIDTH: 6.1mm per person for Exit Doors per 3.4.3.2.(1)(a).	
8.0mm per person for Exit Doors with Stairs per 3.4.3.2.(1)(b).	
9.2mm per person for Exit Doors with Stairs per 3.4.3.2.(1)(c).	
EW/ EVAC: Fire Alarm: Single Stage per 3.2.4.	
Exit signs to be green "Running Man" per 3.4.5.1.(2)	
Corridor/Aisle minimum width to be 1100mm (3'-8") 3.8.3.	
Emergency Lighting Required for 30 minutes 3.2.7.4(1)(b)(ii)+(2)	
Fire extinguishers provided per OFC - Refer to Mechanical.	
C OCCUPANCY - FUTURE DORMS: The Design intent is to provide rough-in only for the Future Dorms, to be located within the Enclosed Mezzanine, for a future Fit-up. All required Fire Ratings and Fire Separations are to be constructed in this 1st Phase.	
FIRE RATINGS: F3 Storage Garage Separation - per 3.3.5.6.(1) - 1.5 Hr. F.R.R. to the D & C Occupancies.	
Spray Fireproofing proposed at the underside of Mezzanine Floor - 1.5 Hr. between F3 above D.	
Residential C Dormitory Separation - per 3.3.4.2.(1) - 1 Hr. F.R.R. between C and D Occupancies.	
Spray Fireproofing proposed at the underside of Mezzanine Floor - 1 Hr. between Cabove D.	
Janitor Room - per 3.3.1.20.(3), Fire Separation provided.	
Mechanical & Electrical Room - per 3.6.2.11 Hr. F.R.R. provided.	
STAIRS: per 3.4.6.3., for Mezzanine Stairs.	
ACCESSIBILITY:	
D Occupancy - Office and Training areas to meet 3.8	
B/F PATH OF TRAVEL: per 3.8.1.3 - 1100mm	
Doors - per 3.8.3.3.(1) All doors 965mm (38") MN, opening with 860mm min. clear. Conforms.	
All doors 965mm with Lever Hardware per 3.8.3.3	
Barrier-free entrance per 3.8.2.1 + 3.8.3.3(4) for D Occupancy area. Principal Entrance & Training Entrance	
Universal Washroom per 3.8.3.12	
Mezz stairs have to colour contrast at treads and landings per 3.4.6.1.(1)(b)	
F3 Occupancy - Due to the requirement that the Fire Fighter's must be able bodied, the Decontamination Washrooms and Showers are not Barrier-free	
BUILDING ENVELOPE	
Prescriptive requirements per chart S85 5-5 (1P)	
NON RESIDENTIAL - NEW FIRE STATION	
Roof - Insulation Entirely Above Deck: R-35 ci or U-0.029	
Walls, Above Grade - Mass: R-17 ci or U-0.054	
Slab-on-Grade Floors - Unheated: R-15 to 48" below finished floor	
Slab-on-Grade Floors - Heated: R-10 full slab	
Opaque Doors - Swinging: U-0.45	
Opaque Doors - Overhead Doors: U-0.45	
Penetration - Glazing Aluminum Frame - Fixed: U = <0.38 // SHGC = <40 // Min VTISHGC = 1.10	
Penetration - Glazing Aluminum Frame - Operable: U = <0.45 // SHGC = <40 // Min VTISHGC = 1.10	
Penetration - Glazing Aluminum Frame - Entrance Door: U = <0.69 // SHGC = <40 // Min VTISHGC = 1.10	
SEMI HEATED - NEW STORAGE BUILDING	
Roof - Insulation Entirely Above Deck: R-17 ci or U-0.057	
Walls, Above Grade - Mass: R-10 ci or U-0.091	
Slab-on-Grade Floors - Unheated: No Requirement	
Opaque Doors - Swinging: U-0.63	
Opaque Doors - Overhead Doors: U-1.31	
Penetration - Glazing Aluminum Frame - Fixed: U = <0.56 // SHGC = NR // Min VTISHGC = NR	
Penetration - Glazing Aluminum Frame - Operable: U = <0.63 // SHGC = NR // Min VTISHGC = NR	
Penetration - Glazing Aluminum Frame - Entrance Door: U = <0.69 // SHGC = NR // Min VTISHGC = NR	
1	ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF THE ONTARIO BUILDING CODE COMMISSION AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM THE ONTARIO BUILDING CODE COMMISSION

Ontario Building Code Data Matrix, Part 3

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August 2018







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Yellow BKGD

Red Pictogram

Black Pictogram and Border

75 cm (29.53")

75 cm (29.53")

Yellow BKGD

Red Pictogram

Black Pictogram and Border

75 cm (29.53")

75 cm (29.53")

Diagram illustrating the dimensions and color specifications for the Fire Truck Entrance sign:

- Sign Dimensions:**
  - Height: 30 cm (11.81")
  - Width: 60 cm (23.62")
- Color Specifications:**
  - Black Text & Border:** The text "FIRE TRUCK ENTRANCE" and the border are black.
  - Yellow BKGD:** The background of the sign is yellow.

[illegible]

## B/F PARKING SIGN

A1.2 A1.2 SCALE: 1:50

Diagram of a fire hydrant. The hydrant is shown in profile, with a circular top and a rectangular body. The top is labeled '5'. The body is divided into two sections, each labeled 'A1.2'. To the right of the hydrant is a scale bar labeled 'SCALE: NTS'.



A1.1 A1.2 SCALE: 1:50

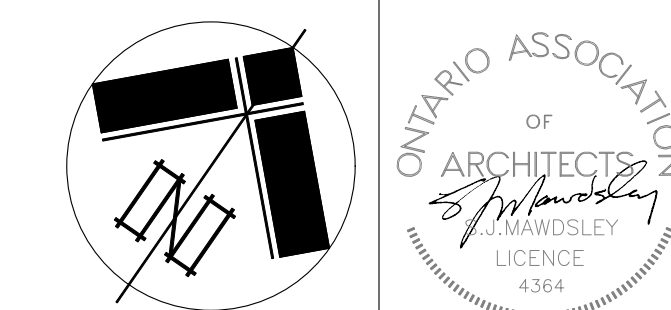


A1.1 A1.2 SCALE: 1:50



A1.1 A1.2 SCALE: 1:50

ISSUE & REVISION DESIGNATION  
LETTER (A) = ISSUE , No. (1) = REVISION

[illegible]

Project:

**Strathroy-Caradoc  
Fire Station No. 1**

220 East Centre Street, Strathroy, ON

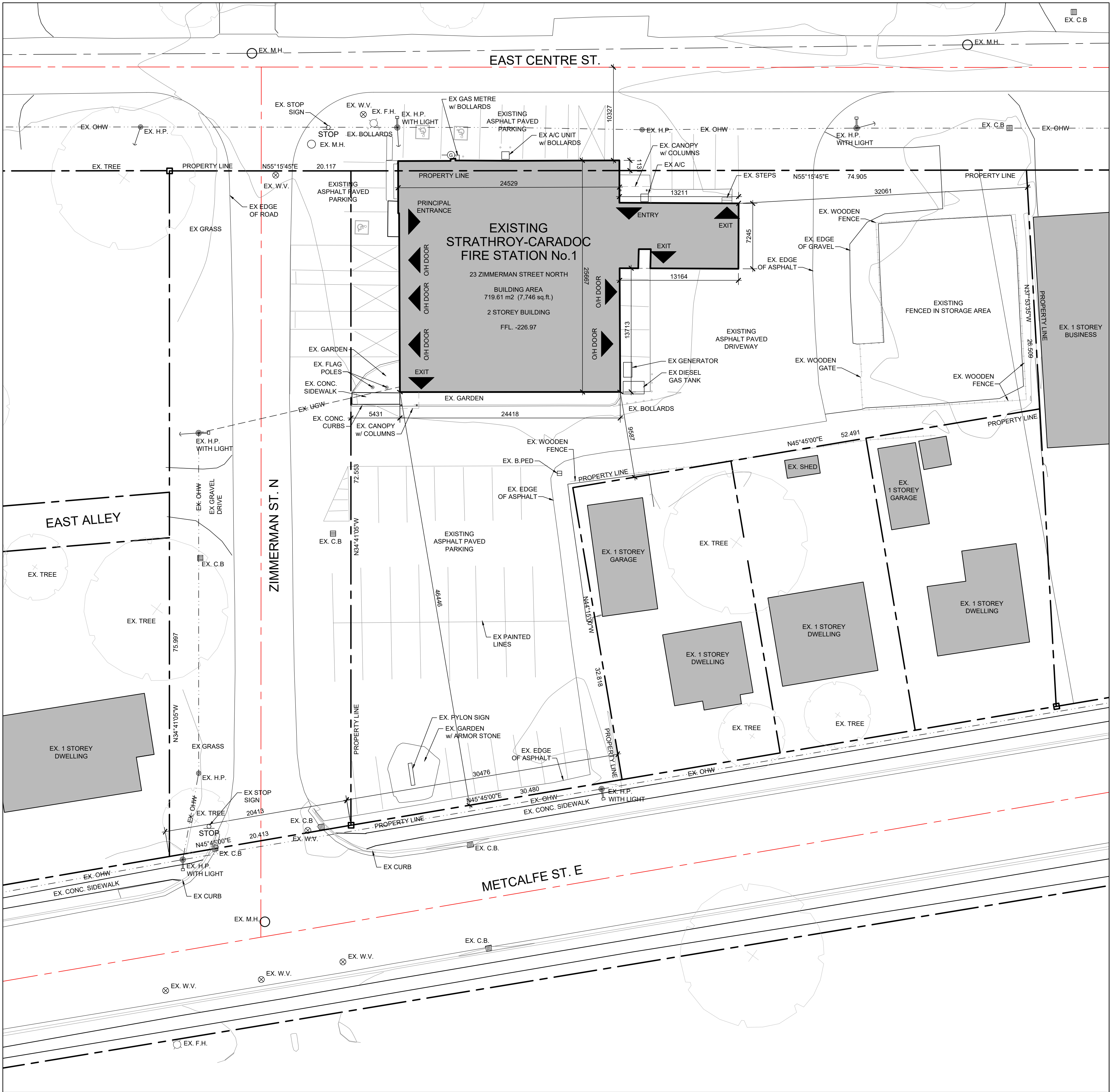
Current Issue:	Current Revision:	A1.2
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	PROPOSED BUILDING		MULCH / GARDEN REFER TO LANDSCAPE DRAWINGS		EX / EXIST.		EXISTING		TOPOGRAPHIC LINE		FIRE HYDRANT		COMMUNICATION SERVICE		MAN HOLE		EXISTING TREE / PLANTING TO REMAIN
	CONCRETE SIDEWALK - BRUSHED FINISH		GRASS / SOD REFER TO LANDSCAPE DRAWINGS		ENTRANCE / EXIT		TOPOGRAPHIC ELEVATION		GEOTECHNICAL BOREHOLE LOCATION		FIRE DEPARTMENT CONNECTION		HYDRO SERVICE - OVERHEAD WIRES		CATCH BASIN MAN HOLE		EXISTING TREE / PLANTING TO BE DEMOLISHED & REMOVED
	CONCRETE SIDEWALK - SMOOTH FINISH		GRAVEL / STONE		PROPERTY LINE		DIRECTION OF TRAFFIC		BARRIER-FREE PARKING SYMBOL PAINTED ON ASPHALT. REFER TO DETAILS ON A1.2.		LIGHT STANDARD - 1 HEAD (w/ CUT-OFF). REFER TO ELEC. DWGS.		WATER SERVICE		LANDSCAPE CATCH BASIN		PROPOSED TREE / PLANTING. REFER TO LANDSCAPE DWGS
	B/F PATH OF TRAVEL w/ WIRE TINE FIN. & COLOURED CONC.				LANDSCAPE SETBACK LINE		LIGHT STANDARD - 2 HEAD (w/ CUT-OFF). REFER TO ELEC. DWGS.		SANITARY SERVICE		GAS METER		STORM SERVICE		COMM. PEDESTAL		TREE PROTECTION FENCING REFER TO LANDSCAPE DWGS
	B/F ACCESS AISLE w/ PAINTED HATCH (COLOUR: YELLOW)				PROPERTY EASEMENT LINE		LIGHT STANDARD - 3 HEAD (w/ CUT-OFF). REFER TO ELEC. DWGS.		GAS SERVICE		WATER VALVE		EXISTING FENCE		CCTV CAMERA		ELEC. METRE
			SNOW STORAGE AREA		CENTRE LINE OF ROAD		LIGHT STANDARD - 4 HEAD (w/ CUT-OFF). REFER TO ELEC. DWGS.		HYDRO POLE				EV CHARGING STATION				
					FIRE ROUTE		TACTILE WARNING TILE, CAST-IN-PLACE, FLUSH w/ SIDEWALK										
					VEHICLE ENTRY/EXIT SIGN. REFER TO DETAILS ON DRAWING SHEET A1.2		BICYCLE RACK		BARRIER FREE PARKING SIGNAGE. REFER TO DETAILS ON A1.2.								

2  
EX1.1 EX1.1 SCALE: N.T.S.

**LEGEND**



1  
EX1.1 EX1.1 SCALE: 1:250

**EXISTING SITE PLAN**

Set No.

- NOTES:
1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
  2. DO NOT SCALE DRAWINGS.
  3. REPORT ALL DISCOVERIES OF ERRORS, OMISSIONS, OR DISCREPANCIES TO THE ARCHITECT OR DESIGN ENGINEER AS APPLICABLE.
  4. USE ONLY LATEST REVISED DRAWINGS OR THOSE THAT ARE MARKED "ISSUED FOR CONSTRUCTION".
  5. THE DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND/OR ENGINEER AND MUST BE RETURNED ON COMPLETION OF THE PROJECT. ANY UNAUTHORIZED USE IS PROHIBITED.
  6. AREA CALCULATIONS ARE APPROXIMATE.
  7. DATE FORMAT: YYYY-MM-DD

ISSUE & REVISION DESIGNATION		
LETTER (A) = ISSUE , No. (1) = REVISION		
No.	Date	Issued For / Revisions
A	2022-10-21	ISSUED FOR SITE PLAN CONSULTATION
B	2023-01-18	ISSUED FOR CLASS C COSTING
C	2023-03-03	ISSUED FOR SITE PLAN APPROVAL
D	2023-05-10	ISSUED FOR CLASS B COSTING
E	2023-08-22	ISSUED FOR EXEMPTION



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Project:  
**Strathroy-Caradoc  
Fire Station No. 1**  
220 East Centre Street, Strathroy, ON

Drawing:  
**EXISTING SITE PLAN**

Drawn By: MH	Job Captain: MH	Project No.:
Scale: AS SHOWN		<b>2220</b>
Plot Date: 2023-08-22	Sheet No.:	
Current Issue: <b>E</b>	Current Revision: -	<b>EX1.1</b>