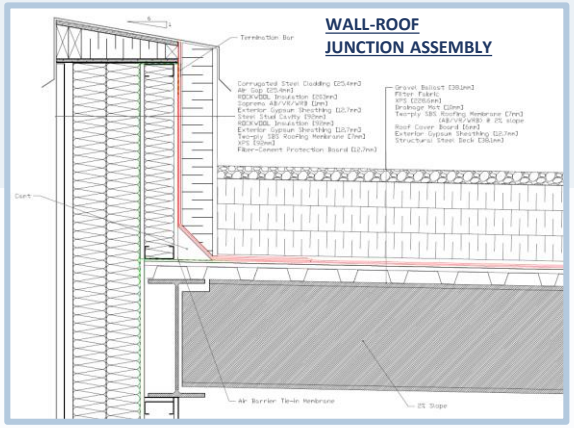
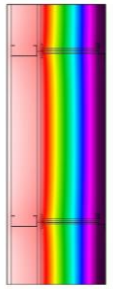
ENVELOPE

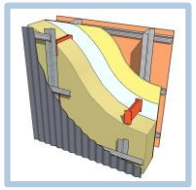
Envelope By:
Connor Miles
Sanad Zumot

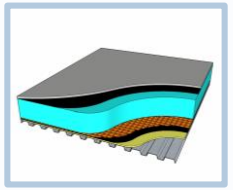
Supervised By:
Hua Ge

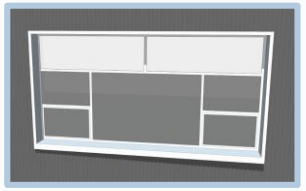


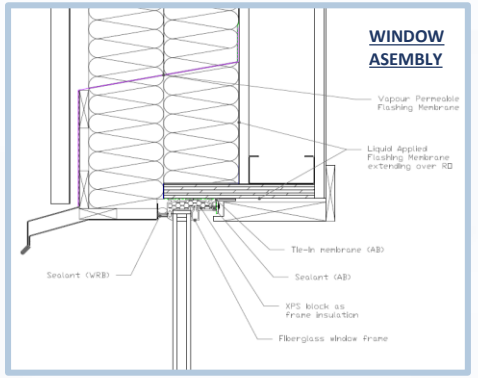


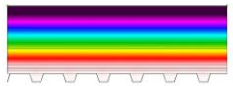
WALL
INFRARED



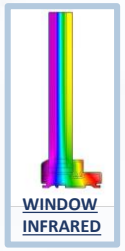






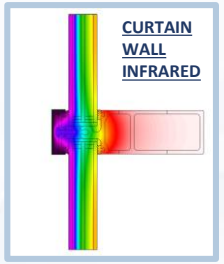


ROOF INFRARED



WINDOW
INFRARED

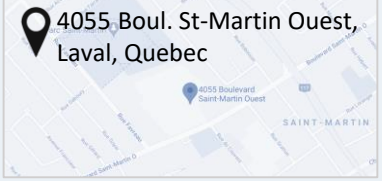
COMPONENT	NECB REQUIRED RSI	RSI VALUE	IMPROVEMENT
WALLS	4.05	6.59	63%
ROOF	6.41	8.27	29%
CURTAIN WALLS	0.53	0.85	60%
WINDOWS	0.53	0.928	75%



CURTAIN
WALL
INFRARED

THE BUILDERS

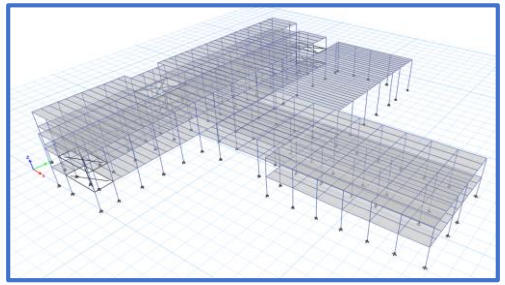
4055 Boul. St-Martin Ouest,
Laval, Quebec

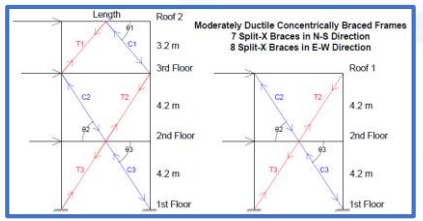


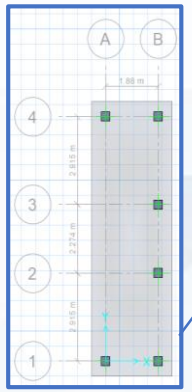
STRUCTURE

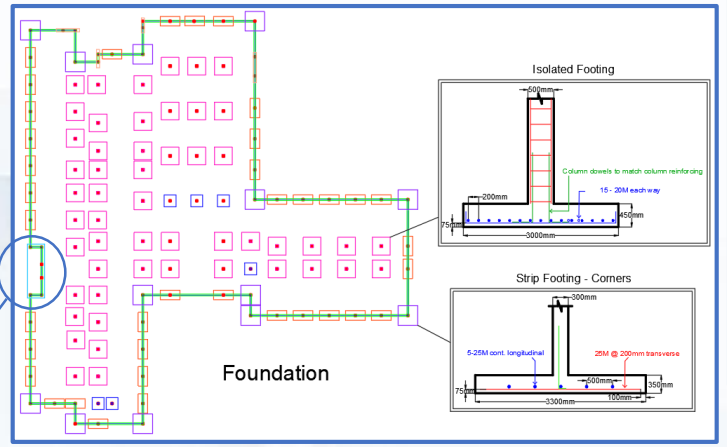
Structure By:
Andy Harold
Brittany Burke

Supervised By:
Jassim Hassan









COLUMNS	HOLLOW STRUCTURAL SECTION (HSS)
BRACING	HOLLOW STRUCTURAL SECTION (HSS)
BEAMS	W SECTION & OPEN WEB STEEL JOISTS

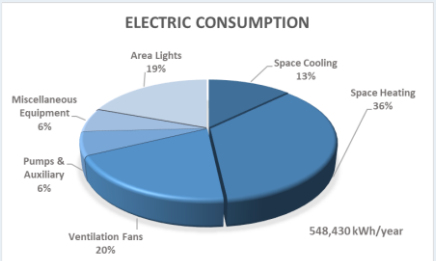
UNIVERSITÉ Concordia UNIVERSITY

GINA CODY
SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE

HVAC

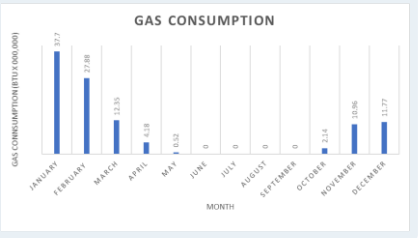
HVAC By:
Emily Gosas
Sebastian Gomez

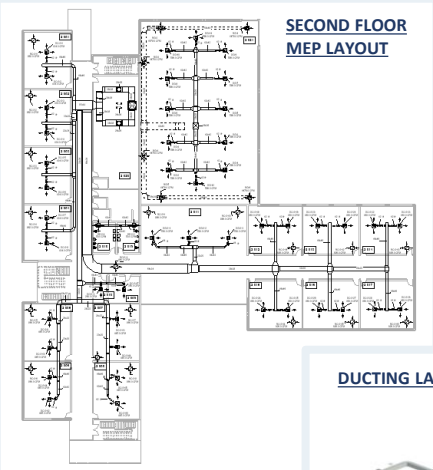
Supervised By:
Radu Zmeureanu

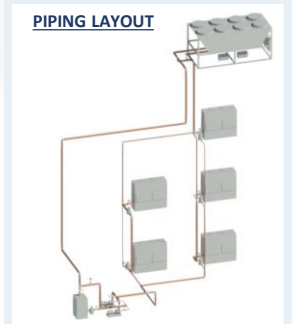
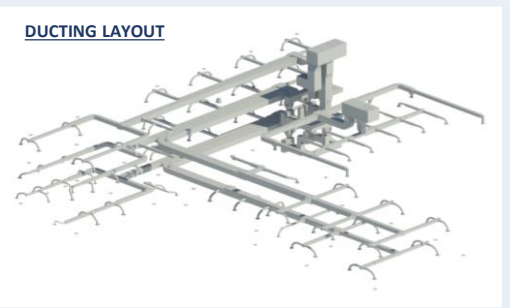


GLOBAL WARMING POTENTIAL (ton eq. CO2/m²)	
STRUCTURE	0.144
ENVELOPE	0.0027
HVAC	0.207

SUMMARY OF HVAC SYSTEM	
HVAC Type	- DOAS System w/ - Water-Sourced Heat Pump
Heating System	- Gas Fired Boiler - Electric Wall Heaters (For Gymnasium)
Cooling System	- Adiabatic Cooler







BUILDING LOAD	
SUPPLY AIRFLOW	36496 CFM
HEATING LOAD	1,350 kBTU/h
COOLING LOAD	642 kBTU/h