

# Geothermal Technology in Building Beyond Net Zero



# Why we build the way we do...

























# Build A Good Envelope













# Geothermal Energy

















# Triple Glazing of Windows & Roof Insulation





# Other features



**Wrapped Hot Water Tanks**



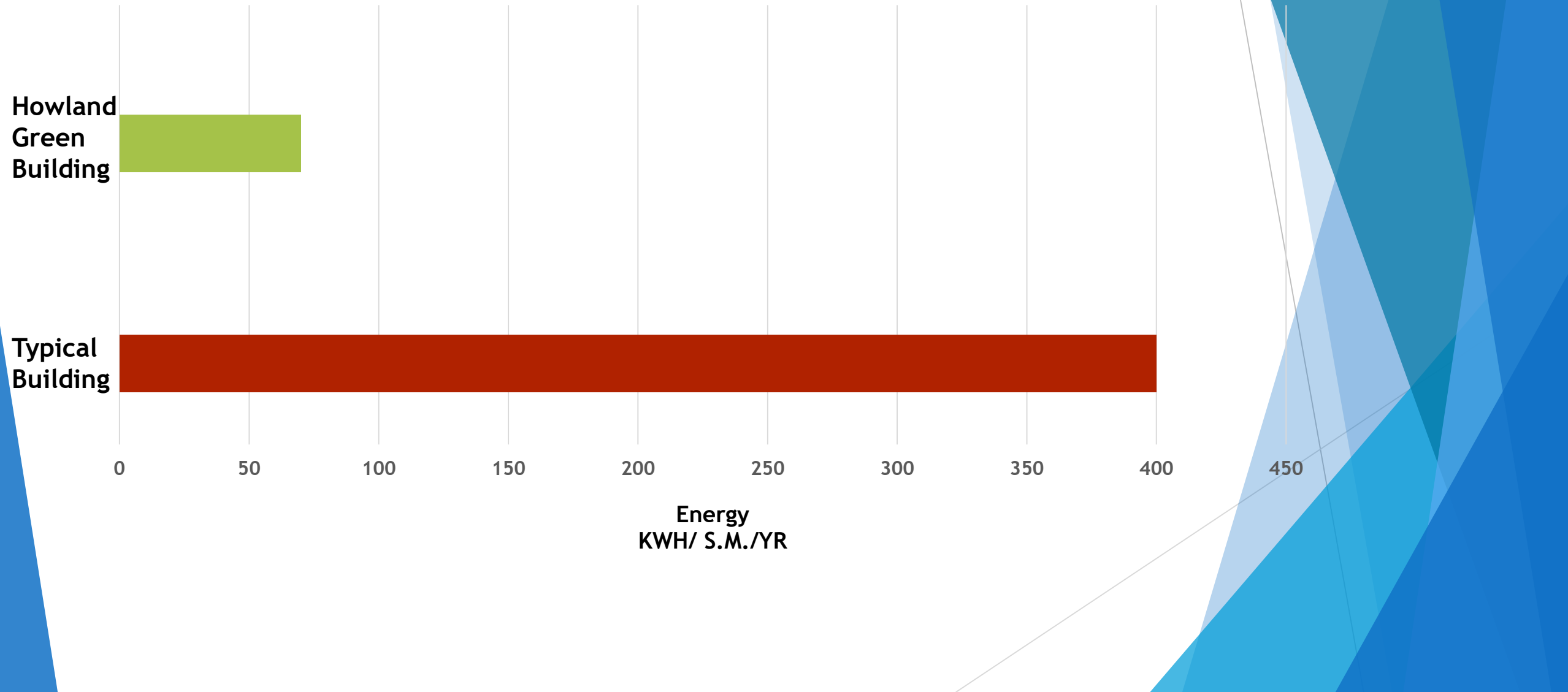
**Covered Garage Entrances**







# Energy Consumption





# How We Satisfy Space Conditioning

- ▶ Header systems
- ▶ Frequency drives
- ▶ Individual units
- ▶ The cost in energy units
- ▶ Top-out and bottom-out temperatures
- ▶ Overall cost is reduced because we spend time and money on the envelope
- ▶ Super heaters



# Howland Green Business Centre







## CORPORATE HEAD OFFICES

- |   |  |  |
|---|--|--|
| 1 Lexmark Canada  | 9 Ecco Shoes Canada Inc.,<br>Smucker Foods Canada<br>NGK Spark Plugs Canada Ltd.           | 13 IBM Canada Ltd.   |
| 2 Bank of China   | 10 Allergan Inc.,<br>Motorola Solutions Canada   | 14 BMW Canada  |
| 3 Scholastic Canada   | 11 Hallmark Canada, PetValu Canada Inc.  | 15 Staples Business Depot, Pactiv Canada,<br>Rubicon Food Products Limited |
| 4 Lego Canada Inc.  | 12 Johnson & Johnson Inc.,<br>Swarovski Canada Ltd.,<br>ASUS Computer International Canada | 16 Mazda Canada  |
| 5 Hyundai Auto Canada Corp.   |  | 17 Nutrition House   |
| 6 Huawei Technologies Canada  |  | 18 Mucho Burrito Headquarters  |
| 7 Yogen Frusz, Under Armour Canada,<br>Mary Brown's & Wimpy's Diner |  | 19 Randstad Technologies   |
| 8 Caff   Demetre Corporation  |  | 20 Amico Corporation, TP-Link Canada                                       |

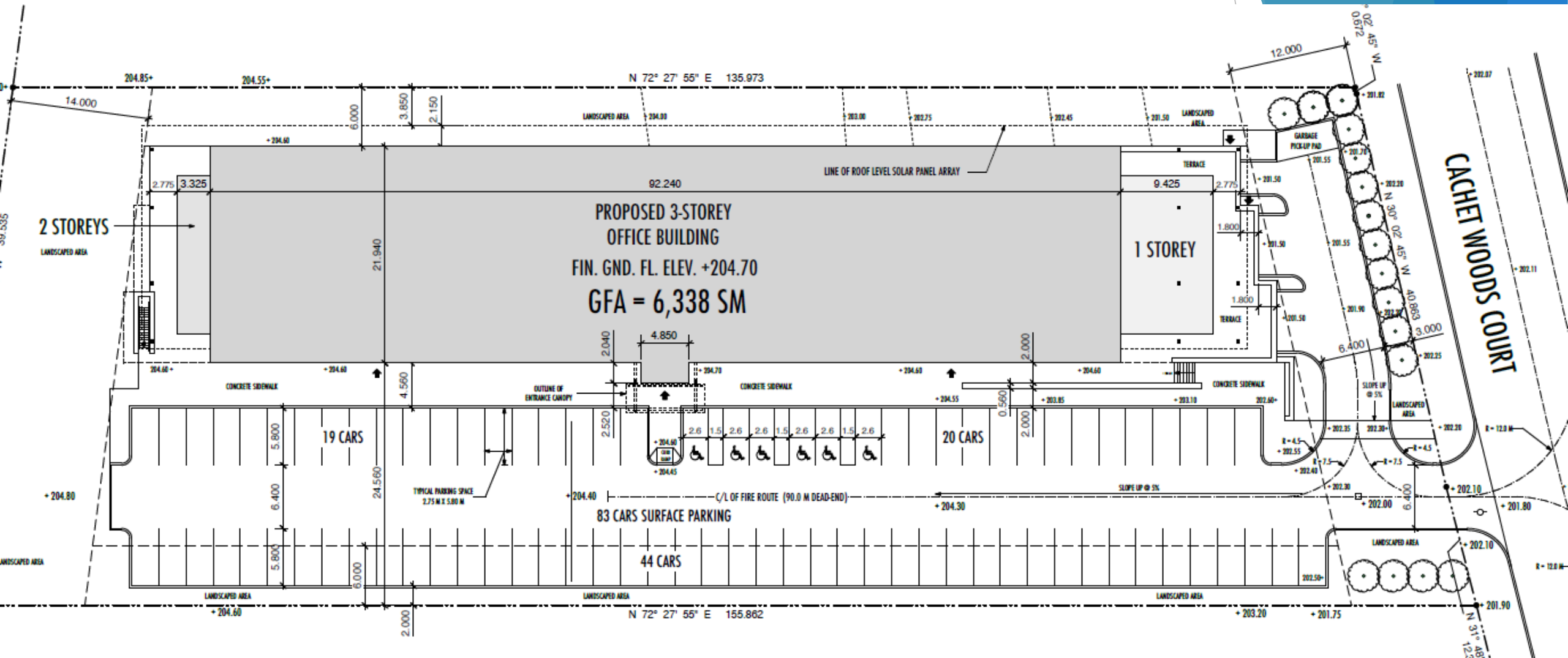


# Site Plan





# How this works towards Beyond Net Zero





# Room for Geothermal in the Future

- ▶ As energy pricing goes up, gas/electricity/nuclear/other, electricity will always be the prime motivator as opposed to fossil fuels...it's only a matter of time.

# Questions?



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