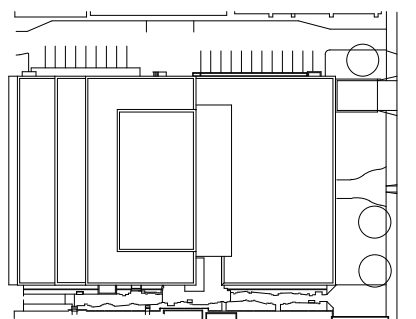


**NORR**

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key plan



project and true North

project legend

THE ASSOCIATION OF  
PROFESSIONAL ENGINEERS  
OF THE PROVINCE OF  
PRINCE EDWARD ISLAND  
VALID FOR THE YEAR 2022

P.N. Frasier  
No. 2553

DATE: 27 MAY, 2022

LICENSED  
PROFESSIONAL ENGINEER  
PROVINCE OF  
PRINCE EDWARD ISLAND

0 ISSUED FOR TENDER 2022-05-27

revisions date

project project

DANIEL J MACDONALD  
MODERNIZATION

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CHARLOTTETOWN, PEI, C1A 1L1

drawing design  
**GEOHERMAL FIELD  
PIPING LAYOUT**

designed NORR compu

date 2021-6-10

drawn NORR dessiné

date 2021-6-10

approved PF approuvé

date 2022-05-27

Tender Soumission

PW/GSC Project Manager Administrateur de projets TP/GSC

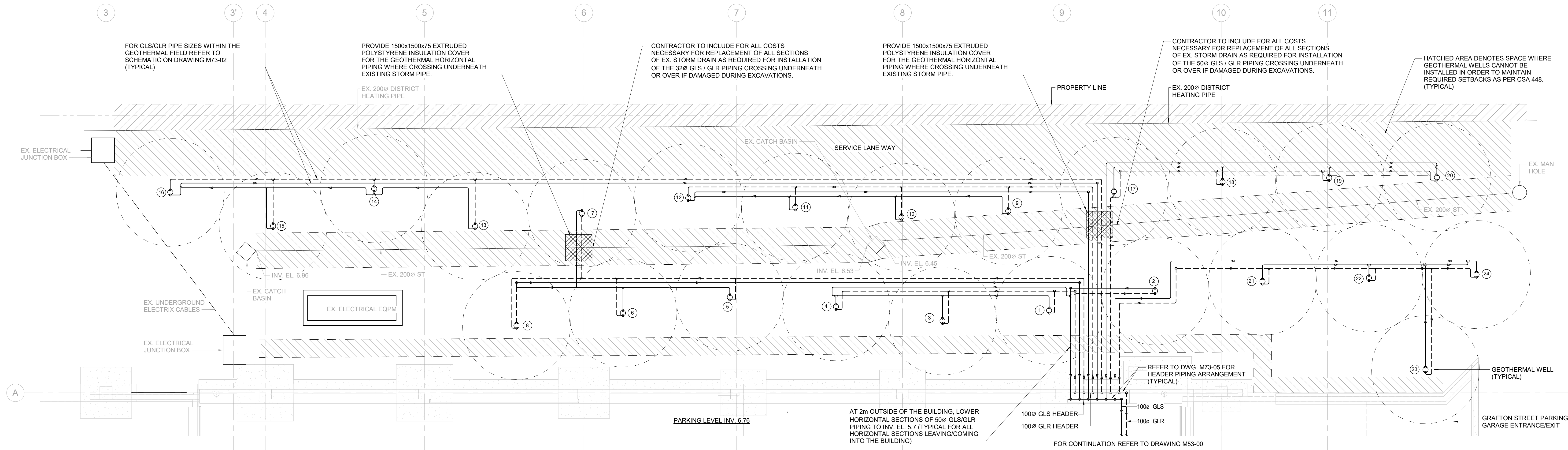
project number no. du projet

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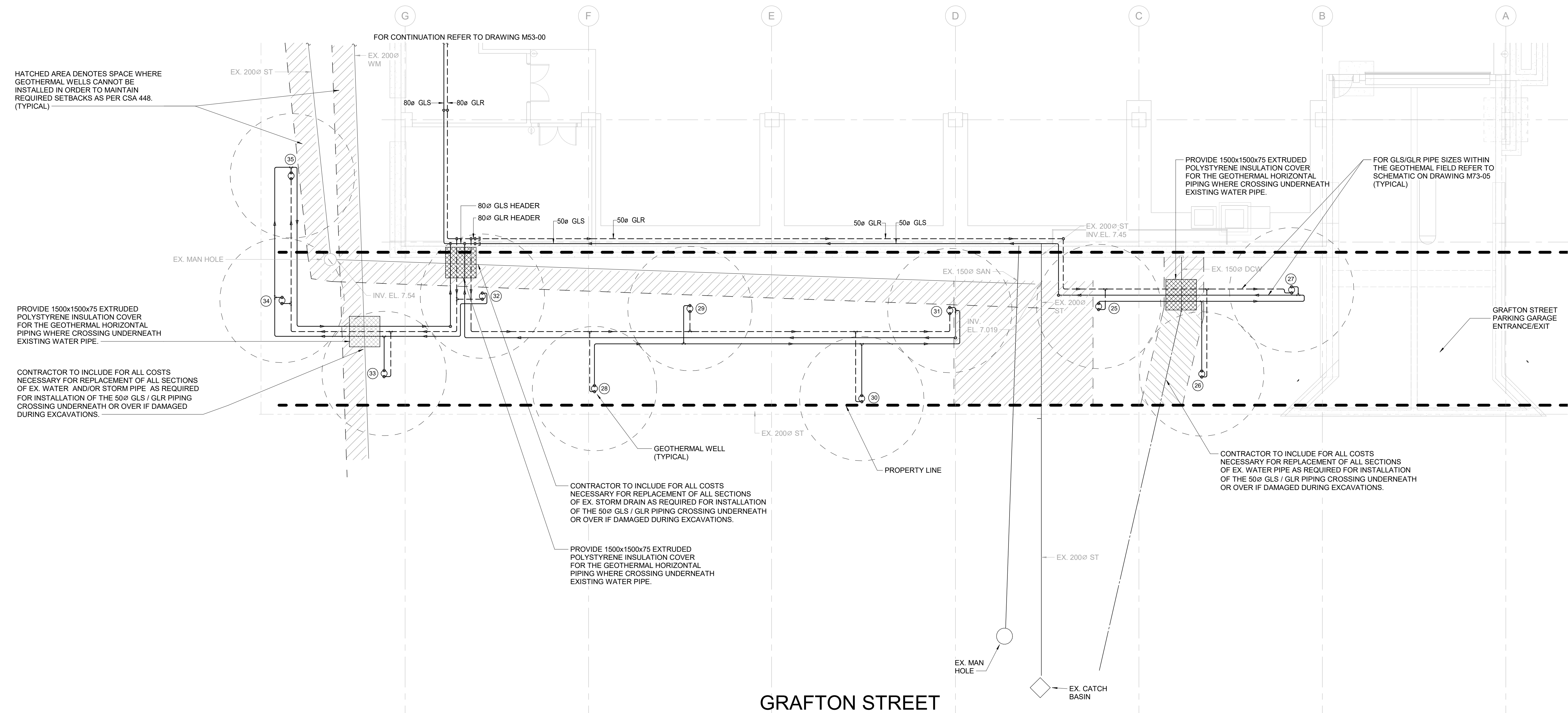
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M60-07

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1  
M60-07  
**GEOHERMAL FIELD PIPING LAYOUT**  
SCALE: 1:100  
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m



2  
M60-07  
**GEOHERMAL FIELD PIPING LAYOUT SOUTH**  
SCALE: 1:100  
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

**DRAWING NOTES:**

1. GEOHERMAL SYSTEM INSTALLATION TO COMPLY WITH STANDARD CSA 448 AND MAINTAIN ALL REQUIRED SETBACKS TO THE EXISTING SERVICES, BUILDING AND PROPERTY LINE.
2. WELL DEPTH BASED ON 150m OF ACTIVE VERTICAL BOREHOLES SPACE AT MIN. 8m ON CENTER.
3. COORDINATE PIPING PENETRATIONS THROUGH FOUNDATION WALL, PROVIDE SLEEVES AND WATERPROOFING AT WALL PENETRATIONS, REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
4. CONTRACTOR TO VERIFY LOCATION OF EXISTING SITE UTILITIES WITH DEPARTMENTAL REPRESENTATIVE AND CITY, MODIFY BOREHOLE PLAN AS REQUIRED TO ACCOMMODATE EXISTING OUTSIDE UTILITIES COORDINATE WITH DEPARTMENTAL REPRESENTATIVE.
5. CONTRACTOR TO COORDINATE DRILLING SCHEDULE WITH DEPARTMENTAL REPRESENTATIVE.
6. EXCAVATE AND REMOVE LARGE ROCKS AND JAGGED STONE, BACKFILL WITH CLEAN NATIVE SOIL.
7. CONTRACTOR TO COORDINATE REMOVAL OF ALL EXTRA SOILS AFTER BACKFILL AND ROUGH GRADING IS COMPLETE, ENSURE THAT ALL DRILLING SPOILS ARE CONTAINED AND PREVENTED FROM SPILLING ONTO THE STREET. ALL GEOHERMAL WORK TO COMPLY WITH ALL APPLICABLE REGULATIONS.
8. HORIZONTAL PIPING SHALL BE SLOPED-UP A MINIMUM OF 0.5% GRADE FROM FARTHEST POINT INTO THE BUILDING TO ELIMINATE AIR ENTRAPMENT IN PIPING SYSTEM.
9. CONTRACTOR TO FLUSH AND PURGE LINES OF SOIL, DEBRIS AND AIR, LEAVE WELLFIELD PRESSURIZED WITH WATER, SYSTEM FILL WITH 25% PROPYLENE GLYCOL BEFORE START-UP.
10. RE-USE EXISTING WELLS, NOTIFY DEPARTMENTAL REPRESENTATIVE IF THIS IS NOT PRACTICAL.

**GENERAL NOTES:**

1. DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL FLOOR PLANS AND SPECIFICATIONS.
2. ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON EXISTING DRAWINGS, CONTRACTOR SHALL VERIFY ALL LOCATIONS ON SITE.
3. CONTRACTOR TO COORDINATE INSTALLATION WITH ALL OTHER TRADES INVOLVED ON SITE.
4. ENSURE NOT TO DISTURB SERVICES COVERING AREAS NOT INCLUDED IN THE SCOPE, ALL WORK MUST BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
5. CONTRACTOR SHALL VISIT SITE TO EXAMINE EXISTING CONDITIONS.
6. CONTRACTOR TO PROPOSE SOLUTIONS FOR REVIEW TO THE CONSULTANT IF ANY INTERFERENCES OCCUR DUE TO SITE CONDITIONS.
7. ALL MATERIAL USED IN THE CEILING SPACE (RETURN AIR PLENUM) SHALL MEET AND EXCEED THE N B C REQUIREMENTS FLAME AND SMOKE SPREAD/DEVELOPMENT RATINGS.
8. CONTRACTOR TO PROVIDE CONNECTION TO RELOCATED EXISTING EQUIPMENT AND ADDED EQUIPMENT DIRECTLY TO BUILDING HVAC SYSTEM AND UPDATE THE BMS ARCHITECTURE AS REQUIRED.
9. CONTRACTOR TO REMOVE ALL MECHANICAL EQUIPMENT AND INSTALL NEW ONES, SALVAGE AND REINSTALL ONLY WHEN SPECIFICALLY INDICATED.