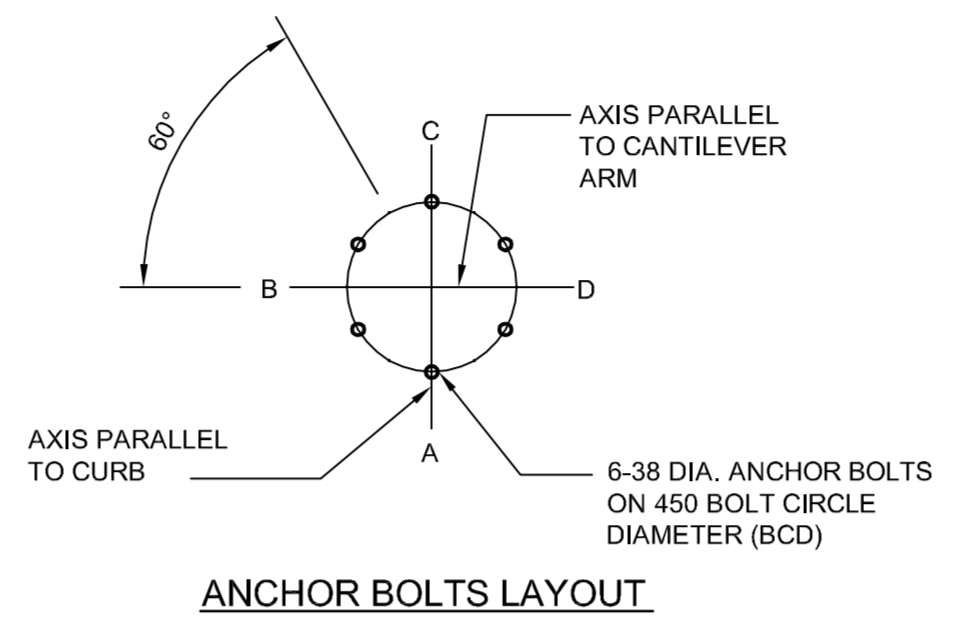
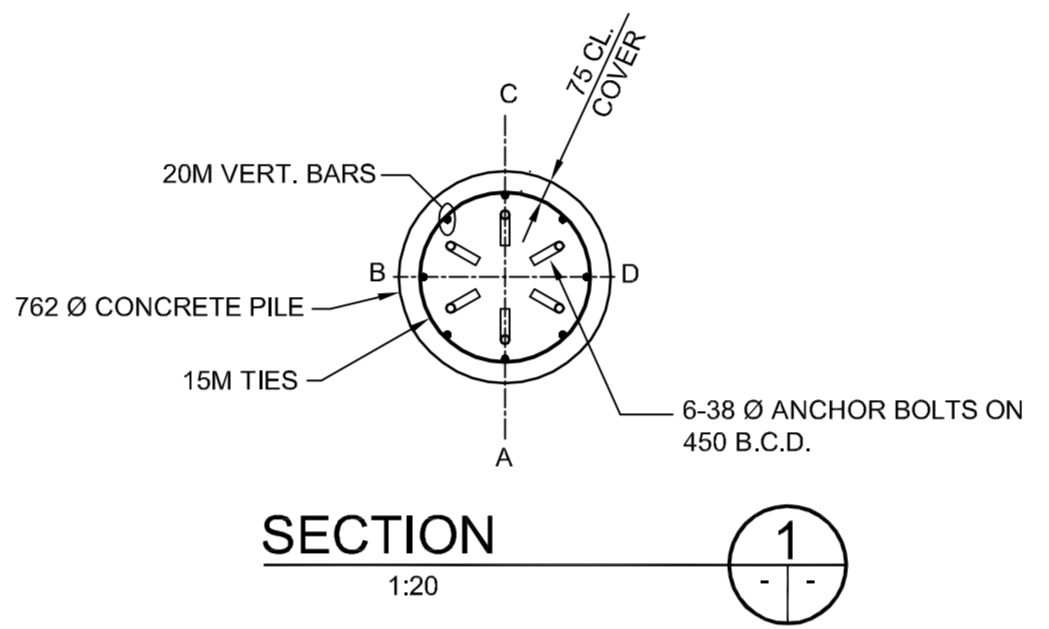


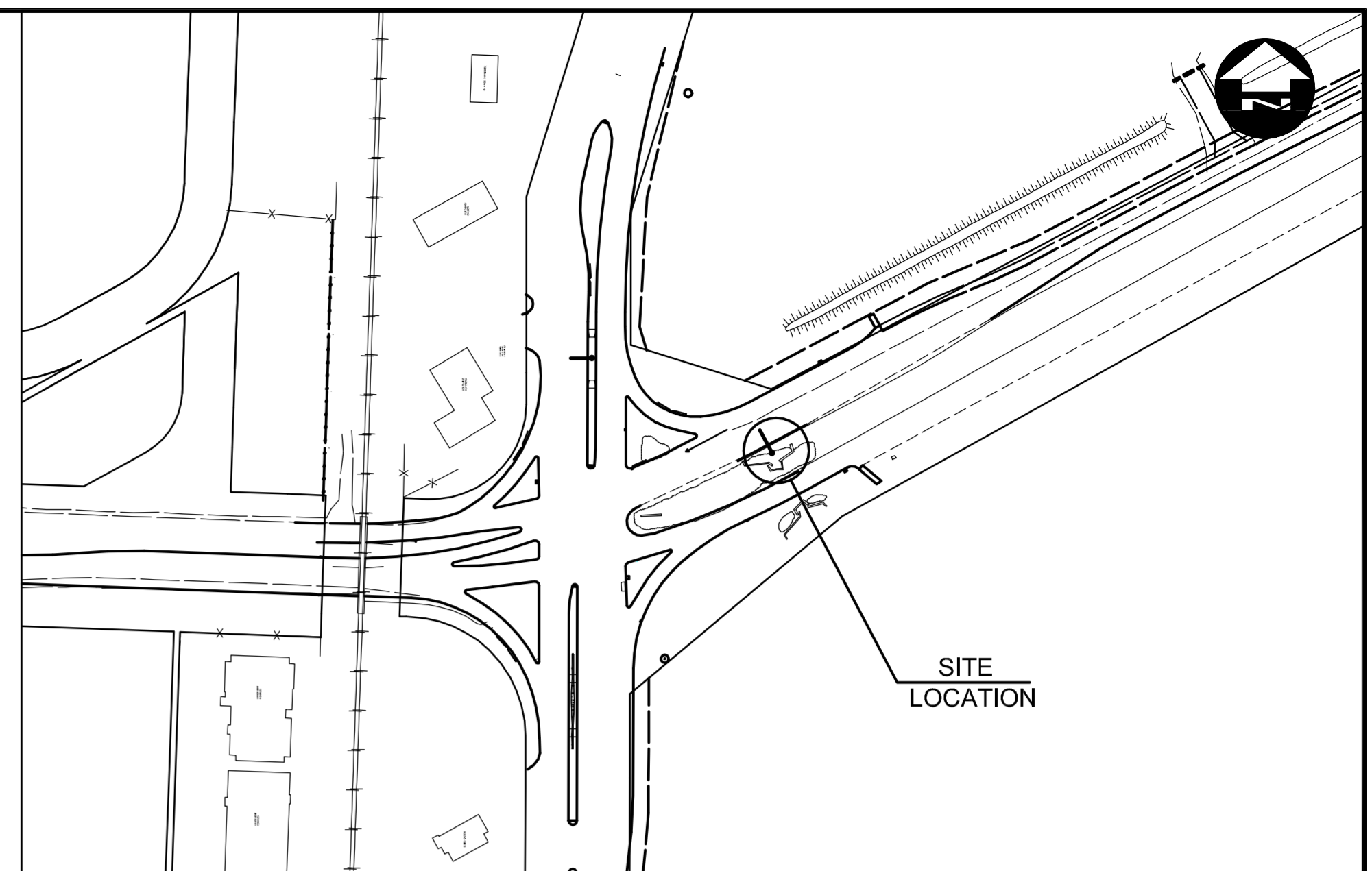
**SITE PLAN**  
1:250



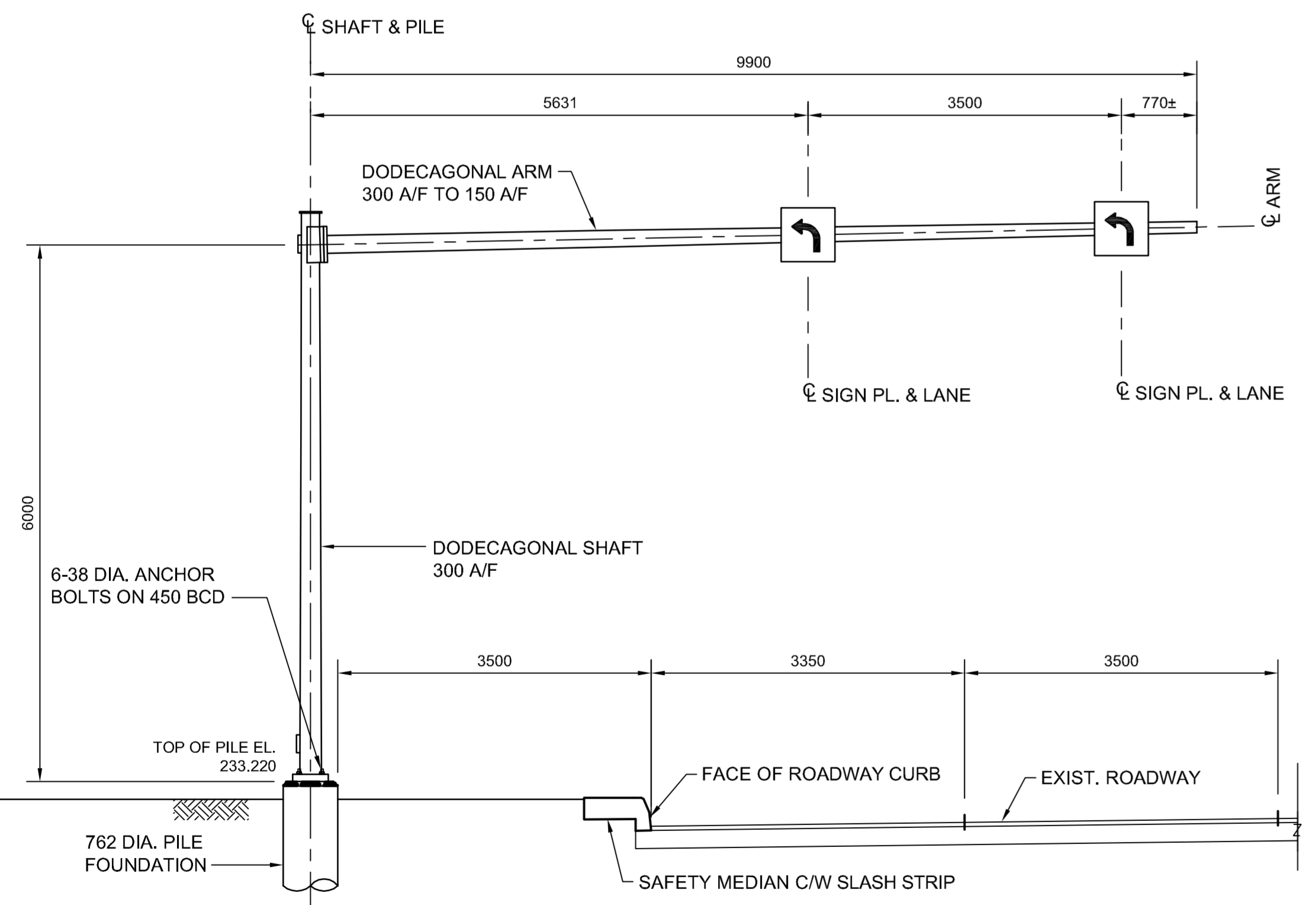
**ANCHOR BOLTS LAYOUT**



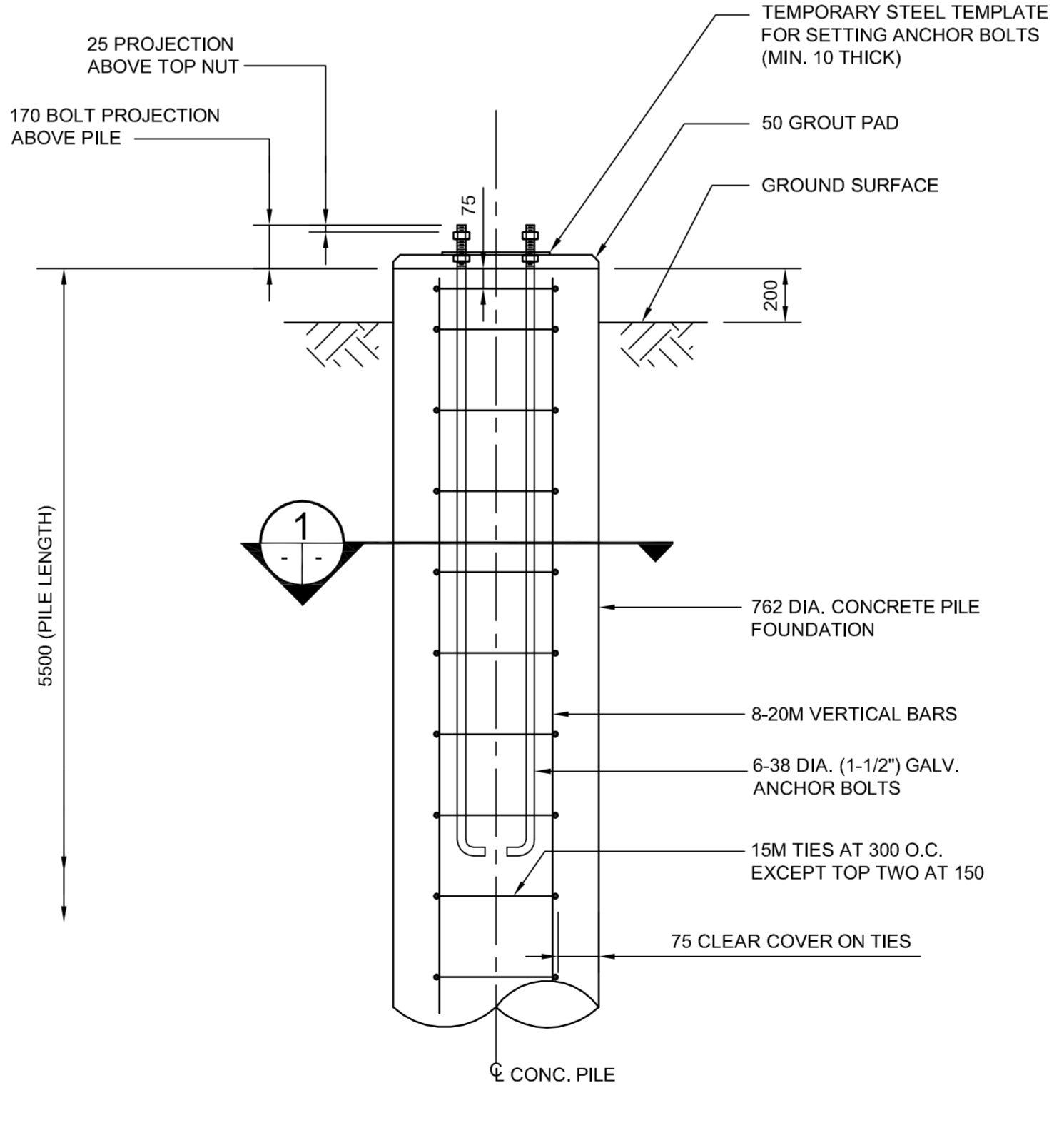
**SECTION**  
1:20



**KEY PLAN**



**SITE ELEVATION - LOOKING WEST**  
1:50 OVERHEAD SIGN SUPPORT STRUCTURE NO. S752



**ELEVATION**  
**CONCRETE PILE FOUNDATION DETAIL**  
1:20

**PILE CONSTRUCTION NOTES**

- EXCAVATION**
  - CONTRACTOR SHALL EXCAVATE USING HYDRO JET.
  - CONTRACTOR SHALL NOT DAMAGE EXISTING BRICK WALLS AND SHRUBS.
- REINFORCING STEEL**
  - CSA G30.18 GR. 400W
  - VERTICAL BARS FULL LENGTH OF PILE
  - HOT DIP GALVANIZED
- ANCHOR BOLTS**
  - CSA G40.21 GR. 300W
  - 6-38 (1-1/2") DIA. x 1500 LONG + 150 HOOK
  - EACH BOLT C/W 2 NUTS & 2 WASHERS
  - TOP 300 THREADED
  - HOT DIP GALVANIZED FULL LENGTH
  - BCD = BOLT CIRCLE DIAMETER TO CENTRE OF BOLT GROUP
- ANCHOR BOLTS SHALL BE ALIGNED WITH A TEMPORARY STEEL TEMPLATE. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATE WILL NOT BE PERMITTED.
- TOP OF PILE SHALL BE FORMED WITH A TUBULAR FORM (SONOTUBE).
- CONTRACTOR SHALL REMOVE THE BASE TEMPLATE, NUTS AND FORM, FOLLOWING A MINIMUM 24 HOUR CONCRETE CURING PERIOD.
- CONCRETE MIX DESIGN**

PROPORTIONING OF FINE AGGREGATE, COARSE AGGREGATE, CEMENT, WATER, AND AIR ENTRAINING AGENT SHALL BE SUCH AS YIELD CONCRETE HAVING THE REQUIRED STRENGTH AND WORKABILITY AS FOLLOWS:

  - CLASS OF EXPOSURE: S-1
  - MINIMUM COMPRESSIVE STRENGTH AT 56 DAYS = 35 MPa
  - MAXIMUM WATER/CEMENT RATIO = 0.40
  - AIR CONTENT: CATEGORY 2 PER TABLE 4 OF CSA A23.1-04 (4-7%)
  - CEMENT AS SPECIFIED IN A5.28

**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**WARNING**

- IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
  - TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.
  - OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

| 150 WM | WATERMAIN           | 150 WM | HYDRO       | HYDRO    | HYDRO | 150 mm W.M.    | WATERMAIN           | 150 mm W.M. |
|--------|---------------------|--------|-------------|----------|-------|----------------|---------------------|-------------|
| +      | HYDRANT             | +      | MTS         | MTS      | +     | +              | HYDRANT             | +           |
| +      | VALVE               | +      |             |          | +     | +              | VALVE               | +           |
| +      | LAND DRAINAGE SEWER | +      |             |          | +     | +              | LAND DRAINAGE SEWER | +           |
| +      | WASTE WATER SEWER   | +      |             |          | +     | +              | WASTE WATER SEWER   | +           |
| +      | MANHOLE             | +      |             |          | +     | +              | MANHOLE             | +           |
| +      | CATCH BASIN         | +      |             |          | +     | +              | CATCH BASIN         | +           |
| +      | CURB INLET          | +      |             |          | +     | +              | CURB INLET          | +           |
| +      | JUNCTIONS           | +      |             |          | +     | +              | JUNCTIONS           | +           |
| +      | CULVERT             | +      |             |          | +     | +              | CULVERT             | +           |
| +      | 100 GAS             | +      |             |          | +     | +              | 100 GAS             | +           |
| +      | EXISTING            | +      | PROPOSED    | EXISTING | +     | PROPOSED       | EXISTING            | +           |
|        | LEGEND-PLAN         |        | LEGEND-PLAN |          |       | LEGEND-PROFILE |                     |             |

| UNDERGROUND STRUCTURES   | DATE |
|--|------|
| SUPPLY, U/G STRUCTURES COMMITTEE   |      |
| NOTE:  |      |
| LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION. |      |

| B.M. | 654271 N 5517192.470 E 632610.651 | ELEV.      | 233.084 |
|------|-----------------------------------|------------|---------|
| 1    | ISSUED FOR TENDER                 | 11/06/23   | JNC     |
| NO.  | REVISIONS                         | DATE       | BY      |
|      |                                   | 2011/06/23 |         |

| DESIGNED BY | CDW        |
|-------------|------------|
| DRAWN BY    | APH        |
| CHECKED BY  | SSR        |
| APPROVED BY | DPK        |
| HOR. SCALE  |            |
| VERTICAL    |            |
| DATE        | 2011/06/23 |



**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT

**BISON DRIVE & PEMBINA HIGHWAY INTERSECTION IMPROVEMENTS**

**S752 CHANCELLOR MATHESON RD. W.B. EAST OF PEMBINA HWY**

CITY DRAWING NUMBER: P-3327-23  
SHEET: 23 OF 24  
CONSULTANT DRAWING NUMBER

CONSULTANT PROJECT NUMBER: 11-4587

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