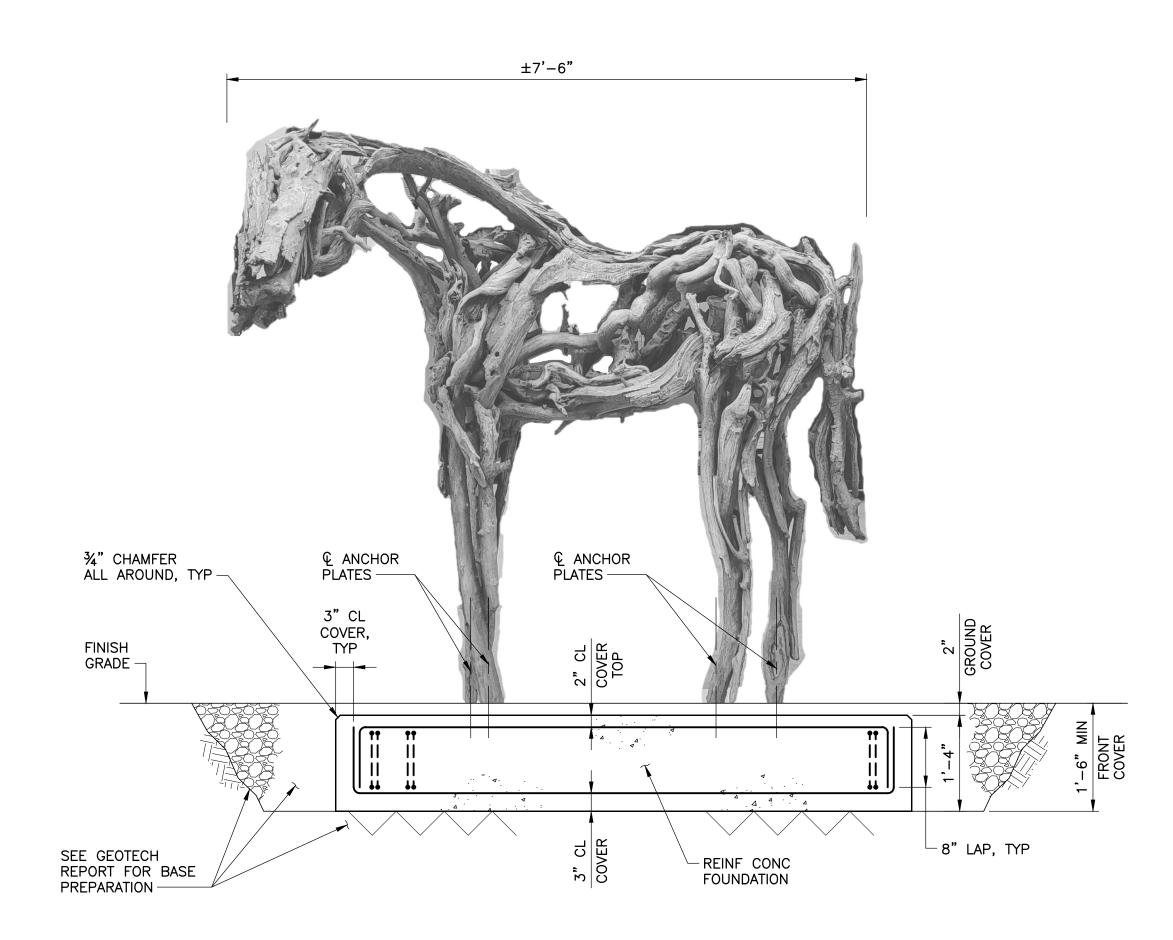


FOUNDATION PLAN

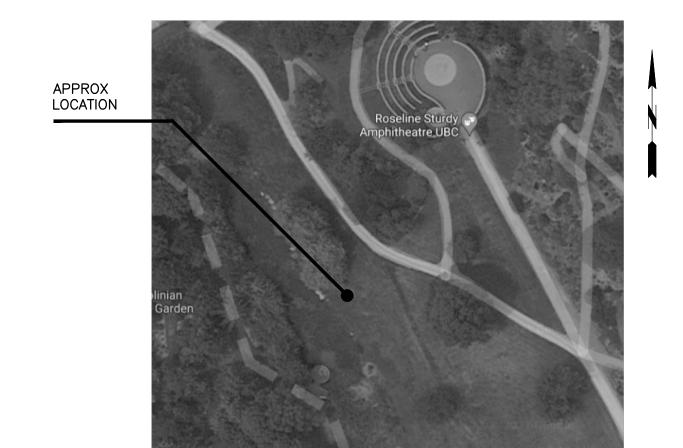
¾"=1'-0

(NOTE: HORSE SCULPTURE FEET POSITION SHOWN ARE APPROXIMATE ONLY AND ±)

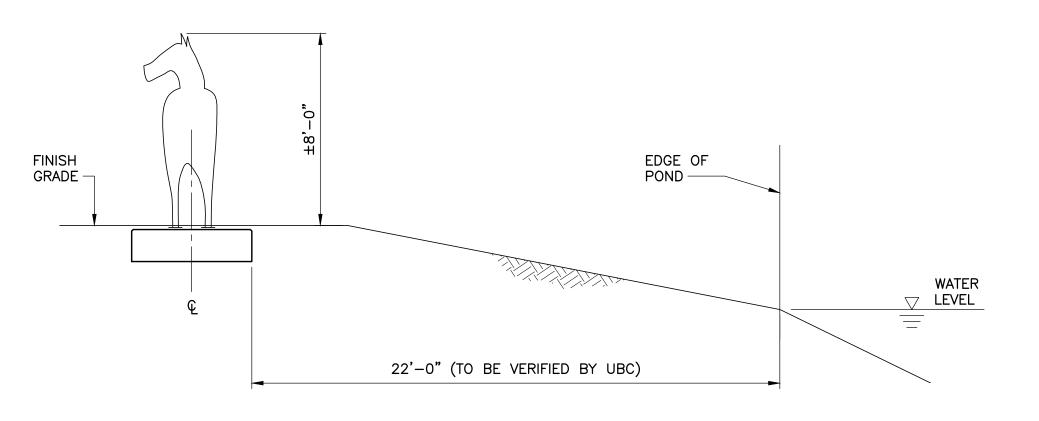
PLACE SCULPTURE FOOTING AS CLOSE AS POSSIBLE TO APPROXIMATE DIMENSIONS SHOWN ON FOUNDATION PLAN FROM € OF FOOTING



<u>SECTION A—A</u> $\frac{3}{4}$ "=1'-0"



LOCATION PLAN



ANCHOR DESIGN FORCES (UNFACTORED)

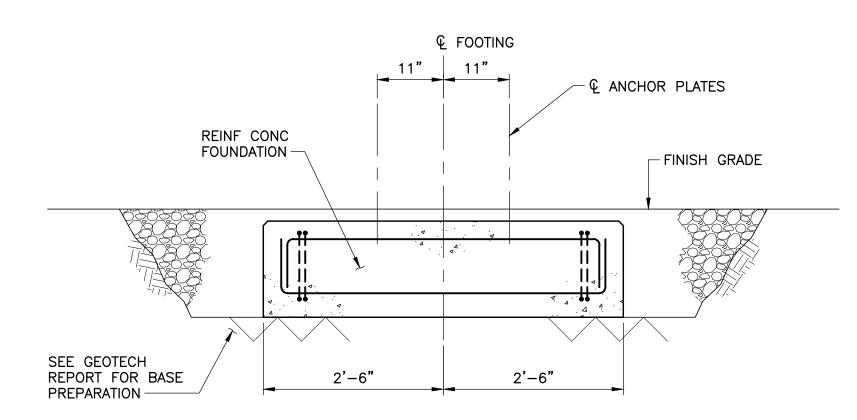
 $T_{EQ} / C_{EQ} (GROSS) = \pm 2300 lbs (PER EACH LEG)$

DEAD LOAD (GROSS) = ±500 lbs (PER EACH LEG)

 $V_{EQ} = \pm 650 \text{ lbs (PER EACH LEG)}$

APPROX SITE PROFILE (FOR INFORMATION ONLY)

X"=1'-0"



<u>SECTION B-B</u> $\frac{3}{4}$ "=1'-0"

STRUCTURAL NOTES

RNP PROJECT NUMBER 21524

 $\frac{\text{RNP ENGINEERING LTD - 10851 ATHABASCA DRIVE, RICHMOND B.C., V7A 4Z7}}{\text{TEL: } \underline{604-241-3142}} \\ \underline{\text{EGBC \# 1000495}}$

BRONZE HORSE SCULPTURE - FOUNDATION - Botanical Garden - UBC

- A: GENERAL
- The design of the new concrete foundation for the 'Bronze Horse Sculpture' shown on RNP Engineering Ltd. (RNP) drawing is generally in accordance with the 2018 edition of the British Columbia Building Code. All construction shall conform to B.C. Building Code Latest Edition.
- 2) The design and details of the anchors for the sculpture are by others.
- 3) The contractor shall verify all existing and new dimensions and site conditions prior to commencement of any work. Report any discrepancies to RNP Engineering Ltd.
- 4) The contractor shall co-ordinate the work of all other sub-trades and consultants, and shall check the compatibility of the structural drawing and other consultant and trades and shop drawings before commencing any work.
- 5) The contractor shall install all other services as per UBC requirements and to requirements of all other authorities having Jurisdiction.
- 6) The structural drawing for this project shows the complete structure. The contractor shall be responsible for all temporary bracing, shoring and formwork that may be necessary during construction. TAKE ADEQUATE PRECAUTIONS TO ENSURE THAT PROPER SUPPORT TO NEW WORK IS PROVIDED DURING CONSTRUCTION. CLEAN AND MAKE GOOD ALL SURROUNDING AREAS AS PER UBC REQUIREMENTS.
- 7) The contractor shall conform to all safety and construction requirements as stipulated by UBC, Worksafe B.C. and all other authorities having jurisdiction.
- 8) The new foundation has been designed based on soils data provided by GEOPACIFIC dated September 09, 2021 File reference number 19846. The contractor shall refer to the geotechnical report for all recommendations and geotechnical inspections.

B: <u>DESIGN BASIS</u>

British Columbia Building Code 2018 - Part 4.

C: <u>GEOTECHNICAL DATA</u>

Serviceability Limit State (SLS) soil bearing pressure = 120 kPa (2500 PSF)

D: <u>DESIGN LOADS</u>

Climatic Data (Vancouver (Granville and 41 Avenue), B.C.

Live Load = Not applicable Snow Load: Ss = 40 PSF (1.9 kPa), Sr = 6.3 PSF (0.3 kPa), Is = 0.8 Wind: q 1/10 = 7.31 (0.35 kPa), q 1/50 = 9.40 PSF (0.45 kPa), Iw = 0.8 Seismic: PGA = 0.375, PGV = 0.563, Ie = 0.8 Sa(0.2) = 0.863, Sa(0.5) = 0.765, Sa(1.0) = 0.432, Sa(2.0) = 0.261, Sa(5.0) = 0.081, Sa(10.0) = 0.029

E: <u>CONCRETE</u>

- 1) Place and protect all concrete in accordance with CAN3-A23.1-M. Employ cold weather and hot
- weather requirements when necessary.

2) Concrete shall be as follows:

Min Compressive Strength @ 28 days = 25 MPa Max. Aggregate: 20 mm (3 / 4") Slump: 100 mm (4") Air content: 3.6%

- 3) All work shall be in accordance with CSA A23.1.- Concrete shall be protected from all harmful
- effects during construction.

 Cement shall conform to CSA A5, type (10)
- 4) Cement shall conform to CSA A5, type (10) normal Portland cement.
 5) Calcium chloride shall not be used as an admixture in any concrete.
- 6) Before placing concrete, the contractor shall ensure that all reinforcement, anchors, dowels, anchor bolts, inserts etc. are in place and shall check with all other trades to ensure their requirements are met
- Notify the structural engineer a minimum of 48 hours (2 business days) for field reviews before any concrete pour.
- F: REINFORCEMENT
- 1) Reinforcing bars shall be deformed bars and shall conform to CSA G30.12, latest edition. Grade
- Reinforcing steel shall conform to CSA A23.3 unless noted otherwise. Fabricate reinforcing to CSA CAN3-A23.1-M.
- 3) Concrete cover to reinforcing shall be as follows (unless noted otherwise):
- Formed surface exposed to weather or in contact with ground = 2" (50 mm)
 Placed against soil = 3" (75 mm)
- 4) Bar splices are not permitted unless noted on the structural drawings. Lap bars as noted on RNP
- 5) Anchors for the sculpture by others.

EGBC PERMIT NUMBER 1000495

RNP PROJECT No. 21524

RNP ENGINEERING LTD.

CONSULTING ENGINEERS

RICHMOND, BRITISH COLUMBIA
CANADA V7A 4Z7

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Email: rnpengineering@shaw.ca

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Written dimensions shall have precedence over scaled dimensions. Contractor shall verify and be responsible for all dimensions and conditions on the job and this office shall be informed of any variations from the dimensions and conditions shown on the drawing.

				and conditions shown on the drawing.				
1	AT'L SPEC OLES:	EDGE DIST:		BRONZE HORSE SCULPTURE FOUNDATION UBC BOTANICAL GARDEN				
w	WELDS: BOLTS:		6190 AGRC	6190 AGRONOMY ROAD				
SURF. PREP		CUSTOMER: UBC	PROJECT: BRONZE HORSE SCULPTURE CUSTOMER: UBC DWG. TITLE: FOUNDATION DETAILS AND SPECIFICATIONS					
			DRAWN BY: JT	CHECKED BY: BL	SCALE	DWG. NUMBER	REV.	
REV NO.	15/10/21 / DATE DD/MM/YY	ISSUED FOR PERMIT REMARKS	DATE: 15/10/21	DESIGNED BY: RN	AS NOTED	S-01	0	