

RESTORATION OF STANLEY PARK'S HOLLOW TREE

DRAWING LIST:

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- S-2 RIGHTING OF TREE
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HOLLOW TREE
SITE



LOCATION PLAN

Hollow Tree Restoration Plan

Phase 1 Determine Tree Geometry and Locations of Support

- Field review the tree to determine the most likely reinforcement locations.
- Confirm, through Resistance Drilling Testing, that the proposed locations are acceptable.
- Determine Tree geometry at chosen locations.
- Scribe the inside face of the tree.
- Scribe at an angle to horizontal to suit the intended final righted tree position.
- Create plywood or Coroplast template.
- Fit and test the template.

Phase 2 Righting of Tree

- Install temporary jacking supports and equipment.
- Incrementally jack tree to minimize failure of existing tree fibre.
- Excavate and remove root material as required to create room for windward side of tree to settle.
- All operations subject to the requirements of a hazard assessment by the forces responsible for conducting the work.
- Bring tree to equal to or less than 4° of vertical measured in any direction radially from the centre of the tree.

Phase 3 Installation of Artificial Roots and Transfer Beams

- Install test piles adjacent to the work area and conduct compressive and tensile tests.
- Report test results to the engineer for confirmation of design.
- Install permanent working piles.
- Excavate and install cross beams.

Phase 4 Installation of Stave Banding

- Scribe final tree geometry at stave banding locations.
- Produce fabrication drawings and template for bands.
- Fabricate bands.
- Install bands with temporary set-screws.
- Install studs in epoxy-filled holes.
- Remove set-screws after allowing system to cure.
- Test load the set screws.
- Connect the banding to the artificial root system.

Phase 5 Removal of Temporary Supports and Site Remediation

- Excavate under the tree to separate the tree from its wood root system.
- Install drainage system to encourage drying of the area.
- Backfill and landscape with free-draining material and hard landscaping that promotes drainage.
- Remove temporary supports.
- Restore site to public use.
- Landscaping plan to be developed by park's board.
- Engineer to review landscaping plan when available.

General Notes

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Consultants:



No.	Revision/Issue	Date
2	TO PARK'S BOARD	DEC04/08
1	REVIEW/DISCUSSION	NOV25/08

Consultant



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Drawing

GENERAL NOTES

Project

**STANLEY.PARK'S
HOLLOW.TREE**

VANCOUVER.BC.

Project No.

08-327

Sheet

Date

NOV/08

Scale

NTS

S-0

DRAWING NOTES

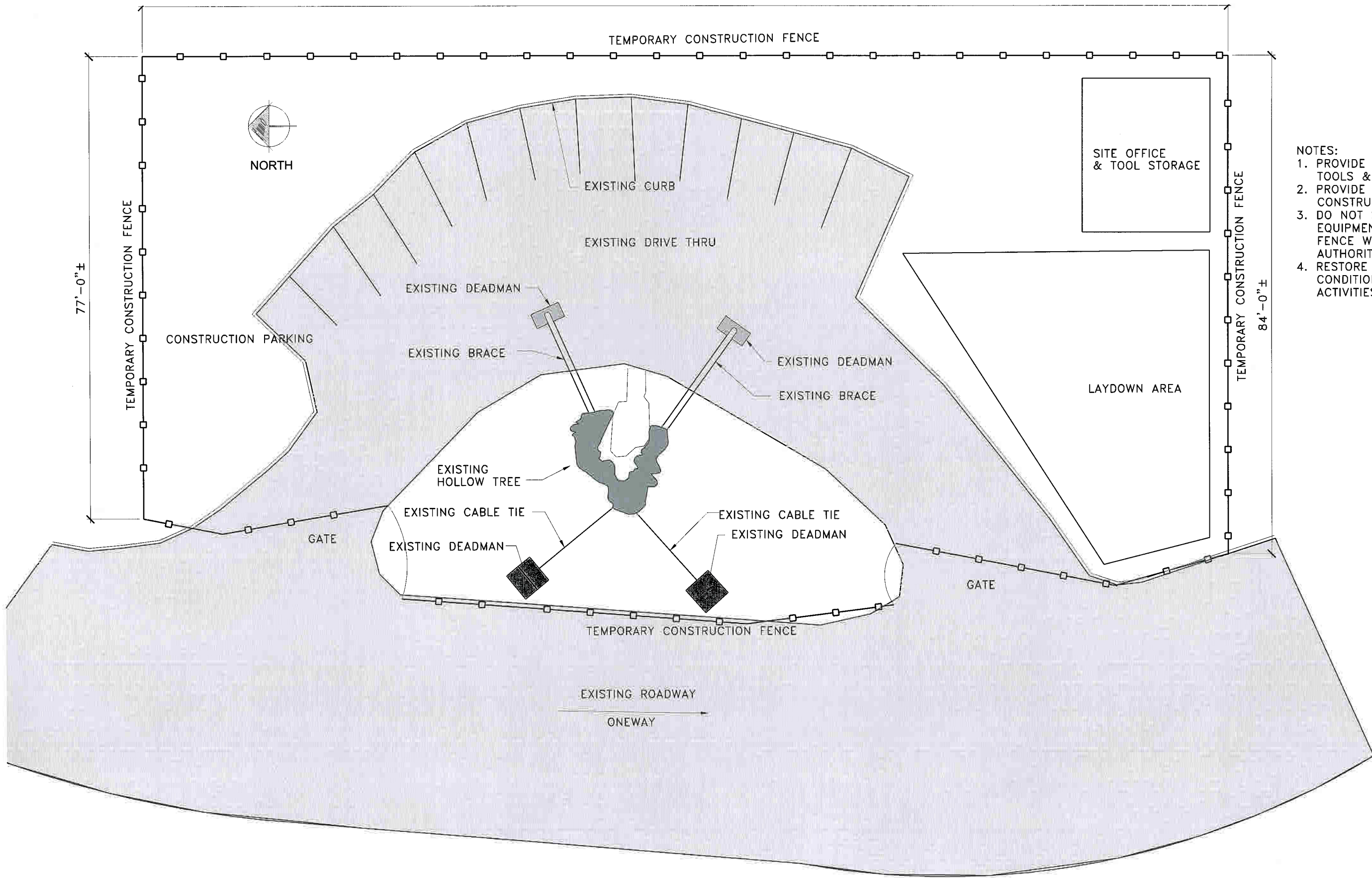
- THE CONTRACTOR SHALL EXAMINE ALL CONTRACT DOCUMENTS, CHECK DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER FOR CLARIFICATION PRIOR TO COMMENCING CONSTRUCTION. DISCREPANCIES NOT REPORTED ARE THE RESPONSIBILITY OF THE CONTRACTOR. CHECK AND VERIFY ALL DIMENSIONS WITH THE DRAWINGS BEFORE COMMENCING WITH ANY WORK. NOTIFY THE ENGINEER OF ANY ERRORS OR OMMISIONS.
- TEMPORARY SUPPORT AND TEMPORARY AND PERMANENT BRACING OF LOAD BEARING AND NON-LOAD BEARING ELEMENTS DURING CONSTRUCTION TO RESIST DEAD, LIVE AND CONSTRUCTION LOADS IS THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN OF THE TEMPORARY SUPPORTS IS TO BE COORDINATED WITH THE ENGINEER.
- DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION".
- THE GENERAL CONTRACTOR SHALL PROVIDE 6 SETS OF SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. ALLOW ADEQUATE TIME FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION OR ERECTION. SHOP DRAWINGS SHALL BE REVIEWS BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR REVIEW BY THE ENGINEER. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA. THE ENGINEER SHALL ENSURE THAT THE FABRICATION AND ERECTION OF THESE ELEMENTS ARE IN ACCORDANCE WITH THEIR DESIGN AND THAT THE DESIGN IS IN ACCORDANCE WITH ALL RELEVANT CODES AND REGULATIONS. SHOP DRAWINGS SHALL BE SUPPLIED FOR REVIEW FOR THE FOLLOWING:

- * STRUCTURAL STEEL SHAPES AND PLATES
- * ALL FRAMING, TEMPORARY AND PERMANENT

- ALL DESIGN TO CONFORM TO THE BC BUILDING CODE 2006, ALL OTHER APPLICABLE CODES AND PRACTICES.
INSPECTIONS:
NOTIFY THE ENGINEER 48 HOURS IN ADVANCE FOR INSPECTIONS.

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- NOTES:
1. PROVIDE SECURE STRUCTURE FOR TOOLS & EQUIPMENT.
 2. PROVIDE LOCKABLE, VANDAL PROOF CONSTRUCTION FENCE.
 3. DO NOT STORE MATERIAL OR EQUIPMENT OUTSIDE OF CONSTRUCTION FENCE WITHOUT PERMISSION AND AUTHORITY OF PARK STAFF.
 4. RESTORE GRASSED AREA TO EXISTING CONDITION AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED.



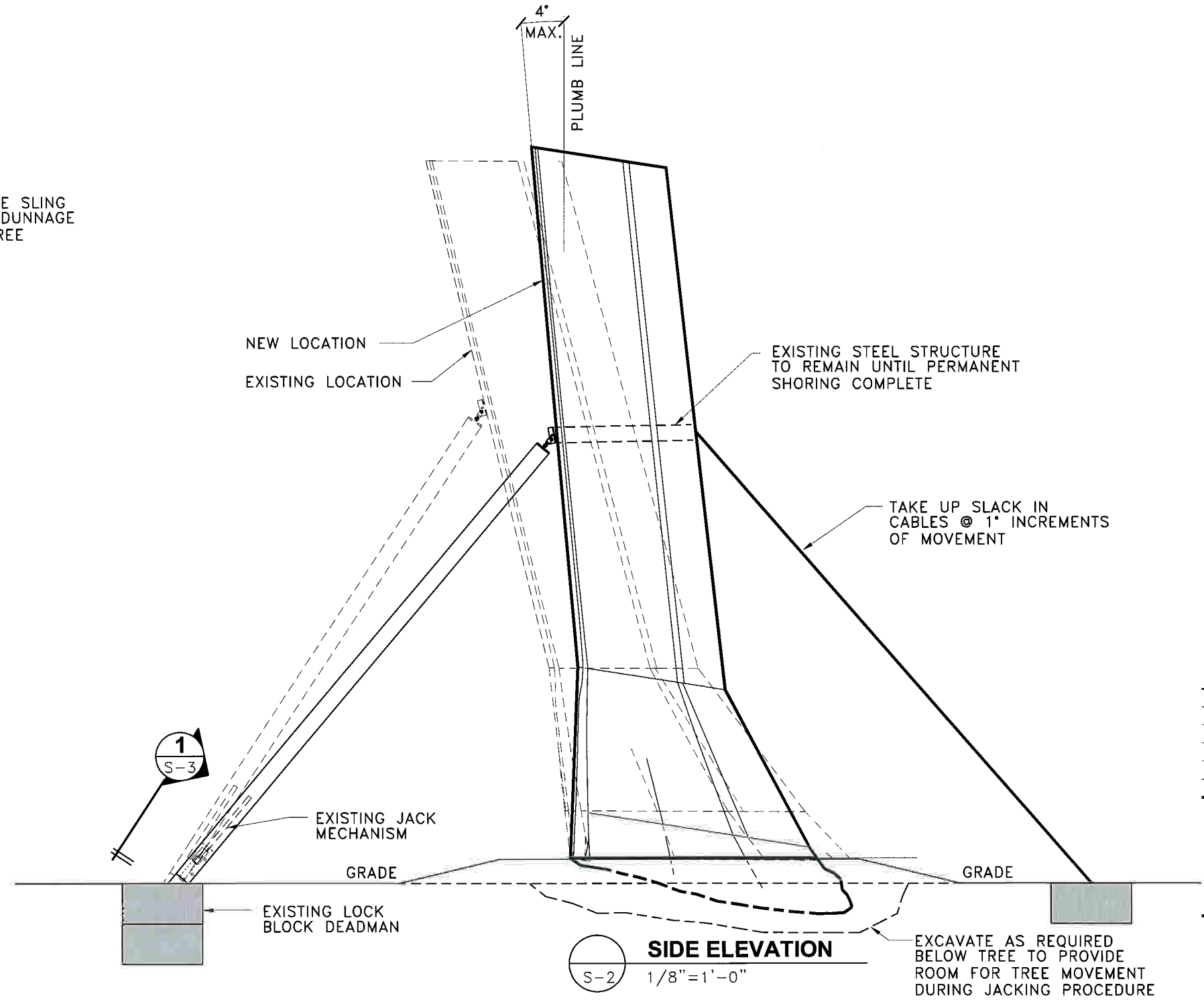
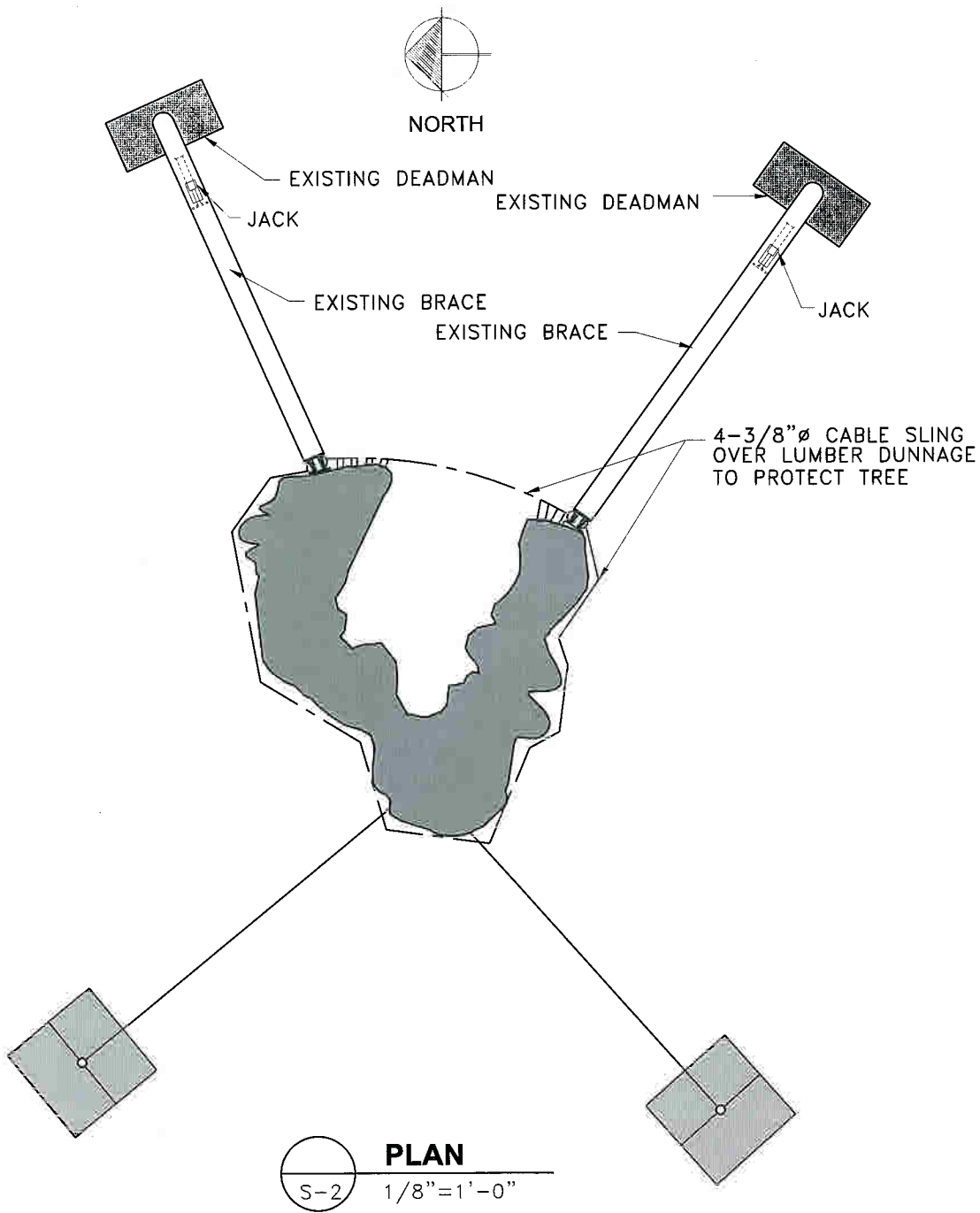
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**CONSTRUCTION
SITE
PLAN**

Project
**STANLEY.PARK'S
HOLLOW.TREE**
VANCOUVER.BC.

Project No. 08-327
Date NOV/08
Scale 1/16"=1'-0"
S-1

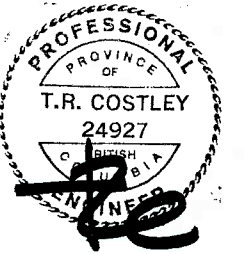


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Drawing

RIGHTING OF TREE

Project

STANLEY.PARK'S HOLLOW.TREE

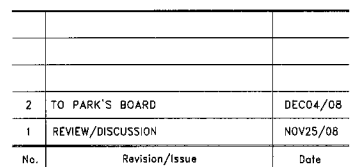
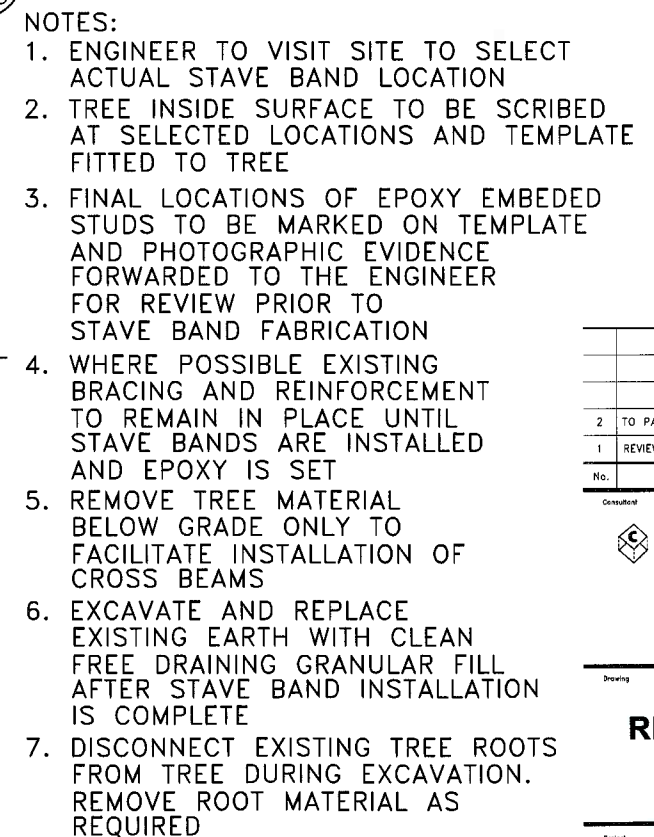
VANCOUVER.BC.

Project No. 08-327 Sheet

Date NOV/08

Scale AS NOTED

S-2



Drawing

Project

STANLEY.PARK'S HOLLOW.TREE

VANCOUVER.BC.

Project No. 08-327
 Date NOV/08
 Scale A5,NOTED

Sheet

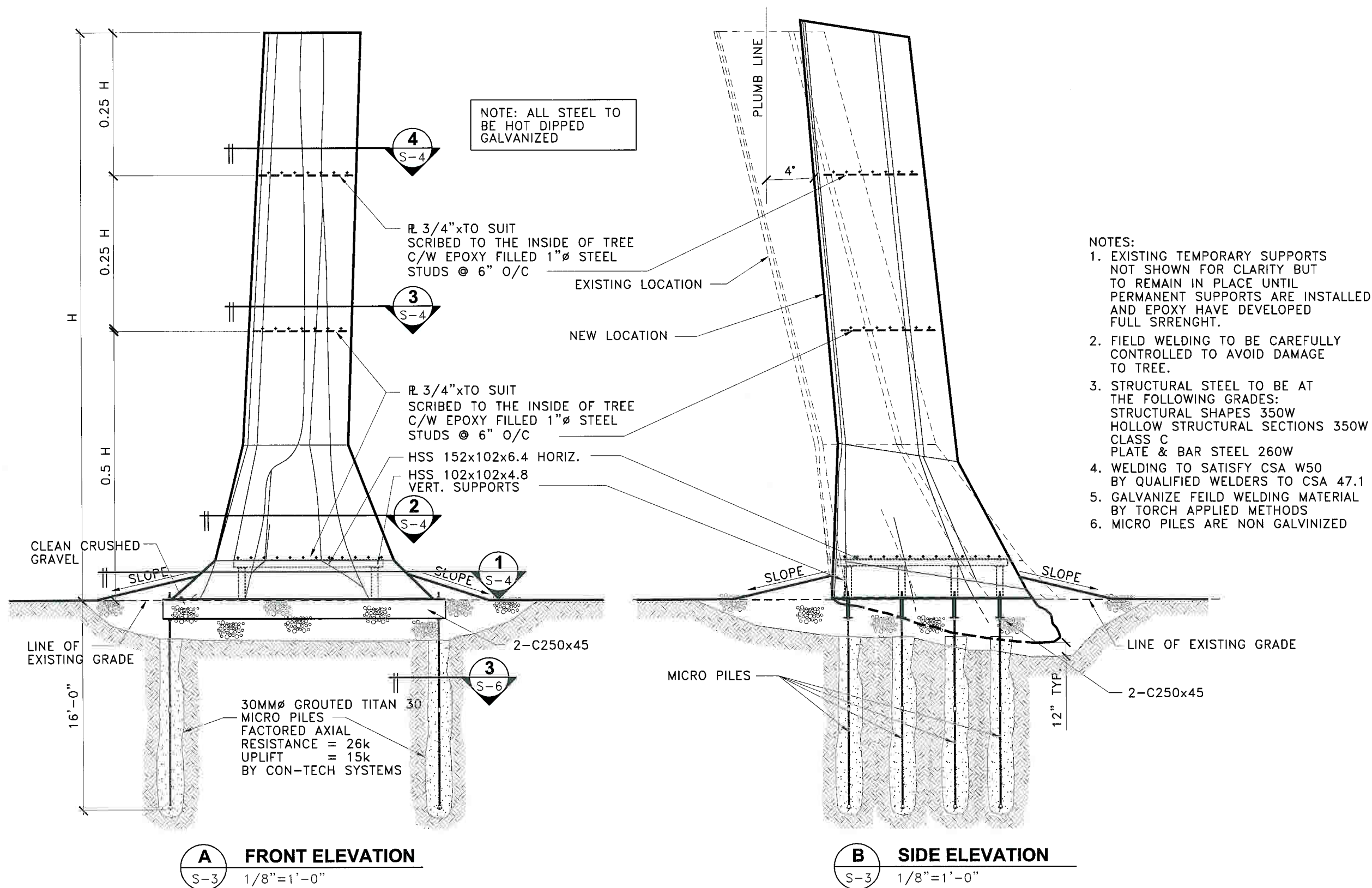
S-4

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Drawing

PERMANENT SUPPORTS

Project

STANLEY PARK'S HOLLOW TREE
 VANCOUVER, BC.

Project No.

08-327

Date

NOV/08

Scale

AS NOTED

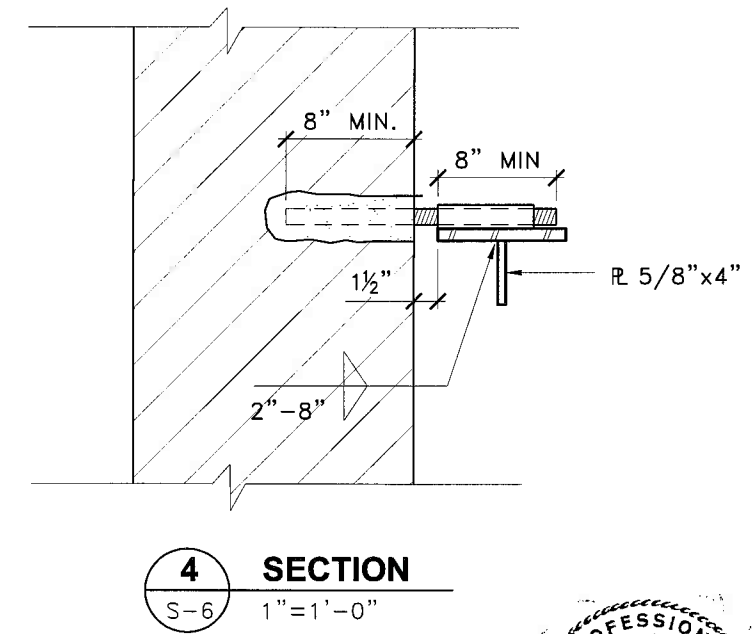
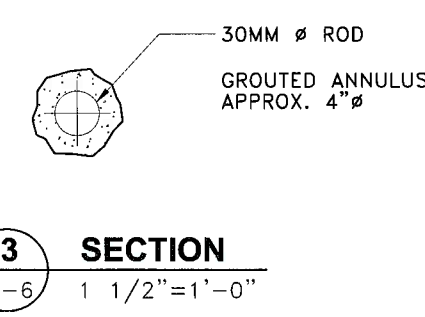
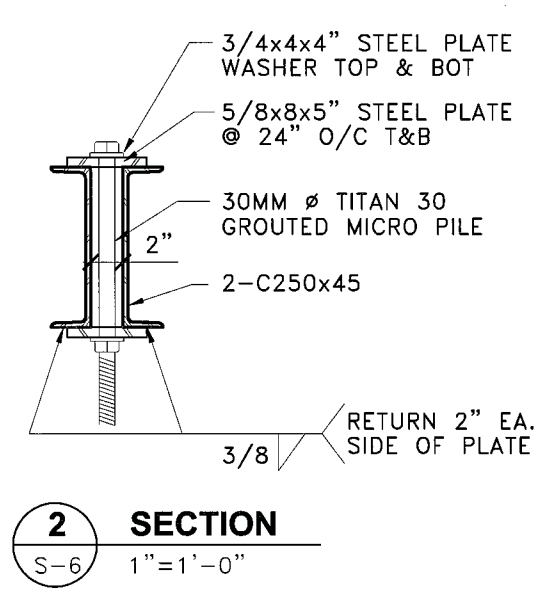
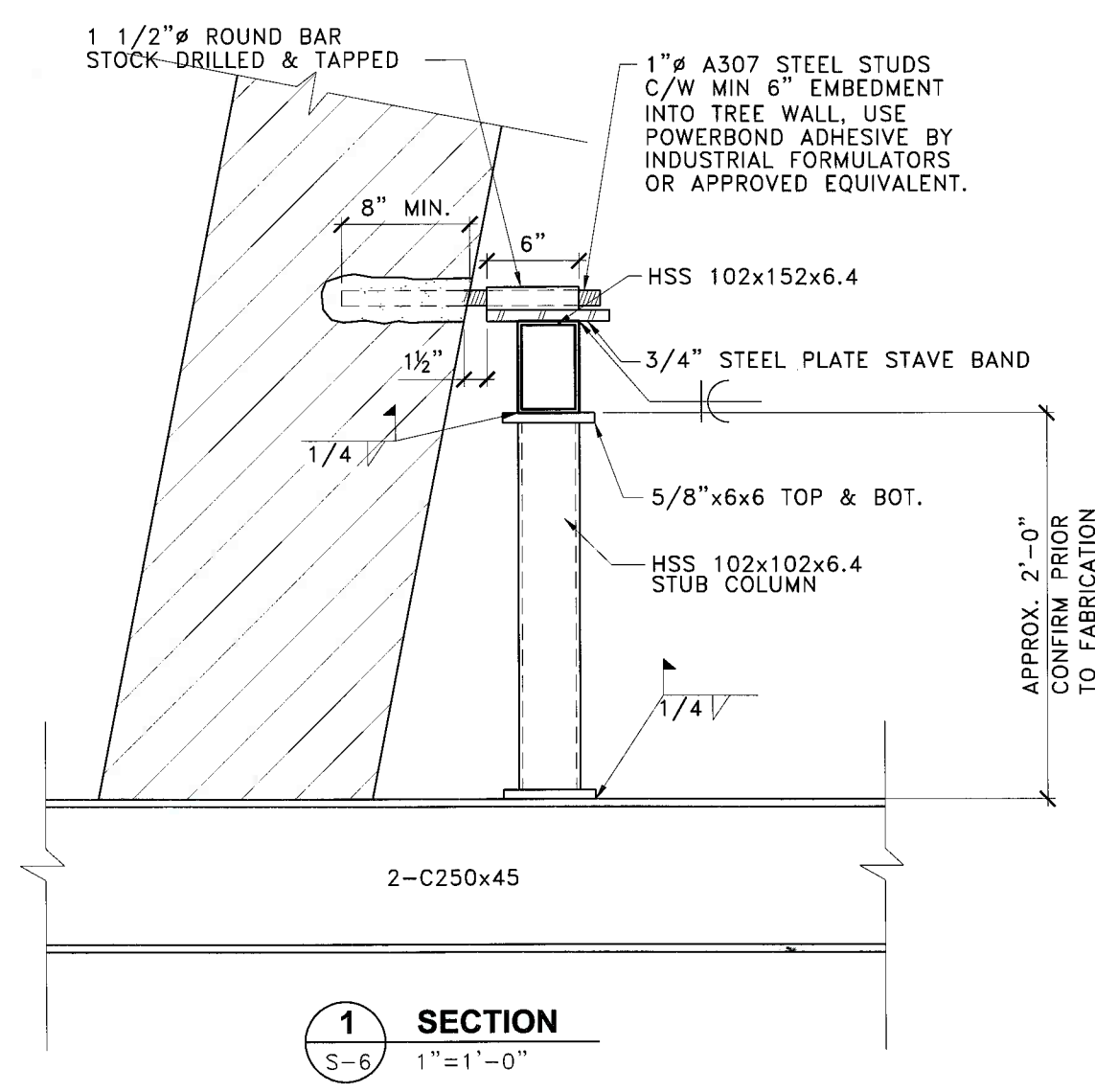
S-5

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DETAILS

Project		STANLEY.PARK'S HOLLOW.TREE
Project No.		08-327
Date		NOV/08
Scale		AS NOTED

S-6