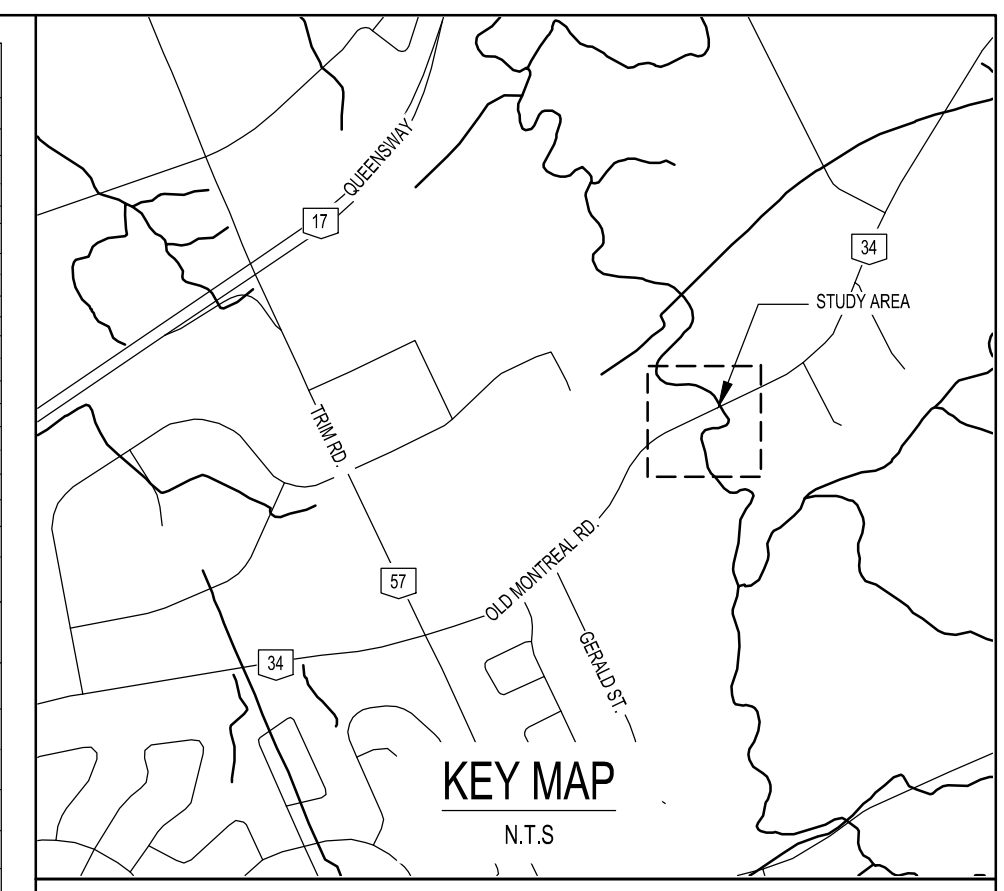
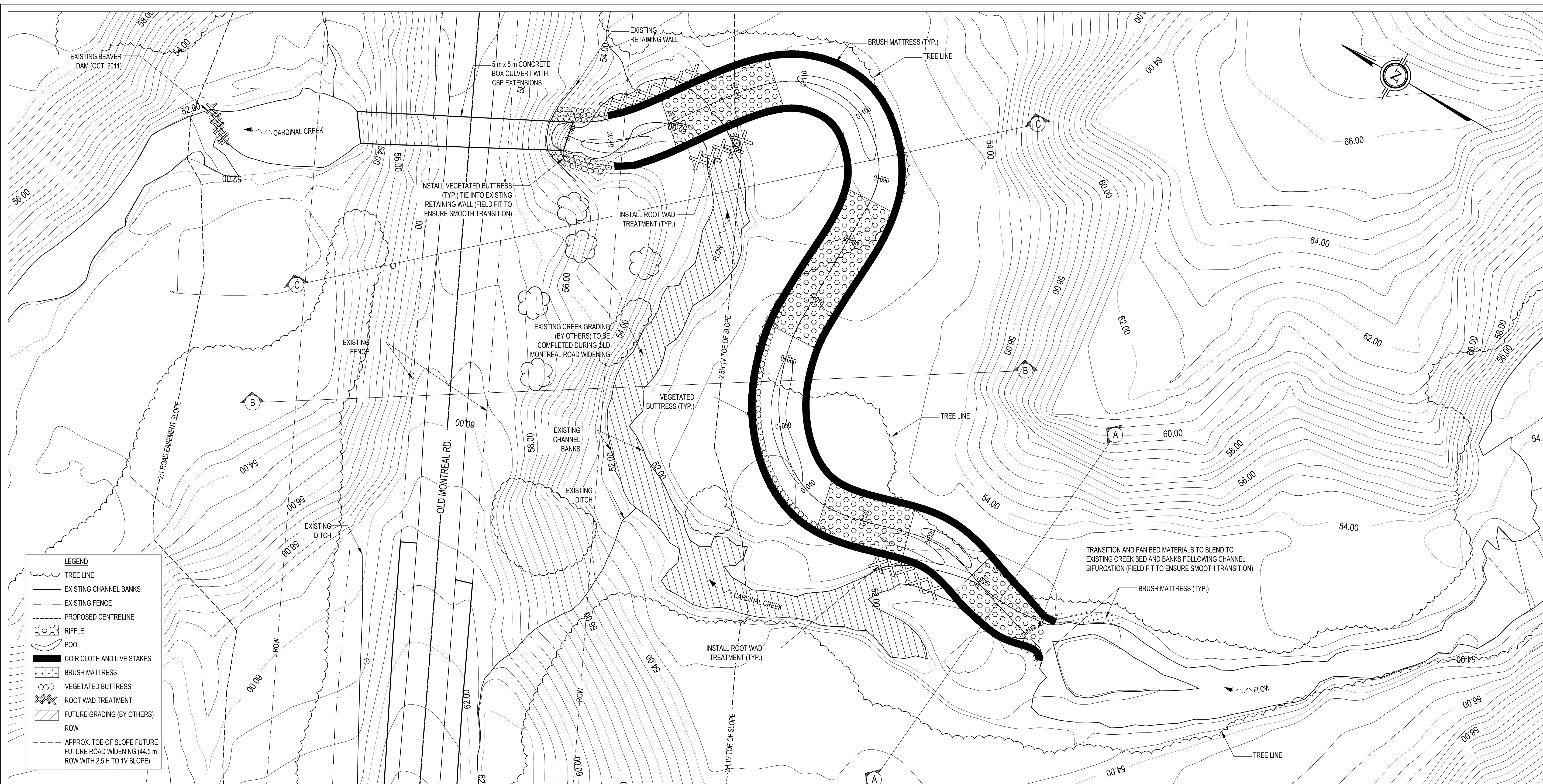
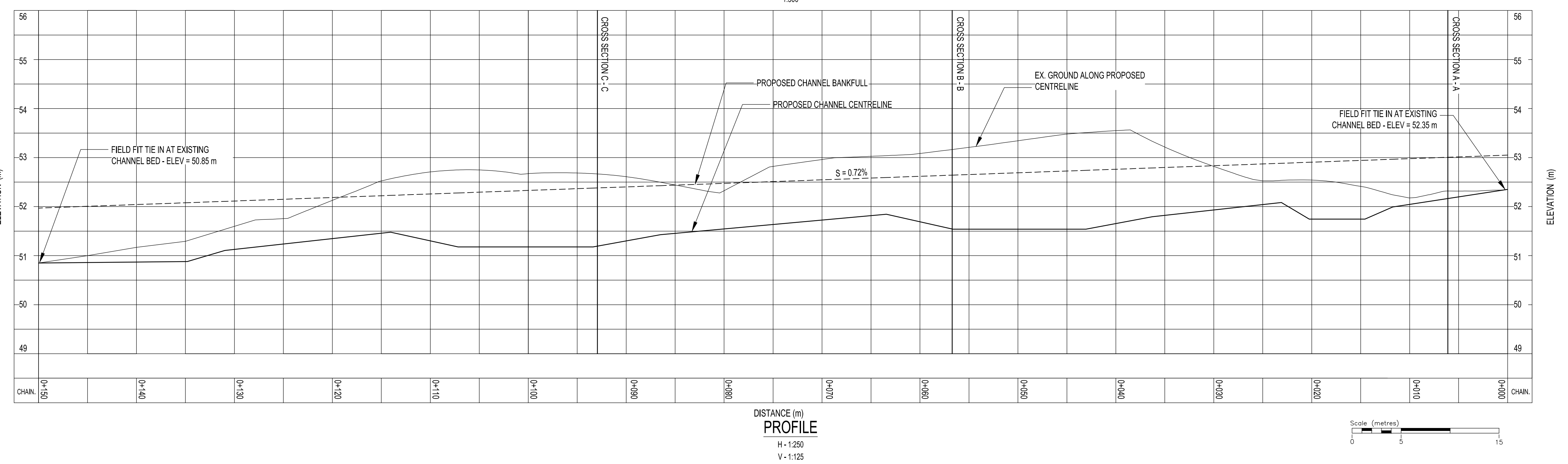


**APPENDIX D**  
**DESIGN DRAWINGS**



- GENERAL NOTES**
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  3. THIS SET OF DRAWINGS SHALL BE READ IN CONJUNCTION WITH ACCOMPANYING DESIGN BRIEF.
  4. ALL DRAWINGS SHALL BE USED FOR CONSTRUCTION. DO NOT SCALE FROM PLANFORM DRAWING.
  5. ALL MEASUREMENTS FOR THIS PROJECT ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE INDICATED.
  6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT, SURVEY AND LOCATION OF ALL UTILITIES.
  7. LOCATION OF BANKS AND EXTENT OF WORKS SHALL BE REVIEWED AND APPROVED BY A GEOMORPHOLOGIST OR DESIGNER.
  8. ALL WORKS SHALL BE SUPERVISED, INSPECTED AND APPROVED BY A GEOMORPHOLOGIST OR DESIGNER.
  9. ALL WORKS AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE MUNICIPAL AND/OR ONTARIO PROVINCIAL STANDARDS SPECIFICATIONS AND DRAWINGS.
  10. DURING CONSTRUCTION, ALL VEGETATION AND STRUCTURES ON PRIVATE PROPERTY ADJACENT TO THE WORK AREA IS TO BE PROTECTED OR, IF REMOVAL IS REQUIRED, RESTORED TO ORIGINAL CONDITION UPON COMPLETION OF WORK.
  11. ALL GENERAL BACKFILL SHALL BE APPROVED MATERIAL COMPACTED TO 85% STANDARD PROCTOR DENSITY.
  12. ALL UNSUITABLE AND/OR EXCESS MATERIALS SHALL BE DISPOSED OFF SITE.
  13. IMMEDIATELY AFTER CONSTRUCTION, ALL DISTURBED AREAS SHALL BE STABILIZED AND/OR RESTORED TO ORIGINAL CONDITION IN ACCORDANCE WITH CONTRACT REQUIREMENTS.
  14. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROLS AFTER VEGETATION HAS ESTABLISHED. WORKS WILL NOT BE CONSIDERED COMPLETE UNTIL ALL TEMPORARY SEDIMENT CONTROLS ARE REMOVED.

- WATERCOURSE PROTECTION**
1. ALL CONSTRUCTION FENCING SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION.
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  5. WHERE WORK IN A WATERCOURSE OR ON WATERCOURSE BANKS IS NOT REQUIRED, EQUIPMENT SHALL NOT BE OPERATED IN SUCH AREAS.
  6. WHERE WORK IN A WATERCOURSE OR ON WATERCOURSE BANKS IS REQUIRED, THE USE OF EQUIPMENT WITHIN THE WATERCOURSE SHALL BE MINIMIZED.
  7. WORK IN A WATERCOURSE AND ON WATERCOURSE BANKS SHALL BE COMPLETED IN THE DRY WITHIN AN ISOLATED WORK AREA DURING LOW-FLOW CONDITIONS.
  8. THE WEATHER FORECAST SHALL BE CONTINUALLY MONITORED TO ENSURE THAT CONSTRUCTION ACTIVITIES MAY PROCEED UNDER FAVOURABLE CONDITIONS.
  9. EXCAVATION OF THE WATERCOURSE BED AND PLACEMENT OF MATERIALS SHALL BE STAGED SO THAT NO EXCAVATED AREAS REMAIN EXPOSED AT THE END OF EACH WORKING DAY.
  10. IF FLOWS WITHIN A WATERCOURSE ARE OBSERVED TO RISE TO A LEVEL APPROACHING THE CAPACITY OF THE PUMP(S), TEMPORARY FLUME OR FLOW DIVERSION CHANNEL, PLACEMENT OF MATERIALS IN EXCAVATED AREAS MUST BE COMPLETED AS SOON AS POSSIBLE, AFTER WHICH WORK MUST BE SHUT DOWN UNTIL THE FLOW RETURNS TO A LEVEL WITHIN THE PROVIDED PUMPING/FLUME DIVERSION CHANNEL CAPACITY.
  11. ALL EQUIPMENT SHALL BE CLEAN AND FREE OF PETROLEUM PRODUCTS.
  12. ALL MAINTENANCE, REFUELLING AND STORAGE OF EQUIPMENT SHALL BE CONTROLLED SO AS TO PREVENT ANY DISCHARGE OF PETROLEUM PRODUCTS. VEHICULAR MAINTENANCE AND REFUELLING SHALL BE CONDUCTED AWAY FROM WATERCOURSES AND WATERCOURSE BANKS.
  13. CONSTRUCTION MATERIAL, EXCESS MATERIAL, CONSTRUCTION DEBRIS AND EMPTY CONTAINERS SHALL BE STORED AWAY FROM WATERCOURSES AND WATERCOURSE BANKS.



No.	DATE	BY	REVISIONS
1.	13/05/07	M.K.	AS PER COMMENTS

DESIGNED BY: P.V. CHECKED BY: P.V.  
DRAWN BY: M.K. DATE: AUGUST 11, 2012

PAUL V. VILLARD  
PRACTISING MEMBER  
0957

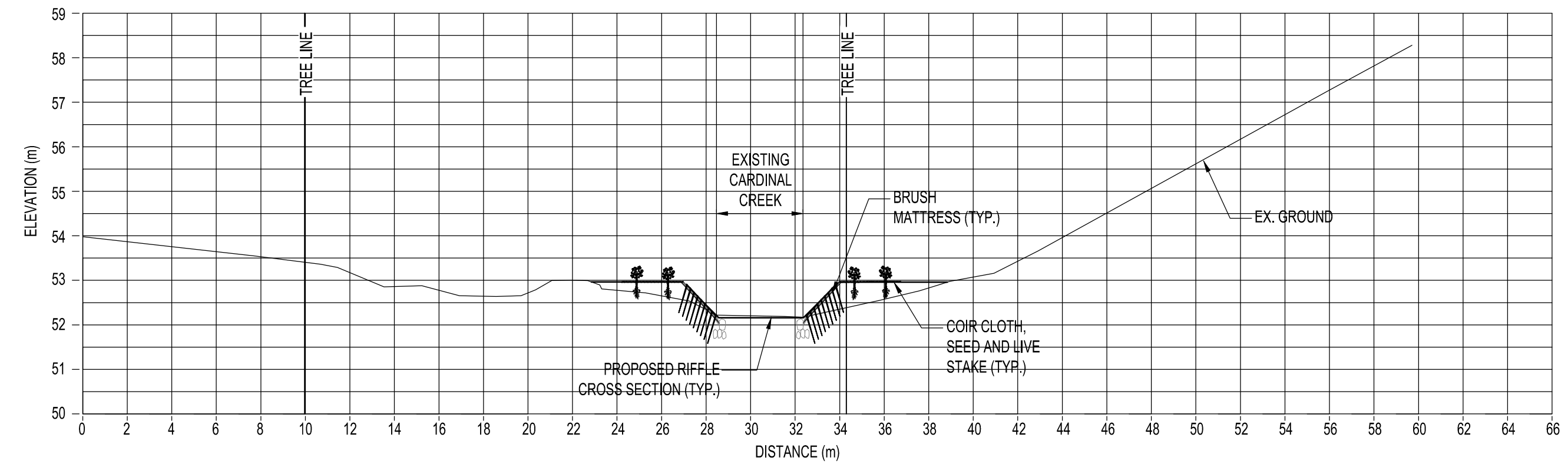
6705 Millcreek Drive, Unit 1  
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www.geomorphicsolutions.ca

13/05/15

**CARDINAL CREEK**  
CITY OF OTTAWA

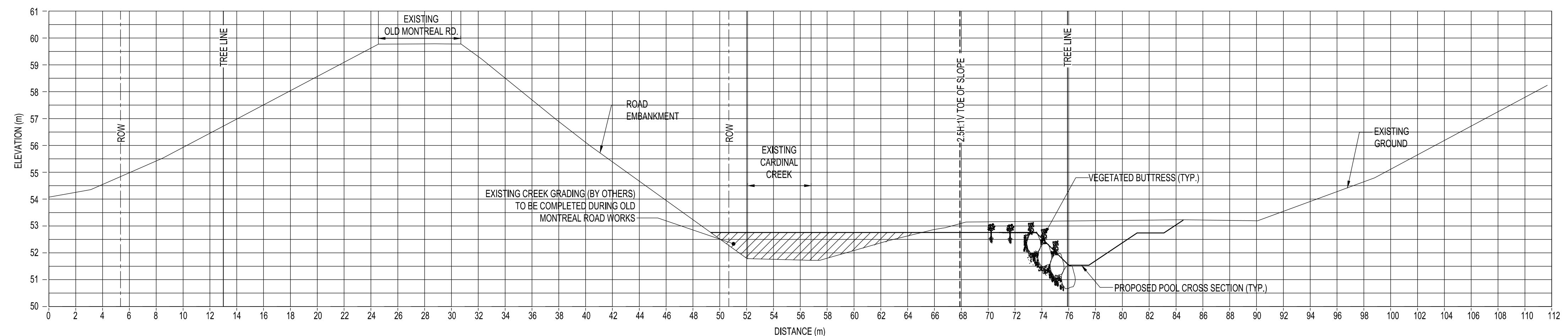
**CONCEPTUAL CHANNEL DESIGN**  
PLAN AND PROFILE

PROJECT No.: 12252 DRAWING No.: GEO-1  
SCALE: AS NOTED SHEET 1 OF 3



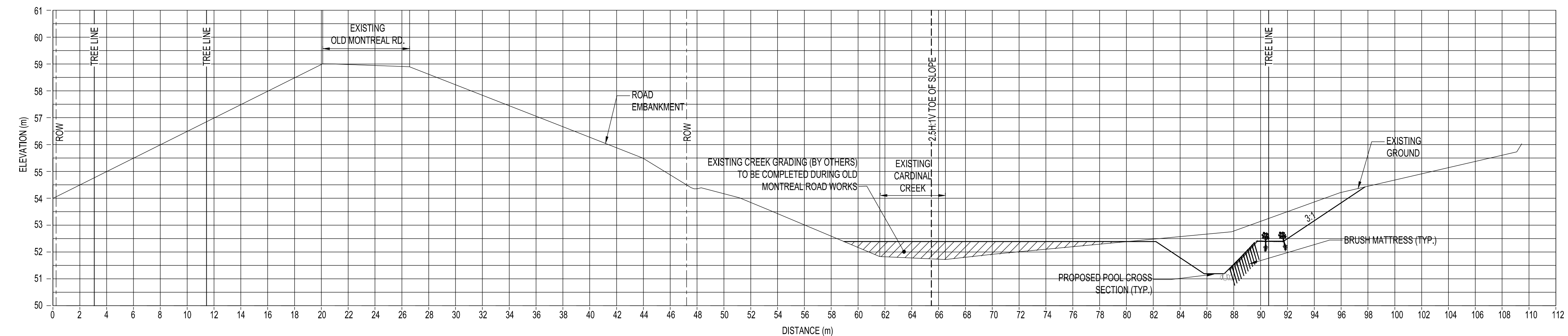
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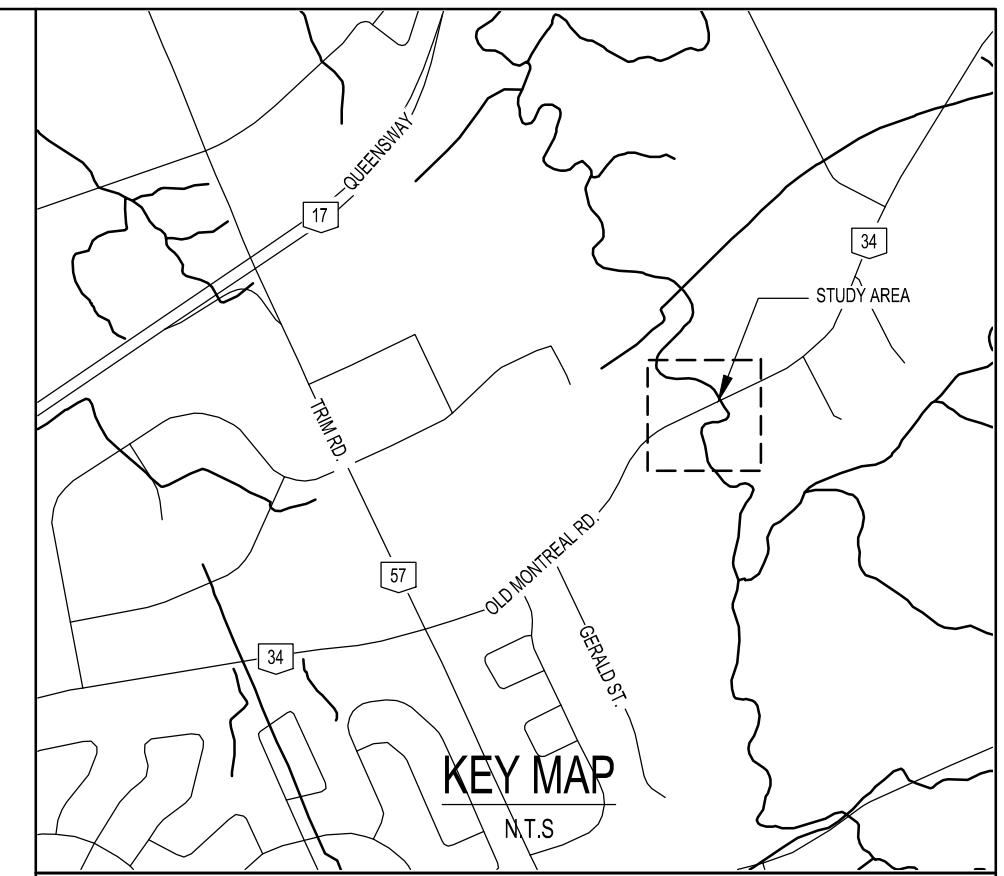
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**CROSS SECTION C - C**

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V - 1:40



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DESIGNED BY: P.V      CHECKED BY: P.V  
 DRAWN BY: M.K      DATE: AUGUST 11, 2012

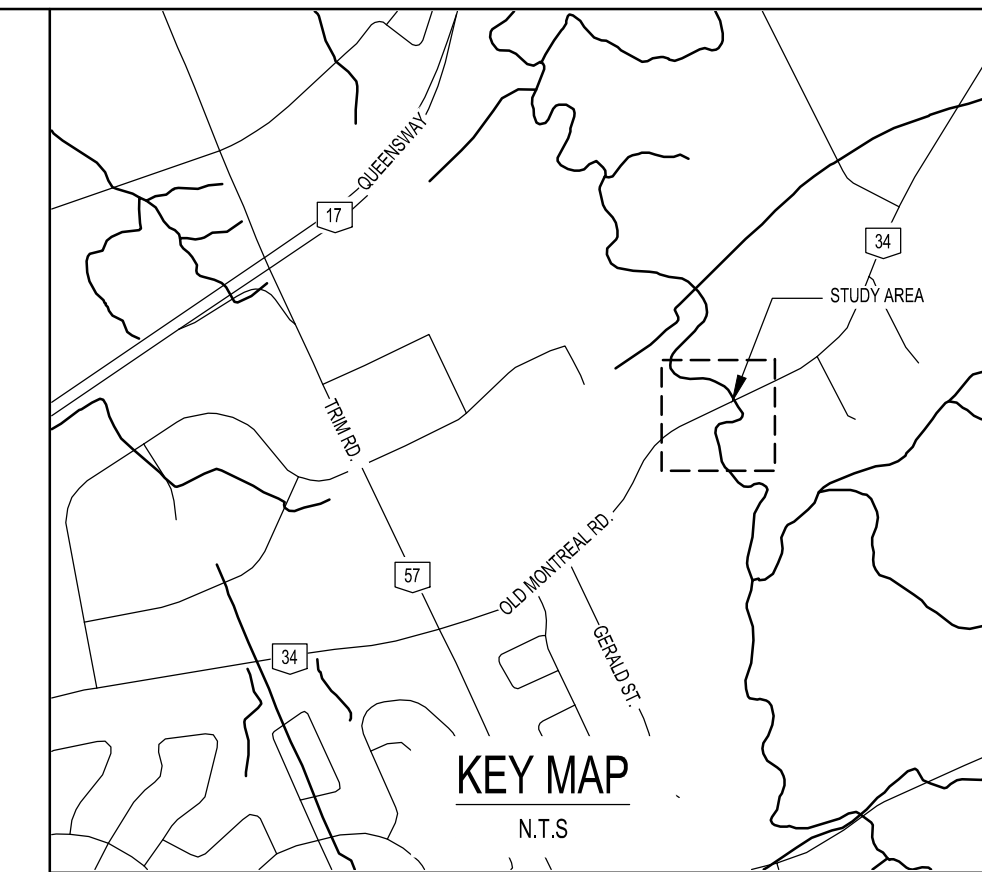
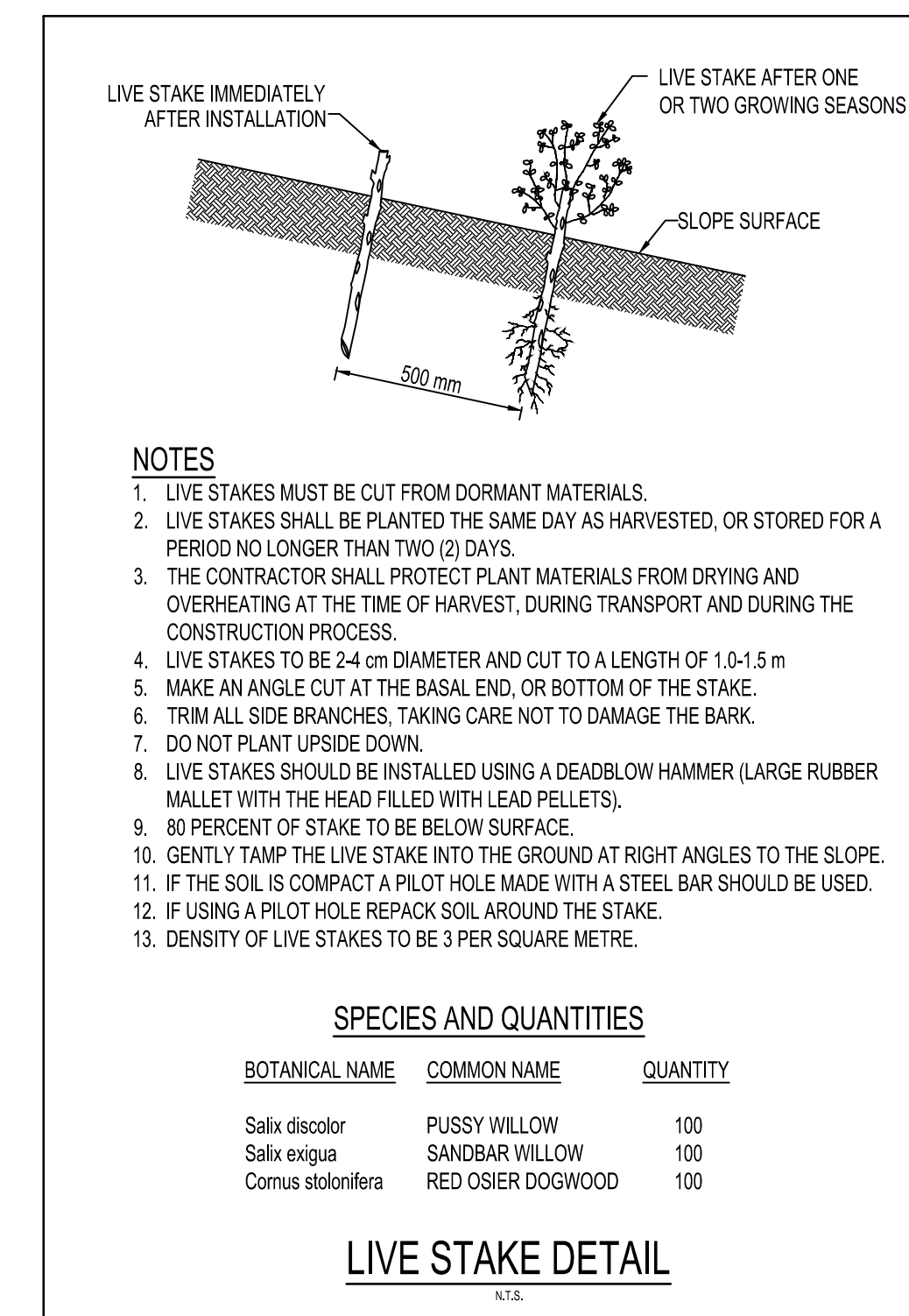
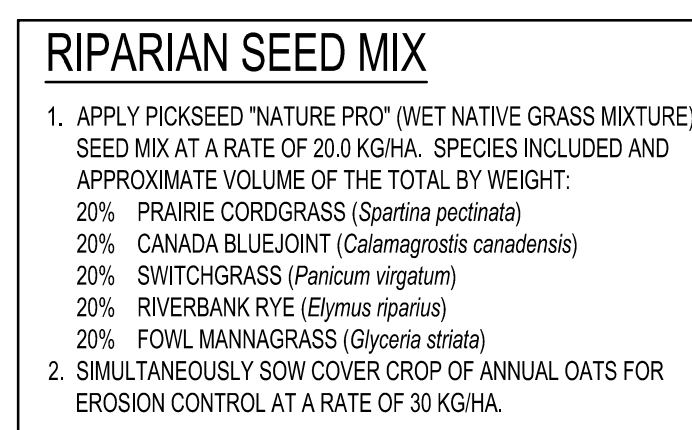
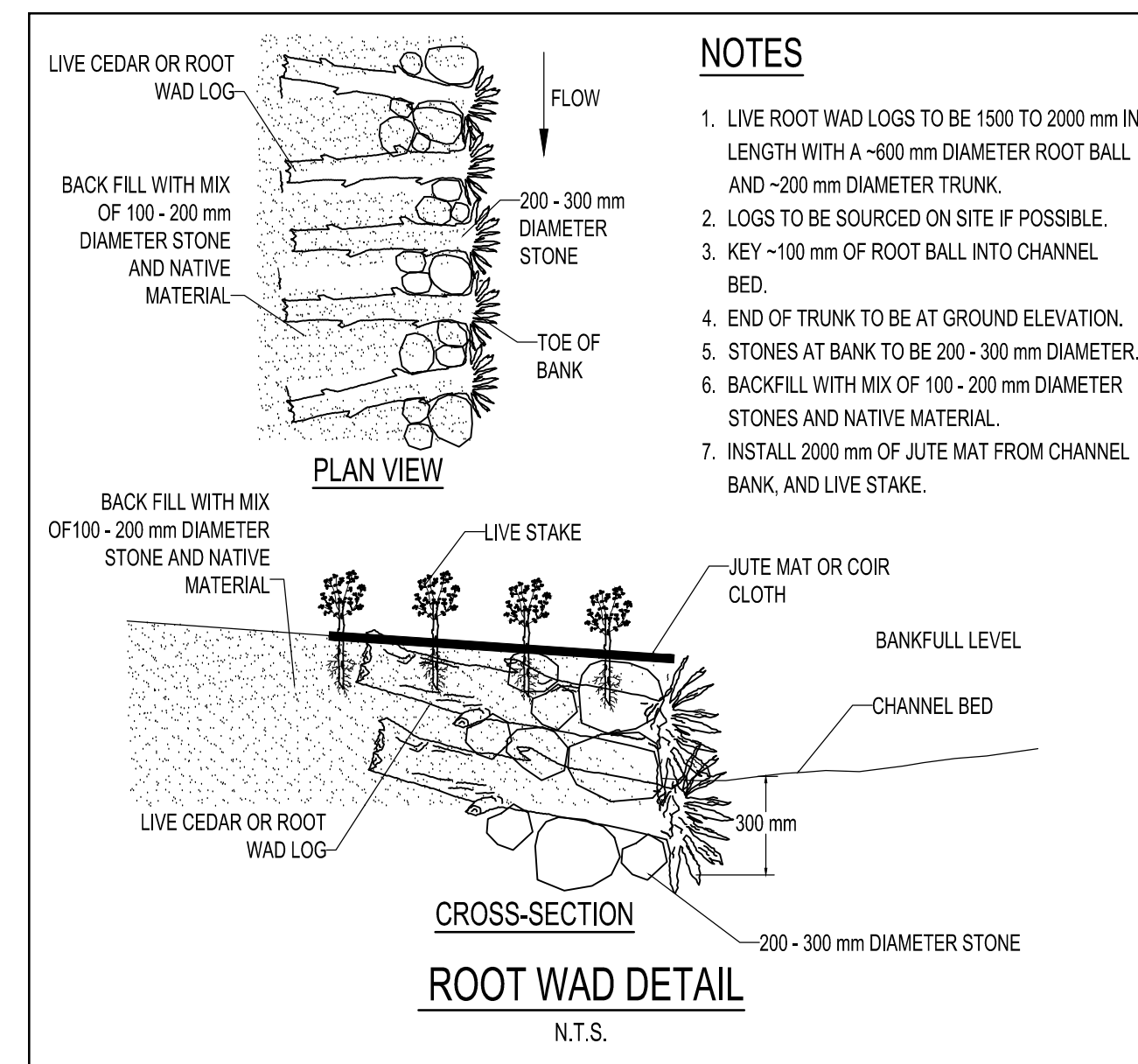
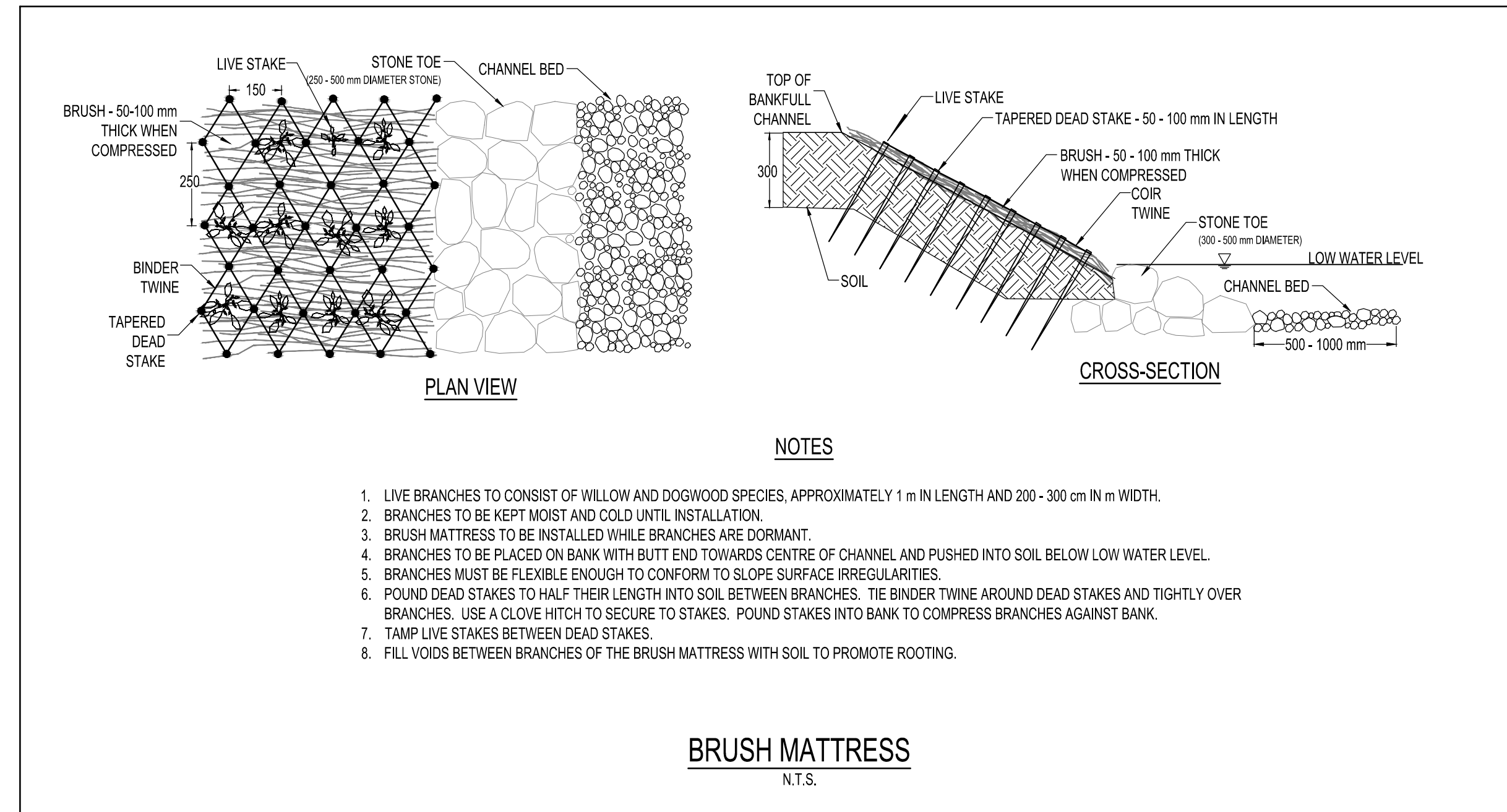
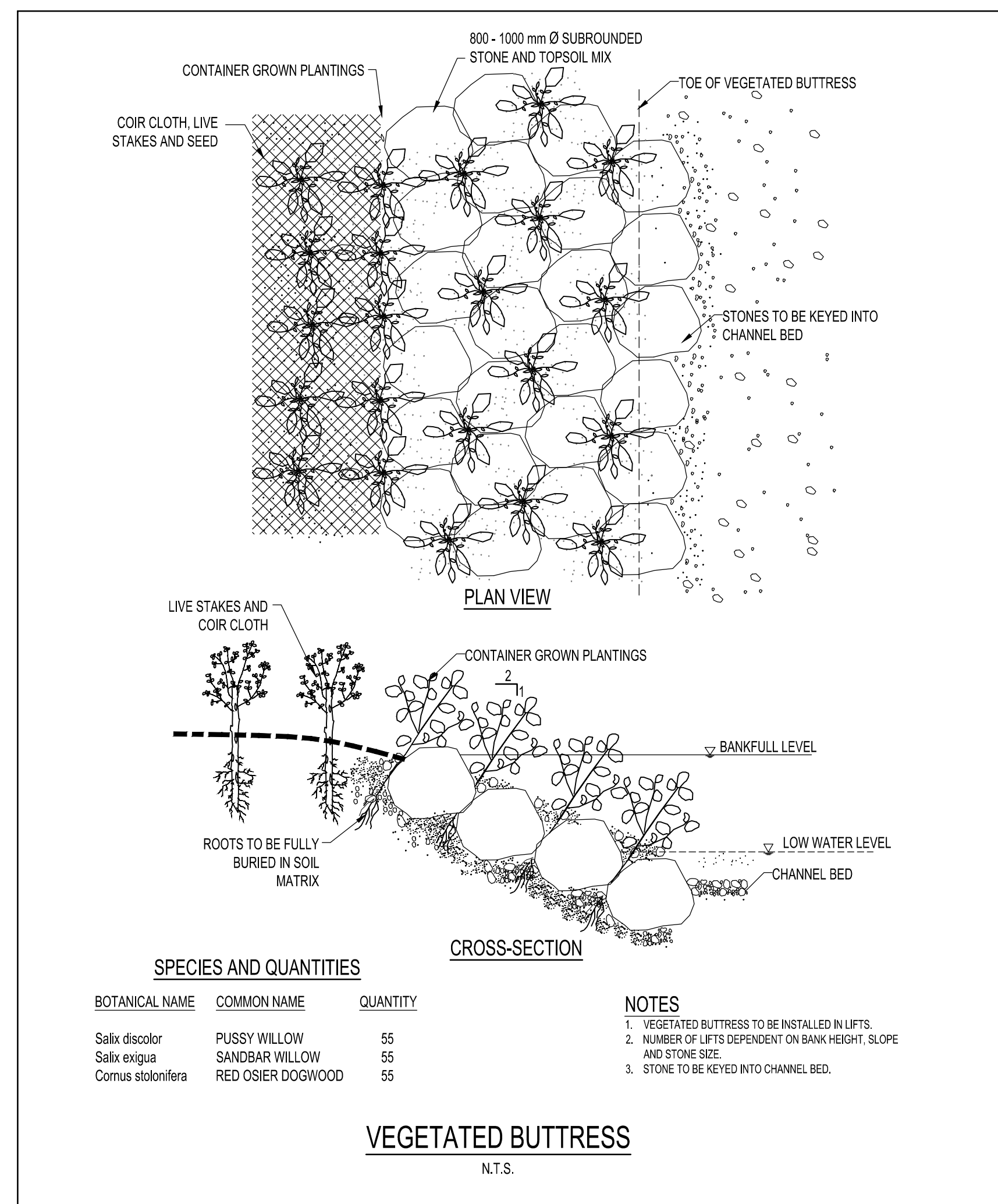
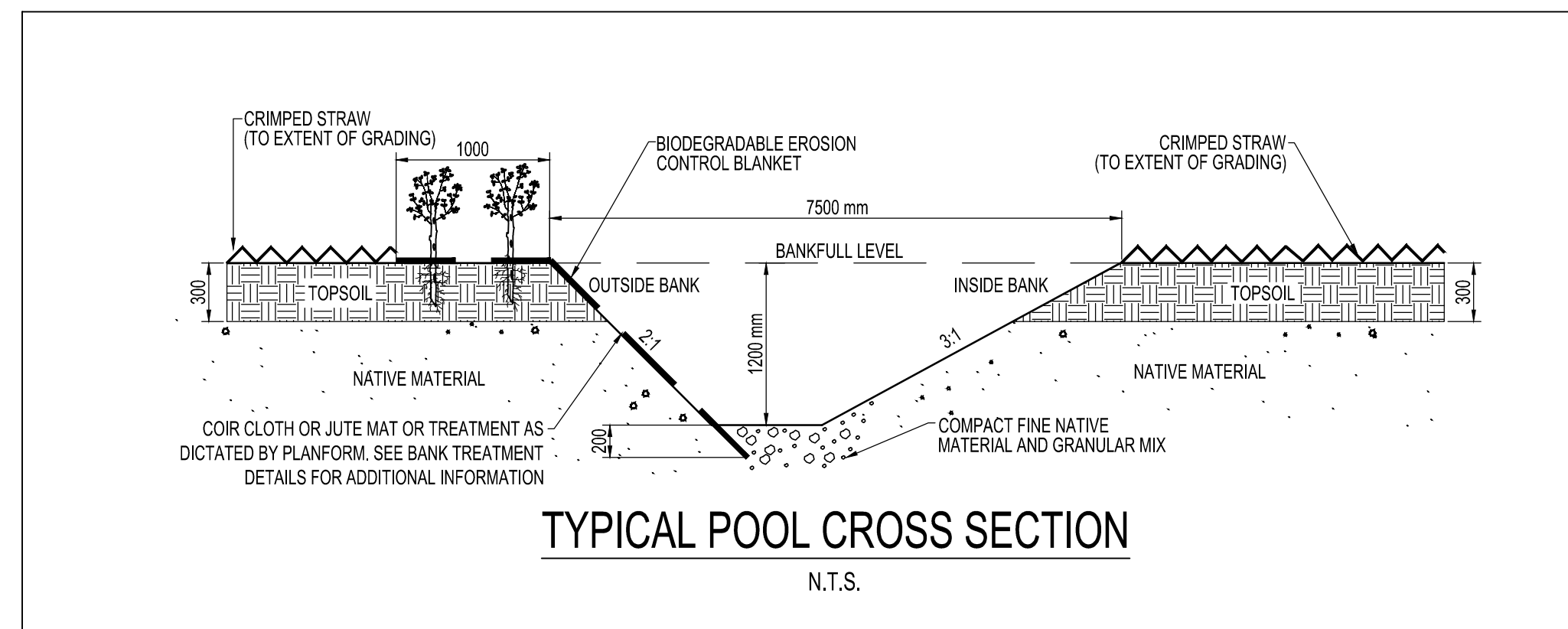
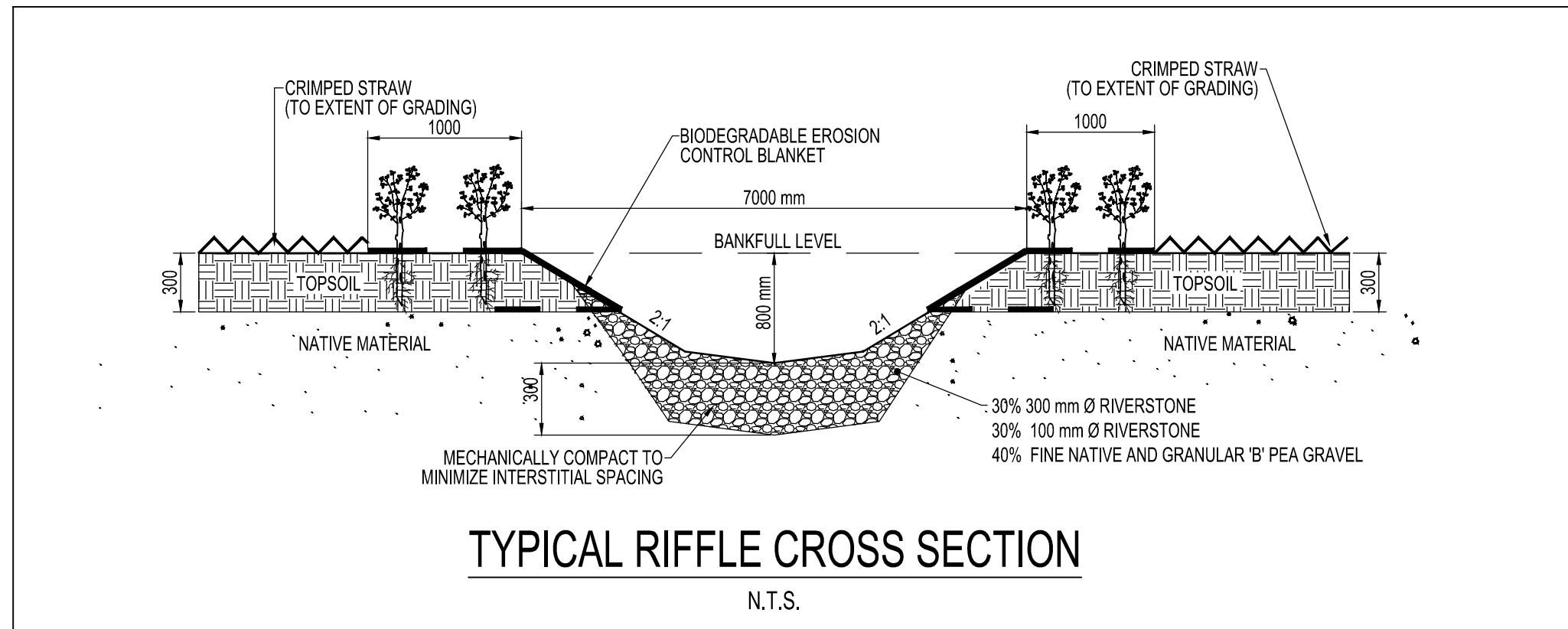
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13/05/15

**CARDINAL CREEK**  
 CITY OF OTTAWA

**CONCEPTUAL CHANNEL DESIGN**  
 CROSS SECTIONS

PROJECT No.: 12252      DRAWING No.: GEO-2  
 SCALE: AS NOTED      SHEET 2 OF 3



- GENERAL NOTES**
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**GEOMORPHIC SOLUTIONS**  
Established in 1997

**CARDINAL CREEK**  
CITY OF OTTAWA

**CONCEPTUAL CHANNEL DESIGN**  
PLAN AND PROFILE

PROJECT No.:	12252	DRAWING No.:	DET-1
SCALE:	AS NOTED	SHEET	3 OF 3



**Whitby:**  
110 Scotia Court, Unit 41  
Whitby, Ontario L1N 8Y7

**Mississauga:**  
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Mississauga, Ontario L5N 5M4

**Richmond Hill:**  
45 Vogell Road, Suite 306  
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