

**GENERAL NOTES**

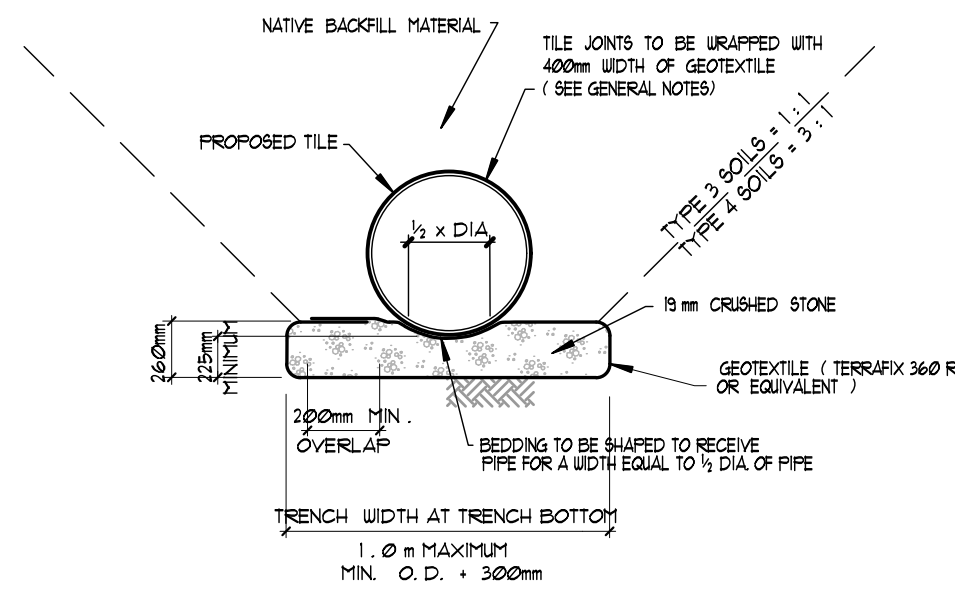
- 1/ OUR SPECIFICATIONS DATED JANUARY 2009 APPLY TO THIS PROJECT.
- 2/ THE WORKING WIDTH AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE NEW DRAINS SHALL CONSIST OF THOSE LANDS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING AVERAGE WIDTHS:  
 OPEN PORTIONS - 15 meters  
 CLOSED PORTIONS - 15 meters  
 THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE THE SAME AS ABOVE EXCEPT FOR CLOSED PORTIONS (NOT THROUGH BUSH) SHALL BE 10m.
- 3/ ALL OWNERS ALONG THE COURSE OF THE DRAIN SHALL MAKE AN ACCESS ROUTE FROM THE NEAREST ROAD TO THE DRAIN LOCATION AVAILABLE TO THE CONTRACTOR THE AVERAGE WIDTH OF THIS ROUTE SHALL NOT EXCEED 8 METERS, THE ACCESS ROUTE SHALL ALSO APPLY FOR FUTURE MAINTENANCE PURPOSES.
- 4/ a) ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE GRADES CAN BE CONFIRMED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.  
 b) CONTRACTOR TO NOTIFY ALL UTILITIES 12 HOURS PRIOR TO HIS SCHEDULED TIME FOR STARTING THE ABOVE WORK.
- 5/ ALL TREES, SCRUB, BRUSH, ETC. TO BE CLEARED AND GRUBBED IN ACCORDANCE WITH "SECTION B.3 AND C.4" SPECIFICATIONS.
- 6/ RIP-RAP TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION A.28" IN THE SPECIFICATIONS.
- 7/ CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, DRAINAGE SUPERINTENDENT, AND THE AFFECTED OWNERS. ALL PARTIES SHALL RECEIVE 48 HOURS NOTICE TO THE MEETING.

**CLOSED PORTIONS**

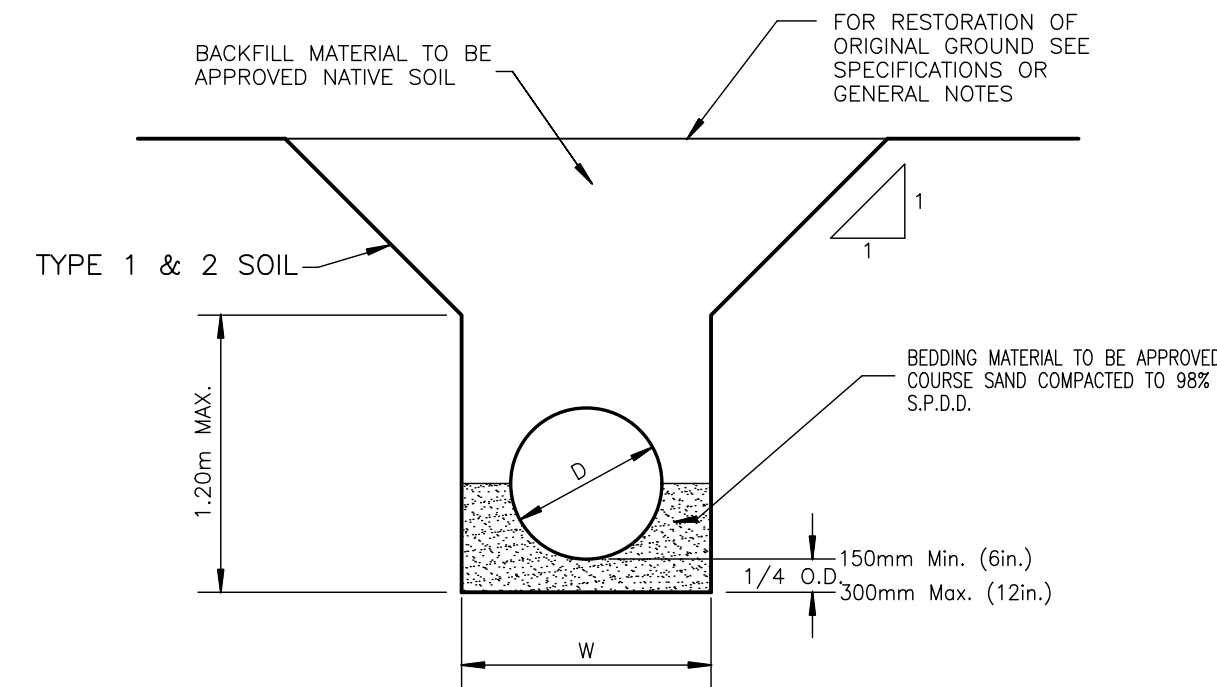
- 8/ ALL CONCRETE AND PLASTIC TILE AND PIPE TO CONFORM TO "SECTION C.1" IN THE SPECIFICATIONS. SEWER PIPE H. D. P. E. PLASTIC 320 MPa (BELL & SPIGOT WITH RUBBER GASKETS). CONCRETE TILE SHALL BE HEAVY DUTY, 2000D AND/OR 2400D AS SPECIFIED ON PROFILES.
- 9/ ALL CATCHBASINS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION C.16" IN THE SPECIFICATIONS, EXCEPT AS FOLLOWS:  
 a) ALL CATCHBASIN LEADS TO BE CONNECTED TO NEW TILE DRAIN WITH PRE-FABRICATED "WYE".
- 10/ EXACT LOCATION OF NEW DRAINS TO BE DETERMINED AT TIME OF CONSTRUCTION BY DRAINAGE SUPERINTENDENT OR ENGINEER.
- 11/ a) INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH "SECTION C - TILE DRAIN" IN THE SPECIFICATIONS.  
 b) SEWER PIPE UNDER LANEWAY TO BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILED DRAWING No. 02 IN THE SPECIFICATIONS.  
 c) ALL TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH "SECTION C.8" IN THE SPECIFICATIONS.  
 d) NO MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.  
 e) STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREA (4 metre width). EXCESS SPOIL TO BE LEVELLED AND TOPSOIL RELEVELLED OVER SPOIL, MOUNDED TRENCH AND REMAINING CONSTRUCTION AREA.
- 11/ a) IT SHALL BE NOTED THAT AREAS OF POOR SOIL CONDITION WILL BE ENCOUNTERED ALONG THE COURSE OF THE DRAIN. IF SUCH CONDITIONS ARE ENCOUNTERED AND IF THE TRENCH WALLS AND/OR TRENCH BOTTOM AND/OR TRENCH BOTTOM BECOME UNSTABLE, THEN THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DRAINAGE SUPERINTENDENT OR ENGINEER.  
 b) IF SO ORDERED BY THE DRAINAGE SUPERINTENDENT OR ENGINEER THE CONTRACTOR SHALL INSTALL THE TILE OR PIPE ON A BEDDING OF 19mm (3/4") CRUSHED STONE THROUGH THE AREA OF UNSTABLE TRENCH. THE CRUSHED STONE SHALL BE COMPLETELY WRAPPED IN GEOTEXTILE SUCH AS "TERRAFIX 360 R" OR APPROVED EQUAL. (SEE DETAIL "A") THE LIMITS OF THIS WORK SHALL BE DETERMINED BY THE DRAINAGE SUPERINTENDENT OR ENGINEER.  
 c) PAYMENT FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE CONTINGENCY AMOUNTS SHOWN ON PAGE 3 OF THE "FORM OF TENDER".
- 12/ a) IF IT BECOMES IMPRACTICAL TO INSTALL THE NEW TILE IN THE EXISTING TILE LOCATION DUE TO EXISTING TILE ALIGNMENT AND/OR TOO MUCH WATER FLOWING THROUGH THE TILE, THEN THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND/OR THE DRAINAGE SUPERINTENDENT.  
 b) IF SO ORDERED BY THE ENGINEER AND/OR DRAINAGE SUPERINTENDENT THEN THE CONTRACTOR SHALL INSTALL THE NEW TILE IMMEDIATELY ADJACENT TO THE EXISTING TILE. AFTER CONSTRUCTION IS COMPLETED THE EXISTING TILE SHALL BE DESTROYED WITH A RUBBER TIRE BACKHOE. TILE CONNECTIONS INTO THE EXISTING TILE SHALL BE CONNECTED TO THE NEW TILE.
- 13/ THE CONTRACTOR SHALL ENSURE THAT ALL TRIBUTARY DRAINS ARE CONNECTED DURING TIME OF CONSTRUCTION. ANY MISSED TILE CONNECTIONS THAT ARE FOUND DURING THE WARRANTY PERIOD OF THE CONTRACT SHALL BE COMPLETED BY THE CONTRACTOR AND SHALL BE PAID THE AMOUNT SET OUT ON PAGE 2 OF THE "FORM OF TENDER". NO ADDITIONAL PAYMENT FOR MOBILIZATION WILL BE ALLOWED. THE CONTRACTOR IS NOT RESPONSIBLE FOR COMPLETING MISSED TILE CONNECTIONS THAT ARE FOUND AFTER THE WARRANTY PERIOD FOR THE CONTRACT HAS EXPIRED.
- 14/ BRANCH "1" STA. 0+020 to STA. 0+172 - EXISTING TILE DRAIN TO BE ABANDONED AS A MUNICIPAL DRAIN. HOWEVER, THE OWNERS MAY MAINTAIN IT AS A PRIVATE TILE.

**OPEN PORTIONS**

- 15/ DITCH TO BE RECONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS AND DETAIL "C"
- 16/ WORK TO BE COMPLETED FROM AND EXCAVATED MATERIAL TO BE DEPOSITED AND LEVELLED ON ONE SIDE OF THE DITCH IN ACCORDANCE WITH "SECTION B.5" IN THE SPECIFICATIONS; WORKING SIDE TO BE DETERMINED BY ENGINEER/DRAINAGE SUPERINTENDENT AT TIME OF CONSTRUCTION
- 17/ NEWLY EXPOSED DITCH BANKS ARE TO BE HAND SEEDED UPON COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH "SECTION B.11" IN THE SPECIFICATIONS
- 18/ SILT FENCE TO BE PLACED ACROSS DITCH BOTTOM AT STA. 0+200 DURING CONSTRUCTION TO PREVENT SILT FROM FLUSHING DOWNSTREAM. SILT FENCE AND SILT TO BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION.



**CRUSHED STONE BEDDING DETAIL  
CONCRETE FIELD TILE  
DETAIL "A" N.T.S.**



**DETAIL "B" N.T.S.**



**PLAN SCALE: 1:1,500**

**PLAN LEGEND**

[Symbol]	LIMIT OF WATERSHED AREA
[Symbol]	PROPOSED DRAINAGE WORKS
[Symbol]	EXTERIOR OR INTERIOR WATERSHED
[Symbol]	EXIST. MUNICIPAL DRAIN
[Symbol]	PRIVATE TILE OR SURFACE WATER RUN
[Symbol]	10 - 020 ASSESSMENT ROLL NUMBER
[Symbol]	2 0214 OWNERS NAME
[Symbol]	40.5 HA. HECTARES OWNED
[Symbol]	BUSH AREA

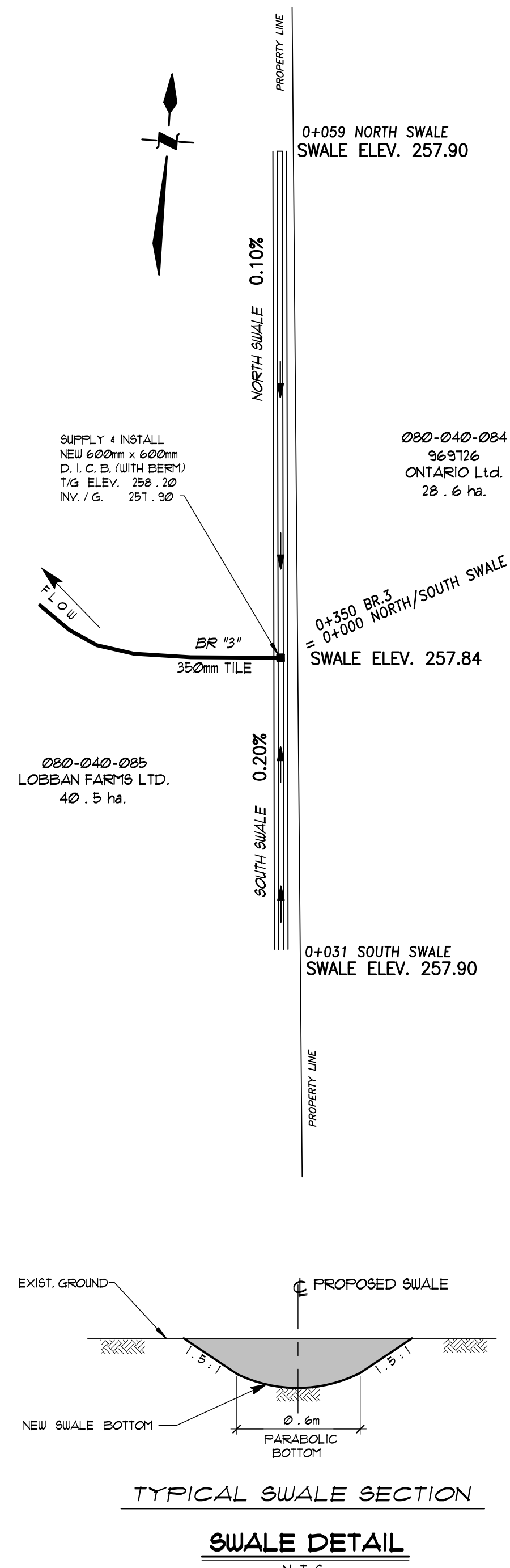
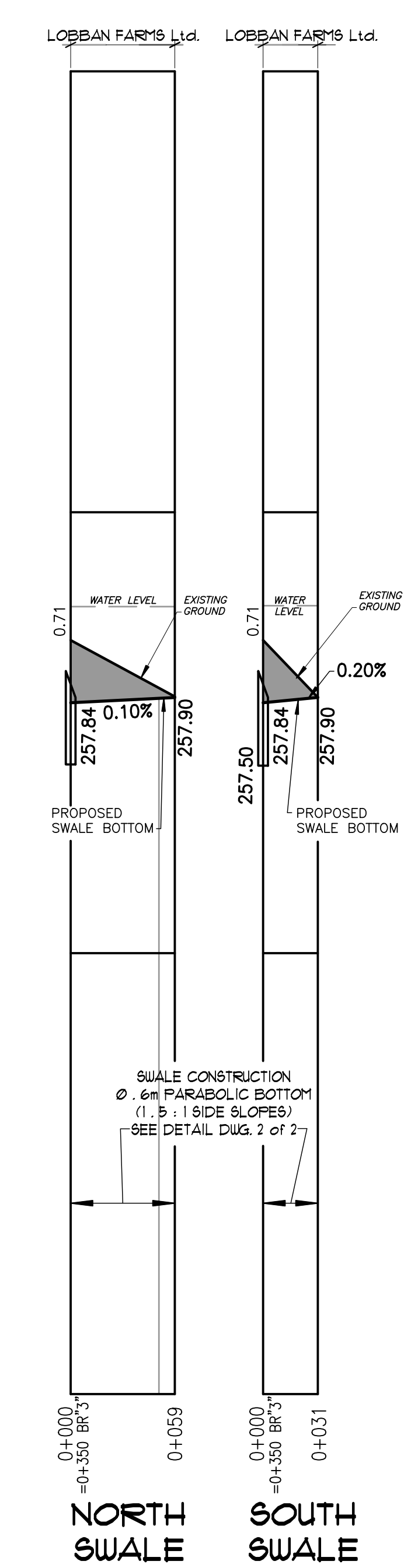
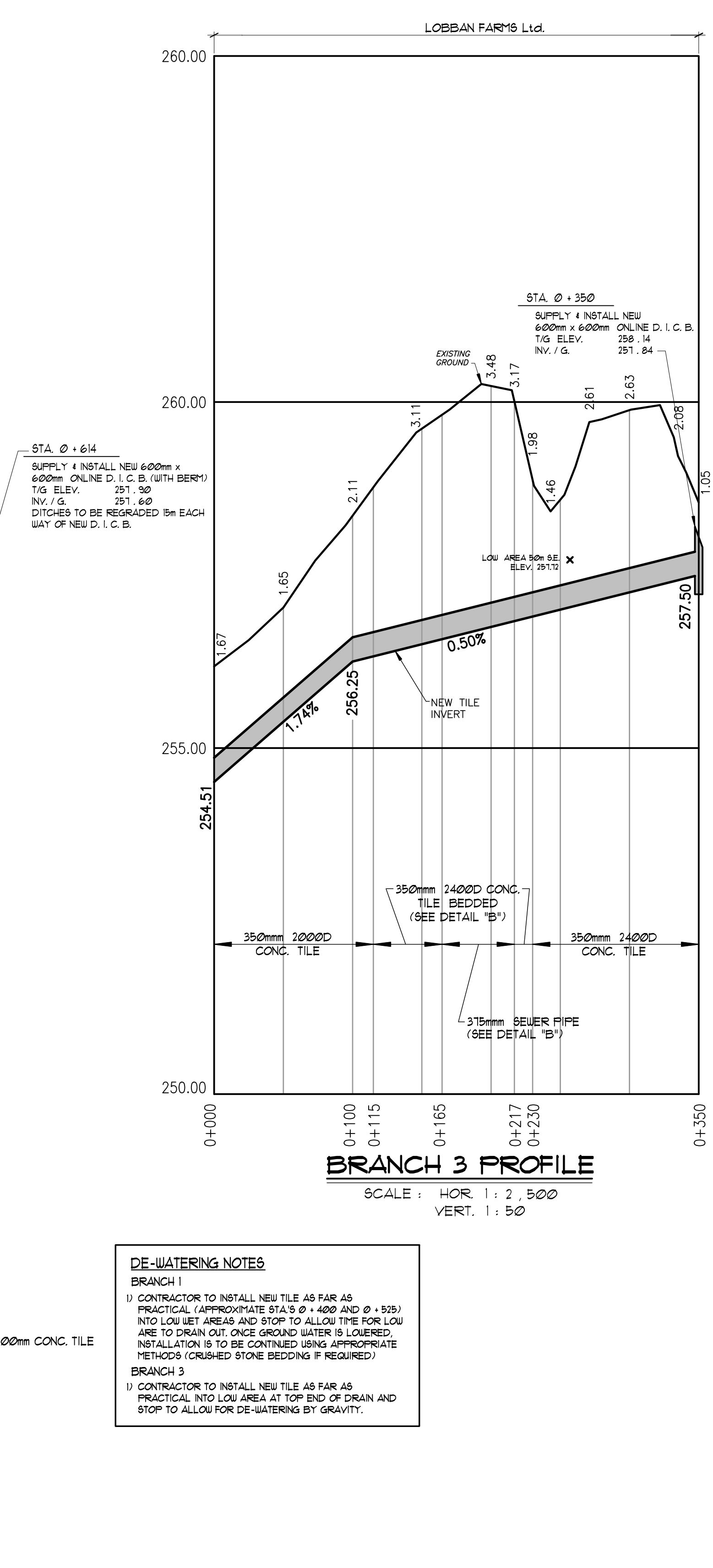
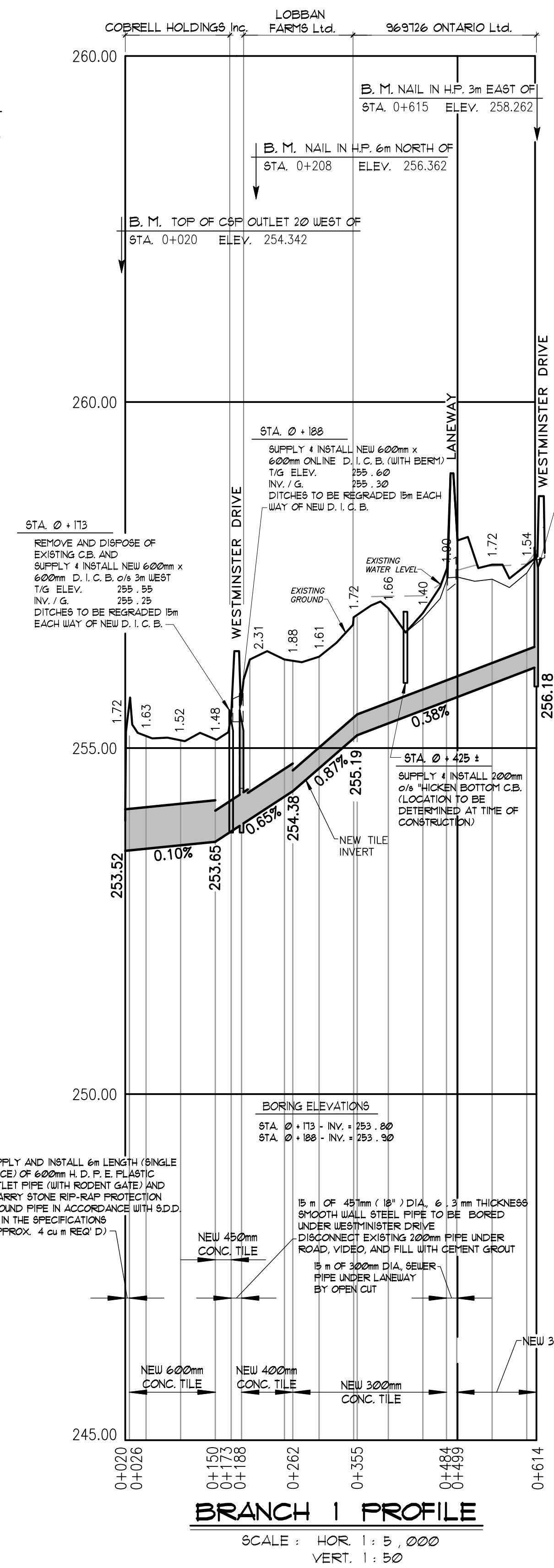
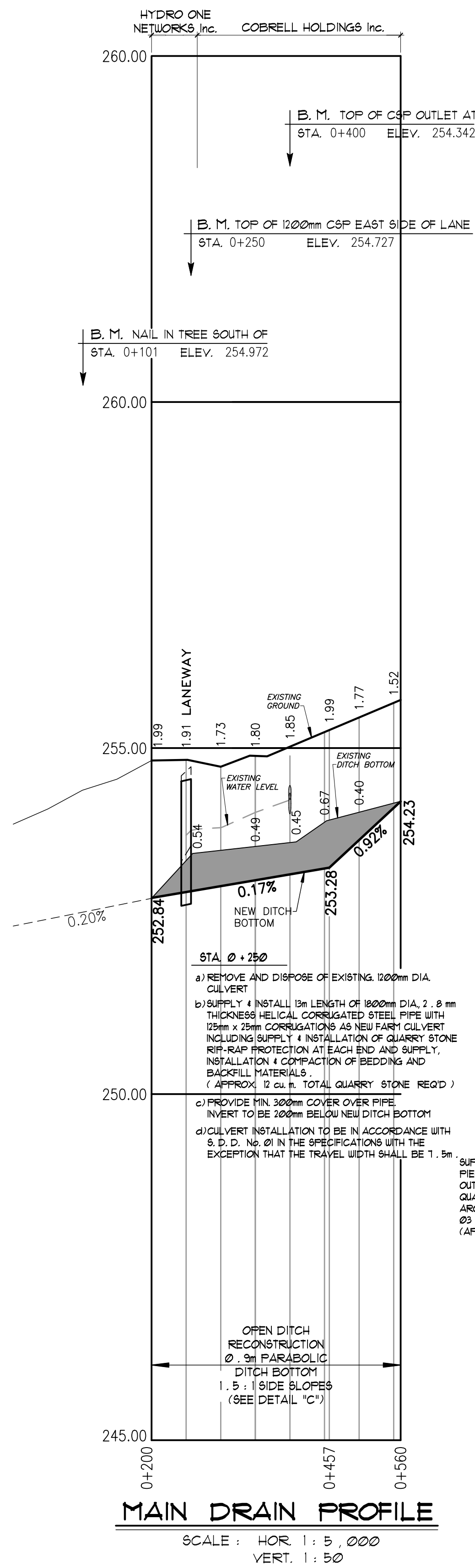
**BANNISTER DRAIN 2016**  
 CITY OF LONDON  
 London CANADA

Technologist - Drainage: <b>DON SIMPSON</b> 519 - 661 - 2500 ext. 6511	No. _____	REVISIONS	DATE
Drawn By: TP / BW Date: MAY 30, 2016	Field Book D - 2 4 1 G F S	JOB No. 211205	Drawing No. 1 of 2

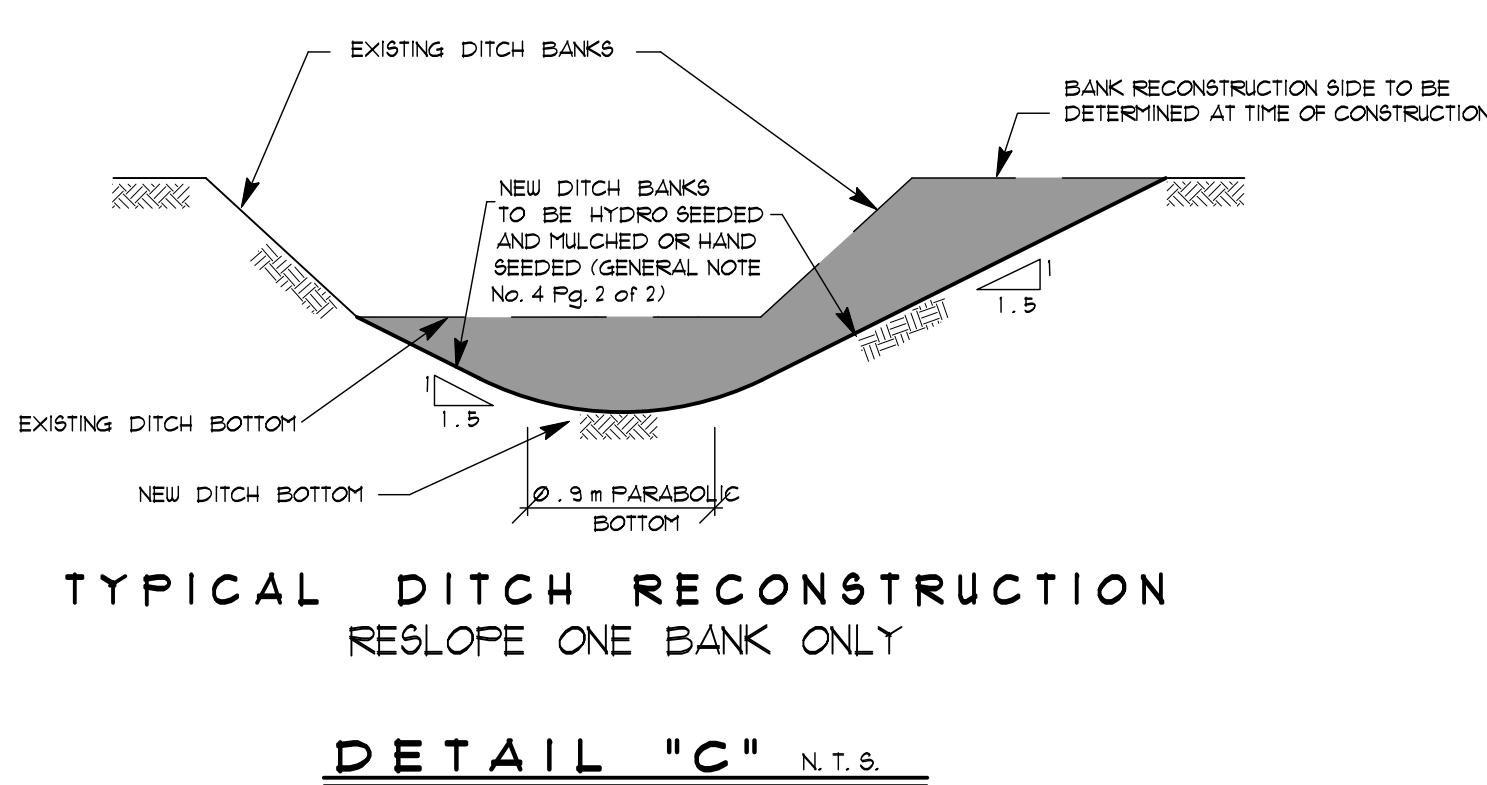
**PLAN & DETAILS**

**SPRIET ASSOCIATES LIMITED**  
 LONDON CONSULTING ENGINEERS  
 155 YORK STREET - LONDON (519) 672-4106 - 16A 1A8





**DE-WATERING NOTES**  
BRANCH 1  
1) CONTRACTOR TO INSTALL NEW TILE AS FAR AS PRACTICAL (APPROXIMATE STA'S 0+400 AND 0+525) INTO LOW LIEU AREAS AND STOP TO ALLOW TIME FOR LOW ARE TO DRAIN OUT ONCE GROUND WATER IS LOWERED. INSTALLATION IS TO BE CONTINUED USING APPROPRIATE METHODS (CRUSHED STONE BEDDING IF REQUIRED)  
BRANCH 3  
1) CONTRACTOR TO INSTALL NEW TILE AS FAR AS PRACTICAL INTO LOW AREA AT TOP END OF DRAIN AND STOP TO ALLOW FOR DE-WATERING BY GRAVITY.



**BANNISTER DRAIN 2016**  
CITY OF LONDON

London CANADA

Technologist - Drainage :	No.	REVISIONS	DATE
DON SIMPSON			
519 - 661 - 2500 ext. 6511			

Drawn By: TP / BW  
Date: MAY 30, 2016  
Field Book: D - 241  
G.P.S.  
JOB No.: 211205  
Drawing No.: 2 of 2

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LONDON CONSULTING ENGINEERS  
155 YORK STREET - LONDON (519) 672-4100 - NEA 1A8