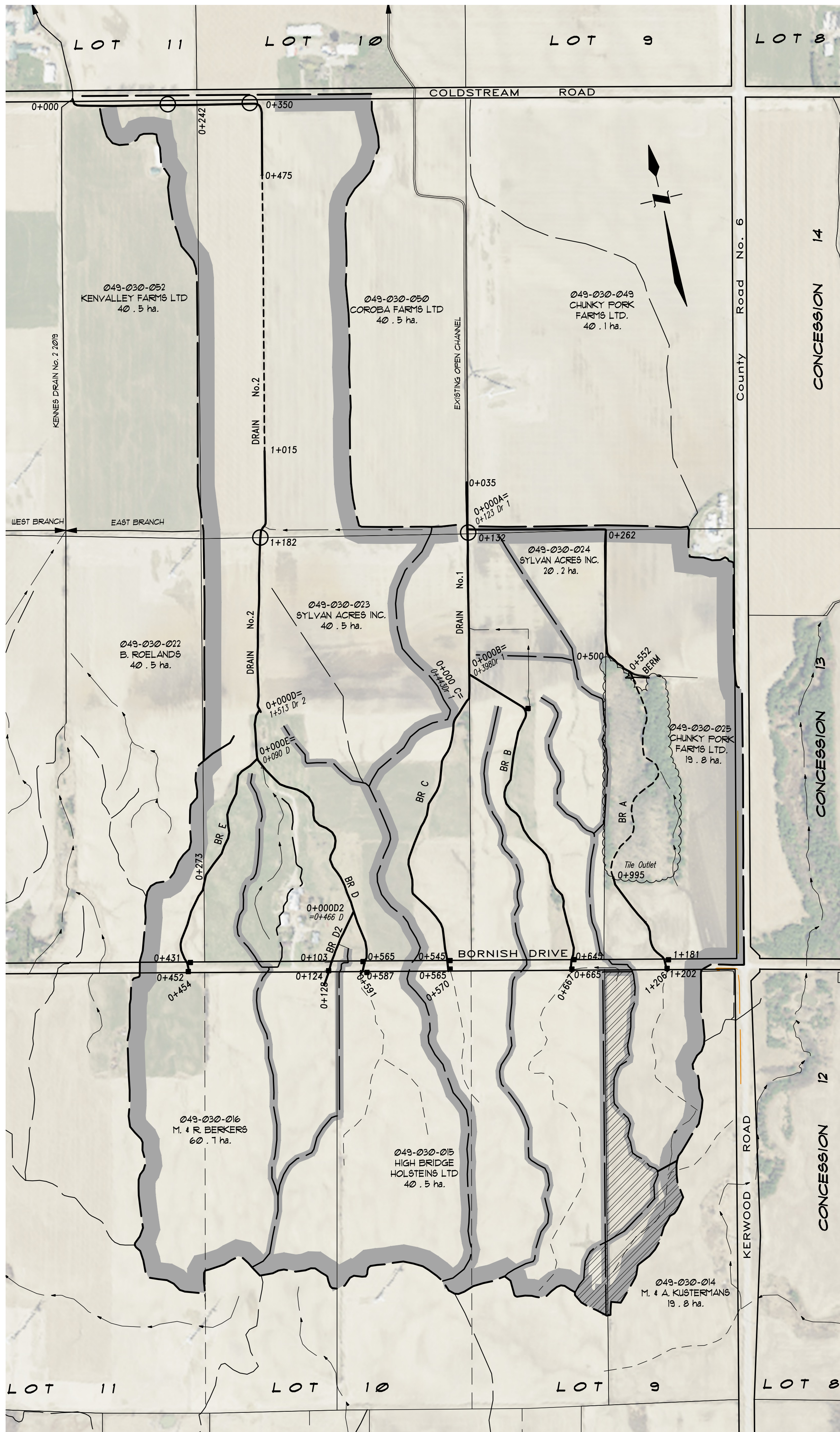
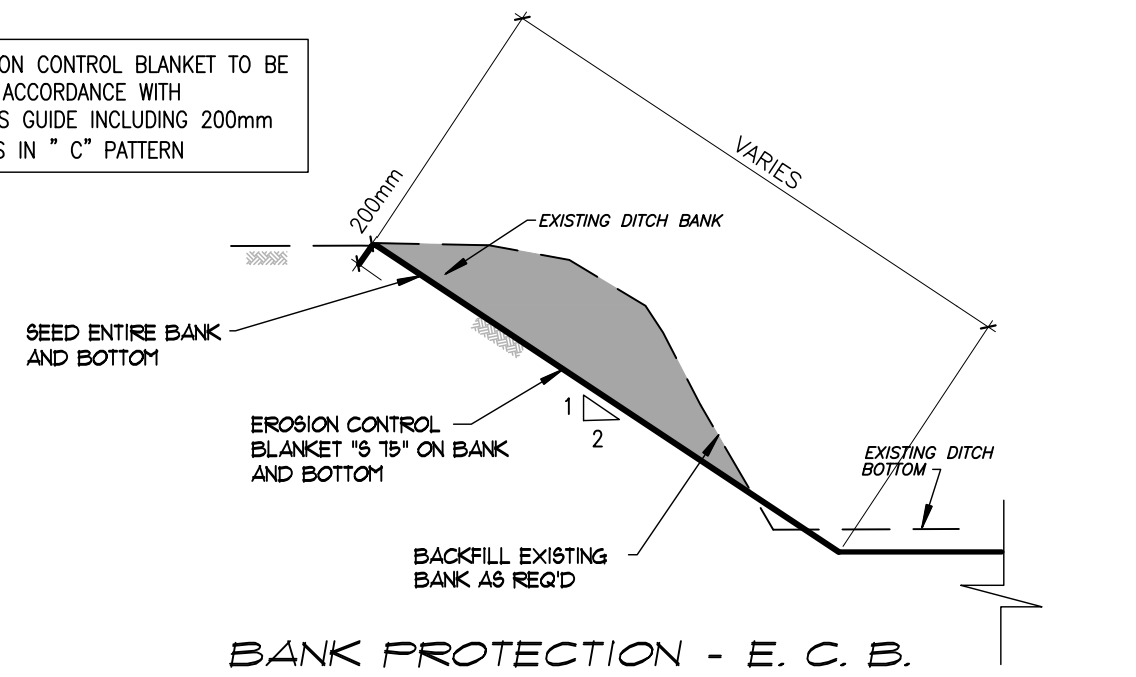


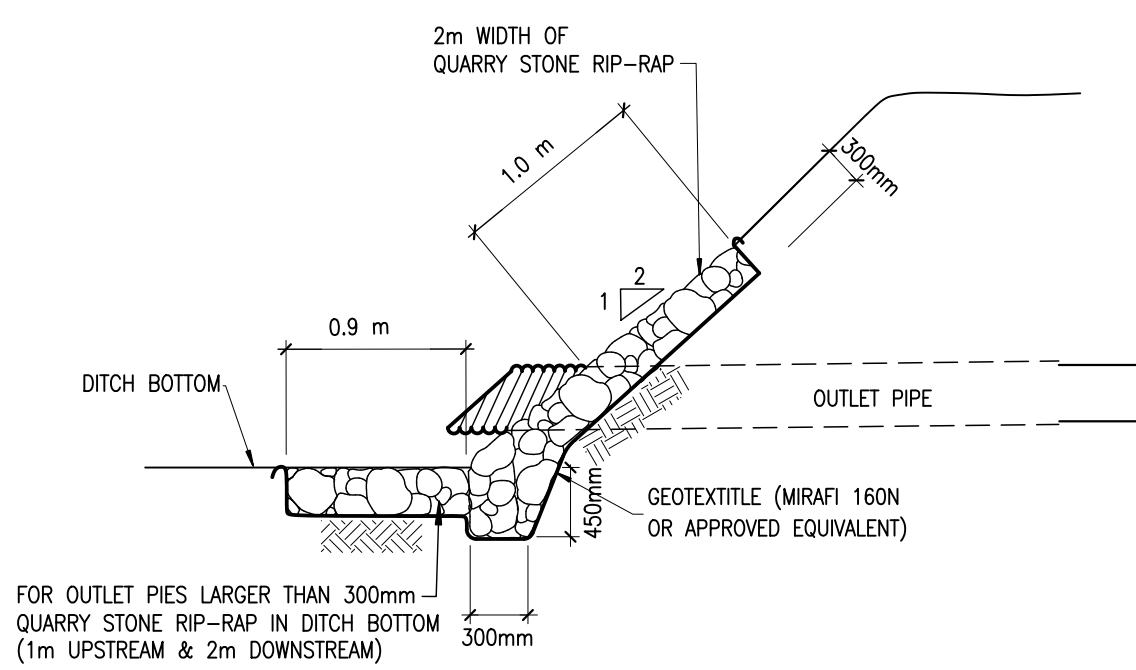


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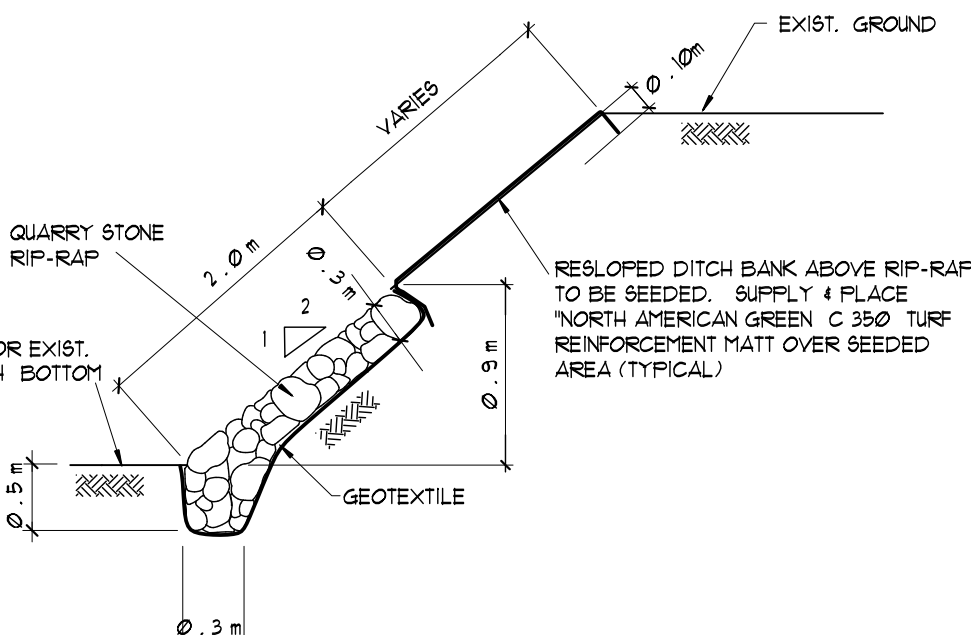
NOTE : EROSION CONTROL BLANKET TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS GUIDE INCLUDING 200mm LONG STAPLES IN "C" PATTERN



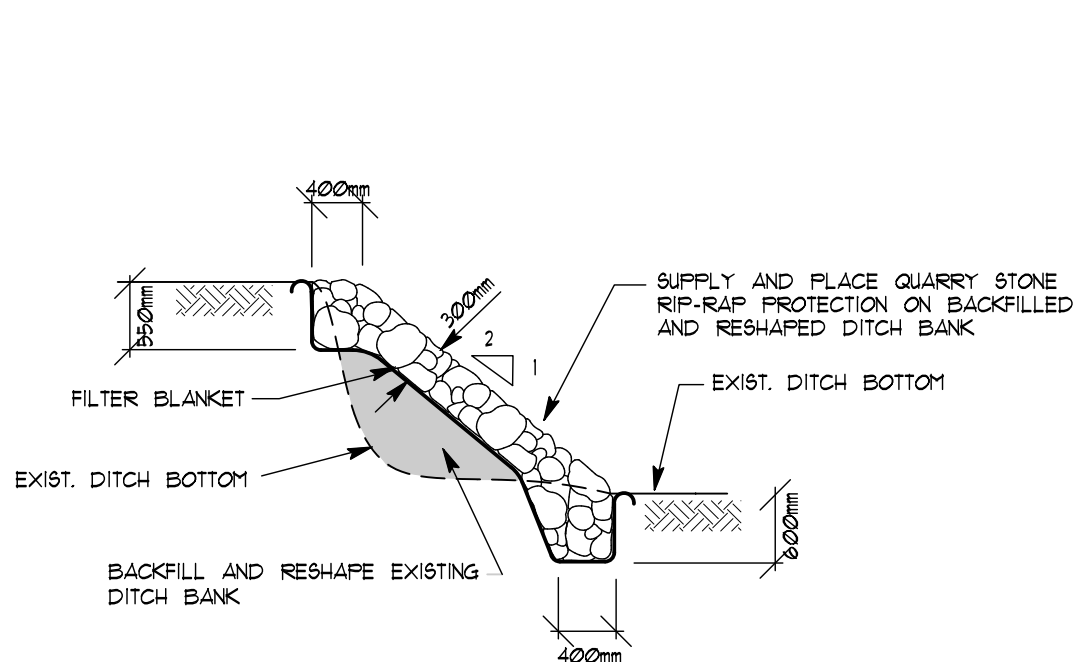
DETAIL "B"
N.T.S.



TYPICAL OUTLET RIP-RAP
DETAIL "C"
N.T.S.



DITCH BANK PROTECTION
DETAIL "D"
N.T.S.



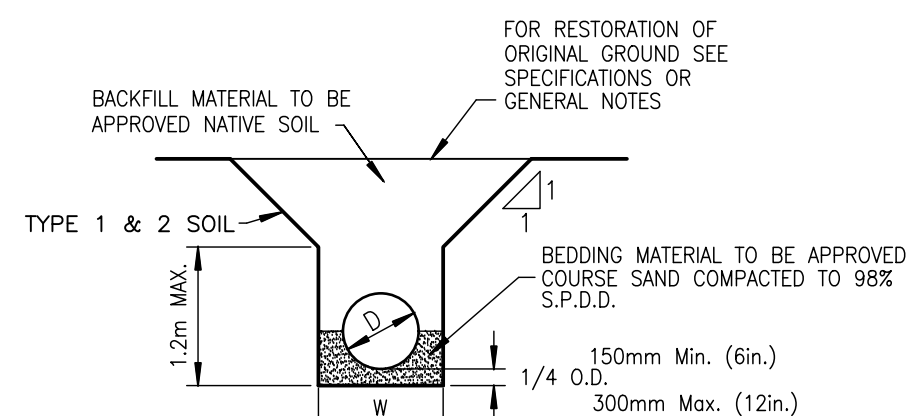
TYPICAL DITCH BANK RIP-RAP
DETAIL "E"
N.T.S.

GENERAL NOTES

- OUR "SPECIFICATIONS FOR THE CONSTRUCTION OF MUNICIPAL DRAINAGE WORKS, DATED JANUARY 2020 APPLY TO THIS PROJECT.
- 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
CLOSED PORTIONS
THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE THE SAME AS ABOVE.
- 15 meters (INCLUDING 2.1m BUFFER)
- 20 meters
- 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.
STA. 0 + 035 BR A TO STA. 0 + 262 BR A TO BE ACCESSED FROM SOUTH ALONG DRAIN ROUTE OR TURBINE ACCESS ROUTES (NOT FOR FUTURE MAINTENANCE).
STA. 1 + 015 BR No.2 TO STA. 1 + 182 DR No. 2 TO BE ACCESSED FROM SOUTH ALONG DRAIN ROUTE OR TURBINE ACCESS ROUTES (NOT FOR FUTURE MAINTENANCE).
- 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.
c) THE COST FOR THIS WORK SHALL BE INCLUDED IN THE ITEM ON THE EXTENT OF WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR, EXCEPT IF ROAD RESTORATION IS REQUIRED.
- ALL TREES, SCRUB, BRUSH, ETC. TO BE CLEARED AND GRUBBED IN ACCORDANCE WITH "SECTION B.3 AND C.4" SPECIFICATIONS.
- RIP-RAP TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION A.28" IN THE SPECIFICATIONS.
- TURF MAT SHALL BE "NORTH AMERICAN GREEN SC 250" OR "C 350" OR APPROVED EQUAL. MAT SHALL BE INSTALLED ON SEEDS BANK IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS WITH THE FOLLOWING EXCEPTIONS:
a) STAPLES TO BE 200mm LONG AND SHALL BE INSTALLED TO MANUFACTURERS "D" PATTERN.
b) MAT TO BE KEPT 200mm BELOW DITCH BOTTOM, 200mm INTO BANK SLOPE AT UPSTREAM LIMIT AND SHALL BE STAPLED 200mm BELOW TOE OF BANK.
b) 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

- ALL CONCRETE TILE, PLASTIC TILE, HDPE PIPE AND HDPE SEWER PIPE TO CONFORM TO "SECTION C.1" IN THE SPECIFICATIONS.
a) CONCRETE TILE SHALL BE HEAVY DUTY UNLESS SPECIFIED 1000 D OR 2400 D ON PROFILE.
b) SEWER PIPE TO BE 150mm PLASTIC 300 KSA (BELL & SPIGOT WITH RUBBER GASKETS, CONFORMING TO C.S.A. 1026-08), PVC ULTRA RIB OR PVC SDR 35
- ALL CATCHBASINS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION C.16" IN THE SPECIFICATIONS, EXCEPT AS FOLLOWS:
a) OFF-SET CATCHBASIN LEADS TO BE CONNECTED TO NEW TILE DRAIN WITH PRE-FABRICATED CONCRETE "WYE"
b) ALL NON ROAD DITCH INLET CATCHBASINS TO HAVE BERRIS (CONSTRUCTED WITH SUBSOIL) WITH OVERFLOW CHUTE PROTECTED WITH N.A.G. C350 TURF REINFORCEMENT MATT (SEE DETAIL "J")
c) ALL CATCHBASINS TO HAVE 100mm DIA. VERTICAL PIPE VENT IMMEDIATELY DOWNSTREAM, EXTENDING FOR 600mm ABOVE CATCHBASIN TOP. PIPE VENT TO BE HIGHWAY GRADE SINGLE OR DUAL WALL PLASTIC CONNECTED TO MAIN TILE OR LEAD WITH APPROVED FITTING. (SEE DETAIL "A")
- ALL PREFABRICATED FITTINGS SPECIFIED AS CONCRETE MAY BE SUBSTITUTED WITH SAME SIZE PLASTIC WHERE AVAILABLE BUT SHALL BE COMPLETELY ENCASED WITH 20 Mpa CONCRETE (MINIMUM 150mm THICKNESS).
- EXACT LOCATION OF NEW TILE DRAINS TO BE DETERMINED AT TIME OF CONSTRUCTION BY DRAINAGE SUPERINTENDENT OR ENGINEER.
- a) INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH "SECTION C - TILE DRAIN" IN THE SPECIFICATIONS.
b) SEWER PIPE UNDER TRAVEL PORTION OF ROADS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILED DRAINING No. 02 IN THE SPECIFICATIONS.
c) ALL OTHER SEWER PIPE TO BE INSTALLED IN ACCORDANCE WITH DETAIL "H"
d) ALL CONCRETE TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH "SECTION C.8" IN THE SPECIFICATIONS.
e) NO CONSTRUCTION EQUIPMENT OR FARM MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED
- STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREA (4 metre width) EXCEPT LANEWAYS & ROADS. EXCESS SPOIL TO BE LEVELLED AND TOPSOIL RELEVELLED OVER SPOIL, MOUNDED TRENCH AND REMAINING CONSTRUCTION AREA.
- a) 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.
b) ALL TILE CONNECTIONS TO BE MADE WITH CORING MACHINE AND PLASTIC ADAPTOR OR PREFABRICATED FITTINGS.
c) THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A LIST SHOWING STATIONS OF ALL TILE CONNECTIONS UPON COMPLETION OF CONSTRUCTION.



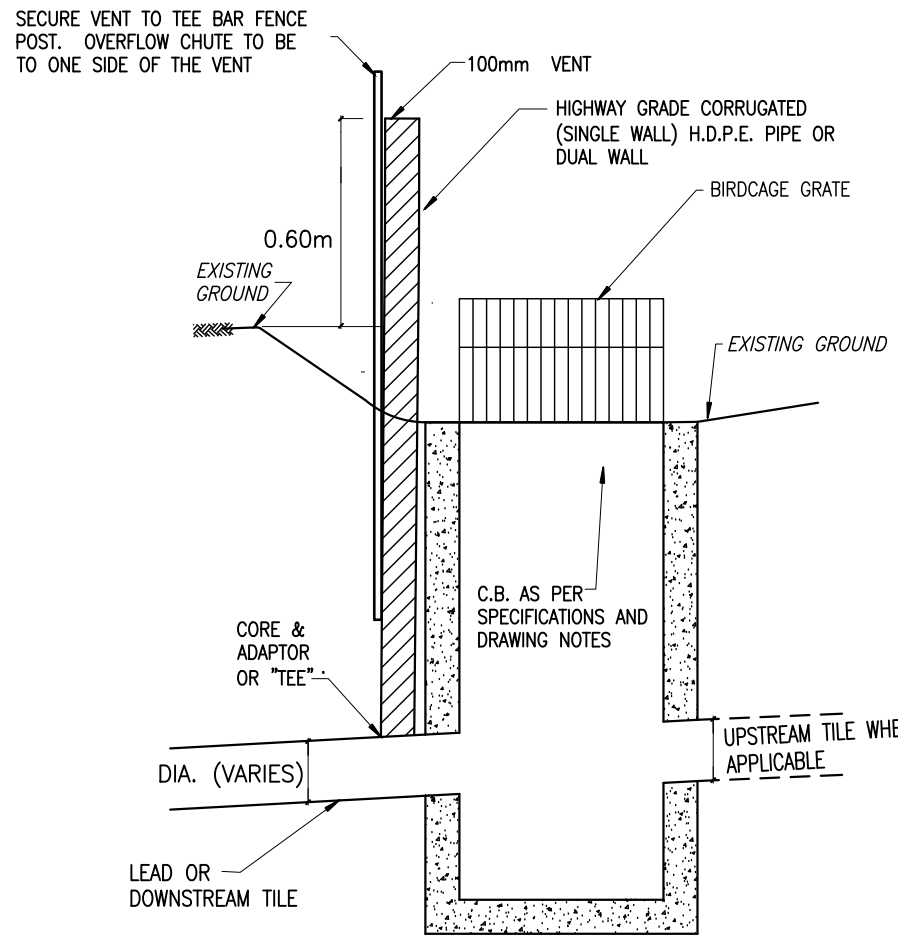
DETAIL "H"
N.T.S.

PLAN LEGEND

- LIMIT OF WATERSHED AREA
- PROPOSED DRAINAGE WORKS
- EXTERIOR OR INTERIOR WATERSHED
- TO BE INCLUDED FOR FUTURE MAINTENANCE
- EXIST. MUNICIPAL DRAIN
- PRIVATE TILE OR SURFACE WATER RUN
- EXIST. WATERCOURSE OR PRIVATE DITCH
- ASSESSMENT ROLL NUMBER
- OWNERS NAME
- 40.5 ha. RECTANGLES OWNED
- BUSH AREA
- CULVERT REPLACEMENT

OPEN PORTIONS

- EXISTING DITCHES TO BE RECONSTRUCTED WITH 2:1 SLOPES IN ACCORDANCE WITH PROFILES AND SECTIONS AND THE SPECIFICATIONS.
- WORK TO BE COMPLETED FROM AND EXCAVATED MATERIAL TO BE DEPOSITED AND LEVELLED ON THE FOLLOWING SIDES OF THE DITCH IN ACCORDANCE WITH "SECTION B.5" IN THE SPECIFICATIONS:
DRAIN No.1
STA. 0 + 035 TO STA. 0 + 443 - EAST SIDE AND LEVELLED
DRAIN No.2
STA. 0 + 000 TO STA. 0 + 415 - NORTH SIDE AND WEST SIDE AND LEVELLED
STA. 1 + 015 TO STA. 1 + 513 - WEST SIDE AND LEVELLED
BRANCH A
STA. 0 + 000 TO STA. 0 + 564 - SOUTH SIDE AND EAST AND LEVELLED
EXISTING SPOIL ADJACENT TO DITCH TO BE LEVELLED WITH NEWLY EXCAVATED MATERIAL.
- A 2.1 METER WIDE BUFFER STRIP OF NEW EXISTING VEGETATION BETWEEN THE TOP OF THE BANK AND THE CULTIVATED LANDS ON BOTH SIDES OF THE DITCH SHALL BE CREATED/MAINTAINED AS PART OF THE OPEN PORTION OF THE MURRAY DRAIN 2019.
- NEWLY EXPOSED DITCH BANKS ARE TO BE HAND SEEDS UPON COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH "SECTION B.11" IN THE SPECIFICATIONS
- SILT FENCE TO BE PLACED ACROSS DITCH BOTTOM AT DOWNSTREAM LIMITS OF ALL DITCH WORK AND 6m DOWNSTREAM OF ALL NEW TILE OUTLETS DURING CONSTRUCTION TO PREVENT SILT FROM FLUSHING DOWNSTREAM. SILT FENCE AND SILT TO BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION.
- SUPPLY & PLACE N.A.G. C350 TURF REINFORCEMENT MAT WITH QUARRY STONE RIP-RAP BASE PROTECTION ON RE-SLOPED AND SEEDS BANKS (SEE DETAIL "C") AT THE FOLLOWING LOCATIONS:
DRAIN No.1
STA. 0 + 555 to STA. 0 + 575 - WEST SIDE
AND 15m into BRANCH A - WEST SIDE
DRAIN No.2
STA. 0 + 000 to STA. 0 + 020 - SOUTH SIDE
STA. 0 + 350 to STA. 0 + 371 - NORTH SIDE
BRANCH A
STA. 0 + 250 to STA. 0 + 274 - NORTH SIDE
STA. 0 + 432 to STA. 0 + 501 - SOUTH SIDE
- 20m (16 m² Q.S. & 30 m² T.R.M.)
- 20m (14 m² Q.S. & 40 m² T.R.M.)
- 27m (19 m² Q.S. & 40 m² T.R.M.)
- 24m (17 m² Q.S. & 21 m² T.R.M.)
- 15m (9 m² Q.S. & 21 m² T.R.M.)
- SUPPLY & INSTALL THE QUARRY STONE RIP-RAP PROTECTION AROUND EXISTING OUTLET PIPES AT THE FOLLOWING STATIONS (MATCH NEW SLOPE WHERE APPLICABLE) IN ACCORDANCE WITH DETAIL "D" (APPROX. 2.0 cu. m. EACH)
DRAIN No.2
STATIONS 0 + 091 (S), 0 + 106 (S), 0 + 149 (S), 0 + 198 (S), 0 + 200 (S), 0 + 233 (S), 0 + 243 (S), 1 + 116 (E), 1 + 172 (E), 1 + 173 (W), 1 + 220 (W), 1 + 216 (E)
(APPROXIMATELY 24.0 cu. m. TOTAL QUARRY STONE REQ'D)
- SUPPLY & INSTALL 5-15 EROSION CONTROL BLANKET PROTECTION ON DITCH BANKS AT THE FOLLOWING STATIONS IN ACCORDANCE WITH DETAIL "E"
DRAIN No.1
STATION 0 + 000 - 0 + 443
DRAIN No.2
STATION 0 + 000 - 0 + 415 AND 1 + 015 - 1 + 513
BRANCH A
STATION 0 + 000 - 0 + 550
- 2,715 m² E.C.B. & 2,540m² SEED
- 8,350 m² E.C.B. & 7,950m² SEED
- 4,230 m² E.C.B. & 4,030 SEED
(APPROXIMATELY 14,520 m² TOTAL SEED REQ'D)
(APPROXIMATELY 15,295 m² E.C.B. REQ'D)
- SEEDING AND 5-15 EROSION CONTROL BLANKET TO BE COMPLETED IMMEDIATELY AFTER EXCAVATION.



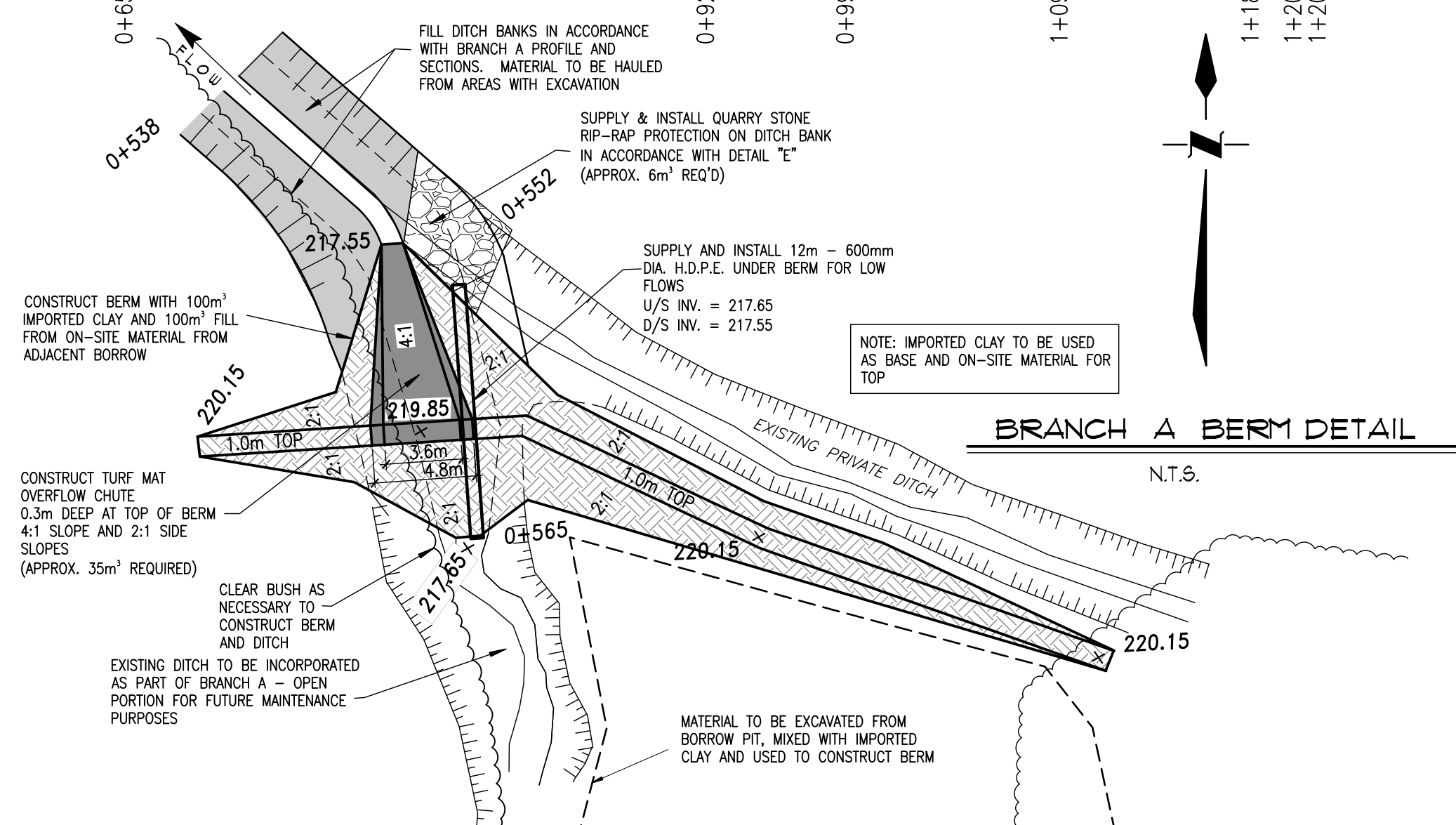
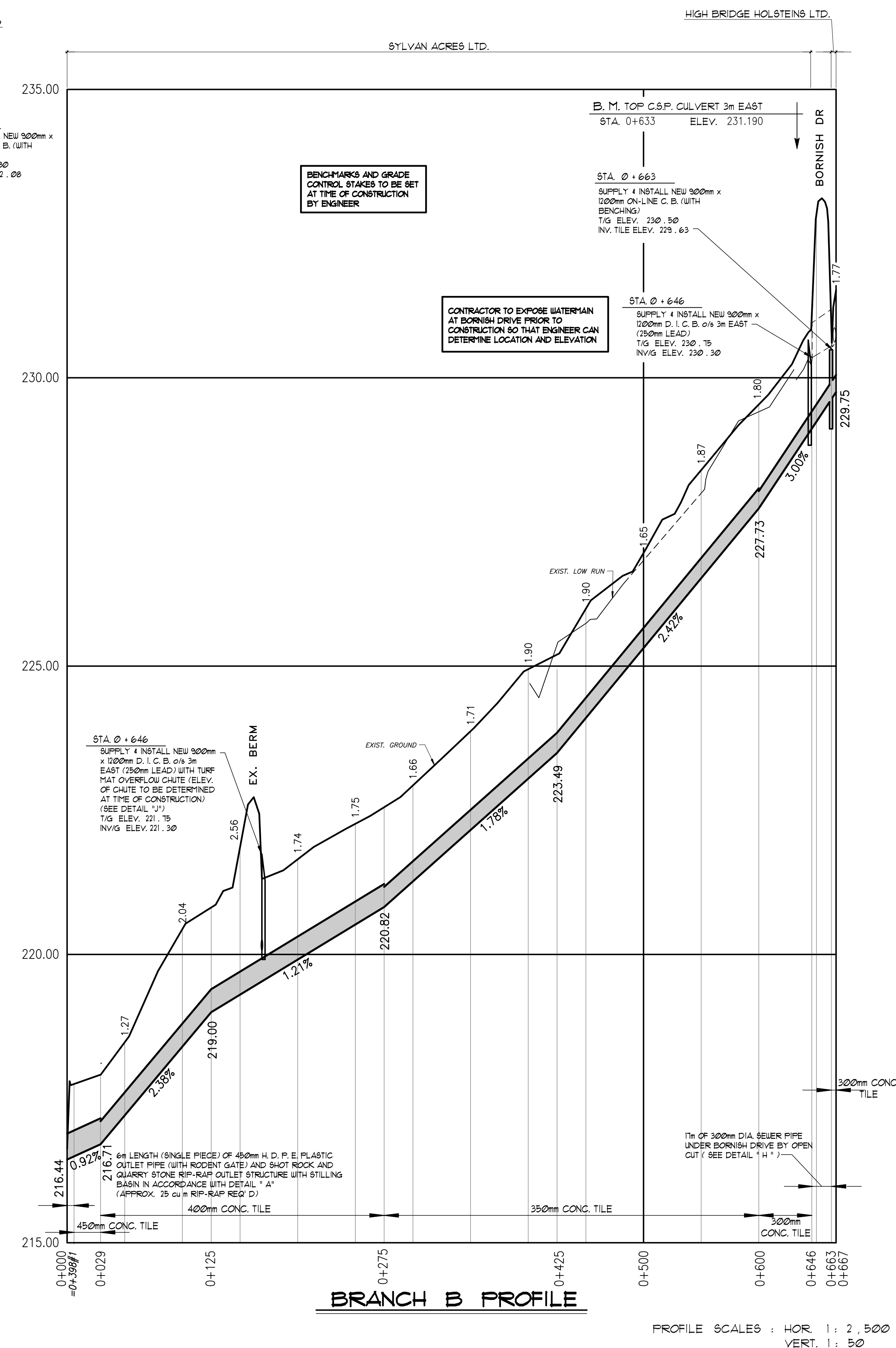
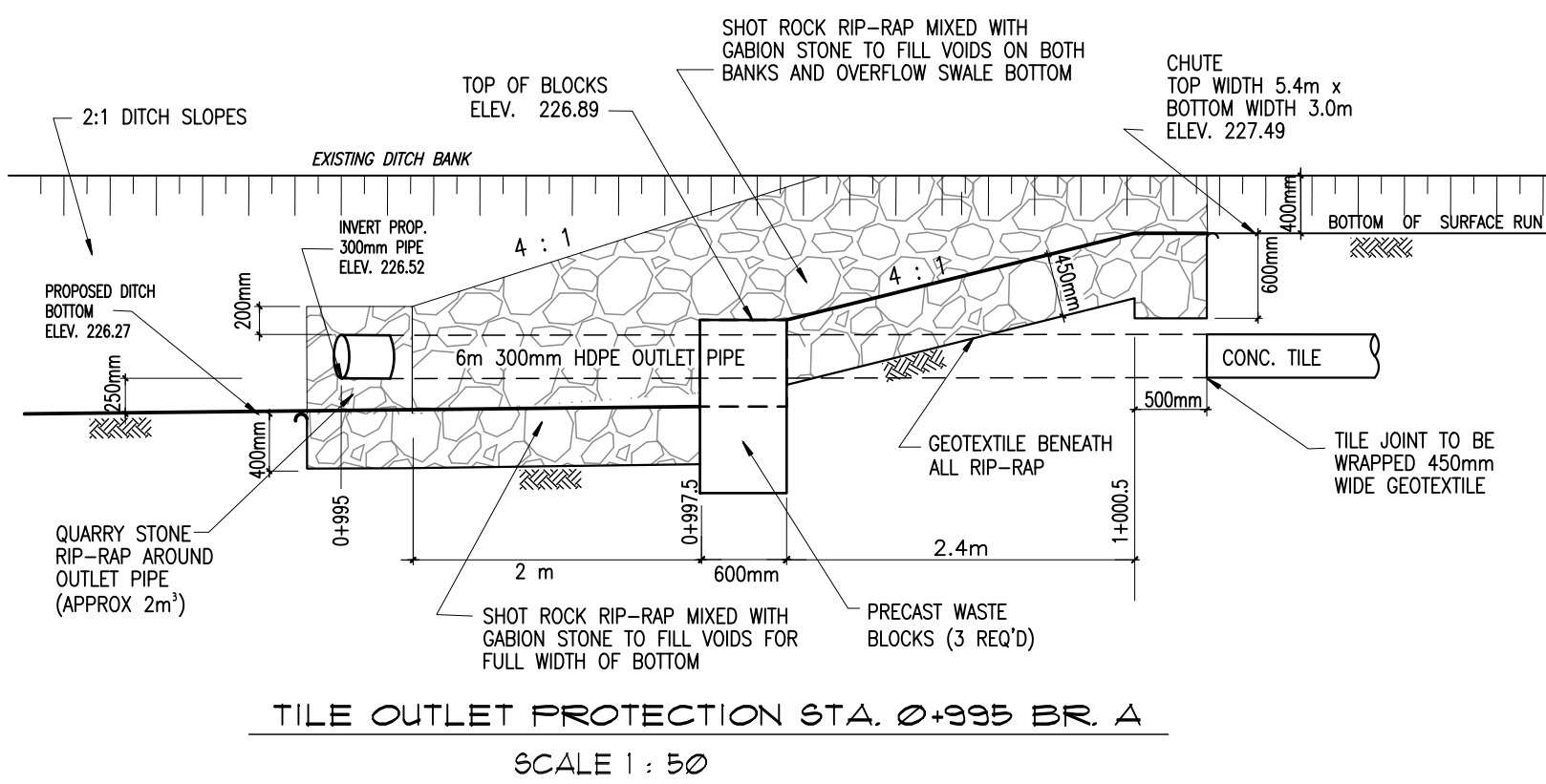
100mm VENT DETAIL
N.T.S.
DETAIL "A"
N.T.S.

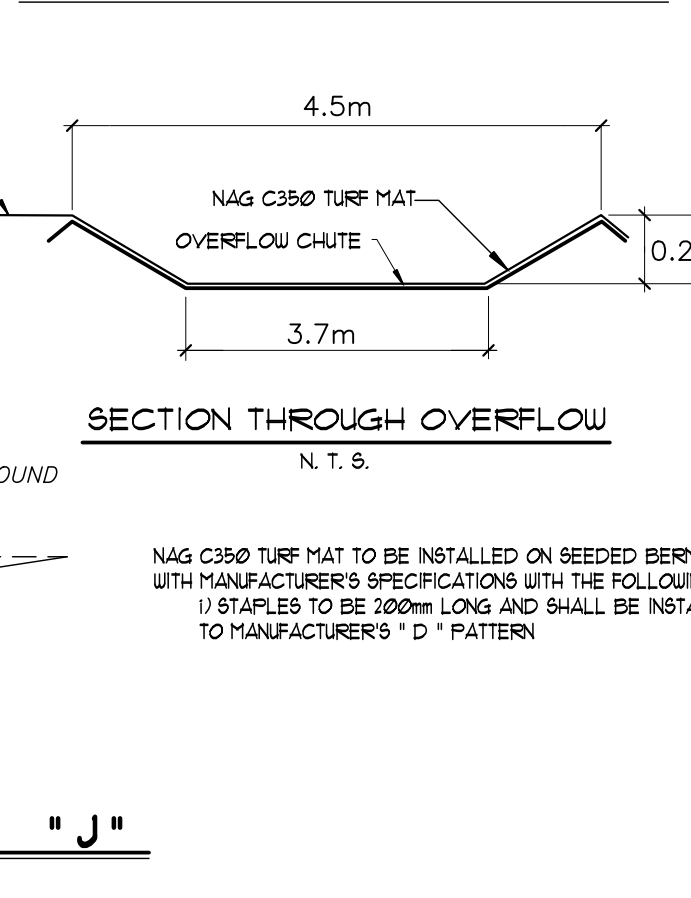
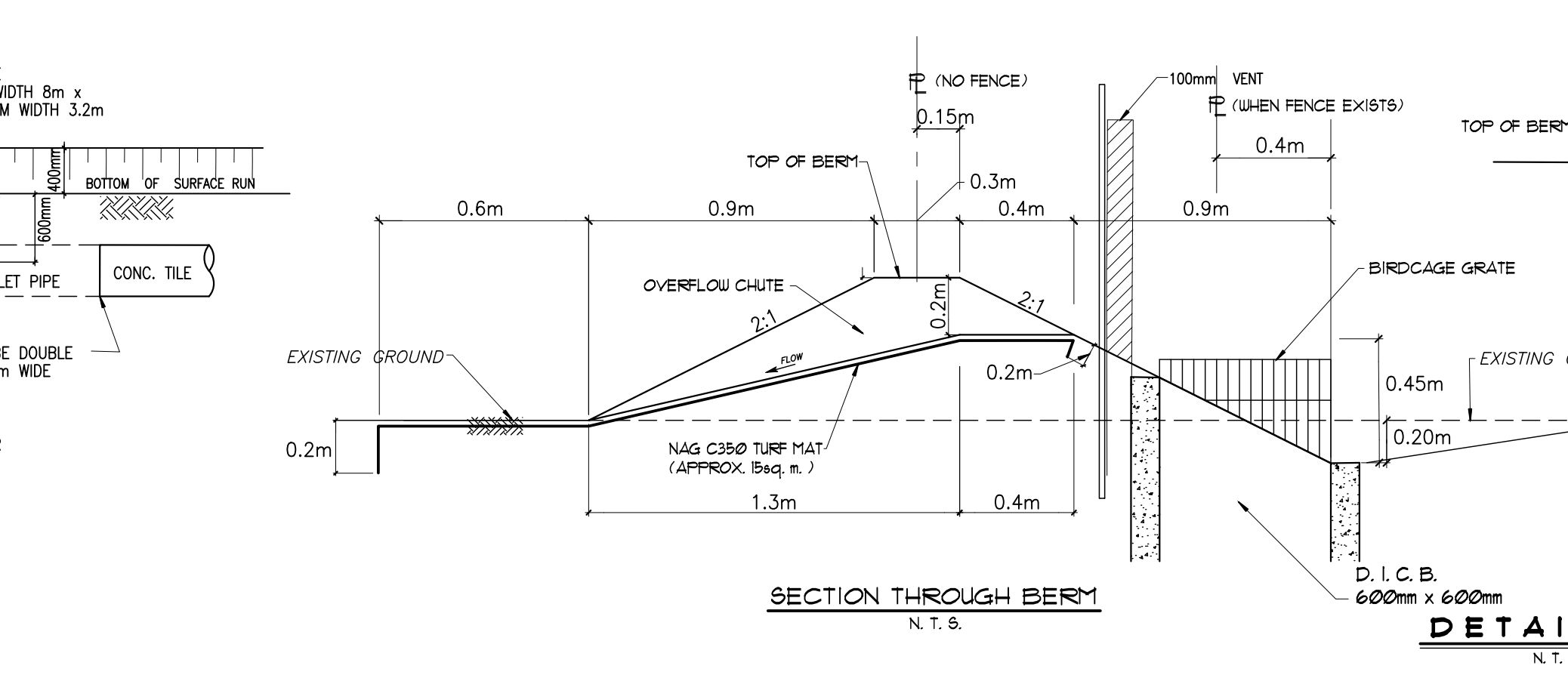
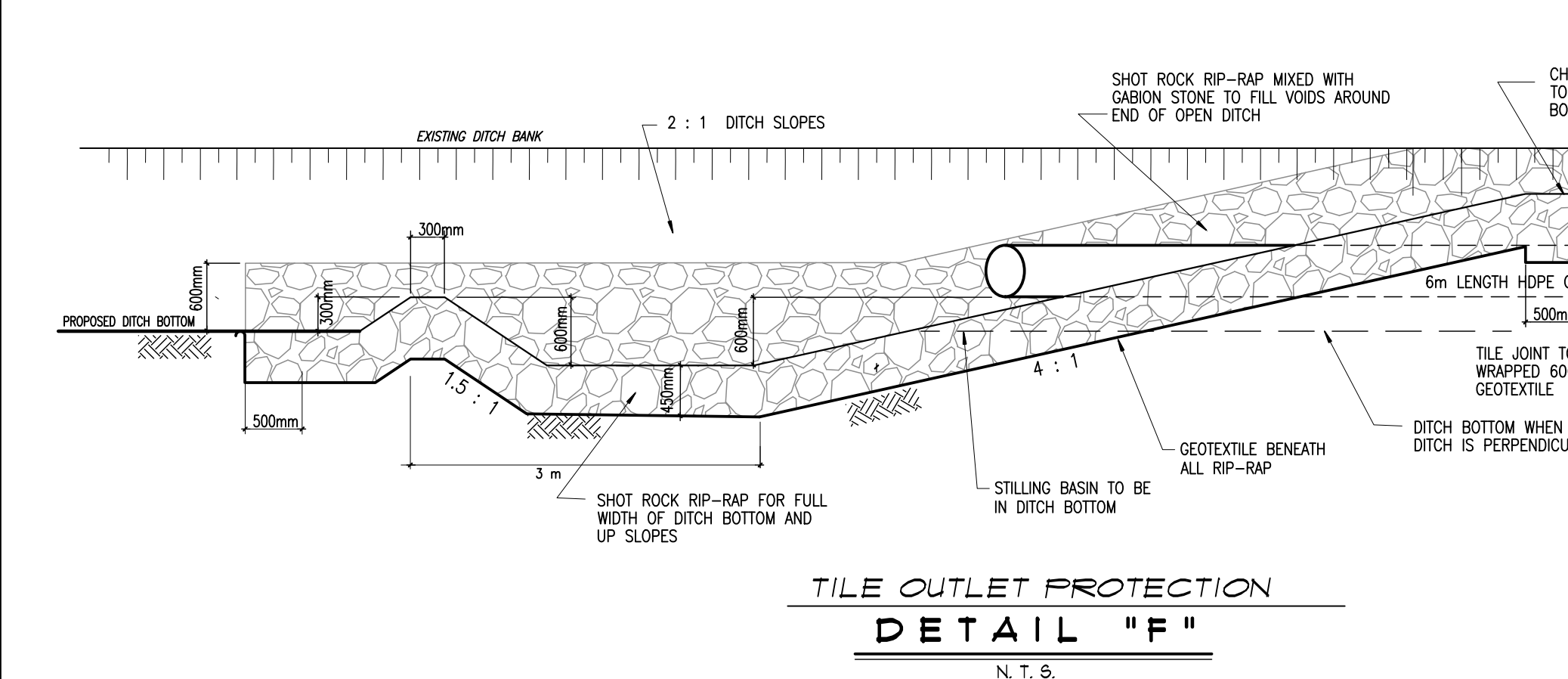
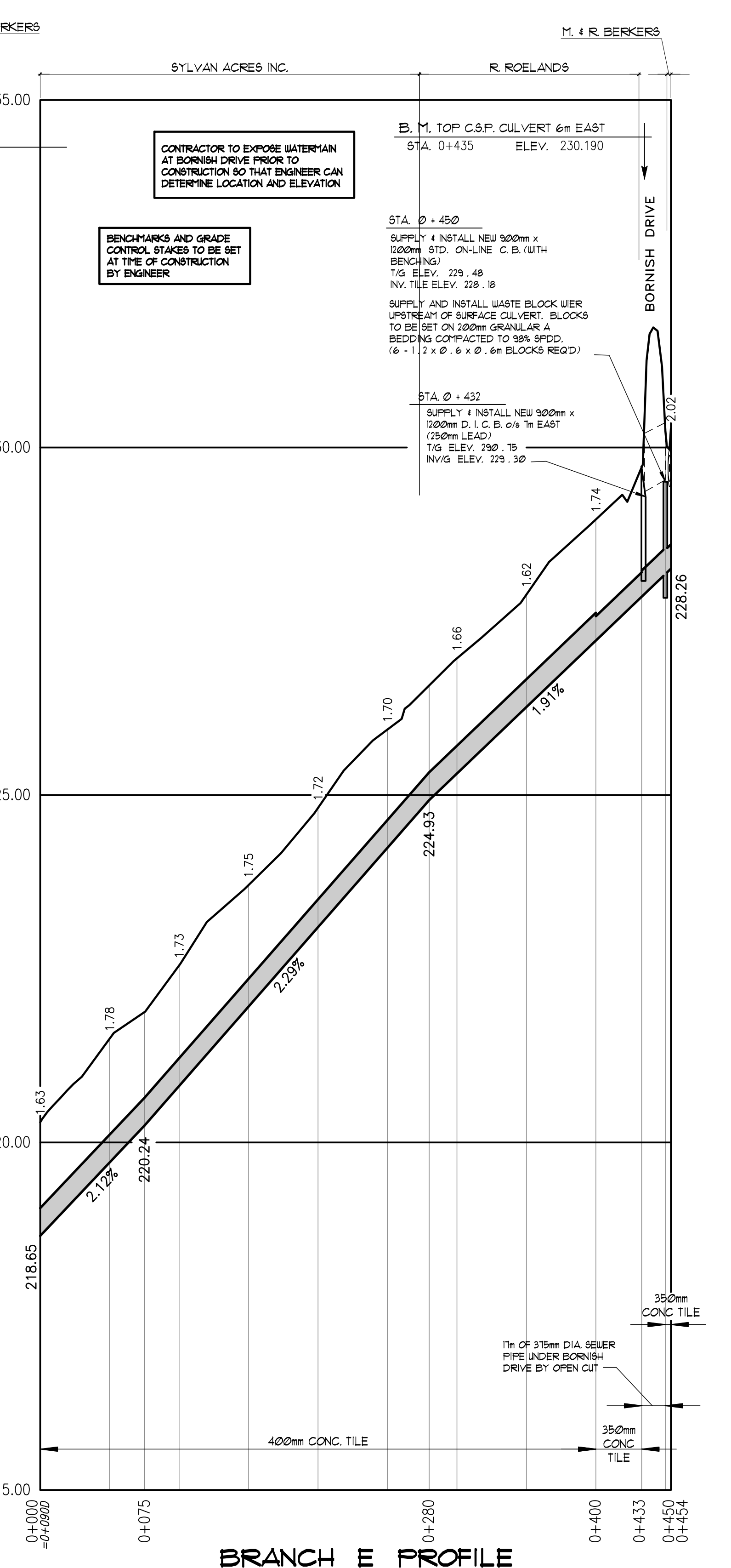
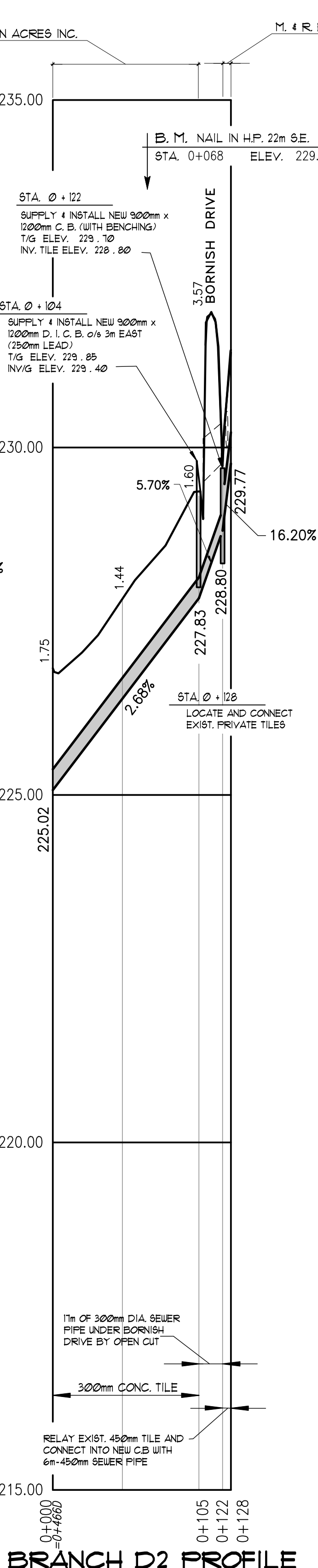
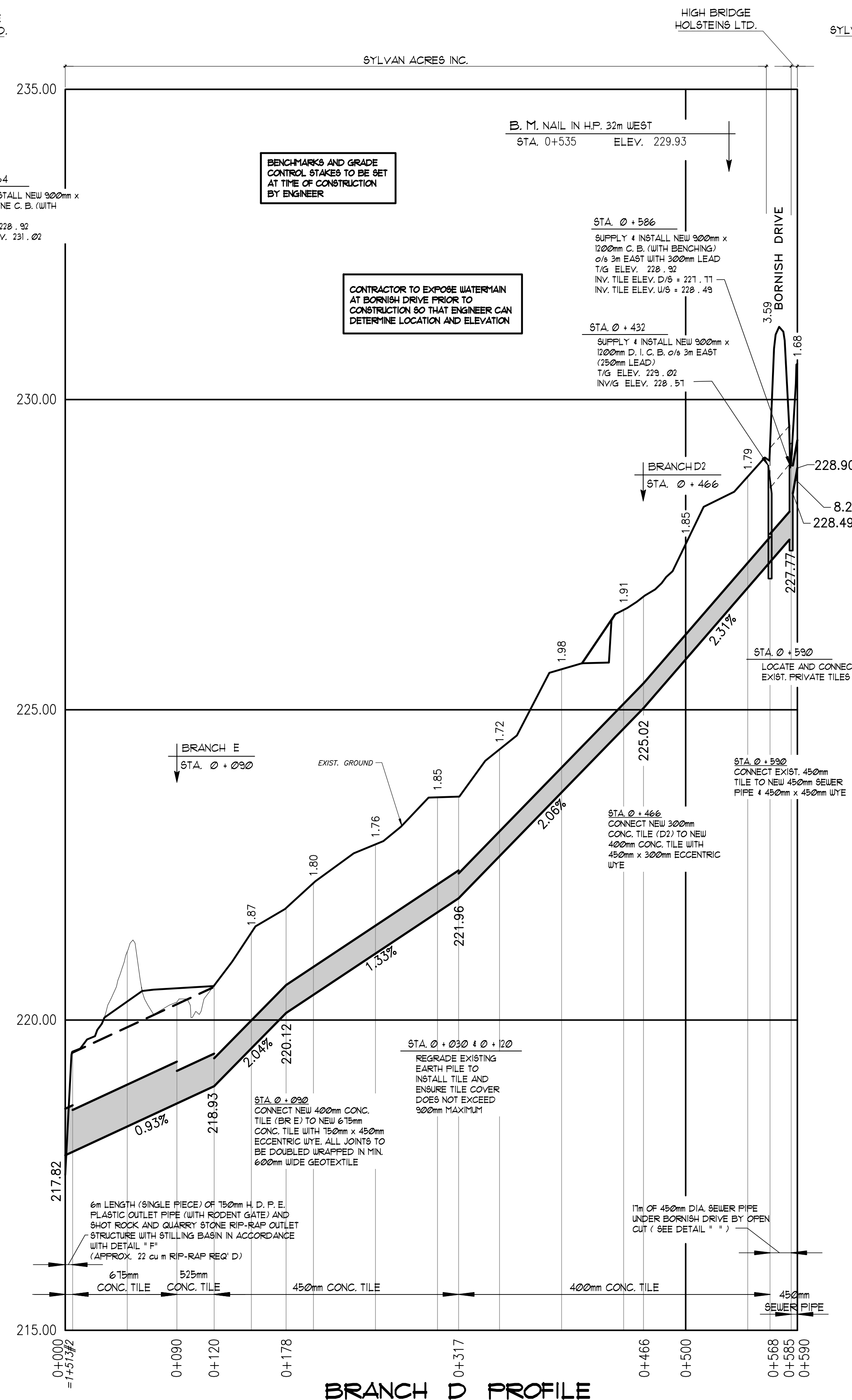
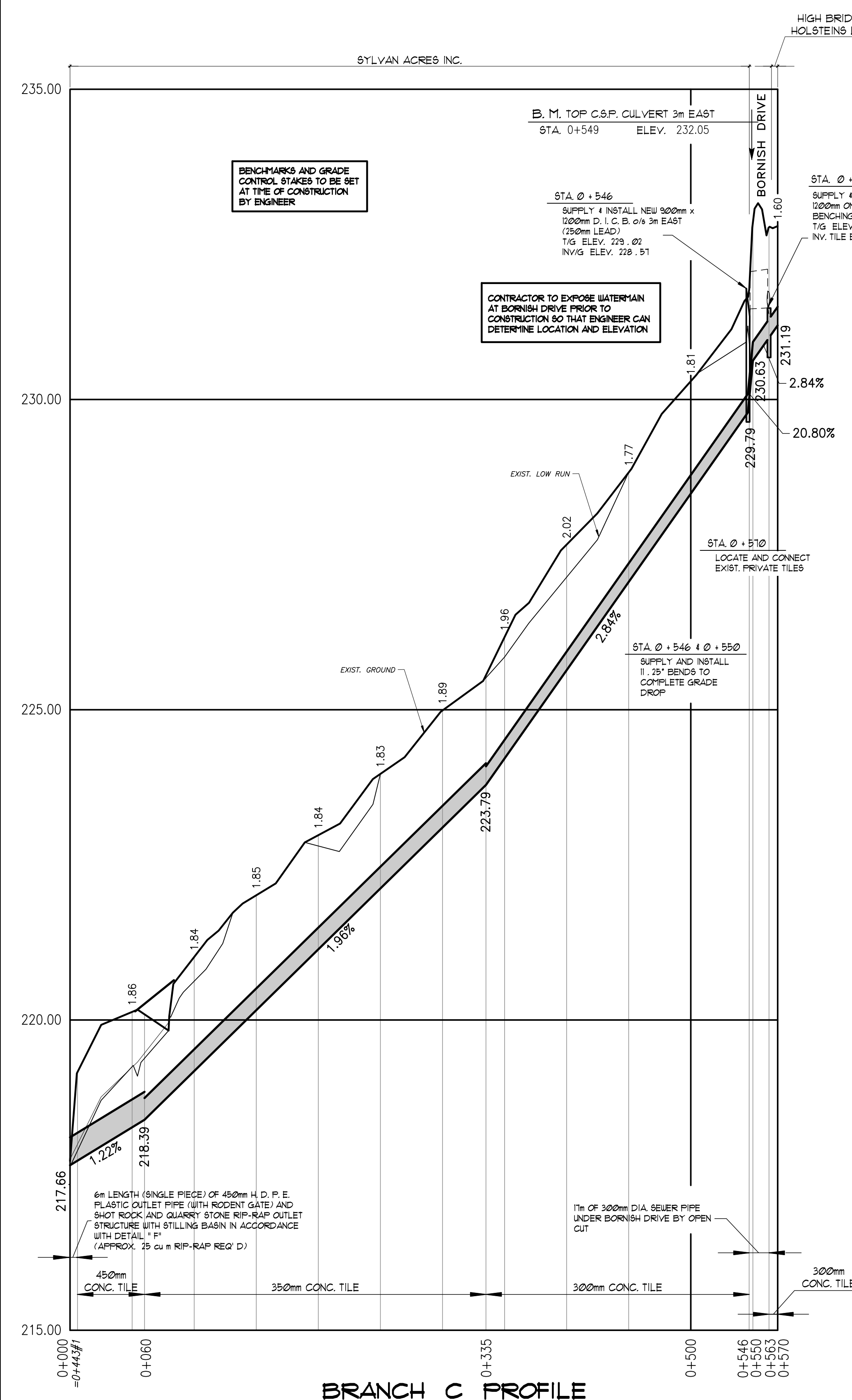
SYLVAN ACRES DRAIN 2026



Municipality of North Middlesex

Drainage Superintendent:	No.	REVISIONS	DATE
JOANNE SADLER			
519-294-6244 Ext. 225			
Drawn By: LD4TF	Field Book	JOB No.	Drawing No.
Date: JUNE 3, 2026	G.P.S. 4 D-283	224308	1 of 5
PLAN, PROFILE, & DETAIL			
SPRIET ASSOCIATES LIMITED			
LONDON CONSULTING ENGINEERS			
155 YORK STREET - LONDON (519) 672-4100 - NGA 148			





SYLVAN ACRES DRAIN 2026

Municipality of North Middlesex

Drainage Superintendent: **JOANNE SADLER**
519-294-6244 Ext. 225

Drawn By: **LD4TF**
Date: **JUNE 3, 2026**

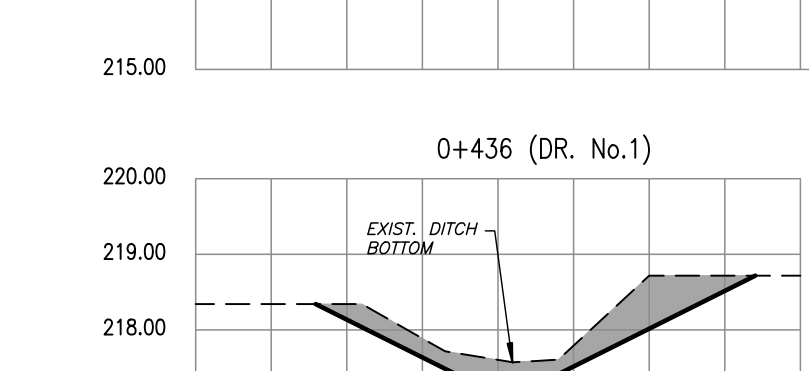
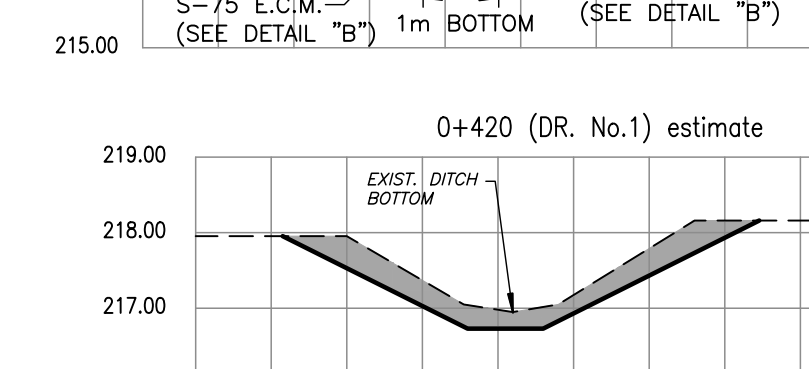
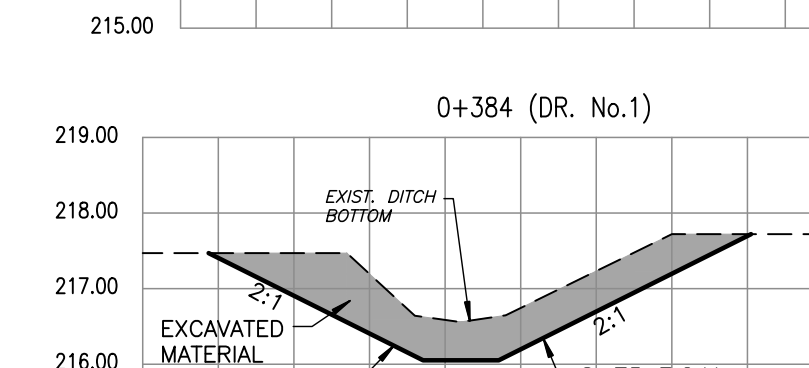
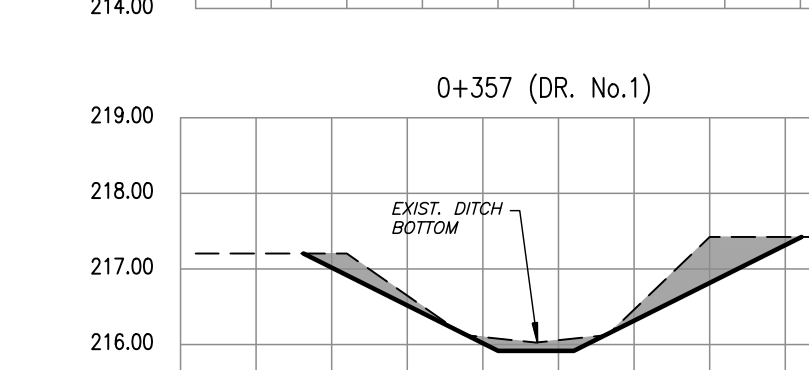
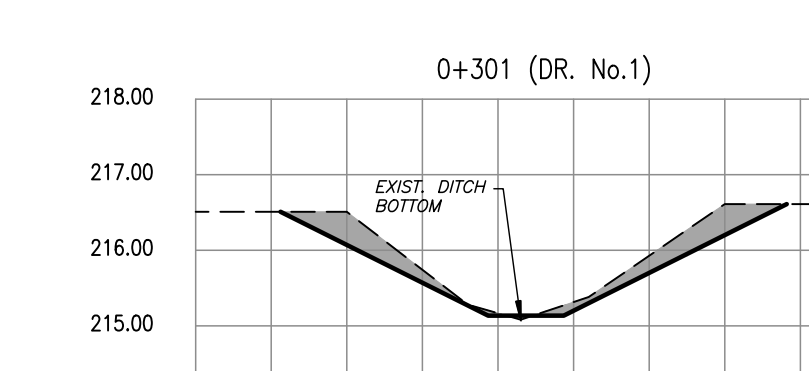
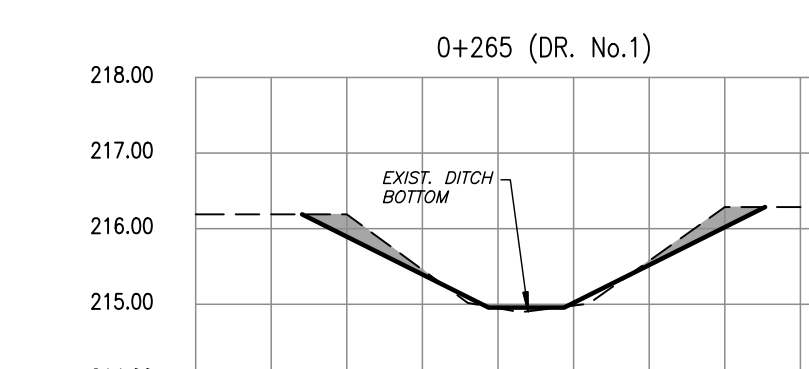
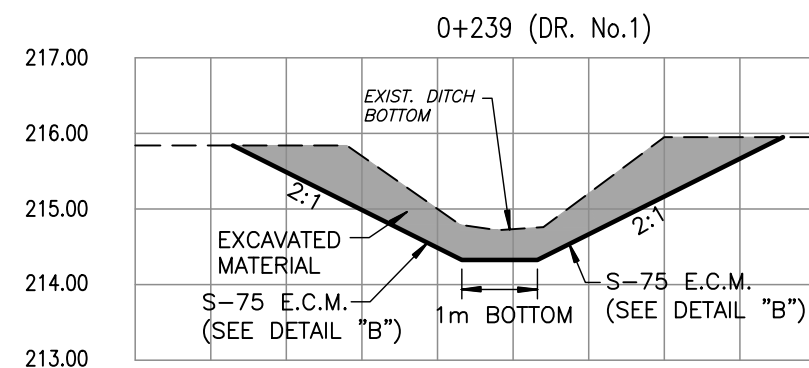
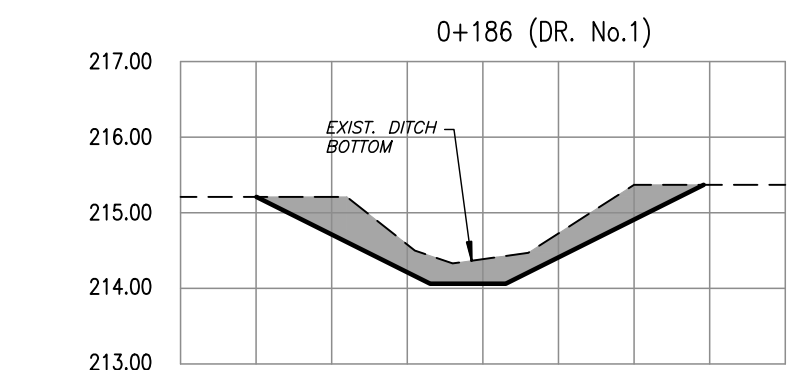
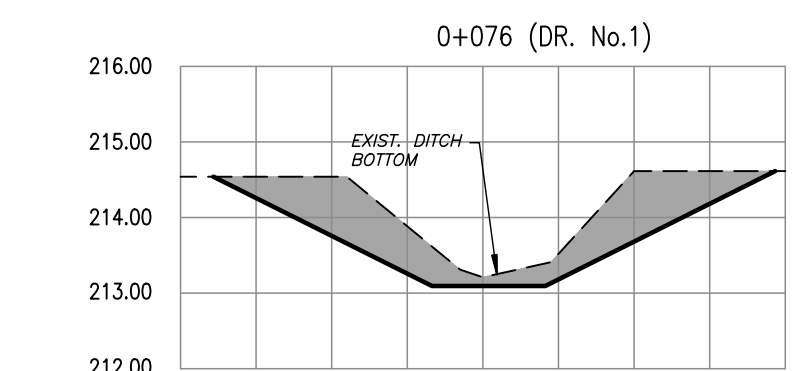
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JOB No.: **224308**

Drawing No.: **4 of 5**

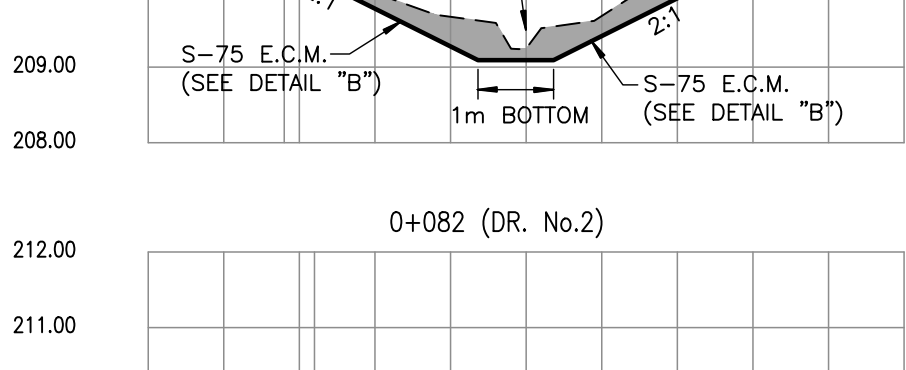
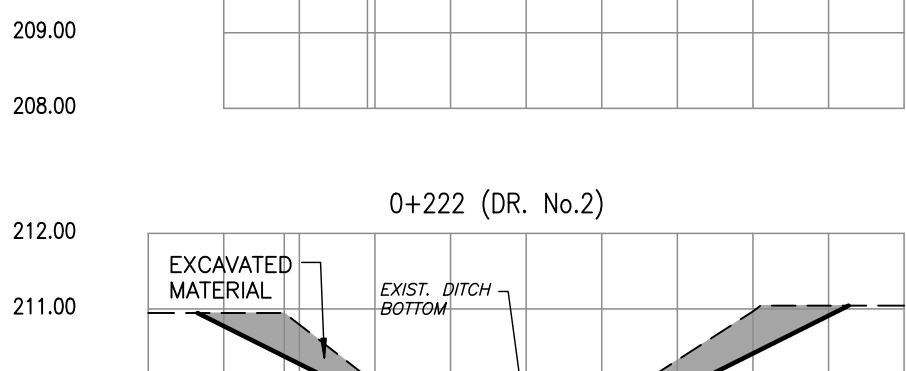
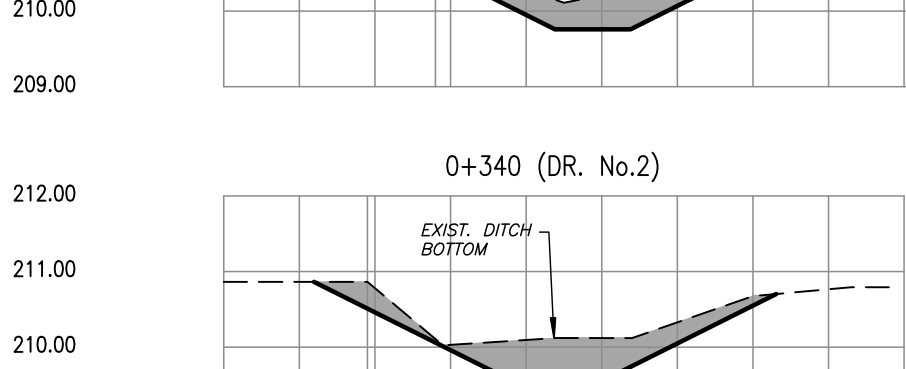
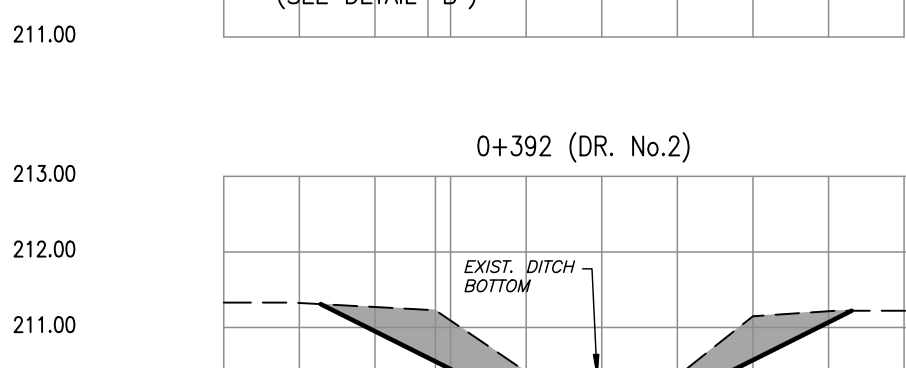
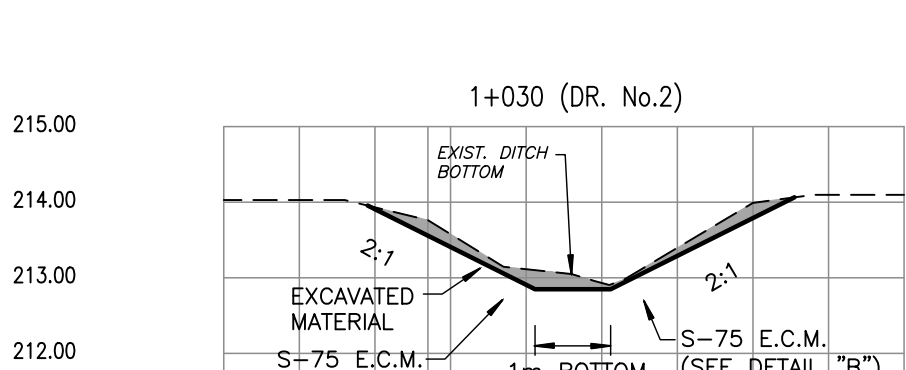
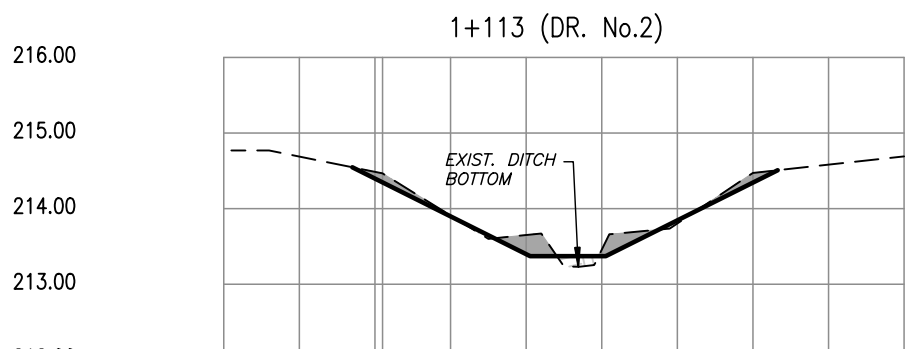
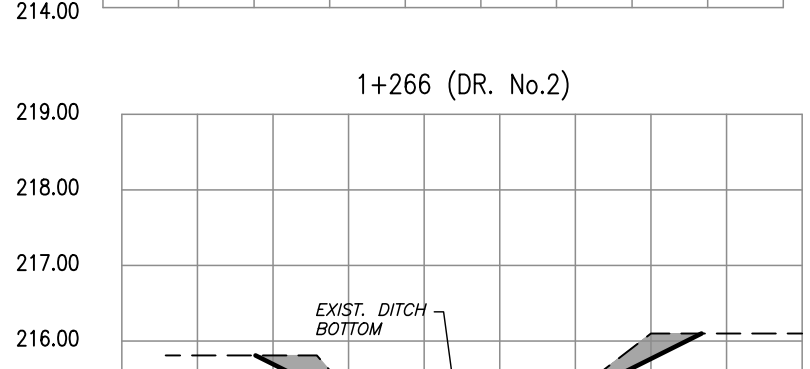
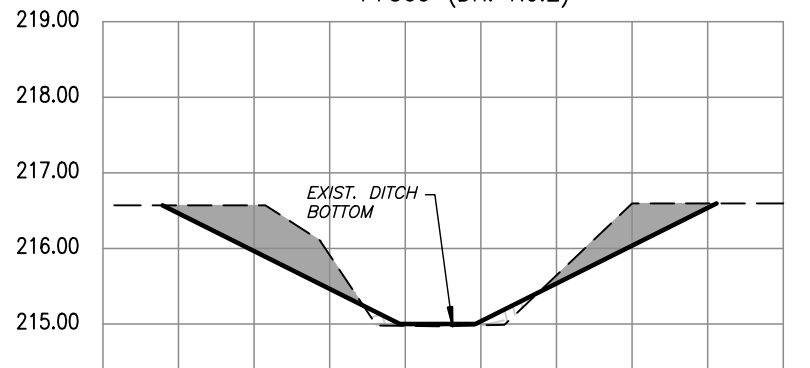
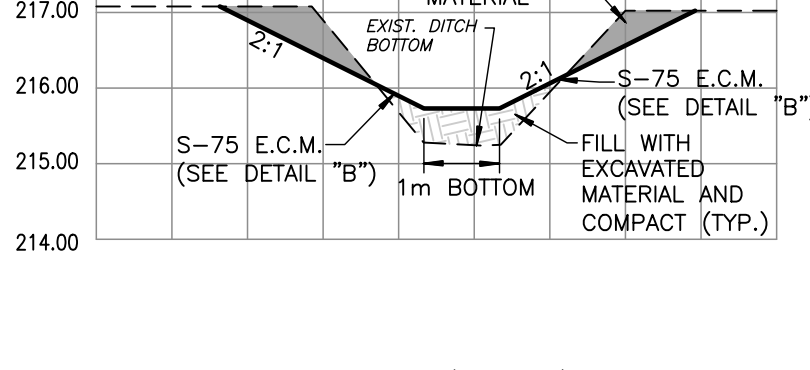
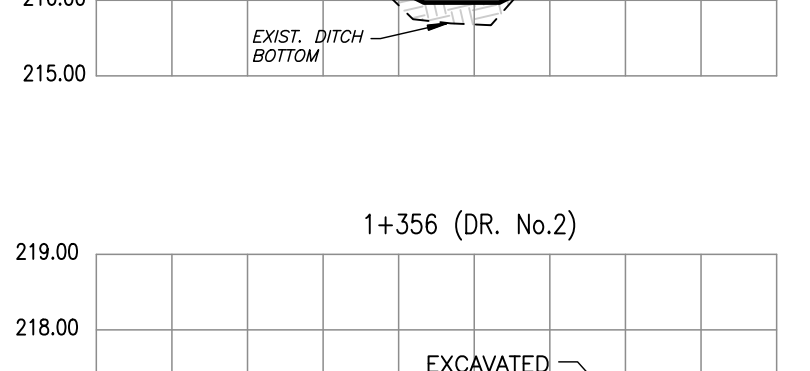
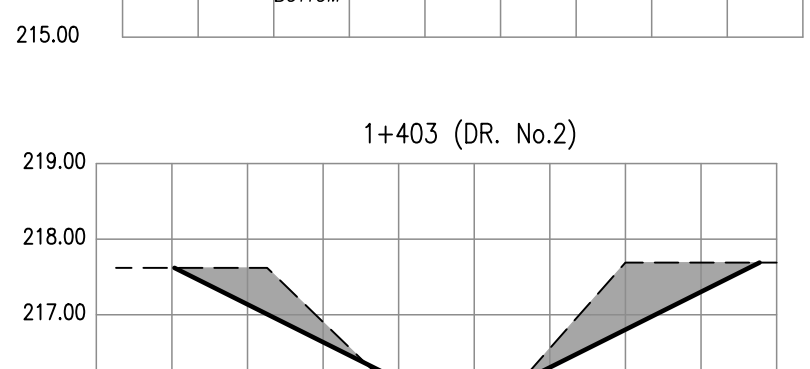
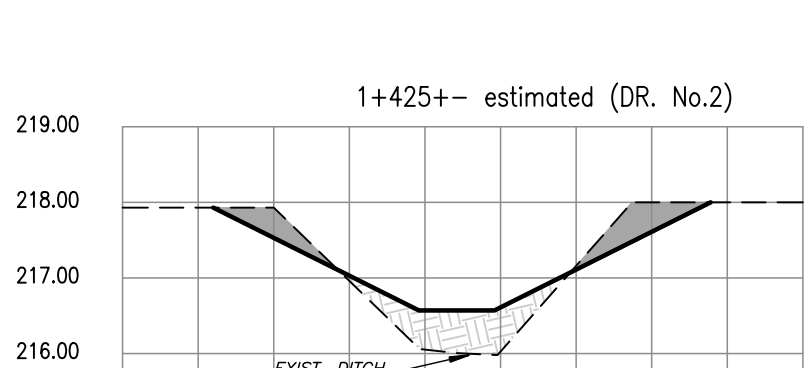
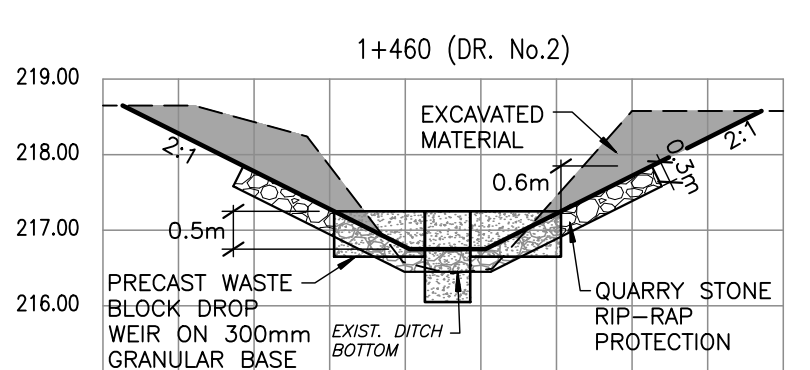
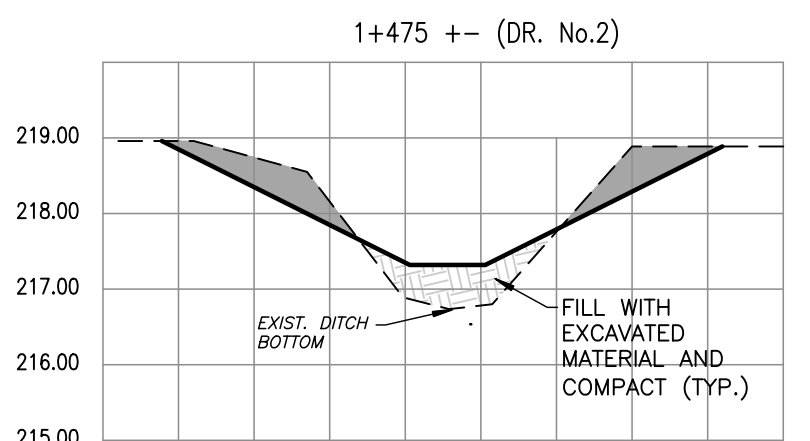
PROFILES, & DETAILS

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

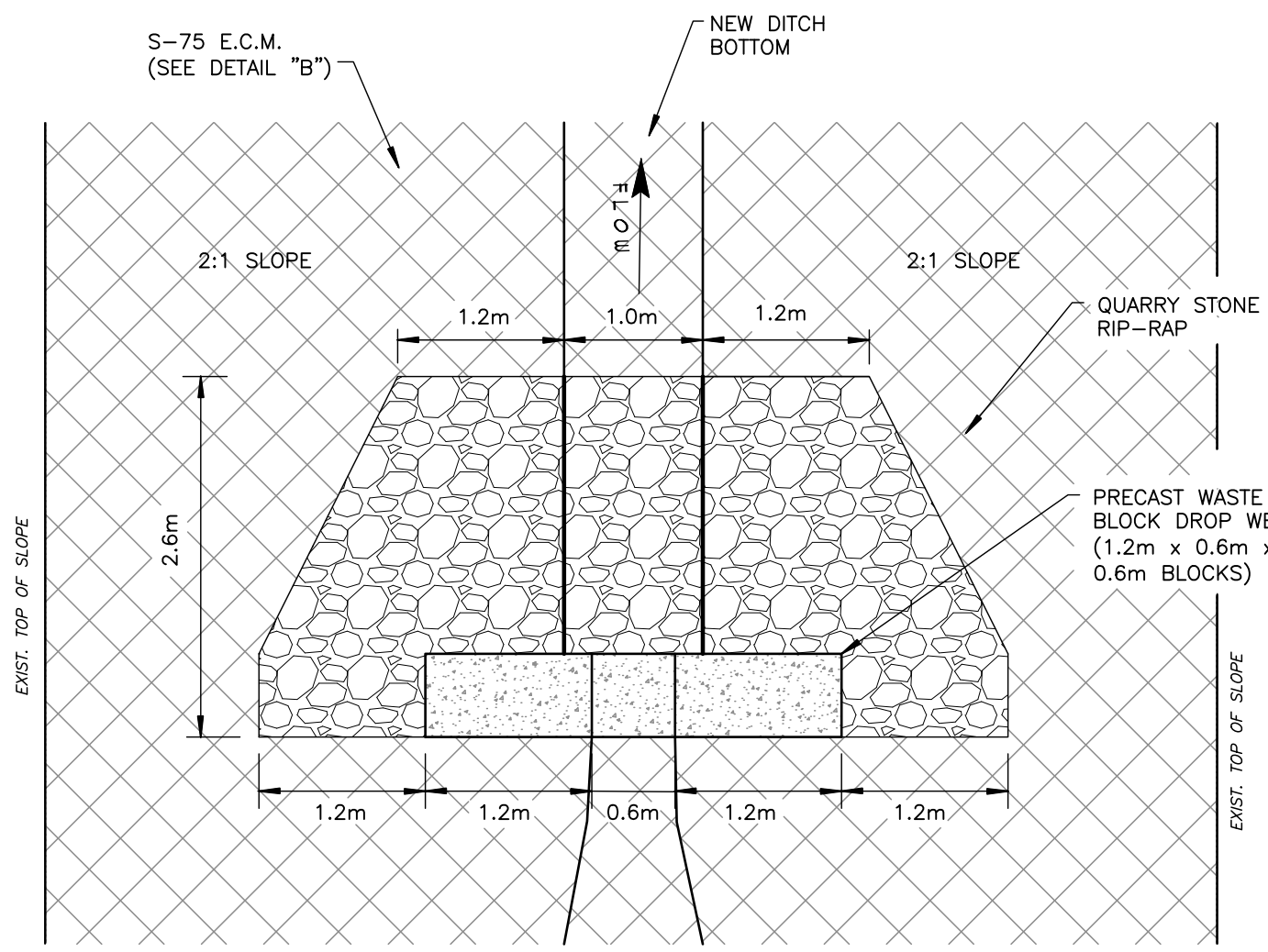
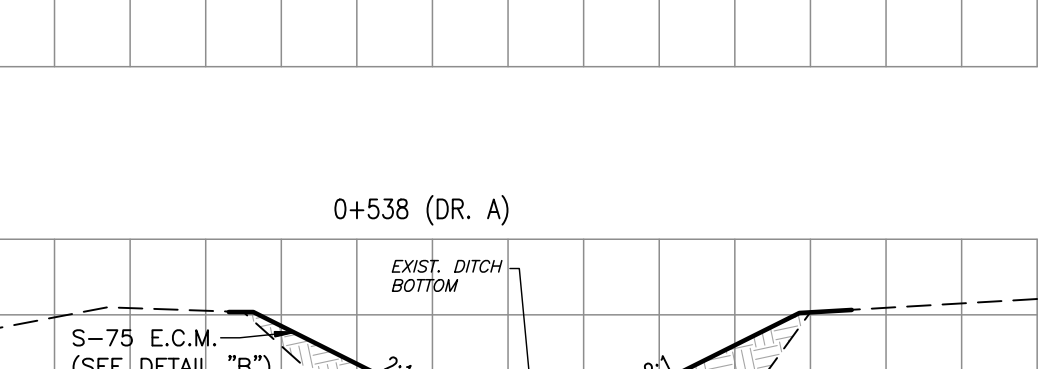
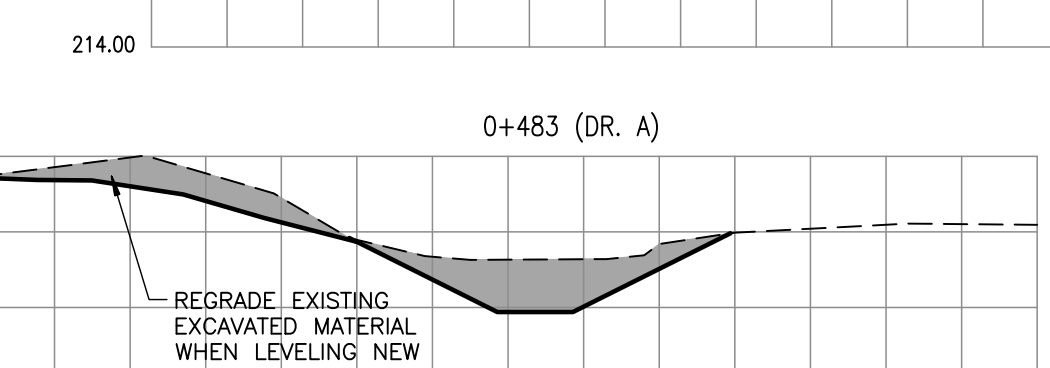
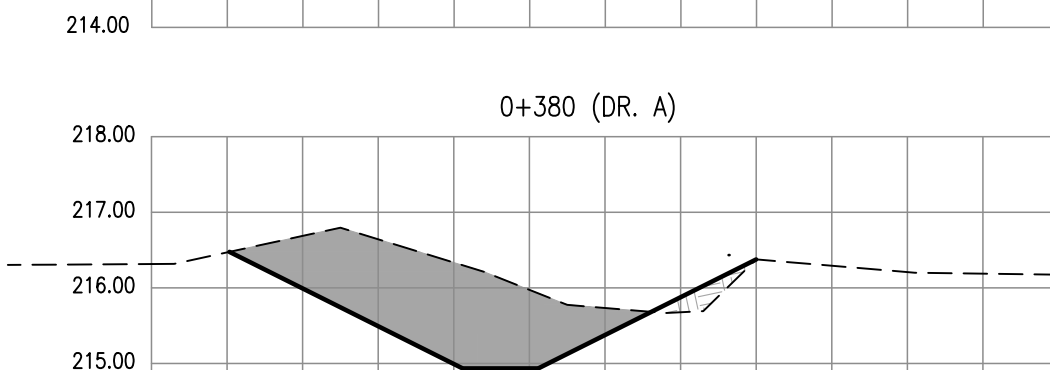
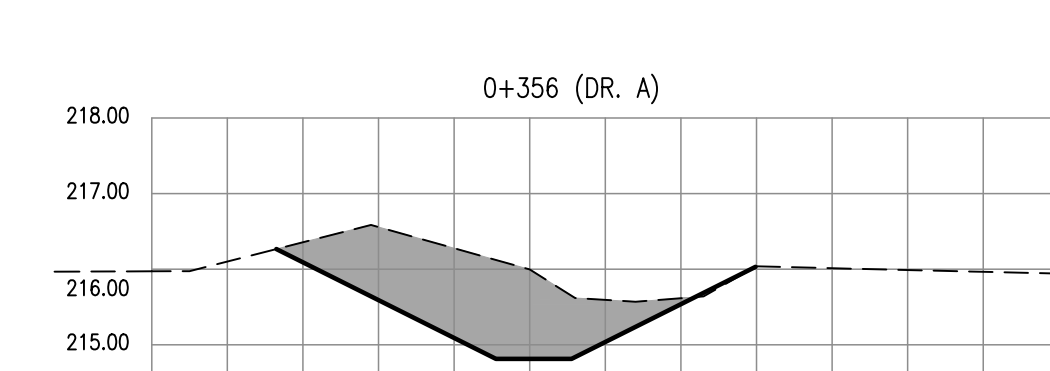
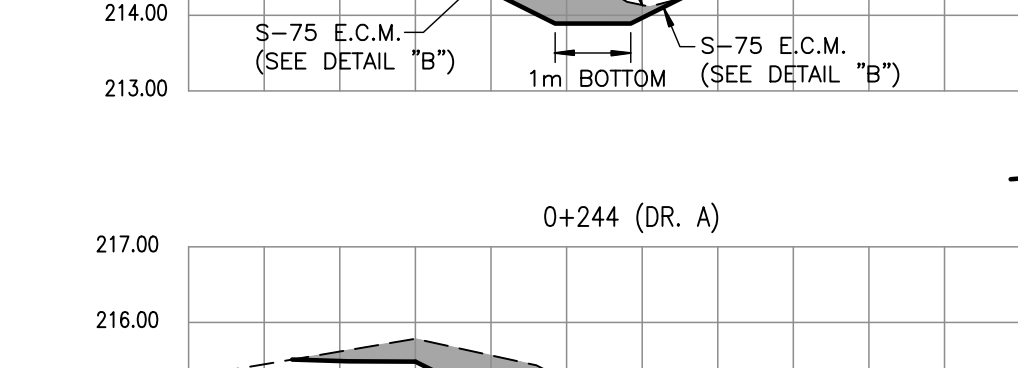
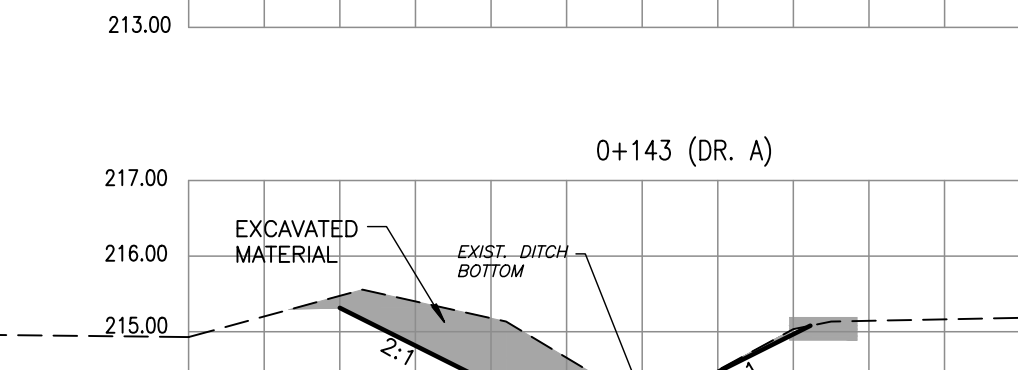
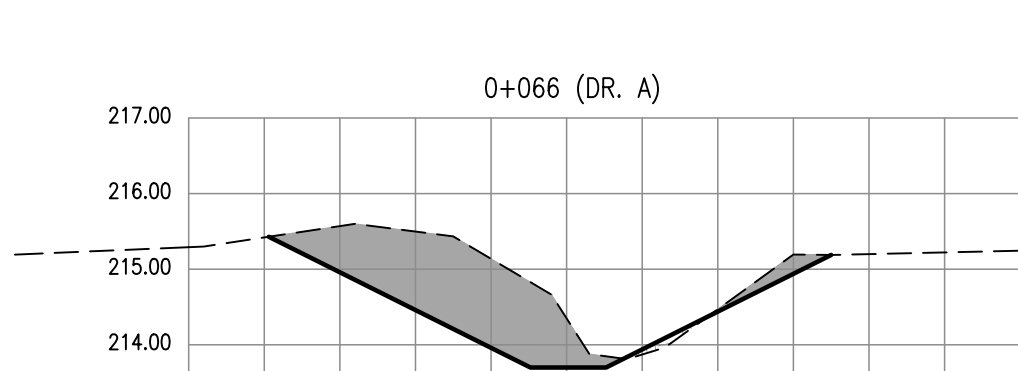
DRAIN NO. 1



DRAIN NO. 2



BRANCH A



NOTE : ALL MEASUREMENTS ARE HORIZONTAL (NOTE DISTANCES ON SLOPE)

WASTE BLOCK DROP WEIR

PLAN VIEW

SCALE : 1 : 50

SECTIONS LEGEND

	QUARRY STONE RIP - RAP
	EXCAVATED MATERIAL
	FILL MATERIAL
	CONCRETE BLOCK

SECTION SCALES : 1 : 100

SYLVAN ACRES DRAIN 2026



Municipality of North Middlesex

Drainage Superintendent: JOANNE SADLER 519-294-6244 Ext. 225	No.	REVISIONS	DATE
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Drawn By: LD4TF Date: JUNE 3, 2026	Field Book GPS: 4 D-283	JOB No. 224308	Drawing No. 5 of 5
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SECTIONS & DETAIL

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