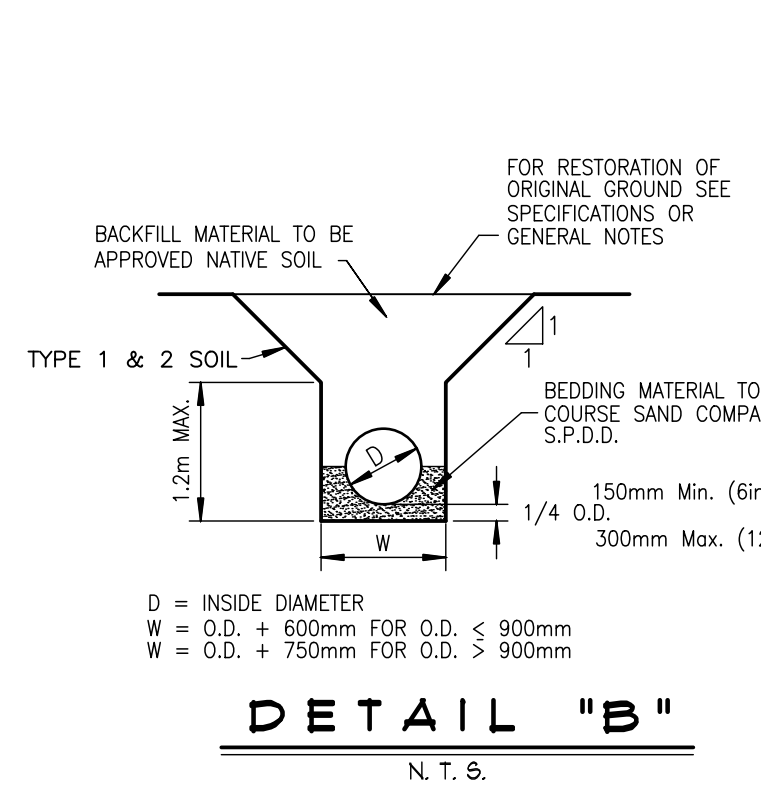
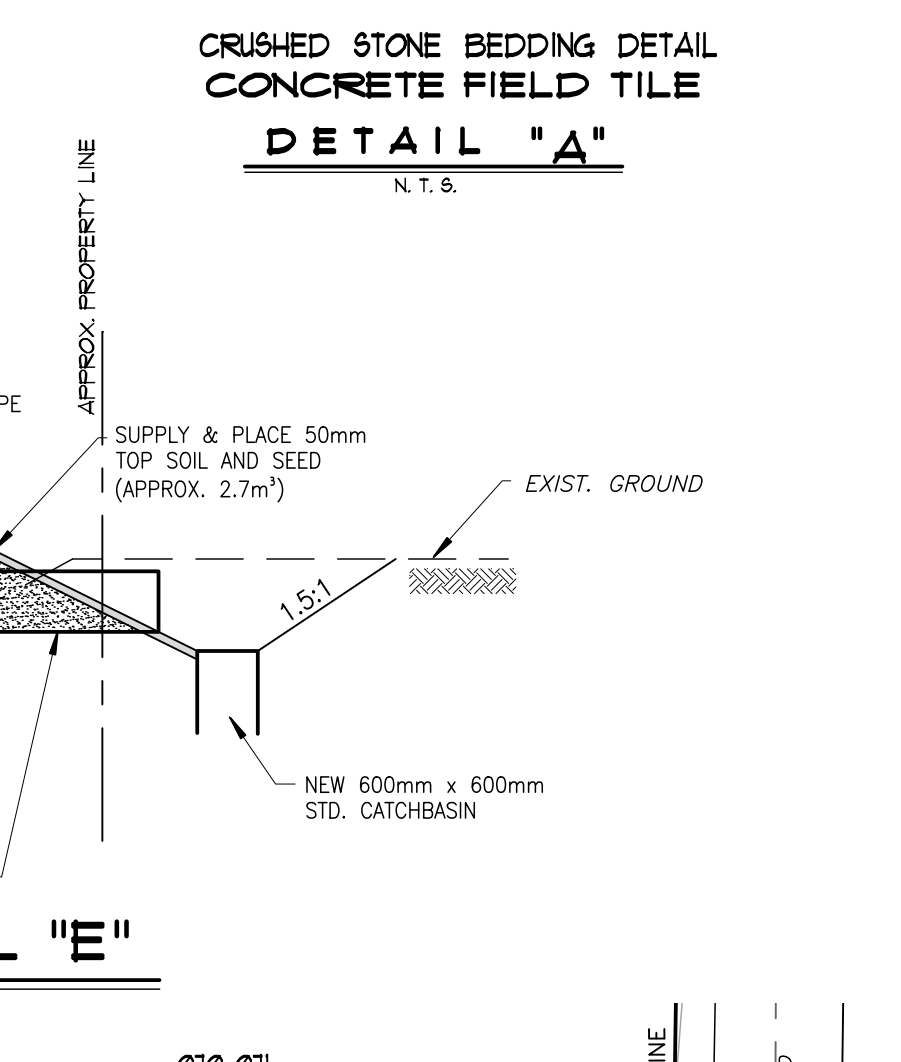
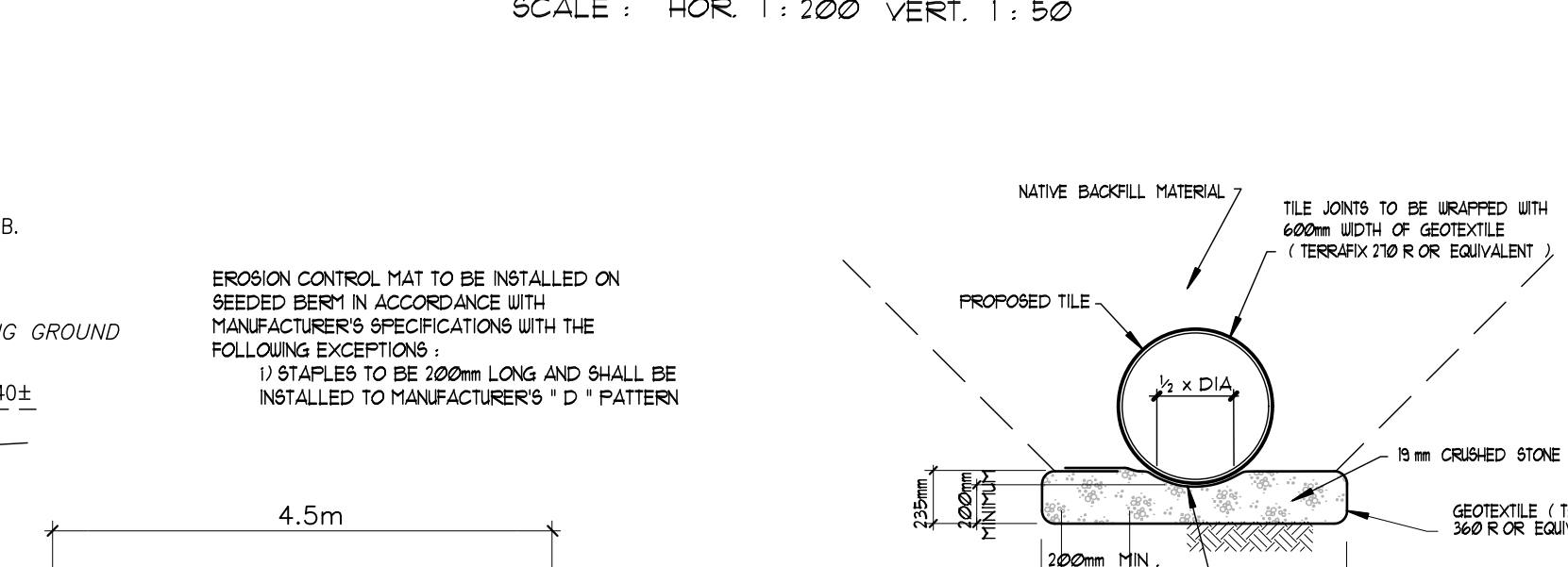
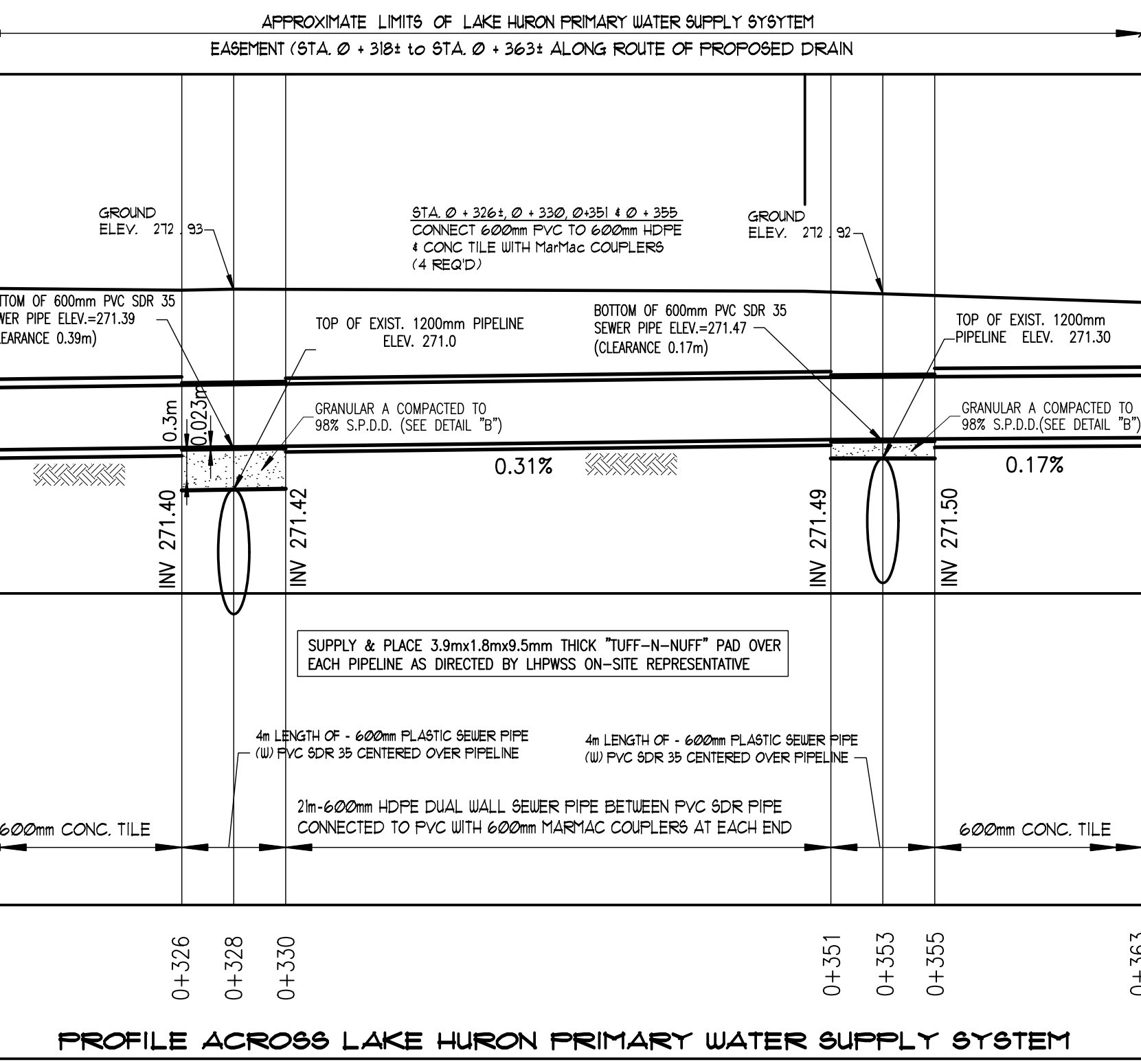


- GENERAL NOTES**
- OUR SPECIFICATIONS DATED JANUARY 2020 APPLY TO THIS PROJECT.
  - THE WORKING WIDTH AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE NEW DRAINS SHALL CONSIST OF THOSE LANDS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING AVERAGE WIDTHS:
    - OPEN PORTIONS
      - 10 meters (REMOVE ONLY TREES AND BUSH AND THOSE ABSOLUTELY NECESSARY TO COMPLETE CONSTRUCTION - 20 meters)
    - CLOSED PORTIONS
      - THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE THE SAME AS ABOVE EXCEPT FOR CLOSED PORTIONS (NOT THROUGH BUSH) SHALL BE 10m.
  - 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.
  - ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE DRAIN CAN BE CONFIRMED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.
    - UTILITIES TO BE EXPOSED BY HYDRAULIC EXCAVATION OR HAND DIGGING.
    - CONTRACTOR TO NOTIFY ALL UTILITIES 14 DAYS PRIOR TO HIS SCHEDULED TIME FOR STARTING THE ABOVE WORK.
    - 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.12" IN THE SPECIFICATIONS.
  - TURF REINFORCEMENT MAT SHALL BE "NORTH AMERICAN GREEN C 350" OR APPROVED EQUAL. MAT SHALL BE INSTALLED ON BEDDED BANKS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS WITH THE FOLLOWING EXCEPTIONS:
    - STAPLES TO BE 200mm LONG AND SHALL BE INSTALLED TO MANUFACTURER'S "D" PATTERN MAT TO BE KEPT 300mm ABOVE DITCH BOTTOM, 200mm INTO BANK SLOPE AT UPSTREAM LIMIT AND SHALL BE STAPLED 200mm BELOW TOE OF BANK.
  - 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 AND PLASTIC TILE AND PIPE TO CONFORM TO "SECTION C.1" IN THE SPECIFICATIONS.
    - SEWER PIPE TO BE CONCRETE, H.D.P.E. PLASTIC 320 KPA (BELL & SPIGOT WITH RUBBER GASKETS, CONFORMING TO C.S.A. 1016-08), PVC ULTRA RIB OR PVC SDR 35
    - CONCRETE TILE SHALL BE HEAVY DUTY UNLESS SPECIFIED 2000 D OR 2400 D ON PROFILE.
    - SMOOTH WALL PLASTIC PIPE (SOLID) SHALL BE FLEXIBLE (COLLAPSE) DUAL WALL 250KPA OR STRONGER PIPE SUCH AS "GOLD-FLEX", "ADS" OR APPROVED EQUAL.
  - ALL CATCHBASINS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION C.16" IN THE SPECIFICATIONS, EXCEPT AS FOLLOWS:
    - ALL CATCHBASIN LEADS TO BE CONNECTED TO NEW TILE DRAIN WITH PRE-FABRICATED "WYE" b) WHERE SPECIFIED ON PROFILE, CATCHBASINS TO HAVE BERMS (CONSTRUCTED WITH SUBSOIL) WITH OVERFLOW CHUTE PROTECTED WITH N.A.G. C350 TURF REINFORCEMENT MAT (SEE DETAIL "C")
    - ALL ON-LINE 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 WITH APPROVED FITTING.

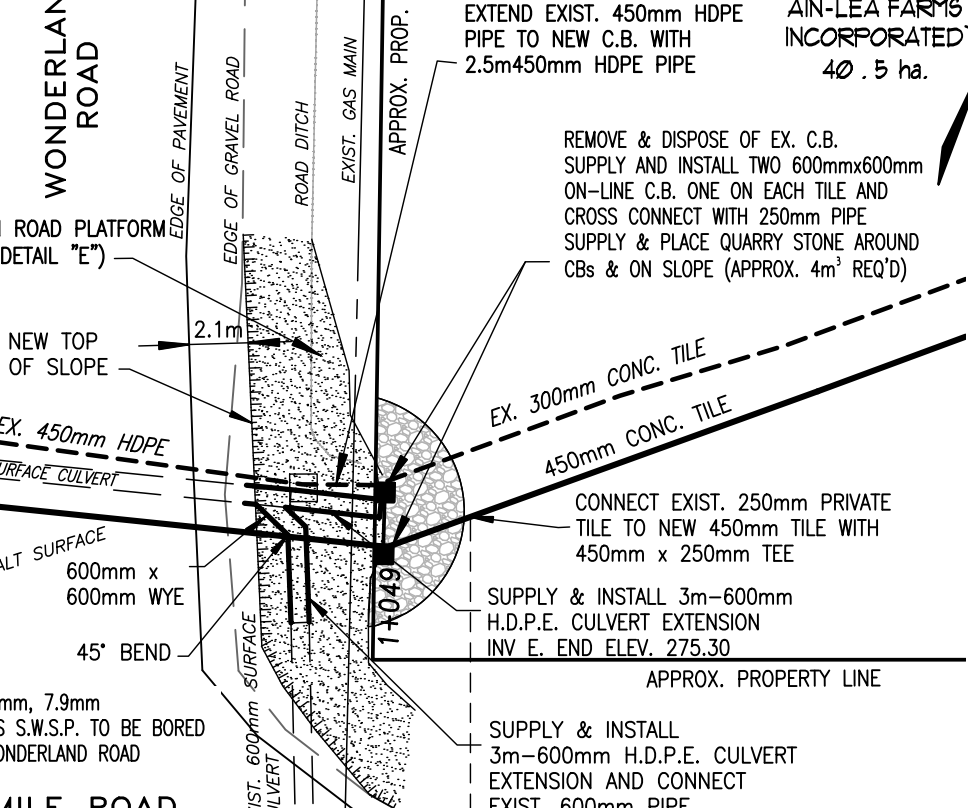
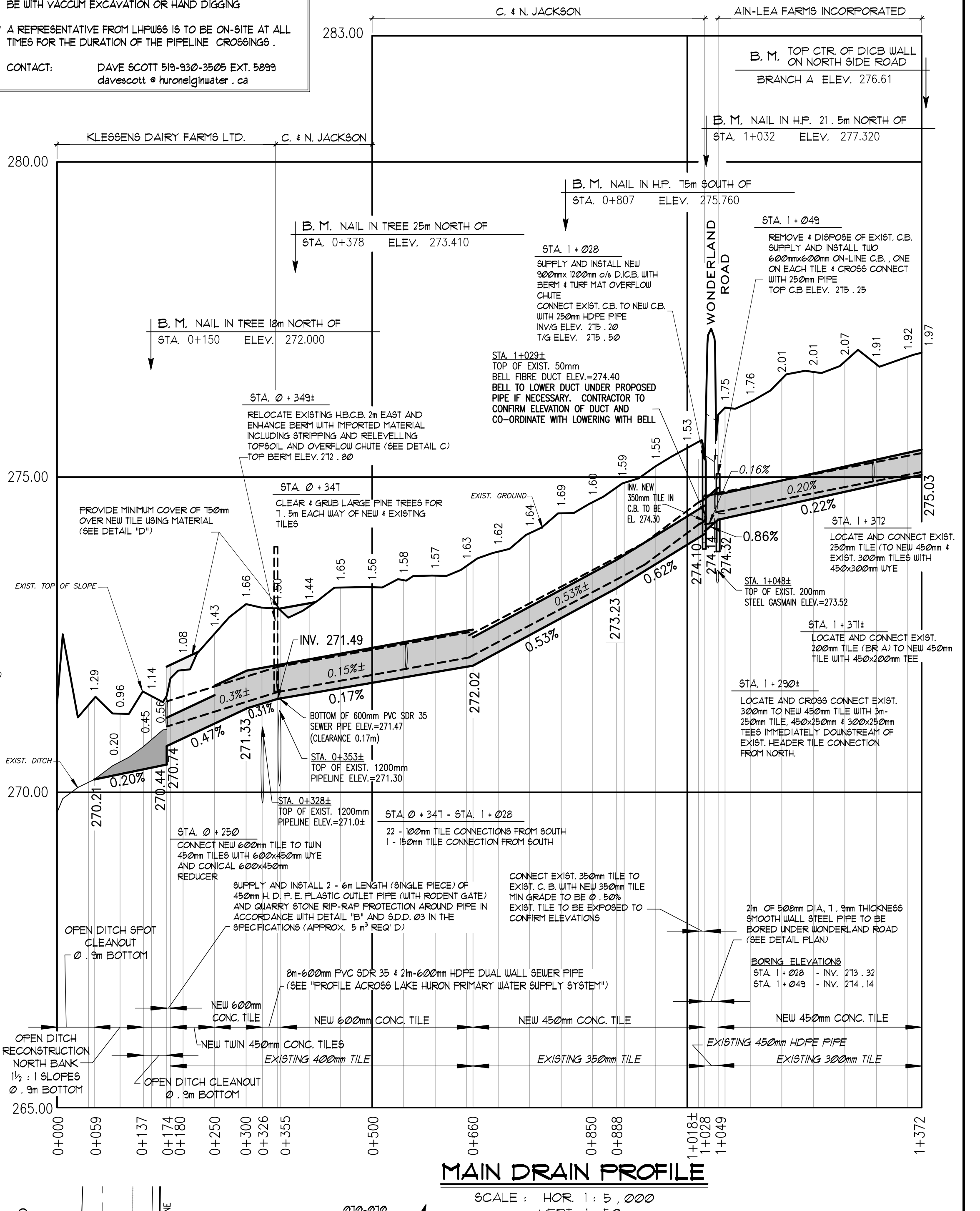
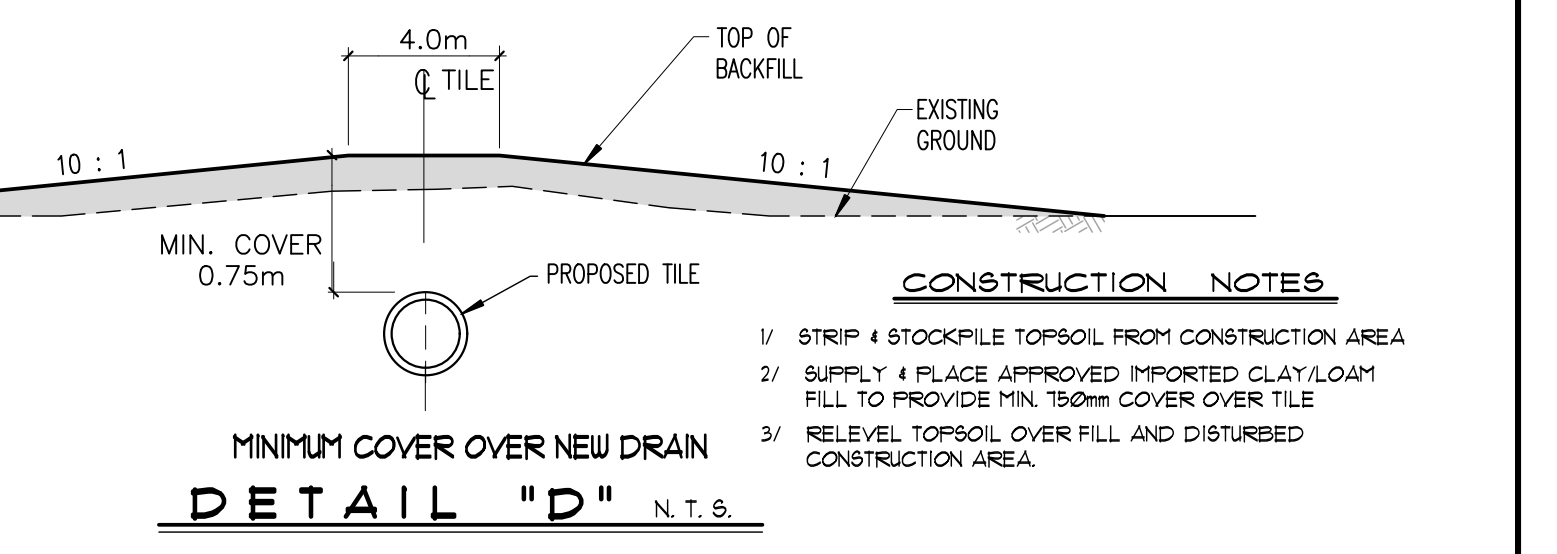
- NEW TILE DRAINS TO BE LOCATED AS FOLLOWS:
  - STA. 0+174 TO STA. 1+028 - NEW TILE DRAIN TO BE ON SOUTH SIDE OF EXISTING MUNICIPAL DRAIN.
  - STA. 1+028 TO STA. 1+049 - LOCATION TO BE AS SHOWN ON "DETAIL PLAN"
  - STA. 1+049 TO STA. 1+312 - NEW TILE DRAIN TO BE ON SOUTH SIDE OF EXISTING MUNICIPAL DRAIN BETWEEN IT AND THE EXIST. HEADER TILE
- EXISTING TILE DRAINS TO BE EXPOSED IN AS MANY LOCATIONS AS ARE NECESSARY TO CONFIRM THEIR EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. EXACT LOCATION OF NEW TILE DRAINS THEN TO BE CONFIRMED BY DRAINAGE SUPERINTENDENT OR ENGINEER.
- INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH "SECTION C.1 - TILE DRAIN" IN THE SPECIFICATIONS.
  - OTHER SEWER PIPE TO BE INSTALLED IN ACCORDANCE WITH DETAIL "B"
  - ALL CONCRETE TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH "SECTION C.8" IN THE SPECIFICATIONS.
  - NO CONSTRUCTION EQUIPMENT OR FARM MACHINERY SHALL CROSS OVER THE MOUND 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, MOUND TRENCH AND REMAINING CONSTRUCTION AREA.
- IT SHALL BE NOTED THAT AREAS OF POOR SOIL CONDITION MAY 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.
  - IF SO ORDERED BY THE DRAINAGE SUPERINTENDENT OR ENGINEER, THE CONTRACTOR SHALL INSTALL THE TILE OR PIPE ON A BEDDING OF 10mm (3/8") 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.
  - PAYMENT FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE CONTINGENCY AMOUNTS SHOWN IN THE "FORM OF TENDER".
- THE CONTRACTOR SHALL ENSURE THAT ALL TRIBUTARY DRAINS ARE CONNECTED DURING THE PERIOD 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.
  - ALL TILE CONNECTIONS TO BE MADE WITH CORING MACHINE AND PLASTIC ADAPTOR OR PRE-FABRICATED FITTINGS.
  - THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A LIST SHOWING STATIONS OF ALL TILE CONNECTIONS UPON COMPLETION OF CONSTRUCTION.
- EXISTING DITCH BOTTOM ONLY TO BE CLEANED OUT IN ACCORDANCE WITH SPECIFICATIONS UNLESS OTHERWISE NOTED ON PROFILES AND IN SECTIONS.
- 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.
  - STA. 0+099 TO STA. 0+174 - NORTH SIDE AND LEVELLED, CAREFULLY REMOVE EXISTING FENCE BETWEEN STA. 0+125 TO 0+168 AND REESTABLISH UPON COMPLETION OF CONSTRUCTION.
- REGRADED DITCH BANKS ARE TO BE HAND SEEDDED UPON COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH "SECTION B.11" IN THE SPECIFICATIONS



**LHPWSS PIPELINE CROSSING NOTES**

- CONTRACTOR TO NOTIFY "LAKE HURON PRIMARY WATER SUPPLY SYSTEMS" 14 DAYS PRIOR TO HIS SCHEDULED TIME FOR STARTING WORK OR NEAR THEIR PIPELINES.
- ALL EXCAVATION WITHIN ONE METER OF THE PIPELINES IS TO BE WITH VACUUM EXCAVATION OR HAND DIGGING
- A REPRESENTATIVE FROM LHPWSS IS TO BE ON-SITE AT ALL TIMES FOR THE DURATION OF THE PIPELINE CROSSINGS.

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**NIXON-STOKES DRAIN 2024**

Municipality of **middlesex centre**  
in the centre of it all

Drainage Superintendent: **DAN ANDERSON**  
519-666-0190 EXT. 229

Drawn By: **TF&R** Field Book: **222069** JOB No. **222069** Drawing No. **1 of 1**

Date: FEB. 23, 2024

**SPRIET ASSOCIATES CONSULTING ENGINEERS**  
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