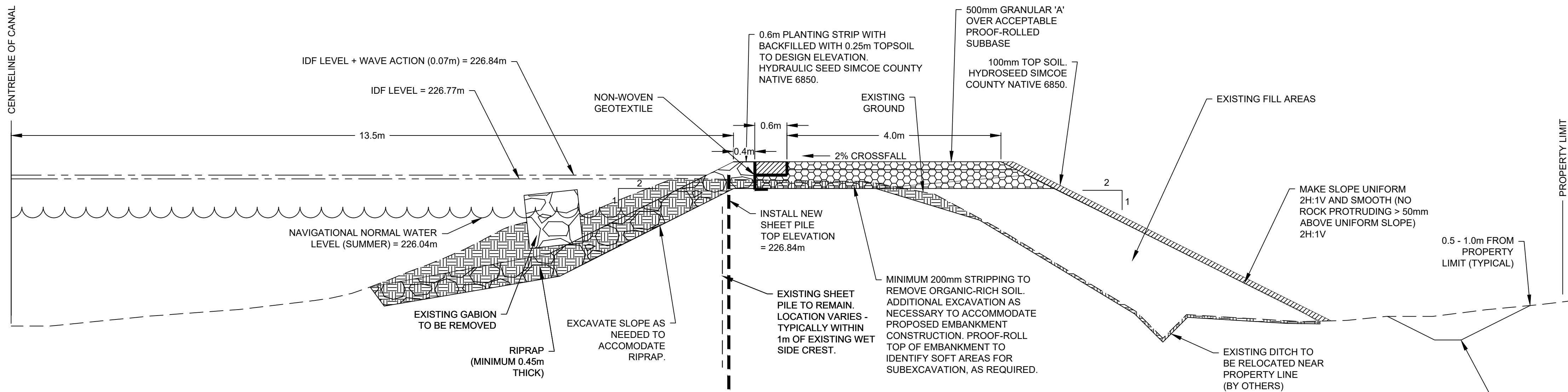
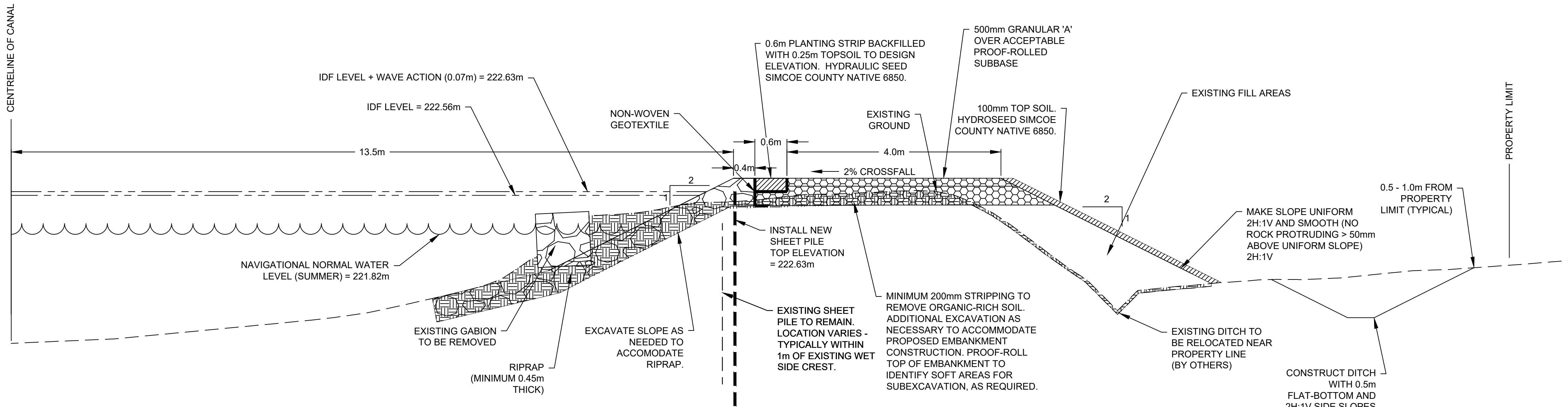


TYPICAL CROSS SECTION BETWEEN STATION 0+000 AND LOCK 39  
SCALE = 1:50



TYPICAL CROSS SECTION BETWEEN LOCK 39 AND LOCK 40  
SCALE = 1:50



TYPICAL CROSS SECTION BETWEEN LOCK 40 AND LOCK 41  
SCALE = 1:50

#### NORTHWEST EMBANKMENT - TALBOT BASIN LIMIT OF WORK TO STA. 0+850

1. PROVIDE ALL TRAFFIC CONTROL MEASURES AS REQUIRED ON REGIONAL ROAD 50 TO FACILITATE THE WORK OF THE NORTHWEST EMBANKMENT.
2. EXCAVATE AND DISPOSE OFFSITE ALL GABION BASKET WIRE, METAL BRACKETS AND WOODEN ANCHORS. PROVIDE TRAFFIC CONTROL ON REGIONAL ROAD 50, AS REQUIRED, TO FACILITATE REMOVAL OF EXCAVATED MATERIALS.
3. EXCAVATE STONE ON WET SIDE SLOPE AND KEY AS NECESSARY TO ACCOMMODATE 0.45 M NEW RIPRAP AT 2H:1V MAXIMUM SLOPE. PROVIDE TRAFFIC CONTROL ON REGIONAL ROAD 50, AS REQUIRED, TO FACILITATE REMOVAL OF EXCAVATED MATERIALS.
4. PROOF-ROLL CREST OF EMBANKMENT WITH MINIMUM 3 PASSES OF 20 TON VIBRATORY ROLLER, OR OTHER APPROVED METHOD, TO IDENTIFY ANY SOFT AREAS (DEFLECTION GREATER THAN 100 MM). SUBEXCAVATE SOFT AREAS AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.
5. STRIP 200MM OF MATERIAL FROM DRY SIDE SLOPE (INCLUDING EXISTING FILL AREAS) AND REMOVE FROM SITE.
6. INSTALL AND COMPACT GRANULAR 'A' BACKFILL TO ELEVATION 231.10 AND PROOF-ROLL AS ABOVE TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
7. INSTALL NEW RIPRAP ON WET SIDE SLOPE TO MATCH GRANULAR 'A' AT ELEVATION 231.10 AND MAKE SURFACE UNIFORM AND SMOOTH WITH NO RIPRAP PROTRUDING MORE THAN 75 MM ABOVE AVERAGE SURFACE OF PLACED ROCK TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
8. INSTALL AND COMPACT GRANULAR 'A' TO 231.40 (AT CENTRELINE OF EMBANKMENT) AND FINE GRADE WITH 2% CROSS-FALL TOWARDS WET SIDE SLOPE.
9. ADD ONE LIFT OF RIP RAP AT TOP OF SLOPE, IF REQUIRED, AND MAKE TOP OF WET SIDE SLOPE SMOOTH, LEVEL AND STRAIGHT TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
10. INSTALL VEGETATION STRIP.

#### NORTHWEST EMBANKMENT - STA. 0+850 TO LOCK 39 UPPER APPROACH WALL

1. EXCAVATE AND DISPOSE OFFSITE ALL GABION BASKET WIRE, METAL BRACKETS AND WOODEN ANCHORS, WHERE EXPOSED ON SLOPE. EXCAVATE KEY FOR NEW RIPRAP ON WET SIDE SLOPE. ENSURE NO MATERIAL IS PLACED WITHIN 1 M OF PROPERTY LINE.
2. EXCAVATE GABION STONE AND WET SIDE SLOPE AS NECESSARY TO ACCOMMODATE 0.45 M NEW RIPRAP AT 2H:1V MAXIMUM SLOPE. EXCAVATE KEY FOR NEW RIPRAP ON WET SIDE SLOPE. ENSURE NO MATERIAL IS PLACED WITHIN 1 M OF PROPERTY LINE.
3. EXCAVATE AND REMOVE CRUSHED ROCK AND GRAVEL FROM EMBANKMENT ROAD TO NATIVE EMBANKMENT BACKFILL AND TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE. EXCAVATED ROCK AND GRAVEL TO BE REMOVED FROM PROJECT SITE. CONTRACTOR IS ADVISED THAT SHEET PILING MAY BE ENCOUNTERED WITHIN LIMIT OF EXCAVATION AND SHALL ENSURE REASONABLE PRECAUTIONS ARE TAKEN TO AVOID DAMAGE TO SHEET PILING OR EQUIPMENT.
4. EXCAVATE AS NECESSARY TO ACCOMMODATE INSTALLATION OF SHEET PILE CUTOFF WALL BY INSTALLING NEW SHEET PILE AS DIRECTED BY AND TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE. SALVAGE UNFROZEN EXCAVATED MATERIAL FOR REUSE AS SHEET PILE EXCAVATION BACKFILL.
5. PROOF-ROLL CREST OF EMBANKMENT WITH MINIMUM 3 PASSES OF A 20 TON VIBRATORY ROLLER TO IDENTIFY ANY SOFT AREAS (DEFLECTION GREATER THAN 100 MM). SUBEXCAVATE SOFT AREAS AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.
6. STRIP 200MM OF MATERIAL FROM DRY SIDE SLOPE (INCLUDING EXISTING FILL AREAS) AND REMOVE FROM SITE.
7. INSTALL AND COMPACT GRANULAR 'A' BACKFILL TO ELEVATION 231.10 AND PROOF-ROLL AS ABOVE TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
8. INSTALL NEW RIPRAP ON WET SIDE SLOPE TO MATCH GRANULAR 'A' AT ELEVATION 231.10 AND MAKE SURFACE UNIFORM AND SMOOTH WITH NO RIPRAP PROTRUDING MORE THAN 75 MM ABOVE AVERAGE SURFACE OF PLACED ROCK TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
9. INSTALL AND COMPACT GRANULAR 'A' TO 231.40 (AT CENTRELINE OF EMBANKMENT) AND FINE GRADE WITH 2% CROSS-FALL TOWARDS WET SIDE SLOPE.
10. ADD ONE LIFT OF RIP RAP AT TOP OF SLOPE, IF REQUIRED, AND MAKE TOP OF WET SIDE SLOPE SMOOTH, LEVEL AND STRAIGHT TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
11. INSTALL VEGETATION STRIP.
12. PLACE TOPSOIL MINIMUM 100 MM THICK OVER OTHER MATERIALS PLACED ON DRY SIDE SLOPE.

#### NORTHWEST EMBANKMENT - LOCK 39 LOWER APPROACH WALL TO LOCK 40 UPPER APPROACH WALL

1. EXCAVATE AND DISPOSE OFFSITE ALL GABION BASKET WIRE, METAL BRACKETS AND WOODEN ANCHORS, WHERE EXPOSED ON SLOPE.
2. EXCAVATE GABION STONE AND WET SIDE SLOPE AS NECESSARY TO ACCOMMODATE 0.45 M NEW RIPRAP AT 2H:1V MAXIMUM SLOPE. EXCAVATE KEY FOR NEW RIPRAP ON WET SIDE SLOPE. ENSURE NO MATERIAL IS PLACED WITHIN 1 M OF PROPERTY LINE. ALL GABION MATERIAL TO BE REMOVED FROM SITE.
3. EXCAVATE AND STOCKPILE CRUSHED ROCK AND GRAVEL FROM EMBANKMENT ROAD TO NATIVE EMBANKMENT BACKFILL AND TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE. EXCAVATED ROCK AND GRAVEL TO BE REMOVED FROM PROJECT SITE. CONTRACTOR IS ADVISED THAT SHEET PILING MAY BE ENCOUNTERED WITHIN LIMIT OF EXCAVATION AND SHALL ENSURE REASONABLE PRECAUTIONS ARE TAKEN TO AVOID DAMAGE TO SHEET PILING OR EQUIPMENT.
4. EXCAVATE AS NECESSARY TO ACCOMMODATE INSTALLATION OF SHEET PILE CUTOFF WALL BY INSTALLING NEW SHEET PILES AS DIRECTED BY AND TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE. SALVAGE UNFROZEN EXCAVATED MATERIAL FOR REUSE AS SHEET PILE EXCAVATION BACKFILL.
5. INSTALL SHEET PILE CUTOFF WALL FROM LOCK 39 LOWER APPROACH WALL TO LOCK 40 UPPER APPROACH WALL WITH MINIMUM TOP ELEVATION OF 226.84. BACKFILL WITH SALVAGED MATERIAL OR GRANULAR 'A' AND COMPACT TO 100% SMPD AND TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
6. PROOF-ROLL CREST OF EMBANKMENT WITH MINIMUM 3 PASSES OF A 20 TON VIBRATORY ROLLER TO IDENTIFY ANY SOFT AREAS (DEFLECTION GREATER THAN 100 MM). SUBEXCAVATE SOFT AREAS AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.
7. STRIP 200MM OF MATERIAL FROM DRY SIDE SLOPE (INCLUDING EXISTING FILL AREAS) AND REMOVE FROM SITE.
8. INSTALL AND COMPACT GRANULAR 'A' BACKFILL TO ELEVATION 226.84 AND PROOF-ROLL AS ABOVE TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
9. INSTALL NEW RIPRAP ON WET SIDE SLOPE TO MATCH GRANULAR 'A' AT ELEVATION 226.84 AND MAKE SURFACE UNIFORM AND SMOOTH WITH NO RIPRAP PROTRUDING MORE THAN 75 MM ABOVE AVERAGE SURFACE OF PLACED ROCK TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
10. INSTALL AND COMPACT GRANULAR 'A' TO 227.14 (AT CENTRELINE OF EMBANKMENT) AND FINE GRADE WITH 2% CROSS-FALL TOWARDS WET SIDE SLOPE.
11. ADD ONE LIFT OF RIP RAP AT TOP OF SLOPE, IF REQUIRED, AND MAKE TOP OF WET SIDE SLOPE SMOOTH, LEVEL AND STRAIGHT TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
12. INSTALL VEGETATION STRIP.
13. PLACE TOP SOIL MINIMUM 100 MM THICK OVER OTHER MATERIALS PLACED ON DRY SIDE SLOPE.

#### NORTHWEST EMBANKMENT - LOCK 40 LOWER APPROACH WALL TO LOCK 41 UPPER APPROACH WALL

1. EXCAVATE AND DISPOSE OFFSITE ALL GABION BASKET WIRE, METAL BRACKETS AND WOODEN ANCHORS, WHERE EXPOSED ON SLOPE.
2. EXCAVATE GABION STONE AND WET SIDE SLOPE AS NECESSARY TO ACCOMMODATE 0.45 M NEW RIPRAP AT 2H:1V MAXIMUM SLOPE. EXCAVATE KEY FOR NEW RIPRAP ON WET SIDE SLOPE. ENSURE NO MATERIAL IS PLACED WITHIN 1 M OF PROPERTY LINE.
3. EXCAVATE AND STOCKPILE CRUSHED ROCK AND GRAVEL FROM EMBANKMENT ROAD TO NATIVE EMBANKMENT BACKFILL AND TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE. EXCAVATED ROCK AND GRAVEL TO BE REMOVED FROM PROJECT SITE. CONTRACTOR IS ADVISED THAT SHEET PILING MAY BE ENCOUNTERED WITHIN LIMIT OF EXCAVATION AND SHALL ENSURE REASONABLE PRECAUTIONS ARE TAKEN TO AVOID DAMAGE TO SHEET PILING OR EQUIPMENT.
4. EXCAVATE AS NECESSARY TO ACCOMMODATE INSTALLATION OF SHEET PILE CUTOFF WALL BY INSTALLING NEW SHEET PILES AS DIRECTED AND TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE. SALVAGE UNFROZEN EXCAVATED MATERIAL FOR REUSE AS SHEET PILE EXCAVATION BACKFILL.
5. INSTALL SHEET PILE CUTOFF WALL FROM LOCK 40 LOWER APPROACH WALL TO LOCK 41 TO MINIMUM TOP ELEVATION OF 222.63. BACKFILL WITH SALVAGED MATERIAL OR GRANULAR 'A' AND COMPACT TO 100% SMPD AND TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
6. PROOF-ROLL CREST OF EMBANKMENT WITH MINIMUM 3 PASSES OF A 20 TON VIBRATORY ROLLER TO IDENTIFY ANY SOFT AREAS (DEFLECTION GREATER THAN 100 MM). SUBEXCAVATE SOFT AREAS AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.
7. STRIP 200MM OF MATERIAL FROM DRY SIDE SLOPE (INCLUDING EXISTING FILL AREAS) AND REMOVE FROM SITE.
8. INSTALL AND COMPACT GRANULAR 'A' BACKFILL TO ELEVATION 222.63 AND PROOF-ROLL AS ABOVE TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
9. INSTALL NEW RIPRAP ON WET SIDE SLOPE TO MATCH GRANULAR 'A' AT ELEVATION 222.63 AND MAKE SURFACE UNIFORM AND SMOOTH WITH NO RIPRAP PROTRUDING MORE THAN 75 MM ABOVE AVERAGE SURFACE OF PLACED ROCK TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
10. INSTALL AND COMPACT GRANULAR 'A' TO 222.93 (AT CENTRELINE OF EMBANKMENT) AND FINE GRADE WITH 2% CROSS-FALL TOWARDS WET SIDE SLOPE.
11. ADD ONE LIFT OF RIP RAP AT TOP OF SLOPE, IF REQUIRED, AND MAKE TOP OF WET SIDE SLOPE SMOOTH, LEVEL AND STRAIGHT TO SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
12. INSTALL VEGETATION STRIP.
13. PLACE TOP SOIL MINIMUM 100 MM THICK OVER MATERIALS PLACED ON DRY SIDE SLOPE.

#### LEGEND

- GABION (BASKET AND STONE)
- EXCAVATION WSS STONE, DSS AND EMBANKMENT TOP
- GRANULAR 'A' FOR ROAD
- NEW RIPRAP ON WSS
- WSS SLOPE BACKFILL WITH MATERIAL SALVAGED FROM WSS
- VEGETATION STRIP WITH MINIMUM 200mm TOPSOIL HYDRAULIC SEEDING
- SLOPE DRESSING 100mm TOPSOIL WITH HYDRAULIC SEEDING
- RESHAPE TOE OF WSS TO MATCH EXISTING
- EXCAVATED NON-ORGANIC NATIVE FILL FROM EMBANKMENT CREST
- NON-WOVEN GEOTEXTILE

|     |                         |                   |          |
|-----|-------------------------|-------------------|----------|
| E   | ISSUED FOR TENDER       | DN                | 19-08-20 |
| D   | ISSUED FOR TENDER       | DL                | 12-01-19 |
| D   | ISSUED FOR TENDER       | DL                | 01-25-18 |
| C   | ISSUED FOR TENDER       | DL                | 12-05-17 |
| B   | ISSUED FOR REVIEW - 99% | DL                | 11-15-17 |
| 0   | ISSUED FOR REVIEW - 66% | DL                | 10-23-17 |
| No. | Description             | Dwn.By<br>Des.Par | Date     |

Revision / Révision

|   |                     |
|---|---------------------|
| A | A Detail number     |
| B | No. du détail       |
|   | B Location dwg. no. |
|   | No. sur dessin      |

#### ISSUED FOR TENDER

Project title / Titre du projet

#### TSW INFRASTRUCTURE TALBOT CANAL REHABILITATION - NORTH EMBANKMENT

Drawing title / Titre du dessin

#### TYPICAL SECTION DETAILS

|  |                               |
|--|-------------------------------|
| Drawn by / Dessiné par                     | Designed by / Conçu par       |
| DAVID LEUNG                                | DAVID LEUNG                   |
| Approved by / Approuvé par                 | Drawing Date / Date du dessin |
| STEVE CLARK                                | DECEMBER 1, 2019              |
| Project manager / Administrateur de projet |                               |
| STEVE CLARK                                |                               |
| Contract No. / Numéro du contrat           | Drawing No. / Dessin No.      |
| TBD  | D103                          |
| Project No. / Numéro du projet             | Sheet<br>Feuille              |
| 161-14299-00                               | 22 of 26                      |



THIS TENDER TO INCLUDE ONLY NORTHWEST  
EMBANKMENT REHABILITATION