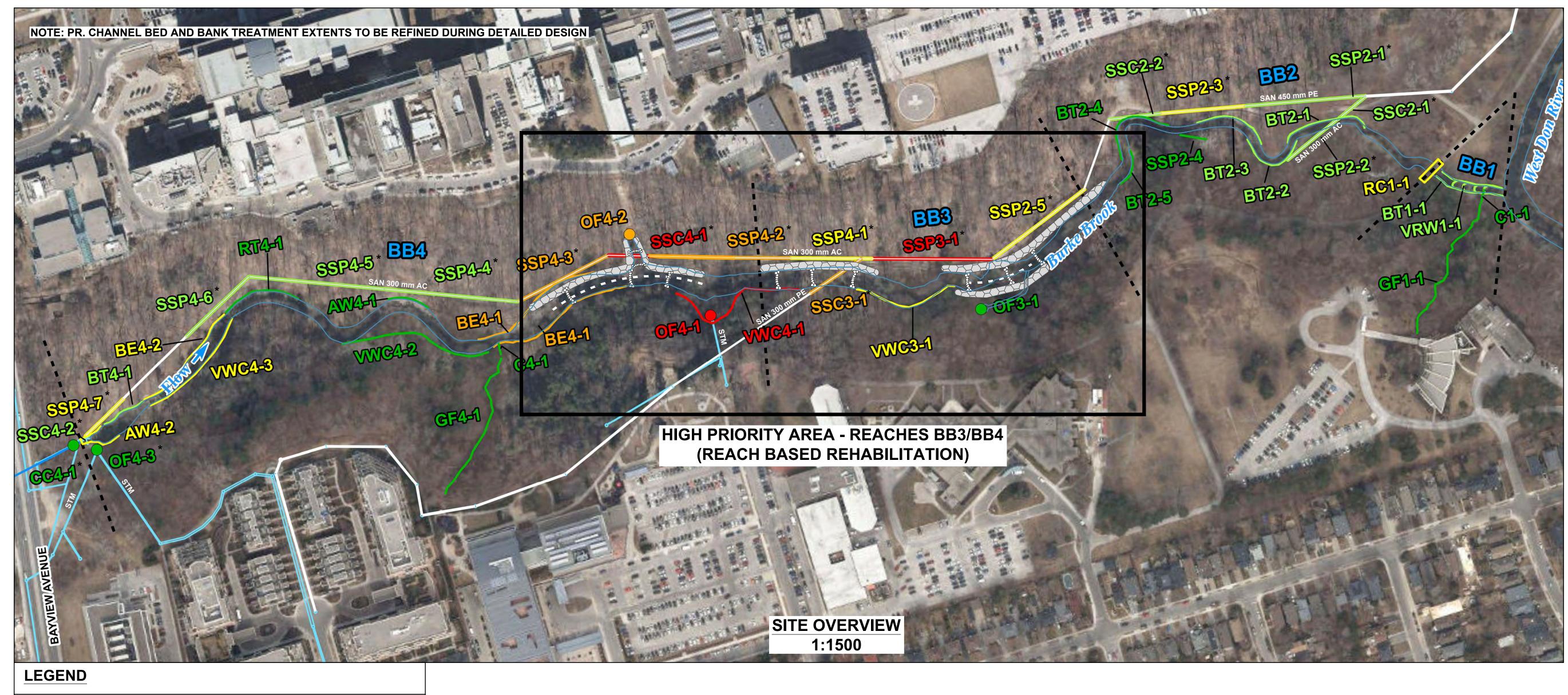
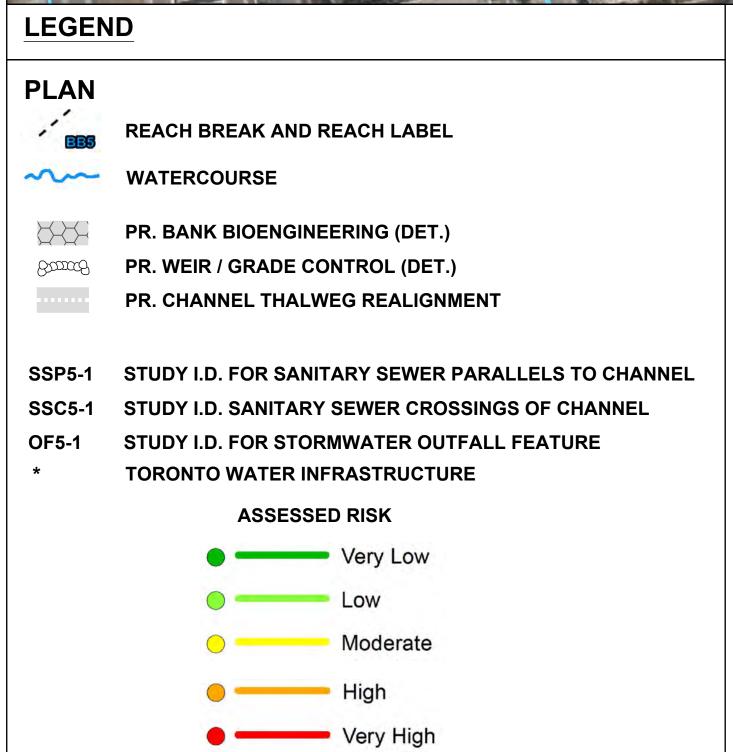
Appendix F: Conceptual Design Drawings





GEO

LIST OF ABBREVIATIONS

AC. - DENOTES ASBESTOS CEMENT PIPE

DET. - DENOTES DETAIL (SHEET DET-1)

DIA. - DENOTES DIAMETER

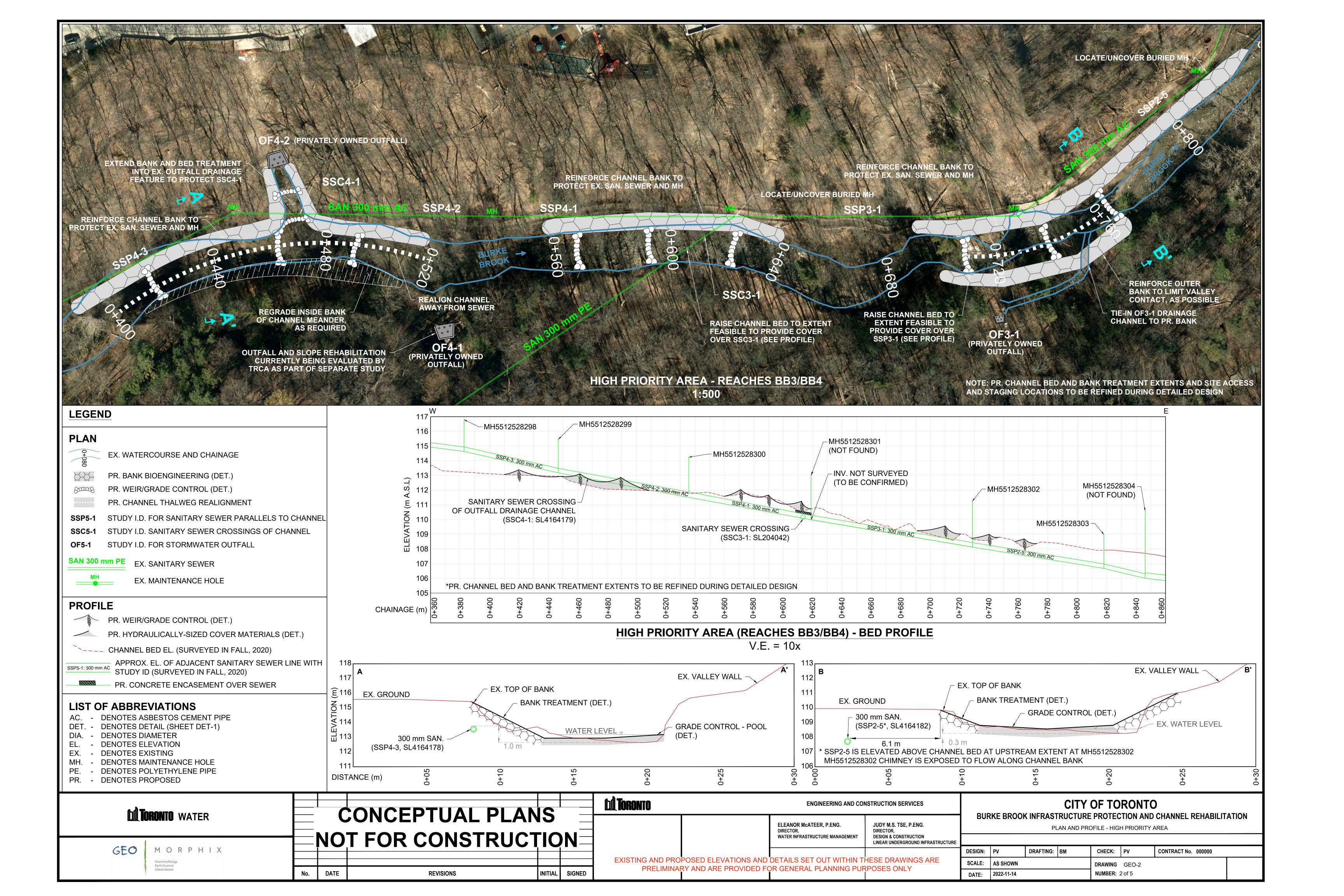
- DENOTES ELEVATION EX. - DENOTES EXISTING

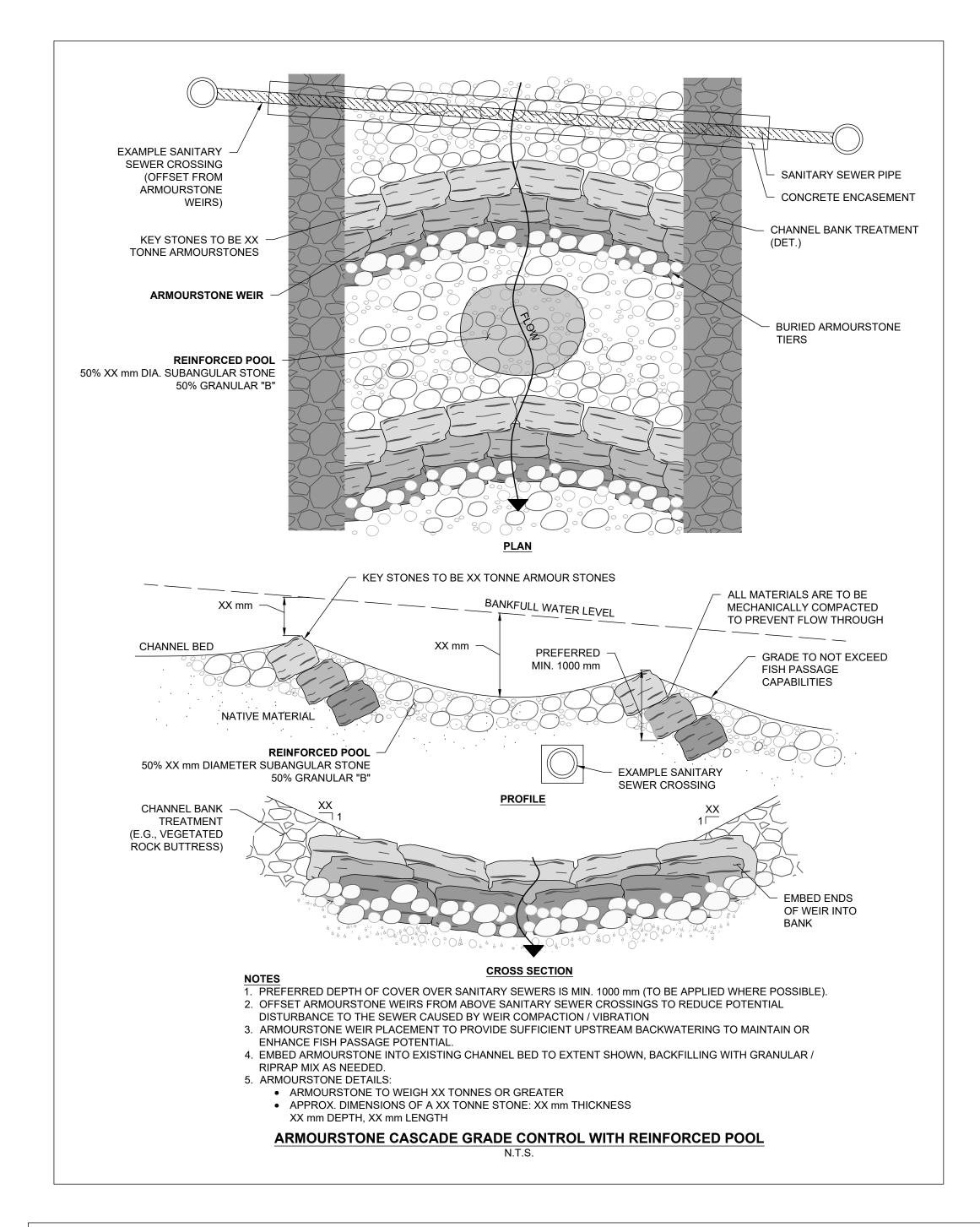
- DENOTES MAINTENANCE HOLE

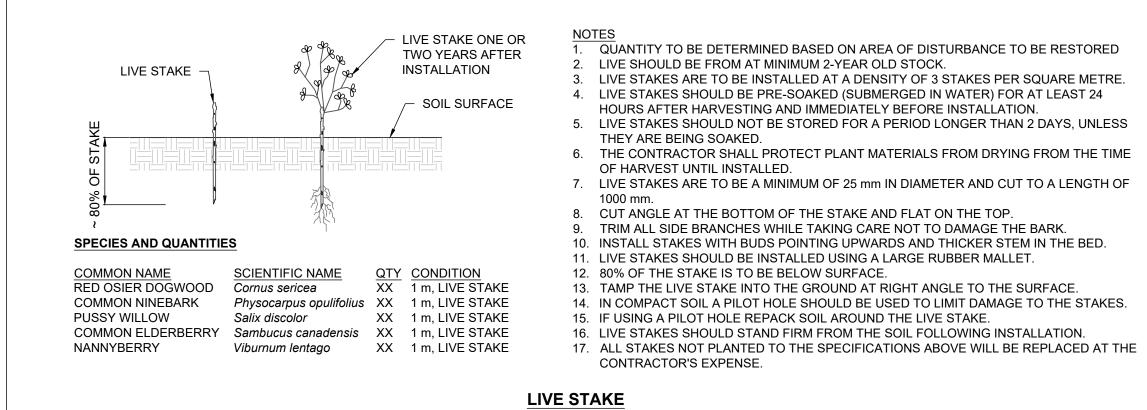
- DENOTES POLYETHYLENE PIPE

PR. - DENOTES PROPOSED

1 Toronto CITY OF TORONTO ENGINEERING AND CONSTRUCTION SERVICES CONCEPTUAL PLANS **INTORONTO** WATER BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION **ELEANOR McATEER, P.ENG.** JUDY M.S. TSE, P.ENG. OVERVIEW OF STUDY AREA DIRECTOR, NOT FOR CONSTRUCTION WATER INFRASTRUCTURE MANAGEMENT **DESIGN & CONSTRUCTION** LINEAR UNDERGROUND INFRASTRUCTURE MORPHIX DRAFTING: BM DESIGN: PV CHECK: PV CONTRACT No. 000000 EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE Geomorphology Earth Science Observations SCALE: AS SHOWN DRAWING GEO-1 PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY INITIAL SIGNED DATE: 2022-11-14 DATE No. **REVISIONS** NUMBER: 1 of 5





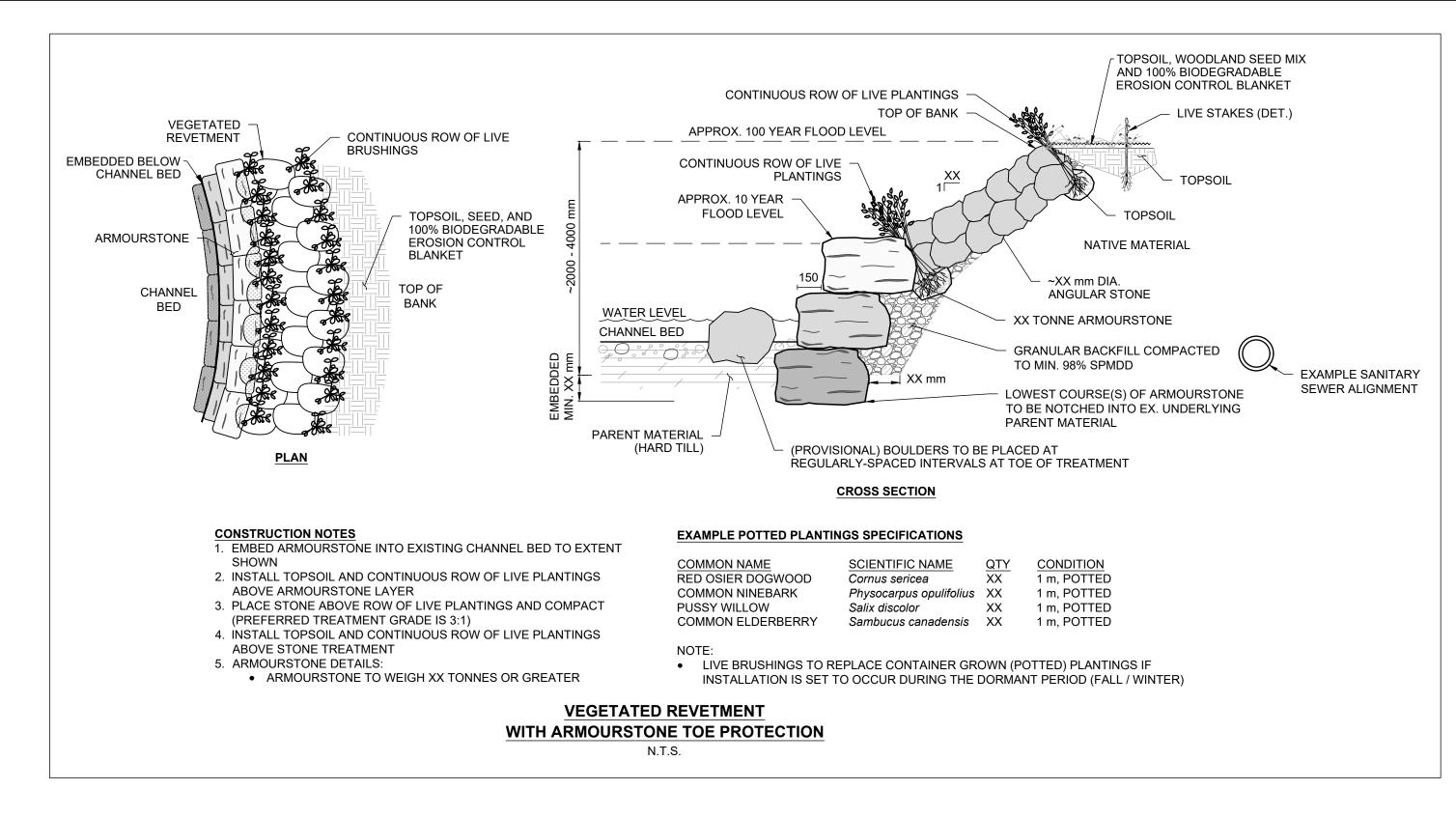


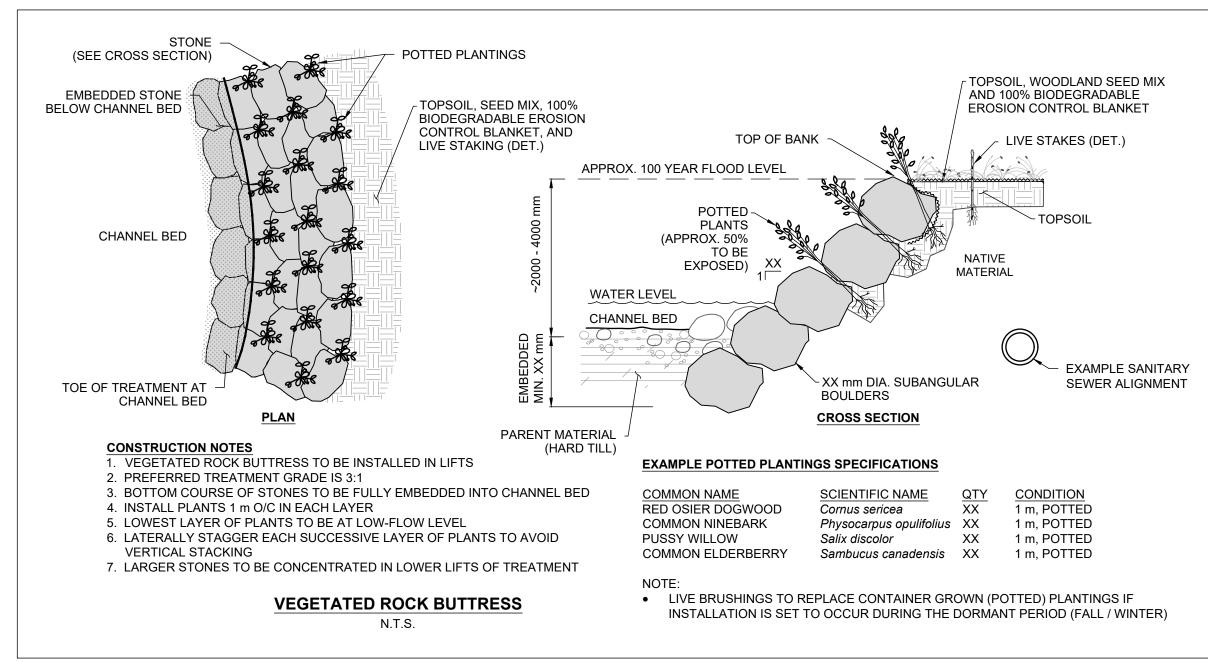
TORONTO WATER

Earth Science Observations

GEO

MORPHIX





WOODLAND SEED MIX

FOXGLOVE BEARDTONGUE BEBB'S SEDGE Carex bebbii NODDING/FRINGED SEDGE Carex crinata FOWL BLUEGRASS Poa palustris SHOWY TICK TREFOIL Desmodium canadensis FOWL MANNA GRASS Glyceria striata SPOTTED JOE PYE WEED Eupatorium maculatum CANADA ANEMONE Anemone canadensis WHITE AVENS Geum canadense 1. SEED MIX % AS PER PRE-MIXED OSC SEED PACKET, OR SIMILAR, AS

APPROVED BY THE DESIGNER. SUITABLE EXAMPLE MIX:

(HTTPS://WWW.OSCSEEDS.COM/PRODUCT/WOODLAND-NATIVE-MIX-PROBLEM-SOLVER-8275/)

1. APPLY SEED MIX AT A RATE OF 2.5 GRAMS PER METRE SQUARE.

2. SEEDING SHALL OVERLAP ADJACENT GROUND COVER BY 300 mm.

3. WATER SOIL AFTER SEED APPLICATION.

RIPARIAN SEED MIX

COMMON NAMESPECIES% OF MIXFOWL MANNA GRASSGlyceria striata2FOWL BLUEGRASSPoa palustris30FOX SEDGECarex vulpinoidea30PATH RUSHJuncus tenuis8VIRGINIA WILD RYEElymus virginicus30

NOTES 1. APPLY SEED MIX AT A RATE OF 25 kg PER HECTARE.

- SEEDING SHALL OVERLAP ADJACENT GROUND COVER BY 300 mm.
 APPLY COMMON OAT (AVENA SATIVA) NURSE CROP AT A RATE OF 22 kg
- PER HECTARE.
 4. WATER SOIL AFTER SEED APPLICATION.

LIST OF ABBREVIATIONS

AC. - DENOTES ASBESTOS CEMENT PIPE DET. - DENOTES DETAIL (SHEET DET-1)

DIA. - DENOTES DIAMETER

L. - DENOTES ELEVATION

EX. - DENOTES ELEVATION
EX. - DENOTES EXISTING

H. - DENOTES MAINTENANCE HOLE

PE. - DENOTES POLYETHYLENE PIPE

PR. - DENOTES PROPOSED

CONCEPTUAL PLANS NOT FOR CONSTRUCTION No. Date Revisions Initial Signed

ENGINEERING AND CONSTRUCTION SERVICES

ELEANOR McATEER, P.ENG.
DIRECTOR,
WATER INFRASTRUCTURE MANAGEMENT

DESIGN & CONSTRUCTION
LINEAR UNDERGROUND INFRASTRUCTURE

EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE

PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY

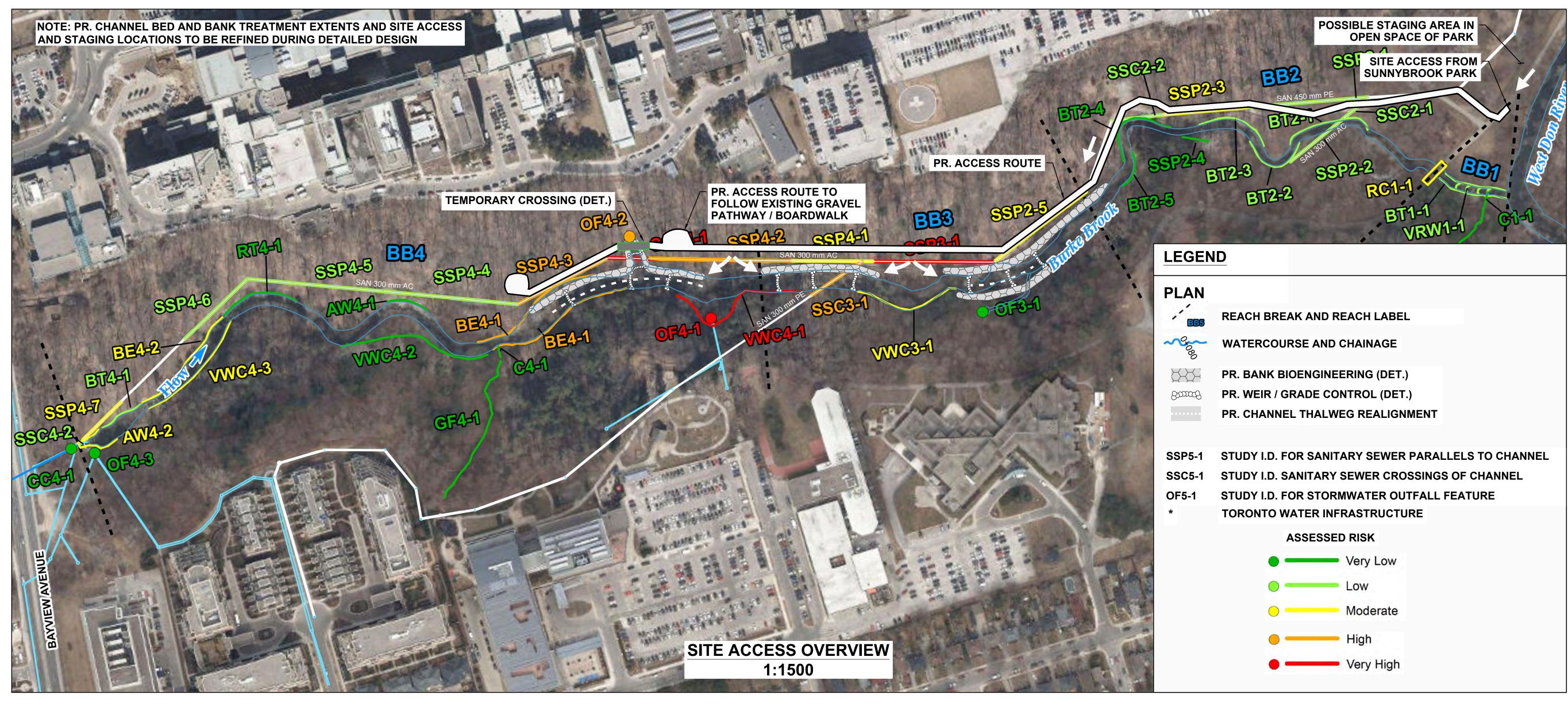
 DESIGN:
 PV
 DRAFTING:
 BM
 CHECK:
 PV
 CONTRACT No. 000000

 SCALE:
 AS SHOWN
 DRAWING DET-1
 DRAWING:
 DET-1
 NUMBER: 3 of 5

CITY OF TORONTO

BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION

PROTECTION / REHABILITATION DETAILS



GENERAL NOTES

- ALL CONTRACT DRAWINGS, SPECIFICATIONS AND APPLICABLE PERMITS MUST BE KEPT ON SITE DURING CONSTRUCTION FOR REFERENCE.
- THE CONTRACTOR MUST NOTIFY THE CONTRACT ADMINISTRATOR AND CONSERVATION AUTHORITY OF THE INTENT TO COMMENCE WORK AT LEAST 48 HOURS IN ADVANCE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATES.
- LAYOUT MUST BE REVIEWED AND APPROVED BY THE CONTRACT ADMINISTRATOR.
- BE ADVISED THAT TRCA MAY, AT ANY TIME, WITHDRAW THIS PERMISSION, IF, IN THE OPINION OF THE AUTHORITY, THE CONDITIONS OF THE PERMIT ARE NOT BEING COMPLIED WITH. THIS APPROVAL DOES NOT EXEMPT THE PROPERTY OWNER/APPLICANT/AGENT FROM THE PROVISIONS OF ANY OTHER FEDERAL, PROVINCIAL OR MUNICIPAL STATUTES, REGULATIONS OR BY-LAWS, OR ANY RIGHTS UNDER COMMON LAW.

TIMING OF WORKS

- WORKS SHALL BE COMPLETED BETWEEN JUNE 15 TO MARCH 15, OR AS OTHERWISE SET OUT BY MNRF
- TREE CLEARING SHOULD BE COMPLETED OUTSIDE THE BIRD NESTING SEASON APRIL 1ST TO AUGUST 1ST TO COMPLY WITH THE FEDERAL MIGRATORY BIRDS CONVENTION ACT. ANY TREES THAT REQUIRE REMOVAL OUTSIDE OF THIS TIMING WINDOW MUST FIRST BE INSPECTED BY A QUALIFIED BIOLOGIST TO DETERMINE THE PRESENCE OF NESTING
- THE WEATHER FORECAST SHOULD BE CONTINUALLY MONITORED TO ENSURE THAT WORKS ARE UNDERTAKEN ONLY DURING FAVOURABLE WEATHER CONDITIONS.
- COMPLETE THE WORKS WITH MINIMAL AVOIDABLE INTERRUPTIONS ONCE THEY COMMENCE.

SITE AND MATERIAL MANAGEMENT

- ALL CONSTRUCTION EQUIPMENT AND MATERIALS (IMPORTED OR EXCAVATED) MUST BE STORED AT LEAST 30 M AWAY FROM ANY WATERBODY IN A STABLE AREA ABOVE THE ACTIVE FLOODPLAIN, OR IN A DESIGNATED STAGING/STORAGE
- IN THE EVENT OF AN UNEXPECTED STORM, ALL UNFIXED ITEMS THAT HAVE THE POTENTIAL TO CAUSE A SPILL OR AN
- OBSTRUCTION TO FLOW MUST BE MOVED A STABLE AREA ABOVE ACTIVE FLOODPLAIN. STOCKPILES MUST BE LOCATED OUTSIDE THE ISOLATED WORK AREAS.
- STABILIZE, TEMPORARILY OR PERMANENTLY, ANY DISTURBED AREAS AS WORK PROGRESSES, OR SOON AS CONDITIONS ALLOW.

- MINIMIZE THE AREA OF DISTURBANCE TO THE EXTENT POSSIBLE. ALL DISTURBED GROUND LEFT INACTIVE FOR MORE THAN 30 DAYS SHALL BE STABILIZED USING APPROPRIATE EROSION CONTROL MEASURES AND AN APPROPRIATE SEED
- MIX AS NOTED WITHIN THE FINAL APPROVED RESTORATION PLAN. • ALL VEGETATION, ADJACENT TO THE WORK AREA, MUST BE PROTECTED AND DELINEATED WITH CONSTRUCTION
- FENCING OR TREE PROTECTION BARRIERS • ALL GRADES IN THE AREA REGULATED BY THE CONSERVATION AUTHORITY MUST BE MAINTAINED OR MATCHED,
- UNLESS OTHERWISE AUTHORIZED IN THE APPLICABLE PERMIT. • AN AFTER-HOURS CONTACT NUMBER IS TO BE VISIBLY POSTED ONSITE FOR EMERGENCIES. ALL THE PLANS SHOULD
- HAVE NAME AND CONTACT INFO OF THE PERSON RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL MEASURES.

EROSION AND SEDIMENT CONTROL

- ALL TEMPORARY EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE INSTALLED PRIOR TO START OF
- FOLLOWING INSTALLATION OF THE PROPOSED ESC MEASURES, A QUALIFIED AGENT OF THE PROPONENT, PREFERABLY AN ENVIRONMENTAL MONITOR, WILL CONDUCT REGULAR SITE VISITS TO MONITOR ALL WORKS, PARTICULARLY THE CONDITION OF THE ESC MEASURES, DEWATERING, AND IN- OR NEAR-WATER WORKS. SHOULD CONCERNS ARISE; THE
- ENVIRONMENTAL MONITOR WILL CONTACT THE PROPONENT, TRCA, AND ANY OTHER APPROPRIATE PARTIES. • ESC MUST BE MAINTAINED DURING CONSTRUCTION, AND ANY REQUIRED REPAIRS OR REPLACEMENTS MUST BE COMPLETED WITHIN 24 HOURS AFTER THEY HAVE BEEN IDENTIFIED DURING THE MONITORING.
- ESC MAY REQUIRE PERIODIC ADJUSTMENTS TO REFLECT CHANGING SITE CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THESE ADJUSTMENTS TO ENSURE PROPER FUNCTION.
- ANY CHANGES TO THE ESC PLAN BEYOND MINOR ADJUSTMENTS MUST BE APPROVED BY THE SITE SUPERVISOR. ADDITIONAL EROSION AND SEDIMENT CONTROL SUPPLIES MUST BE KEPT ON SITE IN ORDER TO FACILITATE IMMEDIATE REPAIRS AND/OR UPGRADES AS NEEDED.
- ALL TEMPORARY SEDIMENT CONTROLS MUST BE REMOVED AFTER THE SITE SUPERVISOR DEEMS THE SITE TO BE STABLE.
- THE PROJECT PROPONENT OR THEIR REPRESENTATIVE IS ULTIMATELY RESPONSIBLE FOR CONTROLLING SEDIMENT AND EROSION WITHIN THE CONSTRUCTION SITE FOR THE TOTAL PERIOD OF THE CONSTRUCTION.
- IF EXCESSIVE SILTATION RESULTS FROM THE CONSTRUCTION ACTIVITIES, THE ONSITE SUPERVISOR/INSPECTOR AND/OR TRCA RESERVE THE RIGHT TO REQUEST ADDITIONAL ESC MEASURES WHICH WOULD BE INSTALLED PRIOR TO FURTHER CONSTRUCTION ACTIVITIES.

DELETERIOUS SUBSTANCE CONTROL/SPILL MANAGEMENT

- PREVENT THE RELEASE OF SEDIMENT, SEDIMENT-LADEN WATER, RAW CONCRETE, CONCRETE LEACHATE OR ANY
- OTHER DELETERIOUS SUBSTANCES INTO ANY WATERBODY, RAVINE, OR STORM SEWER SYSTEM.
- INSPECTION AND CLEANING OF ALL MACHINERY AND EQUIPMENT SHOULD BE PERFORMED IN ACCORDANCE WITH THE PROCEDURES, CHECKLISTS, AND DIAGRAMS PER THE "CLEAN EQUIPMENT PROTOCOL FOR INDUSTRY" DOCUMENT.
- ENSURE EQUIPMENT AND MACHINERY ARE IN GOOD OPERATING CONDITION (POWER WASHED), FREE OF LEAKS,
- EXCESS OIL, AND GREASE. • NO EQUIPMENT REFUELLING OR SERVICING SHOULD BE UNDERTAKEN WITHIN 30 M OF ANY WATERCOURSE OR
- SURFACE WATER DRAINAGE
- A SPILL CONTAINMENT KIT MUST BE READILY ACCESSIBLE ON SITE IN THE EVENT OF A RELEASE OF A DELETERIOUS SUBSTANCE TO THE ENVIRONMENT. ONSITE STAFF MUST BE TRAINED IN ITS USE
- THE SITE SUPERVISOR MUST BE NOTIFIED IMMEDIATELY IN THE EVENT OF A SPILL OF DELETERIOUS SUBSTANCE. ANY SEDIMENT SPILL FROM THE SITE SHOULD BE REPORTED TO MINISTRY OF ENVIRONMENT (SPILL ACTION CENTER) AT

WORK AREA ISOLATION

- ALL WORK IN ISOLATED WORK AREAS MUST BE COMPLETED IN THE DRY. AN ADEQUATE NUMBER OF PUMPS MUST BE USED FOR UNWATERING.
- CROSSING AN ACTIVE WATERCOURSE OR WETLAND BY EQUIPMENT, VEHICLES, PERSONNEL, ETC., IS NOT PERMITTED UNLESS APPROVED BY THE CONSERVATION AUTHORITY. ALL ACCESS TO WORK SITES SHALL BE FROM EITHER SIDE OF THE WATERCOURSE OR WETLAND.
- THE UNWATERING DISCHARGE LOCATION MUST BE LOCATED AT LEAST 30 M FROM ANY WATERCOURSE OR WETLAND IN AN AREA WITH DENSE VEGETATIVE GROUNDCOVER, AND WHERE THE DISCHARGE CAN RETURN TO THE WATERBODY DOWNSTREAM OF THE WORK AREA OVER THE GROUNDCOVER.
- FISH MUST BE REMOVED FROM THE WORK AREA ONCE ISOLATED. FISH SALVAGE MUST BE COMPLETED BY A QUALIFIED TECHNICIAN WITH A LICENSE FROM MNRF.

LIST OF ABBREVIATIONS

AC. - DENOTES ASBESTOS CEMENT PIPE DET. - DENOTES DETAIL (SHEET DET-1)

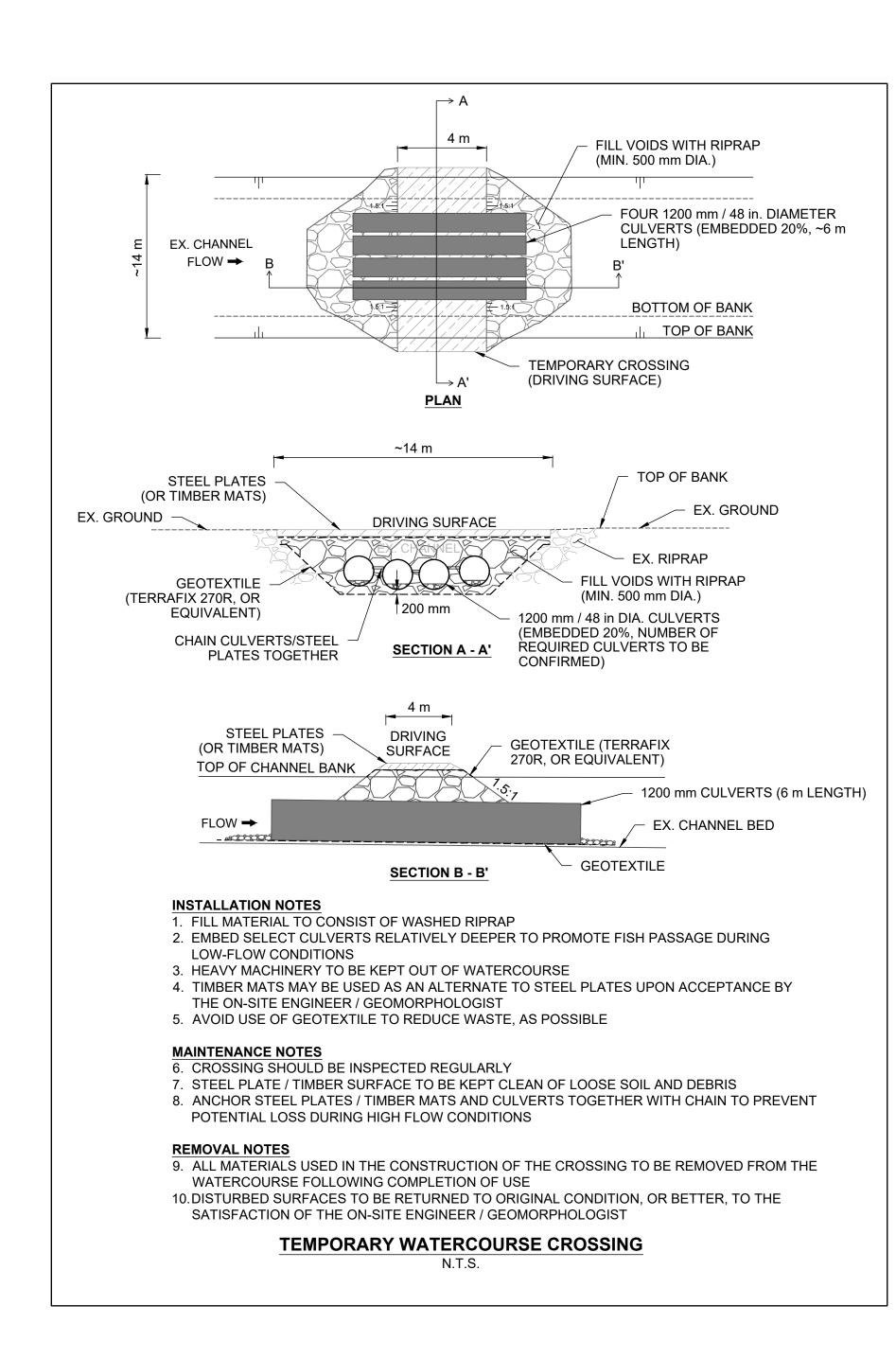
EL. - DENOTES ELEVATION

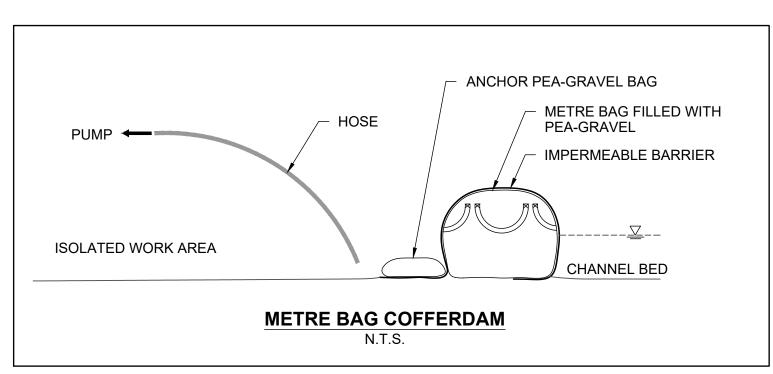
EX. - DENOTES EXISTING - DENOTES MAINTENANCE HOLE

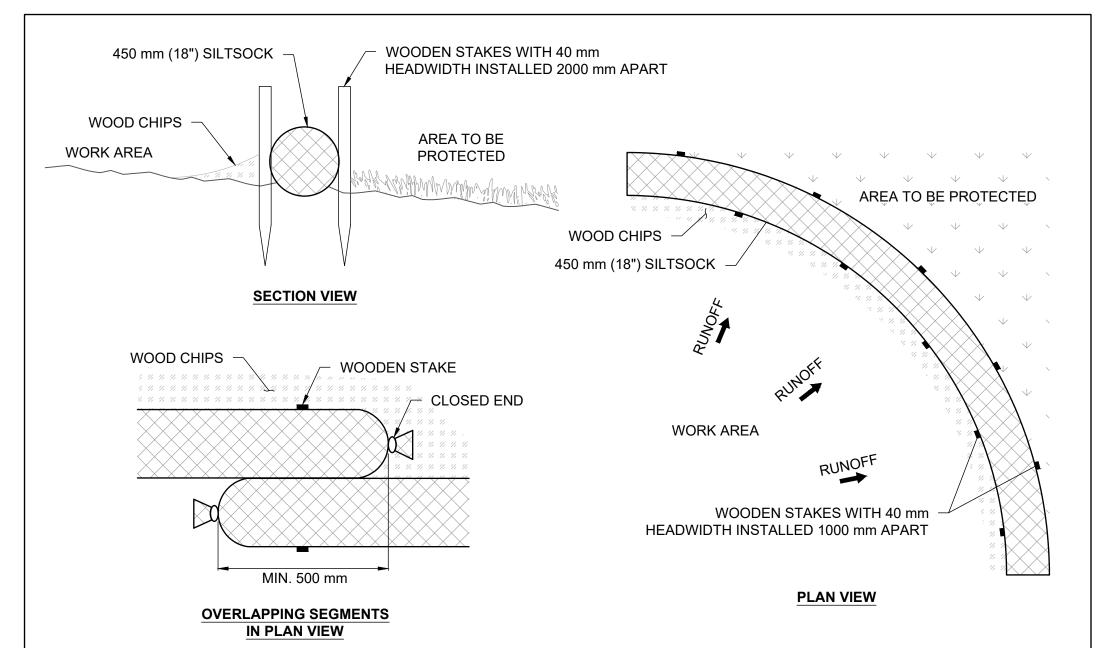
- DENOTES POLYETHYLENE PIPE

- DENOTES PROPOSED

MTORONTO **CITY OF TORONTO ENGINEERING AND CONSTRUCTION SERVICES** CONCEPTUAL PLANS **TORONTO** WATER BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION **ELEANOR McATEER. P.ENG.** JUDY M.S. TSE, P.ENG. SITE ACCESS AND PHASING, EROSION, AND SEDIMENT CONTROL NOTES DIRECTOR, NOT FOR CONSTRUCTION WATER INFRASTRUCTURE MANAGEMENT **DESIGN & CONSTRUCTION** LINEAR UNDERGROUND INFRASTRUCTURE MORPHIX GEO DRAFTING: BM DESIGN: PV CHECK: PV CONTRACT No. 000000 EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE SCALE: | AS SHOWN **DRAWING PESC-1** Earth Science Observations PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY INITIAL DATE **SIGNED** DATE: 2022-11-14 No. **REVISIONS** NUMBER: 4 of 5







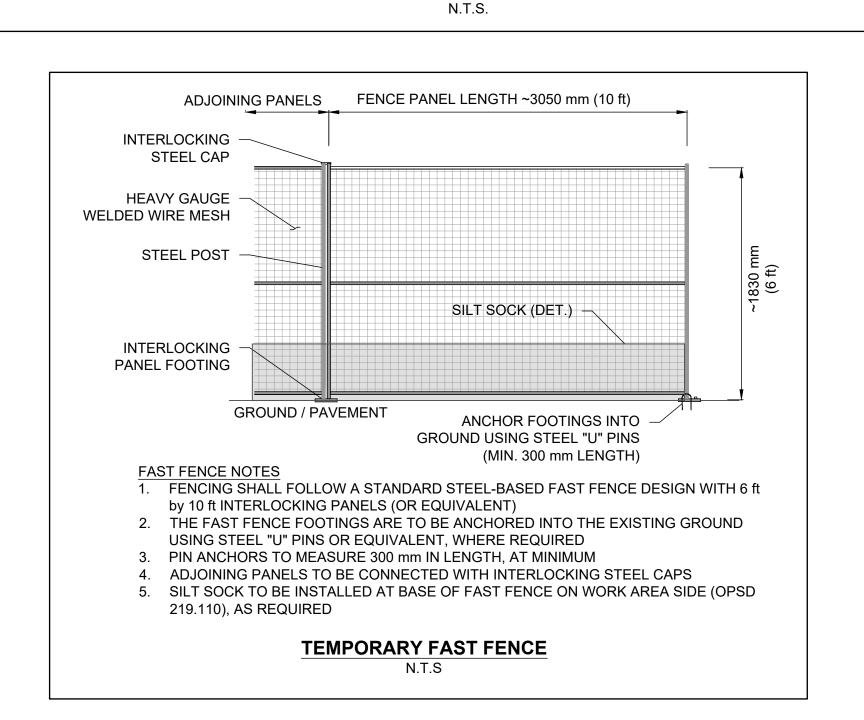
INSTALLATION NOTES

- 1. PERIMETER CONTROL WILL BE PLACED AT LOCATIONS INDICATED ON PLANS AND IN A MANNER AS DIRECTED BY
- THE ENGINEER OR MANUFACTURER. 2. PERIMETER CONTROL SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA. IN CHALLENGING CONDITIONS (E.G., 2:1 SLOPES), A SECOND PERIMETER CONTROL SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE, OR STAKING MAY BE INCREASED.
- 3. EFFECTIVE SOCK HEIGHT IN THE FIELD SHOULD BE 18" DIAMETER SOCK (APPROXIMATELY 12" HIGH). 4. STAKES SHOULD BE INSTALLED ALTERNATELY AROUND THE PERIMETER CONTROL AT 1 m INTERVALS, USING 1 m
- WOODEN STAKES WITH 40 mm HEADWIDTH.
- 5. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 300 mm AND 200 mm FOR CLAY SOILS.
- 6. STRAIGHTEN OR POSITION THE SOCK AS NEEDED ON THE GROUND, ENSURING THERE IS GOOD GROUND CONTACT AND NO VOID SPACES UNDER THE SOCK
- 7. DO NOT DRAG SOCK ACROSS ROUGH SURFACES TO PREVENT TEARING.
- 8. LOOSE WOOD CHIP MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE PERIMETER CONTROL, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.
- 9. IF THE PERIMETER CONTROL IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE ENGINEER WILL SPECIFY SEED REQUIREMENTS.

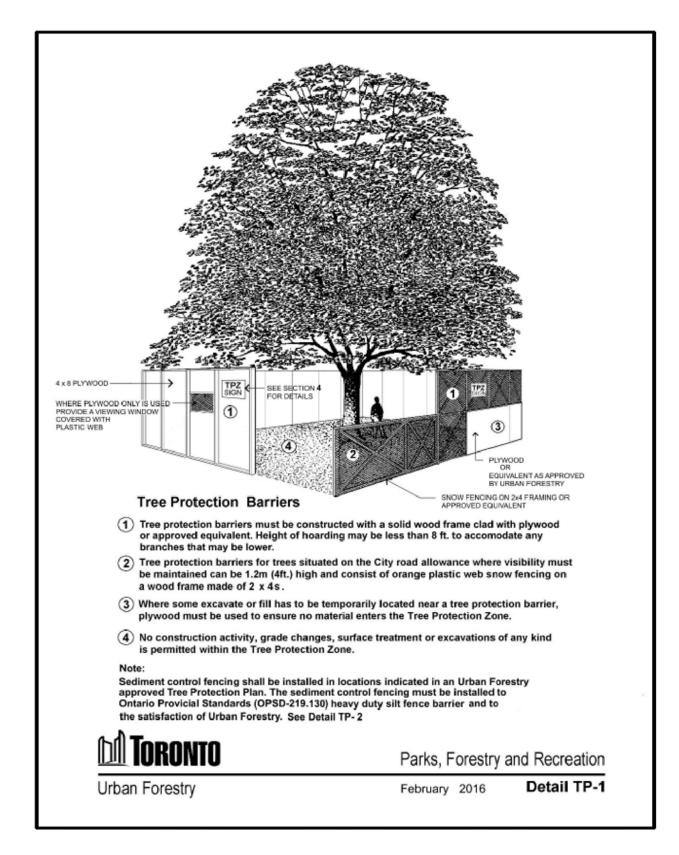
MAINTENANCE AND DISPOSAL NOTES

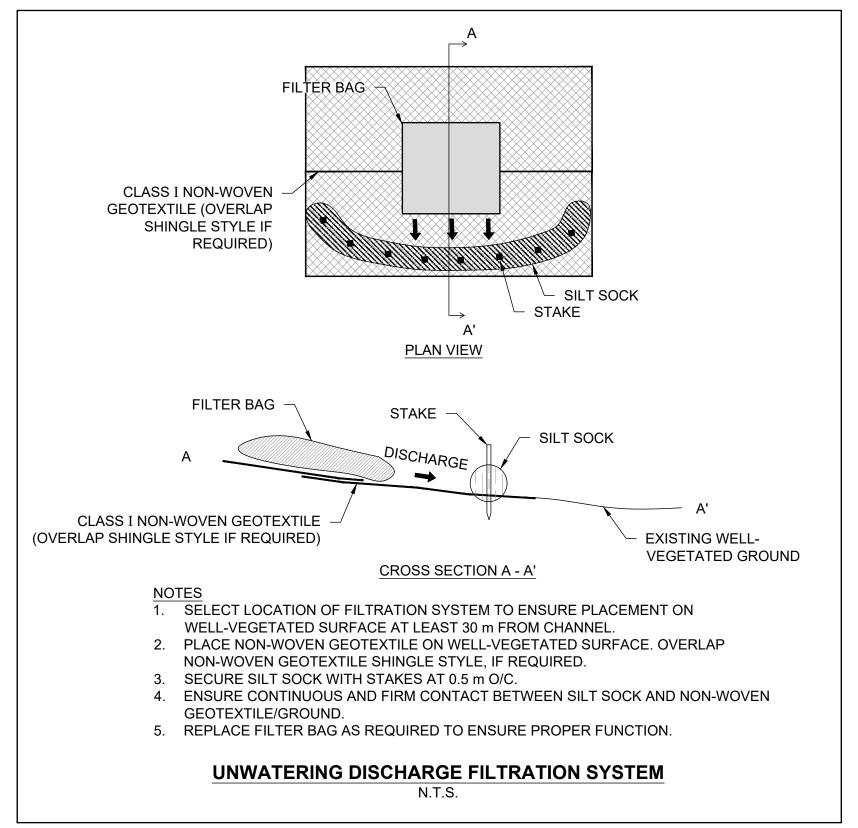
- 1. THE CONTRACTOR SHALL REMOVE SEDIMENT AT THE BASE OF THE UPSLOPE SIDE OF THE PERIMETER WHEN ACCUMULATION HAS REACHED HALF OF THE EFFECTIVE HEIGHT OF THE SOCK, OR AS DIRECTED BY THE ENGINEER. ALTERNATIVELY, A NEW PERIMETER CONTROL SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE ORIGINAL ONE CREATING MORE SEDIMENT STORAGE CAPACITY WITHOUT SOIL DISTURBANCE.
- 2. PERIMETER CONTROL SHALL BE MAINTAINED UNTIL DISTURBED ARE ABOVE THE DEVICE HAS BEEN PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS CEASED.
- 3. THE FILTERMEDIA (WOOD CHIP) WILL BE DISPERSED ON SITE ONCE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED, CONSTRUCTION ACTIVITY HAS CEASED, OR AS DETERMINED BY THE ENGINEER.

SILT SOCK



INTORONTO





LIST OF ABBREVIATIONS

DET. - DENOTES DETAIL (SHEET DET-1) DIA. - DENOTES DIAMETER

EL. - DENOTES ELEVATION

EX. - DENOTES EXISTING

PR. - DENOTES PROPOSED

ECB. - DENOTES EROSION CONTROL BLANKET TOB. - DENOTES TOP OF BANK

CONCEPTUAL PLANS NOT FOR CONSTRUCTION= INITIAL DATE **SIGNED REVISIONS**

ENGINEERING AND CONSTRUCTION SERVICES ELEANOR McATEER, P.ENG. JUDY M.S. TSE. P.ENG. DIRECTOR, WATER INFRASTRUCTURE MANAGEMENT **DESIGN & CONSTRUCTION** LINEAR UNDERGROUND INFRASTRUCTURE

CITY OF TORONTO BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION

PHASING, EROSION, AND SEDIMENT CONTROL DETAILS

DRAFTING: BM DESIGN: PV CHECK: PV CONTRACT No. 000000 SCALE: AS SHOWN **DRAWING** DET-2 DATE: 2022-11-14

NUMBER: 5 of 5

GEO

MORPHIX Geomorphology Earth Science Observations

TORONTO WATER

EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY