



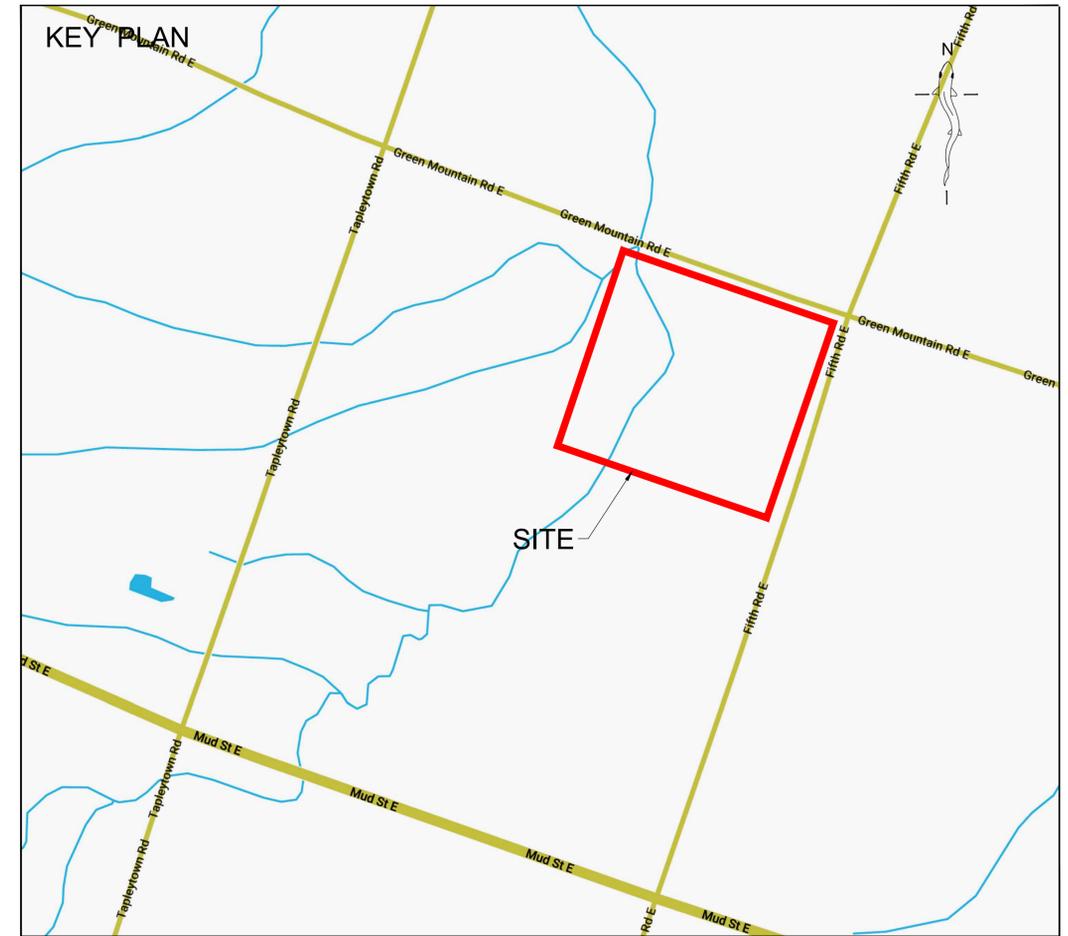
HAMILTON CONSERVATION AUTHORITY

SALTFLEET CONSERVATION AREA

STONEY CREEK SC-8

520 GREEN MOUNTAIN ROAD EAST

OCTOBER 2024



DRAWING LIST	
Sheet Number	Sheet Title
1	GENERAL GRADING PLAN
2	ARCHAEOLOGY PLAN
3	MAIN POND GRADING PLAN 1
4	MAIN POND GRADING PLAN 2
5	MAIN POND GRADING PLAN 3
6	MAIN POND GRADING PLAN 4
7	MAIN POND CROSS SECTIONS 1
8	MAIN POND CROSS SECTIONS 2
9	POND & WETLAND DETAILS
10	MAIN POND OUTLET
11	MAIN POND OUTLET DETAILS
12	EROSION & SEDIMENT CONTROL
13	EROSION & SEDIMENT CONTROL DETAILS
14	PLANTING PLAN
15	SEEDING PLAN
16	PLANTING PLAN DETAILS

SEE MAIN POND OUTLET
(SEE SHEET 10 FOR DETAILS)

EXISTING OPEN BOTTOM CONCRETE BOX CULVERT
6m SPAN x 1m RISE x 12m LENGTH

DITCH CENTRELINE
EXISTING ACCESS ROUTE

GREEN MOUNTAIN ROAD EAST

PROPERTY LINE

FLOW

FLOW

DITCH CENTRELINE

EXISTING ACCESS ROUTE

PROPERTY LINE

EXISTING GUIDE RAIL

POND 1

FILL 1

SEE MAIN POND GRADING PLAN 1
(SHEET 3) FOR DETAILS

SEE MAIN POND GRADING PLAN 2
(SHEET 4) FOR DETAILS

FILL 2

ARCHAEOLOGY AREAS

FILL 5

POND 3

TRIBUTARY 2

FILL 4

SEE MAIN POND GRADING PLAN 3
(SHEET 5) FOR DETAILS

POND 2

POND 4

SEE MAIN POND GRADING PLAN 4
(SHEET 6) FOR DETAILS

STONEY CREEK

TRIBUTARY 1

PROPERTY LINE

FILL 3

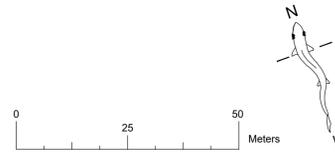
PROPERTY LINE

FIFTH ROAD EAST



LEGEND:

	PROPERTY LINE
	EXISTING CULVERT
	EXISTING TOP OF BANK
	EXISTING BOTTOM OF BANK
	EXISTING CREEK CENTRELINE
	HYDRO POLE
	GUARD RAIL



NOTES:
HORIZONTAL DATA SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM (UTM ZONE 17, NAD83 (CSRS)(2010.0)) AND ARE DERIVED FROM COSINE BENCH MARK No. 0511973002.
ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM (CGVD 2013) AND ARE DERIVED FROM COSINE BENCH MARK No. 0511975U170 HAVING A PUBLISHED ELEVATION 204.851 METRES.
SURVEY COMPLETED ON AUG 28, 2019

No.	DATE	BY	REVISIONS
4	20241025	EEG	ISSUED FOR TENDER
3	20241018	EEG	REVISED BASED ON HCA COMMENTS
2	20240208	EEG	REVISED BASED ON HCA COMMENTS
1	20201204	EEG	REVISED BASED ON HCA COMMENTS

DATE: October 25, 2024

SCALE: HORIZONTAL - 1:750

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ENVIRONMENTAL SOLUTIONS TEAM



A Healthy Watershed for Everyone
SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)

GENERAL GRADING PLAN

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	1



LEGEND:

	PROPERTY LINE
	EXISTING CULVERT
	EXISTING TOP OF BANK
	EXISTING BOTTOM OF BANK
	EXISTING CREEK CENTRELINE
	HYDRO POLE
	GUIDE RAIL

NOTES:
 HORIZONTAL DATA SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM (UTM ZONE 17, NAD83 (GSR)(2010.0)) AND ARE DERIVED FROM COSINE BENCH MARK No. 0011972002.
 ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM (CGVD 2013) AND ARE DERIVED FROM COSINE BENCH MARK No. 001197501170 HAVING A PUBLISHED ELEVATION 204.851 METRES.
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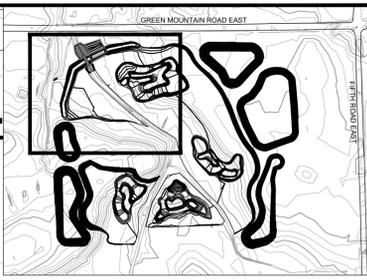
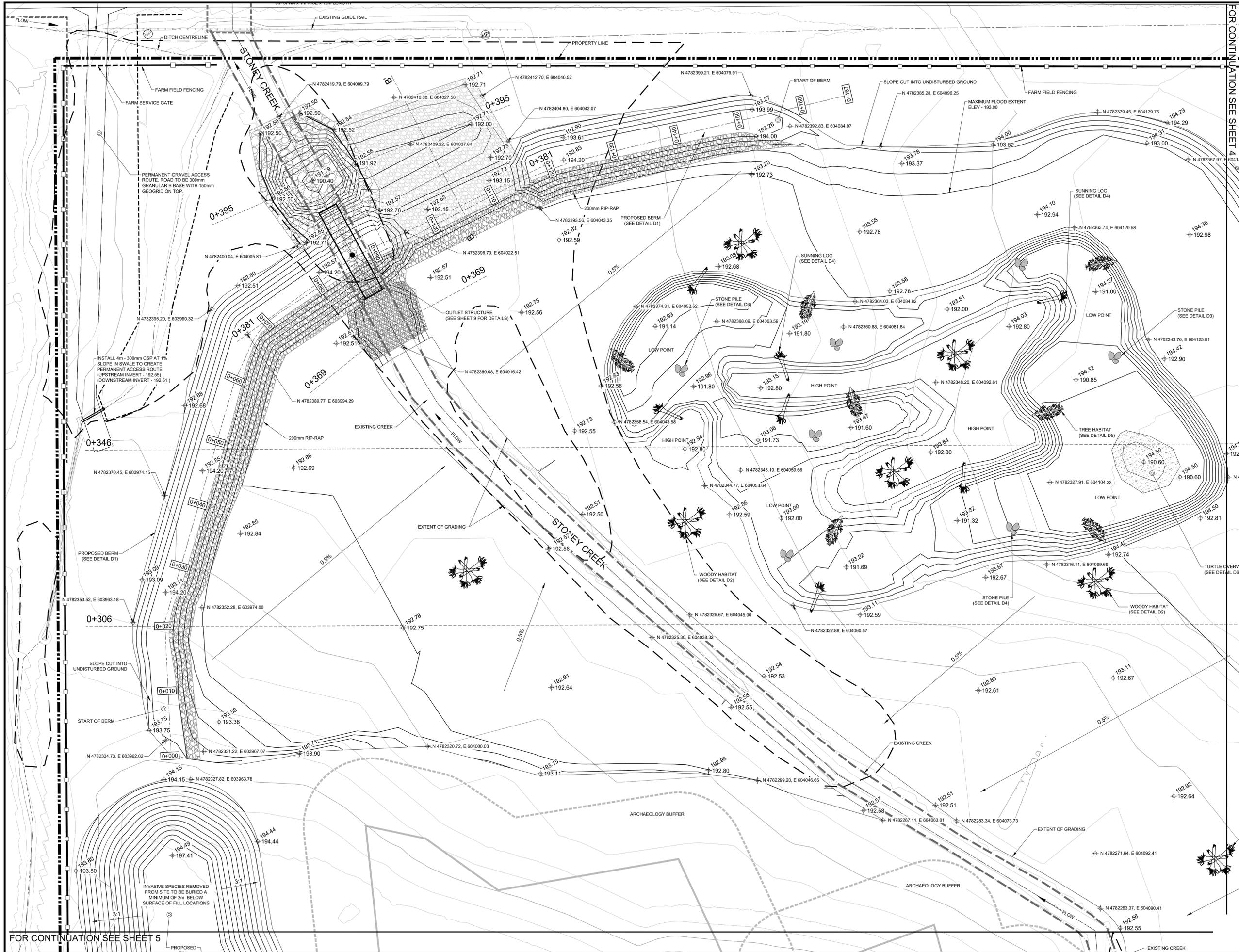
SCALE: HORIZONTAL - 1:750

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 STONEY CREEK (SC-8)

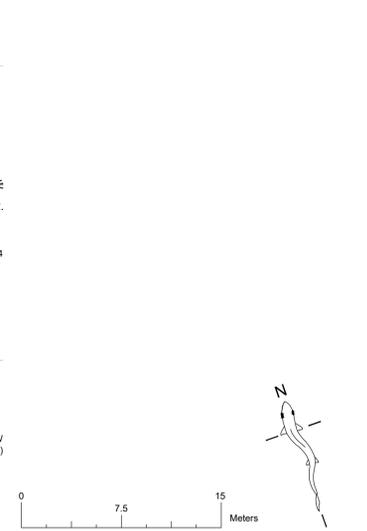
ARCHAEOLOGY PLAN

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	2



LEGEND:

- PROPERTY LINE
- EXISTING CULVERT
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- EXISTING CREEK CENTRELINE
- EXISTING ELEVATION
- PROPOSED ELEVATION
- 🌿 TREE HABITAT
- 🌳 STONE PILE
- ☀️ SUNNING LOG
- 🌳 WOODY HABITAT
- 🐢 TURTLE OVERWINTERING HABITAT
- FARM FIELD FENCING
- ⊕ HYDRO POLE
- GUIDE RAIL
- PHRAGMITES LIMITS



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SCALE: PLAN = 1:250
PROFILE = HORIZONTAL - 1:400
VERTICAL - 1:100

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**SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)**

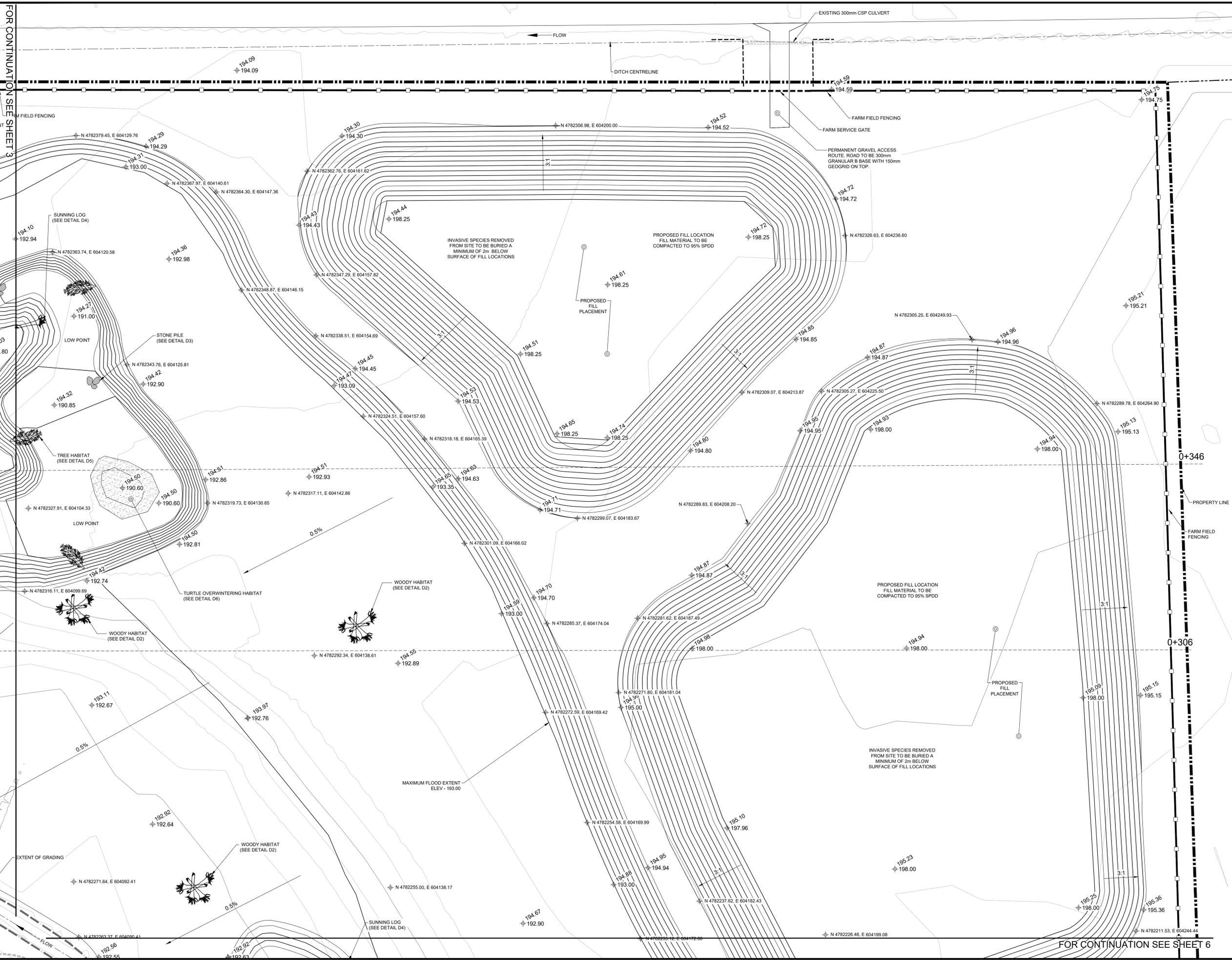
MAIN POND GRADING PLAN 1

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	3

FOR CONTINUATION SEE SHEET 5

FOR CONTINUATION SEE SHEET 4

FOR CONTINUATION SEE SHEET 3



LEGEND:

- PROPERTY LINE
- - - EXISTING CULVERT
- - - EXISTING TOP OF BANK
- - - EXISTING BOTTOM OF BANK
- - - EXISTING CREEK CENTRELINE
- 192.95
192.95 EXISTING ELEVATION
- 192.95
192.95 PROPOSED ELEVATION
- 192.95
192.95 TREE HABITAT
- 192.95
192.95 STONE PILE
- 192.95
192.95 SUNNING LOG
- 192.95
192.95 WOODY HABITAT
- 192.95
192.95 TURTLE OVERWINTERING HABITAT
- FARM FIELD FENCING
- - - PHRAGMITES LIMITS



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VERTICAL -

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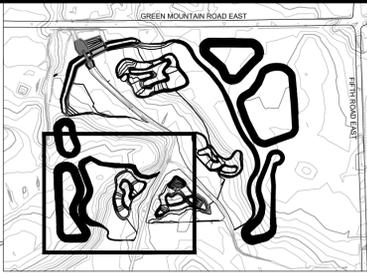
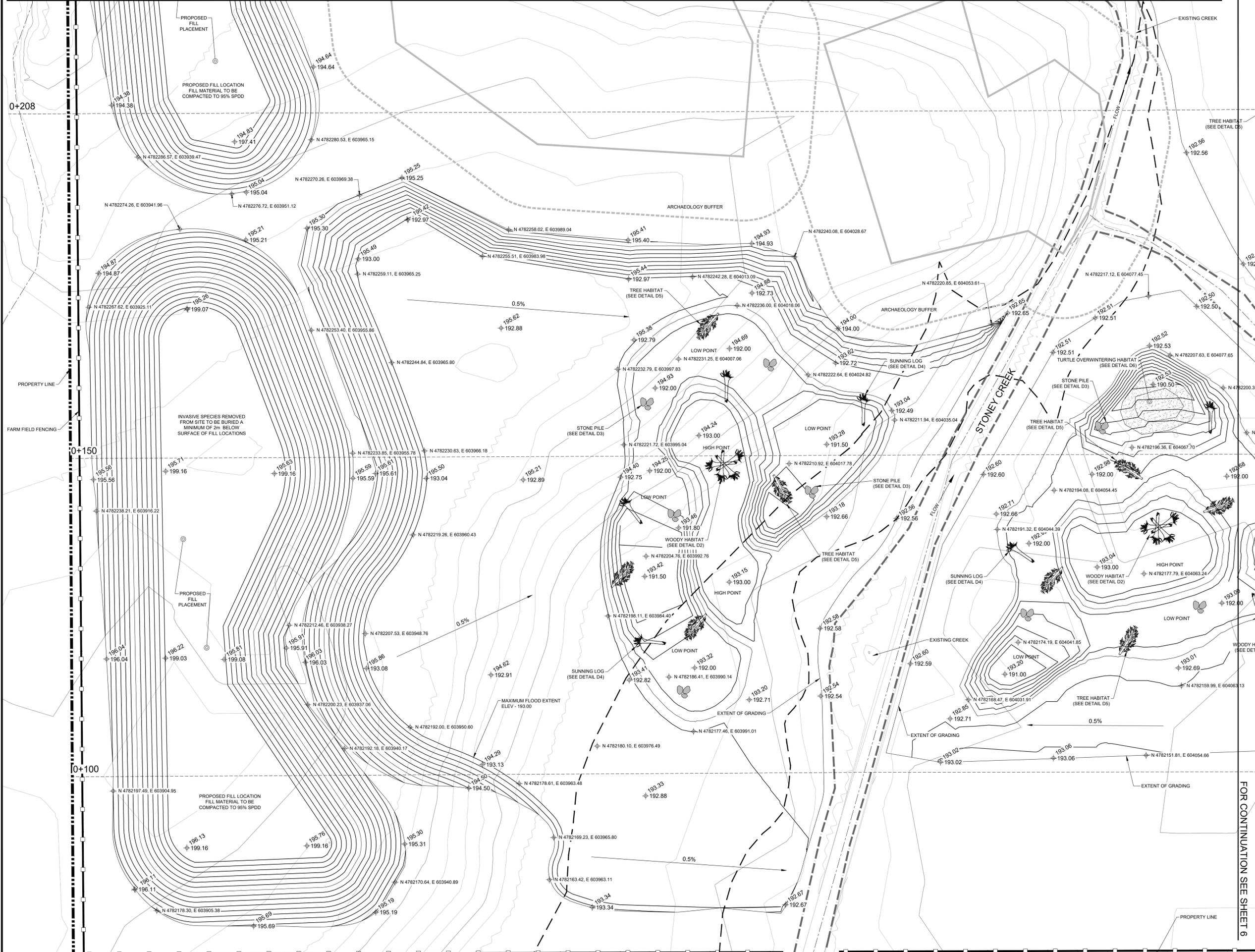
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**SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)**

MAIN POND GRADING PLAN 2

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	4

FOR CONTINUATION SEE SHEET 6

FOR CONTINUATION SEE SHEET 3



LEGEND:

- PROPERTY LINE
- - - EXISTING CULVERT
- - - EXISTING TOP OF BANK
- - - EXISTING BOTTOM OF BANK
- - - EXISTING CREEK CENTRELINE
- 192.95
192.95 EXISTING ELEVATION
- 192.95 PROPOSED ELEVATION
- [Symbol] TREE HABITAT
- [Symbol] STONE PILE
- [Symbol] SUNNING LOG
- [Symbol] WOODY HABITAT
- [Symbol] TURTLE OVERWINTERING HABITAT
- FARM FIELD FENCING
- - - PHRAGMITES LIMITS



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VERTICAL -

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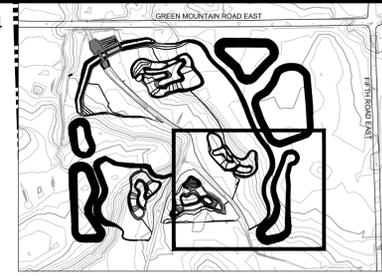
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STONEY CREEK (SC-8)

MAIN POND GRADING PLAN 3

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	5

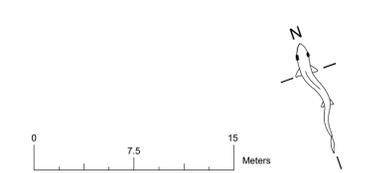
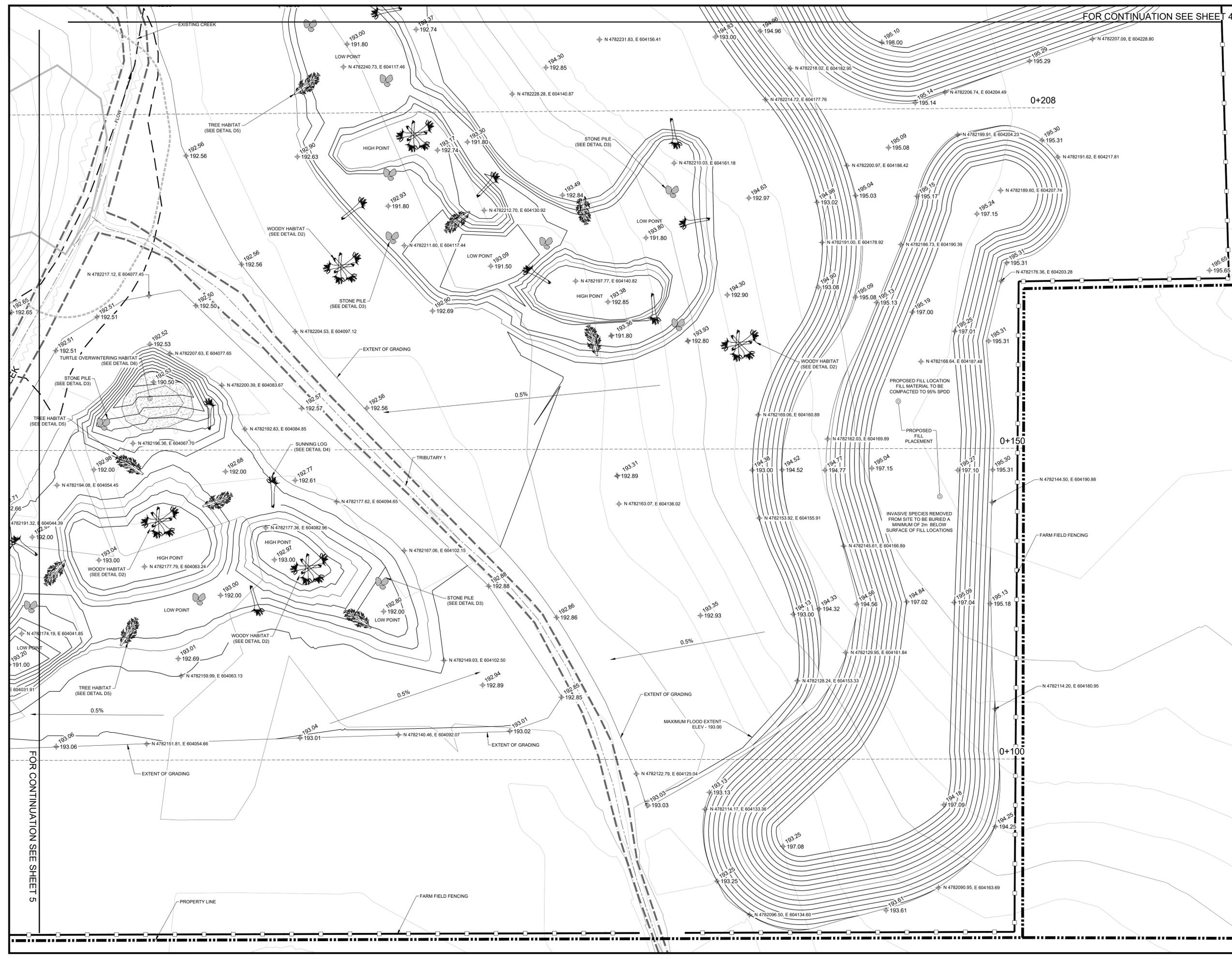
FOR CONTINUATION SEE SHEET 6

FOR CONTINUATION SEE SHEET 4



LEGEND:

- PROPERTY LINE
- - - EXISTING TOP OF BANK
- - - EXISTING BOTTOM OF BANK
- - - EXISTING CENTRELINE
- - - EXISTING ELEVATION
- ⊕ 192.95 PROPOSED ELEVATION
- 🌳 TREE HABITAT
- 🪨 STONE PILE
- 🌿 SUNNING LOG
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VERTICAL -

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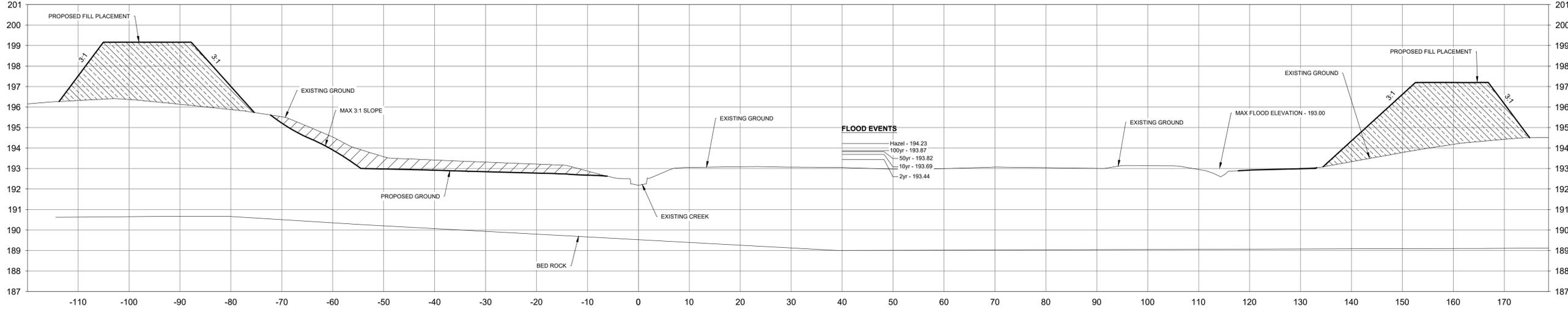
**SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)**

MAIN POND GRADING PLAN 4

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	6

FOR CONTINUATION SEE SHEET 5

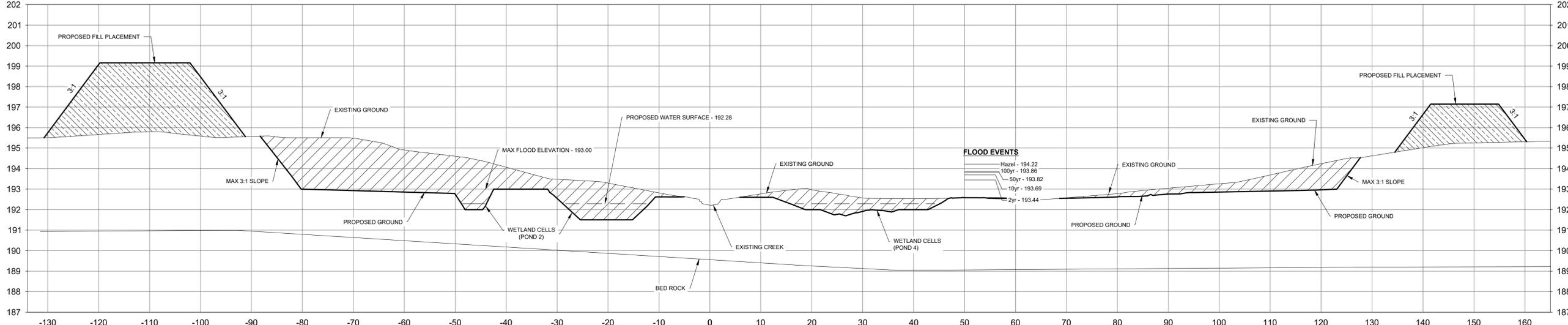
0+100



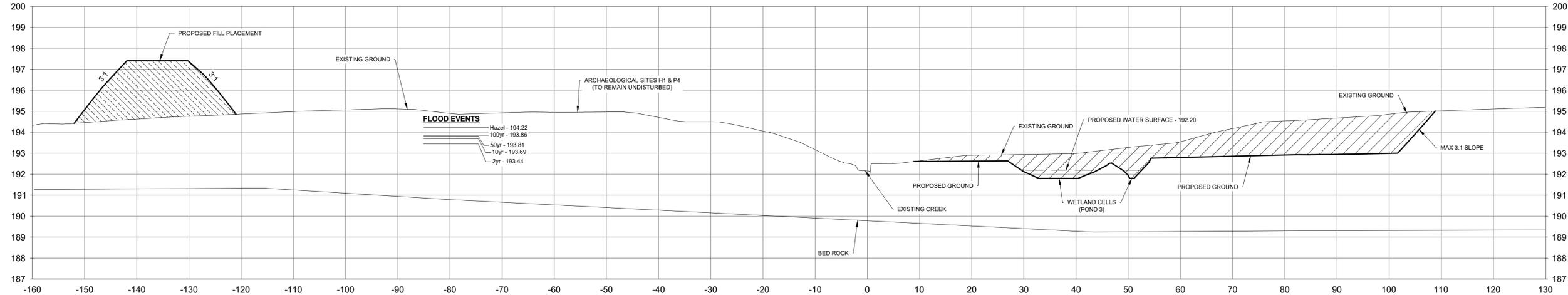
LEGEND:

- EXISTING GROUND
- PROPOSED GROUND
- AREA OF CUT
- AREA OF FILL

0+150



0+208



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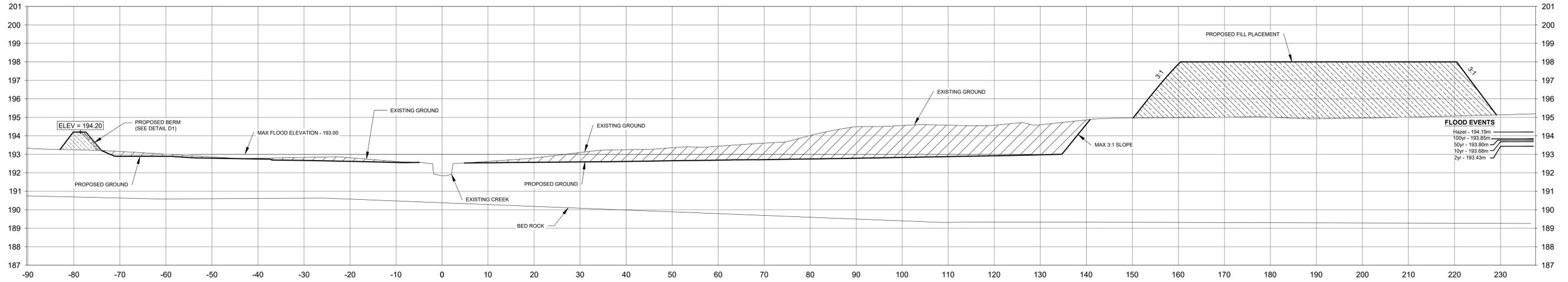
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STONE CREEK (SC-8)

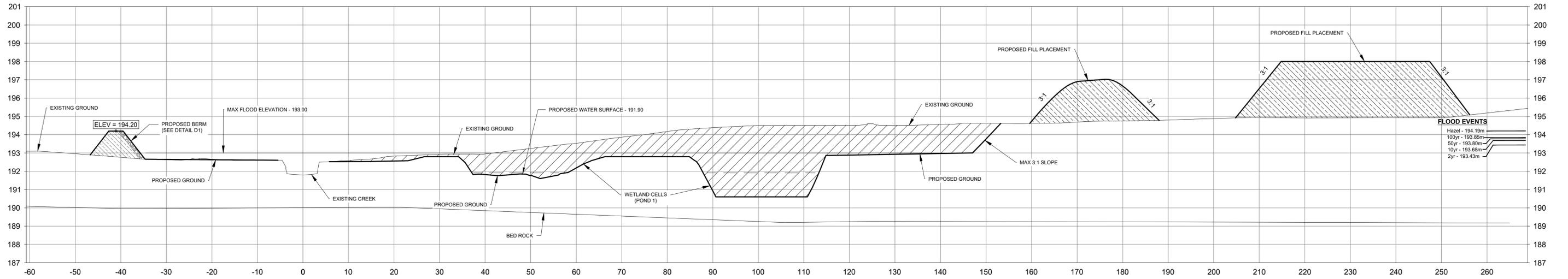
MAIN POND CROSS SECTIONS 1

DESIGN	EEG	PROJECT No.	19028
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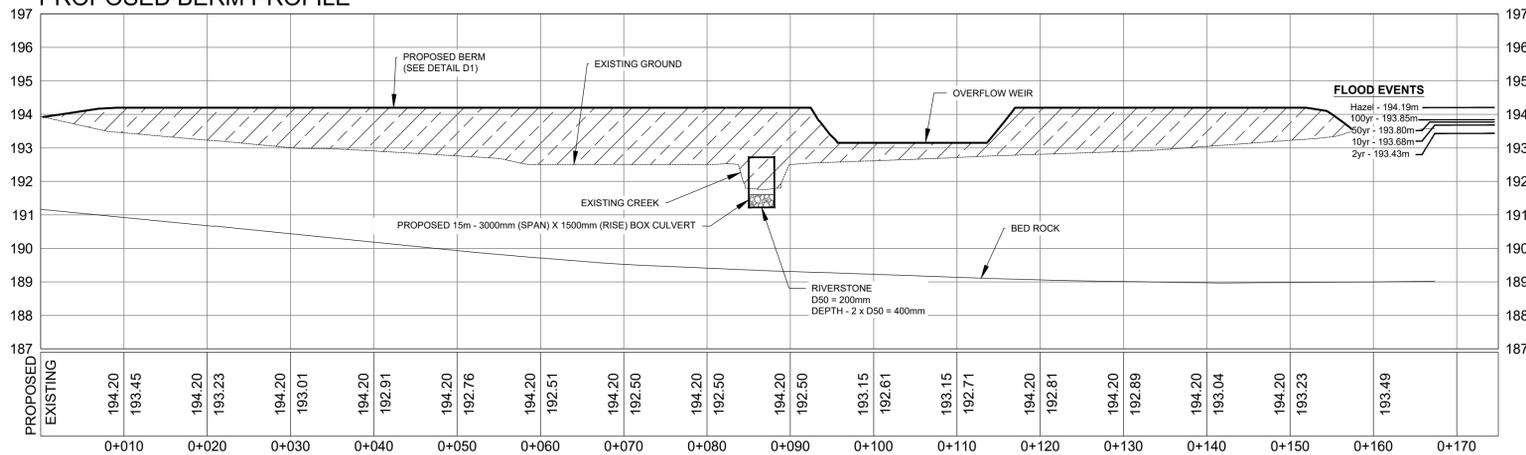
0+306



0+346



PROPOSED BERM PROFILE



LEGEND:

- EXISTING GROUND
- PROPOSED GROUND
- AREA OF CUT
- AREA OF FILL

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No. DATE BY REVISIONS

DATE: 08/08/2024

SCALE:
HORIZONTAL - 1:400
VERTICAL - 1:100

LICENCED PROFESSIONAL ENGINEER
E. GAZDAM
PROVINCE OF ONTARIO

CONSULTANT

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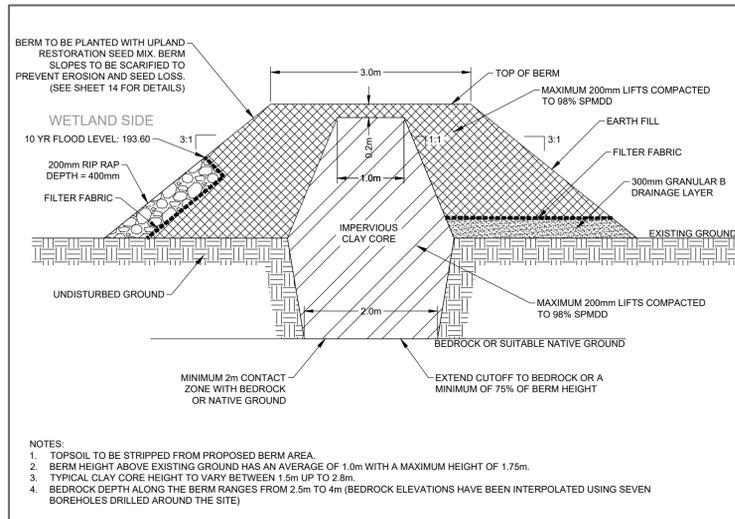
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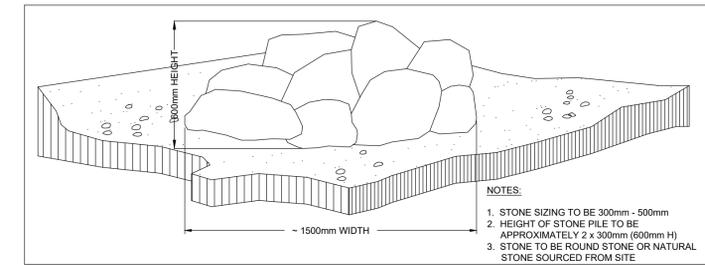
SALTFLEET WATERSHED AREA
STONE CREEK (SC-8)

MAIN POND CROSS SECTIONS 2

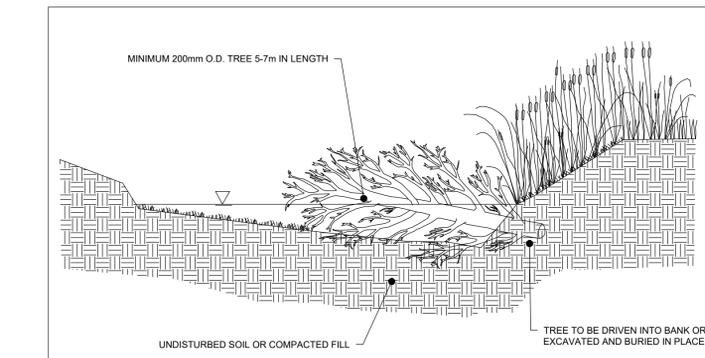
DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	8



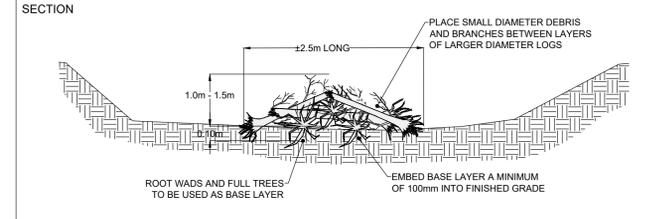
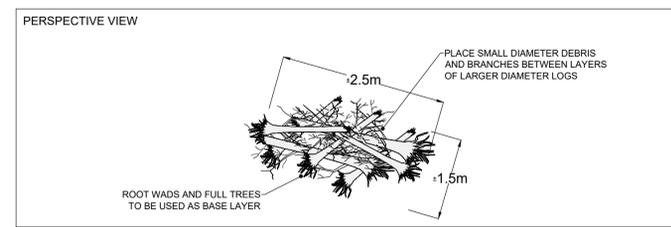
D1 BERM (TYPICAL)
N.T.S.



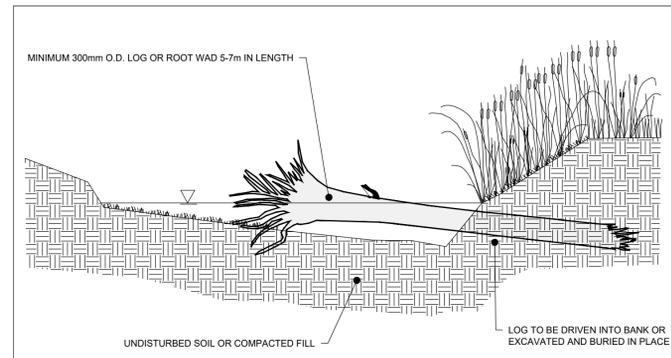
D3 STONE PILE (TYPICAL)
N.T.S.



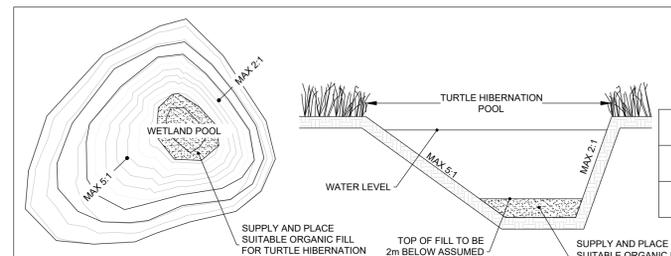
D5 TREE HABITAT
N.T.S.



D2 WOODY DEBRIS DETAIL
N.T.S.



D4 SUNNING LOG
N.T.S.



D6 TURTLE HIBERNATION HABITAT
N.T.S.

CHANNEL OPENING NOTES:

- AFTER STABILIZATION OF THE BANKS IS CONFIRMED, FLOW IS TO BE REINITIATED INTO CHANNEL UNDER SUPERVISION OF THE PROJECT FLUVIAL GEOMORPHOLOGIST.
- CONTRACTOR SHALL ENSURE THAT CHANNEL REMAINS ISOLATED FROM FLOWS UNTIL THE OUTLET AND CHANNEL CONSTRUCTION WORK IS COMPLETE.

AREA STABILIZATION:

EROSION CONTROL BLANKETS ARE TO BE PLACED TO CONTROL EROSION AFTER SEEDING. ECB TO BE COIR 400 BLANKET OR APPROVED EQUIVALENT AND INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.

CONSTRUCTION SUPERVISION:

CONSTRUCTION SUPERVISION TO BE COMPLETED BY HCA STAFF WITH TECHNICAL SUPPORT FROM WATER'S EDGE AND SHALL BE AVAILABLE DURING ALL PHASES OF CONSTRUCTION AND IN-WATER WORKS.

GENERAL CREEK NOTES

- STONEY CREEK IS CLASSIFIED AS A COLDWATER SYSTEM WITH AQUATIC HABITAT WITHIN THE CONSTRUCTION AREA. AS A RESULT OF THESE CHARACTERISTICS A CONSTRUCTION TIMING WINDOW THAT PROHIBITS IN-WATER CONSTRUCTION ACTIVITIES BETWEEN SEPT 30TH AND JULY 15TH MUST BE RESPECTED.
- ALL CHANNEL ACTIVITIES MUST BE COMPLETED IN THE DRY USING CONVENTIONAL DAM AND PUMP METHODS (IN-STREAM PLUG AND BYPASS PUMPING), OR A COMBINATION OF DIVERSION PIPING AND DAM AND PUMP METHODS.
- NEW BANKS TO BE INTEGRATED INTO EXISTING BANK HEIGHT IN BOTH UPSTREAM AND DOWNSTREAM DIRECTIONS AND BE KEVED IN FOR 2-5M.
- ANY FILL MATERIAL IS TO BE PLACED IN LIFTS COMPACTED TO 95% SPD AND CONFIRMED WITH COMPACTION TESTING UNLESS SPECIFIED.
- PROPER EROSION AND SEDIMENT CONTROL MEASURES TO BE USED AT ALL LOCATIONS TO PREVENT SEDIMENT FROM ENTERING WATER COURSE.
- BANKS TO BE REVEGETATED AS PER THE DESIGN DRAWINGS WITH COIR FABRIC, SEED AND STABILIZED WITH NATIVE VEGETATION AS PER SPECIFICATIONS.
- CONTRACTOR TO RESTORE ANY DAMAGED AREAS TO THE EXISTING CONDITION OR TO THE SATISFACTION OF THE CLIENT AND CONTRACT ADMINISTRATOR.

FISHERIES MITIGATION NOTES

- FISH ARE TO BE COLLECTED AND RELOCATED FROM THE CONSTRUCTION AREA PRIOR TO THE BYPASS PUMPING/DIVERSION PIPING AND SUBSEQUENT CHANNEL DEWATERING, AND RELEASED ALIVE IMMEDIATELY DOWNSTREAM. ANY FISH COLLECTION AND RELOCATION SHALL BE COMPLETED BY A QUALIFIED FISHERIES PROFESSIONAL UNDER A SCIENTIFIC COLLECTORS PERMIT, ISSUED BY THE MINISTRY OF NATURAL RESOURCES.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THE CONTINUOUS OPERATION OF THE BYPASS PUMPING/DIVERSION PIPING, TO ENSURE THAT THE WATER FLOW WILL BE MAINTAINED CONTINUOUSLY DOWNSTREAM OF THE WORK AREA (DURING ALL STAGES OF THE WORK), AND DISCHARGED BACK INTO THE CHANNEL USING A DIFFUSER/DISSIPATER TO ENSURE THAT THE RETURNING WATER DOES NOT SCOUR OR ERODE THE STREAMBED AND BANKS. BYPASS PUMPING/DIVERSION PIPING IS TO BE ADEQUATELY SIZED TO CONTROL A RANGE OF ANTICIPATED CREEK FLOWS. THE ANTICIPATED BASE FLOW RATE WITHIN THE CHANNEL DURING THE CONSTRUCTION TIMING WINDOW IS UNKNOWN AT THIS TIME.

FISHERIES TIMING WINDOW:

THERE SHALL BE NO IN-WATER WORK OR ACTIVITY FROM SEPTEMBER 30TH TO JULY 15TH.

ENVIRONMENTAL NOTES

- REFUELLING ACTIVITIES SHOULD BE CONDUCTED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. THIS INCLUDES KEEPING THE FUELLING OPERATIONS 30 M SETBACK FROM THE WATER'S EDGE, DRAINAGE PATHWAY OR UNLESS OTHERWISE DIRECTED BY THE CONTRACT ADMINISTRATOR. SPILL KITS AND SUFFICIENT AMOUNT OF SORBANT MATERIAL SHOULD BE AVAILABLE ON THE FUEL OR SERVICE VEHICLES.
- ANY PART OF EQUIPMENT ENTERING THE WATER SHOULD BE FREE OF FLUID LEAKS AND EXTERNALLY CLEANED AND DEGREASED TO PREVENT ANY DELETERIOUS SUBSTANCES FROM ENTERING THE WATER.
- ANY SPILLS RESULTING FROM REFUELLING OPERATIONS, HYDRAULIC LEAKS, MAINTENANCE ETC. MUST BE REPORTED IMMEDIATELY TO THE SPILLS ACTION CENTRE AND CONTRACT ADMINISTRATOR. THE LOCAL MUNICIPALITY, OWNER OF THE SUBSTANCE AND PERSON IN CONTROL OF THE SUBSTANCE MUST ALSO BE NOTIFIED IMMEDIATELY.
- ALL MATERIALS AND EQUIPMENT USED FOR THE PURPOSE OF SITE PREPARATION AND PROJECT COMPLETION SHOULD BE OPERATED AND STORED IN A MANNER THAT PREVENTS ANY DELETERIOUS SUBSTANCE (E.G. PETROLEUM PRODUCTS, SILT, DEBRIS, ETC) FROM ENTERING THE WATER.
- THE AREA OF DISTURBANCE WITHIN THE CHANNEL AND ON THE STREAMBANKS MUST BE KEPT TO A MINIMUM. HEAVY EQUIPMENT TRAFFIC WILL BE RESTRICTED TO ESTABLISHED TRAVEL PATHWAYS.
- STOCKPILE AND STAGING AREAS SHOULD BE WELL REMOVED FROM THE WATERCOURSE AND CONTAINED BY APPROPRIATE SEDIMENT AND EROSION CONTROLS.
- SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. THE INSTALLED MEASURES SHOULD BE ROUTINELY INSPECTED TO ENSURE THAT THEY ARE FUNCTIONING AS INTENDED. DISTURBED SOILS SHOULD BE STABILIZED IMMEDIATELY WITH SUITABLE PLANTINGS/SEED/MAT. MAINTENANCE SHOULD CONTINUE UNTIL SUCH TIME AS THE DISTURBED AREAS ARE SUFFICIENTLY STABILIZED THROUGH VEGETATIVE GROWTH.
- TEMPORARY CROSSING OF THE WATERCOURSE IS PERMITTED WITH A SPAN STRUCTURE. SPECIFIC DETAILS TO BE PROVIDED BY CONTRACTOR
- WEATHER CONDITIONS SHOULD BE MONITORED TO ADEQUATELY PREPARE THE SITE FOR RAIN EVENTS. IF STORM FLOWS ARE EXPECTED, ALL ERS MEASURES SHALL BE INSPECTED AND REPAIRED.
- AS CONSTRUCTION ACTIVITIES IN AND AROUND WATER IS CHALLENGING, WITH A SIGNIFICANT POTENTIAL FOR ENVIRONMENTAL EFFECT, IT IS RECOMMENDED THAT THE CONTRACTOR ORGANIZE AN IN-WATER CONSTRUCTION TEAM WHICH WILL CONSIST OF AN ENVIRONMENTAL MONITOR, SUPERVISOR, SELECTED MACHINE OPERATORS AND GENERAL LABOURERS. THIS TEAM WILL BE RESPONSIBLE FOR THE CONSTRUCTION ACTIVITIES WITHIN THE CHANNEL INCLUDING THE CONSTRUCTION OF THE CHANNEL AND RE-GRADING OF THE STREAMBANKS AND FLOODPLAINS.

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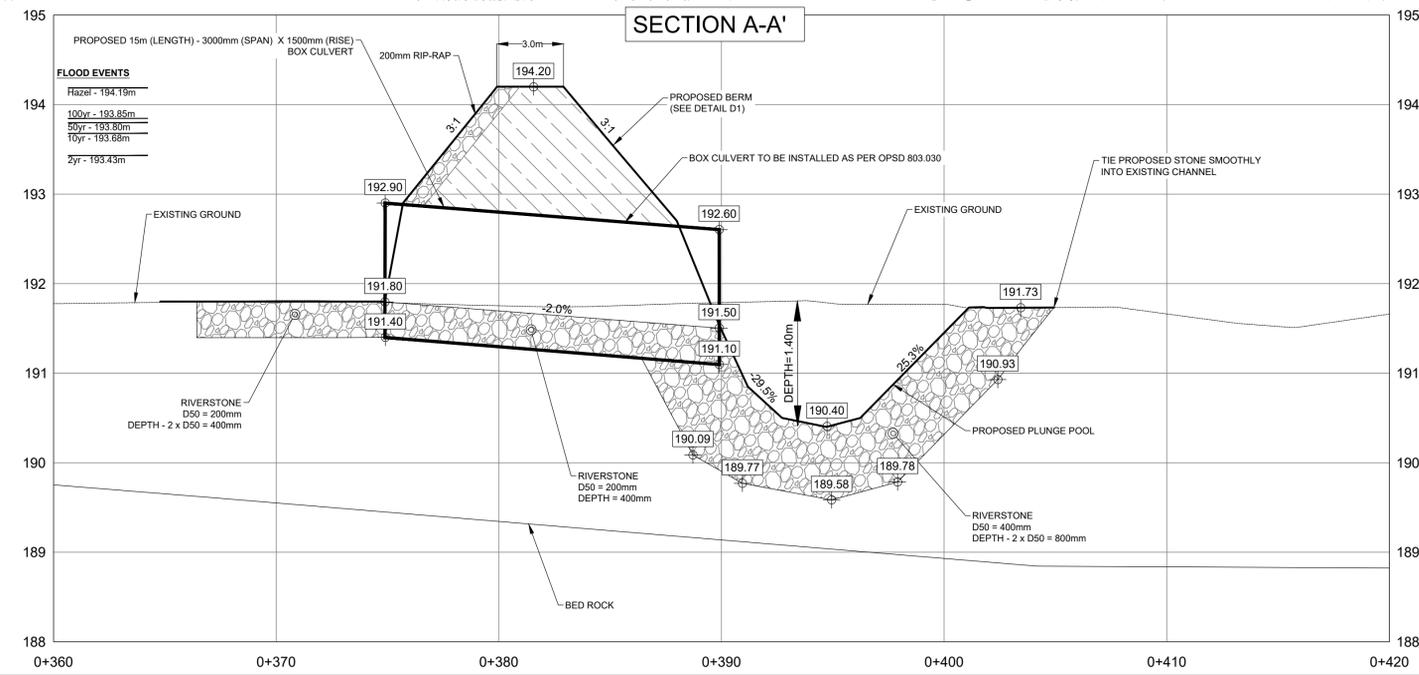
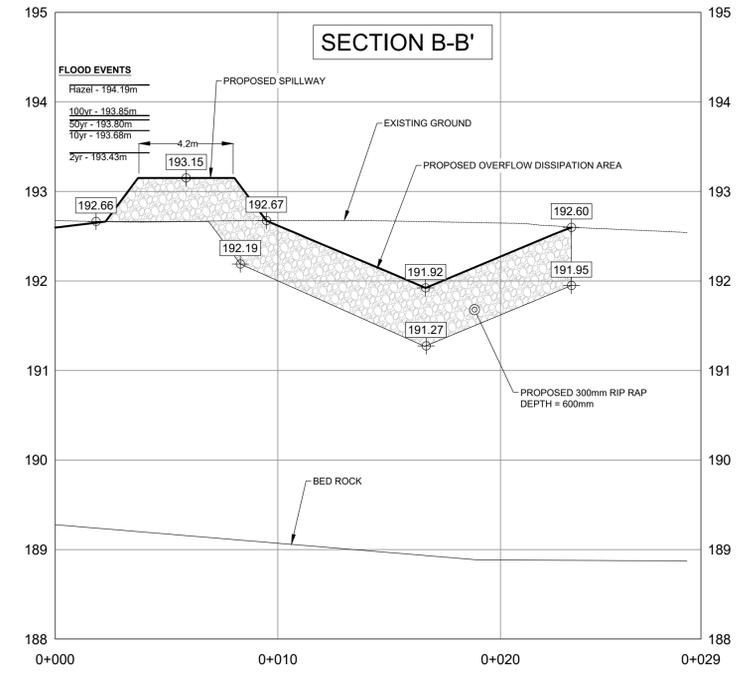
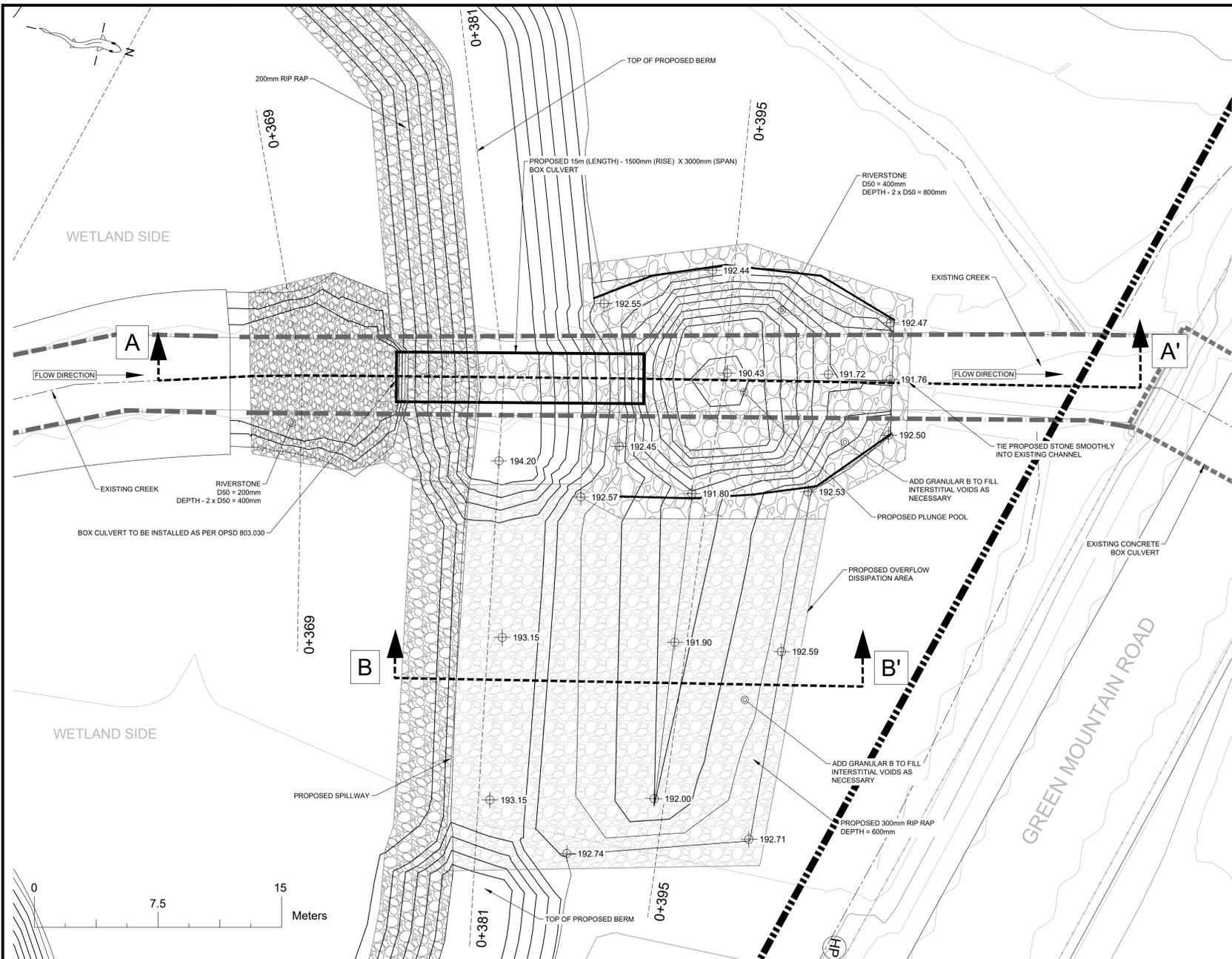
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Hamilton Conservation Authority

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SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)

POND & WETLAND DETAILS

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3	20241018	EEG	REVISED BASED ON HCA COMMENTS
2	20240208	EEG	REVISED BASED ON HCA COMMENTS
1	20201204	EEG	REVISED BASED ON HCA COMMENTS

DATE: October 25, 2024

SCALE:
HORIZONTAL - 1:150
VERTICAL - 1:37.5

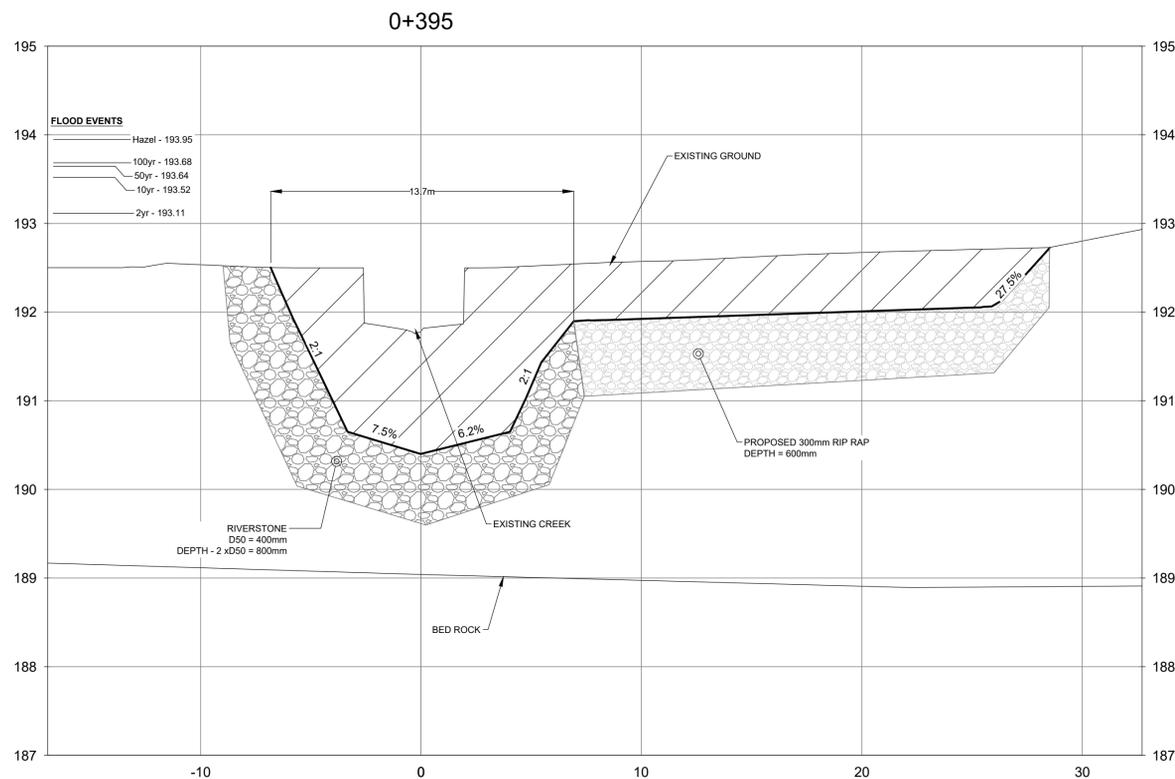
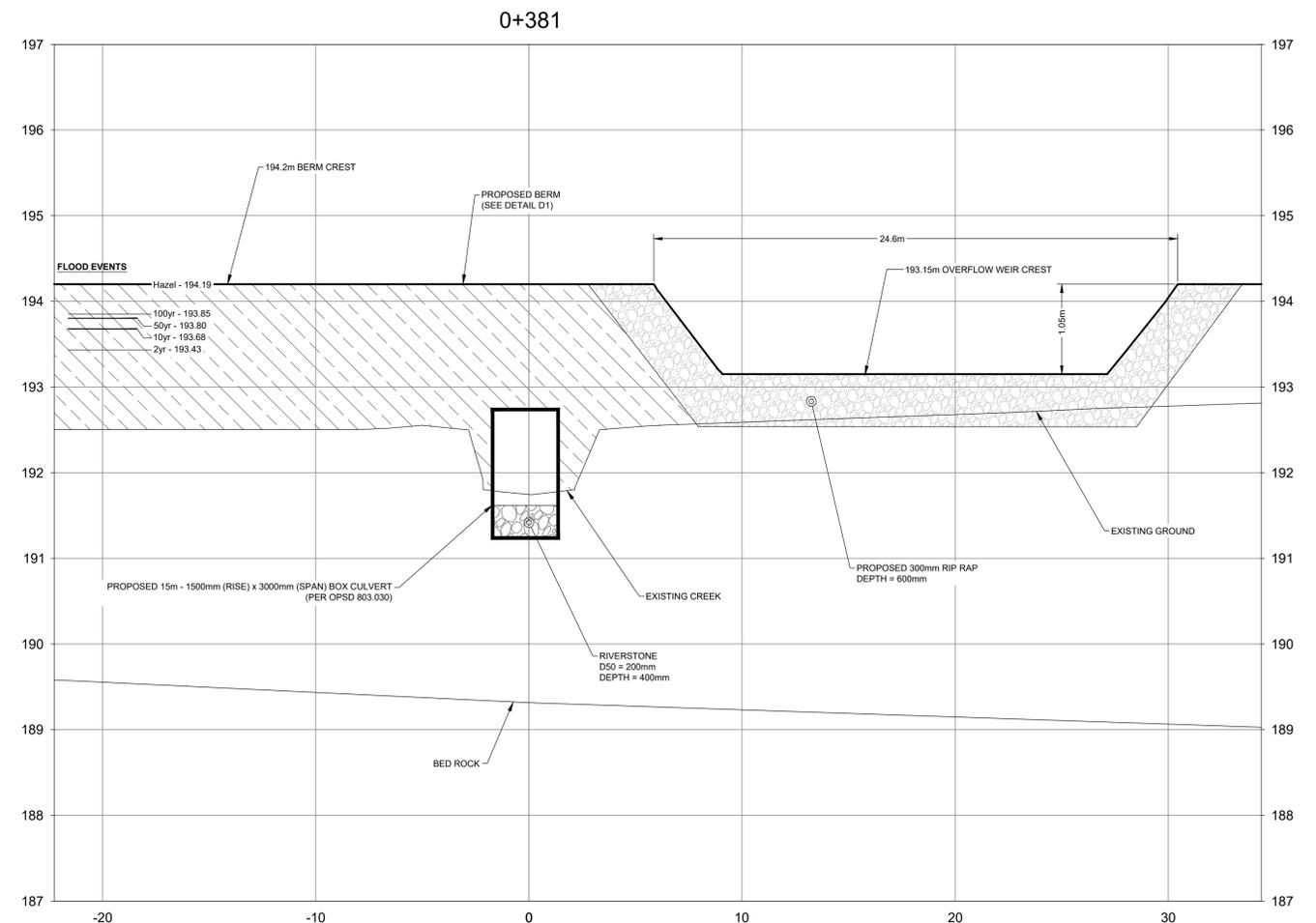
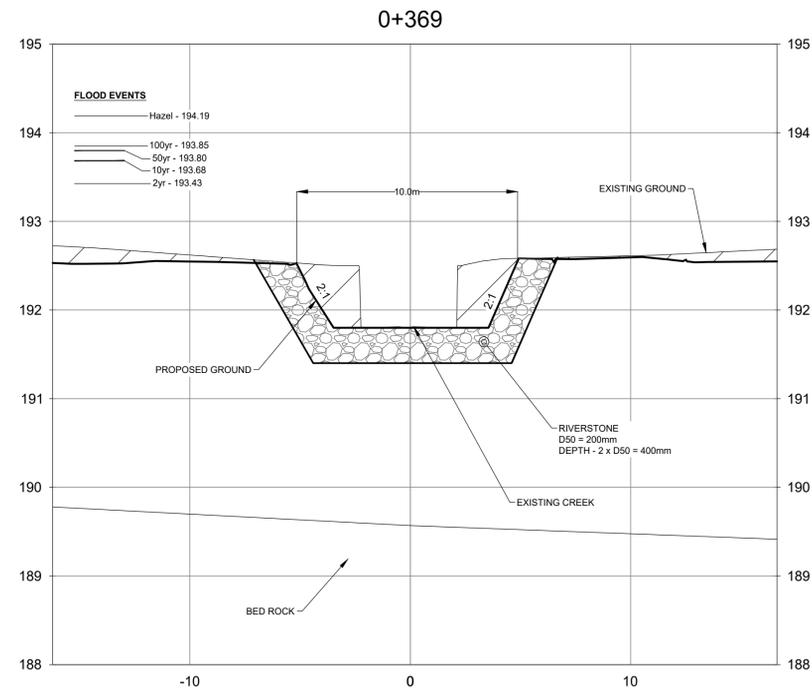
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SALTFLEET CONSERVATION AREA
STONE CREEK (SC-8)

MAIN POND OUTLET

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	10



STONE SIZING GRADATION 400mm RIVERSTONE (mm)	
700 - 800	5%
600 - 700	10%
500 - 600	15%
400 - 500	20%
300 - 400	15%
150 - 300	10%
< 150	5%
Granular "B"	20%
SUM	100%

ADD ADDITIONAL GRANULAR B TO FILL ANY INTERSTITIAL VOIDS AS NECESSARY

GRANULAR B MUST BE NEW PIT RUN AND NOT RECYCLED MATERIAL

STONE SIZING GRADATION 200mm STONE (mm)	
400 - 500	5%
300 - 400	20%
200 - 300	25%
100 - 200	25%
50 - 100	10%
0 - 50	5%
Granular "B"	10%
SUM	100%

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DATE:	October 25, 2024
SCALE:	HORIZONTAL - 1:150 VERTICAL - 1:37.5



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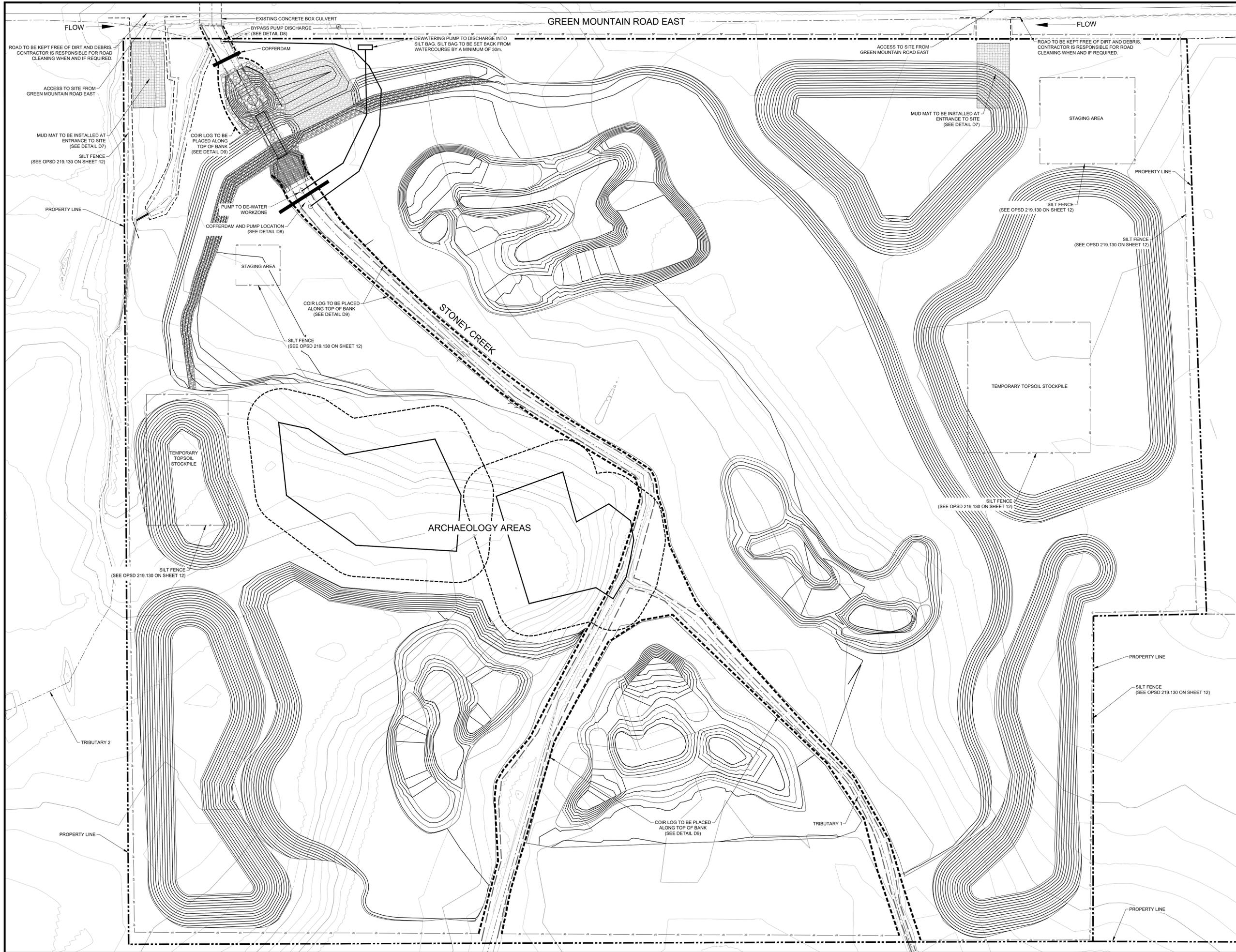
Hamilton Conservation Authority

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SALT FLEET CONSERVATION AREA
STONEY CREEK (SC-8)

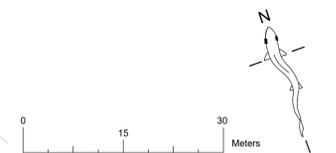
MAIN POND OUTLET DETAILS

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	11



LEGEND:

---	PROPERTY LINE
- - - -	EXISTING CULVERT
— · — ·	EXISTING TOP OF BANK
- · - ·	EXISTING BOTTOM OF BANK
— · — ·	EXISTING CREEK CENTRELINE
— · — ·	SILT FENCE
— · — ·	COIR LOG



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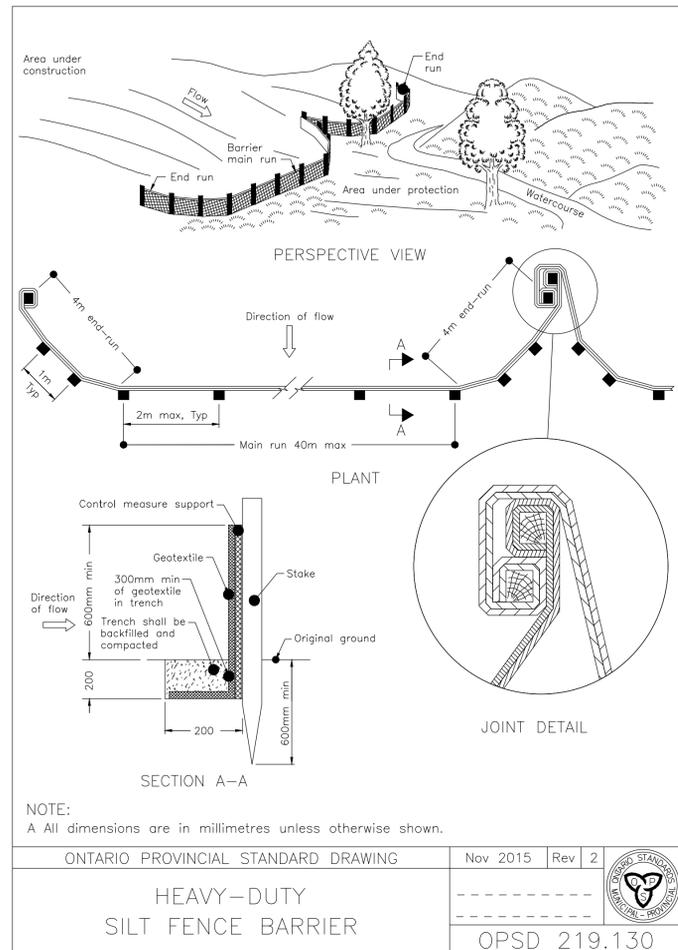
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SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)

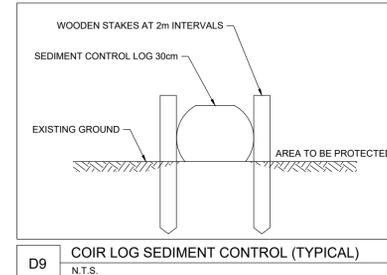
EROSION & SEDIMENT CONTROL

DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	12



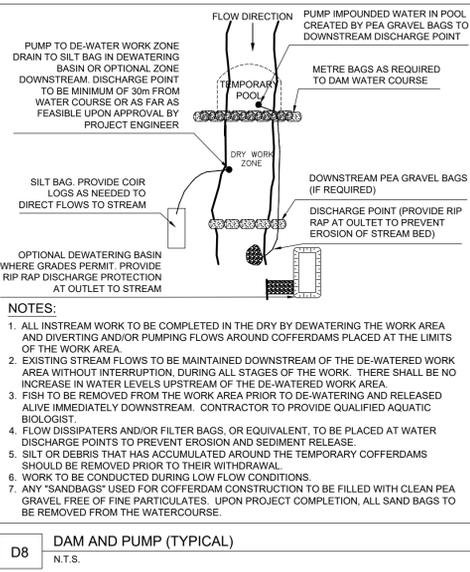
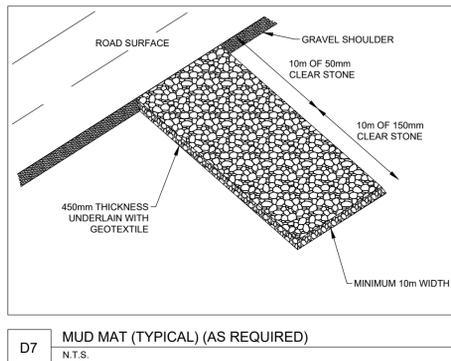
ONTARIO PROVINCIAL STANDARD DRAWING
HEAVY-DUTY
SILT FENCE BARRIER

Nov 2015 Rev 2
OPSD 219.130



- CONSTRUCTION ACCESS:**
- ACCESS TO THE CONSTRUCTION SITE WILL BE OFF GREEN MOUNTAIN ROAD EAST.
 - TREES TO BE TRIMMED OR REMOVED FROM ACCESS AS APPROVED BY CONTRACT ADMINISTRATOR AND MUNICIPALITY.
 - SAFETY FENCE TO BE ERECTED AS REQUIRED TO LIMIT PUBLIC ACCESS TO TEMPORARY CONSTRUCTION ACCESS ROAD AND CONSTRUCTION SITE.
 - SITE CONSTRUCTION ACTIVITY WILL INCLUDE THE REPAIR OF THE CREEK ACCESS AND EGRESS AREA AS PER DESIGN.
 - UPON COMPLETION OF THE CONSTRUCTION, THE ACCESS WAY IS TO BE REPAIRED TO EXISTING CONDITIONS OR BETTER EXCEPT PERMANENT ACCESS ROUTE.
 - CONTRACTOR TO MEET ON SITE WITH THE CONTRACT ADMINISTRATOR, CONSERVATION AUTHORITY STAFF AND MUNICIPAL STAFF PRIOR TO INITIATION OF CONSTRUCTION.

- EROSION AND SEDIMENT CONTROL STRATEGY**
- PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE AND WORK PLAN FOR REVIEW AND APPROVAL OF THE CONTRACT ADMINISTRATOR AND EXTERNAL AGENCIES AS REQUIRED, INDICATING HOW HE WILL IMPLEMENT SEDIMENT AND EROSION CONTROLS, AND HOW HE WILL CONTROL/DIVERT CREEK FLOWS AROUND OR THROUGH THE CONSTRUCTION AREA.
 - SEDIMENT AND EROSION CONTROL MEASURES MUST BE IMPLEMENTED PRIOR TO WORK, AND MAINTAINED DURING THE WORK PHASE, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER OR RE-SUSPENDED SEDIMENT.
 - ANY STOCKPILED MATERIALS SHOULD BE STORED AND STABILIZED AT A MAXIMUM 3H:1V SLOPE AND TEXTURED TO REDUCE RUNOFF VELOCITY. LOCATED MINIMUM 30m AWAY FROM THE WATER. EXCESS MATERIAL SHALL BE REMOVED IMMEDIATELY FROM THE CHANNEL AREA AND TEMPORARILY STOCKPILED IN SUITABLE LOCATIONS IDENTIFIED BY THE DESIGN DRAWINGS AND ON-SITE AREAS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - ALL WORK IS TO BE PERFORMED DURING LOW FLOW CONDITIONS AND WORK IS NOT TO BE INITIATED WHEN WEATHER FORECASTS SUGGEST EXTENSIVE RAIN.
 - THE CONSTRUCTION ZONE IS TO BE ISOLATED FROM ADJACENT STREAM FLOWS USING A DAM & PUMP TECHNIQUE AND BY USING ADEQUATE SILT FENCING, STONE OR ANY OTHER METHOD AS APPROVED BY THE CONTRACT ADMINISTRATOR.
 - ALL WORK IS TO BE COMPLETED AS EXPEDITIOUSLY AS POSSIBLE AND ANY WORK THAT HAS BEEN INITIATED MUST BE COMPLETED WITHIN THE WORKING DAY. IF THIS IS NOT POSSIBLE, THEN THE CONTRACTOR MUST ENSURE, TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR, THAT THE WORK SITE IS ADEQUATELY STABILIZED.
 - ONCE EACH GRADING COMPONENT OF THE PROJECT HAS BEEN COMPLETED BY THE CONTRACTOR, THE SITE IS TO BE REVEGETATED AS PER THE PLANS AND STABILIZED.
 - ANY EROSION AND SEDIMENT CONTROLS ARE TO BE REMOVED AT THE COMPLETION OF THE PROJECT AFTER A JOINT INSPECTION BY THE CONTRACTOR AND CONTRACT ADMINISTRATOR.
 - ANY DEVIATIONS FROM THE APPROVED STRATEGY MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR.
 - CONTRACTOR TO AVOID ANY UNNECESSARY DISRUPTION OF THE EXISTING CHANNEL.
 - SEDIMENT LADEN DEWATERING DISCHARGE SHOULD BE PUMPED TO A SETTLING BASIN OR FILTERING SYSTEM WELL AWAY FROM THE WATERCOURSE AND ALLOWED TO SETTLE AND/OR FILTER THROUGH THE RIPARIAN VEGETATION BEFORE RE-ENTERING THE WATERCOURSE DOWNSTREAM OF THE CONSTRUCTION AREA.



- CONSTRUCTION SEQUENCING AND STAGING NOTES:**
- CONTRACTOR TO NOTIFY MUNICIPALITY, AGENCIES AND CONTRACT ADMINISTRATOR TWO (2) DAYS PRIOR TO ACTUAL CONSTRUCTION.
 - THE CONTRACTOR SHALL PROVIDE GENERAL ARRANGEMENT DRAWINGS AND A STAGING PLAN WITH THE PROPOSED BYPASS METHODOLOGY AND DEMONSTRATE THAT THE APPROACH CAN ADEQUATELY ADDRESS THE ENVIRONMENTAL AND EXISTING SITE CONDITIONS (VARYING FLOW CONDITIONS, CHANNEL CAPACITIES, WET WEATHER RESPONSE).
 - CONSTRUCTION STAGING MUST HAVE REGARD FOR THE ENVIRONMENTAL ASPECTS OF THE PROPOSED CONSTRUCTION. THIS WILL ENSURE THAT AMPLE TIME IS PROVIDED TO ENSURE THE TIMELY ARRIVAL OF REQUIRED EQUIPMENT AND MATERIALS AND THE APPROPRIATE ALLOCATION OF RESOURCES.
 - INSTALL CONSTRUCTION FENCING AND SILT FENCING AS PER SPECIFICATIONS. FENCE TO BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE THE LIMIT OF CONSTRUCTION ACTIVITY.
 - INSTALL MUD MAT AT ENTRANCES TO SITE AS PER DETAIL D6.
 - REMOVE AND DISPOSE OF EXISTING VEGETATION WITHIN THE WORK AREA.
 - PLACE DAM & PUMP CONTROLS IN DESIGNATED AREA.
 - REMOVE AND STOCKPILE TOPSOIL ALONG PROPOSED BERM.
 - SUPPLY AND PLACE ENGINEERED FILL FOR BERM.
 - SUPPLY AND PLACE OUTLET STRUCTURES AND OUTFALL STONE.
 - GRADE AND SHAPE WETLANDS.
 - ALL EXCESS MATERIAL STOCKPILED ON SITE TO BE USED IN BERMS.
 - COMPLETE SEEDING AND PLANTING AS PER APPROVED PLANS AND SPECIFICATIONS.
 - STABILIZE ALL SLOPES AS NOTED ON PLAN.
 - REMOVE DAM & PUMP CONTROLS
 - REMOVE ANY EROSION AND SEDIMENT CONTROLS ONCE ALL VEGETATION HAS BECOME SUFFICIENTLY ESTABLISHED.

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No.	DATE	BY	REVISIONS

DATE: October 25, 2024

SCALE:

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ENVIRONMENTAL SOLUTIONS TEAM

Hamilton Conservation Authority

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**SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)**

**EROSION & SEDIMENT
CONTROL DETAILS**

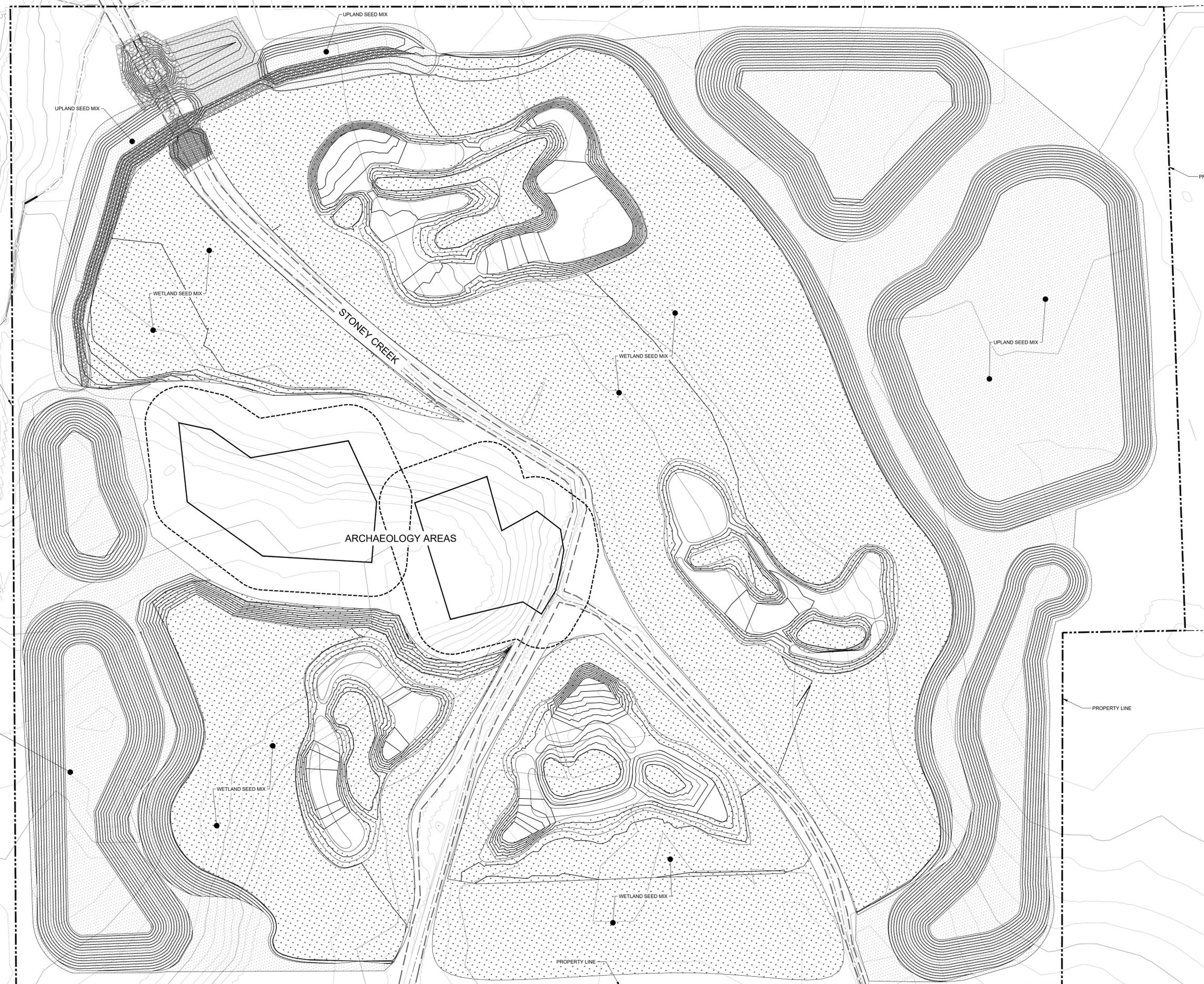
DESIGN	EEG	PROJECT No.	19028
CHECKED	EG	SHEET No.	13

GREEN MOUNTAIN ROAD EAST

WETLAND SEED MIX



UPLAND SEED MIX



PROPERTY LINE

PROPERTY LINE

TRIBUTARY 2

UPLAND SEED MIX

STONEY CREEK

ARCHAEOLOGY AREAS

UPLAND SEED MIX

WETLAND SEED MIX

WETLAND SEED MIX

UPLAND SEED MIX

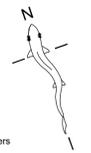
UPLAND SEED MIX

WETLAND SEED MIX

WETLAND SEED MIX

PROPERTY LINE

PROPERTY LINE



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SALTFLEET CONSERVATION AREA
STONEY CREEK (SC-8)

SEEDING PLAN	
DESIGN	EEG
CHECKED	EG
PROJECT No.	19028
SHEET No.	15

These plantings have been removed from the scope of this project.
Refer to SCOPE OF WORK for required plantings for this project.

WETLAND RESTORATION SEED MIX

- SEED MIX BASED ON SEED MIXES SUITABLE FOR OUR WATERSHED (HCA 2019)
- SEED MIX TO BE APPLIED AT A RATE OF 22-25KG/HA
- CONTRACTOR TO SOW NURSE CROP OF OATS (Avena sativa) AND BUCKWHEAT (Fagopyrum esculentum) OVER ENTIRE AREA AT A RATE OF 35 KG/HA
- SEED DISPERSAL METHOD TO BE HAND SEEDING AT SPECIFIED RATES

Botanical Name	Common Name	% of mix
Asclepias incarnata ssp. incarnata	Swamp Milkweed	1
Symphytichum novae-angliae	New England Aster	1
Symphytichum panicum var. panicum	Swamp Aster	1
Carex vulpinoidea	Fox Sedge	35
Elymus virginicus var. virginicus	Virginia Wildrye	35
Eutrochium maculatum	Spotted Joe-Pye-Weed	1
Iris versicolor	Harlequin Blue Flag	1
Juncus effusus ssp. solutus	Soft Rush	5
Leersia oryzoides	Rice Cutgrass	1
Mimulus ringens	Square-stemmed Monkeyflower	1
Scirpus atrovirens	Dark-green Bulrush	8
Scirpus cyperinus	Cottongrass Bulrush	1
Verbena hastata	Blue Vervain	9
TOTAL		100

UPLAND RESTORATION SEED MIX

- SEED MIX BASED ON SEED MIXES SUITABLE FOR OUR WATERSHED (HCA 2019)
- SEED MIX TO BE APPLIED AT A RATE OF 22-25KG/HA
- CONTRACTOR TO SOW NURSE CROP OF OATS (Avena sativa) AND BUCKWHEAT (Fagopyrum esculentum) OVER ENTIRE AREA AT A RATE OF 35 KG/HA
- SEED DISPERSAL METHOD TO BE HAND SEEDING AT SPECIFIED RATES

Botanical Name	Common Name	% of mix
Oenothera biennis	Common Evening Primrose	25
Anemonastrum canadense	Canada Anemone	1
Asclepias syriaca	Common Milkweed	2
Symphytichum cordifolium	Heart Leaved Aster	1
Symphytichum novae-angliae	New England Aster	1
Carex granularis	Granular Sedge	15
Clematis virginiana	Virginia Virgin's-bower	1
Elymus virginicus var. virginicus	Virginia Wildrye	40
Euthamia graminifolia	Grass-leaved Goldenrod	1
Monarda fistulosa	Wild Bergamot	1
Rutbeckia hirta	Black-eyed Susan	10
Solidago canadensis	Canada Goldenrod	2
TOTAL		100

WETLAND PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	CONT	FLOOD PLAIN QNTY.
EMERGENT SPECIES					
sl	Sagittaria latifolia	Common Arrowhead	250cm Ht.	#3cont	292
ap	Alisma subcordatum	Water Plantain	250cm Ht.	#3cont	292
as	Sparganium eurycarpum	Common Bur reed	250cm Ht.	#3cont	291
TOTAL					875
SUBMERGENT SPECIES					
ec	Eelodea canadensis	Common Waterweed	250cm Ht.	#3cont	385
cd	Nymphaea alba	White Water Lily	250cm Ht.	#3cont	380
TOTAL					765

PLANT LIST

Key	Botanical Name	Common Name	Cal. (mm)	Ht. (cm)	Root Condition	MAIN POND
TREES						
pr	Thuja occidentalis	Eastern White Cedar	60		W.B.	265
ps	Betula alleghaniensis	Yellow Birch	60		W.B.	74
as	Acer saccharinum	Silver Maple	60		W.B.	75
qr	Tilia americana	Basswood	60		W.B.	72
TOTAL						486
SHRUBS						
nm	Nemopanthis mucronatus	Mountain Holly	60	3 Gal. Pot		309
cs	Cornus stolonifera	Red Osar Dogwood	60	3 Gal. Pot		486
pv	Prunus virginia	Chokecherry	60	3 Gal. Pot		371
ro	Rubus odoratus	Flowering Raspberry	60	3 Gal. Pot		252
seq	Salix exiqua	Sandbar Willow	60	3 Gal. Pot		342
sl	Salix lucida	Shining Willow	60	3 Gal. Pot		224
sp	Salix pedicularis	Slender Willow	60	3 Gal. Pot		256
sc	Sambucus canadensis	Elderberry	60	3 Gal. Pot		427
sa	Spiraea alba	Meadowsweet	60	3 Gal. Pot		312
vt	Viburnum lentago	Nannyberry	60	3 Gal. Pot		301
co	Cephalanthus occidentalis	Butterbush	60	3 Gal. Pot		214
TOTAL						3494

WETLAND SEED MIX NOTES:

SEED MIX BASED ON SEED MIX SUITABLE FOR OUR WATERSHED (HCA 2019)
SEED MIX TO BE APPLIED AT A RATE OF 22-25KG/HA
CONTRACTOR TO SOW NURSE CROP OF OATS (30%), BUCKWHEAT (30%) AND VIRGINIA WILD RYE (40%) OVER ENTIRE AREA AT A RATE OF 35 KG/HA

- UPON COMPLETION OF WORK ALL NON-SODDED DISTURBED AREAS ARE TO BE STABILIZED AND RESTORED WITH NATIVE SEED MIX ON 150mm TOPSOIL.
- SEED DISPERSAL METHOD TO BE DECIDED BY HCA AND APPROVED BY PROJECT MANAGER

UPLAND SEED MIX NOTES:

SEED MIX BASED ON OSC 8135 NATIVE PRAIRIE MEADOW SEED MIXTURE SUPPLIED BY ONTARIO SEED COMPANY (www.oscseeds.com 519-898-0557) OR APPROVED EQUIVALENT. APPLY AT A RATE OF 22-25 KG/HA
CONTRACTOR TO SOW NURSE CROP OF OATS (30%), BUCKWHEAT (30%) AND VIRGINIA WILD RYE (40%) OVER ENTIRE AREA AT A RATE OF 35 KG/HA

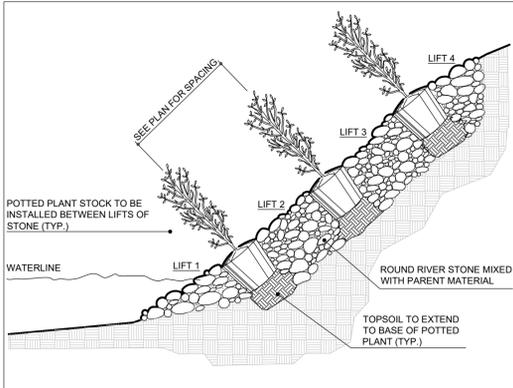
- UPON COMPLETION OF WORK ALL NON-SODDED DISTURBED AREAS ARE TO BE STABILIZED AND RESTORED WITH NATIVE SEED MIX ON 150mm TOPSOIL.
- SEED DISPERSAL METHOD TO BE DECIDED BY HCA AND APPROVED BY PROJECT MANAGER

SITE REVEGETATION:

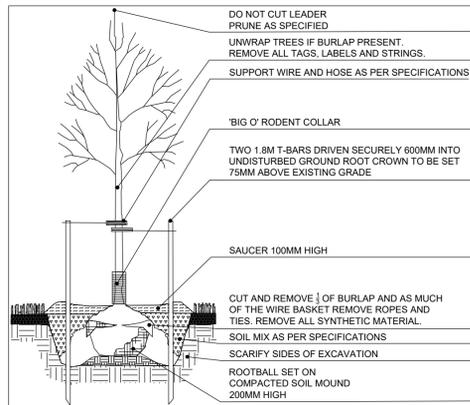
CONTRACTOR TO MAKE EFFORT TO MINIMIZE SITE DISTURBANCES. ALL DISTURBED AREAS, INCLUDING ACCESS ROUTES, STAGING AREAS AND WORK ZONES ARE TO BE CLEARED (PLANT MATERIAL TO BE SALVAGED) PRIOR TO CONSTRUCTION AND REVEGETATED WITH OSC 8135 NATIVE PRAIRIE MEADOW SEED MIX AND SALVAGED PLANT MATERIAL UNLESS DIRECTED OTHERWISE BY DESIGN DETAILS.

NOTE:

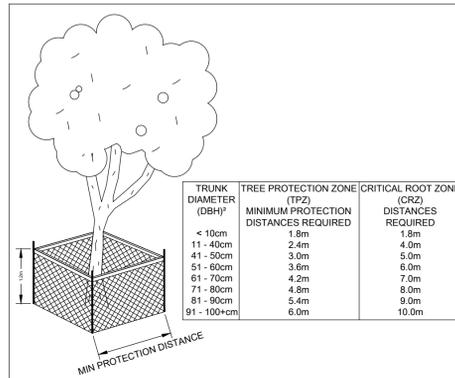
COMMON CATTAIL (Typha latifolia) IS EXPECTED TO SEED IN ON ITS OWN.



D10 VEGETATED RIVERSTONE (TYPICAL)
N.T.S.

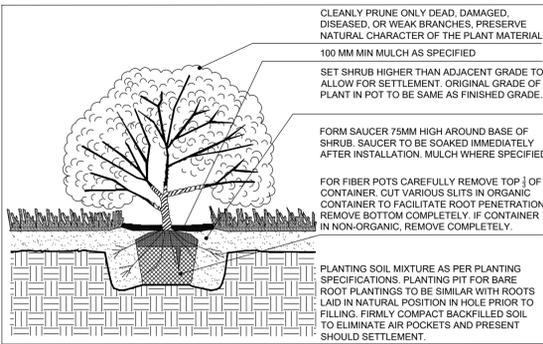


D11 DECIDUOUS TREE PLANTING (TYPICAL)
N.T.S.

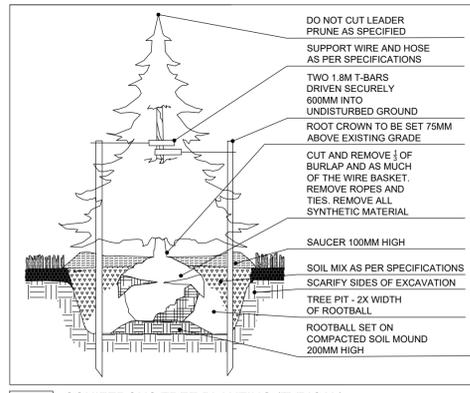


- TREE PROTECTION BARRIER:
- BARRIER TO BE 1.2m HIGH AND CONSIST OF ORANGE PLASTIC WEB SNOW FENCING ON WOOD FRAME OF 2"x4" S, SUPPORTED ON METAL "T" BARS, 2.0m C/C MAX.
 - WHERE SOME EXCAVATE OR FILL HAS TO BE TEMPORARILY LOCATED NEAR A TREE PROTECTION BARRIER PLYWOOD MUST BE USED TO ENSURE NO MATERIAL ENTERS THE TREE PROTECTION ZONE.
 - LL SUPPORTS AND BRACINGS SHOULD BE OUTSIDE THE TREE PROTECTION ZONE. ALL SUCH SUPPORTS SHOULD MINIMIZE DAMAGING ROOTS OUTSIDE THE TREE PROTECTION BARRIER.
 - NO CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR EXCAVATIONS OF ANY KIND IS PERMITTED WITHIN THE TREE PROTECTION ZONE.

D14 TREE PROTECTION BARRIER (TYPICAL)
N.T.S.



D12 SHRUB PLANTING (TYPICAL)
N.T.S.



D13 CONIFEROUS TREE PLANTING (TYPICAL)
N.T.S.

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SCALE:

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SALTFLEET CONSERVATION AREA
STONE CREEK (SC-8)

PLANTING PLAN DETAILS	
DESIGN	EEG
CHECKED	EG
PROJECT No.	19028
SHEET No.	16