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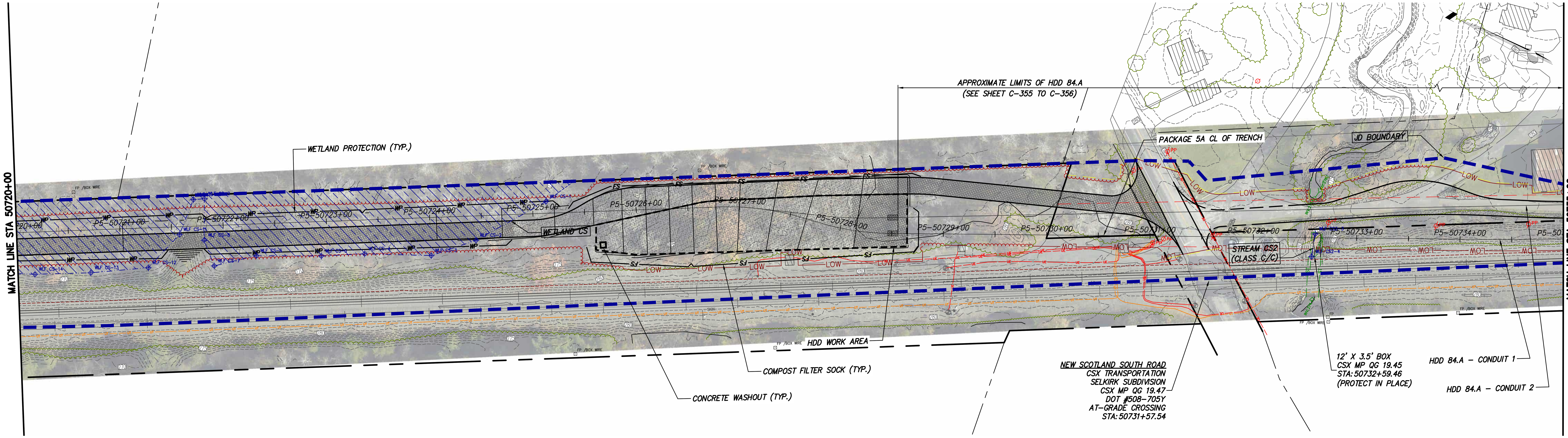

STA. 50720+00 TO STA. 50735+00 PLAN VIEW

SCALE: 1" = 50'

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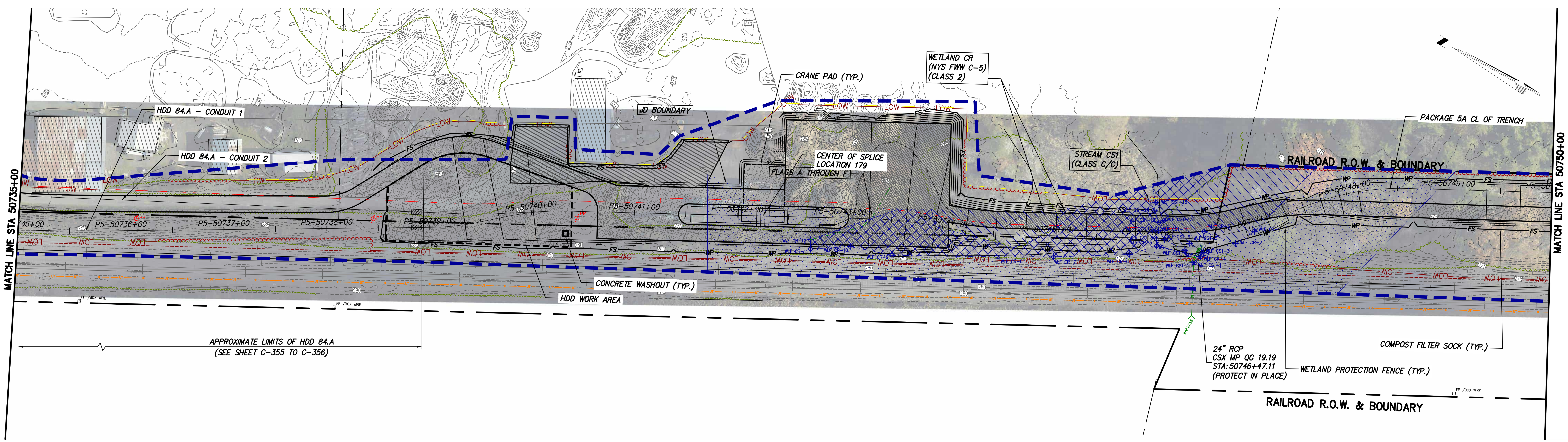

STA. 50735+00 TO STA. 50750+00 PLAN VIEW

SCALE: 1" = 50'

CHPE Champlain Hudson Power Express

Kiewit

KC Engineering and Land Surveying, P.C.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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A	12/16/2022	FINAL SUBMISSION	SC	NH

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM

EROSION AND SEDIMENT CONTROL PLAN

STA. 50720+00 TO STA. 50750+00

KIEWIT PROJECT NO. 21162

KC PROJECT NO. 120174

DRAWING NO. C-425

DRAWN BY: SC | DESIGNED BY: MK | APPROVED BY: NH | SCALE AS SHOWN | REV. NO. A | DATE 12/16/2022 | SH.NO. OF

File: P:\120174-CHPE_CABLE_INSTALL-KIEWIT\60_CAD\20_ENGINEERING_CAD_FILES\PACKAGE_5A\NY_ENVIRONMENTAL_(EROSION_CONTROL)\01_KCE\SHEET_FILES\21162_5A_C421-TO-C430.DWG Saved: 12/15/2022 6:58:59 PM Plotted: 12/15/2022 8:55:57 PM Current User: Samantha Caph LastSavedBy: scaph

STA. 50750+00 TO STA. 50765+00 PLAN VIEW

SCALE: 1" = 50'

STA. 50765+00 TO STA. 50780+00PLAN VIEW

SCALE: 1" = 50'

Champlain Hudson Power Express

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A	12/16/2022	FINAL SUBMISSION	SC	NH

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM

EROSION AND SEDIMENT CONTROL PLAN

STA. 50750+00 TO STA. 50780+00

DRAWN BY: SC DESIGNED BY: MK APPROVED BY: NH

SCALE: AS SHOWN REV. NO. A

KIEWIT PROJECT NO. 21162

KC PROJECT NO. 120174

DRAWING NO. **C-426**

DATE 12/16/2022

SH.NO. OF

STA. 50780+00 TO STA. 50795+00 PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

STA. 50795+00 TO 50810+00 PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

CHPE Champlain Hudson Power Express

Kiewit

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A	12/16/2022	FINAL SUBMISSION	SC	NH

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM

EROSION AND SEDIMENT CONTROL PLAN

STA. 50780+00 TO STA. 50810+00

KIEWIT PROJECT NO. 21162

KC PROJECT NO. 120174

DRAWING NO. C-427

DRAWN BY: SC DESIGNED BY: MK APPROVED BY: NH

SCALE AS SHOWN | REV. NO. A | DATE 12/16/2022 | SH.NO. OF

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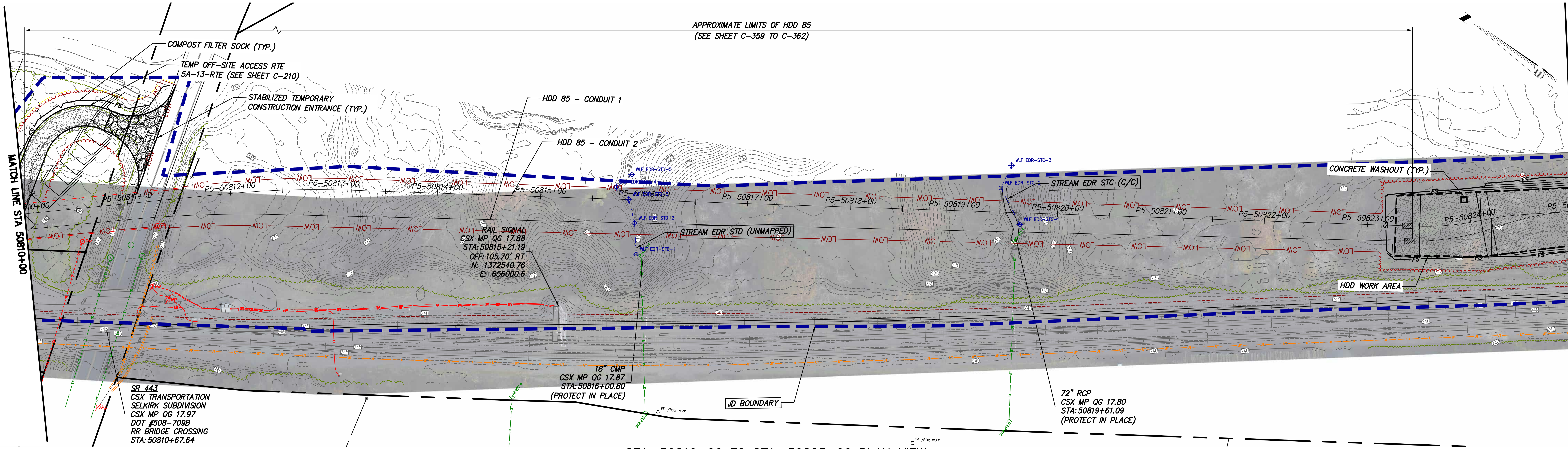

STA. 50810+00 TO STA. 50825+00 PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

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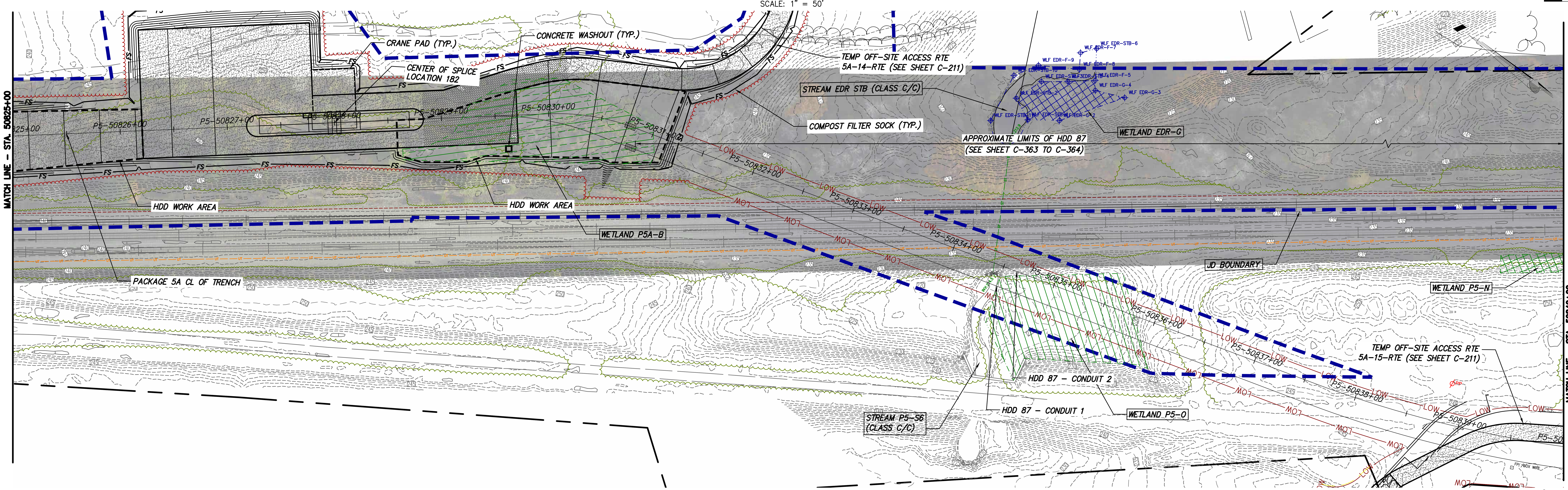

STA. 50825+00 TO STA. 50840+00 PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

B

CHPE
Champlain Hudson Power Express

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A	12/16/2022	FINAL SUBMISSION	SC	NH

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM

EROSION AND SEDIMENT CONTROL PLAN

STA. 50810+00 TO STA. 50840+00

DRAWN BY: SC DESIGNED BY: MK APPROVED BY: NH

SCALE: AS SHOWN
REV. NO. A
DATE 12/16/2022
SH.NO. OF

KIEWIT PROJECT NO. 21162
KC PROJECT NO. 120174
DRAWING NO.
C-428

STA. 50840+00 TO STA. 50855+00 PLAN VIEW
SCALE: 1" = 50'

STA. 50855+00 TO STA. 50870+00 PLAN VIEW
SCALE: 1" = 50'

CHPE Champlain Hudson Power Express

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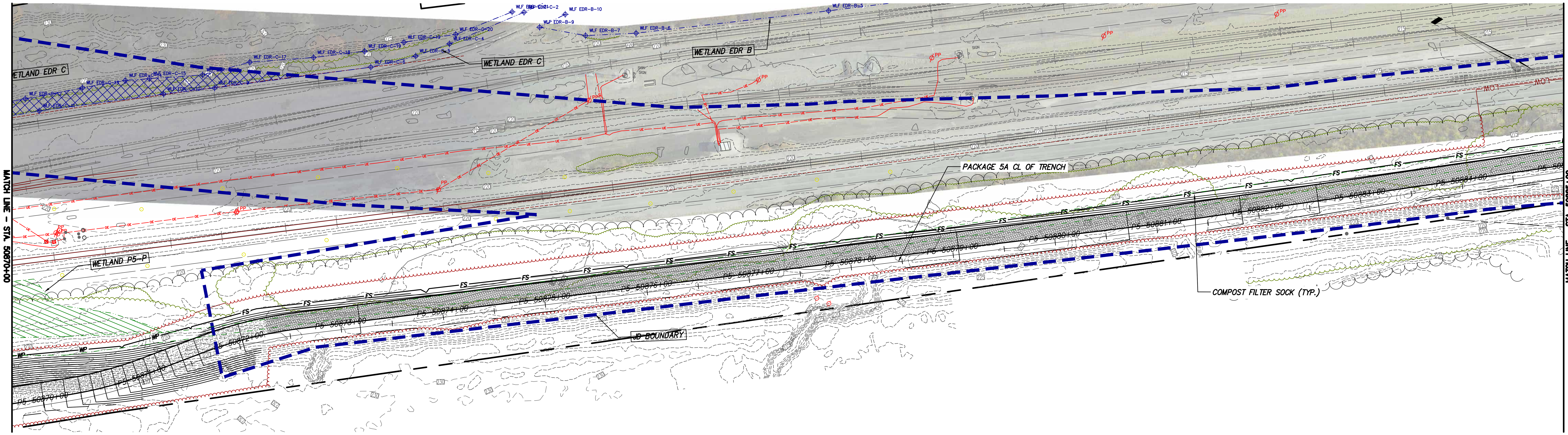
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
A	12/16/2022	FINAL SUBMISSION	SC	NH

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM

EROSION AND SEDIMENT CONTROL PLAN
STA. 50840+00 TO STA. 50870+00

DRAWN BY: SC DESIGNED BY: MK APPROVED BY: NH SCALE AS SHOWN REV. NO. A

KIEWIT PROJECT NO. 21162
KC PROJECT NO. 120174
DRAWING NO. C-429
DATE 12/16/2022
SH.NO. OF



STA. 50870+00 TO STA. 50885+00 PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

STA. 50885+00 TO STA. 50900+44 PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

CHPE Champlain Hudson Power Express

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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
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CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM

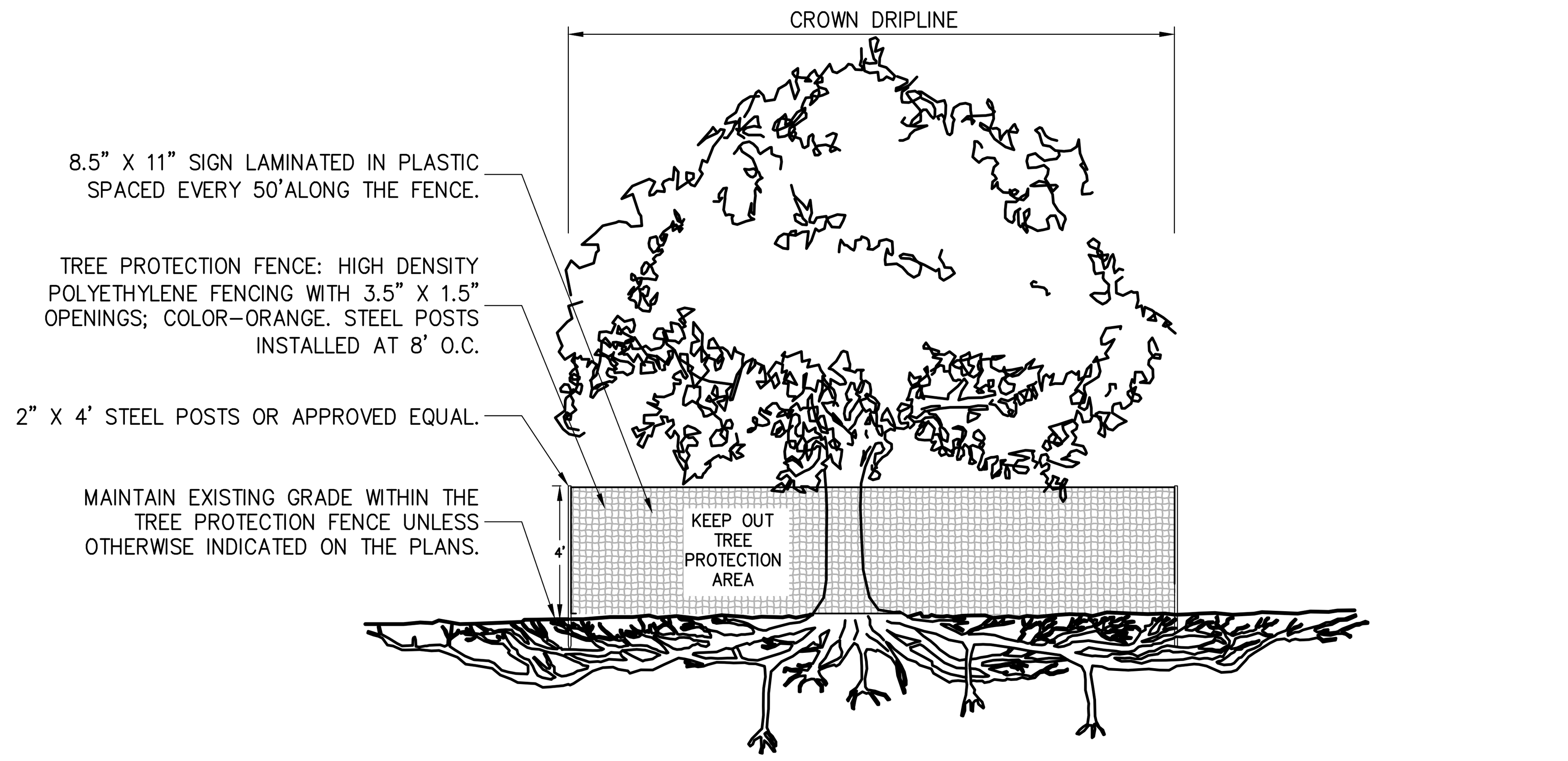
EROSION AND SEDIMENT CONTROL PLAN
STA. 50885+00 TO STA. 50900+44

DRAWN BY: SC DESIGNED BY: MK APPROVED BY: NH

SCALE: AS SHOWN
REV. NO. A

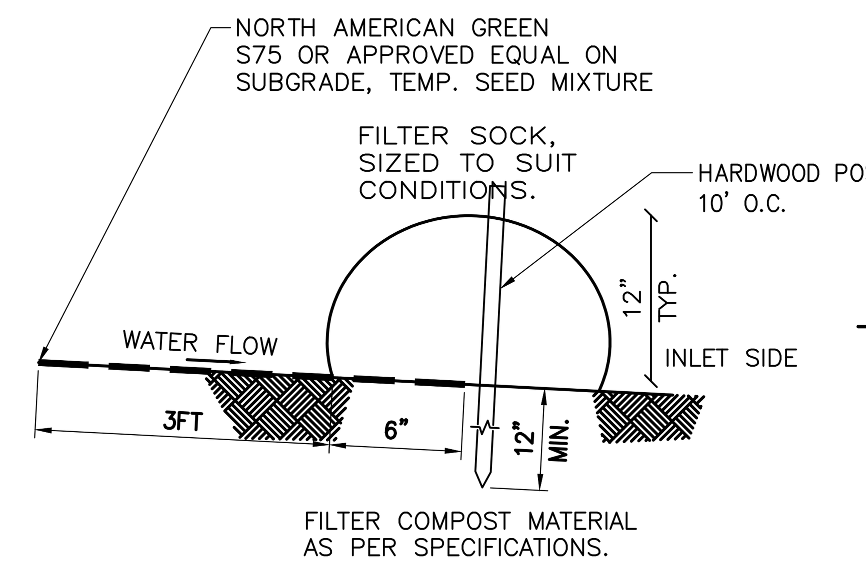
KIEWIT PROJECT NO. 21162
KC PROJECT NO. 120174
DRAWING NO. **C-430**

DATE 12/16/2022
SH.NO. OF

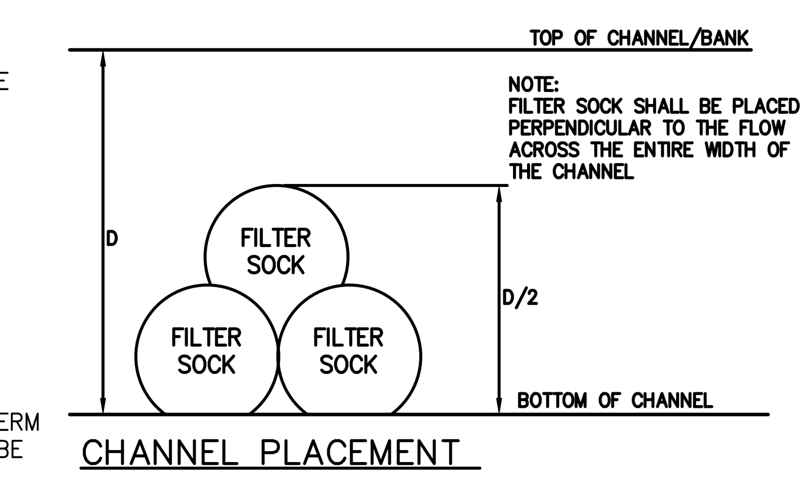


NOTES:
1. CONTRACTOR TO MAINTAIN INTEGRITY OF CONSTRUCTION FENCE FOR DURATION OF PROJECT.
2. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
3. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
4. SEE EROSION CONTROL PLANS LOCATIONS OF TREE PROTECTION AREAS.

1 TREE PROTECTION
NOT TO SCALE

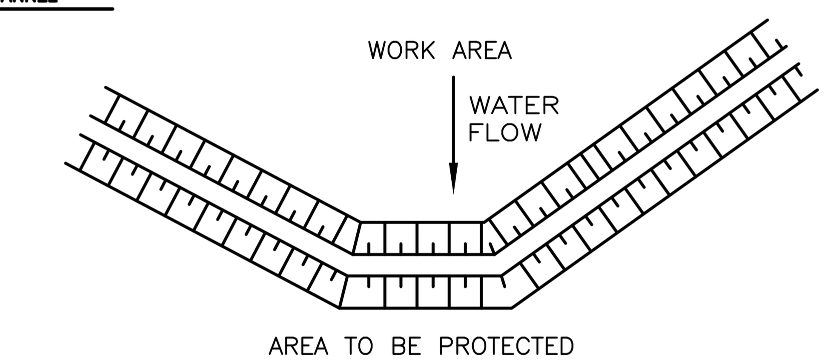


NOTES:
1. ALL MATERIAL TO MEET MANUFACTURER SPECIFICATIONS.
2. ALL FILTER SOCKS SHALL BE 12" DIAMETER OR LARGER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTER BERM IN A FUNCTIONAL CONDITION AT ALL TIMES AND IT SHALL BE ROUTINELY INSPECTED.
4. WHERE THE BERM REQUIRES REPAIR, IT WILL BE ROUTINELY REPAIRED.
5. THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE BERM WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE BERM, OR AS DIRECTED BY THE OWNERS.
6. THE COMPOST FILTER BERM WILL BE REMOVED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE OWNERS.
7. INSTALL PERPENDICULAR TO FLOW.



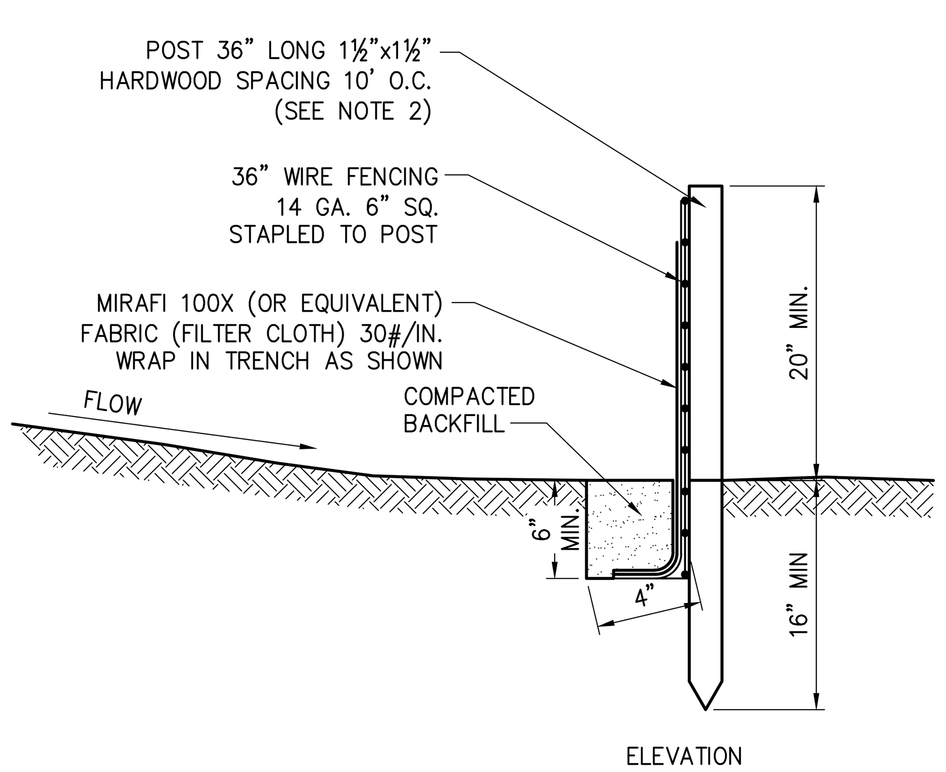
CHANNEL PLACEMENT

MAINTENANCE NOTES:
1. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES $\frac{1}{3}$ OF THE EXPOSED HEIGHT OF THE PRACTICE AND DISPOSED OF IN ACCORDANCE WITH THE SWPPP.
3. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED IN THE MANNER REQUIRED BY THE MANUFACTURER OR REPLACED WITHIN 24 HOURS OF INSPECTION NOTIFICATION.
4. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTO-DEGRADABLE FILTER SOCKS AFTER 1 YEAR. POLY-PROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
5. UPON STABILIZATION OF THE AREA CONTRIBUTORY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK SHALL BE REMOVED. FOR REMOVAL THE MESH CAN BE CUT AND COMPOST SPREAD AS AN ADDITIONAL MULCH TO ACT AS A SOIL SUPPLEMENT.



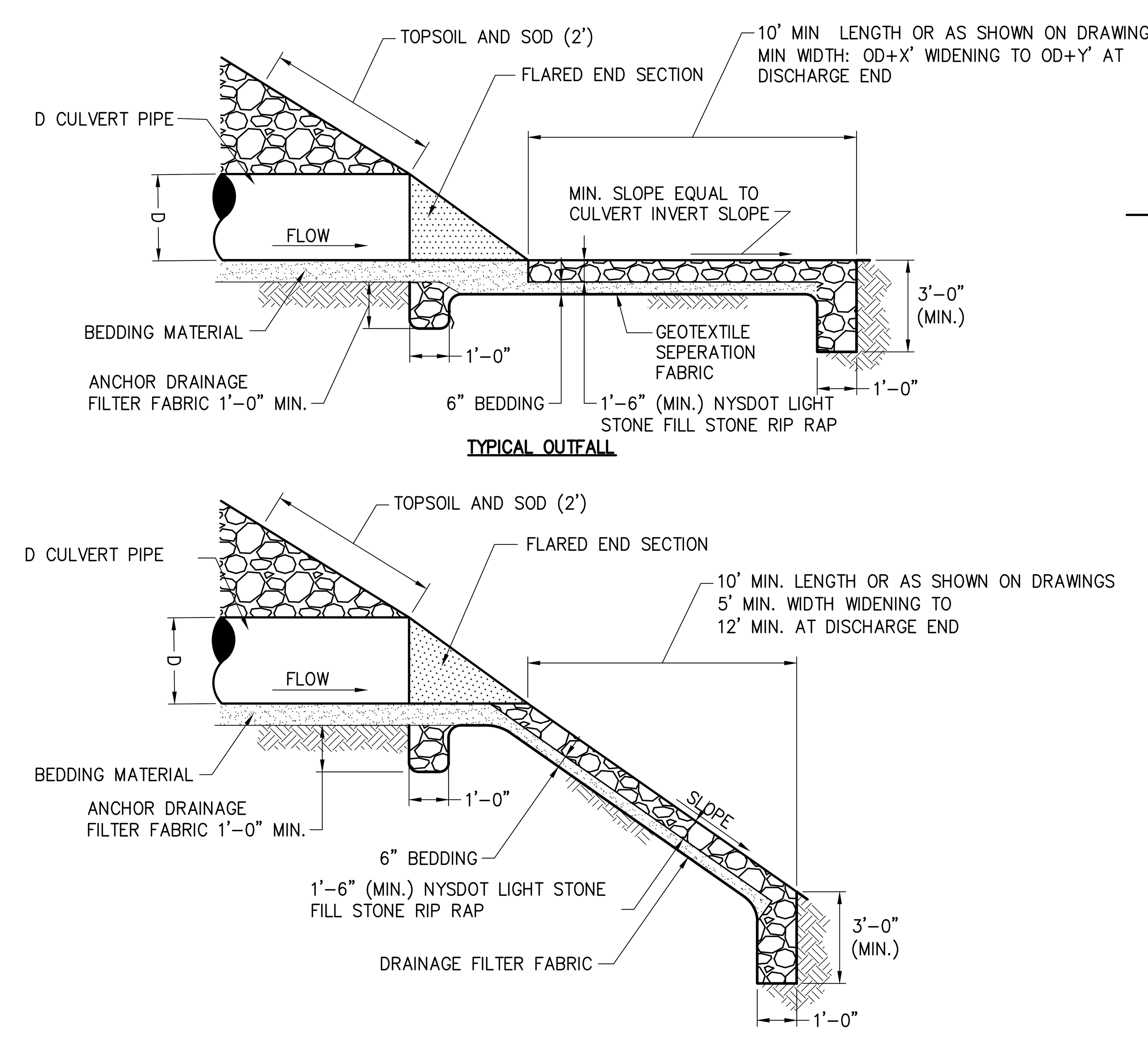
AT GRADE PLACEMENT

2 COMPOST FILTER SOCK DETAIL
SCALE: N.T.S.

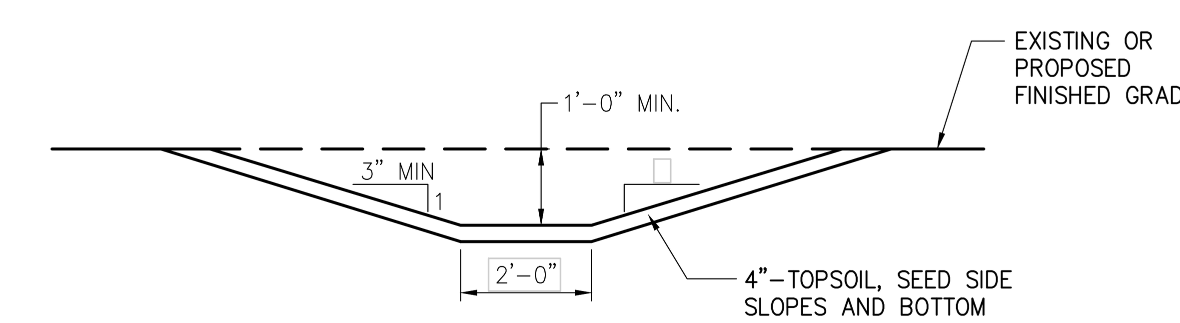


NOTES:
1. TIE FABRIC TO WIRE FENCE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. IF EXTRA STRENGTH FABRIC (GREATER THAN 50#/INCH) IS USED, WIRE CAN BE DELETED IF POST SPACING IS REDUCED TO 6' O.C.
3. AT THE ENDS OF THE FENCING THE FIRST 20' SHALL BE TURNED UP THE SLOPE 2'.
4. POSTS SHOULD BE INCLINED TOWARD THE DIRECTION FLOW CAME FROM.
5. OVERLAP FABRIC A MINIMUM OF 6" AND FOLDED AT JOINTS. ATTACH FILTER FABRIS TO STAKES ALLOWING EXTENSION INTO TRENCH AS SHOWN; SECURE TO STAKES AS NOTED.
6. THE MAXIMUM AREA OF RUNOFF PER 100LF. OF FENCE SHALL NOT EXCEED 0.25 ACRES.
7. MAINTENANCE SHALL BE PERFORMED AS NECESSARY. THE FENCING SHALL BE CHECKED AFTER EVERY STORM TO ENSURE THEIR PROPER FUNCTIONING.
8. WHEN FENCE IS NO LONGER NEEDED, THE ACCUMULATED SILT, THE POSTS AND FABRIC SHALL BE REMOVED AND TRENCH BACK FILLED WITH TOPSOIL AND SEEDED.
9. FENCING SHOULD BE PLACED AS SHOWN ON THE DRAWING OR IF NOT SHOWN, 10' BEYOND THE TOE OF THE OF THE SLOPE AND AT A SPACING IN ACCORDANCE WITH THE TABLE.
10. EXCAVATE TRENCH AS PER DETAIL AND SET POSTS AT 10' O.C.
11. BACKFILL WITH COMPACTED, EXCAVATED SOIL FROM TRENCH.

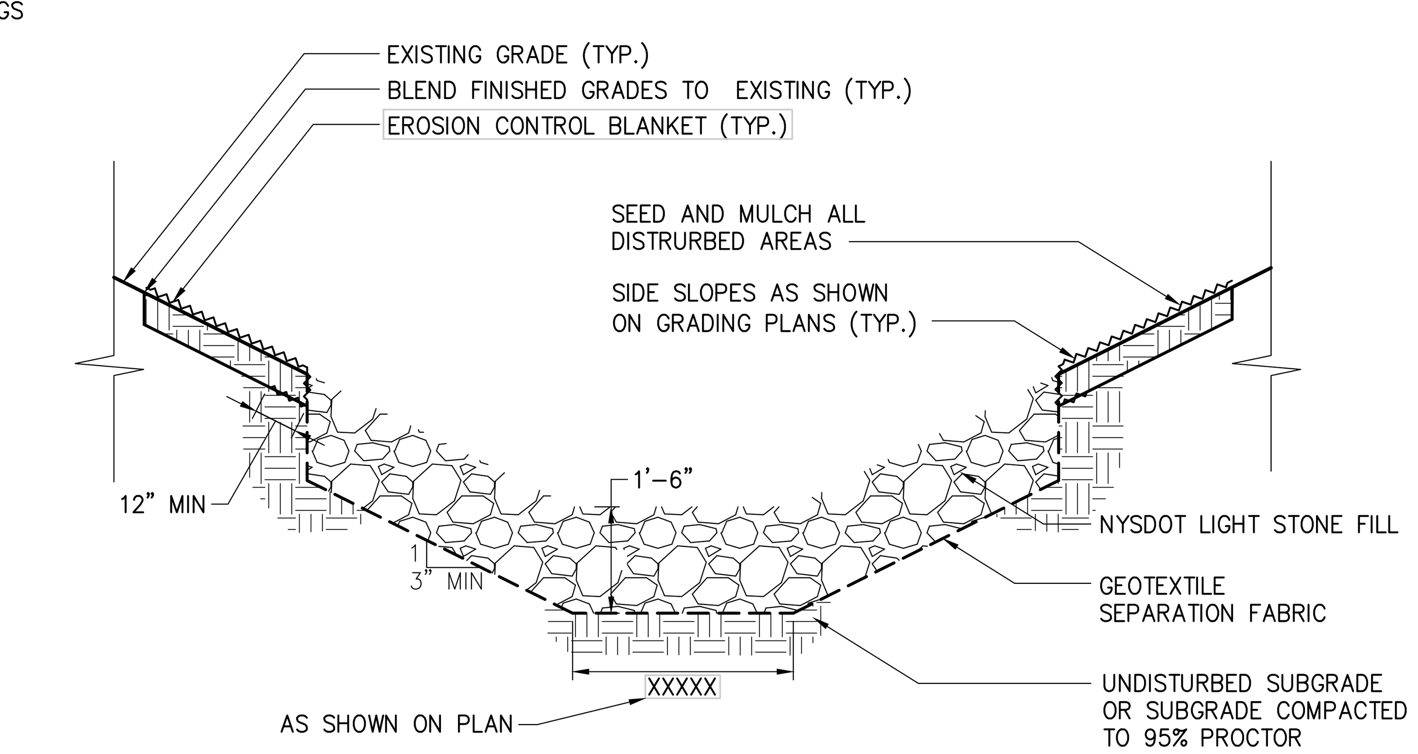
3 SILT FENCE
SCALE: N.T.S.



4 TYPICAL CULVERT OUTFALL RIP RAP
SCALE: N.T.S.



5 TYPICAL GRASS DRAINAGE SWALE
SCALE: N.T.S.



6 LIGHT STONE-LINED DRAINAGE CHANNEL
SCALE: N.T.S.

CHPE Champlain Hudson Power Express

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A	12/16/2022	FINAL SUBMISSION	MK	NH
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM
EROSION AND SEDIMENT CONTROL DETAILS

KIEWIT PROJECT NO. 21162
KC PROJECT NO. 120174
DRAWING NO. C-601

DRAWN BY: MK | DESIGNED BY: MK | APPROVED BY: NH | SCALE AS SHOWN | REV. NO. A | DATE 12/16/2022 | SH.NO. OF

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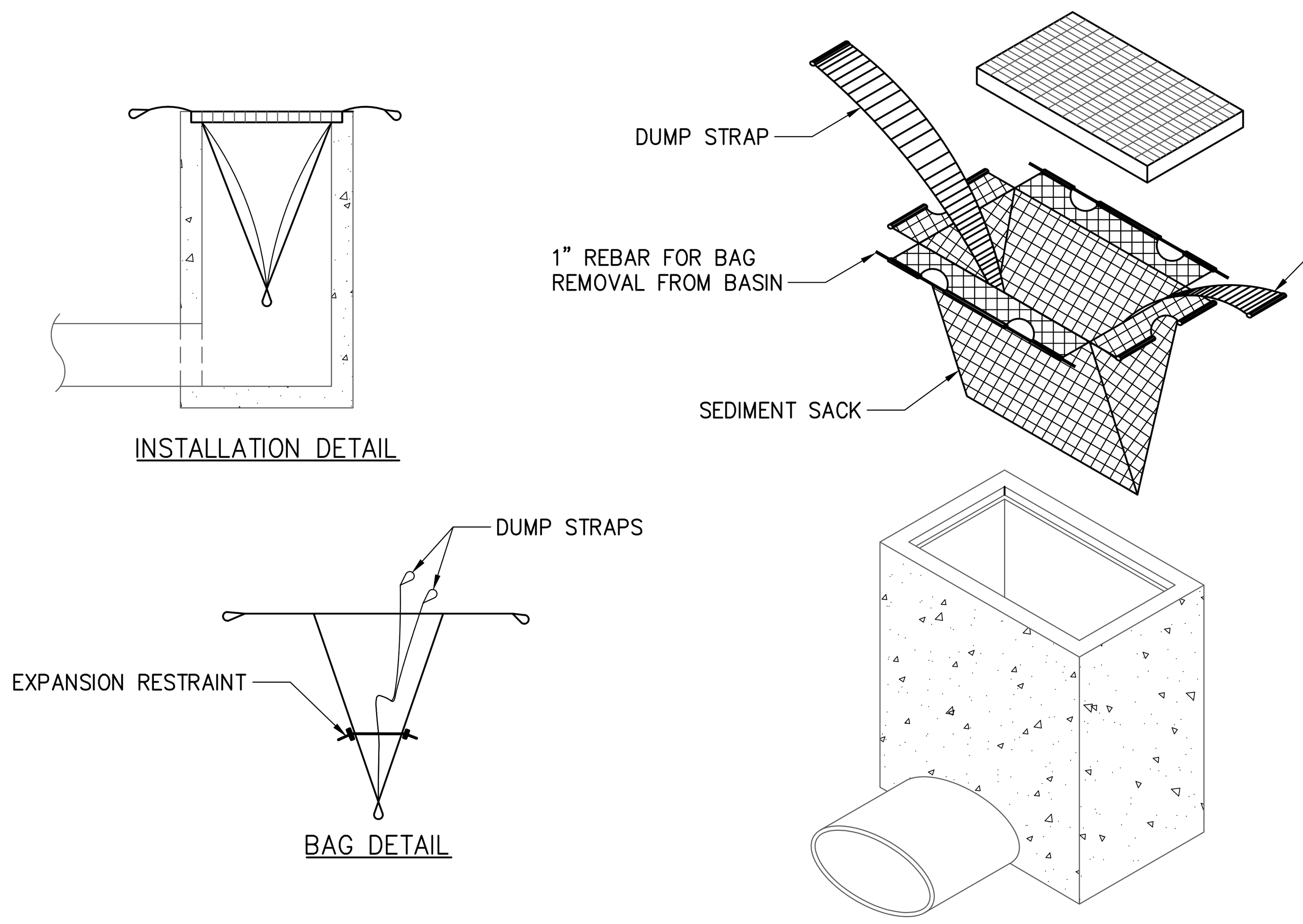
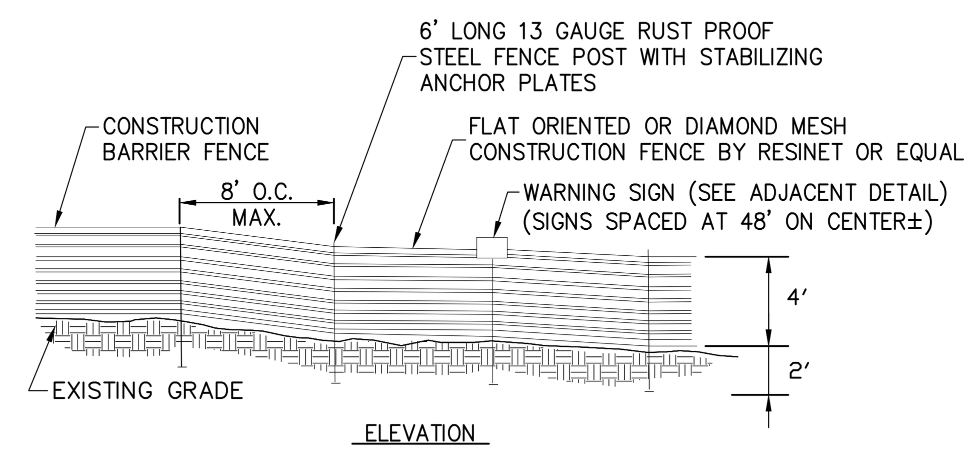


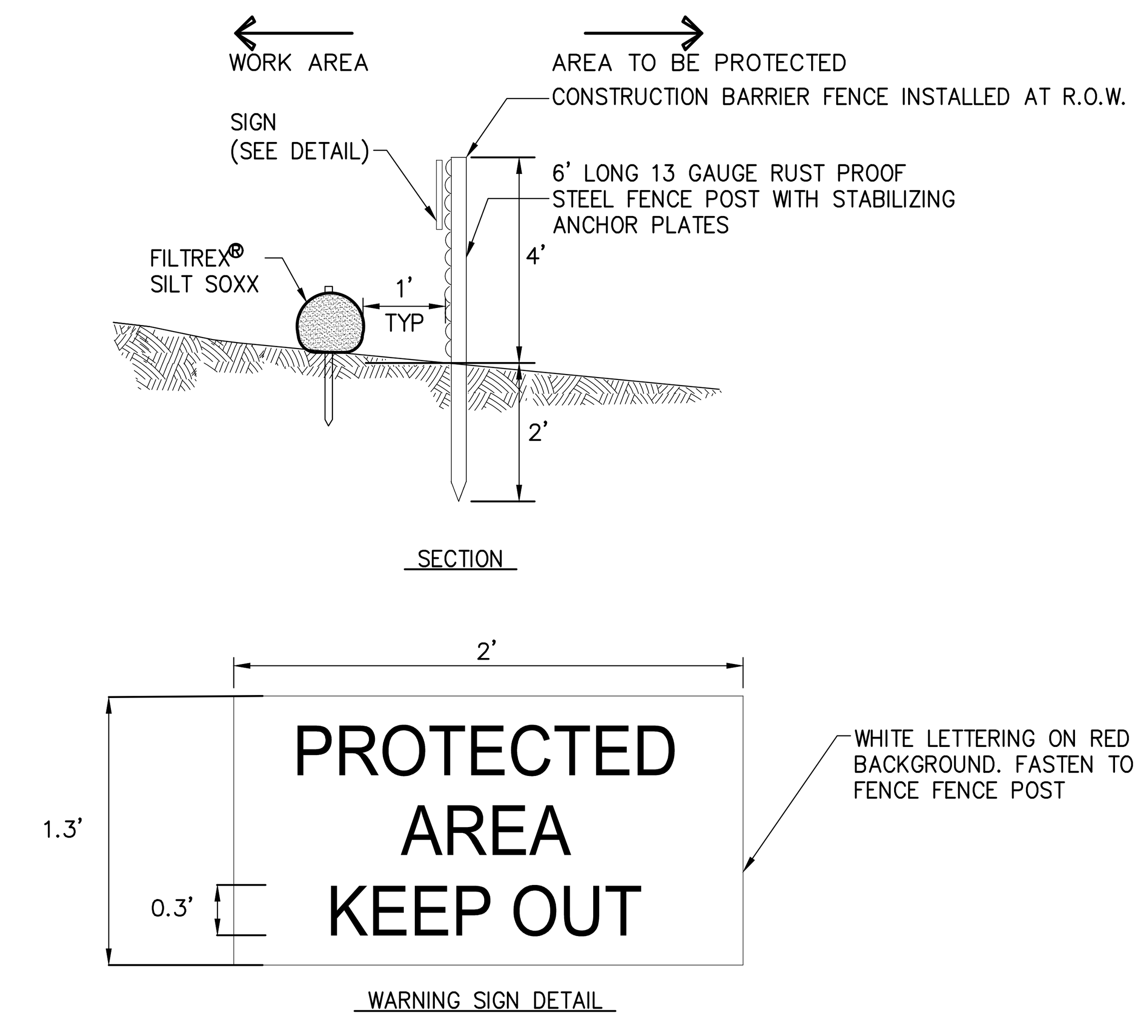
NOTES:

1. SEDIMENT SACK IS TO BE MADE WITH A POLYPROPYLENE WOVEN MONOFILAMENT FABRIC.
2. SEDIMENT SACK SHALL RESIST DEGRADATION DUE TO ULTRAVIOLET LIGHT, BE RESISTANT TO SOIL CHEMICALS, MILDEW AND INSECTS.
3. WHEN RESTRAINT CORD IS NO LONGER VISIBLE THE SACK SHOULD BE EMPTIED.
4. TO REMOVE USE (2) PIECES OF 1" DIAMETER REBAR AND PLACE THROUGH THE LIFTING LOOPS ON EACH SIDE OF THE SACK TO FACILITATE LIFTING.
5. TO EMPTY PLACE UNIT IN APPROVED DISPOSAL AREA. PLACE REBAR THROUGH THE LIFT STRAPS ON THE BOTTOM AND LIFT. CLEAN OUT AND RINSE SACK PRIOR TO PLACEMENT BACK IN THE BASIN.

1 INLET PROTECTION

SCALE: N.T.S.

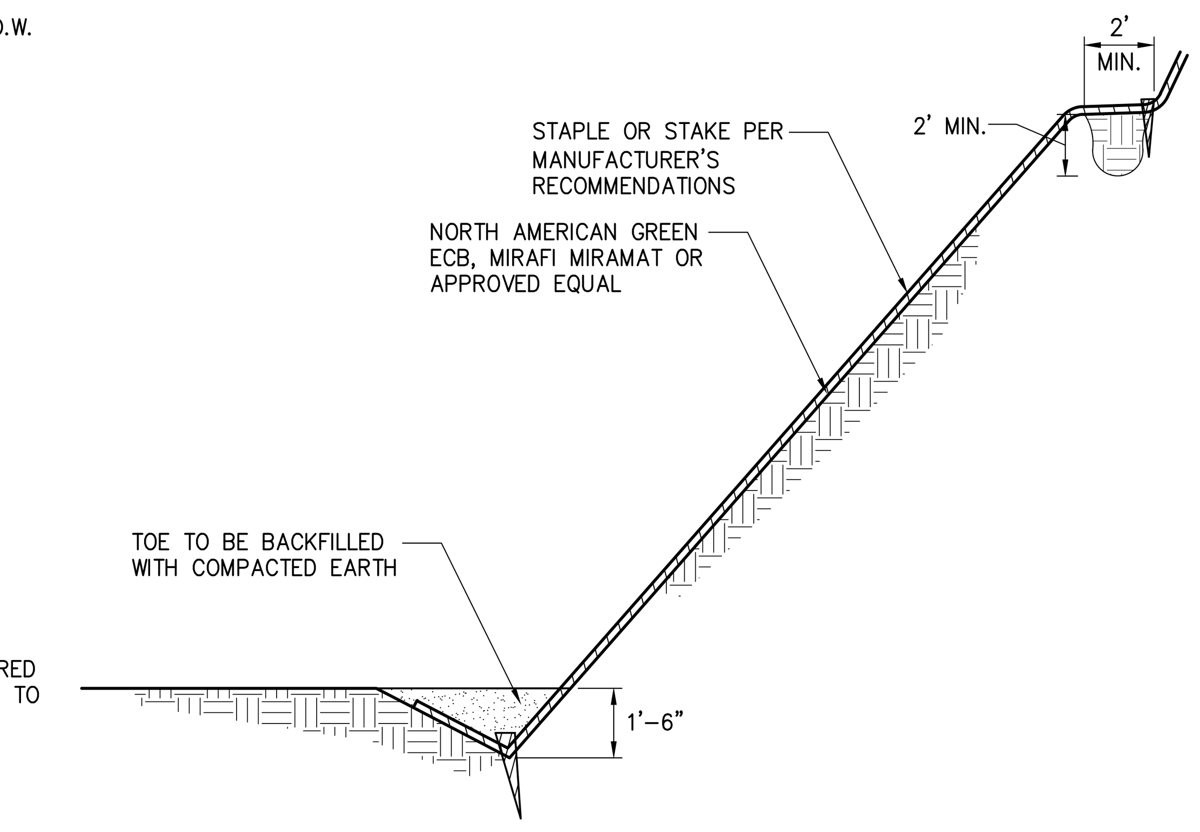




1. CONSTRUCTION BARRIER FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS PRIOR TO BEGINNING ANY WORK ADJACENT TO THESE AREAS.
2. THE CONTRACTOR SHALL INSTALL AT THE BEGINNING OF THE CONTRACT, AND MAINTAIN THROUGHOUT ITS DURATION.
3. SET BOTTOM OF CONSTRUCTION BARRIER FENCE FLUSH WITH EXISTING GRADE.
4. CONSTRUCTION BARRIER FENCE SHALL HAVE A MINIMUM TENSILE STRENGTH OF 2000 PSI.

2 WETLAND PROTECTION FENCE

SCALE: N.T.S.



NOTE:
EROSION CONTROL BLANKETS TO BE INSTALLED ON SLOPES 3:1 OR GREATER (TYP.)

3 EROSION CONTROL BANK STABILIZATION DETAIL

SCALE: N.T.S.

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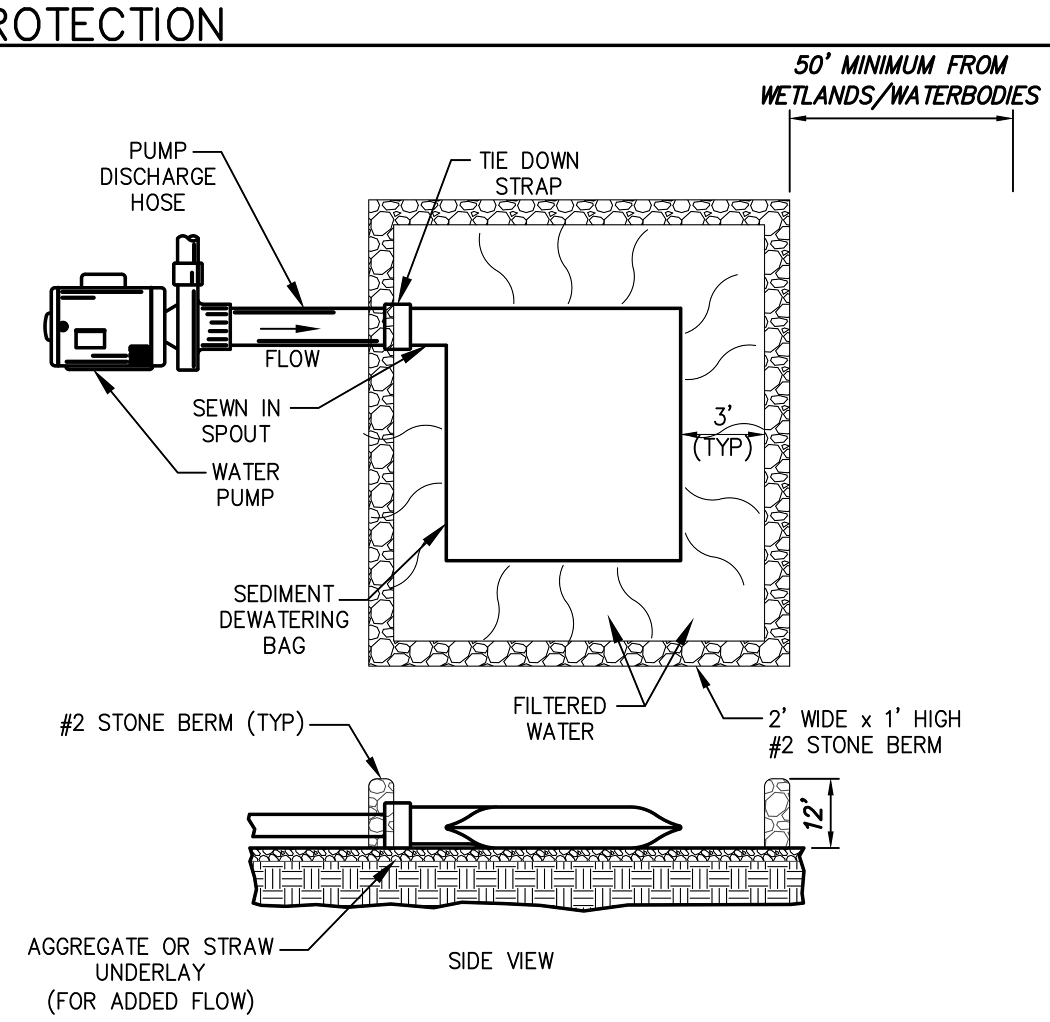


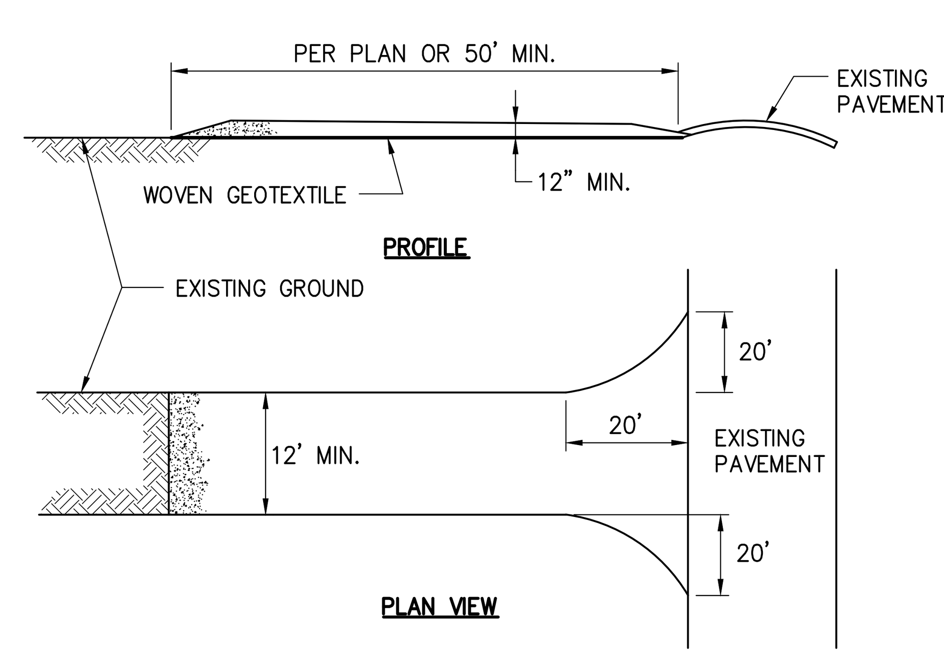
NOTE: THE SEDIMENT DEWATERING BAG WILL BE MANUFACTURED IN THE U.S.A. FROM A NONWOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

SEDIMENT DEWATERING BAG SPECIFICATIONS

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	0.9 (205) x 0.9 (205)
Grab Tensile Elongation	ASTM D 4632	%	50 x 50
Puncture Strength	ASTM D 4833	kN (lbs)	0.58 (130)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	2618 (380)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.36 (80) X 0.36 (80)
UV Resistence	ASTM D 4355	%	70
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.180 (80)
Flow Rate	ASTM D 4491	$1/min/m^2$ ($gal/min/ft^2$)	3866 (95)
Permittivity	ASTM D 4491	Sec^{-1}	1.2

4 SEDIMENT DEWATERING BAG

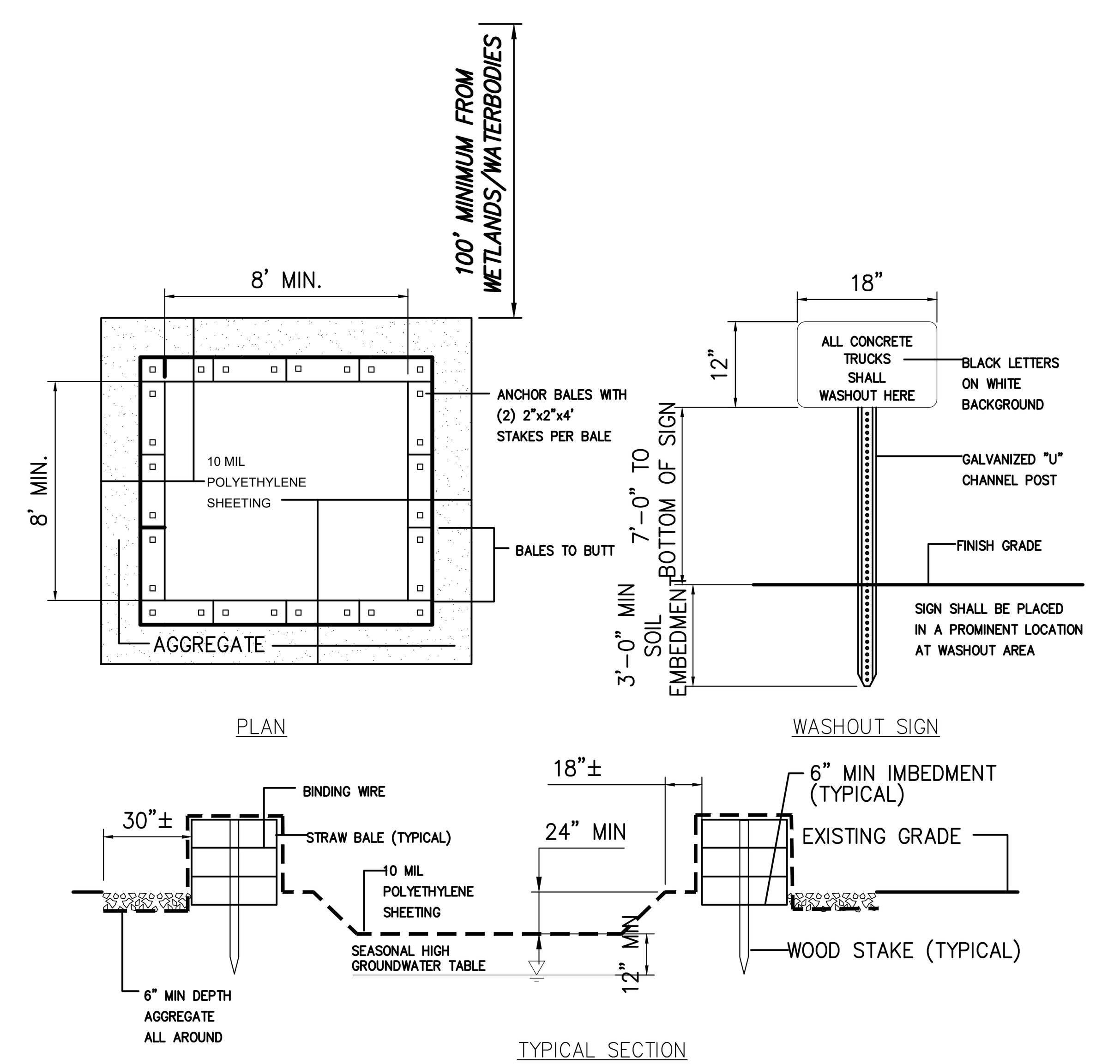
SCALE: N.T.S.



1. STONE SIZE-USE AASHTO M43 SIZE 3 COARSE AGGREGATE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN 12".
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ACCESS TO SITE.
5. WOVEN GEOTEXTILE FABRIC WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. EXISTING ROAD SIDE DRAINAGE SHALL BE MAINTAINED.
7. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
8. MAINTENANCE-THE ACCESS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT OR STONE SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
9. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
10. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

5 STABILIZED CONSTRUCTION ACCESS

SCALE: N.T.S.



MAINTENACE NOTES:

1. ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAIL.Y. DAMAGED OR LEAKING FACILITATES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. EXCESS RAINWATER THAT HAS ACCUMULATED OVER HARDENED CONCRETE SHALL BE PUMPED TO A STABILIZED AREA SUCH AS A GRASS FILTER STRIP.
2. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF OFF SITE.
3. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCITON/DEMOLION LANDFILL.
4. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
5. INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.
6. LOCATION(S) TO BE DETERMINED IN THE FIELD BY THE OWNER'S REPRESENTATIVE

6 CONCRETE WASHOUT AREA

SCALE: N.T.S.

B

CHPE Champlain Hudson Power Express

Kiewit

KC Engineering and Land Surveying, P.C.

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
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A	12/16/2022	FINAL SUBMISSION	MK	NH

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM
EROSION AND SEDIMENT CONTROL DETAILS

DRAWN BY: MK | DESIGNED BY: MK | APPROVED BY: NH | SCALE AS SHOWN | REV. NO. A | DATE 12/16/2022 | SH.NO. OF

KIEWIT PROJECT NO. 21162
KC PROJECT NO. 120174
DRAWING NO.
C-602

File: P:\120174-CHPE_CABLE_INSTALL-KIEWIT\60_CAD\20_ENGINEERING_CAD_FILES\PACKAGE_5A\NY_ENVIRONMENTAL_(EROSION_CONTROL)\01_KCE\SHEET_FILES\21162_5A_C601-C602-C611.DWG Saved: 12/14/2022 4:09:40 PM Plotted: 12/14/2022 6:13:34 PM Current User: Eshana Kalil LastSavedBy: scoph

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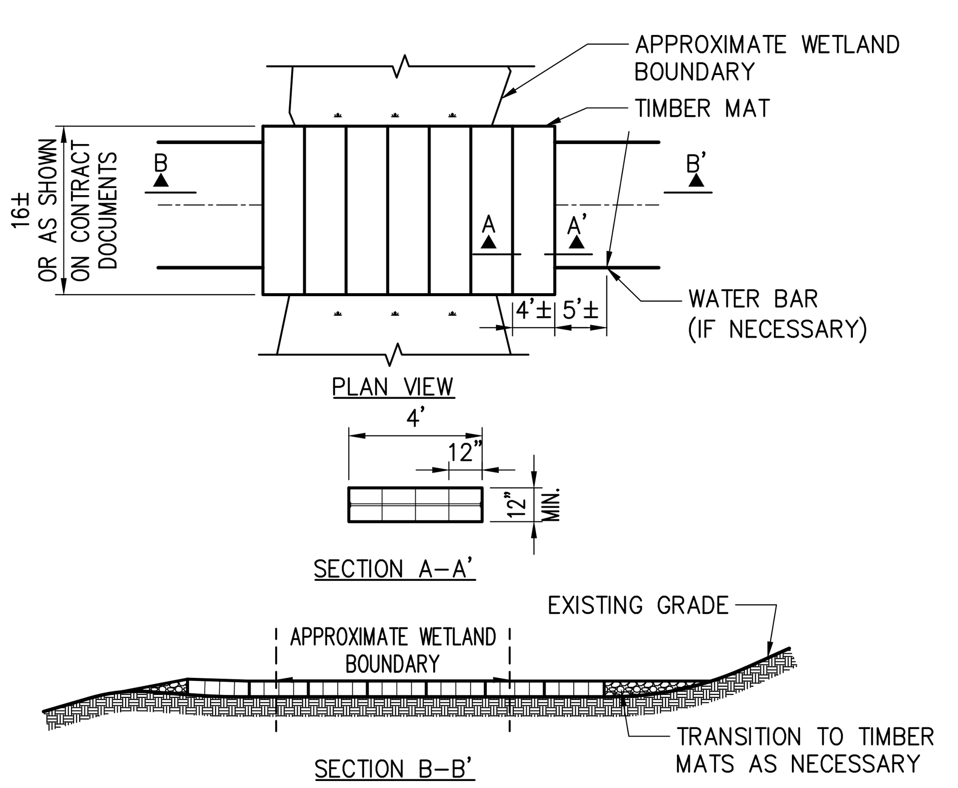
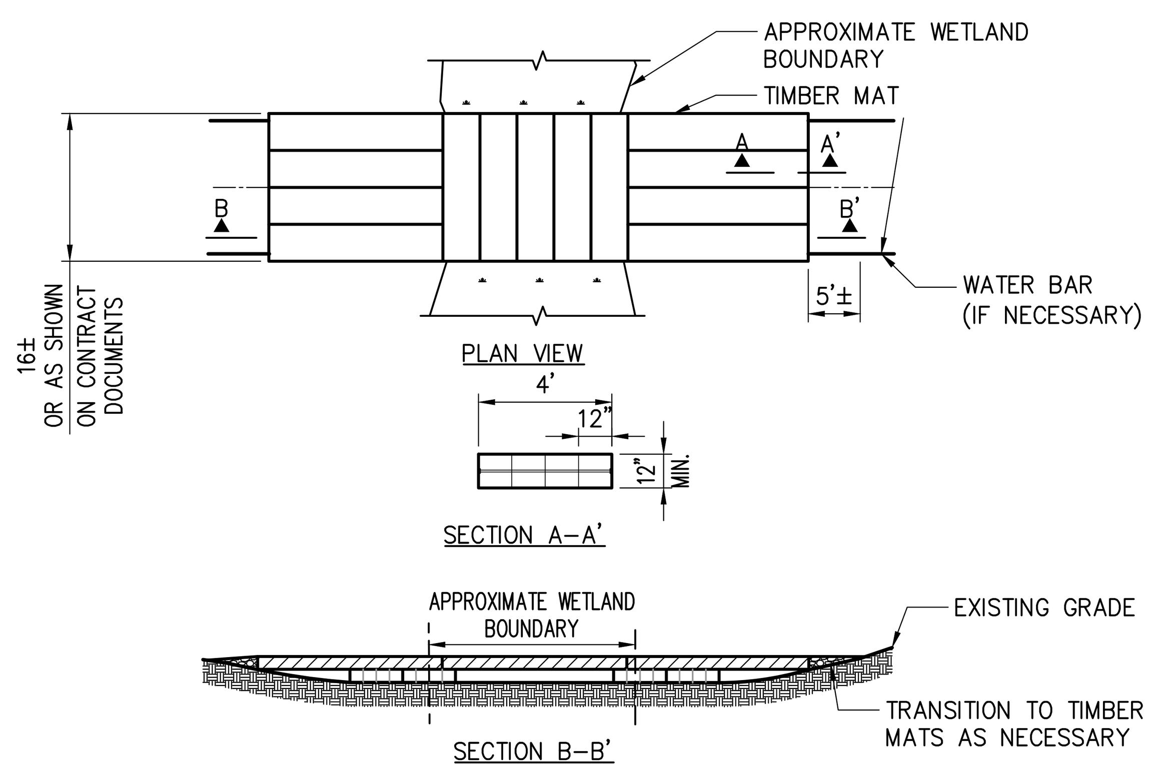


NOTES:
1. TIMBER MATS SHOULD BE INSTALLED IN WETLANDS AND OTHER AREAS IF NECESSARY TO PREVENT RUTTING.
2. BASED ON ACTUAL SITE CONDITIONS, MULTIPLE LAYERS OF TIMBER MATS MAY BE REQUIRED.
3. TIMBER MAT SURFACE SHOULD BE LEVEL TO PREVENT EQUIPMENT AND VEHICLES FROM SLIDING OFF DURING MUDDY OR ICING CONDITIONS, AND PREVENT TIMBERS FROM BREAKING.
4. SEDIMENT TRACKED ONTO TIMBER MATTING SHOULD BE REMOVED AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING WETLAND DURING RAIN EVENTS. SEDIMENT SHOULD BE REMOVED TO A STABILIZED SOIL STOCKPILE OR OTHER APPROVED LOCATION.
5. PERIMETER EROSION AND SEDIMENT CONTROL ARE REQUIRED TO BE INSTALLED PRIOR TO PLACING TIMBER MATTING.
6. UNLESS PERMITTED FROM REMOVAL, STUMPS WITHIN THE WETLAND SHOULD REMAIN. THIS MAY REQUIRE ADDITIONAL TIMBERS TO BRIDGE ABOVE.
7. UPON REMOVAL OF TIMBER MATTING ALL SPLINTERED WOOD SHOULD BE REMOVED. IF EXPOSED SOILS ARE PRESENT STRAW MULCH SHOULD BE APPLIED.

NOTE: GEOTEXTILE FABRIC TO BE INSTALLED UNDER MATTING (TYP)

OPTION "A"
NOT TO SCALE



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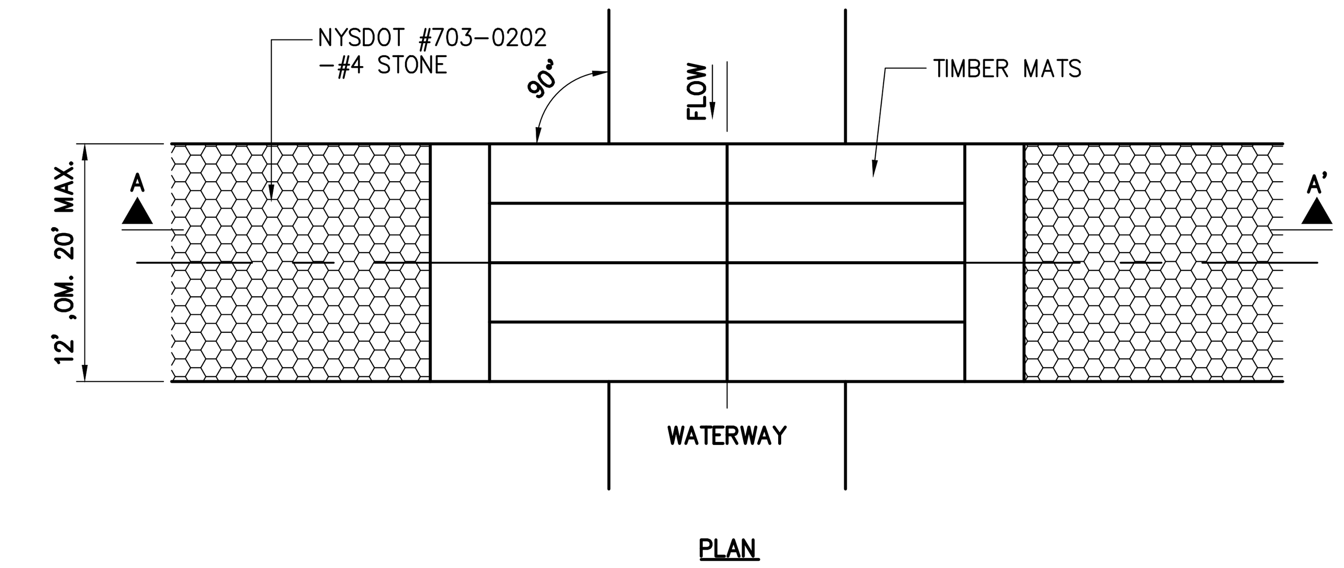
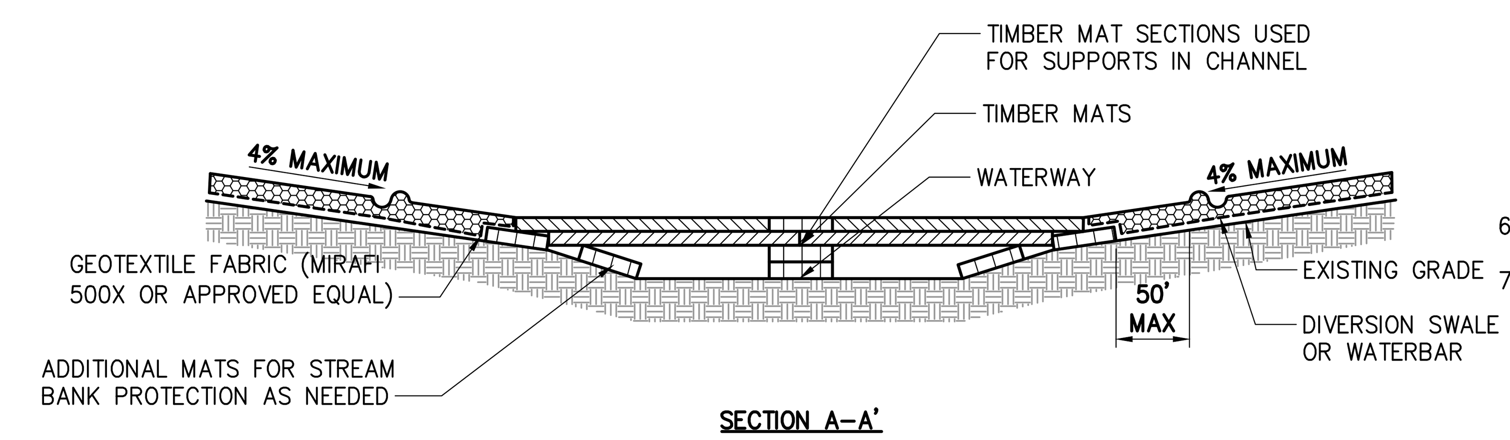
NOTE: GEOTEXTILE FABRIC TO BE INSTALLED UNDER MATTING (TYP)

OPTION "B"
NOT TO SCALE





NOTES:
1. IN-STREAM EXCAVATION SHOULD BE COMPLETED IN ACCORDANCE WITH "TEMPORARY ACCESS WATERWAY CROSSING" ON PAGE 2.32 OF THE 2016 NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (OR NEWEST VERSION).
2. THE CONSTRUCTION OF ANY CROSSING SHOULD NOT CAUSE A SIGNIFICANT WATER LEVEL DIFFERENCE BETWEEN THE UPSTREAM AND DOWNSTREAM WATER SURFACE ELEVATIONS. FISH SPAWNING OR MIGRATION DATES CAN VARY ACROSS NEW YORK, AND RESTRICTIONS IMPOSED BY THE NYSDEC MY VARY AND MUST BE VERIFIED.
3. THE TEMPORARY WATERWAY CROSSING SHOULD BE AT RIGHT ANGLES TO THE STREAM WHERE APPROACH CONDITIONS DICTATE, THE CROSSINGS MAY VARY 15 DEGREES FROM A LINE DRAWN PERPENDICULAR TO THE CENTERLINE OF THE STREAM AT THE INTENDED CROSSING LOCATION.
4. ALL FILL MATERIALS ASSOCIATED WITH THE ROADWAY APPROACH SHOULD BE LIMITED TO A MAXIMUM HEIGHT OF 2 FEET ABOVE THE EXISTING FLOOD PLAIN ELEVATION.
5. A WATER DIVERTING STRUCTURE SUCH AS A SWALE OR WARE BAR SHOULD BE CONSTRUCTED (ACROSS THE ROADWAY ON BOTH ROADWAY APPROACHES) 50 FEET (MAXIMUM) ON EITHER SIDE OF THE WATERWAY CROSSING. THIS WILL PREVENT ROADWAY SURFACE RUNOFF FROM DIRECTLY ENTERING THE WATERWAY. THE 50 FEET MEASURED IS MEASURED FROM THE TOP OF THE WATERWAY BANK. IF THE ROADWAY APPROACH IS CONSTRUCTED WITH A REVERSE GRADE AWAY FROM THE WATERWAY, A SEPARATE DIVERTING STRUCTURE IS NOT REQUIRED.
6. ALL CROSSINGS SHOULD HAVE ONE TRAFFIC LANE. THE MINIMUM WIDTH SHOULD BE 12 FEET WITH A MAXIMUM WIDTH OF 20 FEET.
7. ANCHORS: TIMBER MATS SHOULD BE SECURELY ANCHORED AT ONLY ONE END, USING STEEL CABLE OR CHAIN. ANCHORING AT ONLY ONE END WILL PREVENT CHANNEL OBSTRUCTION IN THE EVENT THAT FLOODWATERS FLOAT THE BRIDGE. ACCEPTABLE ANCHORS ARE LARGE TREES, LARGE BOULDERS, OR DRIVEN STEEL ANCHORS. ANCHORING SHOULD BE SUFFICIENT TO PREVENT THE TIMBER MATS FORM FLOATING DOWNSTREAM AND POSSIBLY CAUSING AN OBSTRUCTION TO THE FLOW.

OPTION "C"
NOT TO SCALE

1 TIMBER MATTING (WETLAND CROSSING)
SCALE: N.T.S.

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CHPE Champlain Hudson Power Express

Kiewit

Engineering and Land Surveying, P.C.

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A	12/16/2022	FINAL SUBMISSION	MK	NH
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 8 (PACKAGE 5A) - CSX: ROTTERDAM - BETHLEHEM
WETLAND CROSSING DETAILS

DRAWN BY: MK | DESIGNED BY: MK | APPROVED BY: NH | SCALE AS SHOWN | REV. NO. A | DATE 12/16/2022 | SH.NO. OF

KIEWIT PROJECT NO. 21162
KC PROJECT NO. 120174
DRAWING NO.
C-611

ATTACHMENT 6
WATERBODY PHOTOGRAPHS

Stream S1A (Potentic Kill) - upstream
Lat: 42.800847 Long: -73.001055

Stream G-R-S-D - upstream

Stream G-R-S-D - downstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream G-R-S-E - upstream

Stream G-R-S-E - downstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream CS33 - upstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream S1- upstream
Lat: 42.740049 Long: -73.97294

Stream S1- downstream

Segment 8 – Package 5A

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream S2 - upstream
Lat: 42.747301 Long: -73.972106

Stream S2 - downstream

Segment 8 – Package 5A	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream S3- upstream
Lat: 42.745939 Long: -73.971283

Segment 8 – Package 5A

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream S4 - upstream
Lat: 42.740713 Long: -73.968417

Stream S4 - downstream

Segment 8 – Package 5A	SITE PHOTOGRAPHS
	Champlain Hudson Power Express

Stream S5- upstream
Lat: 42.735724 Long: -73.965764

Stream S5- downstream

Segment 8 – Package 5A

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream S6 - downstream
Lat: 42.73281 Long: -73.964014

Stream P5-S2 - upstream
Lat: 42.738356 Long: -73.967156

Stream P5-S2 - downstream

Segment 8 – Package 5A

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream P5-S1 - upstream
Lat: 42.737901 Long: -73.966825

Stream P5-S1 - downstream

Segment 8 – Package 5A

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream P5-SD - upstream
Lat: 42.722448 Long: -73.960761

Normans Kill - upstream
Lat: 42.711423 Long: -73.959913

Stream P5-S4 - upstream
Lat: 42.697547 Long: -73.957013

Stream G-R-S-A - upstream

Stream G-R-S-A - downstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

X

Stream G-R-S-B - upstream

Stream G-R-S-B - downstream

Phase 2

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream G-R-S-C - upstream

Stream G-R-S-C - downstream

Phase 2

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream AL- Facing East – Upstream

Stream AL- Facing West – Downstream

Phase 1	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream AJ- Facing South– Upstream

Stream AJ- Facing North – Downstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream AG- Facing West – Upstream

Stream AG- Facing East – Downstream

Phase 1	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream AA- Facing North– Upstream

Stream AA- Facing South – Downstream

Phase 1	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream V- Facing South– Upstream

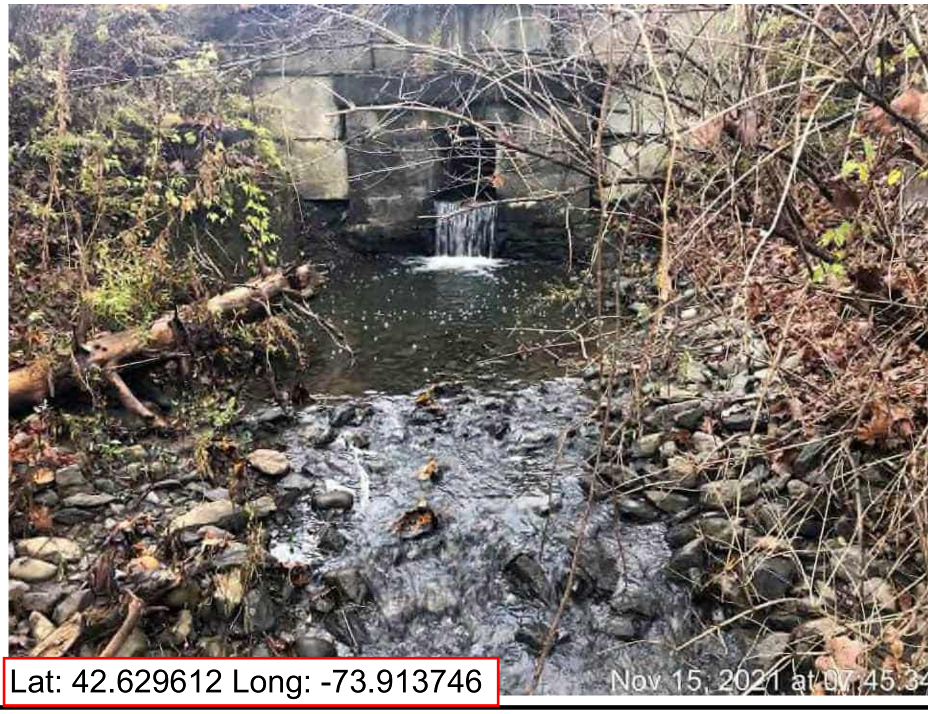
Stream V- Facing North – Downstream

Phase 1	SITE PHOTOGRAPHS
	Champlain Hudson Power Express

Stream U- Facing North – Upstream

Stream U- Facing South – Downstream

Phase 1	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express



Stream T- Facing West– Upstream

Stream T- Facing East– Downstream

Phase 1	SITE PHOTOGRAPHS
	Champlain Hudson Power Express

Stream Y- Facing South – Upstream

Stream Y- Facing North– Downstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream CS3 - upstream

Stream CS3 - downstream

Phase 2	SITE PHOTOGRAPHS Champlain Hudson Power Express

Stream CS2- upstream

Stream CS2 - downstream

Phase 2	**SITE PHOTOGRAPHS**
	Champlain Hudson Power Express

Stream CS1 - upstream

Stream CS1 - downstream

Phase 2

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream EDR STE - downstream

Package 5

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream EDR STD - · upstream

Stream EDR STD - downstream

Package 5

SITE PHOTOGRAPHS

Champlain Hudson Power Express

Stream EDR STC - upstream

Stream EDR STC - downstream

Package 5

SITE PHOTOGRAPHS

Champlain Hudson Power Express