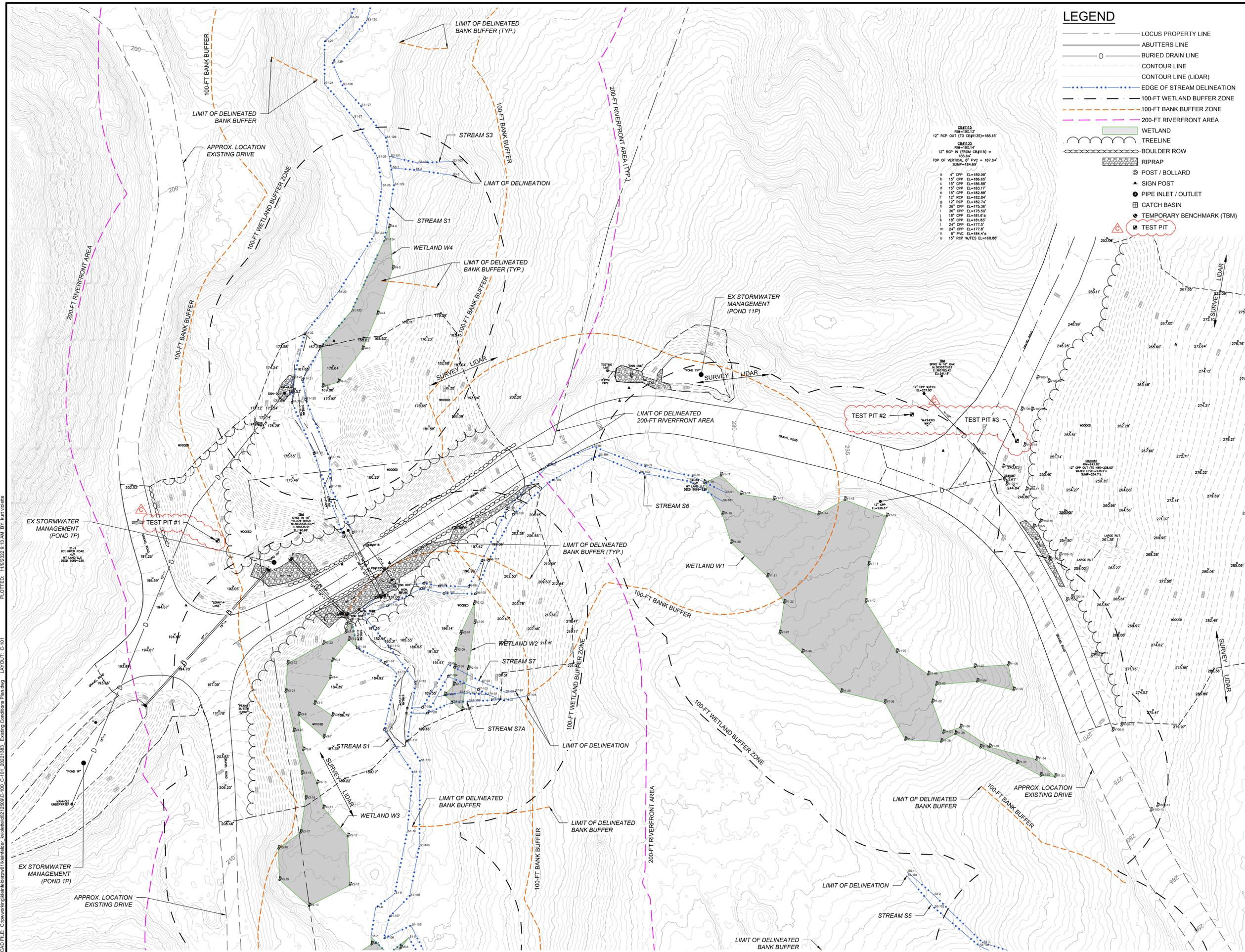


CAD FILE: C:\pwworking\kleinfelder\proj\2022\2529\C-100_C-101_20221383_Existing Conditions Plan.dwg LAYOUT: C-101
 PLOTTED: 11/09/2022 9:13 AM BY: hnt.vicente



LEGEND

- LOCUS PROPERTY LINE
- ABUTTERS LINE
- BURIED DRAIN LINE
- CONTOUR LINE
- CONTOUR LINE (LIDAR)
- EDGE OF STREAM DELINEATION
- 100-FT WETLAND BUFFER ZONE
- 100-FT BANK BUFFER ZONE
- 200-FT RIVERFRONT AREA
- WETLAND
- TREELINE
- BOULDER ROW
- RIPRAP
- POST / BOLLARD
- SIGN POST
- PIPE INLET / OUTLET
- CATCH BASIN
- TEMPORARY BENCHMARK (TBM)
- TEST PIT

1500 Main Street, Suite 1506
 PO Box 16511
 Springfield, MA 01115-5511
 Phone: 413-739-1307

REVISIONS				
REV	DESCRIPTION	DSN	CHK	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
		KRV	JW	
		KRV	SH	
		KRV	JW	11/9/2022

ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

SCALE: 1" = 40' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASGM HAUL ROAD DESIGN
 901 RIVER ROAD
 FRANKLIN COUNTY, MASSACHUSETTS

All States Materials Group

ALL STATES MATERIALS GROUP
 901 RIVER ROAD
 DEERFIELD, MA 01342

EXISTING CONDITIONS PLAN

PROJECT NO.	20221383.001A	C-101
ISSUE DATE	11/09/2022	
CURRENT REVISION	C	
DESIGNED BY	KRV	
DRAWN BY	KRV	
CHECKED BY	SH	
APPROVED BY	JW	

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
△	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

ISSUED FOR PERMITTING

SCALE VERIFICATION



THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING



IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

0 40 80
SCALE: 1" = 40' SCALE IN FEET
ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
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FRANKLIN COUNTY, MASSACHUSETTS



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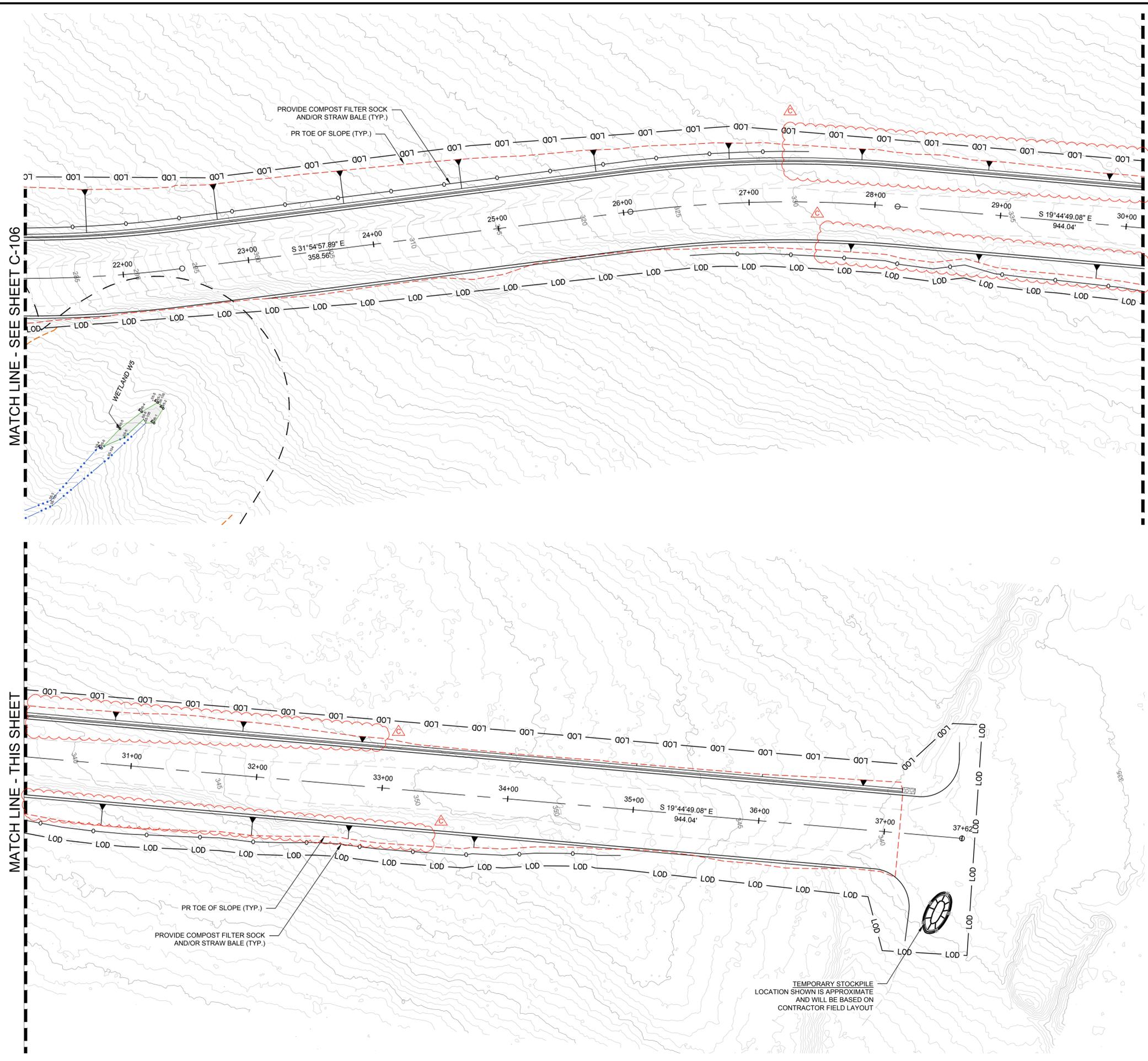
EROSION AND SEDIMENTATION CONTROL PLAN

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-107

EROSION CONTROL LEGEND

- LOD — PROPOSED LIMIT OF DISTURBANCE
- - - PROPOSED GRADING LIMITS
- TEMPORARY COMPOST FILTER SOCK
- ⇒⇒⇒⇒ TEMPORARY DIVERSION DITCH
- TEMPORARY SILT SACK AT CATCH BASINS
- - - TEMPORARY ESC CONTOUR MINOR
- - - TEMPORARY ESC CONTOUR MAJOR
- ▨ TEMPORARY SEDIMENT TRAP
- ▨ TEMPORARY STOCKPILE AREA



CAD FILE: C:\pwworking\kleinfelder\proj\2022\1383_Erosion_Sediment_Control_Plan.dwg LAYOUT: C-107 PLOTTED: 11/09/2022 10:11 AM BY: kurt.veldete

GENERAL NOTES

- DATUM USED FOR THE PLANS IS NORTH AMERICAN DATUM OF 1983 (NAD 83), MASSACHUSETTS STATE PLANES, MAINLAND ZONE (US FEET) AND ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD-88).
- THE CONTRACTOR MUST NOTIFY THE UTILITY OWNERS AND CALL THE DIG-SAFE CENTER AT 1-888-344-7223 AT MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION TO LOCATE UNDERGROUND UTILITIES IN THE FIELD. THE LOCATION OF THE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION MUST BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.
- IF CONFLICTS WITH EXISTING UTILITIES ARE IDENTIFIED DURING CONSTRUCTION, CONTRACTOR MUST NOTIFY DESIGN ENGINEER, PROJECT OWNER, AND UTILITY OWNER PRIOR TO PERFORMING ANY REMOVAL OR MODIFICATIONS.

GRADING AND DRAINAGE NOTES

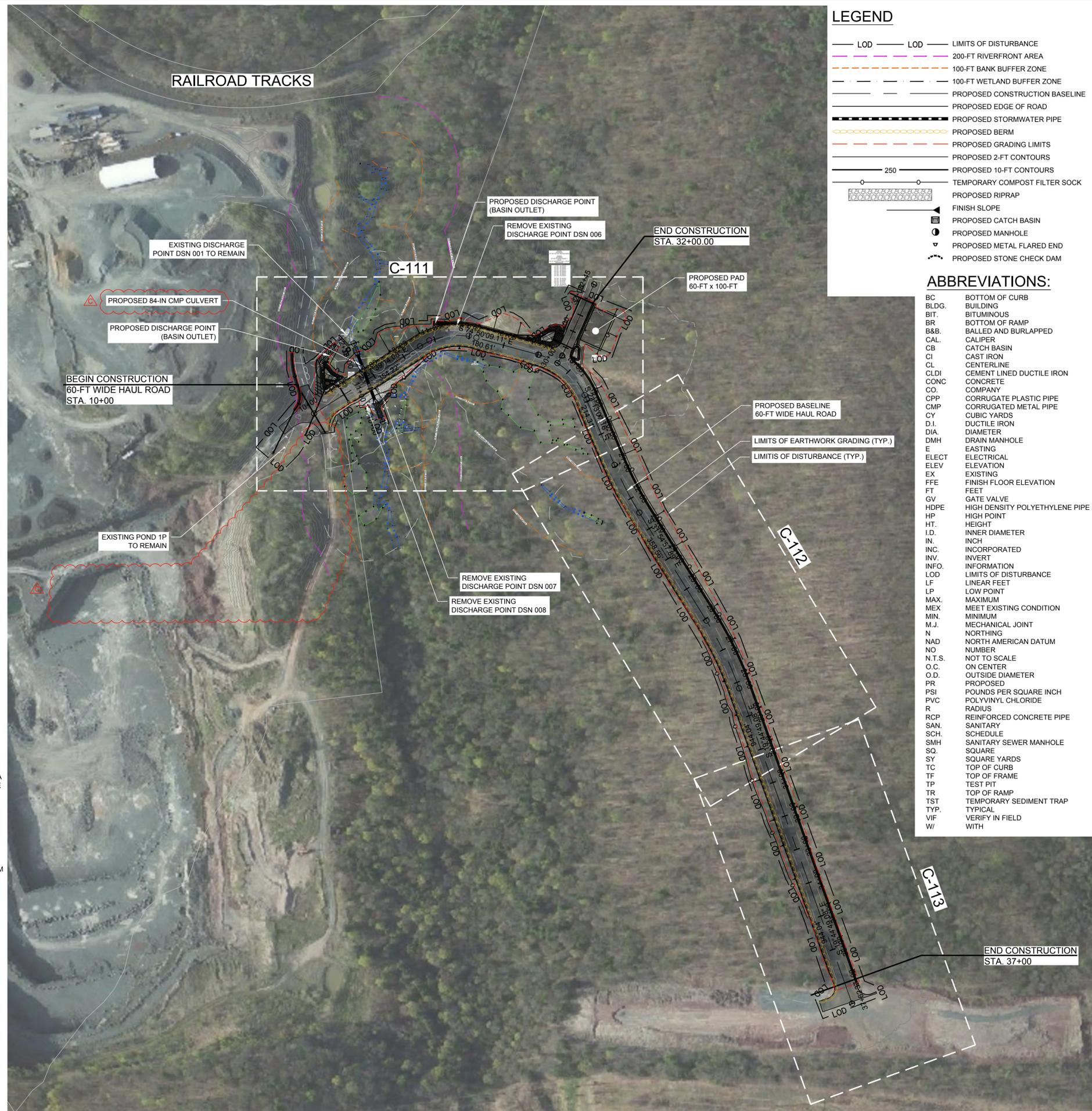
- ALL SITE WORK, MATERIAL OR CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK MUST BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND DETAILS.
- ALL DIMENSIONS AND GRADES ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR MUST NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
- TOPSOIL MUST BE STRIPPED AND STOCKPILED ON SITE FOR POSSIBLE REUSE IN FINAL LANDSCAPING.
- ALL SITE GEOLOGY, SOIL COMPACTION, SITE PREPARATION, SUBGRADE PREPARATION, FILL MATERIAL, FILL PLACEMENT, MUST BE IN ACCORDANCE WITH THE PLANS.
- STOCKPILE SATISFACTORY EXCAVATED MATERIALS UNTIL REQUIRED FOR FILL. GRADE AND SHAPE STOCKPILES FOR POSITIVE DRAINAGE.

STREAM FLOW BYPASS NOTES

- ANY TEMPORARY BYPASS DURING CONSTRUCTION MUST BE REMOVED ONCE CONSTRUCTION IS COMPLETE.
- DIVERT ALL SURFACE WATER FROM DISTURBED AREAS INTO A STABLE OUTLET AT THE DISCHARGE POINT INTO THE EXISTING STREAM.
- THE CONTRACTOR MUST PROVIDE, OPERATE, AND MAINTAIN ALL DITCHES, BASINS, SUMPS, SITE GRADING, AND PUMPING FACILITIES TO DIVERT, COLLECT, AND REMOVED ALL WATER FROM WORK AREAS. ALL WATER REMOVED MUST BE REMOVED FROM THE IMMEDIATE WORK AREAS AND MUST BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE PERMITS.
- CONTRACTOR TO FULLY DESIGN BYPASS PUMPING AND/OR PIPING, AND ALL REQUIRED AND NECESSARY PIPING SUPPORT, SEQUENCING, EMERGENCY ACTION PLAN, ETC.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION, OPERATION, MAINTENANCE AND REMOVAL OF ALL EXCAVATION BYPASS EQUIPMENT.
- CONTRACTOR MUST PROVIDE EQUIPMENT ON-SITE TO REMOVE BYPASS AND RE-ESTABLISH FULL STREAM FLOW CAPACITY IF A STORM EVENT IS FORECAST OR OCCURS.
- BYPASS PIPING TO BE SIZED TO CONVEY THE HY-8 CULVERT ANALYSIS 2-YEAR DESIGN FLOW (34 CFS).

DEWATERING NOTES

- ALL INSTALLATION WORK SHALL BE PERFORMED IN THE DRY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, OPERATION, MAINTENANCE & REMOVAL OF ALL EXCAVATION DEWATERING EQUIPMENT.
- REDUCE HYDROSTATIC PRESSURE TO THE EXTENT THAT WATER LEVEL IN CONSTRUCTION AREA ARE A MINIMUM OF 1 FOOT BELOW EXCAVATION SURFACE AT ALL TIMES.
- DISPOSE OF WATER REMOVED FROM THE EXCAVATIONS IN SUCH A MANNER AS TO NOT ENDANGER PORTIONS OF THE WORK UNDER CONSTRUCTION OR COMPLETED.
- DEWATERING EQUIPMENT SHALL BE PROVIDED TO REMOVE AND DISPOSE OF ALL SURFACE AND GROUND WATER ENTERING EXCAVATIONS, TRENCHES, OR OTHER PARTS OF THE WORK DURING CONSTRUCTION. EACH EXCAVATION SHALL BE KEPT DRY DURING SUBGRADE PREPARATION AND CONTINUALLY THEREAFTER UNTIL THE PIPE TO BE INSTALLED IS COMPLETED TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOTATION, OR OTHER CAUSE WILL RESULT.
- PROVIDE COMPLETE STANDBY PUMPING EQUIPMENT, INSTALLED AND AVAILABLE FOR IMMEDIATE OPERATION, AS MAY BE REQUIRED TO ADEQUATELY MAINTAIN DE-WATERING ON A CONTINUOUS BASIS AND IN THE EVENT THAT ALL OR ANY PART OF THE SYSTEM MAY BECOME INADEQUATE OR FAIL.
- SANDBAGS OR EQUIVALENT SHOULD CONSIST OF MATERIALS WHICH ARE RESISTANT TO ULTRA-VIOLET RADIATION, TEARING, AND PUNCTURE AND SHOULD BE WOVEN TIGHTLY ENOUGH TO PREVENT LEAKAGE OF THE FILL MATERIAL (I.E. SAND, FINE GRAVEL, ETC.).
- IMPERVIOUS SHEETING SHOULD CONSIST OF POLYETHYLENE OR OTHER MATERIALS WHICH ARE IMPERVIOUS AND RESISTANT TO PUNCTURE AND TEARING.
- SHEETING ON THE SANDBAG CHECK DAM SHOULD BE POSITIONED SUCH THAT THE UPSTREAM PORTION COVERS THE DOWNSTREAM PORTION WITH AT LEAST A 18-INCH OVERLAP.



LEGEND

- LOD — LOD — LIMITS OF DISTURBANCE
- 200-FT RIVERFRONT AREA
- 100-FT BANK BUFFER ZONE
- 100-FT WETLAND BUFFER ZONE
- PROPOSED CONSTRUCTION BASELINE
- PROPOSED EDGE OF ROAD
- PROPOSED STORMWATER PIPE
- PROPOSED BERM
- PROPOSED GRADING LIMITS
- PROPOSED 2-FT CONTOURS
- PROPOSED 10-FT CONTOURS
- TEMPORARY COMPOST FILTER SOCK
- PROPOSED RIPRAP
- FINISH SLOPE
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED METAL FLARED END
- PROPOSED STONE CHECK DAM

ABBREVIATIONS:

- BC BLDG. BOTTOM OF CURB
- BIT. BUILDING BITUMINOUS
- BR. BOTTOM OF RAMP
- B&B. BALLED AND BURLAPPED
- CAL. CALIPER
- CB. CATCH BASIN
- CI. CAST IRON
- CL. CENTERLINE
- CLDI. CEMENT LINED DUCTILE IRON
- CONC. CONCRETE
- COMP. COMPANY
- CPP. CORRUGATE PLASTIC PIPE
- CMP. CORRUGATED METAL PIPE
- CY. CUBIC YARDS
- D.I. DUCTILE IRON
- DIA. DIAMETER
- DMH. DRAIN MANHOLE
- E. EASTING
- ELECT. ELECTRICAL
- ELEV. ELEVATION
- EX. EXISTING
- FFE. FINISH FLOOR ELEVATION
- FT. FEET
- GV. GATE VALVE
- HDPE. HIGH DENSITY POLYETHYLENE PIPE
- HP. HIGH POINT
- HT. HEIGHT
- I.D. INNER DIAMETER
- IN. INCH
- INC. INCORPORATED
- INV. INVERT
- INFO. INFORMATION
- LOD. LIMITS OF DISTURBANCE
- LF. LINEAR FEET
- LP. LOW POINT
- MAX. MAXIMUM
- MEX. MEET EXISTING CONDITION
- MIN. MINIMUM
- M.J. MECHANICAL JOINT
- N. NORTHING
- NAD. NORTH AMERICAN DATUM
- NO. NUMBER
- N.T.S. NOT TO SCALE
- O.C. ON CENTER
- O.D. OUTSIDE DIAMETER
- PR. PROPOSED
- PSI. POUNDS PER SQUARE INCH
- PVC. POLYVINYL CHLORIDE
- R. RADIUS
- RCP. REINFORCED CONCRETE PIPE
- SAN. SANITARY
- SCH. SCHEDULE
- SMH. SANITARY SEWER MANHOLE
- SQ. SQUARE
- SY. SQUARE YARDS
- TC. TOP OF CURB
- TF. TOP OF FRAME
- TP. TEST PIT
- TR. TOP OF RAMP
- TST. TEMPORARY SEDIMENT TRAP
- TYP. TYPICAL
- VIF. VERIFY IN FIELD
- W. WITH



1500 Main Street, Suite 1506
PO Box 15511
Springfield, MA 01111-5511
Phone: 413-739-1307

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	JW	10/25/2022
C	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

SCALE: 1" = 150' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS



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DEERFIELD, MA 01342

OVERALL SITE PLAN

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-110

PLOTTED: 11/09/2022 10:20 AM BY: kurt.velders
LAYOUT: C-110
C:\pwworking\kleinfelder\proj\2022\1383_Overall Site Plan.dwg LAYOUT: C-110

REVISIONS

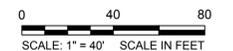
REV	DESCRIPTION	DSN	CHK	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
C	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

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SCALE VERIFICATION

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ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

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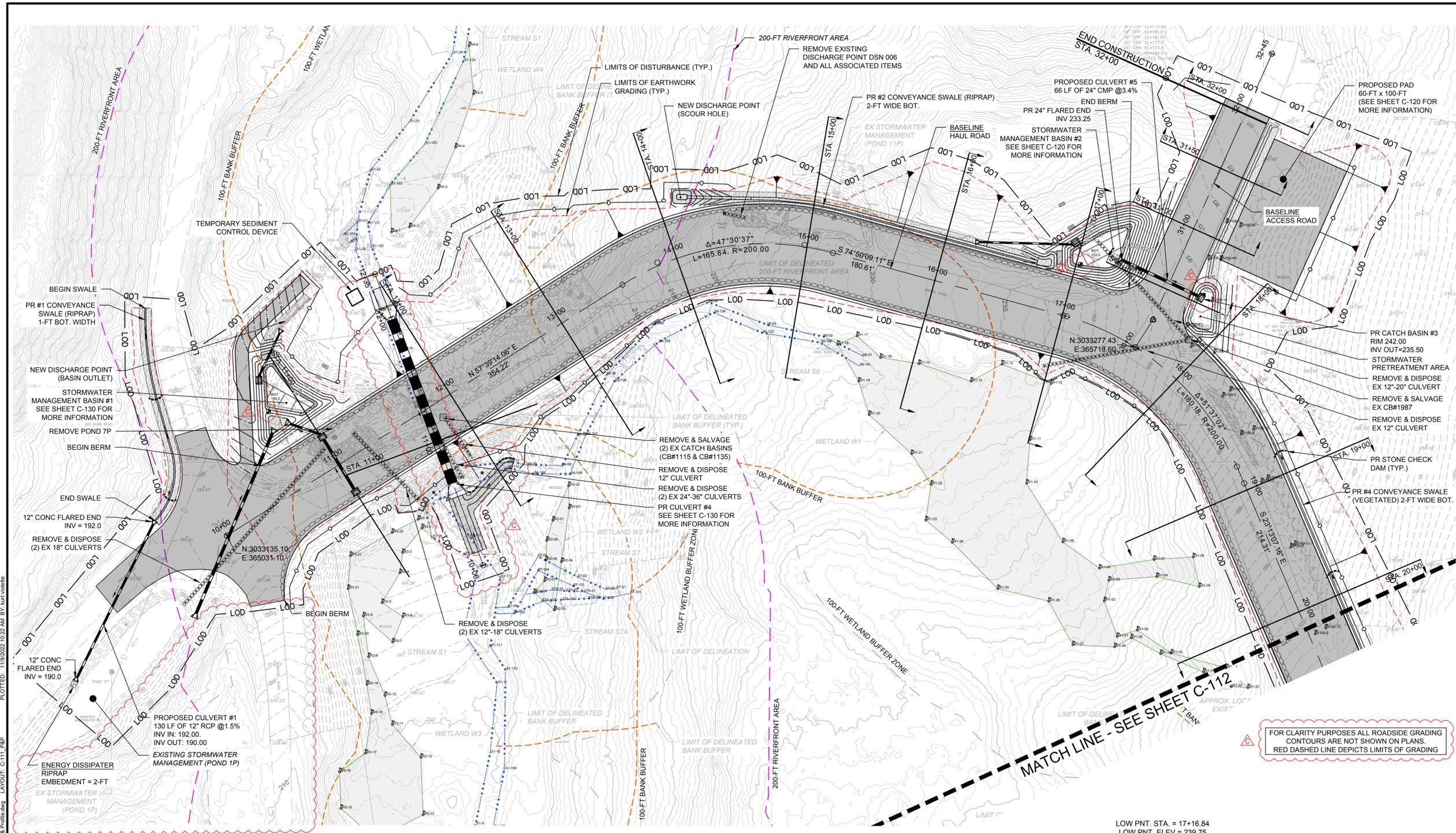


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DEERFIELD, MA 01342

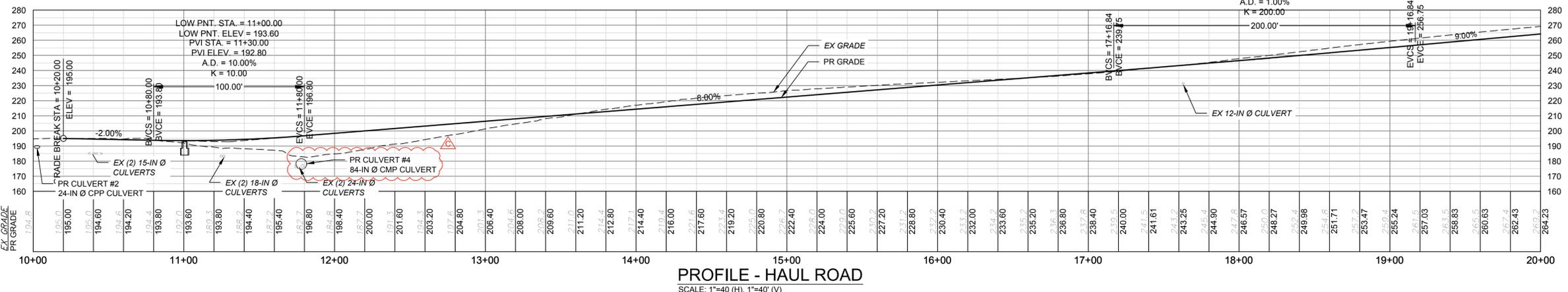
HAUL ROAD PLAN & PROFILE

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-111



PLOTTED: 11/09/2022 10:22 AM BY: bur idobere
 LAYOUT: C-111_P&P
 CAD FILE: C:\pwworking\kleinfelder\projects\2022\20221383_Haul Rd Plan & Profile.dwg



PROFILE - HAUL ROAD
SCALE: 1"=40 (H), 1"=40' (V)

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
C	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING



IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY



SCALE: 1" = 40' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS

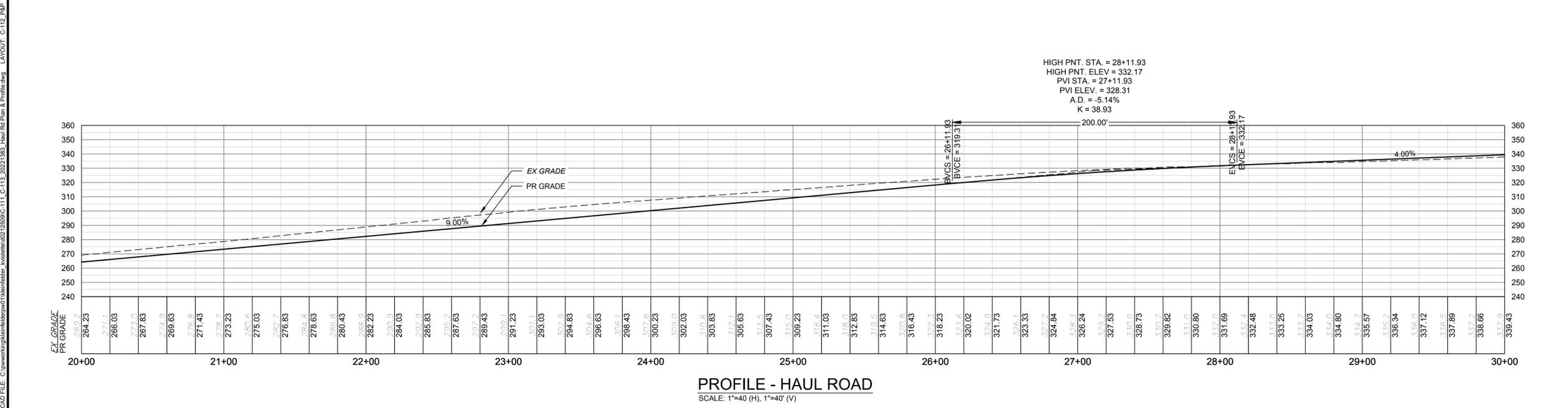
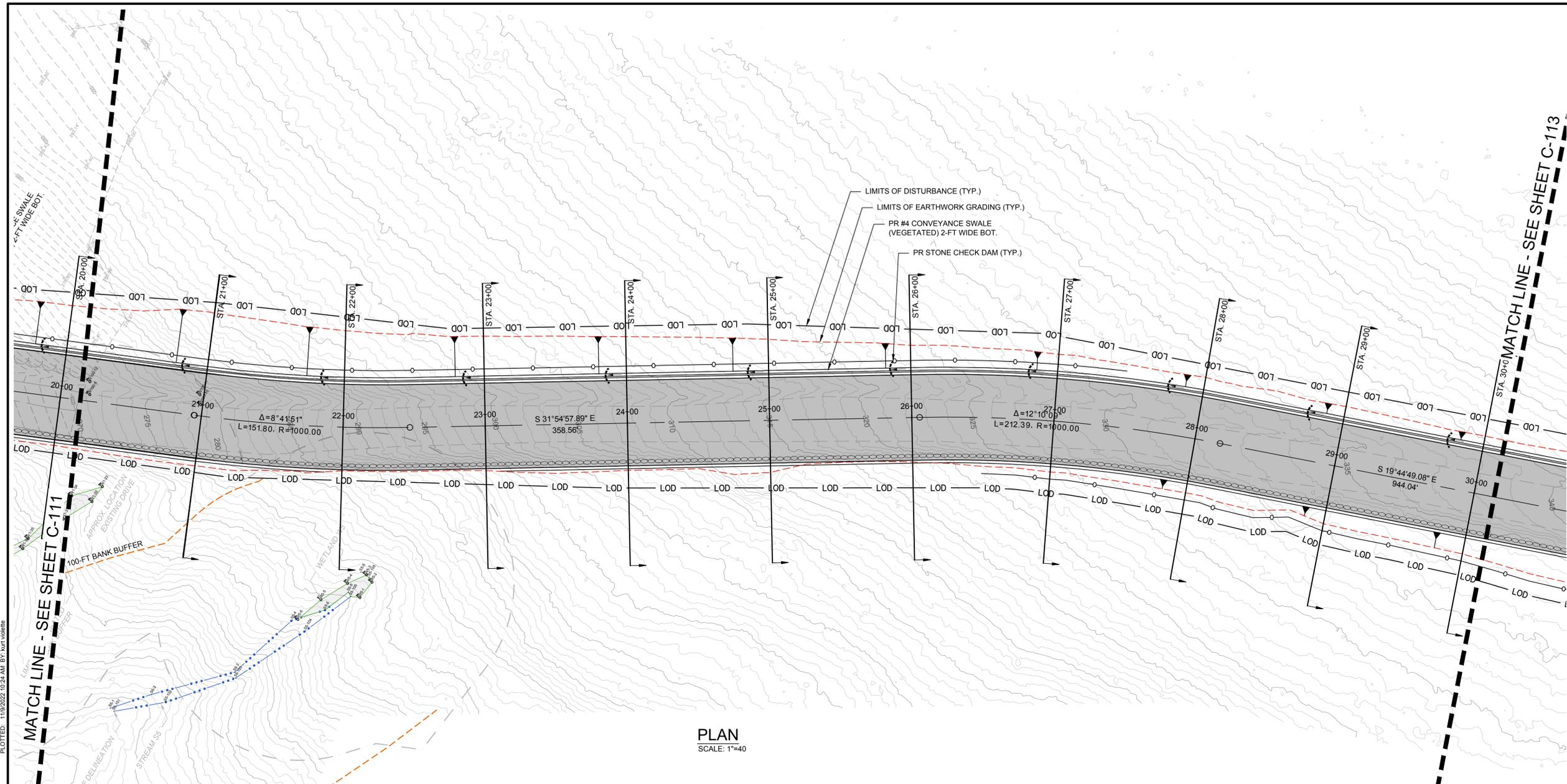


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HAUL ROAD PLAN & PROFILE

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-112



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 CAD FILE: C:\pwworking\kleinfelder\proj\2022\2590\C-112\C-112_20221383_Haul Rd Plan & Profile.dwg LAYOUT: C-112_P&P

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
C	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

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SCALE VERIFICATION



THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING



IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

0 40 80
SCALE: 1" = 40' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS

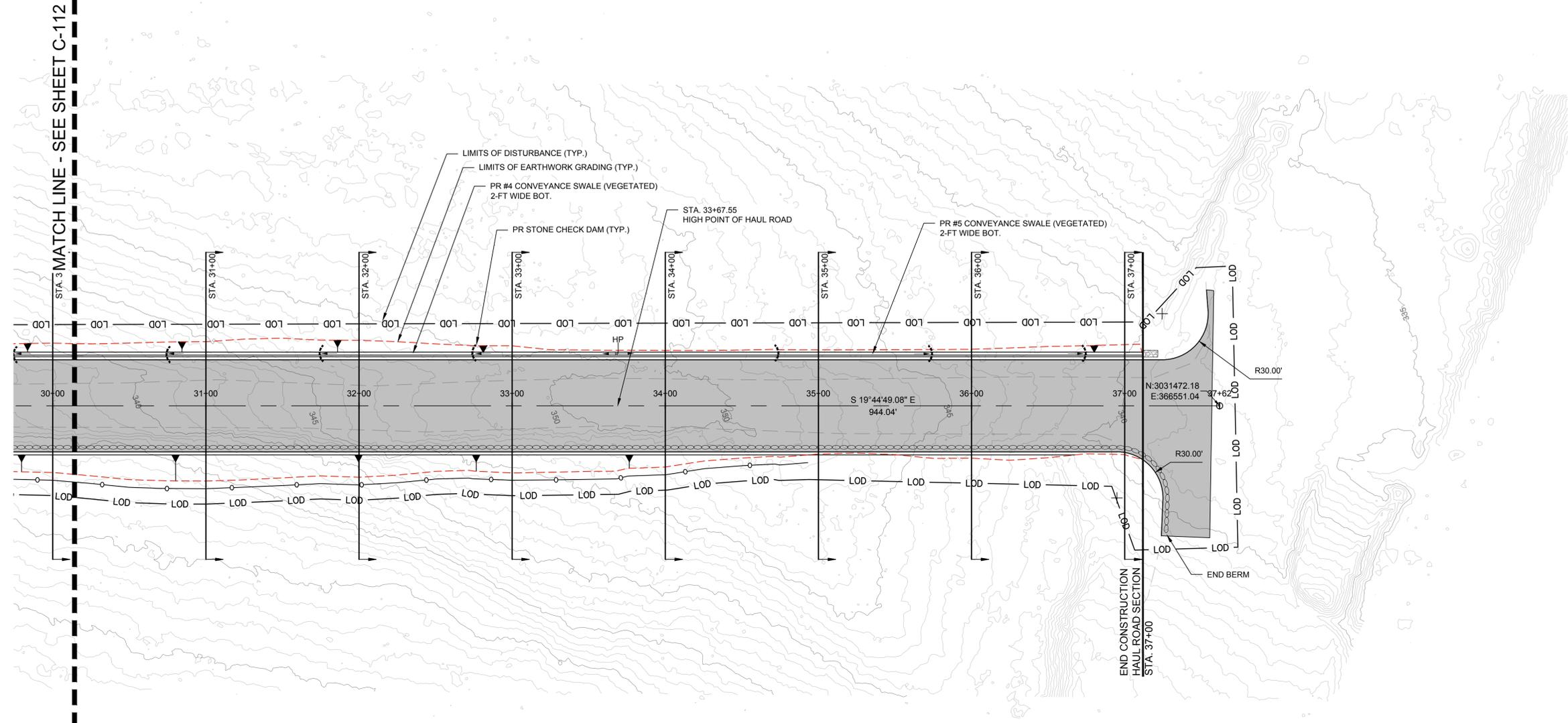


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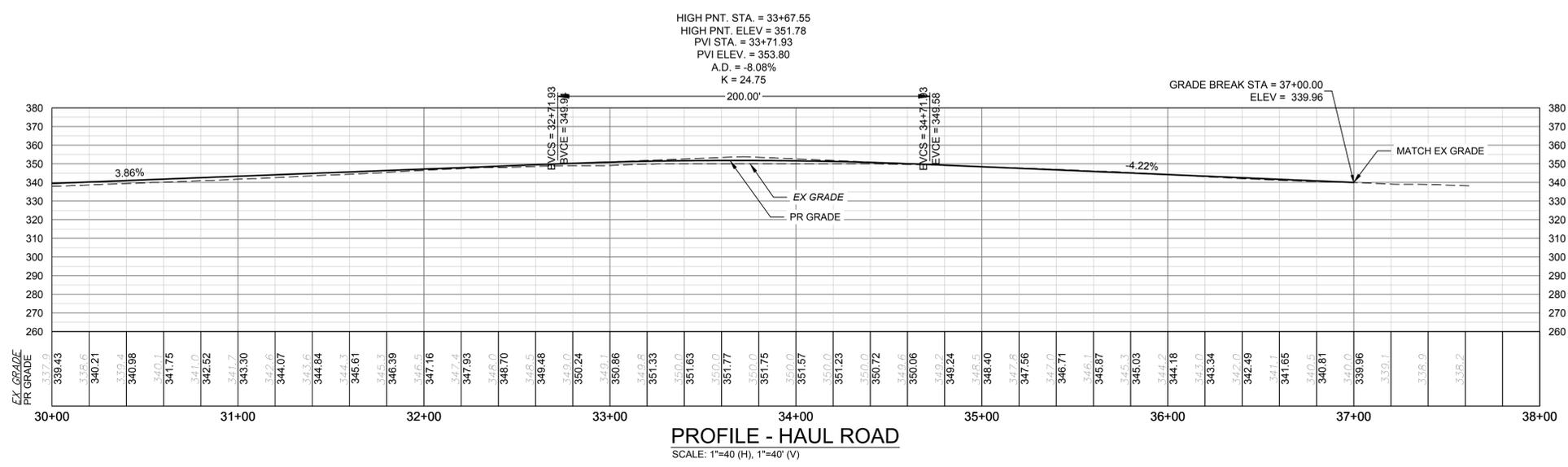
HAUL ROAD PLAN & PROFILE

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-113



PLAN
SCALE: 1"=40'



PROFILE - HAUL ROAD
SCALE: 1"=40' (H), 1"=40' (V)

CAD FILE: C:\pwworking\kleinfelder\proj\01\kfld\2022\1383_Haul Rd Plan & Profile.dwg PLOTTED: 11/9/2022 10:25 AM BY: bur volterre LAYOUT: C-113_P&P

REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
C	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

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SCALE VERIFICATION

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ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASM Haul Road Design
901 River Road
Franklin County, Massachusetts

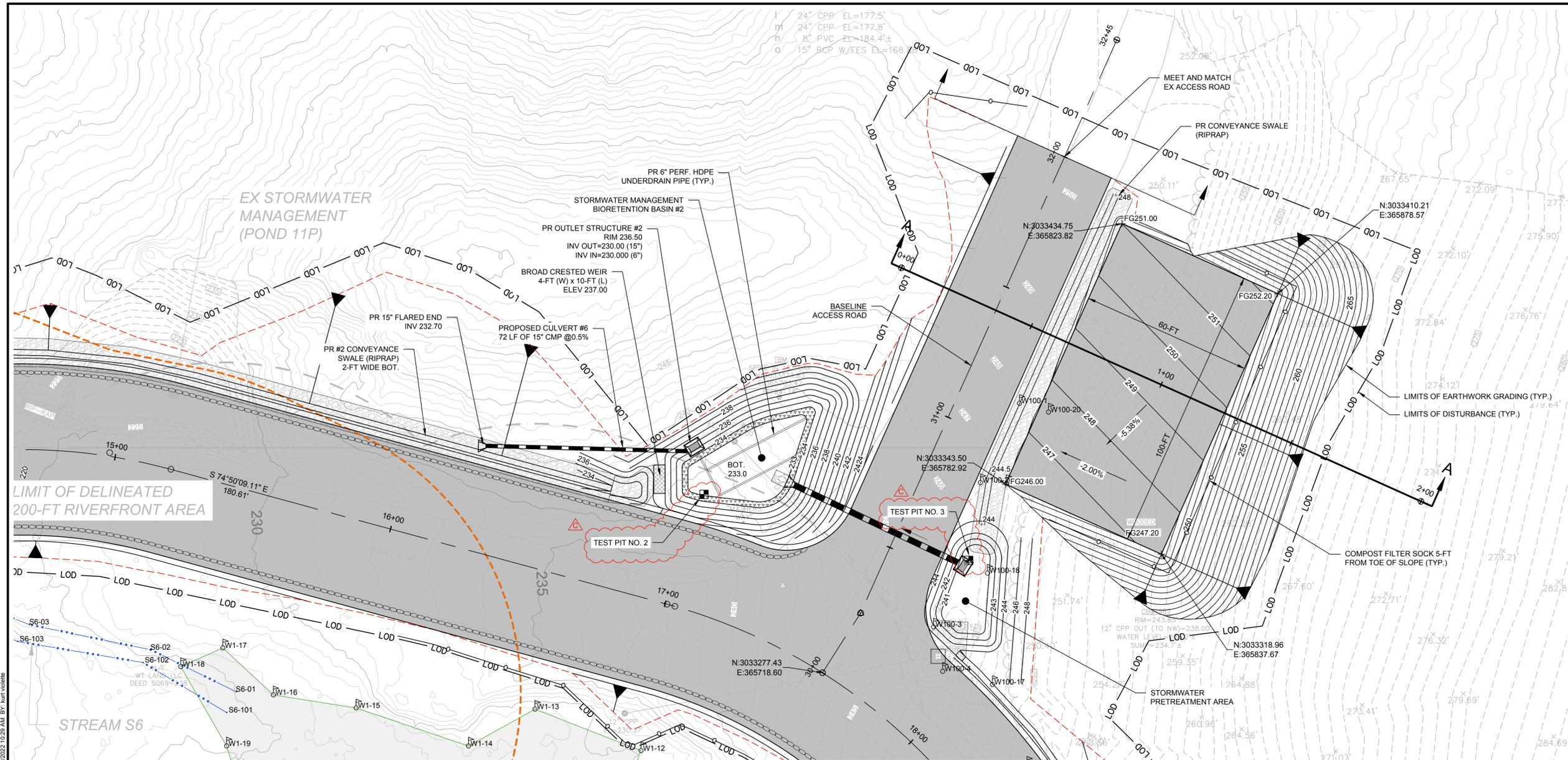


ALL STATES MATERIALS GROUP
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DEERFIELD, MA 01342

PAD GRADING PLAN

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

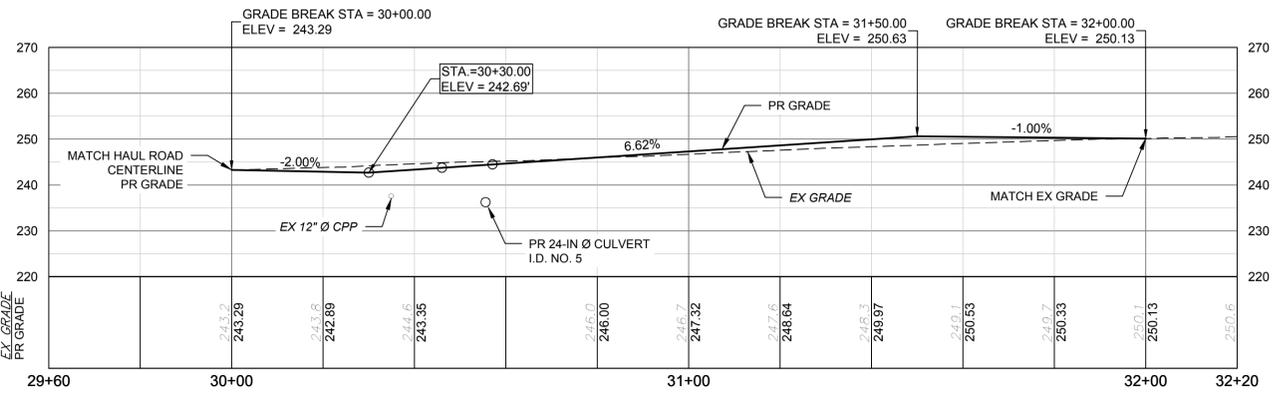
C-120



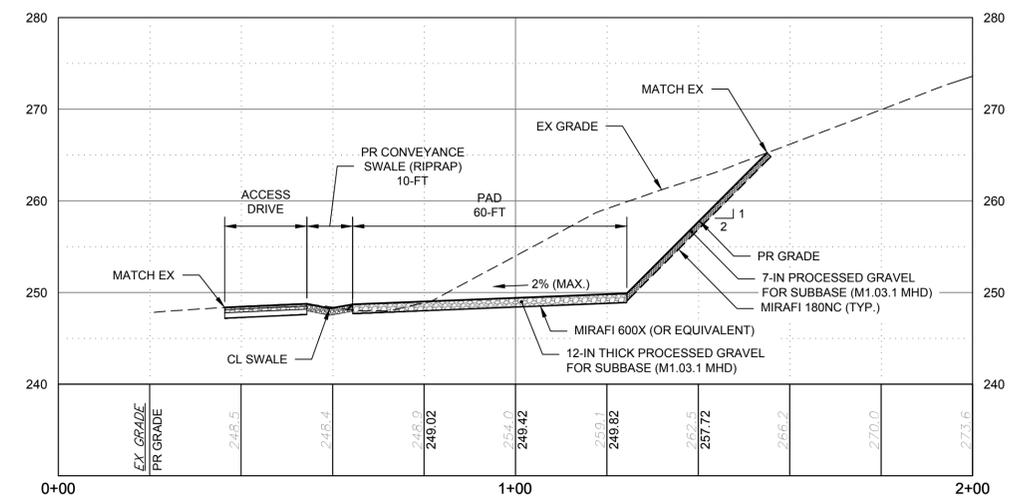
PLAN
SCALE: 1"=20'

- NOTES:**
- SPECIFICATIONS PER COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 - SLOPES MUST BE OVERBUILT AND TRIMMED.
 - EXISTING GRADE MUST BE SCARIFIED AND RECOMPACTED TO AT LEAST 90% MAXIMUM DENSITY AT MOISTURE CONTENT AT OR ABOVE 2% OF OPTIMUM PER ASTM D 1557.

FOR CLARITY PURPOSES ALL ROADSIDE GRADING CONTOURS ARE NOT SHOWN ON PLANS. RED DASHED LINE DEPICTS LIMITS OF GRADING

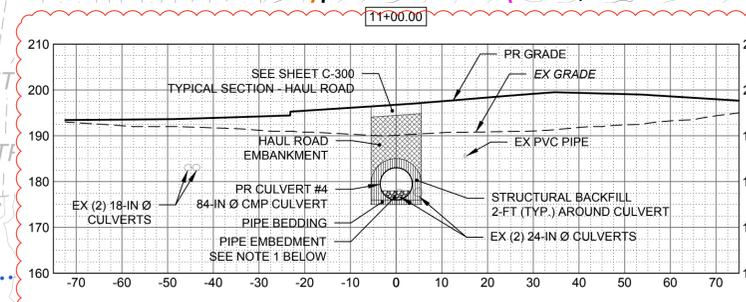
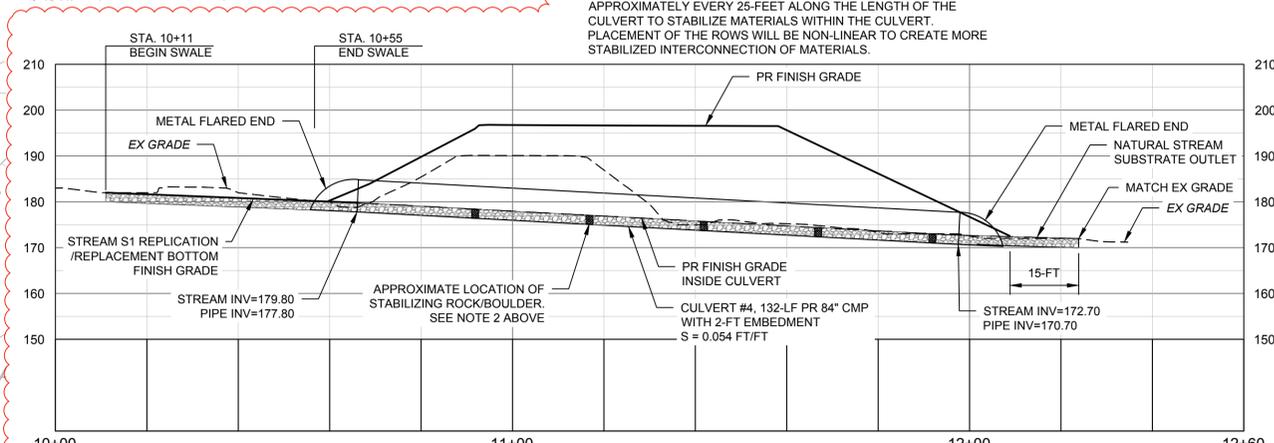
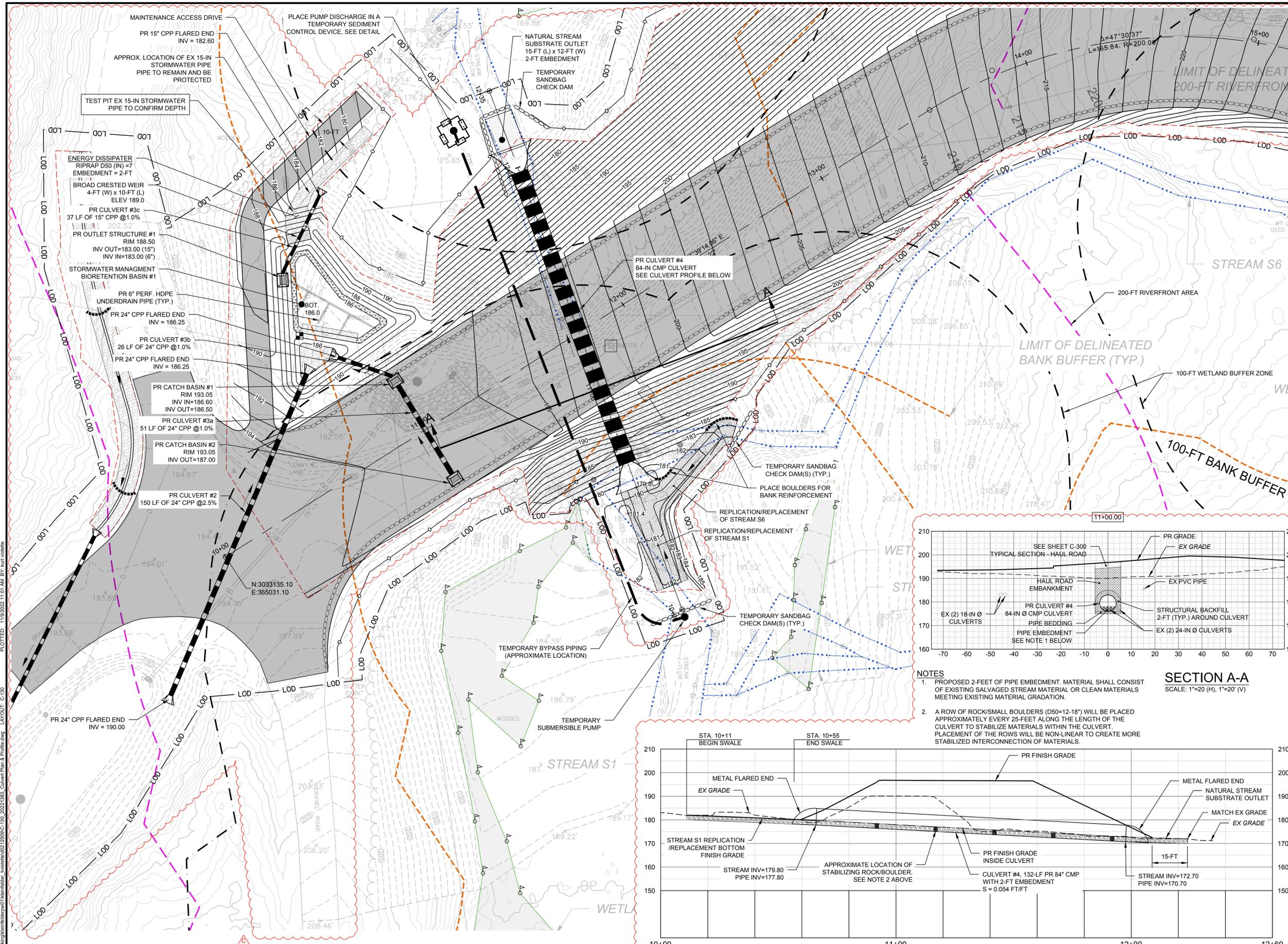


PROFILE - ACCESS ROAD
SCALE: 1"=20'(H), 1"=20'(V)



PROFILE - PAD (A-A)
SCALE: 1"=20'(H), 1"=10'(V)

CAD FILE: C:\pwworking\kleinfelder\proj\20221383_Pad Grading Plan.dwg LAYOUT: C-120 PLOTTED: 11/09/2022 10:29 AM BY: kur.vielteich

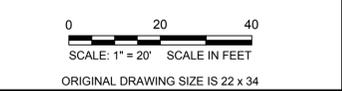
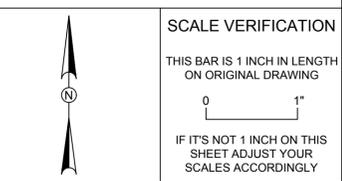


- NOTES**
- PROPOSED 2-FOOT OF PIPE EMBEDMENT. MATERIAL SHALL CONSIST OF EXISTING SALVAGED STREAM MATERIAL OR CLEAN MATERIALS MEETING EXISTING MATERIAL GRADATION.
 - A ROW OF ROCK/SMALL BOULDERS (D50=12-18") WILL BE PLACED APPROXIMATELY EVERY 25-FEET ALONG THE LENGTH OF THE CULVERT TO STABILIZE MATERIALS WITHIN THE CULVERT. PLACEMENT OF THE ROWS WILL BE NON-LINEAR TO CREATE MORE STABILIZED INTERCONNECTION OF MATERIALS.

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
△	ISSUED FOR PERMITTING	KRV	SH	11/9/2022

ISSUED FOR PERMITTING



ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS



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901 RIVER ROAD
DEERFIELD, MA 01342

CULVERT PLAN, PROFILE, & SECTION

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

PLOTTED: 11/09/2022 11:01 AM BY: kurt.ledette
 LAYOUT: C-130
 CAD FILE: C:\pwworking\kleinfelder\project\20221383\Culvert Plan & Profile.dwg

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB JW	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH JW	10/25/2022
△	ISSUED FOR PERMITTING	KRV	SH JW	11/9/2022

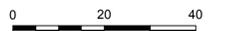
ISSUED FOR PERMITTING

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING



IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY



SCALE: 1" = 20' SCALE IN FEET

ORIGINAL DRAWING SIZE IS 22 x 34

ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS

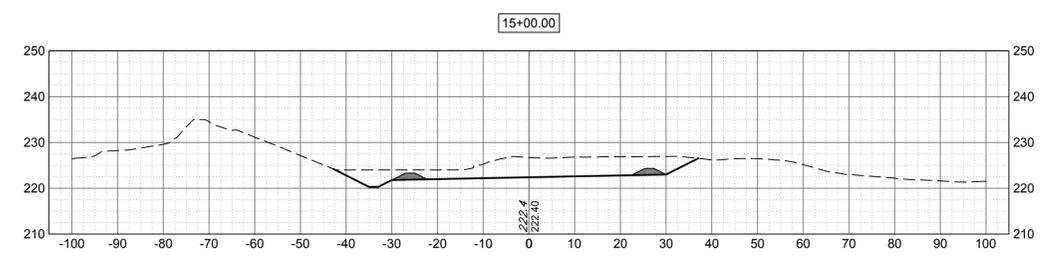
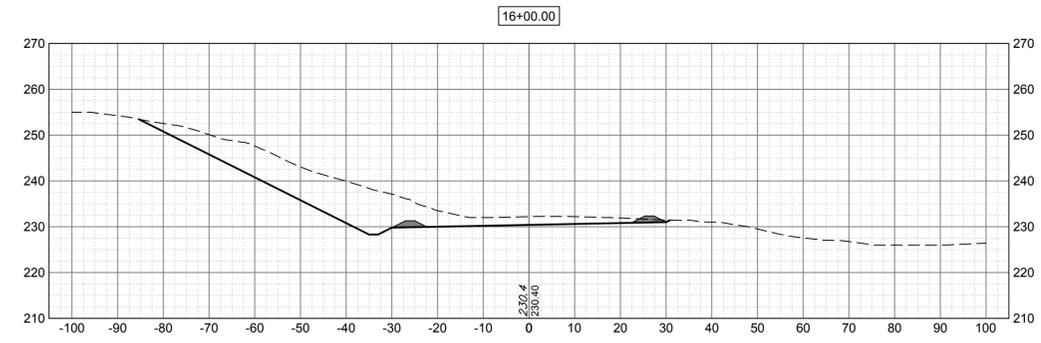
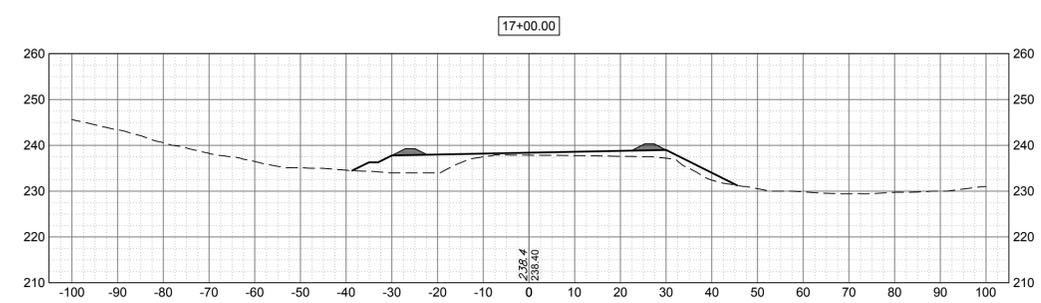
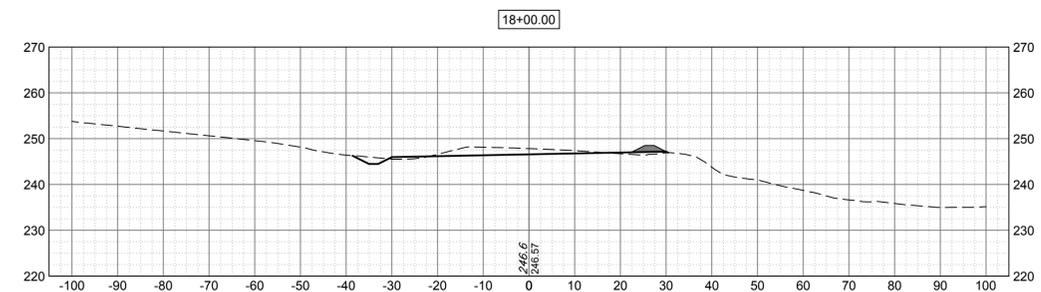
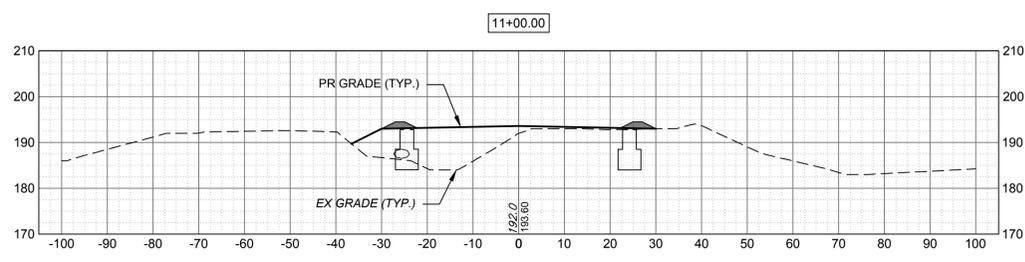
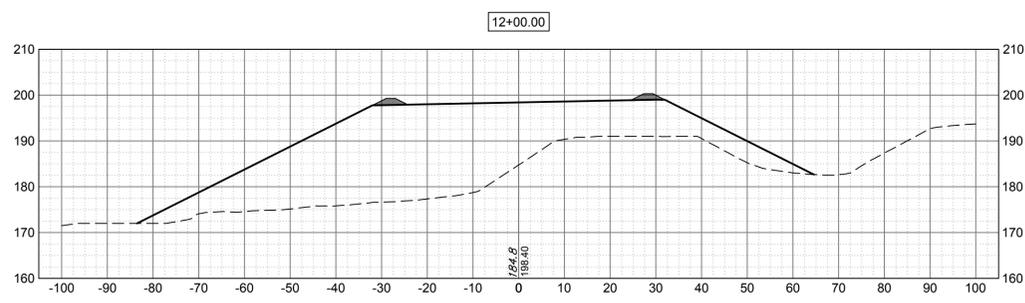
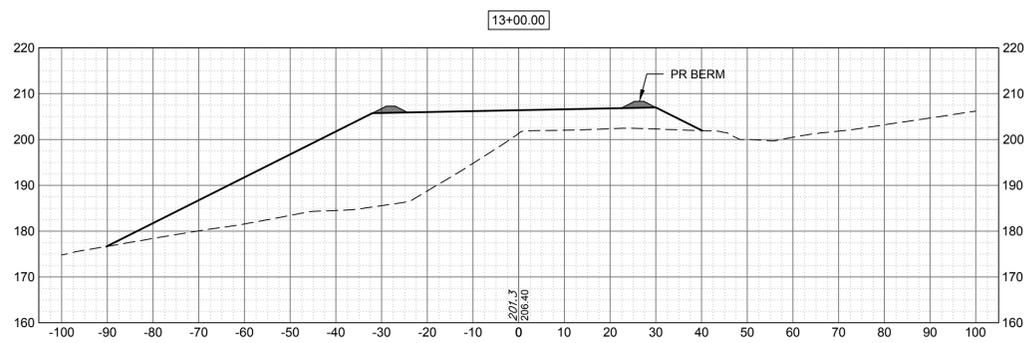
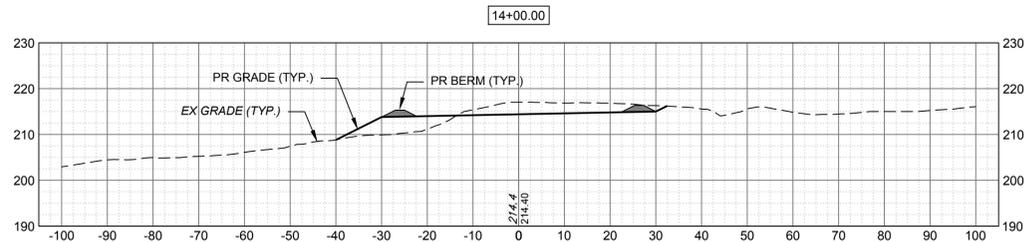


ALL STATES MATERIALS GROUP
901 RIVER ROAD
DEERFIELD, MA 01342

CROSS SECTIONS

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-301



REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB JW	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH JW	10/25/2022
△	ISSUED FOR PERMITTING	KRV	SH JW	11/9/2022

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ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS

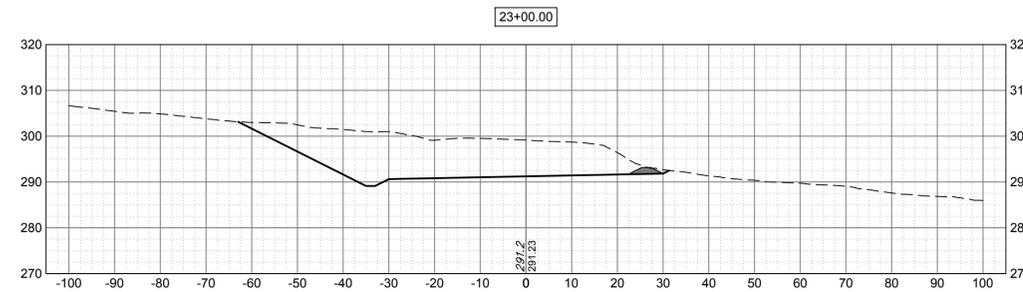
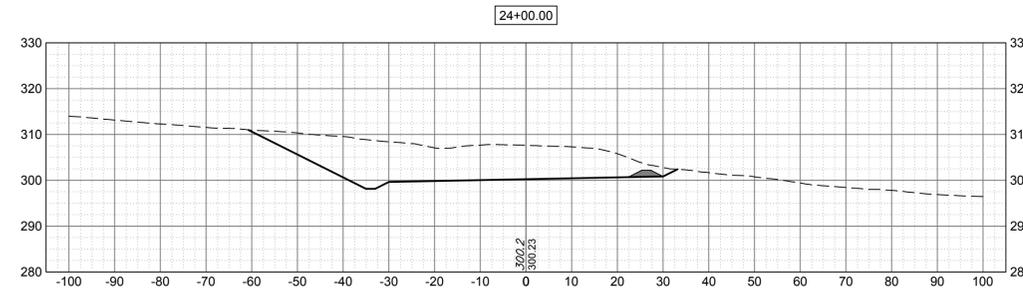
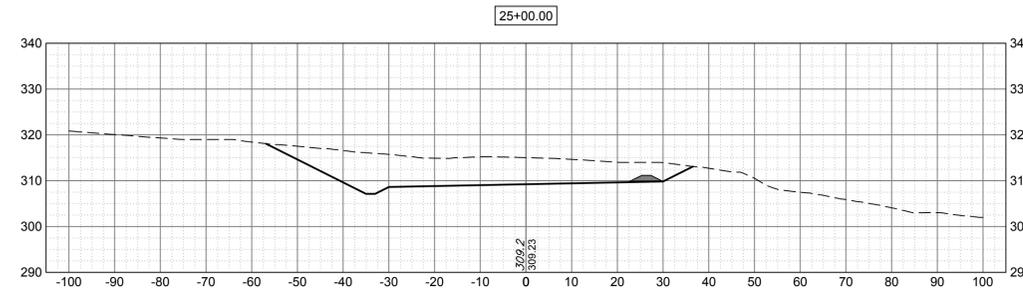
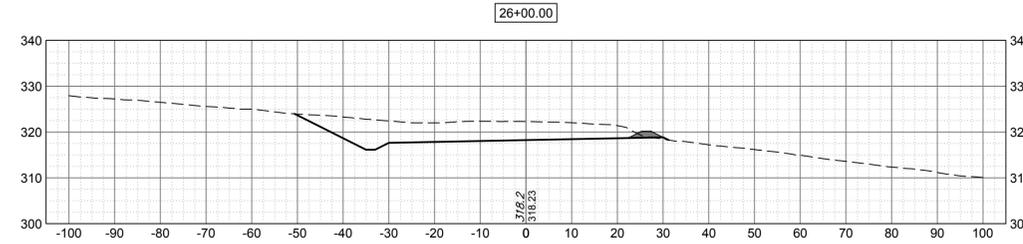
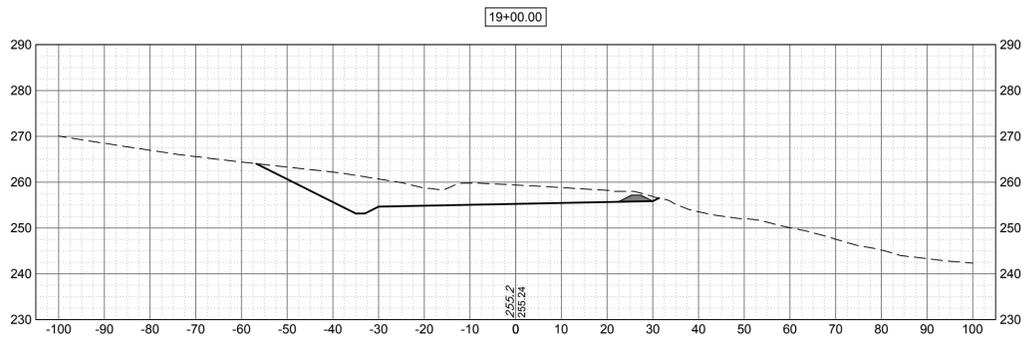
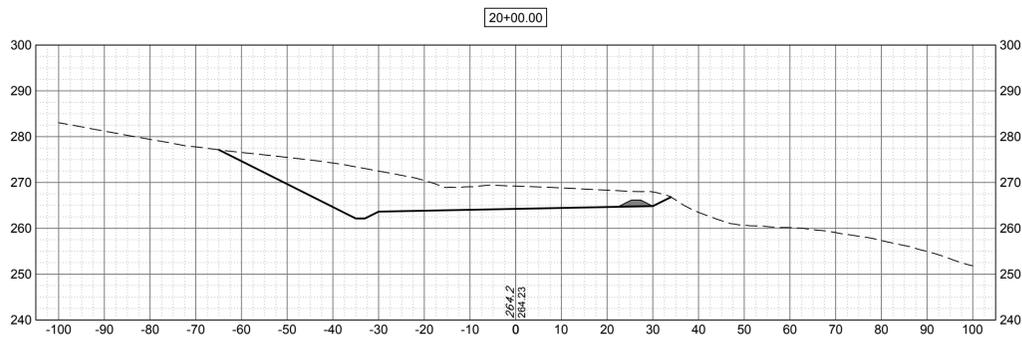
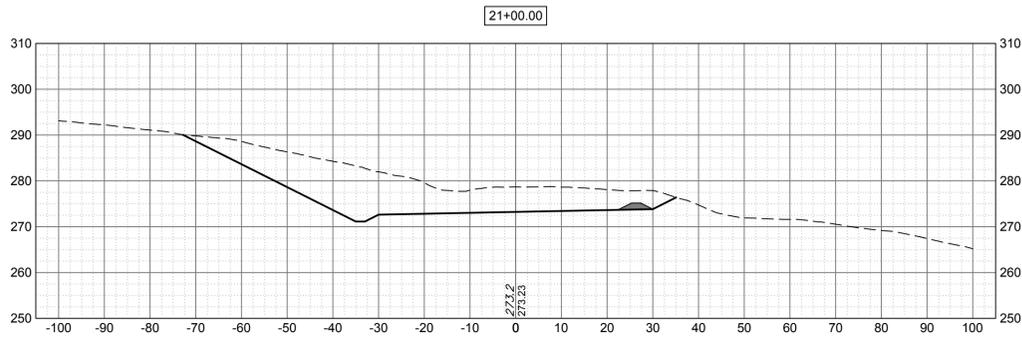
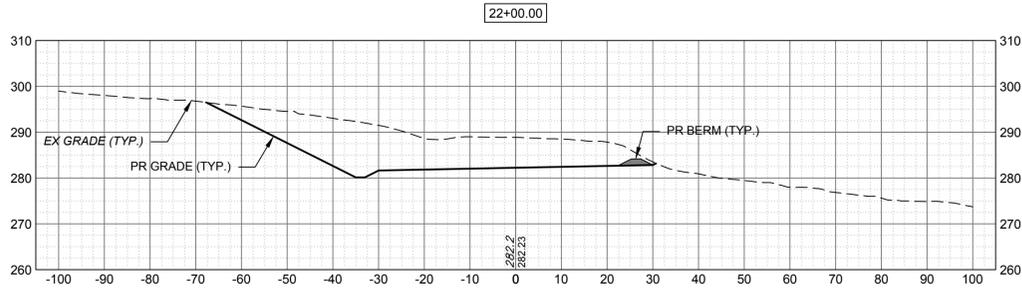


ALL STATES MATERIALS GROUP
901 RIVER ROAD
DEERFIELD, MA 01342

CROSS SECTIONS

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ISSUE DATE	11/09/2022
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DESIGNED BY	KRV
DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-302



REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB JW	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH JW	10/25/2022
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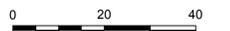
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FRANKLIN COUNTY, MASSACHUSETTS

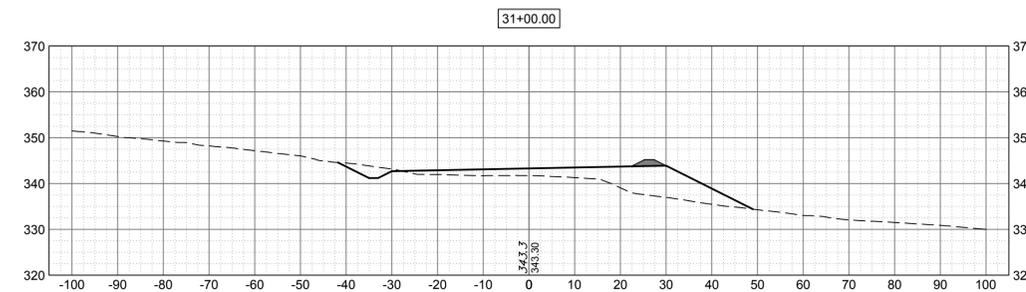
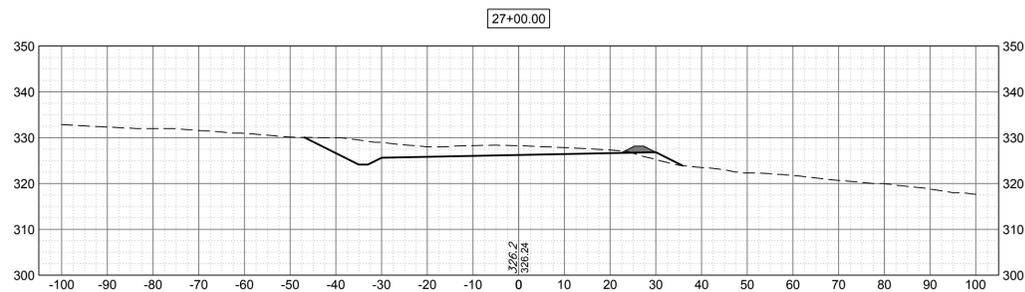
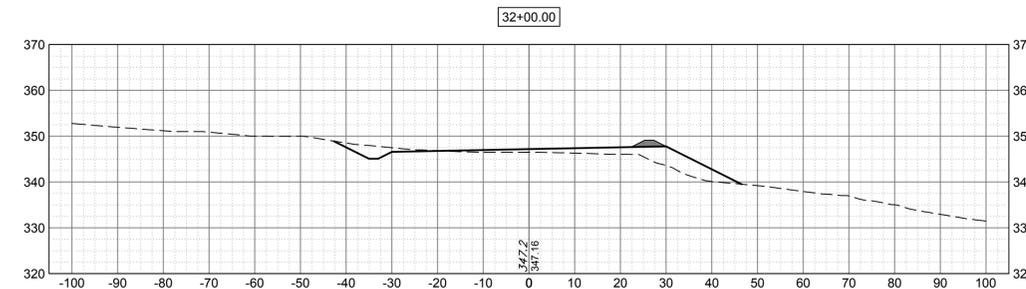
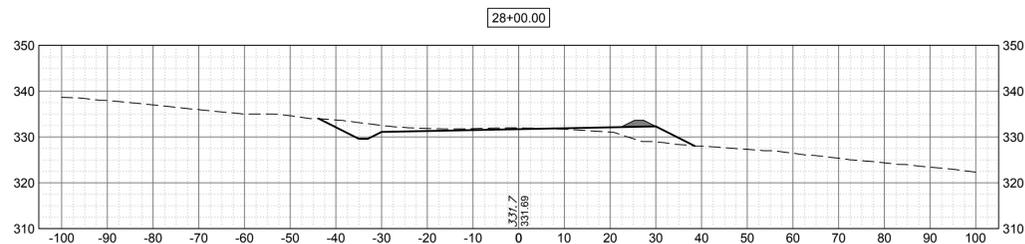
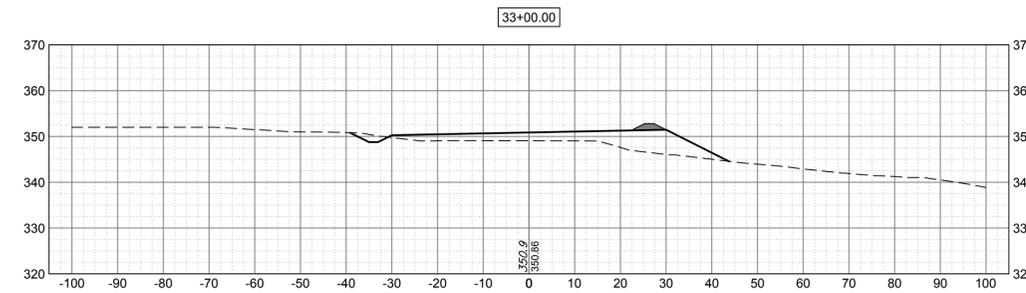
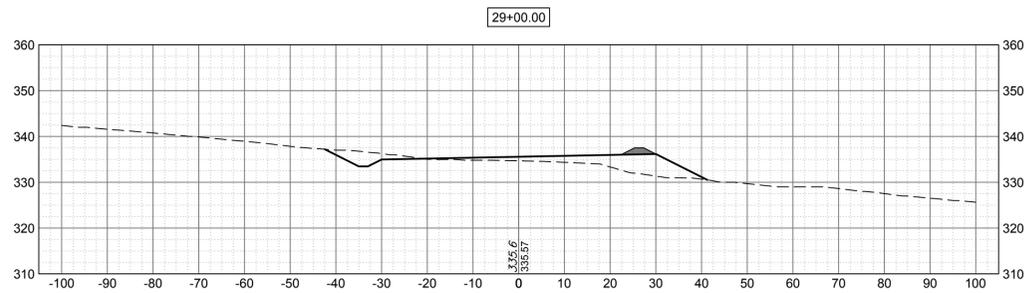
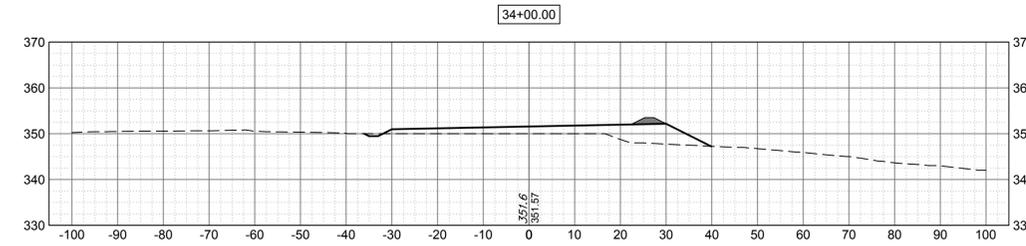
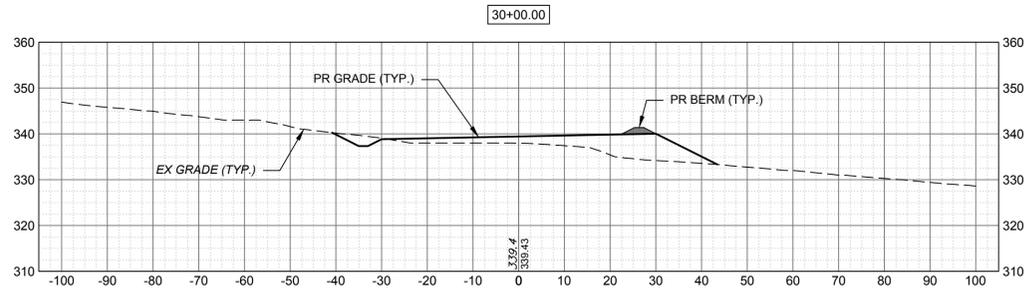


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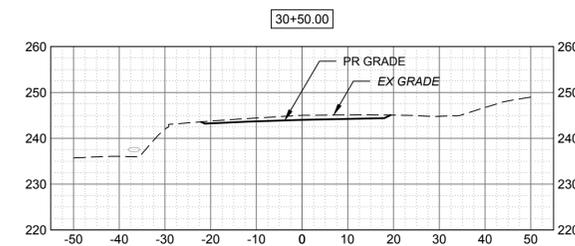
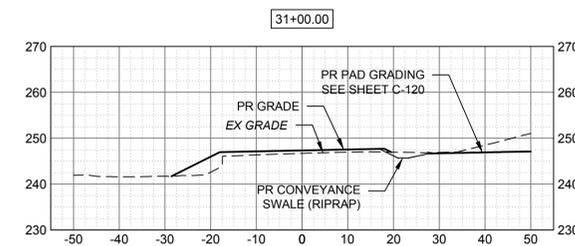
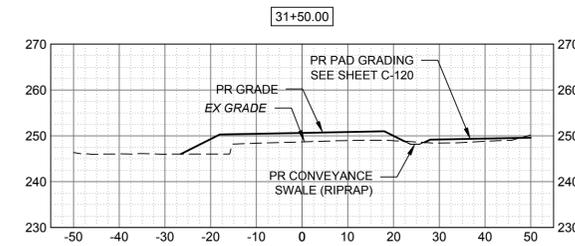
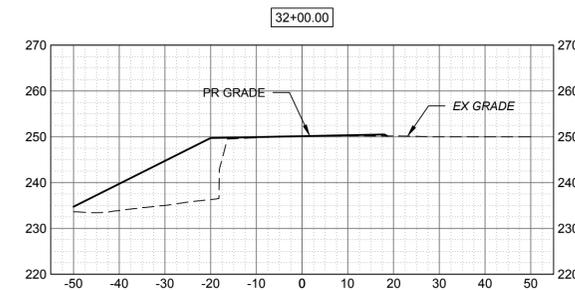
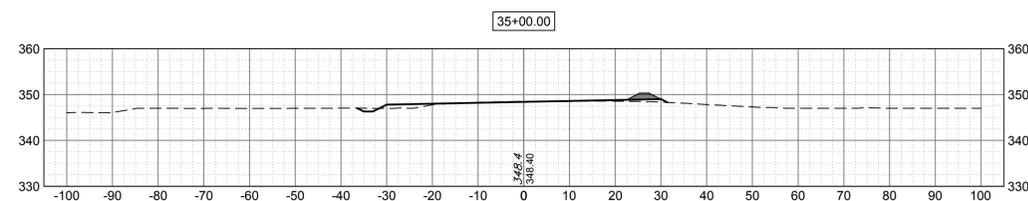
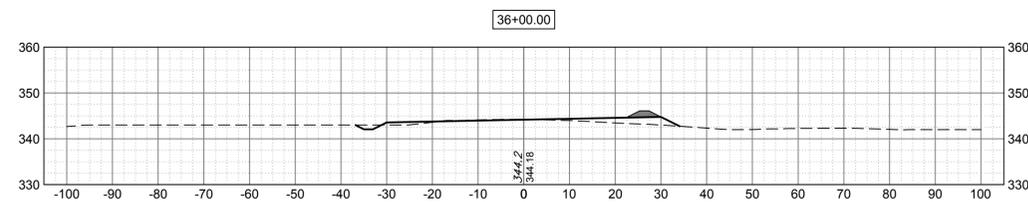
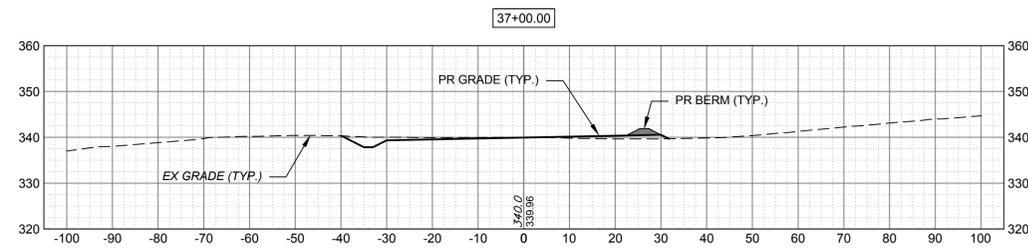
C-303



REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV KRV	AGB JW	4/29/2022
B	ISSUED FOR PERMITTING	KRV KRV	SH JW	10/25/2022
△	ISSUED FOR PERMITTING	KRV KRV	SH JW	11/9/2022

ACCESS ROAD CROSS SECTIONS



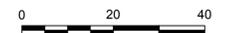
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ISSUE FOR PERMIT (IFP) PLANS

ASM Haul Road Design
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS



ALL STATES MATERIALS GROUP
901 RIVER ROAD
DEERFIELD, MA 01342

CROSS SECTIONS

PROJECT NO.	20221383.001A
ISSUE DATE	11/09/2022
CURRENT REVISION	C
DESIGNED BY	KRV
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CHECKED BY	SH
APPROVED BY	JW

C-304

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV KRV	AGB JW	4/29/2022
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ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
901 RIVER ROAD
FRANKLIN COUNTY, MASSACHUSETTS

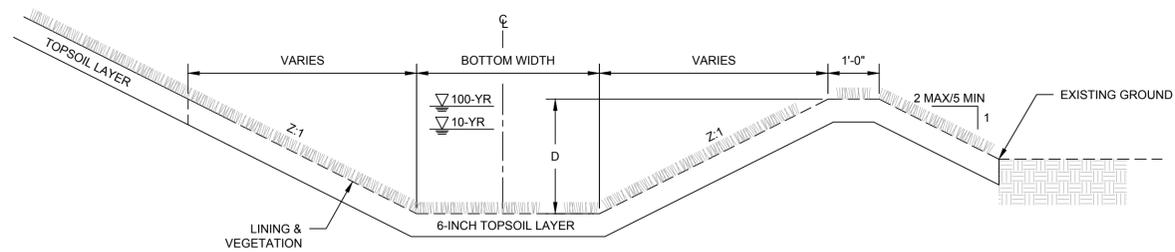


ALL STATES MATERIALS GROUP
901 RIVER ROAD
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CIVIL DETAILS

PROJECT NO.	20221383.001A
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APPROVED BY	JW

C-502

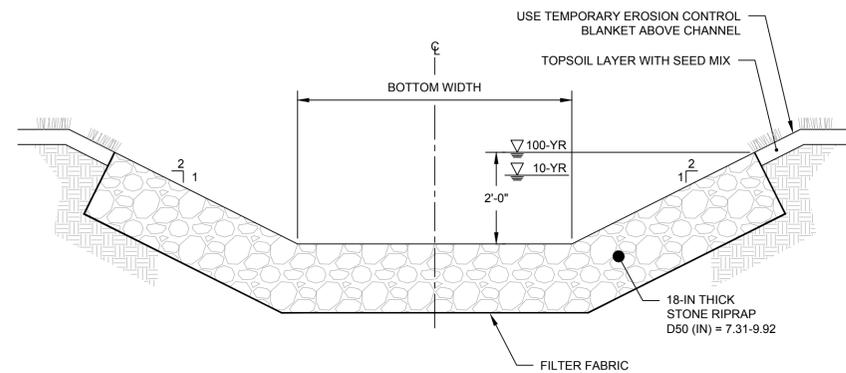


MAINTENANCE

1. REMOVE TRASH, DEBRIS, AND SEDIMENT.
2. RESEED AND MOW AS NECESSARY.
3. IRRIGATE VEGETATION INITIALLY AND AS DRY CONDITIONS REQUIRED.
4. IMPLEMENT PEST MANAGEMENT IF NECESSARY.
5. REMOVE ACCUMULATED SEDIMENT BY HAND, WITH FLAT-BOTTOM SHOVEL, OR BY SIMILAR MEANS.

CONVEYANCE SWALE (VEGETATED)

SCALE: N.T.S.

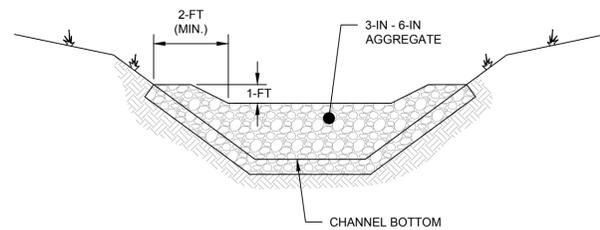


MAINTENANCE

1. REMOVE TRASH, DEBRIS, AND SEDIMENT.
2. REMOVE ACCUMULATED SEDIMENT BY HAND, WITH FLAT-BOTTOM SHOVEL, OR BY SIMILAR MEANS.

CONVEYANCE SWALE (RIPRAP)

SCALE: N.T.S.



NOTES:

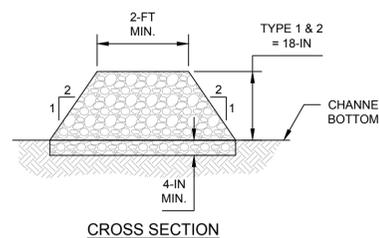
1. STONE CHECK DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE PROJECT SPECIFICATIONS.
3. SIDE SLOPES SHOULD BE 2:1 OR FLATTER.
4. MAINTAIN A MINIMUM OF 1-FT BETWEEN TOP OF STONE CHECK DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
5. STONE CHECK DAMS SHOULD BE EMBEDDED A MINIMUM OF 4-IN INTO EXISTING GROUND.
6. STONE CHECK DAMS TYPE 2 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1-IN DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO HEIGHTS & SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
7. FLOW OUTLETS SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.)

USAGE GUIDELINES:

STONE CHECK DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THROUGH RATE OF 60GPM/SF OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18-IN HIGH WITH NO WIRE MESH) (3-IN TO 6-IN AGGREGATE) MAY BE USED AT TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES, AND AT DIKE OR SWALE OUTLETS. ROCK FILTER DAMS WITHIN THE TEMPORARY DIVERSION DIKES SHALL BE LIMITED TO A DRAINAGE AREA OF 0.75 ACRES OR LESS.

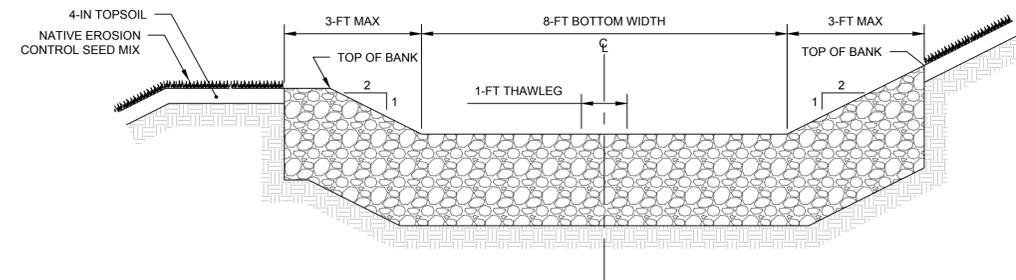
TYPE 2 (18-IN HIGH WITH WIRE MESH) (3-IN TO 6-IN AGGREGATE) MAY BE USED AT DITCHES AND AT DIKE OR SWALE OUTLETS.



STONE CHECK DAM

SCALE: N.T.S.

ENERGY DISSIPATOR
DETAIL REMOVED

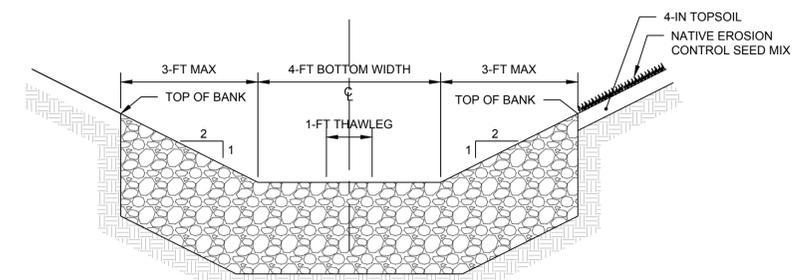


STREAM S1 - CHANNEL RESTORATION SECTION

SCALE: N.T.S.

CHANNEL RESTORATION NOTES:

1. NATURAL STREAM BED MATERIAL WILL BE COLLECTED FROM ON-SITE AREAS OF STREAM DISTURBANCE.
2. OWNER, ENGINEER AND WETLAND SCIENTIST WILL MEET ON-SITE PRIOR TO CONSTRUCTION TO REVIEW EXISTING STREAM MATERIAL AND DISCUSS THE SALVAGE OF STREAM BED MATERIAL FOR REUSE IN RESTORATION.
3. EXISTING SALVAGED MATERIALS SPECIFIC TO EACH SEPARATE STREAM WILL BE TEMPORARILY STOCKPILED ON-SITE OUTSIDE THE DELINEATED WETLANDS AND STREAMS FOR REUSE.
4. GRADATION / SIEVE ANALYSIS WILL BE PERFORMED SHOULD ADDITIONAL IMPORTED MATERIALS BE REQUIRED TO COMPLETE CHANNEL RESTORATION, MATERIAL WILL BE OF SAME GRADATION AS EXISTING STREAM MATERIALS.



STREAM S6 - CHANNEL RESTORATION SECTION

SCALE: N.T.S.

REVISIONS

REV	DESCRIPTION	DSN DWN	CHK APP	DATE
A	ISSUED FOR PERMITTING	KRV	AGB	4/29/2022
B	ISSUED FOR PERMITTING	KRV	SH	10/25/2022
C	ISSUED FOR PERMITTING	KRV	JW	11/9/2022

ISSUED FOR PERMITTING

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ISSUE FOR PERMIT (IFP) PLANS

ASMG HAUL ROAD DESIGN
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FRANKLIN COUNTY, MASSACHUSETTS



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901 RIVER ROAD
DEERFIELD, MA 01342

CIVIL DETAILS

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DRAWN BY	KRV
CHECKED BY	SH
APPROVED BY	JW

C-503

MAINTENANCE:

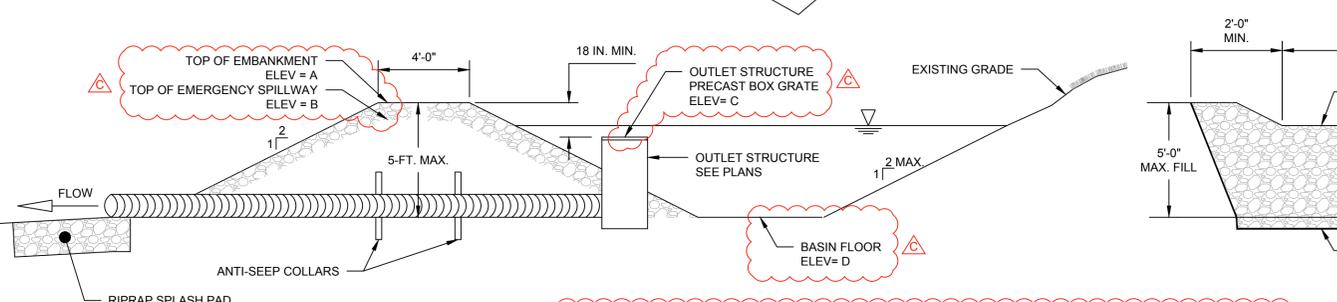
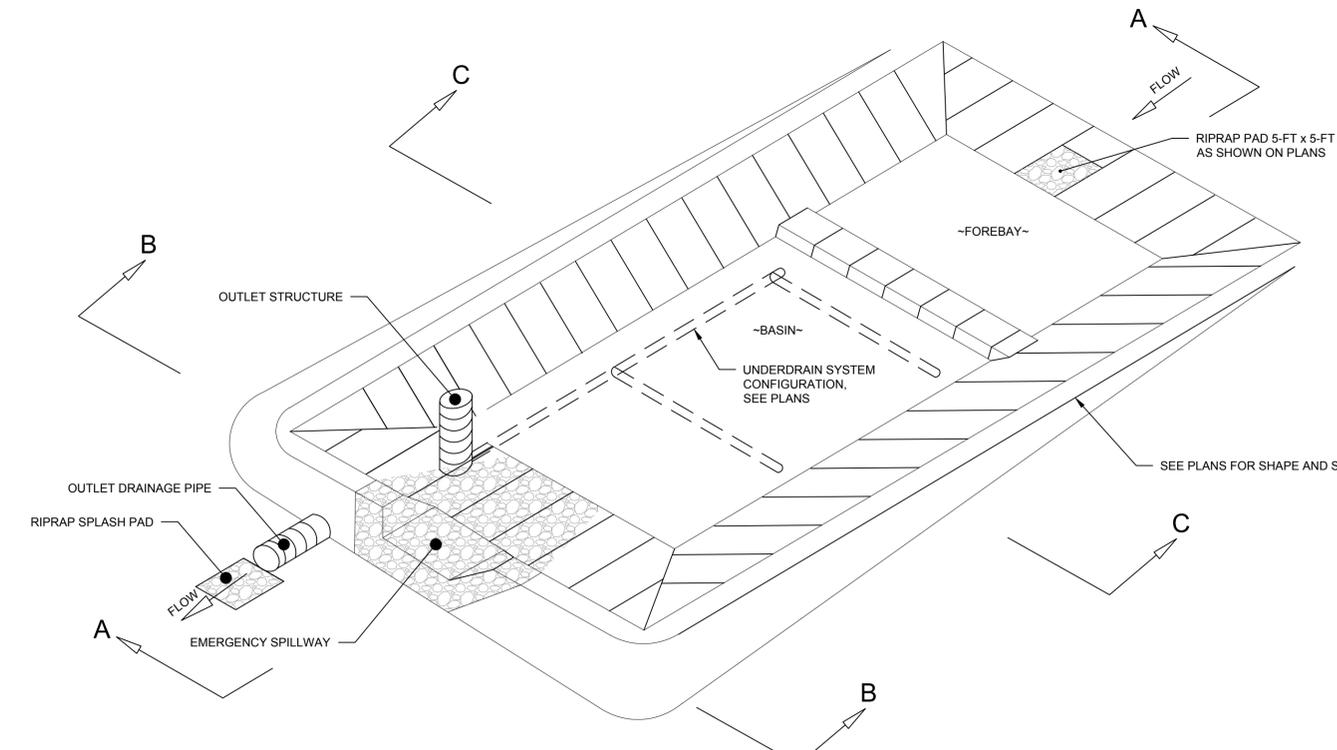
- | | |
|------------------------------|---------------------------|
| ACTIVITY | FREQUENCY |
| 1. INSPECTION & REMOVE TRASH | MONTHLY |
| 2. MULCH | ANNUALLY (SPRING) |
| 3. REMOVE DEAD VEGETATION | ANNUALLY (FALL OR SPRING) |
| 4. PRUNE | ANNUALLY (FALL OR SPRING) |
| 5. REPLACE ENTIRE MEDIA | AS NEEDED |

- | | |
|------------------------------|---------------------------|
| ACTIVITY | FREQUENCY |
| 1. INSPECTION & REMOVE TRASH | MONTHLY |
| 2. MULCH | ANNUALLY (SPRING) |
| 3. REMOVE DEAD VEGETATION | ANNUALLY (FALL OR SPRING) |
| 4. PRUNE | ANNUALLY (FALL OR SPRING) |
| 5. REPLACE ENTIRE MEDIA | AS NEEDED |

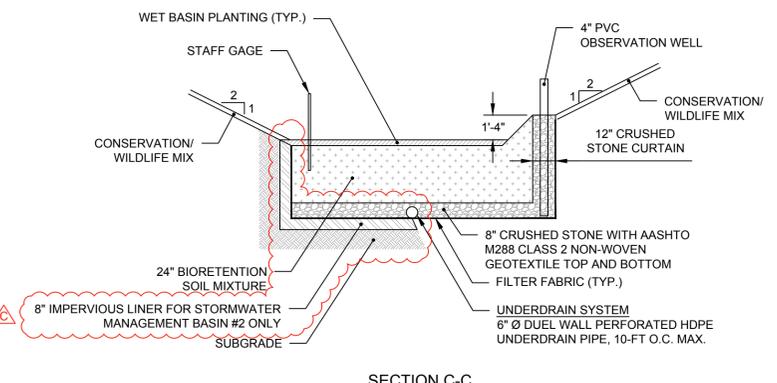
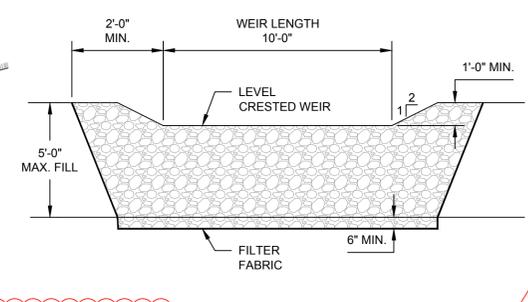
CONSTRUCTION SPECIFICATIONS:

- CLEAR, GRUB AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACES SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY.
- ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LIFTS NOT TO EXCEED 9 INCHES AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 6 INCHES TO ALLOW FOR SETTLEMENT.
- CONSTRUCT THE EMERGENCY SPILLWAY SECTION IN THE EMBANKMENT. PROTECT THE CONNECTION BETWEEN THE RIPRAP AND THE SOIL FROM PIPING BY USING FILTER FABRIC.
- ENSURE THE STONE SECTION OF THE EMBANKMENT HAS A MINIMUM BOTTOM WIDTH OF 3 FEET AND MAXIMUM SIDE SLOPES OF 1:1 THAT EXTEND TO THE BOTTOM OF THE SPILLWAY SECTION.
- CONSTRUCT THE MINIMUM FINISHED STONE SPILLWAY BOTTOM WIDTH, AS SHOWN ON THE PLANS, WITH 2:1 SIDE SLOPES EXTENDING TO THE TOP OF THE OVER FILLED EMBANKMENT. THE WEIR MUST BE LEVEL AND CONSTRUCTED TO GRADE TO ASSURE DESIGN CAPACITY.
- ENSURE EMBANKMENT/SURROUNDING EDGES DO NOT EXHIBIT WATER LEAKAGE OR SEEPAGE.
- AVOID EXCESSIVELY COMPACTING SOILS AROUND THE BIORETENTION AREA. PLACE PLANTING SOILS IN 1-FOOT TO 2-FOOT LIFTS AND COMPACT WITH MINIMAL PRESSURE UNTIL DESIRED ELEVATION IS REACHED.
- SOIL MIX FOR BIORETENTION AREA
 - BE A MIXTURE OF SAND (40%), COMPOST(30-40%) AND TOPSOIL (20-30%).
 - MUST BE FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN 2 INCHES. CLAY CONTENT SHOULD NOT EXCEED 5%.
 - SOIL pH SHOULD GENERALLY BE BETWEEN 5.5 - 6.5.
 - SOIL WITH 1.5% TO 3% ORGANIC CONTENT AND MAXIMUM 500-PPM SOLUBLE SALTS.
 - SAND COMPONENT SHOULD BE GENERALLY SAND THAT MEETS ASTM D 422.

SIEVE SIZE	PERCENT PASSING
2-INCH	100
3/4-INCH	70-100
1/4-INCH	50-80
NO. 40	15-40
NO. 200	0-3
- THE TOPSOIL COMPONENT SHALL BE SANDY LOAM, LOAMY SAND OR LOAM TEXTURE.
- THE COMPOST COMPONENT MUST BE PROCESSED FROM YARD WASTE IN ACCORDANCE WITH MASSDEP GUIDELINES. THE COMPOST SHALL NOT CONTAIN BIOSOLIDS.

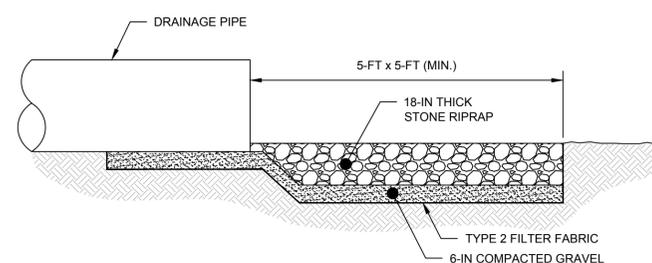


DIMENSIONS	A	B	C	D
	STORMWATER MANAGEMENT BASIN #1	190.0	189.0	188.5
STORMWATER MANAGEMENT BASIN #2	238.0	237.0	236.5	233.0

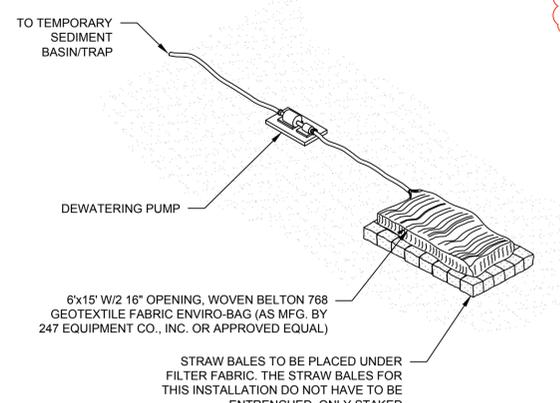


- NOTES:
- PROVIDE ONE 4" SCH. 80 OBSERVATION WELL PER BASIN. WELL SHALL HAVE THREAD COVER. BOTTOM 2-FT OF WELL SHALL BE PERFORATED. TOP OF WELL SHALL EXTEND TO ELEVATION OF LOWEST BASIN BERM.
 - PROVIDE A STAFF GAUGE WITH FEET AND INCH MARKINGS FOR THE PURPOSE OF MEASURING THE ACCUMULATION OF SEDIMENT IN THE BASIN FOREBAY. STAFF GAUGE SHALL BE MADE OF SUITABLE MATERIALS WITH DURABLE MARKINGS.

BIORETENTION BASIN
SCALE: N.T.S.



RIPRAP SPLASH PAD
SCALE: N.T.S.



DESILTING BAG ON BALES
SCALE: N.T.S.

- NOTES:
- WHEN ATTACHING THE HOSE TO THE FILTER FABRIC BAG, THE CLAMP MUST BE TIGHT AND PREVENT BACK FLOW AROUND THE CONNECTION.
 - WHILE IN USE, FILTER FABRIC BAGS WILL BE MONITORED HOURLY TO ASSURE PROPER FUNCTIONING. ANY PROBLEMS SHALL BE REPAIRED IMMEDIATELY AND THE BAGS SHALL BE REPLACED WHEN FULL.
 - PUMP SHALL NOT PROVIDE MORE THAN THE MAXIMUM ALLOWABLE FLOW PER ENVIRO-BAG SPECIFICATIONS (110 GPM/FT.)
 - CONTRACTOR SHALL PROVIDE SUFFICIENT STORAGE IN DESILTING BAG TO MEET THE FOLLOWING VOLUME EQUIVALENCY: 1 CU.FT./GPM DISCHARGE.
 - PLACE FILTER BAG SUCH THAT DRAINAGE FROM THE FILTER WILL DRAIN AWAY FROM THE DISTURBED AREA, INTO A NATURAL SWALE OR INLET PROTECTED FROM EROSION.
 - STAKES TO ANCHOR STRAW BALES TO BE PLACED AS TO NOT PUNCTURE SILT BAG

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 PLOTTED: 11/09/2022 11:25 AM BY: kurt.vielhaber