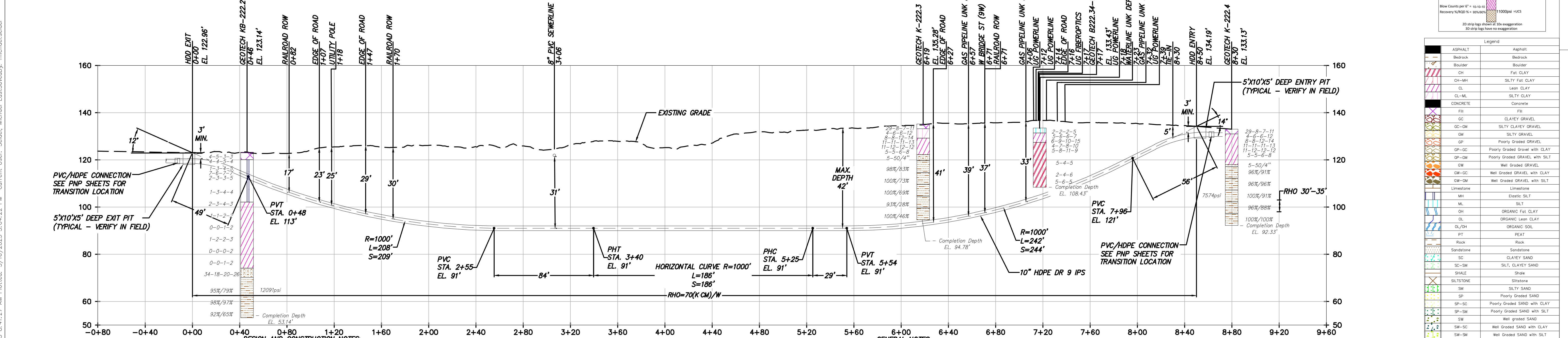


0 40 80  
Scale in feet when printed on 22x34

**HDD 118 PLAN VIEW**  
CONDUIT 1



**DESIGN AND CONSTRUCTION NOTES:**

- INSTALLATION METHOD: HORIZONTAL DIRECTIONAL DRILL.
- 10.750" HDPE MIN. W.T. 1.194" DR 9 IPS PIPE.  
2.375" HDPE MIN. W.T. 0.339" DR 7 IPS PIPE.  
HDD HORIZONTAL LENGTH (L): 850'  
HDD DESIGNED PIPE LENGTH (S): 857'
- THE MINIMUM THREE JOINT (APPROX. 100 FT) COMBINED CURVE (VERTICAL + HORIZONTAL) RADIUS SHALL NOT BE LESS THAN 800 FT.
- THE MINIMUM SEPARATION DISTANCE FROM EXISTING SUBSURFACE UTILITIES SHALL NOT BE LESS THAN 10 FT.
- DRILL CONTRACTOR AND GEOTECHNICAL ENGINEER TO DETERMINE LENGTH OF TEMPORARY SURFACE/CONDUCTOR CASING.
- SPT N-VALUES SHOWN ON THIS DRAWING ARE NOT CORRECTED FOR SAMPLER SIZE OR HAMMER ENERGY. REFERENCE BORING LOGS AND GEOTECHNICAL REPORTS FOR ADDITIONAL SOIL INFORMATION.
- DRILL CONTRACTOR SHALL UTILIZE BUOYANCY CONTROL MEASURES (INTERNAL WATER USED FOR BALLAST) DURING PULLBACK FOR ALL BUNDLED CASINGS.

**GENERAL NOTES:**

- ALL BURIED LINE DEPTHS ARE APPROXIMATE. PRIOR TO ANY EXCAVATION OR EXPLORATORY BORING, CONTRACTOR MUST CONTACT 811 AND ABIDE BY ALL STATE EXCAVATION REQUIREMENTS. CONTRACTOR MUST CONTACT CSX WHENEVER ON RR ROW.
- TETRA TECH ENGINEERING AND SURVEYING P.C. IS NOT RESPONSIBLE FOR LOCATION OF FOREIGN UTILITIES IN THIS DRAWING. THE INFORMATION SHOWN HEREON IS FURNISHED WITHOUT LIABILITY ON THE PART OF TETRA TECH ENGINEERING AND SURVEYING P.C. OR ANY DAMAGES RESULTING FROM ERRORS OR OMISSIONS THEREIN.
- ALL COORDINATES ARE IN NEW YORK STATE PLANE, NAD83, EAST ZONE, US FOOT.

**HDD 118 PROFILE VIEW**  
CONDUIT 1



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.

ISSUED FOR PERMITTING

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
D	03/17/2023	FINAL SUBMISSION	MRS	EJK
C	01/24/2023	DRAFT FINAL SUBMISSION	MRS	EJK
B	11/16/2022	PRELIMINARY DRAFT FINAL SUBMISSION	MRS	EJK
A	04/29/2022	60% DESIGN SUBMISSION	MRS	EJK

**CHAMPLAIN HUDSON POWER EXPRESS**  
**SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL**

**PLAN AND PROFILE - HDD 118**  
**ROAD CROSSING - CONDUIT 1**  
**GREENE COUNTY, NY**

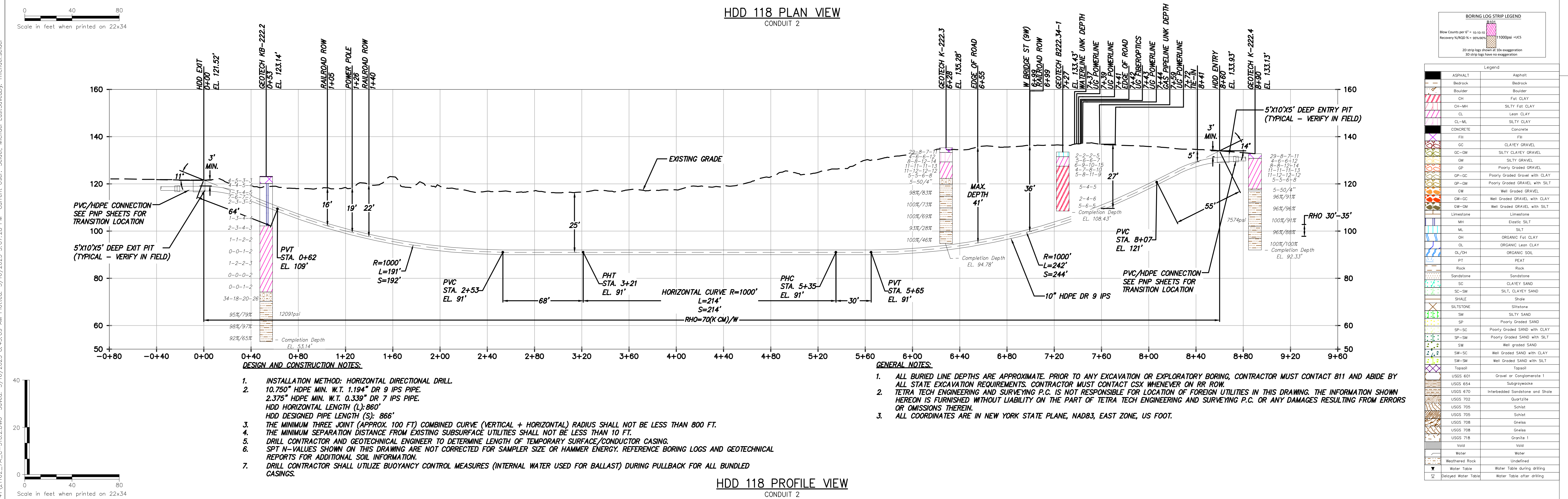
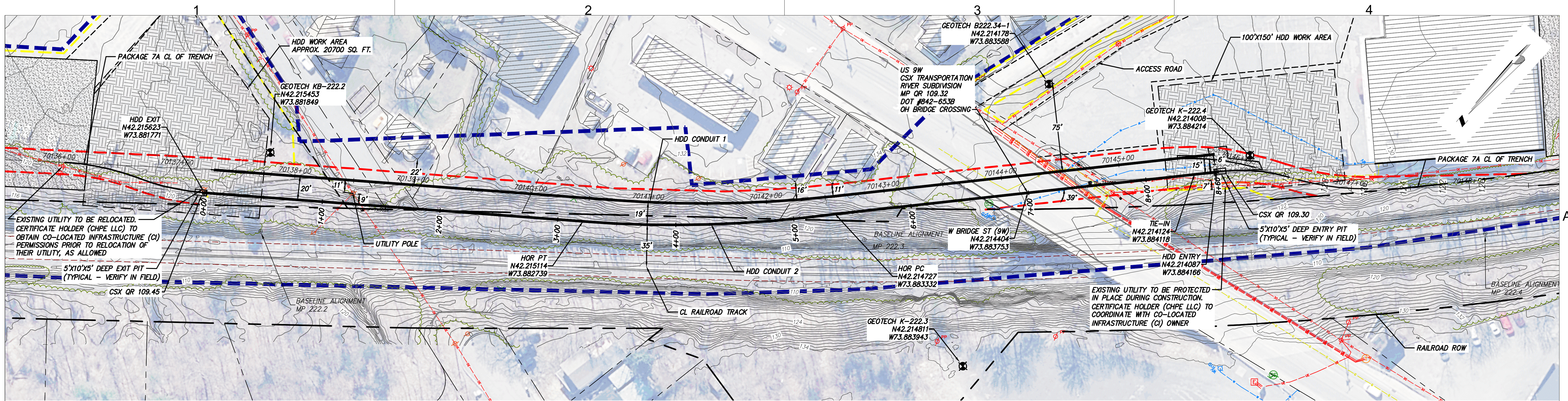
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DATE: 03/17/2023	DATE: 03/17/2023	DATE: 03/17/2023	DATE: 03/17/2023

**KIEWIT PROJECT NO. 21162**  
**TT PROJECT NO. 204-3701**  
**DRAWING NO. C-318**

1 OF 1

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**ISSUED FOR PERMITTING**

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B	11/16/2022	PRELIMINARY DRAFT FINAL SUBMISSION	MRS	EJK
A	04/29/2022	60% DESIGN SUBMISSION	MRS	EJK

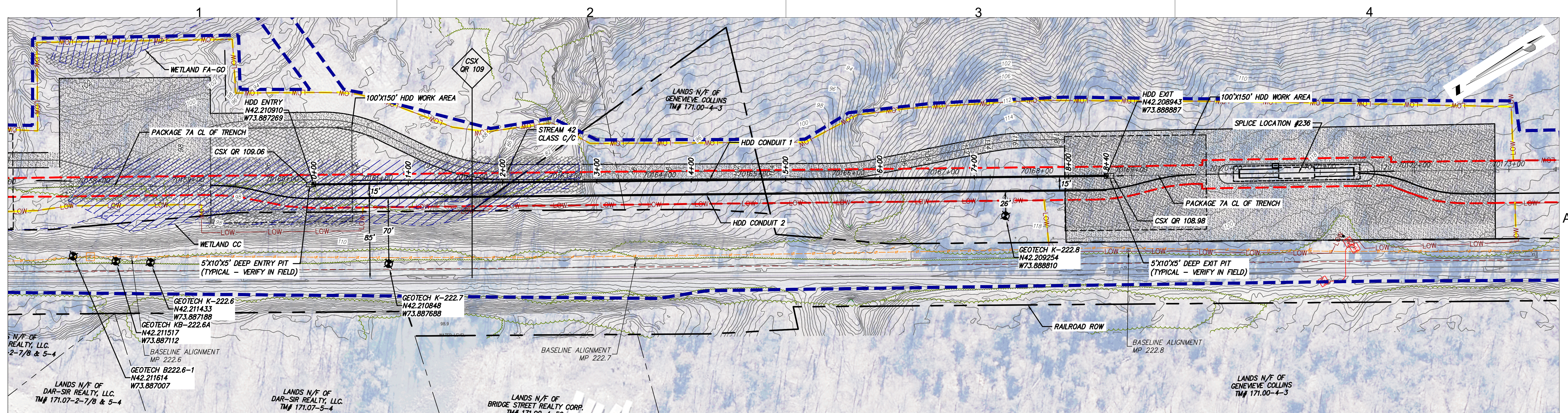
**CHAMPLAIN HUDSON POWER EXPRESS**  
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL

PLAN AND PROFILE - HDD 118  
ROAD CROSSING - CONDUIT 2  
GREENE COUNTY, NY

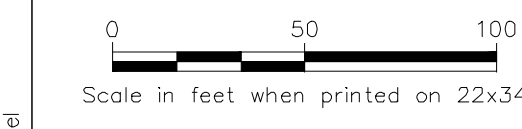
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TT PROJECT NO.	204-3701
DRAWING NO.	<b>C-318.2</b>
SCALE	AS SHOWN
DATE	03/17/2023
DRAWN BY:	MRS
DESIGNED BY:	AMC
APPROVED BY:	EJK
SCALE REV. NO.	
DATE	
SH. NO.	1 OF 1

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HDD 119 PLAN VIEW  
CONDUIT 1



**BORING LOG STRIP LEGEND**

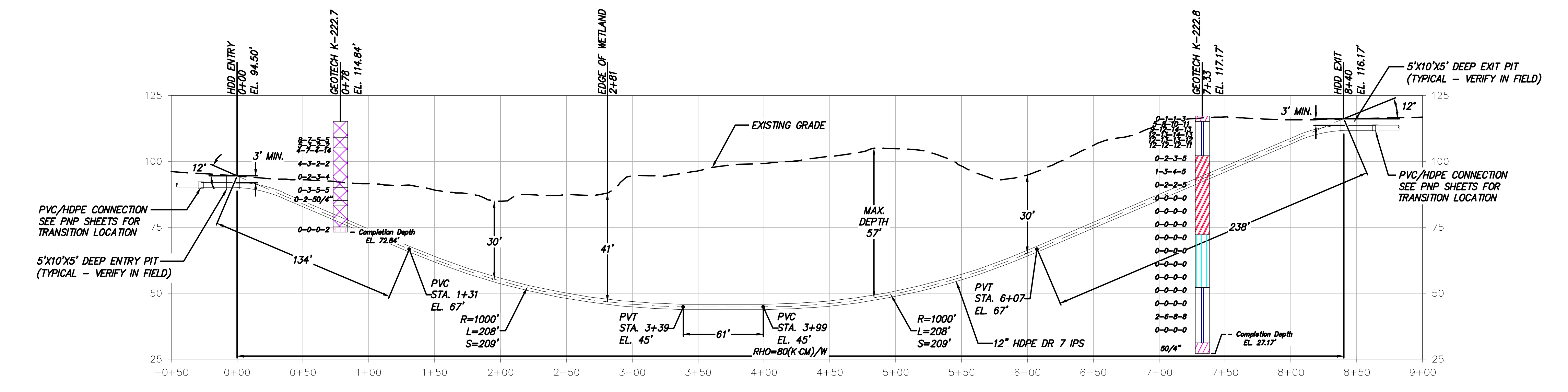
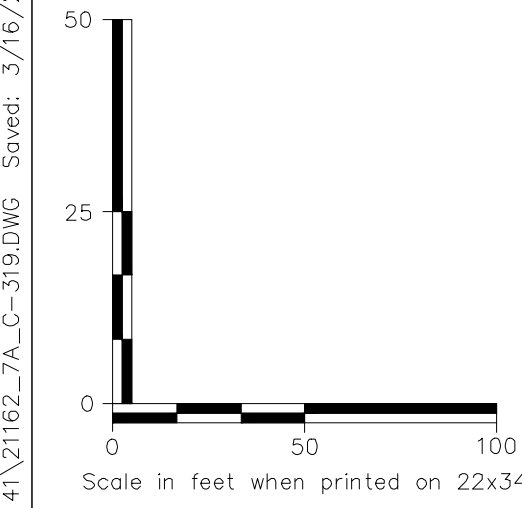
Blow Counts per 1' - 10-10-10  
Recovery N/QD % - 95%/90%

30 strip logs shall be 1/4' exaggeration  
30 strip logs have no exaggeration

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**Legend**

	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CL	Fat CLAY
	CL-MH	SILTY Fat CLAY
	CL	Leam CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	Fill	Fill
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
	GP-GC	Poorly Graded Gravel with CLAY
	GP-GM	Poorly Graded GRAVEL with SILT
	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsoil	Topsoil
	USGS 601	Gravel or Conglomerate 1
	USGS 654	Subgrade
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 716	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undrained
	Water Table	Water Table during drilling
	Water Table	Water Table after drilling



- DESIGN AND CONSTRUCTION NOTES:**
- INSTALLATION METHOD: HORIZONTAL DIRECTIONAL DRILL.
  - 12.750" HDPE MIN. W.T. 1.821" DR 7 IPS PIPE.  
2.375" HDPE MIN. W.T. 0.339" DR 7 IPS PIPE.  
HDD HORIZONTAL LENGTH (L): 840'  
HDD DESIGNED PIPE LENGTH (S): 851'
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  - ALL COORDINATES ARE IN NEW YORK STATE PLANE, NAD83, EAST ZONE, US FOOT.

HDD 119 PROFILE VIEW  
CONDUIT 1



TETRA TECH ENGINEERING AND SURVEYING P.C.  
(A NEW YORK PROFESSIONAL CORPORATION)

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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

**CHAMPLAIN HUDSON POWER EXPRESS  
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL  
PLAN AND PROFILE - HDD 119  
WETLAND CROSSING - CONDUIT 1  
GREENE COUNTY, NY**

KIEWIT PROJECT NO. 21162  
TT PROJECT NO. 204-3701  
DRAWING NO. **C-319**

SCALE AS SHOWN DATE 03/17/2023  
REV. NO. D SH. NO. 1 OF 1



