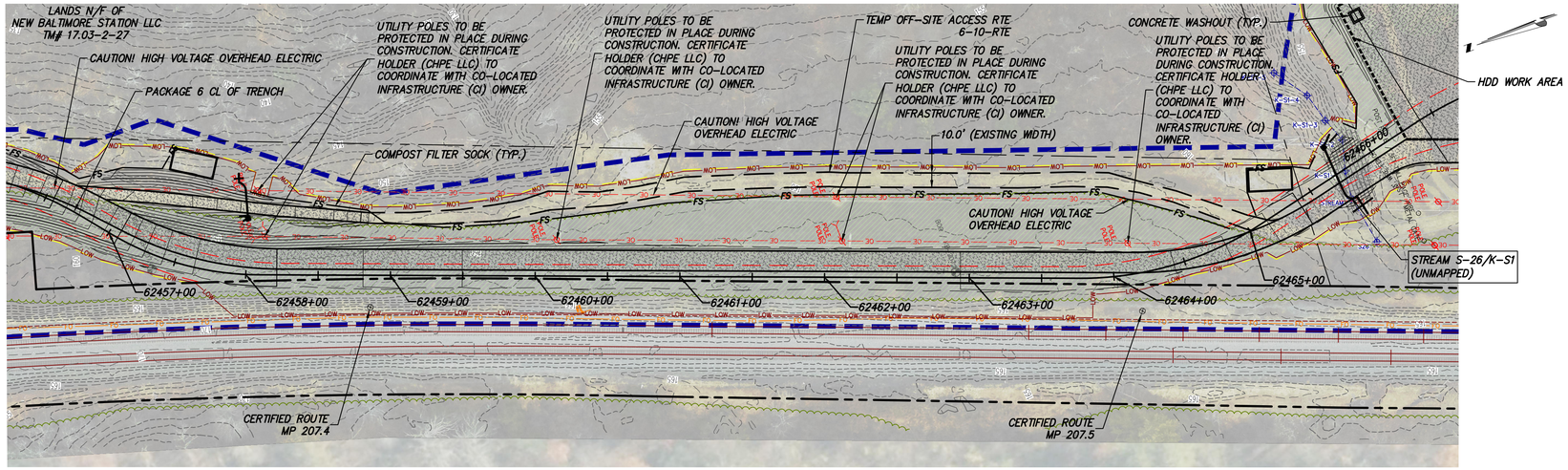


TEMP OFF-SITE ACCESS RTE 6-10-RTE PLAN VIEW

SCALE: 1" = 50'

ACCESS ROAD IS NOT LOCATED WITHIN CSX PROPERTY

0 50 100
Scale in feet

CHPE Champlain Hudson Power Express

Kiewit

STATE OF NEW YORK · NATHANIEL DALE HAYENER · 103692 · LICENSED PROFESSIONAL ENGINEER

STATE OF NEW YORK · THOMAS A. KELLY · 106559 · LICENSED PROFESSIONAL ENGINEER · 2023-09-29

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.

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION	BV	TK

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD BYPASS TO CATSKILL

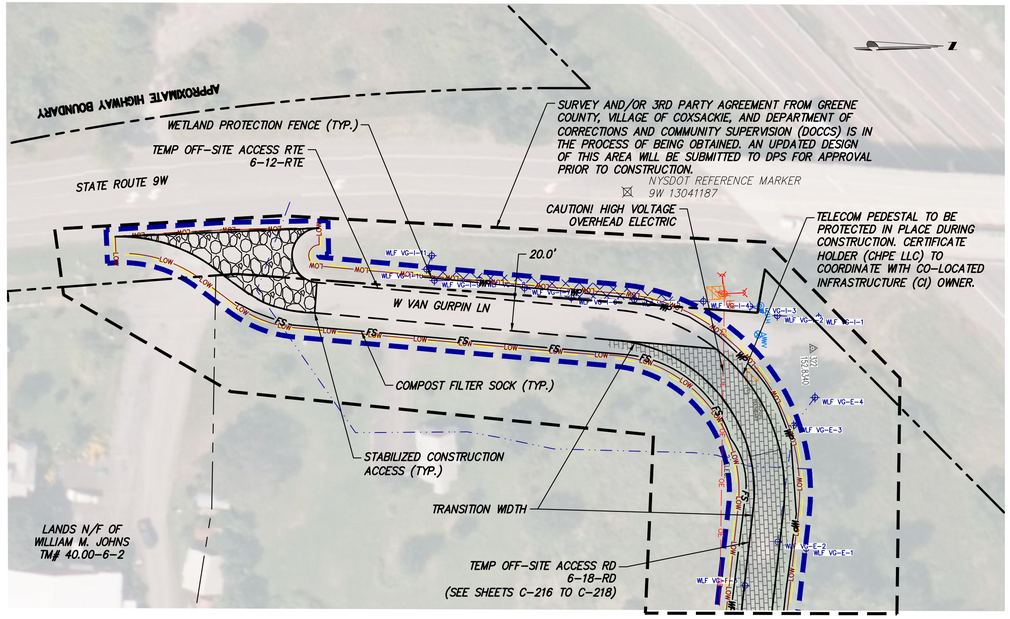
TEMP OFF-SITE ACCESS ROUTES (6-10-RTE)

KIEWIT PROJECT NO. 21162

DRAWING NO. **C-230**

DRAWN BY: AR | DESIGNED BY: BV | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 09/29/2023 | SH.NO. 123 OF XXX

File: P:\KIE-CHPE\3-DES\02 RDW\SHTS\P6\21162_6_C_ART_225-230.DWG Saved: 9/28/2023 3:58:22 PM Plotted: 9/28/2023 4:28:02 PM Current User: Fernando.Rivas1 LastSavedBy: Fernando.Rivas1

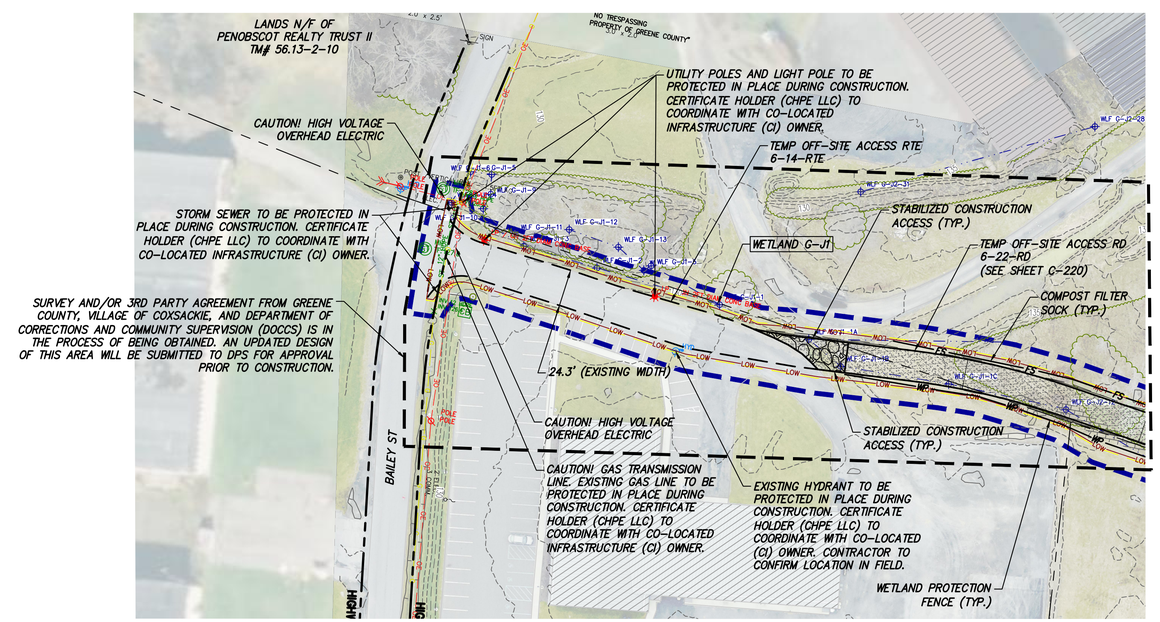


TEMP OFF-SITE ACCESS RTE 6-12-RTE PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

ACCESS ROAD IS NOT LOCATED WITHIN CSX PROPERTY



TEMP OFF-SITE ACCESS RTE 6-14-RTE PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

ACCESS ROAD IS NOT LOCATED WITHIN CSX PROPERTY

File: P:\KIE-CHPE\3-DES\02 ROW\SHTS\P6\21162_6_C_ART_231-232.DWG Saved: 9/28/2023 4:03:33 PM Plotted: 9/28/2023 4:30:26 PM Current User: Fernando.Rivas1 LastSavedBy: Fernando.Rivas1

CHPE Champlain Hudson Power Express

Kiewit

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.

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION	BV	TK

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD BYPASS TO CATSKILL

TEMP OFF-SITE ACCESS ROUTES (6-12-RTE & 6-14-RTE)

DRAWN BY: AR | DESIGNED BY: BV | APPROVED BY: TK

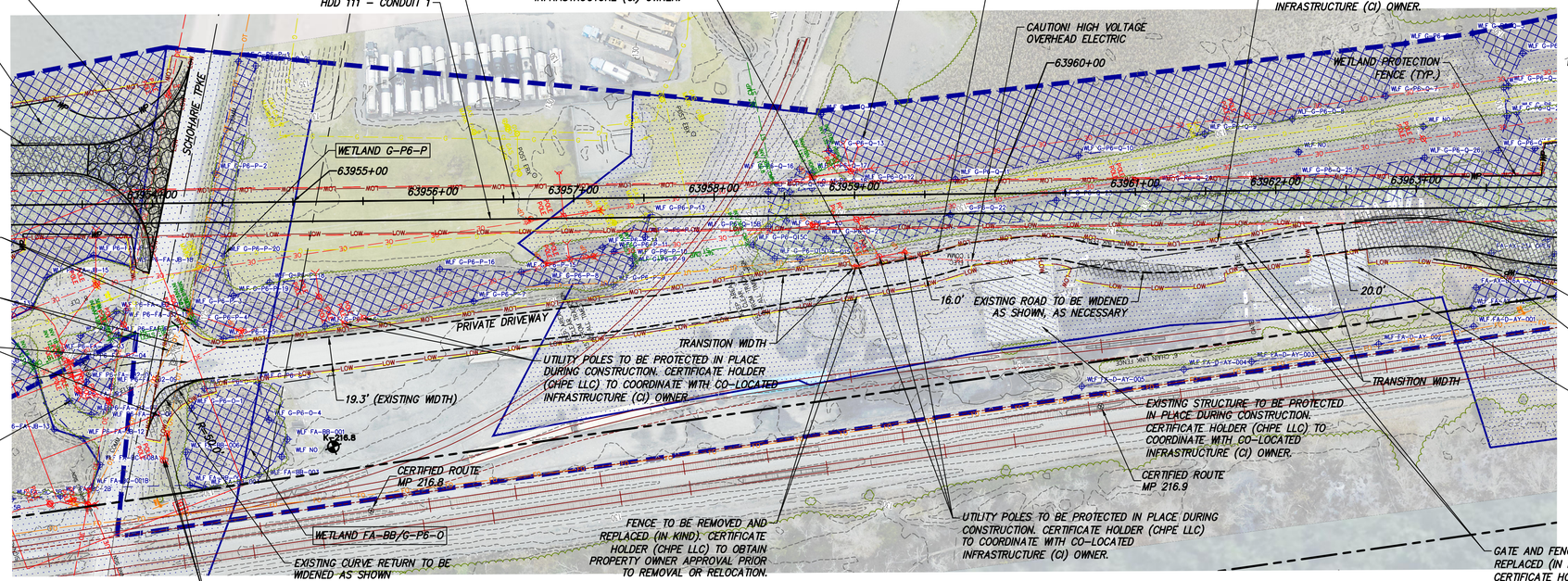
SCALE: AS SHOWN | REV. NO. 0

KIEWIT PROJECT NO. 21162

DRAWING NO. **C-231**

DATE 09/29/2023

SH.NO. 124 OF XXX



TEMP OFF-SITE ACCESS RTE 6-15-RTE PLAN VIEW

SCALE: 1" = 50'

0 50 100
Scale in feet

ACCESS ROAD IS NOT LOCATED WITHIN CSX PROPERTY

CHPE Champlain Hudson Power Express

Kiewit

STATE OF NEW YORK · NATHANIEL DALE HAVENER · 103692 · LICENSED PROFESSIONAL ENGINEER

STATE OF NEW YORK · THOMAS A. KELLY · 106559 · LICENSED PROFESSIONAL ENGINEER · 2023-09-29

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.

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/29/2023	ISSUED FOR CONSTRUCTION SUBMISSION	BV	TK

CHAMPLAIN HUDSON POWER EXPRESS

SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD BYPASS TO CATSKILL

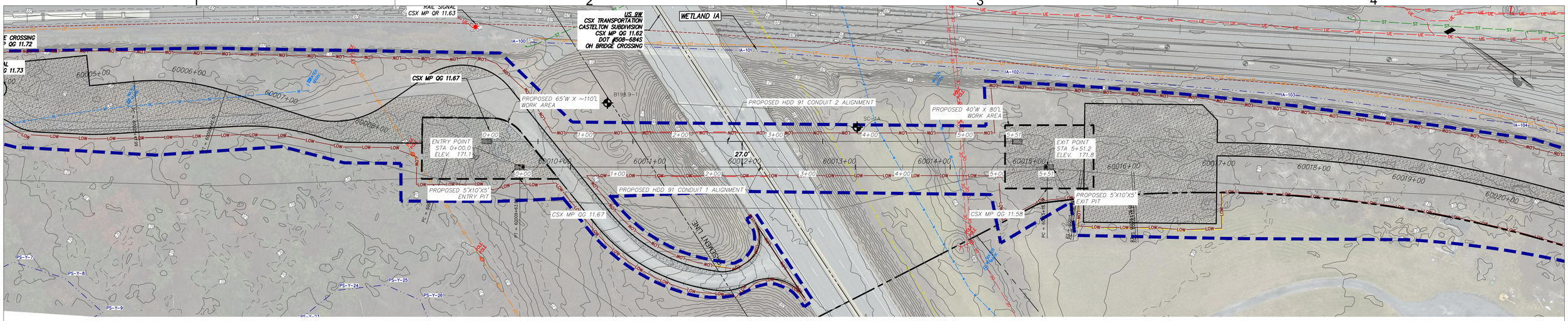
TEMP OFF-SITE ACCESS ROUTES (6-15-RTE)

KIEWIT PROJECT NO. 21162

DRAWING NO. **C-232**

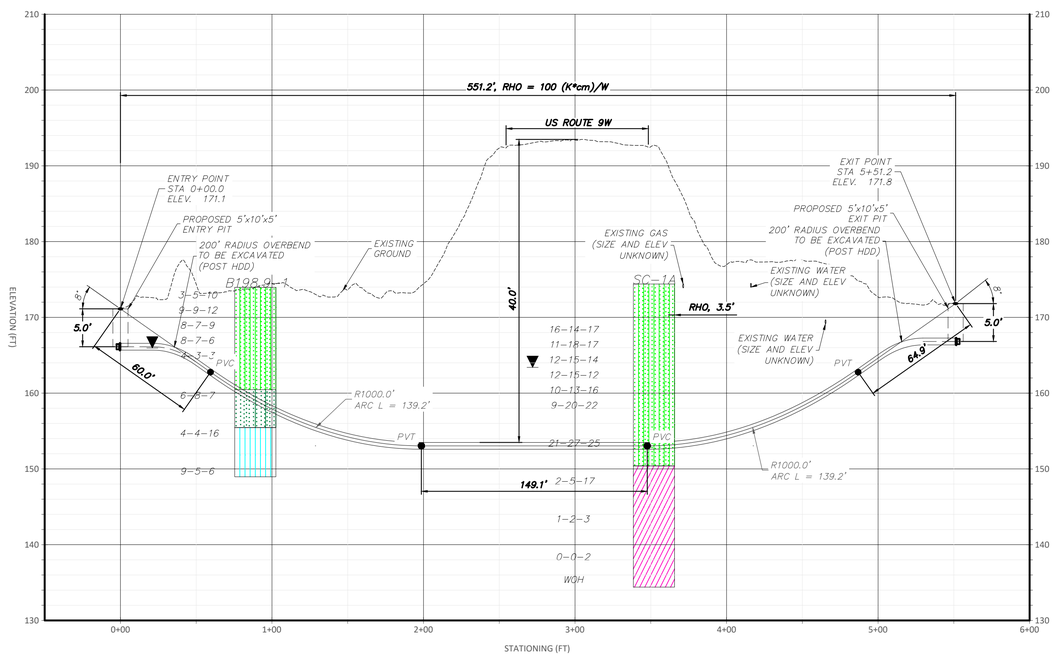
DRAWN BY: AR | DESIGNED BY: BV | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 09/29/2023 | SH.NO. 125 OF XXX

File: P:\PROJECTS\KIE-CHPE\3-DES\02 RDW\SHTS\P6\21162_6_C_ART_231-232.DWG Saved: 9/28/2023 12:11:30 PM Plotted: 9/28/2023 12:59:47 PM Current User: MarianaLugo LastSavedBy: Dafne.Arellano



0 50 100
SCALE IN FEET

PROPOSED HDD 91 PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'



PROPOSED HDD 91 PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 10'

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 082892 · LICENSED PROFESSIONAL ENGINEER

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.

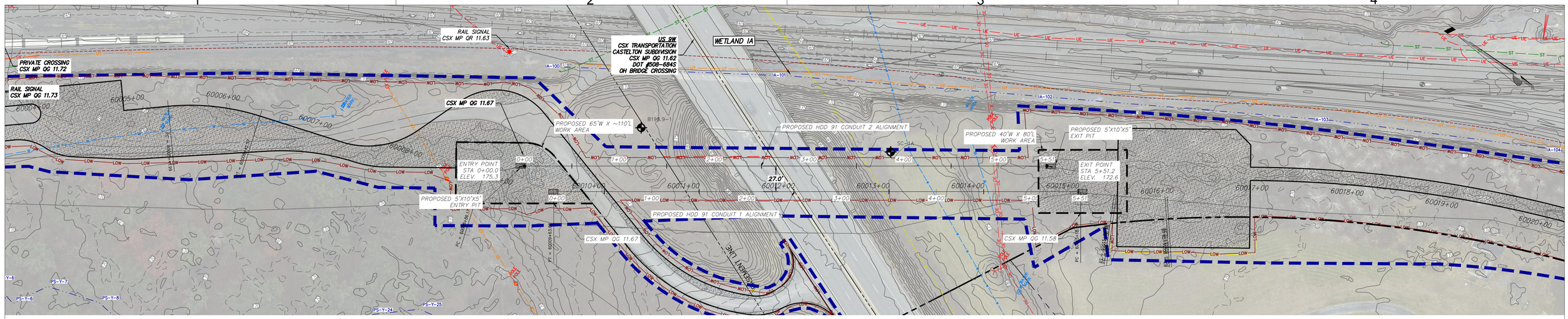
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 91
US ROUTE 9W CROSSING - CONDUIT 1
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-301**

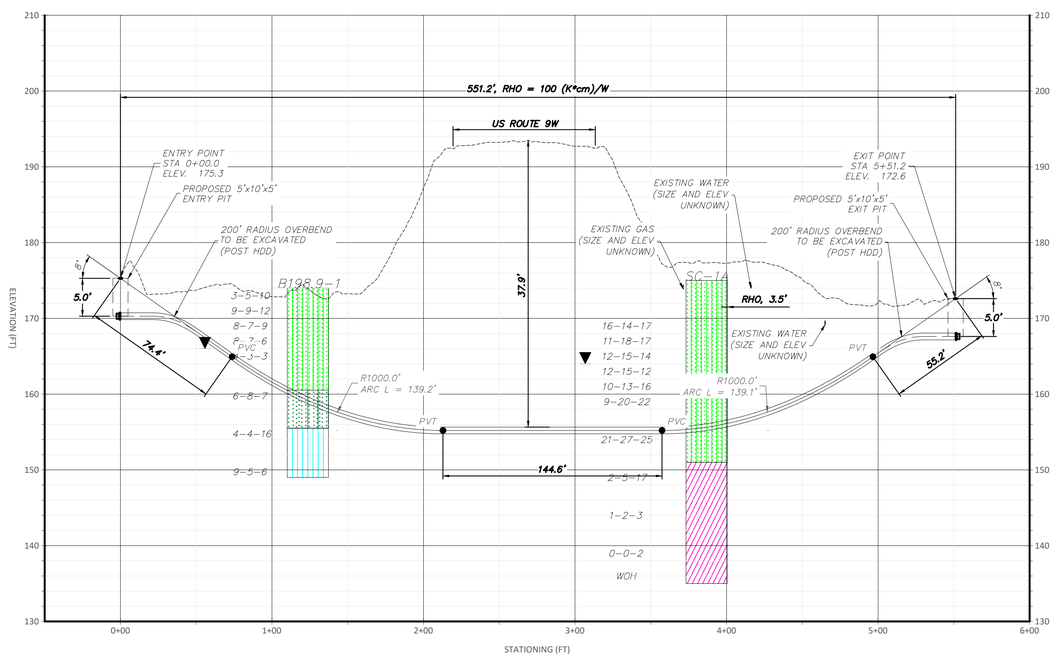
DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 126 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:39:00 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 91 PLAN VIEW
CONDUIT 2
SCALE: 1" = 50'



PROPOSED HDD 91 PROFILE VIEW
CONDUIT 2
SCALE: H: 1" = 50' V: 1" = 10'

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080602 · LICENSED PROFESSIONAL ENGINEER

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.

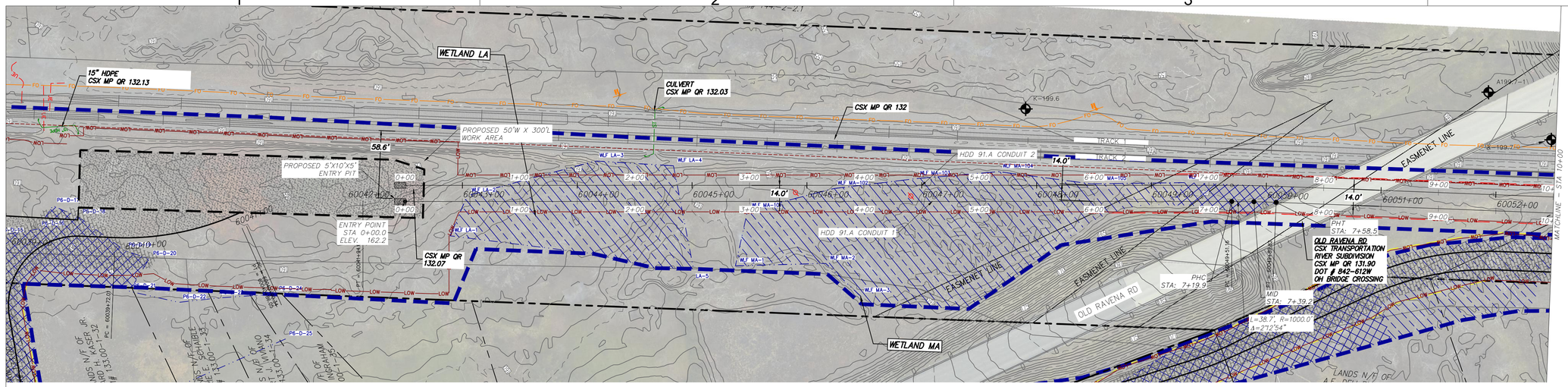
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 91
US ROUTE 9W CROSSING - CONDUIT 2
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-301A**

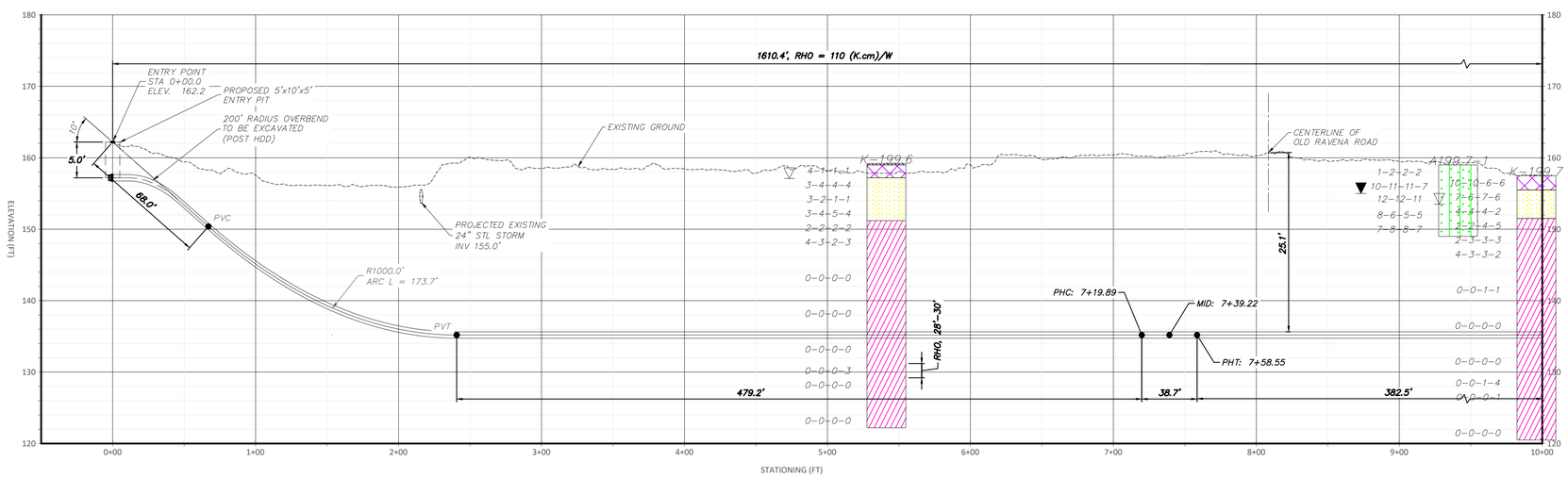
DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 127 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:40:00 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 91.A PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'



PROPOSED HDD 91.A PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 10'

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

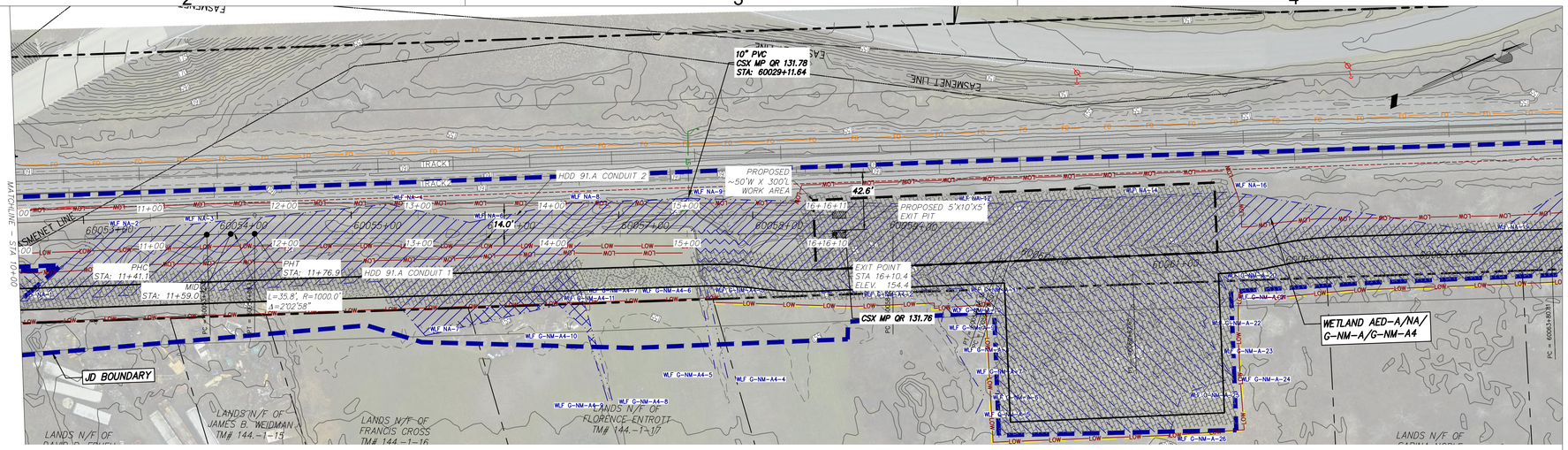
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 91.A
OLD RAVENA ROAD CROSSING - CONDUIT 1
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-302**
DATE 9/25/2023
SH.NO. 128 OF XXX

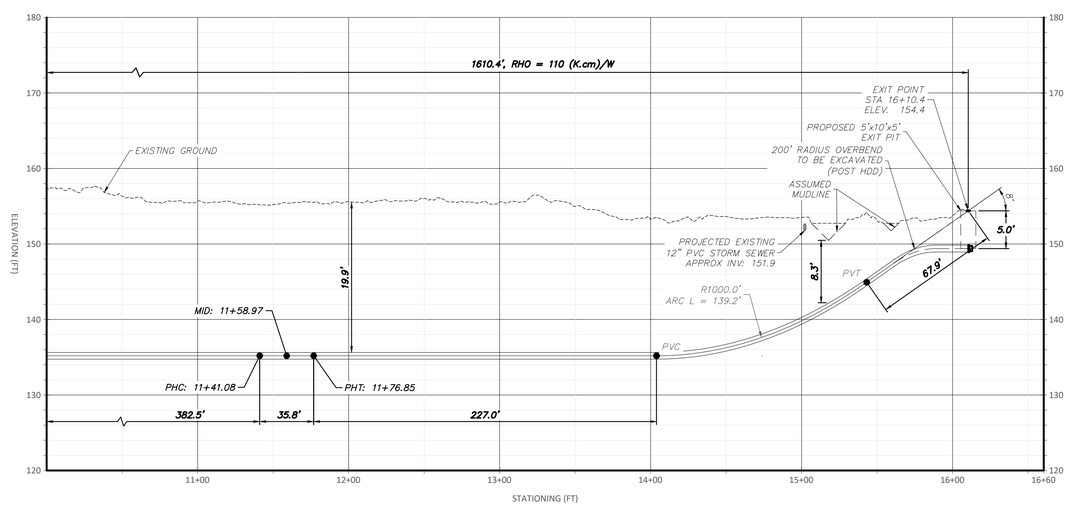
File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:40:47 PM Current User: Shrey Arora LastSavedBy: ShreyArora



PROPOSED HDD 91.A PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'

0 50 100
SCALE IN FEET

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



PROPOSED HDD 91.A PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 10'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

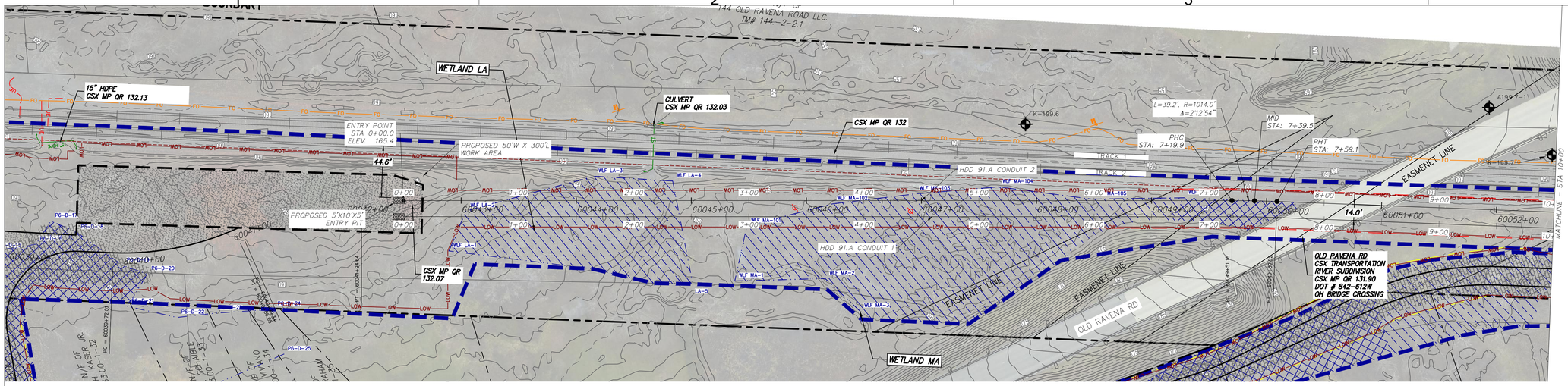
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 91.A
OLD RAVENA ROAD CROSSING - CONDUIT 1
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-302A**

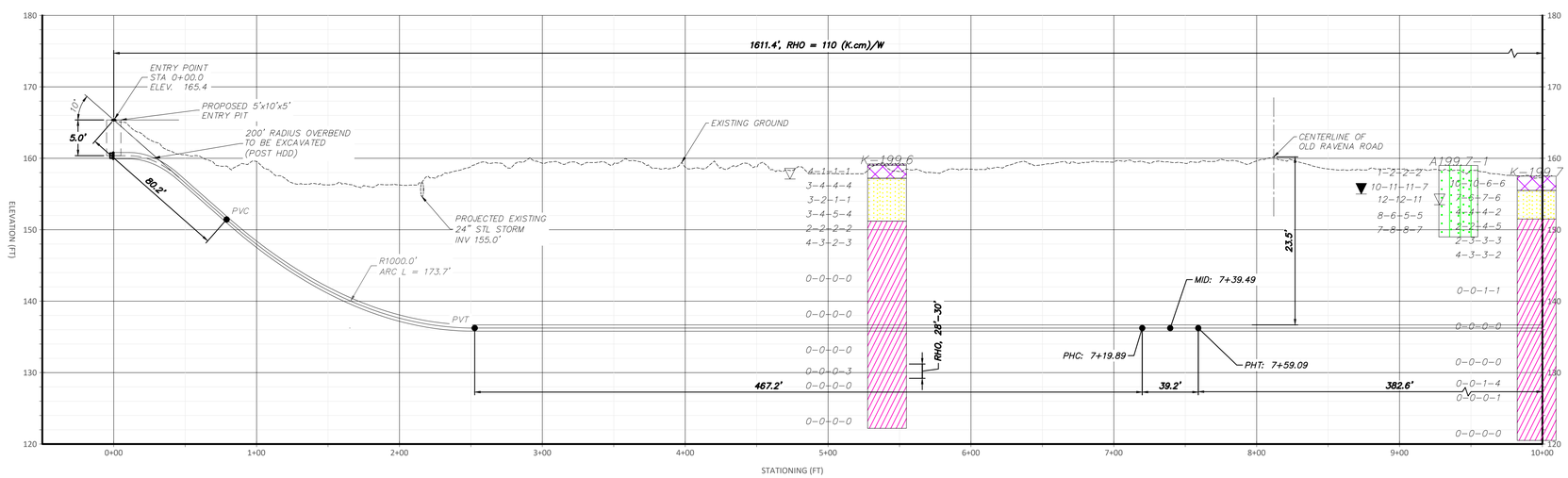
DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: XX | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 129 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:41:41 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 91.A PLAN VIEW
CONDUIT 2
SCALE: 1" = 50'



PROPOSED HDD 91.A PROFILE VIEW
CONDUIT 2
SCALE: H: 1" = 50' V: 1" = 10'

Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean 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	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
▼	Water Table	Water Table during drilling
▽	Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 069802 · LICENSED PROFESSIONAL ENGINEER

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.

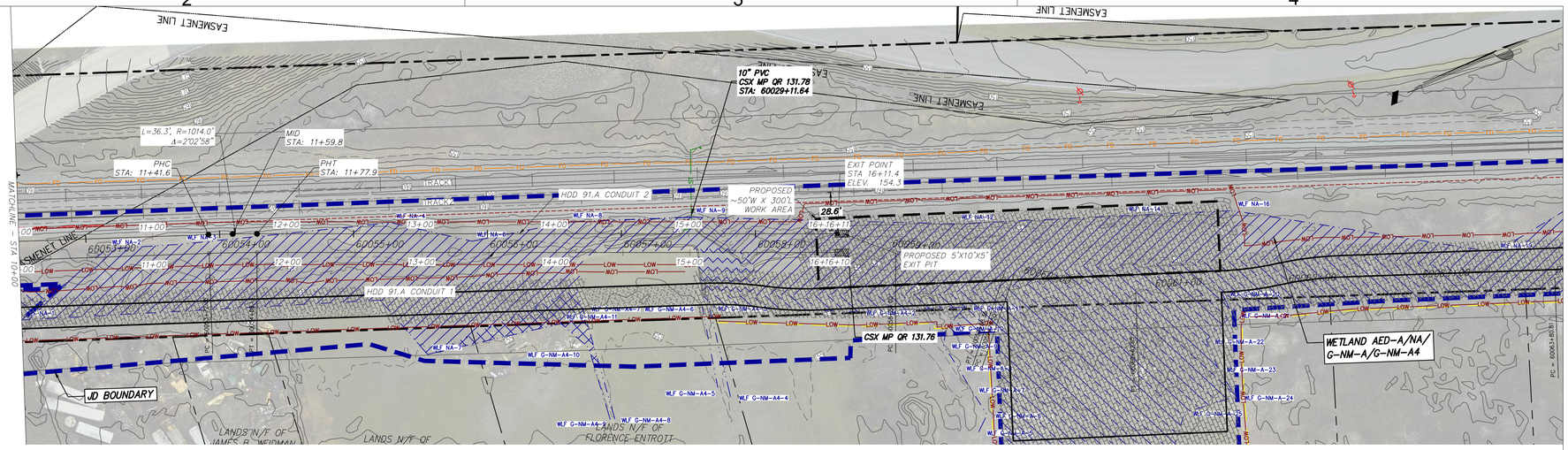
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 91.A
OLD RAVENA ROAD CROSSING - CONDUIT 2
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-302B**

DRAWN BY: NW | DESIGNED BY: NW | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 130 OF XXX

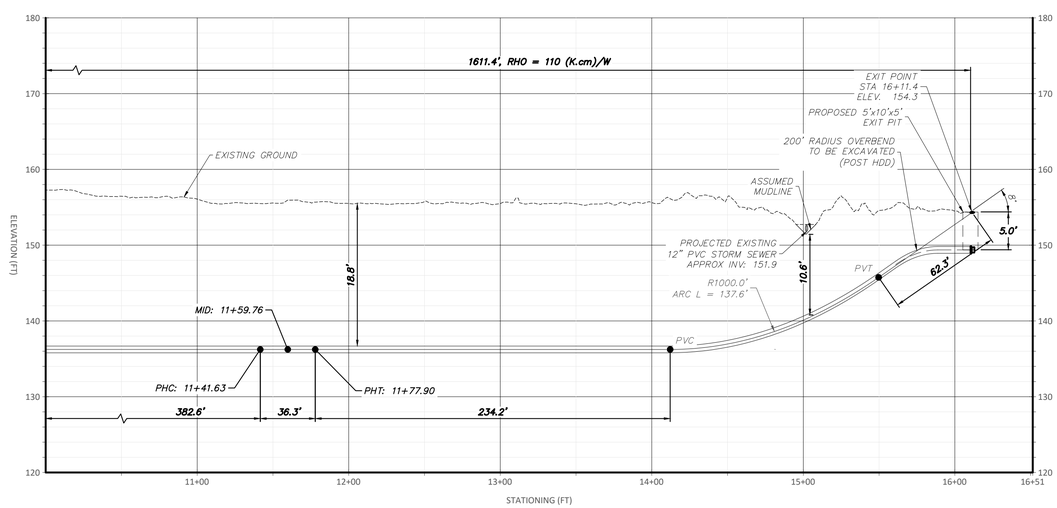
File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HDD91-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:42:27 PM Current User: Shrey Arora LastSavedBy: ShreyArora



PROPOSED HDD 91.A PLAN VIEW
CONDUIT 2
SCALE: 1" = 50'

0 50 100
SCALE IN FEET

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



PROPOSED HDD 91.A PROFILE VIEW
CONDUIT 2
SCALE: H: 1" = 50' V: 1" = 10'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

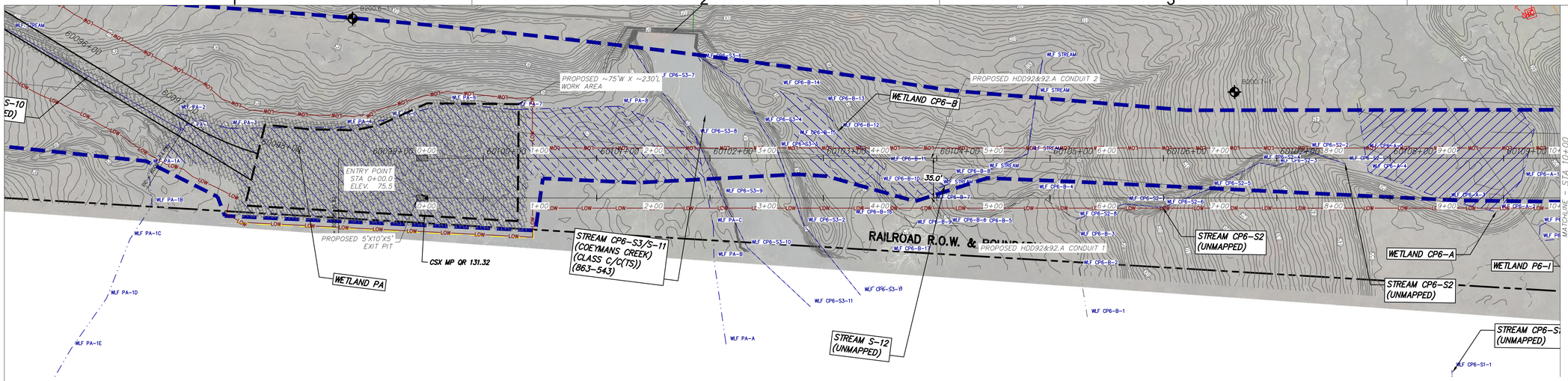
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 91.A
OLD RAVENA ROAD CROSSING - CONDUIT 2
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-302C**

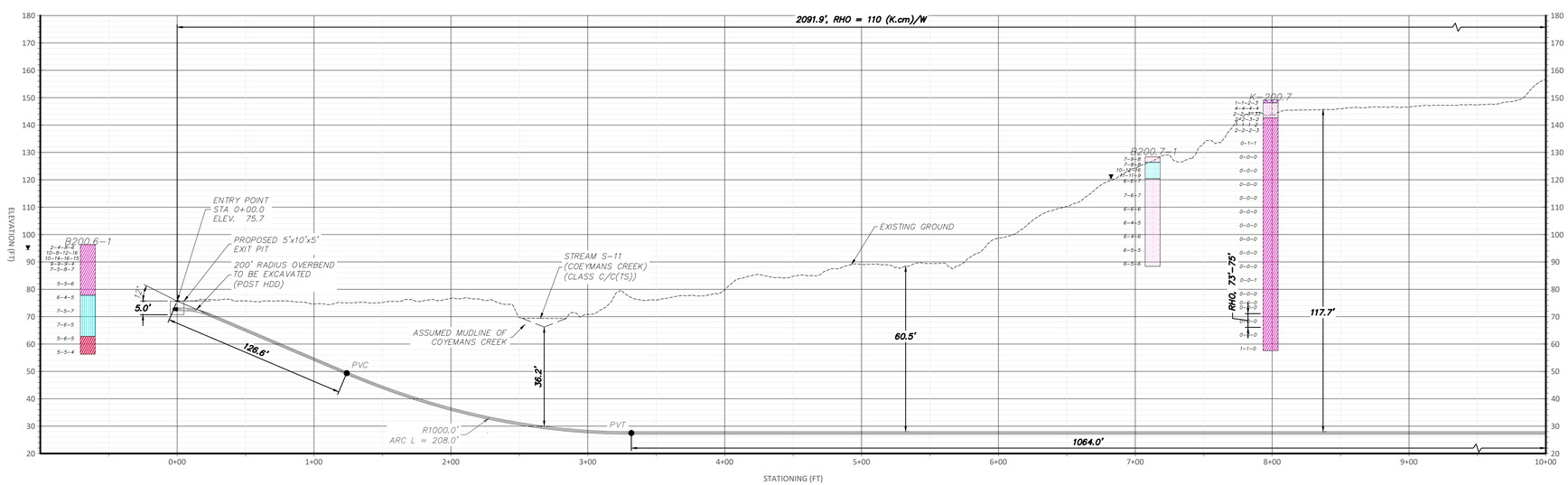
DRAWN BY: NW | DESIGNED BY: NW | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 131 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HDD91-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:43:13 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 92 & 92.A PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'



PROPOSED HDD 92 & 92.A PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 25'

Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean 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	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
▼	Water Table	Water Table during drilling
▽	Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 069802 · LICENSED PROFESSIONAL ENGINEER

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.

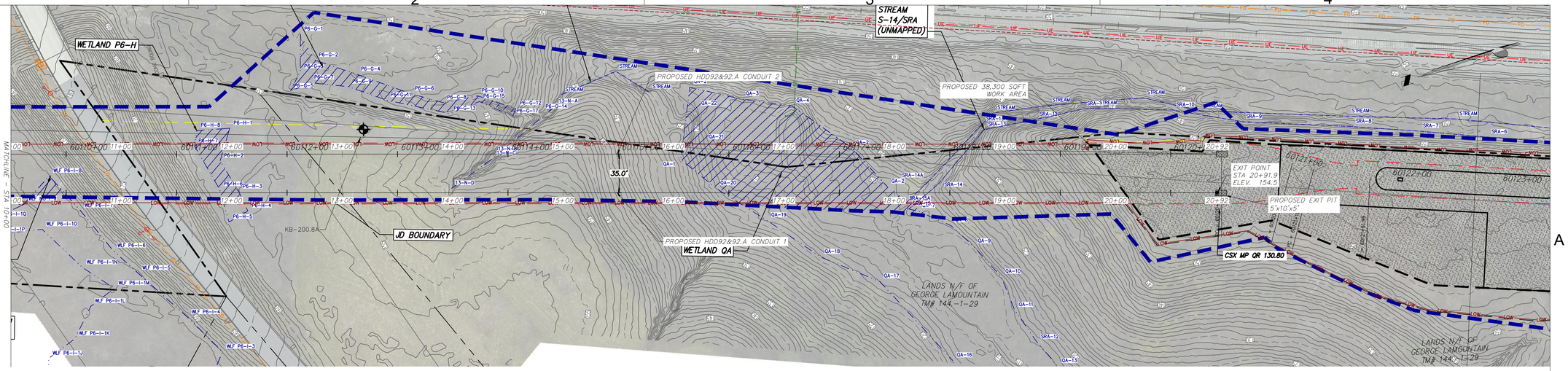
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 92 & 92.A
OLD RAVENA ROAD CROSSING - CONDUIT 1
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-303**

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 132 OF XXX

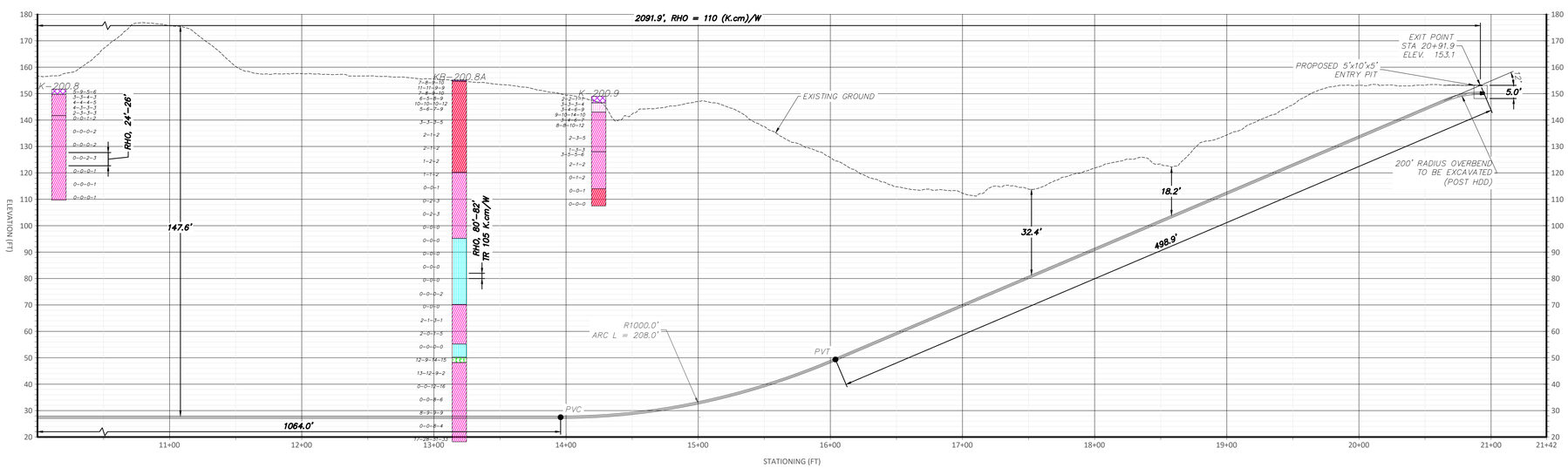
File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HDD91-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:44:08 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 92 & 92.A PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



PROPOSED HDD 92 & 92.A PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 25'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 069802 · LICENSED PROFESSIONAL ENGINEER

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.

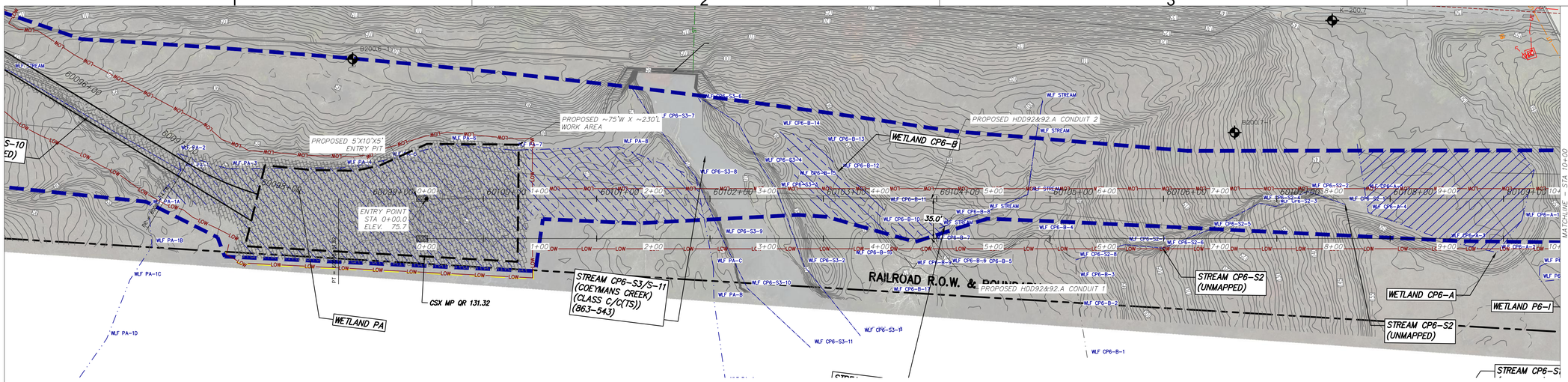
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 92 & 92.A
OLD RAVENA ROAD CROSSING - CONDUIT 1
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-303A**
DATE 9/25/2023
SH.NO. 133 OF XXX

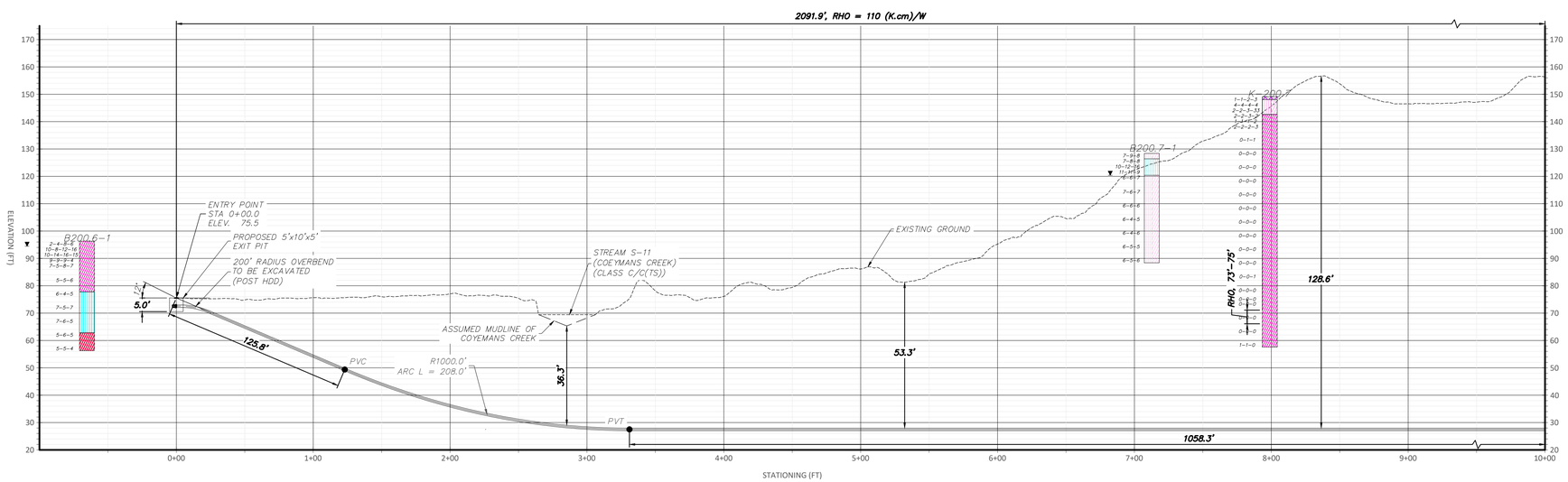
File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:44:53 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 92 & 92.A PLAN VIEW
CONDUIT 2
SCALE: 1" = 50'

Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean 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	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
▼	Water Table	Water Table during drilling
▽	Delayed Water Table	Water Table after drilling



PROPOSED HDD 92 & 92.A PROFILE VIEW
CONDUIT 2
SCALE: H: 1" = 50' V: 1" = 25'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

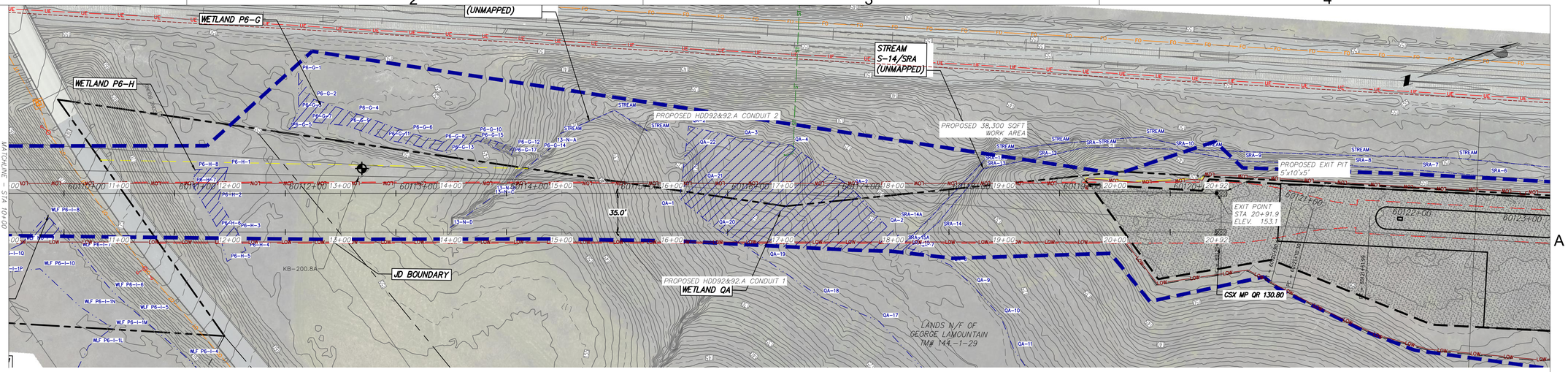
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 92 & 92.A
OLD RAVENA ROAD CROSSING - CONDUIT 2
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

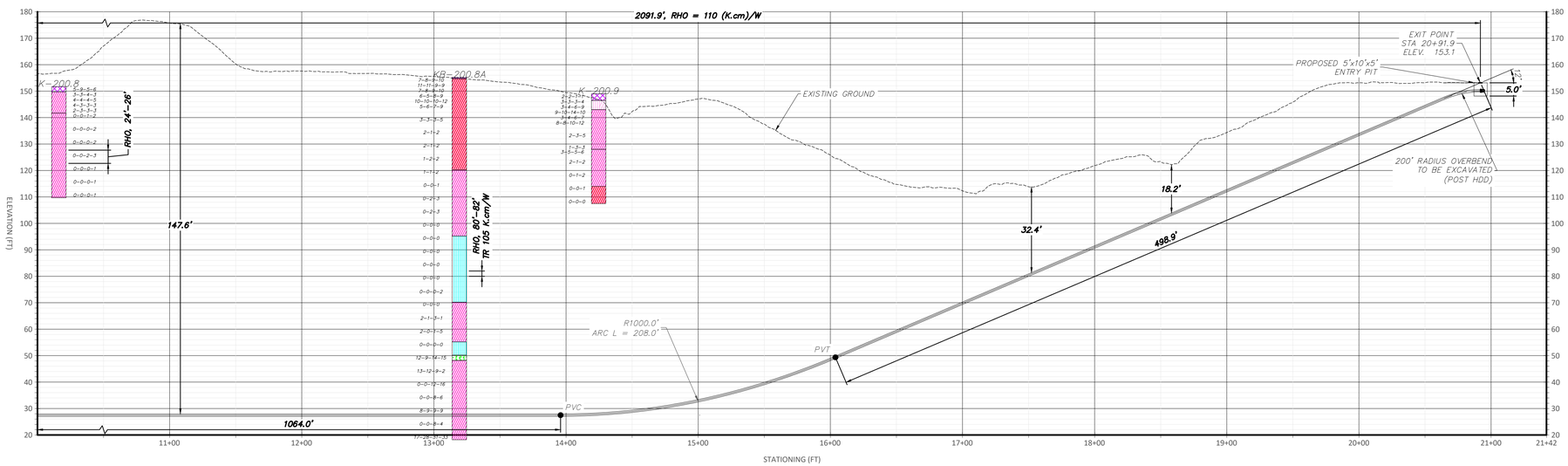
KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-303B**
DATE 9/25/2023
SH.NO. 134 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HDD91-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:45:47 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 92 & 92.A PLAN VIEW
CONDUIT 2
SCALE: 1" = 50'



PROPOSED HDD 92 PROFILE VIEW
CONDUIT 2
SCALE: H: 1" = 50' V: 1" = 25'

Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean 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	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table	Water Table during drilling
	Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

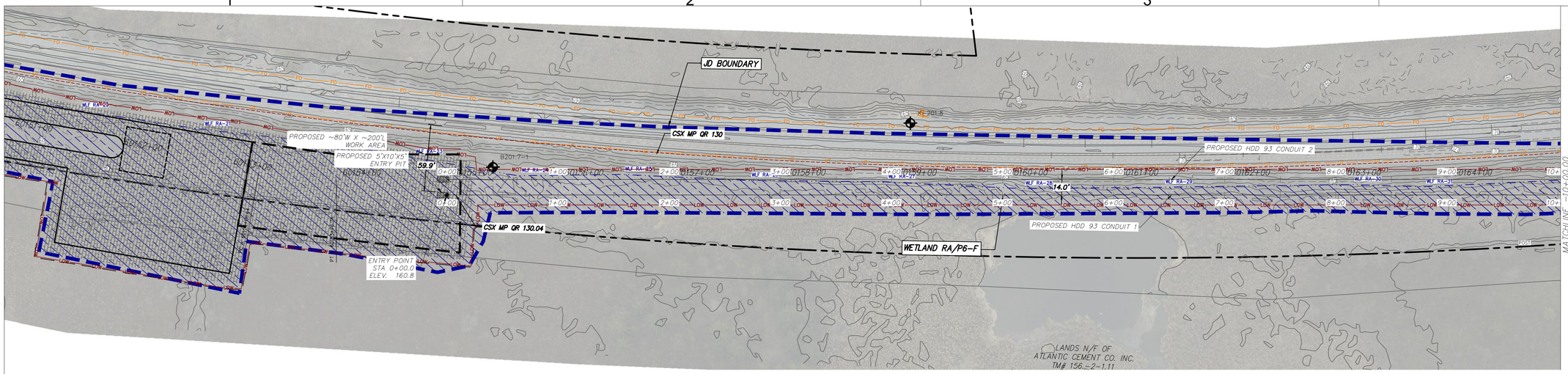
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 92 & 92.A
OLD RAVENA ROAD CROSSING - CONDUIT 2
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

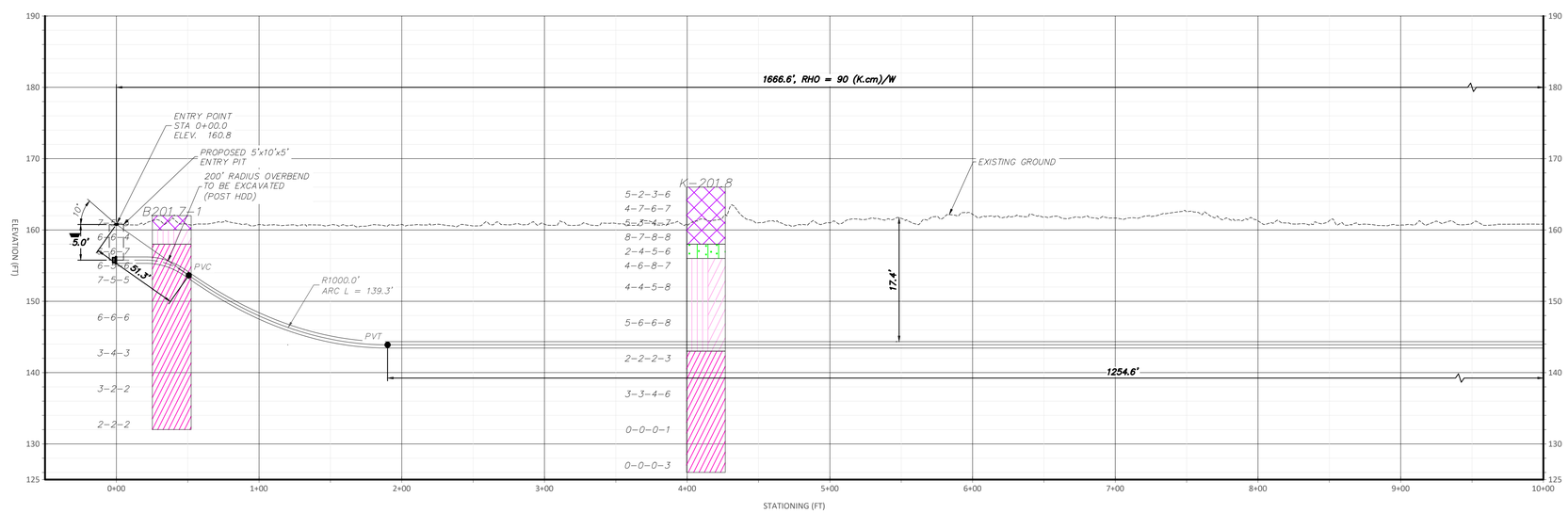
KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-303C**
DATE 9/25/2023
SH.NO. 135 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HDD91-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:46:32 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 93 PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'



PROPOSED HDD 93 PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 10'

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

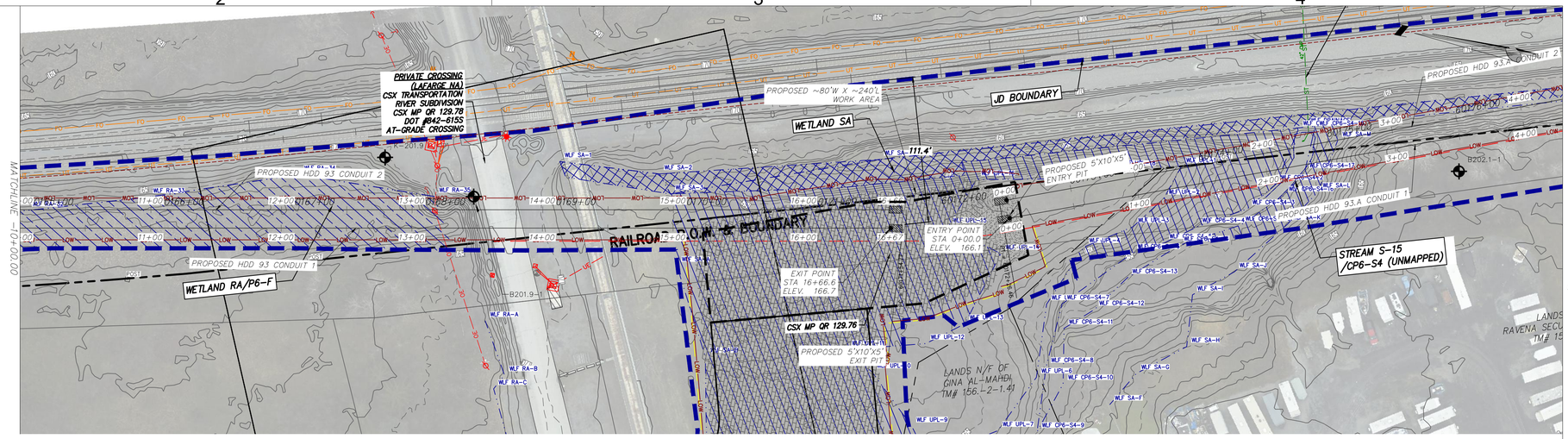
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 93 CROSSING - CONDUIT 1
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-304**
DATE 9/25/2023
SH.NO. 136 OF XXX

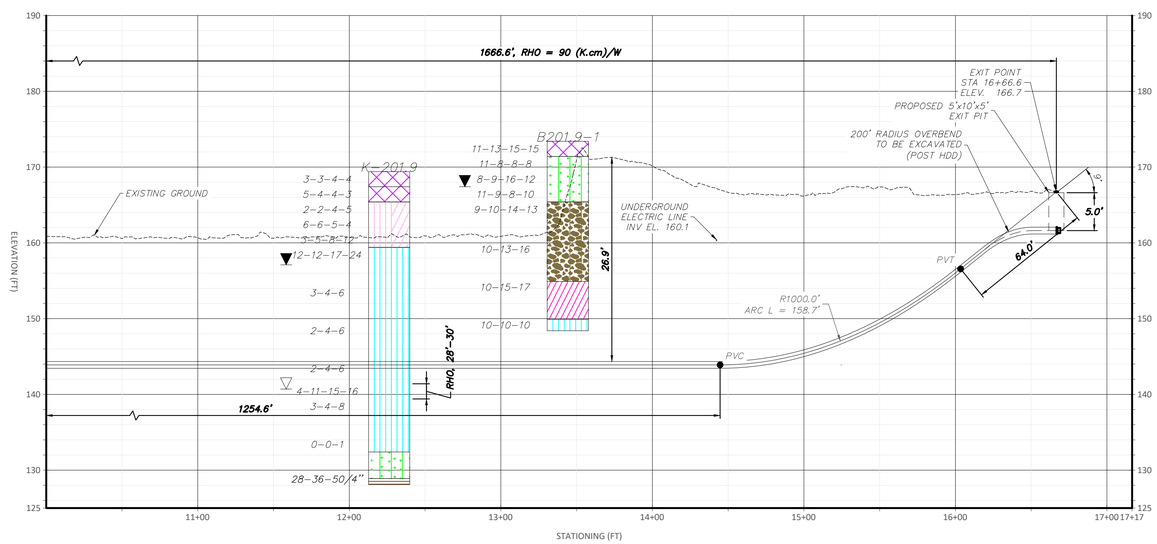
File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:47:25 PM Current User: Shrey Arora LastSavedBy: ShreyArora



PROPOSED HDD 93 PLAN VIEW
CONDUIT 1
SCALE: 1" = 50'

0 50 100
SCALE IN FEET

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



PROPOSED HDD 93 PROFILE VIEW
CONDUIT 1
SCALE: H: 1" = 50' V: 1" = 10'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 069802 · LICENSED PROFESSIONAL ENGINEER

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.

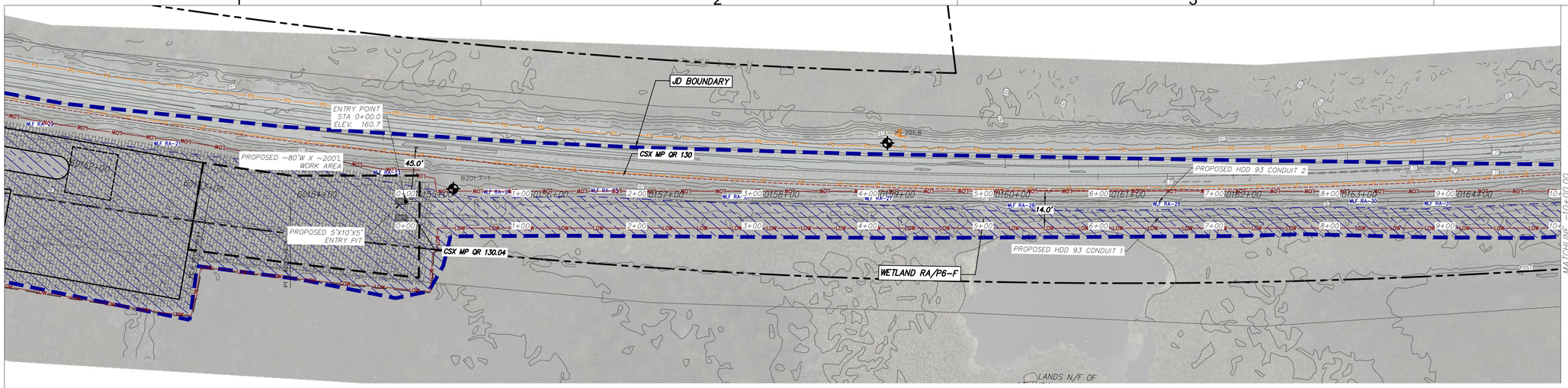
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 93
CROSSING - CONDUIT 1
ALBANY COUNTY, NY

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-304A**

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0 | DATE 9/25/2023 | SH.NO. 137 OF XXX

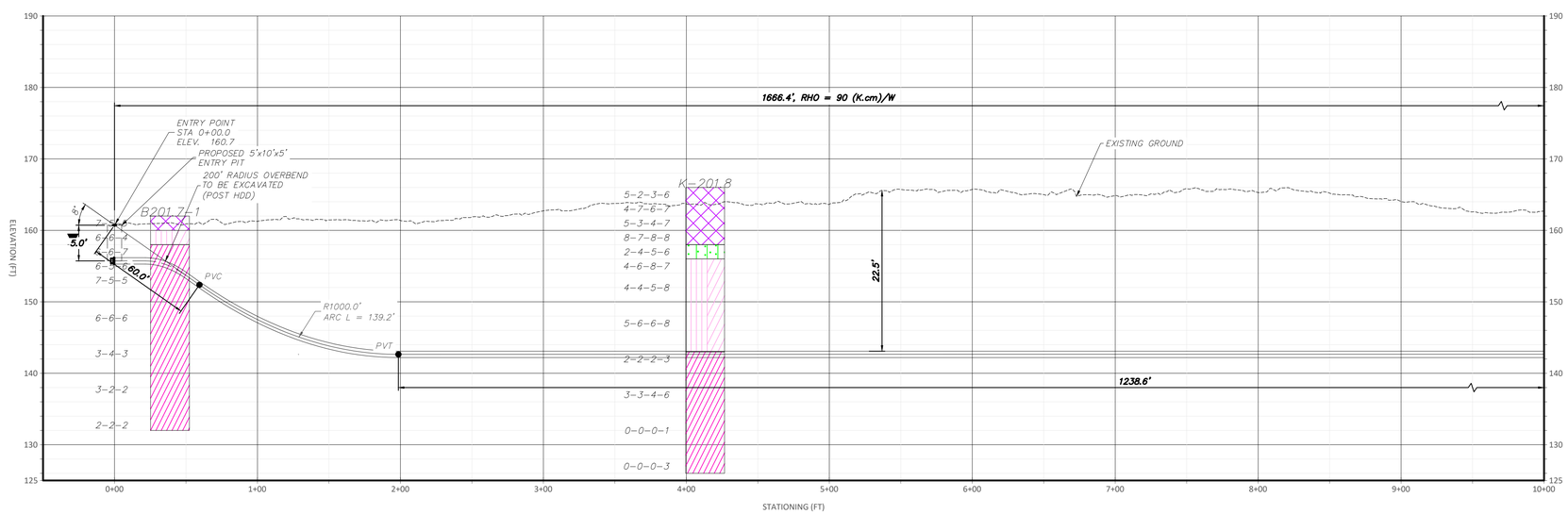
File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:48:18 PM Current User: Shrey Arora LastSavedBy: ShreyArora



0 50 100
SCALE IN FEET

PROPOSED HDD 93 PLAN VIEW
CONDUIT 2
SCALE: 1" = 50'

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



PROPOSED HDD 93 PROFILE VIEW
CONDUIT 2
SCALE: H: 1" = 50' V: 1" = 10'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

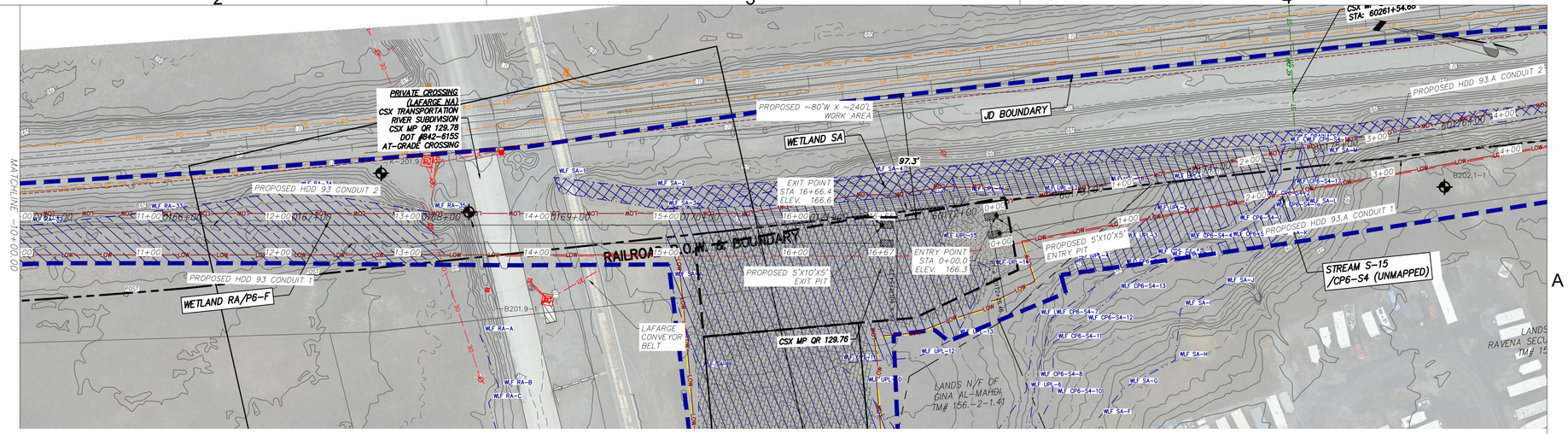
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 93
CROSSING - CONDUIT 2
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-304B**
DATE 9/25/2023
SH.NO. 138 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:49:12 PM Current User: Shrey Arora LastSavedBy: ShreyArora

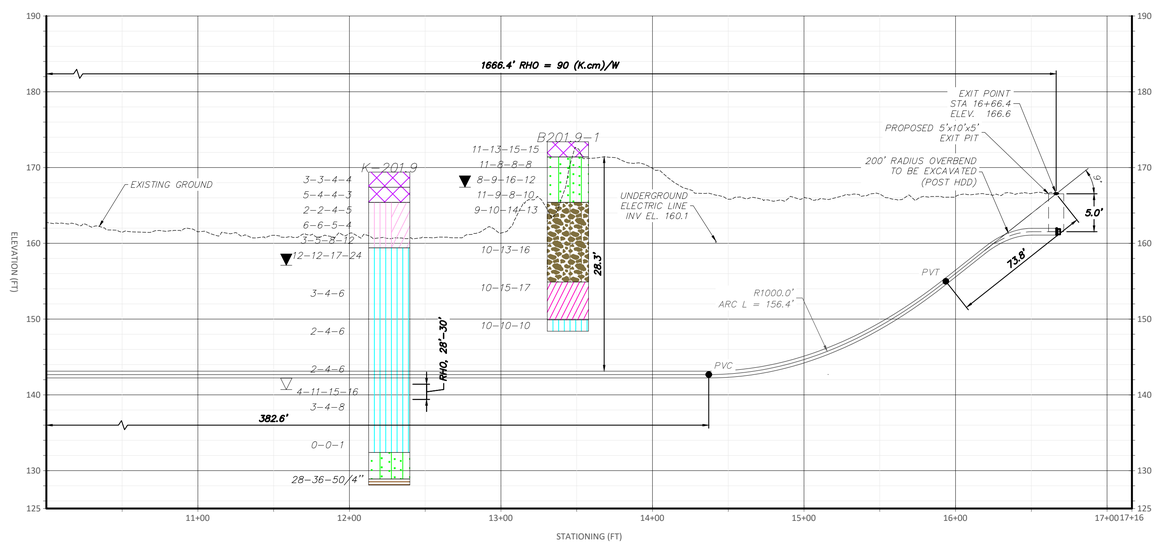


PROPOSED HDD 93 PLAN VIEW
CONDUIT 2

SCALE: 1" = 50'

0 50 100
SCALE IN FEET

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean 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	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



PROPOSED HDD 93 PROFILE VIEW
CONDUIT 2

SCALE: H: 1" = 50' V: 1" = 10'

CHPE Champlain Hudson Power Express

Kiewit

KILDUFF UNDERGROUND ENGINEERING, INC.

STATE OF NEW YORK · TODD KILDUFF · 080802 · LICENSED PROFESSIONAL ENGINEER

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.

No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	09/27/2023	ISSUED FOR CONSTRUCTION SUBMISSION	NW	TK

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 10 (PACKAGE 6) - SELKIRK RAIL YARD TO CATSKILL
PROPOSED PLAN AND PROFILE - HDD 93
CROSSING - CONDUIT 2
ALBANY COUNTY, NY

DRAWN BY: NW | DESIGNED BY: SA | APPROVED BY: TK | SCALE AS SHOWN | REV. NO. 0

KIEWIT PROJECT NO. 21162
KUE PROJECT NO. 21014TK
DRAWING NO. **C-304C**
DATE 9/25/2023
SH.NO. 139 OF XXX

File: C:\USERS\SHREYARORA\ONEDRIVE - KILDUFF UNDERGROUND ENGINEERING\DOCUMENTS - KUE SHARED\PROJECTS 2022\P-22014TK - KIEWIT - CHAMPLAIN-HUDSON POWER\TASK 1 - HDD DESIGN\01 PROGRESS PLOTS\230922 - IFC\CAD\6_C_3D_HD091-96XX.DWG Saved: 9/26/2023 10:38:40 PM Plotted: 9/27/2023 12:50:04 PM Current User: Shrey Arora LastSavedBy: ShreyArora