

CROSSING SPECIFIC HDD NOTES:

9. DOWNHOLE ANNUAL DRILLING FLUID PRESSURES SHALL BE MONITORED AT ALL TIMES DURING THE PILOT BORE DRILLING PROCESS. LOCATION OF MONITORING SHALL BE AS CLOSE TO THE DRILL BIT AS POSSIBLE.
10. HOD CONTRACTOR SHALL BE PREPARED TO PUMP A CEMENT GROUT DOWNHOLE TO HELP SEAL LARGE PREFERENTIAL FLOW PATHWAYS AND RESTORE DRILLING FLUID FLOW WITHIN THE HDD BORE IN THE EVENT KARST FEATURES ARE ENCOUNTERED AND/OR EXCESSIVE DRILL FLUID LOSS OCCURS.
11. IF THE CONTRACTOR ENCOUNTERS AN OBSTRUCTION THAT PREVENTS THE INSTALLATION ACCORDING TO THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL PLACE A CEMENT BASED GROUT WITHIN THE BORE. WORK SHALL NOT RESUME UNTIL REVISED PLANS AND PROCEDURES HAVE BEEN SUBMITTED TO AND ACCEPTED BY THE OWNER.
12. PILOT BORE SHALL BE CONTINUOUSLY TRACKED AT ALL TIMES. CONTRACTOR SHALL USE A GYROSCOPIC GUIDANCE SYSTEM TO COMPLETE THE PILOT BORE INSTALLATION. NO BLIND SECTIONS SHALL BE PERMITTED, EVEN WHEN THE DRILL BIT IS UNDER WATER.
13. NOT USED.
14. HOD CONTRACTOR SHALL COMPLETE DRILLING OPERATIONS FROM THE SOUTHEAST SIDE OF THE CROSSING.
15. THE DRILL RIG WILL NEED TO MOBILIZE TO THE NORTHWEST SIDE OF THE CROSSING PRIOR TO PULLBACK OPERATIONS.

16. PILOT BORE DRILLING TOLERANCES SHALL BE AS FOLLOWS

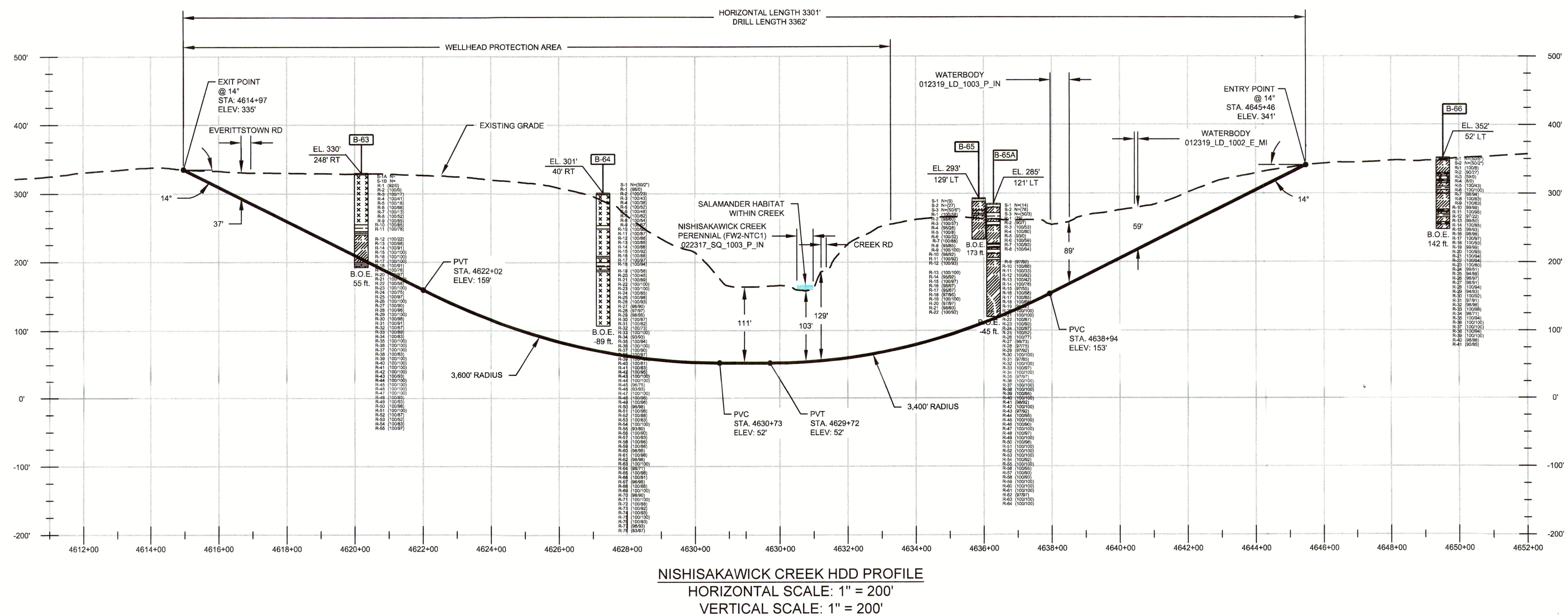
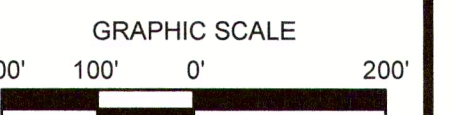
17. CROSS SECTIONS PRESENTS SUMMARY BOREHOLE LOG GRAPHICS
SEE FULL BOREHOLE LOG FOR DETAILS.

18. NOT USED.

19. NOT USED.

NISHISAKAWICK CREEK HDD PLAN VIEW

SOIL AND ROCK STRATAGRAPHIC LEGEND:




REFERENCE:

1. EXISTING CONTOURS WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS WERE SUPPLEMENTED FROM USGS.
2. SITE TOPOGRAPHIC AND FEATURE SURVEY PERFORMED BY MOTT MACDONALD 2015 THRU 2019.
3. PROPERTY INFORMATION ON THIS PLAN BASED ON GIS TAX MAP DATA AND RECTIFIED PROPERTY LINES AND ARE NOT THE RESULT OF A BOUNDARY SURVEY.
4. WETLAND AND WATERBODY DELINEATION SURVEYS COMPLETED BY AMY S. GREENE ENVIRONMENTAL CONSULTANTS.
5. THE HORIZONTAL COORDINATE SYSTEM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD83) AND VERTICAL DATUM IS THE NORTH AMERICAN DATUM OF 1988 (NAVD83).

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APPROVALS		CLIENT APPROVAL
DRAWN BY	DATE	
DOW (MM)	07/2019	
CHECKED BY	DATE	
AJD (MM)	07/2019	
ENG. APPROVAL	DATE	
MAW (MM)	07/2019	
P.M. APPROVAL	DATE	
MAW (MM)	07/2019	DATE

PREPARED FOR	
PREPARED BY	M M MOTT MACDONALD 111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830 CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT		
SOIL EROSION AND SEDIMENT CONTROL DRAWINGS		
PROPOSED 36" PIPELINE		
HDD EXHIBIT PLAN AND PROFILE		
NISHISAKAWICK CREEK HDD		
HUNTERDON COUNTY, NEW JERSEY		
SCALE	DRAWING NO.	REVISION
AS SHOWN	000-03-07-023	A