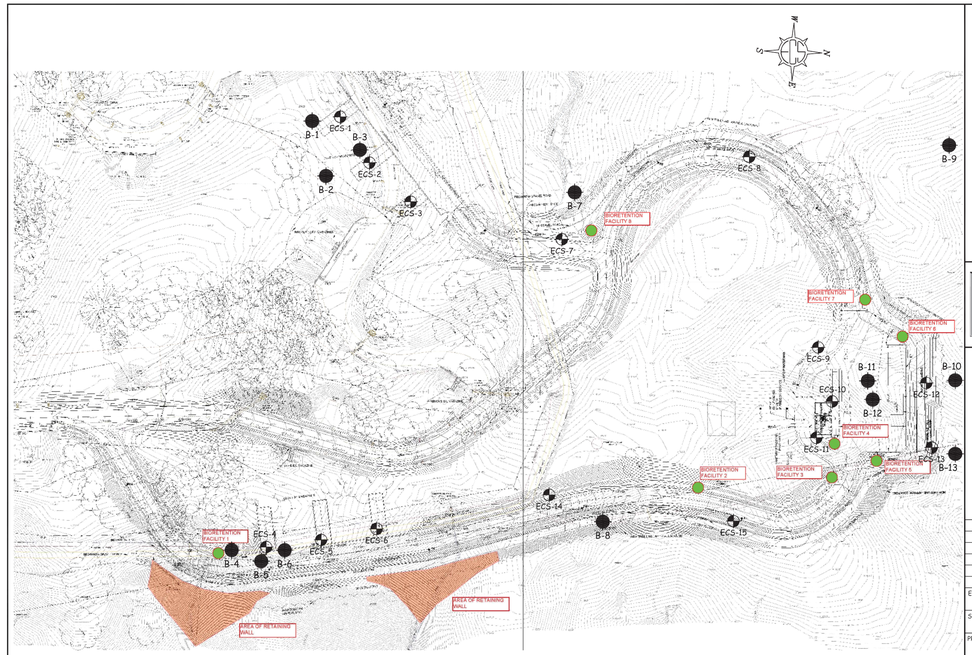

Quantico P635 Ammo Supply Point

Quantico, Virginia

BORING LOCATION DIAGRAM #1

Jacobs

ECS REVISIONS

ENGINEER	DRAFTING
PWO	WG

SCALE: NTS

PROJECT NO.: 05:6333

SHEET: 1 of 2

DATE: 7/23/14

CLIENT: Jacobs | JOB #: 6333 | BORING #: ECS-1 | SHEET: 1 OF 1

PROJECT NAME: Quantico P635 Ammunition Supply Point Expansion

ARCHITECT-ENGINEER:

SITE LOCATION: Quantico MCB, VA

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY RQD% — — — REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL | ENGLISH UNITS | BOTTOM OF CASING | LOSS OF CIRCULATION (RE) | SURFACE ELEVATION 189

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN.)	RECOVERY (IN.)	DESCRIPTION	WATER LEVELS	ELEVATION (FT)	BLOWS/FT
0	S-1	SS	24	12	Topsoil Depth [12"]			6 8 8
	S-2	SS	24	24	Sandy SILT, Trace Fine Roots, Brown, Moist, Medium Stiff (ML)			20 18 17
5	S-3	SS	24	21	Silty CLAY, With Sand, Gray and Brown, Moist, Medium Stiff to Very Stiff (CL)			17.5 19 19.7 22
	S-4	SS	24	24				
	S-5	SS	24	21			180	
10					Silty Fine to Medium SAND, Reddish Brown to Light Gray, Moist to Very Moist, Medium Dense (SM)			
	S-6	SS	18	18				19.1 27
15							175	
	S-7	SS	18	18				22.8 29
20					Silty CLAY, Trace Sand, Greenish Gray, Moist, Hard (CH)			
	S-8	SS	18	18			165	24 36.2 40
25								
	S-9	SS	18	8	Silty Fine to Medium SAND, Light Gray, Very Moist, Medium Dense to Very Dense (SM)		160	30.7 71
30					END OF BORING @ 30.00'			

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 20.00	WS☐ WD☐	BORING STARTED 05/22/14	
WL(BCR) 26.00	WL(ACR) 20.50	BORING COMPLETED 05/22/14	CAVE IN DEPTH
WL 23.00		RIG CME 55 FOREMAN	DRILLING METHOD HSA

CLIENT: Jacobs | JOB #: 6333 | BORING #: ECS-2 | SHEET: 1 OF 1

PROJECT NAME: Quantico P635 Ammunition Supply Point Expansion

ARCHITECT-ENGINEER:

SITE LOCATION: Quantico MCB, VA

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY RQD% — — — REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL | ENGLISH UNITS | BOTTOM OF CASING | LOSS OF CIRCULATION (RE) | SURFACE ELEVATION 189

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN.)	RECOVERY (IN.)	DESCRIPTION	WATER LEVELS	ELEVATION (FT)	BLOWS/FT
0	S-1	SS	24	10	Topsoil Depth [4"]			5 7 21.8
	S-2	SS	24	15	Clayey Fine Sand, Orangish Brown to Brown, Moist, Loose (SC)			22.0 19 25 39
5	S-3	SS	24	24				19 21.8
	S-4	SS	24	24	Clayey Fine to Medium SAND, With Silt, Orangish Brown to Orange and Gray, Moist, Medium Dense (SC)			19 22.2
	S-5	SS	24	23			180	
10								
	S-6	SS	18	18				18.8 24
15							175	
	S-7	SS	18	17	CLAY, With Sand, Gray, Moist, Very Stiff (CH)			29
20								
	S-8	SS	18	15	Silty Fine to Coarse SAND, Trace Quartz Gravel, Gray and Brown, Moist to Very Moist, Medium Dense (SM)		165	23
25								
	S-9	SS	18	16			160	28
30					END OF BORING @ 30.00'			

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 22.50	WS☐ WD☐	BORING STARTED 05/22/14	
WL(BCR) 27.00	WL(ACR) 26.60	BORING COMPLETED 05/22/14	CAVE IN DEPTH
WL 26.70		RIG CME 55 FOREMAN	DRILLING METHOD HSA

CLIENT: Jacobs | JOB #: 6333 | BORING #: ECS-3 | SHEET: 1 OF 1

PROJECT NAME: Quantico P635 Ammunition Supply Point Expansion

ARCHITECT-ENGINEER:

SITE LOCATION: Quantico MCB, VA

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY RQD% — — — REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL | ENGLISH UNITS | BOTTOM OF CASING | LOSS OF CIRCULATION (RE) | SURFACE ELEVATION 179

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN.)	RECOVERY (IN.)	DESCRIPTION	WATER LEVELS	ELEVATION (FT)	BLOWS/FT
0	S-1	SS	24	20	Topsoil Depth [4"]			8 9 11
	S-2	SS	24	24	Clayey Fine to Medium SAND, Brown, Moist, Loose to Medium Dense (SC)			11 13
5	S-3	SS	24	23				
	S-4	SS	24	19			170	
10								
	S-5	SS	24	24				
	S-6	SS	18	16	Silty Fine to Medium SAND, Trace Mica, Brown and Gray, Moist to Very Moist, Medium Dense to Dense (SM)		165	25
15								
	S-7	SS	18	18				29
20								
	S-8	SS	18	16			155	33
25								
	S-9	SS	11	10	Weathered SCHIST, Sampled as Sandy SILT, With Mica, Greenish Gray, Moist, Very Dense, (ML)		150	50/5
30					END OF BORING @ 29.42'			

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 20.00	WS☐ WD☐	BORING STARTED 05/22/14	
WL(BCR) 23.00	WL(ACR) 17.50	BORING COMPLETED 05/22/14	CAVE IN DEPTH
WL 24.00		RIG CME 55 FOREMAN	DRILLING METHOD HSA

CLIENT: Jacobs | JOB #: 6333 | BORING #: ECS-4 | SHEET: 1 OF 1

PROJECT NAME: Quantico P635 Ammunition Supply Point Expansion

ARCHITECT-ENGINEER:

SITE LOCATION: Quantico MCB, VA

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY RQD% — — — REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL | ENGLISH UNITS | BOTTOM OF CASING | LOSS OF CIRCULATION (RE) | SURFACE ELEVATION 199

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN.)	RECOVERY (IN.)	DESCRIPTION	WATER LEVELS	ELEVATION (FT)	BLOWS/FT
0	S-1	SS	24	14	Topsoil Depth [1"]			8 14 14.4
	S-2	SS	24	22	Clayey Fine to Medium SAND, Brown, Moist to Very Moist, Loose to Medium Dense (SC)			13 18.3
5	S-3	SS	24	24				14 22.7
	S-4	SS	24	21			190	16 20.8
10	S-5	SS	24	10				
	S-6	SS	18	18	CLAY, With Sand, Gray, Moist to Very Moist, Very Stiff to Stiff (CH)		185	23 33.7 3.5
15								
	S-7	SS	18	18			180	21 31.6 3.5
20								
	S-8	SS	18	18			175	27 2.5
25								
	S-9	SS	18	18			170	40
30					END OF BORING @ 30.00'			1.0

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 13.50	WS☐ WD☐	BORING STARTED 05/22/14	
WL(BCR) DRY	WL(ACR) 24.70	BORING COMPLETED 05/22/14	CAVE IN DEPTH
WL 25.00		RIG CME 55 FOREMAN	DRILLING METHOD HSA

CLIENT: Jacobs | JOB #: 6333 | BORING #: ECS-5 | SHEET: 1 OF 1

PROJECT NAME: Quantico P635 Ammunition Supply Point Expansion

ARCHITECT-ENGINEER:

SITE LOCATION: Quantico MCB, VA

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY RQD% — — — REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL | ENGLISH UNITS | BOTTOM OF CASING | LOSS OF CIRCULATION (RE) | SURFACE ELEVATION 202

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN.)	RECOVERY (IN.)	DESCRIPTION	WATER LEVELS	ELEVATION (FT)	BLOWS/FT
0	S-1	SS	24	20	Topsoil Depth [1"]			9 14.4
	S-2	SS	24	23	Clayey Fine to Medium SAND, Brown, Moist, Loose to Medium Dense (SC)			13 15.3
5	S-3	SS	24	23				15 16.0
	S-4	SS	24	20			195	13 19.1
10	S-5	SS	24	21				13 20.8
	S-6	SS	18	18	Clayey Fine SAND, Green and Brown, Moist, Medium Dense (SC)		190	
15								22 26.6
	S-7	SS	18	18	CLAY, With Sand, Greenish Gray, Moist, Hard (CH)		185	
20								30.9 34 4.0
	S-8	SS	18	18			180	34 4.5
25								
	S-9	SS	18	18	Clayey Fine to Medium SAND, Greenish Gray, Moist, Dense (SC)		175	32
30					END OF BORING @ 30.00'			

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 13.50	WS☐ WD☐	BORING STARTED 05/22/14	
WL(BCR) DRY	WL(ACR) DRY	BORING COMPLETED 05/22/14	CAVE IN DEPTH
WL 26.00		RIG CME 55 FOREMAN	DRILLING METHOD HSA

CLIENT: Jacobs | JOB #: 6333 | BORING #: ECS-6 | SHEET: 1 OF 1

PROJECT NAME: Quantico P635 Ammunition Supply Point Expansion

ARCHITECT-ENGINEER:

SITE LOCATION: Quantico MCB, VA

NORTHING | EASTING | STATION

CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY RQD% — — — REC% ——

PLASTIC LIMIT% | WATER CONTENT% | LIQUID LIMIT%

STANDARD PENETRATION BLOWS/FT

DESCRIPTION OF MATERIAL | ENGLISH UNITS | BOTTOM OF CASING | LOSS OF CIRCULATION (RE) | SURFACE ELEVATION 193

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN.)	RECOVERY (IN.)	DESCRIPTION	WATER LEVELS	ELEVATION (FT)	BLOWS/FT
0	S-1	SS	24	6	Topsoil Depth [1"]			11
	S-2	SS	24	10	Clayey Medium to Coarse SAND, With Gravel, Gray to Brown, Moist, Medium Dense (SC FILL)			19
5	S-3	SS	24	24	Clayey Fine to Medium SAND, Trace Quartz Gravel, Brown to Orangish Brown, Moist, Medium Dense (SC)			19
	S-4	SS	24	24			190	12
10	S-5	SS	24	24				18
	S-6	SS	18	18	Sandy CLAY, Greenish Gray, Moist, Very Stiff (CH)		185	
15								23
	S-7	SS	18	18			180	
20								
	S-8	SS	18	18	Clayey Fine SAND, Greenish Gray, Moist, Medium Dense to Dense (SC)		175	32
25								
	S-9	SS	18	18			170	31
30					END OF BORING @ 30.00'			

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL DRY	WS☐ WD☐	BORING STARTED 05/28/14	
WL(BCR) DRY	WL(ACR) DRY	BORING COMPLETED 05/28/14	CAVE IN DEPTH
WL 26.20		RIG CME 55 FOREMAN	DRILLING METHOD HSA

APPR	DATE	DESCRIPTION	SYM

NAVFAC

SEAL

JACOBS
1100 NORTH GLEBE ROAD SUITE 500
ARLINGTON, VIRGINIA 22201
TEL (571) 218-1000 FAX (571) 218-1600
A/E INFO

APPROVED

FOR COMMANDER NAVFAC 18 May 2015

ACTIVITY

SATISFACTORY TO DATE 18 May 2015

DES	HR	DRW	HR	CHK	RC
<<PM/DM>>					
BRANCH MANAGER				MS	
CHIEF ENG/ARCH				THC	
FIRE PROTECTION				KJS	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE – QUANTICO
QUANTICO, VA

P-635 ASP EXPANSION

GEOTECHNICAL BORING LOGS

SCALE:	AS NOTED
EPROJECT NO.:	1312142
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	13072312
SHEET	96 OF 201

BB-201

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: C:\pwworking\jobs\crowlero\d0751223\NAVFAC_P635BB-201.dwg LAYOUT NAME: BB-201 PLOTTED: Friday, May 08, 2015 - 9:33am USER: crowlero