



## MEMORANDUM

### Missouri Department of Transportation Construction - Materials Central Laboratory

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**TO:** Allen Lane-sl/gs

**CC/ATT:** Mark Croarkin-sl/mt  
Larry Carver-co/gs  
Mark Simon-sl/cm

**FROM:** Thomas W. Fennessey  
Geotechnical Engineer

**DATE:** August 5, 2015

**SUBJECT:** Materials  
Geotechnical Section  
Foundation Investigation for  
Beaufort Maintenance Building  
Job No. R35G-FI2315  
Franklin County

General – It is understood that a single-story maintenance building is proposed to be constructed on the MoDOT maintenance lot in Beaufort, Missouri to the south of the existing maintenance building along MO185. No grading plan has been provided although it is anticipated that the finished grade will be near the existing ground surface elevation at the western side of the proposed building (about Elev. 762.5 ft.), which is higher than the existing ground elevation at the eastern side of the proposed building. Thus, it is anticipated that across most of this site, the grade will be raised about 0.0 to 2.0 feet.

A site plan for this proposed building is provided as Figure 1. In addition to the utilities shown on Figure 1, it is also understood that there is an existing waterline whose location is not exactly known but reported to run somewhere under the eastern half of the proposed building. It is also understood from preliminary plans that foundation design is based upon an assumed soil bearing pressure of 2000 psf. The preliminary plans also indicate the building is to be supported on strip footings under the perimeter stem walls. The preliminary plans show these proposed strip footings to be 2.0 feet wide and bear at 2.5 feet below finished grade. No additional information regarding foundation loads or settlement criteria for this proposed building has been provided.

Four borings were drilled for this proposed building with one boring being drilled near each corner as indicated on Figure 2 - Boring Location Aerial. A subsurface profile of these borings is included as Figure 3. Also attached are individual boring logs for each of the locations drilled.

Subsurface Conditions – Across the site, the subsurface conditions encountered varied somewhat from boring location to boring location. In general though, fill and possible fill of varying description, strength, and thickness were found to overlie relatively shallow stiff to dense natural soils and highly weathered rock materials across the site.

At Boring T-15-50 (Elev. 762.3 feet), near the northwest corner of the proposed building, about 1.0 feet of asphalt and crushed aggregate base fill was found to overlie very stiff (Pocket Penetrometer = 3.50 tsf)

fat clay to lean clay possible fill to about 3.0 feet. This was underlain by very stiff native soils and then highly weathered rock materials below about 5.1 feet.

At Boring T-15-51 (Elev. 762.4 feet), near the southwest corner of the proposed building, about 1.5 feet of crushed aggregate base fill was found to overlie medium stiff to stiff (Pocket Penetrometer = 0.75-1.50 tsf) lean clay possible fill to about 4.5 feet. This was underlain by medium stiff to stiff native soils and then highly weathered rock materials below 6.0 feet.

At Boring T-15-52 (Elev. 760.8 feet), near the southeast corner of the proposed building, about 4.5 feet of stiff to very stiff (Pocket Penetrometer = 1.75-2.25 tsf) lean clay possible fill was found to overlie very stiff native soils and then highly weathered rock below 7.9 feet.

At Boring T-15-53, near the northeast corner of the proposed building, about 1.2 feet of asphalt and crushed aggregate base fill was found to overlie medium stiff (Pocket Penetrometer = 0.50-0.75 tsf) lean clay possible fill to about 4.5 feet. This was underlain by dense and very stiff native soils and then highly weathered rock materials below about 10.5 feet. Additionally at this location, it was noted that the moisture content is 27% and the plastic limit is 17% in this possible fill. This would suggest that the existing moisture content is significantly above the optimum moisture content for compaction for this possible fill since optimum moisture content is typically slightly less than the plastic limit.

Recommendations – As indicated above, it is understood from preliminary plans that foundation design is based upon an assumed soil bearing pressure of 2000 psf. However, not all of the existing soils encountered across the proposed building site are capable of providing this assumed bearing pressure. Due to the presence of the medium stiff (Pocket Penetrometer = 0.50-0.75 tsf) possible fill encountered at Boring T-15-53, near the northeast corner of the proposed building, the actual allowable bearing pressure would be limited to 1000 psf without some improvement to the existing fill soils in this vicinity.

In this vicinity, along the eastern edge of the paved maintenance lot, it is suspected that older fill was potentially placed without proper compaction resulting in softer soils along the edge of the lot. Alternately, this area of softer and wetter soils could also be due to a leaking water line that is reported to run somewhere in the vicinity of the boring location. No similarly soft or overly wet conditions were noted at the other boring locations across the site and apparent recent fill material at the boring location near the proposed southeast building corner and apparent older fill material at the boring locations near the proposed northwest and southwest building corners have adequate density and strength to provide the assumed bearing capacity.

Therefore, it is recommended to improve the existing fill materials that fall under that portion of the eastern wall and that portion of the northern wall along the eastern edge of the existing paved portion of the maintenance lot where existing fill materials have an undrained shear strength of less than 1250 psf. This would require that unimproved existing fill soils have a pocket penetrometer reading of at least 1.25 tsf or can only be indented slightly by thumb with moderate effort. Any existing soils not meeting these criteria should be improved by excavating, adjusting moisture content as appropriate, and recompacting to a depth of at least one footing width below and at least one-half footing width either side of the proposed strip footing. For the proposed 2-foot wide footing bearing 2.5 feet below finished grade, this would require improvement of existing soft fill to a depth of 4.5 feet below finished grade and 3.0 feet either side of centerline of the strip footing.

In addition to the ground improvement recommendation above, the following additional recommendations are also provided.

- Proof roll any building areas to receive fill with a fully loaded tandem axle dump truck prior to fill placement. Any areas exhibiting pumping or rutting should be undercut and backfilled with properly compacted fill.
- Prior to placement of any new fill, scarify the surface of any area to be filled. Any areas to be filled with an existing slope of 6H:1V or steeper should be benched prior to placement of new fill.
- It is recommended that fill material be lean clay or better. Fill should be compacted to 95% of standard Proctor maximum dry density. Non-granular fill material should be compacted at or within 3% of optimum moisture content. All fill and cut slopes should be constructed to slope and drain away from the proposed building.
- If non-granular fill material is used, at least 10 inches of crushed aggregate base should be placed above the non-granular fill in non-paved traffic areas outside the proposed building to bring the surface to final grade.
- An allowable bearing pressure of 2000 psf or less may be used for the design of strip footings constructed on or in properly compacted fill including existing and improved fill soils at this site. Shallow foundations shall be embedded at least 24 inches below finished grade for frost protection. Strip footings shall have a minimum width of 1.5 feet.

**Missouri Department of Transportation  
Construction and Materials**

**BORING NO. T-15-50**

Page 1 of 1

Job No.: R35G-FI2315  
 Design: \_\_\_\_\_  
 Bent: \_\_\_\_\_  
 Station: \_\_\_\_\_  
 Offset: \_\_\_\_\_  
 Elevation: 762.3  
 Requested Station: \_\_\_\_\_  
 Requested Offset: \_\_\_\_\_  
 Requested Elevation: 762.3  
 Drill No.: G-9577

County: Franklin  
 Skew: \_\_\_\_\_  
 Logged By: Thomas Fennessey  
 Northing: 939465.0  
 Easting: 622952.9  
 Requested Northing: 939465.0  
 Requested Easting: 622955.9  
 Equipment: CME 45 Split-Spoon Sampler  
 Location Note: Offset 3.0 ft. W, 0.0 ft. N, and 0.0 ft. E. from staked NW Building Corner  
 Hammer Efficiency: 84%

Route: 185  
 Location: 6697 Highway 185 South, Beaufort, MO  
 Operator: Michael Donahoe  
 Date of Work: 07/23/15-07/23/15  
 Depth to Water: \_\_\_\_\_  
 Depth Hole Open: \_\_\_\_\_  
 Time Change: \_\_\_\_\_  
 Drilling Method: Hollow Stem Auger

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N <sub>60</sub> )	Shear Data	Field Tests	Index Tests
0		0.0-1.0' ASPHALT and CRUSHED AGGREGATE BASE							
		1.0-5.1' Reddish brown, FAT CLAY to lean clay, scattered gravel, trace sandstone fragments, very stiff, moist 1.0-3.0' Possible Fill	760						
				X	67	4-4-9 (18)		PP = 3.50 tsf	MC = 18.7% γ <sub>sat</sub> = 132 pcf <sup>(1)</sup> LL = 49 PL = 17
5		5.1-8.1' Sandstone, light tan to light reddish brown, extremely soft, highly weathered, dry		X	93	11-19-15 (48)			
			755						
		8.1-9.5' Dolomite, light gray, extremely soft to medium hard, highly weathered, dry 8.5-8.6' Dark Reddish Brown Shale		X	73	13-21-10 (43)		PP = 9.00 tsf	
10		9.5-10.4' Sandstone, white to light reddish brown, extremely soft, highly weathered, dry		X	100	36/0.4'			
		Bottom of borehole at 10.4 feet.							

N<sub>60</sub> = (Em/60)Nm    N<sub>60</sub> - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; Nm - Observed N-value  
 (1) = Assumed, (2) = Actual

Coordinate System: Modified U.S. State Plane 1983    Coordinate Zone: Missouri East    Coordinate Proj. Factor: 1.000064904  
 Coordinate Datum: NAD 83 (CONUS)    Coordinate Units: U.S. Survey Feet

\* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

LETTER BOREHOLE - R35G-S2109.GPJ - 7/31/15 11:03 - J:\SG\GINT\PROJECT FILES\R35G-FI2315.GPJ

**Missouri Department of Transportation  
Construction and Materials**

**BORING NO. T-15-51**

Page 1 of 1

Job No.: R35G-FI2315  
 Design: \_\_\_\_\_  
 Bent: \_\_\_\_\_  
 Station: \_\_\_\_\_  
 Offset: \_\_\_\_\_  
 Elevation: 762.4  
 Requested Station: \_\_\_\_\_  
 Requested Offset: \_\_\_\_\_  
 Requested Elevation: 762.4  
 Drill No.: G-9577

County: Franklin  
 Skew: \_\_\_\_\_  
 Logged By: Thomas Fennessey  
 Northing: 939310.1  
 Easting: 622954.5  
 Requested Northing: 939310.1  
 Requested Easting: 622957.5  
 Equipment: CME 45 Split-Spoon Sampler  
 Location Note: Offset 3.0 ft. W, 0.0 ft. N, and 0.0 ft. E. from Staked SW Building Corner  
 Hammer Efficiency: 84%

Route: 185  
 Location: 6697 Highway 185 South, Beaufort, MO  
 Operator: Michael Donahoe  
 Date of Work: 07/23/15-07/23/15  
 Depth to Water: \_\_\_\_\_  
 Depth Hole Open: \_\_\_\_\_  
 Time Change: \_\_\_\_\_  
 Drilling Method: Hollow Stem Auger

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N <sub>60</sub> )	Shear Data	Field Tests	Index Tests
0		0.0-1.5' CRUSHED AGGREGATE BASE							
		1.5-4.5' Light gray, LEAN CLAY, medium stiff to stiff, moist, Possible Fill	760						
				X	80	2-2-2 (6)		PP = 0.75 tsf PP = 1.50 tsf	MC = 14.6% γ <sub>sat</sub> = 137 pcf <sup>(1)</sup> LL = 29 PL = 15
5		4.5-6.0' Brown, SANDY LEAN CLAY, medium stiff to stiff, moist		X	93	2-7-15 (31)		PP = 1.00 tsf PP = 1.50 tsf	
		6.0-10.3' Sandstone, reddish brown to light tan, extremely soft, highly weathered, dry	755	X	67	8-15/0.4', 10/0'			
10				X	100	19/0.3', 10/0'			
		Bottom of borehole at 10.3 feet.							

N<sub>60</sub> = (Em/60)N<sub>m</sub> N<sub>60</sub> - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N<sub>m</sub> - Observed N-value  
 (1) = Assumed, (2) = Actual

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**Missouri Department of Transportation  
Construction and Materials**

**BORING NO. T-15-52**

Page 1 of 1

Job No.: R35G-FI2315  
 Design: \_\_\_\_\_  
 Bent: \_\_\_\_\_  
 Station: \_\_\_\_\_  
 Offset: \_\_\_\_\_  
 Elevation: 760.8  
 Requested Station: \_\_\_\_\_  
 Requested Offset: \_\_\_\_\_  
 Requested Elevation: 756.8  
 Drill No.: G-9577

County: Franklin  
 Skew: \_\_\_\_\_  
 Logged By: Thomas Fennessey  
 Northing: 939310.6  
 Easting: 622996.5  
 Requested Northing: 939310.6  
 Requested Easting: 623012.5  
 Equipment: CME 45 Split-Spoon Sampler  
 Hammer Efficiency: 84%

Route: 185  
 Location: 6697 Highway 185 South, Beaufort, MO  
 Operator: Michael Donahoe  
 Date of Work: 07/23/15-07/23/15  
 Depth to Water: \_\_\_\_\_  
 Depth Hole Open: \_\_\_\_\_  
 Time Change: \_\_\_\_\_  
 Location Note: Offset 16.0 ft. W, 0.0 ft. N, and +4.0 ft. from staked SE Building Corner due to slope  
 Drilling Method: Hollow Stem Auger

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N <sub>60</sub> )	Shear Data	Field Tests	Index Tests
0									
		0.0-4.5' Brown to grayish brown, LEAN CLAY trace gravel, stiff to very stiff, moist, Possible Fill	760						
					60	2-3-2 (7)		PP = 2.25 tsf PP = 1.75 tsf	MC = 12.8% γ <sub>sat</sub> = 140 pc <sup>f(1)</sup> LL = 32 PL = 16
5		4.5-7.9' Brown, SANDY LEAN CLAY, very stiff, moist	755			1-3-5 (11)		PP = 2.50 tsf	
		7.9-10.3' Sandstone, reddish brown to light tan, extremely soft to very soft, highly weathered, moist to dry			93	11-25-30 (77)			
10									
		Bottom of borehole at 10.3 feet.			100	6/0.3', 10/0'			

N<sub>60</sub> = (Em/60)Nm    N<sub>60</sub> - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; Nm - Observed N-value  
 (1) = Assumed, (2) = Actual

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 Station: \_\_\_\_\_  
 Offset: \_\_\_\_\_  
 Elevation: 760.8  
 Requested Station: \_\_\_\_\_  
 Requested Offset: \_\_\_\_\_  
 Requested Elevation: 760.4  
 Drill No.: G-9577

County: Franklin  
 Skew: \_\_\_\_\_  
 Logged By: Thomas Fennessey  
 Northing: 939473.9  
 Easting: 623006.9  
 Requested Northing: 939465.6  
 Requested Easting: 623010.9  
 Equipment: CME 45 Split-Spoon Sampler  
 Hammer Efficiency: 84%

Route: 185  
 Location: 6697 Highway 185 South, Beaufort, MO  
 Operator: Michael Donahoe  
 Date of Work: 07/23/15-07/23/15  
 Depth to Water: \_\_\_\_\_  
 Depth Hole Open: \_\_\_\_\_  
 Time Change: \_\_\_\_\_  
 Location Note: Offset 4.0 ft. W, 8.3 ft. N, and +0.4 ft El. from staked NE Building Corner due to parked  
 Drilling Method: Hollow Stem Auger

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N <sub>60</sub> )	Shear Data	Field Tests	Index Tests
0		0.0-1.2' ASPHALT and CRUSHED AGGREGATE BASE	760						
		1.2-4.5' Grayish brown, LEAN CLAY trace organics, medium stiff, moist, Possible Fill							
				X	73	2-1-1 (3)		PP = 0.50 tsf PP = 0.75 tsf	MC = 27.0% γ <sub>sat</sub> = 123 pcf <sup>(1)</sup> LL = 31 PL = 17
5		4.5-7.0' Reddish brown, CLAYEY GRAVEL, dense, dry	755	X	80	10-16-8 (34)			
		7.0-10.5' Reddish brown, SANDY LEAN CLAY, very stiff, moist, interlayered white SANDSTONE, extremely soft, highly weathered, dry		X	93	3-6-11 (24)			
10		10.5-11.0' Shale, white to dark reddish brown, extremely soft, moist	750	X	87	4-6-36 (59)		PP = 5.00 tsf PP = 5.50 tsf	
		11.0-12.3' Sandstone, light tan to light reddish brown, extremely soft, highly weathered, dry							
		12.3-14.0' Shale, dark reddish brown, extremely soft, moist		X	87	6-18-17 (49)		PP = 7.50 tsf PP = 8.50 tsf	
		Bottom of borehole at 14.0 feet.							

N<sub>60</sub> = (Em/60)N<sub>m</sub> N<sub>60</sub> - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N<sub>m</sub> - Observed N-value  
 (1) = Assumed, (2) = Actual

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Missouri Department of Transportation  
1617 Mo. Blvd.  
Jefferson City, Mo. 65109

## KEY TO SYMBOLS

**CLIENT** MoDOT Saint Louis District

**PROJECT NAME** Beaufort Maintenance Building

**PROJECT NUMBER** R35G-FI2315

**PROJECT LOCATION** 6697 Highway 185 South, Beaufort, MO

### LITHOLOGIC SYMBOLS (Unified Soil Classification System)



ASPHALT: Asphalt



CH: USCS High Plasticity Clay



CL: USCS Low Plasticity Clay



CLS: USCS Low Plasticity Sandy Clay



DOLOMITE: Dolomite



GC: USCS Clayey Gravel



GW: USCS Well-graded Gravel



SANDSTONE: Sandstone



SHALE: Shale

### SAMPLER SYMBOLS



Split-Spoon Sampler

### WELL CONSTRUCTION SYMBOLS

### ABBREVIATIONS

LL - LIQUID LIMIT (%)  
PI - PLASTIC INDEX (%)  
W - MOISTURE CONTENT (%)  
DD - DRY DENSITY (PCF)  
NP - NON PLASTIC  
-200 - PERCENT PASSING NO. 200 SIEVE  
PP - POCKET PENETROMETER (TSF)

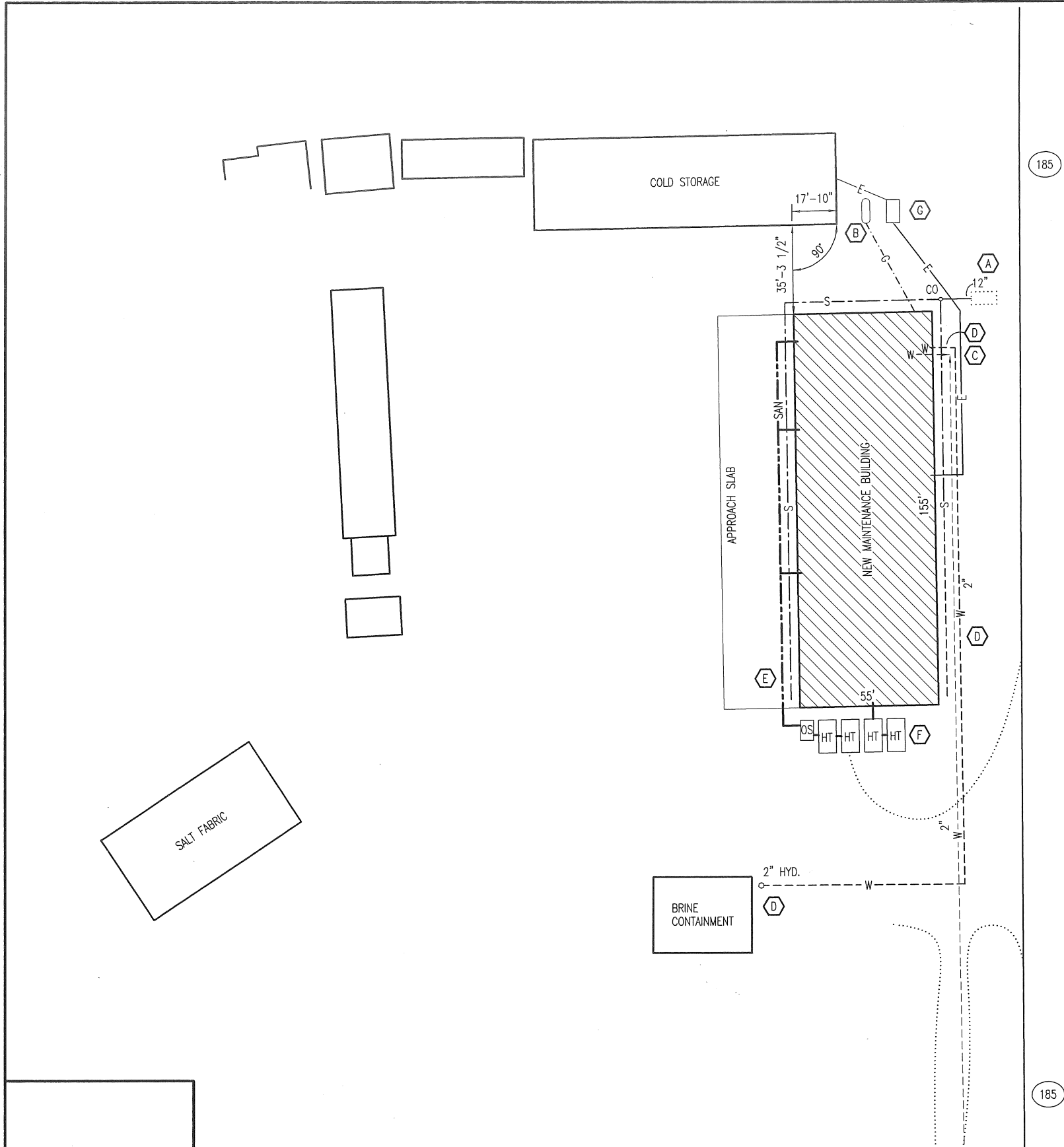
TV - TORVANE  
PID - PHOTOIONIZATION DETECTOR  
UC - UNCONFINED COMPRESSION  
ppm - PARTS PER MILLION

▽ Water Level at Time of Drilling

▼ Water Level at End of Drilling

▽ Water Level after Drilling





### SITE NOTES

- (A) RUN STORM SEWER TO DAYLIGHT. CONTRACTOR TO PROVIDE 8'-0" LONG x 5'-0" x 12" DEEP (4" DIA. ROCK) RIP-RAP. SEE PLUMBING PLAN FOR THE STORM SCHEDULE 35 PVC SIZE(S). CHANGE TO SCHEDULE 40 PVC 10'-0" BEFORE DAYLIGHTING.
- (B) CONTRACTOR TO MAKE CONNECTION AS REQUIRED FOR AN OPERABLE GAS SERVICE FROM AN EXISTING 1,000 GALLON PROPANE TANK.
- (C) CONTRACTOR WILL BE REQUIRED TO TIE INTO AN EXISTING 2" COPPER SIZE ROLL PIPE FROM WHERE WATER COMPANY'S SERVICE PLACED PIPE WILL BE SET WITHIN 10'± OF THE BUILDING FOOTPRINT. A 2" BADGER 4199 CHECK VALVE, 2"AWWA, CLASS 2 METER AND A 2" WILKENS ZURN, 975 XL BACKFLOW AND 2"PRV VALVE WILL BE REQUIRED INSIDE THE WASH EQUIPMENT ROOM.
- (D) CONTRACTOR WILL BE REQUIRED TO TIE INTO THE 2" COPPER SIZED ROLL PIPE LEAVING THE NEW BUILDING HEADING TO AN EXISTING 2" YARD HYDRANT OUTSIDE THE BRINE CONTAINMENT. THE CONNECTION WILL BE AFTER THE BACKFLOW PREVENTER INSIDE.
- (E) CONTRACTOR TO INSTALL 4" PVC SANITARY SEWER LINE TO AN NEW OIL SEPARATOR. 4" DRAIN LINE TO THE FIRST 1,500 GALLON HOLDING TANK. PROVIDE LEVEL ALARM. THEN PROVIDE 4" DRAIN LINE TO SECOND 1,500 GALLON HOLDING TANK. FLOW LINES AS REQUIRED FOR AN OPERABLE SERVICE. CONCRETE HOLDING TANKS EQUAL TO H20 RATED WITH 35B LID AND RING BY MURDON CORP. 1-800-748-7758.
- (F) CONTRACTOR TO EXTEND 4" PVC SANITARY SEWER LINE TO A NEW 1,500 GALLON HOLDING TANK. THEN PROVIDE 4" DRAIN LINE TO A SECOND 1,500 GALLON HOLDING TANK. PROVIDE LEVEL ALARM IN THE SECOND TANK FOR AN OPERABLE SERVICE. CONCRETE HOLDING TANKS EQUAL TO H20 RATED WITH 35B LID AND RING BY MURDON CORP. 1-800-748-7758.
- (G) CONTRACTOR TO PROVIDE NEW ELECTRICAL SERVICE BEGINNING WITH 400A SERVICE AND COOP PROVIDED DISCONNECT AT EXISTING H-FRAME. AN EXISTING CONDUIT SWEEP IS AT THE BASE OF THE H-FRAME. PROVIDE CONDUIT AND CONDUCTORS FROM EXISTING SWEEP INTO THE NEW BUILDING 20'± AS REQUIRED FOR A FUNCTIONAL SERVICE.

### LEGEND (EXISTING)

WATER ----- W -----  
 ELECTRICAL ----- E -----  
 SANITARY ----- SAN -----  
 CLEAN OUT - CO  
 POWER POLE - PP  
 ELECTRICAL METER - M

### LEGEND (NEW)

WATER ----- W -----  
 ELECTRIC 1 PHASE ----- E -----  
 STORM SEWER ----- S -----  
 SANITARY SEWER ----- SAN -----  
 PROPANE GAS ----- G -----  
 CLEAN OUT - CO  
 OIL SEPARATOR - OS  
 HOLDING TANK - HT

### GRADING NOTES:

- CONTRACTOR WILL BE RESPONSIBLE FOR:
- EXCAVATION OF THE SUB GRADE.
  - EXCAVATING OF FOOTINGS.
  - ALL BACK FILL MATERIAL INSIDE AND OUTSIDE NEW BUILDING.
  - CRUSHED ROCK BASE UNDER BUILDING & APPROACH SLAB.
  - BACK FILL ALONG APPROACH SLAB A MINIMUM OF 6" BELOW TOP OF SLAB AND SIDEWALK.
  - FINISHED GRADE TO DRAIN AWAY FROM BUILDING.
  - PROVIDE TOP SOIL, FERTILIZE, SEED AND STRAW AT ALL THE LAWN AREAS DISTURBED DURING CONSTRUCTION.
  - PROVIDE FINISHED GRADE MATERIAL DISTURBED DURING CONSTRUCTION TO MATCH EXISTING.
  - VERIFY UTILITY LOCATIONS BEFORE CONSTRUCTION.
  - MODOT TO HAVE THE FOUR CORNERS STAKED AND BUILDING FOOTPRINT & EXTERIOR APPROACH SLAB LEVELED.
  - EXCAVATED SOIL NOT USED CAN BE PLACED ON SITE. AREA TO BE DESIGNATED BY OWNER.

A
2

## SITE PLAN

SCALE: 1" = 50'-0"

# FIGURE 1 - SITE PLAN

MISSOURI DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF GENERAL SERVICES  
 FACILITIES MANAGEMENT

Beaufort Maintenance Building  
 St. Louis District - Franklin County  
 6697 Highway 185 South, Beaufort, MO

DESIGN BY: LARRY CARVER  
 DATE: 7-17-15

Figure 2 - Boring Location Aerial



FIGURE 3 - SUBSURFACE PROFILE

CLIENT MoDOT Saint Louis District  
PROJECT NUMBER R35G-FI2315

PROJECT NAME Beaufort Maintenance Building  
PROJECT LOCATION 6697 Highway 185 South, Beaufort, MO

- Asphalt and Crushed Aggregate Base

Dolomite

USCS Low Plasticity Sandy Clay
- USCS High Plasticity Clay

USCS Well-graded Gravel

USCS Clayey Gravel
- Sandstone

USCS Low Plasticity Clay

Shale

