

SOIL DATA					
SYMBOL	DESCRIPTION	PRIME FARMLAND	HIGHLY ERODIBLE	HYDRIC	HSG
576	CHILLUM SILT LOAM 2-8% SLOPES	YES	NO	NO	B
57C	CHILLUM SILT LOAM 8-15% SLOPES	YES	NO	NO	B
57D	CHILLUM SILT LOAM 15-25% SLOPES	NO	YES	NO	B
59B	BELTSVILLE SILT LOAM 3-8% SLOPES	YES	NO	NO	C

**SOIL BORINGS FIELD INFILTRATION RESULTS**

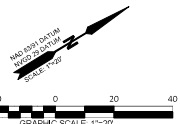
BORING NO.	DEPTH OF PIPE BELOW GRADE (FT)	APPROXIMATE ELEVATION OF BOTTOM OF PIPE	AVERAGE INFILTRATION RATE (IN/HR)	USDA TEXTURE CLASS
ST-1	8.2	446.63	0.3	CLAY LOAM
ST-2	10.5	450.98	15.2	LOAMY SAND
ST-3	10.0	456.42	15.3	SANDY LOAM
ST-4	13.5	440.89	11.4	SANDY LOAM
ST-5	9.3	441.34	23.5	SANDY
ST-6	4.3	439.11	0.03*	SANDY CLAY LOAM
ST-7	9.5	435.77	12.1	SANDY LOAM
ST-8	10.3	443.43	20.4	SANDY LOAM

**STORMWATER MANAGEMENT NOTE**

THE BOTTOM PROVIDED BY SOIL BORINGS THROUGHOUT THE PROPERTY AT LOCATIONS WHERE THE STORMWATER FACILITIES ARE BEING PROPOSED. SOIL BORING ST-1 AND ST-4 WERE NOT SUITABLE TO PROVIDE STORMWATER INFILTRATION PRACTICES IN THOSE AREAS. THIRTEEN MICRO-BIODISTRIBUTION FACILITIES ARE PROPOSED TO PROVIDE STORMWATER MANAGEMENT TO THE MAXIMUM EXTENT POSSIBLE.

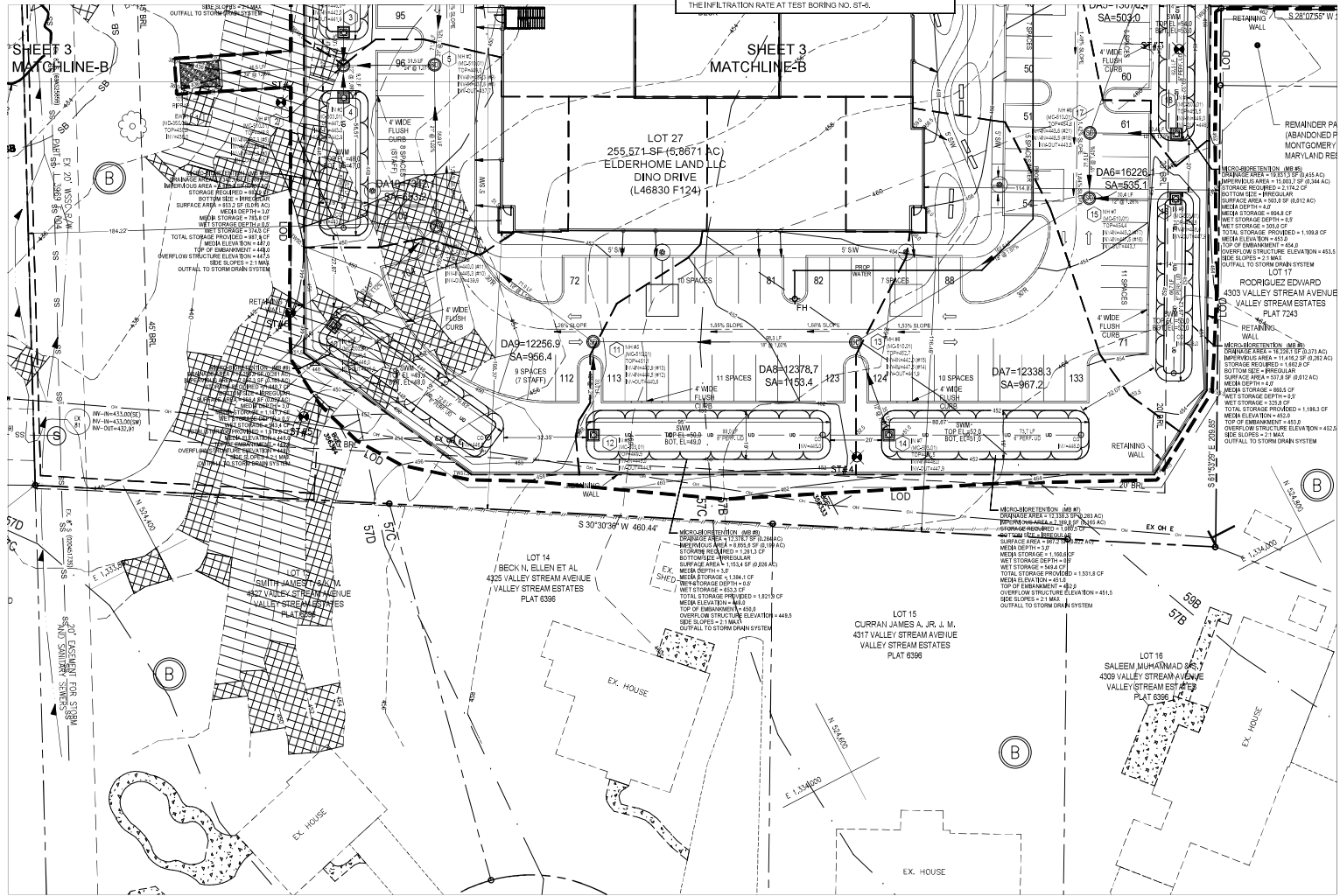
THE OUTFALL FROM THE STORM DRAIN SYSTEM WILL NOT DRAIN TO THE EXISTING MCDP ASSET #223148 SHALLOW MARSH WETLAND POND. THE MICRO-BIODISTRIBUTION PRACTICES WILL OUTFALL TO A STORM DRAIN SYSTEM THAT DRAINS TO AN EXISTING UNMAINTAINED TRIBUTARY AT THE REAR OF THE PROPERTY, WHICH DRAINS TO LITTLE HART BRANCH AND EVENTUALLY TO THE ANACOSTIA RIVER. THE UNMAINTAINED TRIBUTARY BY PAGES MCDP ASSET #223148 SHALLOW MARSH WETLAND POND.

\*IT SHOULD BE NOTED THAT SURFACE RUNOFF MAY HAVE AFFECTED THE INFILTRATION RATE AT TEST BORING NO. ST-6.



**LEGEND**

- STREET R/W LINES
- EASEMENT LINES WATER AND SEWER
- PROPERTY LINES (OTHER THAN STREETS, LOTS)
- INTERNAL LOT LINES
- PROP. SOIL BORING
- EX. CONTOURS
- PROP. CONTOURS
- LIMIT OF DISTURBANCE
- EX. SIDEWALK LINES
- EX. ROAD EDGE OF PAVEMENT
- EX. CURB
- PROP. CURB
- EX. FENCE LINE
- PROP. FENCE LINE
- EX. WALLS (STONE, BRICK OR CONC.)
- EX. TREES (LABEL SIZE AND TYPE)
- TREE LINE
- GAS MAINS
- UNDERGROUND ELECTRIC CABLE OR CONDUIT
- EX. STORM DRAINS
- PROP. STORM DRAINS
- EX. STORM INLETS (ACTUAL SIZE)
- EX. STORM MAN-HOLES (SD)
- EX. SEWER MAINS
- PROP. SANITARY SEWER
- EX. SEWER MAN-HOLES (SMH)
- EX. SEWER CLEAN OUTS (CO)
- EX. WATER MAINS
- PROP. WATER MAINS
- EX. WATER VALVES (V)
- EX. WATER FIRE HYDRANTS (FH)
- PROP. SPOT ELEVATIONS
- EX. ASPHALT ROADWAY / DRIVEWAY HATCH
- EX. CONCRETE PAVEMENT HATCH
- SLOPES 15% TO 25%
- SLOPES 25% OR GREATER
- DRAINAGE DIVIDE
- DOWNSPOUT TO SPLASH BLOCK



**PACKARD & ASSOCIATES LLC.**  
 CIVIL ENGINEERS \* SURVEYORS \* LAND PLANNERS  
 16220 FREDERICK ROAD, SUITE 300  
 GAITHERSBURG, MARYLAND 20877  
 PHONE (301) 208-0250 FAX (301) 208-1270



12/20/23  
 STORMWATER MANAGEMENT CONCEPT PLAN - SHEET 4  
 CONDITIONAL USE  
 BROOKSTONE SENIOR LIVING  
 LOT 27, BLOCK B, VALLEY STREAM ESTATES  
 RECORDED IN LIBER 46830 AT FOLIO 124  
 BURTONSVILLE ELECTION DISTRICT No. 3 MONTGOMERY COUNTY, MARYLAND

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 16518, EXPIRATION DATE: 06/10/2025.

*Dean Packard*  
 DEAN PACKARD, P.E. 12/20/23  
 DATE

**MISS UTILITY**  
 CALL MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 26A OF THE MONTGOMERY COUNTY CODE.

Exhibit 29 (e)  
 OZAH Case No: CU 23-12