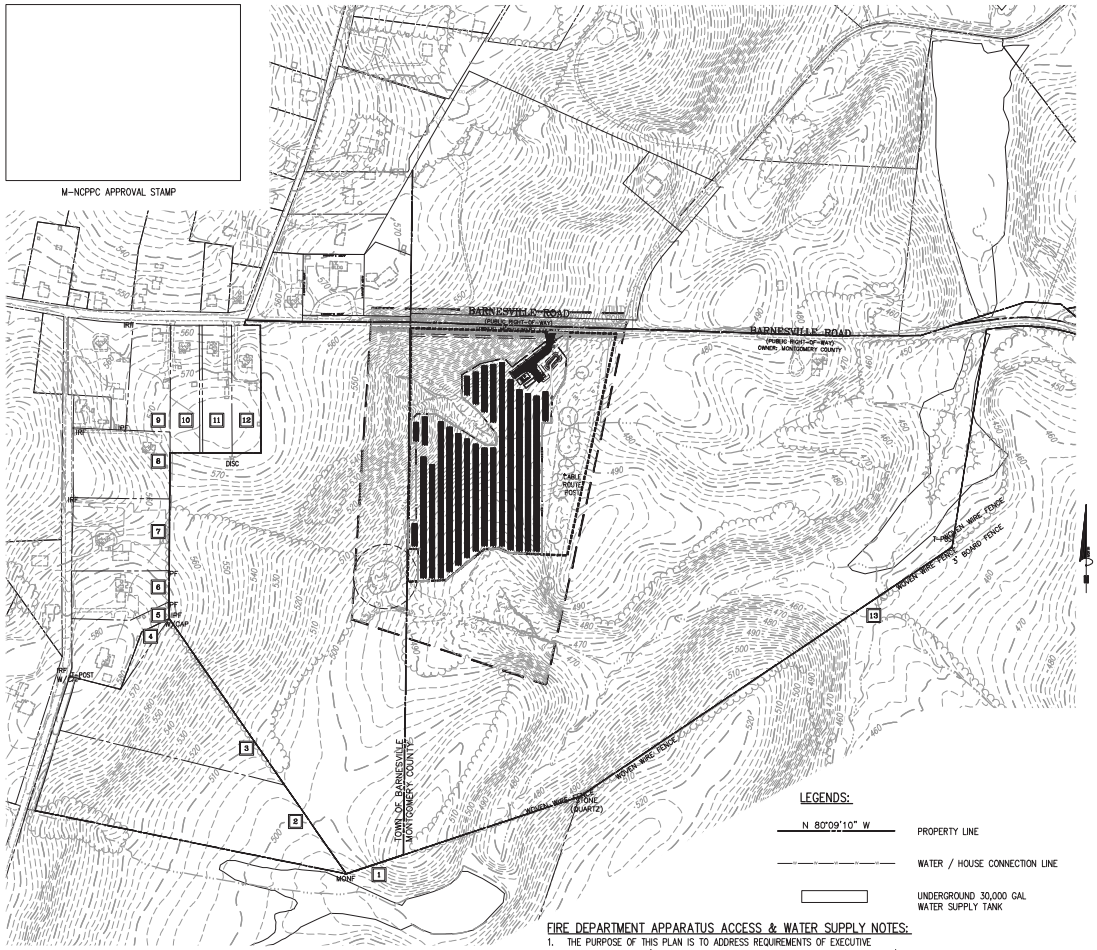
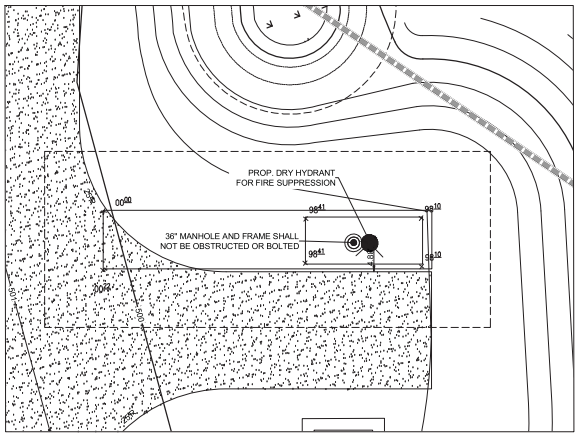
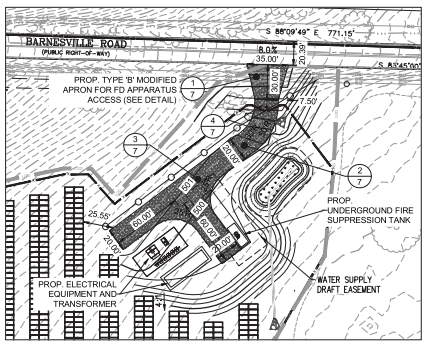
M-NCPPC APPROVAL STAMP





PROP. UNDERGROUND WATER TANK INSET
SCALE 1" = 10'



ACCESS ROAD AND EQUIPMENT YARD INSET
SCALE 1" = 50'

NOTES:
1. AREA OF PROPERTY = <305,425> SF (<7.0116> AC)
2. EXISTING ZONING – AR
3. NUMBER OF LOTS PERMITTED – 1
4. NUMBER OF LOTS SHOWN – 1
5. AREA TO BE DEDICATED TO STREETS – N/A
6. SITE TO BE SERVED BY PRIVATE ON-SITE WELL AND SEPTIC SYSTEM.
7. EXISTING SEWER & WATER SERVICE CATEGORIES – N/A
8. LOCATED IN LOWER HAWLINGS RIVER WATERSHED.
9. UTILITIES TO BE PROVIDED BY: WASHINGTON GAS, VERIZON, PEPCO.

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL", MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATION 5-90, 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN DESIGN CRITERIA" DATED AUGUST 1988.

DESIGN ENGINEER SIGNATURE — 05/27/2025 DATE

ETHAN PACIFICO, P.E. — PRINTED NAME

60118 — REGISTRATION NUMBER

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

LEGENDS:

N 80°09'10" W	PROPERTY LINE
	WATER / HOUSE CONNECTION LINE
	UNDERGROUND 30,000 GAL WATER SUPPLY TANK

FIRE CODE ENFORCEMENT

Fire Department Access Review

Review based only upon information contained on this plan. Does not cover unsatisfactory layout resulting from omissions, errors or failure to clearly indicate conditions on this plan. Correction of such unsatisfactory layout to afford required access will be required if found upon inspection after installation.

BY: SMC FM: DPS DATE: 6/5/2025

FIRE DEPARTMENT APPARATUS ACCESS & WATER SUPPLY NOTES:

1. THE PURPOSE OF THIS PLAN IS TO ADDRESS REQUIREMENTS OF EXECUTIVE REGULATION 14-24 (FIRE DEPARTMENT APPARATUS ACCESS AND WATER SUPPLY) AS APPROPRIATE FOR THE PROPOSED SUBDIVISION.
2. THE PROPERTY IS ACCESSED BY A NEW PRIVATE DRIVEWAY, PROVIDING ACCESS TO THE SUBJECT SITE ONLY, FROM BARNESVILLE ROAD WHICH IS IDENTIFIED AS A MAJOR COLLECTOR ROAD.
3. BARNESVILLE ROAD IS AN EXISTING PUBLIC ROAD WHICH HAS A MEASURED WIDTH OF 20' ALONG THE FRONT OF THE SUBJECT PROPERTY.
4. THE POSTED SPEED LIMIT ALONG BARNESVILLE ROAD IS 40MPH
5. THERE ARE NO SHARED DRIVEWAYS PROPOSED FOR THIS PROJECT.
6. THE SUBJECT PROPERTY IS LOCATED IN A RURAL AREA WHERE PUBLIC WATER SUPPLY FACILITIES DO NOT EXIST. THE PROPERTY IS MORE THAN 2,200 FT FROM THE NEAREST FIRE HYDRANT.
7. A PUBLIC SAFETY WATER SUPPLY EASEMENT SHALL BE PROVIDED AS A SEPARATE DOCUMENT IT IS SHOWN ON THIS PLAN FOR ILLUSTRATIVE PURPOSES.
8. THE DRIVEWAY IS IMPERVIOUS AND MEETS MCDOT TERTIARY ROAD SUBGRADE AND SURFACE LOAD BEARING MINIMUMS.
9. ON-SITE WATER SUPPLY SHALL BE REVIEWED, APPROVED, INSPECTED, AND INSTALLED UNDER A DPS FIRE PROTECTION SYSTEMS PERMIT PRIOR TO FINALIZING BUILDING PERMITS.

FRICTION LOSS REFERENCES:

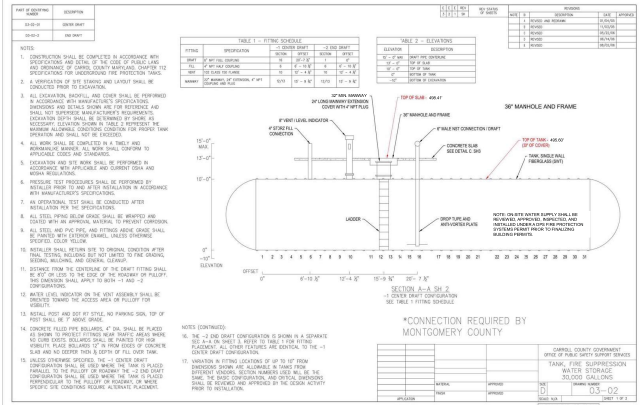
1. FRICTION LOSS INFORMATION IS FOUND IN THE NFPA.
2. THE CONVERSION FACTOR FOR AVERAGE NEW STEEL IS 1.14. TABLE I.1(d)
3. THE STRAIGHT PIPE EQUIVALENT FOR A 6" 90 DEGREE ELBOW IS 18.92. TABLE I.1(c)
4. FRICTION LOSS PER FT FOR 6" PIPE AT 1000GPM IS 0.0312. TABLE I.1(e).
5. DROP TUBE INVERT ELEV IS 6" ABOVE BOTTOM OF TANK.

FRICTION LOSS CALCULATIONS:

1. STATIC HEAD (HYDRANT ELEV. = 499.91) – (DROP TUBE INVERT ELEV. = 486.10) = 13.81'
2. FRICTION HEAD:
   DROP TUBE & SUCTION PIPE LENGTH: 13.81'
   90° ELL: 1 X 18.92' = 18.92'
   TOTAL EQUIVALENT PIPE LENGTH = 13.81' + 18.92' = 32.73'
   32.73 l.f. of 6" GALVANIZED PIPE (1.14) X 0.0312 l.f. = 1.16'
3. TOTAL HEAD = 14.97'

TANK ELEVATION TABLE	
ELEVATION	DESCRIPTION
499.50	EXISTING GRADE AT PROPOSED TANK SITE
498.10	PROPOSED CONCRETE SLAB ELEVATION LOW POINT
498.41	PROPOSED CONCRETE SLAB ELEVATION HIGH POINT
499.91	PROPOSED DRAFT PIPE CENTERLINE ELEVATION (HYDRANT OUTLET)
495.60	PROPOSED TOP OF TANK ELEVATION
485.60	PROPOSED BOTTOM OF TANK ELEVATION
484.85	PROPOSED BOTTOM OF EXCAVATION

NOTES:
1. THE CENTER OF THE DRY HYDRANT OUTLET IS TAKEN AT 1.5' ABOVE THE CONCRETE SLAB. THIS MUST BE AT LEAST 18" ABOVE GRADE.
2. TOP OF TANK MUST BE AT OR BELOW FROST LINE (30") TO PREVENT FREEZING.
3. TOP OF TANK IS 30" BELOW LOW POINT (498.10') OF GRADE ABOVE TANK.
4. TANK SHALL HAVE A MINIMUM VOLUME OF 30,000 GALLONS.



GRAPHIC SCALE
150 0 75 150 300 600
(IN FEET)
1 inch = 150 ft.

MARYLAND STATE GRID (1983/2011)

Bowman

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FIRE HYDRANT & EMERGENCY ACCESS PLAN
MOUNTAIN VALE COMMUNITY SOLAR
17700 BARNESVILLE ROAD, BARNESVILLE MD
WSSC GRID #230NW17 230NW18, 231NW17 & 230NW19
TAX MAP: CV62, GRID: 0000, PARCEL: P020
ELECTION DISTRICT 11
MONTGOMERY COUNTY, MARYLAND

PLAN #295856

STATE OF MARYLAND — ETHAN PACIFICO — 60118 — PROFESSIONAL ENGINEER

05/27/2025

PLAN STATUS

05/27/25	CONDITIONAL USE SITE PLAN

DATE	DESCRIPTION
EP	EG EP
DESIGN	DRAWN CHKD
SCALE	H: 1" = 200' V: N/A
JOB No.	140362-01-001
DATE	MAY, 2025
FILE No.	140362-D-CP-001-FIR

SHEET 6 OF 19

Cad file name : \\VA-FAIR-TF-VM\FASTData\TALONFAST_CORE\TALONFAST-SRV\Shared_Projects\140362 – Barnesville Road Solar Photovoltaic Sys\140362-01-001 (ENG) – Barnesville Road Solar Photovoltaic\Engineering\Engineering Plans\Conditional Use Plan\140362-D-CP-001-FIR.dwg

Exhibit 16 (d)
OZAH Case No: CU 25-07