

**GENERAL NOTES**

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS ALTERNATIVE COMPLIANCE HAVE BEEN APPROVED.
- THIS ENVIRONMENTAL CONCEPT PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES: F-82-106
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD SURVEY BY VOGEL ENGINEERING + TIMMONS GROUP, DATED JANUARY 2019, AND SUPPLEMENTED BY HOWARD COUNTY GIS.
- THE PROJECT BOUNDARY IS BASED ON A FIELD RUN BOUNDARY PERFORMED BY VOGEL ENGINEERING + TIMMONS GROUP, DATED APRIL 2020.
- THE COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY CONTROL STATION 31EF AND 0081 WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED R-20 IN ACCORDANCE WITH THE ZONING REGULATIONS EFFECTIVE ON OCT. 06, 2013, AND IS SUBJECT TO SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE OCT. 07, 2007 PER COUNCIL BILL 47-2007 & 48-2007. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, ALTERNATIVE COMPLIANCE PETITION APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
  - WATER FOR THIS PROJECT SHALL BE FROM AN EXTENSION OF CONTRACT NO. #44-1031.
  - SEWER FOR THIS PROJECT SHALL BE FROM THE PROPOSED EXTENSION OF CONTRACT NO. #14-3503-D.
  - WATER AND SEWER SERVICE WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE. ALLOCATIONS WILL BE GRANTED AT TIME OF ISSUANCE OF BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED ON THE PROPERTY.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION AREAS.
- THERE ARE NO "FLOODPLAIN" AREAS LOCATED WITHIN THE DEVELOPMENT AREA.
- THERE ARE NO 1,103 S.F. OF MDE STEEP SLOPES, 20% OR GREATER ON THIS SITE.
- THE PROJECT SITE WAS EVALUATED FOR THE PRESENCE OF ENVIRONMENTAL FEATURES AND A LETTER HAS BEEN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, DATED DECEMBER 1, 2020. MR. CANOLES NOTED THAT THE PROPERTY IS CURRENTLY DOMINATED BY LAWN, PASTURE AND SCATTERED YOUNG TREES. NO SPECIFIC TREES, FOREST OR ANY OTHER REGULATED ENVIRONMENTAL FEATURES WERE FOUND WITHIN THE LIMITS OF THE DEVELOPMENT AREA FOR THIS PROJECT.
- THE SUBJECT PROPERTY PROJECT IS SUBJECT TO THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION, INCLUDING THE PROTECTION OF SPECIMEN TREES.
- A LANDSCAPE PLAN SHALL BE PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL AT THE SITE DEVELOPMENT PLAN STAGE.
- THERE ARE 0 S.F. (0.00 AC.) AREA OF WETLANDS PRESENT WITHIN THE DEVELOPMENT AREA PER SITE EVALUATION BY ECO-SCIENCE PROFESSIONALS, INC. IN NOVEMBER 2020.
- THERE ARE 0 S.F. (0.00 AC.) AREA OF DEDICATED OPEN SPACE PRESENT. OPEN SPACE IS NOT REQUIRED FOR A MINOR SUBDIVISION.
- GEOTECHNICAL INVESTIGATIONS SHALL BE COMPLETED PRIOR TO SITE DEVELOPMENT PLAN STAGE.
- ANY NECESSARY DESIGN MANUAL WAIVERS OR ALTERNATIVE COMPLIANCE APPLICATIONS SHALL BE FILED AT SITE DEVELOPMENT PLAN STAGE.
- WHARFF LANE IS CLASSIFIED AS A LOCAL ROAD. SITE ACCESS SHALL BE VIA PRIVATE DRIVEWAYS FROM WHARFF LANE.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- AN ADEQUATE ROADS FACILITIES TEST STUDY IS NOT REQUIRED FOR THIS PROJECT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, HISTORIC STRUCTURES OR CEMETERIES, LOCATED WITHIN THE DEVELOPMENT AREA.
- STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE PROVIDED BY MEANS OF RAIN GARDENS (M-7). SEDIMENT AND EROSION CONTROLS WILL BE PROVIDED BY PERIMETER CONTROLS FOR THIS SITE.
- THERE ARE 1.46 AC. OF HIGHLY ERODIBLE SOILS ON THIS PROJECT SITE, 0.91 AC. OF WHICH IS WITHIN THE DEVELOPMENT AREA.
- DRIVEWAY ACCESS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
  - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. (1-1 1/2" MIN.)
  - C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
  - D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
  - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
  - G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- A PRE-SUBMISSION COMMUNITY MEETING SHALL BE COMPLETED PRIOR TO SITE DEVELOPMENT PLAN STAGE.
- MHU'S ARE REQUIRED FOR THIS PROJECT. THE DEVELOPER WILL PAY A FEE-IN-LIEU TO ADDRESS THIS REQUIREMENT.
- DECLARATION OF COVENANTS SHALL BE RECORDED WITH THE SITE DEVELOPMENT PLAN AND SIMULTANEOUSLY WITH THE PRIVATE STORMWATER DEVICES LOCATED ON THESE LOTS. ALL STORMWATER DEVICES SHALL BE PRIVATE. ALL STORMWATER DEVICES SHALL BE LOCATED WITHIN THE PRIVATE LOTS, AND OWNED AND MAINTAINED BY THE HOMEOWNER.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

# ENVIRONMENTAL CONCEPT PLAN

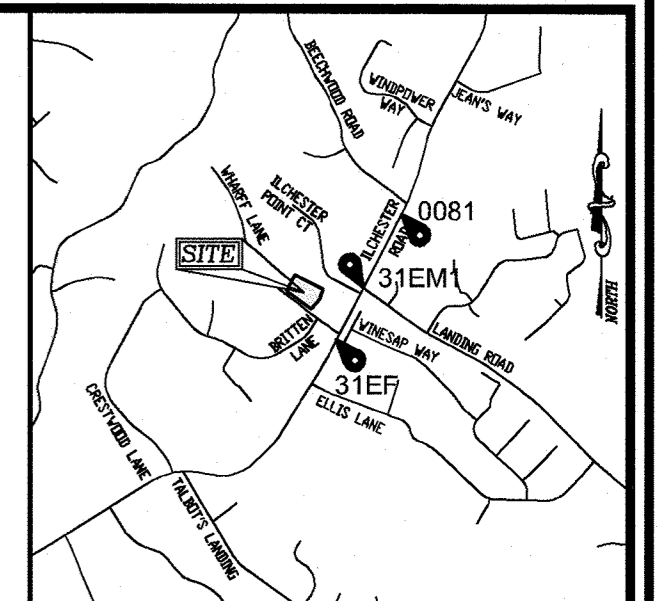
## WHARFF LANE

### L.17968 / F.00281

### ECP-21-027

**BENCHMARKS**

- 31EF : N 571,267.917 E 1,376,907.417 ELEV. 469.471' CONC. MON AT THE INTERSECTION OF ILCHESTER RD AND WHARFF LANE
- 31EM1 : ELEV. 471.694' 3/4" REBAR AT THE CORNER OF ILCHESTER RD AND LANDING RD.
- 0081 : N 572,335.338 E 1,377,504.092 ELEV. 477.919' CONC. MON ILCHESTER RD SOUTH OF BEECHWOOD RD.



**VICINITY MAP**

SCALE: 1"=2000'  
ADC MAP 16 GRID B/3

**LEGEND**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING OVERHEAD UTILITY LINE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- LIMIT OF DISTURBANCE
- 1.5" WATER HOUSE CONNECTION
- ROOF DRAIN / UNDER DRAIN
- PUBLIC SEWER
- PRIVATE 1.25" LPS AND GRINDER PUMP
- RAIN GARDEN (M-7)

**SITE DATA**

- TAX MAP 31, BLOCK 10, PARCEL 401
- 1ST ELECTION DISTRICT
- PRESENT ZONING: R-20 RESIDENTIAL
- TOTAL AREA OF PROPERTY: 1.457 AC.
- DPZ REFERENCES: F-82-106
- DEED/PLAT REFERENCES: L.17968 / F.00281
- PLAT NO. N/A
- AREA MANAGED BY ESDV : 39,820 S.F./0.91 AC. (THIS PLAN)
- \*DEVELOPMENT AREA EXTENDS OUTSIDE LIMITS OF PARCEL
- USE OF PROPOSED STRUCTURES (THIS PLAN):
  - SINGLE FAMILY RESIDENTIAL
  - \*TOTAL BUILDING COVERAGE WITHIN THE DEVELOPMENT AREA: 4,675 SF (0.107 AC. OR 11.74%)
  - \*PAVED AREA WITHIN THE DEVELOPMENT AREA: 4,551 SF (0.105 AC. OR 11.43%)
  - LIMIT OF DISTURBED AREA (INCLUDING ROW): 43,074 S.F. / 0.99 AC
  - \*WETLANDS ON SITE: 0.00 AC.
  - AREA BUFFERS ON SITE: 0.00 AC.
  - \*STREAMS AND THEIR BUFFERS ON SITE: 0.00 AC.
  - \*AREA OF 100 YEAR FLOODPLAIN: 0.00 AC.
  - \*AREA OF EXISTING FOREST ON SITE: 0.00 AC.
  - \*AREA OF MDE STEEP SLOPES (20% OR GREATER): 1,103 SF / 0.02 AC
  - AREA OF ERODIBLE SOILS: 1,457 AC. ON PROJECT SITE
  - \*IMPERVIOUS AREA : 9,226 S.F. (0.2118 AC. OR 23.17%)
  - \*GREEN/OPEN AREA : 30,594 S.F. (0.702 AC. OR 76.83%)
  - NOTE \*WITHIN LIMITS OF DEVELOPMENT AREA ONLY

**OWNER/DEVELOPER**

JAE WOOK SHIN  
4935 WHARFF LANE  
ELLCOTT CITY, MD 21043  
(202) 415-7414

**ENVIRONMENTAL SITE DESIGN NARRATIVE:**

IN ACCORDANCE WITH THE DEVELOPMENT ENGINEERING DIVISION ECP CHECKLIST ITEM III.K.

- THERE ARE NO NATURAL AREAS LOCATED ON THE PROJECT SITE. THERE ARE NO STREAMS, FOREST, STEEP SLOPES, WETLANDS OR THEIR BUFFERS ON SITE AND NO DISTURBANCE TO ANY SUCH NATURAL FEATURES IS PROPOSED.
- NO DISTURBANCE TO THE NATURAL DRAINAGE PATTERNS IS PROPOSED.
- THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT. THE ESD CONCEPT INCLUDES THE USE OF MICRO-SCALE PRACTICES TO INCLUDE RAIN GARDEN FACILITIES (M-7).
- SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF PERIMETER CONTROLS INCLUDING DIVERSION FENCE AND SUPER SILL FENCE. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- STORMWATER MANAGEMENT FOR THE PROJECT HAS BEEN CONCEPTUALLY MET THROUGH THE USE OF FOUR (4) RAIN GARDEN FACILITIES (M-7). THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION".

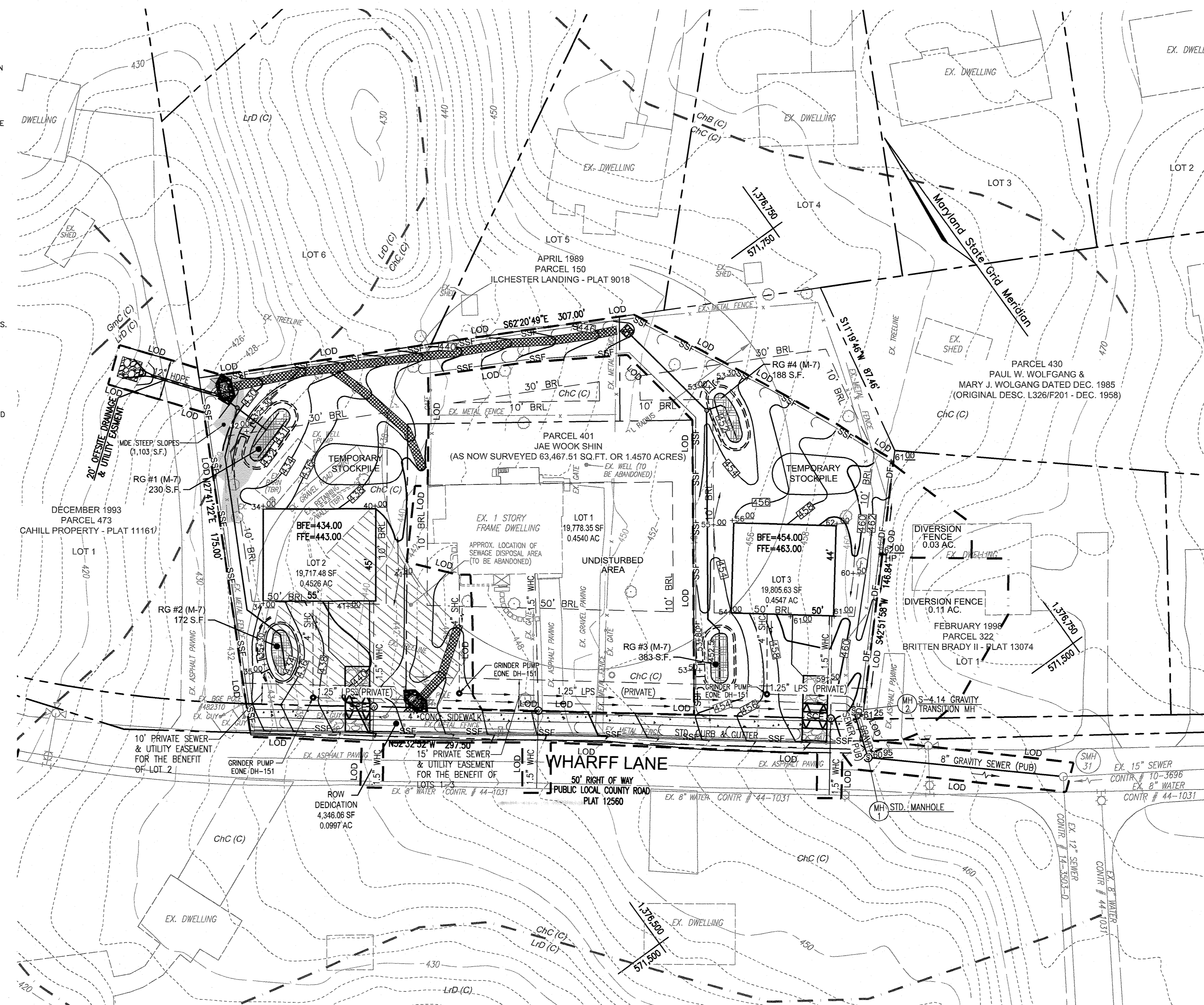
TARGET PE = 1.20" PROVIDED PE = 1.2"  
TARGET ESDv = 1029 CU.FT. PROVIDED = 1043 CU.FT.

- AT THIS CONCEPT STAGE OF DEVELOPMENT, NO WAIVER PETITIONS FOR THE STORMWATER MANAGEMENT DESIGN ARE REQUIRED.

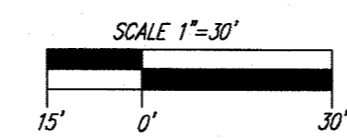
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

\_\_\_\_\_  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 3/29/21 DATE

\_\_\_\_\_  
CHIEF, DIVISION OF LAND DEVELOPMENT 8/5/21 DATE



**PLAN VIEW**



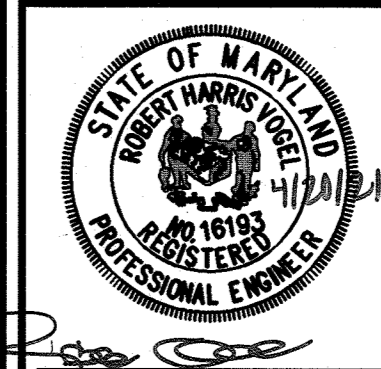
NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**COVER SHEET, LAYOUT, GRADING**  
**AND SEDIMENT CONTROL**

WHARFF LANE  
MINOR SUBDIVISION  
4935 WHARFF LANE

TAX MAP 31 GRID 10 1ST ELECTION DISTRICT  
ZONED: R-20  
L.17968 / F.00281  
HOWARD COUNTY, MARYLAND  
PARCEL 28

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
3300 NORTH RIDGE ROAD, SUITE 110, ELLCOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com



DESIGN BY: RHV/GAH  
DRAWN BY: GAH  
CHECKED BY: RHV  
DATE: APRIL 2021  
SCALE: AS SHOWN  
W.O. NO.: 42431

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2022

