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SITE DEVELOPMENT PLAN FOR LUTHERAN VILLAGE AT MILLER'S GRANT

PLANNED SENIOR COMMUNITY - PHASE 2

PARCEL 'A' SDP-22-043

HOWARD COUNTY MARYLAND

SITE ANALYSIS DATA CHART

1. GENERAL SITE DATA
   a. PRESENT ZONING: PSC (PLANNED SENIOR COMMUNITY)
   b. APPLICABLE DPZ FILE REFERENCES: SDP-08-075, F-10-083, ECP-21-031, F-16-022, F-16-082, ZB 1128M, ZB 1056M, WP-24-022
   c. PROPOSED USE: ASSISTED LIVING COMMUNITY FOR RESIDENTS 55 YEARS OR OLDER
   d. EXISTING USE: ASSISTED LIVING COMMUNITY FOR RESIDENTS 55 YEARS OR OLDER
   e. PROPOSED SEWER: PRIVATE
   f. ANY OTHER RELEVANT INFORMATION: N/A
   g. AREA OF STEEP SLOPES 15% AND GREATER: 2.35 Ac.
   h. AREA OF HIGHLY ERODIBLE SOIL : 0.00 Ac.
   i. AREA OF ONSITE FLOODPLAIN: 2.30 Ac.+/-
   j. AREA OF ONSITE WETLANDS AND THEIR BUFFERS: 2.47 Ac.+/-
   k. AREA OF FORESTS: 12.24 Ac.+/-
   l. AREA OF ERODIBLE SOILS: N/A

2. AREA TABULATION
   a. TOTAL SITE AREA: 49.67 ac.±
   b. TOTAL LIMIT OF DISTURBED AREA: 4.89 ac.±
   c. ONSITE LIMIT OF DISTURBED AREA: 4.89 ac.±
   d. OFFSITE LIMIT OF DISTURBED AREA: N/A
   e. TOTAL IMPERVIOUS AREA: 2.52 ac.±
   f. BUILDING COVERAGE OF SITE: 1.22 ac.±
   g. GREEN OPEN AREA: 2.37 AC.±

3. USE: PERMITTED BY RIGHT
   a. AGE RESTRICTED ADULT HOUSING
   b. ASSISTING LIVING FACILITIES FOR RESIDENTS 55 YEARS OF AGE OR OLDER
   c. NURSING HOMES

4. ACCESSORY USE:
   a. SERVICES AND BUSINESSES THAT SERVE RESIDENTS OF THE PSC DISTRICT INCLUDING RECREATIONAL, EDUCATIONAL, HEALTH, PERSONAL, PROFESSIONAL, BUSINESS SERVICES, AND RETAIL STORES
   b. HOME OCCUPATIONS SUBJECT TO THE REQUIREMENT OF SECTION 128.C.1

5. SETBACKS: PER SECTION 127.1E OF THE HOWARD COUNTY ZONING REGULATIONS
   a. FROM ARTERIAL, COLLECTOR PUBLIC STREET FRONTAGE: 50'
   b. SIDE: 50' (75' IF STRUCTURE IS AN APARTMENT, ASSISTED LIVING FACILITY OR NURSING FACILITY)
   c. REAR: 50' (75' IF STRUCTURE IS AN APARTMENT OR ASSISTED LIVING FACILITY)

6. MINIMUM DISTANCE BETWEEN SFD AND/OR SFA DWELLINGS:
   a. FACE TO FACE: 25'
   b. FACE TO SIDE OR REAR TO SIDE: 30'
   c. FACE TO REAR: 80'
   d. SIDE TO SIDE: 15'
   e. REAR TO REAR: 60'

7. MINIMUM DISTANCE BETWEEN APARTMENT BUILDINGS OR SF DWELLINGS:
   a. FACE TO FACE: 25'
   b. FACE TO SIDE OR REAR TO SIDE: 30'
   c. FACE TO REAR: 80'
   d. SIDE TO SIDE: 15'
   e. REAR TO REAR: 60'

8. MAXIMUM BUILDING HEIGHT ALLOWED: PER SECTION 127.1E OF THE HOWARD COUNTY ZONING REGULATIONS
   a. APARTMENTS: 60'
   b. OTHER PRINCIPLE STRUCTURE: 34'
   c. ACCESSORY STRUCTURES: 15'

9. PROPOSED BUILDING HEIGHT:
   a. APARTMENT ADDITION: 51'-2"
   b. OTHER PRINCIPAL STRUCTURES:
      PERFORMING ARTS ADDITION: 25'-4"
      HEALTH CARE ADDITION: 31'-9"

10. DENSITY CALCULATIONS (OVERALL)
   a. SITE AREA: 49.88 ACRES, OF WHICH 2.30 ACRES ARE FLOODPLAIN AND 1.73 ACRES ARE STEEP SLOPES, THIS RESULTS IN A NET TRACT AREA OF 45.889 ACRES
   b. ALLOWED DENSITY: 8 UNITS PER NET BUILDABLE ACRE, THE A NET AREA OF 45.88 ACRES WOULD ALLOW FOR THE ERECTION OF 367 UNITS (PLEASE NOTE THAT IN ACCORDANCE WITH SECTION 127.1EC OF THE ZONING REGULATIONS, IN ASSISTED LIVING AND NURSING HOMES, BEDS SHALL BE INCLUDED IN DENSITY CALCULATIONS. ONE BED EQUALS 0.25 DWELLING UNITS)
   c. PROPOSED DENSITY:
      36 LIVING HOMES
      248 LIVING APARTMENTS
      15 CARE UNITS (A TOTAL OF 60 BEDS @ 0.25 UNITS/BED)
      TOTAL PROPOSED UNITS: 299

11. COMMUNITY BUILDING - PER SECTION 127.1.B.8, AT LEAST ONE COMMUNITY BUILDING OR INTERIOR COMMUNITY SPACE SHALL BE PROVIDED THAT CONTAINS A MINIMUM OF:
   a. 20 SF OF FLOOR AREA PER DWELLING UNIT FOR DEVELOPMENTS OF LESS THAN 100 DWELLING UNITS
   b. 10 SF OF FLOOR AREA PER DWELLING UNIT ABOVE 99, THEN THE REQUIRED SQUARE FOOTAGE IS: 99'x20' + 150x10 = 3480 (PHASE I)
      99'x20' + 200x10 = 3980 (PHASE II/OVERALL)

12. PROPOSED COMMUNITY SPACE:
   a. THE PROPOSED COMMUNITY SPACE IS CENTRALLY LOCATED WITHIN THE RESIDENTIAL AND HIGH CARE BUILDINGS, THE VARIOUS SPACE SPAN TWO (2) FLOORS AND THEY CONSIST OF:

	PHASE I	PHASE II	OVERALL
COMMUNITY SOCIAL AREAS:	±31,000 SF	±7,700 SF	±38,700 SF
MULTI-PURPOSE ROOM:	0 SF	±4,600 SF	±4,600 SF
POOL AREA:	±4,500 SF	±0 SF	±4,500 SF
TOTAL	±35,500 SF	±12,300 SF	±47,800 SF

13. MAXIMUM NUMBER OF EMPLOYEES: 120 (IN ACCORDANCE WITH SECTION 127.1.EC OF THE ZONING REGULATIONS 1 BED = 0.25 DWELLING UNITS)

14. AREA TABULATION (PHASE I & II)
   a. TOTAL PROJECT AREA: ±2,172,773 SQ.FT.
   b. AREA OF THIS PLAN SUBMISSION: ±49.88 AC/±2,172,773 SQ.FT.
   c. LIMIT OF DISTURBED AREA: ±4.79AC/±208,846 SQ.FT.

15. REQUIRED PARKING SPACE DATA:

PR. PHASE II USES	REQUIREMENT	PR. UNITS	PARKING REQUIRED
AGE-RESTRICTED ADULT HOUSING: APARTMENTS	1.0 SPACE/DU PLUS 0.3 SPACE PER DWELLING UNIT FOR VISITORS	43	56
NURSING HOMES, RESIDENTIAL CARE FACILITIES AND SIMILAR USES	1.0 SPACE PER 2 BEDS	28	14
PHASE I REQUIRED PARKING FROM APPROVED SDP 08-075:	SINGLE FAMILY DETACHED 2.3 SPACES/DU PLUS 0.3 SPACE/DU FOR VISITORS	36	83
	APARTMENTS: 1.0 SPACE/DU PLUS 0.3 SPACE/DU FOR VISITORS	205	267
	RESIDENTIAL CARE FACILITY 1.0 SPACE PER 2 BEDS	32	16
	POOL 1 SPACE PER 10 BATHERS	30	3
TOTAL REQUIRED PARKING			439 SPACES

16. PROVIDED PARKING SPACE DATA:

EXISTING SPACES	EXISTING SPACES REMOVED	SPACES ADDED	TOTAL PROVIDED
486 SPACES	36 SPACES	64 SPACES	514 SPACES

	PHASE I	PHASE II	OVERALL
a. NUMBER OF HANDICAP PARKING SPACES PROVIDED: (INCLUDED IN SURFACE PARKING SPACES PROVIDED)	17 SPACES	1 SPACES	18 SPACES
b. NUMBER OF VAN ACCESSIBLE SPACES PROVIDED: (INCLUDED IN SURFACE PARKING SPACES PROVIDED)	7 SPACES	2 SPACES	9 SPACES
c. NUMBER OF RV SPACES PROVIDED: (NOT INCLUDED IN TOTAL PARKING SPACES PROVIDED)	5 SPACES	0 SPACES	5 SPACES
d. NUMBER OF GOLF CART SPACES PROVIDED: (NOT INCLUDED IN TOTAL PARKING SPACES PROVIDED)	0 SPACES	6 SPACES	6 SPACES

   e. NO CHANGE IN THE REQUIRED PARKING USE(S) IS PERMITTED WITHOUT COMPLIANCE WITH THE PARKING REQUIREMENTS OF ZONING SECTION 133 AND APPROVAL DPZ.
   f. 2 PARKING SPACES ARE PROVIDED AT EACH SINGLE FAMILY DWELLING WITHIN GARAGES AND THE DRIVEWAYS.
   g. THE OWNER WILL ASSIGN EACH APARTMENT UNIT A SINGLE PARKING SPACE FOR THE RESIDENTS' EXCLUSIVE USE IN PROXIMITY TO THE BUILDING.
   h. THE POSTED MAXIMUM CAPACITY OF THE POOL IS 30 SWIMMERS.

17. OPEN SPACE: MINIMUM REQUIRED OPEN SPACE: 17.46 AC OR 35% OF GROSS AREA
   PROVIDED OPEN SPACE: ±20.51 ACRES AND ±41.18% OF GROSS AREA. (PHASE I)
   ±19.12 ACRES AND ±38.3% OF GROSS AREA. (PHASE II/OVERALL)

18. BUILDING COVERAGE OF SITE: 6.79 ACRES AND ±13.61% OF GROSS AREA (PHASE I)
   7.84 ACRES AND ±15.71% OF GROSS AREA (PHASE II/OVERALL)

19. FLOODPLAIN COVERAGE: 2.30 ACRES AND 0.05% OF GROSS AREA
   REQUIRED MIHUs: 30 (10% MINIMUM)
   PROVIDED MIHUs: 30

20. DENSITY CALCULATIONS EXISTING
   a. 36 RESIDENTIAL LIVING HOMES
   b. 205 RESIDENTIAL LIVING APARTMENTS
   c. 8 CARE UNITS (32 BEDS @0.25 UNITS/BED)
   d. TOTAL EXISTING UNITS = 249 UNITS

21. DENSITY CALCULATIONS PHASE II
   a. 0 RESIDENTIAL LIVING HOMES
   b. 43 RESIDENTIAL LIVING APARTMENTS
   c. 7 CARE UNITS (28 BEDS @ 0.25 UNITS/BED)
   d. TOTAL PROPOSED UNITS = 50 UNITS

22. DENSITY CALCULATIONS SUMMARY:
   a. EXISTING = 249 UNITS
   b. PHASE II = 50 UNITS
   c. TOTAL = 299 UNITS

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.

2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.

3. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF FIVE WORKING DAYS PRIOR TO CONSTRUCTION.

4. TRAFFIC CONTROL DEVICES:
   a) THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
   b) THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
   c) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD).
   d) ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG, THE ANCHOR SHALL NOT EXTENDED MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

5. NUMERICALLY WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.

6. UNLESS OTHERWISE NOTED, DIMENSIONS FROM CURB ARE MEASURED AT THE BOTTOM OF THE FACE OF CURB.

7. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS.

8. ALL GRADING AND EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S REPORT AND INSPECTED BY A GEOTECHNICAL ENGINEER.

9. FINISHED GRADES SHALL FALL AWAY FROM EXISTING AND PROPOSED BUILDINGS AT A MINIMUM OF 1/4-INCH PER FOOT (2%, SUGGEST 3%) FOR VEGETATED AREAS AND A MINIMUM OF 1/8-INCH PER FOOT (1%) FOR PAVED AREAS UNLESS OTHERWISE INDICATED.

10. THE CONTRACTOR (OR PRIVATE UTILITY LOCATOR) SHALL DETERMINE THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES, AS NECESSARY. REPORT ANY DISCREPANCIES FROM THE PLANS TO DMW. ALL UTILITIES SHALL BE RETAINED UNLESS LABELED OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND WORK REQUIRED TO ADJUST EXISTING AND PROPOSED UTILITIES AND APPURTENANCES TO FINISH GRADES WITHIN THE LIMITS OF WORK. DAMAGE TO EXISTING CONDITIONS AND UTILITIES SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.

11. EXISTING UTILITIES WHICH ARE NOT TO BE REMOVED OR ABANDONED SHALL REMAIN OPERATIONAL AT ALL TIMES. APPROPRIATE EXISTING UTILITIES SHALL REMAIN IN SERVICE UNTIL REPLACEMENT/RELOCATED UTILITIES ARE OPERATIONAL.

12. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL UTILITIES TO AVOID CONSTRUCTION PROBLEMS/CONFLICTS WITH FOOTINGS, PILINGS OR EROSION AND SEDIMENT CONTROL MEASURES. SEE THE APPROVED SEDIMENT CONTROL PLAN.

13. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL WATER, SEWER, AND DRAIN BUILDING CONNECTIONS WITH THE PLUMBING AND MECHANICAL DRAWINGS.

14. THE CONTRACTOR SHALL MAINTAIN 2.0 FEET MINIMUM COVER OVER ALL UTILITIES DURING CONSTRUCTION.

15. CONSTRUCT ALL STORM DRAIN MANHOLES, INLETS, SANITARY MANHOLES AND WATER VALVES SO THAT THE FRAMES CAN BE ADJUSTED TO PAVEMENTS SLOPES DURING THE PAVEMENT INSTALLATION.

16. UNLESS OTHERWISE NOTED, ALL UTILITY CONNECTIONS SHALL BE CAPPED OR PLUGGED FIVE FEET FROM BUILDINGS.

17. PRIOR TO CONSTRUCTION, THE MECHANICAL CONSULTANT SHALL HAVE DETERMINED THE ADEQUACY OF WATER SUPPLY.

18. ONLY THE PUBLIC UTILITY COMPANY PERSONNEL SHALL OPERATE PUBLIC WATER VALVES OR NEW VALVES AFTER THEY ARE PLACED IN SERVICE. THE CONTRACTOR SHALL NOTIFY THE PUBLIC INSPECTOR TO ARRANGE A SHUTDOWN AT LEAST FOUR (4) DAYS PRIOR TO THE PROPOSED SHUTDOWN.

19. ELECTRIC, TELEPHONE, GAS, CABLE, LIGHTING, AND RETAINING WALLS ARE TO BE DESIGNED BY OTHERS. WHERE THOSE FACILITIES ARE SHOWN, THEY ARE FOR COORDINATION PURPOSES ONLY.

20. THE SUBJECT PROPERTIES ARE ZONED PSC AS PER THE HOWARD COUNTY ZONING MAPS EFFECTIVE OCTOBER 6, 2013 AND THE MOST RECENT HOWARD COUNTY ZONING REGULATIONS ADOPTED ON OCTOBER 6, 2013 (WITH SUPPLEMENTS EFFECTIVE BEFORE AND UP TO SEPT 13, 2017).

21. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

22. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NO'S 24BD, 24BF, 24CA AND 24EH WERE USED FOR THIS PROJECT.

23. ONSITE WATER IS PUBLIC (CONTRACT NO. 24-4561-D) AND ONSITE SEWER IS PRIVATE.

24. ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARD AND DOWNWARD AND AWAY FROM ALL ADJOINING RESIDENTIAL PROPERTIES AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134.0.C OF THE HOWARD COUNTY ZONING REGULATIONS.

25. THE SITE HAS BEEN DESIGNED TO BE IN CONFORMANCE WITH ADA REGULATIONS 28 CFR PART 36, REVISED SEPTEMBER 15, 2010. HANDICAP PARKING DETAILS AND SIGNAGE SHALL BE IN ACCORDANCE WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND COMAR (CODE OF MARYLAND REGULATIONS) SECTION 5.02.02.

26. ALL SIDEWALKS SHALL BE CROSS SLOPED AT 1/4 INCH PER FOOT.

27. ALL MATERIALS AND CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.

28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY WHICH MAY OCCUR AS A RESULT OF NEGLIGENCE DURING THE EXECUTION OF WORK.

29. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH THE LANDSCAPE PLAN FOR THE PHASE 2 LANDSCAPING AS REQUIRED IN SCHEDULE B, SCHEDULE C AND THE PRIVATE STREET TREE CHART (40 SHADE TREES). TOTAL LANDSCAPE SURETY TO BE POSTED WITH THE DPW DEVELOPERS AGREEMENT IS $16,800. A $13,800 FINANCIAL SURETY FOR PHASE 2 LANDSCAPING WAS POSTED UNDER SDP-08-075 UNDER A DEFERRED IMPROVEMENT AGREEMENT AND WILL BE RELEASED AND PROCESSED UNDER THIS PLAN. IN ADDITION, A $3000 FINANCIAL SURETY SHALL BE PAID WITH THE DPW DEVELOPERS AGREEMENT FOR THE 7 SHADE TREES ($300.00 EA.) AND 6 EVERGREEN TREES ($150.00 EA.) TO BE REMOVED AND REPLACED ON THE NORTH PERIMETER OF POND 2. LANDSCAPING WITHIN THE MICROBIORETENTION STORMWATER MANAGEMENT FACILITIES WILL BE ASSESSED AS PART OF THE DEPARTMENT OF PUBLIC WORKS STORMWATER MANAGEMENT SURETY.

30. STORM DRAINS ARE PRIVATE.

31. EXISTING UTILITIES ARE BASED ON SDP 08-075 AND PUBLIC WATER AND SEWER CONTRACT NO. 24-4561-D

32. MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES AND RETAINING WALLS WILL BE PRIVATELY MAINTAINED BY THE DEVELOPER.

33. DURING CONSTRUCTION THIS PLAN SHALL MEET THE 2011 MARYLAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL.

34. IN ALL NEW RESIDENTIAL MULTI-FAMILY BUILDINGS HAVING TWO OR MORE FLOORS, A UNIFORM NUMERIC NUMBERING SYSTEM SHALL BE UTILIZED TO IDENTIFY ALL DWELLING UNITS WITH A NUMBER THAT IS UNIQUE TO ONLY ONE UNIT. ALL UNITS IN A VERTICAL STACK OR COLUMN SHALL BE UNIFORMLY NUMBERED SUCH THAT THEY ALL SHARE A NUMERIC REFERENCE TO EACH OTHER IN THAT STACK OR COLUMN, AS APPROVED BY THE AHJ. FOR EXAMPLE, UNIT 301 SHALL BE DIRECTLY OVER UNIT 201, WHICH IS DIRECTLY OVER UNIT 101. THE THE EVENT AN OPEN OR AMENITY SPACE ON ANY FLOOR PREVENT UNIFORMITY, THE CORRESPONDING UNIT NUMBER SHALL BE OMITTED RATHER THAN MOVED OUTSIDE OF THE NUMERICALLY UNIFORM COLUMN OR STACK.

35. THE FIRE DEPARTMENT CONNECTION FOR FIRE PROTECTION SYSTEMS SHALL BE LOCATED: (A.) TYPICALLY ON THE SIDE OF THE STRUCTURE DISPLAYING THE ADDRESS CLEARLY VISIBLE TO THE RESPONDING UNITS. THE FINAL LOCATION SHALL BE APPROVED BY THE OFFICE OF THE FIRE MARSHALL; (B.) WITHIN 100 FT. OF A FIRE HYDRANT; (B) THE APPROPRIATE SIGN SHALL BE MOUNTED ON THE BUILDING'S WALL BETWEEN 8 AND 12 FEET ABOVE THE FIRE DEPARTMENT CONNECTION; (B)) A FREE-STANDING FIRE DEPARTMENT CONNECTION SHALL HAVE THE SIGN MOUNTED ON A POLE DIRECTLY BEHIND THE CONNECTION APPROXIMATELY 6 FEET HIGH; (D) SIGNS SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH A RED REFLECTIVE BORDER, RED REFLECTIVE LETTERS AND A RED REFLECTIVE ARROW. THE BORDER SHALL HAVE A 3/8" STROKE. THE LETTERS SHALL BE 6" HIGH WITH A 1" STROKE. THE ARROW SHALL HAVE A STROKE NOT LESS THAN 2". THE OVERALL SIGN MEASUREMENTS SHALL BE 12" BY 18"; (V) ANY OBSTRUCTION OR CONDITION THAT DETERS OR HINDERS ACCESS TO A FDC IS PROHIBITED. A MINIMUM CLEAR SPACE OF 15 FEET (7.5 FEET ON ALL SIDES) SHALL BE MAINTAINED.

36. KNOX BOXES SHALL BE LOCATED WITHIN 6' TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4-5' IN HEIGHT. THE CONTRACTOR SHOULD CONTACT THE OFFICE OF THE FIRE MARSHALL PRIOR TO PURCHASING AND INSTALLING KNOX BOXES TO DETERMINE IF ADDITIONAL KNOX BOXES WILL BE REQUIRED, AS WELL AS VERIFY THE LOCATION(S) WHERE THEY ARE TO BE MOUNTED.

37. FOREST CONSERVATION ACT COMPLIANCE, INCLUDING AN APPROVED FOREST STAND DELINEATION (FSD) AND FOREST CONSERVATION PLAN (FCP), WAS ADDRESS BY CHRISTOPHER CONSULTANTS, LTD. AS PART OF THE PREVIOUS SDP APPROVAL. A COPY OF THEIR FSD REPORT AND PLAN IS ON FILE WITH HOWARD COUNTY PLANNING AND ZONING AND SUPPORTING DOCUMENTATION IS FOUND ON SHEETS 23 THROUGH 48 OF THE REFERENCED SDP. THE EXISTING FOREST CONSERVATION EASEMENT DEPICTED ON THE ECP ARE CONSISTENT WITH THOSE SHOWN ON SDP 08-075.

38. IN ACCORDANCE WITH SECTION 16.1101, A TRAFFIC STUDY, DATED JANUARY 26, 2022, HAS BEEN PREPARED BY THE TRAFFIC GROUP. LEVEL OF SERVICE "B" OR BETTER CONDITION ARE PROJECTED TO REMAIN THROUGHOUT THE STUDY AREA DURING BOTH THE WEEKDAY MORNING AND EVENING PEAK HOURS. IN ACCORDANCE WITH SECTION 16.1107.b.5.i. THIS PROJECT IS EXEMPT FROM TESTS FOR ADEQUATE PUBLIC SCHOOLS. HOWARD COUNTY APFO STUDY WILL BE UPDATED TO REFLECT PROPOSED PROJECT IMPACTS.

39. PER DECISION AND ORDER ZB CASE 1056M, WAS APPROVED ON MAY 17, 2006, AND SIGNED BY THE ZONING BOARD OF HOWARD COUNTY, MARYLAND ON JULY 31, 2006, CONSIDERED THE PETITION OF THE LUTHERAN VILLAGE AT MILLER'S GRANT TO AMEND THE ZONING MAP OF HOWARD COUNTY SD AS TO RE-CLASSIFY FROM THE R-20 (RESIDENTIAL - SINGLE) TO THE PSC (PLANNED SENIOR COMMUNITY) ZONING DISTRICT.

40. LANDSCAPING INDICATED ON SDP 08-075 AS "PHASE 1" HAS BEEN PREVIOUSLY INSTALLED TO MEET THE LANDSCAPE REQUIREMENTS AS A RESULT OF THE IMPROVEMENTS THAT HAVE ALREADY BEEN CONSTRUCTED. THE LANDSCAPING PROPOSED ON THIS PLAN IS INTENDED ONLY TO MEET THE PLANTING REQUIREMENTS AS A RESULT OF THE IMPROVEMENTS CURRENTLY PROPOSED.

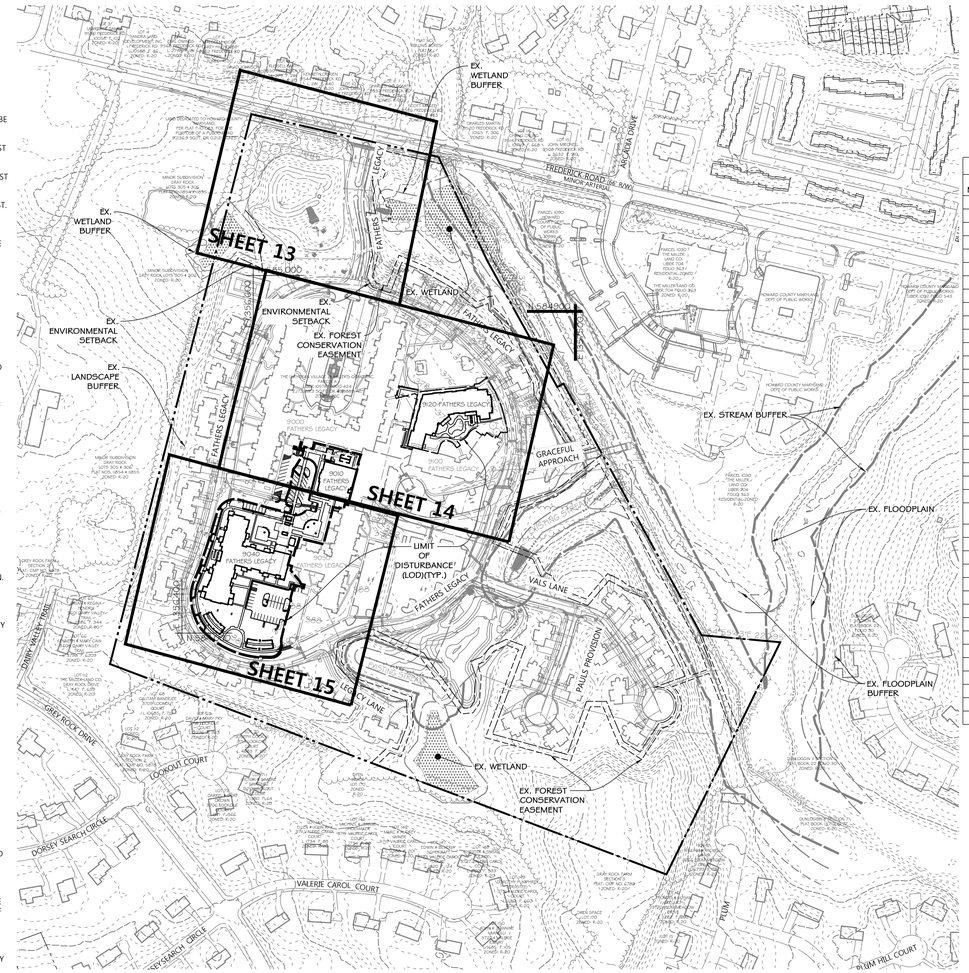
41. A TRAFFIC IMPACT ANALYSIS WAS PREPARED ON JANUARY 26, 2022 BY THE TRAFFIC GROUP, INC AND WAS SUBMITTED AND APPROVED ON NOVEMBER 2, 2023 FOR THIS PROJECT.

42. VOLUME 1 DESIGN MANUAL WAIVER

ON SEPTEMBER 25, 2023, THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS GRANTED A DESIGN MANUAL WAIVER TO CHAPTER 3 HYDROLOGY, SECTIONS 3.2.1 D AND SECTIONS 3.2.3.A.2 USDA-NRCS TR-20 AND TR-55 HYDROGRAPH METHODS WITH THE FOLLOWING UNDERSTANDING:

A. "ACTUAL CONDITIONS" RUNOFF CURVE NUMBERS WELL ONLY BE USED FOR THE LIMIT OF DISTURBANCE ASSOCIATED WITH THE NEW HEALTH CARE CENTER, NEW APARTMENT WING AND NEW PERFORMING ARTS ADDITION ONLY.
B. FOR OTHER PROPOSED RUNOFF AREAS IN THE STORMWATER MANAGEMENT ANALYSIS, SHALL BE BASED ON ZONING FOR COMPUTING PROPOSED RUNOFF CURVE NUMBERS.

44. ON SEPTEMBER 15, 2023 AND PURSUANT TO SECTION 16.104, THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING, CONSIDERED AND APPROVED WP-24-022 FOR ALTERNATE COMPLIANCE WITH RESPECT TO SECTION 16.156(g)(2) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO REACTIVATE THE SITE DEVELOPMENT PLANS (SDP-22-043) AND EXTEND THE DEADLINE DATE TO SUBMIT A REVISED SITE DEVELOPMENT PLAN FOR COUNTY REVIEW.



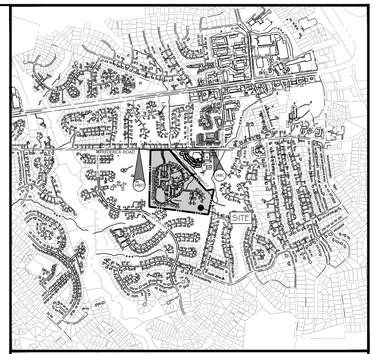
PLAN 200 0 200 400
SCALE: 1" = 200'

BENCHMARK

HORIZONTAL: MAYLAND NAD83 (Adj 2011)
VERTICAL: NAVD88 USE GEOID 12b
3. SFT = U.S. SURVEY FEET

GEODETIC SURVEY CONTROL : 24BC
NORTHING: 178326.1619
EASTING: 414014.4336
ELEVATION: 111.1908

GEODETIC SURVEY CONTROL : 24BD
NORTHING: 178482.7081
EASTING: 413399.7668
ELEVATION: 118.5364



VICINITY MAP

SCALE: 1" = 2,000'
ADC # 21007249

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08	EXISTING CONDITIONS & DEMOLITION PLAN
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35	LANDSCAPE PLANTING PLAN - LAYOUT 1
36	LANDSCAPE PLANTING PLAN - LAYOUT 2
37	LANDSCAPE PLANTING PLAN - LAYOUT 3
38	LANDSCAPE DETAILS
39	SITE LIGHTING PLAN

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- 120 EX. MAJOR CONTOUR
- 118 EX. MINOR CONTOUR
- 120 PROP. MAJOR CONTOUR
- 118 PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WETLAND BUFFER
- EX. TREE

ENVIRONMENTAL DATA SOURCES

1. FLOODPLAIN INFORMATION HEREON REFLECTS THE RESULT OF A STUDY PERFORMED BY PATTON, HARRIS, RUST AND ASSOCIATES, INC. DATED: MARCH 15, 2010.
2. WETLANDS AND ASSOCIATED ENVIRONMENTAL INFORMATION SHOWN HEREON REFLECT THE RESULT OF AN INVESTIGATION PERFORMED BY CHRISTOPHER CONSULTANTS, LTD. DATED: SEPTEMBER 29, 2005.
3. SOIL SURVEY INFORMATION SHOWN HEREON REFLECTS HOWARD COUNTY SOILS INFORMATION OBTAINED FROM NRCS DATED: 11/02/2007.

DATA SOURCES:

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN HEREON REFLECTS THE RESULT OF A TOPOGRAPHIC SURVEY PERFORMED BY DMW INC ON OCTOBER 2020, HOWARD COUNTY GIS & APPROVED PHASE 1 SDP-08-075.

DATE	BY	REVISIONS

ADDRESS CHART

UNIT/LOT	STREET ADDRESS
APARTMENT BLDG	9040 FATHERS LEGACY
PERFORMING ARTS CENTER	9010 FATHERS LEGACY
HEALTH CARE CENTER	9120 FATHERS LEGACY
EX. BLDG	9000 FATHERS LEGACY
EX. BLDG	9100 FATHERS LEGACY
EX. BLDG	9050 FATHERS LEGACY

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

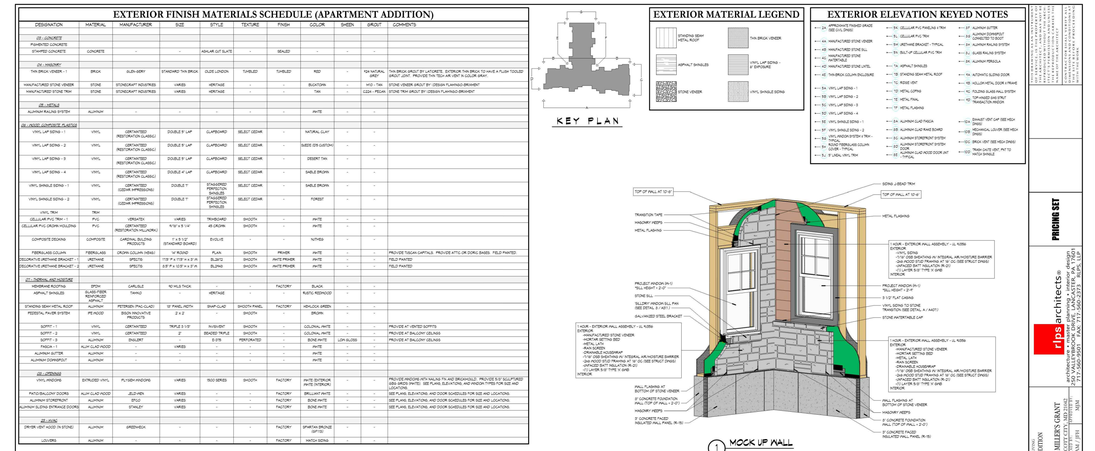
9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

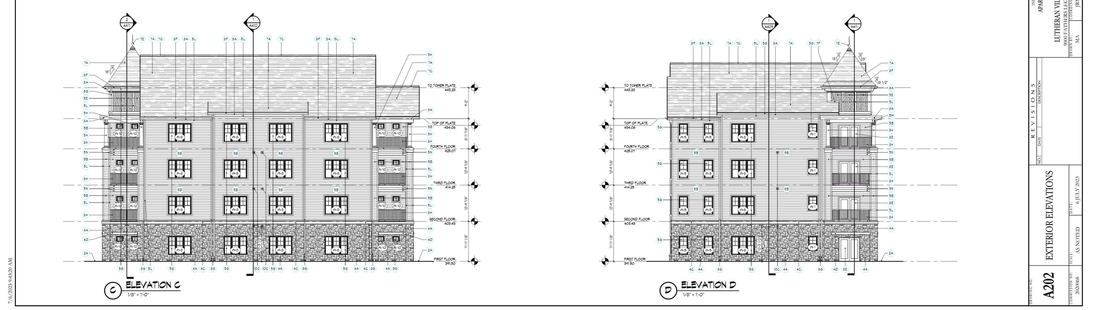
OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

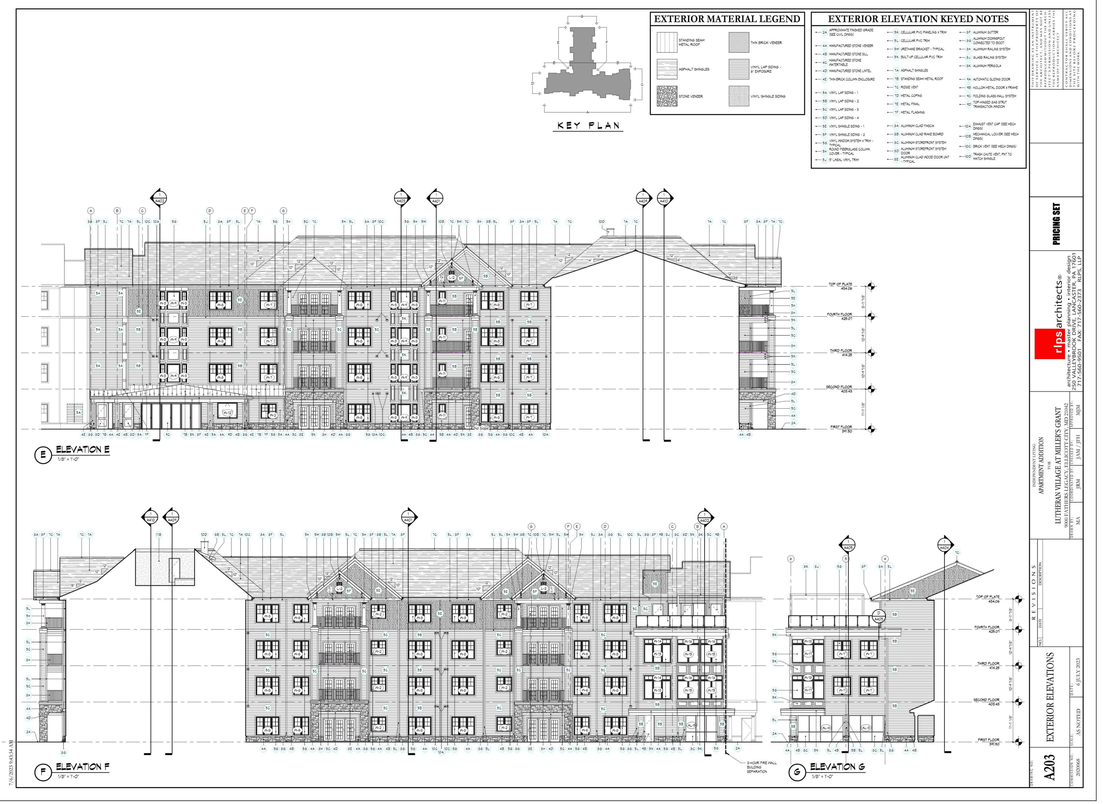
FILE NUMBERS:

SDP-08-075; F-10-083;
ECP-21-031; F-16-022; F-16

DocuSign Envelope ID: 846AE33A-76ED-41A6-92E4-12BE04BACF89







PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/18/25.

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT		SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 350 (TG 700)		SEWER CODE: 707		STAGE:

TITLE:

BUILDING ELEVATIONS

DESIGNED: GDT, MM	SCALE: 1" = 200'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	02 of 39

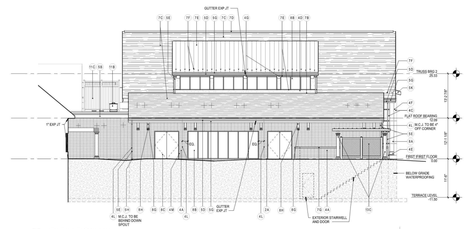
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 5209438693D43D...	4/17/2024
DIRECTOR	DATE

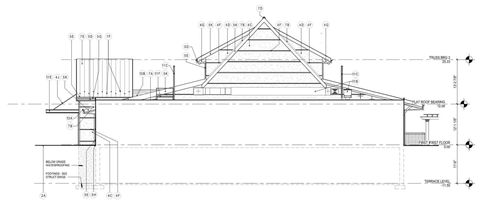
APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

SDP-22-043

DocuSign Envelope ID: 846AE33A-76ED-41A6-92E4-12BE04BACF89



A ELEVATION "A"
1/8" = 1'-0"



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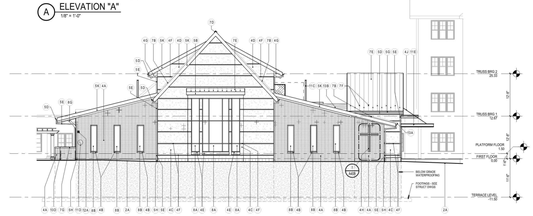
1/8" = 1'-0"



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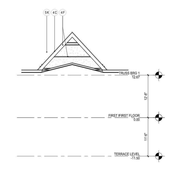
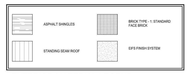
1/8" = 1'-0"



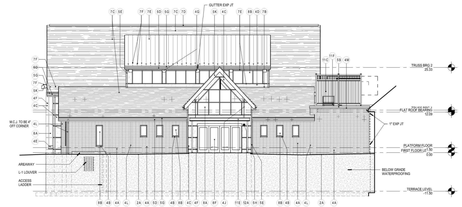
E ELEVATION "E"
1/8" = 1'-0"

EXTERIOR ELEVATION KEYED NOTES

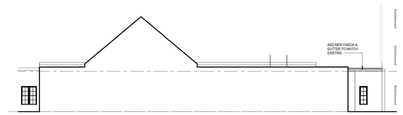
1-A. APPROVED/WHITE FINISHED GRADE, SEE CIVIL DWGS.	1-E. ALUMINUM DOWNSPOUT	1-S. HOLLOW METAL DOOR & FRAME
1-A1. MANUFACTURED BRICK VENEER	1-F. ALUMINUM CLAD TRIM	1-T. ALUMINUM SLIDING DOOR SYSTEM
1-A2. MANUFACTURED BRICK SILL	1-G. FIBER CEMENT FASCIA	1-U. POLYURETHANE BRACKET
1-A3. EIFS FINISH SYSTEM COLOR #1	1-H. PVC WAINSCBOT	1-V. (E) CORBELLED BRICK SUPPORT
1-A4. EIFS FINISH SYSTEM COLOR #2	1-I. FIBER CEMENT BOARD	1-W. MECHANICAL EQUIPMENT, SEE MEP DRAWINGS FOR ADDITIONAL INFORMATION
1-A5. EIFS SHAPE COLOR #1	1-J. E.P.D.M. ROOFING SYSTEM	1-X. ROOF SCREEN
1-A7. EIFS REGEAL JOINT	1-K. METAL FLASHING	1-Y. EXTERIOR STAR TOWER LETTER (COLORS WITH FIRE MARSHAL AND ARCHITECT PRIOR TO USE)
1-A9. EIFS BELOW FOOTBRIDGE MEMBER, CAPTURED IN CURTAIN WALL SYSTEM	1-L. ASPHALT SHINGLES	1-Z. MANUFACTURED ROOF SYSTEM
1-A10. DECORATIVE CROSS, BACKLIT, SEE ELEC. SHEET	1-M. RIDGE VENT	1-AT. ROOF ACCESS HATCH
1-A11. MANUFACTURED ROOF SYSTEM ABOVE	1-N. STANDING SEAM METAL ROOFING	1-AU. HIGH BOY (COLORS: MOUNTING HEIGHT WITH FIRE MARSHAL)
1-A12. BUILDING EXPANSION JOINT	1-O. STAINERED ENCRE GARRER	1-AX. ROOF DIVERTER
1-AL. MASONRY CONTROL JOINT	1-P. CAST STONE CAP	1-CE. ASPHALT SHINGLE ROOF CRICKET
1-A2. FIBER CEMENT TRIM	1-Q. ALUMINUM CURTAINWALL SYSTEM	1-CF. MANUFACTURED PERGOLA AND LATTICE SEE LANDSCAPE CWD'S
1-S2. METAL ROOF EDGE	1-R. ALUMINUM STOREFRONT SYSTEM	1-CG. ALUMINUM RAILING
1-S3. ALUMINUM 6" GUTTER	1-R1. ALUMINUM STOREFRONT SYSTEM DOOR	



EXTERIOR MATERIAL LEGEND



C ELEVATION "C"
1/8" = 1'-0"



F ELEVATION "F"
1/8" = 1'-0"

KEY PLAN

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ALEXANDRIA • NEW BRUNSWICK • MENLO PARK

RLPS ARCHITECTS, LLP
250 VALLEY BROOK DRIVE
LANCASTER, PA 17601

PHONE: 717-560-8501
www.rlps.com

PROJECT NAME:
PERFORMING ARTS CENTER FOR LUTHERAN VILLAGE AT MILLER'S GRANT

PROJECT ADDRESS:
9000 FATHERS LEGACY ELLICOTT CITY, MD 21042

REVISIONS

NO.	DATE	DESCRIPTION

DRAWING TITLE:
EXTERIOR ELEVATIONS

SCALE: AS NOTED
DRAWN BY: A.J.B.
COORDINATED BY: A.J.B.
CHECKED BY: J.A.M./J.P.H.
APPROVED BY: M.J.M.
DRAWING NO.: **A201**
COMMission NO.: 2017132
DATE: 29 JUNE 2022

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
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PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND · GERALD DOUGLAS DUNKLEBERGER · No. 26569 · PROFESSIONAL ENGINEER
2/9/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 590 (TG 700)	SEWER CODE: F07		STAGE:

TITLE:
BUILDING ELEVATIONS

DESIGNED: GDT, MM	SCALE: 1" = 200'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	03 of 39
CHECKED BY: MCB	APPROVED: ___	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

SDP-22-043

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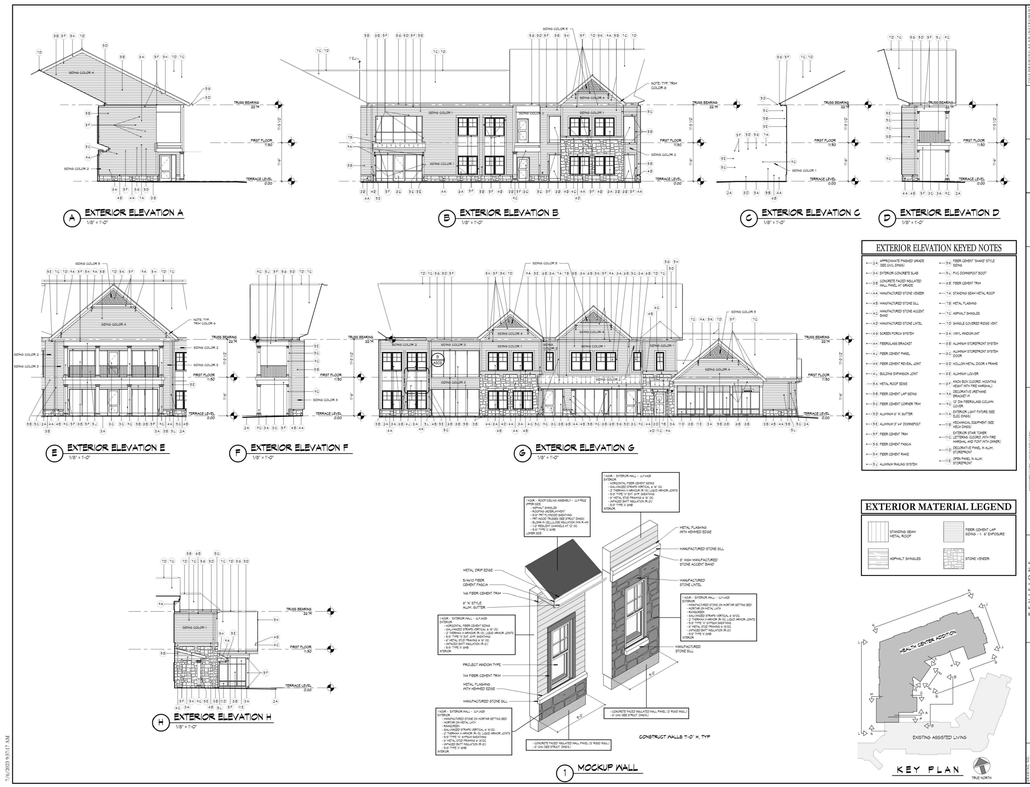

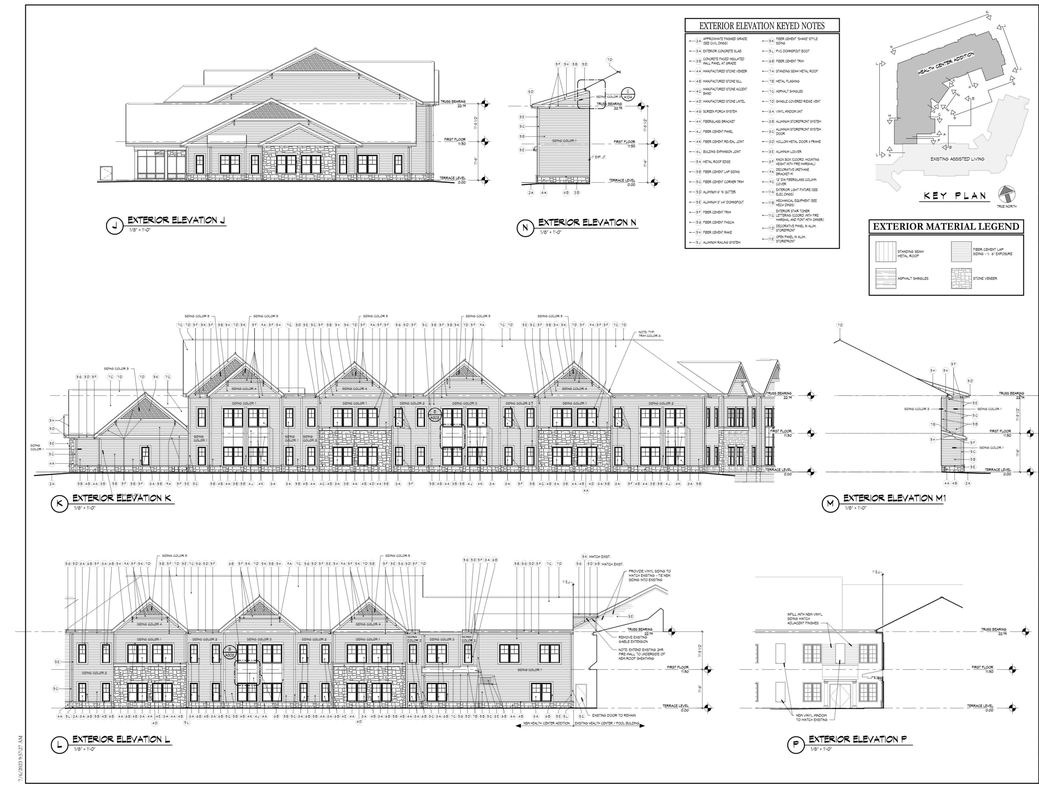

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
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STATE OF MARYLAND · GERALD DOUGLAS HUNTSMAN · No. 26569 · PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9
ZONE: PSC	CENSUS TRACT: 602800	
WATER CODE: 520 (TG 700)	SEWER CODE: P07	STAGE:

TITLE:
BUILDING ELEVATIONS

DESIGNED: GDT, MM	SCALE:	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	04 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 52D9D4B8B9D43DE...	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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SDP-22-043

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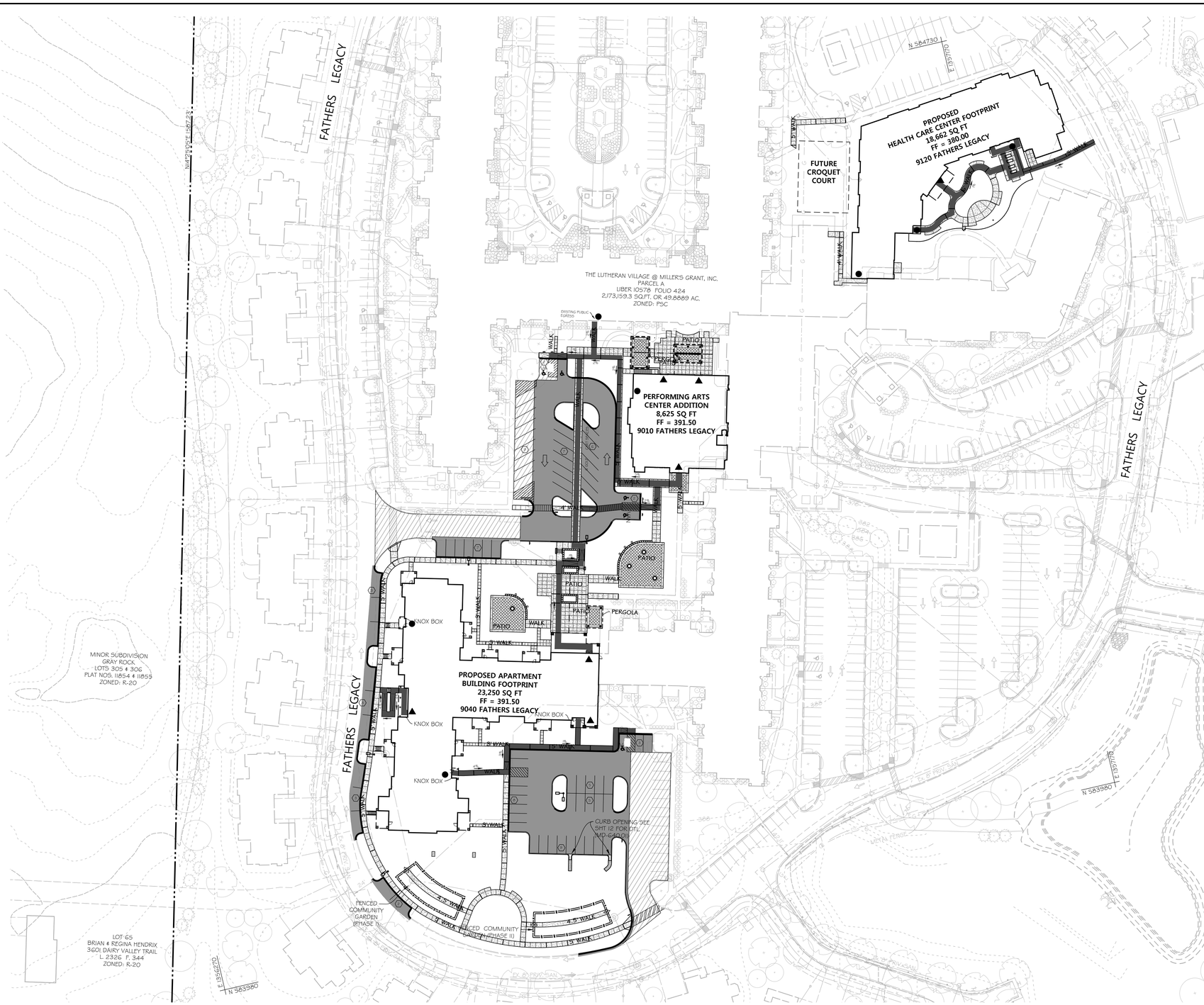
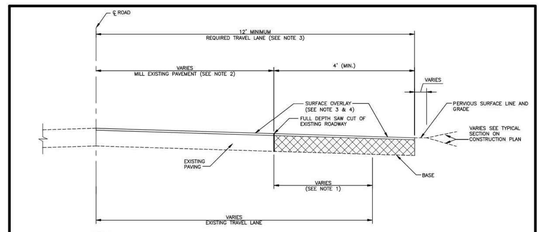


SEE SHEET 6 FOR ACCESSIBLE ROUTE GRADING DETAILS

PLAN

SCALE: 1" = 50'



NOTES:

1. WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE A MINIMUM OF 1' FULL DEPTH OF THE EXISTING ROADWAY. IF CURB AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4' OF WIDENING FROM FACE OF GUTTER PAN.
2. THE EXISTING PAVEMENT TO BE RESURFACED SHALL BE MILLED AT DEPTH OF 1 1/2" (MINIMUM).
3. THE RESURFACING SHALL BE PLACED TO THE CENTERLINE OF THE ROADWAY.
4. RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION.

Revised 5/30/2017 Approved	Howard County, Maryland Department of Public Works Approved: Chief, Bureau of Engineering	Existing Roadway Widening Strip	Detail R-1.08

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR) / PAVEMENT MATERIAL (INCHES)	3 TO <5	5 TO <7	≥ 7	3 TO <5	5 TO <7	≥ 7
			MIN. SUPERPAVE ASPHALT MIX WITH GAB			SUPERPAVE ASPHALT MIX WITH CONSTANT GAB		
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL; PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE (NA)	NA	NA	NA	NA	NA	NA
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	3.0	2.5
		GRADED AGGREGATE BASE (GAB)	8.5	7.0	5.0	4.0	4.0	4.0
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY; LOCAL ROADS: ACCESS PLACE, ACCESS STREET; CUL-DE-SACS: RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5 △	1.5 △	1.5 △	1.5 △	1.5 △	1.5 △
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0
P-3	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY; LOCAL ROADS: ACCESS PLACE, ACCESS STREET; CUL-DE-SACS: NON-RESIDENTIAL; MINOR COLLECTORS: RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	3.0	3.0	3.0	4.5	3.0	2.0
		GRADED AGGREGATE BASE (GAB)	10.0	6.0	3.0	6.0	6.0	6.0
P-4	MINOR COLLECTORS: NON-RESIDENTIAL; MAJOR COLLECTORS	SUPERPAVE ASPHALT MIX FINAL SURFACE 12.5 MM, PG 64-22S, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 12.5 MM, PG 64-22S, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 2 (LOW ESAL)	4.0	4.0	3.0	6.0	5.0	3.0
		GRADED AGGREGATE BASE (GAB)	13.0	7.0	4.0	6.0	6.0	6.0

NOTES

1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2. SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 4.0" MAX.), 12.5 MM SURFACE (1.5" MIN. TO 3.0" MAX.), AND 9.5 MM SURFACE (1.0" MIN. TO 2.0" MAX.)
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX. COMPACTED THICKNESS LAYERS.
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

SUPERPAVE ASPHALT MIX FINAL SURFACE
SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE
SUPERPAVE ASPHALT MIX BASE
GRADED AGGREGATE BASE (GAB)

Revised 5/30/2017 Revised 5/2/2007 Approved	Howard County, Maryland Department of Public Works Approved: Chief, Bureau of Engineering	PAVING SECTIONS P-1 to P-4	Detail R-2.01

NOTE: PAVING SECTIONS SHALL BE VERIFIED AND APPROVED BY GEOTECHNICAL ENGINEER

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. TREELINE
- LIMIT OF DISTURBANCE
- EX. TREE
- PROP. PAVING
- PROP. MILL & OVERLAY

ACCESSIBILITY LEGEND

- 2% PROP. ACCESSIBLE ROUTE
- BUILDING ENTRANCE
- SECONDARY MEANS OF EGRESS

SCALE

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/16/25.

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02, C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

STATE OF MARYLAND — GERALD DOUGLAS STEINGRABER — No. 26569 — PROFESSIONAL ENGINEER
Gerald Douglas Steingraber 2/5/2024

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:	LOT/PARCEL #: 100
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9
ZONE: PSC	CENSUS TRACT: 602800	WATER CODE: S90 (TG 700)
SEWER CODE: F07	STAGE:	

TITLE:

ACCESSIBLE ROUTE & PAVING PLAN

DESIGNED: GDT, MM	SCALE: 1" =30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	05 of 39
PROFESSIONAL ENGR. NO. 26569	CHECKED BY: MCB	APPROVED: ____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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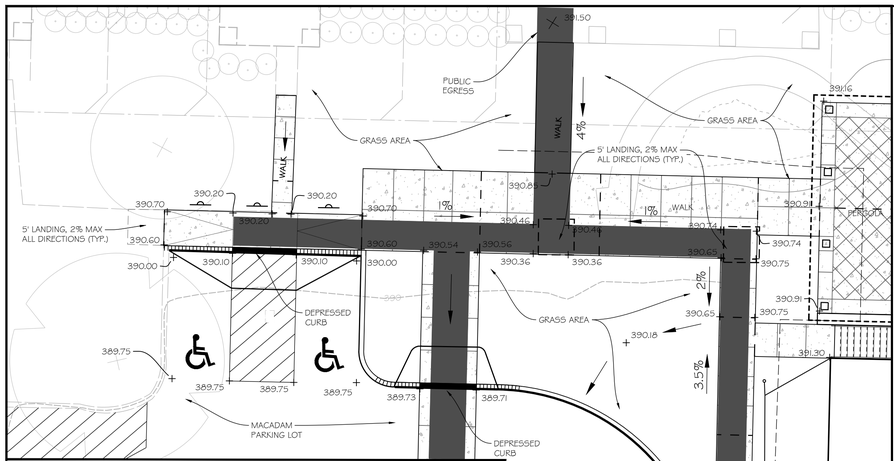
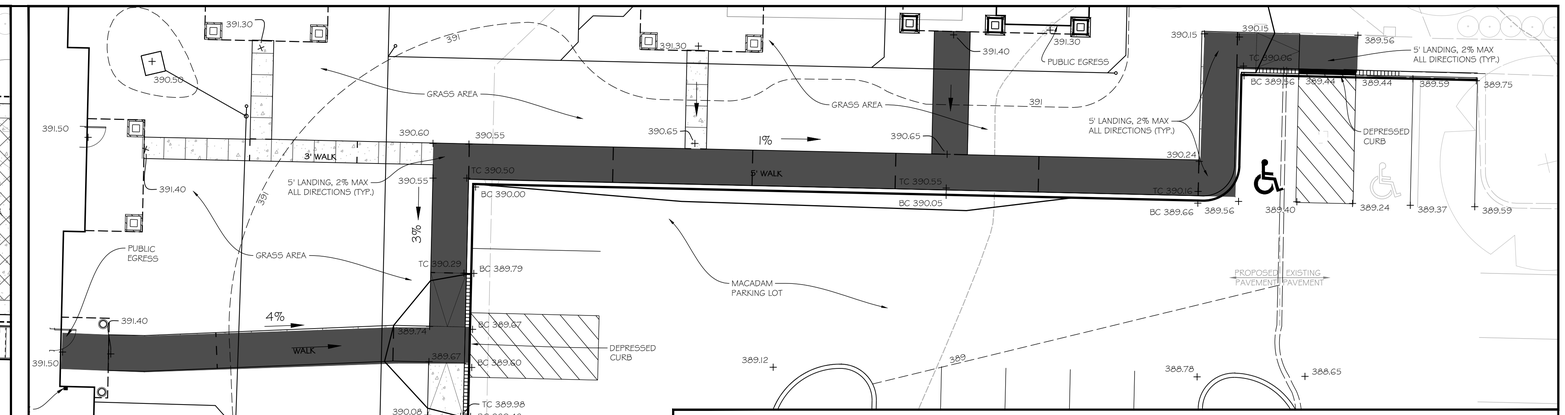
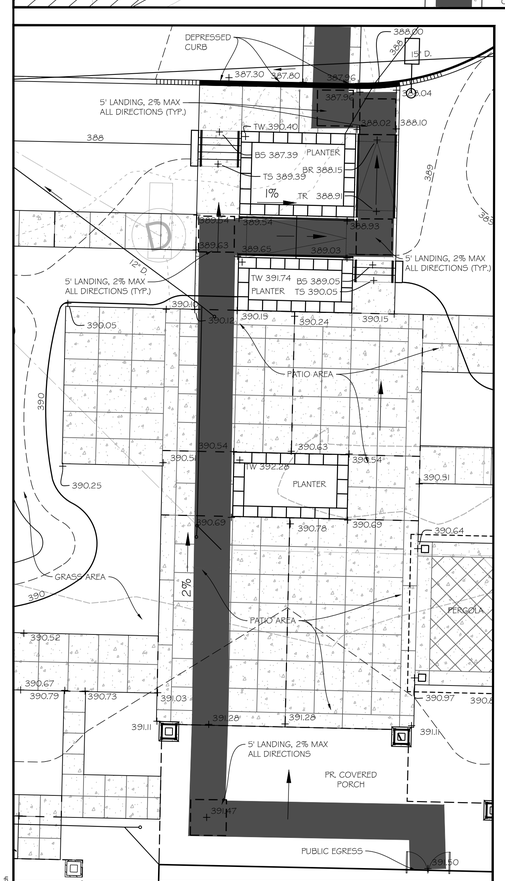
SDP-22-043

DocuSign Envelope ID: 846AE33A-76ED-41A6-92E4-12BE04BACF89

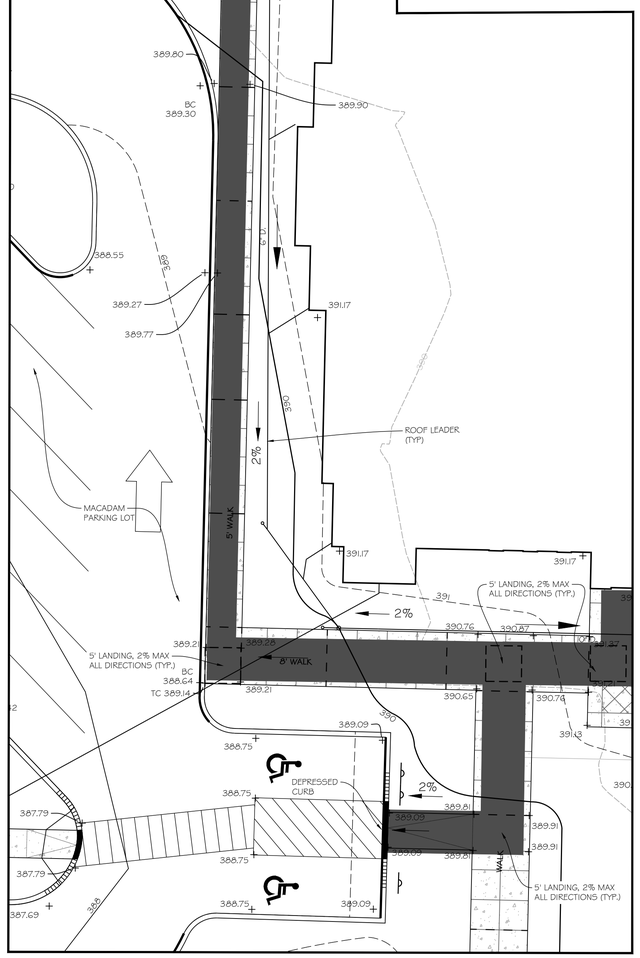




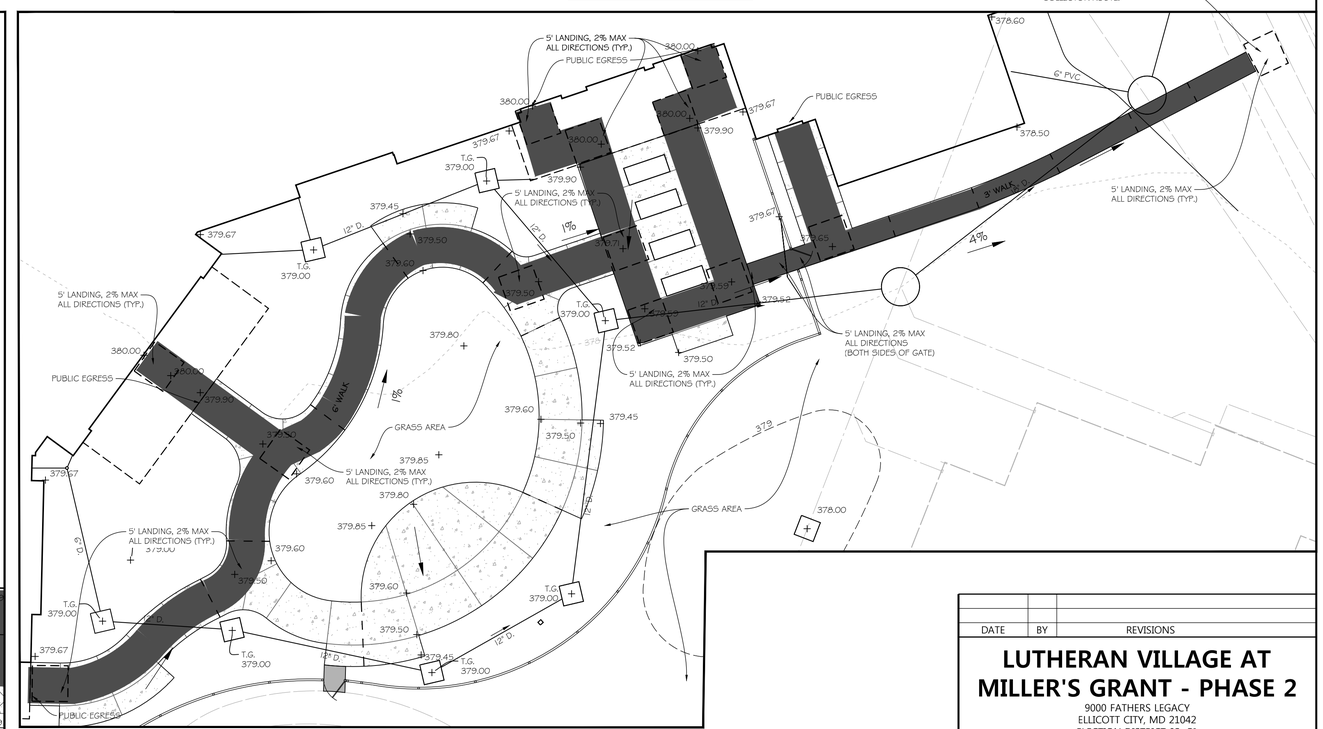
APARTMENT BUILDING PARKING AREA ACCESSIBLE ROUTE



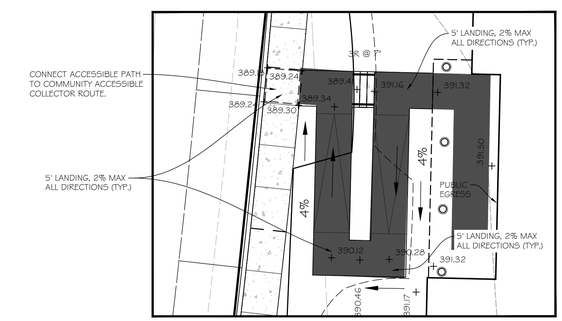
APARTMENT BUILDING PATIO AREA ACCESSIBLE ROUTE



PERFORMING ARTS CENTER ACCESSIBLE ROUTE



HEALTH CARE CENTER ACCESSIBLE ROUTE



APARTMENT BUILDING ACCESSIBLE ROUTE SWITCH-BACK

PLAN

SCALE: 1" = 10'

ACCESSIBILITY LEGEND

2%

PROP. ACCESSIBLE ROUTE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Kent Sheubrooks	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND — GERALD DOUGLAS HUNTSMAN — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF.: 10578 / 00424 ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07	STAGE:

TITLE:
ACCESSIBLE ROUTE GRADING DETAIL

DESIGNED: GDT, MM	SCALE: 1" =10'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	06 of 39
CHECKED BY: MCB	APPROVED:	

SDP-22-043

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MATCHLINE SEE SHEET 08

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- SSF — SUPER SILT FENCE
- EX. BUILDING
- 120 — EX. MAJOR CONTOUR
- 118 — EX. MINOR CONTOUR
- FCE — EX. TREELINE
- FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BtB, LIB — SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- SLOPES 15% -25%
- SLOPES 25% & UP

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

MGS GRID NORTH

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND — GERALD DOUGLAS TUNNEMANN — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT		SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 — ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE:

EXISTING CONDITIONS PLAN

DESIGNED: GDT, MM	SCALE: 1" =30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	07 of 39
CHECKED BY: MCB	APPROVED: ____	
PROFESSIONAL ENGR. NO. 26569		

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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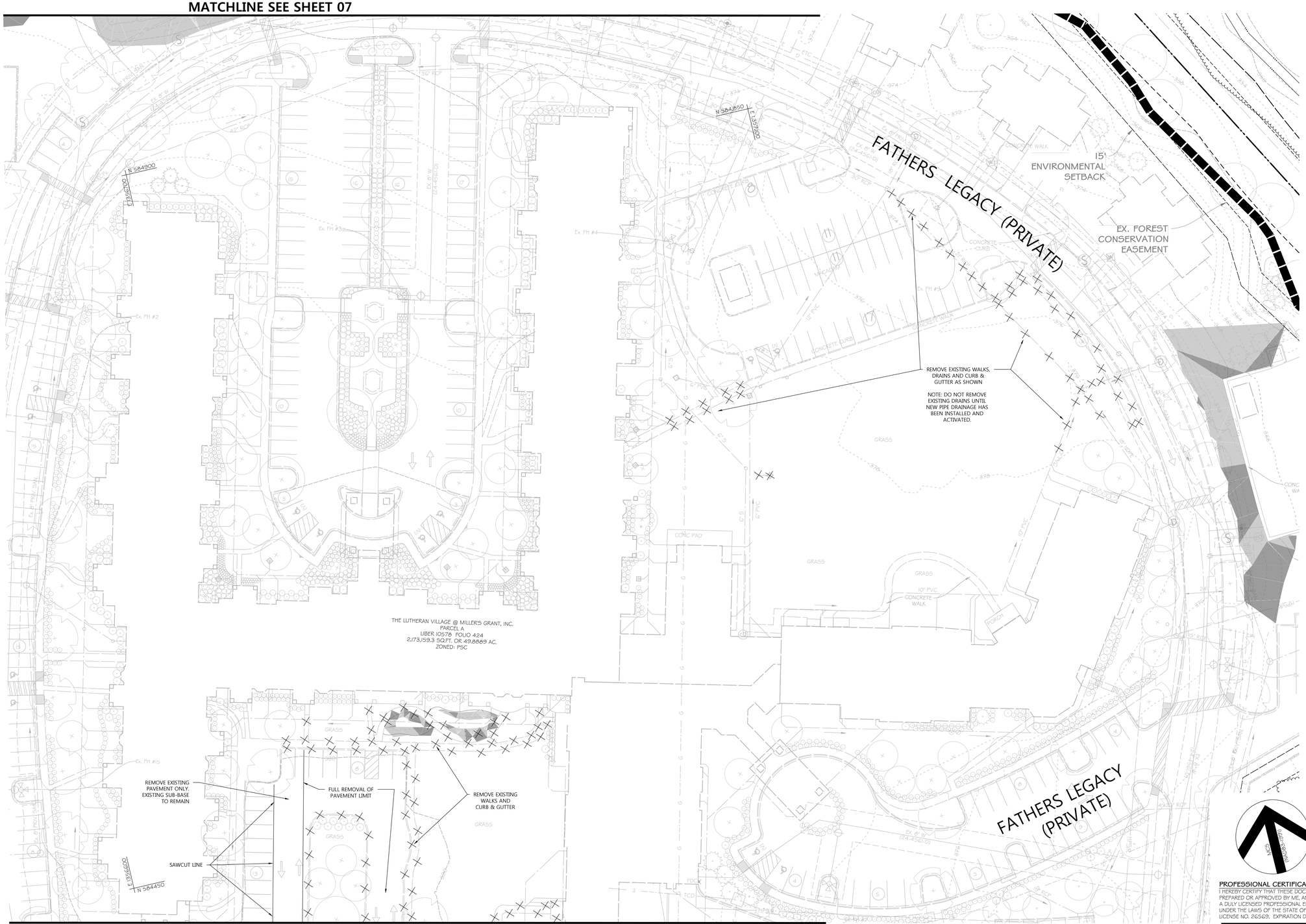

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- B&B — SOILS
- LIB
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- SLOPES 15% -25%
- SLOPES 25% & UP
- EX. CURB

PLAN

30 0 30 60

SCALE: 1" = 30'

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND — GERALD DOUGLAS MCCUNE — No. 26569 — PROFESSIONAL ENGINEER

2/5/2024

PROFESSIONAL ENGR. NO. 26569

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 32D9436B830A3E...	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: P07		STAGE:

TITLE:

EXISTING CONDITIONS & DEMOLITION PLAN

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	08 of 39
CHECKED BY: MCB	APPROVED:	

SDP-22-043

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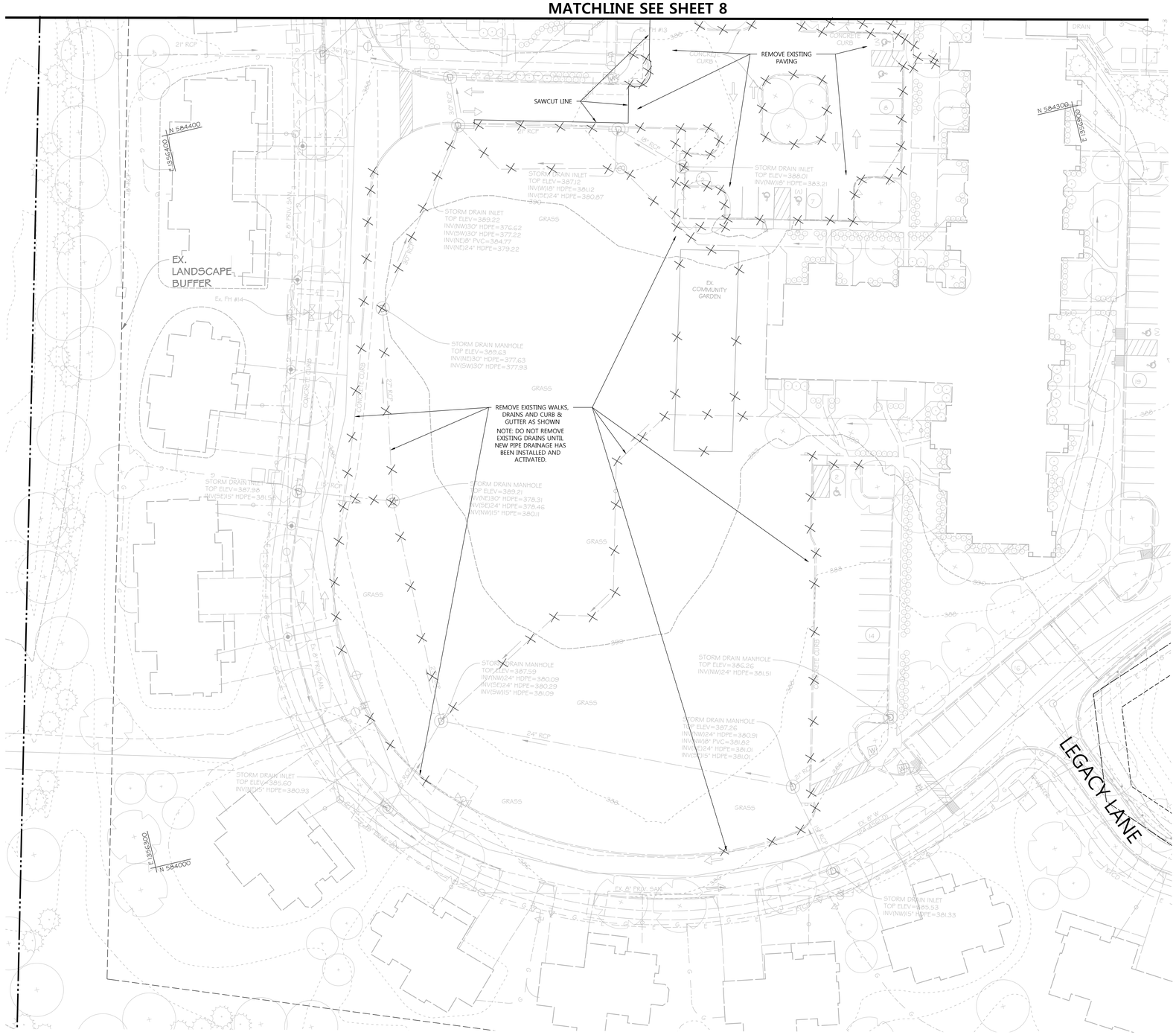

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- 120 EX. MAJOR CONTOUR
- 118 EX. MINOR CONTOUR
- RCF EX. TREELINE
- FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BeB LIB SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- EX. CURB

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02, C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

MAGNETIC NORTH

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND
GERALD DOUGLAS DUNKLEBERGER
No. 26569
PROFESSIONAL ENGINEER
Gerald Dunkleberger 2/5/2024

PROFESSIONAL ENGR. NO. 26569

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:		LOT/PARCEL #: 100
PLAT # OR LF: 10576 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07		STAGE:

TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	09 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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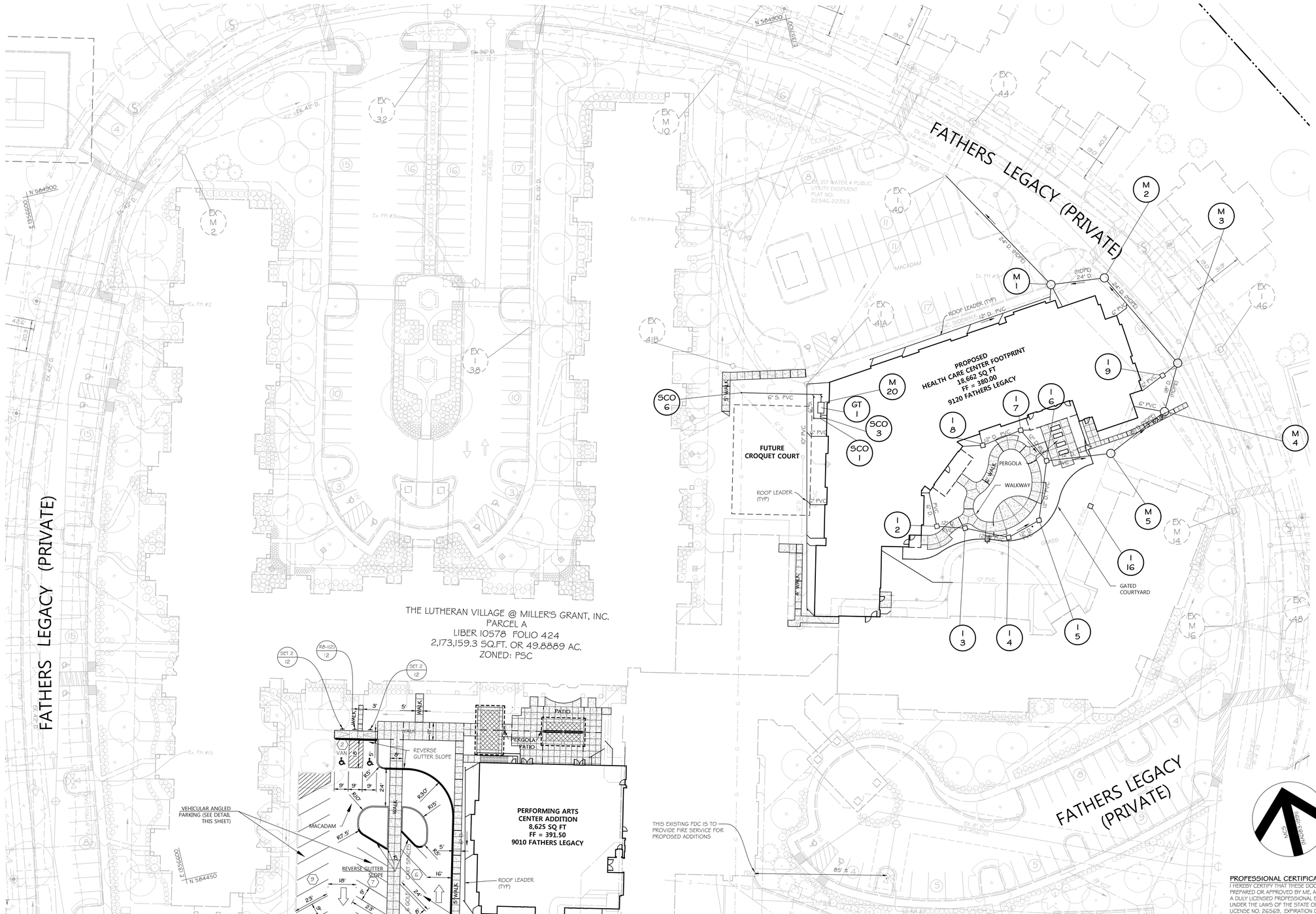

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB
- PROP. DEPRESSED CURB
- PROP. TRANSITION CURB
- EX. LIGHT POLE/FIXTURE
- PROP LIGHT POLE/FIXTURE
- SET 2 / 12 — PROP SIGNAGE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

PROFESSIONAL CERTIFICATION
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STATE OF MARYLAND — GERALD DOUGLAS TAYLOR — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424 — ELEC DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 — ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: P07	STAGE:

TITLE: **SITE PLAN**

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	10 of 39

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson — 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: — 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg — 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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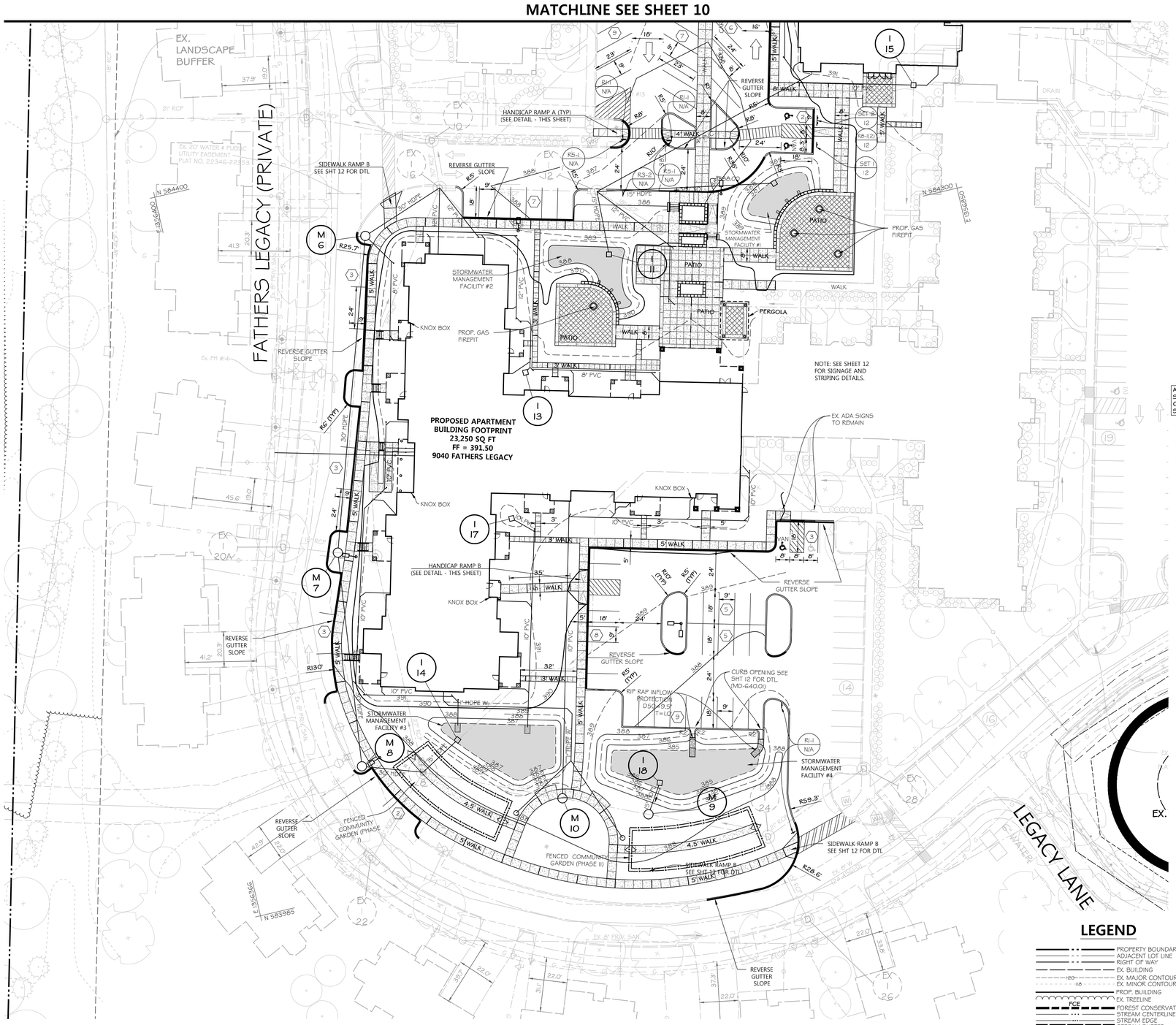
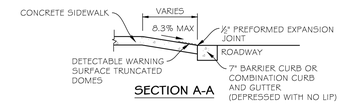
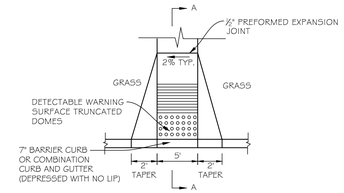


PLAN

SCALE: 1" = 30'



SECTION A-A



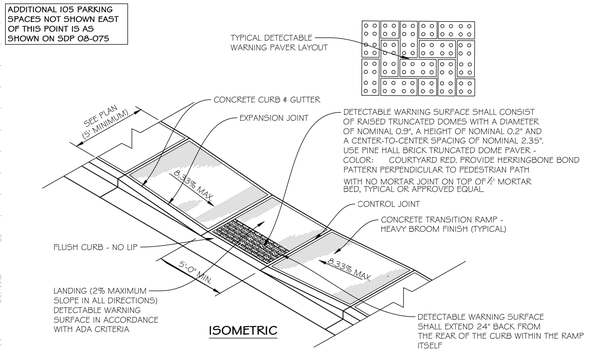
RAMP PERPENDICULAR TO CURB

NOTES:

1. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH OF RAMP.
2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

HANDICAP RAMP A

NOT TO SCALE



ISOMETRIC

NOTES:

1. ALL RAMPS SHALL CONFORM TO CURRENT ADA CRITERIA AND TO CURRENT JURISDICTIONAL CRITERIA
2. PAVERS MAY BE SPLAYED AS REQUIRED TO MATCH A CURVED CURB RADIUS

HANDICAP RAMP B

NOT TO SCALE

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB
- PROP. DEPRESSED CURB
- PROP. TRANSITION CURB
- EX. LIGHT POLE/FIXTURE
- PROP LIGHT POLE/FIXTURE
- PROP SIGNAGE
- PEDESTRIAN CROSS-WALK STRIPING
- PEDESTRIAN CROSS-WALK STRIPING ACROSS DRIVE ENTRANCE
- PROP. CHAINLINK FENCE ENCLOSURE

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/1/25.

STATE OF MARYLAND — GERALD DOUGLAS STRIMBAUGH — No. 26569 — PROFESSIONAL ENGINEER

4/15/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07	STAGE:

TITLE: **SITE PLAN**

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.CO
DRAWN: AMT	DATE: 7/28/2023	11 of 39
CHECKED BY: MCB	APPROVED: ___	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Edmundsen	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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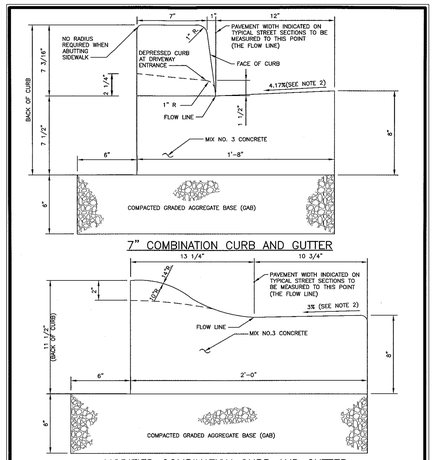
SDP-22-043

DocuSign Envelope ID: 846AE33A-76ED-41A6-92E4-12BE04BACF89

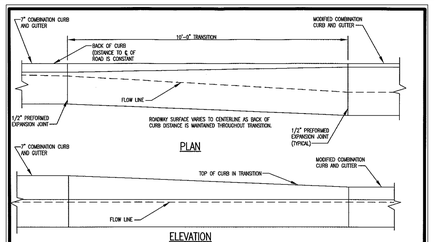


7" COMBINATION CURB AND GUTTER

NOTE: MODIFIED COMBINATION CURB AND GUTTER

1. A REVERSE GUTTER PAN SHALL HAVE A GUTTER SLOPE OF 4.17% AWAY FROM THE FLOW LINE, AND SHALL NOT BE USED WHERE THIS DRAINAGE CREATES A HAZARDOUS CONDITION.
2. GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB & GUTTER.
3. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
4. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.

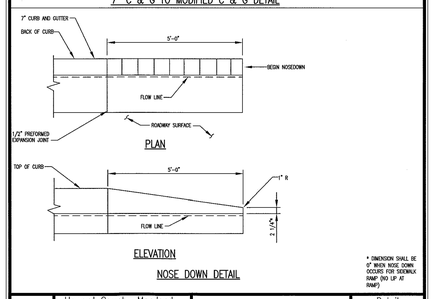
Revised	Howard County, Maryland Department of Public Works	CURB AND GUTTER 7" & Modified	Detail R-3.01
Revised 1/17/2007 Approved	Approved: Chief, Bureau of Engineering		



PLAN

ELEVATION

7" C & G TO MODIFIED C & G DETAIL



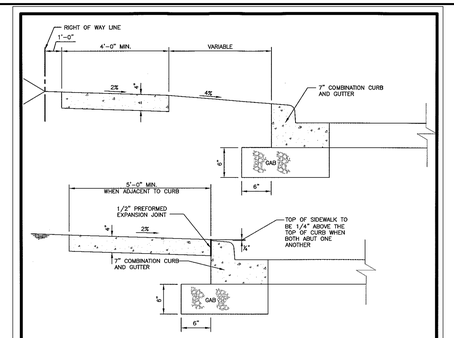
PLAN

ELEVATION

NOSE DOWN DETAIL

* DIMENSION SHALL BE 0" WHEN NOSE DOWN OCCURS FOR SIDEWALK RAMP (NO LIP AT RAMP)

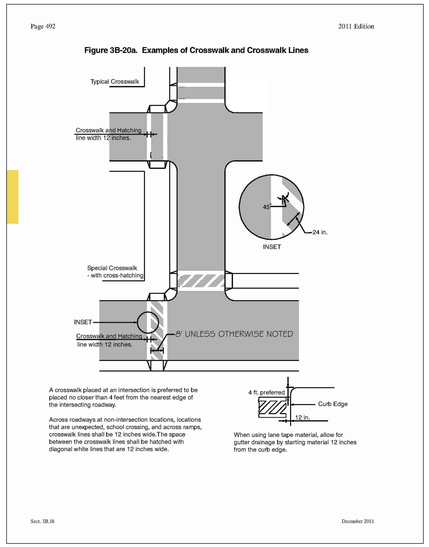
Revised	Howard County, Maryland Department of Public Works	CURB AND GUTTER 7" Transition to Modified & Nose Down	Detail R-3.02
Revised 1/17/2007 Approved	Approved: Chief, Bureau of Engineering		



NOTES:

1. SIDEWALK TO BE SCRIBED IN 5'-0" MAXIMUM SQUARES.
2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO BE MORE THAN 15' APART.
3. 1/2" PREFORMED EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.
4. CONCRETE TO BE MIX NO.3.
5. WHEN SIDEWALK ABUTS CURB, SIDEWALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED EXPANSION JOINT BETWEEN SIDEWALK AND CURB.
6. ON LONGITUDINAL SIDEWALK GRADES OF 5% OR GREATER, A CONCRETE HEADER, 6" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 48 FEET. THE HEADERS SHALL BE PLACED AT THE EXPANSION JOINT LOCATIONS AND SHALL BE MONOLITHIC WITH THE SIDEWALK.
7. SIDEWALK WIDTH ADJACENT TO CURB SHALL BE 5'-0" MINIMUM EXCEPT SIDEWALK ADJACENT TO CURB IN CUL-DE-SAC BULBS MAY BE 4'-0" WIDE.
8. SIDEWALK LOCATED 2' OR MORE FROM CURB MAY BE 4'-0" IN WIDTH WITH A 5'x5' PAVED SECTION PLACED 200' APART.
9. 4'-0" SIDEWALK REQUIRES A PASSING AREA (SEE DETAIL R-4.01).

Revised	Howard County, Maryland Department of Public Works	Concrete Sidewalk	Detail R-3.05
Revised 1/17/2007 Approved	Approved: Chief, Bureau of Engineering		



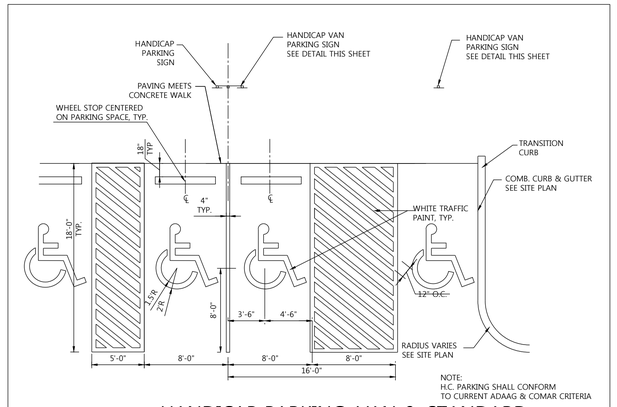
A crosswalk placed at an intersection is preferred to be placed no closer than 4 feet from the nearest edge of the intersecting roadway.

Across roadways at non-intersection locations, locations that are unexpected, school crossing, and across ramps, crosswalk lines shall be 12 inches wide.The space between the crosswalk lines shall be hatched with diagonal white lines that are 12 inches wide.

When using lane tape material, allow for gutter drainage by starting material 12 inches from the curb edge.

CROSSWALK DETAIL

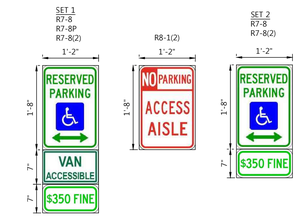
NOT TO SCALE



NOTE:
H.C. PARKING SHALL CONFORM TO CURRENT ADAAG & COMAR CRITERIA

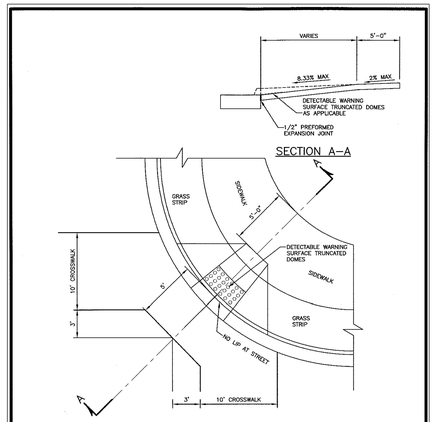
HANDICAP PARKING: VAN & STANDARD

NOT TO SCALE



HANDICAP PARKING SIGN DETAILS

NOT TO SCALE



PLAN

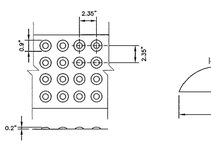
NOTES:

1. ALL RAMPS SHALL HAVE DETECTABLE WARNING SURFACE. SEE DETAIL R-4.07
2. GRASS AREA ADJACENT TO SIDEWALK SHALL BE SLOPED TO MEET RAMP.

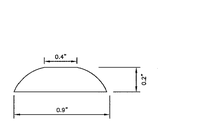
Revised	Howard County, Maryland Department of Public Works	SIDEWALK RAMP Type B Single Ramp	Detail R-4.02
Revised 1/17/2007 Approved	Approved: Chief, Bureau of Engineering		

MAT DETAILS

SEE PLACEMENT GUIDELINES BELOW

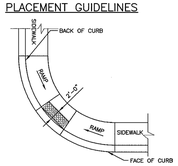


DOME SPACING



DOME SECTION

PLACEMENT GUIDELINES

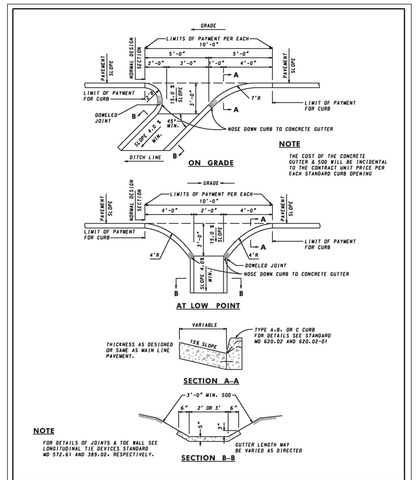


RAMP RADIAL AND ADJACENT TO CURB

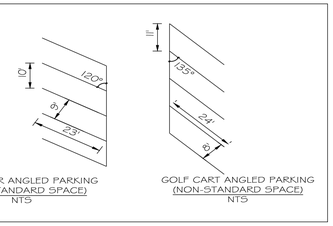
NOTES:

1. THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
2. FOR SKEWED APPLICATIONS DETECTABLE WARNING SHALL BE PLACED SUCH THAT THE DOMES CLOSEST TO THE BACK OF THE CURB ARE NO LESS THAN 0.5" AND NO MORE 3.0" FROM THE BACK OF THE CURB. TRUNCATED DOME SURFACES SHALL BE FABRIKATED TO PROVIDE FULL DOMES ONLY.

Revised	Howard County, Maryland Department of Public Works	SIDEWALK RAMP Detectable Warning Truncated Domes	Detail R-4.07
Revised 1/17/2007 Approved	Approved: Chief, Bureau of Engineering		



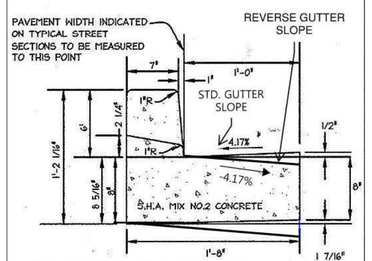
SPECIFICATION 602	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES	
APPROVED		STANDARD CURB OPENING DETAILS FOR CONCRETE CURB	
SHA State Highway Administration	APPROVAL • DIR. INTERBUREAU 10-17-03; APPROVAL • FEDERAL HIGHWAY ADMINISTRATION 8-9-04; REVISED 10-1-07; REVISED 8-1-04; REVISED; REVISED; REVISED; REVISED	STANDARD NO. MD 640.01	



VEHICULAR ANGLED PARKING (NON-STANDARD SPACE) NTS

GOLF CART ANGLED PARKING (NON-STANDARD SPACE) NTS

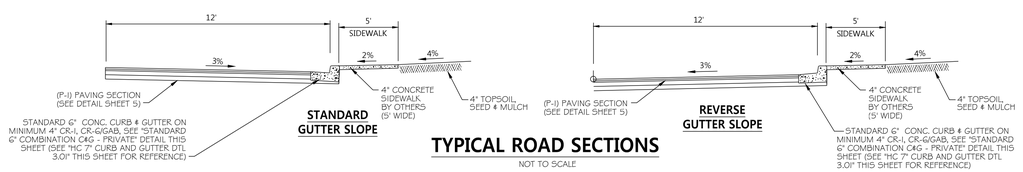
NOTE:
ANSI STANDARD DETAILS PROVIDED TO SUPPLEMENT HO.CO. AND SHA DETAILS AND ENSURE THAT ADA REGULATIONS ARE MET. WHERE CONFLICTS ARISE ANSI STANDARDS DICTATE.



* SEE HOWARD COUNTY STANDARD DETAIL R.301 FOR MORE INFORMATION.
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTIONS AS THE PAVEMENT.

STANDARD 6" COMBINATION C&B – PRIVATE

N.T.S.



TYPICAL ROAD SECTIONS

NOT TO SCALE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND · GERALD DOUGLAS STONEMAN · No. 26569 · PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT		SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07		STAGE:

TITLE:

SITE PLAN DETAILS

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED: ___	

SDP-22-043

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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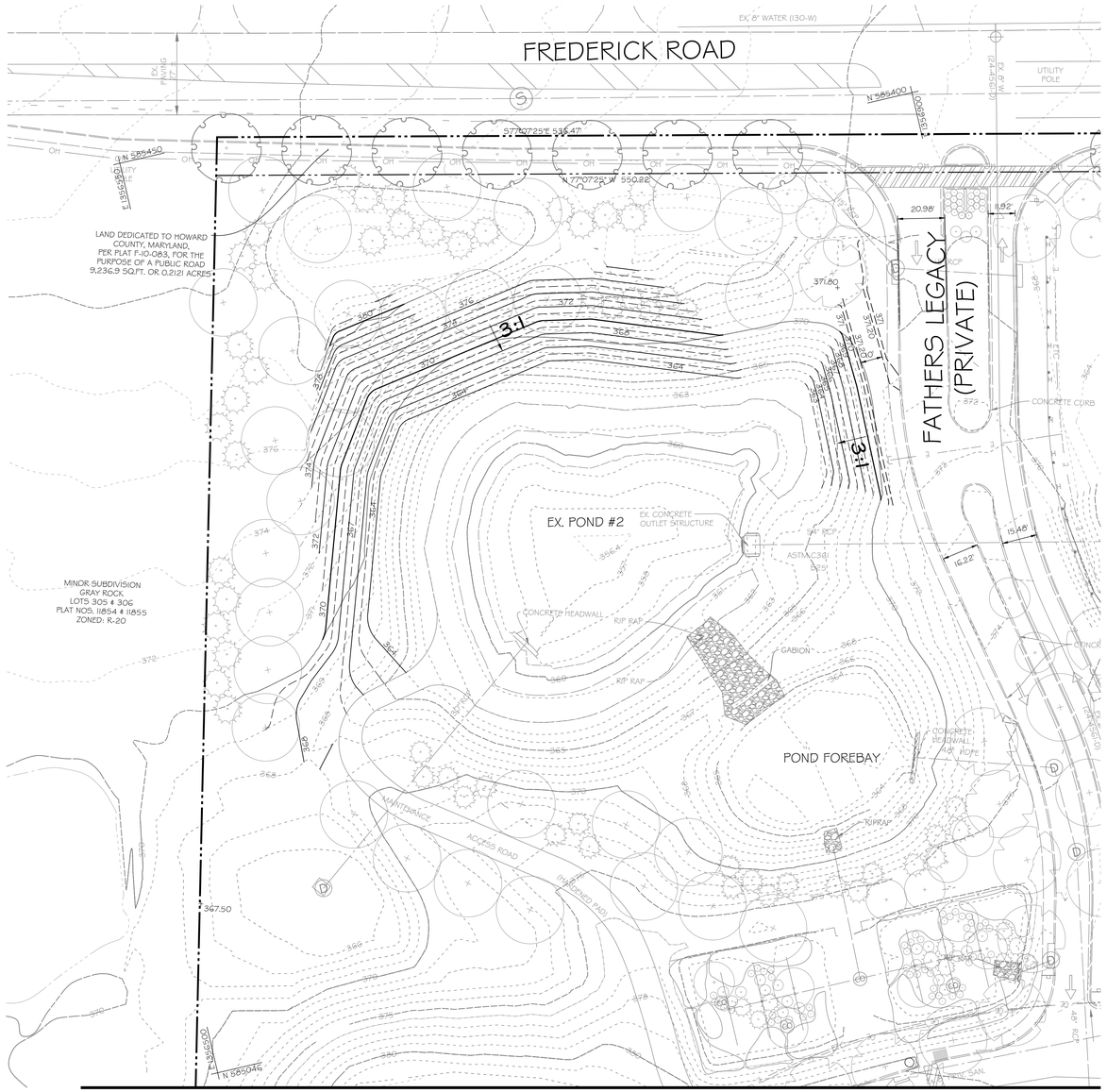

MATCHLINE SEE SHEET 14

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BeB / LIB — SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

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CONTACT: STEVEN POWELL
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WESTMINSTER MD 21158
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STATE OF MARYLAND — GERALD DOUGLAS TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER
Gerald Douglas Turnbaugh 2/5/2024

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE:

GRADING PLAN

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	13 of 39
CHECKED BY: MCB	APPROVED: ___	
PROFESSIONAL ENGR. NO. 26569		

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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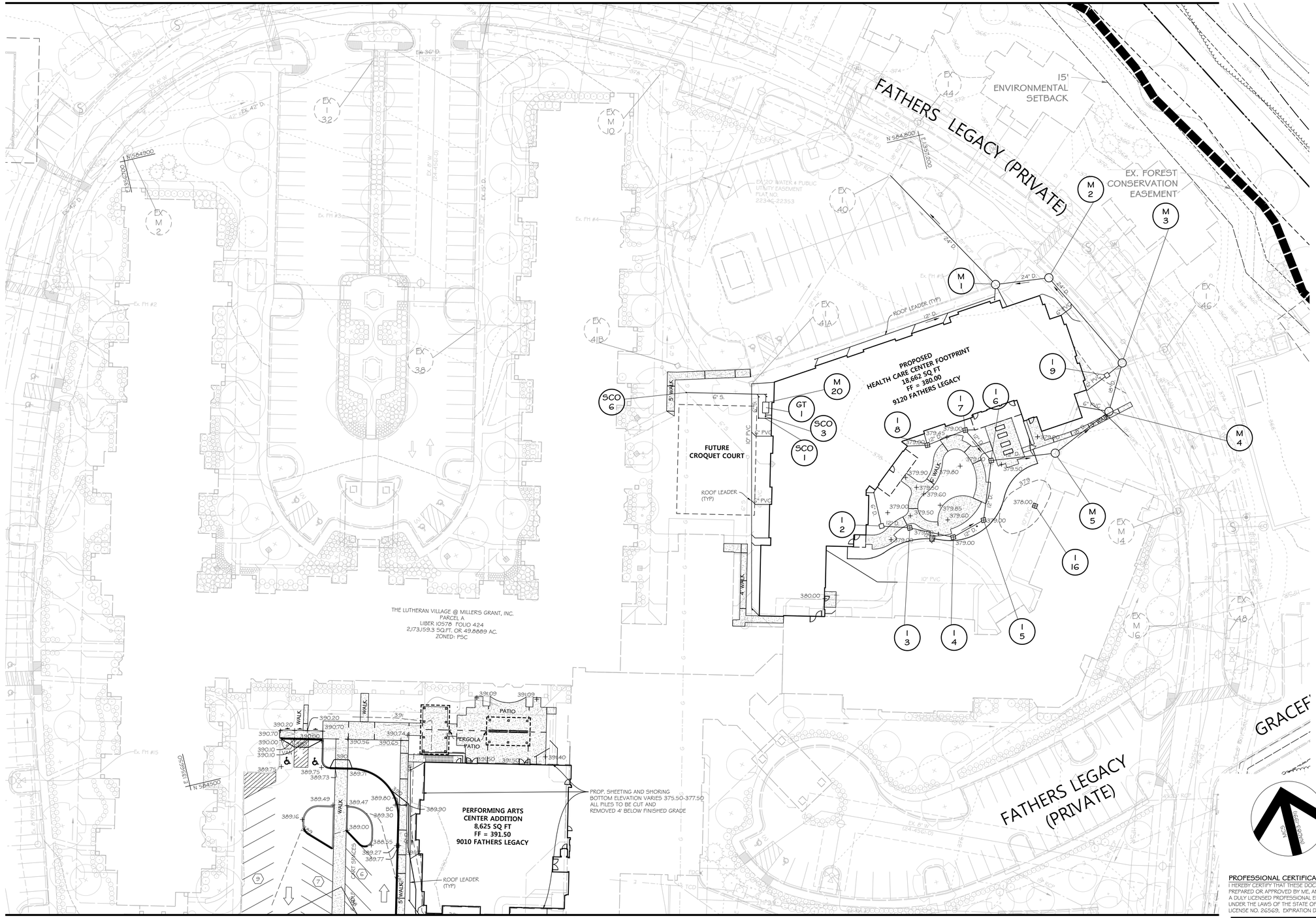
MATCHLINE SEE SHEET 13



MATCHLINE SEE SHEET 15

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
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- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB

NOTE: SEE SHEET 6 FOR ACCESSIBLE PATHS AND DETAILED GRADING

NOTE: SEE SHEET 6 FOR DETAILED GRADING OF ACCESSIBLE ROUTE SIDEWALKS

PLAN

SCALE: 1" = 30'

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

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STATE OF MARYLAND GERALD DOUGLAS TURNBAUGH No. 26569 PROFESSIONAL ENGINEER
6/5/2024
2/5/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424 ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 ZONE: PSC	CENSUS TRACT: 602800
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GRADING PLAN

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	14 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
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DATE : MARCH 7, 2013

SDP-22-043

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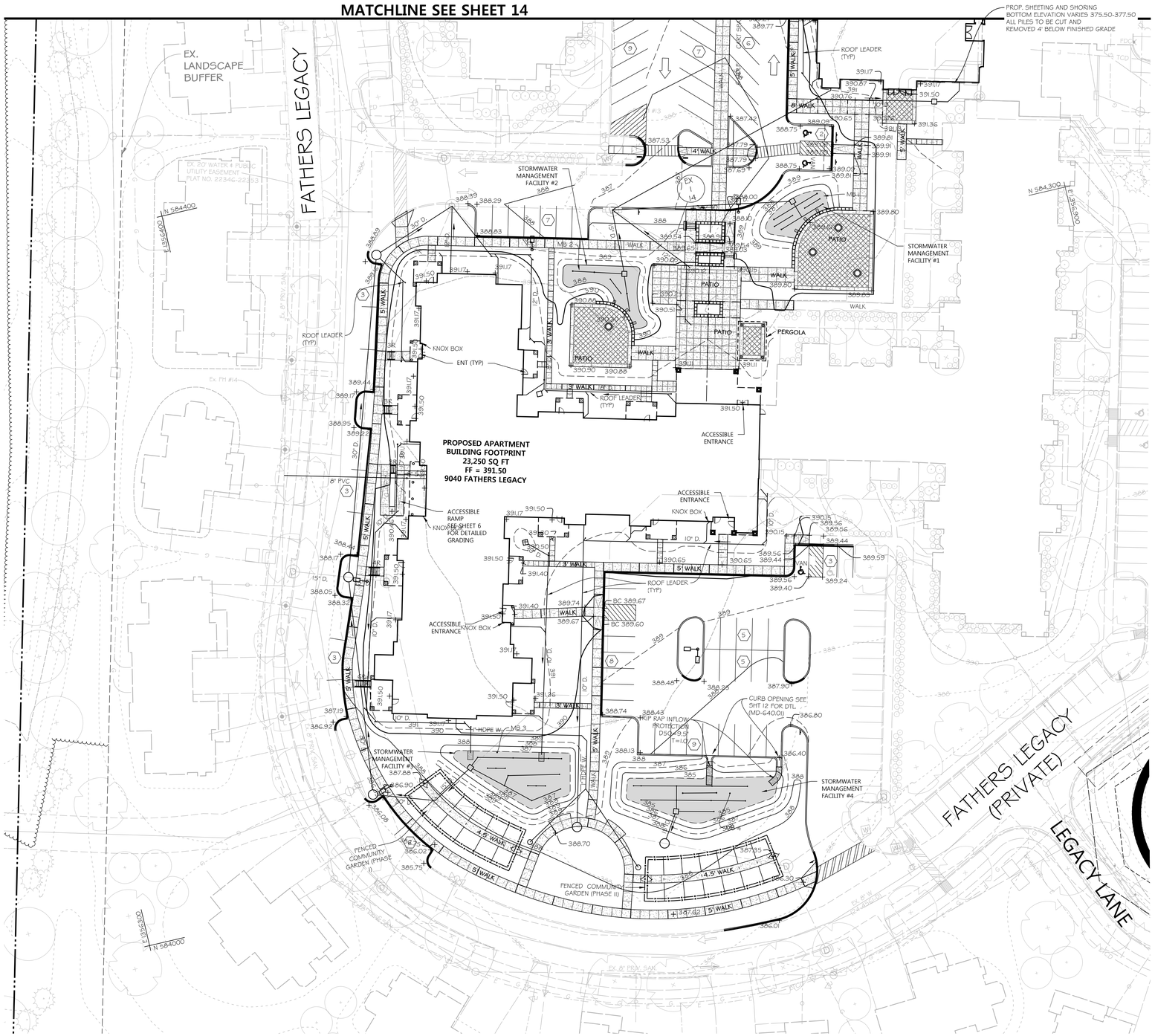

PLAN

SCALE: 1" = 30'

NOTE: SEE SHEET 6 FOR DETAILED GRADING OF ACCESSIBLE ROUTE SIDEWALKS

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BeB — SOILS
- LIB — SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB
- PEDESTRIAN CROSS-WALK STRIPING
- PEDESTRIAN CROSS-WALK STRIPING ACROSS DRIVE ENTRANCE
- PROP. CHAINLINK FENCE ENCLOSURE

NOTE: SEE SHEET 6 FOR ACCESSIBLE PATHS AND DETAILED GRADING

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND — GERALD DOUGLAS TURNBURGH — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9
ZONE: PSC	CENSUS TRACT: 602800	
WATER CODE: 550 (TG 700)	SEWER CODE: F07	STAGE:

TITLE: **GRADING PLAN**

DESIGNED: GDT, MM	SCALE: 1" = 50'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	15 of 39
CHECKED BY: MCB	APPROVED: ___	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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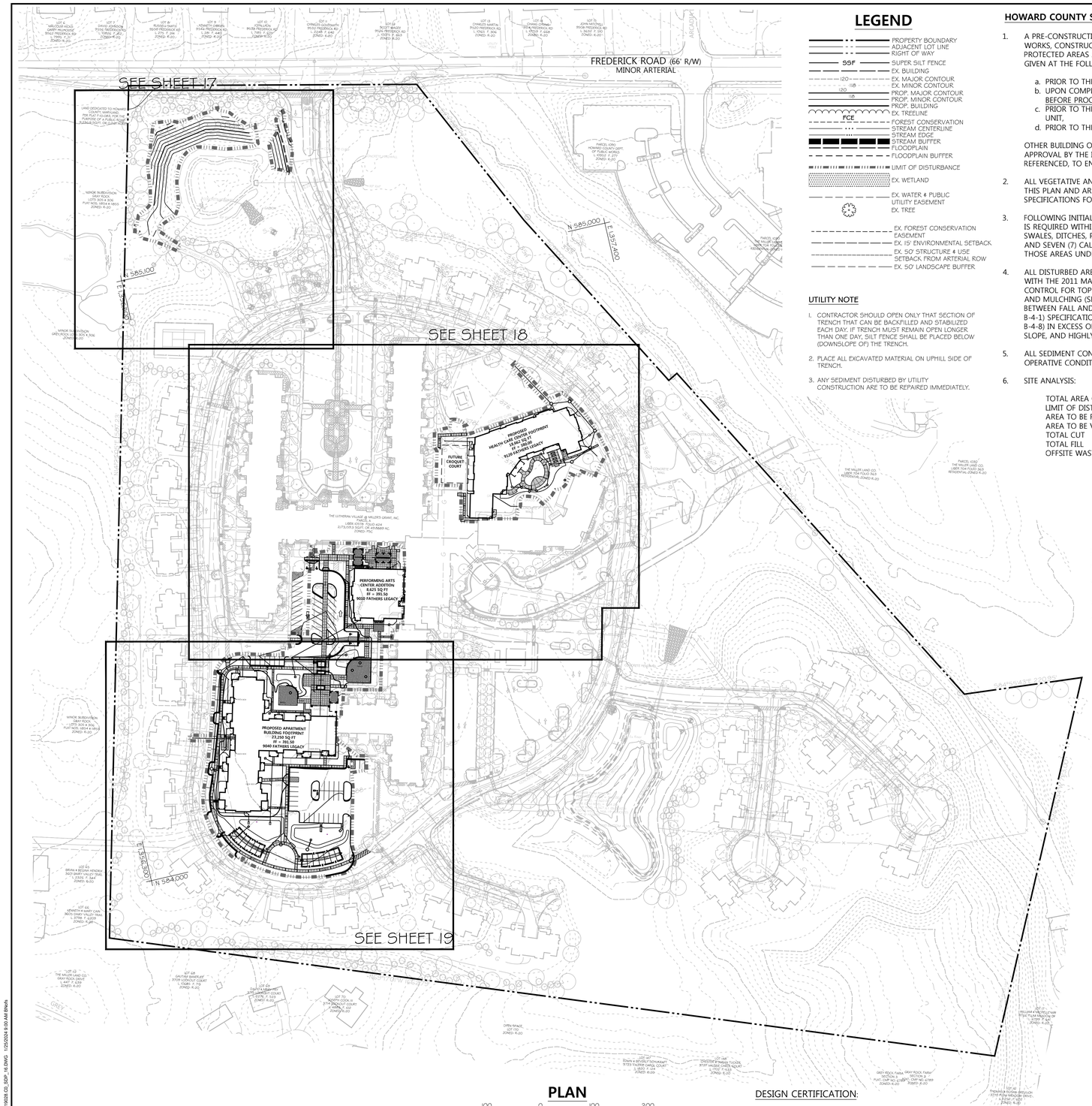

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- 559' — SUPER SILT FENCE
- EX. BUILDING
- 120 — EX. MAJOR CONTOUR
- 118 — EX. MINOR CONTOUR
- 120 — PROP. MAJOR CONTOUR
- 118 — PROP. MINOR CONTOUR
- PROP. BUILDING
- FCE — EX. TREELINE
- FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER

UTILITY NOTE

1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
3. ANY SEDIMENT DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

PLAN

SCALE: 1" = 100'

HOWARD COUNTY SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
   a. PRIOR TO THE START OF EARTH DISTURBANCE,
   b. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING,
   c. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT,
   d. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

   OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC.B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15 FT. OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC B-4-6).
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
6. SITE ANALYSIS:

	PHASE 2
TOTAL AREA OF SITE	49.67 ACRES
LIMIT OF DISTURBANCE:	213,053 SQFT/ 4.89 AC.±
AREA TO BE ROOFED OR PAVED	2.52 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.37 ACRES
TOTAL CUT	1560 CU. YDS.
TOTAL FILL	1915 CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	SITE WITH AN ACTIVE GRADING PERMIT

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT FOR THE PROPOSED WORK.
2. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES (DILP) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
3. CLEAR AND GRUB FOR ALL THE EROSION AND SEDIMENT CONTROL DEVICES AND MEASURES ONLY.
4. UPON APPROVAL BY THE SEDIMENT CONTROL INSPECTOR, BEGIN INSTALLATION OF THE FOLLOWING SEDIMENT CONTROL DEVICES AND MEASURES:
   a. STABILIZED CONSTRUCTION ENTRANCES (SCE) WITH MOUNTABLE BERM(5)
   b. SUPER SILT FENCE (SSF)
   c. SILT FENCE (SF)
   d. SILT FENCE ON PAVEMENT (SFOP)
   e. DIVERSION FENCE (DF)
   f. ROCK OUTLET PROTECTION III (ROPIII)
   g. INLET PROTECTION ON EXISTING INLETS

   NOTE: ENSURE ALL SEDIMENT CONTROL TRANSITIONS ARE SECURELY TIED IN TO PREVENT THE ESCAPE OF SEDIMENT. MAINTAIN POSITIVE DRAINAGE TO ALL SEDIMENT DEVICES DURING SITE CONSTRUCTION.
5. ONCE PERIMETER CONTROLS ARE INSTALLED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, BEGIN MASS GRADING ALL AREAS WITHIN THE LIMIT OF DISTURBANCE. INSTALL PROPOSED STORM DRAINS FROM M-5 TO M-1, AND FROM EX. I-24 TO EX. I-16, PER THE APPROVED STORM DRAIN PLANS.
6. EXISTING POND #2 IMPROVEMENTS:

   NOTE: THIS WORK MAY BE DONE CONCURRENTLY TO SITE IMPROVEMENT WORK.

   a. DRAW DOWN POND'S PERMANENT POOL LEVEL AS NEEDED TO MAKE RELEASE STRUCTURE "R-2" MODIFICATIONS.
   b. MAKE POND'S RELEASE STRUCTURE MODIFICATIONS - REFER TO STORMWATER MANAGEMENT PLANS WITHIN THIS APPROVED SET.
   c. INSTALL PERIMETER SEDIMENT CONTROLS FOR POND'S SLOPE RE-GRADING, SUCH AS, (SEC) STABILIZED CONSTRUCTION ENTRANCE, (SSF) SUPER SILT FENCE, (DF) DIVERSION FENCE, AND (ROP III) ROCK OUTLET PROTECTION.
   d. WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BEGIN RE-GRADING OF POND'S SLOPE.
   e. INSTALL TEMPORARY SOIL STABILIZATION MATTING AND SEEDING.
   f. ONCE DISTURBED AREA HAS BEEN STABILIZED WITH VEGETATION AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

NOTES CONTINUED:

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY; AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
   - INSPECTION DATE
   - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
   - NAME AND TITLE OF INSPECTOR
   - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
   - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
   - EVIDENCE OF SEDIMENT DISCHARGES
   - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
   - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
   - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
   - PHOTOGRAPHS
   - MONITORING/SAMPLING
   - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
   - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD APPROVED FIELD CHANGES.
11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LOD. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE HSCD. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
   - USE I AND IP MARCH 1 - JUNE 15
   - USE III AND IIIP OCTOBER 1 - APRIL 30
   - USE IV MARCH 1 - MAY 31
16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

(SEQUENCE OF CONSTRUCTION CONTINUED)

7. BEGIN CONSTRUCTION IMPROVEMENTS:
   a. ROUGH-IN BUILDING PADS. BEGIN CONSTRUCTION OF NEW BUILDINGS. BRING ROADS/DRIVE AISLES AND PARKING AREAS TO SUB-GRADE.
   b. ROUGH GRADE ESD MICRO-BIORETENTION FACILITIES AND INSTALL STORM DRAIN UTILITIES PER SWM PLANS AND PERMANENTLY STABILIZE THE AREAS.
   c. INSTALL PROPOSED UTILITIES - REMAINING STORM/ROOF DRAINS, SEWER AND WATER.
   d. INSTALL STANDARD INLET PROTECTION, SIP, TYPE A & B AND CURB INLET PROTECTION, CIP, AND AT-GRADE INLET PROTECTION, AGIP, TO INLETS.
   e. MAINTAIN POSITIVE DRAINAGE TO ALL SEDIMENT DEVICES DURING SITE CONSTRUCTION.
   f. NO MASS GRADING WITHIN 10 FEET OF SEDIMENT CONTROL DEVICES.

   NOTE: DO NOT INSTALL FILTER MEDIA OR UNDERDRAINS IN MICRO-BIORETENTION FACILITIES AT THIS TIME. USE SUMP PIT (SP) AS NEEDED OR DIRECTED BY SEDIMENT CONTROL INSPECTOR. SUMP PITS ARE TO BE USED FOR DEWATERING FACILITIES AFTER STORM EVENTS. DISCHARGE INTO EXISTING GRASSY AREAS.
8. INSTALL SIDEWALKS, CURB AND GUTTER AND STONE SUB-BASE FOR ALL PAVED AREAS. PROVIDE CURB OPENINGS WHERE CALLED FOR.
9. FINE GRADE ALL OTHER DISTURBED AREAS NOT BEING PAVED AND PERMANENTLY STABILIZE THESE AREAS.
10. UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, FOR SWM AREAS INSTALL UNDERDRAINS, GRAVEL AND FILTER MEDIA IN MICRO-BIORETENTION FACILITIES PER THE SWM PLANS. STABILIZE EACH FACILITY. MAKE ALL SWM FACILITIES ACTIVE.
11. UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

2 Feb 2024
OWNER'S/DEVELOPER'S SIGNATURE DATE

Steven D Powell, VP Finance & Technology
PRINTED NAME & TITLE

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

2/5/2024
DESIGNER'S SIGNATURE DATE

GERALD D. TURNBAUGH
PRINTED NAME

MD REGISTRATION NO.
P.E. R.L.S., OR R.L.A. (CIRCLE ONE)

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND · GERALD DOUGLAS TURNBAUGH · No. 26569 · PROFESSIONAL ENGINEER

2/5/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602600
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE:
SEDIMENT AND EROSION CONTROL KEY SHEET

DESIGNED: GDT, MM	SCALE: 1" =100'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	16 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Kent Sheubrooks 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie 4/10/2024
HOWARD SOIL CONSERVATION DISTRICT DATE

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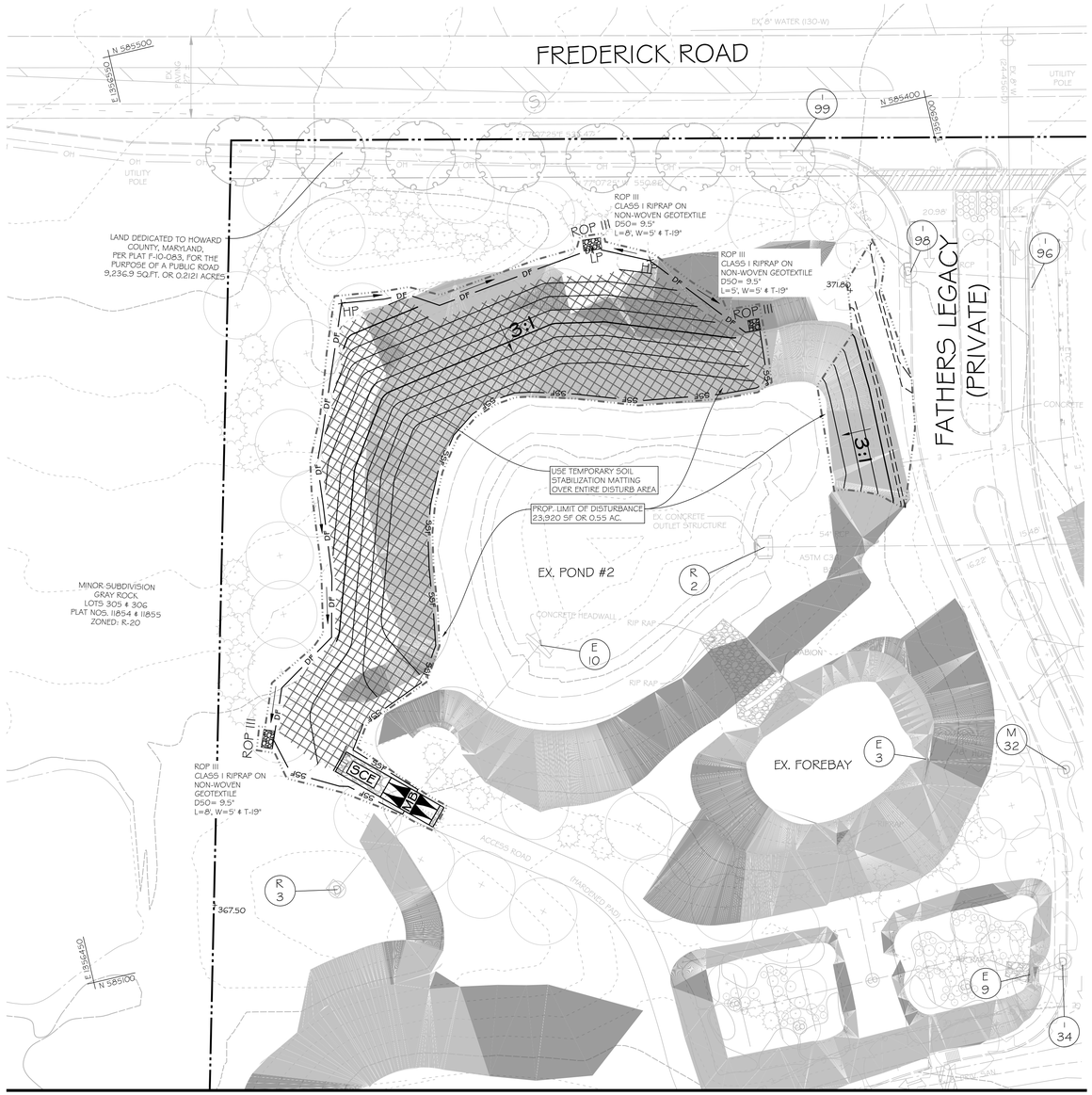

MATCHLINE SEE SHEET 18

PLAN

30 0 30 60
SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- SSF — SUPER SILT FENCE
- DF — DIVERSION FENCE
- EX. BUILDING
- 120 — EX. MAJOR CONTOUR
- 118 — EX. MINOR CONTOUR
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- 118 — PROP. MINOR CONTOUR
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- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
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- LIMIT OF DISTURBANCE
- EX. WETLAND
- TEMPORARY SOIL STABILIZATION MATTING
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BtB, LIB — SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- SLOPES 15% -25%
- SLOPES 25% & UP
- SCE / MB — STABILIZED CONSTRUCTION ENTRANCE
- ROP III — ROCK OUTLET PROTECTION

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DESIGNER'S SIGNATURE — DATE: 2/5/2024

GERALD D. TURNBAUGH
PRINTED NAME — MD REGISTRATION NO. P.E. R.L.S., OR R.L.A. (CIRCLE ONE)

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

OWNER'S/DEVELOPER'S SIGNATURE — DATE: 2 Feb 2024

Steven D Powell, VP Finance + Technology
PRINTED NAME & TITLE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
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C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

NORTH — MAGNETIC — MES

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND — GERALD DOUGLAS TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT		SECTION/AREA:		LOT/PARCEL #: 100
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: P07		STAGE:

TITLE:
SEDIMENT AND EROSION CONTROL PLAN - 1

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	17 of 39

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE: MARCH 7, 2013

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Snatchie — 4/10/2024
HOWARD SOIL CONSERVATION DISTRICT — DATE

PROFESSIONAL ENGR. NO. 26569

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SDP-22-043

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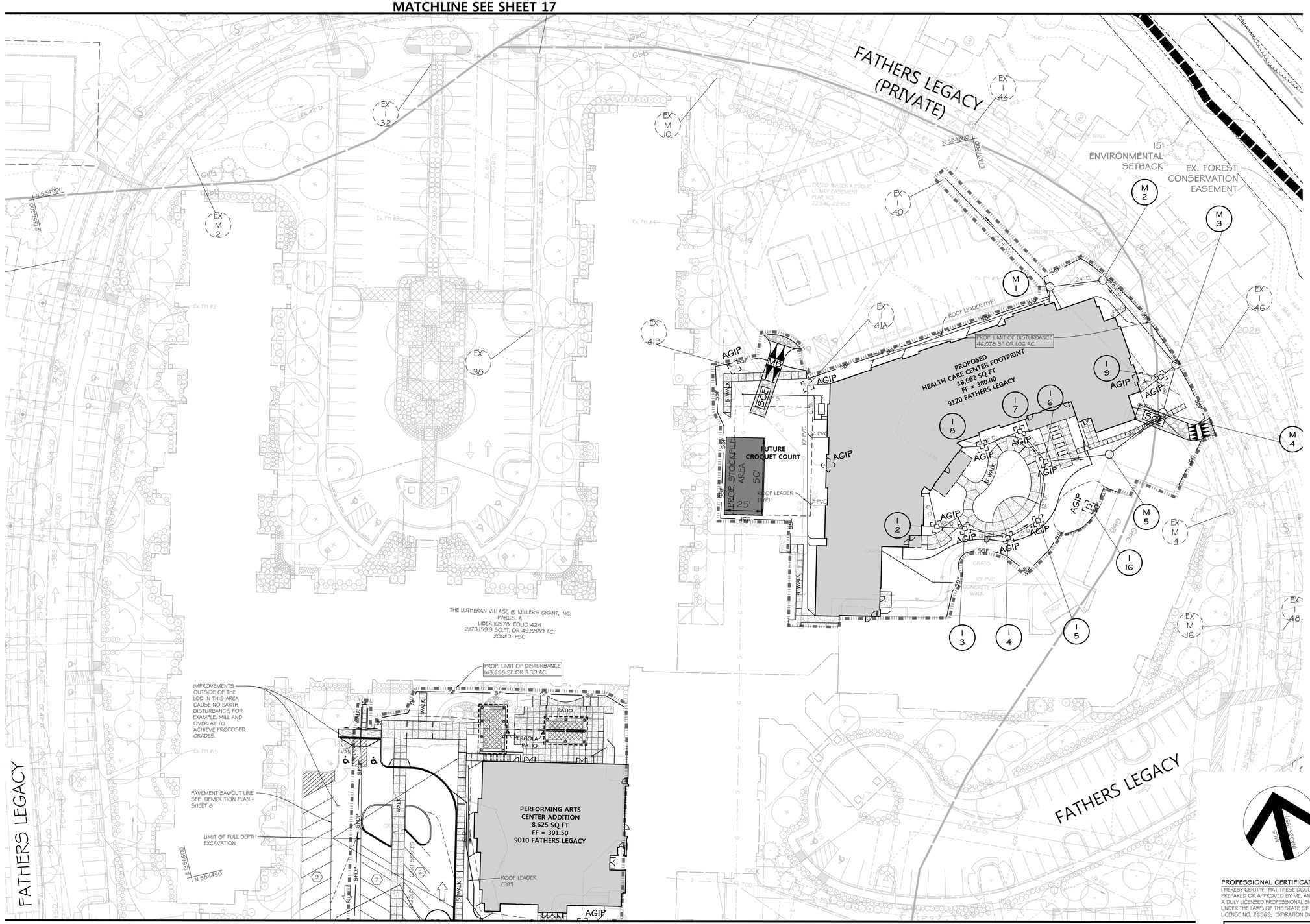

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- SSF — SUPER SILT FENCE
- SF — SILT FENCE
- SFOP — SUPER SILT FENCE
- EX. BUILDING
- 120 — EX. MAJOR CONTOUR
- 118 — EX. MINOR CONTOUR
- 120 — PROP. MAJOR CONTOUR
- 118 — PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BtB, LIB — SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB
- AGIP — PROP. AT GRAD INLET PROTECTION
- CIP — PROP. CURB INLET PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- MB — MOUNTABLE BERM

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

2 Feb 2024
OWNER'S/DEVELOPER'S SIGNATURE — DATE

Steven D Powell, VP Finance + Technology
PRINTED NAME & TITLE

NOTE: USE TEMPORARY SOIL STABILIZATION MATTING ON ALL 3:1 SLOPES AND CONCENTRATED FLOW AREAS.

PLAN
SCALE: 1" = 30'

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

2/5/2024
DESIGNER'S SIGNATURE — DATE

GERALD D. TURNBAUGH
PRINTED NAME

MD REGISTRATION NO. — (P.E.) R.L.S., OR R.L.A. (CIRCLE ONE)

PROFESSIONAL ENGR. NO. 26569

PROFESSIONAL CERTIFICATION

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STATE OF MARYLAND — GERALD D. TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001	
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC
WATER CODE: 5150 (TG 700)	SEWER CODE: 7017		CENSUS TRACT: 602800
			STAGE:

TITLE:
SEDIMENT AND EROSION CONTROL PLAN - 2

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	18 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie	4/10/2024
HOWARD SOIL CONSERVATION DISTRICT	DATE

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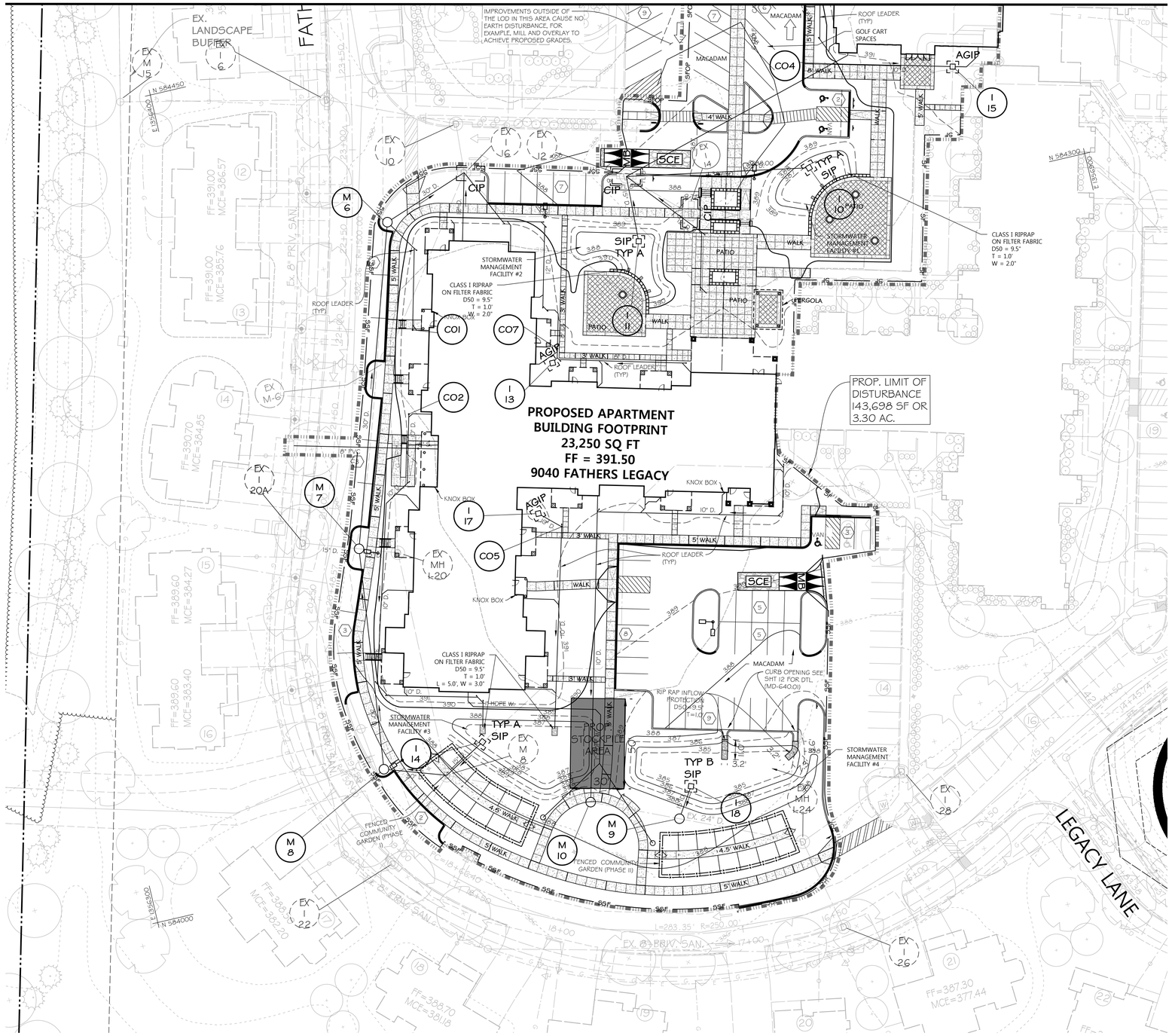

NOTE: USE TEMPORARY SOIL STABILIZATION MATTING ON ALL 3:1 SLOPES AND CONCENTRATED FLOW AREAS.

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- SSF — SUPER SILT FENCE
- SF — SILT FENCE
- SFOP — SILT FENCE ON PAVEMENT
- EX. BUILDING
- 120 — EX. MAJOR CONTOUR
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- 120 — PROP. MAJOR CONTOUR
- 118 — PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BtB — SOILS
- LIB
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- EX. LIGHT POLE/FIXTURE
- PROP LIGHT POLE/FIXTURE
- SLOPES 15% -25%
- SLOPES 25% & UP
- PROP. CURB
- EX. CURB
- AGIP — PROP. AT GRAD INLET PROTECTION
- CIP — PROP. CURB INLET PROTECTION
- FL 8 — PROP. 8" FILTER LOG
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE

OWNERS/DEVELOPER CERTIFICATION:

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OWNER'S/DEVELOPER'S SIGNATURE — DATE: 2 Feb 2024

Steven D Powell, VP Finance + Technology

PRINTED NAME & TITLE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
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ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
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C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

GRID NORTH

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STATE OF MARYLAND — GERALD DOUGLAS TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER

2/5/2024

PROFESSIONAL ENGR. NO. 26569

DMW — DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424 — ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 — ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07	STAGE:

TITLE:

SEDIMENT AND EROSION CONTROL PLAN - 3

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	19 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kristi Edmundson — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

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HOWARD SOIL CONSERVATION DISTRICT — DATE

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DESIGNER'S SIGNATURE — DATE: 2/5/2024

GERALD D. TURNBAUGH
PRINTED NAME

MD REGISTRATION NO. — (P.E.) R.L.S., OR R.L.A. (CIRCLE ONE)

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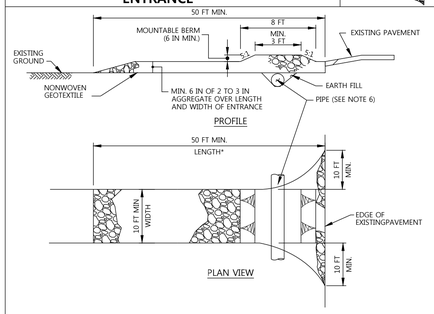
DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

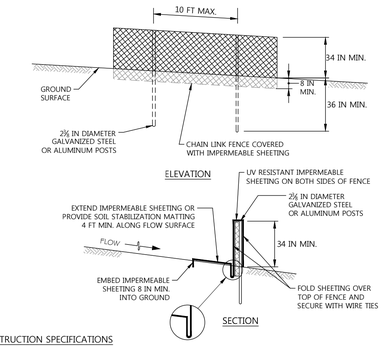
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL C-9 DIVERSION FENCE

STANDARD SYMBOL DF

MAXIMUM DRAINAGE AREA = 2 ACRES



CONSTRUCTION SPECIFICATIONS

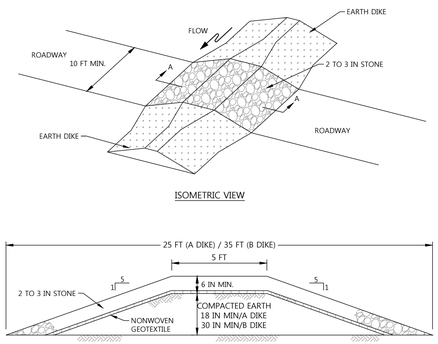
1. USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2⅜ INCH MAXIMUM OPENING).
2. USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
3. FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
4. SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
5. EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
6. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.
7. KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL C-8 MOUNTABLE BERM

STANDARD SYMBOL MB



CONSTRUCTION SPECIFICATIONS

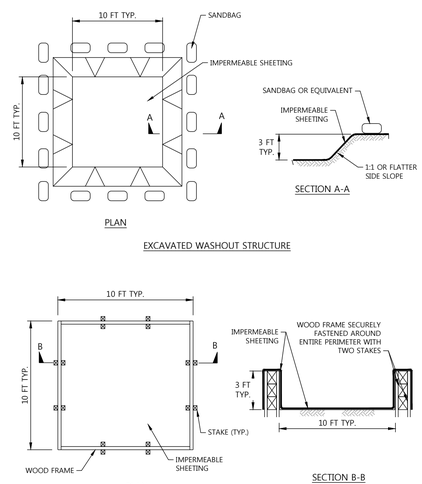
1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
3. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
4. MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CWS



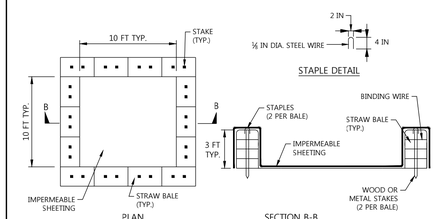
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CWS



NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

WASHOUT STRUCTURE WITH STRAW BALES

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED), EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

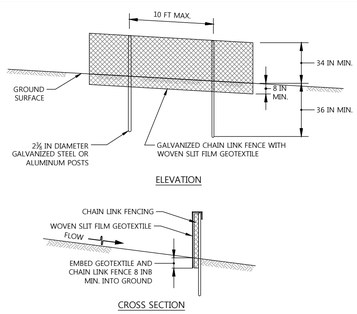
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL SSF



CONSTRUCTION SPECIFICATIONS

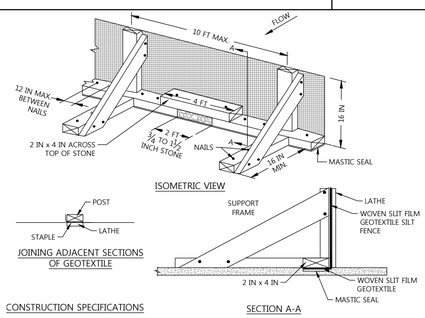
1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-2 SILT FENCE ON PAVEMENT

STANDARD SYMBOL SFOP



CONSTRUCTION SPECIFICATIONS

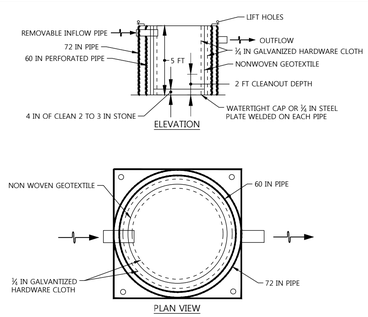
1. USE NOMINAL 2 INCH X 4 INCH LUMBER.
2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
3. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
4. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
5. PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
6. KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
7. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH LATHE.
8. PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
9. SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
10. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL F-3 PORTABLE SEDIMENT TANK

STANDARD SYMBOL PST



CONSTRUCTION SPECIFICATIONS

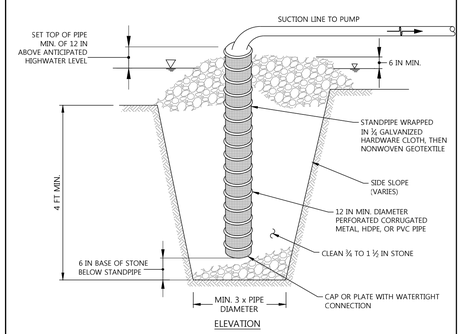
1. PROVIDE 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP CAPACITY. REQUIRED STORAGE VOLUME MAY BE ATTAINED BY PLACEMENT OF TANKS IN PARALLEL WITH INFLOW EVENLY DISTRIBUTED AMONG TANKS. OVERTOPPING OF TANKS IS NOT PERMITTED.
2. USE 60 INCH CORRUGATED METAL OR PLASTIC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER FOR THE INNER PIPE. LINE PIPE WITH NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, SANDWICHED BETWEEN, AND ATTACHED TO, ½ INCH HARDWARE CLOTH.
3. OVERLAP GEOTEXTILE 8 INCHES MINIMUM AT VERTICAL SEAM AND AT THE BOTTOM PLATE.
4. ANCHOR GEOTEXTILE AT BOTTOM OF TANK WITH 4 INCHES OF 2 TO 3 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE.
5. USE 72 INCH CORRUGATED METAL OR PLASTIC OUTER PIPE WITH PERMANENT OUTFLOW PIPE WITH INVERT LOWER THAN INFLOW PIPE
6. INFLOW PIPE MUST DISCHARGE INTO INNER PIPE AND BE REMOVABLE.
7. PLACE TANK ON LEVEL SURFACE AND DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
8. A PORTABLE SEDIMENT TANK REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT FROM INNER PIPE WHEN IT REACHES TWO FEET IN DEPTH. IF SYSTEM CLOGS, PULL OUT INNER PIPE, REMOVE ACCUMULATED SEDIMENT, AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL F-2 SUMP PIT

STANDARD SYMBOL SP



CONSTRUCTION SPECIFICATIONS

1. USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATERTIGHT SEAL.
2. WRAP PIPE WITH ¼ INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
3. EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
4. SET TOP OF PIPE MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
5. BACKFILL PIT AROUND THE PIPE WITH ¾ TO 1½ INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
6. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
7. A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

OWNER'S/DEVELOPER'S SIGNATURE — DATE: 2 Feb 2024

PRINTED NAME & TITLE: Steven D Powell, VP Finance + Technology

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT		SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: 707		STAGE:

TITLE: **SEDIMENT AND EROSION CONTROL DETAILS**

DESIGNED: GDT, MM	SCALE: N/A	PROJECT NO: 19028.CO
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	20 of 39

SDP-22-043

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND — GERALD DOUGLAS TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER

2/5/2024

PROFESSIONAL ENGR. NO. 26569

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DESIGNER'S SIGNATURE — DATE: 2/5/2024

GERALD D. TURNBAUGH
PRINTED NAME — MD REGISTRATION NO. — P.E. R.L.S., OR R.L.A. (CIRCLE ONE)

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE: 4/10/2024

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks — 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: — 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg — 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE: MARCH 7, 2013

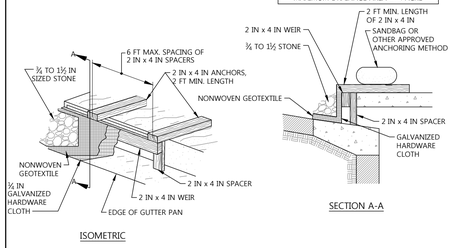
A:\19028\19028.CO\ENGRCAD FILES\SHEET FILES\19028.CO_SDP_20.DWG 1/25/2024 9:03 AM BNeis

DocuSign Envelope ID: 846AE33A-76ED-41A6-92E4-12BE04BACF89

DETAIL E-9-3 CURB INLET PROTECTION

STANDARD SYMBOL — CIP

MAXIMUM DRAINAGE AREA = ¾ ACRE



SECTION A-A

ISOMETRIC

CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH x 4 INCH LUMBER
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF ¼ INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

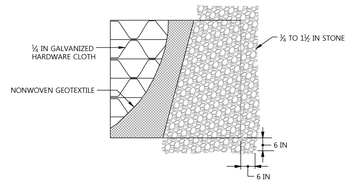
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

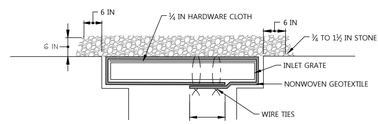
DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL — AGIP

MAXIMUM DRAINAGE AREA = 1 ACRE



PLAN / CUT AWAY VIEW



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

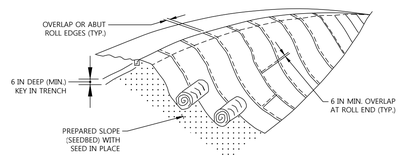
1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL — TSSMC - * 2.25 lb/ft² (* INCLUDE SHEAR STRESS)



ISOMETRIC VIEW

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

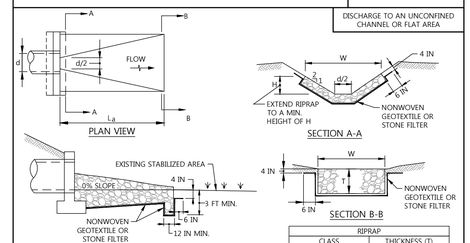
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL D-4-1-C ROCK OUTLET PROTECTION III

STANDARD SYMBOL — 2.25 ROPIII

DISCHARGE TO AN UNCONFINED CHANNEL OR FLAT AREA



RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN

CONSTRUCTION SPECIFICATIONS

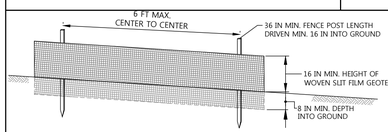
1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER ⅜ TO 1½ INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

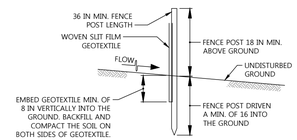
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

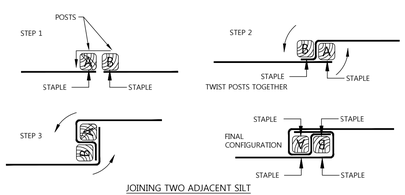
STANDARD SYMBOL — SF



ELEVATION



CROSS SECTION



JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

1 OF 2

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ x 1¾ + 1/16 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

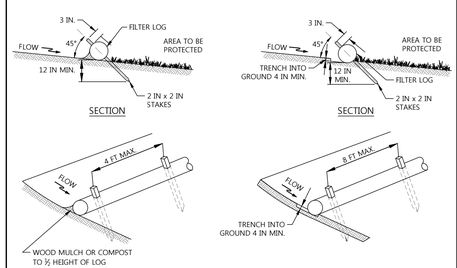
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

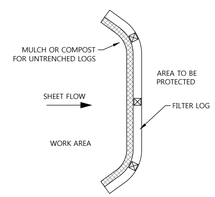
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-6 FILTER LOG

STANDARD SYMBOL — FL-18 — DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.



ISOMETRIC VIEW



PLAN

1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-6 FILTER LOG

STANDARD SYMBOL — FL-18 — DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.

CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

OWNER'S/DEVELOPER'S SIGNATURE — DATE: 2 Febr 2024

Steven D Powell II, VP Finance + Technology
PRINTED NAME & TITLE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND — GERALD D. TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424 — ELEC DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 — ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: 707	STAGE:

TITLE:
SEDIMENT AND EROSION CONTROL DETAILS

DESIGNED: GDT, MM	SCALE: N/A	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	

SDP-22-043

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Chad Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 5209438B8B0A3E...	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DESIGNER'S SIGNATURE — DATE: 2/5/2024

GERALD D. TURNBAUGH
PRINTED NAME — MD REGISTRATION NO. — P.E. R.L.S., OR R.L.A. (CIRCLE ONE)

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie	4/10/2024
HOWARD SOIL CONSERVATION DISTRICT	DATE

A:\19028\19028 CO\ENGRCAD FILES\SHEET FILES\19028 CO_SDP-21.DWG 1/25/2024 9:03 AM jturnbaugh

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STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

(B-4-1) SECTION 1 - INCREMENTAL STABILIZATION

A. INCREMENTAL STABILIZATION - CUT SLOPES

1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.
2. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1):

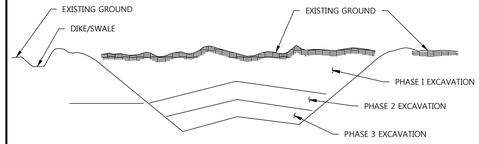
   a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION.

   b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE.

   c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.

   d. PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

NOTE:ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.



B. INCREMENTAL STABILIZATION - FILL SLOPES

1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES.
2. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
3. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
4. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):

   a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.

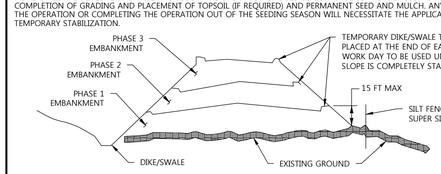
   b. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.

   c. PLACE PHASE 1 FILL, PREPARE SEEDBED, AND STABILIZE.

   d. PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.

   e. PLACE FINAL PHASE FILL, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.



(B-4-2) SECTION 2 - SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

A. SOIL PREPARATION

1. TEMPORARY STABILIZATION

   a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

   b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

   c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

2. PERMANENT STABILIZATION

   a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

   i. SOIL PH BETWEEN 6.0 AND 7.0.

   ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

   iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.

   iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

   v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

   b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.

   c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.

   d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.

   e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING

1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

   a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

   b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

   c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

   d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:

   a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.

   b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

   c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

6. TOPSOIL APPLICATION

   a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

   b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

   c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL ADMENMENTS (FERTILIZER AND LIME SPECIFICATIONS)

1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE 200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

(B-4-3) SECTION 3 - SEEDING AND MULCHING

A. SEEDING

1. SPECIFICATIONS

   a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

   b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

   c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING.

NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

   d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

2. APPLICATION

   a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

   i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

   ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

   b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.

   i. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.

   ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

   c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

   i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.

   ii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.

   iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.

   iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

   a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

   b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.

   i WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.

   ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.

   iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

   iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.

   v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

2. APPLICATION

   a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

   b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

   c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

3. ANCHORING

   a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:

   i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

   ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

   iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.

   iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

(B-4-4) SECTION 4 - TEMPORARY STABILIZATION

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA:

1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3); AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

Seed Mixture (Hardiness Zone 6b)					
Season	Species	Application[1] Rate (Lb./Ac.)	Seeding[2] Dates	Seeding[3] Depths	Fertilizer Rate (10-10-10)	Lime Rate
Cool	Annual Ryegrass	40	3/1-5/15 8/1-10/15	1/2"	436 Lbs./Ac. (10 Lbs./ 1000 Sq.Ft.)	2 Tons/Ac. (90 Lbs./ 1000 Sq.Ft.)
Warm	Pearl Millet	20	5/16-7/31	1/2"		

(H-1) STANDARDS AND SPECIFICATIONS FOR MATERIALS

TABLE H.1: GEOTEXTILE FABRICS

		WOVEN SLIT FILM GEOTEXTILE		WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
		MINIMUM AVERAGE ROLL VALUE[1]					
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	15%	50%	50%
Trapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb
Puncture Strength	ASTM D-6241	450 lb		900 lb		450 lb	
Apparent Opening Size[2]	ASTM D-4751	U.S. Sieve 30 (0.59 mm)		U.S. Sieve 70 (0.21 mm)		U.S. Sieve 70 (0.21 mm)	
Permittivity	ASTM D-4491	0.05 sec -1		0.28 sec -1		1.1 sec -1	
Ultraviolet Resistance Retained at 500 hours	ASTM D-4355	70% strength		70% strength		70% strength	

1. ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.
2. VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM TO THE VALUES IN TABLE H.1.

THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS, AND FORMED INTO A STABLE NETWORK SO THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING SELVAGES.

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY, OVERLAP THE SECTIONS BY AT LEAST ONE FOOT. THE GEOTEXTILE MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER EXPOSED FABRIC. WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.

TABLE H.2: STONE SIZES

	SIZE RANGE	d50	d100	AASHTO	MIDSIZE WEIGHT[3]
NUMBER 57[1]	¾ to 1½ in	½ in	1½ in	M-43	N/A
NUMBER 1	2 to 3 in	2½ in	3 in	M-43	N/A
RIPRAP[2] (CLASS 0)	4 to 7 in	5½ in	7 in	N/A	N/A
CLASS I	N/A	9½ in	15 in	N/A	40 lb
CLASS II	N/A	16 in	24 in	N/A	200 lb
CLASS III	N/A	23 in	34 in	N/A	600 lb

1. THIS CLASSIFICATION IS TO BE USED ON THE UPSTREAM FACE OF STONE OUTLETS AND CHECK DAMS.
2. THIS CLASSIFICATION IS TO BE USED FOR GABIONS.
3. OPTIMUM GRADATION IS 50 PERCENT OF THE STONE BEING ABOVE AND 50 PERCENT BELOW THE MIDSIZE.

STONE MUST BE COMPOSED OF A WELL GRADED MIXTURE OF STONE SIZED SO THAT FIFTY (50) PERCENT OF THE PIECES BY WEIGHT ARE LARGER THAN THE SIZE DETERMINED BY USING THE CHARTS. A WELL GRADED MIXTURE, AS USED HEREIN, IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF LARGER STONE SIZES BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE IN SUCH A MIXTURE MUST NOT EXCEED THE RESPECTIVE D100 SELECTED FROM TABLE H.2. THE D50 REFERS TO THE MEDIAN DIAMETER OF THE STONE. THIS IS THE SIZE FOR WHICH 50 PERCENT, BY WEIGHT, WILL BE SMALLER AND 50 PERCENT WILL BE LARGER.

NOTE: RECYCLED CONCRETE EQUIVALENT MAY BE SUBSTITUTED FOR ALL STONE CLASSIFICATIONS FOR TEMPORARY CONTROL MEASURES ONLY. CONCRETE BROKEN INTO THE SIZES MEETING THE APPROPRIATE CLASSIFICATION, CONTAINING NO STEEL REINFORCEMENT, AND HAVING A MINIMUM DENSITY OF 150 POUNDS PER CUBIC FOOT MAY BE USED AS AN EQUIVALENT.

TABLE H.3: COMPOST

PARAMETERS[1]	ACCEPTABLE RANGE
pH	5.0 - 8.5
Moisture content	30% - 60%, wet weight basis
Organic matter content	25% - 65%, dry weight basis
Particle size	% passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 - 100% passing 0.75 in (19 mm), 70 - 100% passing 0.25 in (6.4 mm), 30 - 60% passing 0.04 in (1 mm), 30% min. passing
Physical contaminants (manmade inerts)	<1% dry weight basis

ADAPTED FROM AASHTO STANDARDS SPECS FOR COMPOST FILTER SOCKS AND EPA EXAMPLE COMPOST FILTER PARAMETERS.

1. RECOMMENDED TEST METHODOLOGIES ARE PROVIDED IN TEST METHODS FOR THE EXAMINATION OF COMPOSTING AND COMPOST (TMEC, THE U.S COMPOSTING COUNCIL).

(B-4-8) STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

DEFINITION:

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

PURPOSE:

TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.

CONDITIONS WHERE PRACTICE APPLIES:

STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

CRITERIA

1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
7. STOCKPILES MUST

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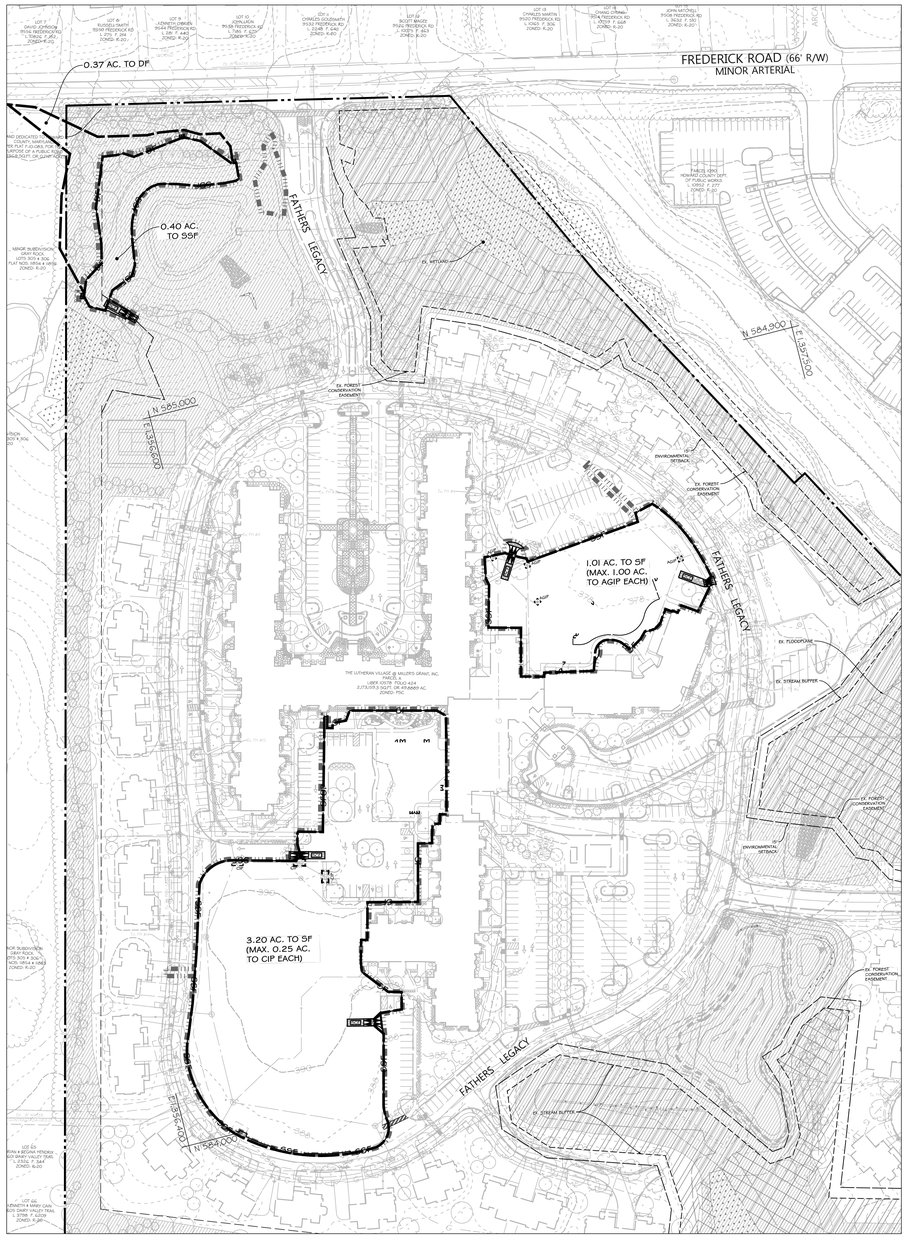

EXISTING CONDITIONS

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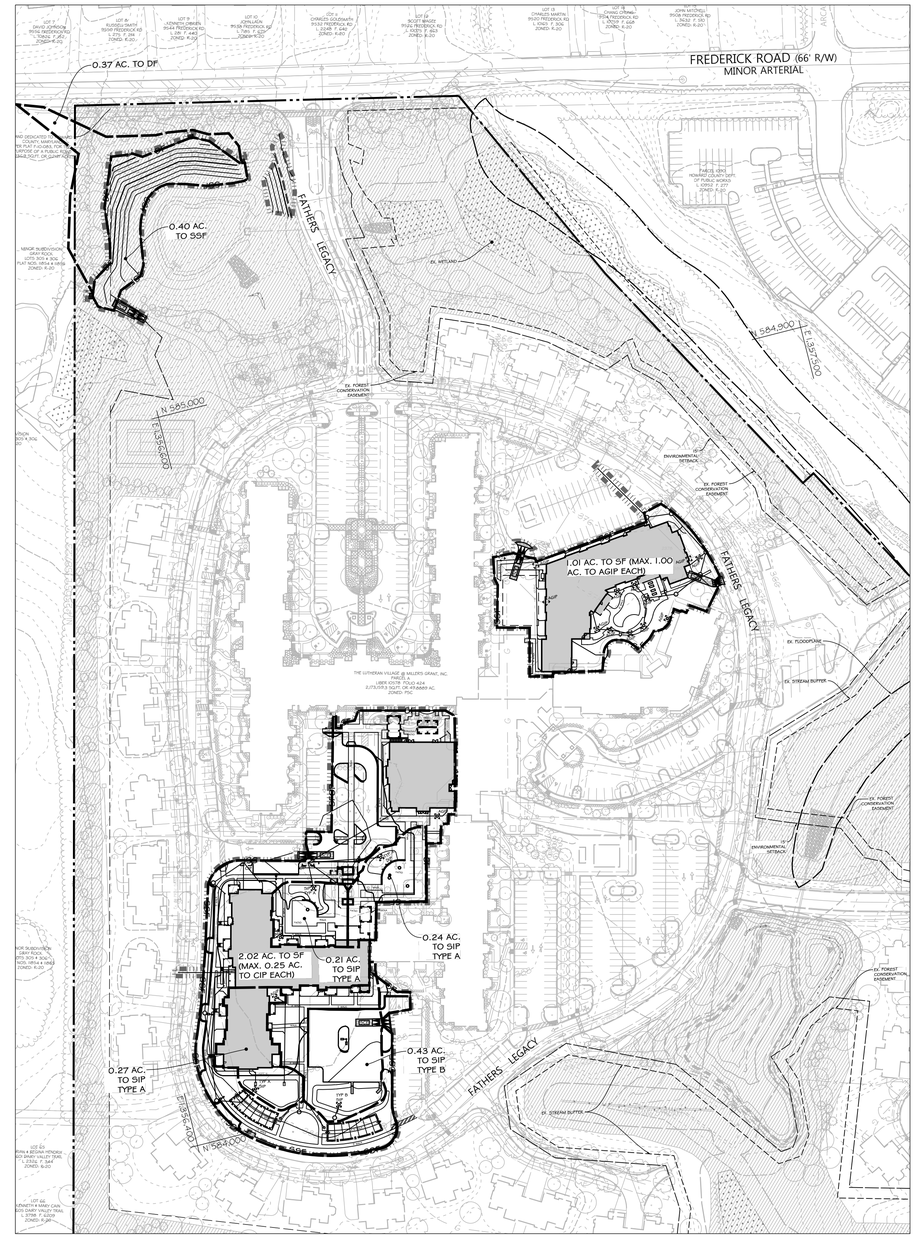
SCALE: 1" = 100'



PROPOSED CONDITIONS

100 0 100 200
SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- PROP. CURB
- EX. CURB
- EX. BUILDING
- 120 EX. MAJOR CONTOUR
- 118 EX. MINOR CONTOUR
- 120 PROP. MAJOR CONTOUR
- 118 PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EROSION CONTROL SLOPE MATTING
- EX. TREE
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- AGIP PROP. AT GRAD INLET PROTECTION
- CIP PROP. CURB INLET PROTECTION
- SSF SUPER SILT FENCE
- SPOP SUPER SILT FENCE
- EX. BUILDING
- PROP. BUILDING
- SCE STABILIZED CONSTRUCTION ENTRANCE

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

Steven D Powell — 2 Febr 2024
OWNER'S/DEVELOPER'S SIGNATURE — DATE
Steven D Powell, VP Finance + Technology
PRINTED NAME & TITLE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

MAGNETIC NORTH
GRID NORTH

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND — GERALD D. TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424 — ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 — ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 530 (TG 700)	SEWER CODE: 707	STAGE:

TITLE:
EXISTING AND PROPOSED SEC DRAINAGE AREA MAPS

DESIGNED: GDT, MM	SCALE:	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	23 of 39
CHECKED BY: MCB	APPROVED:	

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Gerald D. Turnbaugh — 2/5/2024
DESIGNER'S SIGNATURE — DATE
GERALD D. TURNBAUGH
PRINTED NAME — MD REGISTRATION NO. P.E. R.L.S., OR R.L.A. (CIRCLE ONE)

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

Alexander Bratchie — 4/10/2024
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Child Edmondson — 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
Lynda Eisenberg — 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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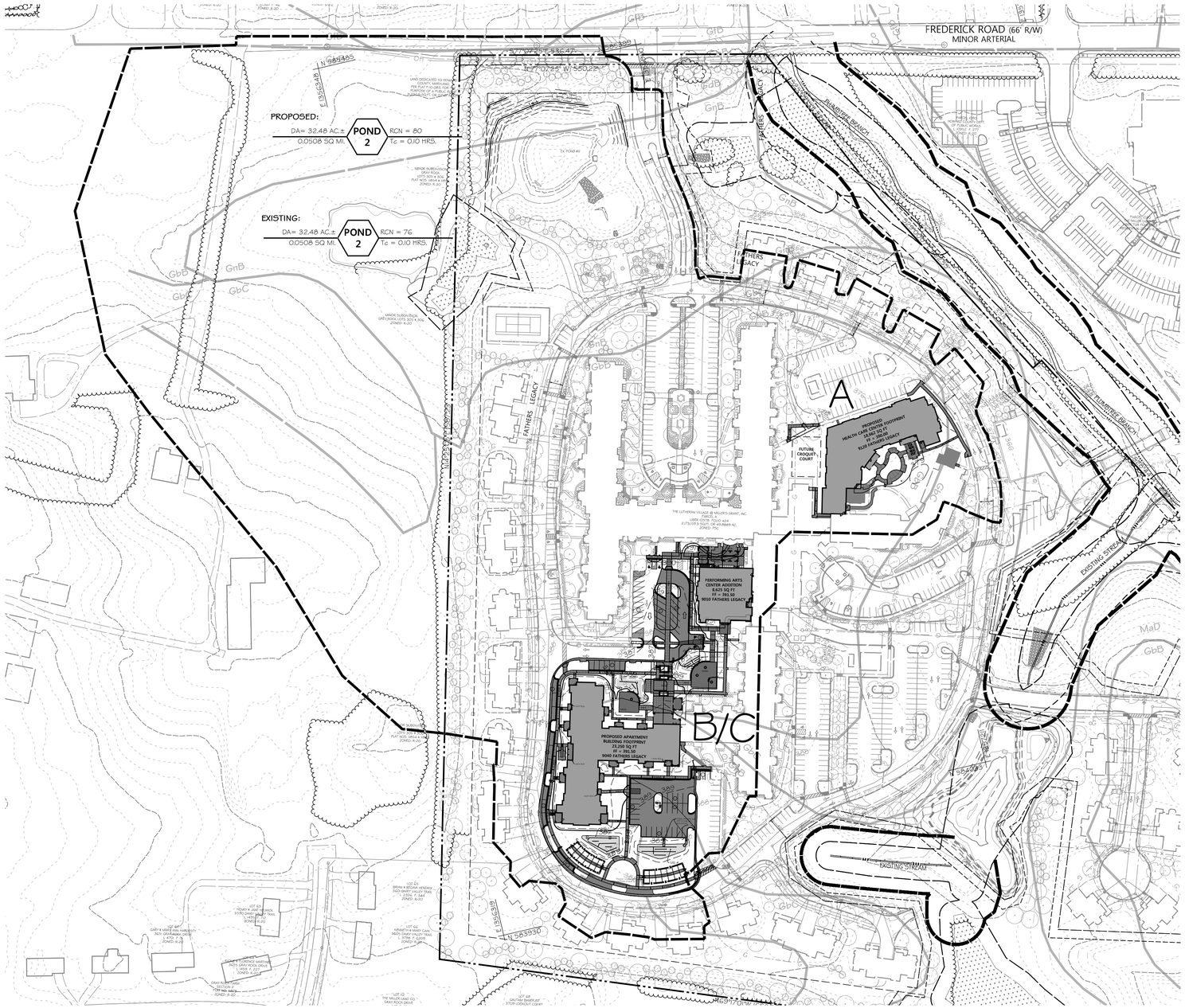

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- SSF — SUPER SILT FENCE
- EX. BUILDING
- 120 — EX. MAJOR CONTOUR
- 118 — EX. MINOR CONTOUR
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- FOREST CONSERVATION
- STREAM CENTERLINE
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- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BtB — SOILS
- LIB
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER

PLAN

100 0 100 200

SCALE: 1" = 100'

NORTH

OWNERS/DEVELOPER CERTIFICATION:

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OWNER'S/DEVELOPER'S SIGNATURE — DATE: 2 Febr 2024

PRINTED NAME & TITLE: Steven D Powell, VP Finance & Technology

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

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DESIGN CERTIFICATION:

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DESIGNER'S SIGNATURE — DATE: 2/5/2024

PRINTED NAME: GERALD D. TURNBAUGH

MD REGISTRATION NO. (P.E.) R.L.S., OR R.L.A. (CIRCLE ONE)

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE: 4/10/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT		SECTION/AREA:		LOT/PARCEL #: 100
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07		STAGE:

TITLE: **STORMWATER QUANTITY MANAGEMENT DRAINAGE AREA MAP - POND 2**

DESIGNED: GDT, MM	SCALE: 1"=100'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	24 of 39

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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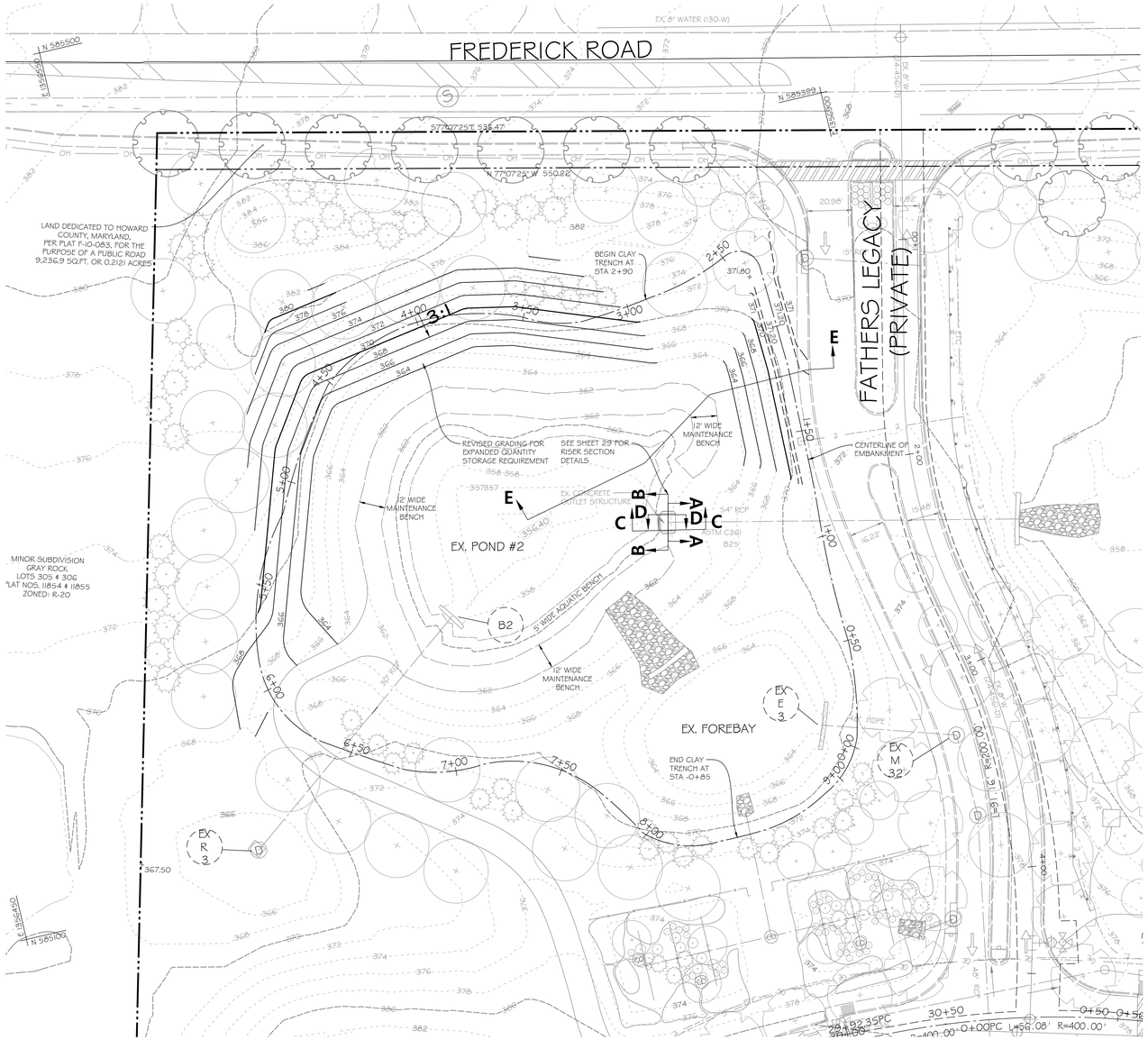
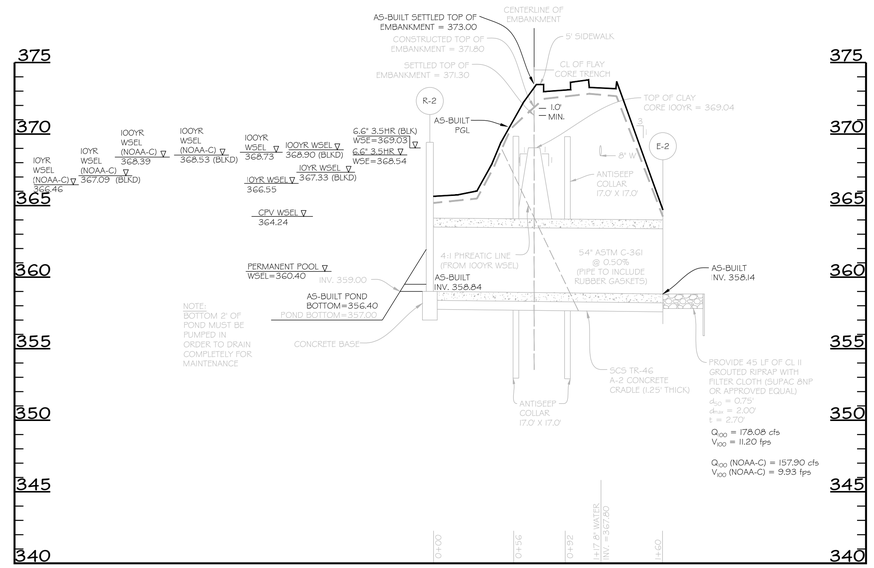


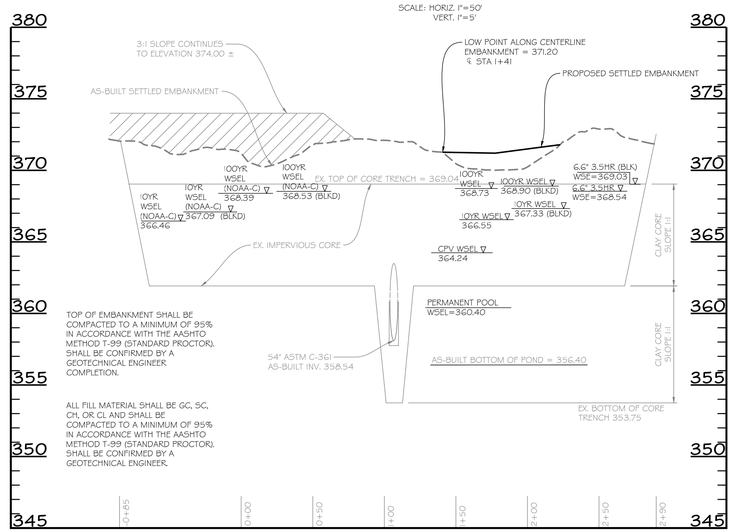
PLAN

30 0 30 60
SCALE: 1" = 30'



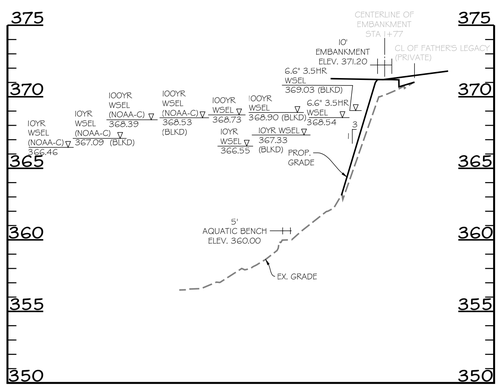
SWM POND #2 PRINCIPAL SPILLWAY PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



SWM POND #2 CENTERLINE OF EMBANKMENT PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



SWM POND #2 SECTION E-E PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DESIGNER'S SIGNATURE — DATE: 2/5/2024

GERALD D. TURNBAUGH
PRINTED NAME — MD REGISTRATION NO. P.E. R.L.S., OR R.L.A. (CIRCLE ONE)

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

OWNER'S/DEVELOPER'S SIGNATURE — DATE: 2 Feb 2024

Steven D Powell, VP Finance + Technology
PRINTED NAME & TITLE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE: MARCH 7, 2013

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie — 4/10/2024
HOWARD SOIL CONSERVATION DISTRICT — DATE

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/16/25.

STATE OF MARYLAND — GERALD DOUGLAS TURNBAUGH — No. 26569 — PROFESSIONAL ENGINEER
2/5/2024
PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02, C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE: **QUANTITY STORMWATER MANAGEMENT PLAN POND #2**

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.C0
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	25 of 39

SDP-22-043

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ESD DESIGN COMPUTATIONS

PERFORMANCE EVALUATIONS

ESD Treatment Summary -LOD A and LOD B/C

FACILITY	DRAINAGE AREA	ESDv STORAGE PROVIDED	ESDv TREATMENT PROVIDED	IMPERVIOUS AREA	IMPERVIOUS AREA TREATED	FILTER SURFACE AREA	Pe PROVIDED
	(SF)	(CF)	(CF)	(SF)	(SF)	(SF)	(Inches)
Micro-Bioretention - MB #1	10,175	877	877	5,178	5,178	524	2.03
Micro-Bioretention - MB #2	11,740	1,241	1,241	6,678	6,678	734	2.26
Micro-Bioretention - MB #3	12,329	2,061	1,656	7,802	7,802	1,440	2.60
Micro-Bioretention - MB #4	23,894	2,459	2,459	11,658	11,658	1,599	2.52
TOTAL	58,138	6,637	6,232	31,316	31,316	4,297	See below
Remaining ESD REQUIRED			5,911	cf			
ESD PROVIDED			6,232	cf			
Pe Provided = [ESDv Treatment Provided * 12] / [Rv * A] =				2.41	inches		

LOD A (Health Care Center) =	39,713	s.f.
Impervious Area to Treat =	25,700	s.f.
New Development A ESDv =	4,236	c.f.
Approved SDP WQv Provision=	2,714	c.f.
Remaining ESDv to Provide =	1,522 *	s.f.

*Note: Volume will be provided within facilities associated with LOD B/C.

LOD BC (Apartments+Performing Arts) =	138,596	s.f.
Impervious Area to Treat =	84,071	s.f.
New Development B/C ESDv =	13,860	c.f.
Approved SDP WQv Provision =	9,471	c.f.
Remaining ESDv to Provide =	4,389	s.f.

Total Target ESDv Remaining to Provide =	5,911	c.f.
Total Impervious Area to Treat =	109,771	s.f.
Total Study LOD =	178,309	s.f.

Unified Stormwater Sizing Criteria		
Sizing Criteria	Required	Provided
Environmental Site Design Volume (ESDV) (cf)	5,911	6,232
Channel Protection Storage Volume (CpV)*		
Recharge Volume (ReV) (cf)		
Overbank Flood Protection Volume (Qp)	NA	NA
Extreme Flood Volume (Qf)	NA	NA

TR-20 SUMMARY (DOS Type II Rainfall Table)

BASELINE TR-20 ANALYSIS: POND #2 using AS-BUILT DATA/No adjustments

	10-YR STORM			3.55-HR, 6.6" STORM			100-YR STORM			
	Q (cfs)	WSE	Volume	Q (cfs)	WSE	Volume	Q (cfs)	WSE	Volume	
SDP 08-075	*64.42*	*368.08*					*203.23*	*368.98*		original design conditions throughout
EXISTING	*16.8*	*367.24*	*3.471*	*168.6*	*368.8*	*5.075*	*181.96*	*368.91*	*5.27*	LOD as woods/ Remaining site as design conditions
PROPOSED	*31.4*	*367.47*	*3.635*	*197.36*	*369.16*	*5.627*	*196.43*	*369.12*	*5.568*	LOD as proposed conditions/ Remaining site as design conditions
Δ	***14.6***			***28.76***			**14.47**			

PROPOSED POND #2 with GRADING EXPANSION and RISER MODIFICATIONS

	10-YR STORM			3.55-HR, 6.6" STORM			100-YR STORM			
	Q (cfs)	WSE	Volume	Q (cfs)	WSE	Volume	Q (cfs)	WSE	Volume	
SDP 08-075	*64.42*	*368.08*					*203.23*	*368.98*		original design conditions throughout
EXISTING	*16.8*	*367.24*	*3.471*	*168.6*	*368.8*	*5.075*	*181.96*	*368.91*	*5.27*	LOD as woods/ Remaining site as design conditions
PROPOSED	16.42	*366.55*	*3.813*	*158.62*	*368.54*	*6.065*	*173.73*	*368.73*	*6.32*	LOD as proposed conditions/ Remaining site as design conditions
Δ	**-0.38**			**-9.98**			**-8.23**			

NOTE: Existing Conditions assumes "woods in good condition". Proposed conditions consists of calculated impervious areas and grass areas. Volumes do not include the water quality volume.

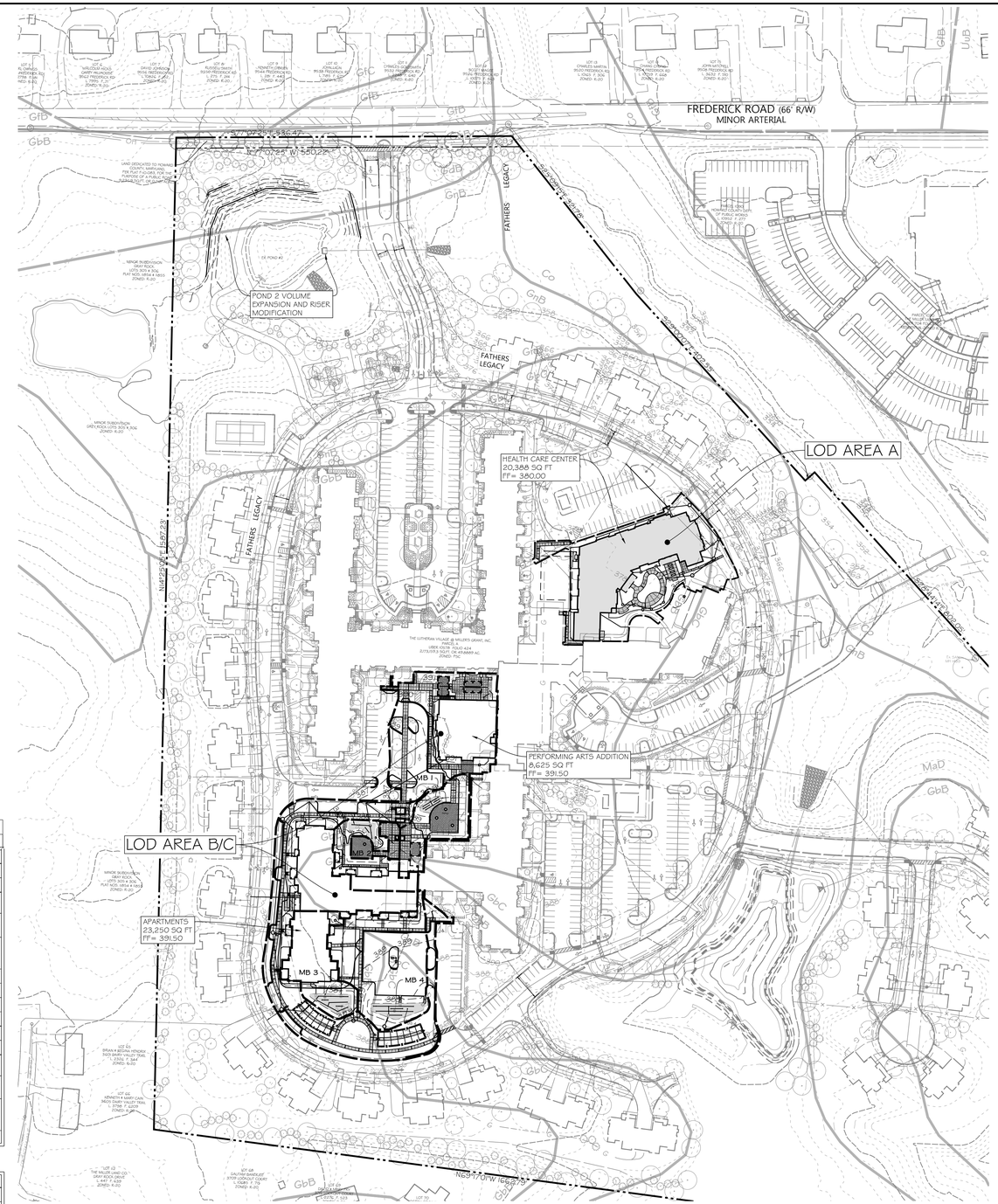
PROPOSED POND #2 with GRADING EXPANSION and RISER MODIFICATIONS with LOW FLOW BLOCKED

	10-YR STORM			3.55-HR, 6.6" STORM			100-YR STORM			
	Q (cfs)	WSE	Volume	Q (cfs)	WSE	Volume	Q (cfs)	WSE	Volume	
SDP 08-075	*116.93*	*368.62*					*210.57*	*369.04*		original design conditions throughout
PROPOSED	*56.59*	*367.33*	*2.914*	*180.41*	*369.03*	*5.038*	*178.08*	*368.9*	*4.854*	LOD as proposed conditions/ Remaining site as design conditions
Δ	**-60.34**			**180.41**			**-32.49**			

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 52D9E3E8B9D43E...	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013



NOTE: NEW DEVELOPMENT ESDv TREATMENT OF LOD AREA A (HEALTH CARE FACILITY) IS BEING PROVIDED WITHIN ESD'S 1, 2, 3, & 4

SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- 120 EX. MAJOR CONTOUR
- 118 EX. MINOR CONTOUR
- 120 PROP. MAJOR CONTOUR
- 118 PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BrB SOILS
- LIB
- EX. FOREST CONSERVATION EASEMENT
- PROPOSED SWM ESD DRAINAGE AREA

(M-6) MICRO-BIORETENTION SEQUENCE OF CONSTRUCTION

1. ONCE CONTRIBUTING DRAINAGE AREAS TO FACILITIES HAVE BEEN STABILIZED, EXCAVATE TO SUB-GRADE. SPECIAL CARE SHOULD BE TAKEN NOT TO DAMAGE THE NEWLY CONSTRUCTED STORM DRAIN OVERFLOW INLET AND ASSOCIATED OUTFALL PIPES. INSTALL PE TYPE 1 NON WOVEN TEXTILE ON SIDES ONLY OF EXCAVATION PRIOR TO THE INSTALLATION OF (M-6) MATERIALS.
2. ONCE VERIFIED SUB-GRADES HAVE BEEN ESTABLISHED, PLACE REQUIRED DEPTH OF GRAVEL (RECHARGE) OF NO. 57 OR NO. 6 AGGREGATE IN BOTTOM OF EXCAVATION UP TO INVERT OF UNDERDRAIN & OVERFLOW PIPES.
3. INSTALL UNDERDRAIN COLLECTION SYSTEM TO THE PRESCRIBED INVERT ELEVATION AND CONNECT TO OVERFLOW INLET AS DESIGNED.
4. PLACE 9" OF GRAVEL JACKET. CHECK FOR LEVELNESS.
5. PLACE 2" PEA GRAVEL LAYER OVER GRAVEL JACKET.
6. BACKFILL TOPSOIL FILTER MEDIA (TOTAL 24") IN LIFTS OF 12" TO 18". DO NOT COMPACT. INSTALL LANDSCAPE PLANTINGS.
7. INSTALL RIP RAP INFLOW PROTECTION AT ALL CURB OPENING INFLOW POINTS.
8. INSTALL (M-6) PLANTINGS. REFER TO SWM PLAN SHEETS FOR (M-6) PLANTING SECTIONS.
9. SEED OR SOD 3:1 SIDE SLOPES. ADD 3" MULCH LAYER.

OPERATION AND MAINTENANCE SCHEDULE

A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.

B. THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.

C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.

D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

MAINTENANCE CRITERIA

1. PERIODICALLY REMOVE TRASH & DEBRIS AS IT ACCUMULATES.
2. REMOVE AND REPLACE TOP FEW INCHES OF FILTER MEDIA WHEN WATER PONDS FOR MORE THAN 48 HOURS.
3. PRUNE AND REPLACE DEAD VEGETATION AS NECESSARY.
4. WATER VEGETATION DURING DRY PERIODS.

SOILS

MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC GROUP	K VALUE (Kw)
Co	Cadorus & Hatboro silt loams 0 to 3 % slopes	C	0.37
GbB	Gladstone loam 3 to 8 % slopes	B*	0.28
GbC	Gladstone loam 8 to 15 % slopes	B*	0.28
GfB	Gladstone-Urban land complex 0 to 8 % slopes	B*	0.28
GfC	Gladstone-Urban land complex 8 to 15 % slopes	D	-
GnB	Glenville-Baile silt loams 0 to 8 % slopes	C	0.43
MaD	Manor loam 15 to 25 % slopes	B	0.28
UuB	Urban land-Udorthents complex 0 to 8 percent slopes	D	0.37

NOTE:
* HYDROLOGIC SOIL GROUP BASED ON WEB SOIL SURVEY ACCESSED 11/02/2007 PER APPROVED HYDROLOGY.

STORMWATER MANAGMENT INFORMATION

FACILITY NAME & NUMBER	PRACTICE TYPE	PUBLIC	PRIVATE	MAINTAINED
MB #1	(M-6) MICRO-BIO	N/A	YES	OWNER
MB #2	(M-6) MICRO-BIO	N/A	YES	OWNER
MB #3	(M-6) MICRO-BIO	N/A	YES	OWNER
MB #4	(M-6) MICRO-BIO	N/A	YES	OWNER

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND · GERALD D. DOUGLAS · No. 26569 · PROFESSIONAL ENGINEER
6/5/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER, MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424 · ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 · ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: 707	STAGE:

TITLE:
STORMWATER MANAGEMENT ESD WATER QUALITY KEY MAP

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.CO
DRAWN: AMT	DATE: 7/28/2023	26 of 39
CHECKED BY: MCB	APPROVED:	

SDP-22-043

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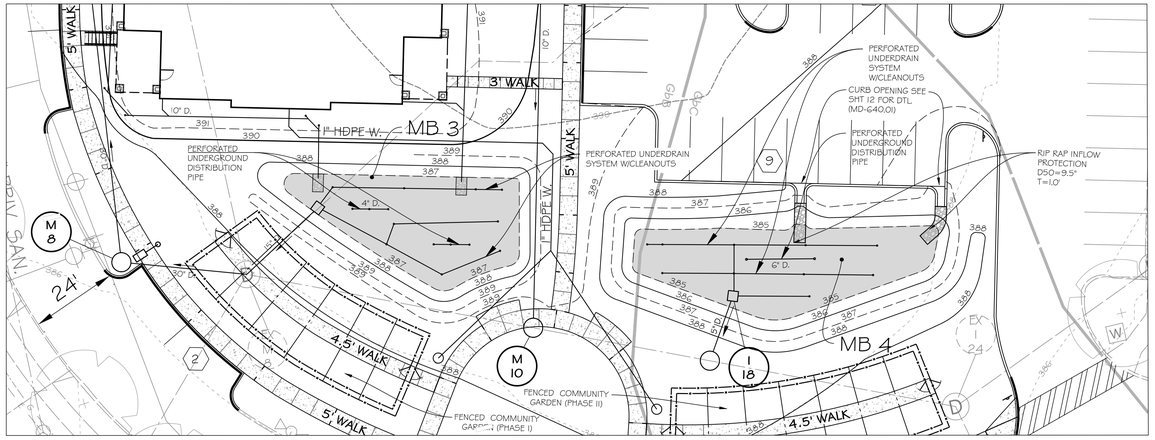
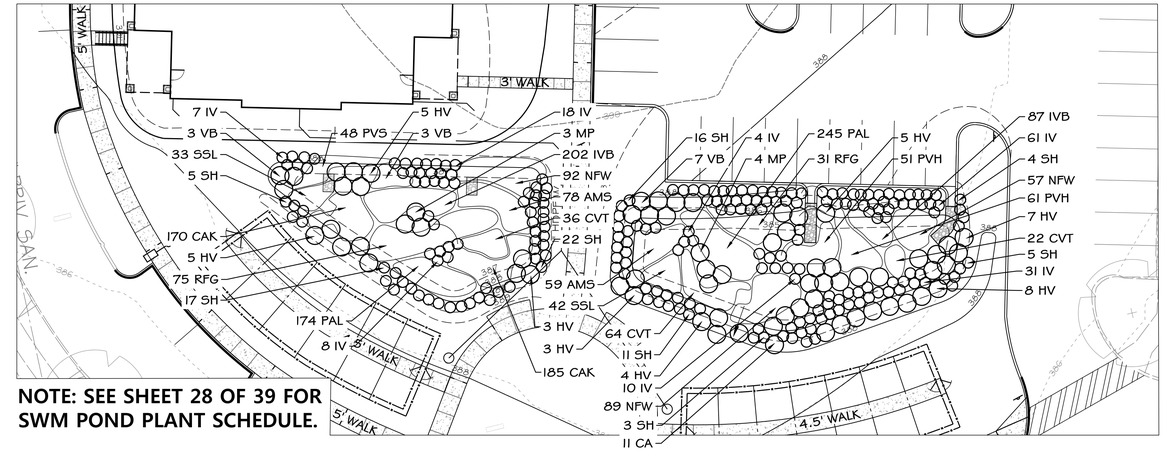


PLAN

SCALE: 1" = 20'

NOTE: PARALLEL SPACING FOR UNDERDRAINS SHALL BE 5'. IF 5' CANNOT BE MET, PROVIDE EVEN SPACING BETWEEN PIPES.

NOTE: THE MAIN UNDERDRAIN COLLECTOR PIPE SHALL BE SLOPED 0.5% TO TYPE 'D' OVERFLOW INLET.



NOTE: SEE SHEET 28 OF 39 FOR SWM POND PLANT SCHEDULE.

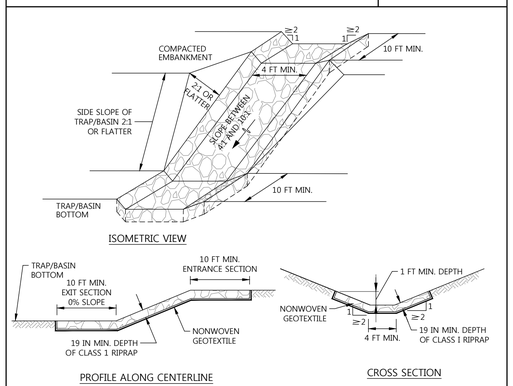
PLANTING PLAN - ESD'S 3 & 4

SCALE: 1" = 20'

DETAIL D-3-1 RIPRAP INFLOW PROTECTION

STANDARD SYMBOL

RRP

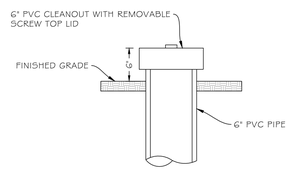


CONSTRUCTION SPECIFICATIONS

1. PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL RIPRAP.
2. CONSTRUCT INFLOW CHANNEL WITH CLASS I RIPRAP OR EQUIVALENT RECYCLED CONCRETE LINING TO A MINIMUM DEPTH OF 19 INCHES ($2 \times D_{50}$) AND A 1 FOOT DEEP FLOW CHANNEL. INFLOW RIPRAP PROTECTION CHANNEL MUST HAVE A TRAPEZOIDAL CROSS SECTION WITH 2:1 OR FLATTER SIDE SLOPES AND A 4 FOOT MINIMUM BOTTOM WIDTH.
3. INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
4. BLEND RIPRAP INTO EXISTING GROUND.
5. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



EACH CLEANOUT SHALL INCLUDE THE FOLLOWING:

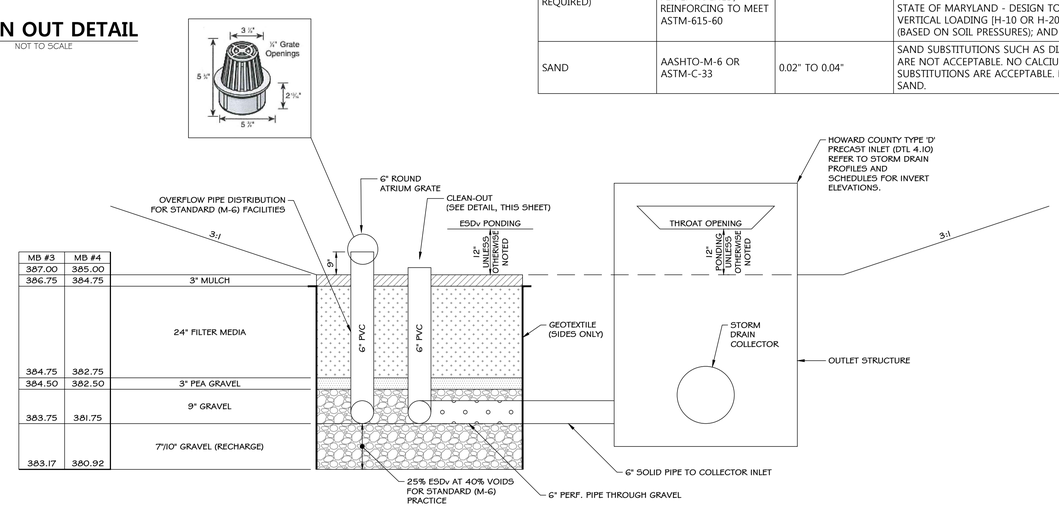
1. FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON- CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3-FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 4-INCHES.
2. THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

CLEAN OUT DETAIL

NOT TO SCALE

TABLE B.4.1 MATERIALS SPECIFICATIONS FOR MICRO-BIORENTENTION, RAIN GARDENS & LANDSCAPE INFILTRATION

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE-SPECIFIC
PLANTING SOIL [2' TO 4'' DEEP]	LOAMY SAND (60 - 65%) & COMPOST (35 – 40%) OR SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM D 2974)		
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
PEA GRAVEL DIAPHRAGM	PEA GRAVEL: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
CURTAIN DRAIN	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 5"	
GEOTEXTILE		N/A	PE TYPE 1 NONWOVEN
GRAVEL (UNDERDRAINS AND INFILTRATION BERMS)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 8" RIGID SCHEDULE 40 PVC OR SDR35	SLOTTED OR PERFORATED PIPE; 3/8" PERF. @ 6" ON CENTER, 8 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES.
POURED IN PLACE CONCRETE (IF REQUIRED)	MSHA MIX NO. 3; F'c = 3500 PSI @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND - DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL LOADING (H-10 OR H-20); ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING
SAND	AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.



TYPICAL CROSS-SECTION (M-6) MICRO-BIORETENTION FACILITY

SCALE: NOT TO SCALE

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND · GERALD DOUGLAS LUTHERNER JR. · NO. 26569 · PROFESSIONAL ENGINEER

2/5/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02, C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT		SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10576 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07		STAGE:

TITLE:

STORMWATER MANAGEMENT PLAN

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	27 of 39

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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SDP-22-043

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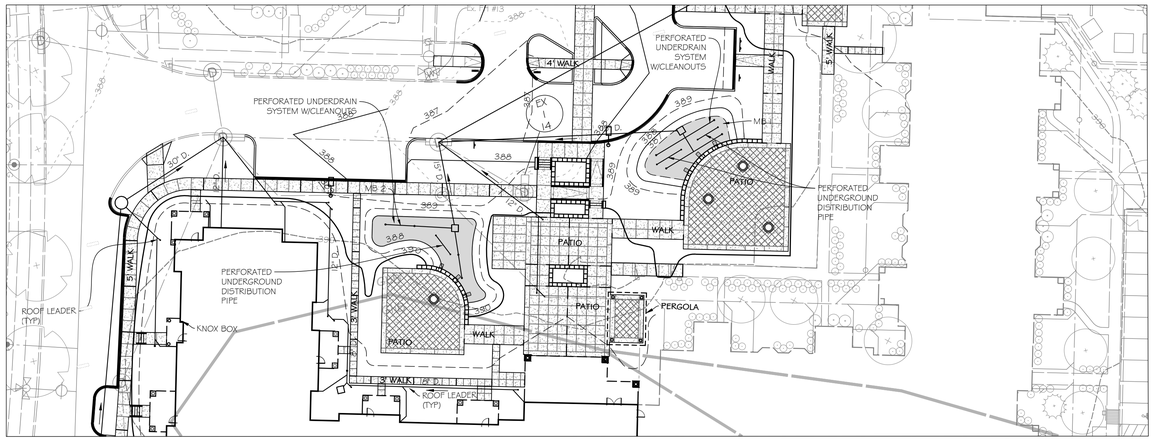
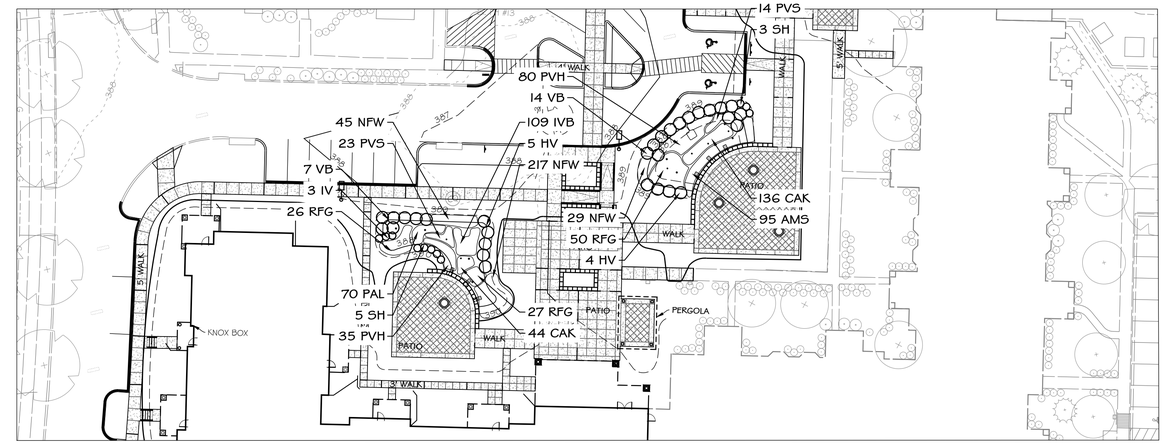


PLAN

20 0 20 40
SCALE: 1" = 20'



PLANTING PLAN - ESD'S 1 & 2

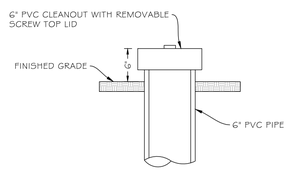
20 0 20 40
SCALE: 1" = 20'

NOTE: PARALLEL SPACING FOR UNDERDRAINS SHALL BE 5'. IF 5' CANNOT BE MET, PROVIDE EVEN SPACING BETWEEN PIPES.

NOTE: THE MAIN UNDERDRAIN COLLECTOR PIPE SHALL BE SLOPED 0.5% TO TYPE 'D' OVERFLOW INLET.

SWM PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	PLANT SIZE	ROOT	REMARKS
SHRUBS					
CA	12	Clethra alnifolia / Sweet Pepperbush	#3	cont.	48" o.c.
HV	49	Hamamelis virginana 'Little Suzie' / American Witchhazel	#3	cont.	48" o.c.
IV	142	Itea virginiana / Virginia Sweetspire	#3	cont.	36" o.c.
MP	7	Myrica pensylvanica / Northern Bayberry	#3	cont.	48" o.c.
VB	143	Viburnum x Burkwood "Mohawk" / Burkwood Vibrunum	#3	cont.	48" o.c.
SH	91	Sarcococca hookeriana var. humilis / Sweetbox	#3	cont.	36" o.c.
	444	**Total**			
PERENNIALS/GROUND COVERS					
AMS	232	Achillea millefolium 'Salmon Beauty' / Common Yarrow	QT	cont.	18" o.c.
CVT	122	Coreopsis verticillata / Threadleaf Coreopsis	QT	cont.	18" o.c.
IVB	398	Iris versicolor / Blue Flag Iris	QT	cont.	12" o.c.
NFW	529	Nepeta x faassenii 'Walker Low' / Catmint	QT	cont.	18" o.c.
RFG	209	Rudbeckia fulgida ' Goldstrum' / Dwarf Black Eyed Susan	QT	cont.	24" o.c.
	1490	**Total**			
GRASSES/SEDGES					
SSL	75	Schizachyrium scoparium (Andropogon scoparius) / Little Blustem	QT	cont.	18" o.c.
CAK	535	Calamagrostis × acutiflora 'Karl Foerster' / Feather Reed Grass	QT	cont.	12" o.c.
PAL	489	Pennisetum alopecuroides ' Little Bunny' / Dwarf Fountain Grass	QT	cont.	12" o.c.
PVS	85	Panicum virgatum / Switch Grass	QT	cont.	18" o.c.
PVH	227	Panicum virgatum 'Heavy Metal' / Blue Switch Grass	QT	cont.	18" o.c.
	1411	**Total**			

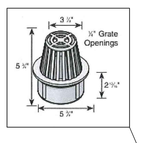


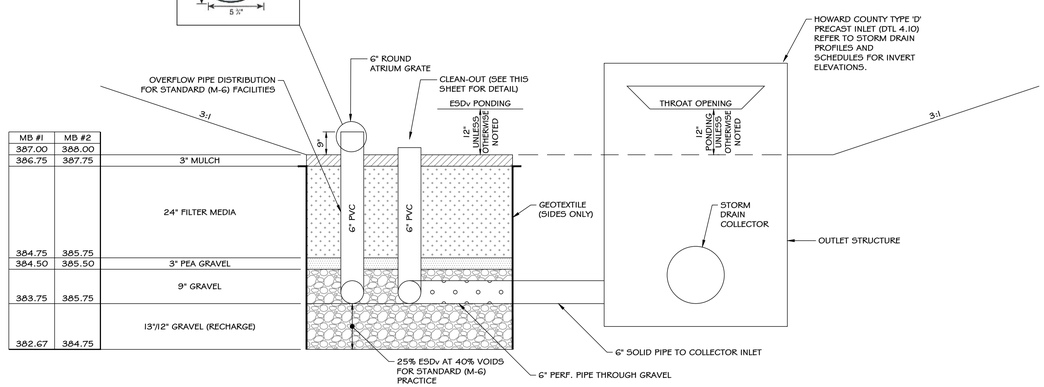
EACH CLEANOUT SHALL INCLUDE THE FOLLOWING:

1. FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON- CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3-FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 4-INCHES.
2. THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

CLEAN OUT DETAIL

NOT TO SCALE





MB #1	MB #2
387.00	388.00
386.75	387.75
384.75	385.75
384.50	385.50
383.75	385.75
382.67	384.75

TYPICAL CROSS-SECTION (M-6) MICRO-BIORETENTION FACILITY

SCALE: NOT TO SCALE

NORTH (GRID)
N-74

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/15/25.

STATE OF MARYLAND · GERALD DOUGLAS GRIMM · No. 26569 · PROFESSIONAL ENGINEER
2/9/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
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DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT		SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07		STAGE:

TITLE:
STORMWATER MANAGEMENT PLAN

DESIGNED: GDT, MM	SCALE: 1" = 50'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	28 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: LVMG Phase 2 Improvements | Boring No.: SWM-1
Location: Ellicott City, MD | Job #: 21493A

SAMPLER
Datum: | Hammer Wt.: 140 lbs. | Hole Diameter: 3.25 in. | Foreman: J. Russell
Surf. Elev.: 388.82 ft | Hammer Drop: 30 in. | Rock Core Diameter: N/A | Inspector:
Date Started: 11/03/21 | Pipe Size (O.D.): 2.0 in. | Boring Method: HSA | Date Completed: 11/03/21

Elevation/ Depth (ft)	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N
	Brown, moist, very loose, clayey SAND, with mica and roots. (SC)	Topsoil - 3"	1	12		1-2-2	4
	Brown to gray and tan, moist, medium dense, silty SAND, with mica. (SM)		2	18		3-5-7	12
		Groundwater was not encountered while drilling	3	18		5-6-6	12
			4	18		3-5-6	11
	Greenish brown to tan		5	18		7-6-6	12
	Bottom of boring at 15'	Boring was backfilled at completion					

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	Dry ft.	13.0 ft.
AFTER 24 HRS.	ft.	ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: LVMG Phase 2 Improvements | Boring No.: SWM-2
Location: Ellicott City, MD | Job #: 21493A

SAMPLER
Datum: | Hammer Wt.: 140 lbs. | Hole Diameter: 3.25 in. | Foreman: J. Russell
Surf. Elev.: 388.77 ft | Hammer Drop: 30 in. | Rock Core Diameter: N/A | Inspector:
Date Started: 11/08/21 | Pipe Size (O.D.): 2.0 in. | Boring Method: HSA | Date Completed: 11/08/21

Elevation/ Depth (ft)	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N
	Dark brown, moist, medium dense, clayey SAND, with mica and roots. (SC)	Topsoil - 3"	1	18		3-5-7	12
	Brown to tan, moist, loose to medium dense, silty SAND, trace gravel, with mica. (SM)		2	18		3-11-14	25
		Groundwater was not encountered while drilling	3	18		3-4-7	11
			4	18		2-4-4	8
			5	18		3-3-4	7
	Bottom of boring at 12'	Boring was backfilled at completion					

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	Dry ft.	8.6 ft.
AFTER 24 HRS.	ft.	ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: LVMG Phase 2 Improvements | Boring No.: SWM-4
Location: Ellicott City, MD | Job #: 21493A

SAMPLER
Datum: | Hammer Wt.: 140 lbs. | Hole Diameter: 3.25 in. | Foreman: J. Russell
Surf. Elev.: 389.2 ft | Hammer Drop: 30 in. | Rock Core Diameter: N/A | Inspector:
Date Started: 11/03/21 | Pipe Size (O.D.): 2.0 in. | Boring Method: HSA | Date Completed: 11/04/21

Elevation/ Depth (ft)	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N
	Greenish brown to tan, moist, medium dense to very dense, silty SAND, trace gravel. (SM)	Topsoil - 3"	1	18		2-4-14	18
	Disintegrated Rock		2	15		10-17-50/3"	50/6"
		Groundwater was not encountered while drilling	3	10		50/6"	50/6"
	Gray to tan		4	10		40-50/4"	25
			5	4		50/4"	50/5"
	Bottom of boring at 20'	Boring was backfilled at completion					

SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	Dry ft.	8.6 ft.
AFTER 24 HRS.	ft.	ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: LVMG Phase 2 Improvements | Boring No.: SWM-5
Location: Ellicott City, MD | Job #: 21493A

SAMPLER
Datum: | Hammer Wt.: 140 lbs. | Hole Diameter: 3.25 in. | Foreman: J. Russell
Surf. Elev.: 389.64 ft | Hammer Drop: 30 in. | Rock Core Diameter: N/A | Inspector:
Date Started: 11/04/21 | Pipe Size (O.D.): 2.0 in. | Boring Method: HSA | Date Completed: 11/04/21

Elevation/ Depth (ft)	Description	Boring and Sampling Notes	Sample No.	Rec. (in)	NM (%)	SPT Blows	SPT N (blows/ft) N
	Greenish brown, moist, very loose, silty SAND, with mica, trace roots. (SM)	Topsoil - 3"	1	10		1-1-2	3
	Brown to tan, moist, loose to medium dense, silty SAND, trace to some gravel, with mica. (SM)		2	18		3-4-4	8
		Groundwater was not encountered while drilling	3	18		4-4-7	11
			4	18		6-6-7	13
			5	15		4-8-11	19
	Bottom of boring at 15'	Boring was backfilled at completion					

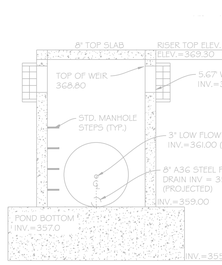
SAMPLER TYPE
DRIVEN SPLIT SPOON UNLESS OTHERWISE
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

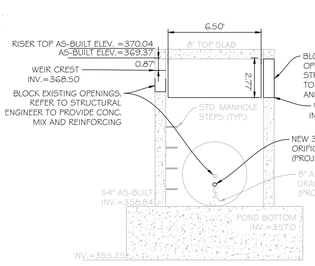
	GROUND WATER	CAVE IN DEPTH
AT COMPLETION	Dry ft.	12.5 ft.
AFTER 24 HRS.	ft.	ft.
AFTER ___ HRS.	ft.	ft.

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

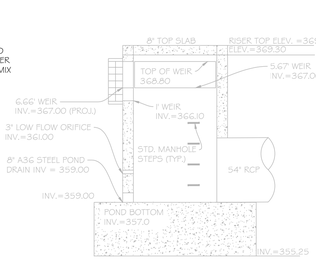


EXISTING RISER DETAIL SECTION A-A
SCALE 1" = 5'

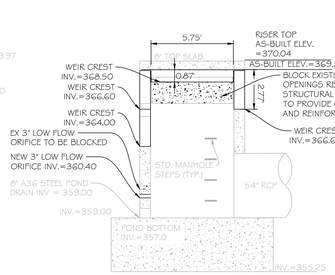


PROPOSED RISER DETAIL SECTION A-A
SCALE 1" = 5'

NOTE:
CONTRACTOR TO PERMANENTLY BLOCK ALL EXISTING RISER OPENINGS AND CONSTRUCT NEW OPENINGS AS SHOWN. REFER TO STRUCTURAL ENGINEER'S DETAILS FOR REINFORCING ASSOCIATED WITH THIS CONVERSION PROCESS. REMOVE ALL EXISTING WEIR OPENING TRASH RACKS. KEEP LOW FLOW TRASH RACK.

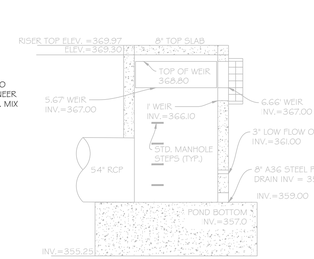


EXISTING RISER DETAIL SECTION C-C
SCALE 1" = 5'

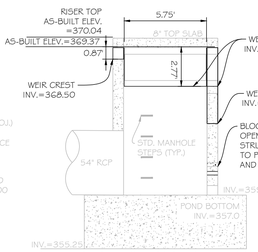


PROPOSED RISER DETAIL SECTION C-C
SCALE 1" = 5'

NOTE:
CONTRACTOR TO PERMANENTLY BLOCK ALL EXISTING RISER OPENINGS AND CONSTRUCT NEW OPENINGS AS SHOWN. REFER TO STRUCTURAL ENGINEER'S DETAILS FOR REINFORCING ASSOCIATED WITH THIS CONVERSION PROCESS. REMOVE ALL EXISTING WEIR OPENING TRASH RACKS. KEEP LOW FLOW TRASH RACK.



EXISTING RISER DETAIL SECTION D-D
SCALE 1" = 5'



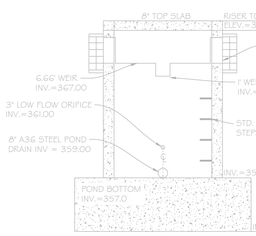
PROPOSED RISER DETAIL SECTION D-D
SCALE 1" = 5'

NOTE:
CONTRACTOR TO PERMANENTLY BLOCK ALL EXISTING RISER OPENINGS AND CONSTRUCT NEW OPENINGS AS SHOWN. REFER TO STRUCTURAL ENGINEER'S DETAILS FOR REINFORCING ASSOCIATED WITH THIS CONVERSION PROCESS. REMOVE ALL EXISTING WEIR OPENING TRASH RACKS. KEEP LOW FLOW TRASH RACK.

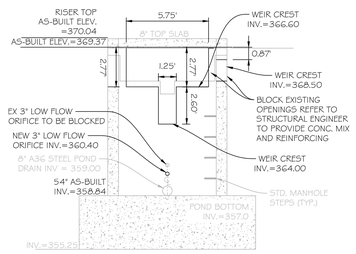
OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I SHALL ENGAGE A MARYLAND REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION, AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

OWNER'S/DEVELOPER'S SIGNATURE | 2 Feb 2024 DATE
Steven D Powell, VP Finance + Technology
PRINTED NAME & TITLE



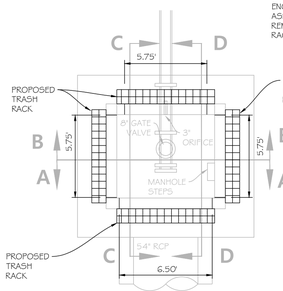
EXISTING RISER DETAIL SECTION B-B
SCALE 1" = 5'



PROPOSED RISER DETAIL SECTION B-B
SCALE 1" = 5'

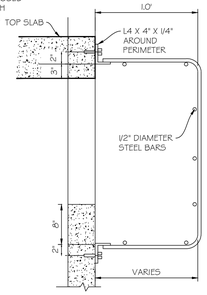
NOTE:
CONTRACTOR TO PERMANENTLY BLOCK ALL EXISTING RISER OPENINGS AND CONSTRUCT NEW OPENINGS AS SHOWN. REFER TO STRUCTURAL ENGINEER'S DETAILS FOR REINFORCING ASSOCIATED WITH THIS CONVERSION PROCESS. REMOVE ALL EXISTING WEIR OPENING TRASH RACKS. KEEP LOW FLOW TRASH RACK.

SWM POND #2



TOP VIEW
SCALE 1" = 5'

SWM POND #2



TRASH RACK MOUNTING SECTION (TYP.)
N.T.S

1. ASSEMBLY SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. STEEL ANGLES SHALL CONFORM TO ASTM A36.
3. BARS TO CONFORM TO ASTM A108.
4. CHEMICAL ANCHORS SHALL BE 1/2" DIAMETER GALVANIZED THREADED RODS WITH HILTI HY200 ADHESIVE SYSTEM (4.5" EMBEDDMENT).

A-A SIDE VIEW (ROAD SIDE)

TRASH RACK DETAIL
N.T.S

BOTTOM-OF-TRASH-RACK AREA CALCULATIONS

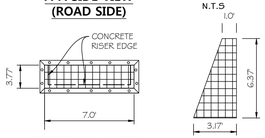
Atb = BOTTOM OF TRASH RACK AREA; where Atb > Awf
Awf = WEIR FLOW AREA

FOR TRASH RACK SECTION A-A:
Awf = 2.77' H x 6.50' W = 18.0 sf
Atb = 2.60'w x 7.0' L = 18.2 sf

FOR TRASH RACK SECTION B-B:
Awf = (1.25' W x 2.60' H) + (5.75' W x 2.77') = 19.17 sf
Atb = 3.17' W x 6.25' L = 19.81 sf

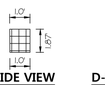
FOR TRASH RACK SECTION C-C:
Awf = 0.87' H x 5.75' W = 5.0 sf
Atb = 1.0' W x 6.25' L = 6.75 sf

FOR TRASH RACK SECTION D-D:
Awf = 2.77' H x 5.75' = 15.93 sf
Atb = 2.60' W x 6.25' L = 16.25 SF

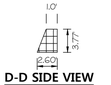


SECTION A-A VIEW (ROAD SIDE)

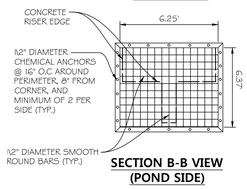
B-B SIDE VIEW (POND SIDE)



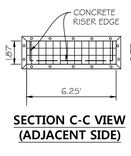
C-C SIDE VIEW (ADJ SIDE)



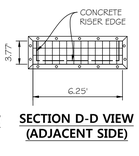
D-D SIDE VIEW (ADJ SIDE)



SECTION B-B VIEW (POND SIDE)



SECTION C-C VIEW (ADJACENT SIDE)



SECTION D-D VIEW (ADJACENT SIDE)

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND · GERALD D. TURNBAUGH · No. 26569 · PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9
ZONE: PSC	CENSUS TRACT: 602800	
WATER CODE: 520 (TG 700)	SEWER CODE: 707	STAGE:

TITLE: **SWM POND #2, STORMWATER MANAGEMENT DETAILS AND ESD SOIL BORINGS**

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	29 of 39

SDP-22-043

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

DESIGN CERTIFICATION :

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DESIGNER'S SIGNATURE | 2/5/2024 DATE
GERALD D. TURNBAUGH
PRINTED NAME | MD REGISTRATION NO. (P.E.) R.L.S., OR R.L.A. (CIRCLE ONE)

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

DocuSigned by: Alexander Bratchie 4/10/2024
HOWARD SOIL CONSERVATION DISTRICT | DATE

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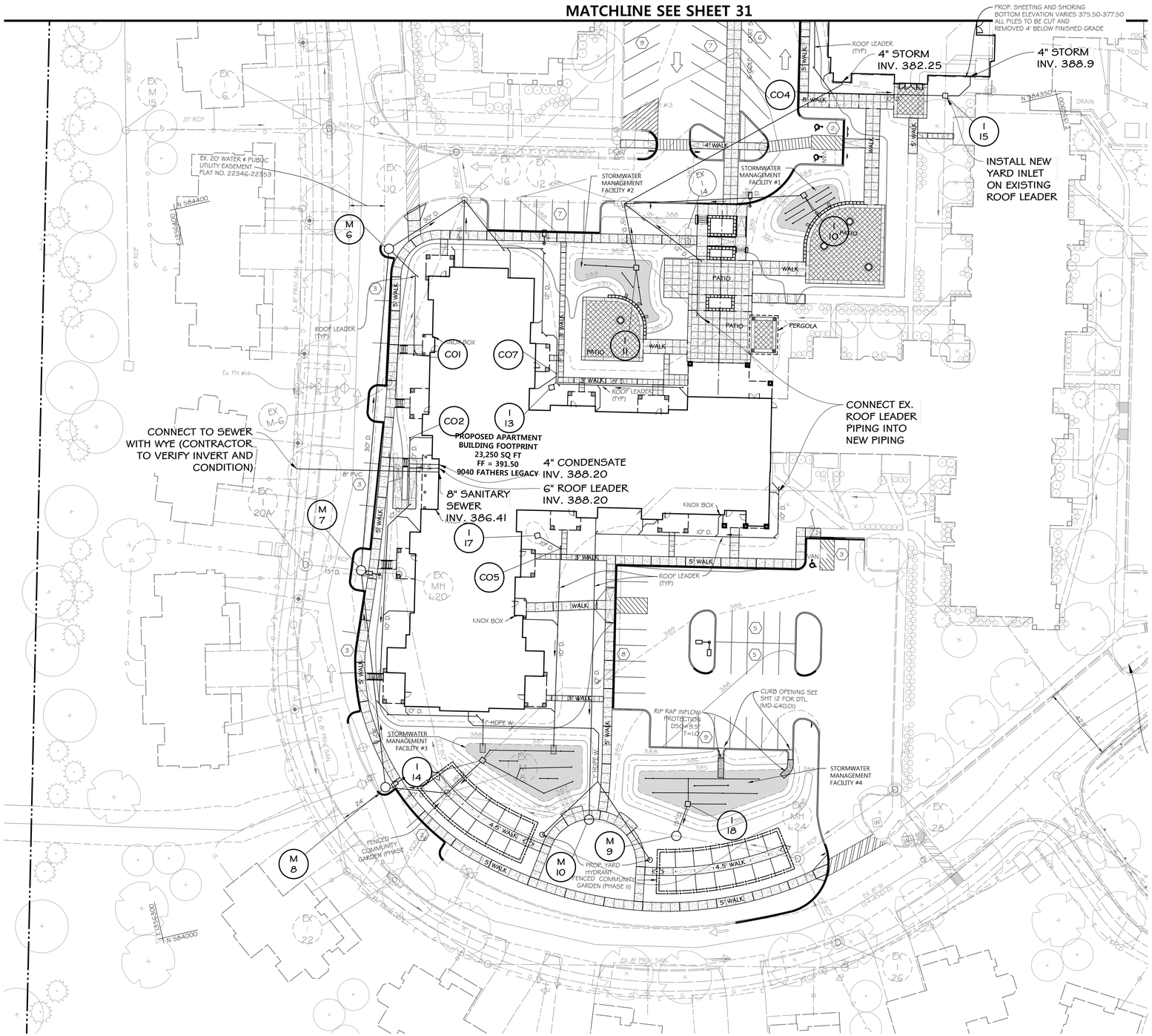

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. BUILDING
- PROP. ROAD
- PROP. CURB
- PROP. WALL
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- EX. WATER & PUBLIC UTILITY EASEMENT
- BtB SOILS
- LIB SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- PROP. STORM DRAIN
- PROP. SEWER
- EX. STORM DRAIN
- EX. SEWER
- EX. WATER
- EX. TREE
- EX. TREELINE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02, C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

PROFESSIONAL CERTIFICATION
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STATE OF MARYLAND · GERALD DOUGLAS LUTHERAN · No. 26569 · PROFESSIONAL ENGINEER
2/5/2024

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:	LOT/PARCEL #: 100
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 · ZONE: PSC · CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07	STAGE:

TITLE:

UTILITY PLAN

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.C0
DRAWN: AMT	DATE: 7/28/2023	30 of 39
CHECKED BY: MCB	APPROVED:	
PROFESSIONAL ENGR. NO. 26569		

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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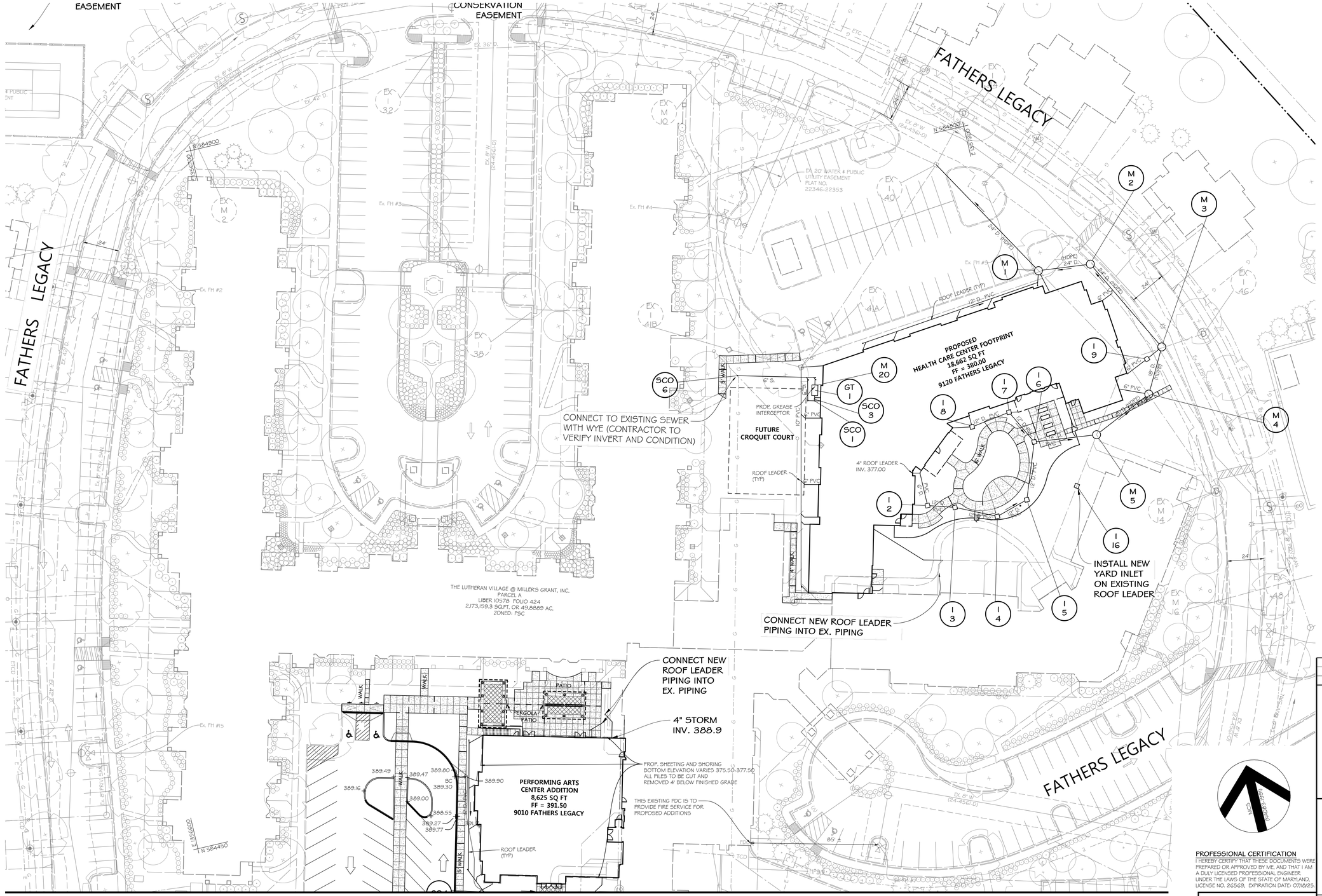

MATCHLINE SEE SHEET 30

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. BUILDING
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- PROP. STORM DRAIN
- PROP. SEWER
- EX. STORM DRAIN
- EX. SEWER
- EX. WATER
- EX. TREE
- EX. TREELINE

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
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STATE OF MARYLAND · GERALD DOUGLAS TURNBURGH · No. 26569 · PROFESSIONAL ENGINEER
2/5/2024

PROFESSIONAL ENGR. NO. 26569

DMW
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501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07		STAGE:

TITLE: UTILITY PLAN

DESIGNED: GDT, MM	SCALE: AS SHOWN	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	
CHECKED BY: MCB	APPROVED:	31 of 39

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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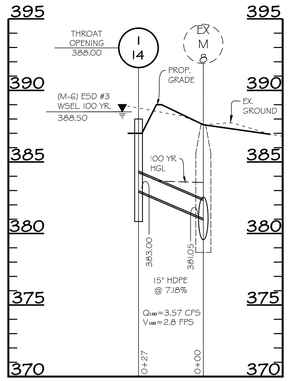
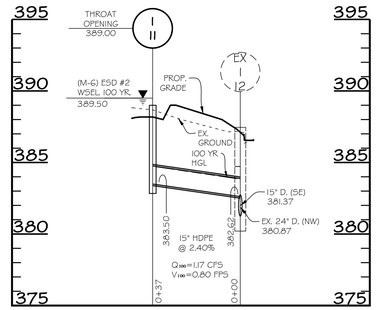


STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



STORM DRAIN PROFILE

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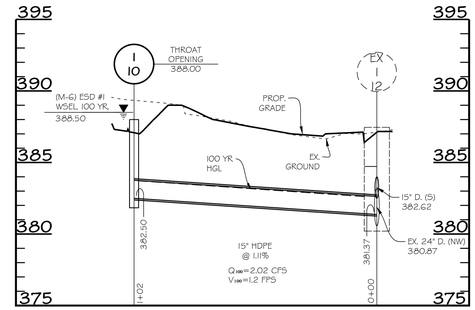

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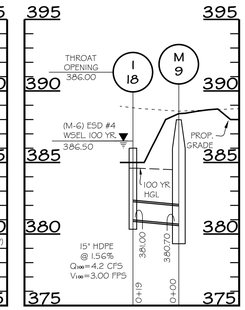

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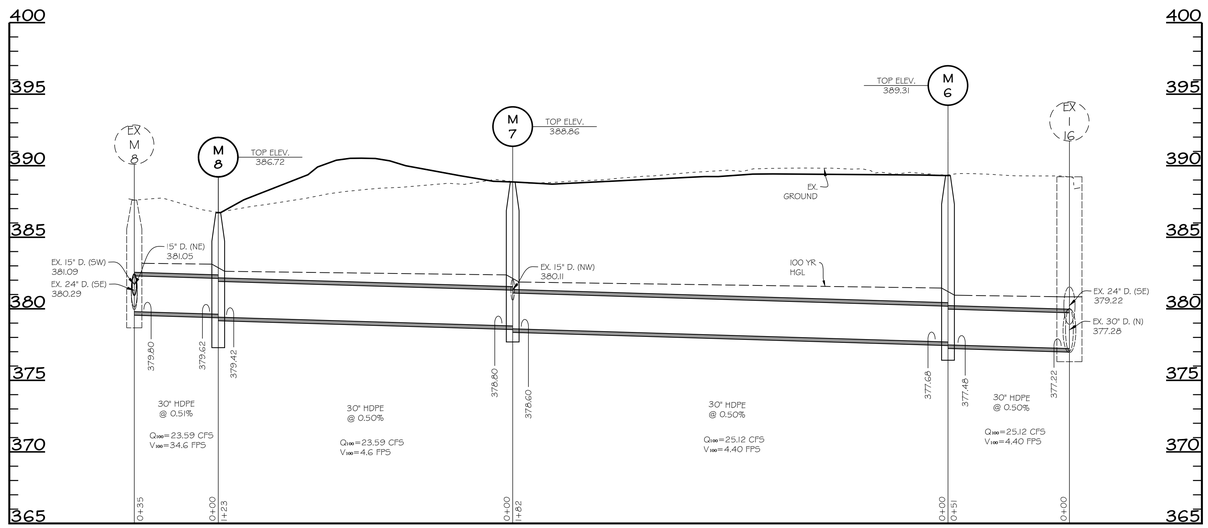

STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'

STORM MANHOLE SCHEDULE

NO.	TYPE	SIZE	STD. NO.	INV. OUT	TOP ELEV.
M 1	PRECAST MANHOLE - DOGHOUSE OVER EXISTING SEWER	48"	G-5.14	367.20 367.20 367.08	375.41
M 2	PRECAST STANDARD MANHOLE	48"	G-5.12	367.35	375.20
M 3	PRECAST MANHOLE - DOGHOUSE OVER EXISTING SEWER	48"	G-5.14	368.34 367.81 370.38 367.91	376.66
M 4	PRECAST MANHOLE - DOGHOUSE OVER EXISTING SEWER	48"	G-5.14		377.54
M 5	PRECAST MANHOLE - DOGHOUSE OVER EXISTING SEWER	48"	G-5.14	372.00	378.00
M 6	PRECAST STANDARD MANHOLE	48"	G-5.12	377.48	389.31
M 7	PRECAST STANDARD MANHOLE	48"	G-5.12	380.71 378.60	388.86
M 8	PRECAST STANDARD MANHOLE	48"	G-5.12	379.42	386.72
M 9	PRECAST MANHOLE - DOGHOUSE OVER EXISTING SEWER	48"	G-5.14	380.70	387.99
M 10	PRECAST STANDARD MANHOLE	48"	G-5.12	380.97	389.02

STORM INLET SCHEDULE

NO.	TYPE	Q	STD. NO.	INV. OUT	TOP ELEV.
I 2	NYLOPLAST 12"X12"	1.58 CFS	281.2AG	376.51	379.10
I 3	NYLOPLAST 12"X12"	1.58 CFS	281.2AG	376.33	379.00
I 4	NYLOPLAST 12"X12"	1.58 CFS	281.2AG	376.04	379.10
I 5	NYLOPLAST 12"X12"	1.58 CFS	281.2AG	375.82	379.00
I 6	NYLOPLAST 12"X12"	1.58 CFS	281.2AG	375.24	379.00
I 7	NYLOPLAST 12"X12"	2.32 CFS	281.2AG	375.70	379.00
I 8	NYLOPLAST 12"X12"	2.32 CFS	281.2AG	375.96	379.00
I 9	NYLOPLAST 12"X12"	0.08 CFS	281.2AG	370.50	376.50
I 10	YARD INLET	2.02 CFS	D-4.10	382.50	388.00
I 11	YARD INLET	1.17 CFS	D-4.10	383.50	389.00
I 13	NYLOPLAST 12"X12"	0.05 CFS	281.2AG	386.64	391.34
I 14	YARD INLET	3.57 CFS	D-4.10	383.00	388.00
I 15	NYLOPLAST 12"X12"		281.2AG	000.00	391.00
I 16	NYLOPLAST 12"X12"		281.2AG	000.00	0.00
I 17	NYLOPLAST 12"X12"	0.05 CFS	281.2AG	388.25	390.50
I 18	YARD INLET	4.20 CFS	D-4.10	381.00	386.00

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02, C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
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STATE OF MARYLAND
GERALD DOUGLAS CUNNINGHAM
No. 26569
PROFESSIONAL ENGINEER
2/9/2024

PROFESSIONAL ENGR. NO. 26569

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424 ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9 ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 590 (TG 700)	SEWER CODE: F07	STAGE:

TITLE:
UTILITY PROFILES

DESIGNED: GDT, MM	SCALE: 1" = 50'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	32 of 39
CHECKED BY: MCB	APPROVED: ___	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks — 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DocuSigned by: — 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DocuSigned by: Lynda Eisenberg — 4/17/2024
DIRECTOR — DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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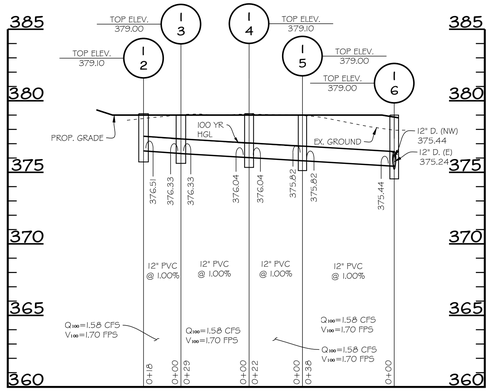
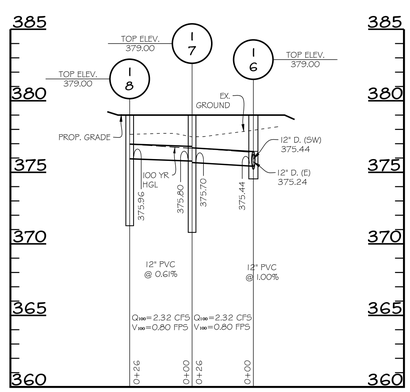


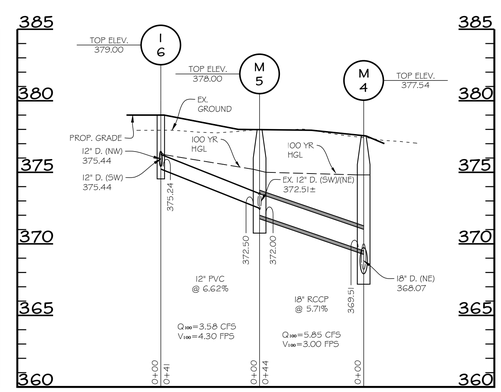
STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



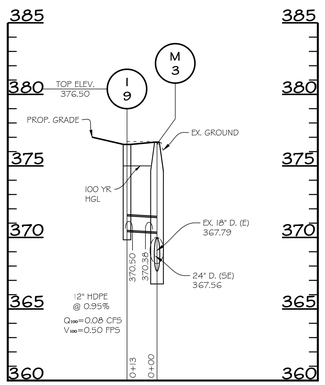
STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



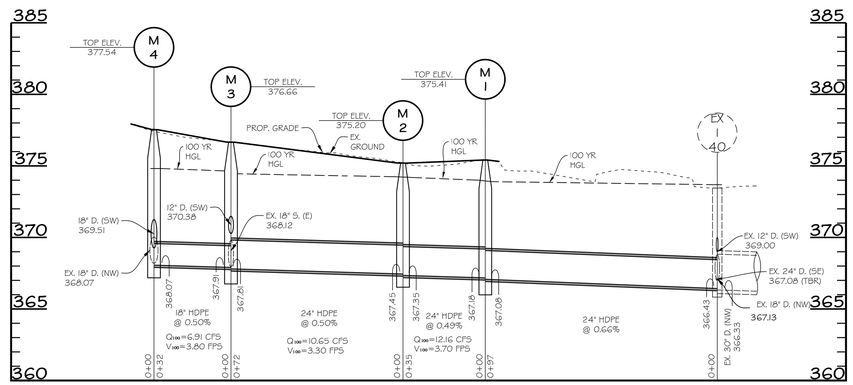
STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



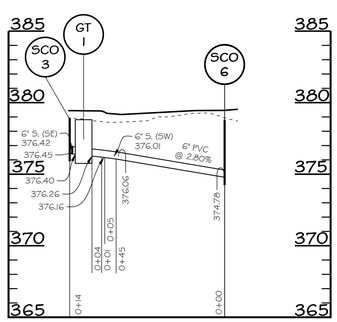
STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



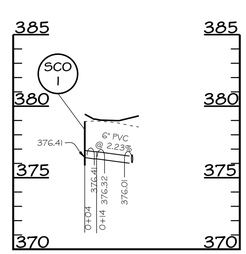
STORM DRAIN PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



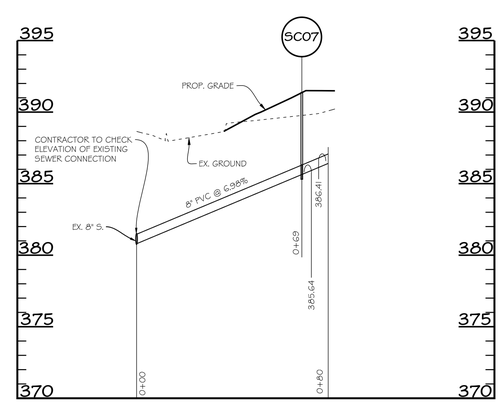
PRIVATE SANITARY PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



PRIVATE SANITARY PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'



PRIVATE SANITARY PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=5'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

PROFESSIONAL CERTIFICATION
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. 26569, EXPIRATION DATE: 07/18/25.

STATE OF MARYLAND — GERALD DOUGLAS LUNSFORD — No. 26569 — PROFESSIONAL ENGINEER
Gerald Douglas Lunsford 2/5/2024

PROFESSIONAL ENGR. NO. 26569

DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT		SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR L/F: 10576 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE:
UTILITY PROFILES

DESIGNED: GDT, MM	SCALE: 1" = 50'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	33 of 39
CHECKED BY: MCB	APPROVED:	

SDP-22-043

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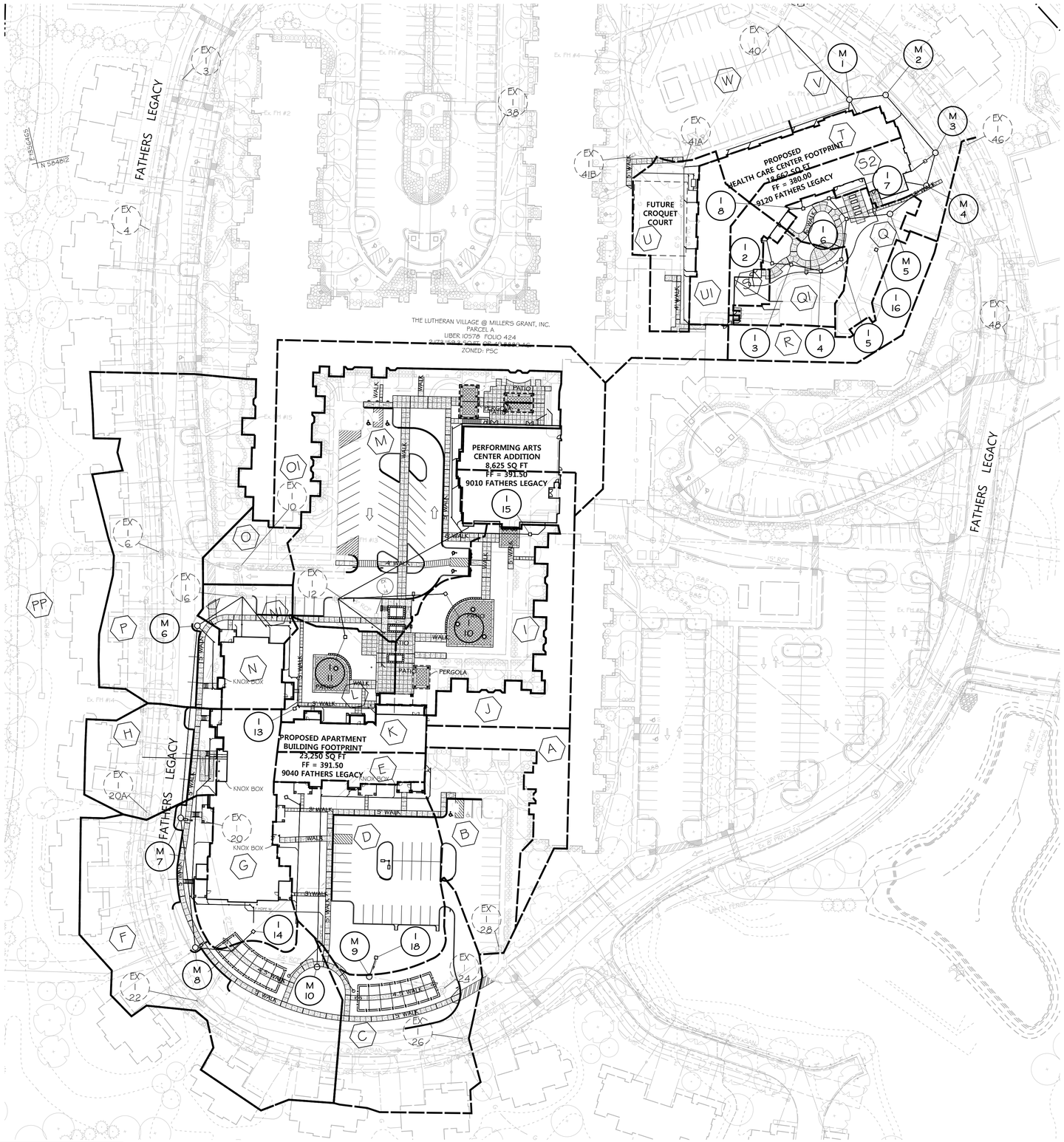
DocuSign Envelope ID: 846AE33A-76ED-41A6-92E4-12BE04BACF89



PLAN

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. TREELINE
- LIMIT OF DISTURBANCE
- EX. TREE

AREA TABLE

	DA	AREA (AC)	COEFF. "C"	INLET No.
ROOF	A	0.17	0.86	M-11
	B	0.33	0.62	EX I-28
	C	0.45	0.61	EX I-26
	D	0.56	0.59	I-28
ROOF	E	0.10	0.96	M-11
	F	0.88	0.64	EX I-22
ROOF	G	0.36	0.77	I-14
	H	0.26	0.67	EX I-20A
	I	0.40	0.40	I-10
ROOF	J	0.34	0.96	EX I-22
ROOF	K	0.11	0.96	EX I-22
	L	0.19	0.48	I-11
	M	0.92	0.71	EX I-22
	N	0.19	0.96	EX I-16
	O	0.10	0.52	EX I-10
	N-1	0.09	0.61	EX I-16
	P	0.85	0.61	EX I-6
ROOF	O-1	0.56	0.96	EX I-10
	Q	0.18	0.34	M-4
ROOF	R	0.19	0.93	M-3
ROOF	S-1	0.08	0.96	I-2
ROOF	T	0.14	0.96	M-1
	U	0.19	0.36	EX 41A
ROOF	U-1	0.12	0.96	EX 41A
	V	0.74	0.72	EX I-44
	W	0.57	0.86	EX I-40
	PP	0.77	0.33	Rear Yards
ROOF	S-2	0.12	0.96	M-5
	Q-1	0.14	0.34	I-5

PROFESSIONAL CERTIFICATION

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. 26569, EXPIRATION DATE: 07/1/25.

STATE OF MARYLAND — GERALD DOUGLAS WALKER — No. 26569 — PROFESSIONAL ENGINEER

Gerald Douglas Walker 2/5/2024

PROFESSIONAL ENGR. NO. 26569

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602800
WATER CODE: 520 (TG 700)		SEWER CODE: 707	STAGE:

TITLE:

STORM DRAIN DRAINAGE MAP

DESIGNED: GDT, MM	SCALE: 1" = 30'		PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023		34 of 39
CHECKED BY: MCB	APPROVED:		

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Chad Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 52D9D4388B9D4DE...	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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SDP-22-043

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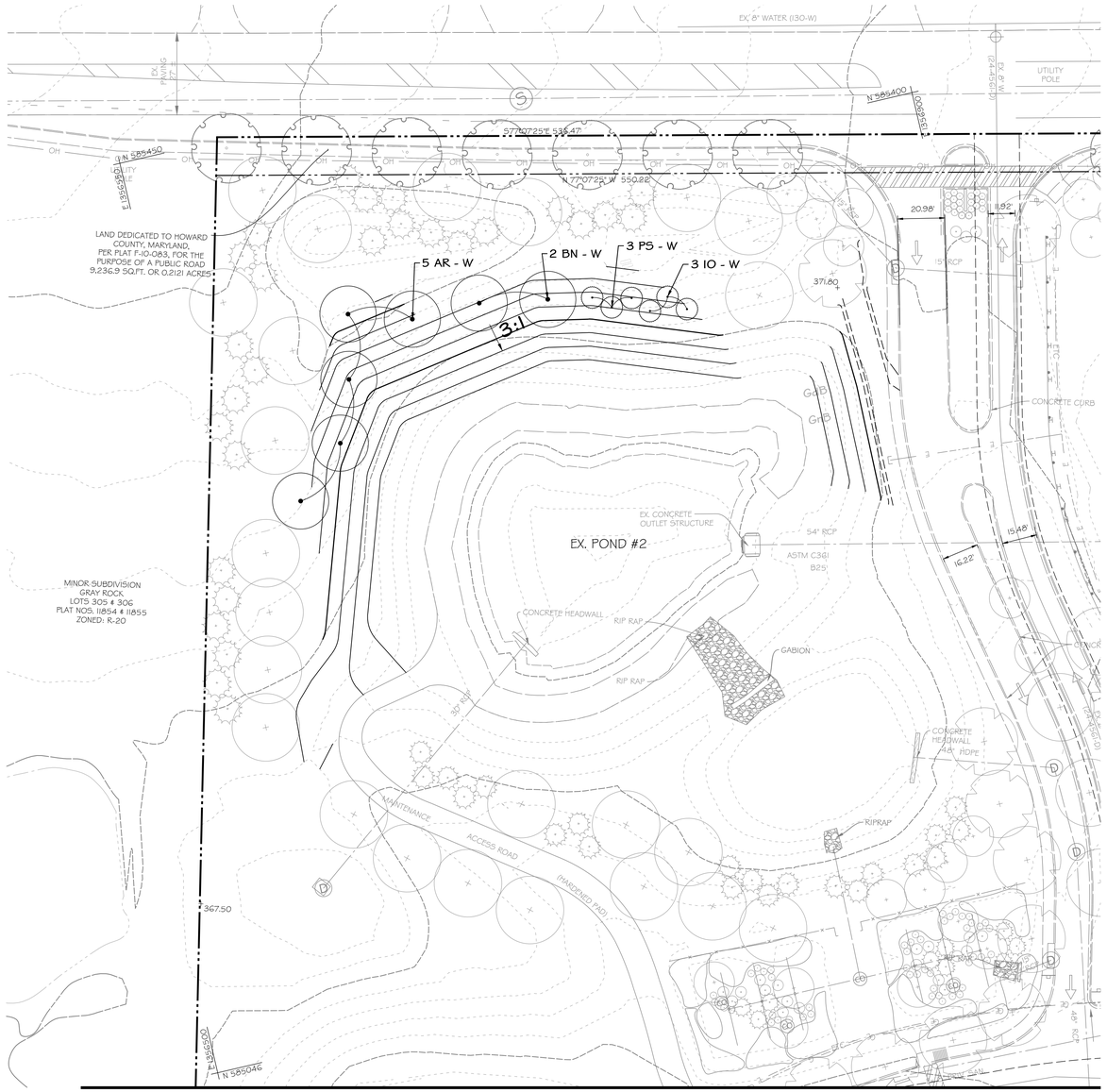

MATCHLINE SEE SHEET 35

PLAN

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- 120 EX. MAJOR CONTOUR
- 118 EX. MINOR CONTOUR
- 120 PROP. MAJOR CONTOUR
- 118 PROP. MINOR CONTOUR
- PROP. BUILDING
- FCE EX. TREELINE
- FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BeB / LIB SOILS
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- SLOPES 15% -25%
- SLOPES 25% & UP

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME/ 2 Feb 2024 DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 712, EXP. DATE: 11/01/25.

LANDSCAPE ARCHITECT 712 STEVEN D. KUHLL STATE OF MARYLAND

2/5/2024

PROFESSIONAL LA NO. 712

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE:

LANDSCAPE PLANTING PLAN - LAYOUT 1

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	35 of 39
CHECKED BY: MCB	APPROVED: ___	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

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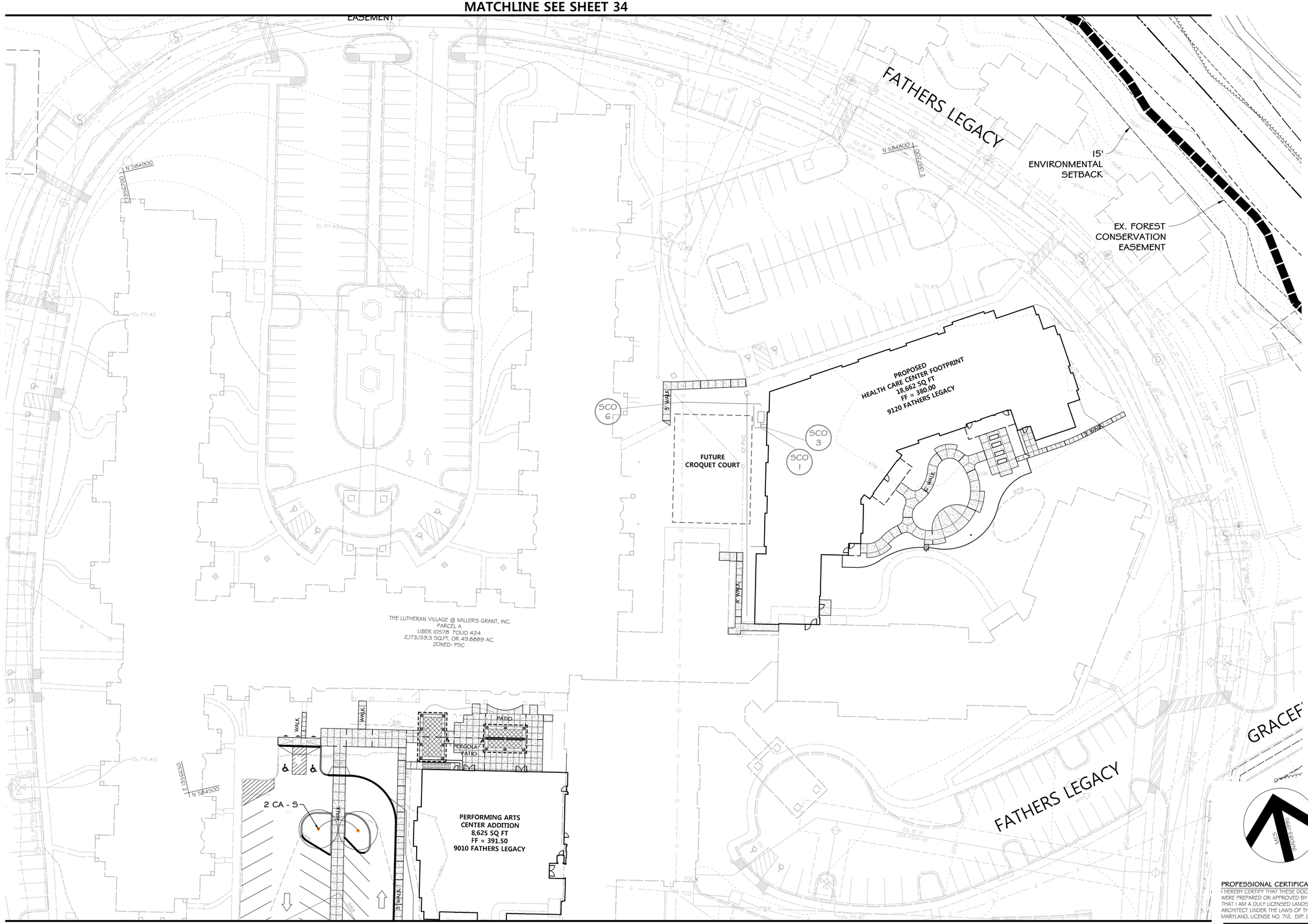

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
- STREAM EDGE
- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
- LIMIT OF DISTURBANCE
- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB
- PROPOSED REQUIRED SHADE TREE PLANTINGS

PLAN

30 0 30 60

SCALE: 1" = 30'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
DocuSigned by: Kelly Edmundson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME DATE 2 Feb 2024

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 712, EXP. DATE: 11/01/25.

LANDSCAPE ARCHITECT 712 STEPHEN ALLEN WILLIAMS STATE OF MARYLAND
2/5/2024

PROFESSIONAL LA NO. 712

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLER'S GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR L/F: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)		SEWER CODE: F07	STAGE:

TITLE:
LANDSCAPE PLANTING PLAN - LAYOUT 2

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	36 of 39
CHECKED BY: MCB	APPROVED: ____	

SDP-22-043

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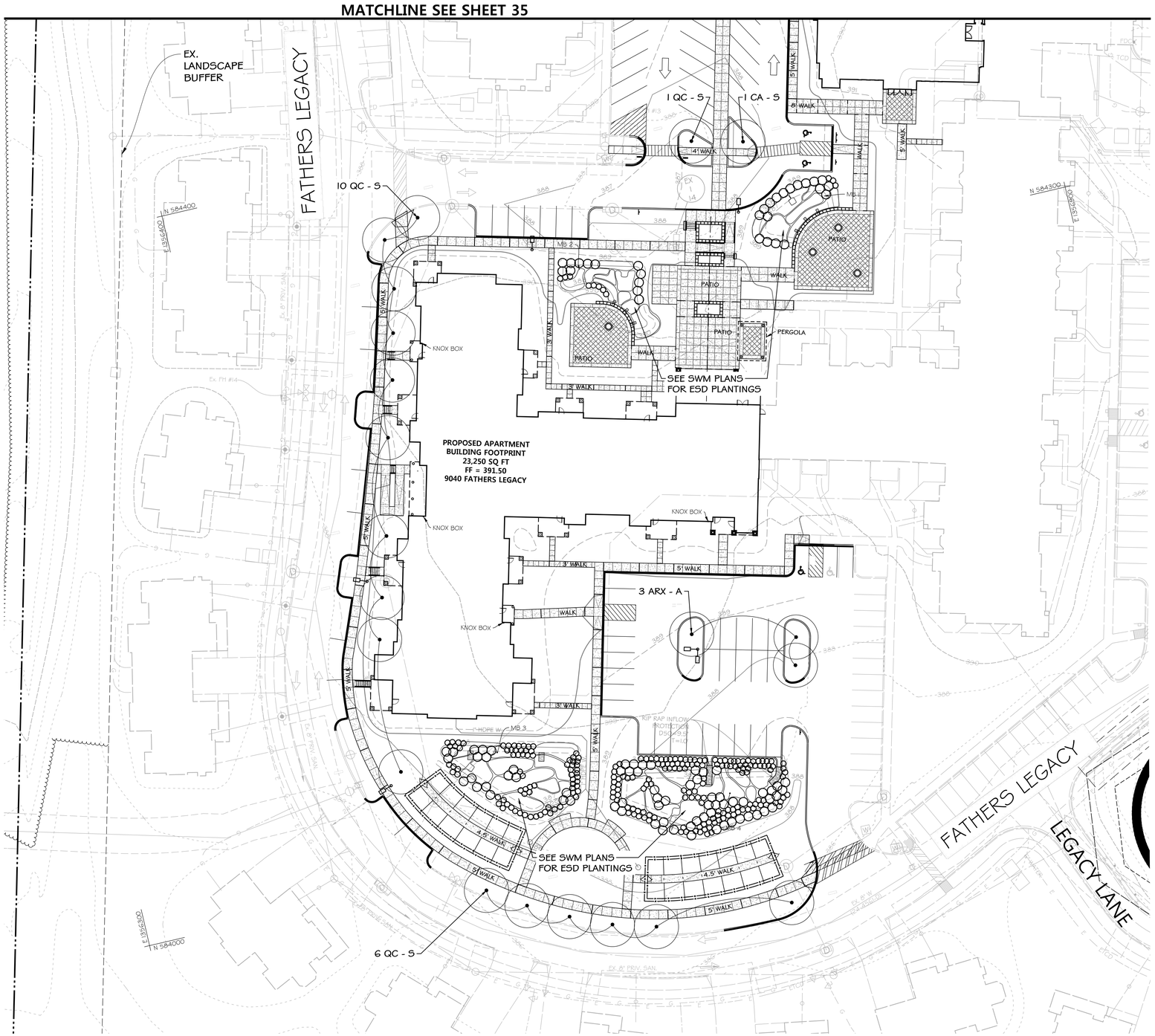

LEGEND

- PROPERTY BOUNDARY
- ADJACENT LOT LINE
- RIGHT OF WAY
- EX. BUILDING
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROP. BUILDING
- EX. TREELINE
- FCE — FOREST CONSERVATION
- STREAM CENTERLINE
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- STREAM BUFFER
- FLOODPLAIN
- FLOODPLAIN BUFFER
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- EX. WETLAND
- EX. WATER & PUBLIC UTILITY EASEMENT
- EX. TREE
- BrB — SOILS
- LIB — EX. FOREST CONSERVATION EASEMENT
- EX. 15' ENVIRONMENTAL SETBACK
- EX. 50' STRUCTURE & USE SETBACK FROM ARTERIAL ROW
- EX. 50' LANDSCAPE BUFFER
- EX. 50' LANDSCAPE BUFFER
- PROP. CURB
- EX. CURB
- PROPOSED REQUIRED SHADE TREE PLANTINGS

PLAN

30 0 30 60

SCALE: 1" = 30'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Child Edmondson	4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by:	4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 1A2D9A2B8B0A3CE...	4/17/2024
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

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DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME — DATE 2 Feb 2024

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 712, EXP. DATE: 1/1/2025.

LANDSCAPE ARCHITECT — MICHAEL C. BELLAVIA — No. 712 — STATE OF MARYLAND

2/5/2024

PROFESSIONAL LA NO. 712

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC / CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: 707		STAGE:

TITLE:

LANDSCAPE PLANTING PLAN - LAYOUT 3

DESIGNED: GDT, MM	SCALE: 1" = 30'	PROJECT NO: 19028.00	
DRAWN: AMT	DATE: 7/28/2023	37 of 39	
CHECKED BY: MCB	APPROVED:		

SDP-22-043

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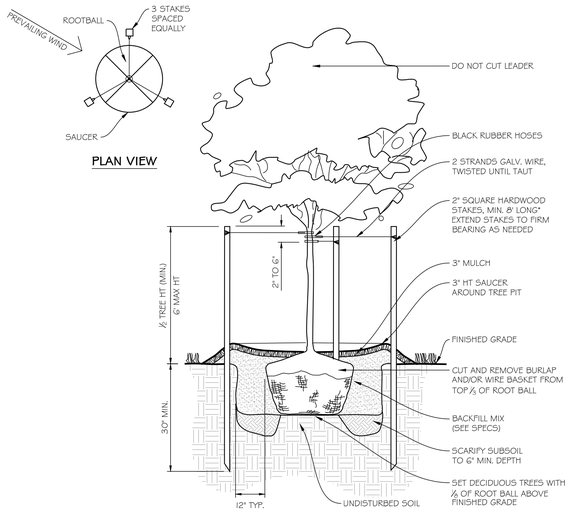
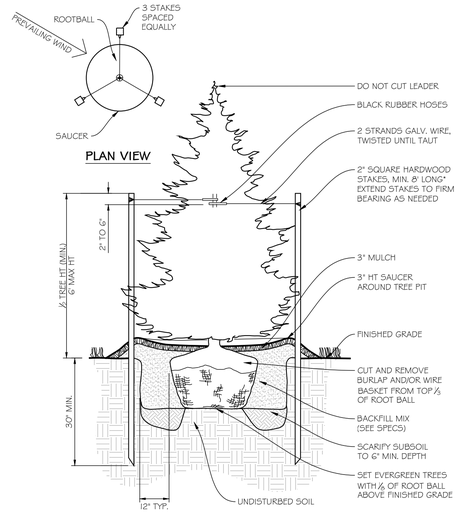
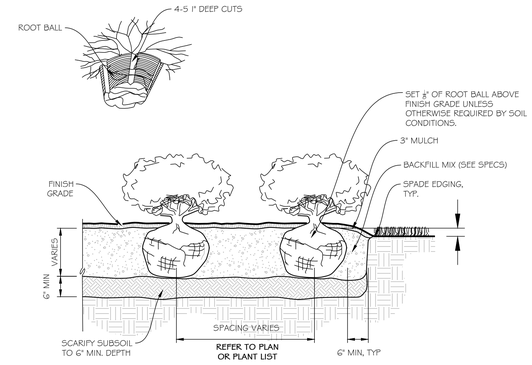


1 DECIDUOUS TREE PLANTING
NOT TO SCALE



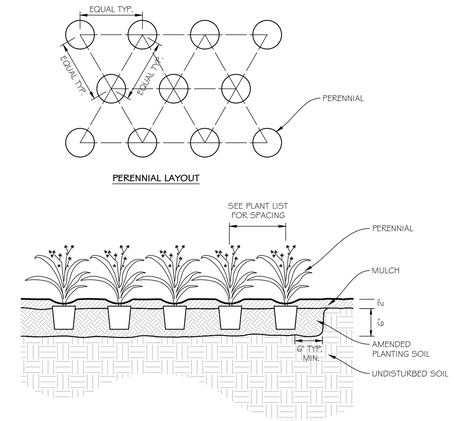
2 EVERGREEN TREE PLANTING
NOT TO SCALE



NOTES:

1. FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-BIODEGRADABLE CONTAINERS AND SCARIFY ROOTBALL BY USING A SHARP BLADE AND MAKING 4 TO 5 ONE INCH CUTS THE LENGTH OF THE ROOTBALL.
2. FOR B&B SHRUBS, CUT AND REMOVE BURLAP FROM TOP 1/ 3 OF ROOT BALL

3 SHRUB PLANTING
NOT TO SCALE



4 PERENNIAL PLANTING
NOT TO SCALE

SCHEDULE A							
PERIMETER LANDSCAPE EDGE SCHEDULE							
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES					
PERIMETER	2	1	3	4	5	6	
LANDSCAPE TYPE 'A'			1546 L.F.	221 L.F.	726 L.F.		
1 Shade Tree / 60 L.F.							
LANDSCAPE TYPE 'B'							
1 Shade Tree / 50 L.F.							
1 Evergreen Tree / 40 L.F.							
LANDSCAPE TYPE 'C'							
1 Shade Tree / 40 L.F. and	457 L.F.	1472 L.F.				1663 L.F.	
1 Evergreen Tree / 20 L.F.							
CREDIT FOR EX. VEG	NO	NO	NO	YES	YES	YES	
BELOW IF NEEDED				85 L.F.	726 L.F.	720 L.F.	
CREDIT FOR WALL, FENCE, OR BERM	NO	NO	NO	NO	NO	NO	
(YES, NO, LINEAR FEET)							PLANT TOTALS
(DESCRIBE BELOW IF NEEDED)							
NUMBER OF PLANTS REQUIRED							
Shade Trees	12	37	26	4	0	24	103 Shade Trees
Evergreen Trees	23	74	0	0	0	48	145 Evergreen Trees
Shrubs	0	0	0	0	0	0	0 Shrubs
NUMBER OF PLANTS PROVIDED							
Shade Trees	12	37	27	4	0	24	104 Shade Trees
Evergreen Trees	23	74	0	0	0	48	145 Evergreen Trees
Other Trees (2:1 sub.)	10	0	0	0	0	0	10 Other Trees (2:1 sub.)
Shrubs (10:1 substitution)	0	0	0	0	0	0	0 Shrubs (10:1 substitution)
Perimeter Trees are labeled #-Key-P							
A 50' Landscape Buffer is to be established around the Perimeter of the property as required under ZB-1058M							

**ALL REQUIRED PERIMETER LANDSCAPING HAS BEEN INSTALLED AND INSPECTED WITH SDP-08-075. NO PERIMETER LANDSCAPING IS TO BE INSTALLED WITH SDP-22-043.

SCHEDULE B			
PARKING LOT INTERNAL LANDSCAPING			
	PHASE 1 EXISTING*	PHASE 2 PROPOSED	TOTAL CUMULATIVE
	(INSPECTED WITH SDP-08-075)	(INSPECTED WITH SDP-22-043)	
NUMBER OF PARKING SPACES	402 PARKING SPACES	112 PARKING SPACES	514 PARKING SPACES
NUMBER OF TREES REQUIRED	21 Shade Trees	6 Shade Trees	27 Shade Trees
1 Shade Tree / 20 Parking Spaces			
TOTAL NUMBER OF TREES PROVIDED			
Shade Trees	30 Shade Trees**	3 SHADE TREES	33 Shade Trees
		PARKING LOT KEY - A	

* PHASE I TREES WERE BONDED, PLANTED, AND RELEASED WITH SDP-08-075.
**THE QUANTITY OF PARKING LOT INTERNAL LANDSCAPING INSTALLED IN PHASE I IS IN EXCESS OF LANDSCAPING REQUIRED WITH PHASE 2. ADDITIONAL PARKING LOT INTERNAL LANDSCAPING IS NOT PROPOSED AS PART OF PHASE 2.

SCHEDULE C			
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING			
	PHASE 1 EXISTING*	PHASE 2 PROPOSED	TOTAL CUMULATIVE
	(INSPECTED WITH SDP-08-075)	(INSPECTED WITH SDP-22-043)	
TOTAL NUMBER OF DWELLING UNITS	249 TOTAL UNITS	50 TOTAL UNITS	299 TOTAL UNITS
Single Family Attached Duplex Units	12 Duplex Units		12 Duplex Units
Single Family Detached Units	24 SFD Units		24 SFD Units
Apartment Units	205 APT Units	43 APT Units	248 APT Units
High Care Units	32 Beds (8 Units)	28 Beds (7 Units)	60 Beds (15 Units)
NUMBER OF TREES REQUIRED			
1:DU SFA	12 Trees for SFA		12 Trees for SFA
1:3 DU Apts.	68 Trees for Apts.	15 Trees for Apts	83 Trees for Apts.
TOTAL NUMBER OF TREES PROVIDED			
Shade Trees	39 Shade Trees	0 Shade Trees	39 Shade Trees
Other Trees (2:1 sub.)	160 Trees	0 Trees	160 Trees
High Care Units/Beds do not require Unit Trees			
Unit (Residential) Trees are labeled #-KEY			

* PHASE I TREES WERE BONDED, PLANTED, AND RELEASED WITH SDP-08-075.
**THE QUANTITY OF INTERNAL LANDSCAPING INSTALLED IN PHASE I IS IN EXCESS OF LANDSCAPING REQUIRED WITH PHASE 2. ADDITIONAL INTERNAL LANDSCAPING IS NOT PROPOSED AS PART OF PHASE 2.

SCHEDULE D		
STORMWATER MANAGEMENT AREA LANDSCAPING		
	POND 1	POND 2
LINEAR FEET OF PERIMETER	805 L.F.	818 L.F.
LANDSCAPE TYPE 'B'		
1 Shade Tree / 50 L.F.		
1 Evergreen Tree / 40 L.F.		
CREDIT FOR EX. VEGETATION	YES 144	NO
(YES, NO, %)	L.F. (16%)	
CREDIT FOR OTHER LANDSCAPING		
(YES, NO, %)	NO	NO
NUMBER OF TREES REQUIRED		
Shade Trees	14	17
Evergreen Trees	17	21
Other Trees (2:1 sub.)	0	0
TOTAL NUMBER OF TREES PROVIDED		
Shade Trees	14	17 (7 REPLACED)
Evergreen Trees	21	22 (6 REPLACED)
Other Trees (2:1 sub.)	0	0
Stormwater Management Area Trees are labeled #-KEY-W		

*7 DECIDUOUS TREES AND 6 EVERGREEN TREES ARE PROPOSED SWM PLANTINGS AROUND THE PERIMETER OF POND #2. EXISTING TREES WILL BE REMOVED AND REPLACED AS IMPACTED BY GRADING MODIFICATIONS TO POND #2.
** PLANTINGS FOR ESD FACILITIES PROPOSED FOR PHASE 2 ARE SHOWN SWM PLAN SHEETS.

SDP PHASE II PLANT SCHEDULE					
KEY	QTY	BOTANICAL/COMMON NAME	PLANT SIZE	ROOT	REMARKS
DECIDUOUS TREES (Major - Canopy)					
ARX-A	3	Acer x freemanii / Freeman Maple	2.0-2.5" CAL, 12-14' HT.	BxB	
AR-W	5	Quercus rubrum 'October Glory' / Red Oak	2.0-2.5" CAL, 12-14' HT	BxB	Single Stem, Full Head
BN-W	2	Betula nigra / River Birch	2.0-2.5" CAL, 12-14' HT	BxB	Single Stem, Full Head
CA-S	3	Carya alba / Mockernut Hickory	2.0-2.5" CAL, 12-14' HT	BxB	Single Stem, Full Head
QC-S	1	Quercus coccinea / Scarlet Oak	2.0-2.5" CAL, 12-14' HT	BxB	Single Stem, Full Head
QC-S	16	Quercus coccinea / Scarlet Oak	2.0-2.5" CAL, 12-14' HT	BxB	Single Stem, Full Head
	30	Total			
EVERGREEN TREES / CONIFERS					
IO-W	3	Ilex opaca "Jersey Knight" / American Holly (MALE CULTIVAR)	6-7' HT	BxB	Full Head, Branch To Ground
PS-W	3	Pinus Strobus / White Pine	6-7' HT	BxB	Full Head, Branch To Ground
	6	Total			

*7 DECIDUOUS TREES AND 6 EVERGREEN TREES ARE PROPOSED SWM PLANTINGS AROUND THE PERIMETER OF POND #2.
**PLANTINGS FOR ESD FACILITIES PROPOSED FOR PHASE 2 ARE SHOWN SWM PLAN SHEETS.

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH THE LANDSCAPE PLAN AND FINANCIAL SURETY SHALL BE PAID WITH THE DPW, DEVELOPERS AGREEMENT IN THE AMOUNT OF $6,900 FOR THE 23 SHADE TREES LANDSCAPING WITHIN THE STORMWATER MANAGEMENT FACILITIES WILL BE ASSESSED AS PART OF THE DEPARTMENT OF PUBLIC WORKS STORMWATER MANAGEMENT SURETY.

THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

LANDSCAPE SURETY QUANTITIES

SHADE TREES 47
(INCLUDING 6 SHADE TREES ORIGINALLY PLANTED UNDER SDP-08-075 SCHEDULE D TO BE REMOVED AND REPLACED WITH THIS PLAN)

EVERGREEN TREES 7
(TREES ORIGINALLY PLANTED UNDER SDP-08-075 SCHEDULE D TO BE REMOVED AND REPLACED WITH THIS PLAN)

FINANCIAL SURETY FOR PHASE 2 REQUIRED PLANTING HAS BEEN PREVIOUSLY POSTED IN THE AMOUNT OF $13,800 WITH SDP-08-075 UNDER A DEFERRED IMPROVEMENT AGREEMENT. 40 SHADE TREES ARE REQUIRED FOR PHASE 2 LANDSCAPING (20 ADDITIONAL PRIVATE STREET TREES , 5 ADDITIONAL PARKING LOT TREES (SCHEDULE B), AND 15 ADDITIONAL RESIDENTIAL INTERNAL LANDSCAPING TREES (SCHEDULE C). 6 LESS TREES ARE REQUIRED THAN ORIGIANALLY APPROVED FOR PHASE 2 AS SHOWN ON SDP-08-075 DUE TO A REDUCTION IN PARKING PROPOSED FOR THE SITE AND ADDITIONAL STREET TREES PROVIDED WITH PHASE I THAN ORIGINALLY INDICATED). THE DEFERRED IMPROVEMENT SURETY WILL BE TRANSFERRED FROM SDP-08-075 TO SDP-22-043.

AN ADDITIONAL SURETY FOR STORMWATER MANAGEMENT PERIMETER PLANTING WILL BE POSTED IN THE AMOUNT OF $3,000 AS A PART OF THE DEVELOPER'S AGREEMENT FOR THE REMOVAL AND REPLACEMENT OF 7 SHADE TREES AND 6 EVERGREEN TREES ON THE NORTHERN EDGE OF STORMWATER MANAGEMENT POND #2.

TOTAL LANDSCAPE SURETY: $16,800

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME DATE 2 Feb 2024

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 712, EXP. DATE: 11/01/25.

LANDSCAPE ARCHITECT 712 STEVEN D. WILLIAMS STATE OF MARYLAND
2/5/2024

PROFESSIONAL LA NO. 712

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:	LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 520 (TG 700)	SEWER CODE: 707	STAGE:

TITLE:

LANDSCAPE DETAILS

DESIGNED: GDT, MM	SCALE:	PROJECT NO: 19028.CO
DRAWN: AMT	DATE: 7/28/2023	38 of 39
CHECKED BY: MCB	APPROVED:	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Chad Edmondson 4/17/2024
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DocuSigned by: 4/15/2024
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DocuSigned by: Lynda Eisenberg 4/17/2024
DIRECTOR DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE : MARCH 7, 2013

PRIVATE STREET TREE SCHEDULE				
ROAD NAME	LENGTH OF ROAD (BOTH SIDES)	REQ'D. NO. OF TREES (1 TREE / 40 L.F.)	PHASE 1 EXISTING*	PHASE 2 PROPOSED
			(INSPECTED WITH SDP-08-075)	(INSPECTED WITH SDP-22-043)
Fathers Legacy	850 L.F.	22	22	
Fathers Legacy	4380 L.F.	110	91	20
Vals Lane	840 L.F.	21	21	
Pauls Provision	600 L.F.	15	15	
Legacy Lane	558 L.F.	14	14	
StreetTrees are labeled #-Key-S				

* PHASE I TREES WERE BONDED, PLANTED, AND RELEASED WITH SDP-08-075.

PUBLIC STREET TREE SCHEDULE				
ROAD NAME	LENGTH OF ROAD (BOTH SIDES)	REQ'D. NO. OF TREES (1 TREE / 40 L.F.)	NO. OF TREES PROVIDED	
Frederick Road	477 L.F.	12	12	

* ALL PUBLIC STREET TREES WERE BONDED, PLANTED, AND RELEASED WITH SDP-08-075.

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SDP-22-043

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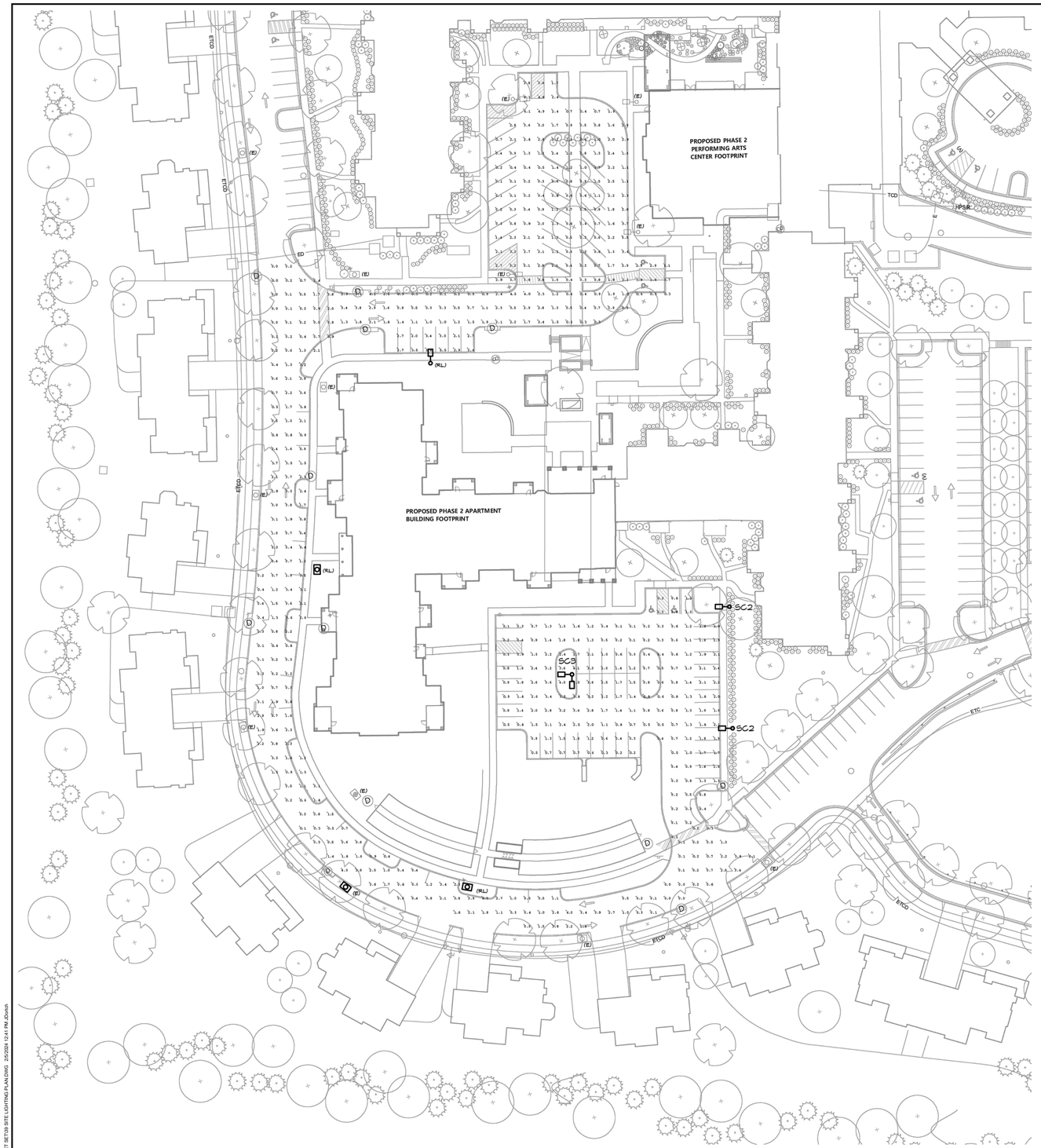


LIGHT FIXTURE SCHEDULE

GENERAL NOTES:

A. RECESS DEPTH LISTED IN THE LAST COLUMN OF THIS SCHEDULE CORRESPONDS TO THE LUMINAIRES LISTED UNDER THE MANUFACTURER AND MODEL COLUMNS. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY THAT LUMINAIRES LISTED IN THE ALTERNATE MANUFACTURER COLUMN WILL NOT INCUR INSTALLATION PROBLEMS DUE TO A DIFFERENCE IN RECESS DEPTH FROM THE ONE LISTED IN THE MANUFACTURER/MODEL COLUMNS.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE INSTALLATIONS OF LUMINAIRES SO THAT FIXTURES WITH A DEFINING ORIENTATION OR AESTHETIC ARE ORIENTED IN THE SAME DIRECTION.

C. FURNISH ALL NECESSARY LUMINAIRE COMPONENTS TO FACILITATE A COMPLETE AND FULLY FUNCTIONAL LIGHTING SYSTEM.

D. CONNECTIONS MADE TO ANY EXTERIOR LIGHT FIXTURE SHALL USE WATERPROOF CONNECTORS.

E. WHERE 'PRE-APPROVED ALTERNATE' IS LISTED IN THE ALTERNATE MANUFACTURERS COLUMN FOR A LIGHT FIXTURE TYPE, ALTERNATE MANUFACTURERS WITH CATALOG NUMBERS MAY BE SUBMITTED TO THE ARCHITECT FOR PRE-APPROVAL UP TO 10 DAYS PRIOR TO BID DATE. AFTER THAT TIME FRAME, NO ALTERNATE MANUFACTURERS WILL BE CONSIDERED. THE PRE-APPROVAL SUBMISSION SHALL INCLUDE A COMPREHENSIVE SHOP DRAWING AND ALL OTHER NECESSARY DOCUMENTATION FOR A COMPLETE AND THOROUGH REVIEW. ALTERNATE MANUFACTURERS SUBMITTED SHALL MEET OR EXCEED THE CRITERIA OF THE SPECIFIED LIGHT FIXTURE. ALTERNATE LIGHT FIXTURES GRANTED PRE-APPROVAL STATUS WILL BE LISTED IN AN ADDENDUM FOR ALL CONTRACTORS' REVIEW.

F. FINAL LUMINAIRE FINISHES SHALL BE SELECTED BY THE ARCHITECT DURING THE SUBMITTAL PHASE. LUMINAIRE FINISHES SHALL BE PRICED AS MANUFACTURER'S STANDARD UNLESS OTHERWISE NOTED.

G. REFER TO THE SPECIFICATIONS FOR FURTHER LIGHTING REQUIREMENTS.

H. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LIGHTING PLANS, LIGHT FIXTURE SCHEDULE, LIGHTING CONTROL DIAGRAMS, AND LIGHTING CONTROLS SCHEDULES, LIGHTING SPECIFICATIONS, AND RELEVANT LIGHTING DETAILS TO ALL DISTRIBUTORS PROVIDING PRICING.

I. ELECTRICAL CONTRACTOR SHALL PROVIDE PRICING FOR THE BASE AND ALTERNATE LIGHT FIXTURES SHOWN AS SPECIFIC LINE ITEMS SO THAT THE OWNER MAY MAKE A DIRECT COMPARISON WHEN DECIDING WHICH OPTION TO PROCEED WITH. BOTH THE BASE AND ALTERNATE LIGHT FIXTURES SHALL NOT BE PROVIDED WITHIN LUMP SUM FIXTURE PACKAGE PRICING.

KEY	DESCRIPTION	LAMPS	(VA)	MANUFACTURER	MODEL	ALTERNATE MANUFACTURER	VOLTAGE	KEY NOTES	MOUNTING	RECESS DEPTH
SC2	SINGLE HEAD, SHOE BOX STYLE CUT-OFF AREA LUMINAIRE ON 20'-0" POLE, LED VERSION	LED, 3000K, 10080 LUMENS	97	LUMARK	LD-RV-T3-E04-E	LITHONIA, GARDCO	277		POLE	20'-0"
SC3	DOUBLE HEAD, SHOE BOX STYLE CUT-OFF AREA LUMINAIRE ON 20'-0" POLE, LED VERSION	LED, 3000K, 20160 LUMENS	194	LUMARK	(2) LD-RV-T3-E04-E	LITHONIA, GARDCO	277		POLE	20'-0"

Lumark

DESCRIPTION

The Ridgeview™ LED area luminaire is the compact, efficient, economical approach to LED area lighting. A pure blend of traditional form and LED efficiency; the Ridgeview luminaire provides functional, low-profile design with excellent operating performance. Patented modular LightBAR™ technology delivers uniform and energy-efficient illumination to parking lots and perimeter security lighting applications.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Rugged one-piece, die-cast aluminum housing secures the thermally conductive LED panel and electrical chamber. Low profile, 3G vibration rated compact design minimizes wind load requirements. Extruded aluminum frame secured with stainless steel hardware confines the LightBAR panel to the thermally conductive housing. The unique glide bracket LightBAR panel allows for easy access to the electrical chamber.

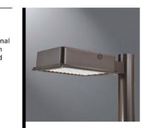
Optics
Choice of twelve patented, high-efficiency AccuLED Optic™ technology. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics.

Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

Mounting
Cast aluminum 6" arm includes bolt guides allowing for easy position of the fixture during installation to pole. Standard single carton packaging of housing, square pole arm and round pole adapter provide contractor-friendly installation. Wall mount models feature a cast aluminum arm that is directly mounted to a 4" supplied wall plate secured with set screws.

Finish
Components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is bronze. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

Warranty
Five-year warranty.



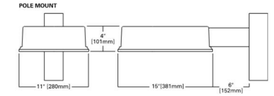
RV
RIDGEVIEW

1 - 4 LightBARs
Solid State LED

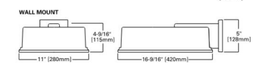
AREA LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



CERTIFICATIONS
UL/cUL Listed
LM79 / LM80 Compliant
3G Vibration Rated
IP65 Fixture Rating
IP66 LightBARs
ISO 9001
Dark Sky Approved (3000K CCT and warmer only)

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating
50°C (Optional) Ambient Temperature Rating

EPA
Effective Projected Area: (Sq. Ft.)
Without Arm: 0.48
With Arm: 0.67

SHIPPING DATA
Approximate Net Weight:
12.5 lbs. (5.8 kgs.)

COOPER Lighting Solutions

TD500013EN
January 18, 2021 9:23 AM

FIXTURE TYPE: SC2, SC3

GENERAL NOTES

(THIS SHEET ONLY)

A. (E) INDICATES EXISTING HPS FIXTURE TO REMAIN.

B. (RL) INDICATES RELOCATED HPS FIXTURE.

DATE	BY	REVISIONS

LUTHERAN VILLAGE AT MILLER'S GRANT - PHASE 2

9000 FATHERS LEGACY
ELLICOTT CITY, MD 21042
ELECTION DISTRICT 02. C1

OWNER / DEVELOPER:
LUTHERAN VILLAGE AT MILLER'S GRANT
C/O LUTHERAN SOCIAL MINISTRIES OF MARYLAND
CONTACT: STEVEN POWELL
300 ST LUKE CIRCLE
WESTMINSTER MD 21158
(410)-848-0090

REESE HACKMAN
Architectural Engineering | Technology Solutions | Lighting Design
2021 Pine Hall Road • State College, PA 16801
v: 814.234.2548 • f: 814.234.2549 • reesehackman.com

PROFESSIONAL CERTIFICATION
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. 56480, EXPIRATION DATE: 9/27/2024

2/6/2024
DATE

STATE OF MARYLAND · MARK D. LAYFIELD · 56480 · PROFESSIONAL ENGINEER

PROFESSIONAL ARCH. NO.

SUBDIVISION NAME: LUTHERAN VILLAGE AT MILLERS GRANT	SECTION/AREA:		LOT/PARCEL #: 1001
PLAT # OR LF: 10578 / 00424	ELEC. DIST.: 02	TAX ZONE/MAP/GRID: MAP 24 / GRID 9	ZONE: PSC	CENSUS TRACT: 602800
WATER CODE: 550 (TG 700)	SEWER CODE: F07		STAGE:

TITLE:
SITE LIGHTING PLAN

DESIGNED: GDT, MM	SCALE:	PROJECT NO: 19028.00
DRAWN: AMT	DATE: 7/28/2023	39 of 39
CHECKED BY: MCB	APPROVED: ___	

SITE ELECTRICAL PLAN

1 / E101

SCALE: 1" = 40'-0"

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DocuSigned by: Kent Sheubrooks 4/17/2024	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DocuSigned by: 4/15/2024	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DocuSigned by: Lynda Eisenberg 4/17/2024	
DIRECTOR	DATE

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
March 7, 2013
DATE :

A:\19028\19028 BENGRCAD FILES\SHEET SET\09 SITE LIGHTING PLAN.DWG 2/5/2024 12:41 PM JDoerch