

## GENERAL NOTES:

1. EXISTING ZONING: AG, AGRICULTURE
2. TOTAL AREA OF SITE: 18,248.3 ACRES
3. TOTAL DEVELOPED AREA: 707,953 SQ. FT.
4. THE PROPERTY SHOWN HEREON IS OWNED BY STEVEN BUCHMAN HEIRD BY DEED DATED AUGUST 22, 2023 AND RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY IN DEED BOOK 11099, PAGE 439.
5. TAX MAP: 47, BLOCK: 12, PARCEL: 518
6. TOPOGRAPHY SHOWN HEREON IS AERIAL TOPOGRAPHY PERFORMED BY COUNTY SURVEYORS IN 2015 AND CARROLL COUNTY LIDAR PRODUCTS AND MAY NOT BE A SUITABLE SUBSTITUTE FOR A FIELD SURVEY. CARROLL COUNTY DOES NOT WARRANT ITS ACCURACY FOR ANY PURPOSE.
7. LOCATION OF THE NEAREST WATER SUPPLY AVAILABLE FOR FIRE PROTECTION IS HAMPSTEAD, 2.0 MILES.
8. THE LOCATION OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF ANY EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
9. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 THREE (3) WORKING DAYS PRIOR TO BEGINNING ANY WORK IN THE VICINITY OF EXISTING UTILITIES.
10. THE CONTRACTOR SHALL NOTE THAT IN CASE OF A DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
11. ANY CHANGES TO THIS PLAN WILL REQUIRE AN AMENDED SITE DEVELOPMENT PLAN TO BE APPROVED BY THE CARROLL COUNTY PLANNING AND ZONING COMMISSION. THIS SITE PLAN SHALL BECOME VOID EIGHTEEN MONTHS AFTER THE DATE OF APPROVAL IF NO BUILDING PERMIT OR ZONING CERTIFICATE HAS BEEN ISSUED FOR THIS PROJECT, UNLESS AN EXTENSION OF THIS TIME LIMIT IS ISSUED BY THE DIRECTOR OF THE DEPARTMENT OF LAND AND RESOURCE MANAGEMENT.
12. ALL CONSTRUCTION ON THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE "DESIGN MANUAL-VOLUME 1-ROADS AND STORM DRAINS", THE "BOOK OF STANDARDS, HIGHWAY AND INCIDENTAL STRUCTURES", "HIGHWAY DRAINAGE MANUAL" OF THE STATE HIGHWAY ADMINISTRATION, "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE AND STATE SOIL CONSERVATION COMMITTEE, AND ALL ADDENDA AND ERRATA TO ALL OF THE ABOVE.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEERING OFFICE OF CLSI AT (410) 848-1790 IN THE EVENT OF ANY DISCREPANCIES IN THE PLANS OR IN THE RELATIONSHIPS OF FINISHED GRADES TO EXISTING GRADES PRIOR TO THE BEGINNING WORK.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TRAFFIC ON ANY EXISTING ROADS.
15. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
16. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK AS SHOWN ON THESE DRAWINGS:  
ALLEGHENY POWER . . . . . 301-829-7009  
BALTIMORE GAS & ELECTRIC . . . . . 410-234-6313  
BUREAU OF RESOURCE MANAGEMENT . . . . . 410-386-2506  
VERIZON . . . . . 410-876-9905
17. ALL UTILITIES SHALL BE CLEARED BY A MINIMUM OF 1'-0". ALL UTILITY POLES SHALL BE CLEARED BY A MINIMUM OF 2'-0" OR TUNNELED IF REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST FOR TUNNELING OR READING.
18. CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITY SERVICES WITHOUT WRITTEN PERMISSION FROM THE OWNER OF THE UTILITY.
19. ALL SAFETY MEASURES TO BE IMPLEMENTED DURING THE CONSTRUCTION OF THIS PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
20. THE HORIZONTAL CONTROL SHOWN HEREON IS BASED ON THE "MARYLAND COORDINATE SYSTEM" (NAD-83-91). THE VERTICAL CONTROL IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
21. IN FILL AREAS, THE COMPACTION SHALL BE FULL HEIGHT COMPACTION TO THE SPECIFIED ELEVATION. FILL SHALL BE PLACED IN EIGHT (8) INCH (PLUS OR MINUS TWO (2) INCHES), MEASURED LOOSE LIFTS AND EACH LIFT COMPACTED TO NOT LESS THAN NINETY-FIVE PERCENT (95%) OF THE MAXIMUM DRY DENSITY AT PLUS OR MINUS TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT, AS DETERMINED BY THE MODIFIED PROCTOR TEST (AASHTO T-99) UNLESS SPECIFIED OTHERWISE BY THE GEOTECHNICAL ENGINEER.
22. ALL CUT/FILL QUANTITIES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY AS REQUIRED BY THE SEDIMENT CONTROL AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL VERIFY SUCH CALCULATIONS TO HIS OWN SATISFACTION FOR BID CONTRACT PURPOSES.
23. BUILDINGS WILL BE DESIGNED WITH AUTOMATIC SPRINKLER SYSTEMS.
24. BOARD OF ZONING APPEALS CASE NUMBER: 6130. REQUEST FOR CONDITIONAL USE FOR A 80-BED ASSISTED LIVING FACILITY.
25. APPROVAL DATE: December 8, 2020
26. THE SITE SHOWN HEREON CONTAINS PRIVATE STORMWATER MANAGEMENT FACILITIES. A "STORMWATER MANAGEMENT EASEMENT AND MAINTENANCE AGREEMENT" IS TO BE GRANTED TO THE COUNTY COMMISSIONERS OF CARROLL COUNTY AS AN EASEMENT OF ACCESS TO THE COUNTY COMMISSIONERS OR AUTHORIZED REPRESENTATIVES BY A DEED TO BE RECORDED SIMULTANEOUSLY HERewith.
27. THE AREA SHOWN HEREON AS REFORESTATION AREA IS INTENDED TO BE RECORDED AND GRANTED TO THE COUNTY COMMISSIONERS OF CARROLL COUNTY, MARYLAND, SIMULTANEOUSLY HERewith.
28. THIS SITE RESIDES WITHIN A HIGH QUALITY WATERSHED TIER II WATERSHED AS DEFINED BY MDE.
29. THE SITE SHALL COMPLY WITH THE REQUIREMENTS OF THE MARYLAND ACCESSIBILITY CODE, COMAR 09.12.53, AS WELL AS THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
30. THE FRONT MAIN ENTRANCE DOOR SHALL BE ACCESSIBLE; THIS MAY INCLUDE BUT NOT LIMITED TO RAMPS, LANDINGS AT DOORS AND DOOR WIDTH. (COMAR 09.12.53, ADAAG).
31. PROVIDE "ACCESSIBLE" AND "VAN ACCESSIBLE" HANDICAP PARKING WITH AN ACCESSIBLE ROUTE TO THE MAIN ENTRANCE. HANDICAP PARKING AND ALL ACCESSIBLES MUST MAINTAIN A MAXIMUM 2% SLOPE THROUGHOUT. ACCESSIBLE ROUTES MUST MAINTAIN A MAXIMUM 2% CROSS SLOPE AND A MAXIMUM RUNNING SLOPE OF 5%.
32. A "FORM" INSPECTION IS REQUIRED ON ALL ACCESSIBLE RAMPS AND CURB RAMPS PRIOR TO PLACEMENT OF FINAL MATERIAL. SLOPES OF RAMPS AND CURB RAMPS SHALL COMPLY WITH COMAR 09.12.53 AND 2010 ADA STANDARDS OF ACCESSIBLE DESIGN.
33. ALL "ACCESSIBLE" AND "VAN ACCESSIBLE" PARKING SHALL HAVE PROPER SIGNAGE. SIGNS SHALL BEAR THE INTERNATIONAL SYMBOL OF ACCESS AND THE WORDS "RESERVED PARKING". "VAN ACCESSIBLE" PARKING SIGNS SHALL BEAR THE WORDS "VAN ACCESSIBLE". EACH "VAN ACCESSIBLE" ACCESSIBLE SIGN SHALL BE IDENTIFIED WITH A SUPPLEMENT "NO PARKING" SIGN. ALL SIGNS SHALL CONFORM WITH THE REQUIREMENTS FOR UNIFORM TRAFFIC CONTROL DEVICES UNDER TRANSPORTATION ARTICLE 25-104, ANNOTATED CODE OF MARYLAND.

CARROLL SOIL CONSERVATION DISTRICT  
THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND  
SEDIMENT CONTROL BY THE CARROLL SOIL CONSERVATION DISTRICT.

APPROVED \_\_\_\_\_ CARROLL S.C.D. DATE: \_\_\_\_\_

CARROLL COUNTY PLANNING AND ZONING COMMISSION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CARROLL COUNTY HEALTH DEPARTMENT

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

FINAL SITE PLAN  
for  
AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY

8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND

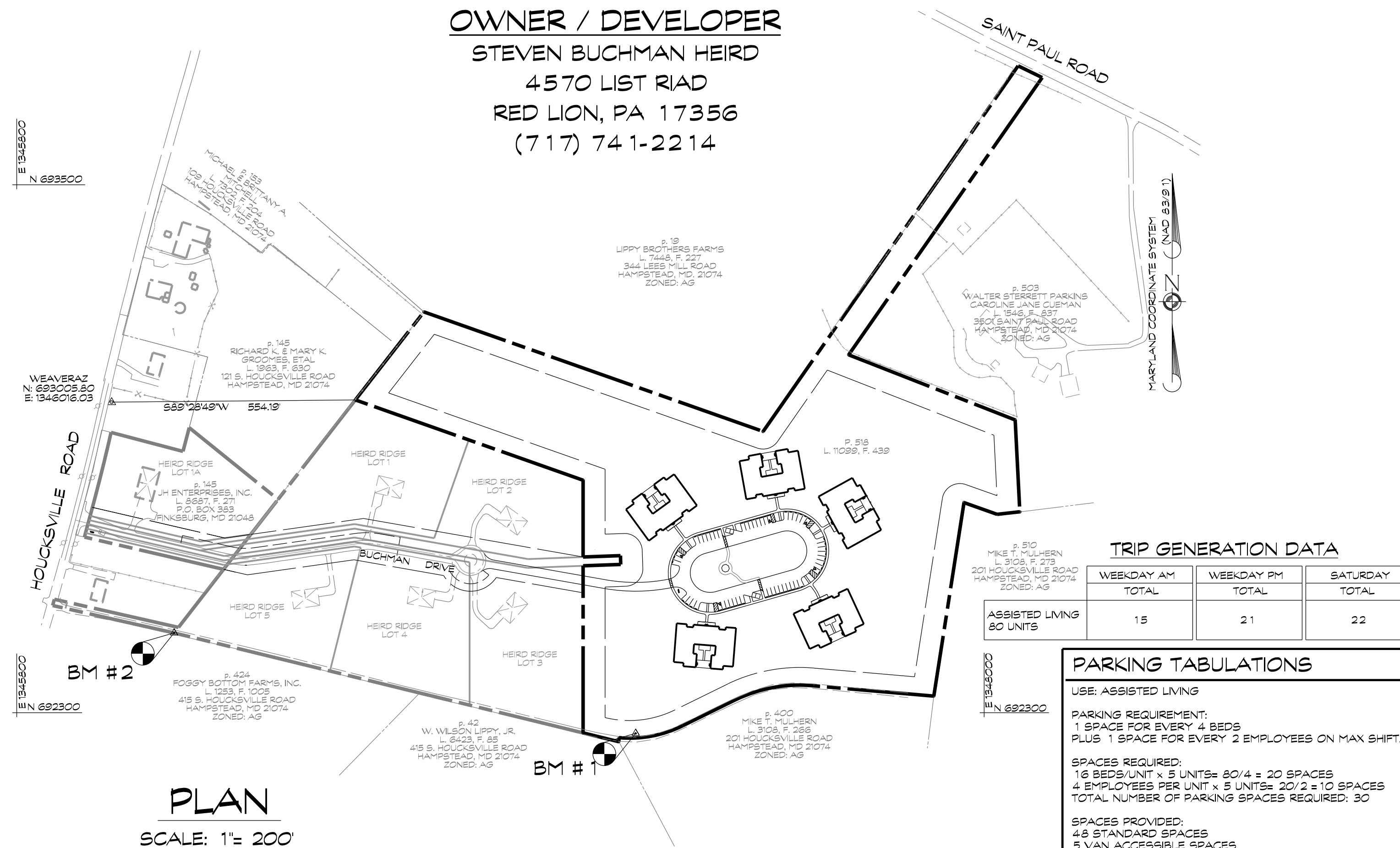
## OWNER / DEVELOPER

STEVEN BUCHMAN HEIRD

4570 LIST RIAD

RED LION, PA 17356

(717) 741-2214



## TRIP GENERATION DATA

	WEEKDAY AM TOTAL	WEEKDAY PM TOTAL	SATURDAY TOTAL
ASSISTED LIVING 80 UNITS	15	21	22

## PARKING TABULATIONS

USE: ASSISTED LIVING  
PARKING REQUIREMENT:  
1 SPACE FOR EVERY 4 BEDS  
PLUS 1 SPACE FOR EVERY 2 EMPLOYEES ON MAX SHIFT.SPACES REQUIRED:  
16 BEDS/UNIT x 5 UNITS = 80/4 = 20 SPACES  
14 EMPLOYEES PER UNIT x 5 UNITS = 20/2 = 10 SPACES  
TOTAL NUMBER OF PARKING SPACES REQUIRED: 30SPACES PROVIDED:  
48 STANDARD SPACES  
5 VAN ACCESSIBLE SPACES  
53 TOTAL SPACES PROVIDED

## PROJECT CERTIFICATIONS

ENGINEER

I CERTIFY THAT THIS PLAN OF SEDIMENT CONTROL IS DESIGNED  
WITH MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND  
HAS BEEN DESIGNED TO THE STANDARDS AND SPECIFICATIONS  
ADOPTED BY THE CARROLL SOIL CONSERVATION DISTRICT.Braton D. Moore, P.E.  
Professional Engineer Registration No. 512858/24/2023  
DATE

DEVELOPER

I CERTIFY THAT THIS PLAN OF SOIL EROSION & SEDIMENT CONTROL WILL BE  
IMPLEMENTED TO THE FULLEST EXTENT, AND ALL STRUCTURES WILL BE  
INSTALLED TO THE DESIGN AND SPECIFICATIONS AS SPECIFIED OUT IN THIS  
PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN CONSTRUCTION  
OF THIS PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A  
DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE  
CONTROL OF SOIL EROSION & SEDIMENT BEFORE BEGINNING THE PROJECT. I  
ALSO AUTHORIZE PERIODIC ON-SITE EVALUATION BY THE CARROLL SOIL  
CONSERVATION DISTRICT PERSONNEL AND COOPERATING AGENCIES.

DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

PRINTED NAME OF DEVELOPER \_\_\_\_\_

DEVELOPER COMPANY NAME \_\_\_\_\_ DEVELOPER PHONE NUMBER \_\_\_\_\_

OWNER

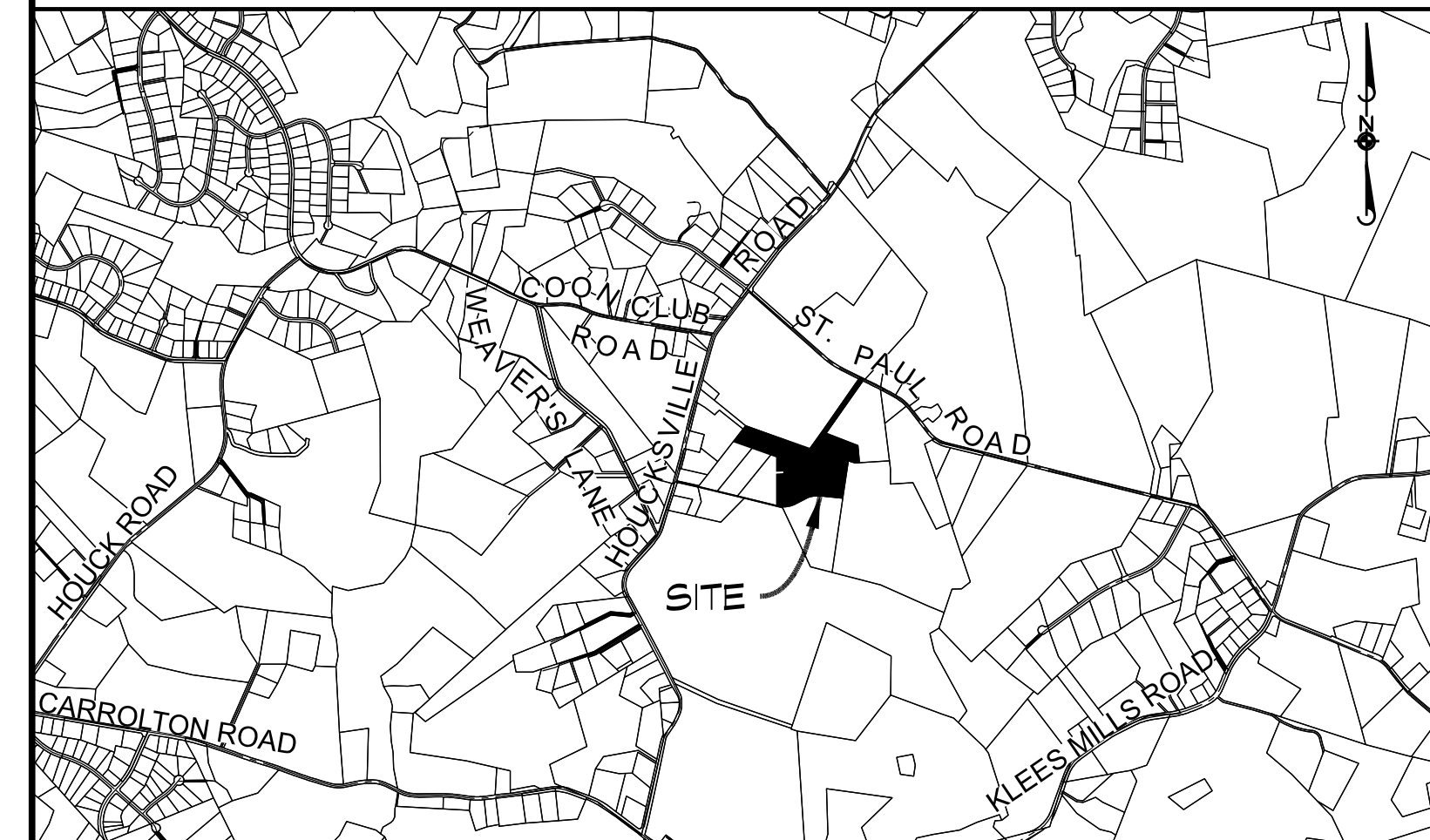
I HAVE HEREBY CERTIFY THAT ALL PROPOSED  
WORK SHOWN ON THESE CONSTRUCTION  
DRAWINGS HAS BEEN REVIEWED BY ME/US  
AND THAT I HAVE FULLY UNDERSTAND WHAT IS  
NECESSARY TO ACCOMPLISH THIS WORK AND  
THAT THE WORK WILL BE CONDUCTED IN STRICT  
ACCORDANCE WITH THESE PLANS. I HAVE ALSO  
UNDERSTAND THAT ANY CHANGES TO THESE PLANS  
WILL REQUIRE AN AMENDED PLAN TO BE  
REVIEWED AND APPROVED BY THE CARROLL COUNTY  
PLANNING AND ZONING COMMISSION BEFORE ANY  
CHANGE IN THE WORK IS MADE.

OWNER \_\_\_\_\_ DATE \_\_\_\_\_

439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

## VICINITY MAP

SCALE: 1" = 200'



## LIST OF DRAWINGS

1. TITLE SHEET
2. SEDIMENT CONTROL PLAN
3. SEDIMENT CONTROL NOTES AND DETAILS
4. LAYOUT PLAN-OVERALL
5. LAYOUT PLAN-PARKING LOT
6. DRIVEWAY PLAN AND PROFILE
7. GRADING PLAN
8. PARKING LOT GRADING PLAN
9. STORMWATER MANAGEMENT PLAN
10. STORMWATER FACILITIES GEOMETRY
11. STORMWATER MANAGEMENT PROFILES
12. STORMWATER MANAGEMENT NOTES AND DETAILS
13. STORMWATER MANAGEMENT NOTES AND DETAILS
14. STORMWATER MANAGEMENT NOTES AND DETAILS
15. STORMWATER MANAGEMENT AREA MAP
16. STORM DRAIN PROFILES
17. STORM DRAIN PROFILES
18. STORM DRAIN PROFILES AND TABULATIONS
19. LANDSCAPE PLAN
20. LANDSCAPE NOTES AND DETAILS
21. MISCELLANEOUS DETAILS
22. SIMPLIFIED FOREST STAND DELINEATION & FOREST CONSERVATION PLAN
23. FOREST CONSERVATION NOTES AND DETAILS
24. SEPTIC PLAN
25. UNIT #1 SEPTIC NOTES AND DETAILS
26. UNIT #2 SEPTIC NOTES AND DETAILS
27. UNIT #3 SEPTIC NOTES AND DETAILS
28. UNIT #4 SEPTIC NOTES AND DETAILS
29. UNIT #5 SEPTIC NOTES AND DETAILS
30. UNIT #6 SEPTIC NOTES AND DETAILS
31. BUILDING ELEVATIONS

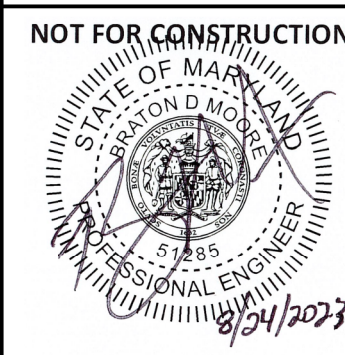
## SITE DEVELOPMENT PLAN INSPECTION SEQUENCE

1. CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT (410) 386-2674 AT LEAST ONE (1) WORKING DAY PRIOR TO BEGINNING ANY WORK.
2. SITE COMPLIANCE INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES DURING CONSTRUCTION:  
A. PROPOSED STRUCTURES STARTED OUT IN PROPER LOCATIONS AS SHOWN ON THESE APPROVED PLANS.  
B. PROPOSED FOUNDATIONS/INSTALL FOR ALL BUILDINGS SHOWN ON THESE APPROVED PLANS.  
C. SUB-GRADES ESTABLISHED FOR ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.  
D. COMPLETION OF ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.  
E. COMPLETION OF ALL WORK SHOWN ON PLANS.  
IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT (410) 386-2674 UPON COMPLETION OF EACH PHASE OF CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT (410) 386-2210 PRIOR TO BEGINNING ANY WORK. ALL FOREST CONSERVATION PLAN DEVICES MUST BE IN PLACE PRIOR TO ANY CONSTRUCTION.
4. FINAL LANDSCAPING INSPECTION SHALL BE ARRANGED THROUGH BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT (410) 386-2210 BY THE CONTRACTOR/DEVELOPER OR AGENT. WRITTEN APPROVAL FROM THE LANDSCAPING REVIEW SPECIALIST, BUREAU OF RESOURCE MANAGEMENT, MUST BE OBTAINED FOR ANY DEVIATIONS FROM THE LANDSCAPING OR FOREST CONSERVATION PLANS OR MODIFICATIONS IN THE PLANT MATERIAL.
5. THE CONTRACTOR SHALL NOT PROCEED TO THE NEXT PHASE OF CONSTRUCTION UNTIL GIVEN APPROVAL OF PRIOR PHASES.

## BENCHMARKS:

B.M. #1: N 692253.0190, E 1347207.6410 ELEV. 795.89  
CLSI PT. #1 REBAR AND CAP FOUNDB.M. #2: N 629481.2907, E 1346158.0530 ELEV. 796.56  
CLSI PT. #6 REBAR AND CAP FOUNDFINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY

8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND

Owner/Developer  
MR. STEVEN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY  
ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE NO. 51285, EXPIRATION DATE: DECEMBER 7, 2023

DATE	REVISIONS	DATE
1/16/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	SEPT., 2022
1/31/23	REVISED PER C.C. COMMENTS	
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	C.C. FILE NO.: 19-0030
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES AND DETAILS	
8/24/23	REVISED TO REFLECT UPDATED DEED	JOB NO.: 2005186C
		SHEET: 1 OF 31







1. All erosion/sediment control measures shall comply with the "Maryland Standards and Specifications for Soil Erosion and Sediment Control" by the Maryland Department of the Environment, Water Management Administration in association with the Natural Resources Conservation Service and Maryland Association of Soil Conservation Districts (referenced as the 2011 Standards and Specs).
2. Areas that have been cleared and/or graded, but will not be constructed on or permanently vegetated for more than 5 days (3 days for sediment control measures (steep slopes) must be stabilized with mulch or temporary stabilization. Any areas that are in temporary vegetation for over 6 months will need to be permanently vegetated.
3. For specifications on permanent or temporary stabilization see B-4-4 and B-4-5.
4. Mulching can only be used on disturbed areas as a temporary cover where vegetation is not feasible or where seedling germination cannot be completed because of weather conditions. For specifications see B-3-3, A1.5.
5. For specifications on the stabilization of cut and fill slopes greater than 3:1 horizontal to 1 vertical, see Incremental Stabilization B-4-1.
6. The existing topsoil from on or off site that is used must meet the minimum specifications in B-4-2.
7. The required sequence of construction must be followed during site development. Any change in the sequence of construction must be approved by the Soil Conservation District.
8. Any revisions to the sediment control plan, not covered under the list of plan modifications that can be approved by the sediment control Inspector, need to be submitted to the Soil Conservation District for approval.
9. No proposed slope that is seeded and/or mulched shall be greater than 2:1. Slopes greater than 2:1 shall require an engineered design for stabilization.
10. All sediment control structures will be inspected once a week and after each rainfall and will be repaired, as needed, so that the structure meets the minimum specifications as shown in the 2011 Standards and Specs.
11. The contractor is responsible for maintaining all sediment and erosion control measures until the disturbed areas are permanently stabilized.
12. The district approval for this sediment control plan is good for 2 years. At the end of 2 years, if construction of the plan has not started, the plan will need to be resubmitted to the soil conservation district for review and re-approval. Any plans that are currently under construction after 2 years may be required to be re-submitted to the soil conservation district by the sediment control Inspector.

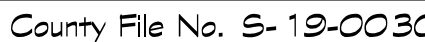
May-October - All graded areas not being immediately stabilized as noted in the "Required Sequence of Construction" shall be watered on a continuing basis as necessary to provide for dust proofing. Contractor shall provide tank truck with spray bar on site at any time the disturbed area exceeds three (3) acres.

1. TOTAL AREA OF SITE: 18.2764 AC.
2. AREA DISTURBED: 707,953 SQ. FT.
3. TOTAL CUT: 23,548 C.Y.
4. TOTAL FILL: 21,786 CY

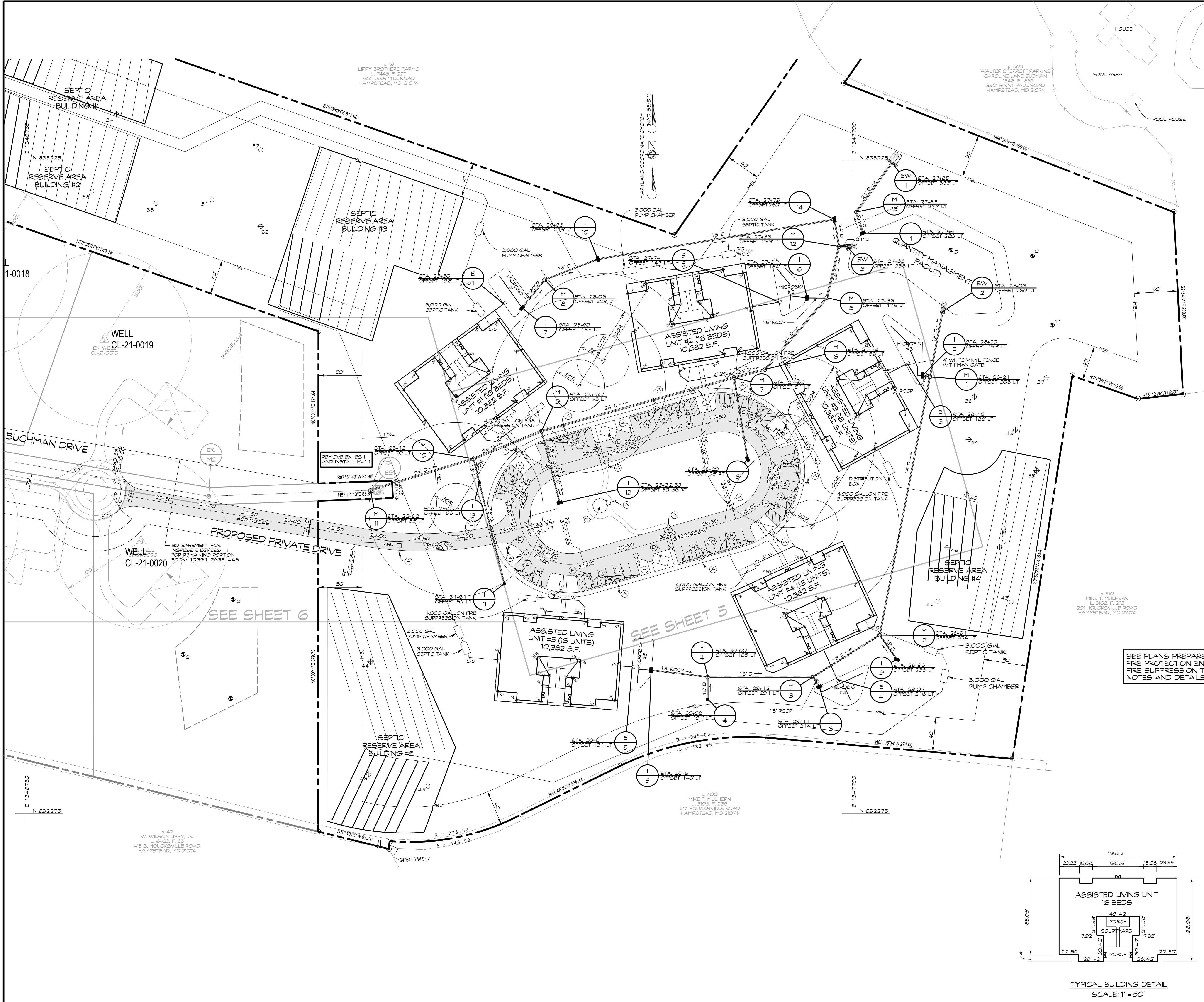
1. NOTIFY THE CARROLL COUNTY BUREAU OF SEDIMENT CONTROL, (410-388-2210) 24 HOURS PRIOR TO THE START OF CONSTRUCTION. ACTIVITIES ALL PROTECTION FENCES AND PERMANENT SIGNS REQUIRED UNDER THE CARROLL COUNTY CODE OF PUBLIC LAWS AND ORDINANCES, FOREST CONSERVATION (CHAPTER 150) AND WATER RESOURCE MANAGEMENT (CHAPTER 154) SHALL BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE CARROLL COUNTY SEDIMENT INSPECTOR.
2. INSTALL TEMPORARY STABILIZED CONSTRUCTION ENTRANCE AND SUPER SILT FENCE.
3. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB SITE.
4. MASS GRADE SITE, GRADE EXTENDED DETENTION BASIN AND CONSTRUCT OUTLET STRUCTURE PER SEQUENCE OF INSPECTION CHART ON SHEET 12. BUILDING CONSTRUCTION MAY BEGIN AFTER CONSTRUCTION OF EXTENDED DETENTION FACILITY.
5. CONSTRUCT STORM DRAIN SYSTEM AND ASSOCIATED STRUCTURES, CONTRACTOR TO INSTALL STANDARD INLET PROTECTION ON ALL INLETS ONCE INSTALLED.
6. CONSTRUCT MICRO-BIO RETENTION FACILITIES IN ACCORDANCE WITH SEQUENCE OF INSPECTION CHARTS FOUND ON SHEET 12.
7. INSTALL REMAINING UTILITIES.
8. GRADE PAVED AREAS TO SUBBASE GRADES AND INSTALL STONE BASE TO STABILIZE SITE.
9. CONSTRUCT SIDEWALKS AND OTHER CONCRETE AREAS.
10. CONSTRUCT SEPTIC MAINS AND ASSOCIATED STRUCTURES PER SHEET 23 AND 24 OF THE PLAN SET.
11. FINE GRADE AREAS AND INSTALL BASE PAVEMENT.
12. WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ANY REMAINING TEMPORARY SEDIMENT CONTROL MEASURES AND STABILIZE REMAINING DISTURBED AREAS.
13. PLACE FINAL COURSE PAVING.

NOTE: ALL STOCKPILE AREAS SHALL BE CONFINED WITHIN PERIMETER CONTROLS. IN THE EVENT THAT STOCKPILE AREAS MUST BE LOCATED OUTSIDE OF DISTURBED AREAS, THE LOCATION SHALL BE AS DIRECTED BY THE INSPECTOR IN THE FIELD.

1. Stockpiling will not be allowed on any impervious area.
2. All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
3. All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the Inspector in the field.







LEGEND

- BOUNDARY
- MINIMUM BUILDING LINE
- PROPOSED SEPTIC AREA
- PROPOSED WELL
- NUMBER OF PARKING SPACES
- PROPOSED PAVING
- PROPOSED CONCRETE WALK OR PAD
- LIGHT POLE (DETAIL SHT. 26)
- BUMPER BLOCK (DETAIL SHT. 21)
- GAZEBO (DETAIL SHT. 21)
- TRASH CONTAINER PAD (DETAIL SHT. 21)
- SIGN B (DETAIL SHT. 21)
- HANDICAPPED SPACE

BASLINE COORDINATES

Station	Point Type	Easting	Northing
20+00.00	POB	1346860.7484	692840.9562
22+82.00	PC	1347138.5063	692592.2234
24+62.12	PT	1347316.8694	692601.4084
24+66.88	PI	1347321.4540	692602.7109
25+57.20	PT	1347361.0657	692673.7279
27+39.20	PC	1347536.1476	692723.4302
29+19.85	PT	1347567.5529	692612.8015
31+01.85	PC	1347392.4709	692563.0992
31+92.17	PI	1347321.4540	692602.7109

CURVE TABLE

CURVE DATA						
BEGIN	END	RADIUS	DELTA	ARC	CHD BRG	CHD DIST
22+82.00	24+62.12	400.00	25°48'00"	180.12'	N 87°03'08"E	178.60'
24+66.88	25+57.20	57.50	90°00'00"	90.32'	N 29°09'08"E	81.32'
27+39.20	29+19.85	57.50	180°00'00"	180.64'	S 15°50'54"E	115.00'
31+01.85	31+92.17	57.50	90°00'00"	90.32'	N 60°50'54"W	81.32'

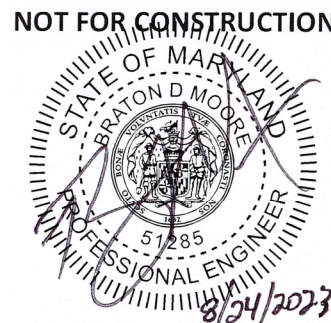
UNLESS OTHERWISE SPECIFIED, STORM DRAIN PIPE FOR THIS PROJECT SHALL BE ADVANCED DRAINAGE SYSTEMS CORrugATED HIGH-DENSITY POLYETHYLENE (HDPE) N-12 DRAINAGE PIPE (HDPE), NOTED AS "D". ALL PIPE FITTINGS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

SEE PLANS PREPARED BY TOMASELLI FIRE PROTECTION ENGINEERING FOR FIRE SUPPRESSION TANK AND PLUMBING NOTES AND DETAILS

SEE SHEET 5 FOR PARKING LOT LAYOUT DETAILS

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
191 LEADER HEIGHTS ROAD  
YORK, PA 17402  
(717) 741-2214

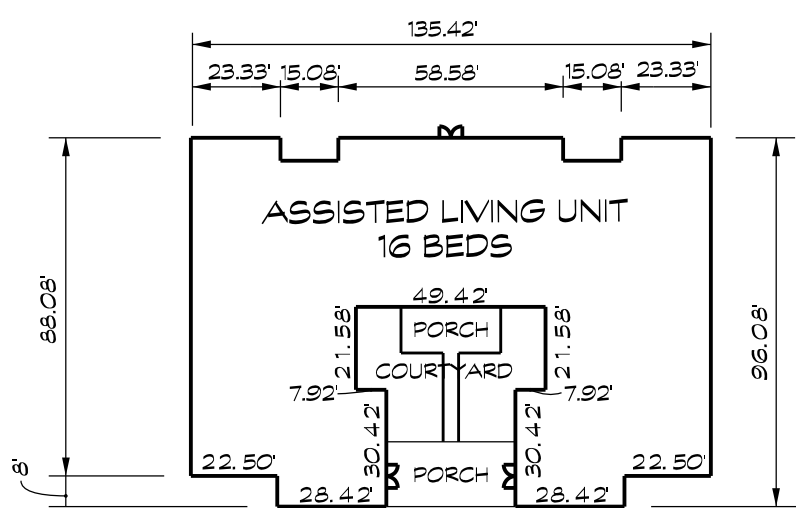
LAYOUT PLAN-OVERALL  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51885, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By: KH
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By: KH
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale: 1" = 50'
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.: 2005186C
		Sheet: 4 of 31

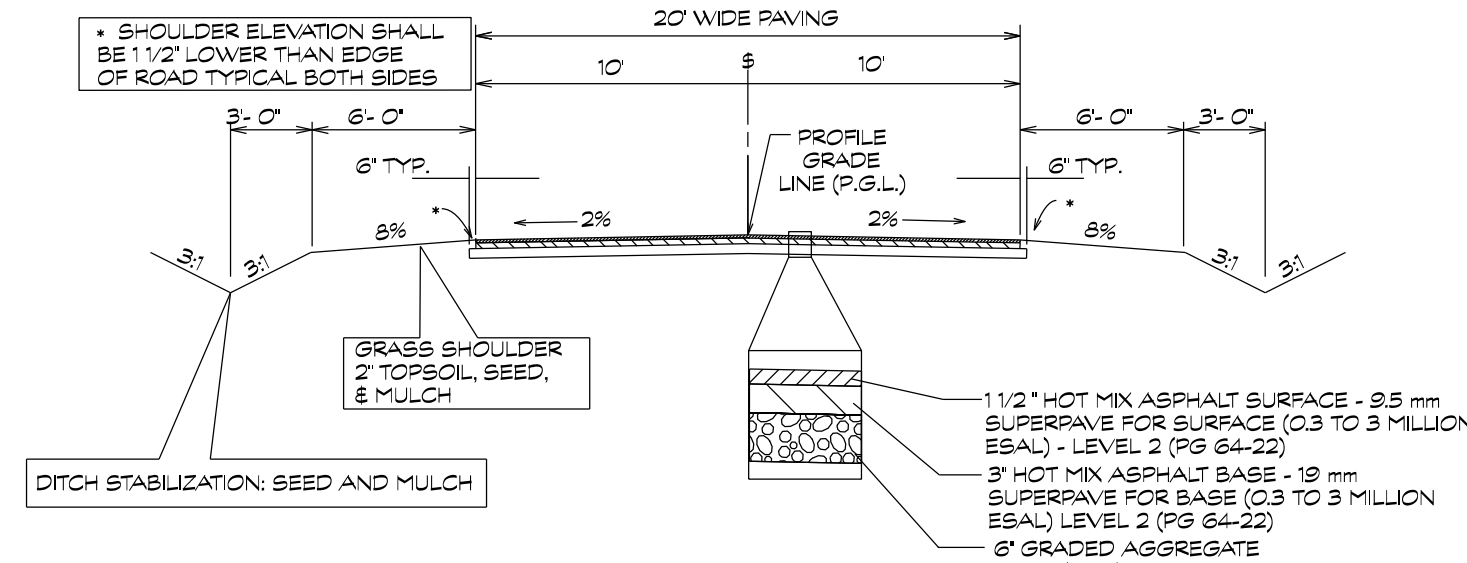
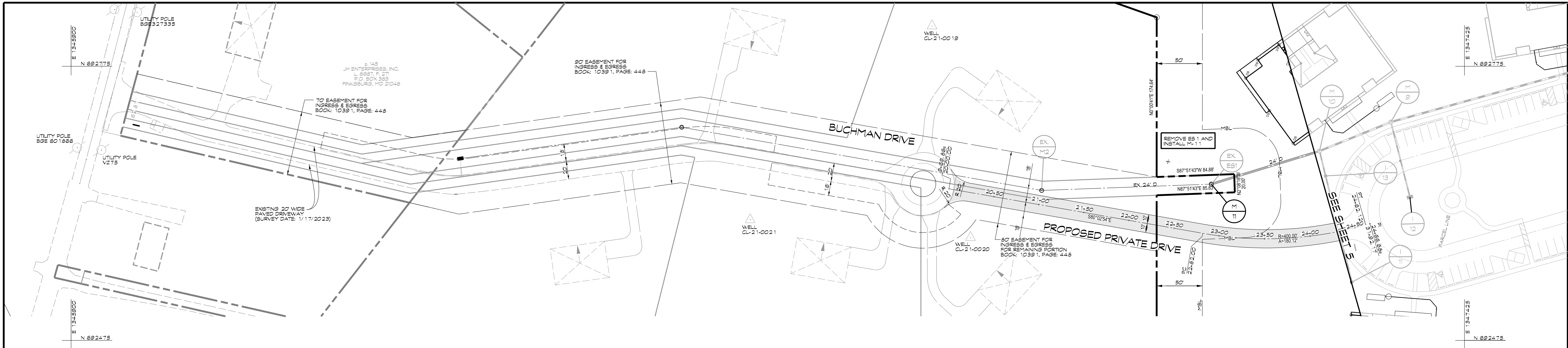


TYPICAL BUILDING DETAIL  
SCALE: 1" = 50'



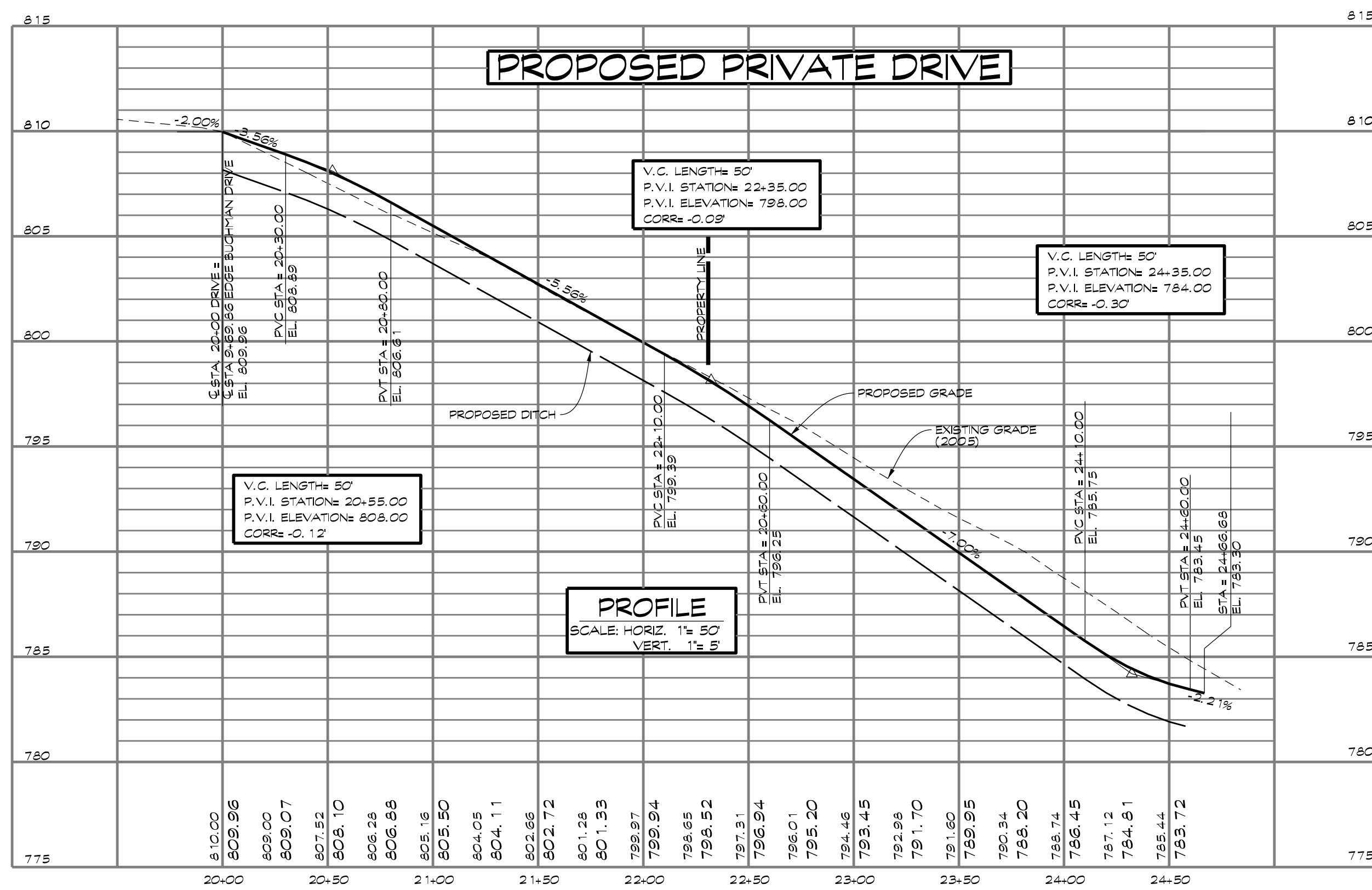






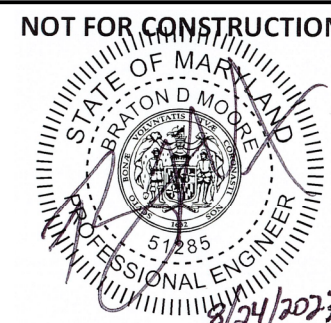
SEE SHEET 4 FOR  $\phi$  COORDINATES  
AND CURVE DATA

PROPOSED PAVEMENT  
SEE DETAIL SHEET 21



OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
191 LEADER HEIGHTS ROAD  
YORK, PA 17402  
(717) 741-2214

# DRIVEWAY PLAN AND PROFILE FINAL SITE PLAN FOR AN ASSISTED LIVING FACILITY ON THE REMAINING PORTION OF HEIRD PROPERTY



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51285, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By: KH
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By: KH
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale: 1" = 50'
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.: 2005186C
		Sheet: 6 of 31



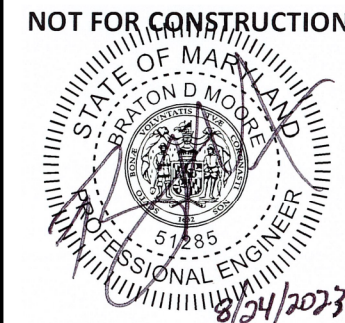


LEGEND

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- BOUNDARY
- MINIMUM BUILDING LINE
- PROPOSED SEPTIC AREA
- PROPOSED WELL
- LIGHT POLE

SEE SHEET 6 FOR PARKING LOT GRADING DETAILS AND SHEET 8 FOR PRIVATE DRIVE PLAN AND PROFILE

GRADING PLAN  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY  
8th ELECTION DISTRICT - CARROLL COUNTY, MARYLAND



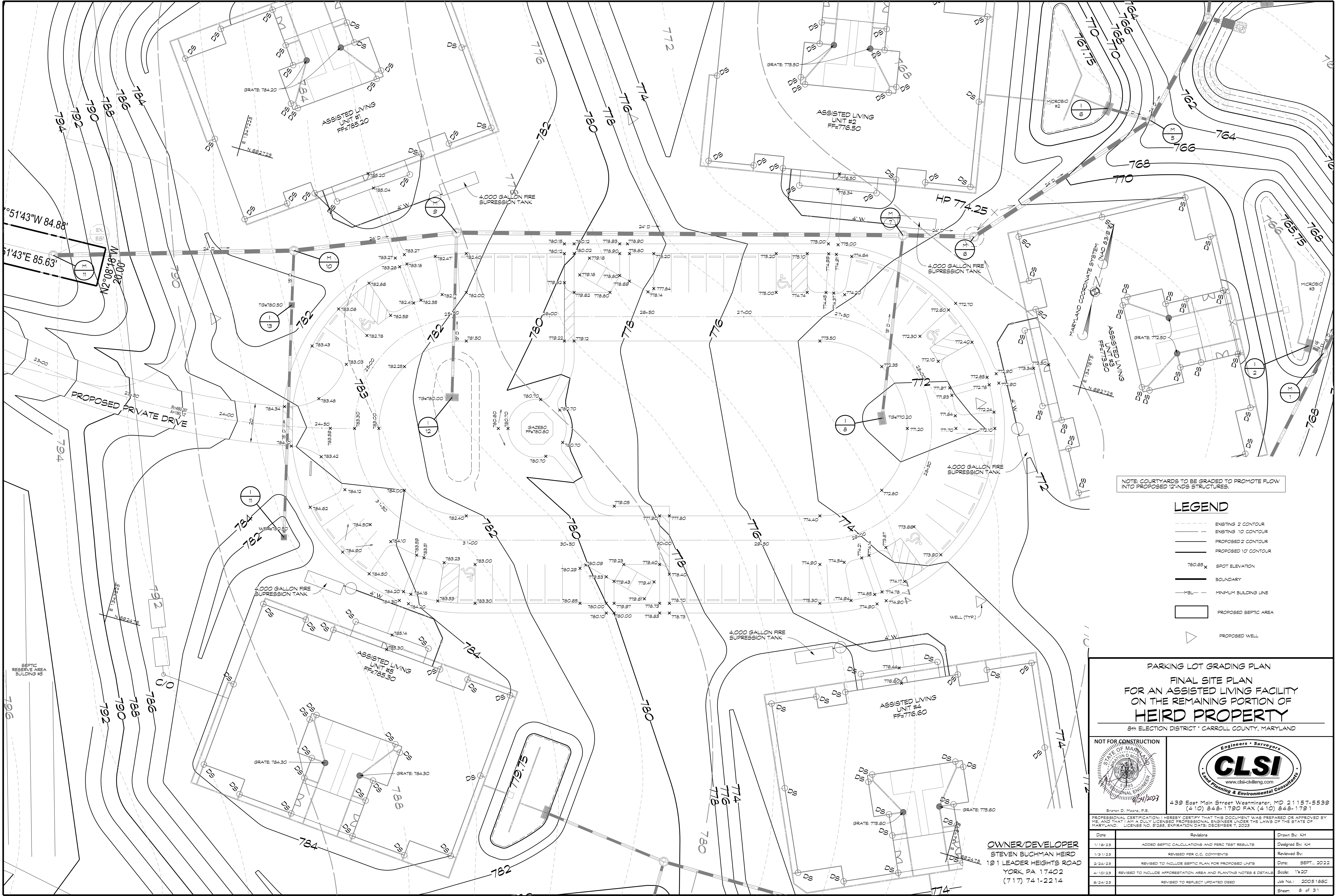
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1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	BTM/KH	BTM/KH
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2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS		
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS		
8/24/23	REVISED TO REFLECT UPDATED DEED		
		Job No.:	2005188C
		Sheet:	7 of 31

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214



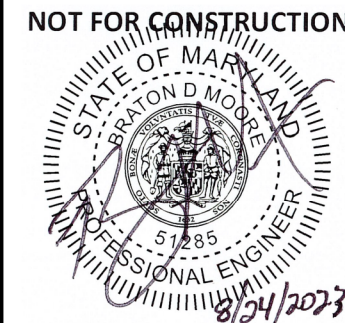


NOTE: COURTYARDS TO BE GRADED TO PROMOTE FLOW INTO PROPOSED 12" D/S STRUCTURES.

LEGEND

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- 780.85'x SPOT ELEVATION
- BOUNDARY
- MINIMUM BUILDING LINE
- PROPOSED SEPTIC AREA
- PROPOSED WELL

PARKING LOT GRADING PLAN  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
**HEIRD PROPERTY**  
8th ELECTION DISTRICT • CARROLL COUNTY, MARYLAND



439 East Main Street Westminster, MD 21157-5539  
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		Sheet: 8 of 31

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
191 LEADER HEIGHTS ROAD  
YORK, PA 17402  
(717) 741-2214





ROOF AND COURTYARD DRAINAGE NOTE:  
ALL PROPOSED DOWNSPOUT PIPING  
TO BE 8" SCH 40 PVC UNLESS OTHERWISE  
NOTED. CONTRACTOR TO MAINTAIN 2.00%  
SLOPE ON PIPES WHERE POSSIBLE AND  
1.00% SLOPE MINIMUM AT ALL TIMES.  
MINIMUM PIPE COVER IS 1' AT ALL TIMES.  
ALL DOWNSPOUTS INCLUDING THE COURTYARD  
INLET MUST OUTLET TO MICRO-BIO FACILITIES

- LEGEND
- L.O.D. --- LIMIT OF DISTURBANCE
  - IMPERVIOUS AREA
  - INLET STRUCTURE ID
  - END WALL STRUCTURE ID
  - STORMWATER MANHOLE STRUCTURE ID
  - DRAINAGE AREA DIVIDER ---
  - A- DRAINAGE AREA IDENTIFIER

STORMWATER MANAGEMENT PLAN  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
**HEIRD PROPERTY**  
8th ELECTION DISTRICT • CARROLL COUNTY, MARYLAND



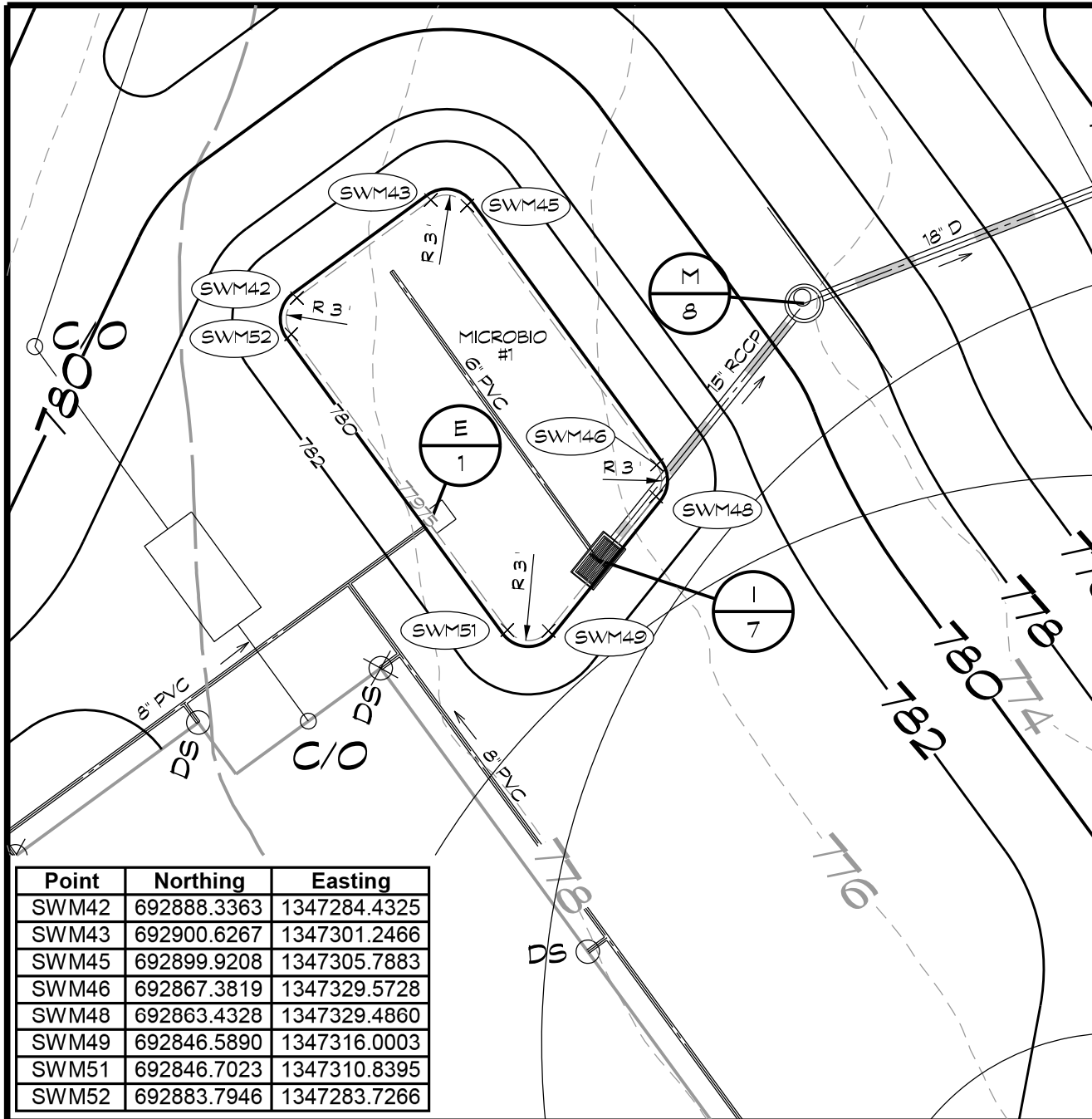
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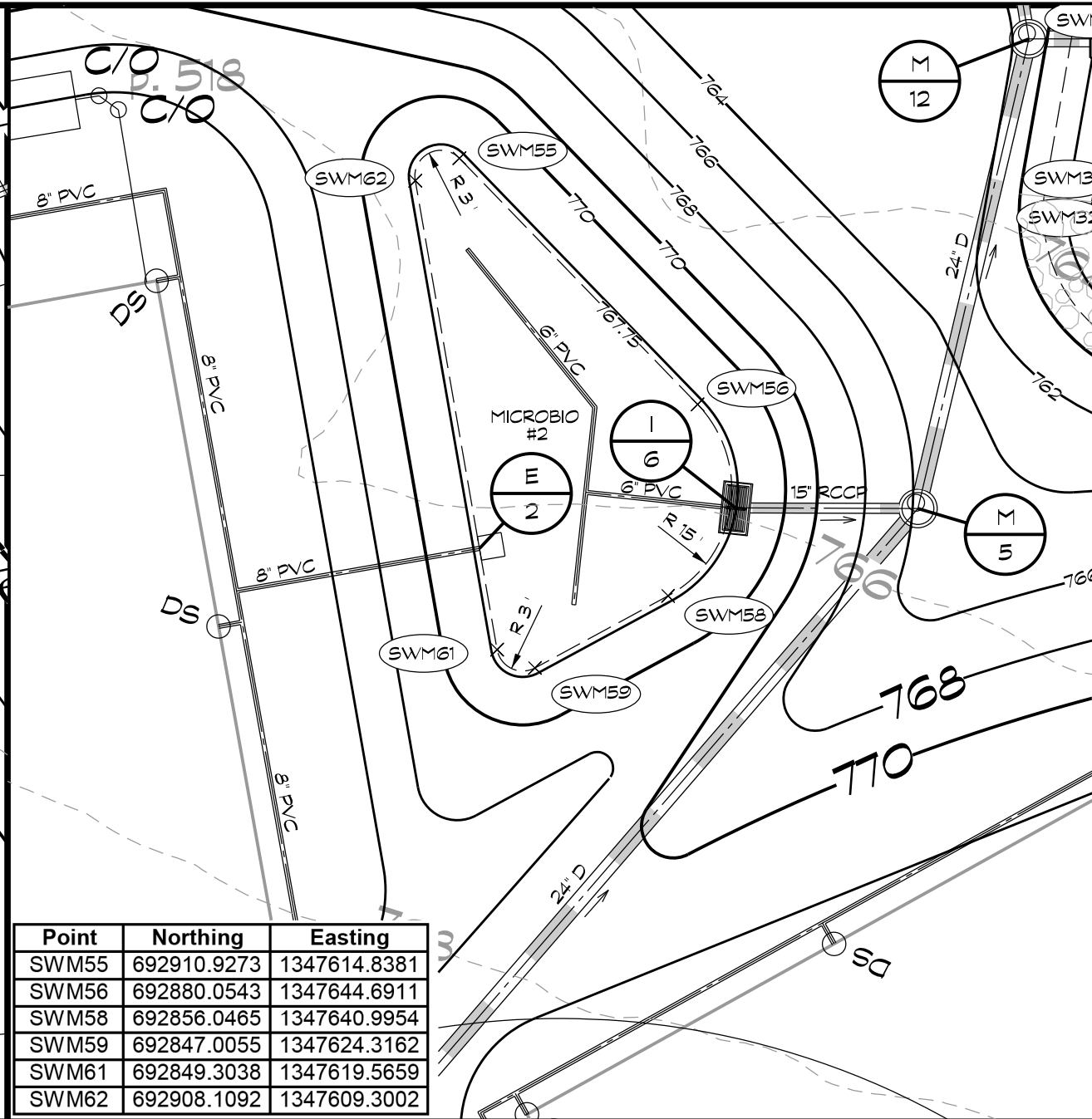
Date	Revisions	Drawn By:	BTM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	BTM
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:	BEV
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		Sheet:	9 of 31

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

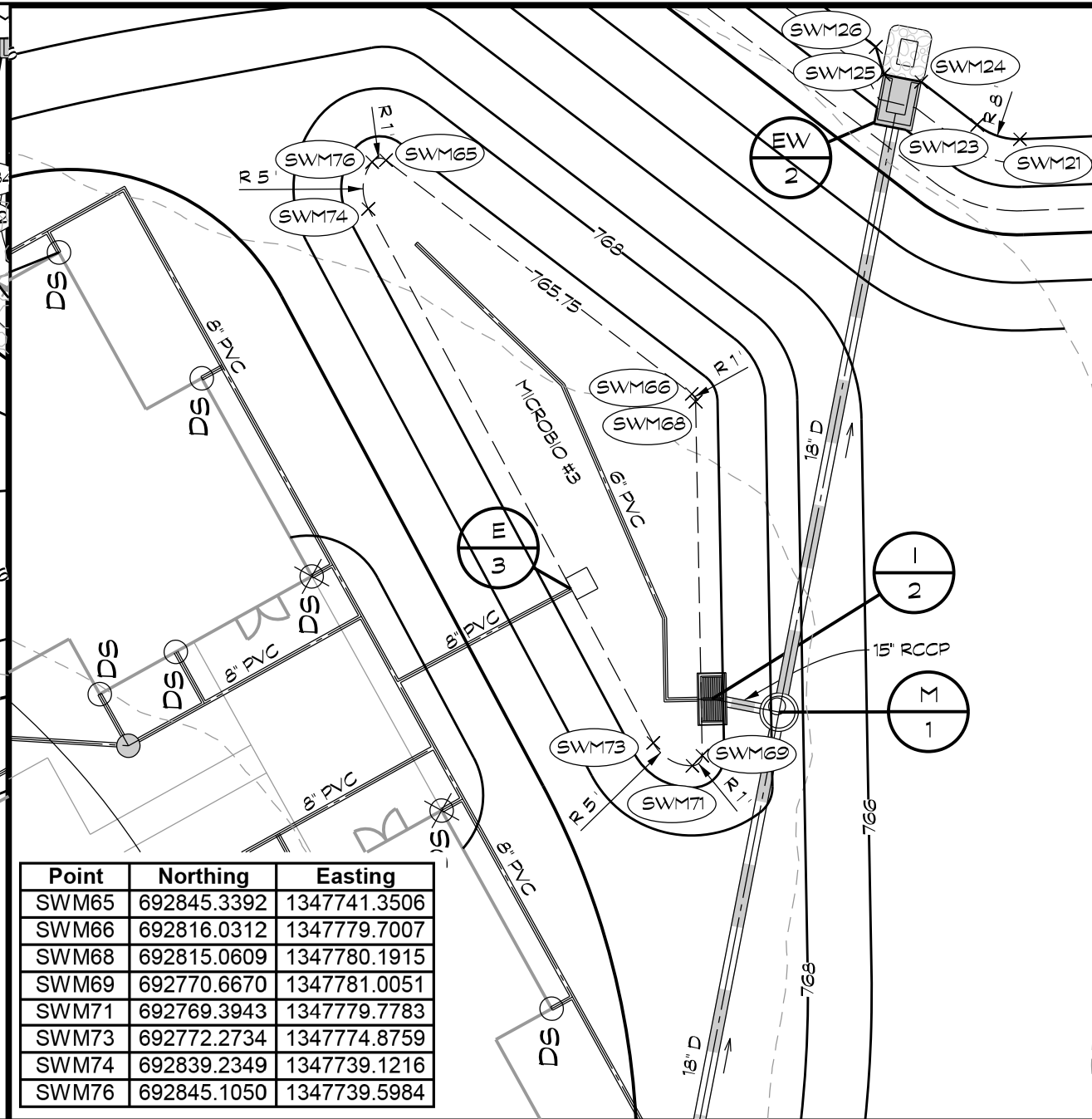




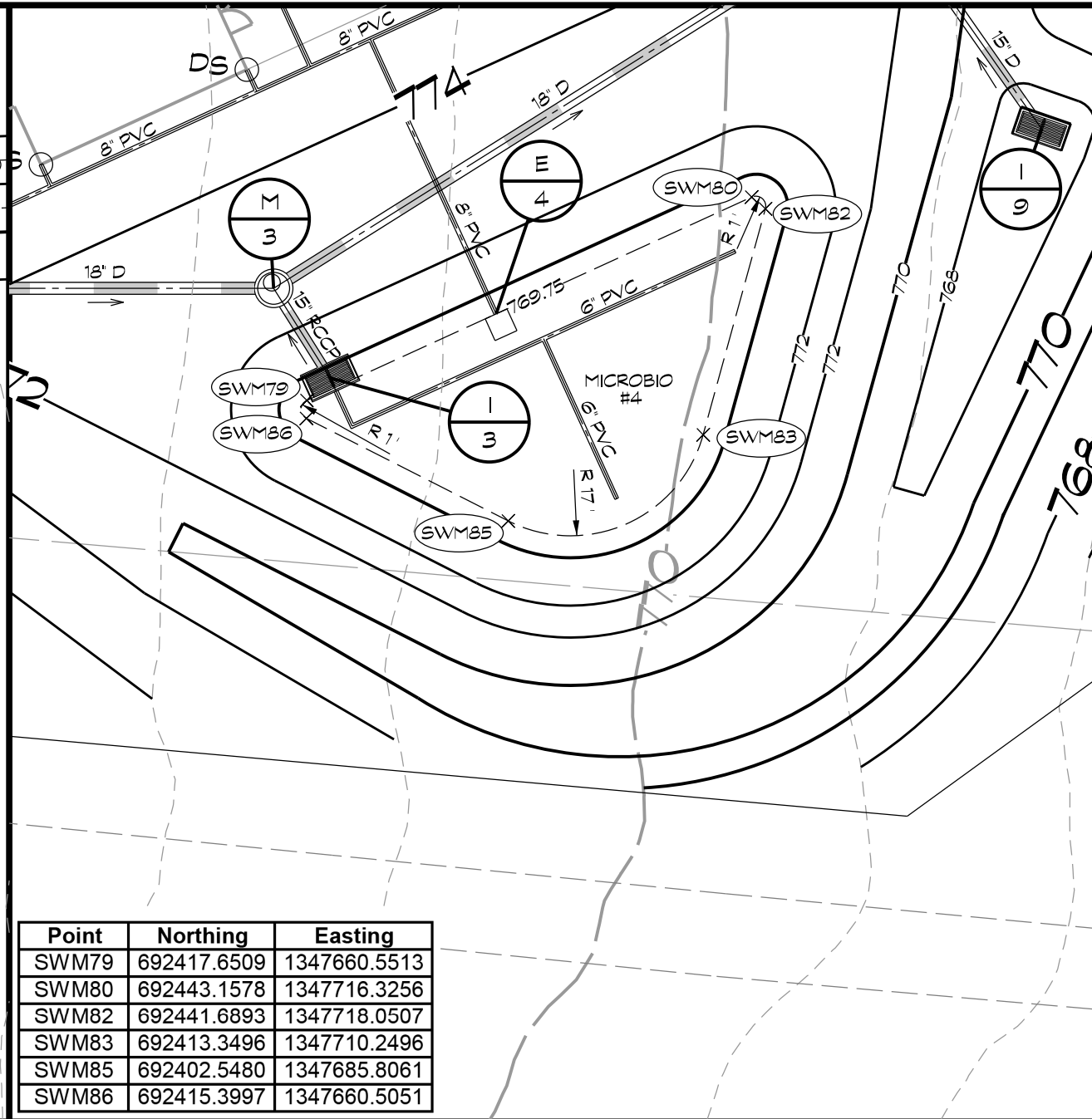
MICRO-BIO #1



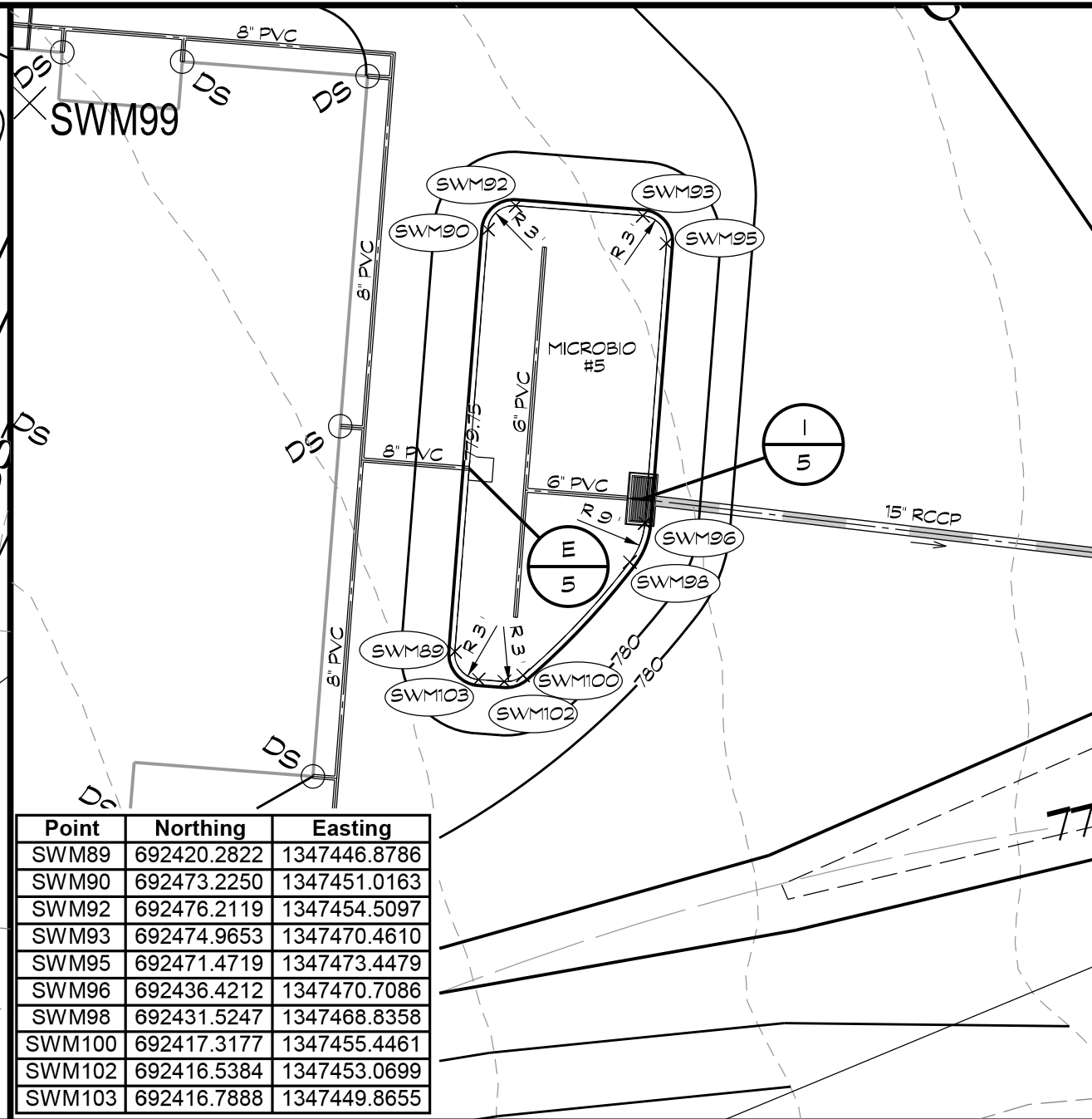
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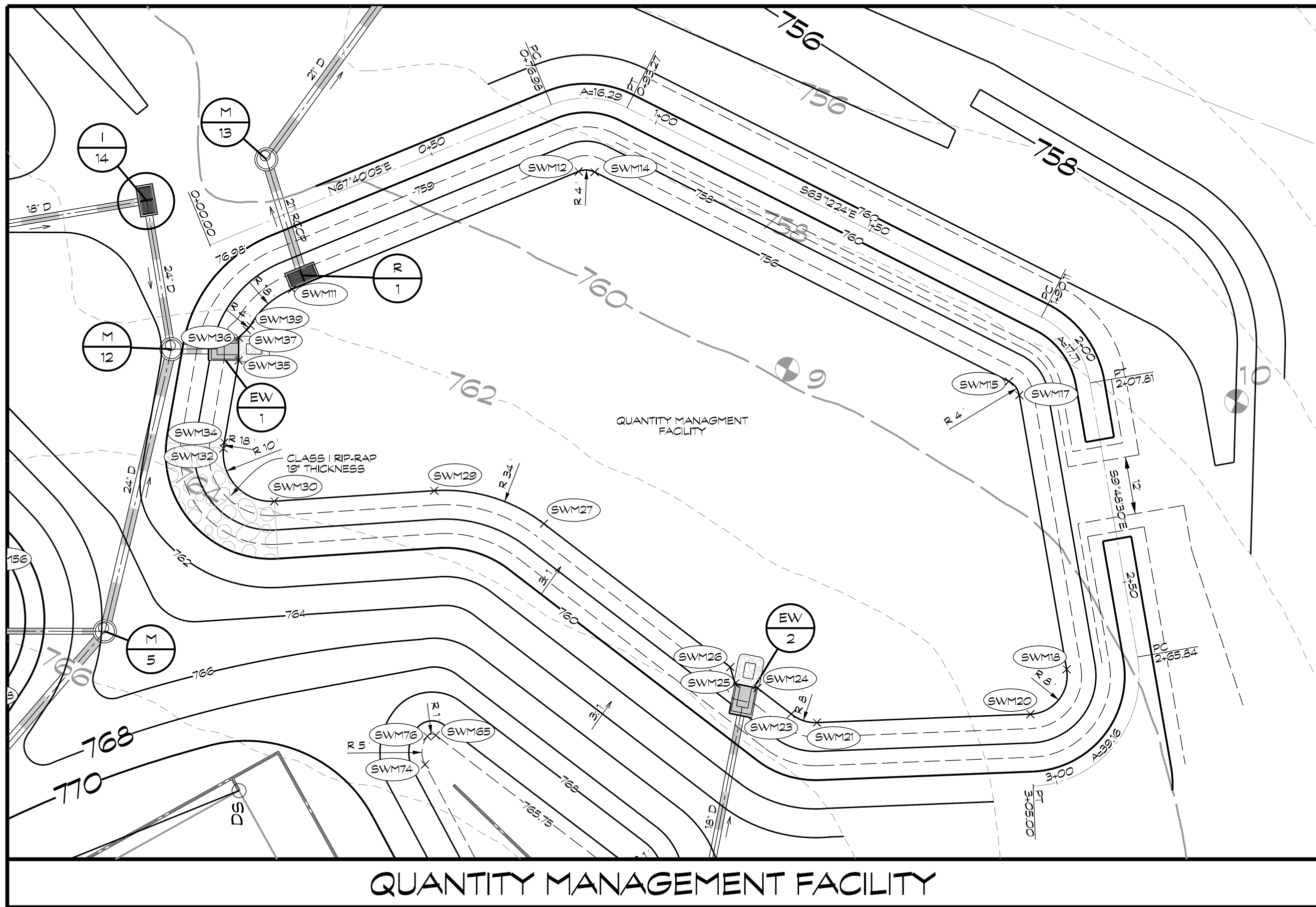
MICRO-BIO #3



MICRO-BIO #4



MICRO-BIO #5



QUANTITY MANAGEMENT FACILITY

☼ DAM CURVE DATA

BEGIN STA.	END STA.	RADIUS	DELTA	LENGTH	TANGENT	CHD. BRG	CHD. L
0+76.98	0+93.27	19.00	49°07'31"	16.29	8.68	S 87°46'09" E	15.80
1+90.11	2+07.81	19.00	53°23'54"	17.71	9.56	S 36°30'27" E	17.07
2+65.84	3+05.00	23.00	97°32'47"	39.16	26.25	S 38°57'54" W	34.60

☼ DAM CURVE COORDINATES

Station	Northing	Easting
0+00.00	692947.5718	1347694.268
0+76.98	692976.8204	1347765.468
0+93.27	692976.2055	1347781.252
1+90.11	692932.5521	1347867.696
2+07.81	692918.8287	1347877.854
2+65.84	692861.6494	1347887.739
3+05.00	692834.7492	1347865.983

756 CONTOUR COORDINATES

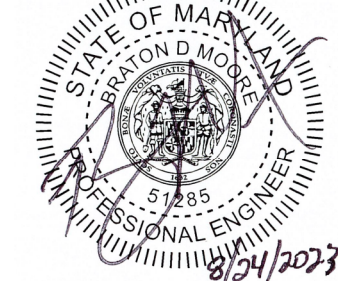
Point	Northing	Easting
SWM11	692938.3896	1347711.3893
SWM12	692962.9454	1347771.1676
SWM14	692962.8159	1347774.4906
SWM15	692919.1625	1347860.9346
SWM17	692916.2734	1347863.0730
SWM18	692859.0941	1347872.9582
SWM20	692849.7375	1347865.3908
SWM21	692847.9792	1347820.8754
SWM23	692849.7727	1347815.5044
SWM24	692855.1749	1347808.4805
SWM25	692856.0921	1347803.7690
SWM26	692859.5487	1347802.7937
SWM27	692889.4459	1347763.9216
SWM29	692896.3568	1347741.0245
SWM30	692894.1435	1347707.6819
SWM32	692905.1631	1347897.0738
SWM34	692906.4133	1347697.2494
SWM35	692923.5040	1347700.2299
SWM36	692928.3040	1347700.2299
SWM37	692929.8837	1347701.9387
SWM39	692930.8062	1347702.6790

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

STORMWATER MANAGEMENT  
FACILITIES GEOMETRY  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY

8th ELECTION DISTRICT • CARROLL COUNTY, MARYLAND

NOT FOR CONSTRUCTION



Steven D. Moore, P.E.

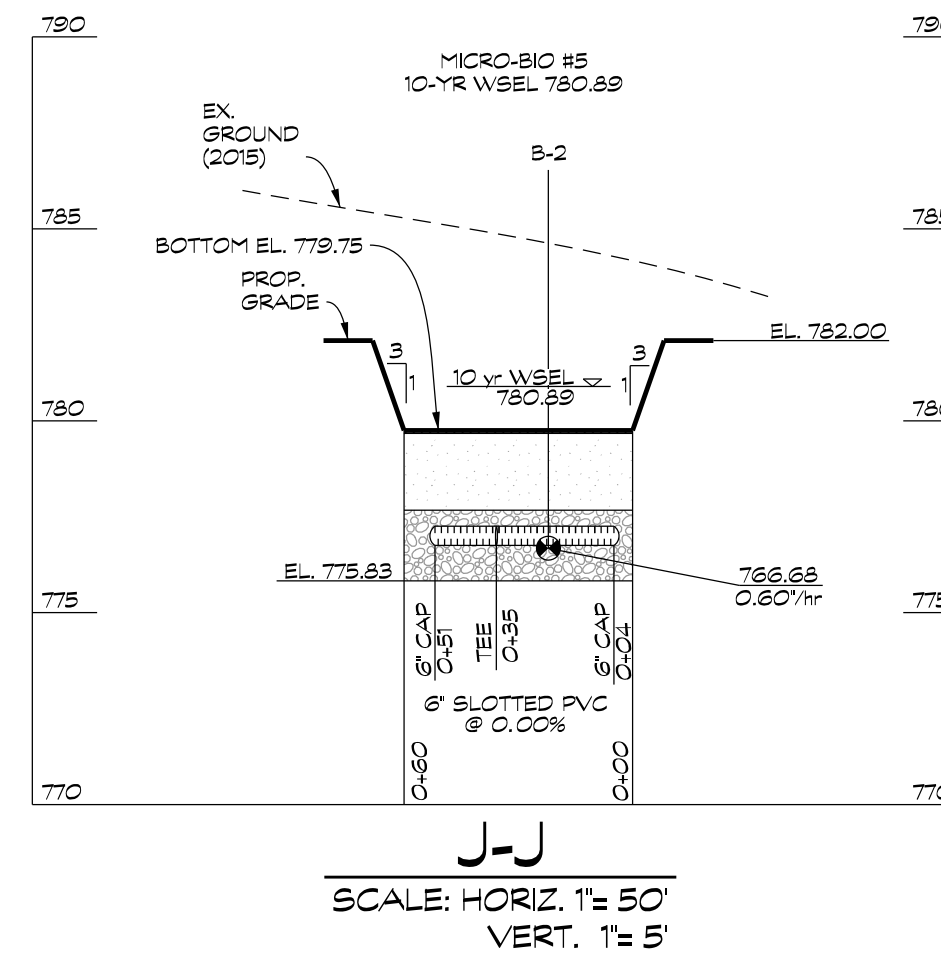
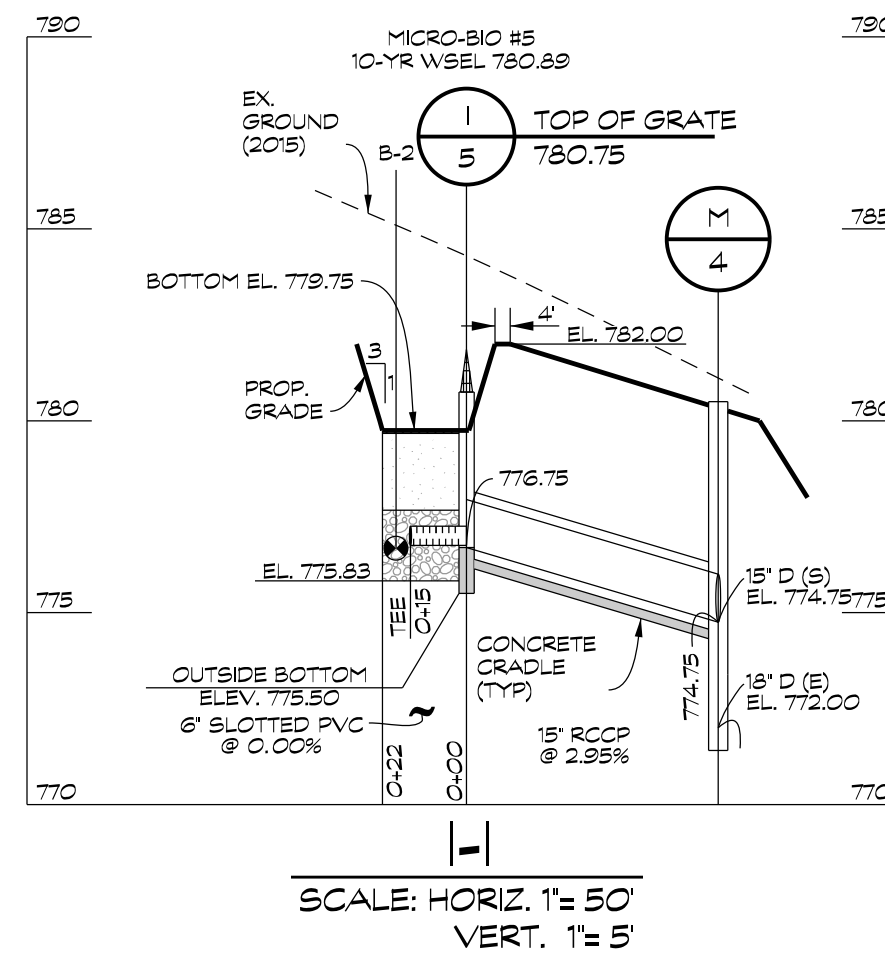
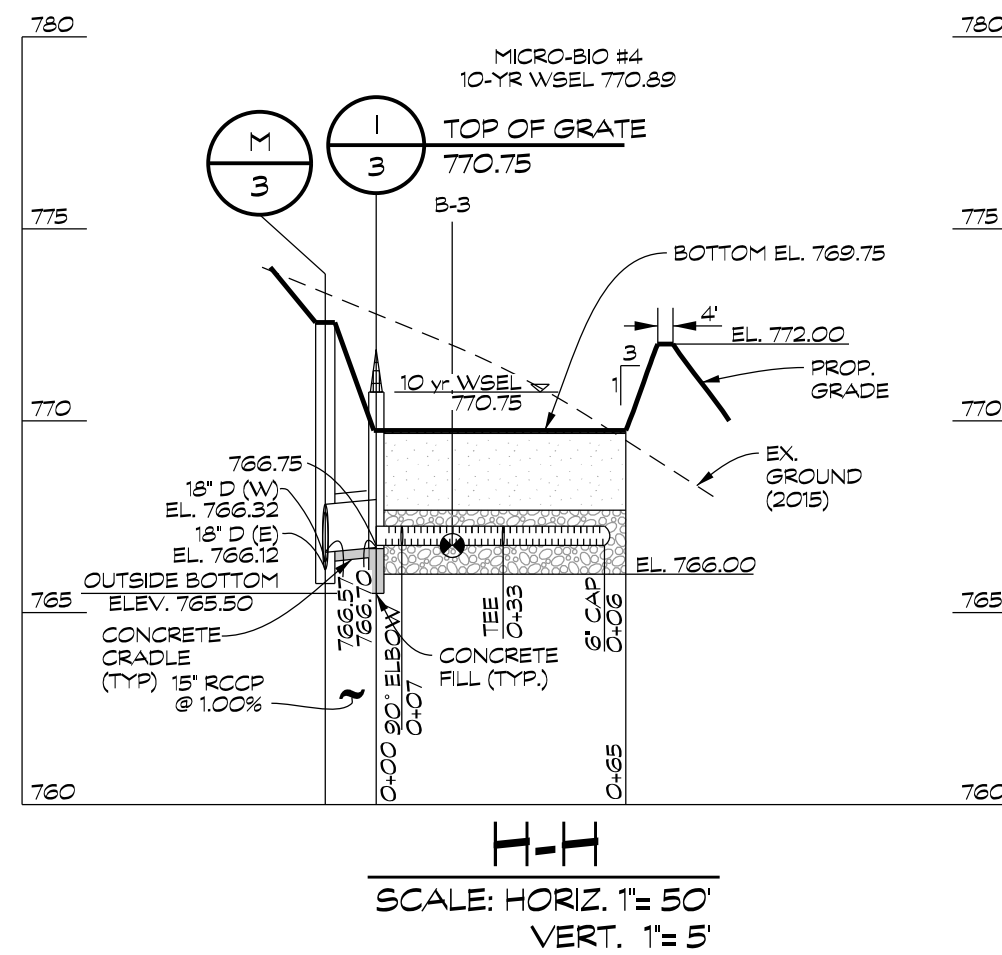
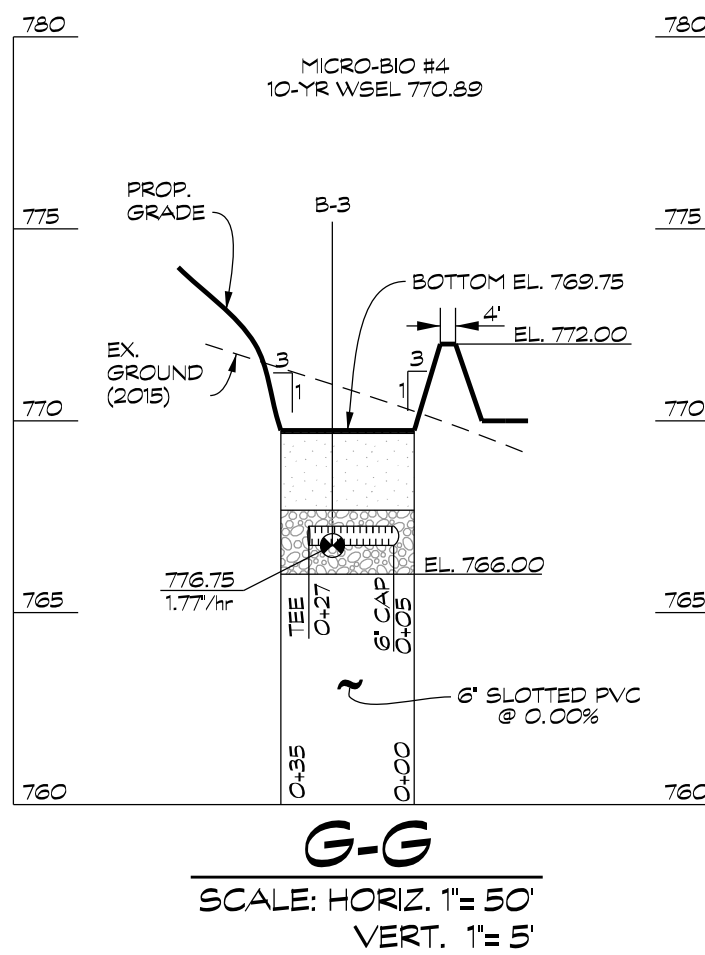
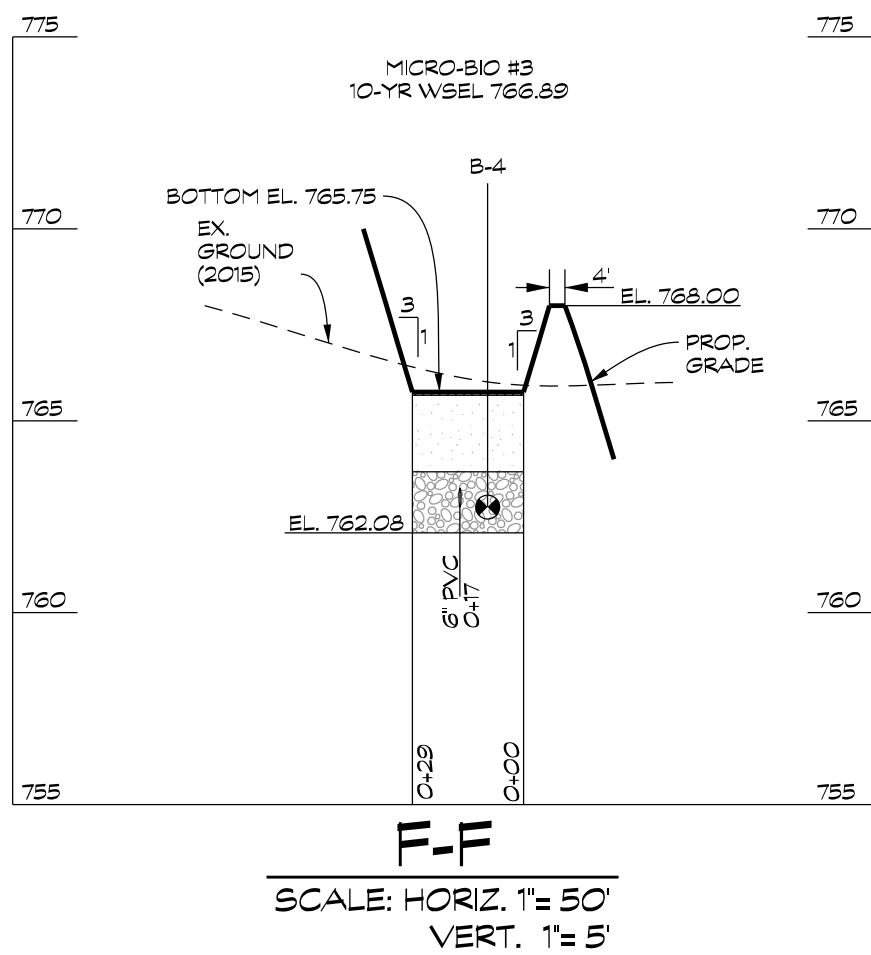
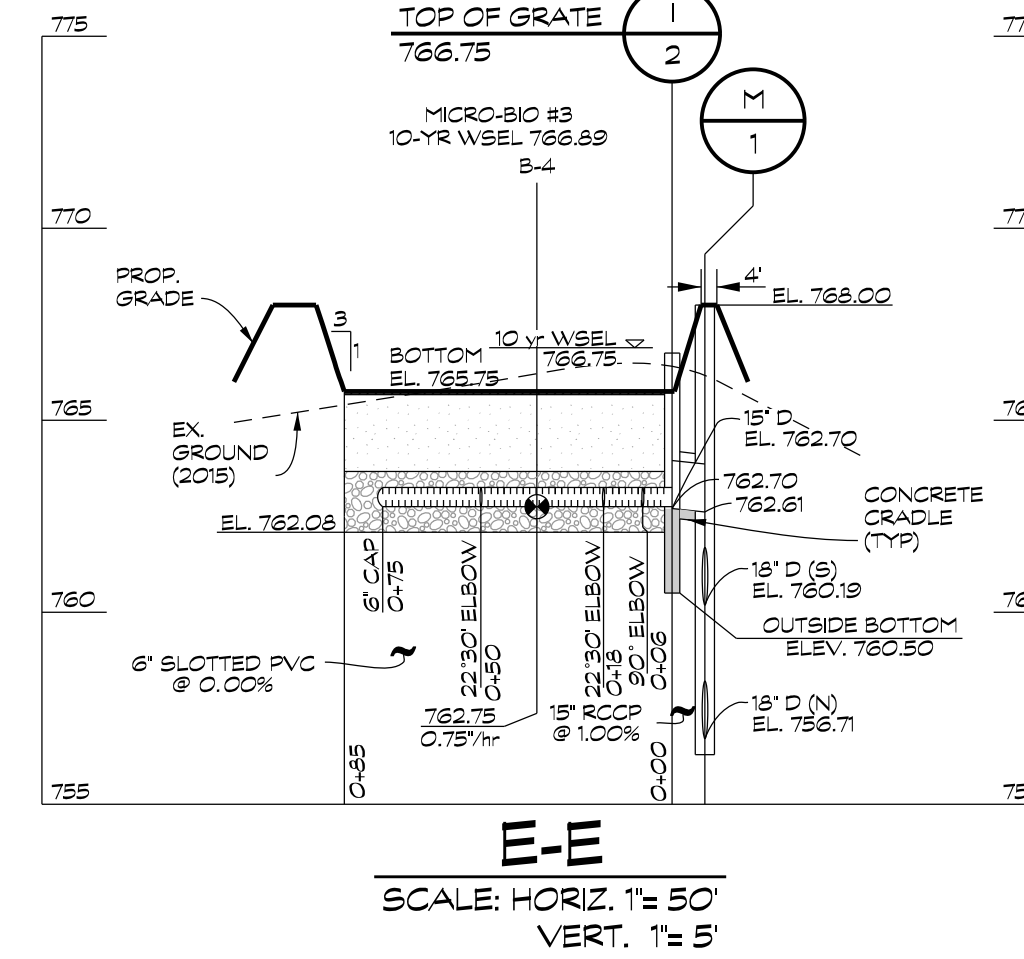
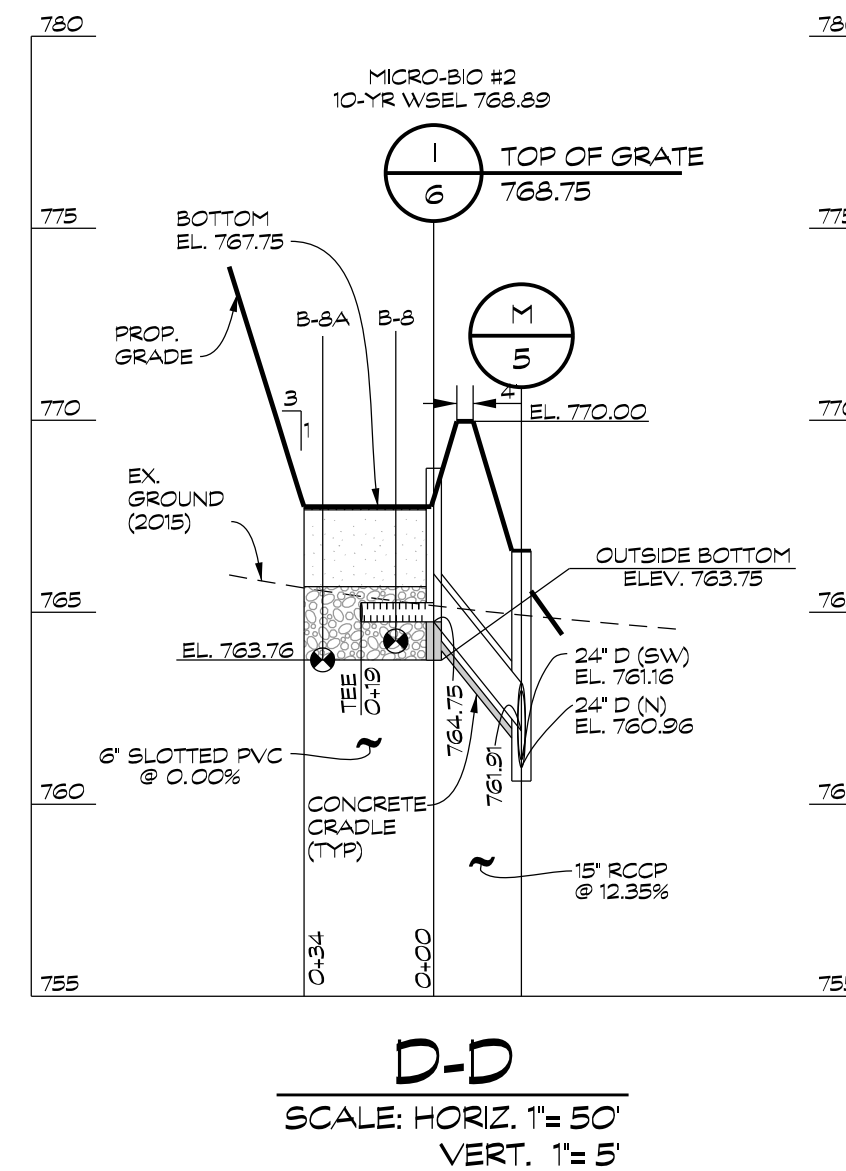
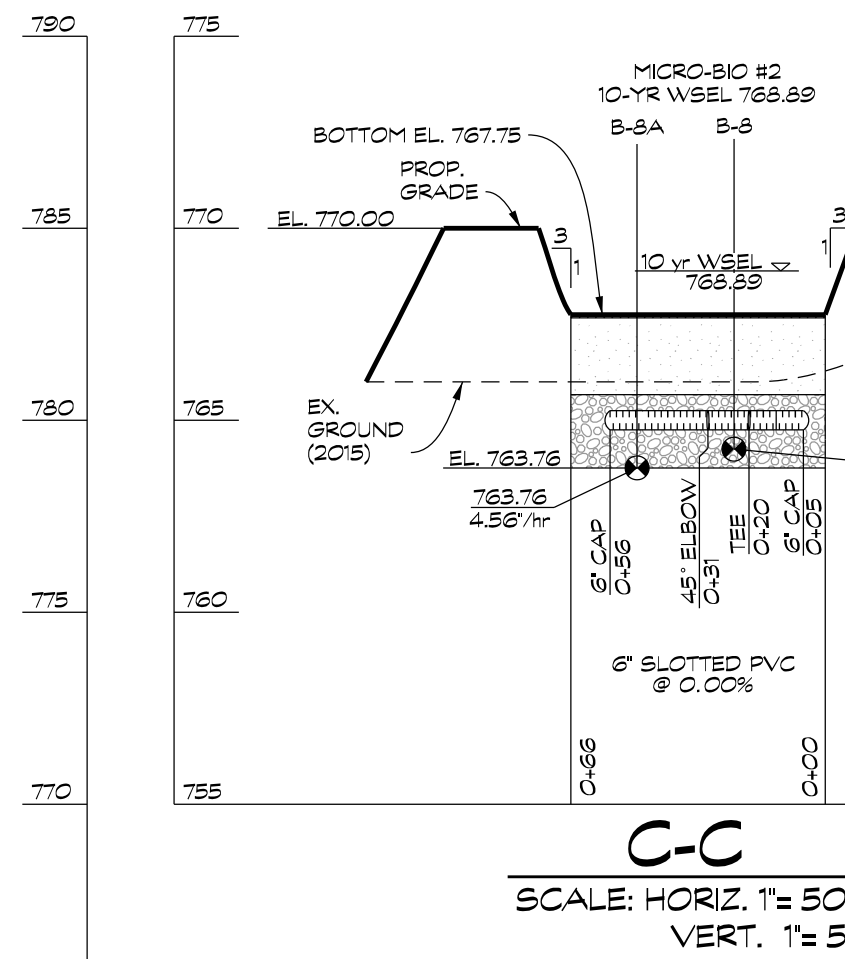
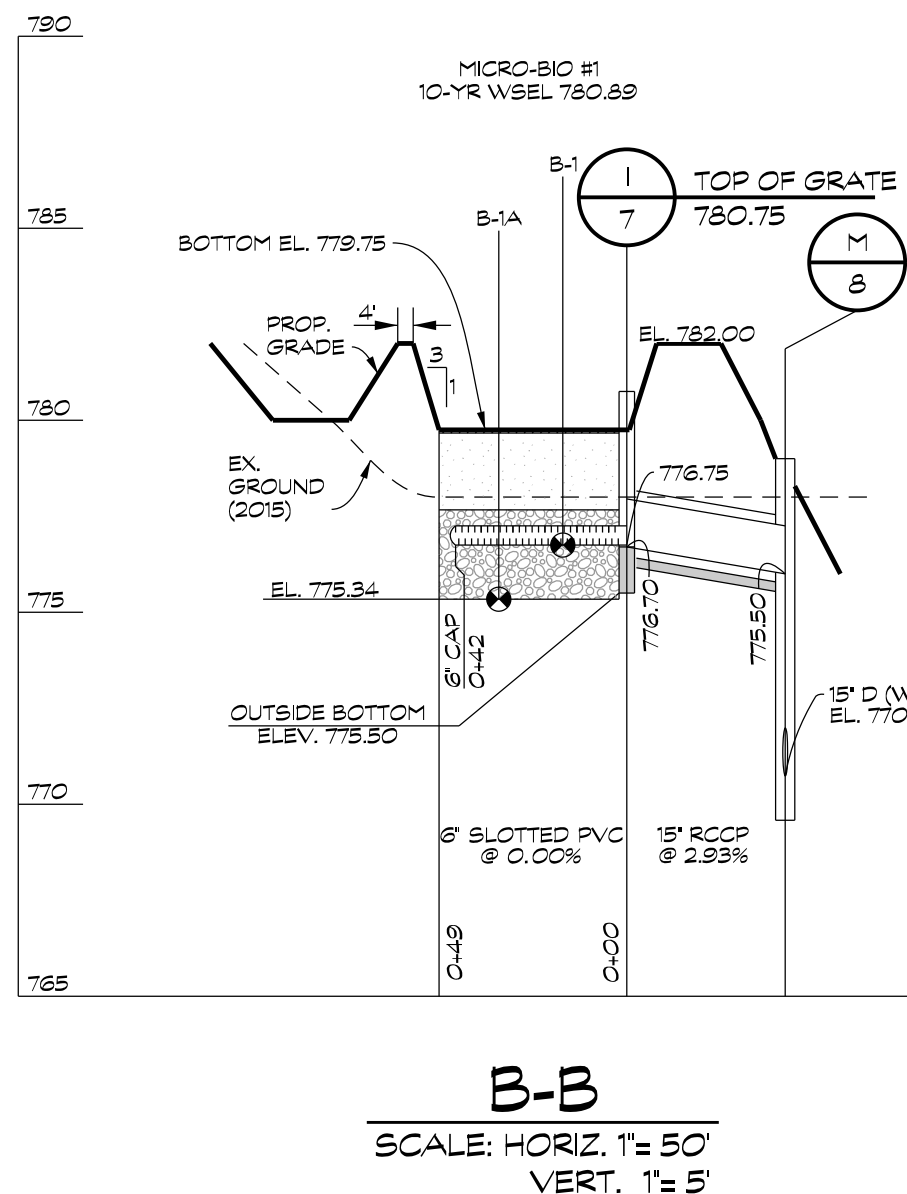
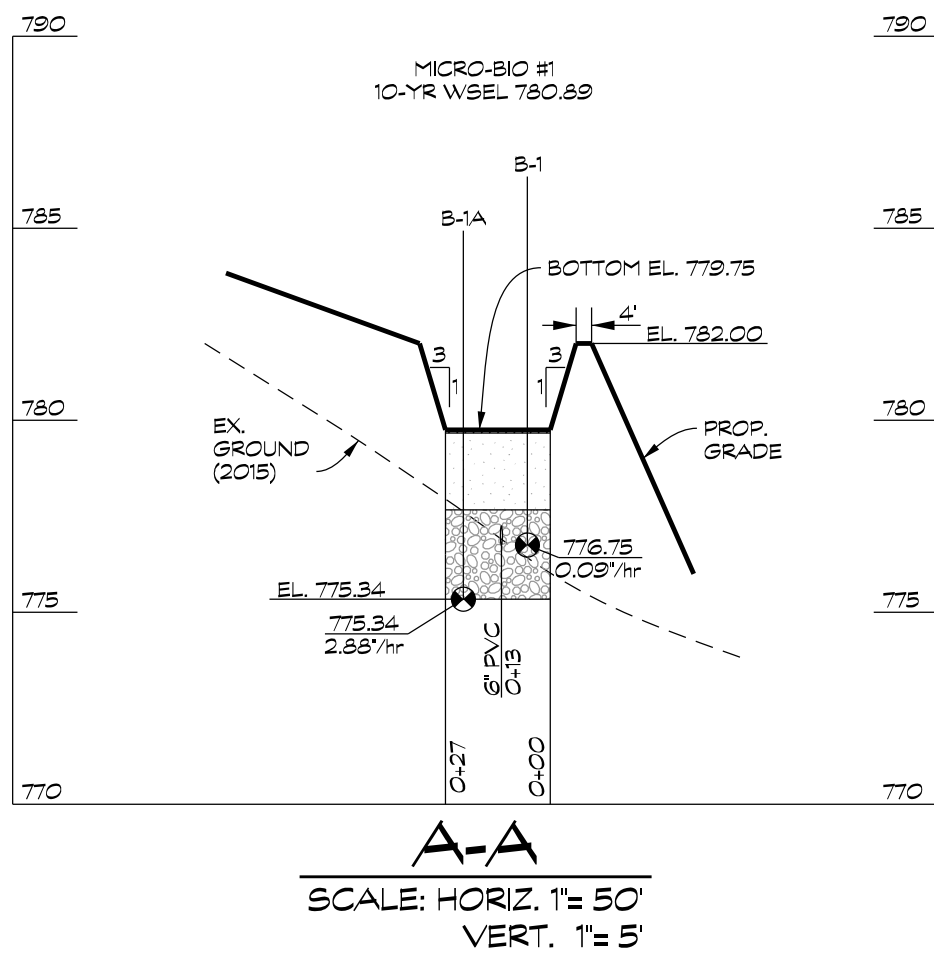


439 East Main Street Westminster, MD 21157-5539  
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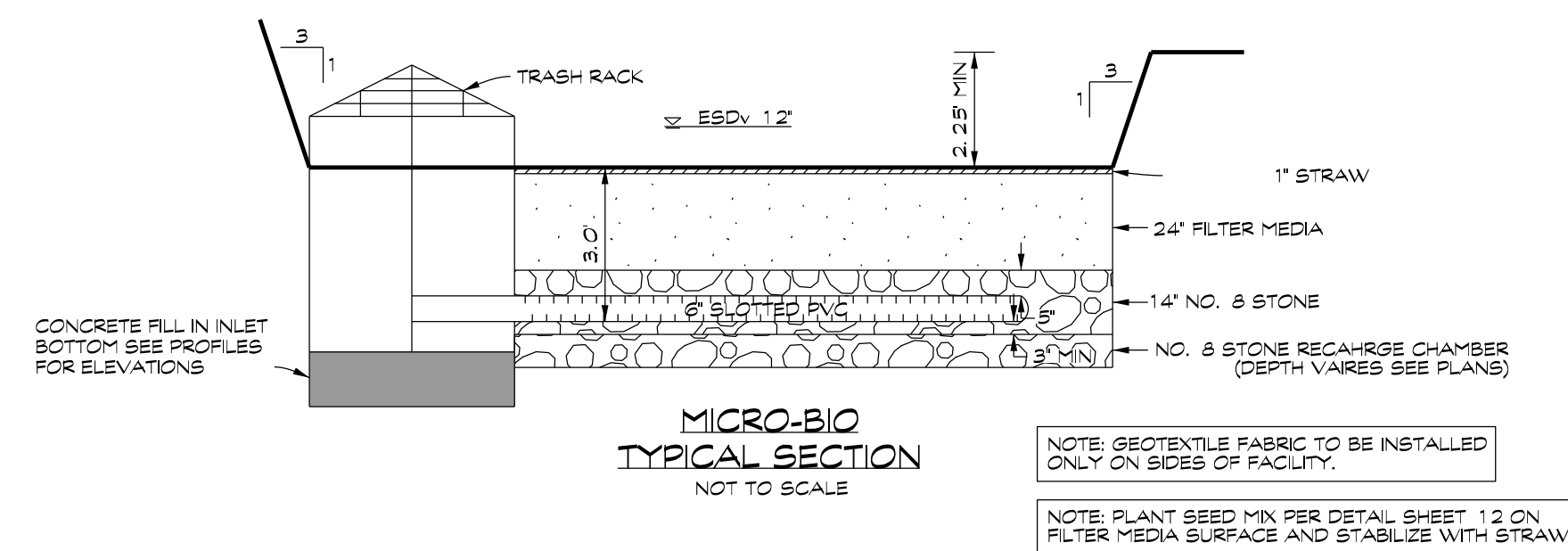
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1/31/23	REVISED PER C.C. COMMENTS	Reviewed By: BEW
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale: 1" = 20'
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.: 2005186C
		Sheet: 10 of 31



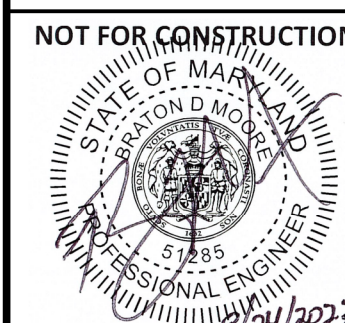


NOTE: FOR CONCRETE CRADLE DETAIL SEE SHEET 13 OF THIS PLAN SET.



OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

# STORMWATER MANAGMENT PROFILES FINAL SITE PLAN FOR AN ASSISTED LIVING FACILITY ON THE REMAINING PORTION OF **HEIRD PROPERTY** 8th ELECTION DISTRICT • CARROLL COUNTY, MARYLAND



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

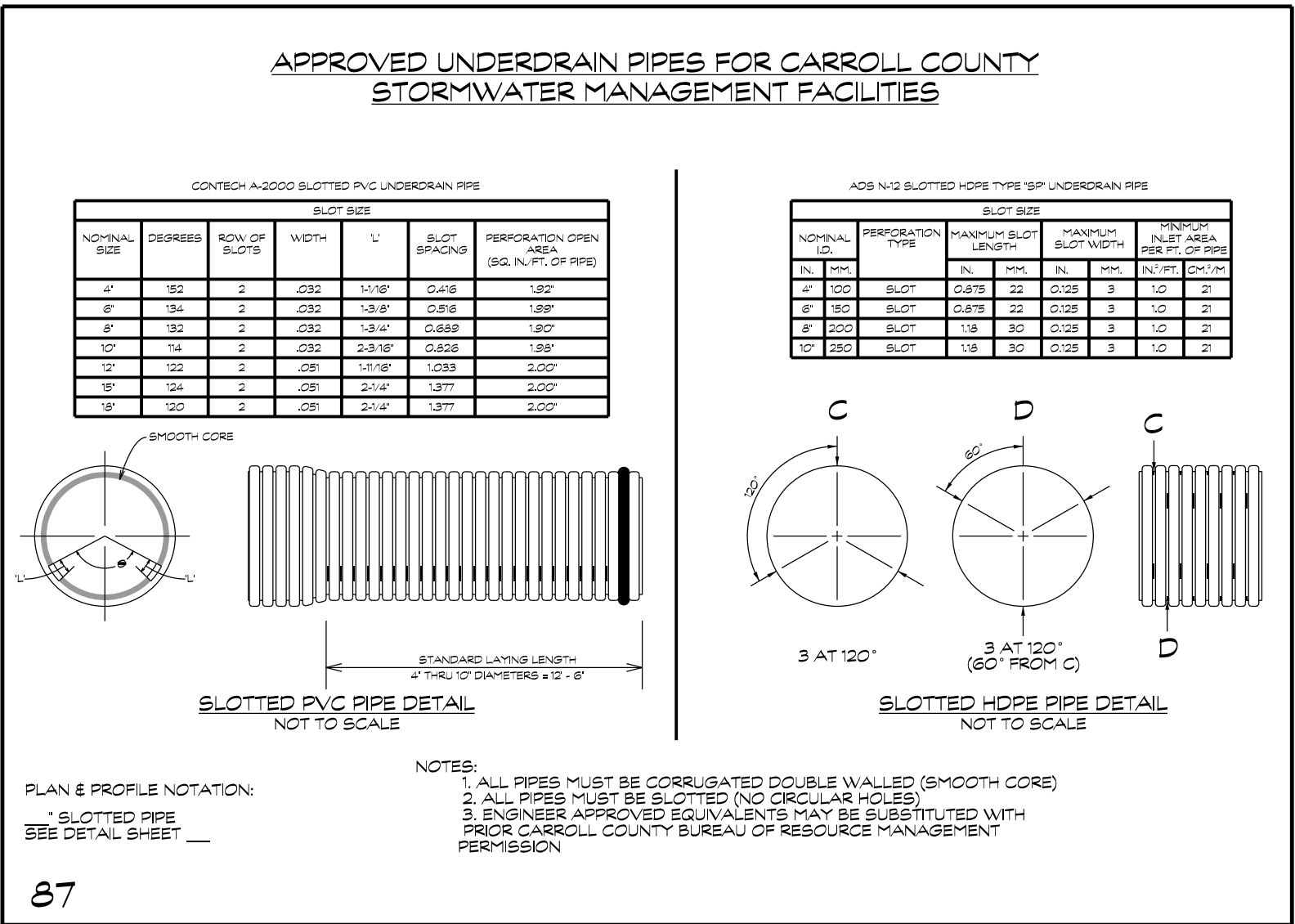
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		Job No.: 2005186C
		Sheet: 11 of 31



**CARROLL COUNTY, HAMPSTEAD,  
WESTMINSTER, MT AIRY, NEW WINDSOR,  
SYKESVILLE, MANCHESTER  
PRIVATE FACILITIES  
CONSTRUCTED BY THE DEVELOPER  
STORMWATER MANAGEMENT MAINTENANCE AGREEMENT  
SCHEDULE**

1. The Stormwater Management Facility/Facilities shown on these plans shall be constructed and maintained by the owner(s).
2. Owner/his heirs or assigns shall be responsible for continuing maintenance of the facility/facilities, which shall include such items as mowing, cleaning and removing sediment, trees, shrubs and debris. Requirements and schedules for specific types of facilities and practices as listed on the plans are hereby included. The time period for this continuing maintenance shall be on "as-needed" basis but shall not be delayed longer than thirty (30) days.
3. Owner, his heirs or assigns shall be responsible for any structural damages or failure which may occur as a result of negligence, accident or misuse. In the event of structural damage, owner shall be responsible to make the necessary repairs as quickly as possible but in any case within thirty (30) days.
4. If after notice by the County/Town/City to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) within (30) days the County/Town/City may perform all necessary work to place the facility in proper working condition. The owners of the facility shall be assessed the cost of the work and any penalties. These monies shall be collected from a bond, which the developer is required to post with the County/Town/City to cover such expenses until "completion of the facility". "Completion of the facility" is construed to mean that all contributory drainage areas are paved or supporting a 2" stand of dense grass and that the Carroll County Bureau of Resource Management has inspected construction and a registered professional engineer has certified that the "As-Built" plans meet the plans and specifications for construction. After "completion of the facility" the moneys may be collected by placing a lien on the property, or by including the costs and penalties on the property tax bill and collecting them as ordinary taxes by the County/Town/City.
5. Owner(s) shall grant right of entry to authorized County/Town/City personnel for purposes of inspection monitoring and/or repair. Site visits for inspection and/or monitoring shall be conducted only during normal County working hours (8:00 a.m. to 5:00 p.m. Monday – Friday).
6. This agreement including right-of entry for inspection/maintenance and repair shall be recorded in the Land Records of the County.



EXTENDED DETENTION BASIN INSPECTION CHART

SEQUENCE OF CONSTRUCTION/INSPECTION CHART	INITIALS	DATE	AGENT
1. CONTACT MISS UTILITY AT LEAST 3 DAYS AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO BEGINNING WORK. NOTIFY CARROLL COUNTY SEDIMENT CONTROL. 24 HOURS PRIOR TO BEGINNING WORK AT 4-10-386-2210 FOR A PRE-CONSTRUCTION MEETING.			CLSI
2. CONTACT CARROLL COUNTY SEDIMENT CONTROL INSPECTOR FOR APPROVAL OF SEDIMENT CONTROL DEVICES BEFORE PROCEEDING AND PERMISSION TO CONSTRUCT THE EXTENDED DETENTION BASIN. CONTRACTOR TO FOLLOW ALL CONDITIONS SET FORTH BY CARROLL COUNTY SEDIMENT CONTROL INSPECTOR.			CLSI
3. GRADE FACILITY DOWN TO DESIGN BOTTOM OF 756.00. GRADE SIDE SLOPES TO 3:1.			CLSI
4. FACILITY EMBANKMENT TO BE CONSTRUCTED WITH MATERIALS AND COMPACTED TO SPECIFICATIONS SHOWN ON COMPACTION DETAIL THIS SHEET.			GEOTECH
5. CONSTRUCTION STORM DRAIN SYSTEM FROM M-12 TO EW-3 AND I-2 TO EW-2.			CLSI
6. INSTALL RIPRAP STILLING BASINS AT EW-2 AND EW-3			CLSI
7. INSTALL CAST IN PLACE RISER (R-1) AND 2" RCP TO EW-1 PER RISER DETAIL SHEET 13.			CLSI
8. INSTALL CONCRETE CRADLE FOR 2" RCP BARREL.			CLSI
9. WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE PERIMETER SEDIMENT CONTROL MEASURES.			CLSI
10. FORWARD SIGNED INSPECTION CHART TO CLSI. WITHIN 30 DAYS OF RECEIVING SIGNED INSPECTION CHART, CLSI WILL PREPARE AND SUBMIT PAPER AS-BUILT PRINTS TO C.C. STORMWATER REVIEW FOR APPROVAL. MYLARS TO BE SUBMITTED C.C. BUREAU OF RESOURCE MANAGEMENT UPON APPROVAL OF AS-BUILT.			CLSI

NOTE: INSPECTION CHART SHALL BE SIGNED BY CERTIFYING PROFESSIONAL AS WORK PROGRESSES. ONCE CERTIFYING PROFESSIONAL HAS GIVEN APPROVAL, PROCEED AS NOTED ABOVE. PLEASE NOTIFY CERTIFYING ENGINEER 48-HOURS PRIOR TO COMMENCING CONSTRUCTION

ENGINEER'S NAME: CLSI ENGINEER'S NAME: ENGINEER'S NAME:  
 PHONE NUMBER: (410) 848-1790 PHONE NUMBER: PHONE NUMBER:

MICRO-BIO FACILITY INSPECTION CHARTS FOR SWM

SEQUENCE OF CONSTRUCTION/ ENGINEERS INSPECTION CHART	MICROBIO #1		MICROBIO #2		MICROBIO #3		MICROBIO #4		MICROBIO #5		MICROBIO #6		MICROBIO #7		INSPECTING AGENT
	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE	
1. GRADE SITE AND INSTALL STORM DRAIN SYSTEMS INCLUDING ALL NECESSARY ROOF LEADERS, COURT YARD STORM DRAINS, CONCRETE CRADLES, RISERS, CONCRETE INFILL, TRASH RACKS AND OUTFALL PROTECTION ENDWALLS.															CLSI
2. FACILITY EMBANKMENT TO BE CONSTRUCTED WITH MATERIALS AND COMPACTED TO SPECIFICATIONS SHOWN ON COMPACTION DETAIL THIS SHEET.															GEOTECH
3. ONCE THE DRAINAGE AREA IS STABILIZED WITH BUILDINGS AND ROADWAYS COMPLETED AND SUPPORTING 2" STAND OF GRASS, EXCAVATE SUBSURFACE DIMENSIONS.															CLSI
4. INSTALL NO. 8 STONE LAYER TO MINIMUM OF 3' OR TO DEPTH OF RECHARGE RESERVOIR (DEPTH VARIES). SEE CROSS SECTION FOR STONE DEPTH.															CLSI
5. INSTALL 8" SLOTTED PVC UNDERDRAIN. UNDERDRAIN MUST BE INSPECTED PRIOR TO BACKFILL WITH REMAINING 8" LAYER OF STONE.															CLSI
6. INSTALL 24" INCHES OF FILTER MEDIA. FILTER MEDIA TO CONFORM TO SPECIFICATIONS THIS SHEET.															CLSI
7. FINE GRADE AND FULLY STABILIZE DISTURBED AREAS.															CLSI
8. INSTALL BASIN BOTTOM SEED MIX PER MANUFACTURERS RECOMMENDATIONS. SEE SEED MIX THIS SHEET. STRAW TO BE TOP DRESSED OVER SEEDS TO DEPTH OF 1".															CLSI
9. SUBMIT AS-BUILT PAPER PRINTS TO THE BUREAU OF RESOURCE MANAGEMENT WITHIN 30 DAYS AFTER CONSTRUCTION COMPLETION.															CLSI

\* PLEASE NOTIFY CERTIFYING ENGINEER 48 HOURS PRIOR TO COMMENCING CONSTRUCTION  
 ENGINEER'S NAME: CLSI  
 PHONE NUMBER: (410) 848-1790

NOTE: WOODY VEGETATION IS PROHIBITED ON THE EMBANKMENTS OF ALL STORMWATER MANAGEMENT FACILITIES.

STORMWATER MAINTENANCE SCHEDULE MICRO-BIORETENTION Modified to Correspond to Carroll County Details		
MONTHLY INSPECTION		
Inspection Item	Inspection Requirements	Remedial Action
Debris and Trash	Check for trash and debris in facility including inlets, outlets, conveyance systems, and area around facility.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
Plant Composition and Health	Compare plant composition with approved plan. Check for invasive species or weeds. Check for dead or dying vegetation.	Remove invasive species and weeds. Replace dead plants in accordance with approved landscaping plan OR Re-seed and Remech per Filter Bed Mix.
Vegetative Cover	Check for channelizing, erosion, and bare spots. Check for vegetation blocking inlet and outlet.	Remove or cut back vegetation around inlet and outlet structures. Mow side slopes when grass exceeds 12 inches in height, but do not mow filter bed. If using Filter Bed Mix, may mow bed twice per year. Remove grass clippings. Re-seed or re-plant in accordance with approved landscaping plans.
Mulch Layer	Check mulch for adequate cover, sediment accumulation, or discoloration.	Replace and remove old mulch and excess sediment. Provide adequate mulch cover according to approved design.
SEASONAL INSPECTION AND AFTER A MAJOR STORM		
Inspection Item	Inspection Requirements	Remedial Action
Dewatering	Check ponding level. Surface storage must dewater within 48 hours of rainfall. Noticeable odors, stained water on the filter surface or at the outlet, or the presence of algae or aquatic vegetation are indicators of anaerobic conditions and inadequate dewatering of the facility.	Remove and replace top few inches of media. If the facility does not function as intended after the above action, excavate, remove, clean, and replace stone, underdrain, media, and plants in accordance with approved plans.
Erosion	Check inlets, filter bed, outlets, and side slopes for erosion, rills, gullies, and runoff channelization.	Re-grading may be required when concentrated flow causes rills or gullying through the facility. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.
Sediment Accumulation	Check for accumulated sediment in conveyance systems and on filter bed. Check for clogged openings (blockages).	When sediment accumulates to 1 inch depth, remove sediment. Remove sediment from clogged openings. Dispose of all sediment in an acceptable location.
ANNUAL INSPECTION		
Inspection Item	Inspection Requirements	Remedial Action
Structural Components	Check for evidence of structural deterioration, spalling, or cracking. Inlet and outlet structures as well as tipup outfalls must be in good condition.	Repair to good condition according to specifications on the approved plans.
Overall Function of Facility	Check that practice is functioning as designed.	Repair to good condition according to specifications on the approved plans.

MICROBIO PLANTINGS

ALL MICROBIO PLANTINGS TO BE PLANTED WITH BASIN BOTTOM MIX OR APPROVED EQUIVALENT SEED MIXTURE. SEED MIX TO BE PLANTED 2" DEEP. STRAW TO BE PLANTED DIRECTLY ONTO FILTER MEDIA AND BE TOP DRESSED WITH STRAW.

BASIN BOTTOM MIX  
coverage rate = 50 lbs per acre

Scientific Name	Common Name	% Composition	Oz.
Carex lurida	Shallow Sedge	15%	2.08
Elymus virginicus	Virginia Wild Rye	13%	9.08
Juncus effusus	Soft Rush	12%	0.01
Glyceria striata	Fowl Mannagrass	8%	0.17
Lobelia siphilitica	Blue Lobelia	8%	0.24
Carex crinita	Fringed Sedge	6%	0.34
Helenium autumnale	Common Sneezeweed	5%	0.09
Scirpus atrovirens	Green Bulrush	5%	0.03
Vernonia noveboracensis	New York Ironweed	5%	0.39
Mimulus ringens	Monkey Flower	5%	0.01
Veronicastrum virginicum	Culver's Root	4%	0.01
Calamagrostis canadensis	Bluejoint Grass	3%	0.03
Symphyotrichum novae-angliae	New England Aster	3%	0.06
Verbena hastata	Blue Vervain	3%	0.08
Verbena alternifolia	Wingstem	2.5%	0.87
Asclepias incarnata	Swamp Milkweed	1%	0.4
Hibiscus moscheutos	Swamp Rose-Mallow	0.5%	0.42
Iris versicolor	Blueflag Iris	0.5%	0.78
Kosteletzkya virginica	Virginia Saltmarsh Mallow	0.5%	0.81

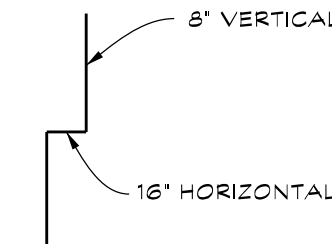
NOTE: BASIN BOTTOM MIX CAN BE PURCHASED THROUGH PINELANDS NURSERY & SUPPLY  
 323 ISLAND ROAD, COLUMBUS, NJ 08022

Compaction

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

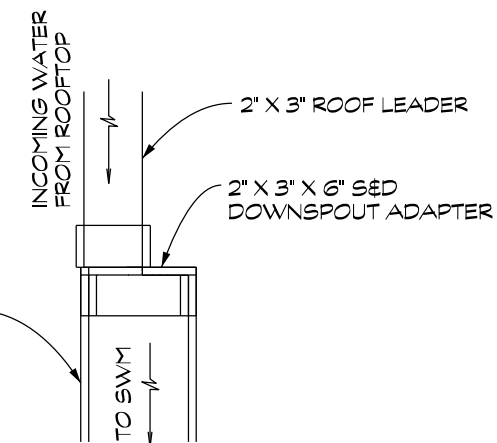
The minimum required density shall not be less than 95% of maximum dry density with a moisture content within plus or minus 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

NOTE: COMPACTED MATERIAL TO BE BEST AVAILABLE ON-SITE MATERIAL, AT LEAST (1%) SOIL APPROVED BY GEOTECH ENGINEER. COMPACTION SHALL FOLLOW GUIDELINES FOR COMPACTION ON THIS SHEET.

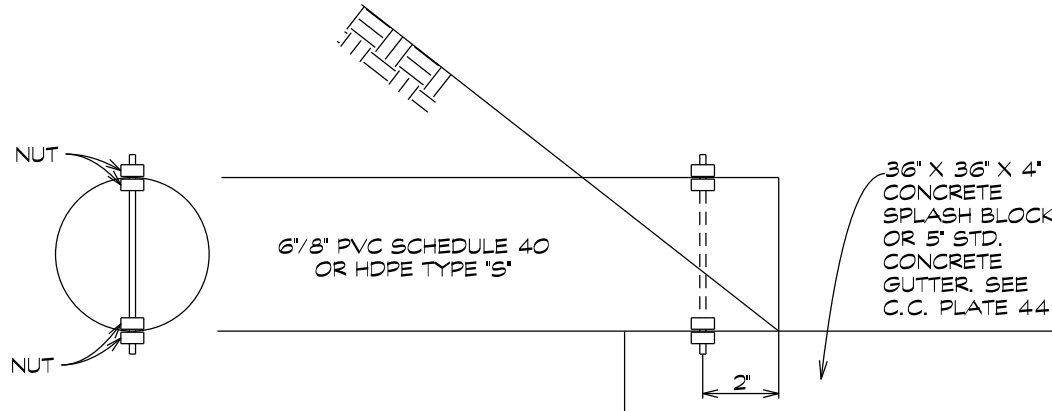


COMPACTION DETAIL  
NOT TO SCALE

TYPICAL DOWNSPOUT FOR DRAINAGE TO SWM FACILITY



RODENT GUARD/DOWNSPOUT OUTFALL TO MICRO-BIO FACILITIES DETAIL



- NOTES:  
 1. THE UNDERDRAIN, WHERE IT DISCHARGES ONTO THE GROUND, MUST HAVE A RODENT GUARD AND A SPLASH BLOCK TO PROTECT THE OUTFALL.

SWM/ WQ FACILITY DATA: MICRO-BIO FACILITY #1

- STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE PRIVATE THEREFORE SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER.
- STRUCTURE CLASSIFICATION: MICRO-BIORETENTION SWM/WQ FACILITY (AN ESD PRACTICE)
- TOTAL DRAINAGE AREA =  
D.A. A-1 = 0.39 AC.
- TOTAL IMPERVIOUS AREA =  
D.A. A-1 = 0.27 AC.
- THIS SITE IS PART OF THE LIBERTY RESERVOIR WATERSHED (02130907) AND IS CLASSIFIED USE I.P.
- STORAGE PROVIDED PER ESD CALCULATIONS =  
D.A. A-1 = 2,374 CU. FT.
- CENTROID OF FACILITY:  
N: 692875  
E: 1347306

SWM/ WQ FACILITY DATA: MICRO-BIO FACILITY #2

- STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE PRIVATE THEREFORE SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER.
- STRUCTURE CLASSIFICATION: MICRO-BIORETENTION SWM/WQ FACILITY (AN ESD PRACTICE)
- TOTAL DRAINAGE AREA =  
D.A. A-2 = 0.42 AC.
- TOTAL IMPERVIOUS AREA =  
D.A. A-2 = 0.27 AC.
- THIS SITE IS PART OF THE LIBERTY RESERVOIR WATERSHED (02130907) AND IS CLASSIFIED USE I.P.
- STORAGE PROVIDED PER ESD CALCULATIONS =  
D.A. A-2 = 2,369 CU. FT.
- CENTROID OF FACILITY:  
N: 692880  
E: 1347629

SWM/ WQ FACILITY DATA: MICRO-BIO FACILITY #5

- STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE PRIVATE THEREFORE SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER.
- STRUCTURE CLASSIFICATION: MICRO-BIORETENTION SWM/WQ FACILITY (AN ESD PRACTICE)
- TOTAL DRAINAGE AREA =  
D.A. A-5 = 20.37 AC.
- TOTAL IMPERVIOUS AREA =  
D.A. A-5 = 3.00 AC.
- THIS SITE IS PART OF THE LIBERTY RESERVOIR WATERSHED (02130907) AND IS CLASSIFIED USE I.P.
- STORAGE PROVIDED PER ESD CALCULATIONS =  
D.A. A-5 = 2,279 CU. FT.
- CENTROID OF FACILITY:  
N: 692902  
E: 1347458

SWM/ WQ FACILITY DATA: MICRO-BIO FACILITY #3

- STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE PRIVATE THEREFORE SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER.
- STRUCTURE CLASSIFICATION: MICRO-BIORETENTION SWM/WQ FACILITY (AN ESD PRACTICE)
- TOTAL DRAINAGE AREA =  
D.A. A-3 = 0.42 AC.
- TOTAL IMPERVIOUS AREA =  
D.A. A-3 = 0.27 AC.
- THIS SITE IS PART OF THE LIBERTY RESERVOIR WATERSHED (02130907) AND IS CLASSIFIED USE I.P.
- STORAGE PROVIDED PER ESD CALCULATIONS =  
D.A. A-3 = 2,396 CU. FT.
- CENTROID OF FACILITY:  
N: 692810  
E: 1347767

SWM/ WQ FACILITY DATA: MICRO-BIO FACILITY #4

- STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE PRIVATE THEREFORE SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER.
- STRUCTURE CLASSIFICATION: MICRO-BIORETENTION SWM/WQ FACILITY (AN ESD PRACTICE)
- TOTAL DRAINAGE AREA =  
D.A. A-4 = 0.45 AC.
- TOTAL IMPERVIOUS AREA =  
D.A. A-4 = 0.27 AC.
- THIS SITE IS PART OF THE LIBERTY RESERVOIR WATERSHED (02130907) AND IS CLASSIFIED USE I.P.
- STORAGE PROVIDED PER ESD CALCULATIONS =  
D.A. A-4 = 2,385 CU. FT.
- CENTROID OF FACILITY:  
N: 692418  
E: 1347691

SWM/ WQ FACILITY DATA: QUANTITY MANAGEMENT FACILITY

- STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS ARE PRIVATE THEREFORE SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER.
- STRUCTURE CLASSIFICATION: MICRO-BIORETENTION SWM/WQ FACILITY (AN ESD PRACTICE)
- TOTAL DRAINAGE AREA =  
D.A. A-6 = 20.78 AC.
- TOTAL IMPERVIOUS AREA =  
D.A. A-6 = 3.00 AC.
- THIS SITE IS PART OF THE LIBERTY RESERVOIR WATERSHED (02130907) AND IS CLASSIFIED USE I.P.
- STORAGE PROVIDED PER CALCULATIONS =  
D.A. A-6 = 59,655.50 CU. FT.
- CENTROID OF FACILITY:  
N: 692902  
E: 1347454

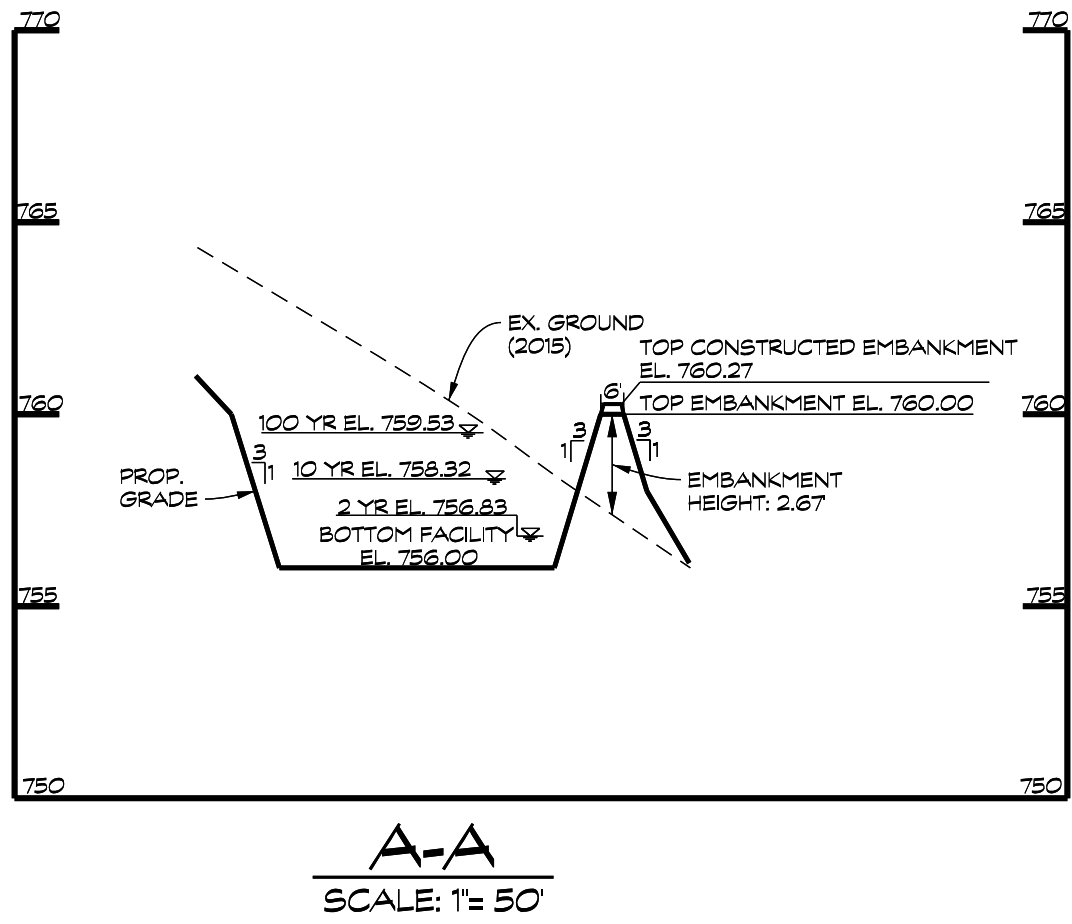
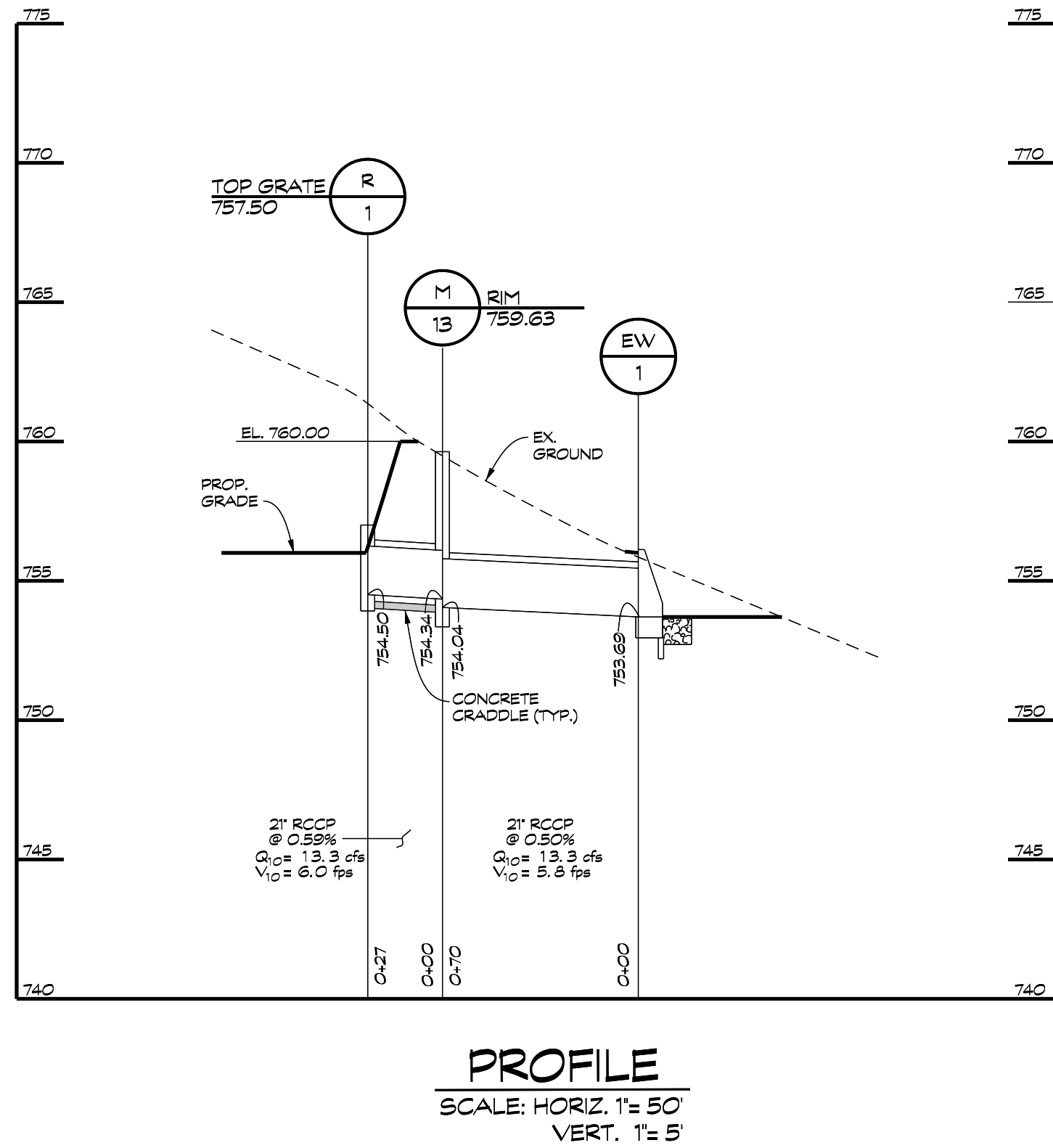
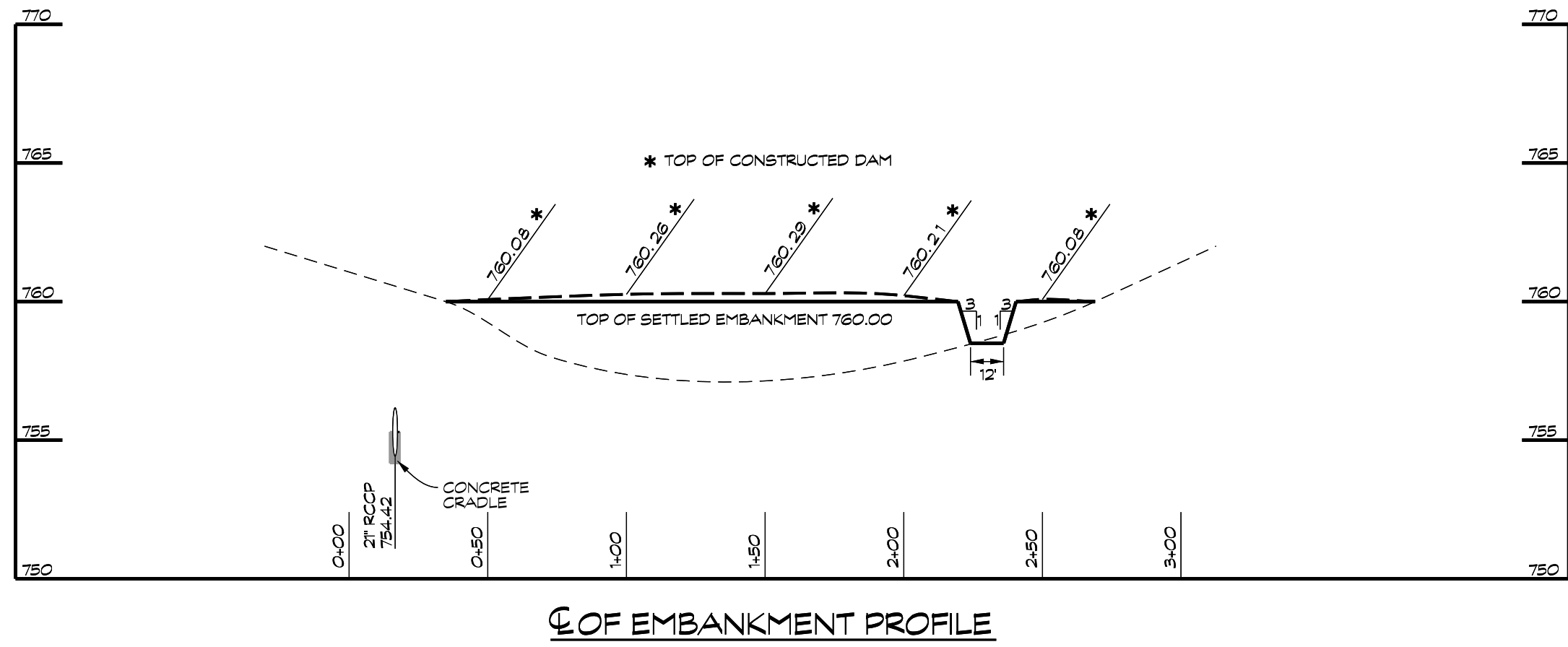
STORMWATER MANAGEMENT  
NOTES AND DETAILS  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY  
8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND

NOT FOR CONSTRUCTION		Engineers • Surveyors	
Brian D. Moore, P.E. 439 East Main Street Westminster, MD 21157-5539 (410) 848-1790 FAX (410) 848-1791		PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 5288, EXPIRATION DATE: DECEMBER 7, 2023	
Date	Revisions	Drawn By:	BTM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	BTM
1/3/23	REVISED PER C.C. COMMENTS	Reviewed By:	BEW
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	1" = 10'
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	12 of 31



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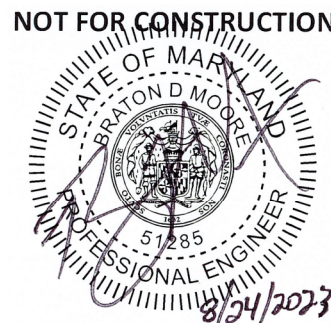




WHERE SPECIFIED, STORM DRAIN PIPE FOR THIS PROJECT SHALL BE BE ASTM C-361 CLASS B-25 WATERTIGHT REINFORCED CONCRETE PIPE (RCP), NOTED AS RCCP.

UNLESS OTHERWISE SPECIFIED, STORM DRAIN PIPE FOR THIS PROJECT SHALL BE ADVANCED DRAINAGE SYSTEMS CORRUGATED HIGH-DENSITY POLYETHYLENE (HDPE) N-12 DRAINAGE PIPE (HDPE), NOTED AS 'D'. ALL PIPE, FITTINGS, AND CONSTRUCTION TO BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

STORMWATER MANAGEMENT  
PROFILES AND SECTIONS  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
**HEIRD PROPERTY**  
8th ELECTION DISTRICT - CARROLL COUNTY, MARYLAND



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51285, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By: BTM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By: BTM
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By: BEW
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale: AS SHOWN
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.: 2005186C
		Sheet: 14 of 31

DEVELOPERS/LANDOWNER'S CERTIFICATION

I/We hereby certify that all proposed work shown on these construction drawing(s) will be conducted in strict accordance with these plans. I/We also understand that it is my/our responsibility to have the construction supervised and certified, including the submittal of "As-Built" plans certified by a Registered Professional Engineer or Professional Land Surveyor, as appropriate, within thirty (30) days of completion of work on the stormwater management facility/facilities. I/We also certify that this/these stormwater management facility/facilities will be inspected during construction by a Registered Professional Engineer or Professional Land Surveyor, as appropriate, in accordance with Sections 151.095 and 151.096 of the Code of Public Local Laws and Ordinances of Carroll County.

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER'S "AS-BUILT" CERTIFICATION

I/We hereby certify that the facility/facilities shown on this/these plan(s) was constructed as shown on the "As-Built" plans and meets the approved plans and specifications. I also certify that this/these facilities were inspected in accordance with Sections 151.095 and 151.096 of the Code of Public Local Laws and Ordinances of Carroll County and I hereby certify that these documents were prepared or approved by me, and I am a duly licensed professional engineer under the laws of the state of Maryland.

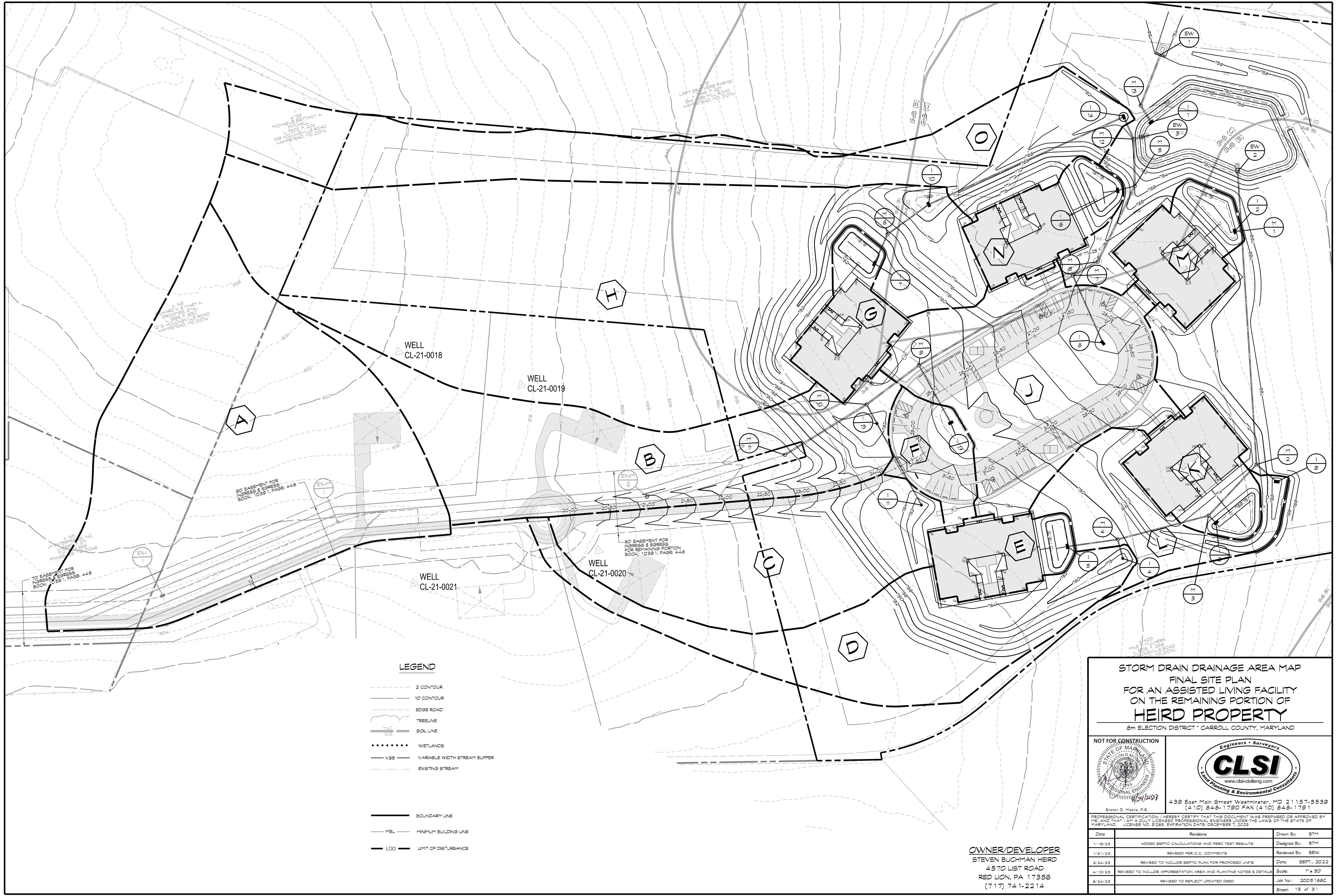
SIGNED \_\_\_\_\_ DATE \_\_\_\_\_  
LICENSE NO. \_\_\_\_\_ EXPIRATION DATE \_\_\_\_\_

ENGINEER'S DESIGN CERTIFICATION

I hereby certify that these plans have been designed according to Chapter 151 of the Code of Public Local Laws and Ordinances of Carroll County and I hereby certify that these documents were prepared or approved by me, and I am a duly licensed professional engineer under the laws of the state of Maryland.

SIGNED *BM* \_\_\_\_\_ DATE *8/24/2023*  
LICENSE NO. *51285* EXPIRATION DATE *12/7/23*





LEGEND

- 2' CONTOUR
- 10' CONTOUR
- EDGE ROAD
- TREELINE
- SOIL LINE
- WETLANDS
- VSB - VARIABLE WIDTH STREAM BUFFER
- EXISTING STREAM
- BOUNDARY LINE
- MBL - MINIMUM BUILDING LINE
- LOD - LIMIT OF DISTURBANCE

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

STORM DRAIN DRAINAGE AREA MAP  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
**HEIRD PROPERTY**  
8th ELECTION DISTRICT • CARROLL COUNTY, MARYLAND

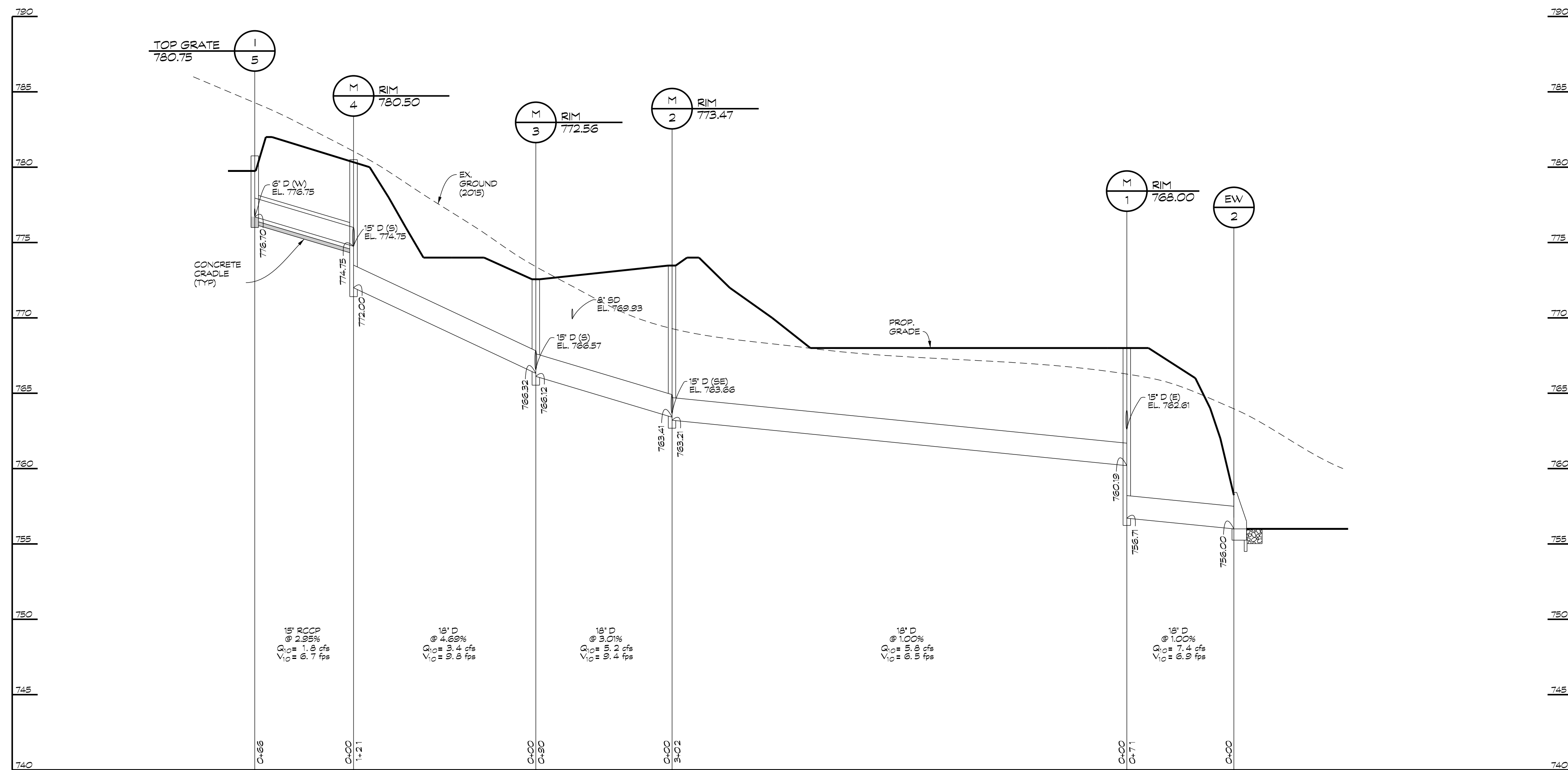
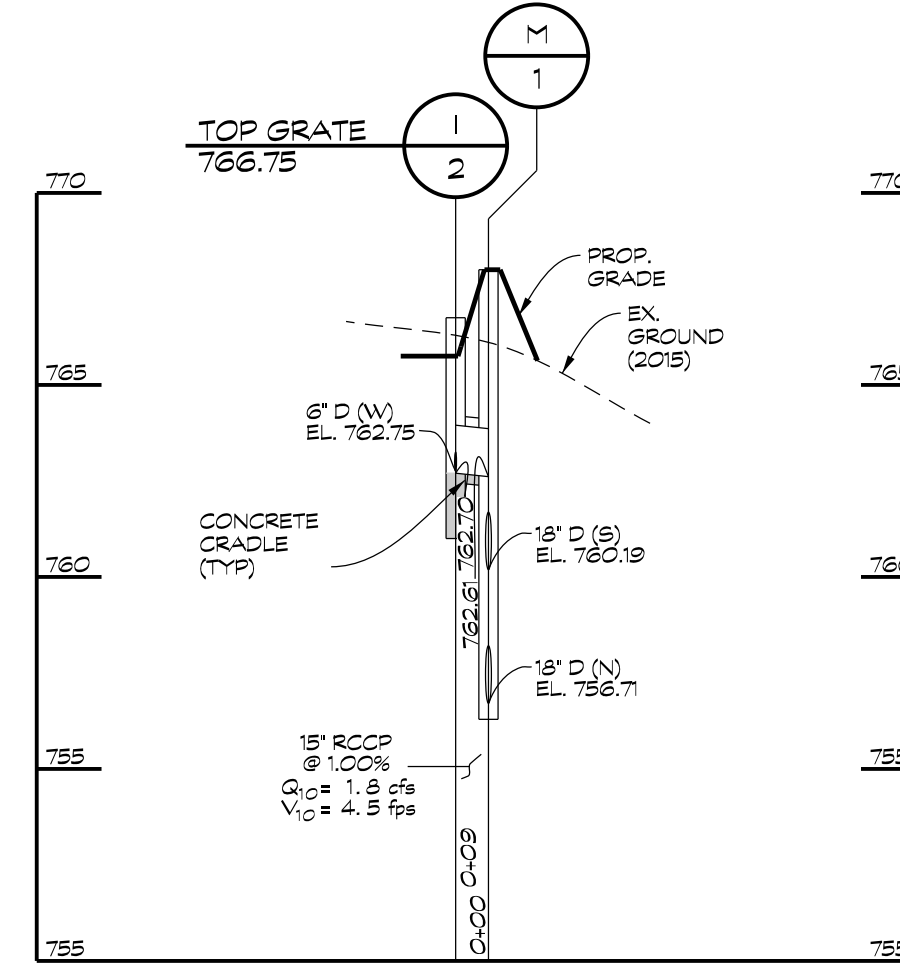
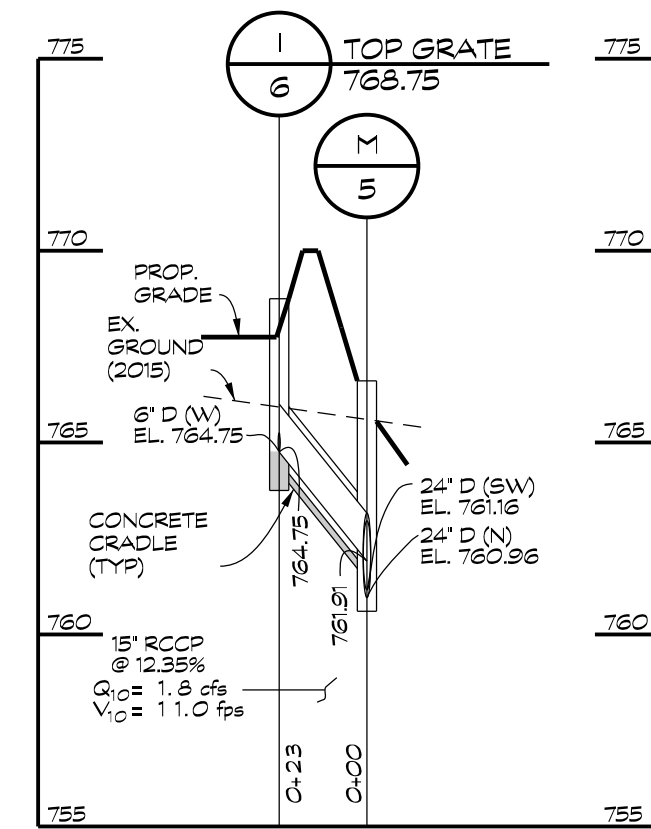
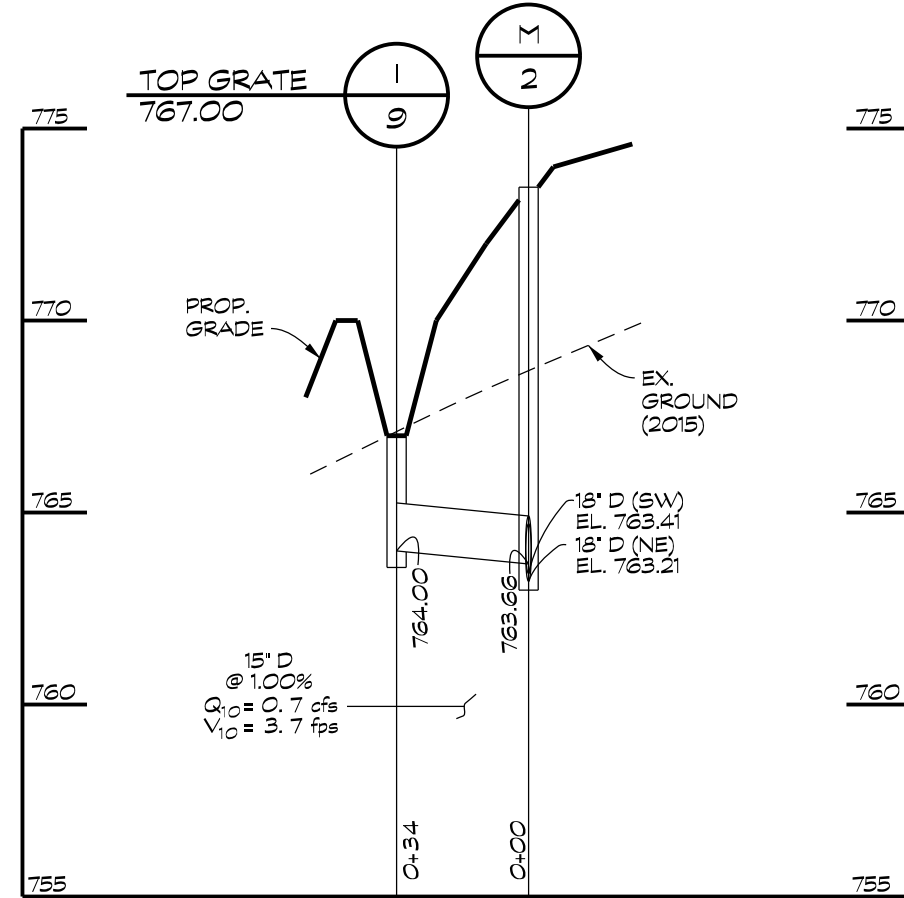
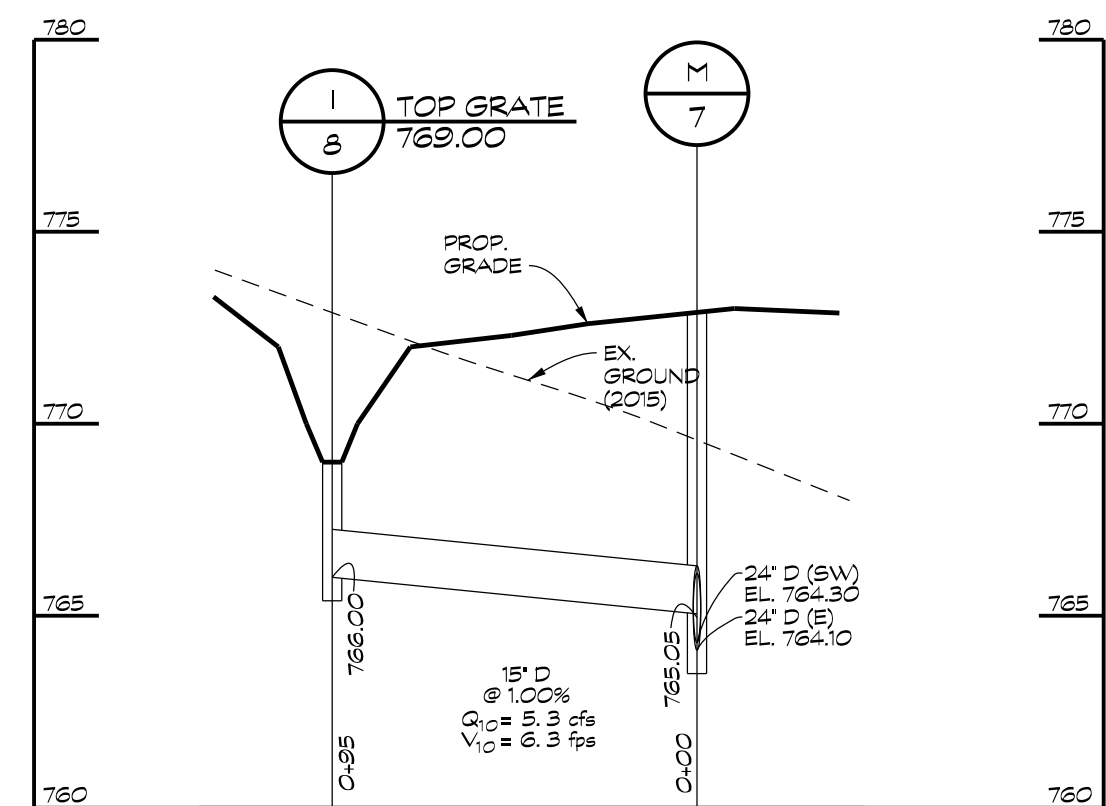
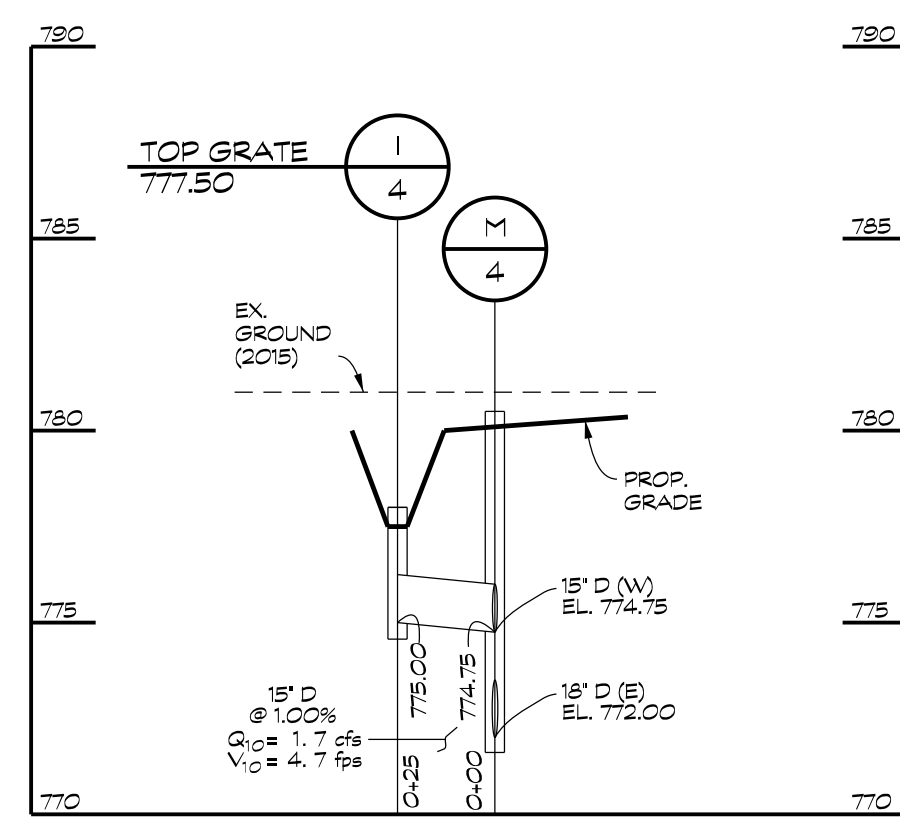
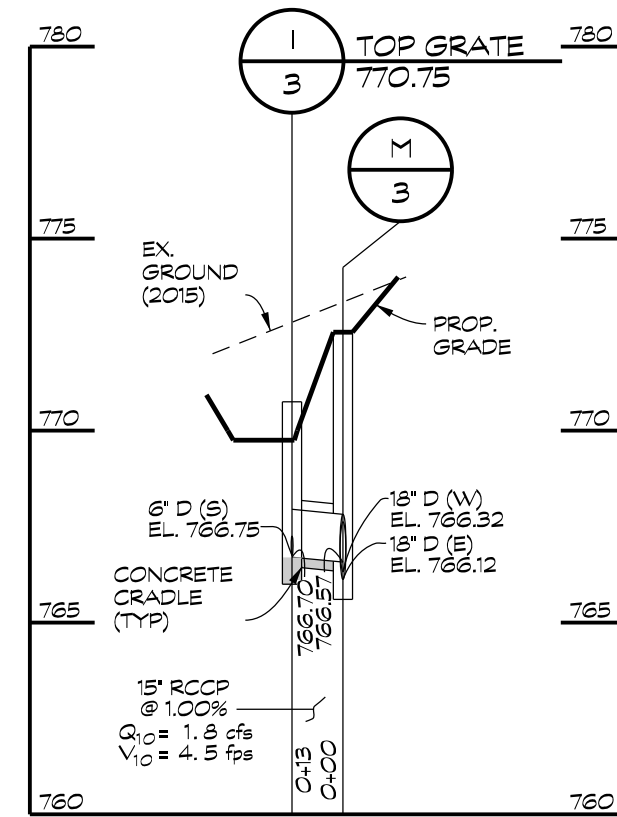
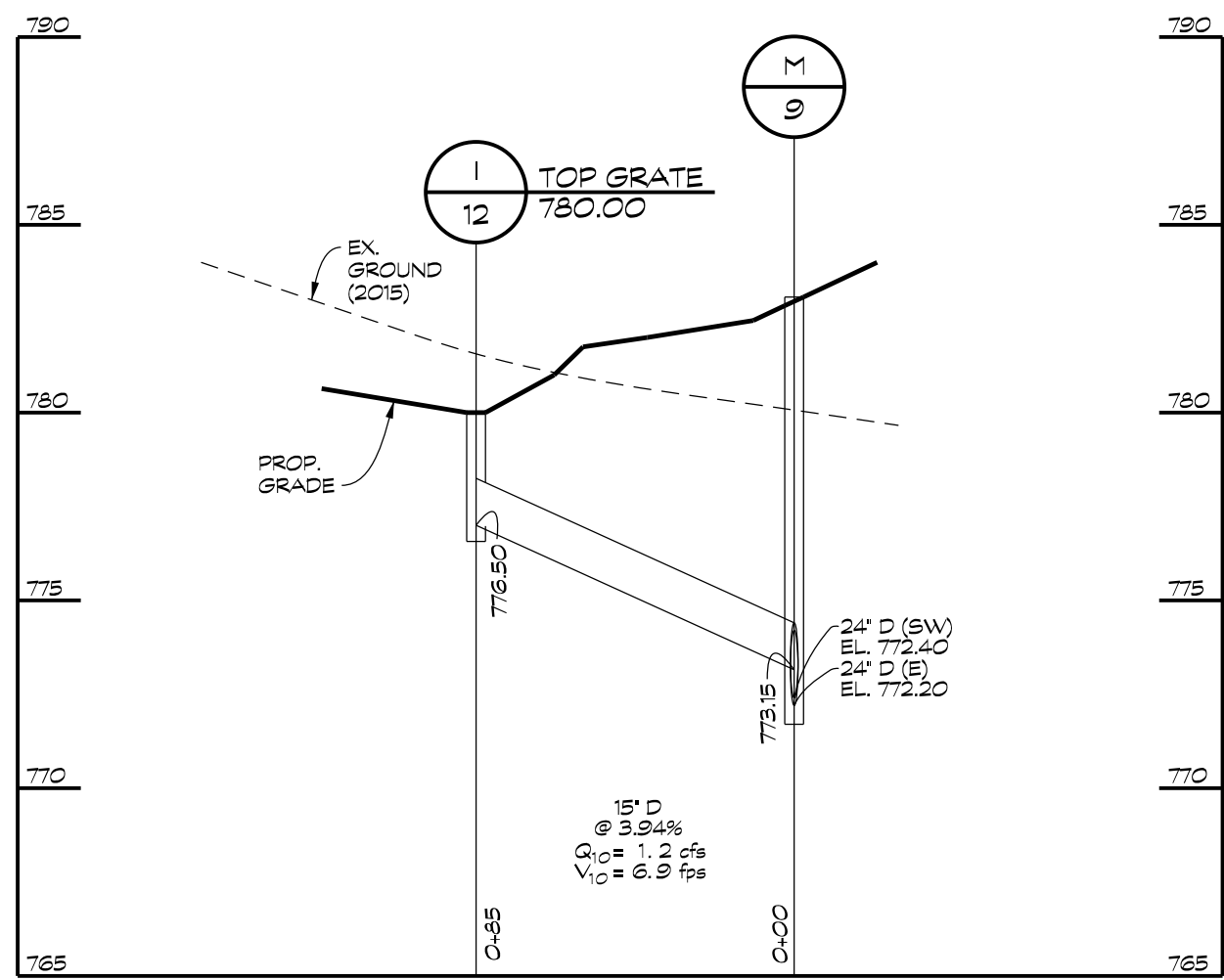
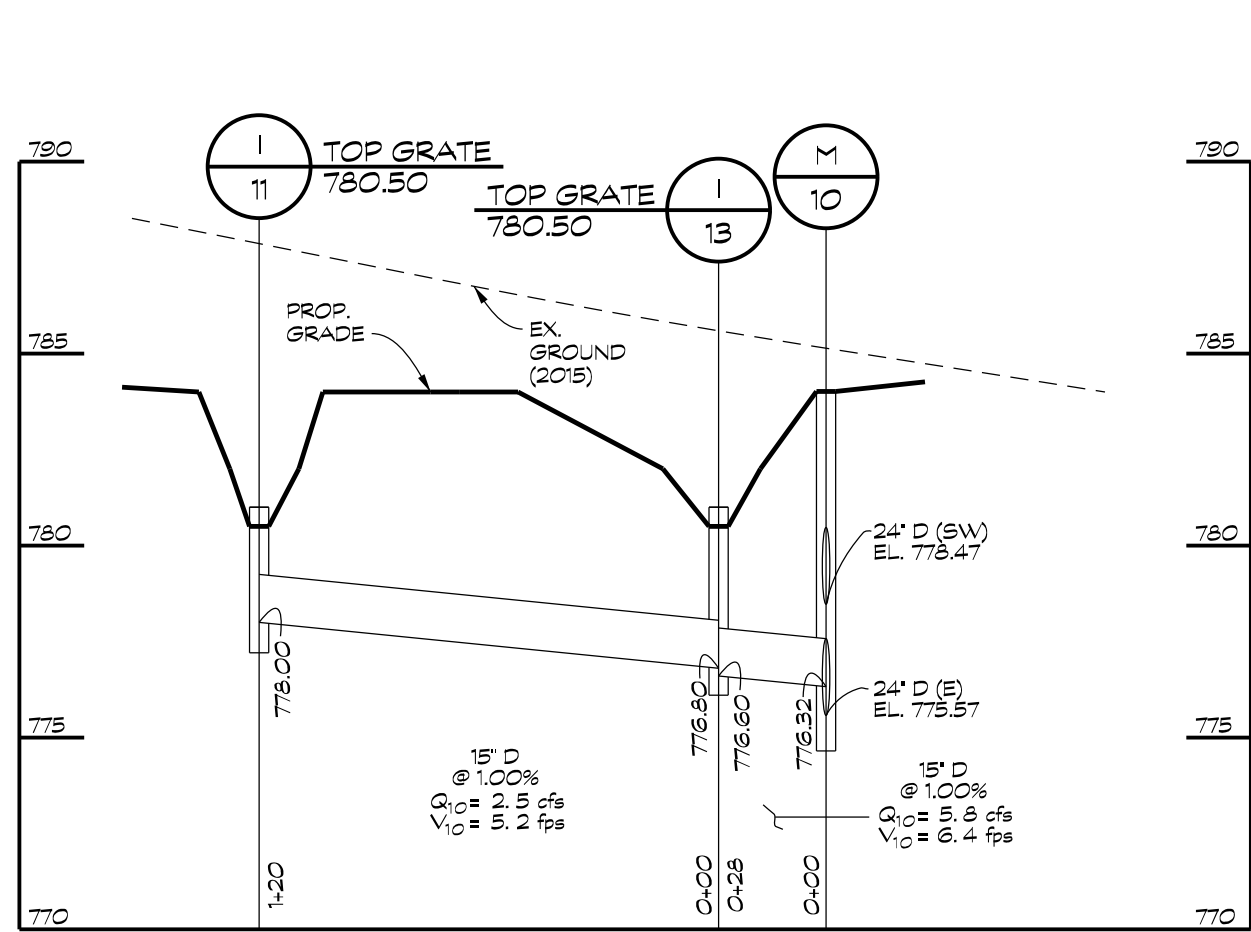


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(410) 848-1790 FAX (410) 848-1791

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Date	Revisions	Drawn By:	BTM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	BTM
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:	BEV
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	1" = 50'
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005188C
		Sheet:	15 of 31





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

WHERE SPECIFIED, STORM DRAIN PIPE FOR THIS PROJECT SHALL BE BE ASTM C-361 CLASS B-25 WATERTIGHT REINFORCED CONCRETE PIPE (RCP), NOTED AS RCCP.

UNLESS OTHERWISE SPECIFIED, STORM DRAIN PIPE FOR THIS PROJECT SHALL BE ADVANCED DRAINAGE SYSTEMS CORRUGATED HIGH-DENSITY POLYETHYLENE (HDPE) N-12 DRAINAGE PIPE (HDPE, NOTED AS 'D'. ALL PIPE, FITTINGS, AND CONSTRUCTION TO BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

STORM DRAIN PROFILES  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
**HEIRD PROPERTY**  
8th ELECTION DISTRICT - CARROLL COUNTY, MARYLAND

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
8/24/2023

Engineers • Surveyors  
**CLSI**  
Land Planning & Environmental Consultants  
www.clsi-civileng.com

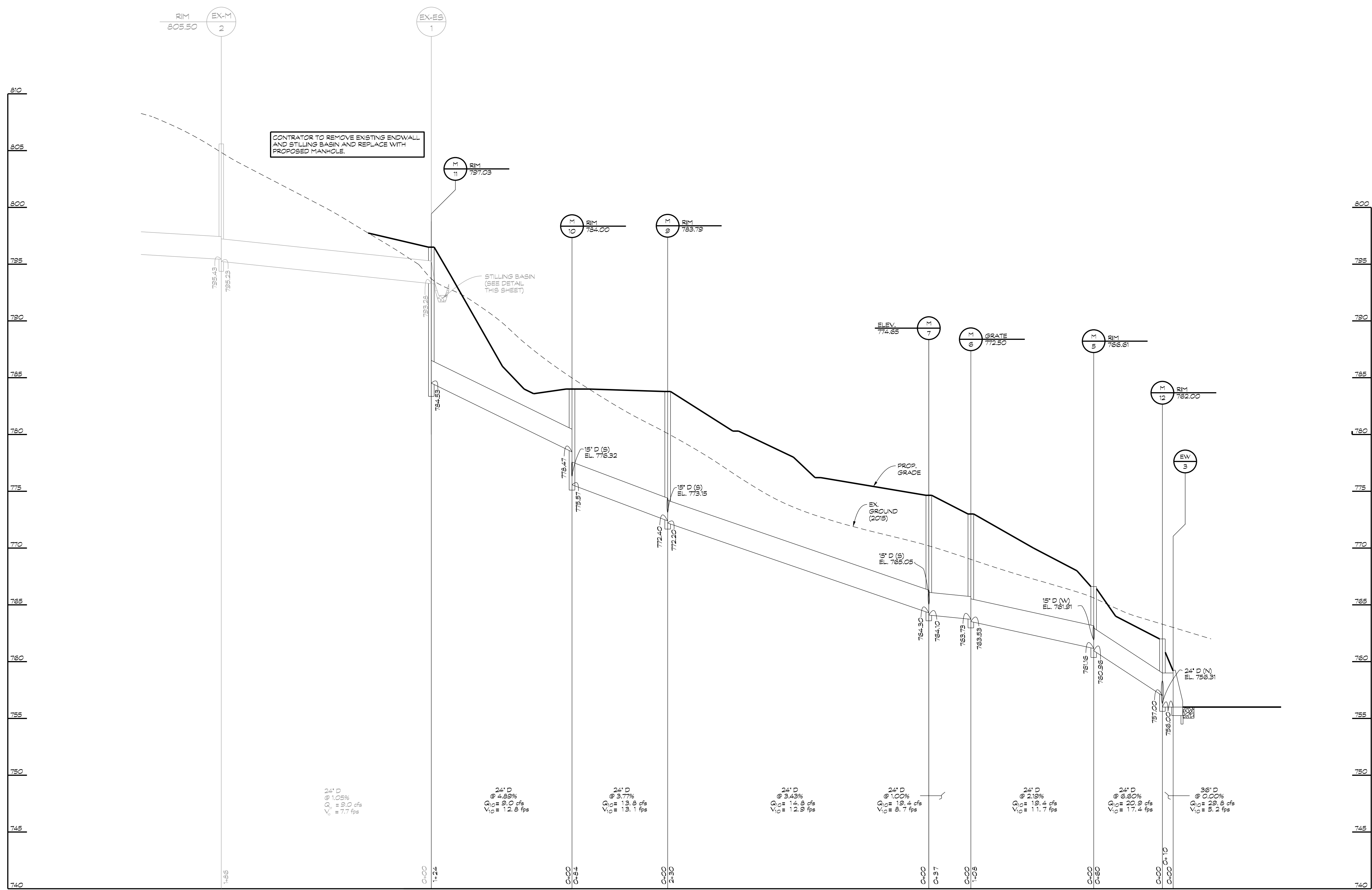
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1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	BTM
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8/24/23	REVISED TO REFLECT UPDATED DEED	BEV

Scale: AS SHOWN  
Job No.: 2005186C  
Sheet: 16 of 31





PROFILE

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

WHERE SPECIFIED, STORM DRAIN PIPE FOR THIS PROJECT SHALL BE ASTM C-301 CLASS B-25 WATERTIGHT REINFORCED CONCRETE PIPE (RCP), NOTED AS RCCP.

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STORM DRAIN PROFILES  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY

8th ELECTION DISTRICT - CARROLL COUNTY, MARYLAND

NOT FOR CONSTRUCTION



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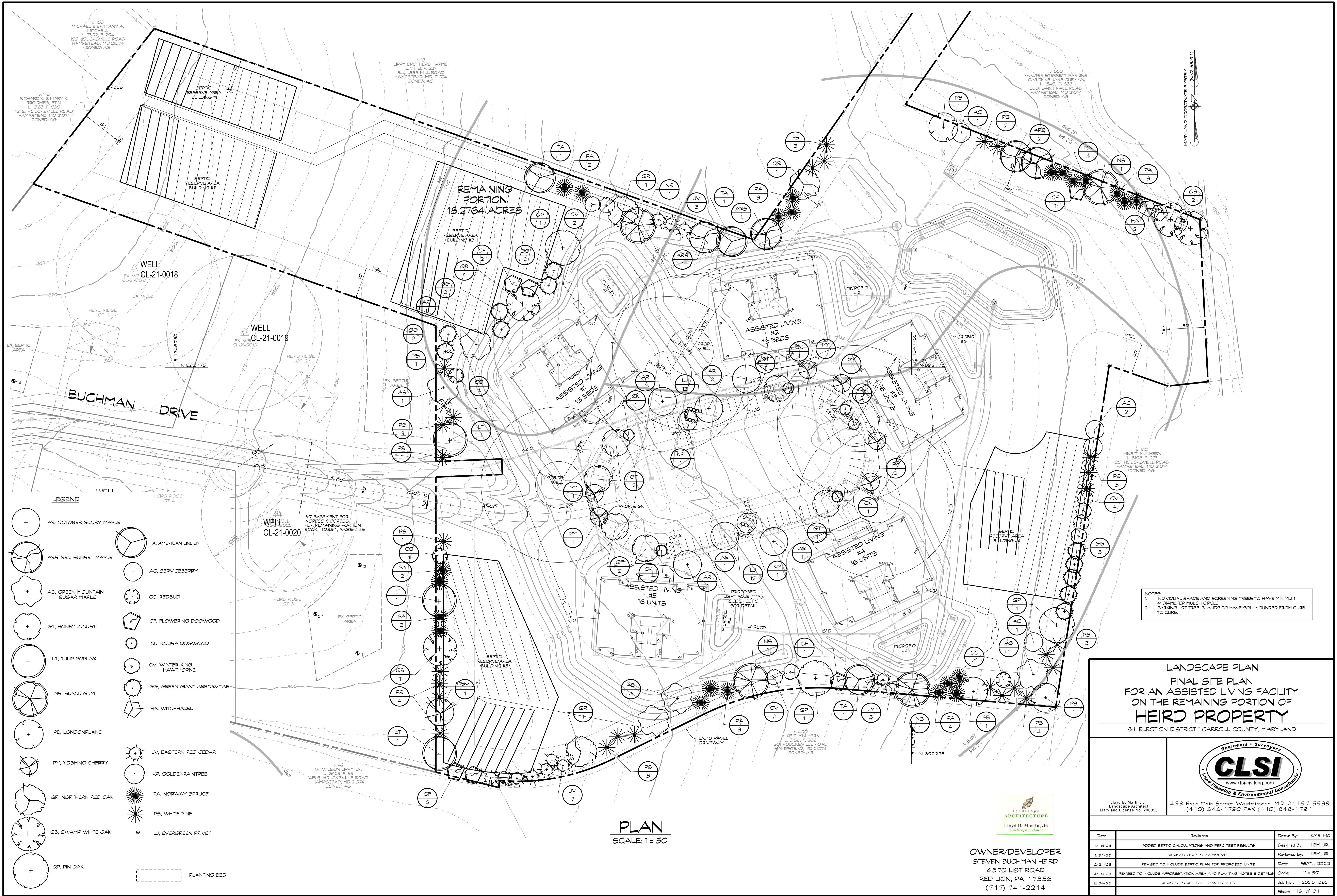
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		Sheet:	17 of 31

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214











LANDSCAPE PLANTING SPECIFICATIONS

GENERAL

Plant materials shall conform to American Standard for Nursery Stock sponsored by American Association of Nurserymen, Inc.

Plants shall be subject to inspection by the Carroll County Office of Landscape & Forest Conservation for quality, size, color, and true-ness to species. Plants lacking compactness or proper proportions, plants which are weak or thin, and plants which are not the species or variety coded for in the plant list will not be accepted. Right is reserved to reject plants considered unsatisfactory. Rejected plants shall be removed from the site and replaced with plants specified. Pruning plants prior to delivery shall be prohibited.

Substitutions will not be permitted without the consent of the Carroll County Office of Landscape & Forest Conservation. If proof is submitted that specific plants or sizes are unavailable, proposals will be considered for the nearest equivalent size or variety with equitable adjustment to the contract price.

Plants shall have normal, well developed branches and vigorous fibrous root system. They shall be healthy, vigorous plants free from defect, decay, damaged roots, sun scald injuries, abrasions of the bark, plant diseases, insect pests eggs, borers, and forms of infestations and objectionable disfigurements.

Plants shall be nursery grown unless otherwise specifically permitted in each instance and shall have been growing under similar climatic conditions as the location of the project for at least 2 years prior to the date of the planting contract.

REFERENCES

- All plants shall be identified in accordance with Hortus Third, by L.H. Bailey, 1976.
- All nursery stock shall conform to American Association of Nurserymen, Inc. Standards for Nursery Stock, publication ANSI Z60.1-1980 latest edition.
- Landscape specifications shall conform to Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas. All nursery stock shall be planted in accordance with the procedures outlined in the guidelines. All nursery stock shall be planted in accordance with the procedure outlined in the guidelines.

PLANTING PROCEDURES

Plants shall be freshly dug at time of delivery.

Balled and burlapped plants shall be dug with solid balls of adequate size, the balls securely wrapped with burlap or canvas, tightly bound with rope or wire.

The Planting Seasons for plant material shall be as follows:

Deciduous Trees and Shrubs:	October 15 April 1	thru December 15 thru May 15
Evergreen Trees, Shrubs and Vines:	September 1 April 1	thru November 15 thru May 15

At the option and full responsibility of the Contractor, planting operations may be conducted under unseasonable conditions without additional compensation.

Planting and backfill mix shall consist of 3 parts excavated soil, 1 plant mix.

Reasonable care shall be exercised to have pits dug and soil prepared prior to moving plants on site for planting to ensure that they will not be unnecessarily exposed to drying elements or physical damage. Size of pits shall be 1 1/2 to 2 times the diameter of the root ball and the root ball shall be elevated 1/3 height of the root ball above the ground to allow for drainage. A broad mound of soil shall be left around the base to enable the elevation to blend into the site.

Ground cover areas shall be prepared as specified before. Plant ground cover to within 1'-0" of tree trunks or shrubs.

Plant holes shall be backfilled with soil mix specified above placed in layers around the roots or ball. Each layer shall be carefully tamped to avoid injury to plants and roots. When holes are approximately two-thirds full, the hole shall be filled with water and soils allowed to settle around the roots. After the water has been absorbed the hole shall be filled with backfill mix and lightly tamped. Berms, 3" in height shall then be formed around the hole as shown on the planting details.

All planting beds shall be mulched with peat moss and/or finely shredded and composted bark as follows:

Ground cover beds shall be mulched after planting to a depth of 1 inch. Other plants shall be mulched after planting to a depth of 3 inches.

Mulch shall be applied immediately after planting to retain moisture. Rake surface smooth and even, then soak full depth of mulch thoroughly.

Trees shall be staked and wrapped according to the following:

Wire shall be 12 gauge annealed galvanized. Hose shall be 1/2" diameter, 2-ply reinforced hose. Stakes shall be sound uniform 2" x 2" redwood or oak, length as shown.

Landscape specifications shall conform to the current edition of the Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas, developed by the Landscape Contractors Association, MD-DC-VA. All Nursery stock shall be planted in accordance with the procedures outlined in the guidelines with the following exceptions:

- If the soil is wet or compacted, all containerized and balled nursery stock should be planted such that the top one-third of the rootball is above the existing grade. This departure in the established procedures has been documented to increase the rate of transplant success in these types of soils.
- Wire and nondegradable materials should be removed as far as practical before backfilling to prevent root girdling.

MAINTENANCE AND REPLACEMENT

Maintenance of plant material shall begin when project commences and continue until the final inspection and acceptance. Planting maintenance shall include all necessary watering, cultivation, weeding, pruning, wound dressing, disease and insect pest control, protective spraying, replacement of unacceptable material, straightening plants which lean or sag, adjustment of plants which settle or are planted too low, and any other procedure consistent with good horticultural practices necessary to insure normal, vigorous, and healthy growth of all work under this contract.

Contractor shall be responsible for the use of all materials, labor and equipment, and any injury to plant material caused by such material, labor and equipment shall be corrected and repaired by the Contractor at no additional expense to the Owner.

A proving period shall follow the completion of all planting for one year. All plant material found to be unsatisfactory during the proving period shall be replaced by the Contractor, at no additional expense to the Owner. All replacement shall have a one year proving period and shall be installed in accordance with the planting times and specifications specified above.

TREE PROTECTION NOTES

- Upon notification of County approval of the final landscape plan, trees which are to remain shall be marked in the field by the developer and protected in an approved manner. Trees within the construction area which are to remain undisturbed shall be encircled with a fence for protection, (snow fencing or other approved methods). The contractor shall not disturb the area within the fence in any manner deleterious to the trees.
- Any trenching operations within the vicinity of trees shall be done in a manner to protect the tree roots. Tearing and ripping of tree roots should be avoided. Roots should be severed neatly.
- All trees to be removed should be removed in a manner that will not damage the remaining trees. Any trees that are to remain that are damaged during clearing operation must be repaired in an approved manner by a tree expert as soon as final clearing has been completed. After construction is completed, temporary barriers, surplus materials and all trash, debris and rubbish shall be removed from the site. All backfill shall be clear of building material, stone and rubbish.
- Existing trees (particularly mature trees) which are retained will undergo "post operative shock" caused by the construction activity. All possible safeguards should be taken to minimize these effects and to provide optimum growth conditions. Foliage feeding and liquid or root feeding are encouraged. Branch and foliage thinning are also desirable.

LANDSCAPING NOTES

GENERAL

- ALL PLANT SPECIFICATIONS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE LATEST EDITION OF HORTUS THIRD, BY THE STAFF OF THE HORTORUM.
- ALL NURSERY STOCK SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMEN, INC., STANDARDS AS DESCRIBED IN AMERICAN STANDAR FOR NURSERY STOCK, CURRENT ANSI A300 SPECIFICATIONS.
- LANDSCAPE SPECIFICATIONS SHALL CONFORM TO LANDSCAPE GUIDELINES FOR MARYLAND, WASHINGTON, D.C., AND VIRGINIA, LATEST EDITION. ALL NURSERY STOCK SHALL BE PLANTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GUIDELINES.
- THREE (3) INCHES TOPSOIL ON ALL DISTURBED AREAS TO BE LANDSCAPED, SEEDED OR SODDED IS REQUIRED.
- A SEPARATE PLAN LABELED "LANDSCAPE PLAN" (MAY BE COMBINED WITH FOREST CONSERVATION PLAN) IS REQUIRED. LANDSCAPE REQUIREMENTS MAY NOT BE COMBINED WITH THE FOREST CONSERVATION PLAN.

INSTALLATION

- STANDARDS TO CONFORM TO THE MOST RECENT VERSION OF THE ANSI A300 STANDARDS PART 6 - TRANSPLANTING AND LANDSCAPE SPECIFICATIONS GUIDELINES OF THE LANDSCAPE CONTRACTORS ASSOCIATION, MARYLAND, DISTRICT OF COLUMBIA AND VIRGINIA.
- PLANTING ON INDIVIDUAL LOTS SHALL BE INSTALLED UPON FINAL GRADING INSPECTION. NO FINAL GRADING APPROVAL SHALL BE GIVEN ON THE BUILDING PERMIT UNTIL LANDSCAPING IS COMPLETE.

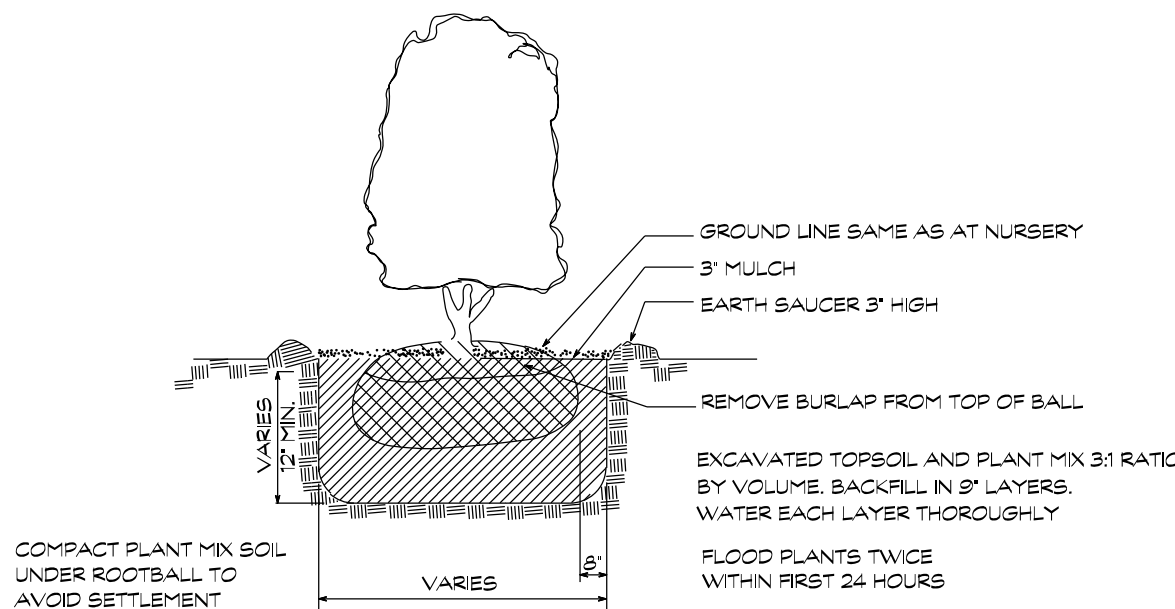
MAINTENANCE

THE OWNER OF ANY PROPERTY ON WHICH LANDSCAPING HAS BEEN INSTALLED PURSUANT TO THIS CHAPTER SHALL MAINTAIN THE LANDSCAPING IN GOOD CONDITION IN PERPETUITY. A LANDSCAPE MAINTENANCE AGREEMENT SHALL BE REQUIRED. FAILURE TO REPLACE DEAD OR DYING PLAS OR THE REMOVAL OF ANY INSTALLED PLAS IS A VIOLATION OF THIS CHAPTER.

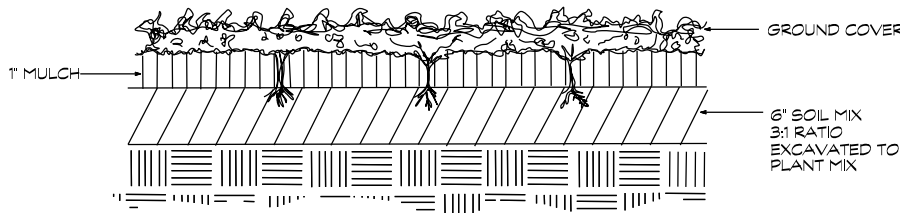
INSPECTIONS

A MINIMUM OF 2 INSPECTIONS WILL BE REQUIRED; NO INSPECTIONS SHALL BE FINALIZED FROM NOVEMBER 1ST TO MARCH 1ST. TO BE CONSIDERED ACCEPTABLE, NO MORE THAN 1/3 OF A PLANT MAY BE DEAD.

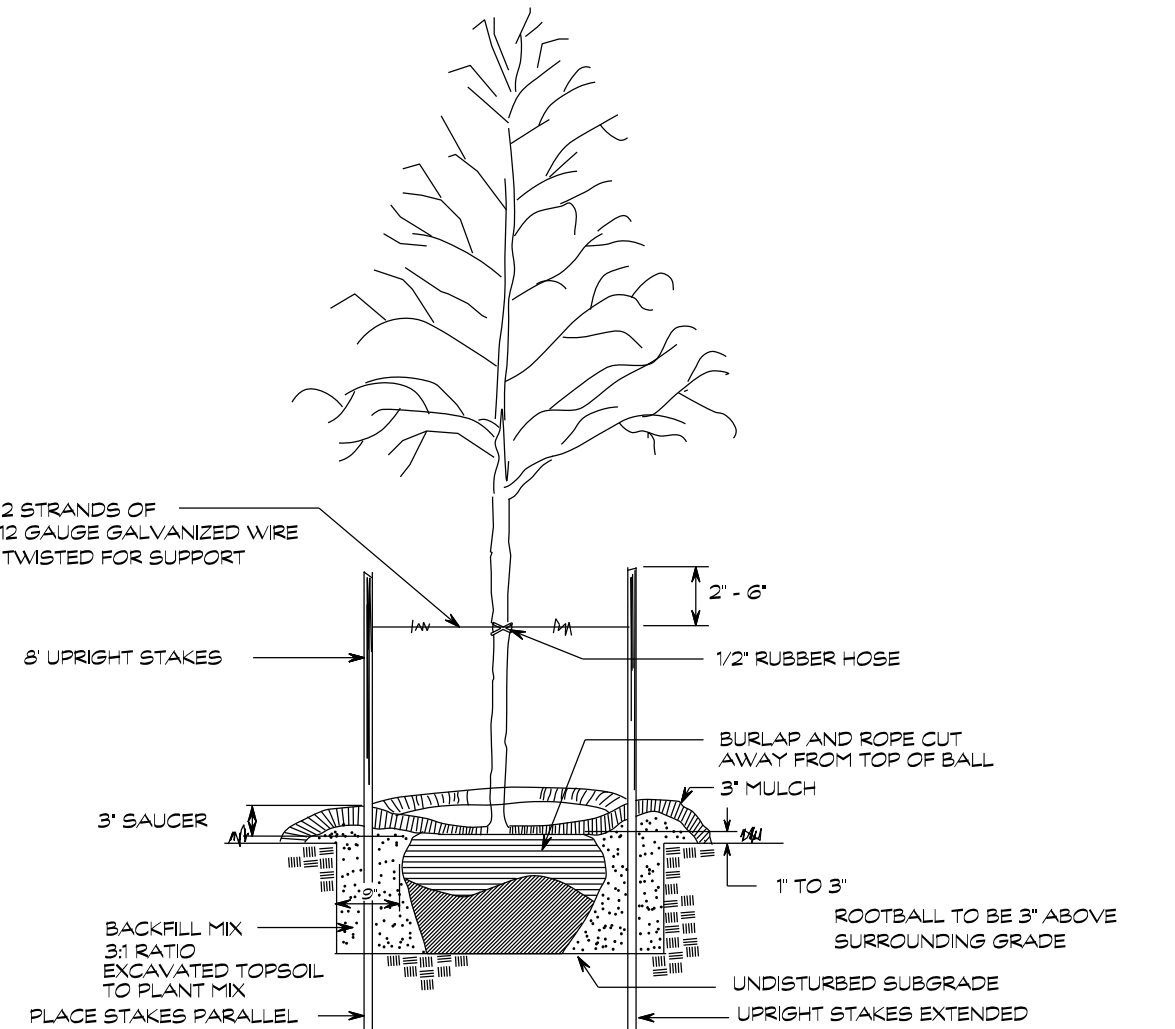
- INITIAL INSPECTION. THIS INSPECTION SHALL BE PERFORMED BY THE COUNTY WHEN PLANTING IS COMPLETED TO VERIFY COMPLIANCE WITH THE APPROVED PLANTING PLAN.
- FINAL INSPECTION. THIS INSPECTION SHALL BE PERFORMED BY THE COUNTY 12 MONTHS AFTER THE INITIAL PLANTING.



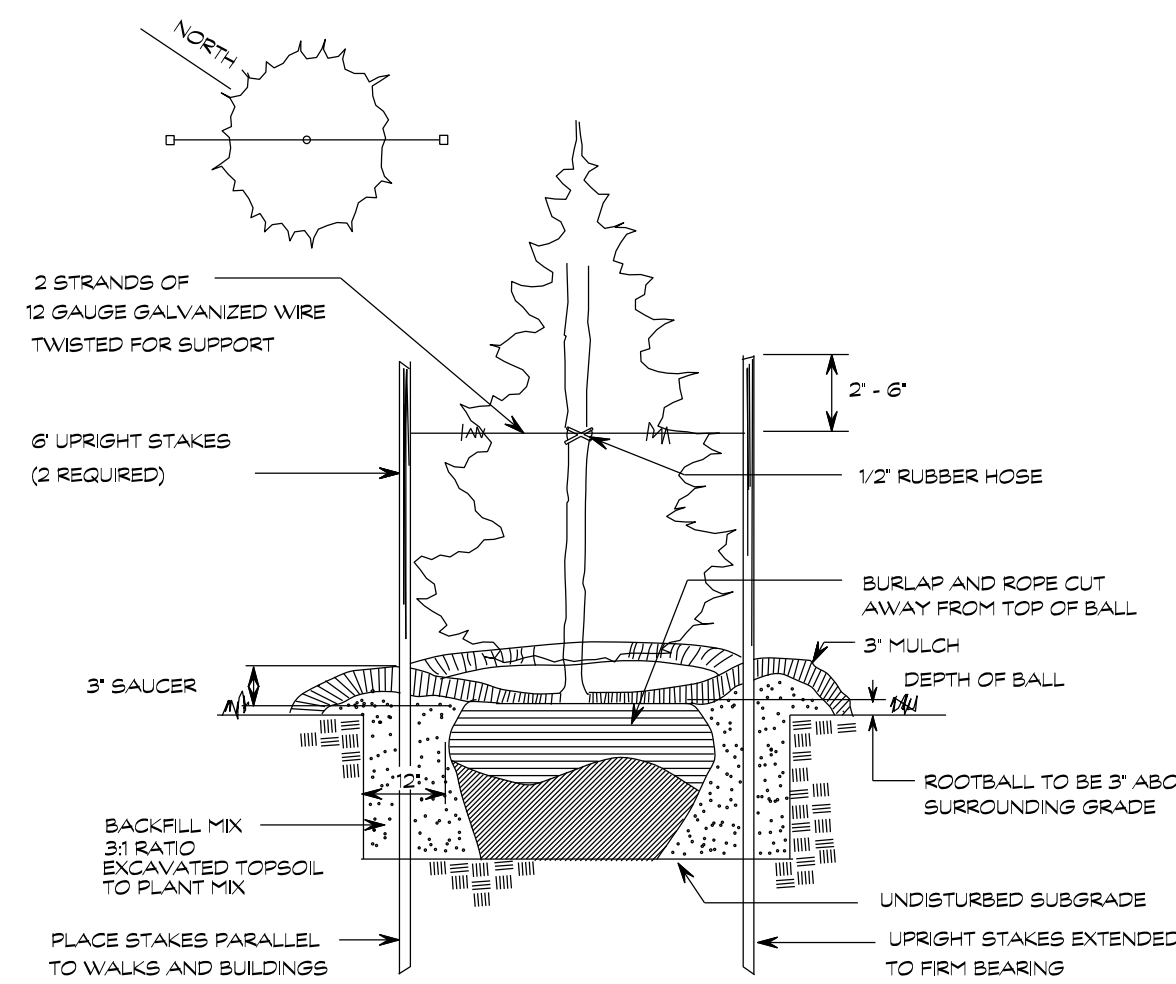
SHRUB PLANTING DETAIL  
NOT TO SCALE



GROUNDCOVER PLANTING DETAIL  
ALL GROUND COVERS SHALL BE PLANTED IN ACCORDANCE WITH PLANTING SCHEDULE



TREE PLANTING DETAIL  
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL  
NOT TO SCALE

COMMERCIAL LANDSCAPE MANUAL CALCULATIONS

HEIRD PROPERTY - ASSISTED LIVING FACILITY  
TOWN OF MANCHESTER  
CARROLL COUNTY, MARYLAND

No.	Description	Quantity	Rate	Reg. P.U.	Proposed P.U.
II.A.2.a.	Building Adjacent to Different land uses	1455 LF	20 LF/ 1 PU	72.75 PU	82.0 PU

II.B.2.a. Interior Landscaping Island Requirements (10% of total parking area)  
Parking Lot Area: 33,510 SF  
10% of Lot Area: 3351 SF

Landscape Island Bed SF:                      Landscape Island Total: 4131 SF is 12.13% that percent exceeds requirement.

1) 476	8) 235	15) 299
2) 336	9) 331	16) 476
3) 234	10) 123	
4) 221	11) 191	
5) 163	12) 221	
6) 204	13) 163	
7) 209	14) 249	

II.A.2.a.	Parking Lot Spaces	53 Spaces	12 Spaces/ 1 PU	5.0 PU	23.0 PU
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III.A. Dumpster Screening - fence enclosure with gates for dumpster station.

92 LF	20 LF/ 1 PU	4.6 PU	4.8 PU
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Required: 82.35 PU

Total Proposed: 109.8 PU

LANDSCAPE PLANTING PROPOSED

No.	Description	Rate	Quantity	Planting Units
1.	Major Trees (2.0" min. cal.)	1 tree/ 1 PU	53	53.0
2.	Minor Deciduous (1.0" min. cal.)	2 trees/1 PU	29	14.5
3.	Evergreen Trees (5' min. ht. )	2 trees/1 PU	75	37.5
4.	Shrubs	5 shrubs/ 1 PU	24	4.8
5.	Groundcovers	250 SF/ 1 PU	—	—
Total Planting Units Proposed:				109.8 PU

HEIRD PROPERTY

PLANT LIST						
ID	QUANT	BOTANIC NAME	COMMON NAME	minimum SIZE	ROOT	SPACING
53 Major deciduous Trees						
AR	6.00	Acer rubrum 'October Glory'	October Glory Maple	2" cal.	B&B	random
ARS	4.00	Acer rubrum "Red Sunset"	Red Sunset Maple	2" cal.	B&B	random
AS	5.00	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	2" cal.	B&B	random
GT	6.00	Gleditsia triacanthos inermia "Shademaster"	Honeylocust	2" cal.	B&B	random
KP	2.00	Koeleruteria paniculata	Goldenraintree	2" cal.	B&B	random
LT	3.00	Liriodendron tulipifera	Tulip Poplar	2" cal.	B&B	random
NS	4.00	Nyssa sylvatica	Black Gum	2" cal.	B&B	random
PB	3.00	Platanus x acerifolia "Bloodgood"	Londonplane	2" cal.	B&B	random
PY	7.00	Prunus x yedoensis	Yoshino Cherry	2" cal.	B&B	random
QR	3.00	Quercus rubra	Northern Red Oak	2" cal.	B&B	random
QB	4.00	Quercus bicolor	Swamp White Oak	2" cal.	B&B	random
QP	3.00	Quercus phellos	Willow Oak	2" cal.	B&B	random
TA	3.00	Tilia americana	American Linden	2" cal.	B&B	random

75 Evergreen Trees						
PA	23.00	Picea abies	Norway Spruce	5'	B&B	random
JV	13.00	Juniperus virginiana "Brodia"	Eastern Cedar	5'	B&B	random
PS	28.00	Pinus strobus	White Pine	5'	B&B	8' o/c
GG	11.00	Thuja x 'Gigantoides'	Green Giant Arborvitae	5'	B&B	6' o/c
29 Minor Deciduous Trees						
AC	4.00	Amelanchier canadensis	Serviceberry	1" cal.	B&B	random
CC	3.00	Cercis canadensis	Redbud	1" cal.	B&B	random
CF	6.00	Cornus florida	Flowering Dogwood	1" cal.	B&B	random
CK	6.00	Cornus kousa	Kousa Dogwood	2" cal.	B&B	random
CV	8.00	Crataegus viridis 'Winter King'	Winter King Hawthorne	1" cal.	B&B	random
HA	2.00	Hamamelis x Arnolds Promise	Witchhazel	1" cal.	B&B	random
24 Shrubs						
LJ	24.00	Ligustrum japonicum "Recurvifolium"	Evergreen Privet	36"	cont.	4' o.c.
total = 181 plants				total planting units = 109.8		

OWNER/DEVELOPER

STEVEN BUCHMAN HEIRD  
191 LEADER HEIGHTS ROAD  
YORK, PA 17402  
(717) 741-2214

LANDSCAPE NOTES AND DETAILS  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY

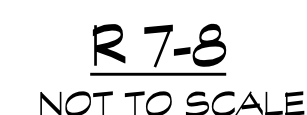
8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND



Lloyd B. Martin, Jr.  
Landscape Architect  
Maryland License No. 200200  
439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

Date	Revisions	Drawn By:
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By: LBM, JR.
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By: LBM, JR.
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale: AS SHOWN
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.: 2005186C
		Sheet: 20 of 31





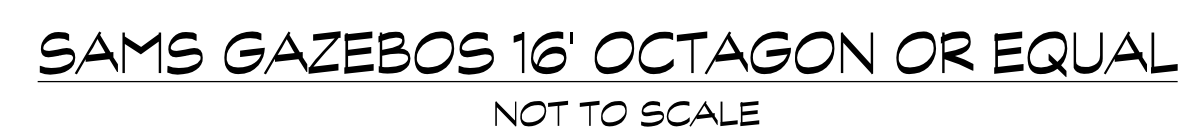
"HANDICAPPED PARKING" SIGN  
NOT TO SCALE



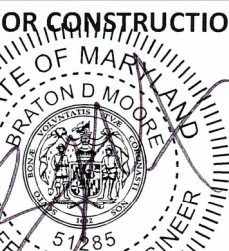

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	12	6	.375	.438	1.5	1.5 D	.5	1D	1.871	3.859	1.5
STD.	18	9	.375	.438	2.25	2 D	1	1.5 D	2.493	5.784	1.5

COLORS:  
REGULATORY (COLORS MAY BE REVERSED)  
LEGEND: GREEN (RETROREFLECTIVE) OR BLACK  
BACKGROUND: WHITE (RETROREFLECTIVE)

R 7-8a  
NOT TO SCALE



SIGN SIZE	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STANDARD	1 3/4	2 1/2 D	1	2 C	1 1/2 D	12	18	6	3/8	1/4	1 1/2

<h1 style="margin: 0;">MISCELLANEOUS DETAILS</h1> <h2 style="margin: 0;">FINAL SITE PLAN</h2> <h3 style="margin: 0;">FOR AN ASSISTED LIVING FACILITY ON THE REMAINING PORTION OF <b>HEIRD PROPERTY</b></h3>			
<b>8th ELECTION DISTRICT • CARROLL COUNTY, MARYLAND</b>			
<p><b>NOT FOR CONSTRUCTION</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">Bretton D. Moore, P.E.</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">439 East Main Street Westminster, MD 21157-5539 (410) 848-1790 FAX (410) 848-1791</p>	<p><b>PROFESSIONAL CERTIFICATION:</b> I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51285, EXPIRATION DATE: DECEMBER 7, 2023</p>	
<p><b>Date</b></p>	<p><b>Revisions</b></p>	<p><b>Drawn By:</b></p>	<p><b>CLSI</b></p>
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By: JZ	
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPTEMBER 2023	
4/10/23	REVISED TO INCLUDE AFFORSTATION AREA AND PLANTING NOTES & DETAILS	Scale:	AS SHOWN
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	21 of 31

**OWNER/DEVELOPER**  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214



FOREST STAND DELINEATION NARRATIVE

The site is located off of Houckville Road in Hampstead, Maryland. The site area is 30.62 acres, zoned as agricultural, and is currently a dormant crop field. The property is in tax map 471, parcels 515, 516, 517, 518 & 145 L-1. The site drains to an unnamed tributary to Liberty Reservoir, basin code 0250307. The site is to accommodate a minor subdivision.

There are not any woods present nor is there any understory or any herbaceous species on site. The site does not meet the requirement of a forest based on the State Forest Conservation Manual definition of a forest "areas that have on least 100 trees per acre". No plot samples were performed because the site did not meet the requirements of a forest and therefore did not have any stands. There were no trees on site that meet the requirements of aspen trees.

SUMMARY

No rare, threatened or endangered species were observed. A letter requesting any known presence of such species has been received from the Maryland Heritage Program as required per Carroll County Forest Conservation Ordinance and is included in this package.

FOREST CONSERVATION NARRATIVE

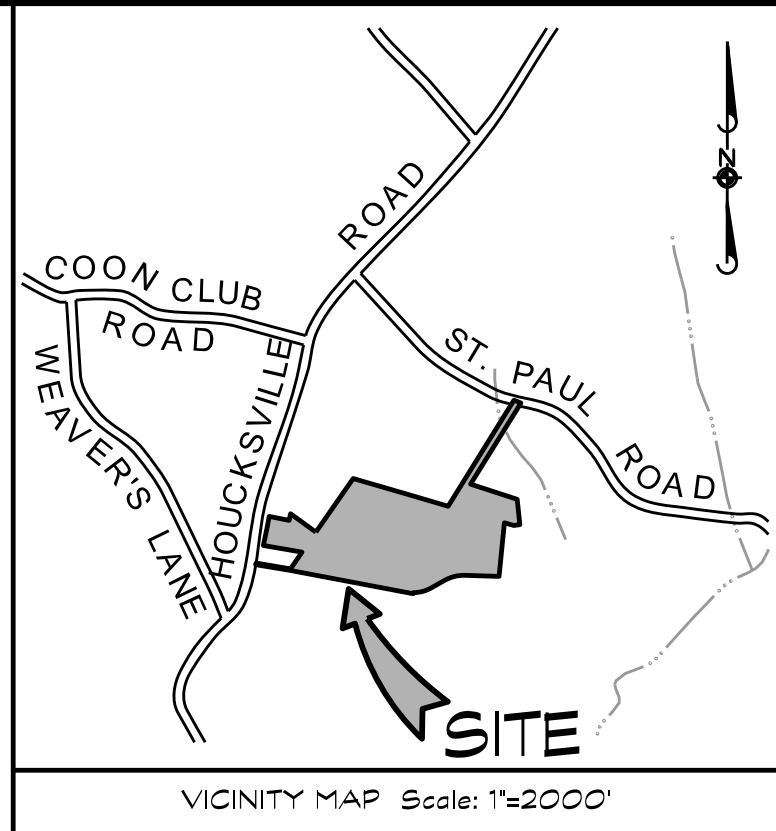
THE HEIRD PROPERTY CONSISTS OF 30.59 ACRES AND IS LOCATED ON THE EAST SIDE OF HOUCKVILLE ROAD, SOUTHEAST OF THE TOWN OF HAMPSTEAD. AN ENVIRONMENTAL SITE AND SIMPLIFIED FOREST STAND DELINEATION WAS PERFORMED. THE SITE IS AGRICULTURAL FIELDS WITH ONE TREE ROW. THE ADJACENT LAND IS USED FOR AGRICULTURE, RESIDENCE AND/ OR FOREST. A STREAM EXISTS ON THE REMAINING PORTION AREA ON THE STRIP WHICH IS NORTH TO SAINT PAUL ROAD. NO OTHER WATER RESOURCE FEATURES INCLUDING STREAM, STREAM BUFFERS, NON-TIDAL WETLANDS, WETLANDS BUFFER OR FLOOD PLAIN EXIST ON-SITE. THE NET TRACT AREA OF 13.95 AC. AND CONSISTS OF THE LIMIT OF DISTURBANCE EXCLUDING THE AREA ACCOUNTED FOR DURING FOREST CONSERVATION FOR THE AMENDED PLAT OF LOT 1; COUNTY FILE NUMBER PX-17-0005. THE SITE CONTAINS NO FOREST. REQUIRED AFFORESTATION OF 2.79 AC. WILL BE PLANTED ON SITE. THIS AREA WILL PROTECTED BY 2.976 L.F. THREE WIRE FENCE.

AGRICULTURAL DISTRICT F.C. WORKSHEET

REFORESTATION CALCULATION		
A. TOTAL NUMBER OF LOTS		REMAINING PORTION
B. FOR EACH LOT, TOTAL PROPOSED FOREST AREA REMOVED	0 sqft.	
C. FOR EACH LOT, IF MORE THAN 20,000 sq. ft. REFORESTATION AT 1:1		
D. FOR EACH LOT, IF MORE THAN 25,000 sq. ft. REFORESTATION AT 2:1	0 sqft.	
E. TOTAL REFORESTATION REQUIRED	0 sqft./ 0 ac.	

AFFORESTATION CALCULATION		
A. TOTAL NET TRACT AREA	13.95 AC.	
B. THRESHOLD REQUIRED - 20%	2.79 AC.	
C. EXISTING FOREST AREA PLUS REFORESTATION	0.00 AC.	
D. TOTAL	2.79 AC.	
E. B - C = AFFORESTATION REQUIREMENT	2.79 AC.	

NO REFORESTATION IS REQUIRED.  
2.79 AC. OF AFFORESTATION IS REQUIRED.  
2.79 AC. OF PLANTING WILL BE PROVIDED ON-SITE.

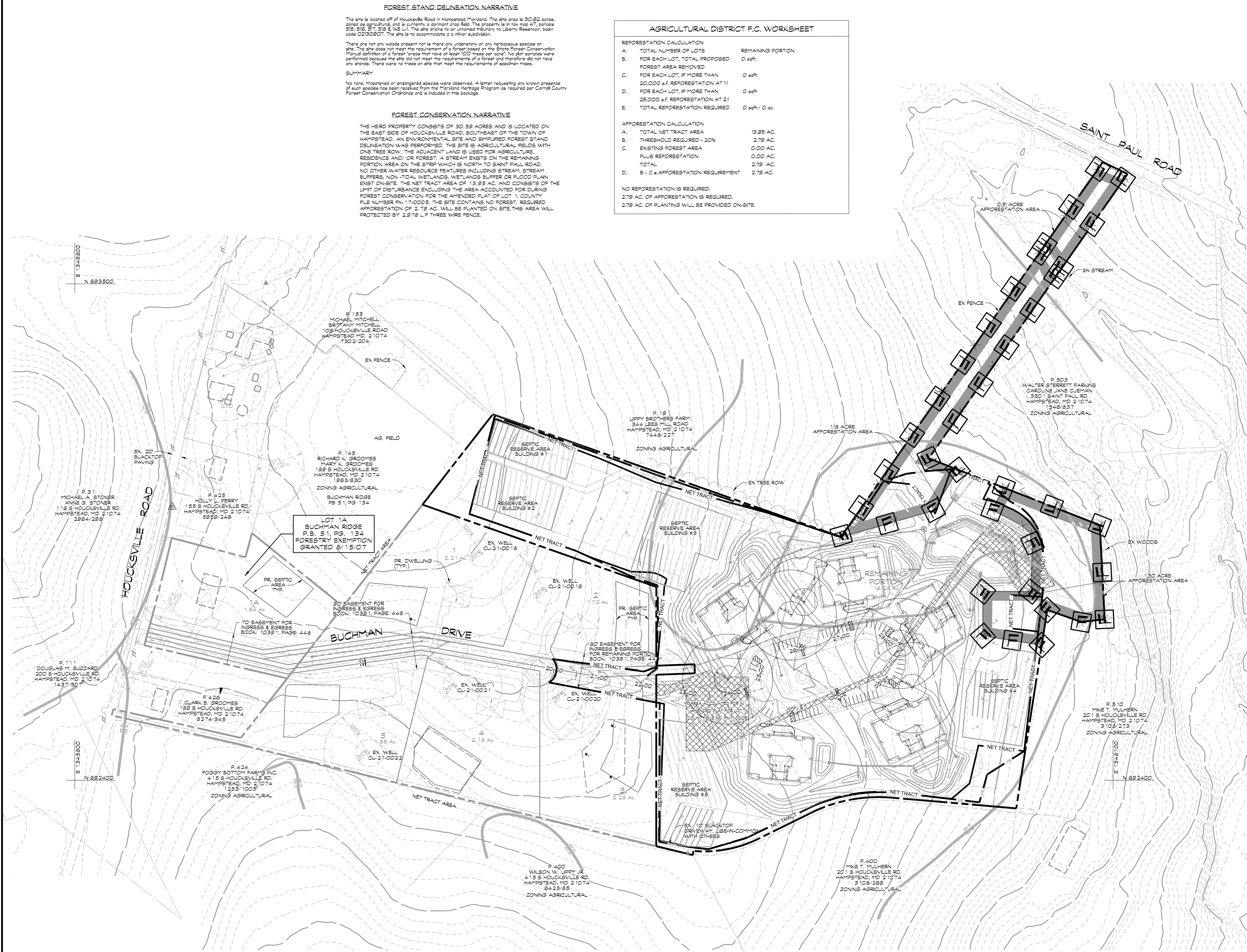


LEGEND

FOREST PLANTING	25% OR GREATER STEEP SLOPES
SOIL LINE	AREA EXCLUDED FROM NET TRACT
NET TRACT BOUNDARY	PROPOSED FENCE
LIMIT OF DISTURBANCE	EXISTING STREAM

GENERAL NOTES

- CURRENT TITLE REFERENCE:  
P. 518  
OWNER: STEVEN BUCHMAN HEIRD  
DEED REFERENCE: LIBER 6522, FOLIO 342  
DATE: APRIL 03, 2011  
GRANTOR: STEVEN BUCHMAN HEIRD
- THE OUTLINE SHOWN HEREON IS BASED BOUNDARY SURVEY BY CLSI
- AERIAL TOPOGRAPHY SHOWN HEREON IS BASED ON  
NAD 83 DATUM
- WATER AND SEWER SERVICE: NO PLANNED SERVICE
- MBL DENOTES MINIMUM BUILDING LINE
- THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100' UNLESS SHOWN HEREON



SOIL CHART				
PLAN UNIT	SOIL SERIES	KmECROBILITY FACTOR	HYDRIC SOIL	HYDRIC GROUP
G1C	GAILA LOAM	0.49	-	B
G1B	GLENELG	0.24	-	B
G1B	GLENVILLE	0.37	-	C/D

NET TRACT CALCULATION	
LIMIT OF DISTURBANCE	14.96 AC.
AREA ACCOUNTED FOR IN AMENDED PLAT OF LOT 1 (FX-17-0005)	1.01 AC.
TOTAL NET TRACT AREA:	13.95 AC.

THERE IS NO FEMA FLOOD PLAIN ON-SITE

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

SIMPLIFIED FOREST STAND DELINEATION &  
FOREST CONSERVATION PLAN  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY  
8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND



North is Rickell Jr.  
MDNR Qualified Professional

439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

Date	Revisions	Drawn By:	BTM
4/10/23	REVISED TO INCLUDE ADDITIONAL AFFORESTATION AREAS	Designed By:	BTM
1/3/23	REVISED PER C.C. COMMENTS	Reviewed By:	MHR
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	1" = 100'
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	22 of 31



REPLANTING AREA

PLANT SPECIFICATIONS  
Planting material will conform to the current issue of "The American Standards for Nursery Stock", published by the "American Association of Nurserymen".  
PLANTING SCHEDULE  
Planting Area is 2.79 Acres  
30 Gallon Container Grown  
350 Trees Required (350/Acre)  
12' x 12' Spacing  
Shelters - No

QTY	SPECIES (60% overstory; 30/ 40% understory; 10)
195	Quercus rubra - Red Oak
195	Quercus alba - White Oak
195	Rubus pseudo acacia - Locust
195	Acer rubrum - Red Maple
195	Platanus occidentalis - Sycamore

SITE PREP

Draw entire site. Plant Ground Cover Seed Mix  
Ground Cover - Field & Forest (R) Seed Mix  
Establishing a non sod forming desirable ground cover will help inhibit the sprouting of volunteer invasive plants and weeds thereby lowering maintenance cost and the need for chemical control. Soil stabilization is another significant benefit in converting cultivated up-fields to forest cover.  
Germination of restoration seed mixes is highly dependent on good seed-soil contact. This is best accomplished through site preparation by disking or harrowing. If disking or harrowing are not possible, other techniques such as raking over the seed bed or chain drag over prepared soil are sometimes acceptable substitutes.  
Hydroseeding can be utilized, but success is dependent on seed being lodged into very friable soil with abundant interstices between soil particles.  
Seeding is best March 15 through May 15 for immediate germination and strong strand development. Seeding at other times of the year is acceptable, but will affect the level of germination and density of the stand developed in successive seasons.  
Field and Forest Mix(R) is a unique blend of native or naturalized grasses and legumes designed for soil stabilization in reforestation, afforestation, and upland game bird habitat enhancement. The mix includes Red clover (Trifolium pratense), Orchard grass (Dactylis glomerata), Deer tongue (Panicum dactyloides), Little bluestem (Sporobolus airoides), and Bromus grass (Bromus sp.).  
Field and Forest Mix Application Rate:  
25 lbs per acre x 4.63 acres = 116 lbs.

TRANSPORTING / HANDLING

When transporting your plants it is important that they be carried in a covered vehicle so they do not suffer wind damage and dry out. When planting, proper handling of plants is very important. The trees root systems should be kept moist at all times.

PLANTING

When planting, hold each tree so that the crown or root collar (area where the roots and top meet) is just above the ground. This allows for settling of the soil and roots so that the final depth is the same or slightly above grade. It is very important that the roots not be exposed after the tree is planted.

WATER & MULCH

Water and mulch trees using 2-4 inches to cover in and around the one foot square of mulch. The mulch will help retain moisture and reduce weed competition.

PRUNING

Newly planted trees should be given only minimal pruning. After planting, prune out broken branches or damaged material.

FERTILIZING

Newly planted trees should not be fertilized until after one full growing season. Never put fertilizers such as dry pellets or spikes containing nitrogen in the backfill, since root injury may occur.

CARE AFTER PLANTING

Inspect the plants regularly for invasion from insects and/or animals. For most insects an EPA approved insecticide can be used. For deer, rabbits, ground hogs, voles and mice problems Repellent or a similar type product can be effective.

CLEAN UP

All debris created from the afforestation activities shall be removed from the site within seven days of completion of planting.

MITIGATION MEASURES FOR UNANTICIPATED UNAUTHORIZED INJURY TO TREES

Disturbance within the forest protection area is not proposed at this time; however, if unauthorized impacts within the forest protection areas were to occur, the following corrective measures will be required, as appropriate, to insure tree health and survival:

ROOT INJURY

If an increase in grade within an identified forest protection area occurs, this may result in root injury. The use of a porous topsoil will be used to allow for exchange of oxygen through the soil. The opposite of this, lowering if the grade within the protected area, shall be mitigated by covering the roots with a fine wood chip or organic mulch material. This will help retain moisture and therefore, stimulate root re-growth into the disturbed area.

SOIL COMPACTION

Soil compaction is a problem on most construction sites; however, the highly visible orange blaze plastic mesh fence should eliminate the compaction problem. If heavy equipment did come in contact with a critical root zone, a floor mat should be laid down to increase the weight bearing capacity and minimize soil compaction.

SOIL PH CHANGE

Since designated areas have been established for cement truck wash out and vehicle fueling, little to no change in the soil pH should be seen. Cement and fuel spills are the two main causes of soil pH change.

TREE WOUNDS

Wounds to the tree trunk are unlikely to occur, due to the mesh fence protection device; however, crown branching structures may be damaged by vehicular movement. If this should occur, proper pruning will be initiated. "Crown Reduction".

APPLICATIONS OF FERTILIZERS BY INJECTION

As mentioned above, trees inside the protection area shall not be damaged due to the establishment of Forest Protection Devices. If trees are damaged and show signs of stress, they will receive liquid fertilizer injections. Fertilizer injections will improve the health and vigor of the damaged tree and increase the survival potential. For recommended rates and time of application, contact a licensed tree expert.

FOREST PROTECTION NOTES

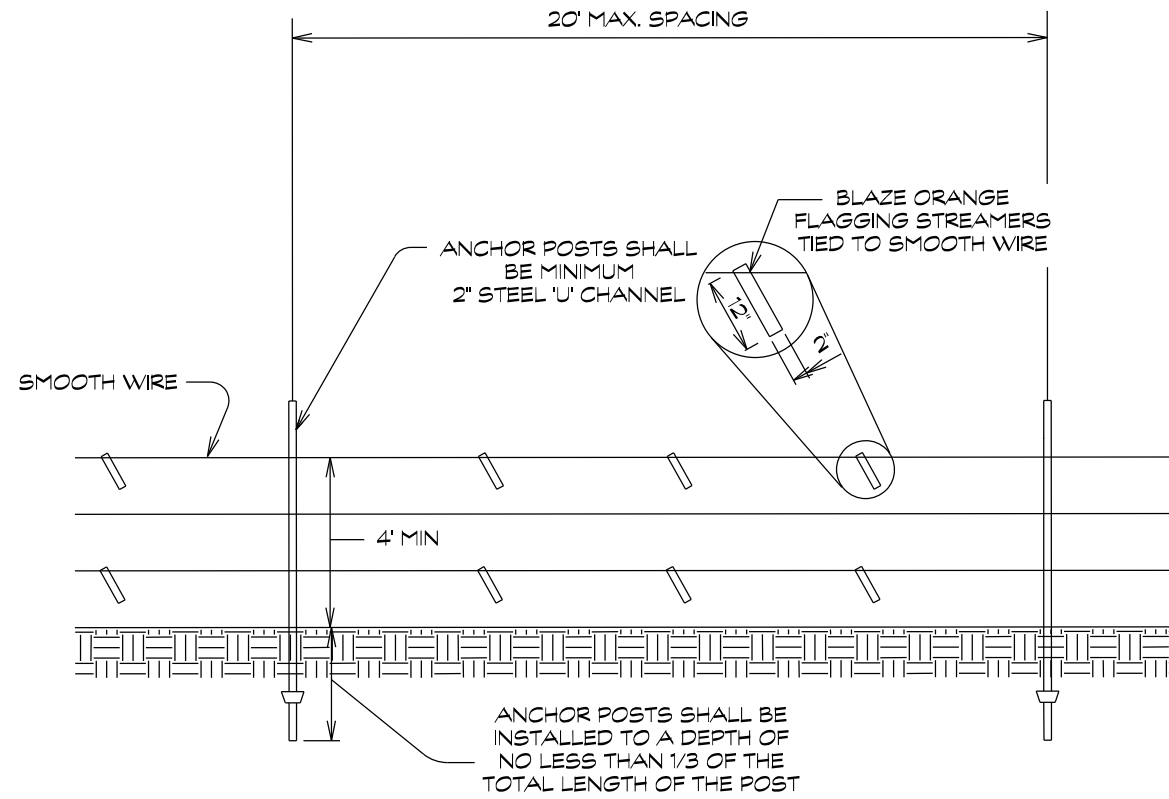
The limit of disturbance (L.O.D.) for construction will be marked by the contractor along the L.O.D. as shown on the plan sheet. The edge of the tree line to remain will be field checked by a qualified professional. After the edge is checked the Critical Root Zone will be flagged using the formula 1" of D.B.H. equals 1' of radius for the critical root zone. During the flagging of the C.R.Z., a tree by tree evaluation will be made along the edge, not only for the root zone establishment but for the trees overall condition as well as survival potential. For Specimen trees the C.R.Z. is 1.5 times the diameter at breast height. Once the C.R.Z. is established, the L.O.D. will be re-adjusted to conform with the field flagging. At this time the contractor will install the following protection devices, see details. The temporary protection device will be (see detail), Blaze Orange plastic mesh protection fence. It will be accompanied by "Retention Forest" signs every 100'. The fence will be installed once the C.R.Z. has been established and the L.O.D. located, as mentioned previously. This protection device will be installed prior to any construction activity.  
DO NOT PUT SIGNS ON TREES!!!

The metal fence posts will be installed 1/3 into the ground just outside the C.R.Z. or Limit of Disturbance (L.O.D.), as shown on plan.

No equipment, machinery, vehicle, materials or excessive pedestrian traffic will be allowed in the Critical Root Zone Area. Therefore, no openings through the fence will be allowed. Entrance to the protected area will occur only if necessary for repair of accidental injury to the tree. This protective tree device will remain in place and will be maintained throughout the life of the construction project.

To help reduce the possibility of disturbance within an identified forest protection area, a pre-construction meeting will take place after the boundaries of the L.O.D. have been staked and flagged and the forest protection devices have been installed. The employees of the construction crew will be informed of the importance of the tree slated for retention. During the pre-construction meeting the temporary parking location, stockpile area, staging and fueling area will be shown to all personnel.

FOREST PROTECTION FENCE  
TWO OR THREE STRAND  
SMOOTH WIRE



- NOTES:
1. FOREST PROTECTION DEVICE ONLY
  2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS
  3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
  4. AVOID ROOT DAMAGE WHEN PLACING ANCHOR POSTS.
  5. SMOOTH WIRE SHOULD BE SECURELY ATTACHED TO POSTS.
  6. DEVICE SHOULD BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  7. PROTECTIVE SIGNS ARE ALSO RECOMMENDED.

FOREST CONSERVATION NOTES

1. Attachment of signs or any other object, to trees is prohibited.
2. No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed in conservation areas.
3. All conservation signage is to be posted as noted on plan sheet.
4. Planting areas will be posted with reforestation signs approx. every 100 feet and will be protected with tree shelters.
5. Pre-Construction meeting: Before any disturbance, the developer, contractor or project manager and local inspector shall attend. Temporary parking, stockpile, staging, and fueling areas will be shown to all personnel.
6. Any changes made to the Forest Conservation Plan due to on-site conditions shall be made in consultation with a representative of the Bureau of Resource Management.
7. Afforestation areas will be placed in a Forest Conservation Easement in perpetuity.
8. No build of discarded materials will occur on-site within the forest conservation areas or planting areas.
9. No open burning within 100 feet of a wooded area.
10. Temporary fencing and signs shall be removed after site construction. All fencing on this plan is temporary.



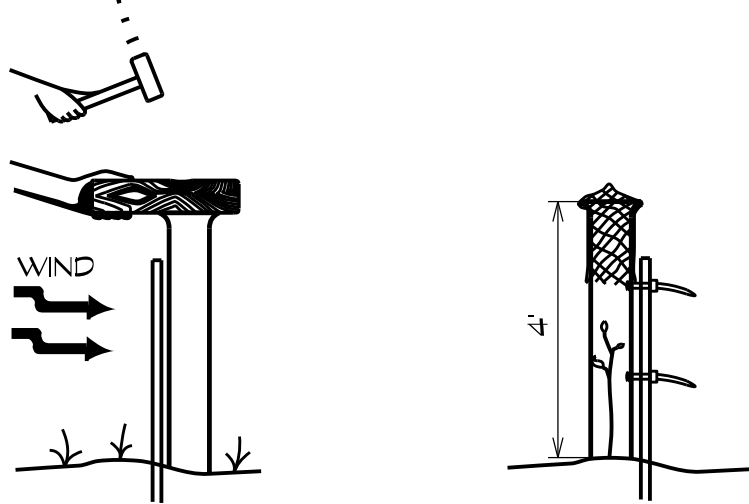
PLACED APPROXIMATELY  
EVERY 100 FT.

REFORESTATION FENCE & SIGNS	
FOREST CONSERVATION PROTECTION FENCE SIGN DETAIL FENCE & WATER RESOURCE PROTECTION FENCE(TOTALS)	
Forest Retention Area Fence:	
Reforestation/Afforestation Fence:	2,976 L.F.
Isolated Specimen Tree Fence:	
Water Resource Protection Fence:	
Total Fence:	2,976 L.F.
SIGNS	
FOREST RETENTION AREA:	
REFORESTATION AREA:	38
SPECIMEN TREE: O	
WATER RESOURCE PROTECTION SIGNS:	
TOTAL SIGNS:	38
NOTE: This estimate for bond purposes only. Contractor is responsible to confirm or provide own estimate for bidding purposes.	
NOTE: Proposed planting area only requires signs to be installed as shown.	

REFORESTATION AND AFFORESTATION AREA  
PROTECTION SIGN DETAILS

1. When using tree shelters the number of plants per acre is adjusted.
2. If necessary, trim seedlings or whips to a single leader.
3. Drive stake into ground approximately 1-1/2' from the base of the seedling or whip, to a depth of 12 inches.  
NOTE: In open fields drive the stake on windward side of the seedling or whip. In shaded conditions, drive the stake on the north side of the seedling or whip.
4. Slo the tree shelter over the plant. Do not damage the terminal bud or root collar of the plant.
5. With the flared end of the shelter on top and before tightening the ties, use a block of wood and hammer to seat the base of the shelter into the ground. The shelter must be seated at least one inch below ground surface.
6. Tighten the ties to secure the shelter to the stake.
7. Install poly netting over the top opening of the shelter to prevent bird entry.

Note: Contractor to follow manufacturer  
Installation procedures



THE NETTING SHOULD EXTEND 7-8 INCHES  
DOWN THE TUBE PREVENT ACCIDENTAL REMOVAL  
GENERAL TREE SHELTER INSTALLATION DETAIL  
N.T.S.

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

FOREST CONSERVATION PLAN NOTES AND DETAILS FINAL SITE PLAN FOR AN ASSISTED LIVING FACILITY ON THE REMAINING PORTION OF HEIRD PROPERTY 8th ELECTION DISTRICT * CARROLL COUNTY, MARYLAND		
North H. Rickell Jr. MDNR Qualified Professional		
439 East Main Street Westminster, MD 21157-5539 (410) 848-1790 FAX (410) 848-1791		
Date	Revisions	Drawn By:
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By: MHR
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date: SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.: 2005186C
		Sheet: 23 of 31







SUBDIVISION/SITE **Heird Property - Asst. Living**

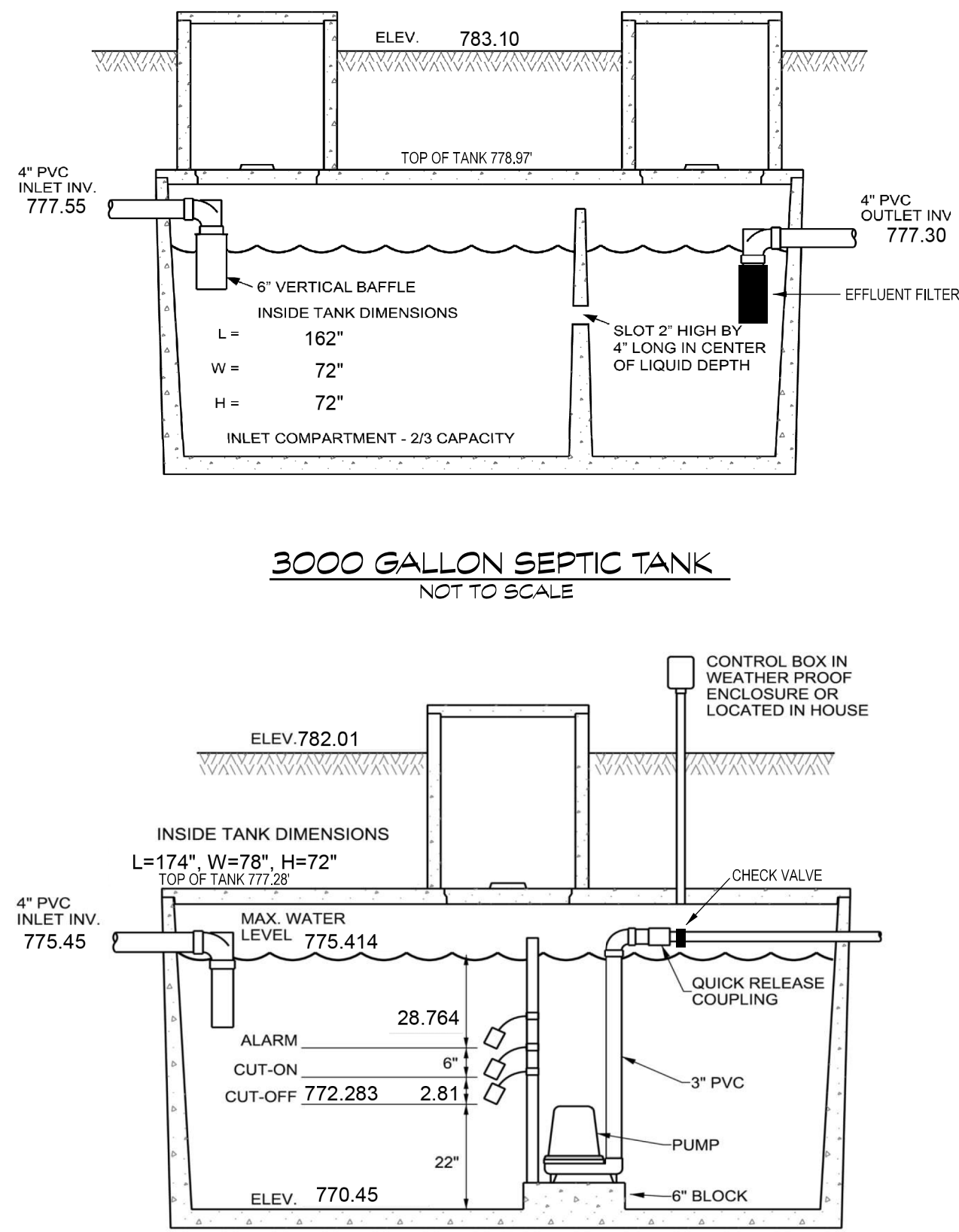
Test #	Test Type	Percolation Rate	Percolation Rate	Comments	Date	Test #	San.
31	OH			>50% rock at 7.5 ft	11/03/22	31	JAS, 388
32	OH			>50% rock 5ft-8ft	04/12/19	32	387
33	DT			>50% rock at 8 feet	11/03/22	33	JAS, 388
34	DT	2 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	34	387
35	OH	22 min at 3 ft		see info above	11/03/22	34	JAS, 388
36	OH			suitable soil to 12 ft	04/12/19	35	387
37	DT	7 min at 4 ft	4 min at 6 ft	>2 min at 10 ft	04/12/19	36	387
38	OH			suitable soil to 10 ft	04/12/19	37	387
39	DT	12 min at 4 ft	11 min at 7 ft	>2 min at 11 ft	03/29/19	38	387
40	OH			suitable soil to 12 ft	03/29/19	39	387
41	DT	5 min at 4 ft	3 min at 7 ft	>2 min at 11 ft	03/29/19	40	387
42	DT	5 min at 4 ft	7 min at 7 ft	suitable soil to 12 ft	03/29/19	41	387
43	OH			suitable soil to 12 ft	03/29/19	42	387
44	DT	7 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	03/29/19	43	387
45	OH			suitable soil to 10 ft	03/29/19	44	387
46	OH			suitable soil to 12 ft	03/29/19	45	387
47	DT	5 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	04/12/19	46	387
48	DT	24 min at 3 ft	7 min at 6 ft	>2 min at 10 ft	03/29/19	47	387
49	TZ			>2 mins at 15 feet	11/03/22	48	387
50				>50% rock at 8 feet	11/03/22	49	JAS, 388
51	MTF	>30 min at 5 ft	11 min at 8 ft	>2 mins at 12 feet	11/03/22	50	JAS, 388
52	MTF	13 min at 8 ft		>2 mins at 12 feet	11/03/22	51	JAS, 388
53	MTF	>30 min at 5 ft	29 min at 8 ft	>2 mins at 12 feet	11/03/22	52	JAS, 388
54	TZ	6 min at 7 ft	8 min at 11 ft	>2 mins at 15 feet	11/03/22	53	JAS, 388
55	DT			>2 mins at 12 feet	02/17/23	54	JAS, 388
A	OH			suitable soil to 10 ft	03/29/19	55	388
B	OH			>50% rock 5 ft - 9ft	04/12/19	A	387
C	DT	12 min at 5 ft	7 min at 8 ft	>2 min at 12ft	04/12/19	B	387
C	DT	8 min at 4 ft		see info above	11/03/22	C	387
D	DT	7 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	C	JAS, 388
D	DT	>30 min at 4 ft		pulled at 3 feet, see info above	11/03/22	D	387
E	DT	3 min at 5 ft	6 min at 8 ft	>2 min at 12 ft	04/12/19	D	JAS, 388
E	DT	15 min at 3 ft		see info above	11/03/22	E	387
F	OH			suitable soil to 12 ft	04/12/19	E	JAS, 388
F	TZ			>2 mins at 12 feet	11/03/22	F	387
G	OH			>50% rock at 9 ft	04/12/19	F	JAS, 388
						G	387

THE SEPTIC TANK AND PUMP CHAMBER RISERS TO TERMINATE AT LEAST 6" ABOVE FINAL GRADE.

NOTE: PUMP CHAMBER SIZE AND FLOATS BASED ON GOULDS WE SERIES SUBMERSIBLE PUMP. IF A PUMP SUBSTITUTION OCCURS, CHAMBER SIZE AND FLOATS WILL NEED TO BE RECALCULATED TO ENSURE THAT PUMP IS COVERED.

#### SPECIFICATIONS:

- TANK MEASUREMENTS AND ELEVATIONS ARE BASED ON PUMP CHAMBERS AS MANUFACTURED BY MONARCH PRODUCTS COMPANY, INC. (717)-938-8303
- ALL TANKS INSTALLED GREATER THAN 3 FEET DEEP ARE REQUIRED TO BE HEAVY DUTY / TRAFFIC BEARING
- ALL PIPING TO BE SCHEDULE 40 PVC OF SIZES SHOWN
- A SUBMERSIBLE PUMP TO REMOVE 50.00 GPM AGAINST 5.17' TDH TO BE PROVIDED. PUMP TO BE A GOULDS MODEL 3885-WE-15H, OR EQUAL
- ALARM TO BE LOCATED AT THE HOUSE ON CIRCUIT SEPARATE FROM THE PUMP.



**Oranco Technical Data Sheet**

### AdvanTex® AX100 Textile Filter

**Applications**

- Oranco's AdvanTex® AX100 Treatment System is an innovative technology for onsite treatment of domestic-strength wastewater. The heart of the system is the AdvanTex Filter, a sturdy, lightweight fibreglass-based filter with an engineered media material. This lightweight, highly absorbent media material traps a tremendous amount of wastewater in a small space. AX100 Treatment Systems are ideal for:
  - New construction
  - System upgrades and repairs
  - Small lots
  - Poor soils
  - Pretreatment
  - Wetness reduction
  - Pico-sewer markets

For sizing, see AdvanTex® Design Criteria (NDA-AX1-COMMA-1-PH2).

**Features/Specifications**

To specify the product, require the following:

- Minimum treatment to better than secondary treatment standards
- Consistent treatment, even during peak flows
- Timer operation for flow monitoring, flow modulation, and surge control
- Food-free, engineered media made, operated in an unsaturated condition
- Consistent media quality
- Low energy consumption
- Low maintenance requirements
- Complete pre-manufactured package, ready to install
- Weatherlight construction, corrosion-proof materials, and components
- Maximum life (provides insulation value of R4 (R24-1))
- Quiet operation

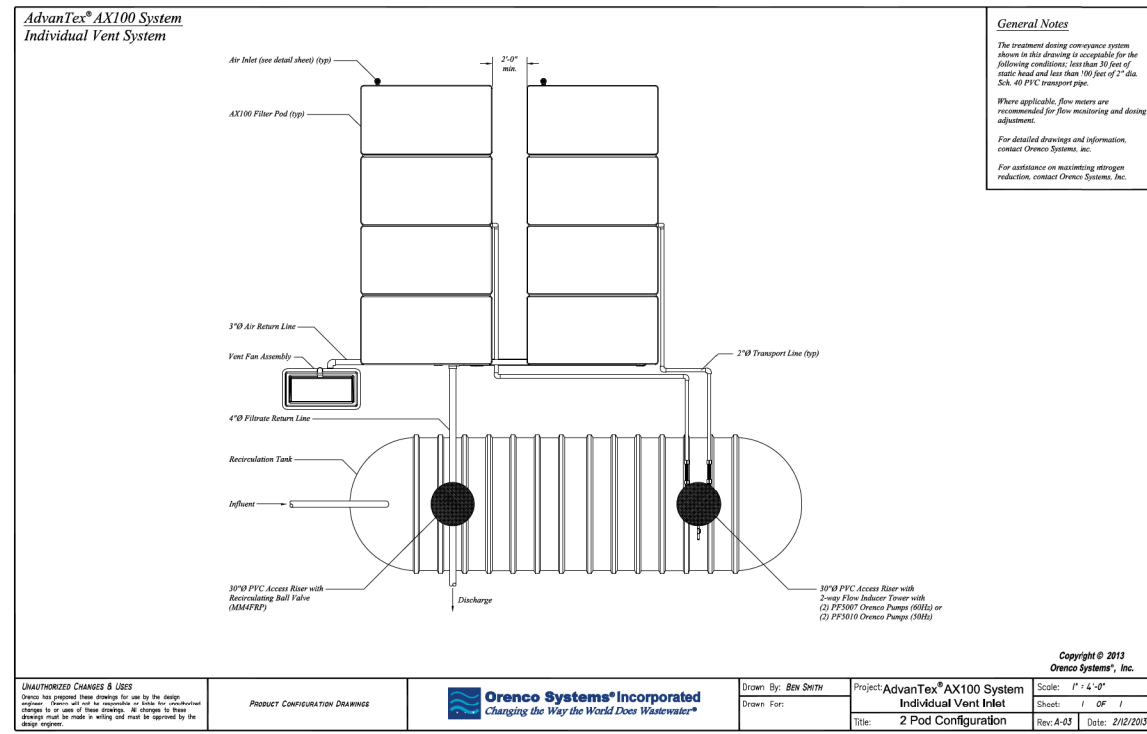
**Standard Model**  
AX100

**Specifications\*\***

Length, ft. (mm)	180 (5491)
Width, ft. (mm)	94 (2868)
Height, ft. (mm)	42 (1280)
Area, ft² (m²)	167 (15.5)
Dry Weight, lb. (kg)	1676 (753)

\*\* Derived from U.S. patent numbers 6,940,432; 6,972,137; 6,971,896; 6,985,897; 6,980,588  
\*\* Actual water capacity (See AdvanTex® Pretreatment System Design and Sizing Information)

Oranco Systems® Inc., 814 Birney Ave., Schaffers, WI 53583 USA • 800-388-5851 • 314-455-6481 • [www.oranco.com](http://www.oranco.com)



#### ADVANTEX AX-100 PRETREATMENT UNIT NOT TO SCALE

#### DATA BLOCK

- ZONING DISTRICT - AGRICULTURAL
- SOILS SHOWN ARE FROM THE NRCS COUNTY SOILS DATA
- NUMBER OF BUILDING SITES - 1
- TOTAL AREA OF SITE - 18, 276.4 AC.

#### GENERAL NOTES

- CURRENT TITLE REFERENCE:  
P. 518  
OWNER: STEVEN BUCHMAN HEIRD  
DEED REFERENCE: LIBER 1 1039, FOLIO 439  
DATE: AUGUST 22, 2023  
GRANTOR: STEVEN BUCHMAN HEIRD
- THE OUTLINE SHOWN HEREON IS BASED ON A DEED ONLY
- THE TOPOGRAPHY SHOWN HEREON IS AERIAL TOPOGRAPHY PERFORMED BY COUNTY SURVEYORS IN 2010 AND CARROLL COUNTY LIDAR PRODUCTS AND MAY NOT BE A SUITABLE SUBSTITUTE FOR A FIELD RUN SURVEY. CARROLL COUNTY DOES NOT WARRANT ITS ACCURACY FOR ANY PURPOSE.
- NEAREST POTABLE WATER SUPPLY - HAMPSHIRE, 2.0 MILES
- WATER AND SEWER SERVICE- NO PLANNED SERVICE
- MBL DENOTES MINIMUM BUILDING LINE.
- THERE ARE NO WELLS OR SEPTICS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN HEREON.

#### NOTE:

A PERCOLATION TEST IS ONLY ONE OF THE CRITERIA USED IN CONSIDERING A LOT FOR INSTALLATION OF A SEPTIC SYSTEM. ADDITIONAL TESTING CAN BE REQUIRED AND MAY BE SUBJECT TO SCHEDULING DURING THE WET WEATHER PERIOD. THE ENTIRE LOT IS EVALUATED WHEN APPLICATION FOR A SEPTIC PERMIT IS MADE. ADJOINING PROPERTY HISTORY, PERCOLATION TEST METHODOLOGY, ADJOINING WELLS AND SEPTIC SYSTEMS, PROPOSED NUMBER OF BEDROOMS, HISTORY OF FAILING SEPTIC SYSTEMS AND WELLS, DESIGN, SOIL AND GEOLOGICAL CONDITIONS, AND TOPOGRAPHY IN THE IMMEDIATE AREA ARE THEN USED TO DETERMINE IF THE LOT IS SUITABLE FOR THE UNDERGROUND DISPOSAL OF SEWAGE.

#### NOTE:

IF GRAVITY FLOW TO THE SEWAGE DISPOSAL AREA CANNOT BE ENSURED A PUMPED SEWAGE DISPOSAL SYSTEM WILL BE REQUIRED FOR LOTS.

**OWNER/DEVELOPER**  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214



#### GOULDS PUMPS Wastewater

##### APPLICATIONS

Specifically designed for the following uses:

- Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

##### SPECIFICATIONS

###### Pump

- Solids handling capabilities: 1/2" maximum.
- Discharge size: 2" NPT
- Capacities: up to 140 GPM
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

###### MOTORS

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on 1/2 - 1 1/2 HP models.
- Class F insulation on 2 HP models.

###### Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- STOW or STOW severe duty oil and water resistant power cords.

##### Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

##### Designed for Continuous Operation:

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

##### Bearings:

- Upper and lower heavy duty ball bearing construction.

##### Power Cable:

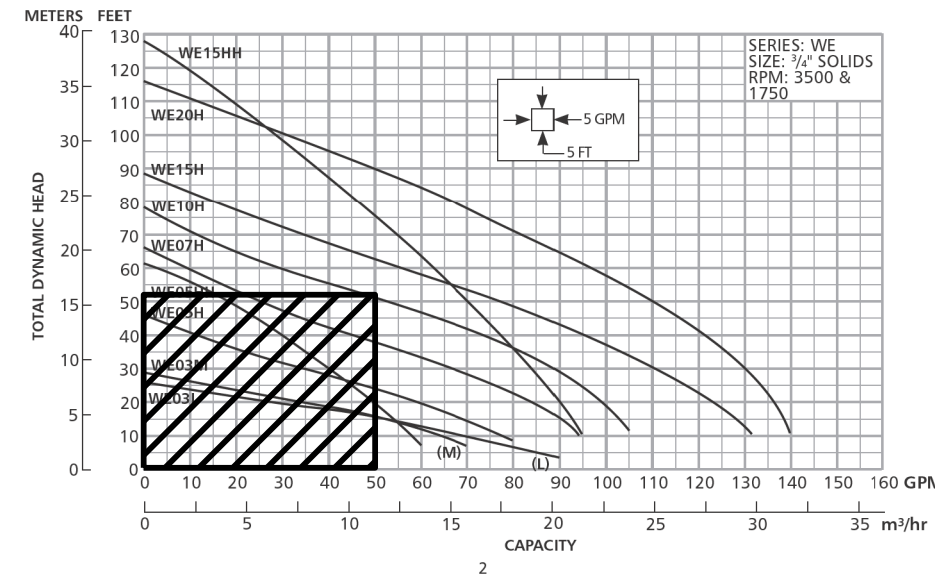
- Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

##### O-ring:

- Assures positive sealing against contaminants and oil leakage.

##### AGENCY LISTINGS

- UL 778 and CSA 212.198 Standards
- By Canadian Standards Association File #E88549
- Goolds Pumps is ISO 9001 Registered



#### SEPTIC SYSTEM DESIGN CRITERIA

##### DESIGN FLOW:

- USE: ASSISTED LIVING FACILITY (16 BEDS)
- 8 EMPLOYEES PER BUILDING
- 16 BEDS @ 100 GALLONS PER BED = 1600 GPD
- 8 EMPLOYEES @ 15 GALLONS EACH = 90 GPD
- 1680 GALLONS PER DAY PER BUILDING

##### SEPTIC TANK AND PUMP CHAMBER SIZING:

- V = 1125 + 0.75(Q)
- V = 1125 + 0.75(1680)
- V = 2392.5 GALLONS
- USE MINIMUM 3000 GAL SEPTIC TANK
- USE MINIMUM 3500 GAL PUMP CHAMBER

##### PUMP DESIGN:

- DESIGN FLOW: 1680 GPD
- DESIGN HEAD:
  - STATIC HEAD: 820.20' - 772.28' = 47.92'
  - FRICION HEAD:
    - 3" FORCE-MAIN = 6.28'
    - (4) 4.5" BENDS = 24'
    - (1) 90° BENDS = 10'
    - 6.28' + 24' + 10' = 66.28'
    - 66.28' X 0.58' / 100' = 3.84'
    - TOTAL HEAD: 47.92' + 3.84' = 51.76' @ 50 GPM

##### PUMP SYSTEM:

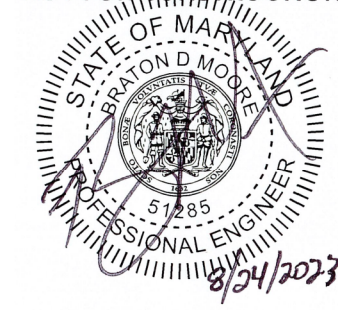
- DOSE VOLUME:
  - FORCE MAIN VOLUME: 628' X 38.4" / 100' = 24.1' 15 GAL
  - USE 185 GALLON DOSE WITH A CHECK VALVE
- PUMP CHAMBER CAPACITY:
  - ONE DAY STORAGE CAPACITY = 1680 GPD
  - + DOSE = 185 GPD
  - TOTAL STORAGE = 1855 GPD
- PUMP ON TO PUMP OFF:
  - D = 168 X 23.1 / 13.572 = 2.81'
  - HIGH WATER ALARM SWITCH TO PUMP CHAMBER: 1680 X 23.1 / 13.572 = 28.78'

TAX MAP 47 \* BLOCK 12 \* PARCEL: 518

### UNIT # 1 - SEPTIC NOTES AND DETAILS FINAL SITE PLAN FOR AN ASSISTED LIVING FACILITY ON THE REMAINING PORTION OF HEIRD PROPERTY

8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND

#### NOT FOR CONSTRUCTION



Steven D. Moore, P.E.



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 5288, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By:	MS, BM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	MS
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:	MS
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	N.T.S.
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	25 of 31



# AdvanTex® AX100 Textile Filter

## Applications

Drenco's AdvanTex® AX100 Treatment System is an innovative technology for onsite treatment of domestic-strength wastewater. The heart of the system is the AdvanTex Filter, a sturdy, watertight floor-glass basin filled with an engineered textile material. This lightweight, highly absorbent textile material treats a tremendous amount of wastewater in a small space. AX100 Treatment Systems are ideal for:

- New construction
- System upgrades and repairs
- Small sites
- Pretreatment
- Nitrogen reduction
- Price-sensitive markets

For using, see AdvanTex® Design Criteria (NDA-ATX-COMM-1-PKG).



The heart of the AdvanTex® AX100 Treatment System is this sturdy, watertight floorglass basin filled with an engineered textile material.

## Features/Specifications

To specify this product, require the following:

- Wastewater treatment to better than secondary treatment standards
- Consistent treatment, even during peak flows
- Timer operation for flow monitoring, flow modulation, and surge control
- Flood-film, engineered textile media, operated in an unsaturated condition
- Consistent media quality
- Low energy consumption
- Low maintenance requirements
- Complete pre-manufactured package, ready to install
- Watertight construction, corrosion-proof materials, and components
- Foam-core lid provides insulation value of R-6 (R3-1.1)
- Quiet operation

## Standard Model

AX100

## Specifications\*\*

Length, in. (mm)	191 (4851)
Width, in. (mm)	34 (238)
Height, in. (mm)	42 (1067)
Area footprint, ft² (m²)	128 (11.8)
Dry Weight, lb (kg)	1616 (733)

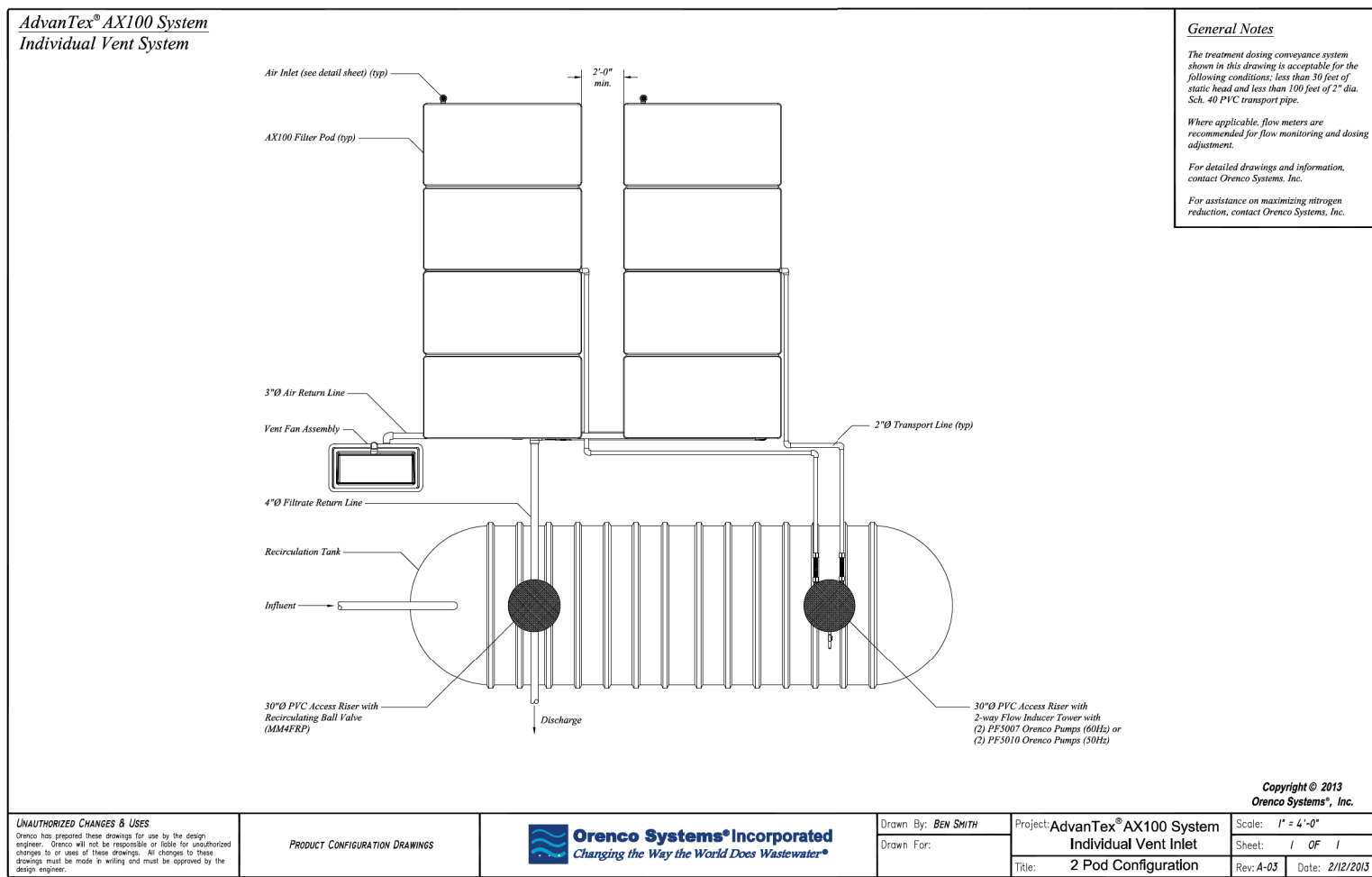
\* Covered by U.S. patent numbers 6,942,000; 6,932,137; 6,937,884; 6,982,851; 6,980,056  
\*\* Nominal values provided. See AdvanTex® Treatment System drawings for exact dimensions.

Drenco Systems® Inc., 814 Airway Ave., Sutherland, OH 91979 USA • 800-348-8943 • 541-459-4469 • [www.drenco.com](http://www.drenco.com)

810-874-42-3  
Rev. 24-08-9117  
Page 1 of 1

## ADVANTEX AX-100 PRETREATMENT UNIT

NOT TO SCALE



ITT

## APPLICATIONS

Specifically designed for the following uses:

- Homes, farms, Trailer Courts, Motels, Schools, Hospitals, Industries, Effluent Systems

## SPECIFICATIONS

Pump

- Solids handling capabilities: 1/2" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 184°F (85°C) continuous, 187°F (86°C) intermittent.
- See order numbers on cover plate for specific HE vertical phase and RPP's available.

## NOTES:

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class 8 insulation on 1/2" - 1 1/2" HP models.
- Class 7 insulation on 2" HP models.

Single phase 800 RPM.

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SFTW or SFTWV saves duty oil and water resistant power cords.

Three phase 800 RPM.

- Class 10 overload protection must be provided in separately wired starter unit.
- SFTW power cords all have bare lead cord ends.

Designed for Continuous Operation: Pump ratings are within the motor manufacturers recommended working limits, can be operated continuously without damage when fully adjusted.

- Bearings: Upper and lower heavy duty ball bearing construction.

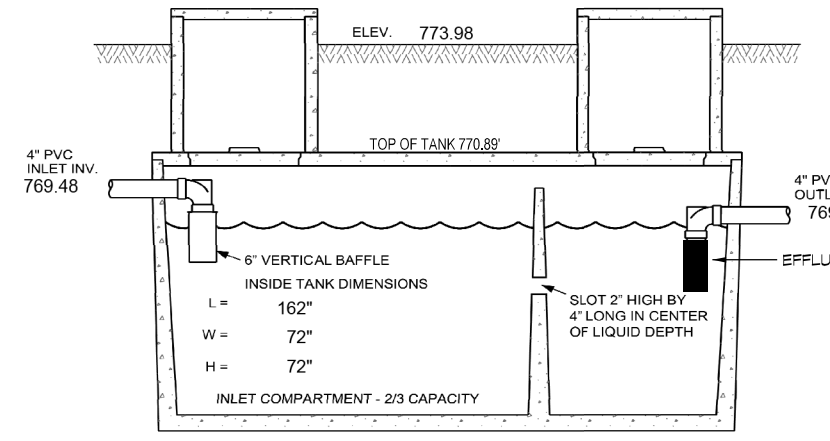
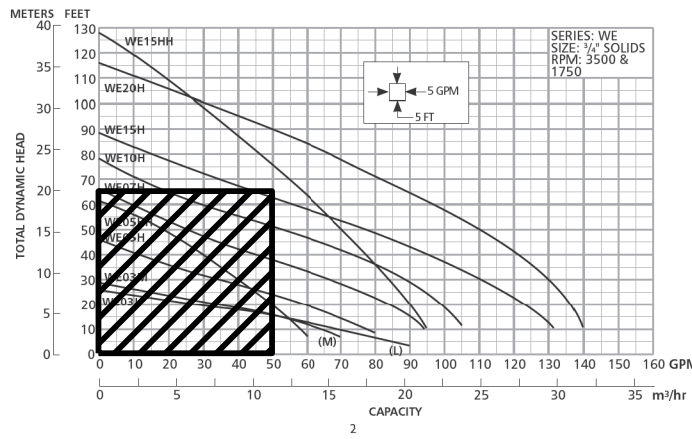
Power Cable: Severely duty rated, oil and water resistant. Every coil on motor and provides secondary moisture barrier in case of outer jacket damage and to prevent oil leaking. Standard coil is 30'. Optional lengths are available.

- O-ring: Assures positive sealing against contaminants and oil leakage.

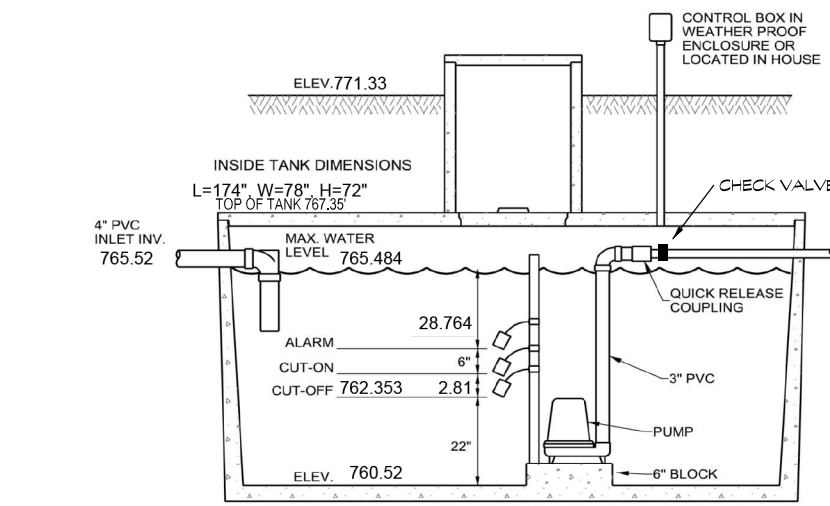
## AGENCY LISTINGS

See below for a list of agencies that have installed the Goulds Pump in their facilities.

By Goulds Industries member, the 400000 Goulds Pumps is ISO 9001 Registered.



3000 GALLON SEPTIC TANK  
NOT TO SCALE



3500 GALLON PUMP TANK  
NOT TO SCALE

THE SEPTIC TANK AND PUMP CHAMBER RISERS TO TERMINATE AT LEAST 6\"/>

## SPECIFICATIONS:

- > TANK MEASUREMENTS AND ELEVATIONS ARE BASED ON PUMP CHAMBERS AS MANUFACTURED BY MONARCH PRODUCTS COMPANY, INC. (717)-938-8303
- > ALL TANKS INSTALLED GREATER THAN 3 FEET DEEP ARE REQUIRED TO BE HEAVY DUTY / TRAFFIC BEARING
- > ALL PIPING TO BE SCHEDULE 40 PVC OF SIZES SHOWN
- > A SUBMERSIBLE PUMP TO REMOVE 50.00 GPM AGAINST 64.4' TDH TO BE PROVIDED. PUMP TO BE A GOULDS MODEL 3588-SAVE-15H- OR EQUAL
- > ALARM TO BE LOCATED AT THE HOUSE ON CIRCUIT SEPARATE FROM THE PUMP.

NOTE: PUMP CHAMBER SIZE AND FLOATS BASED ON GOULDS WE SERIES SUBMERSIBLE PUMP. IF A PUMP SUBSTITUTION OCCURS, CHAMBER SIZE AND FLOATS WILL NEED TO BE RECALCULATED TO ENSURE THAT PUMP IS COVERED.

## NOTE:

A PERCOLATION TEST IS ONLY ONE OF THE CRITERIA USED IN CONSIDERING A LOT FOR INSTALLATION OF A SEPTIC SYSTEM. ADDITIONAL TESTING CAN BE REQUIRED AND MAY BE SUBJECT TO SCHEDULING DURING THE WET WEATHER PERIOD. THE ENTIRE LOT IS EVALUATED WHEN APPLICATION FOR A SEPTIC PERMIT IS MADE. ADJOINING PROPERTY HISTORY, PERCOLATION TEST METHODOLOGY, ADJOINING WELLS AND SEPTIC SYSTEMS, PROPOSED NUMBER OF BEDROOMS, HISTORY OF FAILING SEPTIC SYSTEMS AND WELLS, DESIGN, SOIL AND GEOLOGICAL CONDITIONS, AND TOPOGRAPHY IN THE IMMEDIATE AREA ARE THEN USED TO DETERMINE IF THE LOT IS SUITABLE FOR THE UNDERGROUND DISPOSAL OF SEWAGE.

## NOTE:

IF GRAVITY FLOW TO THE SEWAGE DISPOSAL AREA CANNOT BE ENSURED A PUMPED SEWAGE DISPOSAL SYSTEM WILL BE REQUIRED FOR LOTS.

SUBDIVISIONSITE:Heird Property - Asst. Living

Test #	Test Type	Percolation Rate	Percolation Rate	Comments	Date	Test #	San.
31				>50% rock at 7.5 ft	11/03/22	31	JAS, 388
32	OH			>50% rock 6ft-9ft	04/12/19	32	387
33				>50% rock at 8 feet	11/03/22	33	JAS, 388
34	DT	2 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	34	387
34	DT	22 min at 3 ft		see info above	11/03/22	34	JAS, 388
35	OH			suitable soil to 12 ft	04/12/19	35	387
36	OH			suitable soil to 12 ft	04/12/19	36	387
37	DT	7 min at 4 ft	4 min at 6 ft	>2 min at 10 ft	04/12/19	37	387
38	OH			suitable soil to 10 ft	04/12/19	38	387
39	DT	12 min at 4 ft	11 min at 7 ft	>2 min at 11 ft	03/29/19	39	387
40	OH			suitable soil to 12 ft	03/29/19	40	387
41	DT	5 min at 4 ft	3 min at 7 ft	>2 min at 11 ft	03/29/19	41	387
42	DT	5 min at 4 ft	7 min at 7 ft	suitable soil to 12 ft	03/29/19	42	387
43	OH			suitable soil to 12 ft	03/29/19	43	387
44	DT	7 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	03/29/19	44	387
45	OH			suitable soil to 10 ft	03/29/19	45	387
46	OH			suitable soil to 12 ft	03/29/19	46	387
47	DT	5 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	04/12/19	47	387
48	DT	24 min at 3 ft	7 min at 6 ft	>2 min at 10 ft	03/29/19	48	387
49	TZ			>2 mins at 15 feet	11/03/22	49	JAS, 388
50				>50% rock at 8 feet	11/03/22	50	JAS, 388
51	MTF	>30 min at 5 ft	11 min at 8 ft	>2 mins at 12 feet	11/03/22	51	JAS, 388
52	MTF	13 min at 8 ft	3 min at 7 ft	>2 mins at 12 feet	11/03/22	52	JAS, 388
53	MTF	>30 min at 5 ft	29 min at 8 ft	>2 mins at 12 feet	11/03/22	53	JAS, 388
54	DT	6 min at 7 ft	8 min at 11 ft	>2 mins at 15 feet	11/03/22	54	JAS, 388
55	TZ			>2 mins at 12 feet	02/17/23	55	388
A	OH			suitable soil to 10 ft	03/29/19	A	387
B	OH			>50% rock 5 ft- 9ft	04/12/19	B	387
C	DT	12 min at 5 ft	7 min at 8 ft	>2 min at 12ft	04/12/19	C	387
C	DT	8 min at 4 ft		see info above	11/03/22	C	JAS, 388
D	DT	7 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	D	387
D	DT	>30 min at 4 ft		puiled at 3 feet, see info above	11/03/22	D	JAS, 388
E	DT	6 min at 5 ft	6 min at 8 ft	>2 min at 12 ft	04/12/19	E	387
E	DT	15 min at 3 ft		see info above	11/03/22	E	JAS, 388
F	OH			suitable soil to 12 ft	04/12/19	F	387
F	TZ			>2 mins at 12 feet	11/03/22	F	JAS, 388
G	OH			>50% rock 4 ft- 9 ft	04/12/19	G	387

## DATA BLOCK

1. ZONING DISTRICT - AGRICULTURAL
2. SOILS SHOWN ARE FROM THE NRCS COUNTY SOILS DATA
3. NUMBER OF BUILDING SITES - 1
4. TOTAL AREA OF SITE - 18,276.4 AC.

## GENERAL NOTES

1. CURRENT TITLE REFERENCE: P. 518  
OWNER: STEVEN BUCHMAN HEIRD  
DEED REFERENCE: LIBER 11089, FOLIO 439  
DATE: AUGUST 23, 2023  
GRANTOR: STEVEN BUCHMAN HEIRD
2. THE OUTLINE SHOWN HEREON IS BASED ON A DEED ONLY
3. THE TOPOGRAPHY SHOWN HEREON IS AERIAL TOPOGRAPHY PERFORMED BY COUNTY SURVEYORS IN 2010 AND CARROLL COUNTY LIDAR PRODUCTS AND MAY NOT BE A SUITABLE SUBSTITUTE FOR A FIELD RUN SURVEY. CARROLL COUNTY DOES NOT WARRANT ITS ACCURACY FOR ANY PURPOSE.
4. NEAREST POTABLE WATER SUPPLY- HAMPSSTEAD, 2.0 MILES
5. WATER AND SEWER SERVICE- NO PLANNED SERVICE
6. MBL DENOTES MINIMUM BUILDING LINE.
7. THERE ARE NO WELLS OR SEPTICS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN HEREON.

## NOTE:

IF GRAVITY FLOW TO THE SEWAGE DISPOSAL AREA CANNOT BE ENSURED A PUMPED SEWAGE DISPOSAL SYSTEM WILL BE REQUIRED FOR LOTS.

TAX MAP 47 \* BLOCK 12 \* PARCEL: 518

## UNIT #2 - SEPTIC NOTES AND DETAILS FINAL SITE PLAN FOR AN ASSISTED LIVING FACILITY ON THE REMAINING PORTION OF HEIRD PROPERTY

8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND

NOT FOR CONSTRUCTION



Bratton D. Moore, P.E.



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51885, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By:	MS, BM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	MS
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:	MS
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	N.T.S.
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	26 of 31

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214



SUBDIVISION/SITE**Heird Property - Asst. Living**

Test #	Test Type	Percolation Rate	Percolation Rate	Comments	Date	Test #	San
31				>60% rock at 7.5 ft	11/03/22	31	JAS, 388
32	OH			>60% rock 5ft-9ft	04/12/19	32	387
33				>60% rock at 8 feet	11/03/22	33	JAS, 388
34	DT	2 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	34	387
34	DT	22 min at 3 ft		see info above	11/03/22	34	JAS, 388
35	OH			suitable soil to 12 ft	04/12/19	35	387
36	OH			suitable soil to 12 ft	04/12/19	36	387
37	DT	7 min at 4 ft	4 min at 6 ft	>2 min at 10 ft	04/12/19	37	387
38	OH			suitable soil to 10 ft	04/12/19	38	387
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40	OH			suitable soil to 12 ft	03/29/19	40	387
41	DT	5 min at 4 ft	3 min at 7 ft	>2 min at 11 ft	03/29/19	41	387
42	DT	5 min at 4 ft	7 min at 7 ft	suitable soil to 12 ft	03/29/19	42	387
43	OH			suitable soil to 12 ft	03/29/19	43	387
44	DT	7 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	03/29/19	44	387
45	OH			suitable soil to 10 ft	03/29/19	45	387
46	OH			suitable soil to 12 ft	03/29/19	46	387
47	DT	5 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	04/12/19	47	387
48	DT	24 min at 3 ft	7 min at 6 ft	>2 min at 10 ft	03/29/19	48	387
49	TZ			>2 mins at 15 feet	11/03/22	49	JAS, 388
50				>60% rock at 8 feet	11/03/22	50	JAS, 388
51	MTF	>30 min at 5 ft	11 min at 8 ft	>2 mins at 12 feet	11/03/22	51	JAS, 388
52	MTF	13 min at 8 ft		>2 mins at 12 feet	11/03/22	52	JAS, 388
53	MTF	>30 min at 5 ft	29 min at 8 ft	>2 mins at 12 feet	11/03/22	53	JAS, 388
54	DT	6 min at 7 ft	8 min at 11 ft	>2 mins at 15 feet	11/03/22	54	JAS, 388
55	TZ			>2 mins at 12 feet	02/17/23	55	388
A	OH			suitable soil to 10 ft	03/29/19	A	387
B	OH			>60% rock 5 ft - 9ft	04/12/19	B	387
C	DT	12 min at 5 ft	7 min at 8 ft	>2 min at 12ft	04/12/19	C	387
C	DT	8 min at 4 ft		see info above	11/03/22	C	JAS, 388
D	DT	7 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	D	387
D	DT	>30 min at 4 ft		pulled at 3 feet, see info above	11/03/22	D	JAS, 388
E	DT	3 min at 5 ft	6 min at 8 ft	>2 min at 12 ft	04/12/19	E	387
E	DT	15 min at 3 ft		see info above	11/03/22	E	JAS, 388
F	OH			suitable soil to 12 ft	04/12/19	F	387
F	TZ			>2 mins at 12 feet	11/03/22	F	JAS, 388
G	OH			>60% rock 4 ft - 9 ft	04/12/19	G	387

## SEPTIC SYSTEM DESIGN CRITERIA

## DESIGN FLOW:

USE: ASSISTED LIVING FACILITY (16 BEDS)  
6 EMPLOYEES PER BUILDING  
16 BEDS @ 100 GALLONS PER BED = 1600 GPD  
6 EMPLOYEES @ 18 GALLONS EACH = 80 GPD  
1680 GALLONS PER DAY PER BUILDING

## SEPTIC TANK SIZING:

$V = 125 \times 0.75(2)$   
 $V = 125 \times 0.75(680)$   
 $V = 2592.5$  GALLONS  
USE MINIMUM 3000 GAL SEPTIC TANK

## UNIT #3 TRENCH SIZING

## TRENCH SIZING:

1680 GPD / 0.8 GPD/SF = 212.5 SF  
ADD 40% ADDITION FOR ONSITE LAUNDRY  
213 SF X 14 = 2988 SF  
2988 SF / 3 = 996 LF OF STANDARD TRENCH  
 $W = 2 / W + 1 + 2(D) \pm DEEP TRENCH$   
 $3 \pm 2 / 3 + 1 + 2(3) \pm 0.50$   
986 LF X 0.50 = 493 LF  
493 LF OF DEEP TRENCH (3 FT STONE DEPTH)  
USE (5) 99 FT TRENCHES PER SYSTEM

## PRETREATMENT UNIT:

- DESIGN FLOW: 1680 GPD
- MANUFACTURER:  
ORENCO
- MODEL:  
ADVANTEX AX-100

## DATA BLOCK

- ZONING DISTRICT - AGRICULTURAL
- SOILS SHOWN ARE FROM THE NRCS  
COUNTY SOILS DATA
- NUMBER OF BUILDING SITES - 1
- TOTAL AREA OF SITE - 18, 2764 AC.

## GENERAL NOTES

- CURRENT TITLE REFERENCE:  
P. 518  
OWNER: STEVEN BUCHMAN HEIRD  
DEED REFERENCE: LIBER 11099, FOLIO 439  
DATE: AUGUST 23, 2023  
GRANTOR: STEVEN BUCHMAN HEIRD
- THE OUTLINE SHOWN HEREON IS BASED ON A DEED ONLY
- THE TOPOGRAPHY SHOWN HEREON IS AERIAL TOPOGRAPHY PERFORMED BY COUNTY SURVEYORS IN 2010 AND CARROLL COUNTY LIDAR PRODUCTS AND MAY NOT BE A SUITABLE SUBSTITUTE FOR A FIELD RUN SURVEY. CARROLL COUNTY DOES NOT WARRANT ITS ACCURACY FOR ANY PURPOSE.
- NEAREST POTABLE WATER SUPPLY: HAMPSTEAD, 2.0 MILES
- WATER AND SEWER SERVICE: NO PLANNED SERVICE
- MBL DENOTES MINIMUM BUILDING LINE.
- THERE ARE NO WELLS OR SEPTICS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN HEREON.

## SPECIFICATIONS:

- ALL TANKS INSTALLED GREATER THAN 3 FEET DEEP ARE REQUIRED TO BE HEAVY DUTY / TRAFFIC BEARING.
- ALL PIPING TO BE SCHEDULE 40 PVC OF SIZES SHOWN

**orencio** Technical Data Sheet  
**AdvanTex® AX100 Textile Filter**

## Applications

Orenco's AdvanTex® AX100 Treatment System is an innovative technology for onsite treatment of domestic-strength wastewater. The heart of the system is the AdvanTex Filter, a sturdy, watertight fiberglass basin filled with an engineered textile material. This lightweight, highly absorbent textile material treats a tremendous amount of wastewater in a small space. AX100 Treatment Systems are ideal for:

- New construction
- System upgrades and repairs
- Small sites
- Poor soils
- Pretreatment
- Nitrogen reduction
- Price-sensitive markets

For sizing, see AdvanTex® Design Criteria (NDA-ATX-COMM-1-PKG).

## Features/Specifications

To specify this product, require the following:

- Wastewater treatment to better than secondary treatment standards
- Consistent treatment, even during peak flows
- Timer operation for flow monitoring, flow modulation, and surge control
- Fixed-film, engineered textile media, operated in an unsaturated condition
- Consistent media quality
- Low energy consumption
- Low maintenance requirements
- Complete pre-manufactured package, ready to install
- Watertight construction, corrosion-proof materials, and components
- Foam-core lid provides insulation value of R-6 (R5-1.1)
- Quiet operation

## Standard Model

AX100

## Specifications\*\*

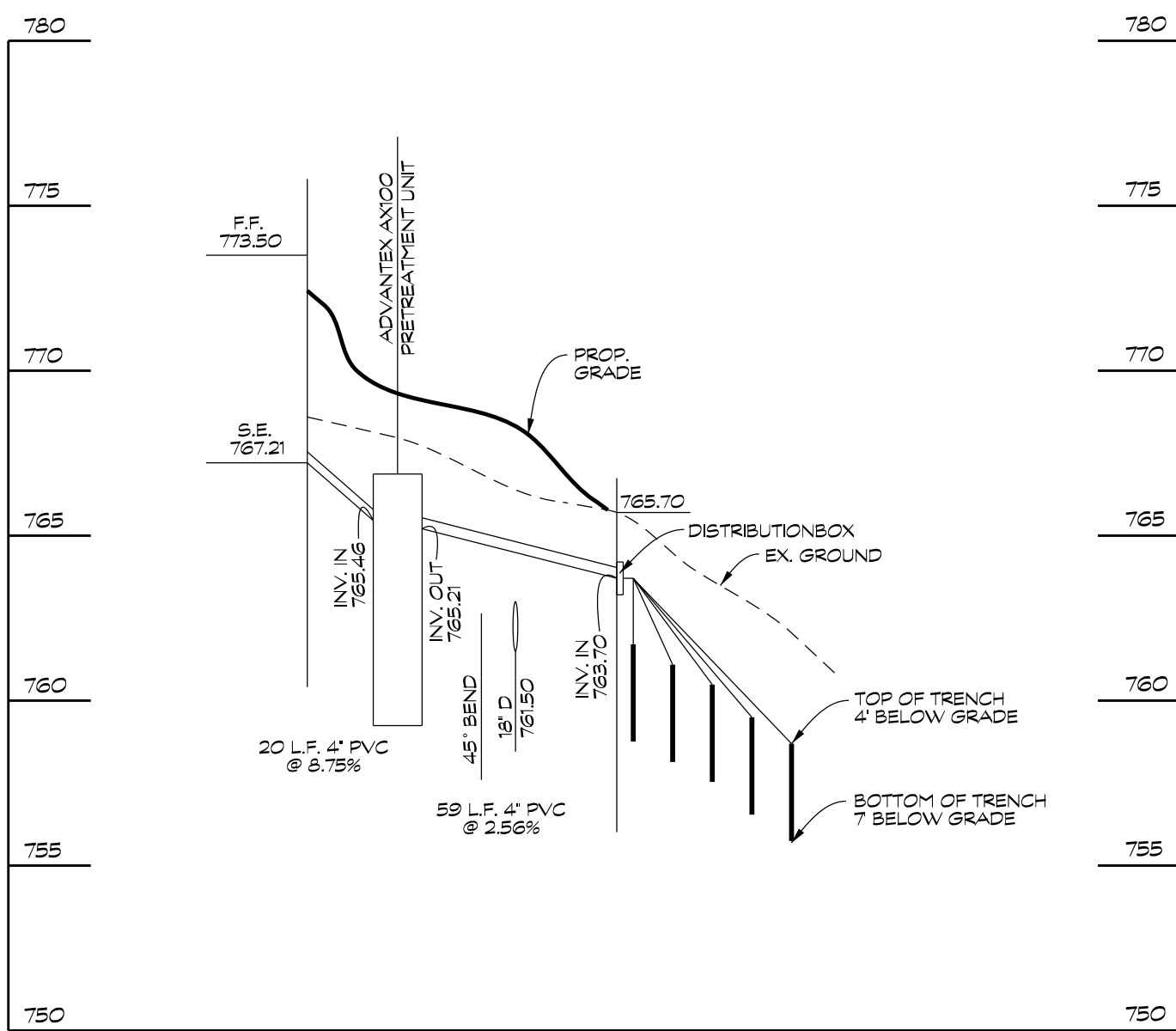
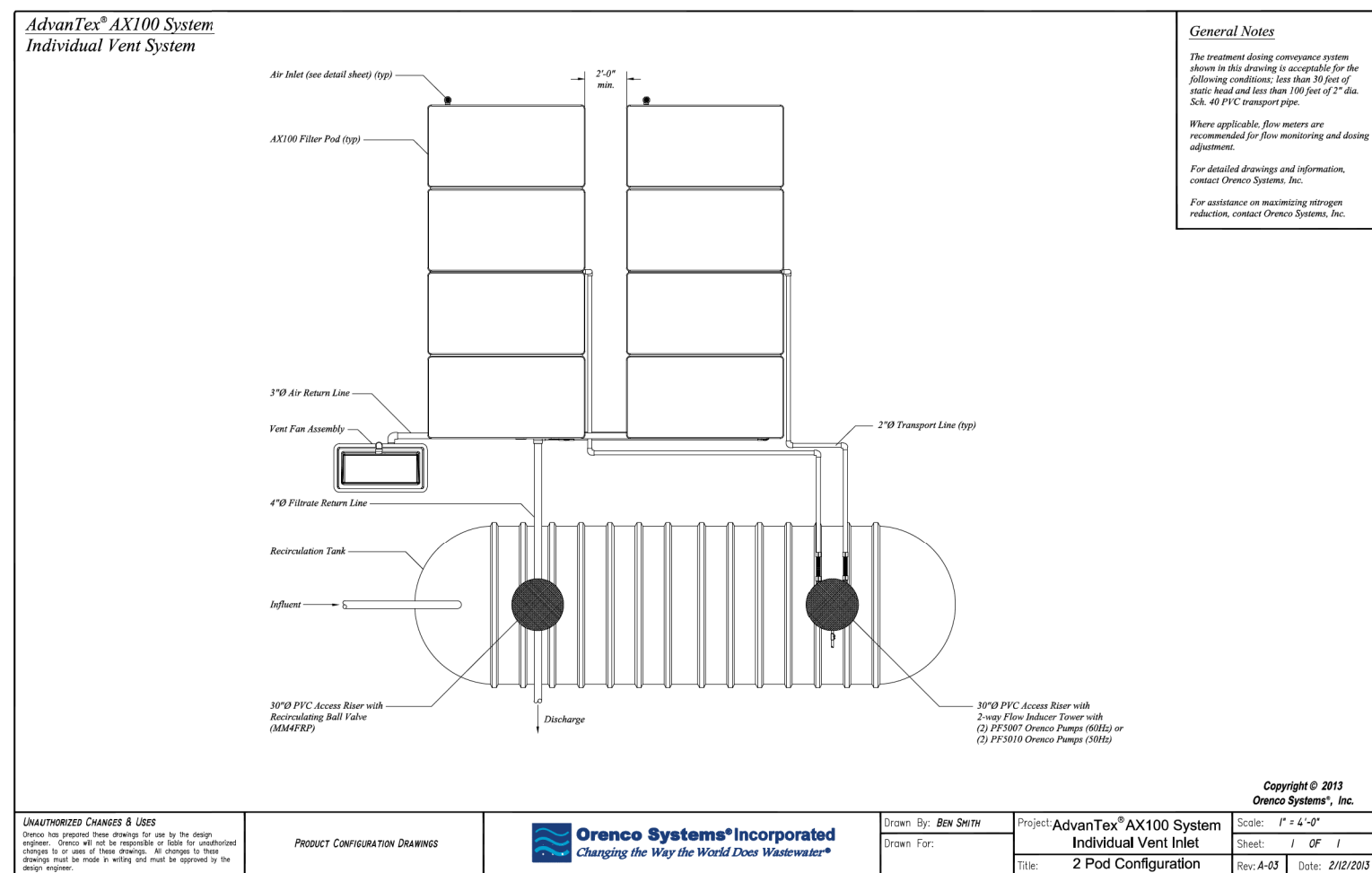
Length, in. (mm)	191 (4851)
Width, in. (mm)	94 (2388)
Height, in. (mm)	42 (1067)
Area (footprint), ft² (m²)	126 (11.9)
Dry Weight, lb (kg)	1616 (733)



The heart of the AdvanTex® AX100 Treatment System is this sturdy, watertight fiberglass basin filled with an engineered textile material.

THE SEPTIC TANK RISERS TO TERMINATE AT LEAST 6" ABOVE FINAL GRADE.

NOTE:  
THE MINIMUM COVER OVER THE TANKS IS 1'.  
THE MAXIMUM COVER OVER THE TANKS IS 3'.



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

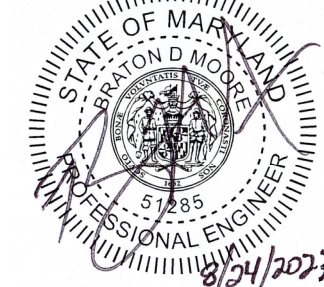
**ADVANTEX AX-100 PRETREATMENT UNIT**  
NOT TO SCALE

**OWNER/DEVELOPER**  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214

TAX MAP 47 \* BLOCK 12 \* PARCEL: 518

**UNIT #3 - SEPTIC NOTES AND DETAILS**  
**FINAL SITE PLAN**  
**FOR AN ASSISTED LIVING FACILITY**  
**ON THE REMAINING PORTION OF**  
**HEIRD PROPERTY**  
8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND

## NOT FOR CONSTRUCTION



Breton D. Moore, P.E.

439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51285, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By:	MS, BM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	MS
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:	MS
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	N.T.S.
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	27 of 31

County File No. S-19-0030







AdvanTex® AX100 Textile Filter

Applications

- New construction
- System upgrades and repairs
- Small sites
- Payer sets
- Pre-treatment
- Wastage reduction
- Price-sensitive markets

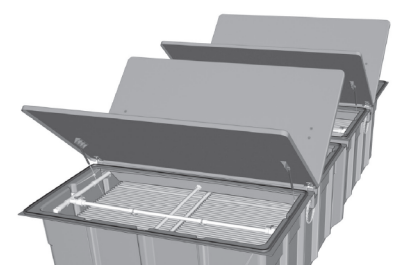
Features/Specifications

- To specify this product, require the following:
- Wastewater treatment to better than secondary treatment standards
- Consistent treatment, even during peak flows
- Time operation for flow monitoring, flow modulation, and surge control
- Fluid-tight, engineered textile media, operated in an unobstructed condition
- Consistent media quality
- Low energy consumption
- Low maintenance requirements
- Complete pre-manufactured package, ready to install
- Watertight construction, corrosion-proof materials, and components
- Flow-control kit provides insulation values of R-0.9 (R-1.1)
- Quiet operation

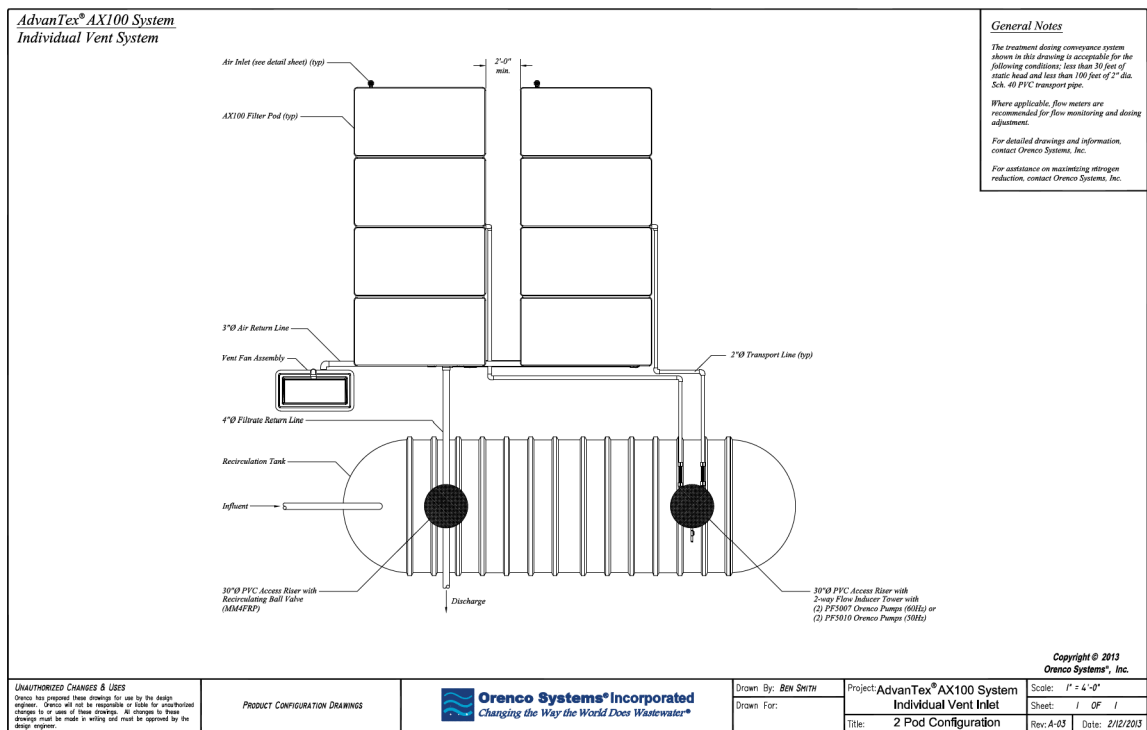
Standard Model

Specifications\*\*

Length, ft. (mm)	10' (3051)
Width, ft. (mm)	34" (868)
Height, ft. (mm)	42" (1067)
Area (square ft. (m²))	138 (11.8)
Dry Weight, lb. (kg)	1610 (728)



The heart of the AdvanTex® AX100 Treatment System is the directly sunlight designed foam filter that with an engineered bubble matrix.



ADVANTEX AX-100 PRETREATMENT UNIT  
NOT TO SCALE

SEPTIC SYSTEM DESIGN CRITERIA

DESIGN FLOW:

- USE: ASSISTED LIVING FACILITY (16 BEDS)
- 6 EMPLOYEES PER BUILDING
- 16 BEDS @ 100 GALLONS PER BED = 1600 GPD
- 6 EMPLOYEES @ 15 GALLONS EACH = 90 GPD
- 1690 GALLONS PER DAY PER BUILDING

SEPTIC TANK AND PUMP CHAMBER SIZING:

- V = 125 ± 0.75 (G)
- V = 125 ± 0.75 (690)
- V = 2392.5 GALLONS
- USE MINIMUM 3000 GAL SEPTIC TANK
- USE MINIMUM 3500 GAL PUMP CHAMBER

UNIT #5 TRENCH SIZING

TRENCH SIZING FOR INITIAL AND FIRST REPLACEMENT:

- 1690 GPD / 0.8 GPD/SF = 212.5 SF
- ADD 40% ADDITION FOR ON-SITE LAUNDRY
- 213 SF X 1.4 = 298.6 SF
- 298.6 SF / 3 = 99.5 LF OF STANDARD TRENCH

- W = 2 / (W + 1 + 2(D) = DEEP TRENCH
- 3 + 2 / (3 + 1 + 2(4) = 0.42
- 99.6 LF X 0.42 = 41.5 LF
- 41.5 LF OF DEEP TRENCH (4 FT STONE DEPTH)
- USE (5) 83 FT TRENCHES PER SYSTEM

TRENCH SIZING FOR SECOND REPLACEMENT SYSTEM:  
(MODIFIED TILE FIELD)

- 1690 GPD / 0.8 GPD/SF = 212.5 SF
- ADD 40% ADDITION FOR ON-SITE LAUNDRY
- 213 SF X 1.4 = 298.6 SF
- 298.6 SF / 3 = 99.5 LF OF STANDARD TRENCH
- USE (4) 84 FT TRENCHES PER SYSTEM

PUMP DESIGN:

- DESIGN FLOW: 1690 GPD
- DESIGN HEAD:  
STATIC HEAD: 800.5' - 776.77' = 23.73'  
FRICTION HEAD:  
3" FORCEMAIN = 4.41'  
(1) 45' BENDS = 6'  
(1) 90° BENDS = 10'  
4.41' + 6' + 10' = 20.41'  
45' X 0.58' / 100 = 2.65'  
TOTAL HEAD: 23.73' + 2.65' = 26.38' @ 50 GPM

PUMP SYSTEM:

- DOSE VOLUME:  
FORCE MAIN VOLUME  
44.1' X 38.4" / 100 = 169.34 GAL  
USE 165 GALLON DOSE WITH A CHECK VALVE
- PUMP CHAMBER CAPACITY  
ONE DAY STORAGE CAPACITY = 1690 GPD  
DOSE = 165 GPD  
TOTAL STORAGE = 1855 GPD
- PUMP ON TO PUMP OFF  
ON: 165 X 23.1 / 13.572 = 2.61'
- HIGH WATER ALARM SWITCH TO PUMP CHAMBER  
ON: 1690 X 23.1 / 13.572 = 28.78'

SUBDIVISION/SITE Heird Property - Asst. Living

Test #	Test Type	Percolation Rate	Percolation Rate	Comments	Date	Test #	San.
31	OH			>60% rock at 7.5 ft	11/03/22	31	JAS, 388
32	OH			>60% rock 5ft - 8ft	04/12/19	32	387
33	OH			>60% rock at 8 feet	11/03/22	33	JAS, 388
34	DT	2 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	34	387
34	DT	22 min at 3 ft		see info above	11/03/22	34	JAS, 388
35	OH			suitable soil to 12 ft	04/12/19	35	387
36	OH			suitable soil to 12 ft	04/12/19	36	387
37	DT	7 min at 4 ft	4 min at 6 ft	>2 min at 10 ft	04/12/19	37	387
38	OH			suitable soil to 10 ft	04/12/19	38	387
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42	DT	5 min at 4 ft	7 min at 7 ft	suitable soil to 12 ft	03/28/19	42	387
43	OH			suitable soil to 12 ft	03/28/19	43	387
44	DT	7 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	03/28/19	44	387
45	OH			suitable soil to 10 ft	03/28/19	45	387
46	OH			suitable soil to 12 ft	03/28/19	46	387
47	DT	5 min at 4 ft	5 min at 6 ft	>2 min at 10 ft	04/12/19	47	387
48	DT	24 min at 3 ft	7 min at 6 ft	>2 min at 10 ft	03/28/19	48	387
49	TZ			>2 mins at 15 feet	11/03/22	49	JAS, 388
50				>60% rock at 8 feet	11/03/22	50	JAS, 388
51	MTF	>30 min at 5 ft	11 min at 8 ft	>2 mins at 12 feet	11/03/22	51	JAS, 388
52	MTF	13 min at 8 ft		>2 mins at 12 feet	11/03/22	52	JAS, 388
53	MTF	>30 min at 5 ft	29 min at 8 ft	>2 mins at 12 feet	11/03/22	53	JAS, 388
54	DT	6 min at 7 ft	8 min at 11 ft	>2 mins at 15 feet	11/03/22	54	JAS, 388
55	TZ			>2 mins at 12 feet	02/17/23	55	388
A	OH			suitable soil to 10 ft	03/28/19	A	387
B	OH			>60% rock 5 ft - 9ft	04/12/19	B	387
C	DT	12 min at 5 ft	7 min at 8 ft	>2 min at 12ft	04/12/19	C	387
D	DT	6 min at 4 ft		see info above	11/03/22	D	JAS, 388
D	DT	7 min at 5 ft	5 min at 8 ft	>2 min at 12 ft	04/12/19	D	387
D	DT	>30 min at 4 ft		pulled at 3 feet, see info above	11/03/22	D	JAS, 388
E	DT	3 min at 5 ft	6 min at 8 ft	>2 min at 12 ft	04/12/19	E	387
E	DT	15 min at 3 ft		see info above	11/03/22	E	JAS, 388
F	OH			suitable soil to 12 ft	04/12/19	F	387
F	TZ			>2 mins at 12 feet	11/03/22	F	JAS, 388
G	OH			>60% rock 4 ft - 9 ft	04/12/19	G	387



GOULDS PUMPS  
Wastewater

APPLICATIONS

Specifically designed for the following uses:

- Homes, Farms, Trailer Courts, Motels, Schools, Hospitals, Industry, Effluent Systems

SPECIFICATIONS

Pump

- Solids handling capabilities: 1/2" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous, 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

MOTORS

- Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.
- Class B insulation on 1/2 - 1 1/2 HP models.
- Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- STOW or STOW severe duty oil and water resistant power cords.

- 1/2 - 1 HP models have NEMA three prong grounding plugs.
- 1 1/2 HP and larger units have bare lead cord ends.

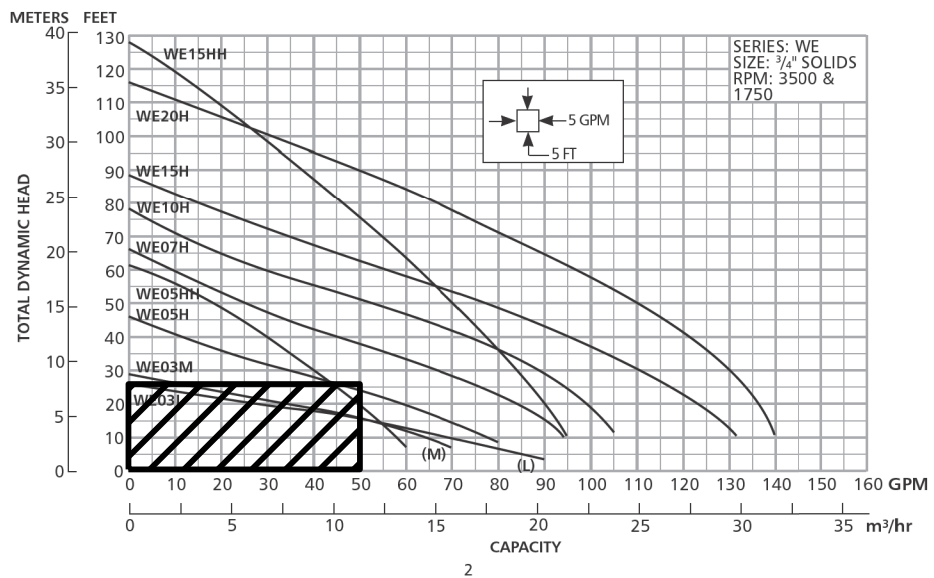
Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.
- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- Bearings: Upper and lower heavy duty ball bearing construction.

- Power Cable: Severe duty rated, oil and water resistant. Epoxy seal on motor and provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
- O-ring: Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

- Based on NEMA 178 and CSA 22.2-108 Standards
- By Canadian Standards Association File #E183849
- Goulds Pump is ISO 9001 Registered



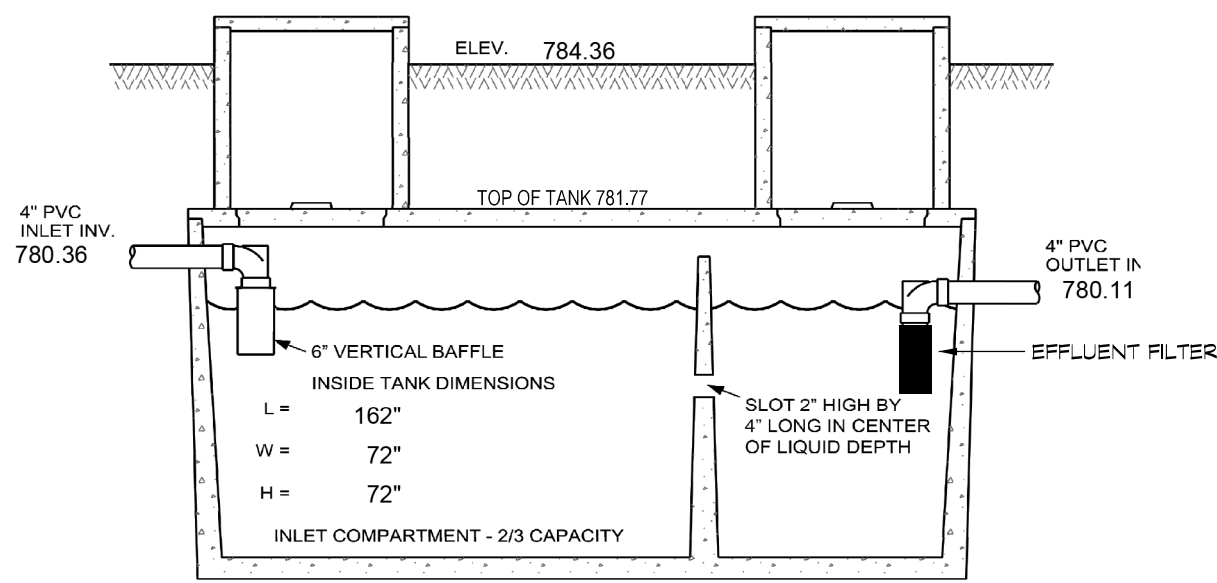
DATA BLOCK

1. ZONING DISTRICT - AGRICULTURAL
2. SOILS SHOWN ARE FROM THE NRCS COUNTY SOILS DATA
3. NUMBER OF BUILDING SITES - 1
4. TOTAL AREA OF SITE - 18,276.4 AC.

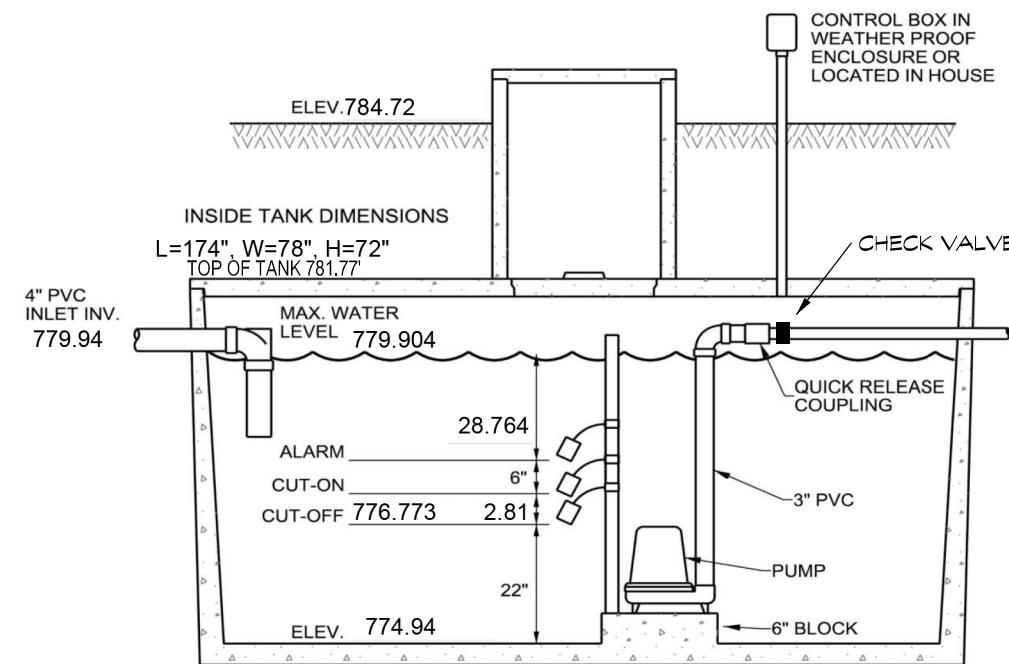
GENERAL NOTES

1. CURRENT TITLE REFERENCE:  
P. 518  
OWNER: STEVEN BUCHMAN HEIRD  
DEED REFERENCE: LIBER 1 1039, FOLIO 439  
DATE: AUGUST 23, 2023  
GRANTOR: STEVEN BUCHMAN HEIRD
2. THE OUTLINE SHOWN HEREON IS BASED ON A DEED ONLY
3. THE TOPOGRAPHY SHOWN HEREON IS AERIAL TOPOGRAPHY PERFORMED BY COUNTY SURVEYORS IN 2010 AND CARROLL COUNTY LIDAR PRODUCTS AND MAY NOT BE A SUITABLE SUBSTITUTE FOR A FIELD RUN SURVEY. CARROLL COUNTY DOES NOT WARRANT ITS ACCURACY FOR ANY PURPOSE.
4. NEAREST POTABLE WATER SUPPLY- HAMPSTEAD, 2.0 MILES
5. WATER AND SEWER SERVICE- NO PLANNED SERVICE
6. MBL DENOTES MINIMUM BUILDING LINE.
7. THERE ARE NO WELLS OR SEPTICS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARY UNLESS OTHERWISE SHOWN HEREON.

THE SEPTIC TANK AND PUMP CHAMBER  
RISES TO TERMINATE AT LEAST 6'  
ABOVE FINAL GRADE.



3000 GALLON SEPTIC TANK  
NOT TO SCALE



3500 GALLON PUMP TANK  
NOT TO SCALE

NOTE:

A PERCOLATION TEST IS ONLY ONE OF THE CRITERIA USED IN CONSIDERING A LOT FOR INSTALLATION OF A SEPTIC SYSTEM. ADDITIONAL TESTING CAN BE REQUIRED AND MAY BE SUBJECT TO SCHEDULING DURING THE WET WEATHER PERIOD. THE ENTIRE LOT IS EVALUATED WHEN APPLICATION FOR A SEPTIC PERMIT IS MADE. ADJOINING PROPERTY HISTORY, PERCOLATION TEST METHODOLOGY, ADJOINING WELLS AND SEPTIC SYSTEMS, PROPOSED NUMBER OF BEDROOMS, HISTORY OF FAILING SEPTIC SYSTEMS AND WELLS, DESIGN, SOIL AND GEOLOGICAL CONDITIONS, AND TOPOGRAPHY IN THE IMMEDIATE AREA ARE THEN USED TO DETERMINE IF THE LOT IS SUITABLE FOR THE UNDERGROUND DISPOSAL OF SEWAGE.

NOTE:

IF GRAVITY FLOW TO THE SEWAGE DISPOSAL AREA CANNOT BE ENSURED A PUMPED SEWAGE DISPOSAL SYSTEM WILL BE REQUIRED FOR LOTS.

TAX MAP 47 \* BLOCK 12 \* PARCEL: 518

UNIT #5 - SEPTIC NOTES AND DETAILS  
FINAL SITE PLAN  
FOR AN ASSISTED LIVING FACILITY  
ON THE REMAINING PORTION OF  
HEIRD PROPERTY

8th ELECTION DISTRICT \* CARROLL COUNTY, MARYLAND



439 East Main Street Westminster, MD 21157-5539  
(410) 848-1790 FAX (410) 848-1791

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 51285, EXPIRATION DATE: DECEMBER 7, 2023

Date	Revisions	Drawn By:	MS, BM
1/18/23	ADDED SEPTIC CALCULATIONS AND PERC TEST RESULTS	Designed By:	MS
1/31/23	REVISED PER C.C. COMMENTS	Reviewed By:	MS
2/24/23	REVISED TO INCLUDE SEPTIC PLAN FOR PROPOSED UNITS	Date:	SEPT., 2022
4/10/23	REVISED TO INCLUDE AFFORESTATION AREA AND PLANTING NOTES & DETAILS	Scale:	N.T.S.
8/24/23	REVISED TO REFLECT UPDATED DEED	Job No.:	2005186C
		Sheet:	28 of 31

OWNER/DEVELOPER  
STEVEN BUCHMAN HEIRD  
4570 LIST ROAD  
RED LION, PA 17356  
(717) 741-2214









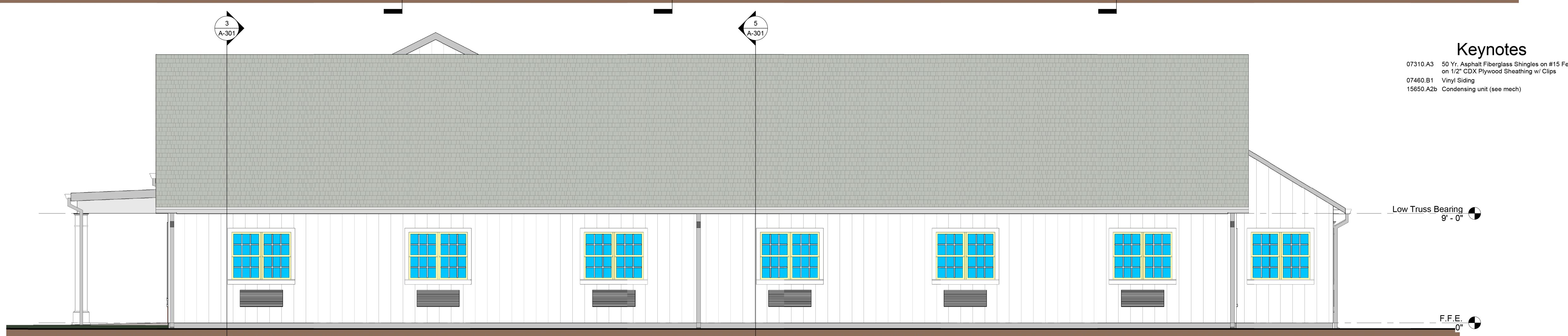
1 Front Elevation  
1/4" = 1'-0"



2 Left Side Elevation  
1/4" = 1'-0"



3 Rear Elevation  
1/4" = 1'-0"



4 Right Side Elevation  
1/4" = 1'-0"

**Keynotes**  
07310.A3 50 Yr. Asphalt Fiberglass Shingles on #15 Felt  
on 1/2" CDX Plywood Sheathing w/ Clips  
07460.B1 Vinyl Siding  
15650.A2b Condensing unit (see mech)

No.	Revision:	By:	Date:

FOR DESIGN  
REVIEW ONLY  
NOT FOR  
CONSTRUCTION  
50% CD SUBMISSION

PROFESSIONAL CERTIFICATION:  
I, the undersigned, being a duly licensed  
Professional Architect in the State  
of Maryland, do hereby certify that  
I am the author of the design and  
drawings herein, and that I am a duly  
licensed Professional Architect in the  
State of Maryland, License No. 72612.  
Expiration date: 8-21-2024.

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Violators shall be liable for all costs  
incurred by the firm for legal action.



**Dean Robert  
Camlin  
& Assoc., Inc.**  
8 N. Court St. Suite 2 Westminister, Maryland 21157  
410-326-1111  
dean@drccamlin.com www.drccamlin.com

Exterior Elevations

**Heird Ridge Assisted Living**

DRG Project No. 22063
Issue Date: 01/27/2023
Scale: 1/4" = 1'-0"
Sheet Number: <b>A-201</b>