TOWN OF INDIAN HEAD CHARLES COUNTY, MARYLAND

RIVERWATCH DRIVE PARKING LOT IMPROVEMENT

"I/We hereby certify that all clearing, grading, construction, vegetative stabilization and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance (*) at a Maryland Department of the Environment approved training program for the control of erosion and sediment before beginning the project. I hereby authorize the right to entry for periodic on-site evaluation by State of Maryland, Department of the Environment, Compliance Inspectors, Charles County Inspectors, and the representatives of the Charles Soil Conservation District." Owner/Developer Signature & Date: Printed Name and Title: NAM LATCHS TOWN MANAGER Telephone Number: 301 - 743 - 5511 X/D4 Address: 4195 TOOTH) HEAD HWY, TOOTHO MANAGER Printed name and Card Number (*) of on-site responsible personnel.

CONSULTANT CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2011 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL OR CURRENT REVISIONS THEREOF, AND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT RECLIFATIONS

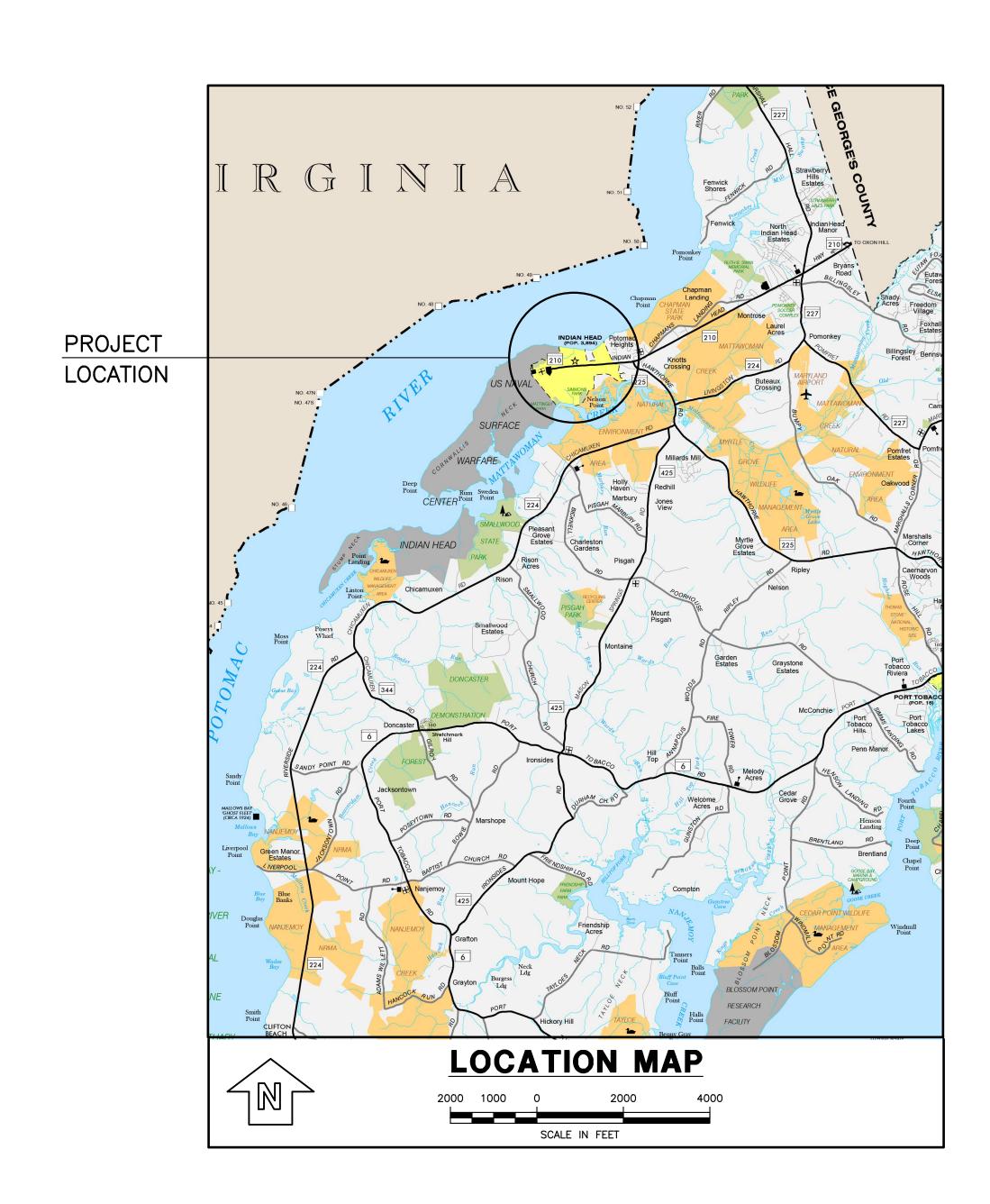
| MD P.E. LICENSE # <u>38561</u> |
|-----------------------------------|
| MD LAND SURVEYOR LICENSE # |
| MD LANDSCAPE ARCHITECT # |
| NAME <u>EDWARD J. VAN ARSDALE</u> |
| FIRM NAME ARRO CONSULTING, INC. |

STREET ADDRESS 108 W. AIRPORT RD, LITITZ, PA 17543





CALL "MISS UTILITY" AT
1-800-257-7777 FOR UTILITY
LOCATIONS AT LEAST 5 DAYS PRIOR TO
BEGINNING CONSTRUCTION.



DRAWING INDEX

2 OF 8 EXISTING CONDITIONS AND DEMOLITION PLAN

3 OF 8 PROPOSED SITE CONDITIONS PLAN

4 OF 8 PROPOSED GRADING AND UTILITY PLAN

5 OF 8 SITE DETAILS

TITLE SHEET

1 OF 8

6 OF 8 EROSION AND SEDIMENT CONTROL PLAN

7 OF 8 EROSION AND SEDIMENT CONTROL DETAILS

8 OF 8 EROSION AND SEDIMENT CONTROL NOTES AND CONSTRUCTION SEQUENCE

SITE ANALYSIS

<u>0.21</u> A. TOTAL AREA (AC.)

0.21 B. DISTURBED AREA (AC.)

146 C. VOLUME OF SPOIL BORROW MATERIAL (CU. YDS.)

____ D. OFF-SITE BORROW/WASTE AREA LOCATION

6 E. VOLUME OF EXCAVATION (CU. YDS.)

CHARLES SOIL CONSERVATION DISTRICT APPROVAL

SEDIMENT AND EROSION CONTROL PLAN APPROVAL NUMBER

SMALL POND APPROVAL FOR

SEDIMENT AND EROSION CONTROL PLAN APPROVAL AND SMALL POND APPROVAL (IF APPLICABLE) IS HEREBY GRANTED BY THE CHARLES SOIL CONSERVATION DISTRICT.

APPROVAL SIGNATURE / DATE

APPROVAL EXPIRATION DATE:

(REQUESTS EXCLUSIVELY FOR EXTENSION OF THE APPROVAL EXPIRATION DATE NOTED

(REQUESTS EXCLUSIVELY FOR EXTENSION OF THE APPROVAL EXPIRATION DATE NOTED ABOVE AND NOT INCLUDING ANY PLAN MODIFICATIONS TO THESE APPROVED PLAN SHEETS, MUST BE SUBMITTED TO THE CHARLES SOIL CONSERVATION DISTRICT IN WRITING. THE CHARLES SOIL CONSERVATION DISTRICT, AT ITS DISCRETION, MAY APPROVE THE EXPIRATION DATE EXTENSION TO THE APPROVED PLAN VIA SEPARATE APPROVAL LETTER.)

| | | | | | | | | | EDWARD J. VAN ARSDALE III, P.E. RELEASED BY | | |
|----|----------|------|----|------|----|---------------------------------|-----|------|---|-------------------------|------------|
| | | | | | | | | | DESIGN JER | CHECKED | 0,000 |
| | | | | | | | | | DRAWN JL | CHECKED | Boom |
| | | | | | 1 | ISSUED FOR CONSTRUCTION 5/22/25 | BLE | EJV | DATE DECEMBED 2024 | SURVEY DATE 10/11/202 | <u>2</u> 4 |
| NO | REVISION | DATE | BY | APP. | NO | REVISION DATE | BY | APP. | DECEMBER 2024 | FIELD BOOK LINEAR SURVE | rs |



SEAL
PROFESSIONAL CERTIFICATION
I, EDWARD J. VAN ARSDALE, III, P.E.
HEREBY CERTIFY THAT THESE
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APPROVED BY ME, AND THAT I AM A
DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE
STATE OF MARYLAND,
LICENSE NO. 38561
EXPIRATION DATE: 2026-03-01

CLIENT & PROJECT

TOWN OF INDIAN HEAD

4195 INDIAN HEAD HIGHWAY

INDIAN HEAD, MARYLAND 20640

RIVERWATCH DRIVE
PARKING LOT IMPROVEMENT
INDIAN HEAD, CHARLES COUNTY, MARYLAND



108 West Airport Road

Tel 717.569.7021

Lititz, Pennsylvania 17543

TITLE SHEET

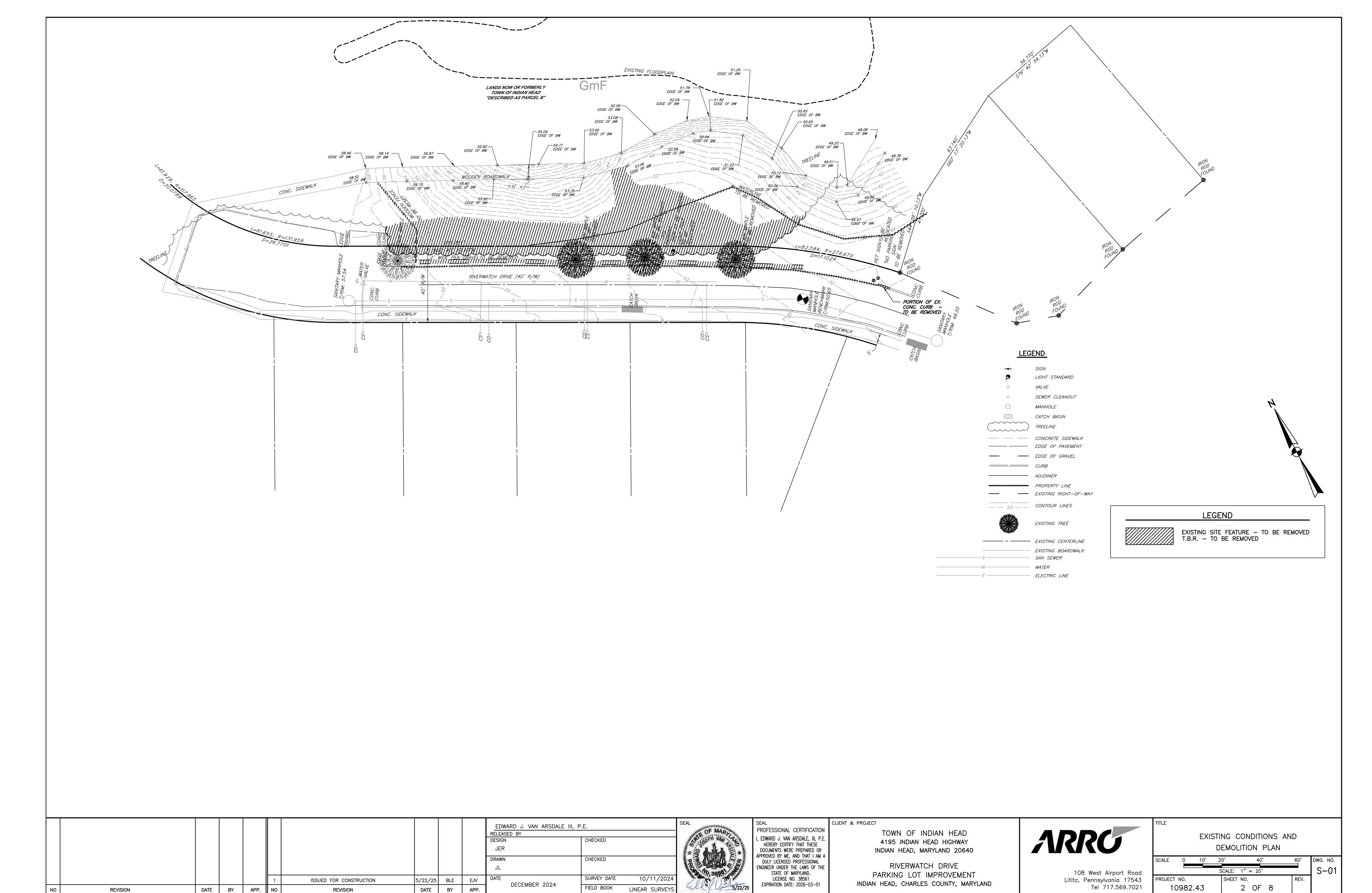
AS SHOWN

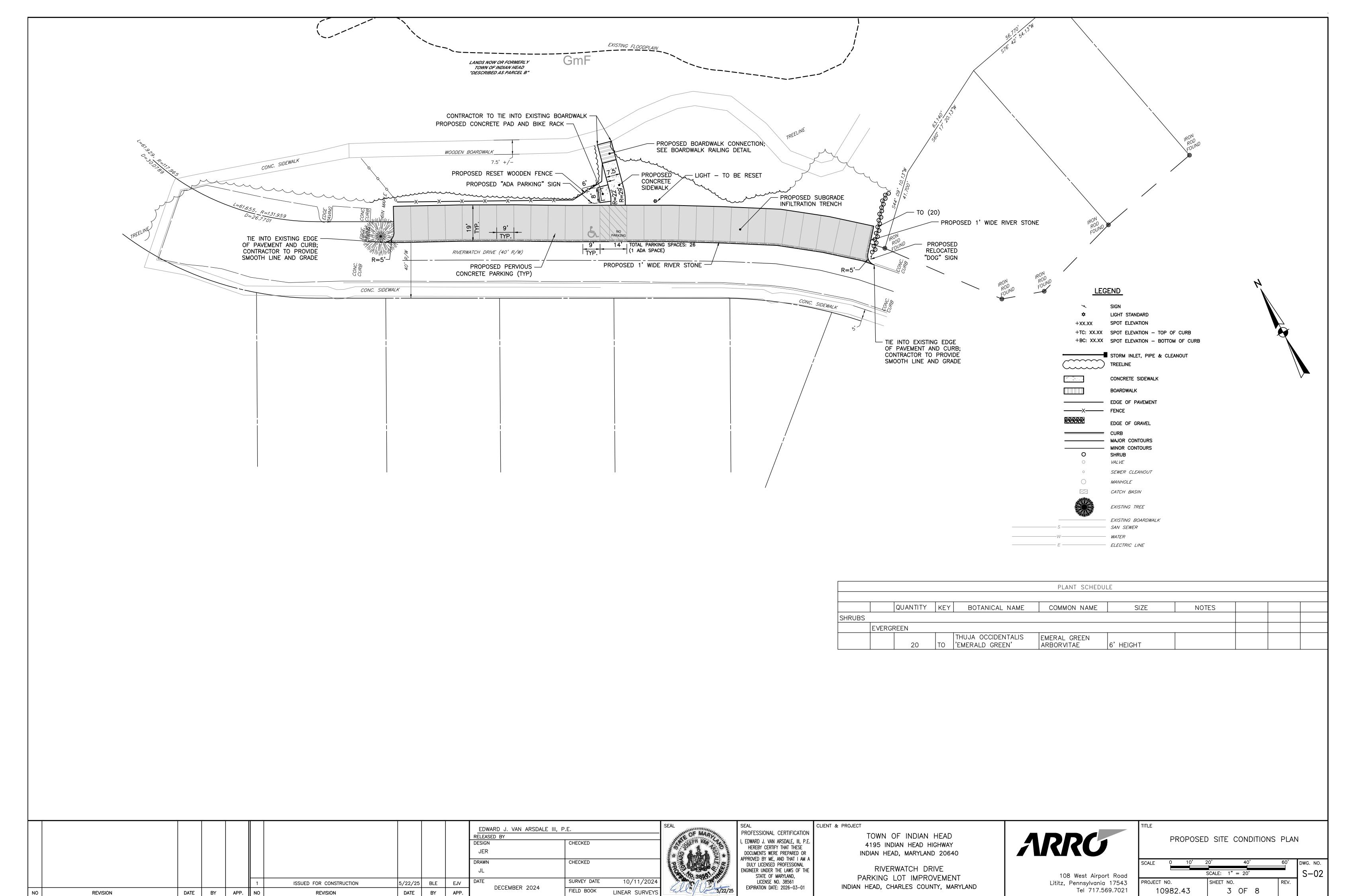
PROJECT NO.

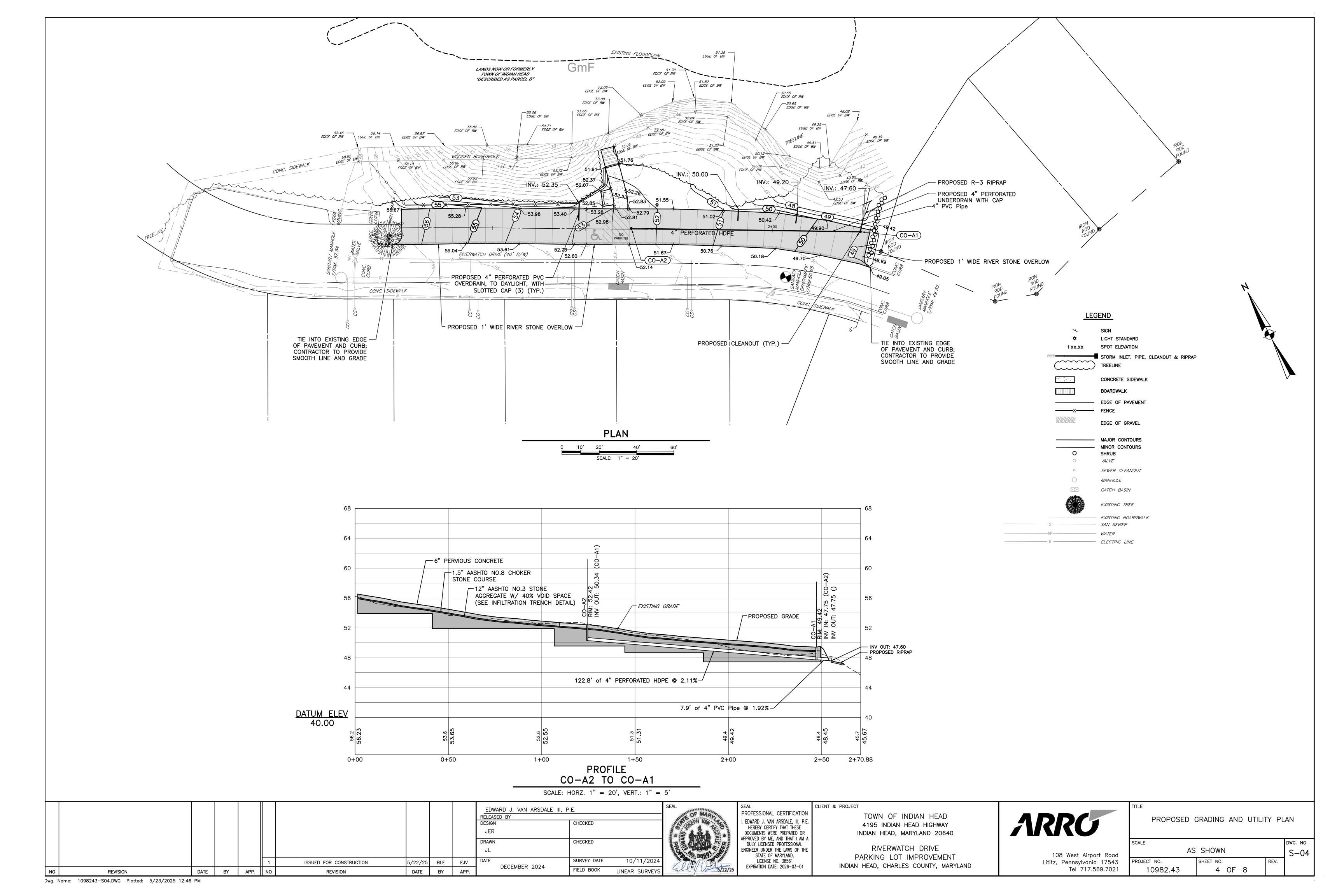
10982.43

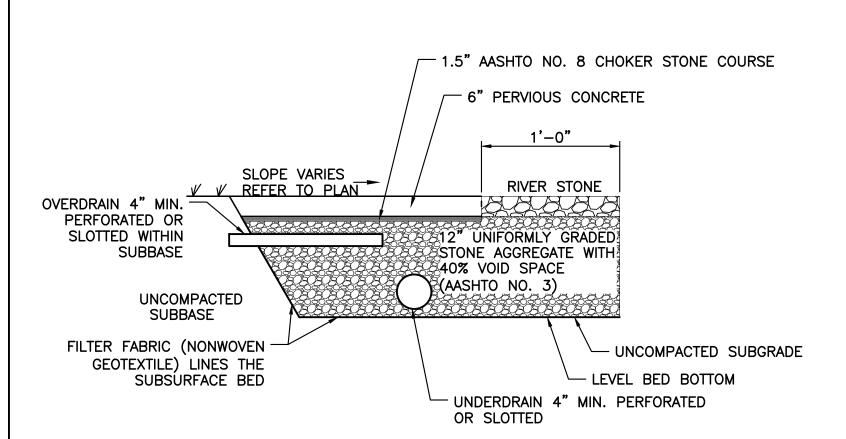
SHEET NO.

1 OF 8





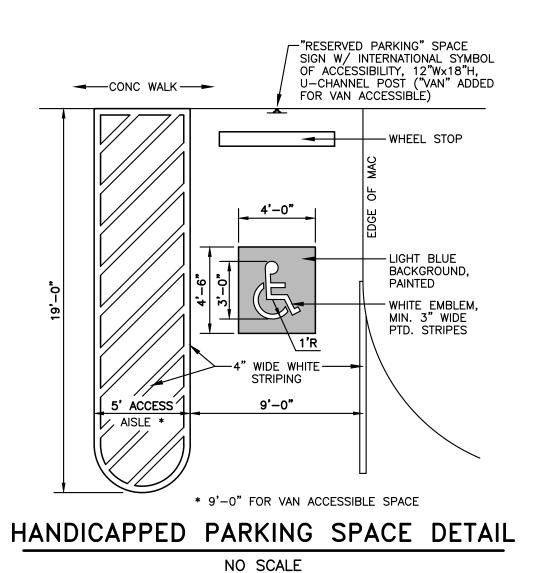


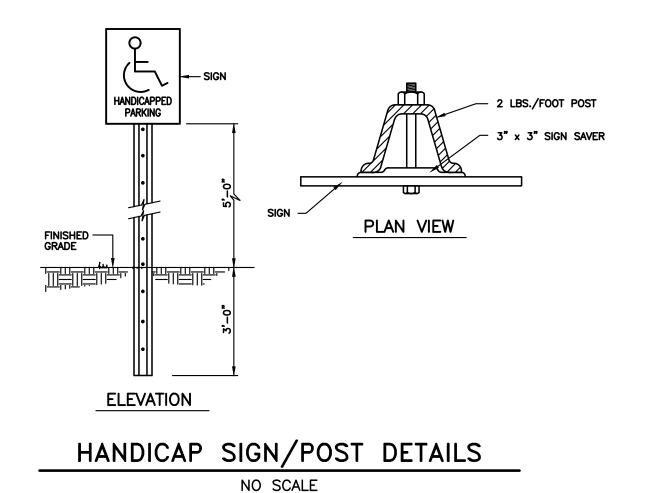


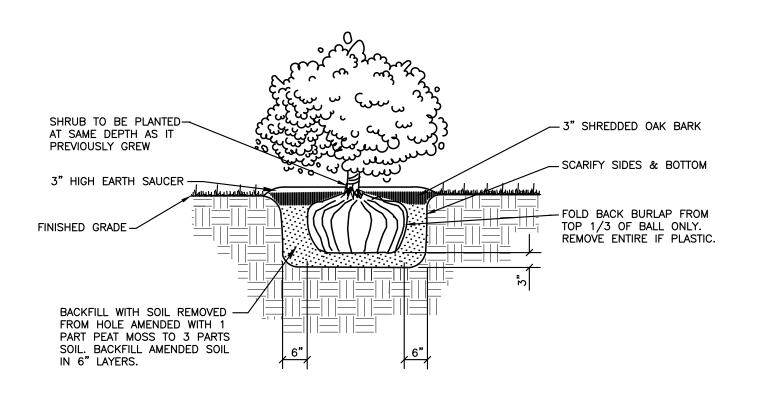
1. SEE SITE PLAN FOR LIMIT OF RIVER STONE 2. REFER TO SPECIAL PROVISION 902 PERVIOUS CONCRETE. 3. USE FILTER COURSE AS DIRECTED ELSEWHERE IN THE CONTRACT. 4. USE FILTER FABRIC AS DIRECTED ELSEWHERE IN THE CONTRACT. 5. USE LONGITUDINAL UNDERDRAIN AS DIRECTED ELSEWHERE IN THE CONTRACT. REFER TO STANDARD NOS. MD 387.11, 387.11-01, 387.12, 387.21, AND 387.21.01. 6. OR AS DIRECTED ON THE PLAN OR BY THE ENGINEER.

INFILTRATION TRENCH DETAIL

NO SCALE

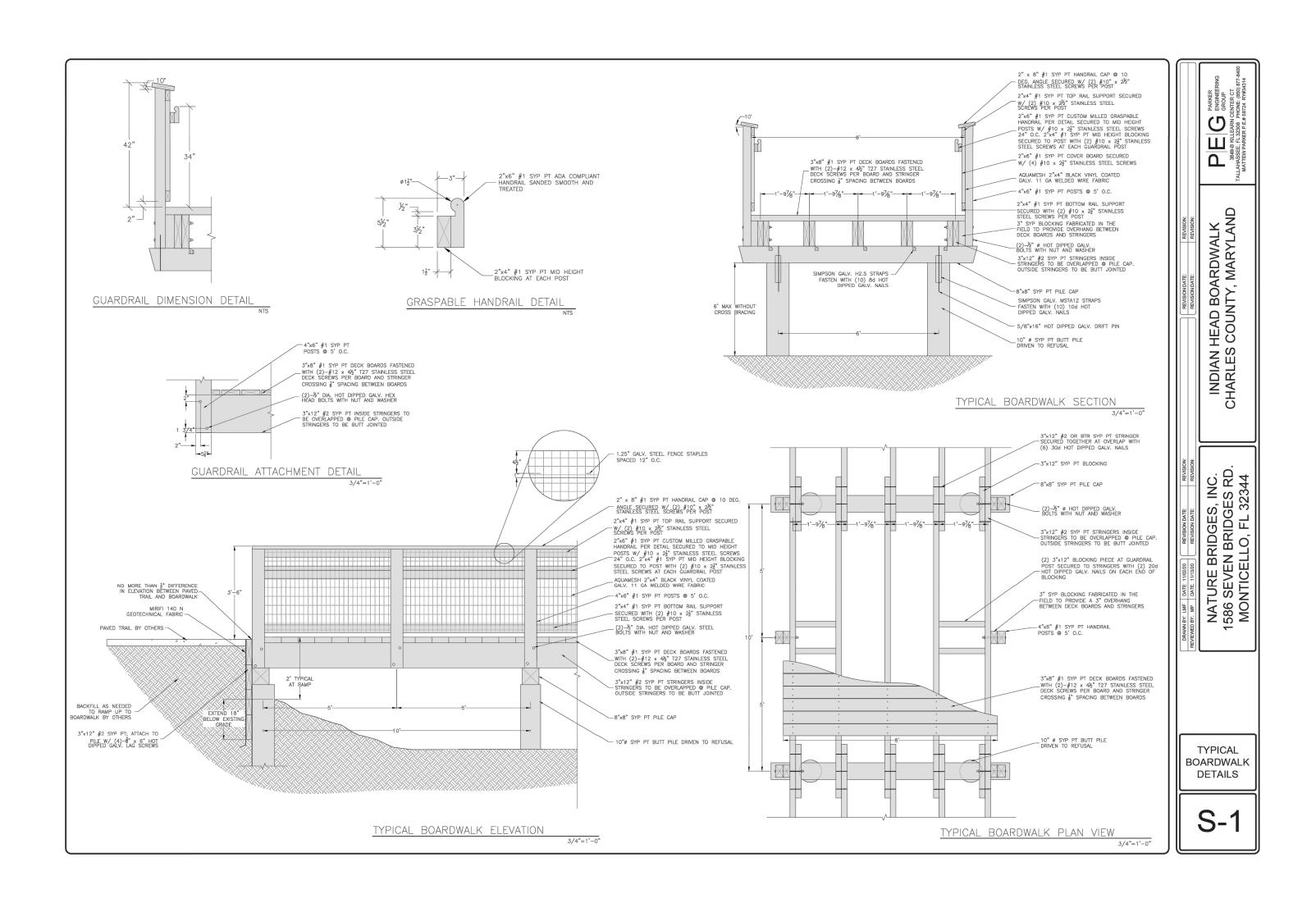


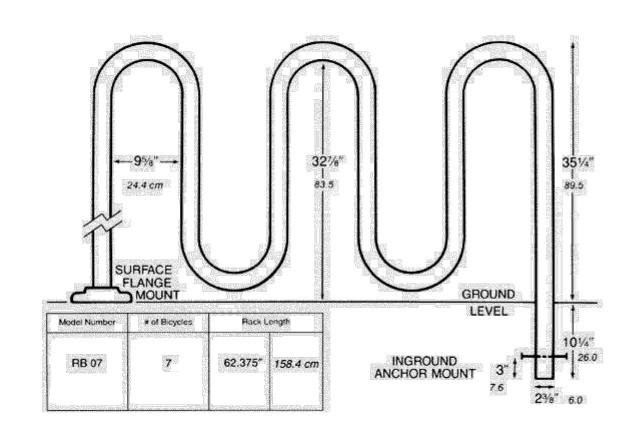




B & B SHRUB PLANTING DETAIL

NO SCALE





NOTE:
1. DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY.

BIKE RACK DETAIL

NO SCALE

| 5" MIN. GAB WEAKENED PLANE TRAVERSE JOINT S" VARIES – 5' MIN |
|--|
| ALL CONCRETE TO BE MSHA MIX NO. 3. ALL DISTURBED AREAS TO BE SEEDED OR SODDED. SIDEWALKS TO BE SCRIBED IN 5' MAXIMUM LENGTHS AND BRUSH FINISHED. EXPANSION JOINTS TO BE SPACED EVERY 15' AND BETWEEN CURB AND SIDEWALK WHERE ADJACENT. |
| CONCRETE SIDEWALK |
| NO SCALE |

1" EXPANSION JT. TO BE-SPACED 15'-0" MAX.

| | | | | | | | | | | EDWARD J. VAN ARSDALE III, | P.E. | SEAL |
|----|----------|------|----|------|----|-------------------------|---------|-----|------|----------------------------|--------------------------|--|
| | | | | | | | | | | DESIGN JER | CHECKED | People of the state of the stat |
| | | | | | | | | | | DRAWN JL | CHECKED | 330000000 |
| | | | | | 1 | ISSUED FOR CONSTRUCTION | 5/22/25 | BLE | EJV | DATE | SURVEY DATE 10/11/202 | 4 |
| NO | REVISION | DATE | BY | APP. | NO | REVISION | DATE | BY | APP. | DECEMBER 2024 | FIELD BOOK LINEAR SURVEY | 'S |



PROFESSIONAL CERTIFICATION EDWARD J. VAN ARSDALE, III, P.E HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38561 EXPIRATION DATE: 2026-03-01

CLIENT & PROJECT TOWN OF INDIAN HEAD 4195 INDIAN HEAD HIGHWAY INDIAN HEAD, MARYLAND 20640

RIVERWATCH DRIVE PARKING LOT IMPROVEMENT INDIAN HEAD, CHARLES COUNTY, MARYLAND



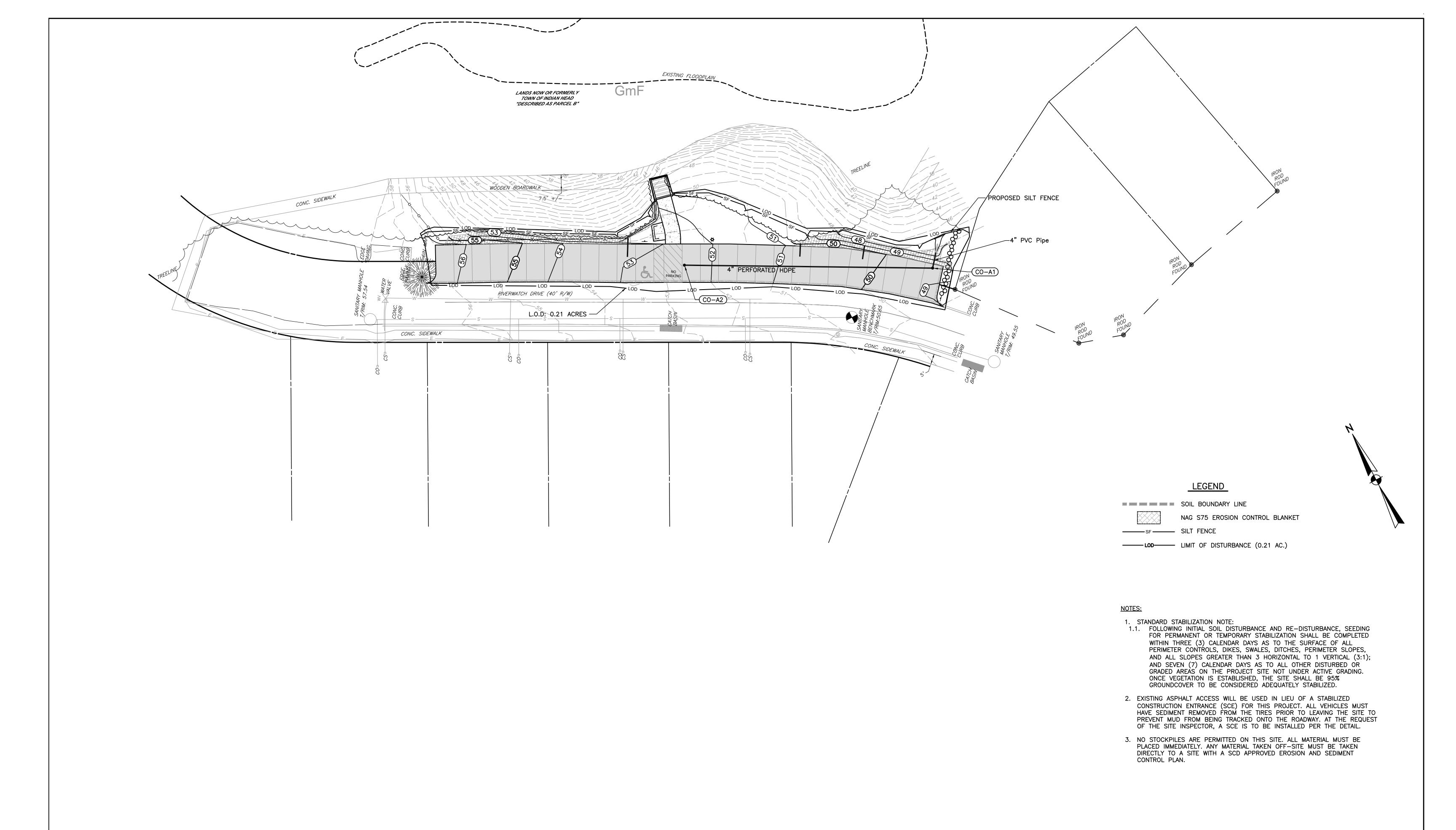
108 West Airport Road

Tel 717.569.7021

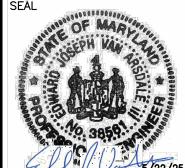
Lititz, Pennsylvania 17543

| SITE | DETA |
|------|------|
| | |

SCALE AS SHOWN D-02 PROJECT NO. SHEET NO. 10982.43 5 OF 8



| | | | | | | | | | | EDWARD J. VAN ARSDALE III, P.E. RELEASED BY | | |
|----|----------|------|----|------|----|-------------------------|---------|-----|------|---|---------------------------|-------|
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| | | | | | | | | | | DRAWN JL | CHECKED | - PAC |
| | | | | | 1 | ISSUED FOR CONSTRUCTION | 5/22/25 | BLE | EJV | DATE DECEMBED 2024 | SURVEY DATE 10/11/2024 | F 3 |
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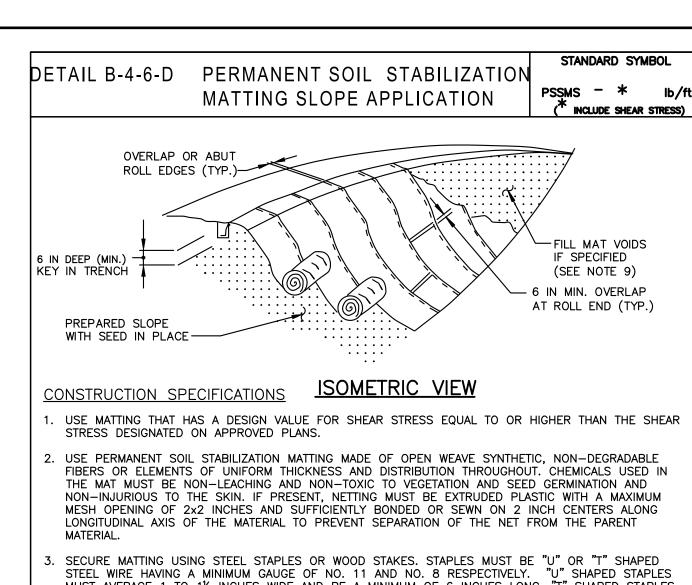
TOWN OF INDIAN HEAD
4195 INDIAN HEAD HIGHWAY
INDIAN HEAD, MARYLAND 20640

RIVERWATCH DRIVE
PARKING LOT IMPROVEMENT
INDIAN HEAD, CHARLES COUNTY, MARYLAND



EROSION AND SEDIMENT CONTROL PLAN

| | SCALE 0 | 10' | 20' | | 40' | 60 | , | DWG. NO. |
|----------------------------|------------|-------|------|------------|-----|----|------|----------|
| 108 West Airport Road | | | SCAL | .E: 1" = 2 | 20' | | | S-03 |
| Lititz, Pennsylvania 17543 | PROJECT NO | • | | SHEET NO. | | | REV. | |
| Tel 717.569.7021 | 1098 | 82.43 | | 6 | OF | 8 | | |



- MUST AVERAGE 1 TO 11/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH
- HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING

OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND

- . UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE.
- 5. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE
- . KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- 8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND
- 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS. 9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED. ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL
- 10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT

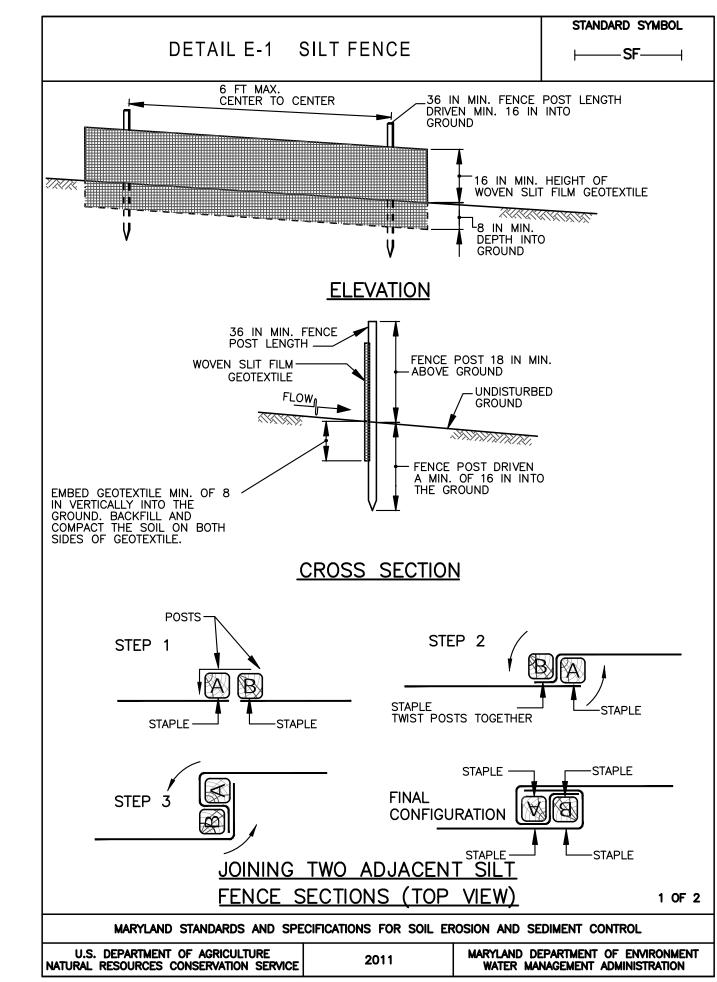
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

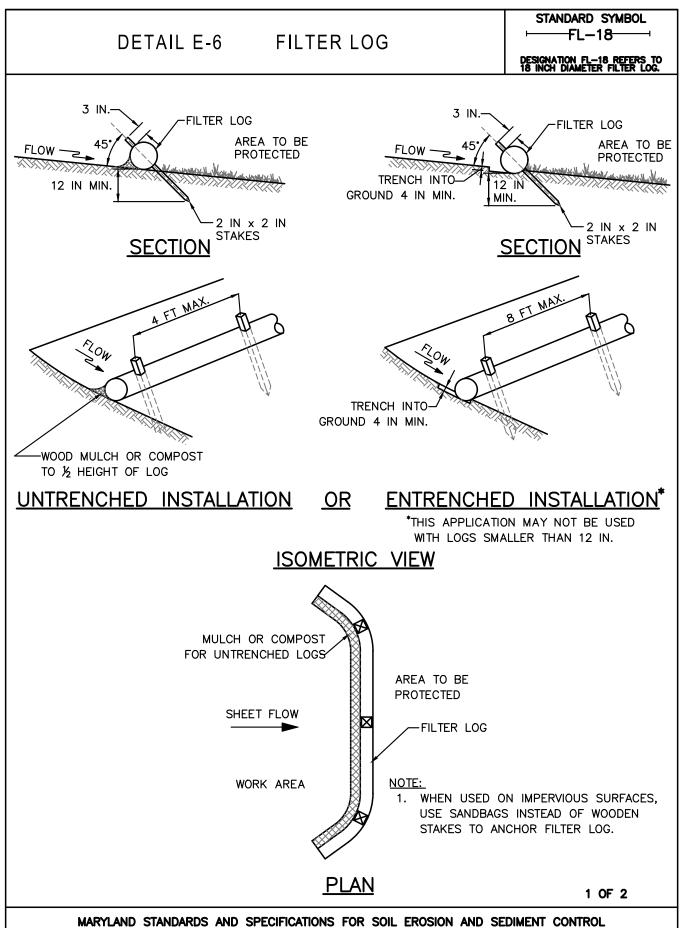
SEDIMENT CONTROL PLAN.

AVOID STRETCHING THE MATTING.

STANDARD STABILIZATION NOTE:

1. FOLLOWING INITIAL SOIL DISTURBANCE AND RE-DISTURBANCE, SEEDING FOR PERMANENT OF TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. ONCE VEGETATION IS ESTABLISHED, THE SITE SHALL BE 95% GROUNDCOVER TO BE CONSIDERED ADEQUATELY STABILIZED.





MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION



USE WOOD POSTS $1\frac{7}{4}$ X $1\frac{7}{4}$ \pm $\frac{7}{16}$ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.

. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6

- . USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE
- INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
- EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

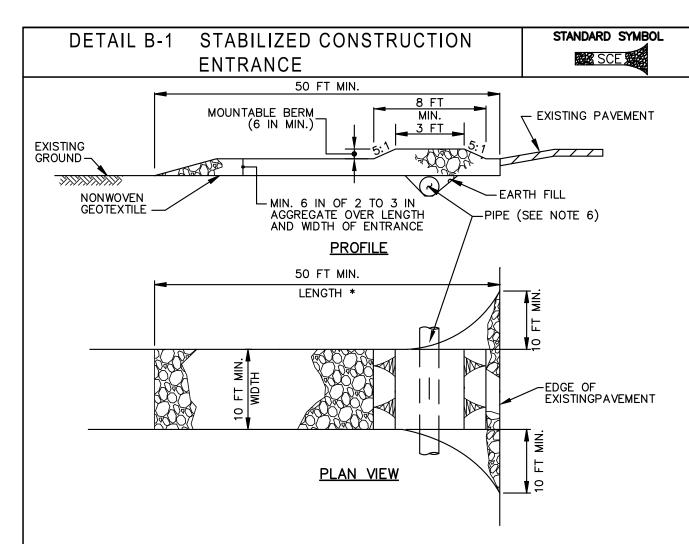
DETAIL E-6 FILTER LOG

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

<u>CONSTRUCTION SPECIFICATIONS</u>

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT ATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION



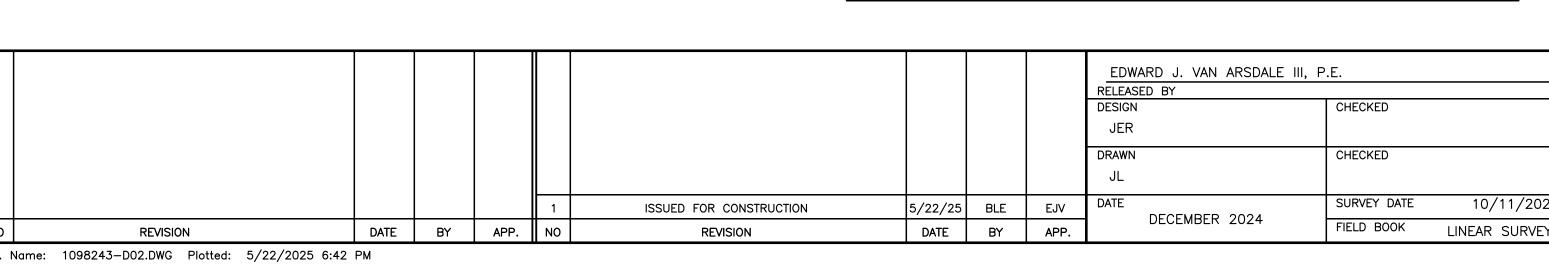
CONSTRUCTION SPECIFICATIONS

PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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



U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE



PROFESSIONAL CERTIFICATION EDWARD J. VAN ARSDALE, III, P.I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF TH STATE OF MARYLAND, LICENSE NO. 38561 EXPIRATION DATE: 2026-03-01

CLIENT & PROJECT

TOWN OF INDIAN HEAD 4195 INDIAN HEAD HIGHWAY INDIAN HEAD, MARYLAND 20640

RIVERWATCH DRIVE PARKING LOT IMPROVEMENT INDIAN HEAD, CHARLES COUNTY, MARYLAND

2 OF 2



EROSION AND SEDIMENT CONTROL

DETAILS

SCALE AS SHOWN 108 West Airport Road PROJECT NO. SHEET NO. Lititz, Pennsylvania 17543 10982.43 Tel 717.569.7021 7 OF 8

EROSION & SEDIMENTATION CONTROL NARRATIVE

A. GENERAL STATEMENT OF THE PROJECT

THE LIMIT OF DISTURBANCE ASSOCIATED WITH THE PROJECT IS 0.21 ACRES.

B. FEATURES OF THE PROJECT

1. THE LOCATIONS OF AFFECTED PROPERTY LINES, AND THE OTHER SIGNIFICANT PHYSICAL FEATURES HAVE BEEN SHOWN ON THE

C. NOTES FOR SEQUENCE OF CONSTRUCTION

ANTICIPATED START OF CONSTRUCTION - SUMMER 2025.

- 1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE OF STAGING OF EARTHMOVING ACTIVITIES. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH 2011 MARYLAND SPECIFICATION AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL BEFORE A SUBSEQUENT STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY THOSE AREAS DESCRIBED IN EACH STAGE.
- . BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHARLES SOIL CONSERVATION DISTRICT.
- 3. ALL MATERIAL ENTERING OR EXITING THE SITE MUST BE FROM AND TAKEN TO A LOCATION THAT HAS A CURRENT, APPROVED SOIL EROSION CONTROL PLAN. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIALS OR
- 4. EACH STEP IN THE CONSTRUCTION SEQUENCE SHALL BE COMPLETED BEFORE INITIATION OF THE NEXT STEP.
- 5. FAILURE TO CORRECTLY INSTALL SEDIMENT CONTROL FACILITIES OR FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE CORRECTIVE ACTIONS TO IMMEDIATELY RESOLVE FAILURES OF SEDIMENT CONTROL FACILITIES MAY RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE MARYLAND DEPARTMENT OF
- 6. EROSION AND SEDIMENT PRACTICES, AND SITE IN GENERAL, MUST BE INSPECTED WEEKLY AND AFTER EACH RAIN FALL EVENT, BY THE CONTRACTOR OR OTHER RESPONSIBLE PERSON, AND ANY NEEDED MAINTENANCE PERFORMED IMMEDIATELY.
- 7. SITE MUST BE GRADED IN SUCH A MANNER THAT THE APPROVED DRAINAGE DIVIDES ARE MAINTAINED THROUGHOUT SITE CONSTRUCTION.
- 8. SAME DAY STABILIZATION SHALL OCCUR IN AREAS WHERE SEDIMENT AND EROSION CONTROLS HAVE BEEN REMOVED.
- 9. EXISTING ASPHALT ACCESS WILL BE USED IN LIEU OF A STABILIZED CONSTRUCTION ENTRANCE (SCE) FOR THIS PROJECT. ALL VEHICLES MUST HAVE SEDIMENT REMOVED FROM THE TIRES PRIOR TO LEAVING THE SITE TO PREVENT MUD FROM BEING TRACKED ONTO THE ROADWAY. AT THE REQUEST OF THE SITE INSPECTOR, A SCE IS TO BE INSTALLED PER THE DETAIL.
- 10. NO STOCKPILES ARE PERMITTED ON THIS SITE. ALL MATERIAL MUST BE PLACED IMMEDIATELY. ANY MATERIAL TAKEN OFF—SITE MUST BE TAKEN DIRECTLY TO A SITE WITH A SCD APPROVED EROSION AND SEDIMENT CONTROL PLAN.

D. CONSTRUCTION SEQUENCE

- STANDARD STABILIZATION NOTE:
 1.1. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, SEEDING FOR PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. ONCE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUNDCOVER TO BE CONSIDERED ADEQUATELY STABILIZED
- 2. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES. THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED WITH THOSE ACTIVITIES, THE LAND OWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE PHONE NO.: 410-537-3510) TO AN ONSITE PRE-CONSTRUCTION MEETING, TIME TO COMPLETE: 1 DAY
- 3. CONTRACTOR/DEVELOPER MUST NOTIFY THE COMPLIANCE PROGRAM, WATER MANAGEMENT ADMINISTRATION, MARYLAND DEPARTMENT OF ENVIRONMENT, (410) 537 3510, 5 DAYS PRIOR TO COMMENCING WORK. TIME TO COMPLETE: 1 DAY
- 4. THE CONTRACTOR MUST MAINTAIN A SURPLUS OF FILTER SOCK [TO BE PLACED ON IMPERVIOUS SURFACES], SILT FENCE [TO BE PLACED ON NON-IMPERVIOUS SURFACES], STRAW BALES & STAKES, ORANGE CONSTRUCTION SAFETY FENCING, AND R-3 & AASHTO NO. 57 STONE [ROCK FILTER OUTLET]. REFER TO NOTE NUMBER 2 ON SHEET 6 ABOUT USE OF EXISTING ASPHALT ACCESS. TIME TO
- 5. THE APPROVAL OF THE SEDIMENT AND EROSION CONTROL INSPECTOR IS REQUIRED UPON INSTALLATION OF THE PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. TIME TO COMPLETE: 1
- 6. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE MUST BE COMPLETED BEFORE THE FOLLOWING STAGE IS INITIATED. TIME TO COMPLETE: 1 DAY
- 7. REFER TO NOTE NUMBER 2 ON SHEET 6 ABOUT USE OF EXISTING ASPHALT ACCESS. DESIGNATE THE AFOREMENTIONED AREA AS SUCH WITH SIGNAGE. REPAIR AND PATCH ALL DISTURBED IMPERVIOUS AREAS IMMEDIATELY. SEED AND STABILIZE ALL DISTURBED ALL NON—IMPERVIOUS AREAS IMMEDIATELY TO ACHIEVE A 70% UNIFORM VEGETATIVE COVER. TIME TO COMPLETE: 1 DAY
- 8. INSTALL ALL FILTER SOCK AND/OR SILT FENCE AS PER THE PLOT PLAN. ALL IMPERVIOUS SURFACES IMPACTED BY THE PROJECT SHALL MAINTAIN FILTER SOCK ON THE DOWN-SLOPE SIDE THE LIMIT OF DISTURBANCE. ALL NON-IMPERVIOUS SURFACES IMPACTED BY THE PROJECT SHALL MAINTAIN SILT FENCE ON THE DOWN-SLOPE SIDE THE LIMIT OF DISTURBANCE. REPAIR AND PATCH ALL DISTURBED IMPERVIOUS AREAS IMMEDIATELY. SEED AND STABILIZE ALL DISTURBED ALL NON-IMPERVIOUS AREAS IMMEDIATELY TO ACHIEVE A 70% UNIFORM VEGETATIVE COVER. TIME TO COMPLETE: 1 DAY
- 9. PRIOR TO THE START OF EACH WORKDAY, THE CONTRACTOR MUST REVIEW THE PREVIOUS DAY(S) ACTIVITIES TO ENSURE THAT ALL AREAS REMAIN STABILIZED. IF THE CONTRACTOR ENCOUNTERS AN AREA THAT IS NOT STABILIZED, THE CONTRACTOR IS PROHIBITED FROM STARTING ADDITIONAL WORK UNTIL "THAT" AREA HAS BEEN RE-STABILIZED. TIME TO COMPLETE: 1 DAY
- 10. CONTRACTOR SHALL PERFORM ALL GRADING OPERATIONS WHILE MINIMIZING COMPACTION TO THE INFILTRATION TRENCH. TIME TO COMPLETE: 2 DAYS
- 11. EXCAVATE TRENCH AND INSTALL PERIMETER SILT FENCE. PROCEED WITH INSTALLATION OF INFILTRATION TRENCH PER PLANS. INFILTRATION SURFACE SHALL BE SCARIFIED. TAKE APPROPRIATE MEASURES TO ENSURE NO SEDIMENT ENTERS THE INFILTRATION TRENCH DURING CONSTRUCTION. THIS INCLUDES COMPLETING THE TRENCH INSTALLATION WITHIN THE SAME DAY, OR COVERING WITH PLASTIC AT THE END OF THE WORK DAY. TIME TO COMPLETE: 2 DAYS
- 12. CONTINUE WITH INSTALLATION OF PAVED PARKING AREA. TIME TO COMPLETE: 1 DAY
- 13. COMPLETE THE REMAINING SITE IMPROVEMENT ON THE LAND DEVELOPMENT PLANS. TIME TO COMPLETE: 1 DAY
- 14. THE CONTRACTOR SHALL INSTALL THE WATER WHEN MAKING SURE THAT THE CONSTRUCTION ACTIVITY DOES NOT EXTEND OUTSIDE IE PERMITTING LIMIT OF DISTURBANCE. THIS WILL ENSURE THAT ANY WETLAND DISTURBANCES ARE KEPT TO A DIMINUTIVE AMOUNT.
- 15. SEDIMENT AND EROSION CONTROLS CANNOT BE REMOVED UNTIL THE SITE HAS ADEQUATE STABILIZATION. ONCE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUNDCOVER TO BE ADEQUATELY STABILIZED AND THE SEDIMENT CONTROL INSPECTOR

E. TEMPORARY CONTROL MEASURES

- COMPOST FILTER SOCK
- a. ALL MATERIAL TO MEET COMPOST FILTER SOCK SPECIFICATIONS.
- b. COMPOST FILTER SOCK TO MEET APPLICATION REQUIREMENTS.
- PERMANENT CONTROL MEASURES
- PERMANENT GRASS OR LEGUME COVER
- a. ALL DISTURBED AREAS, THAT ARE NOT TO BE PAVED OR STONED, SHALL BE COVERED WITH GRASS OR A LEGUME IN ORDER TO MINIMIZE EROSION. THE GRASS OR LEGUME SHALL AS NEARLY AS POSSIBLE MATCH THE GROUND COVER THAT EXISTED PRIOR TO CONSTRUCTION. SEED SHALL BE SELECTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

G. MAINTENANCE

- 1. ALL SEDIMENT AND EROSION CONTROL FACILITIES SHALL BE CHECKED FOR DAMAGE WEEKLY AND AFTER EACH STORM. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIRS, REPLACEMENT, REGARDING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED
- 2. ANY PERMANENT SEEDED AREAS THAT BECOME ERODED SHALL HAVE THE TOPSOIL REPLACED, THE GRASS RESOWN, AND MULCH REAPPLIED OR, AT THE DIRECTION OF THE OWNER, SOD MAY BE

H. GENERAL NOTES

CONSTRUCTION SITE

- 1. A COPY OF THIS EROSION AND SEDIMENTATION CONTROL REPORT AND PLANS MUST BE POSTED AT THE
- THE CONTRACTOR MUST DEVELOP, AND HAVE APPROVED BY THE CHARLES SOIL CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENTATION CONTROL PLAN FOR EACH SPOIL, BORROW, OR OTHER WORK AREA NOT DETAILED IN THE PERMIT PLAN. WHETHER LOCATED WITHIN OR OUTSIDE OF THE CONSTRUCTION
- 3. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE ALL SUCH
- 4. IF ANY SIGNIFICANT CHANGES ARE TO BE MADE TO THE EROSION AND SEDIMENTATION CONTROL PLAN, THE CONTRACTOR WILL CONTACT THE CHARLES SOIL CONSERVATION DISTRICT.
- 5. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE STATE.
- SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
- 7. AS AN ALTERNATIVE TO SEEDING DURING NON-GERMINATION PERIODS (BETWEEN OCT. 15 -APRIL 1), SILT FENCING AND/OR GEOTEXTILE MATTING SHALL BE USED WITH MULCHING TO STABILIZE SLOPES.
- AFTER COMPLETION OF CONSTRUCTION, AND PERMANENT STABILIZATION WHEREUPON THERE IS UNIFORM COVERAGE OF 70% VEGETATIVE COVER ACROSS THE DISTURBED AREA IN GRASSED AREAS, OR WHERE THERE IS COMPACTED STONE OR PAVING IN STREETS, REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES. RESTORE AREAS IN WHICH THESE DEVICES WERE LOCATED TO THE ORIGINAL CONDITION CALLED FOR BY THE CONTRACT DOCUMENTS.
- 9. THE CONTRACTOR SHALL NOTIFY CHARLES SOIL CONSERVATION DISTRICT AND OBTAIN APPROVAL FOR EXCESS MATERIAL OFF-SITE DISPOSAL.
- 10. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE
- 11. AT THE END OF EACH WORKING DAY, ANY SEDIMENT TRACKED OR CONVEYED ONTO A PUBLIC ROADWAY OR DRIVEWAYS WILL BE REMOVED AND REDEPOSITED ONTO THE CONSTRUCTION SITE. REMOVAL CAN BE COMPLETED THROUGH THE USE OF MECHANICAL OR HAND TOOLS, BUT MUST NEVER BE WASHED OFF
- 12. UPON COMPLETION OF EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY. THE DPERATOR SHALL STABILIZE IMMEDIATELY THE DISTURBED AREAS TO PROTECT FROM ACCELERATED ROSION. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT ALL FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS. WHICH EITHER ARE AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE YEAR. MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.
- 18. DIVERSION CHANNELS, SEDIMENTATION BASINS, SEDIMENT RAPS, AND STOCKPILES MUST BE STABILIZED. 19. UNTIL THE SITE HAS ACHIEVED FINAL STABILIZATION, THE CONTRACTOR SHALL PROPERLY IMPLEMENT, OPERATE, AND MAINTAIN ALL THE BEST MANAGEMENT PRACTICES. MAINTENANCE SHALL INCLUDE

INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A

WEEKLY BASIS. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR

- REPLACEMENT, REGARDING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY 20. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS
- SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENT. 21. INSTALL FENCE WHERE SHOWN ON PLANS AND AS NOTED IN DETAIL ON THIS DRAWING BEFORE ANY EXCAVATION IS PERFORMED.
- 22. OTHER EXCAVATED MATERIAL (SPOIL) SHALL BE PLACED UPSLOPE FROM THE EXCAVATION WHENEVER POSSIBLE RUNOFF FROM SPOIL PILES SHALL BE DIRECTED THROUGH A SILT FENCE AND BE DISCHARGED
- 23. DEWATERING EQUIPMENT DISCHARGE SHALL BE DIRECTED ONTO A STABILIZED SURFACE SO THAT EROSION DOES NOT OCCUR. DISCHARGES SHALL BE DIRECTED THROUGH A SEDIMENT FILTER STRUCTURE AND
- DISCHARGED IN NON-EROSIVE MANNER. 24. BACKFILLED EXCAVATION SHALL BE RESTORED TO THEIR ORIGINAL TYPE OF COVER AND GRADE AS PER SPECIFICATIONS. TEMPORARY STABILIZATION IS REQUIRED FOR ANY AND ALL ERODIBLE/SOLUBLE AREAS

AND MATERIALS EXPOSED. FINAL GRADING, PAVING, SEEDING, AND ANY OTHER GROUND STABILIZATION

- 25. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN. DITCH. OR WATER COURSE THROUGH USE OF A SEDIMENT FILTER STRUCTURE. SEDIMENT SPILLED DROPPED, OR TRACKED ONTO PAVED SURFACES SHALL BE REMOVED IMMEDIATELY.
- 26. SOIL TYPES AND LOCATION ARE DELINEATED BASED ON THE NRCS ONLINE WEB SOIL SURVEY.
- 27. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF CONTROLS MUST BE
- 28. SEDIMENT REMOVED FROM EROSION AND SEDIMENTATION CONTROLS AND FACILITIES SHALL BE DISPOSED OF IN A LANDSCAPED AREA OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.

I. SOILS / RECEIVING STREAM / GEOLOGY

SHALL BE COMPLETED.

- THE USDA-SCS (UNITED STATES DEPARTMENT OF AGRICULTURE UNITED STATES SOIL CONSERVATION SERVICE), WEB SOIL SURVEY (HTTP://WEBSOILSURVEY.NRCS.USDA.GOV) DEFINES THE PROJECT SITE SOILS AS FOLLOWS:
- GmF GROSSTOWN-MAR-HOGHOLE COMPLEX, 15 TO 40 PERCENT SLOPES

J. SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

STANDARD STABILIZATION NOTE: FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, SEEDING FOR PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES. AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7 CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. ONCE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUNDCOVER TO CONSIDERED ADEQUATELY STABILIZED.

PERMANENT SEEDING:

- 1.1. SOIL TESTS: <u>LIME AND FERTILIZER WILL BE APPLIED PER SOIL TESTS RESULTS FOR SITES GREATER THAN 5 ACRES.</u> SOILS TESTS WILL BE DONE AT COMPLETION OF INITIAL ROUGH GRADING OR AS RECOMMENDED BY THE SEDIMENT CONTROL INSPECTOR. RATES AND ANALYSES WILL BE PROVIDED TO THE GRADING INSPECTOR AS WELL AS THE CONTRACTOR THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
- 1.1.1. SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
- 1.1.2. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
- THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL (>30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTIÓN IS IF LOVEGRASS OR SERECIA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (<30% SILT PLUS CLAY) WOULD BE ACCEPTABLE
- 1.1.4. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
- 1.1.5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
- IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION B-4-2 TITLED STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOIL, AND SOIL AMENDMENTS AS FOUND IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- 1.2. SEEDBED PREPARATION: AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3 TO 5 INCHES. THE TOP LAYER SHALL BE LOOSENED BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING OCCURS. FOR SITES LESS THAN 5 ACRES. APPLY 100 POUNDS DOLOMITIC LIMESTONE, HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDRO SEEDING, AND 10 POUNDS OF 10-20-20 FERTILIZER PER 1.000 SQUARE FEET. HARROW OR DISK LIME AND FERTILIZER INTO THE SOIL A DEPTH OF AT LEAST 3 TO 5 INCHES ON SLOPES FLATTER THAN 3:1.
- SEEDING: APPLY 5-6 POUNDS PER 1,000 SQUARE FEET OF TALL FESCUE BETWEEN FEBRUARY 15 AND APRIL 30 OR BETWEEN AUGUST 15 AND OCTOBER 31. APPLY SEED UNIFORMLY ON A MOIST FIRM SEEDBED WITH A CYCLONE SEEDED, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEEDS AND FERTILIZER, RECOMMENDED ON STEEP SLOPES ONLY). MAXIMUM SEED DEPTH SHOULD 1/4 INCH IN CLAYEY SOILS AND 1/2 INCH IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. <u>IRRIGATE WHERE NECESSARY TO SUPPORT ADEQUATE GROWTH UNTIL VEGETATION IS FIRMLY ESTABLISHED</u>. IF OTHER SEED MIXES ARE TO BE USED, SAID SELECTIONS MUST MEET THE 2011 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 1.4. MULCHING: MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING AS PER SECTION B-43- ENTITLED STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING AS FOUND IN THE 2011 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. DURING THE TIME PERIODS WHEN SEEDING IS NOT PERMITTED, MULCH SHALL BE APPLIED IMMEDIATELY AFTER GRADING AND MAINTAINED UNTIL SEEDING CAN BE
- MULCH SHALL BE UNROTTED, UNCHOPPED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OR 90 TONS PER 1,000 SQUARE FEET (2 BALES). IF A MULCHING-ANCHORING TOOL IS USED, APPLY 2.5 TONS PER ACRE. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2 INCHES.

1.5. SECURING STRAW MULCH: <u>STRAW MULCH SHALL BE SECURED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE MOVEMENT BY WIND OR WATER.</u> THE FOLLOWING ARE PERMITTED:

- USE A MULCH-ANCHORING TOOL WHICH IS DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE TO A MINIMUM DEPTH OF 2 INCHES. THIS IS THE MOST EFFECTIVE METHOD FOR SECURING MULCH, HOWEVER, IT IS LIMITED TO RELATIVELY FLAT AREAS WHERE EQUIPMENT CAN OPERATE SAFELY. IF A MULCH-ANCHORING TOOL IS USED, APPLY 2.5 TONS PER ACRE.
- WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. IF MIXED WITH WATER, USE 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- 1.5.3. LIGHTWEIGHT PLASTIC NETTING MAY BE USED TO SECURE MULCH. THE NETTING WILL BE STAPLED TO THE GROUND ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- 1.6. IRRIGATION: IN THE ABSENCE OF ADEQUATE RAINFALL, IRRIGATION SHOULD BE PERFORMED TO ENSURE ADEQUATE VEGETATIVE ESTABLISHMENT.
- TEMPORARY SEEDING:
- 2.1. LIME: 100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET. 2.2. FERTILIZER: 10 POUNDS OF 10-20-20 PER 1,000 SQUARE FEET.
- 2.3. SEED: 2.3.1. ANNUAL RYEGRASS - 1 POUND PER 1,000 SQUARE FEET (FEBRUARY 15 THROUGH APRIL 30 OR AUGUST 15 THROUGH NOVEMBER 30)

2.3.2. MILLET - 1 POUND PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15)

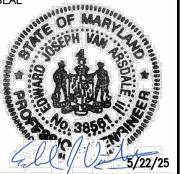
- 2.4. MULCH: SAME AS 1.4 AND 1.5 ABOVE
- 3. NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL TO BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS, EACH LAYER HAVING A LOOSE THICKNESS OF NOT MORE THAN 8 INCHES. ALL FILL IN ROADWAYS AND PARKING AREAS ARE TO BE CLASSIFIED AS PER CHARLES COUNTY REQUIREMENTS. ANY FILL WITHIN THE BUILDING AREA IS TO BE COMPACTED TO A MINIMUM OF 95% DENSITY. FILLS FOR POND EMBANKMENTS SHALL BE COMPACTED AS PER MD-378 CONSTRUCTION SPECIFICATIONS. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVENT EROSION AND SLIPPAGE.

4. PERMANENT SOD:

- 4.1. INSTALLATION OF SOD SHOULD FOLLOW PERMANENT SEEDING DATES. SEEDBED PREPARATION FOR SOD SHALL BE AS NOTED IN SECTION (1.2) ABOVE. PERMANENT SOD IS TO BE TALL FESCUE, STATE APPROVED, SOD; LIME AND FERTILIZER PER PERMANENT SEEDING SPECIFICATIONS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY ABUTTING. JOINTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO BE INSURE POSITIVE ROOT CONTACT WITH THE SOIL. ALL SLOPES STEEPER THAN 3:1, AS SHOWN, ARE TO BE PERMANENTLY SODDED OR PROTECTED WITH AN APPROVED EROSION CONTROL NETTING. ADDITIONAL WATERING FOR ESTABLISHMENT MAY BE REQUIRED. SOD IS NOT TO BE INSTALLED ON FROZEN GROUND. SOD SHALL NOT BE TRANSPLANTED WHEN MOISTURE CONTENT (DRY OR WET) AND/OR EXTREME TEMPERATURE MAY ADVERSELY AFFECT ITS SURVIVAL. IN THE ABSENCE OF ADEQUATE RAINFALL, IRRIGATION SHOULD BE PERFORMED TO ENSURE ESTABLISHMENT OF SOD.
- MINING OPERATIONS:
 - SEDIMENT CONTROL PLANS FOR MINING OPERATIONS MUCH INCLUDE THE FOLLOWING SEEDING DATES AND MIXTURES:
- FOR SEEDING DATES OF FEBRUARY 1 THROUGH APRIL 30 AND AUGUST 15 THROUGH OCTOBER 31, USE SEED MIXTURE OF FALL FESCUE AT THE RATE OF 2 POUNDS PER 1,000 SQUARE FEET AND SERICEA LESPEDEZA AT THE MINIMUM RATE OF 0.5 POUNDS
- 6. TOPSOIL SHALL BE APPLIED AS PER THE STANDARD AND SPECIFICATIONS FOR TOPSOIL FROM THE CURRENT 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT

NOTE: USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

| | | | | | | | | | | EDWARD J. VAN ARSDALE III, P | | |
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| | | | | | | | | | | DESIGN | CHECKED | |
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| | | | | | 1 | ISSUED FOR CONSTRUCTION | 5/22/25 | BLE | EJV | DATE DECEMBER 2024 | SURVEY DATE | 10/11/2024 |
| 0 | REVISION | DATE | BY | APP. | NO | REVISION | DATE | BY | APP. | DECEMBER 2024 | FIELD BOOK | LINEAR SURVEYS |
| , | Name: 1098243-D02 DWG Plotted: 5/22/2025 6:42 | PM | | | | | | • | • | | | |



PROFESSIONAL CERTIFICATION EDWARD J. VAN ARSDALE, III, P.I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF TH STATE OF MARYLAND, LICENSE NO. 38561 EXPIRATION DATE: 2026-03-01

CLIENT & PROJECT

TOWN OF INDIAN HEAD 4195 INDIAN HEAD HIGHWAY INDIAN HEAD, MARYLAND 20640

RIVERWATCH DRIVE

PARKING LOT IMPROVEMENT

INDIAN HEAD, CHARLES COUNTY, MARYLAND

108 West Airport Road

Tel 717.569.7021

Lititz, Pennsylvania 17543

SCALE

EROSION AND SEDIMENT CONTROL NOTES AND CONSTRUCTION SEQUENCE

AS SHOWN PROJECT NO. SHEET NO. 10982.43 8 OF