

**PLAN NOTES:**

- The subject site is substantially depicted on Town of Richmond, Rhode Island Tax Assessor's Map 4C as Parcel 25-1.
- The subject site is zoned "Industrial" per Town of Richmond, Rhode Island Geographic Information System (GIS), dated 07-09-2021. Use of and/or reliance upon this zoning designation shall be at the user's sole risk and is subject to verification of current zoning status by the Town of Richmond, Rhode Island.
- Stone Walls. The line of any stone wall(s) depicted hereon may vary slightly from the geometric centerline represented hereon. While reasonable efforts have been made to monument and/or delineate the centerline of said wall(s), these minor variations are typical of wall construction in the locale.
- Associated Locations. The geometric points and/or monumentation associated with the boundary(s) of the subject site represented hereon are consistent with the CLASS of Survey specified in the surveyor's statement. The location of all other associated site features as may be depicted hereon, are consistent with either a CLASS III or CLASS IV Standard of Survey, unless expressly stated to the contrary.
- Water Boundaries. As may be applicable, the subject site may contain natural or man-made water boundaries which are subject to change due to natural or artificial causes and may or may not represent the actual location of the limits of title.
- Building Locations. As may be applicable, building depicted hereon have been located at the foundation corners or structure face, unless expressly stated to the contrary. Building overhangs and/or protrusions at elevation above the foundation are NOT necessarily depicted.
- Utility Locations. Utility lines and locations that are visible and apparent have been depicted hereon. The existence of any underground utilities, and the location of those utilities, have been estimated from associated surface features and/or recollections of knowledgeable parties, unless expressly stated hereon. The use of and reliance upon these utility locations shall be at the user's sole risk and shall be subject to verification of the actual location by the appropriate regulatory agency. Said verification to be at the direction and expense of the end user of this data.
- Reference Documentation:
  - "Town of Richmond, Richmond, Rhode Island, Map of Land Located in the Town of Richmond, Washington County, State of Rhode Island, Revised: Dec. 23 70, Village Green Associates, Inc."
  - "Survey Prepared For Eastern Investments Concepts, 600 Reservoir Avenue, Cranston, Rhode Island, Prepared By Ocean State Planners, Revised: June 01, 1987";
  - "Wilcox Administrative Subdivision For Owners: Wilcox Excavation Development, LLC, AP 4C Lots 25 & 31, Richmond, Rhode Island, N. Veltri Survey, Inc., Revised: 11-17-20";
  - "Existing/Proposed Sheet, Plan To Accompany Development Plan Review, Prepared For Michael A. and Kathryn E. Colasante, Assessor's Plat 4C Parcel 25-1, 71 Buttonwoods road, Richmond, Rhode Island, Scale: 1"=20', September 8, 2021, Sheet 1 of 3, Alfred W. DiOrto, RLS, Inc., Hopkinton, Rhode Island".
- Regulated Coastal and/or Freshwater Wetland Features. Unless expressly stated to the contrary, there may be regulated coastal and/or freshwater wetland features on, or in proximity to, the subject site. The end user of this mapping product shall be responsible for the identification, location, and protection of these features, together with procuring any and all necessary permits and approvals that may be required.
- Professional Services Agreement. Reference is hereby made to the Professional Service Agreement for the services identified hereon, together with all specifications, limitations, and conditions contained therein, and dated 06-17-2021.
- Basis for Bearings and Elevations. Where depicted, these values are based upon the Rhode Island State Plane Coordinate System (currently NAD 83 and NAVD88 respectively) as determined by data transmitted from SmartNet reference stations using the SmartNet RTK Reference Network via Leica GS14 GPS receiver, together with site observations made on the date(s) cited hereon.
- Flood Zone Data. Based solely upon graphic analysis, the subject site's structures appear to fall in a ZONE X per FEMA Flood Insurance Rate Map (FIRM), Map Number 4409C0063I, Map Effective: 4/3/2020, as obtained from online sources as of 07-09-2021.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:  
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

**SURVEYOR'S DECLARATION**

This plan, and underlying survey product, was prepared for the exclusive use of the person, persons, or entity named in this Declaration. Said Declaration does not extend to any unnamed person, persons, or entity without an express Re-Declaration by the Surveyor of Record naming said person, persons, or entity.

To Michael A. and Kathryn E. Colasante, it is hereby declared that this survey has been conducted and this plan has been prepared pursuant to 435-RICR-00-00-1.9 of the Rules and Regulations adopted by the Rhode Island State Board of Registration for Professional Land Surveyors on November 25, 2015, as follows:

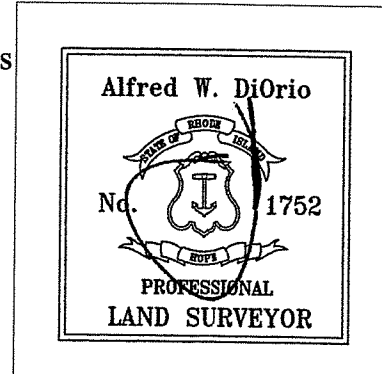
The TYPE of survey is Limited Content Boundary Survey with field observations performed in accordance with the horizontal measurement specification of CLASS I.

In addition, associated mapping elements are identified as a Data Accumulation Survey with field observations performed in accordance with the horizontal measurement specification of CLASS III.

In addition, any topographic elements depicted hereon have been performed in accordance with the vertical measurement specification of T-2.

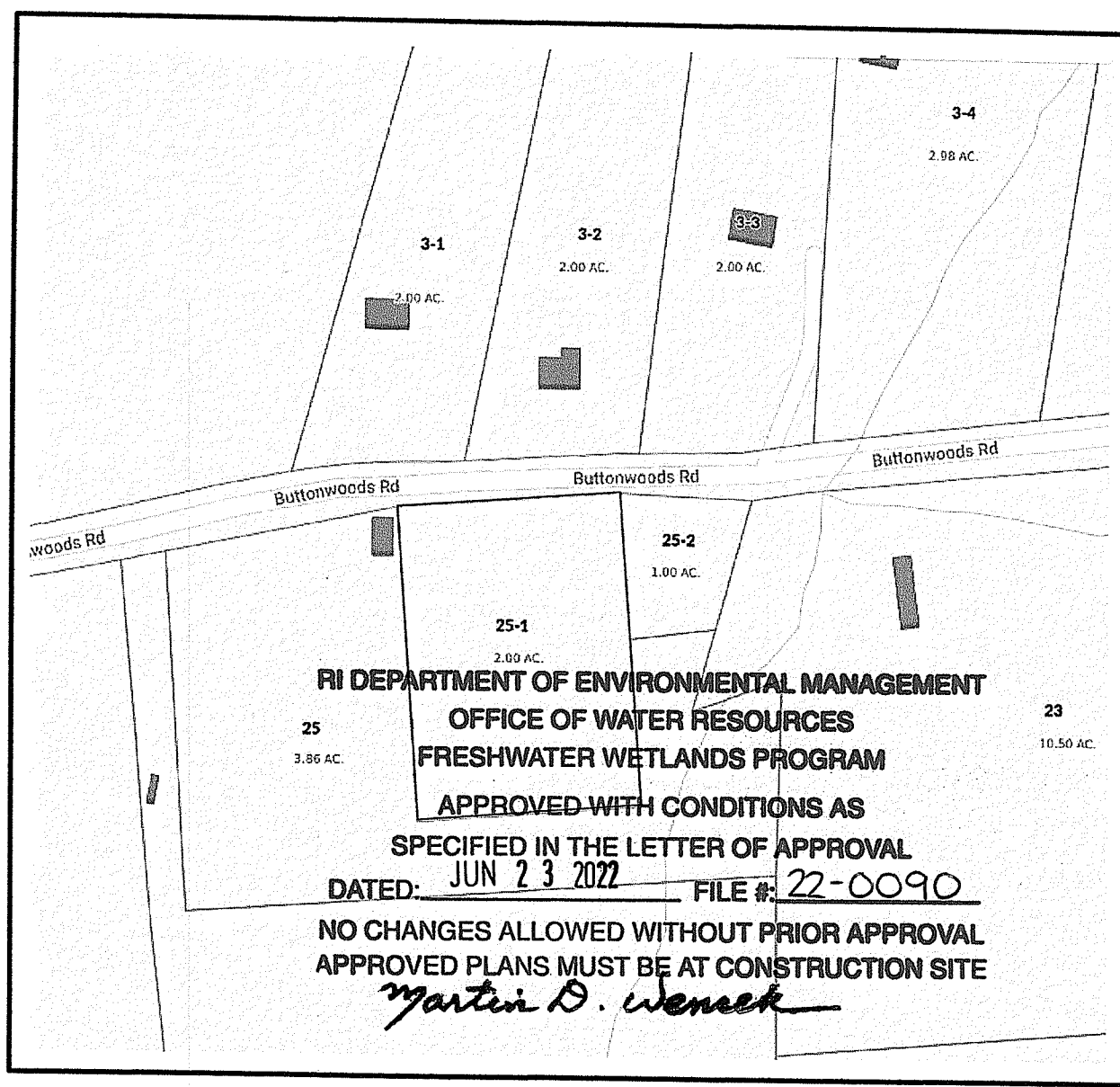
Further, the information depicted hereon was obtained (a) from field observations made on the site between May 2021 and May 2022, (b) that these field observations were subsequently reduced and computations performed that resulted in the (typically) indirect geometric information depicted hereon, (c) that the client has not requested that any additional monumentation be placed as a result of this survey; (d) that the purpose of the conduct of the survey and for the preparation of the plan was solely to support a submission for Wetland permitting to the RI Department of Environmental Management, and (e) that this information is correct to the best of my knowledge and belief and is subject to all limitation, notations, and qualification stated hereon.

Alfred W. DiOrto, RLS, CYESC, [RI PLS #1752]  
Principal Surveyor and President, Alfred W. DiOrto, RLS, Inc.  
RI Certificate of Authorization No. A37



PDF VERSIONS NOT EMBOSSED

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Location Map - Schematic Representation Only  
May Not Be To Scale

**LEGEND**

P	Referenced Plan Measurement	Set	Survey Monumentation Placed by Alfred W. DiOrto, RLS, Inc.
C	Calculated Measurement		
D	Referenced Deed Measurement	Exist.	Survey Monumentation Recovered and Utilized by Alfred W. DiOrto, RLS, Inc.
AG	Above Grade		
BG	Below Grade	AWD	Alfred W. DiOrto, RLS, Inc.
IP	Iron Pipe	AP Parcel	Assessor's Plat & Parcel Reference
IR	Iron Rod	LE Vol	Land Evidence Volume
DH	Drill Hole	Pg	Page
SW	Soil Evaluation/Ground Water Test Pipe		
WL 15A	Wetland Flag Identification	100.00	Existing Spot Location
acs.	Acres	Pole 53	Existing Utility Pole Location
sf	Square Feet		
M/L	More or Less	---	Existing Overhead Utility Lines
N/F	Now or Formerly	---	Delineated Wetland Edge (By Others)
100	Existing Contour	---	Perimeter Wetland Edge
		---	100 Foot Riverbank Wetland

- PROJECT PREPARATION NOTES**
- APPROXIMATE WETLAND EDGE, SINCE THE REQUIRED FLAGGING IS LOCATED OFF-PROPERTY BY NATURAL RESOURCE SERVICES, INC. (NRS).
  - THE IDENTIFICATION OF WETLAND AND/OR REGULATED FEATURES BEYOND THE PARCEL BOUNDARIES IS NOT INTENDED TO ESTABLISH WETLAND AND/OR REGULATED FEATURES ON ANY ADJACENT PROPERTIES. THESE IDENTIFICATIONS ARE DEPICTED SOLELY TO FULFILL RIFORM REQUIREMENTS AND REGULATIONS.
  - PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM (OWTS APPLICATION #229-1360) DESIGNED BY ALFRED W. DIORTO, PLS, ALFRED W. DIORTO, RLS, INC. (AWD) IS PRESENTLY UNDER REVIEW BY RIDEN OWTS.
  - EXISTING CONDITIONS OF SITE PREPARED AND PROVIDED BY AWD IN AUTOCAD FORMAT FOR USE BY WEL.
  - EXISTING TOPOGRAPHY TAKEN ON 7/6/2021 BY AWD.
  - WETLAND LOCATIONS TAKEN ON 11/11/2021 BY AWD INC. IN COORDINATION WITH NRS.
  - DEVELOPMENT PLAN REVIEW BY TOWN OF RICHMOND PLANNING BOARD ON 9/14/2021 AS PREPARED BY AWD.
  - RIDEN WETLANDS /RIDEN SUBMISSION PREPARED BY WEL IN ACCORDANCE WITH ALL APPLICABLE RIDEN RULES & REGULATIONS.

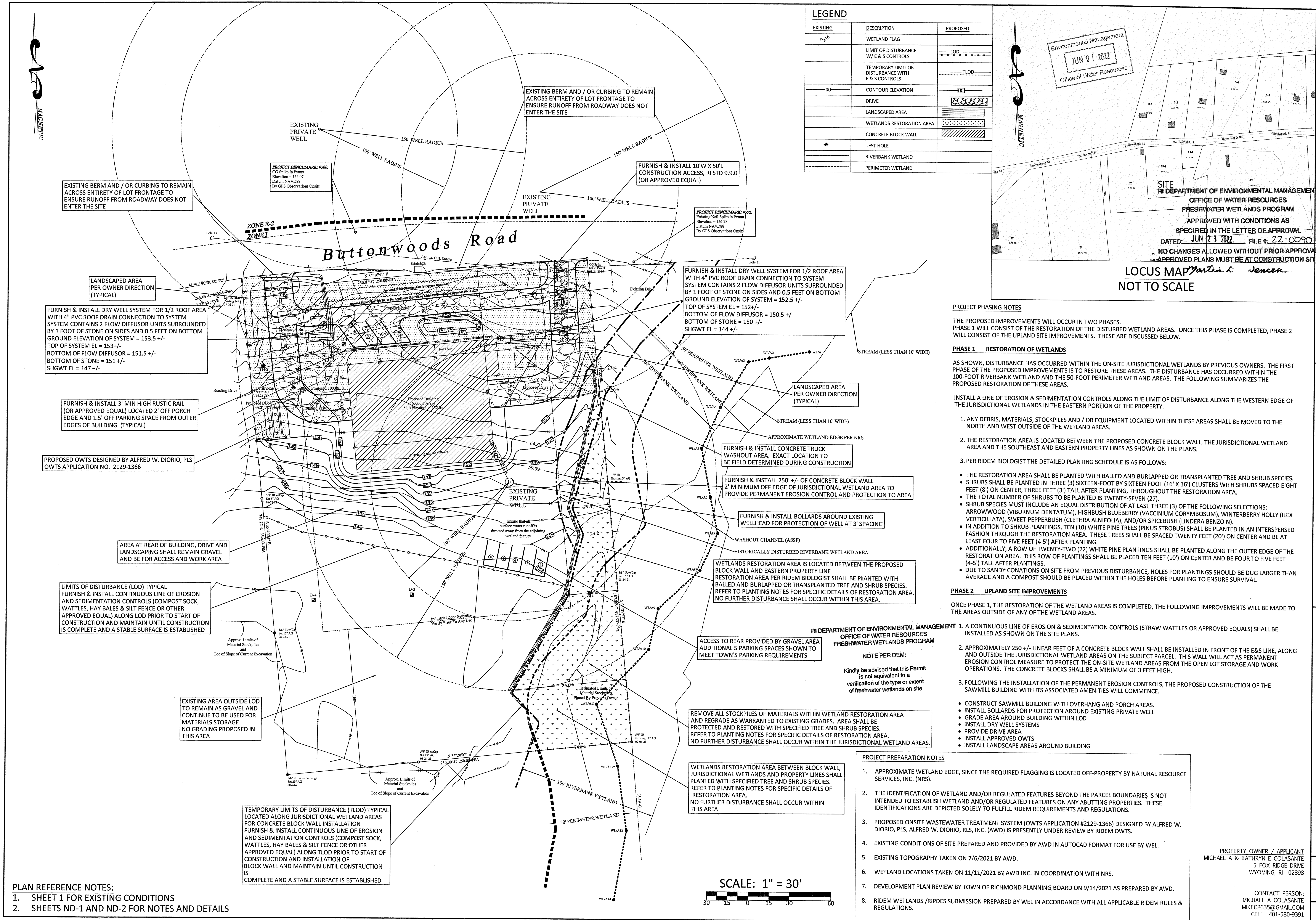
**EXISTING CONDITIONS PLAN**  
Plan For Buttonwoods Sawmill Project  
Prepared For Michael A. and Kathryn E. Colasante  
Assessor's Plat 4C Parcel 25-1  
71 Buttonwoods Road  
Richmond, Rhode Island  
Scale: 1"=20'  
May 27, 2022 Sheet 1 of 4

Alfred W. DiOrto, RLS, Inc.  
Professional Land Surveyors • Land Use Consultants  
Certified Professional Erosion Control Specialists  
Licensed OWTS Designers • Installers • Inspectors • Soil Evaluators  
Hopkinton, Rhode Island



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Plan No.  
File: Buttonwoods\_051721.dwg



EXISTING	DESCRIPTION	PROPOSED
Δ <sub>W</sub> S	WETLAND FLAG	
	LIMIT OF DISTURBANCE W/ E & S CONTROLS	LOD
	TEMPORARY LIMIT OF DISTURBANCE WITH E & S CONTROLS	TLOD
00	CONTOUR ELEVATION	00
	DRIVE	
	LANDSCAPED AREA	
	WETLANDS RESTORATION AREA	
	CONCRETE BLOCK WALL	
+	TEST HOLE	
	RIVERBANK WETLAND	
	PERIMETER WETLAND	

Environmental Management  
Office of Water Resources  
JUN 01 2022

**SITE**  
RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM

APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED: JUN 23 2022 FILE # 22-0090  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**LOCUS MAP**  
NOT TO SCALE

REVISIONS	DESCRIPTION
	RIDEM WETLANDS COMMENTS
DATE	MAY 2022

**PROJECT PHASING NOTES**

THE PROPOSED IMPROVEMENTS WILL OCCUR IN TWO PHASES. PHASE 1 WILL CONSIST OF THE RESTORATION OF THE DISTURBED WETLAND AREAS. ONCE THIS PHASE IS COMPLETED, PHASE 2 WILL CONSIST OF THE UPLAND SITE IMPROVEMENTS. THESE ARE DISCUSSED BELOW.

**PHASE 1 RESTORATION OF WETLANDS**

AS SHOWN, DISTURBANCE HAS OCCURRED WITHIN THE ON-SITE JURISDICTIONAL WETLANDS BY PREVIOUS OWNERS. THE FIRST PHASE OF THE PROPOSED IMPROVEMENTS IS TO RESTORE THESE AREAS. THE DISTURBANCE HAS OCCURRED WITHIN THE 100-FOOT RIVERBANK WETLAND AND THE 50-FOOT PERIMETER WETLAND AREAS. THE FOLLOWING SUMMARIZES THE PROPOSED RESTORATION OF THESE AREAS.

INSTALL A LINE OF EROSION & SEDIMENTATION CONTROLS ALONG THE LIMIT OF DISTURBANCE ALONG THE WESTERN EDGE OF THE JURISDICTIONAL WETLANDS IN THE EASTERN PORTION OF THE PROPERTY.

- ANY DEBRIS, MATERIALS, STOCKPILES AND / OR EQUIPMENT LOCATED WITHIN THESE AREAS SHALL BE MOVED TO THE NORTH AND WEST OUTSIDE OF THE WETLAND AREAS.
- THE RESTORATION AREA IS LOCATED BETWEEN THE PROPOSED CONCRETE BLOCK WALL, THE JURISDICTIONAL WETLAND AREA AND THE SOUTHEAST AND EASTERN PROPERTY LINES AS SHOWN ON THE PLANS.
- PER RIDEM BIOLOGIST THE DETAILED PLANTING SCHEDULE IS AS FOLLOWS:
  - THE RESTORATION AREA SHALL BE PLANTED WITH BALLED AND BURLAPPED OR TRANSPLANTED TREE AND SHRUB SPECIES.
  - SHRUBS SHALL BE PLANTED IN THREE (3) SIXTEEN-FOOT BY SIXTEEN FOOT (16' X 16') CLUSTERS WITH SHRUBS SPACED EIGHT FEET (8') ON CENTER, THREE FEET (3') TALL AFTER PLANTING, THROUGHOUT THE RESTORATION AREA.
  - THE TOTAL NUMBER OF SHRUBS TO BE PLANTED IS TWENTY-SEVEN (27).
  - SHRUB SPECIES MUST INCLUDE AN EQUAL DISTRIBUTION OF AT LAST THREE (3) OF THE FOLLOWING SELECTIONS: ARROWWOOD (VIBURNUM DENTATUM), HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM), WINTERBERRY HOLLY (ILEX VERTICILLATA), SWEET PEPPERBUSH (CLETHRA ALNIFOLIA), AND/OR SPICEBUSH (LINDERA BENZOIN).
  - IN ADDITION TO SHRUB PLANTINGS, TEN (10) WHITE PINE TREES (PINUS STROBUS) SHALL BE PLANTED IN AN INTERSPERSED FASHION THROUGH THE RESTORATION AREA. THESE TREES SHALL BE SPACED TWENTY FEET (20') ON CENTER AND BE AT LEAST FOUR TO FIVE FEET (4-5') AFTER PLANTING.
  - ADDITIONALLY, A ROW OF TWENTY-TWO (22) WHITE PINE PLANTINGS SHALL BE PLANTED ALONG THE OUTER EDGE OF THE RESTORATION AREA. THIS ROW OF PLANTINGS SHALL BE PLACED TEN FEET (10') ON CENTER AND BE FOUR TO FIVE FEET (4-5') TALL AFTER PLANTING.
  - DUE TO SANDY CONDITIONS ON SITE FROM PREVIOUS DISTURBANCE, HOLES FOR PLANTINGS SHOULD BE DUG LARGER THAN AVERAGE AND A COMPOST SHOULD BE PLACED WITHIN THE HOLES BEFORE PLANTING TO ENSURE SURVIVAL.

**PHASE 2 UPLAND SITE IMPROVEMENTS**

ONCE PHASE 1, THE RESTORATION OF THE WETLAND AREAS IS COMPLETED, THE FOLLOWING IMPROVEMENTS WILL BE MADE TO THE AREAS OUTSIDE OF ANY OF THE WETLAND AREAS.

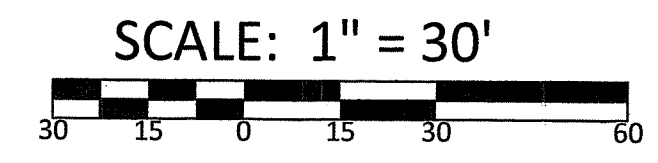
- A CONTINUOUS LINE OF EROSION & SEDIMENTATION CONTROLS (STRAW WATTLES OR APPROVED EQUALS) SHALL BE INSTALLED AS SHOWN ON THE SITE PLANS.
- APPROXIMATELY 250 +/- LINEAR FEET OF A CONCRETE BLOCK WALL SHALL BE INSTALLED IN FRONT OF THE E&S LINE, ALONG AND OUTSIDE THE JURISDICTIONAL WETLAND AREAS ON THE SUBJECT PARCEL. THIS WALL WILL ACT AS PERMANENT EROSION CONTROL MEASURE TO PROTECT THE ON-SITE WETLAND AREAS FROM THE OPEN LOT STORAGE AND WORK OPERATIONS. THE CONCRETE BLOCKS SHALL BE A MINIMUM OF 3 FEET HIGH.
- FOLLOWING THE INSTALLATION OF THE PERMANENT EROSION CONTROLS, THE PROPOSED CONSTRUCTION OF THE SAWMILL BUILDING WITH ITS ASSOCIATED AMENITIES WILL COMMENCE.
  - CONSTRUCT SAWMILL BUILDING WITH OVERHANG AND PORCH AREAS.
  - INSTALL BOLLARDS FOR PROTECTION AROUND EXISTING PRIVATE WELL
  - GRADE AREA AROUND BUILDING WITHIN LOD
  - INSTALL DRY WELL SYSTEMS
  - PROVIDE DRIVE AREA
  - INSTALL APPROVED OWTS
  - INSTALL LANDSCAPE AREAS AROUND BUILDING

**WEL Walker Engineering, Ltd.**  
31 Vale Court  
West Greenwich, RI 02881  
Phone / Fax (401) 397-8745  
Email: wel31.pw@gmail.com

PATRICIA K. WALKER  
No. 5331  
REGISTERED PROFESSIONAL ENGINEER

**PLAN REFERENCE NOTES:**

- SHEET 1 FOR EXISTING CONDITIONS
- SHEETS ND-1 AND ND-2 FOR NOTES AND DETAILS



**PROJECT PREPARATION NOTES**

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- RIDEM WETLANDS /RIDPES SUBMISSION PREPARED BY WEL IN ACCORDANCE WITH ALL APPLICABLE RIDEM RULES & REGULATIONS.

PROPERTY OWNER / APPLICANT  
MICHAEL A & KATHRYN E COLASANTE  
5 FOX RIDGE DRIVE  
WYOMING, RI 02898

CONTACT PERSON:  
MICHAEL A COLASANTE  
MKEC2635@GMAIL.COM  
CELL 401-580-9391

**SITE IMPROVEMENTS PLAN**

BUTTONWOODS SAWMILL  
71 BUTTONWOODS ROAD  
(AP 4C/PARCEL 25-1)  
RICHMOND, RHODE ISLAND

DATE: JANUARY 2022  
REVISED MAY 2022

SHEET: S-1

SHEET 2 OF 4

**ORDER OF PROCEDURE**

THE FOLLOWING ORDER OF PROCEDURE WILL BE IMPLEMENTED FOR EACH PHASE. PHASE 1 SHALL BE COMPLETED PRIOR TO THE COMMENCEMENT OF PHASE 2.

**PHASE 1 WETLANDS RESTORATION**

THE PROPOSED TREATMENTS WITHIN THE JURISDICTIONAL WETLANDS AREA ASSOCIATED WITH THE 100-FOOT RIVERBANK WETLAND AND THE 50-FOOT PERIMETER WETLAND AREAS.

- PROJECT SURVEYOR SHALL ENSURE ALL SITE WORK PERFORMED IS STILL PRESENT IN FIELD AND SHALL RE-ESTABLISH ANY WORK AS SITE CONDITIONS WARRANT.
- THE OWNER AND / OR CONTRACTOR SHALL INSTALL APPROXIMATELY 300+/- FEET OF A CONTINUOUS LINE OF STRAW WATTLES OR OTHER EROSION CONTROL MEASURES ALONG EDGE OF THE JURISDICTIONAL WETLAND AREAS ALONG THE EASTERN PORTION OF THE SITE IDENTIFIED AS THE TEMPORARY LIMITS OF DISTURBANCE (TLOD) AND THE LIMITS OF DISTURBANCE (LOD)
- ANY DEBRIS, TRASH, OR SEDIMENT WITHIN THESE AREAS SHALL BE REMOVED AND DISPOSED OF OFF-SITE IN AN APPROPRIATE MANNER.
- ANY EQUIPMENT OR EXISTING STOCKPILES WITHIN THESE AREAS SHALL BE RELOCATED TO AN AREA IN THE NORTHWESTERN PORTION OF UPLAND AREA OF SITE.
- ANY STOCKPILES LOCATED ON SITE DURING THIS PERIOD SHALL BE SURROUNDED WITH EROSION AND SEDIMENTATION CONTROLS.
- ANY EXCESS MATERIALS SHALL BE LOCATED WITHIN THE UPLAND AREA FOR REUSE AS SITE CONDITIONS WARRANT.
- THE AREAS BETWEEN THE PROPOSED WALL AND THE EXISTING VEGETATION WITHIN THE JURISDICTIONAL WETLAND AREAS SHALL BE ALLOWED TO REVEGETATE NATURALLY AND SHALL BE SUPPLEMENTED WITH CONSERVATION SEED MIX AND WILDLIFE BENEFICIAL PLANTINGS, AS SITE CONDITIONS WARRANT. THESE AREAS SHALL REMAIN UNTOUCHED FROM THIS TIME FORWARD.
  - SUPPLEMENTAL WILDLIFE BENEFICIAL PLANTINGS SHALL BE INSTALLED AS SITE CONDITIONS WARRANT.
  - SUGGESTED PLANTINGS SHALL CONSIST OF WINTERBERRY (ILEX VERTICILLATA), VIBURNUM (VIBURNUM DENTATUM) AND HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM), 3-4 FOOT HIGH, SPORADICALLY PLACED AND PLANTED.
  - SUPPLEMENTAL PLANTINGS SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, AMENDED MARCH 2015, APPENDIX B, SECTION B.9.2.2 SHRUBS - FOR MOIST SOILS.

**PHASE 2 UPLAND SITE IMPROVEMENTS**

THE FOLLOWING ORDER OF PROCEDURE WILL BE IMPLEMENTED FOR THE PROPOSED TREATMENTS WITHIN UPLAND SITE AREA FOLLOWING THE COMPLETION OF PHASE 1, THE WETLANDS RESTORATION WORK DESCRIBED ABOVE.

- PROJECT SURVEYOR SHALL ENSURE ALL SITE WORK PERFORMED IS STILL PRESENT IN FIELD AND SHALL RE-ESTABLISH ANY WORK AS SITE CONDITIONS WARRANT.
- THE OWNER AND / OR CONTRACTOR SHALL INSTALL APPROXIMATELY 750 +/- FEET OF A CONTINUOUS LINE OF STRAW WATTLES OR OTHER EROSION CONTROL MEASURES ALONG AND WITHIN THE FIELD LOCATED LIMITS OF DISTURBANCE (LOD) ALONG THE EAST, SOUTH AND WEST LOD
- ANY DEBRIS, TRASH OR SEDIMENT WITHIN THIS AREA OF THE STRAW WATTLES SHALL BE REMOVED AND DISPOSED OF OFF-SITE IN AN APPROPRIATE MANNER.
- ANY EQUIPMENT OR EXISTING STOCKPILES WITHIN 15 FEET OF THE EROSION CONTROLS SHALL BE RELOCATED TO AN AREA IN THE NORTHWESTERN PORTION OF UPLAND AREA OF SITE.
- ANY STOCKPILES PRESENT ON SITE SHALL BE SURROUNDED WITH EROSION AND SEDIMENTATION CONTROLS DURING THIS PERIOD.
- EXISTING GRAVEL SHALL BE REMOVED WITHIN THE AREA OF THE PROPOSED BUILDING, OVERHANG AND PORCH AND THE LANDSCAPED AREAS AROUND THE BUILDING AND THE OWTS AREA AS SHOWN ON THE SITE PLANS. ANY EXCESS MATERIALS SHALL BE LOCATED WITHIN THE UPLAND AREA FOR REUSE AS SITE CONDITIONS WARRANT.
- THE OWNER AND/OR CONTRACTOR SHALL INSTALL APPROXIMATELY 250 +/- FEET OF A CONTINUOUS, PRE-CAST CONCRETE BLOCK WALL, MINIMUM HEIGHT OF 3 FEET, A MINIMUM OF 1 FOOT OFF THE STRAW WATTLE LINE. SAID WALL SHALL GENERALLY EXTEND ALONG THE EASTERN TLOD AND THE MAJORITY OF THE LOD.
  - THE AREA BETWEEN THE WALL AND THE VEGETATION WITHIN THE JURISDICTIONAL WETLAND AREAS SHALL BE SUPPLEMENTED AS SITE CONDITIONS WARRANT DUE TO THE INSTALLATION OF THE BLOCK WALL.
  - SUPPLEMENTAL WILDLIFE BENEFICIAL PLANTINGS SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AS SITE CONDITIONS WARRANT.
  - SUGGESTED PLANTINGS SHALL CONSIST OF WINTERBERRY (ILEX VERTICILLATA), VIBURNUM (VIBURNUM DENTATUM) AND HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM), 3-4 FOOT HIGH, SPORADICALLY PLACED AND PLANTED.
  - SUPPLEMENTAL PLANTINGS SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, AMENDED MARCH 2015, APPENDIX B, SECTION B.9.2.2 SHRUBS - FOR MOIST SOILS.

**WORK COMMENCEMENT & COMPLETION**

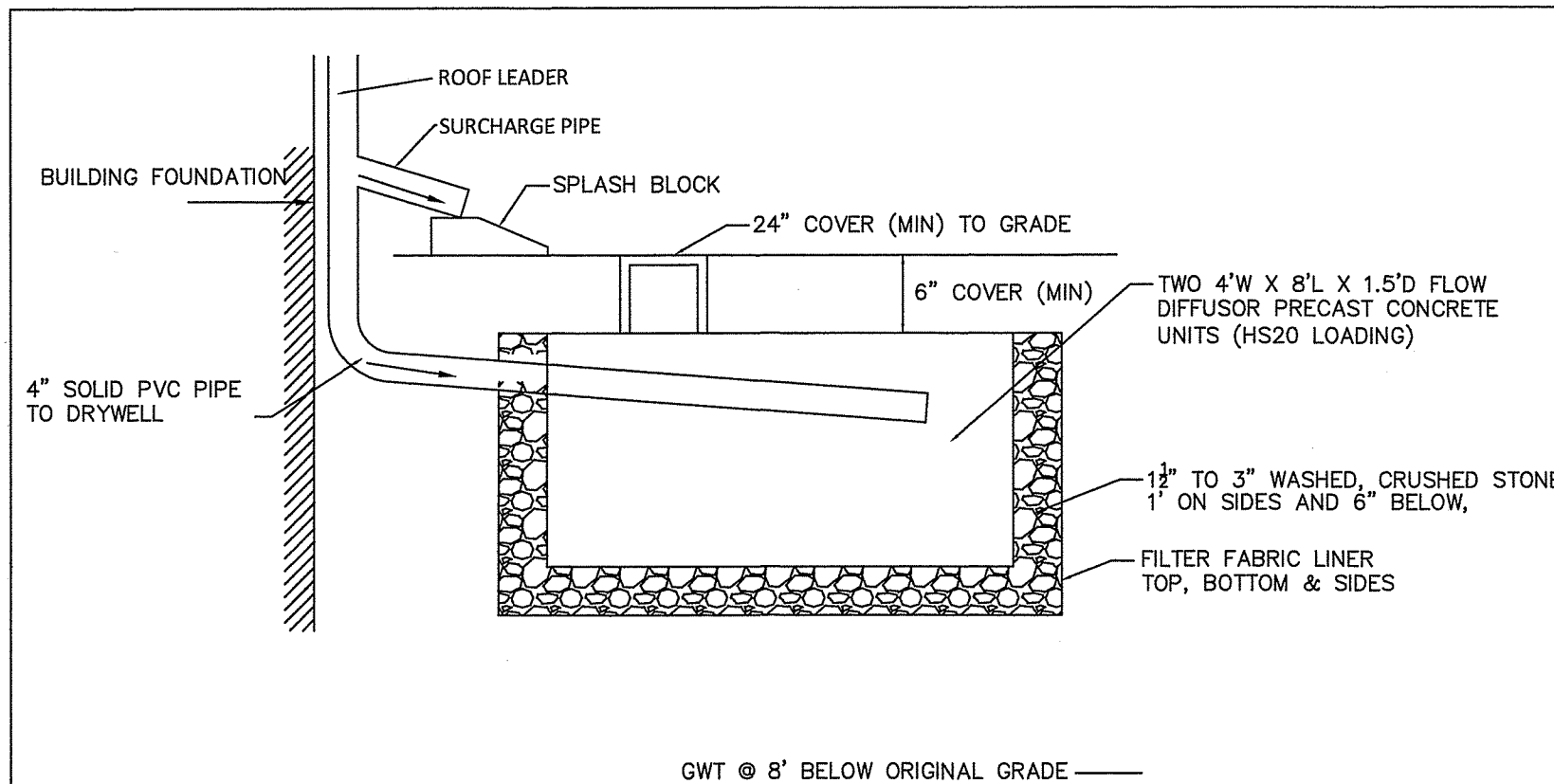
- THE ABOVE DESCRIBED PROPOSED MEASURES SHALL BE COMPLETED IN A TIMELY MANNER
- THE OWNER AND/OR CONTRACTOR SHALL NOTIFY RIDEM IF ANY UNUSUAL SITE CONDITIONS ARE FOUND AND PROVIDE DOCUMENTATION IF THERE IS A DELAY IN THE COMPLETION OF THIS WORK.
- THE OWNER AND/OR CONTRACTOR SHALL NOTIFY RIDEM PRIOR TO THE COMMENCEMENT OF ANY WORK AND UPON COMPLETION OF SAID WORK. DURING THE WORK PERIOD, THE SITE WILL BE AVAILABLE FOR INSPECTION BY RIDEM PERSONNEL WITHOUT NOTICE. SHOULD ANY DEFICIENCIES BE FOUND DURING ANY RIDEM INSPECTIONS, NOTIFICATIONS WILL BE MADE TO THE PROPERTY OWNERS, MICHAEL AND KATHRYN COLASANTE.

**EROSION CONTROL AND SOIL STABILIZATION PROGRAM**

- DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME.
- STAKED HAY BALES AND SILT FENCES OR STRAW WATTLES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY OR INTO DRAINAGE SYSTEMS, WETLANDS OR WATER BODIES.
- DURING ANY CONSTRUCTION, THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR ALL EROSION CONTROLS MAINTENANCE AND SHALL INSPECT AND/OR REPLACE AS NEEDED.
- DURING ANY CONSTRUCTION, THE OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW.
- ADDITIONAL HAY BALES AND SILT FENCES OR STRAW WATTLES WILL BE INSTALLED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- ALL EROSION CONTROL MEASURES (HAY BALES AND SILT FENCE OR STRAW WATTLES) WILL REMAIN IN PLACE UNTIL AN ACCEPTABLE GROUND COVER DEVELOPS AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
- NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 TO OCTOBER 15.
- ALL SEDIMENTS SHALL BE REMOVED FROM THE DRAINAGE FACILITIES WHEN DIRECTED BY THE ENGINEER, LOCAL DEPARTMENT OF PUBLIC WORKS, RIDOT OR RIDEM.
- ALL AREAS SUBJECT TO EROSION FORCES SHALL RECEIVE PROTECTION.
- HAY, STRAW, OR LINING APPLICATIONS SHALL BE USED AS REQUIRED ON EXPOSED SURFACES TO PREVENT EROSION. ALL METHODS SHALL BE APPROVED BY THE ENGINEER.
- ALL VEGETATION WHICH DOES NOT SURVIVE AND DEVELOP WITHIN THE PERIOD OF ONE (1) YEAR SHALL BE REPLACED BY THE CONTRACTOR AND/OR OWNER AT NO ADDITIONAL EXPENSE.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
- THE DRAINAGE SYSTEM SHALL BE CLEANED PRIOR TO ACCEPTANCE OF THE ANY OVERALL PROJECT BY THE OWNER. SEDIMENTS SHALL BE DISPOSED OF IN A PROPER MANNER.
- AS REQUIRED AND WARRANTED, SEDIMENTATION TRAPS WILL BE PROVIDED AT ALL DRAINAGE OUTLET STRUCTURES UNTIL PERMANENT STABILIZATION HAS OCCURRED.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, OR FIBER MATTING.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3000 TO 4000 LBS PER ACRE.
- ON BOTH STEEP AND LONG SLOPES CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS) AND SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF APPROVED GROUND COVER IS ESTABLISHED.
- ANY AND ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE RIDPW STD SPECIFICATIONS SECTION 202
- REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COORDINATION.

**OWNER RESPONSIBILITY & ACKNOWLEDGEMENT**

MICHAEL A. & KATHRYN E. COLASANTE, BEING THE OWNERS OF THE PROPERTY AND BUTTWOODS SAWMILL (MICHAEL A. & KATHRYN E. COLASANTE), BEING THE BUSINESS OWNER, LOCATED ON ASSESSOR'S PLAT AC, PARCEL 25-1, AT 71 BUTTWOODS ROAD IN RICHMOND, RHODE ISLAND, DO HEREBY ACKNOWLEDGE THEIR RESPONSIBILITY TO ENSURE ALL ITEMS PRESENTED ABOVE RELATED TO THE SITE IMPROVEMENTS PROPOSED SHALL BE PERFORMED AND COMPLETED.



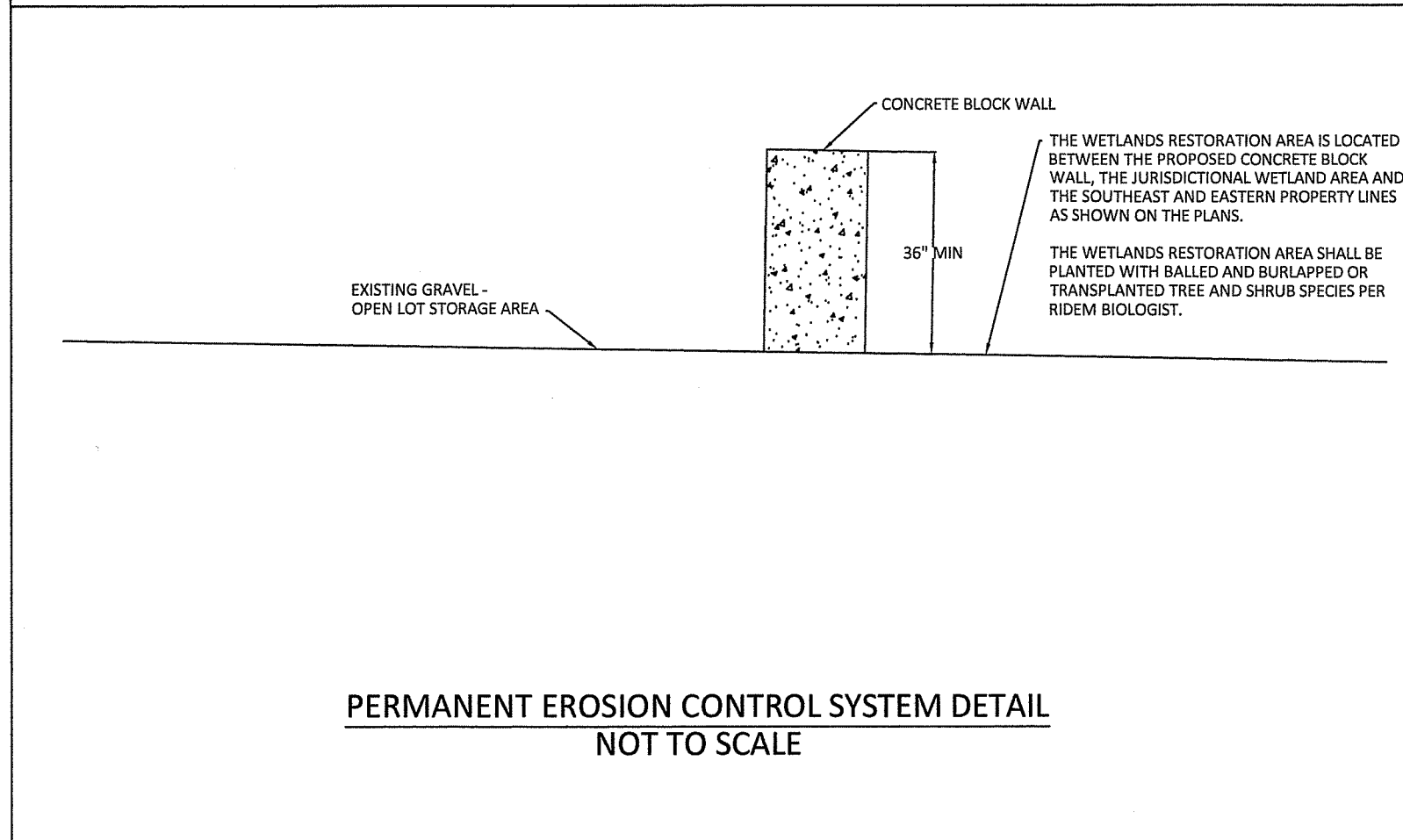
**DRY WELL / FLOW DIFFUSOR DETAIL**  
NOT TO SCALE

**DRY WELLS / FLOW DIFFUSOR NOTES**

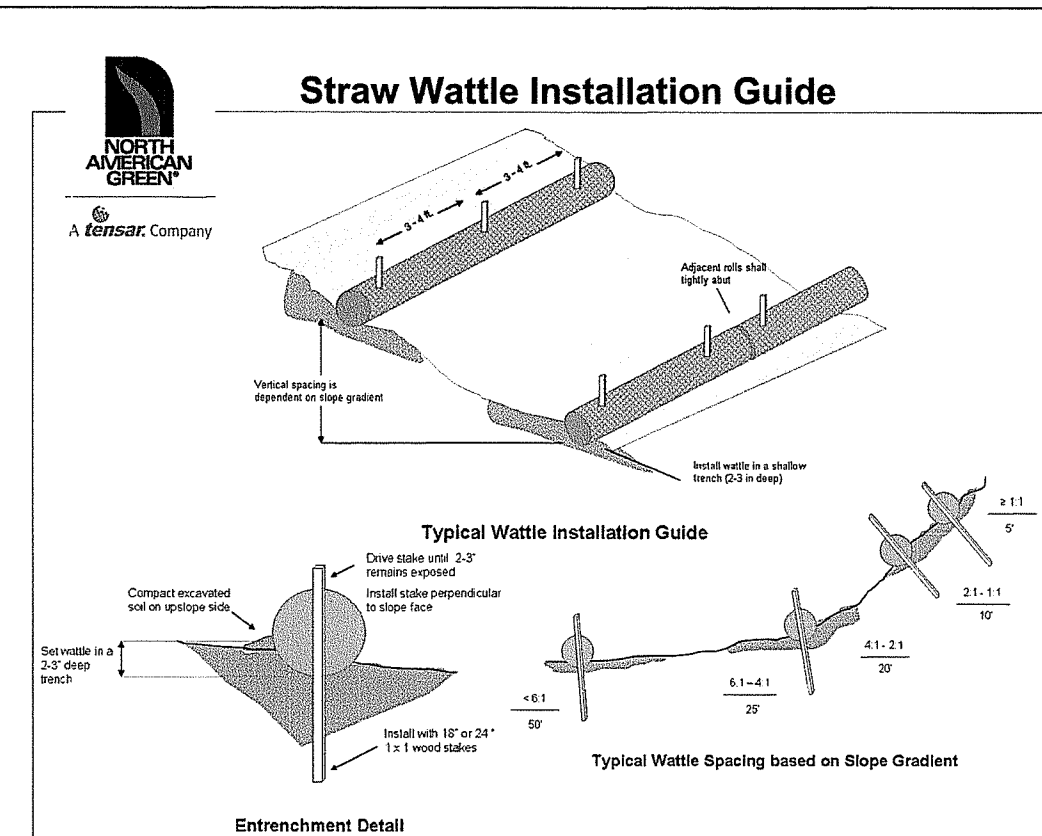
- THE DRY WELLS ARE DESIGNED ONLY TO ACCEPT ROOF RUNOFF FROM THE SAWMILL BUILDING
- EACH DRY WELL SYSTEM CONSISTS OF TWO 4" W X 8" X 1.5' FLOW DIFFUSOR UNITS SURROUNDED WITH STONE ON SIDES AND BOTTOM AS NOTED IN THE DETAIL
- THE DRY WELLS SHALL BE VERIFIED IN FIELD DURING CONSTRUCTION AND BE LOCATED A MINIMUM OF:
  - 10 FEET FROM THE BUILDING FOUNDATION
  - 25 FEET FROM ANY OWTS LEACH FIELD AND 15 FEET FROM OTHER OWTS COMPONENTS
  - 100 FEET FROM PRIVATE DRINKING WELL
  - 4 FEET SEPARATION FROM BOTTOM OF DRY WELL AND SHGWT
  - 10 FEET FROM PROPERTY LINE
  - 25 FEET FROM OTHER INFILTRATION MEASURES
- THE BOTTOM OF THE STONE SHALL BE COMPLETELY FLAT OR NEARLY SO IN ORDER THAT INFILTRATED RUNOFF WILL BE ABLE TO INFILTRATE THROUGH THE ENTIRE BOTTOM SURFACE AREA
- THE BOTTOM OF THE DRY WELL SHALL BE LOCATED A MINIMUM OF 4 FEET VERTICALLY FROM THE SEASONAL HIGH GROUNDWATER TABLE (SHGWT) PER RISIDM
- THE BOTTOM OF THE DRY WELL MUST BE LOCATED IN THE SOIL PROFILE
- GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION BY MARKING OFF THE LOCATION BEFORE CONSTRUCTION AT THE SITE AND CONSTRUCTING THE DRY WELL LAST
- AN ACCESS COVER SHALL BE INSTALLED IN THE DRY WELL SYSTEM INSTALLED FLUSH WITH THE GROUND SURFACE

**DRY WELLS MAINTENANCE NOTES**

- THE DRY WELL SHALL BE INSPECTED ANNUALLY AND REPAIRED IF NECESSARY TO ENSURE PROPER DRAINAGE
- ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE SURFACE OF THE DRYWELL ANNUALLY



**PERMANENT EROSION CONTROL SYSTEM DETAIL**  
NOT TO SCALE



**Straw Wattle Installation Guide**

- BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2'-3" (5'-7" CM) DEEP X 5" (12.5" CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
- PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE SLOPE. ADJACENT WATTLES SHOULD TIGHTLY ADJUT.
- SECURE THE WATTLE WITH 1/2" (1.27 CM) STAKES EVERY 3-4" (7.62 - 10.16 CM) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" (5.08 CM) OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

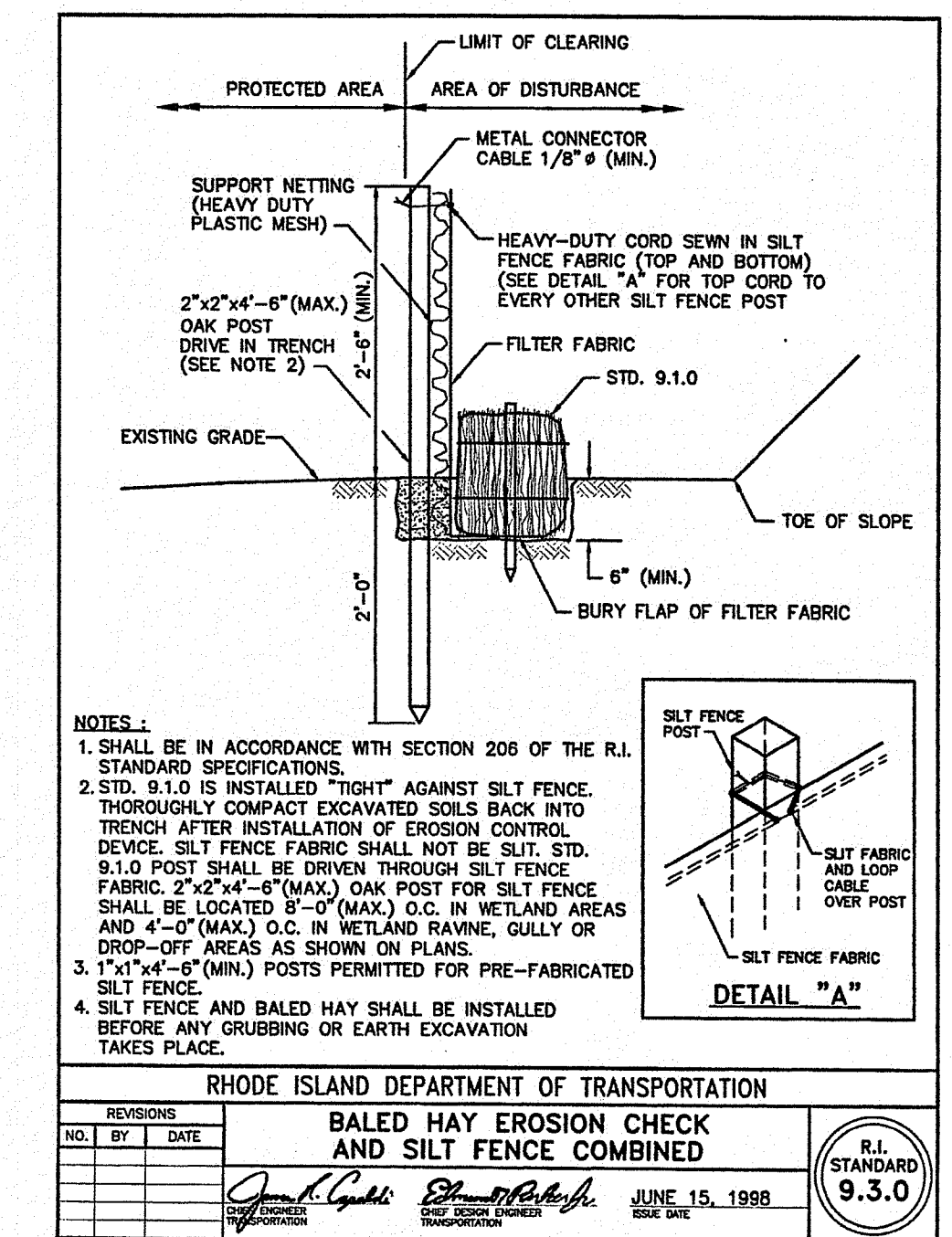
North American Green Straw Wattles are a Best Management Practice (BMP) that offers an effective and economical alternative to silt fence and straw bales for sediment control and storm runoff control.

Guidelines are provided to assist in design, installation, and structure spacing. The guidelines may require modification due to variation in soil type, rainfall intensity or duration, and amount of runoff affecting the application.

To maximize sediment containment with the Straw Wattle, place the initial structure at the top of the slope. If significant runoff is expected from above, if no runoff from above is expected, the Straw Wattle can be installed at the appropriate distance downhill from the top of the slope. The final structure should be installed at or just beyond the bottom of the slope. Wattles should be installed perpendicular to the primary direction of overland flow.

Straw Wattles are a temporary sediment control device and are not intended to replace rolled erosion control products (RECPs) or hydraulic erosion control products (HECPs). If vegetation is desired for permanent erosion control, North American Green recommends that RECPs or HECPs be used to provide effective immediate erosion control until vegetation is established. Straw Wattles may be used in conjunction with haybales, mats, and mulches as supplemental sediment and runoff control for these applications. Use of sediment control devices, the effectiveness of the Straw Wattle is dependent on storage capacity.

For additional installation assistance, please contact North American Green's Technical Services Department at 1-800-772-2040  
14649 Highway 41 North, Evansville, Indiana 47725  
1-800-772-2040 www.nagreen.com Rev. 1/2008



**CONCRETE TRUCK WASHOUT AREA**  
DETAIL & NOTES  
NOT TO SCALE

**CONCRETE TRUCK WASHOUT AREA NOTES:**

- LOCATIONS OF CONCRETE TRUCK WASHOUT AREAS SHALL BE INSTALLED ON SITE AS CONSTRUCTION PROGRESS WARRANTS
- PREPARE GROUND AREA AND REMOVE ANY DEBRIS OR MATERIALS. GROUND SHOULD BE CLEARED AND LEVELED.
- INSTALL HAY BALES, RI STD. 9.1.0 AROUND ENTIRE WASHOUT AREA
- INSTALL THICK POLYETHYLENE LINER (MIN 6ML THICKNESS) ON GROUND AND OVER AND AROUND HAY BALES.
- STAKE LINER IN PLACE TO ENSURE ITS PLACEMENT AND STABILITY
- LINER TO BE INSPECTED TO ENSURE ITS INTEGRITY
- LINER TO BE REPLACED AS CONDITIONS WARRANT THROUGHOUT CONCRETE POURING OPERATIONS ON SITE.
- LINER TO BE REMOVE AND DISPOSED OF OFF-SITE IN AN APPROPRIATE LOCATION AND MANNER
- UPON COMPLETION, THE WASHOUT AREA SHALL BE INSPECTED AND ANY OVERSPILL SHALL BE REMOVED OF OFF-SITE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM

APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED: JUN 23 2022 FILE #: 22-0090  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Martin D. Wenzel*

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:

Kindly be advised that this Permit is not equivalent to a permit verification of the type or extent of freshwater wetlands on site

CONTACT PERSON:  
MICHAEL A COLASANTE  
MIKEC2625@GMAIL.COM  
CELL 401-580-9391

**PLAN REFERENCE NOTES:**

- SHEET 1 FOR EXISTING CONDITIONS
- SHEET S-1 FOR PROPOSED IMPROVEMENTS
- SHEET ND-2 FOR ADDITIONAL NOTES AND DETAILS

REVISIONS	DESCRIPTION
DATE	RIDEM WETLANDS COMMENTS
MAY 2022	

PATRICIA K. WALKER  
No. 6331  
REGISTERED PROFESSIONAL ENGINEER

**Walker Engineering, Ltd.**  
31 Vale Court  
West Greenwich, RI 02817  
Phone / Fax (401) 397-8745  
Email: wtl31.pw@gmail.com

**NOTES & DETAILS NO. 1**

BUTTONWOODS SAWMILL  
71 BUTTONWOODS ROAD  
(AP 4C/PARCEL 25-1)  
RICHMOND, RHODE ISLAND

DATE: JANUARY 2022  
REVISED MAY 2022

SHEET: ND-1

SHEET 3 OF 4

LONG TERM MANAGEMENT SYSTEM OPERATION & SITE MAINTENANCE PLAN

THE LONG TERM MANAGEMENT SYSTEM OPERATION AND SITE MAINTENANCE PLAN DESCRIBED HEREIN IS FOR BUTTWOODS SAWMILL (MICHAEL A. & KATHRYN E. COLASANTE), 71 BUTTWOODS ROAD, LOCATED ON AP 4C, PARCEL 25-1 IN RICHMOND, RI.

RESPONSIBLE PARTY FOR MAINTENANCE

- BUTTWOODS SAWMILL (MICHAEL A. & KATHRYN E. COLASANTE), THE BUSINESS OWNERS OPERATING ON THE SITE, SHALL BE RESPONSIBLE FOR ALL MAINTENANCE ASSOCIATED WITH THE ON-SITE STORMWATER AND OVERALL SITE CONDITIONS, AND TO PROTECT THE ON-SITE WETLAND AREAS FROM ANY SEDIMENTATION.
- IN ADDITION, MICHAEL A. & KATHRYN E. COLASANTE, THE PROPERTY OWNERS, SHALL ULTIMATELY BE RESPONSIBLE FOR ALL MAINTENANCE ASSOCIATED WITH THE ON-SITE STORMWATER AND OVERALL SITE CONDITIONS, TO PROTECT THE ON-SITE WETLAND AREAS FROM ANY SEDIMENTATION, AND SHALL ENSURE THAT BUTTWOODS SAWMILL IS FOLLOWING THIS PLAN IN ITS ENTIRETY.
- THE PROPERTY AND BUSINESS OWNERS SHALL BE RESPONSIBLE FOR ALL MAINTENANCE ASSOCIATED WITH THE STORMWATER SYSTEM AND THE PROPERTY, AS A WHOLE.

CERTIFICATION

WE CERTIFY UNDER PENALTY OF LAW THAT WE, AS THE PROPERTY AND BUSINESS OWNERS, ARE RESPONSIBLE FOR ALL EROSION CONTROLS AND MAINTENANCE ASSOCIATED WITH THE PROPERTY, AS A WHOLE. SAID CONTROLS AND MAINTENANCE ARE DESCRIBED HEREIN AND ALL REQUIREMENTS SHALL BE FOLLOWED AS DESCRIBED.

EMERGENCY CONTACTS:

PROPERTY OWNER: MICHAEL A. & KATHRYN E. COLASANTE, 5 FOX RIDGE DRIVE, WYOMING, RI 02898, 401-580-9391. BUSINESS OWNER: BUTTWOODS SAWMILL (MICHAEL A. & KATHRYN E. COLASANTE), 71 BUTTWOODS RICHMOND, RI 02898, 401-580-9391.

DURING CONSTRUCTION

- PRIOR TO THE START OF ANY PROPOSED CONSTRUCTION, SITE MAINTENANCE AND / OR IMPROVEMENTS, THE EROSION CONTROLS SHALL BE INSTALLED AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION UNTIL A STABLE GROUND COVER IS ESTABLISHED.
- DURING CONSTRUCTION, THE SOIL EROSION AND SEDIMENTATION PROGRAMS SHALL BE FOLLOWED AND BE THE RESPONSIBILITY OF THE OWNER, BUSINESS OWNER, AND/OR CONTRACTOR AS APPLICABLE.

DESCRIPTION OF ANNUAL MAINTENANCE TASKS

- THE VEGETATED AND LANDSCAPED AREAS SHALL BE MAINTAINED THROUGHOUT THE YEAR. ALL AREAS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND LIFE.
- THE GRAVEL WORK AREA AND STOCKPILES OF MATERIALS SHALL BE MAINTAINED THROUGHOUT THE YEAR AND AN INSPECTION SCHEDULE SHALL BE IMPLEMENTED AS SITE CONDITIONS WARRANT TO PREVENT ANY SEDIMENTATION INTO THE ADJACENT WETLAND AREAS AND WATER BODY.
- THE PERIMETER CONDITIONS OF THE NATURAL VEGETATION BUFFERS ABUTTING THE WORK AREA SHALL BE PERIODICALLY INSPECTED. ANY DEBRIS, TRASH, OR SEDIMENT SHALL BE REMOVED PROMPTLY.
- THE CONCRETE BLOCK WALL SHALL BE PERIODICALLY INSPECTED.
  - THE WALL SHALL REMAIN IN PLACE AS SHOWN ON THE ACCOMPANYING SITE PLANS.
  - ANY SEDIMENT OR DEBRIS THAT HAS BUILT UP ALONG THE WALLS SHALL BE REMOVED PROMPTLY.
  - ANY BLOCK SECTIONS THAT SHOW SIGN OF AGE OR DAMAGE, SHALL BE REPAIRED AND/OR REPLACED AS SITE CONDITIONS WARRANT.
- THE FLOW DIFFUSOR DRY WELLS SHALL BE MAINTAINED THROUGHOUT THE YEAR. SAID MAINTENANCE SHALL INCLUDE ANNUALLY INSPECTING THE DRY WELL AND REPAIR IF NECESSARY TO ENSURE PROPER DRAINAGE, AND TO REMOVE ANY ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE OF THE DRYWELL ANNUALLY
- ALL PLANT MATERIALS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND LIFE, SHOULD ANY OF THESE MATERIALS BECOME DISEASED OR DIE, THEY SHALL BE REPLACED IN KIND AND LOCATION.
- ANY AREA SUBJECT TO EROSION TENDENCIES SHALL BE REPLACED IN KIND TO ENSURE THAT A STABLE GROUND COVER IS MAINTAINED AT ALL TIMES.
- ALL STOCKPILES OF MATERIALS SHALL BE LOCATED A MINIMUM OF TEN (10) FEET FROM THE CONCRETE WALL TO ALLOW FOR INSPECTIONS AND MAINTENANCE AS REQUIRED. IN ADDITION, NO PORTION OF THE STOCKPILES SHALL BE LOCATED OFF THE PROPERTY LIMITS.
- THE STOCKPILES SHALL BE INSPECTED PERIODICALLY.
  - SHOULD ANY EROSION FROM THE PILES BE NOTED DURING THE INSPECTIONS, EROSION CONTROLS SHALL BE PLACED ALONG THE AREA OF THE CONCRETE BLOCK WALL WHERE THE EROSION IS FOUND.
  - IN ADDITION, DURING ANY EXTENDED PERIOD OF NON-WORK RELATED TO THE STOCKPILES, THE PILES SHALL BE SURROUND WITH EROSION CONTROLS DURING THE DORMANT PERIOD AND SHALL BE REMOVED ONCE WORK COMMENCES.

DESCRIPTION OF APPLICABLE EASEMENTS

NO EASEMENTS ARE REQUIRED TO ENSURE THE MAINTENANCE OF THE SITE.

DESCRIPTION OF FUNDING SOURCES

MICHAEL A. & KATHRYN E. COLASANTE, THE PROPERTY OWNERS AND/OR BUTTWOODS SAWMILL (MICHAEL A. & KATHRYN E. COLASANTE), BUSINESS OWNERS OPERATING ON SITE, SHALL BE RESPONSIBLE FOR ALL APPLICABLE SITE MAINTENANCE. AS SUCH, THEIR FUNDS SHALL BE USED AS REQUIRED.

MINIMUM VEGETATIVE COVER REQUIREMENTS

- THE VEGETATIVE COVER REQUIREMENTS ARE PROVIDED AS PART OF THE PLANS.
- ALL VEGETATION PROPOSED SHALL BE MAINTAINED AT ALL TIMES AND BE REPLACED IN KIND SHOULD IT BECOME DISEASED OR DIE.

ACCESS & SAFETY ISSUES

THERE ARE NO ACCESS OR SAFETY ISSUES RELATED TO THE MAINTENANCE AND OPERATION OF THE SITE.

POLLUTION PREVENTION MEASURES

- ANY SEDIMENTATION THAT MAY ENTER THE STONE DIAPHRAGM SYSTEM, WETLAND AREAS, OR WATER BODIES SHALL BE REMOVED OF PROMPTLY.
- ANY SEDIMENT OR DEBRIS THAT ACCUMULATES ALONG THE STONE DIAPHRAGM AND CONCRETE BLOCK WALL SHALL BE REMOVED OF PROMPTLY.
- NO PESTICIDES OR FERTILIZERS SHALL BE USED ON SITE.
- NO CHEMICALS (CEMENT, MORTAR, ETC.) SHALL BE MIXED OR Poured WITHIN ANY WETLANDS.
- SOLID WASTE WILL BE COLLECTED AND STORED IN A SECURE DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
- CONSTRUCTION DEBRIS WILL INCLUDE ALL WOOD, STONE AND OTHER DEBRIS AND SITE MATERIALS REQUIRING REMOVAL.
  - THESE MATERIALS WILL BE DISPOSED OF ACCORDING TO STATE AND FEDERAL LAW AND WILL NOT BE DISPOSED OF ON-SITE
  - CONSTRUCTION DEBRIS AND SEDIMENT SHALL BE KEPT ON SITE AND SHALL NOT BE PERMITTED TO MIGRATE BEYOND THE PROJECT BOUNDARIES OR TO ANY WETLAND AREA.

ON-GOING EROSION & SEDIMENTATION CONTROLS AND LONG TERM MAINTENANCE

GENERAL

- EROSION AND SEDIMENT CONTROL METHODS FOR THE SITE INCLUDE STRUCTURAL AND STABILIZATION PRACTICES. STABILIZATION PRACTICES WILL BE IMPLEMENTED TO COVER EXPOSED SOIL SO THAT DISCHARGE OF SEDIMENT INTO WETLAND AREAS AND WATER BODIES IS MINIMIZED. STABILIZATION PRACTICES REDUCE THE TIME SOIL IS EXPOSED TO THE ELEMENTS THEREFORE REDUCING THE POSSIBILITY OF EROSION. AN ADEQUATE STOCKPILE OF EROSION CONTROL MATERIALS WILL BE MAINTAINED ON SITE IN THE EVENT OF EMERGENCY OR ROUTINE REPAIRS.
- THE PRE-CAST CONCRETE, BLOCK WALL IS THE PERMANENT, STRUCTURAL PRACTICE IMPLEMENTED TO DIVERT AND LIMIT RUNOFF. THESE PRACTICES LIMIT THE AMOUNT OF STORMWATER ENTERING A DISTURBED AREA PRIOR TO STORMWATER LEAVING A SITE.

DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS - THE FOLLOWING ARE THE PROCEDURES TO BE FOLLOWED:

- THE SITE CONSTRUCTION FOREMAN SHALL BE DESIGNATED AS THE ON-SITE INDIVIDUAL WHO WILL BE RESPONSIBLE FOR THE DAILY MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS, AND SHALL IMPLEMENT ALL MEASURES NECESSARY TO CONTROL EROSION AND TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- PRIOR TO ANY SITE GRADING OR SITE WORK, THE OWNER AND/OR CONTRACTOR SHALL INSTALL ALL SPECIFIED SEDIMENT AND EROSION CONTROLS JUST INSIDE THE LIMITS OF DISTURBANCE. THE SEDIMENT CONTROLS WILL BE A CONTINUOUS LINE OF STRAW WATTLES OR OTHER APPROVED CONTROLS.
- INFILTRATION BASIN(S) AND SEDIMENT FOREBAY(S) IF NECESSARY, SHALL BE USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION. SEDIMENT SHALL BE REMOVED FROM THE BASINS ON AN AS NEEDED BASIS OR WHEN THE SEDIMENT REACHES A DEPTH OF MORE THAN 3".
- CONSTRUCTION DEBRIS AND SEDIMENT SHALL BE KEPT ON SITE AND SHALL NOT BE PERMITTED TO MIGRATE BEYOND THE PROJECT BOUNDARIES OR TO ANY WETLAND AREA.
- ONCE THE SITE HAS BEEN STABILIZED, THE SEDIMENT AND EROSION CONTROLS MAY BE REMOVED.

LONG TERM MAINTENANCE & DESCRIPTION OF ANNUAL MAINTENANCE TASKS

- RECORDS OF ALL TASKS AND MAINTENANCE PERFORMED SHALL BE MAINTAINED AND BE AVAILABLE FOR INSPECTION UPON REQUEST. SUCH RECORDS SHALL INCLUDE ACTION(S) REQUIRED AND TAKEN IN ORDER TO CORRECT ANY ISSUES AND THE RESPONSIBLE PARTY PERFORMING SUCH TASK.
- THE VEGETATED AND LANDSCAPED AREAS SHALL BE MAINTAINED THROUGHOUT THE YEAR. ALL AREAS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND LIFE.
- THE GRAVEL AREA, WORK USE AREA AND STOCKPILES OF MATERIALS SHALL BE MAINTAINED THROUGHOUT THE YEAR AND AN INSPECTION SCHEDULE SHALL BE IMPLEMENTED AS SITE CONDITIONS WARRANT TO PREVENT ANY SEDIMENTATION INTO THE ADJACENT WETLAND AREAS AND WATER BODY.
- ANY SPILLS AND/OR LEAKS FROM VEHICLES OR EQUIPMENT SHALL BE PROMPTLY CLEANED UP IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE PERIMETER CONDITIONS OF THE NATURAL VEGETATION BUFFERS ABUTTING THE WORK AREA SHALL BE PERIODICALLY INSPECTED. ANY DEBRIS, TRASH, OR SEDIMENT SHALL BE REMOVED PROMPTLY.
- THE CONCRETE BLOCK WALL SHALL BE PERIODICALLY INSPECTED.
  - THE WALL SHALL REMAIN IN PLACE AS SHOWN ON THE ACCOMPANYING SITE PLANS.
  - ANY SEDIMENT OR DEBRIS THAT HAS BUILT UP ALONG THE WALL AND DIAPHRAGM SHALL BE REMOVED PROMPTLY.
  - ANY SECTION OF THE WALL THAT SHOWS SIGN OF AGE OR DAMAGE, SHALL BE REPAIRED AND/OR REPLACED AS SITE CONDITIONS WARRANT.
- THE FLOW DIFFUSOR DRY WELLS SHALL BE MAINTAINED THROUGHOUT THE YEAR. SAID MAINTENANCE SHALL INCLUDE ANNUALLY INSPECTING THE DRY WELL AND REPAIR IF NECESSARY TO ENSURE PROPER DRAINAGE, AND TO REMOVE ANY ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE OF THE DRYWELL ANNUALLY
- ALL PLANT MATERIALS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND LIFE, SHOULD ANY OF THESE MATERIALS BECOME DISEASED OR DIE, THEY SHALL BE REPLACED IN KIND AND LOCATION.
- ANY AREA SUBJECT TO EROSION TENDENCIES SHALL BE REPLACED IN KIND TO ENSURE THAT A STABLE GROUND COVER IS MAINTAINED AT ALL TIMES.
- ALL STOCKPILES OF MATERIALS SHALL BE LOCATED A MINIMUM OF TEN (10) FEET FROM THE CONCRETE WALL TO ALLOW FOR INSPECTIONS AND MAINTENANCE AS REQUIRED. IN ADDITION, NO PORTION OF THE STOCKPILES SHALL BE LOCATED OFF THE PROPERTY LIMITS.
- THE STOCKPILES SHALL BE INSPECTED PERIODICALLY.
  - SHOULD ANY EROSION FROM THE PILES BE NOTED DURING THE INSPECTIONS, EROSION CONTROLS SHALL BE PLACED ALONG THE AREA OF THE CONCRETE BLOCK WALL WHERE THE EROSION IS FOUND.
  - IN ADDITION, DURING ANY EXTENDED PERIOD OF NON-WORK RELATED TO THE STOCKPILES, THE PILES SHALL BE SURROUND WITH EROSION CONTROLS DURING THE DORMANT PERIOD AND SHALL BE REMOVED ONCE WORK COMMENCES.

SEDIMENTATION CONTROL PROGRAM

- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEMS, STATE HIGHWAY, TOWN ROADWAY, WETLANDS, WATER BODIES, OR ADJOINING PROPERTIES.
- ALL DISTURBED AREAS SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION.
- BANKS OR SLOPES OVER 5 PERCENT SHALL BE SEEDED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A HAY, STRAW OR FIBER MULCH.
- DURING ANY CONSTRUCTION, THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
- CARE SHALL BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATER COURSES OR WETLANDS OR THOSE AREAS SUBJECT TO STORM WATER FLOW.
- ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- ALL SEDIMENTS SHALL BE REMOVED FROM THE DRAINAGE FACILITIES WHEN DIRECTED BY THE ENGINEER OR THE LOCAL DEPARTMENT OF PUBLIC WORKS.
- REFERENCE THE "RI EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY RIDEM AND THE US DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, AND THE TOWN OF WESTERLY SOILS AND EROSION CONTROL ORDINANCES AS GUIDES.
- ALL EARTH FILL USED FOR EMBANKMENT CONSTRUCTION SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SODS, ROOTS, FROZEN SOILS, STONES, AND OTHER QUESTIONABLE MATERIAL.
- A CONTINUOUS LINE OF STAKED HAY BALES AND SILT FENCES, RI STANDARDS OR TOWN APPROVED EQUALS, OR STRAW WATTLES SHALL BE PLACED ALONG AND INSIDE THE LIMITS OF DISTURBANCE AND WHERE SHOWN AND AS REQUIRED.

ON-GOING EROSION & SEDIMENTATION CONTROLS

GENERAL THE FOLLOWING CONTROLS SHALL BE IMPLEMENTED AS SITE CONDITIONS WARRANT IN ORDER TO MINIMIZE EROSION AND RUNOFF FROM THE PROJECT LOCATION:

- NO CHEMICALS (CEMENT, MORTAR, ETC.) SHALL BE MIXED OR Poured WITHIN ANY WETLANDS.
- SOLID WASTE WILL BE COLLECTED AND STORED IN A SECURE DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
- CONSTRUCTION DEBRIS WILL INCLUDE ALL WOOD, STONE AND OTHER DEBRIS AND SITE MATERIALS REQUIRING REMOVAL. THESE MATERIALS WILL BE DISPOSED OF ACCORDING TO STATE AND FEDERAL LAW AND WILL NOT BE DISPOSED OF ON-SITE.
- ALL AREAS OUTSIDE THE LIMITS OF DISTURBANCE SHALL REMAIN UNDISTURBED.
- CONTINUOUS LINES OF EROSION CONTROLS SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION AND SHALL BE MAINTAINED UNTIL WORK IS COMPLETE AND A STABLE GROUND SURFACE IS ESTABLISHED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED OR REPLACED AS REQUIRED TO ASSURE PROPER FUNCTION.
- ALL BREACHES OR FAILURES IN EROSION AND SEDIMENT CONTROLS SHALL BE IMMEDIATELY REPAIRED OR REPLACED.
- DEBRIS AND LITTER, WHICH ACCUMULATES ALONG THE CONSTRUCTION AREA, SHALL BE REMOVED DAILY AND DISPOSED OF OFF-SITE.
- SEDIMENT BUILD-UP BEHIND ANY EROSION CONTROL BARRIERS WILL BE MONITORED AND REMOVED WHENEVER SEDIMENT HAS ACCUMULATED TO 6-INCHES IN DEPTH.

PHASING AND GENERAL CONSTRUCTION SEQUENCE IN ORDER TO FURTHER MINIMIZE SEDIMENT LOSS ON THE SITE, A GENERAL CONSTRUCTION SEQUENCE PLAN HAS BEEN DEVELOPED AND SHALL BE FOLLOWED, AS APPLICABLE AT ANY TIME.

- PRIOR TO CONDUCTING WORK ASSOCIATED WITH ANY PROJECT, THE OWNER AND/OR CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL COPIES OF PERMIT APPLICATIONS AND APPROVALS THAT OUTLINE CONDITIONS GOVERNING THE PROPOSED WORK. THE CONTRACTOR WILL ALSO REVIEW THE DRAWINGS PREPARED FOR THE PROJECT.
- THE OWNER AND/OR CONTRACTOR WILL PLACE ALL EROSION AND SEDIMENTATION CONTROL SYSTEMS IN ACCORDANCE WITH THE DRAWINGS, OR AS MAY BE DICTATED BY SITE CONDITIONS, IN ORDER TO MAINTAIN THE INTENT OF THE SPECIFICATIONS AND PERMITS. DEFICIENCIES OR CHANGES ON THE DRAWINGS SHALL BE CORRECTED OR IMPLEMENTED AS SITE CONDITIONS CHANGE. CHANGES DURING CONSTRUCTION SHALL BE NOTED AND POSTED ON THE DRAWINGS (SITE PLANS).
- THE INTENT IS TO DIRECT ALL WATER FROM DISTURBED AREAS THROUGH A SEDIMENTATION CONTROL PRIOR TO DISCHARGING TO RECEIVING DRAINAGE AREAS OR TO ADJACENT WETLANDS. THERE SHALL BE NO DISCHARGE OF UNTREATED CONSTRUCTION RUNOFF FROM THIS SITE. THE OWNER AND/OR CONTRACTOR SHALL CREATE SUFFICIENT HOLDING CAPACITY WITHIN THE TEMPORARY SEDIMENTATION BASINS TO HOLD ALL UNTREATED SITE RUNOFF.
- THE OWNER AND/OR CONTRACTOR SHALL MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROL SYSTEMS AS DICTATED BY SITE CONDITIONS, INDICATED IN THE CONSTRUCTION DOCUMENTS, OR AS DIRECTED BY GOVERNING AUTHORITIES OR OWNER TO CONTROL SEDIMENT UNTIL FINAL STABILIZATION.
- THE OWNER AND/OR CONTRACTOR SHALL RESPOND TO ANY MAINTENANCE OR ADDITIONAL WORK ORDERED BY OWNER OR GOVERNING AUTHORITIES IMMEDIATELY IF REQUIRED, AND ALWAYS WITHIN 7 DAYS.
- THE OWNER AND/OR CONTRACTOR SHALL INCORPORATE PERMANENT EROSION CONTROL FEATURES, PERMANENT SLOPE STABILIZATION, AND VEGETATION INTO THE PROJECT PLANS AT THE EARLIEST PRACTICAL TIME TO MINIMIZE THE NEED FOR TEMPORARY CONTROLS.
- THE OWNER AND/OR CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS WITHIN 7 CALENDAR DAYS. IN THE EVENT THAT IT IS NOT PRACTICAL TO SEED AREAS, SLOPES MUST BE STABILIZED WITH GEOTEXTILE FABRIC OR OTHER MEANS TO REDUCE THE EROSION POTENTIAL OF THE AREA.

ORDER OF PROCEDURE

- PRIOR TO ANY CONSTRUCTION OR EXCAVATION, STRAW WATTLES OR OTHER APPROVED EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE PROPERTY LINE OR LIMIT OF DISTURBANCE. TEMPORARY STRAW WATTLES OR OTHER APPROVED EROSION CONTROLS SHALL BE INSTALLED AT THE LIMIT OF WORK ACTIVITY IF CONSTRUCTION IS TO BE DONE IN PHASES.
- PRIOR TO COMMENCING OPERATIONS, TEMPORARY HAY BALES, SILT FENCES AND/OR STRAW WATTLES SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING EXISTING DRAINAGE SYSTEMS, WETLANDS OR WATER BODIES.
- ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS DURING THE CONSTRUCTION.
- IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROLS.
- TEMPORARY HAYBALES AND SANDBAGS ALONG AND AT THE ENDS OF THE LIMITS OF DISTURBANCE MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.
- HAYBALES AND SILT FENCE OR STRAW WATTLES ALONG THE LIMITS OF DISTURBANCE AND PROPERTY LINE MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STABLE GROUND COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES FRESHWATER WETLANDS PROGRAM APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL DATED JUN 23 2022 FILE # 22-0090 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SITE

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES FRESHWATER WETLANDS PROGRAM

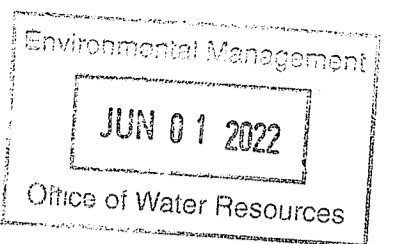
NOTE PER DEM: Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

PROPERTY OWNER / APPLICANT MICHAEL A & KATHRYN E COLASANTE 5 FOX RIDGE DRIVE WYOMING, RI 02898

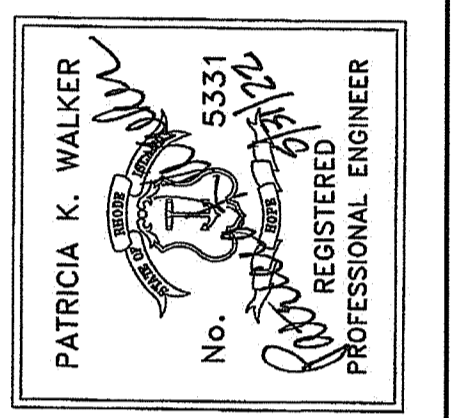
CONTACT PERSON: MICHAEL A COLASANTE MIKEC2635@GMAIL.COM CELL 401-580-9391

PLAN REFERENCE NOTES:

- SHEET 1 FOR EXISTING CONDITIONS
- SHEET S-1 FOR PROPOSED IMPROVEMENTS
- SHEET ND-1 FOR ADDITIONAL NOTES AND DETAILS



REVISIONS	DESCRIPTION	DATE
	RIDEM WETLANDS COMMENTS	MAY 2022



**Walker Engineering, Ltd.**  
31 Vale Court West Greenwich, RI 02817  
Phone / Fax: (401) 397-8745  
Email: wel31.pw@gmail.com

**NOTES & DETAILS NO. 2**  
BUTTWOODS SAWMILL  
71 BUTTWOODS ROAD  
(AP 4C/PARCEL 25-1)  
RICHMOND, RHODE ISLAND

DATE: JANUARY 2022  
REVISED MAY 2022

SHEET: ND-2

SHEET 4 OF 4