

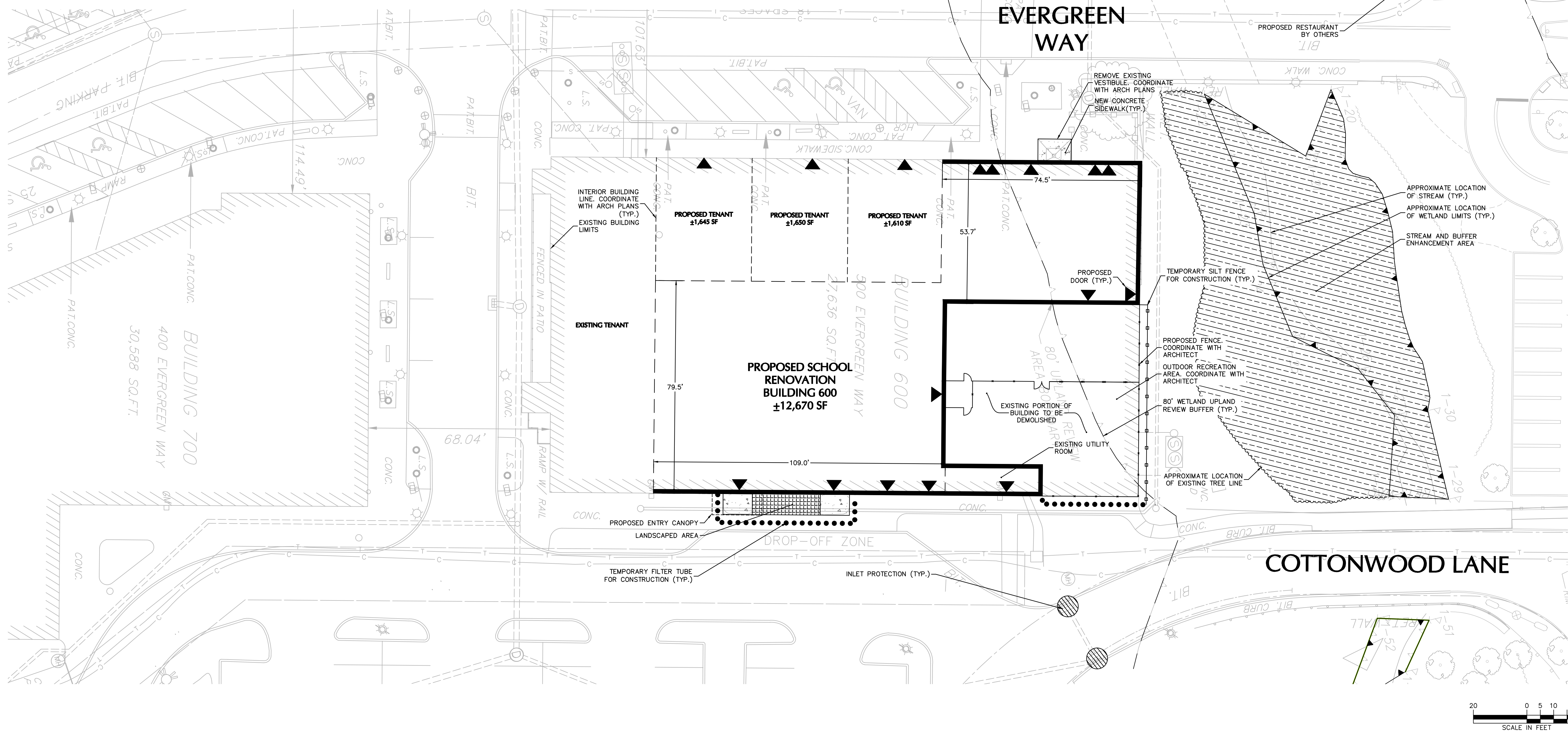
STREAM AND BUFFER ENHANCEMENT NOTES

- WETLAND MITIGATION GOALS
1. COMPENSATE FOR THE ENCROACHMENT INTO THE UPLAND REVIEW AREA AND BY PROVIDING AN ENHANCEMENT TO THE STREAM RIPARIAN CORRIDOR THROUGH THE REMOVAL OF INVASIVE PLANTS AND REPLANTING WITH NATIVE SPECIES WHICH WILL ENHANCE FUNCTIONS AND VALUES, PARTICULARLY THE WILDLIFE HABITAT FUNCTION.
 2. PLANT THE RIPARIAN CORRIDOR ENHANCEMENT AREA WITH SUFFICIENT DENSITY, FOCUSING ON SUPPORTING THE EXISTING FORESTED CANOPY AND REPLACE AREAS WHERE WOODY INVASIVE PLANTS, WHICH DOMINATE THE UNDERSTORY, HAVE BEEN REMOVED.
- GENERAL MITIGATION NOTES
1. LIMITS OF WETLANDS WERE DELINEATED BY ALL-POINTS TECHNOLOGY CORPORATION IN JULY 2021.
 2. THE PROJECT WETLAND SCIENTIST WITH EXPERTISE IN WETLAND MITIGATION AND IN INVASIVE PLANT SPECIES IDENTIFICATION AND REMOVAL/ERADICATION WILL SUPERVISE ALL ELEMENTS OF THE MITIGATION PLAN. DEAN GUSTAFSON, SENIOR WETLAND SCIENTIST, WITH ALL-POINTS TECHNOLOGY CORPORATION, P.C. WILL SERVE AS THE PROJECT WETLAND SCIENTIST; (860) 552-2033, DGUSTAFSON@ALLPOINTS.TECH.COM.
 3. TO THE EXTENT PRACTICAL, WETLAND ENHANCEMENT ACTIVITIES SHOULD BE PERFORMED DURING PERIODS OF LOW FLOW IN THE INTERMITTENT STREAM. DISTURBED SOILS SHALL BE PERMANENTLY STABILIZED BY THE END OF THE FIRST FULL GROWING SEASON FOLLOWING WETLAND MITIGATION PLAN ACTIVITIES.
 4. ANY FOREIGN DERRIS AND LITTER THAT HAS ACCUMULATED ON THE SURFACE OF THE MITIGATION AREA SHALL BE REMOVED AND PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 5. PLASTIC MESH SLEEVES AND DEER REPELLANTS WILL BE USED AS NECESSARY TO PROTECT PLANTED SHRUBS FROM EXCESSIVE DEER DAMAGE. PLANTS WITH EXCESSIVE DAMAGE WILL BE REPLACED.
 6. IT IS ANTICIPATED THAT SOIL DISTURBANCE WILL BE LIMITED TO PLANTING LOCATIONS, RESULTING IN LIMITED SOIL DISTURBANCE. THE PRIMARY METHOD OF INVASIVE PLANTS REMOVAL WILL CONSIST OF STUMP CUT AND APPLICATION OF AN APPROPRIATE HERBICIDE, RESULTING IN MINIMAL SOIL DISTURBANCE. ANY EXPOSED SOILS RESULTING FROM THE WETLAND MITIGATION ACTIVITIES WILL BE MULCHED AND SEEDED WITH AN APPROPRIATE NATIVE SEED MIXES DEPENDING UPON SHADE AND SOIL MOISTURE CONDITIONS OF THE AFFECTED AREAS.
 7. THE USE OF FERTILIZER AND PESTICIDES IN THE WETLAND MITIGATION AREA IS PROHIBITED. HERBICIDE USAGE WILL ONLY OCCUR AS NECESSARY FOR THE CONTROL OF INVASIVE SPECIES.
 8. A PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE BETWEEN THE PROJECT WETLAND SCIENTIST AND CONTRACTOR(S) PERFORMING ALL ASPECTS OF THE WETLAND MITIGATION PLAN. THE PRIMARY INTENT OF THE PRE-CONSTRUCTION MEETING IS TO DISCUSS THE GOALS OF THE MITIGATION PLAN AND IMPLEMENTATION OF REQUIRED ELEMENTS NECESSARY TO ACHIEVE THESE GOALS AND SEQUENCE OF ELEMENTS. THE TOWN OF SOUTH WINDSOR ENVIRONMENTAL PLANNER WILL BE PROVIDED NOTICE OF THIS MEETING A MINIMUM OF 3 BUSINESS DAYS PRIOR TO THE MEETING.
 9. THE TOWN OF SOUTH WINDSOR ENVIRONMENTAL PLANNER WILL BE NOTIFIED IN ADVANCE OF ALL PHASES OF THE MITIGATION PROJECT.
- PROPOSED STREAM AND BUFFER ENHANCEMENT AREA
1. INVASIVE WOODY SHRUB AND VINE SPECIES CURRENTLY DOMINATING THE UNDERSTORY OF THE WETLAND MITIGATION AREA, INCLUDING JAPANESE HONEYSUCKLE (LONICER SP.), MULTIFLORA ROSE (ROSE MULTIFLORA), AUTUMN OLIVE (ELAEOAGNUS UMBELLATA), AND ASIATIC BITTERSWEET (CELASTRUS ORBICULATUS) SHALL BE REMOVED BY HAND CUTTING DOWN TO THE STEM BASE. CUT STEMS WILL BE TREATED WITH HERBICIDE AS SPECIFIED IN THE HERBICIDE USE NOTES. HERBICIDE APPLICATIONS WILL BE CONDUCTED BY A STATE-LICENSED INDIVIDUAL. THE CONTRACTOR IS RESPONSIBLE FOR SECURING NECESSARY LOCAL, STATE AND/OR FEDERAL PERMITS, INCLUDING A PERMIT FROM CTDEP TO APPLY THE HERBICIDE IN AN AQUATIC ENVIRONMENT IF HERBICIDE APPLICATION OCCURS WHILE SURFACE WATER IS PRESENT IN THE INTERMITTENT STREAM. IT IS RECOMMENDED THAT HERBICIDE APPLICATIONS OCCUR DURING THE DRY PERIOD WITH NO SURFACE WATER PRESENT IN THE INTERMITTENT STREAM. REFER TO THE CONNECTICUT INVASIVE PLANT WORKING GROUP INVASIVE PLANT MANAGEMENT GUIDE OR MOST RECENT GUIDANCE FOR FURTHER DETAILS AND GUIDANCE ON INVASIVE PLANT CONTROL AND REMOVAL RECOMMENDATIONS ([HTTP://WWW.HORT.UCONN.EDU/CIPWG/ART_PUBS/GUIDE/INTRODUCTION.HTM](http://www.hort.uconn.edu/cipwg/art_pubs/guide/introduction.htm)).
 2. THE PROJECT WETLAND SCIENTIST RESPONSIBLE FOR THE WETLAND MITIGATION PLAN DESIGN SHALL BE NOTIFIED BY THE CONTRACTOR A MINIMUM OF SEVEN (7) BUSINESS DAYS PRIOR TO ANY PHASE OF THE MITIGATION PROJECT INCLUDING REMOVAL OF INVASIVE PLANTS AND PLANTING OF NATIVE SHRUBS TO MONITOR AND OVERSEE IMPLEMENTATION OF THE MITIGATION PLAN. PLEASE CONTACT DEAN GUSTAFSON, SENIOR WETLAND SCIENTIST, ALL-POINTS TECHNOLOGY CORP., P.C. AT (860) 552-2033 OR DGUSTAFSON@ALLPOINTS.TECH.COM.
 3. SOIL EXPOSED AS A RESULT OF INVASIVE SPECIES REMOVAL OR NATIVE SPECIES PLANTING ACTIVITIES IN UPLAND AREAS NOT SHADED WILL BE UNDER SOWN WITH THE NEW ENGLAND CONSERVATION/WILDLIFE MIX (NEW ENGLAND WETLAND PLANTS, INC (NEWP) AMHERST, MA (413) 548-8000, OR APPROVED EQUIVALENT. EXPOSED SOILS IN SHADED UPLAND AREAS WILL BE UNDER SOWN WITH NEW ENGLAND SEMI SHADE GRASS WITH FORB MIX (NEWP, OR APPROVED EQUIVALENT). SOILS EXPOSED IN WETLAND AREAS WILL BE UNDER SOWN WITH NEW ENGLAND WETLAND MIX (NEWP, OR APPROVED EQUIVALENT). THESE SEED

- MIXES PROVIDE A PERMANENT CORE OF GRASSES, FORBS, WILDFLOWERS, LEGUMES, AND GRASSES TO PROVIDE BOTH GOOD EROSION CONTROL AND WILDLIFE HABITAT VALUE.
4. ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE 'AMERICAN STANDARDS FOR NURSERY STOCK' BY THE AMERICAN ASSOCIATION OF NURSERYMEN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CAREFUL INSTALLATION, MAINTENANCE (INCLUDING WATERING), AND ESTABLISHMENT OF NATIVE SHRUB PLANT MATERIAL IN THE MITIGATION AREA. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR TO REMAIN ALI AND HEALTHY FOR A FULL TWELVE (12) MONTH PERIOD.
 5. THE SPECIES, SIZE, AND QUANTITY OF THE PLANTINGS WILL FOLLOW THE INTERMITTENT STREAM AND BUFFER ENHANCEMENT AREA PLANTING SCHEDULE. THE PROJECT WETLAND SCIENTIST WILL INSPECT PLANT MATERIALS DELIVERED TO THE SITE TO ENSURE THAT THE SPECIMENS ARE HEALTHY, FREE FROM PESTS AND SUITABLE FOR USE WITHIN THE WETLAND MITIGATION AREA. UNSUITABLE SPECIMENS WILL BE REJECTED AND REPLACED WITH SUITABLE SPECIMENS. THE PROJECT WETLAND SCIENTIST WILL APPROVE ANY PLANTING SUBSTITUTIONS. ALL WOODY PLANT STOCK WILL BE CONTAINER-GROWN OR BURLAP BALLED. PLANTING WITHIN THE MITIGATION AREA WILL CONFORM TO THE PLANS OR WILL BE COMPLETED IN ACCORDANCE WITH DIRECTIONS PROVIDED IN THE FIELD BY THE PROJECT WETLAND SCIENTIST. ONLY PLANT MATERIALS NATIVE AND INDIGENOUS TO THE REGION SHALL BE USED.
 6. ALL PLANTINGS TO BE SPACED IN A RANDOM PATTERN WITH ASSISTANCE FROM THE PROJECT WETLAND SCIENTIST TO SIMULATE NATURAL GROWTH PATTERNS. PLANT QUANTITIES MAY BE ADJUSTED IN THE FIELD DEPENDING UPON AVAILABLE PLANTING SPACE PROVIDED FOLLOWING WOODY INVASIVE PLANT REMOVAL ACTIVITIES. THE PLANT QUANTITIES NOTED REPRESENT THE MINIMUM QUANTITIES REQUIRED.
 7. ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE 'AMERICAN STANDARDS FOR NURSERY STOCK SECTION 10. SEEDLING TREES AND SHRUBS' BY THE AMERICAN ASSOCIATION OF NURSERYMEN. CULTIVARS OF THE NATIVE PLANTS IDENTIFIED IN THE PLANTING SCHEDULE MAY BE USED UPON APPROVAL FROM THE PROJECT WETLAND SCIENTIST.
 8. UPON COMPLETION OF PLANTING, TREES AND SHRUBS SHALL BE MULCHED ONE FOOT FROM THE TRUNK/BASE WITH A 2 TO 3-INCH THICK LAYER OF NATURAL MULCH MATERIAL OR OTHER NATURAL ORGANIC MATERIAL FREE OF WEED SEEDS, INVASIVE SPECIES AND ARTIFICIAL COLORING. THE SURROUNDING SEEDED AREAS SHALL RECEIVE A LIGHT APPLICATION OF ONE INCH OR WEED FREE STRAW.
- HERBICIDE USE NOTES
1. ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING HERBICIDE USE, APPLICATOR PERMIT AND POSTING REQUIREMENTS SHALL BE FOLLOWED.
 2. ALL HERBICIDE APPLICATIONS SHALL BE PERFORMED BY A STATE LICENSED INDIVIDUAL UNDER THE SUPERVISION OF THE PROJECT WETLAND PROFESSIONAL.
 3. CERTIFICATIONS, LICENSES AND PERMITS SHALL BE PRODUCED BY THE LICENSED APPLICATOR PRIOR TO THE START OF WORK.
 4. ALL HERBICIDES SHALL BE MIXED WITH A DYE APPROVED BY U.S. EPA FOR USE AS A HERBICIDE ADJUVANTS, SUCH AS TURFMARK® DYE OR EQUIVALENT.
 5. ONLY NONIONIC SURFACTANTS SHALL BE ADDED TO THE SPECIFIED HERBICIDES.
 6. WOODY SHRUBS AND VINES LOCATED WITHIN THE WETLAND MITIGATION AREA, COMPRISED MAINLY OF JAPANESE HONEYSUCKLE (LONICER SP.), MULTIFLORA ROSE (ROSE MULTIFLORA), AUTUMN OLIVE (ELAEOAGNUS UMBELLATA), AND ASIATIC BITTERSWEET (CELASTRUS ORBICULATUS), SHALL BE TREATED WITH A CUT-STUMP TREATMENT METHOD AFTER FLOWERING (BETWEEN EARLY SUMMER UNTIL EARLY FALL). SHRUBS AND VINES SHALL BE CUT NEAR THE STUMP LEVEL AND STUMPS SHALL RECEIVE A TRICLOPYR HERBICIDE (GARLON OR ACCESS®) USING A HAND APPLICATOR METHOD (PAINT BRUSH, SPONGE, OR EQUIVALENT) WITHIN ONE HOUR OF CUTTING.
- MITIGATION MONITORING SUCCESS STANDARDS AND REPORTING
1. THE WETLAND MITIGATION AREA WILL BE ASSESSED USING THREE SUCCESS STANDARDS. EACH STANDARD IS DESCRIBED BELOW. SUCCESS STANDARD 1: AT LEAST 75% OF THE SURFACE AREA OF THE WOODY UNDERSTORY WITHIN THE MITIGATION AREA SHOULD BE REESTABLISHED WITH INDIGENOUS WOODY SPECIES. PREVIOUSLY, THE GOAL SET BY THE END OF THE FIRST GROWING SEASON. THE MONITORING REPORT WILL INCLUDE REPRESENTATIVE PHOTOGRAPHS, THE PERCENT SURVIVAL OF PLANTED SHRUBS AND WILL ALSO INCLUDE OBSERVATIONS OF VEGETATION HEALTH AND DEVELOPMENT ALONG WITH ANY WILDLIFE OBSERVATIONS. IF THERE ARE PROBLEMS THAT NEED TO BE ADDRESSED AND IF THE MEASURES TO CORRECT THEM IF FOLLOWING COMPLETION OF MONITORING DURING THE FIRST YEAR'S GROWING SEASON NOT ALL OF THE SUCCESS STANDARDS ARE SATISFIED, RECOMMENDATIONS FOR ADDITIONAL MONITORING/CORRECTIVE ACTIONS WILL BE INCLUDED IN THE REPORT.
 2. A REPORT WILL BE PREPARED DOCUMENTING IMPLEMENTATION OF THE WETLAND MITIGATION PLAN, INCLUDING WOODY INVASIVE PLANT TREATMENTS AND PLANTING OF NATIVE SPECIES.
 3. MONITORING OF THE WETLAND MITIGATION AREA WILL BE PERFORMED DURING THE FIRST YEAR'S GROWING SEASON FOLLOWING COMPLETION OF THE WOODY INVASIVE PLANT TREATMENT AND NATIVE REPLANTING ACTIVITIES. A MONITORING REPORT WILL PROVIDE DETAILS ON THE THREE SUCCESS STANDARDS PREVIOUSLY, THE GOAL SET BY THE END OF THE FIRST GROWING SEASON. THE MONITORING REPORT WILL INCLUDE REPRESENTATIVE PHOTOGRAPHS, THE PERCENT SURVIVAL OF PLANTED SHRUBS AND WILL ALSO INCLUDE OBSERVATIONS OF VEGETATION HEALTH AND DEVELOPMENT ALONG WITH ANY WILDLIFE OBSERVATIONS. IF THERE ARE PROBLEMS THAT NEED TO BE ADDRESSED AND IF THE MEASURES TO CORRECT THEM IF FOLLOWING COMPLETION OF MONITORING DURING THE FIRST YEAR'S GROWING SEASON NOT ALL OF THE SUCCESS STANDARDS ARE SATISFIED, RECOMMENDATIONS FOR ADDITIONAL MONITORING/CORRECTIVE ACTIONS WILL BE INCLUDED IN THE REPORT.

STREAM AND BUFFER ENHANCEMENT NOTES PREPARED BY
ALL-POINTS TECHNOLOGY CORPORATION

NOTE:
THIS PROJECT MAINTAINS THE PROPOSED AND EXISTING IMPERVIOUS COVERAGE WITHIN THE PROJECT LIMITS:
- EXISTING IMPERVIOUS COVERAGE = 18,125/18,319 = 99.9% (194 SF PERVIOUS AREA)
- PROPOSED IMPERVIOUS COVERAGE = 18,122/18,319 = 99.9% (197 SF PERVIOUS AREA)



Date	Description	No.
Revisions		
LANGAN Langan Engineering and Environmental Services, Inc. 555 Long Wharf Drive New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project PROPOSED SCHOOL AT EVERGREEN WALK MAP No. 27, BLOCK No. 15, UNIT No. 2 528 EVERGREEN WAY, BUILDING 600 SOUTH WINDSOR HARTFORD COUNTY CONNECTICUT Drawing Title		
Project No. 140222801		Drawing No. CS101
Date 07/21/2021		
Drawn By JMGM		
Checked By DTG		
Sheet 0 of 1		

