



SWARTZ ARCHITECTURE, DPC
 134 ACADEMY STREET
 Poughkeepsie, NY 12601-4312
 T 845.473.0205 F 845.473.0284
 www.swartzarchitecture.com

CONSULTANT:
 civil engineer
LAWRENCE J. PAGGI, P.E.
 43 BROAD STREET
 FISHKILL, NY 12524
 845 897 2375 TEL
 LJPAGGI@OPTONLINE.NET

CONSULTANT SEAL:
 OWNER:
Central Hudson
 A FORTINET COMPANY

PROJECT NAME:
CENTRAL HUDSON GAS & ELECTRIC CORPORATION TRAINING CENTER
 PROJECT ADDRESS:
2229 ULSTER AVE (ROUTE 9W) LAKE KATRINE, NEW YORK 12449 TOWN OF ULSTER

REVISIONS		
NO.	REVISIONS	BY / DATE

DRAWN BY: LJP CHECKED BY: LJP
 ISSUED FOR:
100% CONSTRUCTION DOCUMENT SUBMISSION
 ISSUED DATE: **JUNE 1, 2020**
 SHEET NAME:
WETLAND DISTURBANCE AND MITIGATION PLAN
 SCALE: **1" = 50'**
 SHEET NO.
WM1
 1 OF 1
 PROJECT NO.
 19-04

PLANTING SCHEDULE

SYM.	BOTANICAL NAME	COMMON NAME	COND.	SIZE	SPACING
TREES: TOTAL 31 PROPOSED					
RM	ACER RUBRUM	RED MAPLE	#5 CONT	6"-8" HT	10'-0" O.C.
PO	QUERCUS FALLENSTRIS	PIN OAK	#5 CONT	3'-4" HT	10'-0" O.C.
SWO	QUERCUS BICOLOR	SWAMP WHITE OAK	B & B	6"-8" HT	10'-0" O.C.
SHRUBS: TOTAL 81 PROPOSED					
PW	SALIX DISCOLOR	PUSSY WILLOW	#5 CONT	3' - 4' HT	15'-0" O.C.
WB	ILEX VERTICILLATA	WINTERBERRY	#5 CONT	3' - 4' HT	15'-0" O.C.
HBB	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	#5 CONT	3' - 4' HT	15'-0" O.C.
HERBACEOUS					
FS	CAREX VULPINOIDEA	FOX SEDGE	#2 CONT	N/A	1' O.C.
WG	SCIRPUS CYPERINUS	WOOL GRASS	#2 CONT	N/A	1' O.C.

LANDSCAPING NOTES:

- QUALITY ASSURANCE**
 - NOMENCLATURE:** PLANT NAMES SHALL CONFORM TO THE LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.
 - SIZE AND GRADING:** PLANT SIZES AND GRADING SHALL CONFORM TO THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. (AAN), UNLESS OTHERWISE SPECIFIED.
 - NURSERY SOURCE:** OBTAIN FRESHLY DUG, HEALTHY, WOODRUS, PLANTS NURSERY GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR A MINIMUM OF 2 YEARS. PLANTS SHALL HAVE BEEN LINED OUT IN ROWS, ANNUALLY CULTIVATED, SPRAYED, PRUNED, AND FERTILIZED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. ALL PLANTS SHALL HAVE BEEN TRANS-PLANTED OR ROOT PRUNED AT LEAST ONCE IN THE PAST 3 YEARS. BALLED AND BURLAPPED PLANTS MUST COME FROM SOIL WHICH WILL HOLD A FIRM ROOT BALL. HELED IN PLANTS AND PLANTS FROM COLD STORAGE ARE NOT ACCEPTABLE.
 - SUBSTITUTIONS:** DO NOT MAKE SUBSTITUTIONS OF TREES AND/OR SHRUB MATERIALS. IF REQUIRED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY AND PROPOSAL FOR USE OF EQUIVALENT MATERIAL. WHEN AUTHORIZED, ADJUSTMENTS OF CONTRACT AMOUNT (IF ANY) WILL BE MADE BY CHANGE ORDER.
- SEEDING & PLANTING SEASONS AND TIMING CONDITIONS:**
 - UNLESS OTHERWISE DIRECTED IN WRITING, SEED FROM MARCH 15 TO MAY 15, AND FROM AUGUST 15 TO OCTOBER 15.
 - UNLESS OTHERWISE DIRECTED IN WRITING THE PLANTING OF TREES AND SHRUBS SHALL BE FROM MARCH 15 TO JUNE 1, AND FROM SEPTEMBER 1 TO NOVEMBER 15.
 - PROCEED WITH AND COMPLETE SEEDING WORK AS RAPIDLY AS PORTIONS OF THE SITE BECOME AVAILABLE, WORKING WITHIN THE SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
 - PROVIDE TEMPORARY ANNUAL RYEGRASS COVER FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
- PRODUCTS:**
 - TOPSOIL:** THE TOP 6" - 12" OF ROOTSTOCK MATERIAL WILL BE TAKEN FROM WETLAND DISTURBANCE AREAS AND PLACED AS BEDDING MATERIAL IN THE PROPOSED WETLAND MITIGATION AREA. IF ADDITIONAL TOPSOIL IS NEEDED USE IMPORTED TOPSOIL AS NOTED BELOW.
 - IMPORTED TOPSOIL:** PLACE TOPSOIL 6" TO 8" THICK CONFORMING TO THE FOLLOWING:
 - ORIGINAL LDM TOPSOIL, WELL DRAINED HOMOGENOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL, AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE FOREIGN MATERIAL.
 - CONTAINING NOT LESS THAN 5% OR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLE PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105° C.
 - CONTAINING A pH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
 - CONTAINING THE FOLLOWING WASHED GRADATIONS:

SEIVE DESIGNATION	% PASSING
1/4"	100
NO. 200	97 - 100
NO. 40	20 - 65 (OF THE 1/4" SIEVE)

NORTHEAST WETLAND DIVERSITY SEED MIX

% BY WT.	SPECIES	VARIETY
26.66%	EUPATORIUM PERFOLIATUM	BONASET
20.80%	VERBENA HASTATA	BLUE VERVAIN
19.75%	PANICUM DICHOTOMIFLORUM	SMOOTH PANIC-GRASS
8.89%	SOLIDAGO RUIGOSA	WRINKLED GOLDENROD
8.74%	EUPATORIUM MACULATUM	JOE PYE WEED
6.65%	EUTHAMIA GRAMINIFOLIA	GRASS LEAF GOLDENROD
4.59%	POLYGONUM PENNSYLVANICUM	
2.80%	ASTER NOVAE-ANGIAE	NEW ENGLAND ASTER
0.79%	BIDENS CERNUA	NODDING BEGGAR'S TICK
0.21%	ASCLEPIAS INCARNATA	SWAMP MILKWEED
0.12%	IRIS VERSICOLOR	BLUE FLAG

- TREES AND SHRUBS:**
 - PLANTING SOIL MIXTURE: SHALL BE PREMIXED IN BULK, AND CONTAIN THE FOLLOWING BY VOLUME:
 - 20 PARTS TOPSOIL
 - 10 PARTS PEAT MOSS
 - 1 PART BONE MEAL
 - PEAT MOSS: BROWN TO BLACK IN COLOR, NEED AND SEED FREE, DRIED SPHAGNUM PEAT MOSS, CONTAINING NOT MORE THAN 9% MINERAL ON A DRY BASIS AND CONFORMING TO NYS DOT 713-20.
 - BONE MEAL: FINELY GROUND, RAW, MINIMUM 4% NITROGEN AND 20% PHOSPHORIC ACID. IT SHALL BE DELIVERED IN SEALED BAGS SHOWING THE MANUFACTURER'S GUARANTEED ANALYSIS.
 - STAKES: 8 FT LONG, 2 IN WIDE WOOD STAKES.
 - HOSE: NEW, 2-PLY GARDEN HOSE NOT LESS THAN 1/2 INCH IN DIAMETER.
 - MULCH: GROUND OR SHREDDED BARK, MEDIUM SIZE FROM HARDWOOD TREES, NO PIECES OVER 2 INCHES GREATEST DIMENSION, FREE FROM SAWDUST, STONES, DEBRIS, AND DELETERIOUS MATERIALS. STANDARD OF QUALITY SHALL BE MANUFACTURED BY HYDE PARK PRODUCTS CO., OF NEW ROCHELLE, NEW YORK, OR APPROVED EQUAL.
 - PROVIDE COMPLETE COMMERCIAL FERTILIZER, OF NEUTRAL CHARACTER, WITH SOME ELEMENTS DERIVED FROM ORGANIC SOURCES, CONTAINING AT LEAST 10% AVAILABLE PHOSPHORIC ACID, 3% TO 5% TOTAL NITROGEN, AND 3% TO 5% SOLUBLE POTASH.
- FERTILIZER:**
 - FOR SPRING SEEDING: COMMERCIAL STARTER FERTILIZER, GRANULAR, NONBURNING PRODUCT CONTAINING 10% NITROGEN, 6% AVAILABLE PHOSPHORUS, AND 4% WATER SOLUBLE POTASH (10-6-4).
 - FOR FALL SEEDING: COMMERCIAL STARTER FERTILIZER, GRANULAR, NONBURNING PRODUCT, CONTAINING 5% NITROGEN, 10% AVAILABLE PHOSPHORUS, AND 5% WATER SOLUBLE POTASH (5-10-5).
 - FOR FINAL FERTILIZING: IF APPLIED IN SPRING SEASON, SHALL BE A SLOW RELEASE COMMERCIAL FERTILIZER, GRANULAR, WITH HIGH NITROGEN, 38% URAMITE OR APPROVED EQUAL. IF APPLIED IN FALL SEASON, SHALL BE AS SPECIFIED IN (3.0.2) ABOVE.

CONSTRUCTION NOTES:

- ALL DISTURBED AREAS ARE TO BE REPAIRED INCLUDING BRINGING GRADES BACK TO ORIGINAL CONDITION BY IMPORTING TOPSOIL AND SUPPLYING NECESSARY SOIL AMENDMENTS PRIOR TO SEEDING AND WATERING.
- THE TEMPORARY CONSTRUCTION ACCESS FOR THE WETLAND MITIGATION AREA WILL BE RESTORED TO ORIGINAL CONDITIONS UPON COMPLETION OF THE WETLAND MITIGATION.
- THE TEMPORARY CONSTRUCTION ACCESS WILL BE 10 FEET WIDE. TREES AND SHRUBS WILL BE CUT TO GRADE AND STUMPS WILL REMAIN. PLANKS WILL BE USED TO ALLOW CONSTRUCTION EQUIPMENT ACCESS. THE CONSTRUCTION ACCESS AREA WILL BE RETURNED TO ORIGINAL CONDITION.

HYDROLOGY OF THE MITIGATION AREA

- THE WATER LEVEL AVAILABLE FOR THE PROPOSED WETLAND PLANTING IS BASED UPON OBSERVED EXISTING POND SURFACE ELEVATION AND MITIGATION AREA CONDITION.
- THE WETLAND MITIGATION AREA IS ADJACENT TO THE EXISTING WETLAND ON SITE.
- THE PROPOSED MITIGATION EFFORT IS TO REMOVE EARTH MATERIALS FROM UP-SLOPE AREAS DIRECTLY ADJACENT TO EXISTING WETLAND TO PRODUCE A LOWER SLOPE THAT WILL RETAIN WATER. IT IS EXPECTED THAT SOME AREAS WILL RECEIVE SEEPAGE FROM NEARBY SLOPES AND SURFACE AND GROUNDWATER WILL ADDITIONALLY COLLECT IN THE MITIGATION AREA IN SUFFICIENT AMOUNTS TO SUPPORT WETLAND VEGETATION.
- THE EXISTING WETLAND AND INTER-CONNECTING STREAM WILL SERVE AS A "REGENERATION NUCLEUS" FROM WHICH VEGETATIVE COVER CAN EXPAND RADIALLY BY VEGETATIVE REPRODUCTION INTO THE PROPOSED MITIGATION AREA. SINCE DIFFERENT PLANT SPECIES WITHIN THE SAME WETLAND MAY OFTEN EXHIBIT A WIDE RANGE OF MOISTURE REQUIREMENTS AND FLOODING TOLERANCES, THE PROPOSED ELEVATIONAL RANGES WILL PROVIDE A MICRO-TOPOGRAPHIC MOISTURE GRADIENT CONDUCTIVE TO A HIGH SPECIES DIVERSITY.

LEGEND

- EXISTING CONDITIONS:**
- TRAFFIC SIGN
 - MAILBOX
 - FIRE HYDRANT
 - MANHOLE
 - CATCH BASIN
 - METAL PIPE
 - REBAR
 - MONUMENT
 - UTILITY POLE
 - UTILITY LINE
 - EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - EXISTING WETLANDS AS FLAGGED

- PROPOSED CONDITIONS:**
- PROPOSED CONTOUR
 - PROPOSED SPOT ELEVATION
 - PROPOSED TOP OF CURB AND BOTTOM OF CURB ELEVATIONS
 - PROPOSED CATCH BASIN AND CULVERT
 - PROPOSED DRAINAGE MANHOLE
 - PROPOSED NYLOPLAST DRAIN BASIN
 - PROPOSED SEWER MANHOLE
 - PROPOSED GRAVITY SEWER LINE
 - PROPOSED FORCE MAIN
 - PROPOSED WATER SERVICE LINE
 - PROPOSED FENCE W/ BARBED WIRE
 - PROPOSED SILT FENCE