



ADDENDUM NO. 3 TO PROJECT NO. 44345

**CONSTRUCTION WORK
PROVIDE REMEDIATION OF VILLAGE FIRING RANGE
FRANKLIN CORRECTIONAL FACILITY
62 BARE HILL ROAD
MALONE, NY**

May 10, 2013

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

BIDDING REQUIREMENTS

1. DOCUMENT 001114 ADVERTISEMNT FOR BIDS: Add the following Paragraphs to the end of the Document:

“The only time prospective bidders will be allowed to visit the job site to take field measurements and examine existing conditions of the project area will be at 10:30 a.m. on Wednesday, May 22, 2013, at the Malone OGS field office trailer. Prospective bidders are urged to visit the site at this time. Prospective bidders or their representatives attending the pre-bid site visit will not be admitted on facility grounds without proper photo identification. Note that parking restrictions and security provisions will apply and all vehicles will be subject to search.

Phone the office of Allison Arquiett, (518-483-8170) a minimum of 72 hours in advance of the date to provide the names of those who will attend the pre-bid site visit.”

2. Page 002219-1, Paragraph 25.1, Change this Paragraph to read:

“25.1 The apparent low bidder must submit the required pre-award submittal package described below to the Regional Supervisor within five working days after the bids are opened.

Region Supervisor Name: Andrew Jarmak, P.E., Regional Supervisor

Address: Mt. McGregor Correctional Facility, 65 Mt. McGregor Road, Wilton, NY 12831.

Phone: (518) 581-9259.

Email: Region5preawardsubmittals@ogs.ny.gov.”

3. DOCUMENT 003126 EXISTING HAZARDOUS MATERIAL INFORMATION:

- a. Page 003126-1, First Paragraph: Add the following Subparagraph:

“4. Adelaide Environmental, April 24, 2013, Asbestos, lead based paint and PCB testing report-old office trailer.”

- b. Page 003126-2, First Paragraph, Top of Page: Add the following Paragraph:
“D. Trailer Hitch Frame
1. Lead.”
- c. Page 003126-2, Article 1.02: Add the following to the end of the Paragraph:
“The above referenced ACM survey was completed in April 2013 and the results of the survey documented in Attachment 10 - Adelaide Environmental, Asbestos, lead based paint and PCB testing report-old office trailer, April 24, 2013.”

SPECIFICATIONS

- 4. Page 024116-1, Paragraph 1.04 B.: Add the following Subparagraph:
“5. The above referenced ACM survey was completed in April 2013 and the results of the survey are documented in Attachment 10 - Adelaide Environmental, Asbestos, lead based paint and PCB testing report-old office trailer, April 24, 2013.”
- 5. PROJECT MANUAL ATTACHMENTS: Add the following Attachments to the Project Manual:
“9. Wetland Joint Application for Permit and Restoration Plan (note this is the submittal to be included as a reference document not the approved permit).
10. Adelaide Environmental, April 24, 2013, Asbestos, lead based paint and PCB testing report-old office trailer.”

DRAWINGS

- 6. Revised Drawings:
 - a. Drawing Nos. C-002, C-101, C-103, C-104, C-105, C-106, and C-500, noted “REVISED DRAWING 5/10/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.

END OF ADDENDUM

James Dirolf, P.E.
Director of Design

GENERAL NOTES

- THE ORIGINAL TOPOGRAPHICAL SURVEY WAS COMPLETED BY RICHARD M. RYBINSKI, L.S., DATE LAST REVISED JANUARY 2012. SAMPLE LOCATIONS UPDATED VIA PORTABLE GPS IN OCTOBER 2012.
- ELECTRONIC BASE MAPPING IS BASED ON THE FOLLOWING DATUMS:
 - HORIZONTAL DATUM IS NAD 83, NYS PLANE EAST ZONE, US FOOT.
 - VERTICAL DATUM IS NAVD 88.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF PERTINENT WORK IN THE FIELD.
- A NEW YORK STATE LICENSED LAND SURVEYOR IS REQUIRED FOR THE LAYOUT/STAKEOUT OF ALL SITE WORK. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND ROW MONUMENTS IN THE AREAS OF CONSTRUCTION.
- THE CONTRACT LIMIT LINE SHALL BE RESTRICTED TO ONLY THE AREAS WHERE THE WORK IS BEING CONDUCTED AND AS ORDERED BY THE DIRECTOR'S REPRESENTATIVE.
- THE CONTRACTOR SHALL MAINTAIN ALL VEHICLE AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION AS REQUIRED BY THE DIRECTOR'S REPRESENTATIVE.
- THE CONTRACTOR SHALL SPECIFY ONE PERSON WHOSE PRIMARY RESPONSIBILITY IS TO COORDINATE SIGNAGE, AND VEHICLE AND PEDESTRIAN MOVEMENT FOR THE PROJECT.
- CONTRACTOR TO SECURE DAILY WORK ZONE WITH ORANGE CONSTRUCTION FENCE, PROVIDE LOCKED CABLE AT SITE ENTRANCE AND POST "CONSTRUCTION AREA PROPER PPE REQUIRED" SIGN AT WORK ZONE ENTRANCE. CONTRACTOR TO MAINTAIN AND ESTABLISH DAILY WORK ZONES IN CONSULTATION WITH THE DIRECTOR'S REPRESENTATIVE (SEE SPECIFICATION 015000 & 015526).
- THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING VEGETATION NOT INDICATED TO BE REMOVED. PROVIDE FENCES, BARRICADES AND OTHER SUITABLE DEVICES TO PREVENT DAMAGE BY VEHICLES. RESTRICT VEHICLE TRAFFIC TO AREAS OUTSIDE THE DRIP LINE OF TREES. PREVENT COMPACTION OF SOIL WITHIN THE DRIP LINE OF TREES AND SHRUBS. DO NOT DRIVE OR PARK VEHICLES ON LAWNS, EXCEPT WHERE AUTHORIZED.
- THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING PHYSICAL FEATURES NOT INDICATED OR REQUIRED TO BE REMOVED FOR THE WORK. PROTECT FROM DAMAGE ALL EXISTING PHYSICAL FEATURES ON THE SITE THAT LIE OUTSIDE THE GRADING LIMIT LINE.
- THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION ALL EXISTING PHYSICAL FEATURES DAMAGED BY THE UNAUTHORIZED ACT OR OMISSION OF THE CONTRACTOR. ORIGINAL CONDITION SHALL MEAN THE CONDITION IN WHICH THE FEATURE WAS FOUND AT THE START OF THE WORK.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED SURFACES TO ORIGINAL OR BETTER CONDITION. EXCAVATED & DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4-INCHES TOPSOIL, SEED, AND MULCH.
- CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION TO EXISTING GRADES AT LIMITS OF PROPOSED FINISHED GRADING.
- THE CONTRACTOR SHALL PROVIDE ALL REMOVALS INCIDENTAL TO AND NECESSARY TO PROVIDE THE WORK OF THIS CONTRACT AND REMOVE EXISTING FEATURES IN THEIR ENTIRETY UNLESS OTHERWISE DIRECTED BY THE DIRECTOR'S REPRESENTATIVE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING EXCAVATION AREAS AND MAINTENANCE OF CONSTRUCTION WATER & STORMWATER DURING THE COURSE OF THE WORK (SEE SPECIFICATION 015000 & 028335).
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE CAUSED BY HIS OPERATIONS TO EXISTING UTILITIES AND FACILITIES WHICH ARE NOT INCLUDED AS PART OF THE INTENDED WORK, ALL DAMAGE TO THE EXISTING FACILITIES WHICH ARE NOT A PART OF THE INTENDED WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE DIRECTOR'S REPRESENTATIVE, AT NO ADDITIONAL COST.
- REFER TO SPECIFICATION 015000 & 015526 FOR PROTECTION OF WORK AND EXISTING PROPERTY REQUIREMENTS.
- WORK WITHIN WETLANDS AND STREAMS SHALL BE COMPLETED IN SUBSTANTIVE COMPLIANCE WITH SECTIONS 401 AND 404 OF THE CLEAN WATER ACT AND IN ACCORDANCE WITH THE NYSDEC & USACE JOINT APPLICATION FOR PERMIT (JAP) AND RESTORATION PLAN FOR THE SITE.
- CONTRACTOR SHALL VERIFY EXISTING GRADES AND UTILITIES SHOWN PRIOR TO THE START OF ANY WORK. ANY AND ALL DISCREPANCIES SHALL BE DOCUMENTED AND SUBMITTED TO THE DIRECTOR'S REPRESENTATIVE AT THE TIME OF DISCOVERY.
- ALL DISTURBED PAVED SURFACES SHALL BE RECONSTRUCTED PRIOR TO WINTER SHUTDOWN INCLUDING SUBBASE, BINDER AND TEMPORARY STRIPING.
- THE CONTRACTOR SHALL PROVIDE TO THE DIRECTOR'S REPRESENTATIVE, PRIOR TO REQUESTING FINAL WALK THROUGH, A DETAILED TOPOGRAPHIC SURVEY (PREPARED BY A LICENSED LAND SURVEYOR) OF NEW AND ABANDONED TOPOGRAPHIC FEATURES, UTILITY LOCATIONS, RIMS, INVERTS, INCLUDING SITE INFRASTRUCTURE.

UTILITY NOTES

- SPECIAL ATTENTION SHALL BE GIVEN TO EXISTING UTILITIES SO THEY ARE NOT DISTURBED DURING CONSTRUCTION.
- ALL EXISTING ON-SITE UTILITIES SHALL REMAIN UNLESS DESIGNATED FOR REMOVAL OR ABANDONMENT. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES TO REMAIN.
- UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION WHERE POSSIBLE AND FROM RECORD DATA WHERE FOUND. EXACT LOCATION OF UTILITIES MAY DIFFER FROM THE LOCATION SHOWN, AND ADDITIONAL UTILITIES MAY EXIST. CONTRACTOR TO VERIFY THE PRESENCE OF AND EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO COMMENCING ANY EXCAVATION WORK PURSUANT TO THIS CONTRACT. CAUTION - NOTICE TO CONTRACTOR: THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION, SIZE, AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL DIG SAFELY NEW YORK (1-800-982-7962) AND THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS (SEE SPECIFICATION 014100).
- CONTRACTOR TO COMPLETE PRIVATE UNDERGROUND UTILITY SURVEY (SEE SPECIFICATION 023313).

DEMOLITION NOTES

- THE CONTRACTOR IS PERMITTED TO SALVAGE ANY EQUIPMENT OR MATERIALS THEY DEEM FEASIBLE FOR THAT PURPOSE UNLESS IT IS SPECIFIED TO BE SALVAGED AS SHOWN OR DISCUSSED IN THE CONTRACT DOCUMENTS AND/OR IDENTIFIED AS CONTAMINATED MATERIAL (E.G., LEAD). ALL SALVAGED MATERIAL OR ITEMS SHALL BE REMOVED FROM THE SITE IMMEDIATELY UPON REMOVAL. NO SUCH MATERIALS SHALL BE STORED ON THE SITE. ABSOLUTELY NO SALES OF SALVAGED MATERIALS WILL BE ALLOWED ON THE PROJECT SITE.
- ALL DEMOLITION DEBRIS INCLUDING TRAILER, WOOD DECK, TARGET & FRAMES AND SHOOTING BENCHES SHALL BE DISPOSED OF OFF-SITE AS C & D WASTE AT AN APPROPRIATE PERMITTED LANDFILL FACILITY. UNLESS OTHERWISE DIRECTED BY THE DIRECTOR'S REPRESENTATIVE. NO BURNING OF DEBRIS AND OR SPOIL MATERIAL SHALL BE ALLOWED.

CONSTRUCTION NOTES

GENERAL NOTES:

- SEE SHEETS C-104, C-105, C-200 AND C-201 FOR LIMITS OF AREAS TO BE EXCAVATED.
- HAZARDOUS SOIL MUST BE TREATED IN SITU PRIOR TO EXCAVATION AND TRANSPORTATION OFF SITE FOR DISPOSAL (SEE SPECIFICATION 028003 & 028335).
- EXCAVATION AND RESTORATION OF WETLAND AREAS AND STREAMS SHALL BE COMPLETED AS DESCRIBED IN THE CONTRACT DOCUMENTS (SPECIFICATION 327101), JAP, AND RESTORATION PLAN. FOR ESTIMATING PURPOSES 0.39 ACRES OF WETLAND AREAS AND 0.03 (264LF) OF STREAMS WILL REQUIRE RESTORATION. ALL DISTURBED WETLAND AND STREAM AREAS SHALL BE RESTORED IN PLACE AT 1:1 RATIO.
- THE WORK OF THIS CONTRACT INCLUDES THE COLLECTION, TRANSPORTATION, AND DISPOSAL OF CONTAMINATED EXCAVATED MATERIALS (SOIL AND SEDIMENT), DEMOLITION DEBRIS, SCRAP METAL AND CONTENTS OF A DEBRIS PILE, SPENT RIOT-CONTROL AGENT (RCA) CANISTERS, CONSTRUCTION WATER GENERATED DURING EXCAVATION AND DECONTAMINATION WATER AND SEDIMENTS COLLECTED FROM THE DECONTAMINATION PAD. THESE MATERIALS SHALL BE APPROPRIATELY CHARACTERIZED FOR DISPOSAL AT AN APPROPRIATELY PERMITTED OFF SITE TREATMENT, STORAGE, AND DISPOSAL FACILITY (TSDF). COLLECTION, CHARACTERIZATION, CONTAINERIZATION, TREATMENT (IF APPLICABLE) AND TRANSPORTATION AND DISPOSAL OF ALL WASTES ASSOCIATED WITH EXECUTION OF THE PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR.(SEE SPECIFICATION 017419, 028003, 028335).
- DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE SCALE TICKETS OR A SUITABLE SUMMARY FROM THE TREATMENT STORAGE AND DISPOSAL FACILITIES (TSDF) TO THE DIRECTORS REPRESENTATIVE AT A MINIMUM ON A TWICE WEEKLY BASIS TO VERIFY QUANTITIES OF MATERIALS DISPOSED OF OFF SITE. COPIES OF ALL BILL OF LADINGS & WASTE MANIFESTS MUST BE PROVIDED TO THE OWNER UPON COMPLETION OF THE PROJECT.
- AS DENOTED ON SHEET C-104 AND C-106 BACKFILL MATERIAL FOR EXCAVATED AREAS WILL BE OBTAINED FROM THE DESIGNATED EXISTING NON-CONTAMINATED ON SITE BERMS. SOIL AND PLANTINGS FOR WETLAND AND STREAM AREAS SHALL CONFORM WITH THE SPECIFICATIONS DESCRIBED IN SPECIFICATION 327101, THE JAP, AND RESTORATION PLAN AND SHALL BE IMPORTED TO THE SITE AS NEEDED. TOPSOIL SHALL BE IMPORTED TO THE SITE.
- TREES AND FOLIAGE THAT WILL BE REMOVED FROM EXCAVATION AND BACKFILL AREAS SHALL BE REMOVED AND DISPOSED OF OFF-SITE. STUMPS FROM CONTAMINATED AREAS SHALL BE DISPOSED OF AT A PART 360 PERMITTED LANDFILL.
- CONTRACTOR TO PROVIDE & MAINTAIN PUMPING EQUIPMENT NECESSARY TO KEEP THE WORK AREAS FREE FROM WATER AND PREVENT ENTRY OF SURFACE WATER INTO CONTAMINATED EXCAVATION AREAS. SEE SPECIFICATION 015000 & 028003.
- SOIL IN CONTAMINATED AREAS SHALL BE EXCAVATED TO THE DEPTHS ILLUSTRATED ON SHEETS C-104, C-105, C-200 AND C-201. BERM SLOPES TO REMAIN SHALL BE TIED TO EXISTING CONTOURS TO MAINTAIN SLOPES AS DEPICTED ON SHEETS C-104, C-105, C-200, AND C-201. CONTRACTOR TO BACK CUT AND MAINTAIN SLOPES TO PREVENT SLUFFING OF CLEAN SOIL INTO OPEN CONTAMINATED EXCAVATIONS.
- PLACE AND COMPACT FILL AS NECESSARY TO ACHIEVE A FINISHED GRADE AS SHOWN ON SHEET C-106. NO BACKFILLING SHALL OCCUR UNTIL DIRECTED TO PROCEED BY THE DIRECTOR'S REPRESENTATIVE.
- CONTRACTOR SHALL "STAND BY" DURING CONFIRMATORY SAMPLING THAT WILL BE PERFORMED BY THE DIRECTOR'S REPRESENTATIVE AND PROVIDE ADDITIONAL EXCAVATION, IF NECESSARY, AS DIRECTED BY THE DIRECTOR'S REPRESENTATIVE.
- AT THE COMPLETION OF THE PROJECT THE CONSTRUCTION ENTRANCE AND DECONTAMINATION PAD SHALL BE REMOVED AND THE MATERIAL DISPOSED OFF SITE. GRADE SURFACE SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS.
- THE CONTRACTOR SHALL GRADE THE SITE DURING RESTORATION TO PROVIDE PROPER DRAINAGE AS INDICATED ON SHEET C-106 AND ELIMINATE THE POTENTIAL FOR COLLECTED WATER.
- THE SITE SHALL BE RESTORED WITH SEEDING FOR THE PURPOSE OF MINIMIZING POTENTIAL EROSION.

EROSION & SEDIMENT CONTROL NOTES

- BACKGROUND INFORMATION**

PROJECT INTENT
THE PURPOSE OF THIS PROJECT IS TO REMEDIATE THE FORMER VILLAGE FIRING RANGE AT THE FRANKLIN CORRECTIONAL FACILITY IN MALONE, NEW YORK.

PROJECT LOCATION
THE FORMER FIRING RANGE (ENCOMPASSING APPROXIMATELY 9-ACRES) IS LOCATED ON THE EAST SIDE OF BARE HILL ROAD APPROXIMATELY 1,600 FT. NORTH OF THE INTERSECTION OF BARE HILL ROAD AND CADY ROAD IN THE TOWN OF MALONE, FRANKLIN COUNTY, NEW YORK.
- GENERAL SITE INFORMATION**

A. SURROUNDING LAND USE
WOODED, UNDEVELOPED LAND, RESIDENTIAL PARCELS, AND THREE CORRECTIONAL FACILITIES SURROUND THE SITE AS DESCRIBED BELOW:
NORTH OF THE SITE: THE SITE IS BORDERED BY UNDEVELOPED FORESTED AREA TO THE NORTH. TO THE NORTHWEST IS THE UPSTATE CORRECTIONAL FACILITY.
SOUTH OF THE SITE: THE SITE IS BORDERED TO THE SOUTH, BY RESIDENCES AND THE NORTH COUNTY ANIMAL SHELTER. THE AREAS TO THE SOUTH ARE GENERALLY RESIDENTIAL OR UNDEVELOPED FORESTED LAND. A GAS STATION AND THE FRANKLIN COUNTY CORRECTIONAL FACILITY ARE LOCATED BEYOND THE RESIDENCES TO THE SOUTH OF THE SITE.
EAST OF THE SITE: THE SITE IS BORDERED BY AN UNDEVELOPED FORESTED AREA AND THE SALMON RIVER TO THE EAST. RESIDENTIAL PROPERTIES ARE LOCATED BEYOND THE SALMON RIVER.
- SEQUENCE OF CONSTRUCTION**

A. PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES ON THE SITE, MEET WITH THE DIRECTOR'S REPRESENTATIVE TO DISCUSS THE EROSION AND SEDIMENT CONTROL MEASURES FOR THE PROJECT. INSTALL STABILIZED CONSTRUCTION ENTRANCE PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.

EROSION & SEDIMENT CONTROL NOTES

- CONTRACTOR TO SURVEY & STAKE OUT LOCATIONS OF HISTORIC SAMPLE LOCATIONS, EXTENTS OF WETLAND AREAS AND STREAMS AND EXTENTS OF EXCAVATION AREAS AS DESCRIBED IN CONTRACT DOCUMENTS (SEE SPECIFICATION 017123) PRIOR TO PLACEMENT OF EROSION & SEDIMENT CONTROL MEASURES. DIRECTOR'S REPRESENTATIVE TO INSPECT STAKE OUT PRIOR TO CONTRACTOR'S PLACEMENT OF EROSION & SEDIMENT CONTROL MEASURES.
- INSTALL SILT FENCE AND EROSION & SEDIMENT CONTROL MEASURES AS SHOWN ON EROSION AND SEDIMENT CONTROL PLAN (SHEET C-103) AND AS DESCRIBED IN SPECIFICATION 312513, DOWN GRADIENT OF WORK AREAS. INSTALLATION OF THE SILT FENCE SHALL BE INSPECTED AND APPROVED BY THE DIRECTOR'S REPRESENTATIVE PRIOR TO BEGINNING ANY CONSTRUCTION.
- EXISTING DRAINAGE FACILITIES TO REMAIN SHALL BE MAINTAINED FREE OF DEBRIS AND FOREIGN MATTER AND OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD.
- ONCE SITE IS RESTORED & STABILIZED IN ACCORDANCE WITH THE PROJECT MANUAL THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- SITE DISTURBANCE**
APPROXIMATELY 3.7 ACRE WILL BE DISTURBED BY THE EXCAVATION WORK OF THE CONTRACT. CONTRACTOR TO VERIFY ACREAGE OF ADDITIONAL AREAS THAT WILL BE DISTURBED DURING CONSTRUCTION ACTIVITIES WITH THE DIRECTOR'S REPRESENTATIVE PRIOR TO THE START OF WORK. THE AREA DISTURBED DURING PROJECT EXECUTION IS TO EXCEED 1 ACRE; THEREFORE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN AND SUBSTANTIVE COMPLIANCE WITH NYSDEC SPDES GP-0-10-001 WILL BE REQUIRED. THE SWPPP HAS BEEN PREPARED BY THE DIRECTOR'S REPRESENTATIVE. APPROPRIATE EROSION & SEDIMENT CONTROL MEASURES SHALL BE PLACED IN ADDITIONAL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES (E.G. TEMPORARY ROADS, STOCKPILES) NOT SPECIFIED ON THE CONTRACT DRAWINGS. INSTALLATION OF THESE MEASURES SHALL BE INSPECTED & APPROVED BY THE DIRECTOR'S REPRESENTATIVE PRIOR TO BEGINNING ANY CONSTRUCTION.
- POLLUTION PREVENTION MEASURES**
TAKE THE FOLLOWING STEPS TO PREVENT LITTER, CHEMICALS AND DEBRIS FROM ENTERING SURFACE WATER AND STORMWATER STRUCTURES:
 - PROPERLY INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AS OUTLINED IN THE PROJECT DOCUMENTS AND IN COMPLIANCE WITH THE LATEST EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR THE EROSION AND SEDIMENT CONTROL.
 - PROPERLY CONTAIN AND DISPOSE OF ALL MATERIALS USED ON SITE. THE CONTRACTOR SHALL CONTACT THE NYSDEC SPILLS HOTLINE (1-800-457-7362) IN THE EVENT A SPILL OCCURS ON-SITE DURING CONSTRUCTION.
 - CLEAN UP SPILLS IMMEDIATELY TO MINIMIZE SAFETY HAZARDS AND PREVENT SPREADING.
 - CONTROL LITTER BY SWEEPING AND PICKING IT UP DAILY.
 - IF POSSIBLE, DO NOT STORE FUEL OR PETROLEUM PRODUCTS ON SITE. IF FUEL/PETROLEUM PRODUCTS ARE STORED ON SITE:
 - USE SECONDARY CONTAINMENT MEASURES.
 - HAVE EQUIPMENT ON SITE TO CONTAIN AND CLEAN UP SPILLS IN FUEL STORAGE AREAS OR ON BOARD MAINTENANCE AND FUELING VEHICLES.
 - CONTAIN AND CLEAN UP SPILLS IMMEDIATELY.
 - USE PREVENTATIVE MAINTENANCE FOR ON-SITE EQUIPMENT.
 - OVERSEE ALL FILLING OPERATIONS.
 - STORE MATERIALS AND PERFORM FILLING OPERATIONS OUTSIDE OF WETLAND AND STREAM AREAS.
 - PRACTICE GOOD HOUSEKEEPING AND EDUCATE EMPLOYEES ON POLLUTION PREVENTION MEASURES.
 - STORE ON-SITE MATERIALS AND CHEMICALS IN A NEAT AND ORDERLY MANNER AND IN AREAS DESIGNATED FOR SUCH STORAGE.
 - ROUTINELY DISPOSE OF GARBAGE, RUBBISH, CONSTRUCTION WASTE AND SANITARY WASTE.
 - PROMPTLY CLEAN UP ANY SPILLS.
 - ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSE PUBLIC THROUGHFARE(S) BY INSTALLING AND MAINTAINING A STABILIZED CONSTRUCTION ENTRANCE, AND BY WASHING ALL VEHICLE WHEELS ON THE DECONTAMINATION PAD IF NEEDED. ALL MATERIALS DEPOSITED ONTO PUBLIC THROUGHFARE(S) SHALL BE REMOVED IMMEDIATELY. PROPER PRECAUTIONS SHOULD BE TAKEN TO ENSURE THAT MATERIALS DEPOSITED ONTO PUBLIC THROUGHFARE(S) ARE REMOVED SO THAT THEY DO NOT ENTER DRAINAGE SYSTEMS. SWEEPING OR WASHING OF PUBLIC THROUGHFARES SHALL BE DONE AS ORDERED BY THE DIRECTOR'S REPRESENTATIVE AT NO ADDITIONAL COST IF DEBRIS OR SOIL ARE OBSERVED ON SAID THROUGHFARE.
 - THE CONTRACTOR IS TO PROVIDE DUST CONTROL MEASURES BEFORE DUST MIGRATES OFF-SITE. SITE CONTRACTOR SHALL HAVE A WATER TRUCK AVAILABLE AT ALL TIMES ON-SITE.
 - PRODUCTS ARE TO BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
 - SUBSTANCES ARE NOT TO BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
 - WHENEVER POSSIBLE, PRODUCT IS TO BE USED UP OR PACKAGES RESEALED BEFORE PROPER DISPOSAL OF CONTENTS AND CONTAINERS OFF-SITE.
 - MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL ARE TO BE FOLLOWED.
 - INSPECTION IS TO BE MADE FOR PROPER USE AND DISPOSAL OF MATERIALS DURING PERIODIC INSPECTIONS AND RECORDED ON THE INSPECTION REPORT FORM.
 - FOR CONSTRUCTION WASTE:
 - SELECT A DESIGNATED WASTE AREA
 - PROVIDE AN ADEQUATE NUMBER OF CONTAINERS WITH LIDS OR COVERS THAT CAN BE PLACED OVER CONTAINERS PRIOR TO RAINFALL.
 - WHEN POSSIBLE, LOCATE CONTAINERS IN A COVERED AREA.
 - ARRANGE FOR WASTE COLLECTION PRIOR TO CONTAINER OVERFLOW.
 - IF A CONTAINER DOES SPILL, CLEAN IT UP IMMEDIATELY.
 - CONSTRUCTION WASTE SHALL BE COLLECTED, REMOVED AND DISPOSED OF ONLY IN AUTHORIZED DISPOSAL AREAS.
 - DISPOSAL METHODS SHALL MEET THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL AUTHORITIES.
 - PORTABLE TOILETS ARE TO BE INSTALLED AND CLEANED REGULARLY WITH THEIR CONTENTS PROPERLY DISPOSED OF. PORTABLE TOILETS SHALL BE LOCATED SO THEY WILL NOT BE KNOCKED OVER BY CONSTRUCTION ACTIVITIES.
 - IF FERTILIZERS OR DETERGENTS ARE USED ON SITE:
 - LIMIT THE APPLICATIONS OF FERTILIZERS TO THE MINIMUM AREA REQUIRED AND USE THE MINIMUM RECOMMENDED AMOUNTS.
 - REDUCE THE EXPOSURE OF NUTRIENTS TO STORMWATER.
 - APPLY FERTILIZER MORE FREQUENTLY BUT AT LOWER APPLICATION RATES.
 - HYDROSEEDING WHERE LIME AND FERTILIZERS ARE APPLIED TO THE GROUND SURFACE IN ONE APPLICATION SHOULD BE LIMITED WHERE POSSIBLE.
 - LIMIT THE USE OF DETERGENTS ON SITE: WASH WATER CONTAINING DETERGENTS SHALL NOT BE DISCHARGED INTO THE STORMWATER SYSTEM.
 - APPLY FERTILIZERS AND DETERGENTS ONLY IN THE RECOMMENDED MANNER AND ONLY IN THE RECOMMENDED AMOUNTS.

EROSION & SEDIMENT CONTROL NOTES

- ON-SITE MATERIAL STORAGE**
THE FOLLOWING MATERIALS MAY BE STORED ON-SITE DURING PROJECT CONSTRUCTION. THIS LIST MAY NOT BE ALL-INCLUSIVE AND WILL VARY DURING THE DIFFERENT STAGES OF THE PROJECT
 - STOCKPILED SOILS - TOP SOIL, SUB BASE MATERIAL, CUSHION MATERIAL, SELECT GRANULAR MATERIAL AND CRUSHED STONE.
 - EROSION AND SEDIMENT CONTROL MATERIALS: SILT FENCE, EROSION CONTROL BLANKETS, RIP-RAP AND SEED.
 - UTILIZE THE POLLUTION PREVENTION MEASURES OUTLINED ABOVE TO PREVENT POLLUTANTS FROM STORED MATERIALS FROM REACHING THE STORMWATER CONVEYANCE DEVICES AND DISCHARGES.
- PHASING AND DESCRIPTION OF EROSION AND SEDIMENT CONTROL PRACTICES**
THE LOCATION OF THE FOLLOWING EROSION AND SEDIMENT CONTROL PRACTICES ARE SHOWN ON DRAWINGS. DETAILS FOR THEIR INSTALLATION ARE SHOWN ON DRAWINGS.
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.
 - SILT FENCE: SILT FENCE REDUCES RUNOFF VELOCITY AND CAUSES SETTLING OF SEDIMENT. INSTALL SILT FENCE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, AND WHERE DIRECTED BY THE DIRECTOR'S REPRESENTATIVE. INSTALL AROUND ANY STOCKPILED SOIL MATERIALS.
 - TEMPORARY SEEDING: TEMPORARY SEEDING REDUCES EROSION AND SEDIMENT LOSS FROM BARE GROUND. PROVIDE TEMPORARY SEEDING TO PROVIDE TEMPORARY COVER FOR DISTURBED EARTH OR SOIL STOCKPILES. IN SPRING, SUMMER OR EARLY FALL APPLY RYE GRASS AT A RATE OF 1LB/1000 SQ. FT. IN LATE FALL OR EARLY SPRING, APPLY CERTIFIED AROOSTOOK RYE AT 2.5 LBS/1000 SQ. FT. APPLY HAY OR STRAW AT 2 BALES/1000 SQ. FT. OR WOOD FIBER HYDROMULCH AT MANUFACTURER'S RECOMMENDED RATE. HAY OR STRAW SHALL BE ANCHORED.
 - DUST CONTROL: TEMPORARY AND PERMANENT STABILIZATION MEASURES, SUCH AS SEEDING, MULCHING AND INSTALLING EROSION AND SEDIMENT CONTROL BLANKETS, WILL PREVENT DUST FROM BLOWING OFF SITE. INSTALL THESE MEASURES AS SOON AS FINAL GRADES ARE REACHED ON SOIL STOCKPILES AND DISTURBED AREAS TO BE LEFT IDLE LONGER THAN 14 DAYS.
 - PERMANENT SEEDING: PERMANENT SEEDING PREVENTS SOIL EROSION FROM BARE SOIL. ONCE FINAL GRADING OF AN AREA HAS BEEN COMPLETED, SEEDING SHALL TAKE PLACE IMMEDIATELY.
 - EROSION AND SEDIMENT CONTROL PRACTICE LOCATION & SIZING**
REFER TO THE PLANS FOR THE LOCATION(S), SIZE(S) AND LENGTH(S) OF EROSION AND SEDIMENT CONTROL PRACTICES.
 - DIMENSIONS, MATERIAL SPECIFICATIONS, AND INSTALLATION DETAILS OF EROSION AND SEDIMENT CONTROL PRACTICES**
REFER TO THE PLANS AND THE PROJECT MANUAL FOR DIMENSIONS, MATERIAL SPECIFICATIONS AND INSTALLATION DETAILS OF EROSION AND SEDIMENT CONTROL PRACTICES.

EROSION & SEDIMENT CONTROL PRACTICES IMPLEMENTATION SCHEDULE		
PRACTICE	INITIAL PLACEMENT	DURATION OF USE
STABILIZED CONSTRUCTION ENTRANCE	PRIOR TO SITE CONSTRUCTION ACTIVITIES	UNTIL COMPLETION OF WORK
SILT FENCE	PRIOR TO CONSTRUCTION ACTIVITIES	UNTIL SITE STABILIZATION
TEMPORARY SEEDING	BARE EARTH & SOIL STOCK PILES TO BE INACTIVE FOR 14 DAYS OR LONGER	UNTIL FINAL GRADING & SEEDING OR USE OF STOCK PILE
DUST CONTROL	COMMENCEMENT OF CONSTRUCTION ACTIVITIES	UNTIL SITE STABILIZATION

- EROSION AND SEDIMENT CONTROL MAINTENANCE**
SILT FENCE SHALL BE INSPECTED DAILY, AND REPLACED WHEN TORN, IS BULGING, OR NO LONGER MEETING THE INSTALLATION DETAILS.
- RECEIVING WATER**
STORMWATER RUNOFF FROM THE SITE IS DISCHARGED TO EXISTING DRAINAGE PIPES AND CULVERTS AT THE PERIMETER OF THE SITE.
- EROSION & SEDIMENT CONTROL MEASURES IMPLEMENTATION**
 - THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND IMPLEMENTING THE EROSION & SEDIMENT CONTROL MEASURES.
 - IF FIELD CONDITIONS RENDER THE EROSION AND SEDIMENT CONTROL MEASURES INEFFECTIVE IN MINIMIZING POLLUTANTS FROM STORMWATER DISCHARGES THEN THE DIRECTOR'S REPRESENTATIVE SHALL UPDATE OR AMEND THE CONTRACT DRAWINGS TO ADDRESS THE DEFICIENCY. THE CONTRACTOR SHALL INSTALL/CONSTRUCT ANY NEW FACILITIES WITHIN SEVEN DAYS OF NOTIFICATION AS A RESULT OF THE MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.

LEGEND

EXISTING	PROPOSED
EDGE OF TREES	544 2' CONTOUR
200 10' CONTOUR	550 5' CONTOUR
2' CONTOUR	STABILIZED CONSTRUCTION ENTRANCE
12" CSP DRAINAGE PIPE (CORRUGATED STEEL PIPE CULVERT)	DECONTAMINATION PAD
WL WETLAND BOUNDARY	SILT FENCE
NON-HAZARDOUS SOIL	DOUBLE SILT FENCE
HAZARDOUS SOIL	CONTRACT LIMIT LINE
STREAM	GRADING LIMIT LINE

ABBREVIATIONS

AOC	AREA OF CONCERN	JAP	NYSDEC/USACE JOINT APPLICATION FOR PERMIT
CONC.	CONCRETE	INV.	INVERT
CSP	CORRUGATED STEEL PIPE	G.L.L.	GRADING LIMIT LINE
EL OR ELEV.	ELEVATION	PVC	POLYVINYL CHLORIDE PIPE
C.L.L.	CONTRACT LIMIT LINE	TYP	TYPICAL
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION	USACE	U.S. ARMY CORPS OF ENGINEERS
DSF	DOUBLE SILT FENCE	WL	WETLAND
SF	SILT FENCE		

REVISED DRAWING 5/10/2013



Serving New York
ANDREW M. CUOMO
Governor
ROANN M. DESITTO
Commissioner

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CONTRACT: CONSTRUCTION

TITLE: PROVIDE REMEDIATION OF VILLAGE FIRING RANGE

LOCATION: FRANKLIN CORRECTIONAL FACILITY
62 BARE HILL ROAD
MALONE, NY

CLIENT: NEW YORK STATE
DEPARTMENT OF CORRECTIONS
AND COMMUNITY SUPERVISION

MARK	DATE	DESCRIPTION
1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C

DESIGNED BY: J. WOLF

DRAWN BY: S. JOHNSON

FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO

APPROVED:

SHEET TITLE:

NOTES LEGEND & ABBREVIATIONS

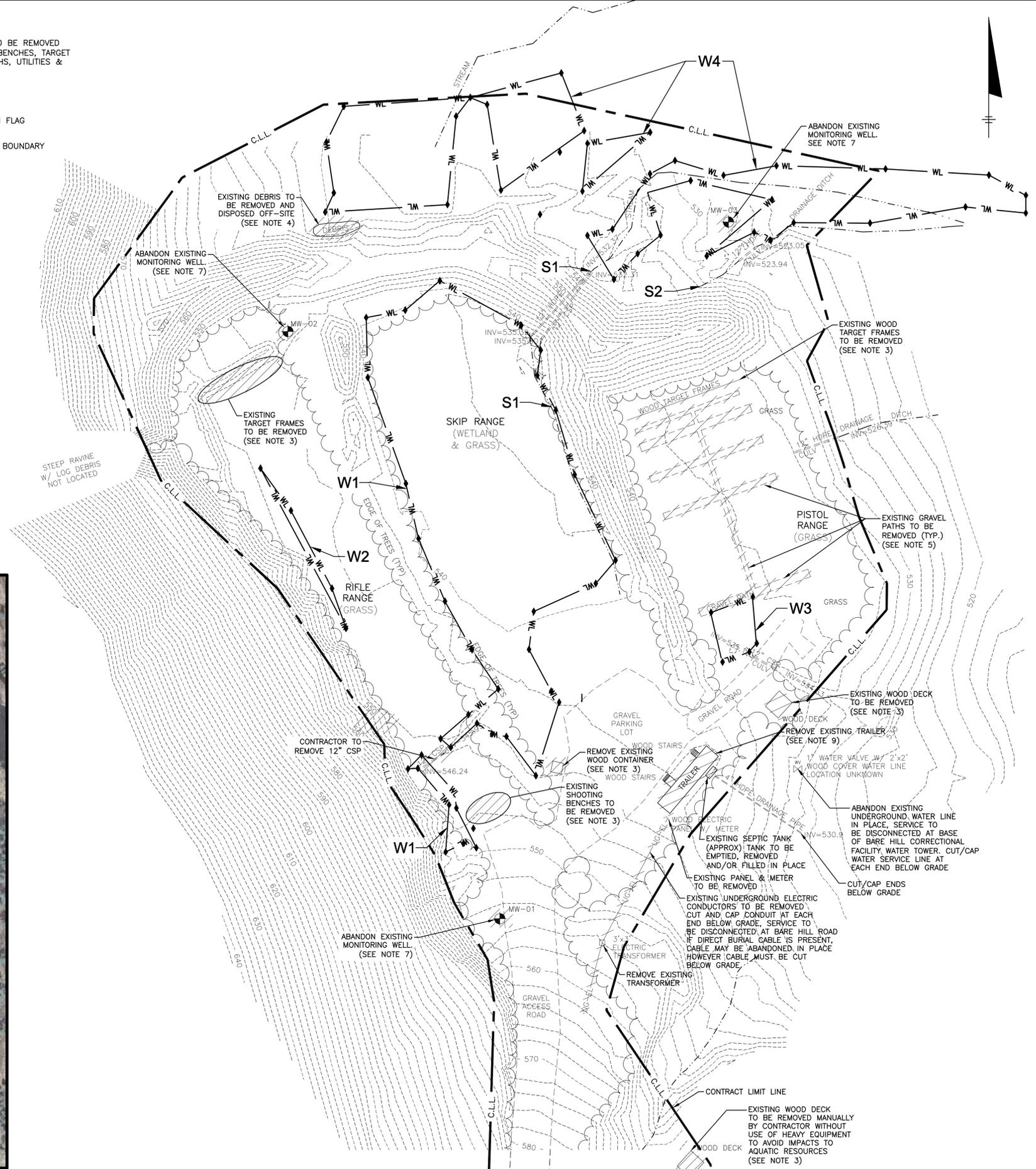
DRAWING NUMBER: C-002

NOTES:

1. PRIOR TO THE START OF WORK EXISTING GRAVEL ACCESS ROAD TO BE STABILIZED, RESTORED AND MAINTAINED BY CONTRACTOR TO ALLOW ACCESS FOR CONSTRUCTION VEHICLES. DRAINAGE IMPROVEMENTS TO ROAD DESCRIBED ON SHEET C-103 ARE TO BE COMPLETED PRIOR TO START OF WORK. INCLUDE PLACEMENT OF ADDITIONAL 200 TON OF ADD STONE TO ROAD SURFACE. STONE TO BE PLACED BY CONTRACTOR DURING PROJECT AS NEEDED. ROAD TO BE RESTORED TO ORIGINAL OR BETTER CONDITION AT COMPLETION OF PROJECT.
2. EXISTING GRAVEL ACCESS ROAD ALLOWS FOR ONE WAY TRAFFIC. CONTRACTOR TO PROVIDE PROVISIONS (TRAFFIC CONTROL DEVICE ETC.) FOR CONSTRUCTION VEHICLES TO ACCESS AND DEPART THE SITE SAFELY. TEMPORARY TRAFFIC CONTROL DEVICE (TRAFFIC LIGHT) OR FLAG PERSONNEL WITH TWO WAY RADIOS SHALL BE POSTED AT THE DEPICTED LOCATIONS DURING TRUCKING ACTIVITIES ASSOCIATED WITH PROJECT (E.G., TRANSPORTATION OF SOIL). SEE SPECIFICATION 015000 AND 015526.
3. EXISTING STRUCTURES, EQUIPMENT AND DEMOLITION DEBRIS LOCATED ON SITE WILL BE REMOVED AND DISPOSED AS C&D WASTE AT AN APPROPRIATE, PERMITTED LANDFILL FACILITY.
4. CONTENTS OF EXISTING DEBRIS PILE NORTH OF SKIP RANGE TO BE DISPOSED AT A 6 NYCRR PART 360 PERMITTED LANDFILL. DEBRIS TO BE REMOVED TO MATCH SURROUNDING SURFACE GRADE.
5. GRAVEL PATHS ON PISTOL RANGE CONSISTING OF APPROXIMATELY 4" CRUSHED STONE TO BE DISPOSED AT A 6 NYCRR PART 360 PERMITTED LANDFILL.
6. UTILITIES TO BE REMOVED OR ABANDONED IN PLACE AS SPECIFIED ON DRAWING AND IN SPECIFICATION 014100.
7. MONITORING WELLS TO BE ABANDONED PER WELL ABANDONMENT SPECIFICATION PROVIDED IN CONTRACT DOCUMENTS (SEE SPECIFICATION 024116).
8. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION
9. DEMOLITION OF TRAILER TO BE COMPLETED IN ACCORDANCE WITH SPECIFICATION 024116.
10. SEE TABLE 1 IN RESTORATION PLAN FOR ACREAGE OF WETLAND AND STREAM AREAS AND TEMPORARY ENCROACHMENT AREAS.

LEGEND

-  SITE IMPROVEMENT TO BE REMOVED (TRAILER, SHOOTING BENCHES, TARGET FRAMES, GRAVEL PATHS, UTILITIES & MONITORING WELLS)
-  DRAINAGE PIPE
-  WETLAND DELINEATION FLAG
-  DELINEATED WETLAND BOUNDARY
-  STREAM
- S1** STREAM ID
- W1** WETLAND ID



PLAN
SCALE: 1"=200'

PLAN
SCALE: 1"=40'

REVISED DRAWING 5/10/2013



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Commissioner

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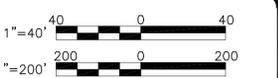


CONTRACT: CONSTRUCTION

TITLE: PROVIDE REMEDIATION OF VILLAGE FIRING RANGE

LOCATION: FRANKLIN CORRECTIONAL FACILITY
62 BARE HILL ROAD
MALONE, NY

CLIENT: NEW YORK STATE
DEPARTMENT OF CORRECTIONS
AND COMMUNITY SUPERVISION



MARK	DATE	DESCRIPTION
1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C

DESIGNED BY: J. WOLF

DRAWN BY: S. JOHNSON

FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO

APPROVED:

SHEET TITLE:

EXISTING SITE FEATURES & DEMOLITION PLAN

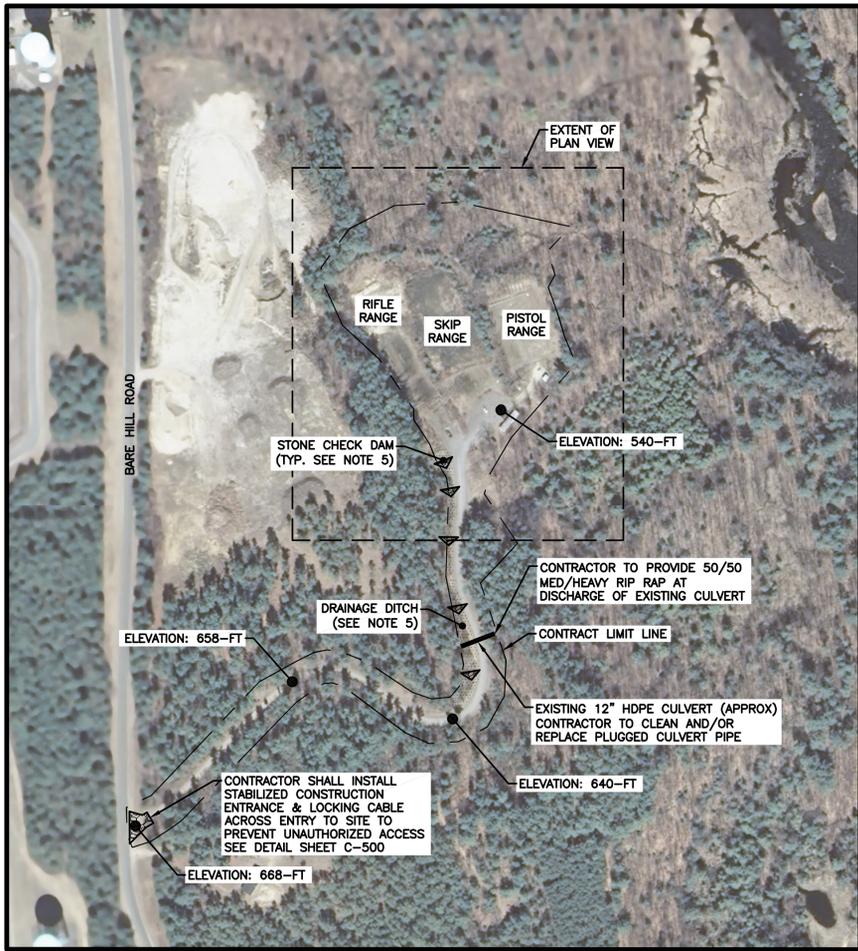
DRAWING NUMBER: C-101

NOTES:

- DOUBLE SILT FENCE TO BE PLACED TO PROTECT WETLAND AREAS.
- WETLAND BOUNDARIES WERE FIELD DELINEATED BY O'BRIEN & GERE ON 10/16/12 AND 10/17/2012.
- COORDINATES OF WETLAND AND STREAM LOCATIONS TO BE STAKED BY CONTRACTOR PRIOR TO PLACEMENT OF STORMWATER & EROSION CONTROLS ARE PROVIDED IN CONTRACT DOCUMENTS (SEE SPECIFICATION 017123)
- WETLAND AND STREAM AREAS THAT SHOULD NOT BE DISTURBED AS PART OF EXECUTION OF THE PROJECT SHALL BE MARKED AND PROTECTED FROM ACCESS AND SOIL DISTURBANCE ACTIVITIES.
- CONTRACTOR TO STABILIZE, RESTORE AND MAINTAIN DRAINAGE DITCH ON WEST SIDE OF SITE ACCESS ROAD. FIVE CHECK DAM(S) TO BE PLACED AS DEPICTED HEREIN.
- SEE TABLE 1 IN RESTORATION PLAN FOR ACREAGE OF WETLAND AND STREAM AREAS AND TEMPORARY ENCROACHMENT AREAS.

LEGEND

- AOC 1 - SHOOTING STATIONS AND SHOOTING FIELD (EXCAVATION #'S 1,2&3)
- AOC 2 - TARGET AREA, SHOOTING WALL AND EARTHEN BACKSTOP (EXCAVATION #'S 4-8)
- AOC 3 - DOWN RANGE AND OUT OF BOUNDS AREAS (EXCAVATION #'S 9,10&11)
- AOC 4 - DOWN GRADIENT DRAINAGE (EXCAVATION #'S 12&13)
- AOC 5 - UPGRADIENT DRAINAGE (EXCAVATION # 14)
- NON-HAZARDOUS SOIL
- HAZARDOUS SOIL
- #1 EXCAVATION ID NUMBER
- WL DELINEATED WETLAND BOUNDARY
- STREAM
- WETLAND DELINEATION FLAG
- S1 STREAM ID
- W1 WETLAND ID



PLAN
SCALE: 1"=200'

PLAN
SCALE: 1"=40'

REVISED DRAWING 5/10/2013

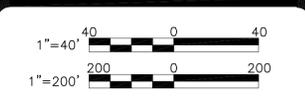
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CONTRACT:	CONSTRUCTION
TITLE:	PROVIDE REMEDIATION OF VILLAGE FIRING RANGE
LOCATION:	FRANKLIN CORRECTIONAL FACILITY 62 BARE HILL ROAD MALONE, NY
CLIENT:	NEW YORK STATE DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION



MARK	DATE	DESCRIPTION
1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C
DESIGNED BY: J. WOLF
DRAWN BY: S. JOHNSON
FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO
APPROVED:

SHEET TITLE: **DELINEATED WETLANDS & SOIL EROSION & SEDIMENT CONTROL PLAN**
DRAWING NUMBER: C-103
SHEET 5 OF 11

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 36x24 PLOT SHEET

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CONTRACT: CONSTRUCTION

TITLE: PROVIDE REMEDIATION OF VILLAGE FIRING RANGE

LOCATION: FRANKLIN CORRECTIONAL FACILITY
 62 BARE HILL ROAD
 MALONE, NY

CLIENT: NEW YORK STATE
 DEPARTMENT OF CORRECTIONS
 AND COMMUNITY SUPERVISION

1"=40'

1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C

DESIGNED BY: J. WOLF
 DRAWN BY: S. JOHNSON
 FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO
 APPROVED:

SHEET TITLE: MATERIAL EXCAVATION PLAN

DRAWING NUMBER: C-104



APPROXIMATE EXCAVATION DEPTHS

EXCAVATION NO.	DEPTH (FT.)
1	2
2	1
3	1
4	REMOVE TO MATCH SURFACE GRADE
5	6
6	2
7	2
8	REMOVE TO MATCH SURFACE GRADE
9	1
10	1
11	1
12	1
13	1
14	1

DEPTHS ARE APPROXIMATE
 SEE SHEET C-105 & C-106 FOR
 EXCAVATION DETAILS AND CROSS SECTIONS

LEGEND

- AOC 1 - SHOOTING STATIONS AND SHOOTING FIELD (EXCAVATION #'S 1,2&3)
- AOC 2 - TARGET AREA, SHOOTING WALL AND EARTHEN BACKSTOP (EXCAVATION #'S 4-8)
- AOC 3 - DOWN RANGE AND OUT OF BOUNDS AREAS (EXCAVATION #'S 9,10&11)
- AOC 4 - DOWN GRADIENT DRAINAGE (EXCAVATION #'S 12&13)
- AOC 5 - UPGRADIENT DRAINAGE (EXCAVATION # 14)
- NON-HAZARDOUS SOIL
- HAZARDOUS SOIL
- #1 EXCAVATION ID NUMBER
- TEMPORARY WETLAND & STREAM ENCROACHMENT AREAS
- WL DELINEATED WETLAND BOUNDARY
- STREAM
- WETLAND DELINEATION FLAG
- S1 STREAM ID
- W1 WETLAND ID

NOTES:

1. SOIL DEPICTED IN HAZARDOUS SOIL EXCAVATION AREAS MUST BE TREATED AND STABILIZED IN SITU BY CONTRACTOR PRIOR TO OFF SITE DISPOSAL AT A 6 NYCRR PART 360 PERMITTED LANDFILL.
2. SOIL DEPICTED IN NON-HAZARDOUS SOIL EXCAVATION AREAS TO BE DISPOSED OF OFF SITE BY CONTRACTOR AT A 6 NYCRR PART 360 PERMITTED LANDFILL.
3. CONTRACTOR TO PERFORM HAZARDOUS WASTE DETERMINATION SAMPLING & WASTE CHARACTERIZATION AS DESCRIBED IN THE CONTRACT DOCUMENTS (SPECIFICATION 028003 & 028335).
4. THE EXTENTS OF EXCAVATION DEPICTED HEREIN REPRESENT THE ANTICIPATED MINIMUM EXCAVATION REQUIRED FOR THIS CONTRACT.
5. OVEREXCAVATION MAY BE REQUIRED ON THE BASIS OF LABORATORY CONFIRMATORY SAMPLE RESULTS COLLECTED BY THE DIRECTORS REPRESENTATIVE. TO ACCOUNT FOR THESE OVER EXCAVATIONS THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT BID PRICE THE FEE FOR THE ADDITIONAL QUANTITIES PRESENTED IN NOTES 5A THROUGH 5D BELOW. IT SHALL BE UNDERSTOOD THAT THESE QUANTITIES ARE IN ADDITION TO THE EXCAVATIONS DEPICTED ON THE CONTRACT DOCUMENTS (NOTE 4 ABOVE). FIELD MEASUREMENTS AND SURVEY SHALL BE USED TO VERIFY QUANTITIES USED ABOVE THE MINIMUM ANTICIPATED EXCAVATION LIMITS. THE CONTRACTOR WILL OWE THE STATE A CREDIT FOR THE UNUSED QUANTITIES AT THE PROJECT'S COMPLETION:
 - 5A) IN-SITU TREATMENT, EXCAVATION AND DISPOSAL OF AN ADDITIONAL 1,500 TONS OF HAZARDOUS SOIL
 - 5B) EXCAVATION AND DISPOSAL OF AN ADDITIONAL 2,500 TONS OF NON HAZARDOUS SOIL
 - 5C) RESTORATION OF AN ADDITIONAL 0.25 ACRE OF FEN WETLAND
 - 5D) RESTORATION OF AN ADDITIONAL 0.10 ACRE OF FORESTED WETLAND.
6. THE ABOVE FEES SHALL INCLUDE ALL OF THE CONTRACTORS LABOR AND MATERIALS REQUIRED TO EXECUTE THE ABOVE ADDITIONAL SERVICES (NOTE 5) IN ACCORDANCE WITH THE MEANS AND METHODS DESCRIBED IN THE CONTRACT DOCUMENTS AND DRAWINGS. THE RELATED SERVICES REQUIRED TO PERFORM THE ADDITIONAL WORK INCLUDE BUT ARE NOT LIMITED TO EARTHWORK, CLEARING, RESTORATION, DEWATERING, SURVEYING, DUST CONTROL, INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND DISPOSAL COSTS.
7. DESIGNATED EXISTING BERMS SHALL BE USED AS PRIMARY SOURCE FOR BACKFILL TO MEET FINAL GRADING CONTOURS AS SHOWN ON SHEETS C-106 AND C-200.
8. EXCAVATION AREAS, INCLUDING RESTORATION OF WETLANDS AND STREAMS, TO BE RESTORED AS DESCRIBED IN THE CONTRACT DOCUMENTS, JAP, AND RESTORATION PLAN.
9. ALL DISTURBED WETLAND AND STREAM AREAS SHALL BE RESTORED IN PLACE AT A 1:1 RATIO IN ACCORDANCE WITH SPECIFICATION 327101, JAP, AND RESTORATION PLAN FOR THE SITE.
10. COORDINATES OF EXCAVATION AREAS TO BE STAKED BY CONTRACTOR PRIOR TO PLACEMENT OF STORMWATER & EROSION CONTROLS ARE PROVIDED ON SHEET C-105 & C-500 (SEE SPECIFICATION 017123).
11. SEE TABLE 1 IN RESTORATION PLAN FOR ACREAGE OF WETLAND AND STREAM AREAS AND TEMPORARY ENCROACHMENT AREAS.

PLAN
 SCALE: 1"=40'

REVISED DRAWING 5/10/2013

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 36x24 PLOT SHEET

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CONTRACT: CONSTRUCTION

TITLE: PROVIDE REMEDIATION OF VILLAGE FIRING RANGE

LOCATION: FRANKLIN CORRECTIONAL FACILITY
62 BARE HILL ROAD
MALONE, NY

CLIENT: NEW YORK STATE
DEPARTMENT OF CORRECTIONS
AND COMMUNITY SUPERVISION

1"=20'

MARK	DATE	DESCRIPTION
1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C

DESIGNED BY: J. WOLF

DRAWN BY: S. JOHNSON

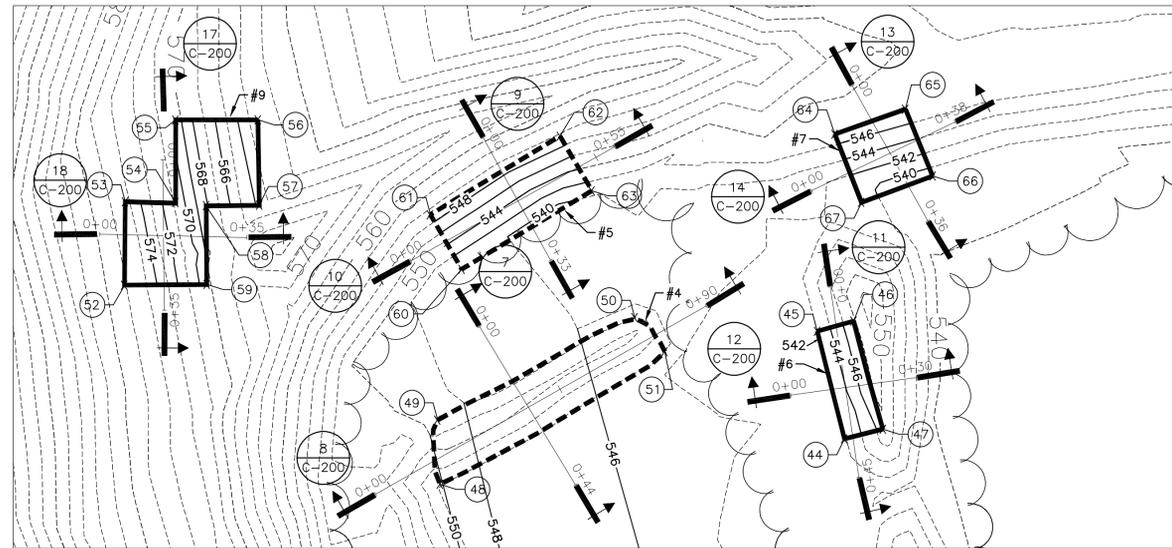
FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO

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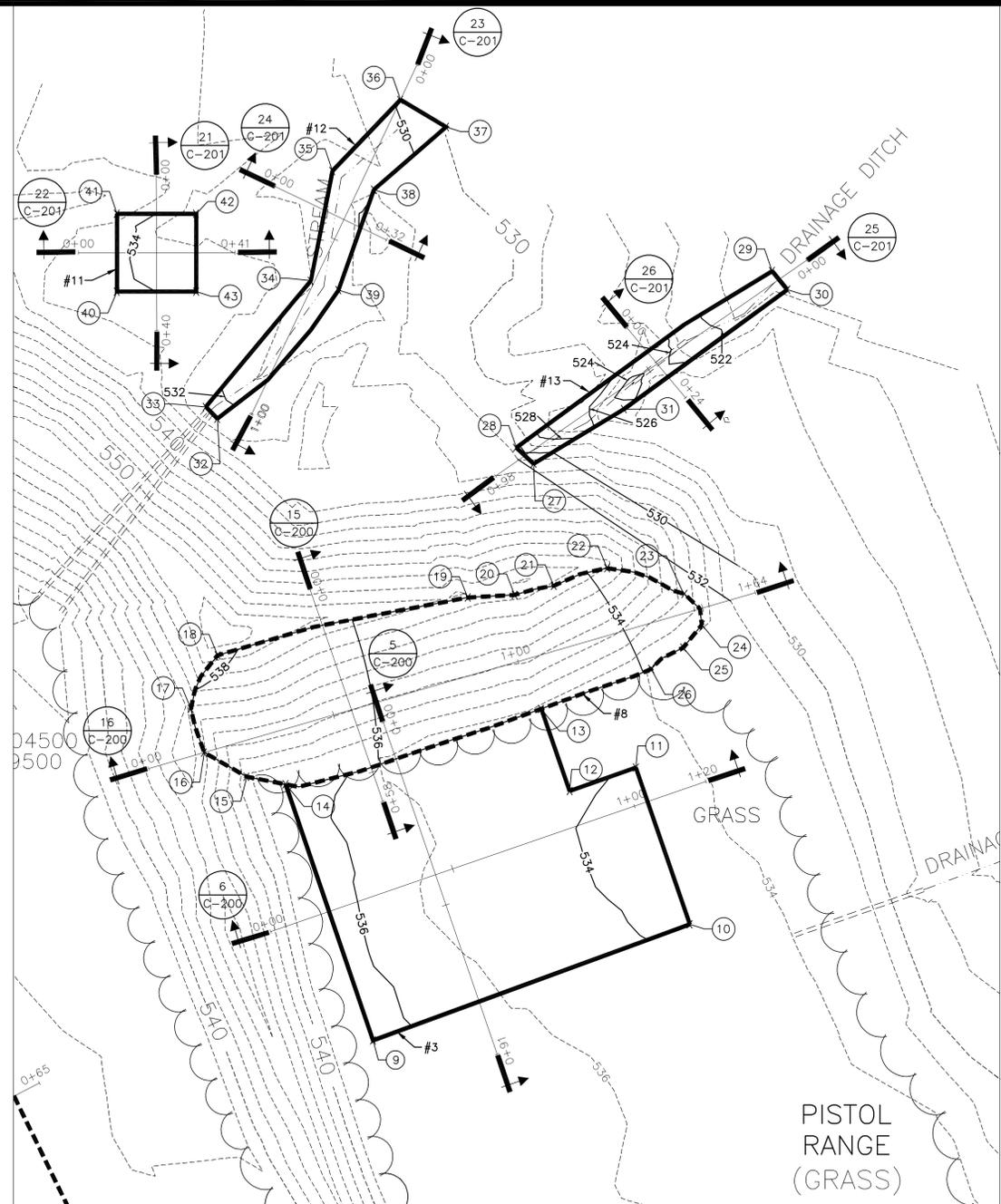
SHEET TITLE:

EXCAVATION DETAILS & CROSS SECTION LEGENDS

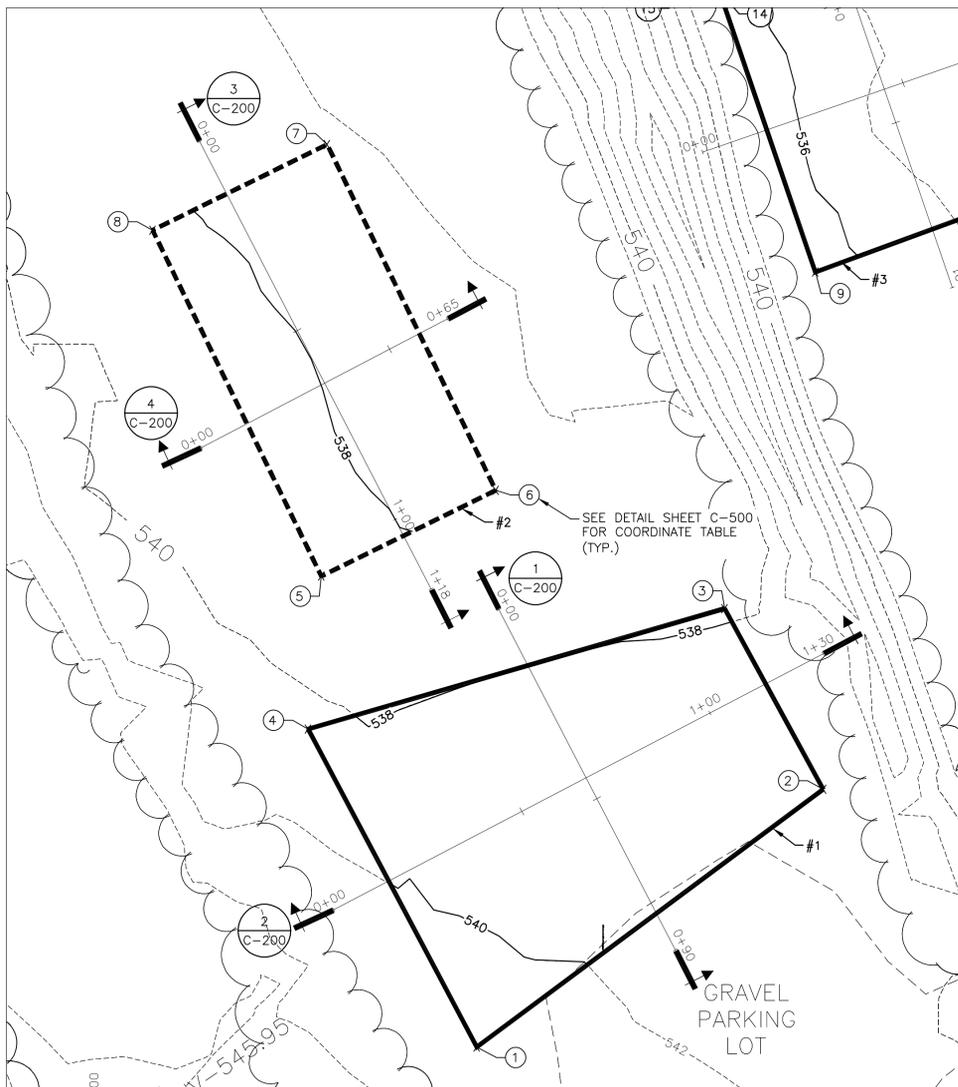
DRAWING NUMBER: C-105



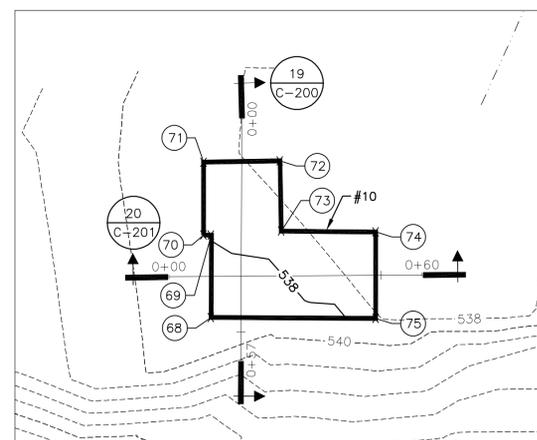
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SCALE: 1"=20'



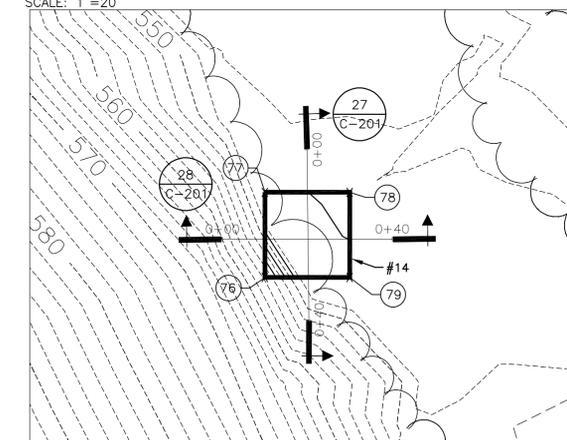
PLAN
SCALE: 1"=20'



PLAN
SCALE: 1"=20'



PLAN
SCALE: 1"=20'



PLAN
SCALE: 1"=20'

LEGEND:

- 548 --- EXISTING CONTOURS
- 548 — INTERM CONTOURS IN DISTURBED AREAS

REVISED DRAWING 5/10/2013



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1"=40'

MARK	DATE	DESCRIPTION
1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C

DESIGNED BY: J. WOLF

DRAWN BY: S. JOHNSON

FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO

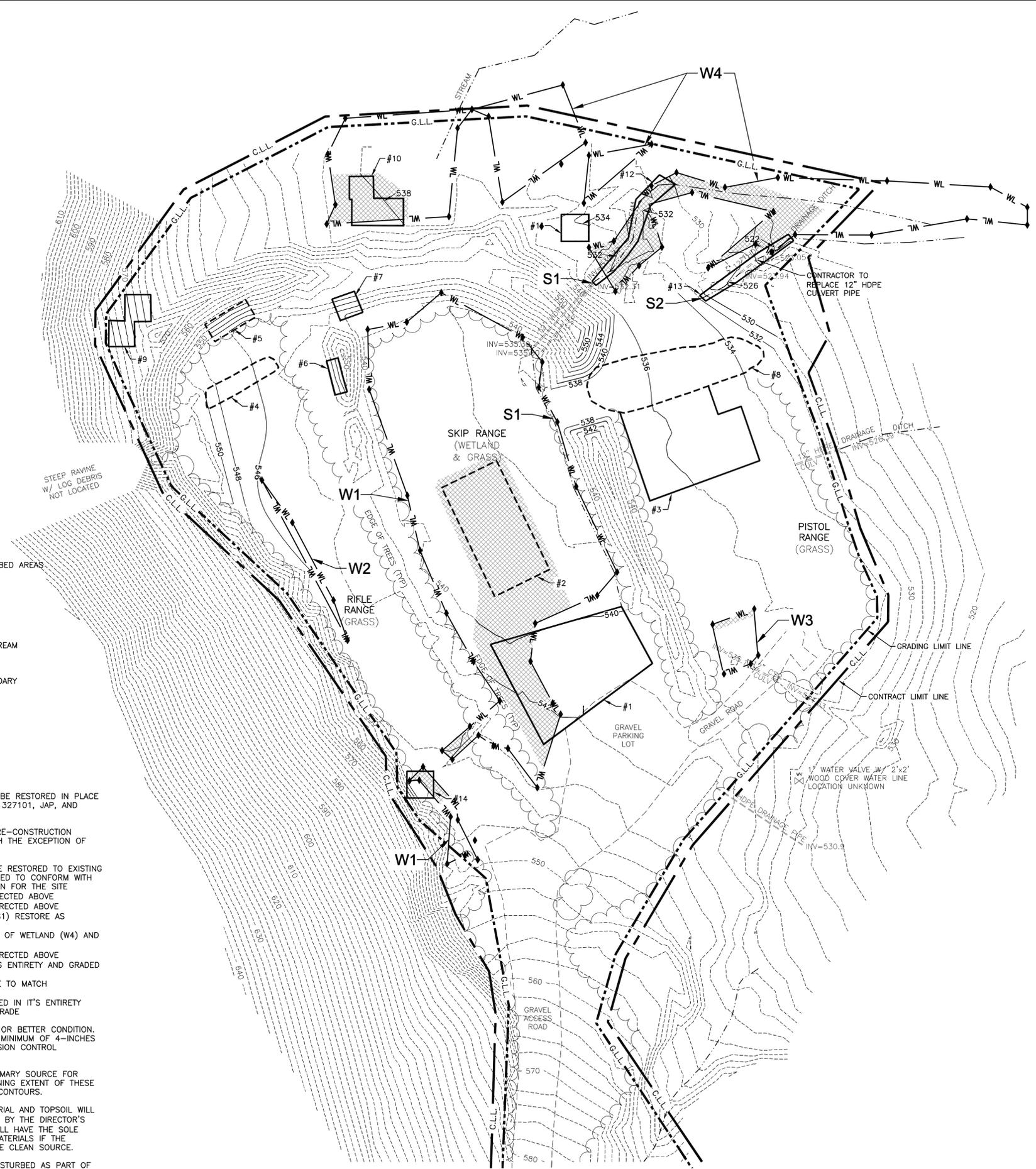
APPROVED:

SHEET TITLE:

FINAL GRADING PLAN

DRAWING NUMBER: C-106

SHEET 8 OF 11



LEGEND:

- 548 --- EXISTING CONTOURS
- 548 --- FINAL CONTOURS IN DISTURBED AREAS
- NON-HAZARDOUS SOIL
- - - HAZARDOUS SOIL
- #1 EXCAVATION ID NUMBER
- TEMPORARY WETLAND & STREAM ENCROACHMENT AREAS
- WL DELINEATED WETLAND BOUNDARY
- STREAM
- WETLAND DELINEATION FLAG
- S1 STREAM ID
- W1 WETLAND ID

NOTES:

- ALL DISTURBED WETLAND AND STREAM AREAS SHALL BE RESTORED IN PLACE AT A 1:1 RATIO IN ACCORDANCE WITH SPECIFICATION 327101, JAP, AND RESTORATION PLAN FOR THE SITE.
- EXCAVATIONS WILL REQUIRE BACKFILL TO EXISTING PRE-CONSTRUCTION GRADE WITH ON SITE SOIL & IMPORTED TOPSOIL WITH THE EXCEPTION OF THE FOLLOWING LOCATIONS:
 - EXCAVATION #1 - WETLAND (W1) PORTION WILL BE RESTORED TO EXISTING GRADE WITH IMPORTED FILL & MATERIALS AS NEEDED TO CONFORM WITH SPECIFICATION 327101, JAP AND RESTORATION PLAN FOR THE SITE
 - EXCAVATION #2 - WETLAND (W1) RESTORE AS DIRECTED ABOVE
 - EXCAVATION #10 - WETLAND (W4) RESTORE AS DIRECTED ABOVE
 - EXCAVATION #12 - WETLAND (W4) AND STREAM (S1) RESTORE AS DIRECTED ABOVE
 - EXCAVATION #13 - NORTHEAST PORTION CONSISTS OF WETLAND (W4) AND STREAM (S2) RESTORE AS DIRECTED ABOVE
 - EXCAVATION #14 - WETLAND (W1) RESTORE AS DIRECTED ABOVE
 - EXCAVATION #4 - BERM WILL BE REMOVED IN ITS ENTIRETY AND GRADED TO MATCH SURROUNDING GRADE
 - EXCAVATION #6 - BACKFILL NOT REQUIRED, GRADE TO MATCH SURROUNDING GRADE
 - EXCAVATION #8 - FACE OF BERM WILL BE REMOVED IN ITS ENTIRETY AND GRADED TO MATCH SURROUNDING SURFACE GRADE
- EXCAVATED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. EXCAVATED AND DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4-INCHES TOPSOIL, SEED AND MULCH FOR SEDIMENT AND EROSION CONTROL MEASURES.
- DESIGNATED EXISTING BERMS SHALL BE USED AS PRIMARY SOURCE FOR BACKFILL TO MEET FINAL GRADING CONTOURS. REMAINING EXTENT OF THESE BERMS SHALL BE GRADED TO MATCH SURROUNDING CONTOURS.
- THE LOCATION AND SOURCE OF IMPORTED FILL MATERIAL AND TOPSOIL WILL BE SUBJECT TO INSPECTION AND ANALYTICAL TESTING BY THE DIRECTOR'S REPRESENTATIVE. THE DIRECTOR'S REPRESENTATIVE WILL HAVE THE SOLE DISCRETION TO REJECT THE SOURCE OF IMPORTED MATERIALS IF THE MATERIALS ARE NOT DEEMED TO BE FROM A SUITABLE CLEAN SOURCE.
- WETLAND AND STREAM AREAS THAT SHALL NOT BE DISTURBED AS PART OF EXECUTION OF THE PROJECT SHALL BE MARKED AND PROTECTED FROM ACCESS AND SOIL DISTURBANCE ACTIVITIES.

PLAN
SCALE: 1"=40'

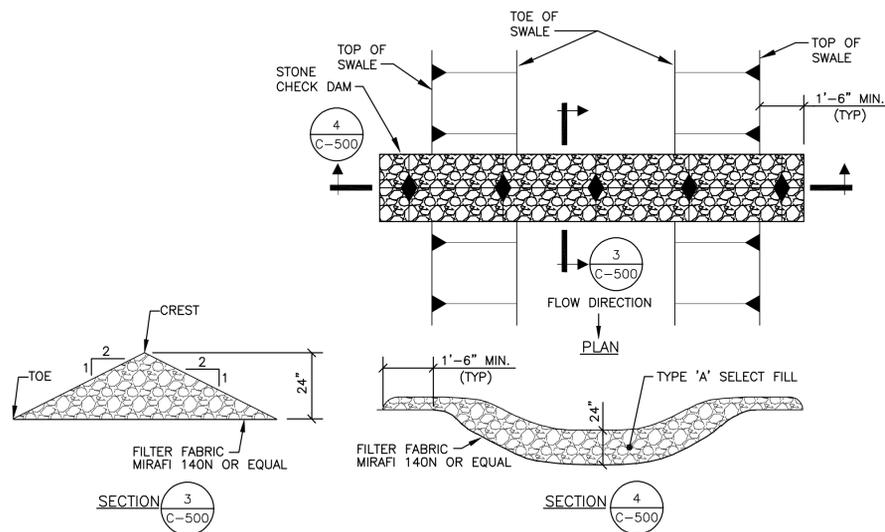
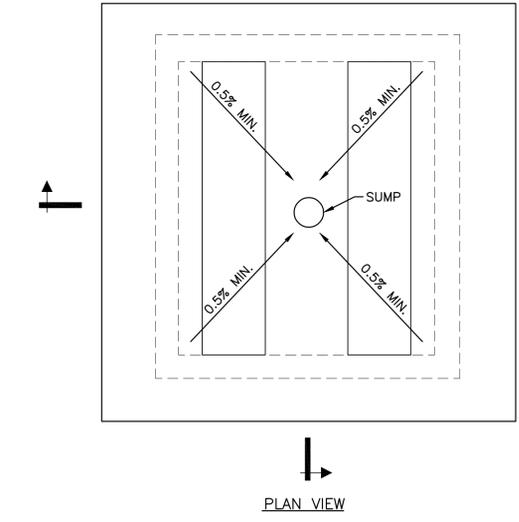
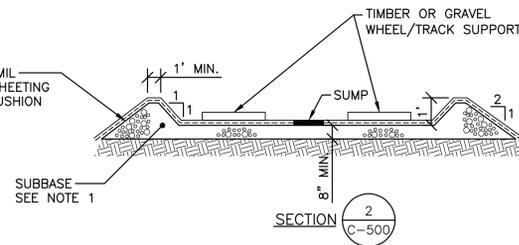
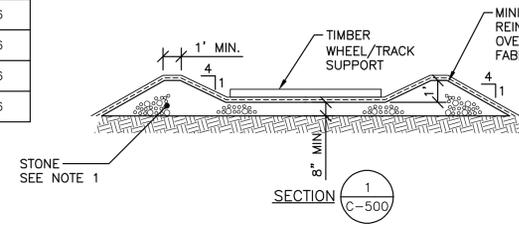
REVISED DRAWING 5/10/2013

36x24 PLOT SHEET
May 09, 2013 - 1:11pm
\\robertson\projects\Nys-Ogs-2009\49703\Franklin-Remed\Draw\DWG\Sheets\49703.C106.dwg

COORDINATE TABLE		
LOCATION	NORTHING	EASTING
1	2204234.7	539532.2
2	2204295.2	539613.9
3	2204337.6	539590.7
4	2204309.4	539492.4
5	2204345.2	539495.6
6	2204365.4	539536.7
7	2204446.6	539496.9
8	2204426.5	539455.8
9	2204416.7	539612.1
10	2204446.7	539694.5
11	2204487.3	539680.5
12	2204481.3	539663.3
13	2204502.6	539655.8
14	2204483.0	539589.4
15	2204484.9	539579.2
16	2204491.2	539568.2
17	2204502.5	539564.7
18	2204516.4	539571.6
19	2204531.4	539636.7
20	2204562.0	539648.9
21	2204534.4	539659.1
22	2204538.9	539672.9
23	2204532.3	539693.2
24	2204524.3	539697.7
25	2204518.4	539692.8
26	2204512.9	539684.5
27	2204566.0	539653.9
28	2204570.2	539649.4
29	2204615.9	539715.9
30	2204611.1	539719.9
31	2204580.2	539677.4
32	2204577.7	539571.6
33	2204580.8	539568.6
34	2204613.4	539595.9
35	2204641.9	539601.6

COORDINATE TABLE		
LOCATION	NORTHING	EASTING
36	2204660.3	539619.2
37	2204653.3	539631.1
38	2204637.0	539612.3
39	2204610.9	539603.1
40	2204610.6	539545.5
41	2204630.8	539545.5
42	2204630.8	539566.1
43	2204610.6	539566.1
44	2204495.9	539375.7
45	2204521.2	539369.3
46	2204523.4	539377.9
47	2204498.2	539384.8
48	2204485.2	539280.3
49	2204500.3	539279.7
50	2204524.1	539326.5
51	2204516.4	539333.3
52	2204531.9	539205.9
53	2204551.5	539206.0
54	2204551.2	539217.9
55	2204570.8	539217.9
56	2204570.8	539237.3
57	2204550.7	539237.6
58	2204550.6	539225.1
59	2204532.1	539225.3
60	2204535.7	539285.4
61	2204548.5	539278.0
62	2204566.9	539308.6
63	2204554.2	539316.1
64	2204567.4	539373.4
65	2204573.3	539390.1
66	2204557.6	539396.5
67	2204551.4	539379.8
68	2204622.5	539388.2
69	2204641.9	539388.3
70	2204641.9	539386.5

COORDINATE TABLE		
LOCATION	NORTHING	EASTING
71	2204658.9	539386.5
72	2204659.3	539404.5
73	2204642.8	539404.8
74	2204642.6	539427.1
75	2204622.3	539427.0
76	2204194.6	539429.6
77	2204214.6	539429.6
78	2204214.6	539449.6
79	2204194.6	539449.6

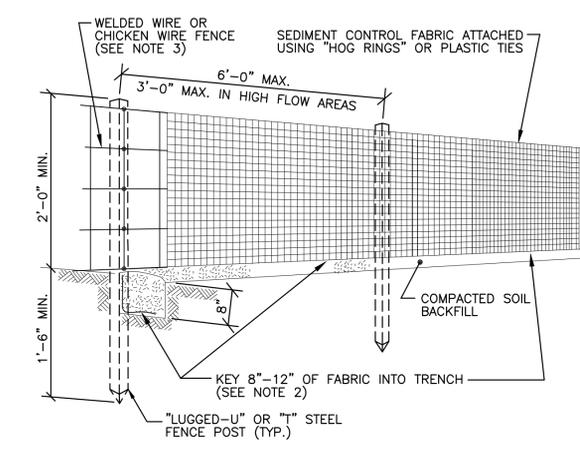


- CONSTRUCTION SPECIFICATIONS**
- TYPE 'A' STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION.
 - EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.

STONE CHECK DAM DETAIL
NOT TO SCALE

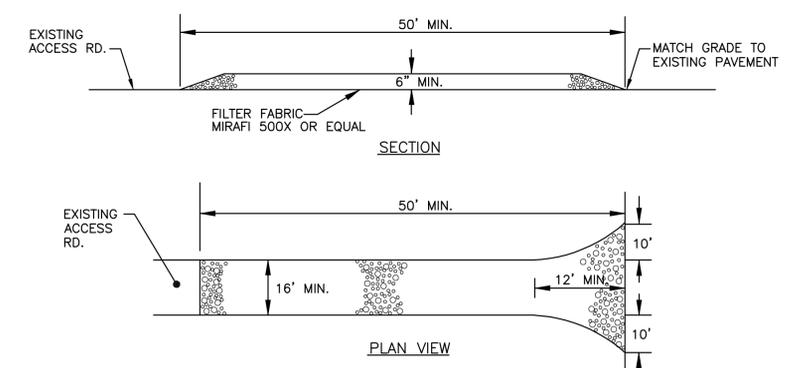
- DECON AREA SPECIFICATIONS:**
- SUBBASE - USE CUSHION MATERIAL (SEE SECTION 310000) TO CONSTRUCT BASE.
 - LENGTH AND WIDTH - AS REQUIRED, BUT NOT LESS THAN 10 FT IN EXCESS OF EACH RELATIVE DIMENSION OF EQUIPMENT.
 - GEOTEXTILE CUSHION FABRIC - A MINIMUM OF ONE LAYER OF CUSHION FABRIC SHALL BE PLACED OVER STONE BASE. MIRAFI HP565 GEOCUSHION OR EQUIVALENT (SEE SECTION 310000).
 - POLYETHYLENE SHEETING - A MINIMUM OF TWO LAYERS OF 6-MIL REINFORCED SHEETING SHALL BE PLACED OVER CUSHION FABRIC.
 - BERMS - BERMS TO BE A MINIMUM HEIGHT OF 1' RELATIVE TO THE INTERIOR BASE OF THE DECON AREA. SUGGESTED SIDE SLOPES SHOWN.
 - TIMBER OR GRAVEL WHEEL/TRACK SUPPORTS - PLACE 2 X 10 (MINIMUM) WOODEN SUPPORTS, GRAVEL, OR SIMILAR THAT IS SUFFICIENT TO SUPPORT TIRE/TRACK LOAD AND PREVENT WEAR/PUNCTURE OF DECON BASE (POLY).
 - MAINTENANCE - THE DECON AREA SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT RELEASE OF CONTAMINATED SOIL OR WASH WATER TO SURROUNDING GROUND SURFACE. INSPECT AND REPAIR POLY DAILY. ALL REPAIRS MUST BE MADE IMMEDIATELY. EVACUATE WASH WATER SO THAT STANDING WATER DOES NOT ACCUMULATE/REMAIN IN THE DECON AREA.
 - AS AN ALTERNATIVE TO AN ON-SITE-CONSTRUCTED DECON AREA, A PRE-FABRICATED DECONTAMINATION SYSTEM MAY BE USED, IF PRE-APPROVED BY THE DIRECTOR'S REPRESENTATIVE.

DECONTAMINATION PAD DETAIL
NOT TO SCALE



- DETAIL NOTES:**
- PRE-MANUFACTURED SILT FENCE SUCH AS ENVIROFENCE BY MIRAFI OR APPROVED EQUAL. IN SUCH CASE, ELIMINATE WELDED WIRE/CHICKEN WIRE FENCE.
 - KEY TOWARD UPSLOPE SIDE.
 - WELDED WIRE SHALL BE 14.5 GAUGE WITH 6-INCH MESH.

SILT FENCE DETAIL
NOT TO SCALE



- STABILIZED CONSTRUCTION ENTRANCE SPECIFICATIONS**
- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET
 - THICKNESS - NOT LESS THAN 6".
 - WIDTH 16' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE EGRESS OCCURS.
 - FILTER FABRIC (MIRAFI 500X OR EQUAL) - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
 - SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS NOT POSSIBLE, A MOUNTABLE BERM 3' WIDE (MIN.) WITH 5:1 SLOPES WILL BE PERMITTED.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
 - WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON THE DESIGNATED DECONTAMINATION PAD.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

CONSULTANT

O'BRIEN & GERE
O'BRIEN & GERE ENGINEERS, INC.
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OBG PROJECT NO. 02069.49703

WARNING:
THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.



CONTRACT: CONSTRUCTION
TITLE: PROVIDE REMEDIATION OF VILLAGE FIRING RANGE
LOCATION: FRANKLIN CORRECTIONAL FACILITY
62 BARE HILL ROAD
MALONE, NY
CLIENT: NEW YORK STATE
DEPARTMENT OF CORRECTIONS
AND COMMUNITY SUPERVISION

MARK	DATE	DESCRIPTION
1	05/10/13	REVISED DRAWING
0	01/18/13	FINAL SUBMISSION

PROJECT NUMBER: 44345-C
DESIGNED BY: J. WOLF
DRAWN BY: S. JOHNSON
FIELD CHECK: S. NAIR, K. ARNOLD, E. GREPPO
APPROVED:

MISCELLANEOUS DETAILS

DRAWING NUMBER: C-500
SHEET 11 OF 11



1511 Route 22, Suite C24
Brewster, NY 10509 845.278.7710

90 State Street, Suite 700
Albany, NY 12207 518.874.0617

1967 Wehrle Drive, Suite One
Buffalo, NY 14221 716.402.4580

E-mail: adelaidemail@adelaidellc.com
Fax: 845.278.7750

April 24, 2013

New York State Office of General Services
Corning Tower
The Governor Nelson A. Rockefeller
Empire State Plaza
Albany, New York 12242

Re: OGS Project #44345

To Whom It May Concern:

At your request, Adelaide Environmental Health Associates, Inc. (Adelaide) subcontracted Sienna Environmental Technologies to conduct asbestos, lead and PCB inspection services for Remediation of Village Firing Range at the Franklin Correctional Facility in Malone, New York. Inspections performed by Sienna were subject to the requirements of the NYS Industrial Code Rule Part 56 and the U.S. Environmental Protection Agency (EPA).

We are attaching the inspection report and all laboratory sample results. If you have any questions, please give me a call.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Stephanie A. Soter', is written over a white background.

Stephanie A. Soter
President



350 Elmwood Ave. • Buffalo, NY 14222

☎ 716.332.3134 ☎ 716.332.3136

April 22, 2013

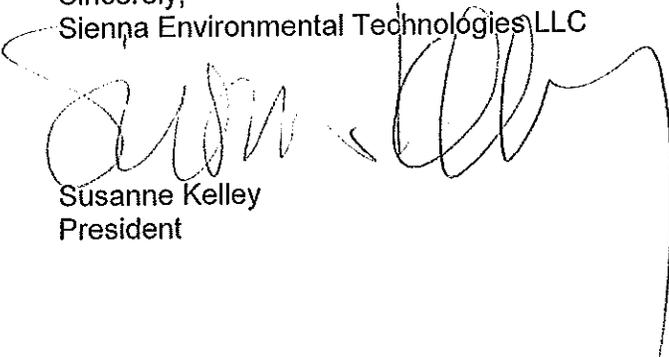
Ms. Stephanie Soter
Adelaide Environmental Health Associates
1511 Route 22, Suite C24
Brewster, New York 10509

**Re: Asbestos, Lead-based Paint and PCB Inspection Report
Franklin Correctional Facility – Old Office Trailer
62 Bare Hill Road
PO Box 10
Malone, New York 12953**

Dear Ms. Soter:

Enclosed please find a copy of the asbestos, lead-based paint and PCB inspection report for the Old Office Trailer at the Franklin Correctional Facility, located at 62 Bare Hill Road in Malone, New York. If after reviewing this report you have any questions, or if we can be of assistance in any other way, please do not hesitate to call. Thank you for the opportunity to be of service to Adelaide Environmental Health Associates.

Sincerely,
Sienna Environmental Technologies LLC


Susanne Kelley
President

CERTIFIED WBE • MBE • DBE

siennaet.com



Asbestos, Lead-based Paint and PCB Inspection

OF

**Franklin Correctional Facility – Old Office Trailer
62 Bare Hill Road
PO Box 10
Malone, New York 12953**

PREPARED FOR:

**Adelaide Environmental Health Associates
1511 Route 22, Suite C24
Brewster, New York 10509**

Conditions as of:

April 12, 2013



Summary Tabulation

1. Asbestos Inspection

- 1.1 Introduction
- 1.2 Methodology
- 1.3 Executive Summary
- 1.3A Suspect Asbestos-containing Materials
- 1.3B Summary Table of Asbestos-containing Materials
- 1.4 Inspection Notes

2. Lead-based Paint Inspection

- 2.1 Introduction
- 2.2 Methodology
- 2.3 HUD/ EPA Standards
- 2.4 OSHA Regulations
- 2.5 XRF Spectrum Analyzer Report and Instrument Information
- 2.6 Disclosure Requirements

3. PCB Inspection

- 3.1 Introduction
- 3.2 Methodology
- 3.3 PCB Testing Report
- 3.4 Inspection Notes

Appendices

- A General Conditions of Inspection
- B Certifications and Licenses
- C Laboratory Reports and Chains of Custody
- D Asbestos and PCB Sample Floor Plans
- E Site Photographs



1. Asbestos Inspection

1.1 Introduction

Sienna Environmental Technologies (Sienna) was retained by Adelaide Environmental Health Associates to perform an investigation of the Old Office Trailer at the Franklin Correctional Facility, located at 62 Bare Hill Road in Malone, New York to determine the presence of asbestos-containing materials prior to demolition associated with OGS Project No. 44345.

Sienna was charged with conducting the following tasks:

- Locating suspect asbestos containing materials
- Sampling of these materials to ascertain asbestos content
- Identifying the locations, quantities, friability and conditions of confirmed asbestos containing materials

Although the report is a comprehensive analysis of the asbestos inspection work performed, it would be helpful to review all applicable federal, state and local rules, laws and regulations regarding the handling and treatment of asbestos containing building materials (ACBM). The following is a list of suggested reading and information sources relating to asbestos:

- New York State Department of Labor Industrial Code Rule 56
- Occupational Safety and Health Administration
- Environmental Protection Agency Rule CFR 763.46 Asbestos Hazard Emergency Response Act

The report is generated for the exclusive use of client and is not designed to serve as a specification for abatement. Before requesting bids for abatement of materials identified in this report, the owner is strongly encouraged to contract with a consultant to provide this service.

1.2 Methodology

All work performed by Sienna Environmental Technologies was conducted in accordance with applicable regulations including New York State Department of Labor standards 12 NYCRR Part 56, National Emission Standards for Hazardous Air Pollutants (NESHAPS), and Occupational Safety and Health Administration regulations. All Sienna Environmental Technologies personnel assigned to conduct inspections have completed the Environmental Protection Agency (EPA) required training and New York State Department of Labor Division of Safety and Health certification program.

Based on the homogeneous areas, samples of suspect materials were collected. Techniques used for sample collection were designed to minimize damage to suspected areas, reduce any potential for fiber release, and ensure the safety of the inspector and building occupants.

Samples were analyzed using Polarized Light Microscopy (PLM) in accordance with NYS DOH ELAP Item #198.1 or #198.6. For materials classified as non-friable organically bound materials (NOBs) that were analyzed as equal to or less than 1% asbestos by PLM, additional analysis was performed under Transmission Electron Microscopy (TEM) in accordance with NYS DOH ELAP Item #198.4. The results of this analysis confirmed whether or not a suspect material actually contained asbestos. The confirmed materials are listed in **SECTION 1.3 Executive Summary**.



1.3 Executive Summary

The asbestos survey included identification, sampling, analysis and quantification of suspect materials within the Old Office Trailer at the Franklin Correctional Facility, located at 62 Bare Hill Road in Malone, New York which may be disturbed by current demolition plans. Copies of all laboratory analysis reports and chains of custody listing locations of sample collection are located in Appendix C.

1.3A Suspect Asbestos-containing Materials

The inspection was conducted on April 12, 2013 and revealed the following materials as requiring sampling and analysis:

Old Office Trailer – Franklin Correctional Facility

HAN Number	Description
200	Pre Manufactured Gypsum Panel w/ Textured Coating
300AB	Tan Linoleum and Associated Mastic
301AB	12x12 Gray Floor Tile and Mastic
600	Exterior Window and Door Caulk
601	4" Basecove Mastic
700	Silver Coating on Aluminum Deck
701	Black Patch Tar on Plumbing Vent



1.3B Summary Table of Asbestos-containing Materials

Sampling and analysis of the suspect materials under Polarized Light Microscopy, and where necessary under Transmission Electron Microscopy, confirmed the following materials as asbestos containing building materials (See Appendix C for laboratory reports and chains of custody):

Old Office Trailer – Franklin Correctional Facility

- **Analysis confirms that all sampled materials contain no asbestos.**

1.4 Inspection Notes

No Inspection Notes



2. Lead-based Paint Inspection

2.1 Introduction

Sienna Environmental Technologies performed an investigation of the Old Office Trailer at the Franklin Correctional Facility, located at 62 Bare Hill Road in Malone, New York, for the presence of surfaces covered with lead-based paint (LBP) or a lead-based coating prior to renovations. The inspection was conducted on April 12, 2013.

Sienna Environmental Technologies was charged with:

1. measuring lead concentrations on suspect building materials using an X-ray fluorescence spectrum analyzer (XRF)
2. summary report of all surfaces tested

2.2. Methodology

Sienna Environmental Technologies used a RMD LPA-1 Spectrum Analyzer (Refer to Section 2.5 for additional information) to test painted or coated surfaces throughout the building. The LPA-1 measures the amount of lead on painted surfaces using X-Ray Fluorescence technology (XRF). The LPA-1 uses a Cobalt-57 radioactive source which locates lead atoms in painted surfaces and measures the concentration in milligrams per squared centimeters. Representative surfaces/components were tested in a manner designed to adequately represent the different components, substrates, types of paint, construction and paint history. Various federal, state and local laws, rules, regulations and guidelines may be applicable to this project as it relates to lead-based paint/coatings (LBP) including but not limited to:

1. Lead-based Paint Renovation, Repair and Painting Regulation Rule (40 CFR Part 745.8 Subpart E (EPA))
2. Lead Safe Housing Rule (HUD 24 CFR Part 35)
3. Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing (US Department of Housing and Urban Development (HUD))
4. Occupational Safety and Health Administration (OSHA 29 CFR 1910 and 1926)
5. New York State Education Department (NYSED)
6. State of New York codes and laws
7. All local codes
8. All federal codes
9. US-DOT 49 CFR

The most recent edition of any relevant regulation, standard, document, or code shall be applicable to the work. Where conflict among the requirements exists, the most stringent requirements are generally applicable.



2.3 HUD/ EPA Standards

HUD and certain EPA standards apply to "lead based paint" which is any paint or coating which contains lead at or above 1.0 mg/cm² or 0.5 percent by weight. Analysis indicated that the following components have a lead content equal to or greater than the HUD/EPA standard for lead-based paint:

- Red Steel Trailer Hitch/Frame Rail

The presence of lead in surfaces that were analyzed as less than 0.5 percent lead by weight or in measurable amounts but less than 1.0 mg/cm² is a consideration for the purposes of complying with OSHA regulations and are listed in Section 2.5. Please see the following section for details.

2.4 OSHA Regulations

On May 4, 1993, OSHA promulgated the Lead Exposure in Construction Rule (29 CFR Part 1926.62). This regulation applies to all construction activities involving potential lead exposures. This regulation applies when lead is present in any detectable amount and is not limited to HUD's definition of lead paint based. Surface abrading and demolition activities may release lead from unpainted materials which contain lead such as unpainted ceramic tile and porcelain. Although these items do not meet HUD's definition of lead based paint and need not be included in disclosure under the Lead Disclosure Rule (Refer to section 2.6), they may have been included in 2.3 above.



2.5 XRF Spectrum Analyzer Report and Instrument Information

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: 04/11/13 13:11

INSPECTION FOR: Adelaide Environmental

PERFORMED AT: Franklin Correctional Facility
Old Job Trailer

INSPECTION DATE: 04/11/13

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 2690

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: NY-R-120605-1

SIGNED: _____

Mark A. Beyer
EPA Certified LBP
Risk Assessor

Date: 4/12/13

SEQUENTIAL REPORT OF LEAD PAINT INSPECTION FOR: Adelaide Environmental

Inspection Date: 04/11/13 Franklin Correctional Facility
 Report Date: 4/23/2013 Old Job Trailer
 Abatement Level: 1.0
 Report No. 04/11/13 13:11
 Total Readings: 21
 Job Started: 04/11/13 13:11
 Job Finished: 04/11/13 13:38

Read No.	Rm No.	Room Name	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
1		CALIBRATION								0.9	TC
2		CALIBRATION								0.9	TC
3		CALIBRATION								0.9	TC
4	001	trailer	A	Wall	U Lft		I	wood	brown	-0.3	Std
5	001	trailer	A	ceiling	Lft		I	gypsum	white	0.0	QM
6	001	trailer	B	light fixtur	Rgt		I	Steel	white	0.2	QM
7	001	trailer	A	ceiling vent	Ctr		I	Steel	white	0.3	QM
8	001	trailer	A	covebase	Ctr		I	vinyl	Cream	-0.2	QM
9	001	trailer	A	linoleum	Ctr		I	vinyl	brown	-0.1	QM
10	001	trailer	C	bath door	Lft		I	wood	brown	-0.5	QM
11	001	trailer	C	breaker pane	Rgt		I	Steel	gray	0.3	QM
12	001	trailer	B	door vent	Rgt		I	Steel	brown	0.4	QM
13	001	trailer	A	Wall	L Ctr		I	Steel	white	-0.1	QM
14	001	trailer	A	Door	Ctr Header		I	aluminum	white	0.3	QM
15	001	trailer	C	roof trim	Ctr		I	aluminum	green	0.3	QM
16	001	trailer	B	trailer hitc	Ctr		F	Steel	red	3.6	Std
17	001	trailer	B	panel box	Ctr		I	Steel	gray	0.2	QM
18	001	trailer	B	hvac unit	Ctr		I	Steel	beige	0.4	QM
19		CALIBRATION								1.0	TC
20		CALIBRATION								1.0	TC
21		CALIBRATION								0.9	TC

---- End of Readings ----

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Adelaide Environmental

Inspection Date:	04/11/13	Franklin Correctional Facility
Report Date:	4/23/2013	Old Job Trailer
Abatement Level:	1.0	
Report No.	04/11/13 13:11	
Total Readings:	21 Actionable: 1	
Job Started:	04/11/13 13:11	
Job Finished:	04/11/13 13:38	

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
016	B	trailer hitc	Ctr		F	Steel	red	3.6	Std

Calibration Readings

----- End of Readings -----

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Adelaide Environmental

Inspection Date: 04/11/13 Franklin Correctional Facility
 Report Date: 4/23/2013 Old Job Trailer
 Abatement Level: 1.0
 Report No. 04/11/13 13:11
 Total Readings: 21
 Job Started: 04/11/13 13:11
 Job Finished: 04/11/13 13:38

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Exterior Room 001 trailer									
013	A	Wall	L Ctr		I	Steel	white	-0.1	QM
014	A	Door	Ctr	Header	I	aluminum	white	0.3	QM
016	B	trailer hitc	Ctr		F	Steel	red	3.6	Std
017	B	panel box	Ctr		I	Steel	gray	0.2	QM
018	B	hvac unit	Ctr		I	Steel	beige	0.4	QM
015	C	roof trim	Ctr		I	aluminum	green	0.3	QM
Interior Room 001 trailer									
005	A	ceiling	Lft		I	gypsum	white	0.0	QM
007	A	ceiling vent	Ctr		I	Steel	white	0.3	QM
008	A	covebase	Ctr		I	vinyl	Cream	-0.2	QM
009	A	linoleum	Ctr		I	vinyl	brown	-0.1	QM
004	A	Wall	U Lft		I	wood	brown	-0.3	Std
006	B	light fixtur	Rgt		I	Steel	white	0.2	QM
012	B	door vent	Rgt		I	Steel	brown	0.4	QM
010	C	bath door	Lft		I	wood	brown	-0.5	QM
011	C	breaker pane	Rgt		I	Steel	gray	0.3	QM
Calibration Readings									
001								0.9	TC
002								0.9	TC
003								0.9	TC
019								1.0	TC
020								1.0	TC
021								0.9	TC

----- End of Readings -----



2.6 Disclosure Requirements

If the subject property of this report is target housing, the owner has certain responsibilities under the Lead Disclosure Rule when the property is being sold or leased, or when a lease is being renewed with revisions. In general, lead disclosure is required in these circumstances, except that disclosure does not have to be made when the target housing is being leased if the inspection has found that it is lead-based paint free.

Per 40 CFR Part 745 Target housing means any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing) or any 0-bedroom dwelling.

Results of this inspection must be provided to new lessees (tenants) and prospective buyers of this property under Federal law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must be provided by the owner to prospective buyers and it must be made available to prospective tenants and to renewing tenants if they have not been provided the information previously. The inspector's plain language summary of the report must be provided to the client (e.g., property owner or manager) when the complete report is provided. The landlord (lessor) or seller is also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency and include the Lead Warning Statement in the leases or sales contracts to ensure that parents have the information they need to protect their children from lead-based paint hazards. Complete disclosure requires the landlord/sellers and renters/buyers (and their agents) to sign and date acknowledgement that the required information and materials were provided and received. Also, prospective buyers must be provided the opportunity to have their own lead based paint inspection, lead hazard screen or risk assessment performed before the purchase agreement is signed; the standard period is 10 days, but this period may be changed or waived by agreement between the seller and prospective buyer. EPA regulations require the inspector to keep the inspection report for at least 3 years. (See section IV of chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing for further details; see www.hud.gov/lead.)



3. PCB Testing

3.1 Introduction

Sienna Environmental Technologies conducted an inspection for the presence of PCB in caulking, glazing or sealants at the Old Office Trailer at the Franklin Correctional Facility, located at 62 Bare Hill Road in Malone, New York.

Sienna Environmental Technologies was charged with:

- locating visible suspect caulk, glazing or other sealants,
- bulk sampling suspect materials for laboratory analysis where feasible, and
- Identifying concentration of sampled materials.

3.2 Methodology

Sienna Environmental Technologies identified suspect PCB-containing caulk, glazing or other sealant on building components that may be affected by proposed renovations.

The survey was performed in conformance with all applicable federal, state and local rules, laws, regulations and/or guidelines. All personnel assigned to conduct survey wore personal protective equipment in accordance with standard OSHA protocols.

The laboratory used for bulk sample analysis was approved by NYS ELAP and AIHA or NVLAP and performed laboratory analysis by EPA Method 8082.



3.3 PCB Testing Report

The US EPA's specified limit for PCB content is 50 ppm (parts per million) by weight.

The laboratory results are reported in $\mu\text{g}/\text{Kg}$ (micrograms per kilogram) which equates to ppb (parts per billion). Therefore, a conversion from billions to millions is needed to read the results in ppm. Take 3 zeros off of the results in the laboratory reports to convert to ppm. Example – 20800 $\mu\text{g}/\text{kg}$ = 20.8 ppm. Copies of all laboratory analysis reports and chains of custody listing locations of sample collection are located in Appendix C.

The following table summarized the results of suspect materials that were sampled and analyzed for PCB concentration by EPA Method 8082:

HAN Number	Material Description	PCB Content (PPM)	Concentration Above EPA Specified Limit
600	Window Caulk	None Detected	NO

Sampling and analysis of the suspect materials confirmed that the materials sampled have no PCB content.

3.4 Inspection Notes

No Inspection Notes



Appendix A General Conditions of Inspection

1. Sienna Environmental Technologies neither accepts nor implies any liability for the implementation of the recommendations found within this report.
2. This inspection was limited to areas accessible to the inspector. Sienna Environmental Technologies neither accepts nor implies any liability for hazardous materials that may be present in other areas of the building.
3. The results of the laboratory analytical reports that may be contained herein are the product of the knowledge, experience and expertise of the laboratory retained to perform such services. Sienna Environmental Technologies neither accepts nor implies any liability for sample analysis reports compiled by others.
4. This report is based on the condition and contents present at the site on the day of the inspection. Sienna Environmental Technologies is not liable for materials, chemicals or other substances of concern that may have been removed from the site, cleaned or disposed of prior to the inspection date or subsequent to that date.
5. An inspection for asbestos, lead-based paint or PCBs relies heavily upon identification of homogeneous areas, with sampling and laboratory analysis then determined by the quantity of surfaces identified, generally accepted inspection protocols, regulatory requirements, and the inspector's judgment. Specific sample locations are determined with the objective of selecting representative samples. As with any type of sampling, the possibility of obtaining a false positive or false negative does exist, is inherent in the sampling process, and can at times result from the fact that asbestos fibers are not always uniformly distributed throughout suspect surfaces or materials. Although Sienna Environmental Technologies attempts to minimize the risk of a false positive or false negative result through a comprehensive inspection protocol, the possibility does exist, and could only be completely eliminated through testing and analysis of 100% of each suspect surface, which is not practical.



Appendix B Certifications and Licenses

New York State - Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Sienna Environmental Technologies LLC
350 Elmwood Avenue
Buffalo, NY 14222

FILE NUMBER: 00-1037
LICENSE NUMBER: 29432
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 01/17/2013
EXPIRATION DATE: 02/28/2014

Duly Authorized Representative - Susahne Kelley

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



Eileen M. Franko, Acting Director
For the Commissioner of Labor

United States Environmental Protection Agency

This is to certify that

Sienna Environmental Technologies, LLC

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

New York

This certification is valid from the date of issuance and expires

November 20, 2015

NY-599-4

Certification #

November 06, 2012

Issued On



Michelle Price

Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

Performance Characteristic Sheet

EFFECTIVE DATE: October 24, 2000

EDITION NO.: 4

MANUFACTURER AND MODEL:

Make: *Radiation Monitoring Devices*

Model: *LPA-1*

Source: ^{57}Co

Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Quick mode or nominal 30-second standard mode readings.

XRF CALIBRATION CHECK LIMITS

0.7 to 1.3 mg/cm ² (inclusive)

SUBSTRATE CORRECTION:

For XRF results below 4.0 mg/cm², substrate correction is recommended for:

Metal using 30-second standard mode readings.

None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second standard mode readings

Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

THRESHOLDS:

30-SECOND STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds

SUBSTRATE CORRECTION VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm² for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm² at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm². Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm² NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1\text{st} + 2\text{nd} + 3\text{rd} + 4\text{th} + 5\text{th} + 6\text{th Reading}) / 6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either 15-second readings or 60-second readings.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family housing a result is defined as the average of three readings. In multifamily housing, a result is a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

BIAS AND PRECISION:

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm² lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm² lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm² and none of the quick mode readings were less than 1.0 mg/cm². The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm ²)	PRECISION (mg/cm ²)
0.0 mg/cm ²	Brick	0.0	0.1
	Concrete	0.0	0.1
	Drywall	0.1	0.1
	Metal	0.3	0.1
	Plaster	0.1	0.1
	Wood	0.0	0.1
0.5 mg/cm ²	Brick	0.0	0.2
	Concrete	0.0	0.2
	Drywall	0.0	0.2
	Metal	0.2	0.2
	Plaster	0.0	0.2
	Wood	0.0	0.2
1.0 mg/cm ²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.0	0.3
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.0	0.3
2.0 mg/cm ²	Brick	-0.1	0.4
	Concrete	-0.1	0.4
	Drywall	-0.1	0.4
	Metal	0.1	0.4
	Plaster	-0.1	0.4
	Wood	-0.1	0.4

* Precision at 1 standard deviation.

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION:

An EPA document titled *Methodology for XRF Performance Characteristic Sheet* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, www.hud.gov/lea.

This edition of the XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE



MARY A. BEYER
CLASS (EXPIRES)
C ATEC(04/14) D II SP(04/14)
I PM(04/14) I PD (04/14)



CERT# 11-10661
DMV# 319717879

MUST BE CARRIED ON ASBESTOS PROJECTS

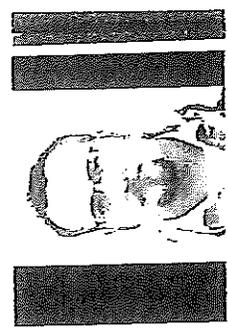


EYES HAZ
HAIR BRO
HGT 6' 07"

IF FOUND RETURN TO:
NYS DOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

Certification No NY-R-1206065-1	
Date of Birth 04/26/1980	Expiration Date 04/24/2015
Address 7005 Revere Dr. Derby, NY 14047	
Barcode	
Badge Holder's Name Mark A Beyer	Badge Holder's Signature 

New York
RISK ASSESSOR



Certified Lead-Base d
Paint Professional

If found, drop in any mailbox
Postmaster: Please return to:
US EPA
1200 Pennsylvania Ave, NW
(MC-74040T)
Washington, DC 20460
or call 1-800-424-LEAD

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2014
Issued April 01, 2013

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

DR. THOMAS MCKEE
AMERISCI RICHMOND
13635 GENITO RD
MIDLOTHIAN, VA 23112

NY Lab Id No: 10984

Is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	EPA 600/M4/02/020
	Item 198.1 of Manual
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual

Serial No.: 48500

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (516) 485-5570 to verify the laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2014
Issued April 01, 2013

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE
Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. PHYLLIS SHILLER
PHOENIX ENVIRONMENTAL LABS
587 EAST MIDDLE TURNPIKE
MANCHESTER, CT 06040

NY Lab Id No: 11301

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved analytes are listed below:*

Acrylates		Purgeable Aromatics	
Acrylonitrile	EPA TO-15	1,2-Dichlorobenzene	EPA TO-14A
Methyl methacrylate	EPA TO-15		EPA TO-15
Chlorinated Hydrocarbons		1,3,5-Trimethylbenzene	EPA TO-14A
1,2,4-Trichlorobenzene	EPA TO-14A		EPA TO-15
	EPA TO-15	1,3-Dichlorobenzene	EPA TO-14A
Hexachlorobutadiene	EPA TO-14A		EPA TO-15
	EPA TO-15	1,4-Dichlorobenzene	EPA TO-14A
Hexachloroethane	EPA TO-14A		EPA TO-15
	EPA TO-15	2-Chlorotoluene	EPA TO-15
Metals I		Benzene	EPA TO-14A
Lead, Total	EPA 7010		EPA TO-15
Polychlorinated Biphenyls		Chlorobenzene	EPA TO-14A
PCB-1016	EPA TO-10A		EPA TO-15
PCB-1221	EPA TO-10A	Ethyl benzene	EPA TO-14A
PCB-1232	EPA TO-10A		EPA TO-15
PCB-1242	EPA TO-10A	Isopropylbenzene	EPA TO-15
PCB-1248	EPA TO-10A	m/p-Xylenes	EPA TO-15
PCB-1254	EPA TO-10A	o-Xylene	EPA TO-15
PCB-1260	EPA TO-10A	Styrene	EPA TO-14A
PCB-1262	EPA TO-10A		EPA TO-15
PCB-1268	EPA TO-10A	Toluene	EPA TO-14A
Purgeable Aromatics			EPA TO-15
1,2,4-Trimethylbenzene	EPA TO-14A	Total Xylenes	EPA TO-14A
	EPA TO-15		EPA TO-15

Serial No.: 48591

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ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved analytes are listed below:*

Purgeable Halocarbons		Purgeable Halocarbons	
1,1,1-Trichloroethane	EPA TO-14A EPA TO-15	Carbon tetrachloride	EPA TO-14A EPA TO-15
1,1,2,2-Tetrachloroethane	EPA TO-14A EPA TO-15	Chloroethane	EPA TO-14A EPA TO-15
1,1,2-Trichloro-1,2,2-Trifluoroethane	EPA TO-14A EPA TO-15	Chloroform	EPA TO-14A EPA TO-15
1,1,2-Trichloroethane	EPA TO-14A EPA TO-15	Chloromethane	EPA TO-14A EPA TO-15
1,1-Dichloroethane	EPA TO-14A EPA TO-15	cis-1,2-Dichloroethene	EPA TO-14A EPA TO-15
1,1-Dichloroethene	EPA TO-14A EPA TO-15	cis-1,3-Dichloropropene	EPA TO-14A EPA TO-15
1,2-Dibromo-3-chloropropane	EPA TO-14A EPA TO-15	Dibromochloromethane	EPA TO-15
1,2-Dibromoethane	EPA TO-14A EPA TO-15	Dichlorodifluoromethane	EPA TO-14A EPA TO-15
1,2-Dichloroethane	EPA TO-14A EPA TO-15	Methylene chloride	EPA TO-14A EPA TO-15
1,2-Dichloropropane	EPA TO-14A EPA TO-15	Tetrachloroethene	EPA TO-14A EPA TO-15
3-Chloropropene (Allyl chloride)	EPA TO-15	trans-1,2-Dichloroethene	EPA TO-14A EPA TO-15
Bromodichloromethane	EPA TO-14A EPA TO-15	trans-1,3-Dichloropropene	EPA TO-14A EPA TO-15
Bromoform	EPA TO-15	Trichloroethene	EPA TO-14A EPA TO-15
Bromomethane	EPA TO-14A EPA TO-15	Trichlorofluoromethane	EPA TO-14A

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NY Lab Id No: 11301

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category*

ENVIRONMENTAL ANALYSES AIR AND EMISSIONS

All approved analytes are listed below:

Purgeable Halocarbons

Trichlorofluoromethane	EPA TO-15
Vinyl bromide	EPA TO-15
Vinyl chloride	EPA TO-14A
	EPA TO-15

Volatile Chlorinated Organics

Benzyl chloride	EPA TO-14A
	EPA TO-15

Volatile Organics

1,2-Dichlorotetrafluoroethane	EPA TO-14A
	EPA TO-15
1,3-Butadiene	EPA TO-14A
	EPA TO-15
1,4-Dioxane	EPA TO-15
2,2,4-Trimethylpentane	EPA TO-15
2-Butanone (Methylethyl ketone)	EPA TO-15
4-Methyl-2-Pentanone	EPA TO-15
Acetone	EPA TO-15
Carbon Disulfide	EPA TO-15
Cyclohexane	EPA TO-15
Hexane	EPA TO-15
Isopropanol	EPA TO-15
Methyl tert-butyl ether	EPA TO-15
n-Heptane	EPA TO-15
tert-butyl alcohol	EPA TO-15

Serial No.: 48591

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Appendix C Laboratory Reports and Chains of Custody



AmeriSci Richmond
 13635 GENITO ROAD
 MIDLOTHIAN, VIRGINIA 23112
 TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

Sienna Environmental Technologies, LL **Date Received** 04/15/13 **AmeriSci Job #** 113041540
 Attn: Joseph Postore **Date Examined** 04/20/13 **P.O. #**
 350 Elmwood Ave **ELAP #** 10984 **Page** 1 of 5
 Buffalo, NY 14222 **RE: SET 2170; Adelaide Environmental Health Assoc / Stephanie Soter; Franklin Correctional Facility - Old Office Trailer Lez Baremill Rd, Malone, NY**

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
41213-2170-200A-1 1 Location: Gypsum Board; Interior Of Trailer	113041540-01	No	NAD (by NYS ELAP 198.1) by William M. Dunstan on 04/20/13
Analyst Description: White/Tan, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 3 %, Fibrous glass 3 %, Non-fibrous 94 %			
41213-2170-200A-2 1 Location: Gypsum Board; Interior Of Trailer	113041540-02	No	NAD (by NYS ELAP 198.1) by William M. Dunstan on 04/20/13
Analyst Description: White/Tan, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 3 %, Fibrous glass 3 %, Non-fibrous 94 %			
41213-2170-200A-3 1 Location: Gypsum Board; Interior Of Trailer	113041540-03	No	NAD (by NYS ELAP 198.1) by William M. Dunstan on 04/20/13
Analyst Description: White/Tan, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 3 %, Fibrous glass 3 %, Non-fibrous 94 %			
41213-2170-200B-1 2 Location: Textured Surfacing; Interior Of Trailer	113041540-04	No	NAD (by NYS ELAP 198.1) by William M. Dunstan on 04/20/13
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
41213-2170-200B-2 2 Location: Textured Surfacing; Interior Of Trailer	113041540-05	No	NAD (by NYS ELAP 198.1) by William M. Dunstan on 04/20/13
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

Client Name: Sienna Environmental Technologies, LLC

PLM Bulk Asbestos Report

SET 2170; Adelaide Environmental Health Assoc / Stephanie
Soter; Franklin Correctional Facility - Old Office Trailer Lez
Baremill Rd, Malone, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
41213-2170-200B-3 2	113041540-06 Location: Textured Surfacing; Interior Of Trailer	No	NAD (by NYS ELAP 198.1) by William M. Dunstan on 04/20/13
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
41213-2170-300AB-1 3	113041540-07L1 Location: Tan Linoleum & Mastic; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 0.8 %			
41213-2170-300AB-1 3	113041540-07L2 Location: Tan Linoleum & Mastic; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 5.3 %			
41213-2170-300AB-2 3	113041540-08L1 Location: Tan Linoleum & Mastic; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 2.7 %			
41213-2170-300AB-2 3	113041540-08L2 Location: Tan Linoleum & Mastic; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 21.6 %			
41213-2170-301A-1 4	113041540-09 Location: 12x12 Floor Tile; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Off White, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 33.5 %			

See Reporting notes on last page

Client Name: Sienna Environmental Technologies, LLC

PLM Bulk Asbestos Report

SET 2170; Adelaide Environmental Health Assoc / Stephanie
Soter; Franklin Correctional Facility - Old Office Trailer Lez
Baremill Rd, Malone, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
41213-2170-301A-2 4	113041540-10 Location: 12x12 Floor Tile; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Off White, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 24.6 %			
41213-2170-301B-1 5	113041540-11 Location: Mastic Of 301A; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 33.1 %			
41213-2170-301B-2 5	113041540-12 Location: Mastic Of 301A; Interior Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 50.2 %			
41213-2170-600-1 6	113041540-13 Location: Window Caulk; Window Perimeter Exterior	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Black/Gray, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 13.2 %			
41213-2170-600-2 6	113041540-14 Location: Window Caulk; Window Perimeter Exterior	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Black/Gray, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 12.1 %			
41213-2170-601-1 7	113041540-15 Location: Cove Base Mastic; Int Of Traller	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 47.7 %			

See Reporting notes on last page

Client Name: Sienna Environmental Technologies, LLC

PLM Bulk Asbestos Report

SET 2170; Adelaide Environmental Health Assoc / Stephanie
Soter; Franklin Correctional Facility - Old Office Trailer Lez
Baremill Rd, Malone, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
41213-2170-601-2 7	113041540-16 Location: Cove Base Mastic; Int Of Trailer	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 52.4 %			
41213-2170-700-1 8	113041540-17 Location: Silver Roof Coat; Trailer Roof	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Black/Silver, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 21.1 %			
41213-2170-700-2 8	113041540-18 Location: Silver Roof Coat; Trailer Roof	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Black/Silver, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 19.1 %			
41213-2170-701-1 9	113041540-19 Location: Black Patch Tar; Trailer Roof	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 19.3 %			
41213-2170-701-2 9	113041540-20 Location: Black Patch Tar; Trailer Roof	No	NAD (by NYS ELAP 198.6) by William M. Dunstan on 04/20/13
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 21.6 %			

Client Name: Sienna Environmental Technologies, LLC

PLM Bulk Asbestos Report

SET 2170; Adelaide Environmental Health Assoc / Stephanie
Soter; Franklin Correctional Facility - Old Office Trailer Lez
Baremill Rd, Malone, NY

Reporting Notes:

Analyzed by: William M. Dunstan William M. Dunstan Date _____

*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pl Ct = 0.25%, 1000 Pl Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples)(NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: _____

Client Name: Sienna Environmental Technologies, LLC

Table I
Summary of Bulk Asbestos Analysis Results

SET 2170; Adelaide Environmental Health Assoc / Stephanie Soter; Franklin Correctional Facility - Old Office Trailer Lez Baremill Rd, Malone, NY

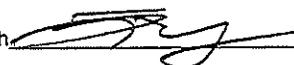
AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	41213-2170-200A-1	1	---	---	---	---	NAD	NA
	Location: Gypsum Board; Interior Of Trailer							
02	41213-2170-200A-2	1	---	---	---	---	NAD	NA
	Location: Gypsum Board; Interior Of Trailer							
03	41213-2170-200A-3	1	---	---	---	---	NAD	NA
	Location: Gypsum Board; Interior Of Trailer							
04	41213-2170-200B-1	2	---	---	---	---	NAD	NA
	Location: Textured Surfacing; Interior Of Trailer							
05	41213-2170-200B-2	2	---	---	---	---	NAD	NA
	Location: Textured Surfacing; Interior Of Trailer							
06	41213-2170-200B-3	2	---	---	---	---	NAD	NA
	Location: Textured Surfacing; Interior Of Trailer							
07L1	41213-2170-300AB-1	3	0.271	56.7	42.4	0.8	NAD	NAD
	Location: Tan Linoleum & Mastic; Interior Of Trailer							
07L2	41213-2170-300AB-1	3	0.126	31.3	63.4	5.3	NAD	NAD
	Location: Tan Linoleum & Mastic; Interior Of Trailer							
08L1	41213-2170-300AB-2	3	0.371	57.7	39.6	2.7	NAD	NAD
	Location: Tan Linoleum & Mastic; Interior Of Trailer							
08L2	41213-2170-300AB-2	3	0.094	49.2	29.2	21.6	NAD	NAD
	Location: Tan Linoleum & Mastic; Interior Of Trailer							
09	41213-2170-301A-1	4	0.902	19.8	46.7	33.5	NAD	NAD
	Location: 12x12 Floor Tile; Interior Of Trailer							
10	41213-2170-301A-2	4	0.712	19.9	55.5	24.6	NAD	NAD
	Location: 12x12 Floor Tile; Interior Of Trailer							
11	41213-2170-301B-1	5	0.224	54.0	12.9	33.1	NAD	NAD
	Location: Mastic Of 301A; Interior Of Trailer							
12	41213-2170-301B-2	5	0.528	42.0	7.8	50.2	NAD	NAD
	Location: Mastic Of 301A; Interior Of Trailer							
13	41213-2170-600-1	6	0.462	21.3	65.5	13.2	NAD	NAD
	Location: Window Caulk; Window Perimeter Exterior							
14	41213-2170-600-2	6	0.432	20.2	67.8	12.1	NAD	NAD
	Location: Window Caulk; Window Perimeter Exterior							

Client Name: Sienna Environmental Technologies, LLC

Table I
Summary of Bulk Asbestos Analysis Results

SET 2170; Adelaide Environmental Health Assoc / Stephanie Soter; Franklin Correctional Facility - Old Office Trailer Lez Baremill Rd, Malone, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
15	41213-2170-601-1	7	0.276	36.7	15.6	47.7	NAD	NAD
Location: Cove Base Mastic; Int Of Trailer								
16	41213-2170-601-2	7	0.195	36.9	10.7	52.4	NAD	NAD
Location: Cove Base Mastic; Int Of Trailer								
17	41213-2170-700-1	8	0.292	71.8	7.1	21.1	NAD	NAD
Location: Silver Roof Coat; Trailer Roof								
18	41213-2170-700-2	8	0.217	71.4	9.4	19.1	NAD	NAD
Location: Silver Roof Coat; Trailer Roof								
19	41213-2170-701-1	9	0.636	75.7	5.0	19.3	NAD	NAD
Location: Black Patch Tar; Trailer Roof								
20	41213-2170-701-2	9	0.597	74.3	4.0	21.6	NAD	NAD
Location: Black Patch Tar; Trailer Roof								

Reviewed by: _____ Date Reviewed: _____ Analyzed By: T. Brian Keith  Date Analyzed: 4/20/2013

Semi-Quantitative Analysis: NAD = no asbestos detected; NA = not analyzed; NA/PS = not analyzed due to positive stop; Trace = <1%;
 PLM analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 101904-0) or NY ELAP 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) (NY ELAP Lab # 10984);
 TEM analysis by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation); or NY ELAP 198.4 for New York NOB samples (NY ELAP Lab # 10984);

** Warning Notes: Consider PLM fiber diameter limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris, soils or other heterogeneous materials for which a combination PLM/TEM evaluation is recommended; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only.

Fax/Email Report to: _____

113041540

Client/Contact: <u>ADELRADE ENVIRONMENTAL HEALTH ASSOC. /</u> <u>STEPHANNE SOTER</u>	Turn around (circle) RUSH 48 Hour 24 Hour 72 Hour 5 DAY
Building/Location: <u>FRANKLIN CORRECTIONAL FACILITY - OLD OFFICE TRAILER</u> <u>102 BARK HILL RD. MARCONI, NY</u>	
Job #: <u>SET 2170</u> Total # Samples: <u>22</u>	

PLM TEM AAS OTHER

Sample #				Description of Sample	Location of Sample	Notes
Date	Job	HAN	ID#			
4/12/13	2170	200A	1	GYPSON BOARD	INTERIOR OF TRAILER	
			2	↓		
			3	↓		
		200B	1	TEXTURED SURFACING		
			2	↓		
			3	↓		
		300AB	1	TAN LINOLEUM & MASTIC		
		"	2	" "		
		301A	1	12X12 FLOOR TILE		
		"	2	"		
		301B	1	RE MASTIC OF 301A		
		"	2	"		
		100	1	WINDOW CAULK	WINDOW PERIMETER EXTERIOR	
		"	2	"	" "	
		101	1	COVE BASE MASTIC	INT. OF TRAILER	

Notes:
 Yes No Negative PLM to TEM per ELAP protocols
 Positive stop by HAN
 Layered analysis is expected - Sample HAN-ID # 300AB

RECEIVED
APR 15 2013
By: _____ Date: 4/12/13

Relinquished By: MARK BEYER Date: 4/12/13
 Received By: _____ Date: _____



Friday, April 19, 2013

Attn: Ms Melinda Pierce
Sienna Environmental Technologies, LLC
350 Elmwood Avenue
Buffalo NY 14222

Project ID: SET2170
Sample ID#s: BD59052

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in cursive script that reads "Phyllis Shiller".

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report
 April 19, 2013

FOR: Attn: Ms Melinda Pierce
 Sienna Environmental Technologies, LLC
 350 Elmwood Avenue
 Buffalo NY 14222

Sample Information

Matrix: SOLID
 Location Code: SIENNA
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: MB
 Received by: LB
 Analyzed by: see "By" below

Date Time
 04/12/13 0:00
 04/15/13 10:16

Laboratory Data

SDG ID: GBD59052
 Phoenix ID: BD59052

Project ID: SET2170
 Client ID: WINDOW CAULK-EXTERIOR

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	04/15/13		E160.3
Caulk Extraction for PCB	Completed			04/15/13	BPK	SW3540C
<u>PCB (Soxhlet)</u>						
PCB-1016	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1221	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1232	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1242	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1248	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1254	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1260	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1262	ND	810	ug/Kg	04/18/13	AW	3540C/8082
PCB-1268	ND	810	ug/Kg	04/18/13	AW	3540C/8082
<u>QA/QC Surrogates</u>						
% DCBP	114		%	04/18/13	AW	30 - 150 %
% TCMX	79		%	04/18/13	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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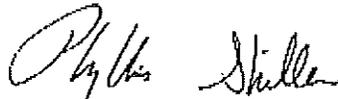
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florasil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

April 19, 2013

Reviewed and Released by: Kathleen Cressia, QA/QC Officer



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

April 19, 2013

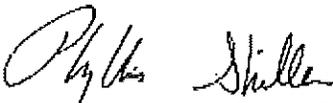
QA/QC Data

SDG I.D.: GBD59052

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 226183, QC Sample No: BD59003 (BD59052)									
<u>Polychlorinated Biphenyls - Solid</u>									
PCB-1016	ND	76	82	7.6	86	76	12.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	77	82	6.3	88	81	8.3	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	74	73	76	4.0	79	74	6.5	30 - 150	30
% TCMX (Surrogate Rec)	79	85	86	1.2	91	85	6.8	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference


 Phyllis Shiller, Laboratory Director
 April 19, 2013

Sample Criteria Exceedences Report

GBD59052 - SIENNA

Requested Criteria: None

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

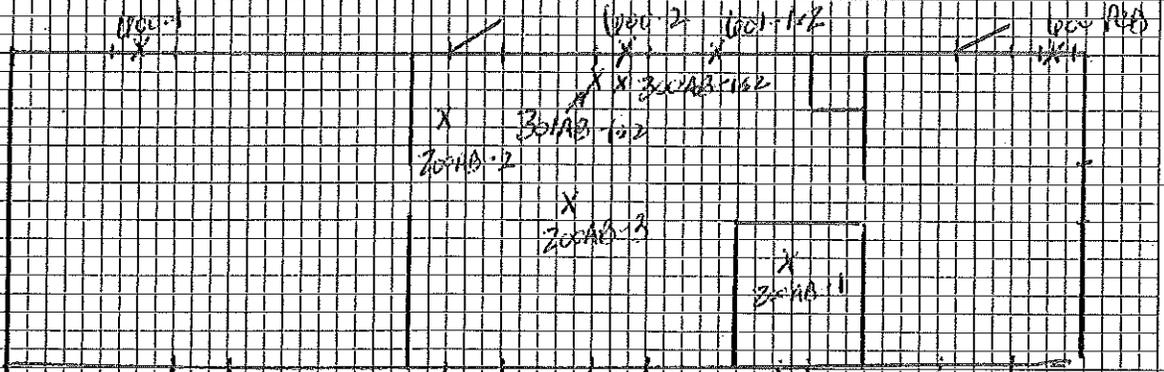
April 19, 2013

SDG I.D.: GBD59052

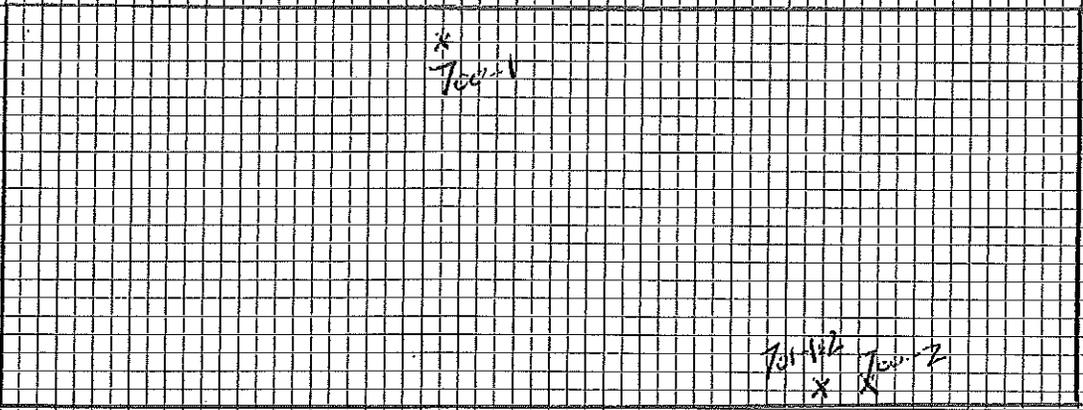
The samples in this delivery group were received at 22°C.
(Note acceptance criteria is above freezing up to 6°C)



Appendix D Asbestos and PCB Sample Floor Plans



TRAILER



ROOF



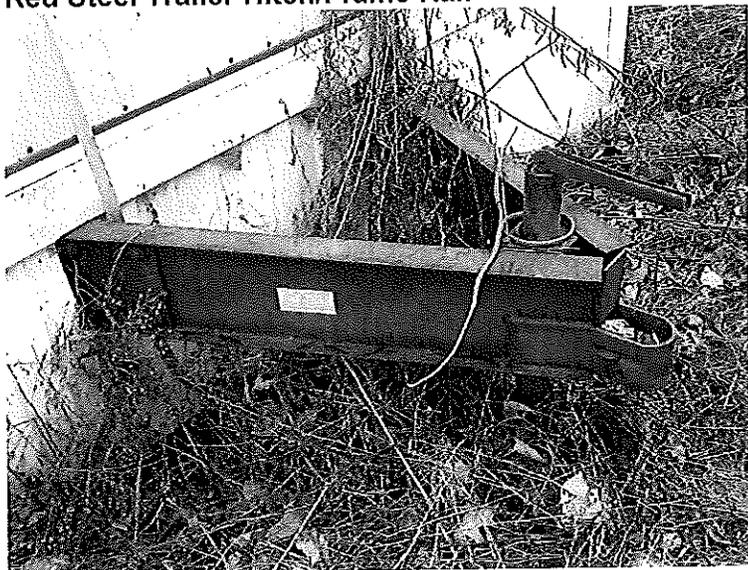
SIENNA
 ENVIRONMENTAL TECHNOLOGIES
 350 Elmwood Avenue Buffalo, New York 14222
 ph: 716.332.3134 www.siennaset.com

Drawing Name: SAMPLE MAP
 Project Name: JOB TRAILER
 Address: FRANKLIN COLLECTIONAL FIRING
RANGE

SET# 2170
 Drawn By: MOA
 Date: 4/11/13

Appendix E Site Photographs

Red Steel Trailer Hitch/Frame Rail





May 10, 2013

Mr. John R. Connell

Senior Project Manager
U.S. Army Corps of Engineers
Upstate Regulatory Field Office
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, New York 12189-4000

Ms. Erin L. Burns

New York State Department of Environmental Conservation
1115 NYS Route 86, P.O. Box 296
Ray Brook, New York 12977-0296

RE: Franklin Correctional Facility Village Firing Range
Permit Application Number NAN-2013-00184

FILE: 2069\49703

Dear Mr. Connell and Ms. Burns:

This Pre-Construction Notification (PCN) has been prepared for the New York State Office of General Services (NYSOGS) to obtain coverage under U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) No. 38 (Cleanup of Hazardous and Toxic Waste; Permit Application Number NAN-2013-00184) for its remediation of the approximately 9-acre former Town of Malone Village Firing Range (the Site) at the Franklin Correctional Facility in Malone, New York (**Figure 1**). The project consists of *in-situ* soil stabilization of hazardous soil, excavation of contaminated soil, recovery of projectiles, and off-Site disposal of contaminated and/or stabilized soil at a NYCRR Part 360 permitted Non-Hazardous Waste landfill.

REGULATORY BACKGROUND

A PCN was submitted to the NYSDEC and USACE for this project on February 8, 2013 (Permit Application Number NAN-2013-00184). Based on his review of the PCN, Mr. John Connell of the USACE requested clarification and additional information via a telephone conversation with Ms. Samantha Wason (O'Brien & Gere) on February 27, 2013. A follow-up email summarizing the telephone conversation was transmitted to USACE on February 28, 2013 and subsequently commented on by Mr. Connell (**Attachment 4**).

A Site visit was performed by Mr. Connell and Mr. Kyle Buelow (O'Brien & Gere) on March 6, 2013 to evaluate current Site conditions and discuss restoration measures prior to receiving an updated PCN. Based on the Site visit and above noted correspondence, Mr. Connell transmitted a formal request to O'Brien & Gere for additional information on March 11, 2013 (**Attachment 4**).

The Wetland Delineation Report included with the previous version of the PCN was revised in accordance with USACE comments and is included herein as **Attachment 3**.

Project documents included in support of the PCN include:

- a Site Location map (**Figure 1**)
- the completed Joint Application Form (**Attachment 1**)
- Contract Drawings and Specifications (**Attachment 2**; Revised May 10, 2013)
- the January 2, 2013 Wetland Delineation Report prepared by O'Brien & Gere (Revised May 8, 2013) to document on-Site wetlands (**Attachment 3**)

- USACE Correspondence ([Attachment 4](#))
- the April 15, 2013 response received from the New York State Office of Parks, Recreation & Historic Preservation (NYSOPRHP) regarding Site historical resources ([Attachment 5](#))
- the wetland and stream Restoration Plan, dated May 2013 ([Attachment 6](#)).

PROJECT BACKGROUND

According to New York State Department of Corrections and Community Supervision (NYSDOCCS) personnel, the firing range was constructed around 1986-1987 and was historically used by the New York State Troopers, New York State Border Patrol, Malone Village Police Department, and NYSDOCCS through the summer of 2011 when the range was “closed.” Weapons used at the Site historically included hand guns, shotguns, rifles, and riot control agents at various distances. Shooting benches and a shooting platform are present on the rifle range and gravel sidewalks denoting the various shooting positions are present on the pistol range. Contract Drawings illustrating existing features and proposed project activities are included as [Attachment 2](#).

As requested by NYSDOCCS, the intent of this project is to “remediate the former Town of Malone Village Firing Range, remove all lead from existing berms, along with the removal of the storage shed, office trailer and disconnect the Site utilities. Restore property to its original condition.”

The project will consist of the use of mineral processing/soil screening techniques and procedures to recover spent bullets and slugs. After removal and recovery of the projectiles, soil stabilization methods will be utilized to change the hazardous conditions of the remaining soil. In order for the Site to be cleaned up to “unrestricted use” standards, stabilized soil will be removed to a Non-Hazardous Waste landfill. Proposed remediation activities will not significantly alter hydrology associated with on-Site wetlands.

HISTORIC AND ARCHAEOLOGICAL RESOURCES

The New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) website indicates that the Site is within an “Archeologically Sensitive Area.” A Project Review Package was submitted to the NYSOPRHP on March 26, 2013 requesting a review of the Site regarding the potential presence of historical resources at or in the vicinity of the Site location. A response was received from the NYSOPRHP on April 15, 2013, indicating that the project will have no effect on cultural resources at the Site ([Attachment 5](#)).

ON-SITE WETLANDS

[Attachment 3](#) consists of the revised Wetland Delineation Report that summarizes the wetland determination and boundary delineation performed on-Site by O’Brien & Gere on October 16 and 17, 2012. Four wetland areas were identified and delineated (see [Figure 2](#) of [Attachment 3](#)) totaling approximately 1.28 acres; one fen wetland (W1), one scrub-shrub wetland (W2), one shallow emergent wetland (W3), and one forested wetland (W4).

Two culverts (indicating the locations of streams S1 and S2) were identified on the southern portion of W4. S1 (double culvert) and S2 (single culvert) both flow northeast of W4 and drain a minimal amount of water to the northern portion of the Site and off-Site to the Salmon River.

Based on the request for more information received from the USACE, the following modifications were made to the Wetland Delineation Report:

- delineation data forms were updated
- stream channels (S1 and S2) were delineated beyond culvert extents
- descriptions of streams were provided
- [Figure 2](#) was revised to indicate areas of proposed disturbance in Water of the United States.

It should be noted that the culvert that connects the western and eastern portions of W1 will be removed during remediation and the area restored as an open vegetated swale. It is anticipated that the 0.01-acre of upland will be restored in that area as wetland once remediation is completed, thereby increasing on-Site wetland acreage.

Delineated on-Site wetlands and streams are summarized in Table 1 below; representative photographs are presented in the Photograph Log within [Attachment 3](#).

REMEDIATION ALTERNATIVES CONSIDERED

Several remediation alternatives are available for addressing contaminated soils at firing ranges, as described in *Technical/Regulatory Guidelines, Characterization and Remediation of Soils at Closed Small Arms Firing Ranges*, prepared by Interstate Technology and Regulatory Council Small Arms Firing Range Team, dated January 2003. Three remedial alternatives, presented below, were evaluated for the Site:

- Option 1: Excavation and off-Site disposal
- Option 2: Recovery of projectiles, on-Site soil stabilization and off-Site disposal at a Non-Hazardous Waste landfill
- Option 3: Recovery of projectiles, on-Site soil stabilization and installation of an on-Site soil cap above stabilized soils.

Option 2 was selected as the recommended remedial scenario for the Site based on the understanding that NYSDOCCS desires to remediate the Site to unrestricted use standards and also serves as the most cost-effective remedial option with the least risk (e.g., elimination of human exposure pathways, restricted deeds and/or land use restrictions, and ongoing maintenance costs associated with Option 3).

PROPOSED IMPACTS

As presented in [Table 1](#) below, an estimated 0.39 acres of delineated wetland and 0.03 acre (264 linear ft) of stream will potentially be impacted during remediation activities at the Site. Remediation activities within wetland areas include excavations (to depths of 1 and 2 feet below ground surface; [Figure 2](#)), placement of clean fill and grading ([Contract Drawing C-106](#)), and wetland and stream restoration ([Attachment 6](#)). This includes impacts from construction vehicles. Impacts to wetland areas will be temporary in nature.

Table 1. Delineated on-Site Wetland Summary

Wetland ID	Covertypes	Delineated Acreage	Encroachment Acreage
W1	Fen	0.82	0.25
W2	Scrub-shrub	0.01	0.00
W3	Shallow emergent	0.03	0.003
W4	Forested	0.42	0.14
S1	Intermittent	0.04 (477 lf)	0.03 (197 lf)
S2	Intermittent	0.004 (89 lf)	0.003 (67 lf)
Total	----	Wetland = 1.28 Stream = 0.04 ac (566 lf)	Wetland = 0.39 Stream = 0.03 (264 lf)

Note: W4, S1, and S2 continue north beyond delineation boundaries. Stream impacts do not include culverted portions of S1 and S2.

BEST MANAGEMENT PRACTICES AND AVOIDANCE MEASURES

Remedial activities will be performed to avoid and minimize potential impacts to wetland and other surface waters to the extent practicable. In addition to NWP No. 38 and resulting permit conditions imposed, if any, NYSOGS will specify guidelines to its contractors regarding work within jurisdictional areas. These guidelines include:

- restricting the work area to the least practicable to complete the work in a safe and efficient manner
- the use of suitable erosion and sediment control (E&SC) devices, as stipulated in **Contract Drawing C-103**, including the placement of silt fencing or suitable alternatives along the perimeter of the work area and proposed stockpile areas prior to commencing earthwork. E&SC measures will be maintained until restoration activities are completed and vegetation reestablished
- no refueling, oiling, or greasing of construction equipment will occur in the wetlands or adjacent to streams. In the event of spillage, prompt remedial action will be taken to stop, contain, and remove any spilled material
- excess excavated material will be removed from regulated areas
- upon completion of excavation and remediation activities, existing topographic grade and wetland areas will be restored and the area seeded and planted with native species in accordance with Contract Documents and Restoration Plan
- erosion control matting will be used as necessary to minimize impacts from construction vehicles and machinery
- manual removal of existing wood deck on the southern portion of the Site (**Contract Drawing C-101**) without the use of heavy equipment to avoid potential impacts to aquatic resources
- minimize clearing of trees to the extent practicable
- no stockpiling of excavated or fill material within delineated wetland areas
- turbid water will be pumped from trenches, excavations, or boring locations into adjacent sediment traps prior to release into wetland or adjacent waters.

REGULATORY REQUIREMENTS

Verification of the jurisdictional status and associated acreages of Site wetlands requires the NYSOGS to request that the USACE issue a jurisdictional determination (JD). As stated in the wetland delineation report, based on the conditions observed, all four wetland areas (W1 through W4) appear to be jurisdictional due to the apparent hydrologic connection to other waters. In an effort to avoid processing time, NYSOGS would like to proceed under a “preliminary” JD whereby NYSOGS stipulates that on-Site wetlands are jurisdictional and forgoes claims of isolation and the ability to argue jurisdiction of questionable areas.

It is anticipated that proposed project activities can be completed in accordance with the USACE’s NWP program, associated permit conditions, and special conditions stipulated by the NYSDEC under its 401 Water Quality Certification program. Since the proposed wetland impact of 0.39-acre is less than 0.50-acre, NWP No. 38 appears to be applicable for this project.

WETLAND AND STREAM RESTORATION

Remediation activities are scheduled to begin in late July 2013 and continue for approximately 12 weeks. Impacts to wetland and stream areas will be temporary in nature and wetland/stream areas affected by project activities will be restored in-place and in-kind at a 1:1 ratio as described in the Restoration Plan ([Attachment 6](#)). Wetland areas will be restored via grading, seeding, and donor cores, to replace the functions and values of existing wetlands, including their capacity to serve as groundwater recharge and/or discharge areas, as well as contribute to nutrient removal and retention, sediment retention, and limited wildlife habitat. Stream areas will be restored via grading and seeding to maximize stream stability, minimize post-construction erosion once flow is reestablished, and provide functional aquatic habitat consistent with pre-construction conditions.

This PCN was prepared with 8.5 inch x 11 inch black and white versions of its contents pursuant to USACE protocol. An electronic version (.pdf file) of the PCN will be emailed to you to assist in your review. Please feel free to contact me (585-295-7721 or jeremy.wolf@obg.com) or Kyle Buelow (315-956-6515 or kyle.buelow@obg.com) with any questions regarding this project. We appreciate your attention to this matter.

Very truly yours,
O'BRIEN & GERE ENGINEERS, INC.



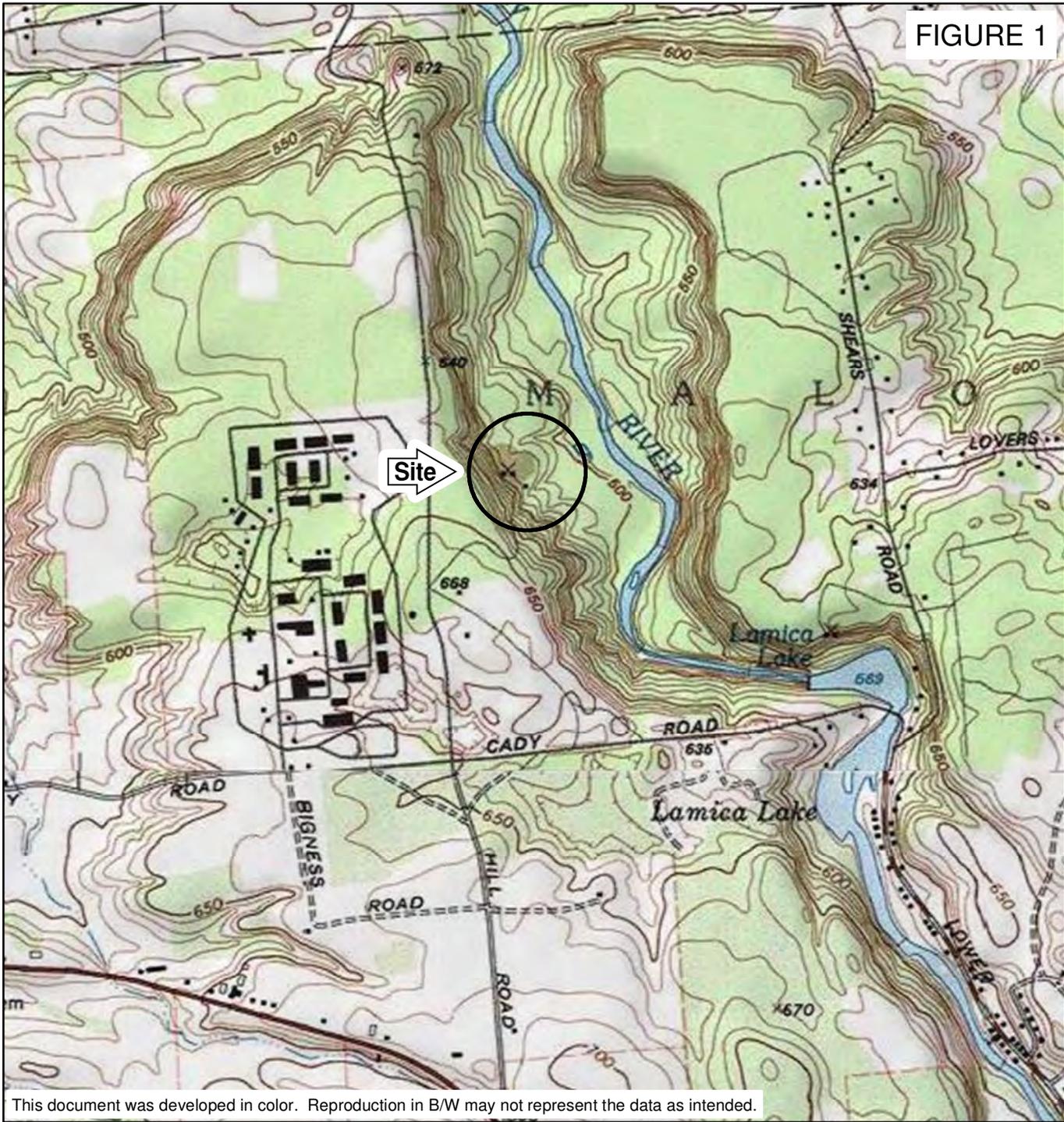
Jeremy Wolf
Managing Scientist

Attachments: Figure 1. Site Location Map
Attachment 1. Joint Application Form
Attachment 2. Contract Drawings and Specifications (Revised May 10, 2013)
Attachment 3. Wetland Delineation Report (Revised May 8, 2013)
Attachment 4. USACE Correspondence
Attachment 5. NYSOPRHP Correspondence
Attachment 6. Restoration Plan, May 2013

cc: Subramaniam Nair, MSME, P.E., LEED-AP – NYSOGS
Kyle Buelow, CPESC, CPSWQ – O'Brien & Gere
Robert Ganley, P.E. – O'Brien & Gere

Figures

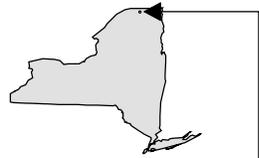
FIGURE 1



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 PLOTDATE: 11/07/12 10:42:44 AM SiantosA

ADAPTED FROM: CONSTABLE, NEW YORK USGS QUADRANGLE

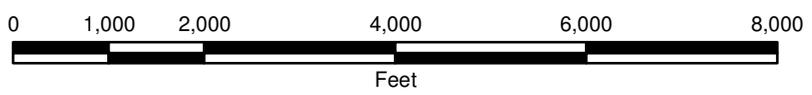
NEW YORK STATE
 OFFICE OF GENERAL SERVICES
 VILLAGE FIRING RANGE
 FRANKLIN CORRECTIONAL FACILITY
 MALONE, NEW YORK



MAP LOCATION



SITE LOCATION



Attachment 1
Joint Application Form



JOINT APPLICATION FORM



For Permits/Determinations to undertake activities affecting streams, waterways, waterbodies, wetlands, coastal areas and sources of water supply.

New York State

You must separately apply for and obtain separate Permits/Determinations from each involved agency prior to proceeding with work. Please read all instructions.

US Army Corps of Engineers (USACE)

<p>APPLICATIONS TO</p> <p>1. NYS Department of Environmental Conservation</p> <p>Check all permits that apply:</p> <table border="0"> <tr> <td><input type="checkbox"/> Stream Disturbance</td> <td><input type="checkbox"/> Coastal Erosion Management</td> </tr> <tr> <td><input type="checkbox"/> Excavation and Fill in Navigable Waters</td> <td><input type="checkbox"/> Wild, Scenic and Recreational Rivers</td> </tr> <tr> <td><input type="checkbox"/> Docks, Moorings or Platforms</td> <td><input type="checkbox"/> Water Supply</td> </tr> <tr> <td><input type="checkbox"/> Dams and Impoundment Structures</td> <td><input type="checkbox"/> Long Island Well</td> </tr> <tr> <td><input type="checkbox"/> 401 Water Quality Certification</td> <td><input type="checkbox"/> Aquatic Vegetation Control</td> </tr> <tr> <td><input type="checkbox"/> Freshwater Wetlands</td> <td><input type="checkbox"/> Aquatic Insect Control</td> </tr> <tr> <td><input type="checkbox"/> Tidal Wetlands</td> <td><input type="checkbox"/> Fish Control</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Incidental Take of Endangered/Threatened Species</td> </tr> </table> <p><input type="checkbox"/> I am sending this application to this agency.</p>	<input type="checkbox"/> Stream Disturbance	<input type="checkbox"/> Coastal Erosion Management	<input type="checkbox"/> Excavation and Fill in Navigable Waters	<input type="checkbox"/> Wild, Scenic and Recreational Rivers	<input type="checkbox"/> Docks, Moorings or Platforms	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Dams and Impoundment Structures	<input type="checkbox"/> Long Island Well	<input type="checkbox"/> 401 Water Quality Certification	<input type="checkbox"/> Aquatic Vegetation Control	<input type="checkbox"/> Freshwater Wetlands	<input type="checkbox"/> Aquatic Insect Control	<input type="checkbox"/> Tidal Wetlands	<input type="checkbox"/> Fish Control		<input type="checkbox"/> Incidental Take of Endangered/Threatened Species	<p>2. US Army Corps of Engineers</p> <p>Check all permits that apply:</p> <p><input type="checkbox"/> Section 404 Clean Water Act</p> <p><input type="checkbox"/> Section 10 Rivers and Harbors Act</p> <p><input type="checkbox"/> Nationwide Permit(s) - Identify Number(s):</p> <p>_____</p> <p>_____</p> <p>Preconstruction Notification - <input type="checkbox"/> Y / <input type="checkbox"/> N</p> <p><input type="checkbox"/> I am sending this application to this agency.</p>	<p>3. NYS Office of General Services</p> <p>Check all permits that apply:</p> <p><input type="checkbox"/> State Owned Lands Under Water</p> <p><input type="checkbox"/> Utility Easement (pipelines, conduits, cables, etc.)</p> <p><input type="checkbox"/> Docks, Moorings or Platforms</p> <p><input type="checkbox"/> I am sending this application to this agency.</p>	<p>4. NYS Department of State</p> <p>Check if this applies:</p> <p><input type="checkbox"/> Coastal Consistency Concurrence</p> <p><input type="checkbox"/> I am sending this application to this agency.</p>
<input type="checkbox"/> Stream Disturbance	<input type="checkbox"/> Coastal Erosion Management																		
<input type="checkbox"/> Excavation and Fill in Navigable Waters	<input type="checkbox"/> Wild, Scenic and Recreational Rivers																		
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<input type="checkbox"/> Tidal Wetlands	<input type="checkbox"/> Fish Control																		
	<input type="checkbox"/> Incidental Take of Endangered/Threatened Species																		

5. Name of Applicant (use full name)		Applicant must be:
Mailing Address		
Post Office City		Taxpayer ID (If applicant is NOT an individual):
State	Zip Code	
Telephone (daytime)	Email	

6. Name of Facility or Property Owner (if different than Applicant)	
Mailing Address	
Post Office City	
State	Zip Code
Telephone (daytime)	Email

7. Contact/Agent Name	
Company Name	
Mailing Address	
Post Office City	
State	Zip Code
Telephone (daytime)	
Email	

8. Project / Facility Name		Property Tax Map Section / Block / Lot Number	
Project Location - Provide directions and distances to roads, bridges and bodies of waters:			
Street Address, if applicable		Post Office City	State NY Zip Code
Town / Village / City		County	
Name of USGS Quadrangle Map		Stream/Water Body Name	
Location Coordinates: Enter NYTMs in kilometers, OR Latitude/Longitude			
NYTM-E	NYTM-N	Latitude	Longitude

For Agency Use Only	DEC Application Number:	USACE Number:
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JOINT APPLICATION FORM - PAGE 2 OF 2

Submit this completed page as part of your Application.

9. Project Description and Purpose: Provide a complete narrative description of the proposed work and its purpose. Attach additional page(s) if necessary. Include: description of current site conditions and how the site will be modified by the proposed project; structures and fill materials to be installed; type and quantity of materials to be used (i.e., square ft of coverage and cubic yds of fill material and/or structures below ordinary/mean high water) area of excavation or dredging, volumes of material to be removed and location of dredged material disposal or use; work methods and type of equipment to be used; pollution control methods and mitigation activities proposed to compensate for resource impacts; and where applicable, the phasing of activities. **ATTACH PLANS ON SEPARATE PAGES.**

Site remediation consisting of the use of mineral processing/soil screening techniques and procedures to recover bullets and slugs. After removal and recovery of the projectiles, soil stabilization methods will be utilized to change the hazardous conditions of the remaining soil. In order for the Site to be cleaned up to "unrestricted use" standards, stabilized soil will be removed to a Non-Hazardous Waste landfill. Impacted jurisdictional resources will be restored in-place, in-kind when remediation is completed.

July 28, 2013 October 31, 2013

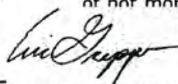
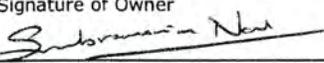
Proposed Use: <input type="checkbox"/> Private <input checked="" type="checkbox"/> Public <input type="checkbox"/> Commercial	Proposed Start Date: April 1, 2013	Estimated Completion Date: Sept 30, 2013
Has Work Begun on Project? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, explain.		
<i>Revision 5/8/13 SJW</i>		
Will Project Occupy Federal, State or Municipal Land? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please specify.		
New York State Office of General Services		

10. List Previous Permit / Application Numbers (if any) and Dates:

11. Will this project require additional Federal, State, or Local Permits including zoning changes? Yes No If yes, please list:

12. Signatures. If applicant is not the owner, both must sign the application.

I hereby affirm that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law. Further, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from said project. In addition, Federal Law, 18 U.S.C., Section 1001 provides for a fine of not more than \$10,000 or imprisonment for not more than 5 years, or both where an applicant knowingly and willingly falsifies, covers up, or omits a material fact; or knowingly makes or uses a false, fictitious or fraudulent statement.

 Signature of Applicant	Eric Greppo 2013.02.25 15:20:37 -05'00' Printed Name	_____ Title	_____ Date
 Signature of Agent	SUBRAMANIAM NAIR Printed Name	Sr. H&E Engineer Title	2/27/2013 Date

For Agency Use Only	DETERMINATION OF NO PERMIT REQUIRED		
_____	Agency Project Number _____		
(Agency Name)	has determined that No Permit is required from this Agency for the project described in this application.		
Agency Representative: Name (printed) _____	Title _____		
Signature _____	Date _____		



PERMISSION TO INSPECT PROPERTY

By signing this permission form for submission with an application for a permit(s) to the Department of Environmental Conservation ("DEC"), the signer consents to inspection by DEC staff of the project site or facility for which a permit is sought and, to the extent necessary, areas adjacent to the project site or facility. This consent allows DEC staff to enter upon and pass through such property in order to inspect the project site or facility, without prior notice, between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday. If DEC staff should wish to conduct an inspection at any other times, DEC staff will so notify the applicant and will obtain a separate consent for such an inspection.

Inspections may take place as part of the application review prior to a decision to grant or deny the permit(s) sought. By signing this consent form, the signer agrees that this consent remains in effect as long as the application is pending, and is effective regardless of whether the signer, applicant or an agent is present at the time of the inspection. In the event that the project site or facility is posted with any form of "posted" or "keep out" notices, or fenced in with an unlocked gate, this permission authorizes DEC staff to disregard such notices or unlocked gates at the time of inspection.

The signer further agrees that during an inspection, DEC staff may, among other things, take measurements, may analyze physical characteristics of the site including, but not limited to, soils and vegetation (taking samples for analysis), and may make drawings and take photographs.

Failure to grant consent for an inspection is grounds for, and may result in, denial of the permit(s) sought by the application.

Permission is granted for inspection of property located at the following address(es):
Village Firing Range, east side of Bare Hill Road, approximately 1,600 feet north of
intersection of Bare Hill Road and Cady Road in Malone, New York 12953

*By signing this form, I affirm under penalty of perjury that I am authorized to give consent to entry by DEC staff as described above. I understand that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.**

See Site Access Agreement; signed by Malone Village Mayor Todd LePine on March 27, 2013

Print Name and Title

Signature

Date

*The signer of this form must be an individual or authorized representative of a legal entity that:

- owns fee title and is in possession of the property identified above;
- maintains possessory interest in the property through a lease, rental agreement or other legally binding agreement; or
- is provided permission to act on behalf of an individual or legal entity possessing fee title or other possessory interest in the property for the purpose of consenting to inspection of such property.

Village of Malone

Mayor Todd LePine

Village Trustee, Joseph Riccio
Village Trustee, Michael Maneely

Village Trustee, Brian Langdon
Village Trustee, Hugh Hill

March 27, 2013

Mr. Subramaniam Nair, P.E.
New York State Office of General Services
Corning Tower Bldg 33rd floor
Empire State Plaza
Albany, New York 12242

Mr. Eric Greppo
Environmental Engineer II
Facilities Planning and Development
Department of Corrections and Community Supervision
1220 Washington Ave.
Albany, NY 12226

**RE: Access Agreement to perform Remedial Construction Project
NYSOGS Project No 44345
Provide Remediation of Village Firing Range
Franklin Correctional Facility
62 Bare Hill Road
Malone, New York**

Dear Mr. Nair and Mr. Greppo,

The Village of Malone (Village) understands that the New York State Office of General Services (NYSOGS) on behalf of the New York State Department of Corrections and Community Supervision (NYSDOCCS) wishes to undertake an environmental remedial construction project associated with remediation of the former firing range located on the east side of bare hill road approximately 1,600 ft. north of the intersection of Bare Hill Road and Cady Road in the Town of Malone, Franklin County, New York (referred to herein as the "Project Site").

The Village has reviewed the Contract Documents and Contract Drawings dated January 18, 2013 related to the above referenced project and hereby approves of NYSDOCCS, NYSOGS and their subcontractors to access the Project Site to perform the scope of work described in the Contract Documents.

Very truly yours,



Todd M. LePine
Village Mayor

14 Elm Street, Malone, New York 12953

*Telephone: 518-483-4570 * Fax: 518-481-6737 * Email: vmalone@westelcom.com*

Attachment 2
Contract Drawings and
Specifications
(Revised May 10, 2013)

Attachment 3
Wetland Delineation Report
(Revised May 8, 2013)



May 8, 2013

Mr. Subramaniam Nair, MSME, P.E., LEED-AP

New York State Office of General Services
Corning Tower Bldg 33rd Floor
Empire State Plaza
Albany, New York 12242

RE: Wetland Delineation Report – FINAL (Revised May 8, 2013)
Provide Remediation of Village Firing Range
NYSOGS Project No. 44345
Franklin Correctional Facility
62 Bare Hill Road
Malone, New York

FILE: 2069/49703

Dear Mr. Nair:

In accordance with our proposal dated September 18, 2012 and our Term Contract (S7190) dated August 22, 2012, O'Brien & Gere conducted a wetland evaluation and delineation related to the remediation of the Village Firing Range at the Franklin Correctional Facility (New York State Office of General Services [NYSOGS] Project No. 44345) in Malone, New York (the Site). Consistent with the recommended scope of work provided in the *Program Report* (NYSOGS 2012) for the Site, the wetland delineation was conducted prior to initiating the remedial design for the Site in order to evaluate the potential impacts the presence of wetlands would have on the project design. The approximately 9-acre Site is located on the east side of Bare Hill Road (approximately 1,600 feet north of the intersection of Bare Hill Road and Cady Road) in the Town of Malone, Franklin County, New York (**Figure 1**). The wetland evaluation and delineation was performed within the future perceived limits of remedial activities as defined in the Program Report (**Figure 2**).

The Wetland Delineation Report was submitted as an Attachment to the Joint Application for Permit (JAP) submitted to the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) on February 8, 2013 (Permit Application Number NAN-2013-0018). The Wetland Delineation Report was revised in accordance with USACE comments received February 28, 2013 via email and the March 11, 2013 request for additional information. Results of the wetland delineation and subsequent report revisions are presented herein.

PROJECT UNDERSTANDING

The delineation was performed to evaluate the potential presence of jurisdictional wetlands and to identify wetland boundaries within the Site area. It is anticipated that this wetland delineation report will be used in support of the jurisdictional determination process for on-Site aquatic resources. If it is determined that jurisdictional resources will be impacted, this report will also support applications for regulatory permit applications that may be required from the USACE and NYSDEC for the proposed remedial construction activities. Information included within this report includes:

- Figure 1 – Site Location
- Figure 2 – Mapped and Delineated Wetlands Aquatic Resources (Revised May 2013)
- Attachment 1 – Soils Information
- Attachment 2 – Wetland Data Forms (Revised May 2013)
- Attachment 3 – Photograph Log (Revised May 2013).

WETLAND IDENTIFICATION AND DELINEATION

METHODOLOGY

This wetland determination and delineation was performed pursuant to policy set forth by Section 404 of the Clean Water Act and in accordance with the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (USACE 2012; Regional Supplement). The USACE and USEPA jointly define wetlands as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions [33 Code of Federal Regulation (CFR) 328.3(b), 40 CFR 230.3(t)]. Environmental criteria for wetlands, as defined in USACE (1987), include:

- the prevalent vegetation is hydrophytic (water tolerant)
- the soils present have been classified as hydric or possess reducing soil characteristics
- the area is either permanently or periodically inundated at mean water depths less than or equal to 6.6 feet, or the soil is permanently or periodically saturated to the surface during the growing season.

To make a positive wetland determination, a minimum of one wetland indicator from each criterion (vegetation, soil, and hydrology) must be found. The Routine Determination Method outlined in USACE (1987) was used in conjunction with procedures outlined in the Regional Supplement to identify and delineate wetlands on-Site. Routine determinations involve simple, rapidly applied methods that result in sufficient qualitative data for identifying wetland and non-wetland areas.

The Routine Determination Method consists of a combination of off-Site data review and on-Site investigation. Off-Site activities included an evaluation of available information regarding environmental conditions within the Site. On-Site activities consisted of collecting the field data required to identify and delineate wetland boundaries. Field data were gathered at sample plots chosen in potential wetland areas, as well as in corresponding adjacent upland areas.

OFF-SITE EVALUATION

Data and information reviewed as part of the off-Site evaluation included the following:

- New York State Freshwater Wetland (NYSFW) Maps, as presented in the NYSDEC Environmental Resource Mapper. <http://www.dec.ny.gov/ismaps/ERM/viewer.htm>. (NYSDEC 2012)
- National Wetland Inventory (NWI) Maps, as presented in the NWI Wetland Mapper. <http://www.fws.gov/wetlands/Data/Mapper.html>. (USFWS 2012)
- Custom Web Soil Survey obtained from the U.S. Department of Agriculture National Resources Conservation Service (USDA-NRCS). <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. (USDA-NRCS 2012).

New York State Freshwater Wetlands

The NYSFW maps were developed by the NYSDEC pursuant to Article 24 of the Environmental Conservation Law. These maps present the approximate boundaries of freshwater wetlands regulated by the NYSDEC. In most instances, the State-mapped boundaries are based on aerial photographs and soil survey interpretation and, therefore, require site-specific field verification. Based on reviewed mapping, no NYSFW wetlands are mapped on-Site (**Figure 2**). Therefore, it is unlikely that the NYSDEC would invoke jurisdiction of Site delineated wetlands due to their location or unusual local importance.

National Wetlands Inventory Wetland Habitats

The USFWS, through its NWI project, has produced a series of topical maps to show wetlands and deep water habitats. Although these maps are helpful in the preliminary identification of wetlands, they do not represent federally regulated wetlands. The locations of NWI habitats in the vicinity of the Site were accessed using the

USFWS NWI Wetland Mapper (USFWS 2012). According to the NWI mapping, no NWI wetlands are mapped on-Site ([Figure 2](#)).

Soil Mapping

Soil types identified on-Site in the Web Soil Survey (USDA-NRCS 2012) are provided in [Attachment 1](#) and include:

- Birdsall loam, 0 to 2 percent slopes (Bda)
- Salmon stony very fine sandy loam over till, 20 to 45 percent slopes (Sce)
- Walpole sandy loam, 0 to 6 percent slopes (Wca).

Based on information presented in the soil survey, *New York Hydric Soils List* (USDA-NRCS 2009), and *New York Hydric Soils and Soils with Potential Hydric Inclusions* (USDA-NRCS 1995), Bda and Wca soils are listed as hydric within Site boundaries. Sce soils are not listed as hydric or potentially hydric. The western portion of the Site consists of Sce, the central and northeastern portions of the Site consist of Bda, and the central and southeastern portions of the Site consist of Wca ([Attachment 1](#)).

ON-SITE INVESTIGATION

Two O'Brien & Gere biologists performed the field activities associated with the delineation on October 16 and 17, 2012. On-Site activities included the evaluation of vegetative communities, the soil substrate, and hydrologic characteristics to identify and delineate wetland boundaries within the Site.

Field data were gathered at sample plots chosen in potential wetland areas and adjacent upland areas. Wetlands were identified based on the presence of each of the following three parameters:

- hydric soils
- a vegetative community dominated by hydrophytes
- inundated or saturated soil conditions, and/or indicators of hydrologic patterns.

Vegetative, soil, and hydrologic conditions were recorded on Wetland Data Forms required for the USACE delineation methodology and are included as [Attachment 2](#).

Soils

Observed Site soil characteristics were compared to the mapped soil descriptions from the Web Soil Survey (USDA-NRCS 2012) to evaluate, as soil characteristics can vary from mapped descriptions due to the small scale at which the soil mapping was performed. Site soils were observed and evaluated for hydric soil indicators as described in USACE (1987 and 2012).

Soil physical characteristics were evaluated during the Site investigation by excavating to a depth needed to evaluate potential hydric soil indicators below ground surface (generally 18-inches), unless refusal occurred. Soil color was evaluated using *Munsell Soil Color Charts* (Munsell 2000). Soils that exhibit hydric soil characteristics, such as low chroma colors and/or evidence of reducing conditions (*e.g.* presence of mottles or gleying), met the hydric soil criterion per USACE (1987 and 2012).

Site soils observed during excavations generally consisted of variable depths of loamy fine sand underlain in areas by gravel. Soils from excavations within wetlands possessed dark surfaces, sandy mucky mineral, and/or hydrogen sulfide conditions within their profiles. Characteristics observed at each sample plot are summarized on the Wetland Data Forms ([Attachment 2](#)).

Vegetation

The criterion for wetland vegetation is a dominance of hydrophytic species. A species is considered hydrophytic per USACE (1987 and 2012) if it is classified either as obligate (OBL), facultative wet (FACW), or facultative

(FAC) according to the Plants Database (USDA, NRCS 2012). A dominance of hydrophytes requires that more than 50% of the vegetative species in an area are classified as hydrophytic.

In accordance with USACE (1987 and 2012), observations of vegetation focus on dominant vegetative species in four categories: trees (minimum 3 inch diameter at breast height), saplings/shrubs (less than 3 inch diameter and greater than 3.28 feet tall), herbs, and woody vines. Observed vegetative species and their associated indicator statuses are listed in the Wetland Data Forms ([Attachment 2](#)).

Hydrology

The Site area was examined for field indicators of wetland hydrology. According to USACE (1987 and 2012), wetland hydrology consists of permanent or periodic inundation, or soil saturation to the surface during the growing season. If these indicators were present within the sample plots, the hydrology criterion for wetlands was met.

Generally, on-Site wetlands receive hydrologic input from overland flow off hill slopes. Hydrologic connection to off-Site wetlands and waters was not observed during the Site investigation, including the Salmon River (a C(T) classified stream) which is located to the east of the Site. Hydrologic indicators observed within the sample plots were recorded on Wetland Data Forms ([Attachment 2](#)).

OBSERVED WETLAND AREAS

Sample plots were identified as wetland when all three wetland criteria (hydric soils, dominance of hydrophytes, and wetland hydrology) were met in the area represented. The delineated wetland boundaries within the Site were identified in the field with sequentially numbered (W1-1, W1-2, W1-3, etc.) flagging tape tied to existing vegetation. Wetland boundaries that continued beyond the Site area were not flagged. The wetland boundary and sample plot flagging locations were surveyed by O'Brien & Gere using a hand-held Trimble Global Positioning System (GPS) unit with points subsequently corrected to provide sub-meter accuracy.

A total of four wetland areas (W1, W2, W3, and W4) were identified and delineated at the Site. These wetlands are listed in [Table 1](#) below. General characteristics of the delineated wetlands are presented in the following sections.

Wetland ID	Delineated Acreage	General Location	Type
W1	0.82	Southwestern and central portions of the Site	Fen
W2	0.01	Western boundary of the Site	Scrub-shrub
W3	0.03	Southeastern portion of the Site	Shallow emergent
W4	0.42	Northern portion of the Site	Forested
Total Acreage	1.28	----	----

Note: W4 continues north beyond delineation boundaries.

Wetland 1 (W1)

W1 is a 0.82-acre fen located in the southwestern and central portions of the Site. Dominant sapling/shrub species observed in this wetland include eastern cottonwood (*Populus deltoides*) and black willow (*Salix nigra*). Dominant herbaceous species observed include path rush (*Juncus tenuis*), Canada rush (*Juncus canadensis*), coltsfoot (*Tussilago farfara*), and rough horsetail (*Equisteum hyemale*).

Hydrologic indicators in this wetland include surface water, saturation, water marks, water-stained leaves, drainage patterns, and geomorphic position.

Wetland 2 (W2)

W2 is a 0.01-acre scrub-shrub linear wetland located on the western edge of the Site at the base of a steep slope. The dominant sapling/shrub species are black willow and white pine (*Pinus strobus*). Dominant herbaceous species within the wetland plot include rough stemmed goldenrod (*Solidago rugosa*), New England aster (*Aster novae-angliae*), tansy (*Tanacetum vulgare*), curled dock (*Rumex crispus*), and common mugwort (*Artemisia vulgaris*). Hydrologic indicators within W2 include geomorphic position and shallow aquitard.

Wetland 3 (W3)

W3 is a 0.03-acre shallow emergent wetland located in the southeastern portion of the Site. Dominant herbaceous species observed include rough horsetail and yellow sedge (*Carex flava*). Hydrologic indicators observed in this wetland include surface water, saturation, water marks, water-stained leaves, and drainage patterns. This wetland is periodically mowed and apparently drains via a culvert under a gravel/sand road to an off-Site wetland; however, this culvert is blocked by the growth of a tree.

Wetland 4 (W4)

W4 is a 0.42-acre forested/scrub-shrub wetland located in the northern portion of the Site. This wetland area continues to the north and northeast, beyond the limits of the Site, and was not delineated outside of Site boundaries. Dominant tree species include river birch (*Betula nigra*) and red maple (*Acer rubrum*). Dominant herbaceous species observed include longhair sedge (*Carex comosa*) and royal fern (*Osmunda regalis*). Hydrologic indicators observed in this wetland include surface water, saturation, water marks, water-stained leaves, drainage patterns, geomorphic position, and microtopographic relief.

Generally, on-Site soil and hydrological conditions were fairly consistent throughout the delineated wetland areas, consisting of sandy loam/loamy sand with dark surfaces. Boundaries of the wetlands are shown on [Figure 2](#).

OBSERVED STREAMS

A total of two streams (S1 and S2) were identified and delineated at the Site. These wetlands are listed in [Table 2](#) below. General characteristics of the delineated streams are presented in the following sections and Locations on-Site streams are shown on [Figure 2](#).

Stream ID	Delineated Acreage	General Location	Type
S1	0.04 (477 lf)	Along eastern boundary of W1 and in eastern portion of W4	Intermittent
S2	0.004 (89 lf)	Eastern portion of W4	Intermittent
Total Acreage	0.04 (566 lf)	----	----

Note: S1 and S2 continue north beyond delineation boundaries. Stream acreages do not include culverted portions of S1 and S2.

Stream 1 (S1)

S1 is a 0.04 acre (477 linear feet) intermittent stream located along the eastern boundary of W1 (fen), which continues north through a double culvert into the eastern portion of W4 (forested wetland). It continues to flow east off-Site to the Salmon River.

East of W1, S1 is approximately 2.5 ft wide with 3 inches of water present. At the double culvert (edge of W4), S1 widens to approximately 8 ft wide. As it continues east, S1 narrows to an approximate width of 3 ft with steep cut banks. Substrate throughout S1 consists of cobble, gravel, sand, and silt. Minimal vegetation was present within the stream bed.

Stream 2 (S2)

S2 is a 0.004 ac (89 ft) intermittent stream located in the eastern portion of W4. It originates from a single culvert north of the berm behind the Pistol Range. S2 joins S1 downstream before draining into the Salmon River off-Site. At the location of the culvert, S2 is approximately 2 ft wide with 1 inch of water. At the time of the Site visit, flow within S2 was limited to none. Substrate throughout S2 consists of gravel, sand and silt.

Access Road Culvert

An existing culvert conveys ephemeral stormwater runoff under the Access Road from the drainage ditch west of the Access Road to a swale east of the Access Road ([Sheet C-103](#)). This culvert is in place to prevent stormwater from eroding the Access Road during periods of heavy flow and has not contained water during Site visits performed to date (see [Photographs 15 and 16](#)). The roadside ditch and swale do not appear to be jurisdictional waters of the U.S. as they lack sorting of their bed substrate and scouring of vegetation. During remediation activities, the Contractor will provide a rip-rap apron at the culvert outlet to prevent further erosion of the swale east of the Access Road.

DELINEATED AQUATIC RESOURCES FUNCTIONS AND VALUES

Data gathered during off-Site document review and wetland boundary delineation activities was used to qualitatively assess the functions and values of the delineated wetlands identified within Site boundaries. The following wetland functions and values are identified by the USACE in their publication *The Highway Methodology Workbook Supplement: Wetlands Functions and Values – A Descriptive Approach* (USACE 1999) and are attributable to Site wetlands.

Delineated wetlands on-Site have the potential to serve as groundwater recharge and/or discharge areas, as well as contribute to nutrient removal and retention, and sediment retention. Field observations made by O'Brien & Gere during wetland delineation field activities found that Site wetlands generally provide a limited amount of suitable wildlife habitat. Sufficient habitat quality is especially limited for avian and amphibian species.

Delineated streams on-Site have the potential to contribute to substrate mobility, creation and maintenance of habitat, maintenance of biodiversity, transfer and storage of nutrients, and moderation of water temperature. Sufficient habitat quality is limited within delineated streams for fish species.

SUMMARY

O'Brien & Gere conducted a wetland determination and boundary delineation associated with the proposed remediation of the Village Firing Range at the Franklin Correctional Facility. Field efforts were performed on October 16 and 17, 2012. Four wetland areas were identified and delineated on-Site, totaling approximately 1.28-acres. Wetland W1 was a fen wetland, while W2 was primarily scrub-shrub and W3 was primarily shallow emergent. W4 is classified as forested wetland.

Based on the conditions observed, the USACE will likely invoke jurisdiction of the above noted wetlands due to their apparent hydrologic connection to other waters. It is anticipated that the NYSDEC would not invoke jurisdiction over any of the delineated on-Site wetlands under Article 24 of the Environmental Conservation Law. The information presented herein will be utilized by the project team to minimize potential impacts to wetlands during remediation activities and to develop appropriate restoration and mitigation specifications.

NEXT STEPS

Upon finalization of excavation limits on the Site, O'Brien & Gere will calculate the impacted acreages of delineated on-Site wetlands. This includes impacts from construction vehicles and stockpiling within wetland areas. It is expected that any impacts to Wetland areas will be temporary in nature and that the areas affected by project activities will be restored at a 1:1 ratio. Based on the findings of this wetland evaluation and delineation, a Joint Application for Permit (JAP) will need to be prepared and submitted to the USACE for their approval

under Nationwide Permit (NWP) 38 - Cleanup of Hazardous and Toxic Waste and the NYSDEC for a 401 Water Quality Certification. The NYSDEC and USACE will outline permit conditions that the NYSOGS and their remedial subcontractors must follow regarding wetland mitigation due to excavation within wetland areas.

REFERENCES

New York State Office of General Services (NYSOGS). 2012. *Program Report, Decommissioned Firing Range, Former Town of Malone Firing Range*. Prepared by O'Brien & Gere. May 2012.

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USDA-NRCS. 1995. *New York Soils and Soils with Potential Hydric Inclusions*. U.S. Department of Agriculture in cooperation with Cornell University Agricultural Experiment Station. December 15, 1995 Revision.

U.S. Fish and Wildlife Service (USFWS). 2012. National Wetlands Inventory. Wetlands Mapper. <http://www.fws.gov/wetlands/Data/Mapper.html>.

Should you have any questions concerning the wetland delineation efforts, please do not hesitate to contact me at 315-956-6515 (kyle.buelow@obg.com).

Very truly yours,
O'BRIEN & GERE ENGINEERS, INC.



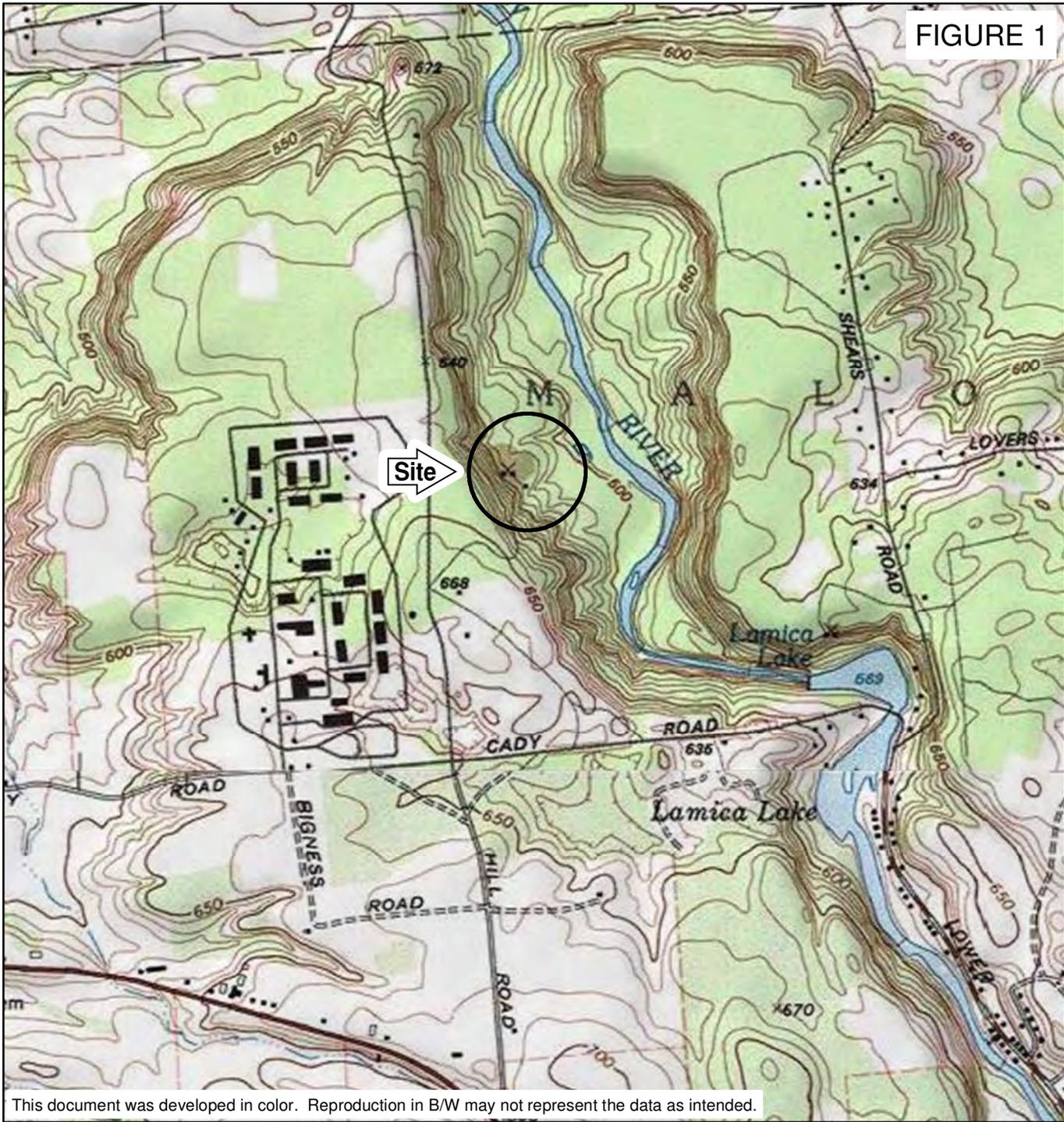
Kyle W. Buelow, CPESC/CPSWQ
Technical Associate

cc: Samantha Wason – O'Brien & Gere
Jeremy Wolf – O'Brien & Gere

Figures

- 1) *Site Location*
- 2) *Mapped and Delineated Aquatic Resources (Revised May 2013)*

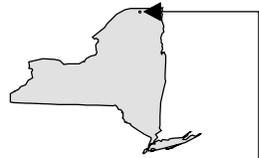
FIGURE 1



\Rochesters\p\projects\Nys-Ogs-2069\47464-Franklin-Firing\Docs\DWG\MXD\Program_Rpt\Site_Loc.mxd
 PLOTDATE: 11/07/12 10:42:44 AM SiantosA

ADAPTED FROM: CONSTABLE, NEW YORK USGS QUADRANGLE

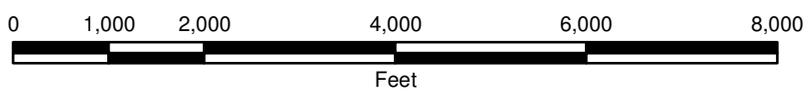
NEW YORK STATE
 OFFICE OF GENERAL SERVICES
 VILLAGE FIRING RANGE
 FRANKLIN CORRECTIONAL FACILITY
 MALONE, NEW YORK



MAP LOCATION



SITE LOCATION



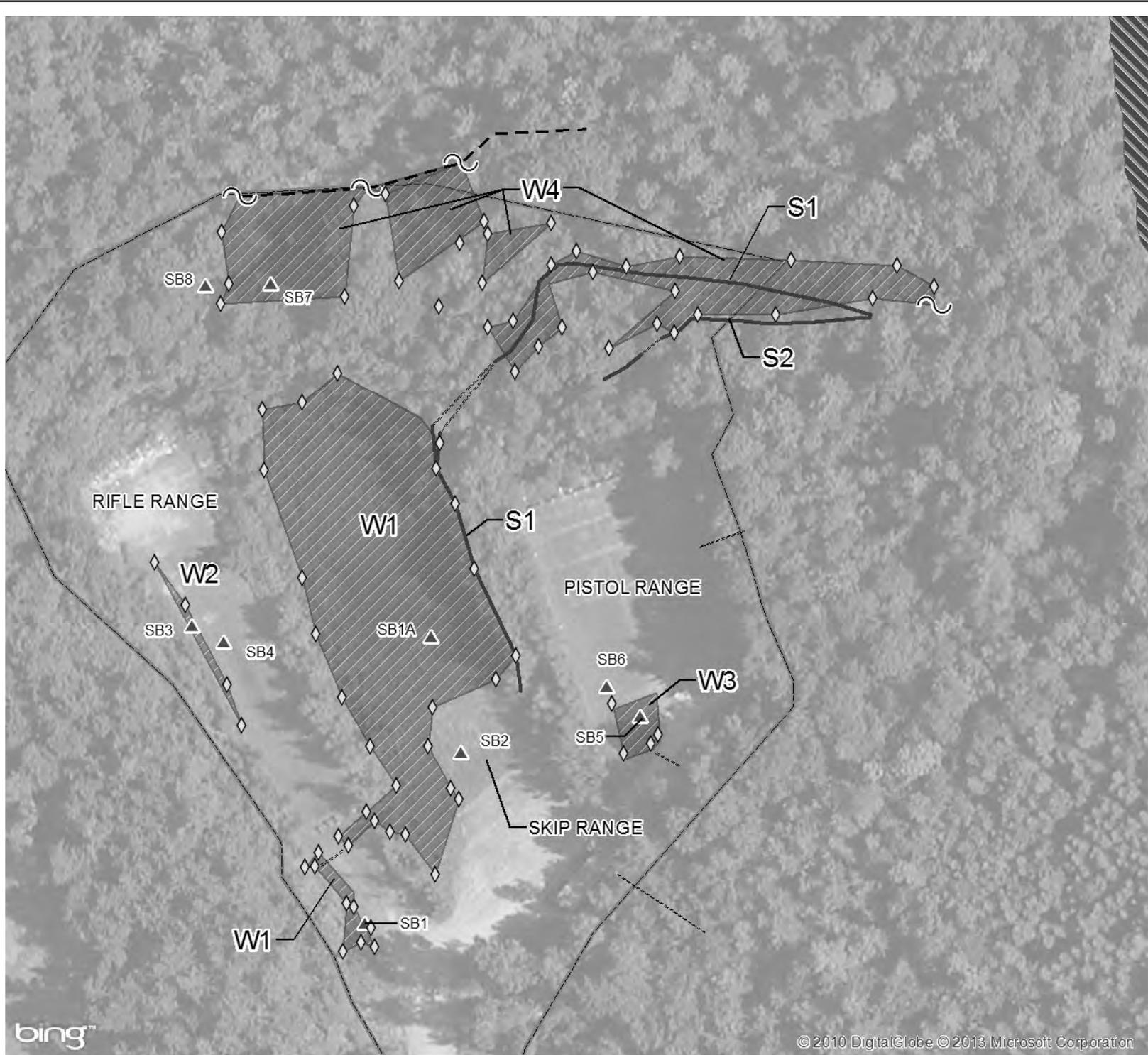


FIGURE 2



LEGEND

- ▲ SOIL BORING
- ◇ WETLAND FLAG
- ~ OPEN WETLAND
- - - - CULVERT
- STREAM
- ▨ WETLAND
- ▩ NWI WETLAND
- CONTRACT LIMIT LINE



SITE LOCATION

NEW YORK STATE
 OFFICE OF GENERAL
 SERVICES
 VILLAGE FIRING RANGE
 FRANKLIN CORRECTIONAL
 FACILITY
 MALONE, NEW YORK

**MAPPED AND
 DELINEATED
 AQUATIC
 RESOURCES**



MAY 2013
 2069.49703



Attachment 1

Soils Information

Soil Map—Franklin County, New York, Northern Part
(Village of Malone Firing Range)



Map Scale: 1:1,340 if printed on A size (8.5" x 11") sheet.



Soil Map—Franklin County, New York, Northern Part
(Village of Malone Firing Range)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

Special Line Features

-  Gully
-  Short Steep Slope
-  Other

Political Features

 Cities

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:1,340 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 18N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, New York, Northern Part
Survey Area Data: Version 8, Dec 20, 2011

Date(s) aerial images were photographed: 9/27/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Franklin County, New York, Northern Part (NY604)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bda	Birdsall loam, 0 to 2 percent slopes	3.7	55.3%
Sce	Salmon stony very fine sandy loam over till, 20 to 45 percent slopes	2.0	30.7%
Wca	Walpole sandy loam, 0 to 6 percent slopes	0.9	14.0%
Totals for Area of Interest		6.6	100.0%

Attachment 2

*Wetland Data Forms
(Revised May 2013)*

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/16/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB1
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Base of slope Local relief (concave, convex, none): N/A Slope (%): 2
 Subregion (LRR or MLRA): LRR R Lat: 44°52'56.98" N Long: 74°19'2.64" W Datum: WGS84
 Soil Map Unit Name: Birdsall loam, 0 to 2% slopes (Bda) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W1</u>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)
Flags = W1-1 through W1-26.
Performed within wet area along western edge of gravel parking area.
Wetland drains east via culvert on the Rifle Range and continues into fen (W1) on Skip Range.
Additional W1 wetland plot (SB1A) performed in Skip Range.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	<input type="checkbox"/> Microtopographic Relief (D4)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aqua Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>N/A</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
N/A

Remarks:
Surface water drainage received from access road/hillslope west of Site.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
7				
8				
		0	= Total Cover	
50% of total cover:		0	20% of total cover: 0	

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	Salix nigra	25	Yes	OBL
2	Populus deltoides	2	No	FAC
3				
4				
5				
6				
		27	= Total Cover	
50% of total cover:		14	20% of total cover: 5.4	

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	Juncus tenuis	20	Yes	FAC
2	Juncus canadensis	20	Yes	OBL
3	Tussilago farfara	15	Yes	FACU
4	Fragaria virginiana	10	No	FACU
5	Aster puniceus	10	No	OBL
6	Aster novae-angliae	10	No	FACW
7	Eupatorium serotinum	5	No	FAC
8	Euthamia graminifolia	5	No	FAC
9	Solidago gigantea	3	No	FACW
10	Cirsium vulgare	2	No	FACU
11	Graminoids	N/A	N/A	N/A
12				
13				
14				
15				
		100	= Total Cover	
50% of total cover:		50	20% of total cover: 20	

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
		0	= Total Cover	
50% of total cover:		0	20% of total cover: 0	

Remarks: (If observed, list morphological adaptations below).

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	<u>55</u>	x 1 =	<u>55</u>	
FACW species	<u>13</u>	x 2 =	<u>26</u>	
FAC species	<u>32</u>	x 3 =	<u>96</u>	
FACU species	<u>27</u>	x 4 =	<u>108</u>	
UPL species	<u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>127</u>	(A)	<u>285</u>	(B)

Prevalence Index = B/A = 2.24

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.01
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes No

Sampling Point: SB1

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-2	10 YR 2/1	100	N/A			loamy fine sand	organics
2-7	2.5 Y 4/2	95	7.5 YR 3/4	5	C	PL	fine sand
7-15	10 YR 4/4	97	7.5 YR 3/4	3	C	PL	fine sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)

- | | | |
|---------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> Indicators for Problematic Hydric Soils ³ :
2 cm Muck (A10) (LRR K, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input checked="" type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Red Parent Material (F21) |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| | | <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A
Depth (inches): N/A

Hydric Soil Present? Yes No

Remarks:

Organic streaking in sandy soils, oxidized rhizospheres on living roots.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/16/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB1A
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): N/A Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°52'58.58" N Long: 74°19'1.97" W Datum: WGS84
 Soil Map Unit Name: Birdsall loam, 0 to 2% slopes (Bda) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W1</u>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)
**Second wetland plot in W1 (representative of the fen portion of the wetland).
 Wetland includes vegetation growing on organic substrate/moss mat in Skip Range.**

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aqua Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
N/A

Remarks:
**Surface water drainage received from access road/hillslope west of Site.
 S1 present along eastern portion of W1 fen. Drains north through culvert to W4 (forested wetland).**

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
7				
8				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	Salix nigra	10	Yes	OBL
2				
3				
4				
5				
6				
		10	= Total Cover	
		50% of total cover: 5	20% of total cover: 2	

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	Equisetum hyemale	80	Yes	FACW
2	Scirpus cyperinus	5	No	OBL
3	Epilobium coloratum	5	No	OBL
4	Sphagnum sp.	N/A	N/A	N/A
5	Graminoids	N/A	N/A	N/A
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		90	= Total Cover	
		50% of total cover: 45	20% of total cover: 18	

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	<u>20</u>	x 1 =	<u>20</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>80</u>	x 3 =	<u>240</u>	
FACU species	<u>0</u>	x 4 =	<u>0</u>	
UPL species	<u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>100</u>	(A)	<u>260</u>	(B)

Prevalence Index = B/A = 2.6

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (If observed, list morphological adaptations below).
Thick moss mat (*Sphagnum* sp.) present throughout fen portion of W1.

Sampling Point: SB1A

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10 YR 2/1	100	N/A				loamy fine sand	masked w/ dark organics
10+	10 YR 4/2	100	N/A				loamy fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)

- | | | |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> Indicators for Problematic Hydric Soils ³ :
2 cm Muck (A10) (LRR K, MLRA 149B) |
| <input checked="" type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Red Parent Material (F21) |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input checked="" type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A
Depth (inches): N/A

Hydric Soil Present? Yes No

Remarks:

Loamy fine sand grains masked in dark organic material from 0 - 10 inches.
10 YR 4/2 loamy fine sand continues beyond 10 inches; however, cannot be evaluated due to quantity of water in boring.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/16/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB2
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): N/A Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°52'57.71" N Long: 74°19'1.19" W Datum: WSG84
 Soil Map Unit Name: Birdsall loam, 0 to 2% slopes (Bda) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>N/A</u>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)

Upland plot for W1.
Topsoil was apparently stripped to create Skip Range.
Area has been mowed.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aqua Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:				Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>N/A</u>	
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>N/A</u>	
Saturation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): <u>N/A</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

No indicators of hydrology present.
Upland area is at higher grade than fen (W1) on Skip Range and is bounded to the south by gravel parking area.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
7				
8				
		0	= Total Cover	
50% of total cover:		0	20% of total cover:	0

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
		0	= Total Cover	
50% of total cover:		0	20% of total cover:	0

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<i>Trifolium pratense</i>	15	Yes	FACU
2	<i>Juncus tenuis</i>	10	Yes	FAC
3	<i>Solidago gigantea</i>	7	Yes	FACW
4	<i>Aster novae-angliae</i>	5	No	FACW
5	<i>Salix nigra</i>	5	No	OBL
6	<i>Aster lateriflorus</i>	3	No	FAC
7	<i>Plantago major</i>	3	No	FACU
8	<i>Equisetum arvense</i>	3	No	FAC
9	<i>Sphagnum sp.</i>	N/A	N/A	N/A
10	<i>Graminoids</i>	N/A	N/A	N/A
11				
12				
13				
14				
15				
		51	= Total Cover	
50% of total cover:		26	20% of total cover:	10

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
		0	= Total Cover	
50% of total cover:		0	20% of total cover:	0

Remarks: (If observed, list morphological adaptations below).

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>5</u>	x 1 = <u>5</u>
FACW species	<u>12</u>	x 2 = <u>24</u>
FAC species	<u>16</u>	x 3 = <u>48</u>
FACU species	<u>18</u>	x 4 = <u>72</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>51</u> (A)	<u>149</u> (B)

Prevalence Index = B/A = 2.92

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.01

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/16/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB3
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Base of hill Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°52'58.47" N Long: 74°19'3.93" W Datum: WGS84
 Soil Map Unit Name: Salmon stony very fine sandy loam over till, 20-40% slopes (Sce) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W2</u>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)

Flags = W2-1 through W2-4 demarcate eastern side of W2. Did not delineate western end, as it follows base of hillslope on survey. Scrub-shrub wetland located along the western portion of the Rifle Range.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aqua Fauna (B13) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsley Vegetated Concave Surface (B8) | |

Secondary Indicators (minimum of two required)

- | |
|--------------------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input checked="" type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): N/A
 Water Table Present? Yes No Depth (inches): N/A
 Saturation Present? Yes No Depth (inches): N/A
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

Surface water runoff received from hillslope.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				
		<u>0</u>	= Total Cover	
50% of total cover:		<u>0</u>	20% of total cover:	<u>0</u>

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>Salix nigra</u>	<u>70</u>	<u>Yes</u>	<u>OBL</u>
2	<u>Pinus strobus</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>
3	<u>Populus deltoides</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
4	<u>Rubus sp.</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
5				
6				
		<u>120</u>	= Total Cover	
50% of total cover:		<u>60</u>	20% of total cover:	<u>24</u>

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>Solidago rugosa</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
2	<u>Aster novae-angliae</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
3	<u>Tanacetum vulgare</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
4	<u>Rumex crispus</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
5	<u>Artemisia vulgaris</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>
6	<u>Solidago gigantea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
7	<u>Melilotus officinalis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
8	<u>Setaria pumila</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
9	<u>Equisetum arvense</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
10	<u>Urtica dioica</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
11	<u>Symphotrichum laeve</u>	<u>2</u>	<u>No</u>	<u>FACU</u>
12	<u>Leucanthemum vulgare</u>	<u>1</u>	<u>No</u>	<u>FACU</u>
13				
14				
15				
		<u>93</u>	= Total Cover	
50% of total cover:		<u>47</u>	20% of total cover:	<u>19</u>

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
		<u>0</u>	= Total Cover	
50% of total cover:		<u>0</u>	20% of total cover:	<u>0</u>

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	<u>70</u>	x 1 =	<u>70</u>
FACW species	<u>20</u>	x 2 =	<u>40</u>
FAC species	<u>50</u>	x 3 =	<u>150</u>
FACU species	<u>63</u>	x 4 =	<u>252</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>213</u>	(A)	<u>562</u> (B)

Prevalence Index = B/A = 2.64

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (If observed, list morphological adaptations below).

Sampling Point: SB3

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-2	10 YR 3/1	100	N/A			loamy fine sand	organics
2-6	10 YR 4/4	100	N/A			loamy fine sand	
6-12	10 YR 2/1	100	N/A			loamy fine sand	
12-15	10 YR 4/3	97	10 YR 3/6	3	C	M	loamy fine sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, MLRA 149B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L, M)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)			
<input checked="" type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O,S)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)			
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 149A, 145, 149B)			
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
		<input type="checkbox"/> Other (Explain in Remarks)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>15</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/16/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB4
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°52'58.76" N Long: 74°19'3.99" W Datum: WGS84
 Soil Map Unit Name: Salmon stony very fine sandy loam over till, 20-40% slopes (Sce) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>N/A</u>
Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)

Upland plot for W2.
Cleared/mowed area that holds water in microdepressions at certain times of the year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aqua Fauna (B13) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsley Vegetated Concave Surface (B8) | |

Secondary Indicators (minimum of two required)

- | |
|--------------------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): 1
 Water Table Present? Yes No Depth (inches): N/A
 Saturation Present? Yes No Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Shallow aquitard (dense gravel) holding water but not enough to produce hydric soil indicators within thin soil layer.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				
		<u>0</u>	= Total Cover	
		50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
6				
		<u>0</u>	= Total Cover	
		50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u><i>Equisetum arvense</i></u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>
2	<u><i>Trifolium pratense</i></u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>
3	<u><i>Juncus tenuis</i></u>	<u>20</u>	<u>No</u>	<u>FAC</u>
4	<u><i>Sonchus arvensis</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5	<u><i>Plantago major</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>
6	<u><i>Carex comosa</i></u>	<u>5</u>	<u>No</u>	<u>OBL</u>
7	<u><i>Taraxacum officinale</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>
8	<u><i>Sphagnum sp.</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
9	<u><i>Viola sp.</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
10	<u><i>Graminoids</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
11				
12				
13				
14				
15				
		<u>105</u>	= Total Cover	
		50% of total cover: <u>53</u>	20% of total cover: <u>21</u>	

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
		<u>0</u>	= Total Cover	
		50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	<u>5</u>	x 1 =	<u>5</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>50</u>	x 3 =	<u>150</u>
FACU species	<u>50</u>	x 4 =	<u>200</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>105</u>	(A)	<u>355</u> (B)

Prevalence Index = B/A = 3.38

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (If observed, list morphological adaptations below).

Sampling Point: SB4

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	2.5 Y 3/3	100	N/A				loamy fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, MLRA 149B)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>3</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/17/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB5
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): N/A Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°52'58.31" N Long: 74°18'59.14" W Datum: WGS84
 Soil Map Unit Name: Walpole sandy loam, 0-6% slopes (Wca) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W3</u>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)
Small depressional area w/ culvert to other side of sand road. Standing water backed up in this location due to blocked culvert (tree). Area has been mowed.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aqua Fauna (B13)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsley Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>1</u>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>N/A</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				
		<u>0</u>	= Total Cover	
		50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
6				
		<u>0</u>	= Total Cover	
		50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u><i>Equisetum hyemale</i></u>	<u>90</u>	<u>Yes</u>	<u>FAC</u>
2	<u><i>Carex flava</i></u>	<u>60</u>	<u>Yes</u>	<u>OBL</u>
3	<u><i>Juncus tenuis</i></u>	<u>25</u>	<u>No</u>	<u>FAC</u>
4	<u><i>Solidago graminifolia</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>
5	<u><i>Aster novae-angliae</i></u>	<u>5</u>	<u>No</u>	<u>FACW</u>
6	<u><i>Scirpus atrovirens</i></u>	<u>2</u>	<u>No</u>	<u>OBL</u>
7	<u><i>Eupatorium album</i></u>	<u>2</u>	<u>No</u>	<u>FAC</u>
8	<u><i>Lythrum salicaria</i></u>	<u>1</u>	<u>No</u>	<u>OBL</u>
9	<u><i>Scirpus cyperinus</i></u>	<u>1</u>	<u>No</u>	<u>OBL</u>
10	<u><i>Eupatorium dubium</i></u>	<u>1</u>	<u>No</u>	<u>FACW</u>
11	<u><i>Sphagnum sp.</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
12	<u><i>Graminoids</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
13				
14				
15				
		<u>197</u>	= Total Cover	
		50% of total cover: <u>99</u>	20% of total cover: <u>39</u>	

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<u>none</u>			
2				
3				
4				
5				
		<u>0</u>	= Total Cover	
		50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Remarks: (If observed, list morphological adaptations below).

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	<u>64</u>	x 1 =	<u>64</u>
FACW species	<u>6</u>	x 2 =	<u>12</u>
FAC species	<u>127</u>	x 3 =	<u>381</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>197</u>	(A)	<u>457</u> (B)

Prevalence Index = B/A = 2.319796954

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10 YR 2/1	100	N/A				loamy fine sand	
2-12	10 YR 2/1	33	N/A				loamy fine sand	
	2.5 Y 4/2	33	10 YR 4/6	33	C	PL	loamy fine sand	
12-18	2.5 Y 4/3	100	N/A				loamy fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, MLRA 149B)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input checked="" type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Water in hole at 3 inches.
Organic material, streaking, and oxidized rhizospheres on living roots between 2 - 12 inches.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/17/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB6
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): N/A Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°52'58.55" N Long: 74°18'59.13" W Datum: WGS84
 Soil Map Unit Name: Walpole sandy loam, 0-6% slopes (Wca) NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>N/A</u>
Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)

Upland plot for W3.
Mowed area - Pistol Range contains gravel to surface in some upland locations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aqua Fauna (B13) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsley Vegetated Concave Surface (B8) | |

Secondary Indicators (minimum of two required)

- | |
|--------------------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): N/A
 Water Table Present? Yes No Depth (inches): 10
 Saturation Present? Yes No Depth (inches): N/A
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Water in hole at 10 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
7				
8				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<i>Fragaria virginiana</i>	50	Yes	FACU
2	<i>Prunella vulgaris</i>	25	No	FAC
3	<i>Juncus tenuis</i>	20	No	FAC
4	<i>Carex comosa</i>	10	No	OBL
5	<i>Phleum pratense</i>	10	No	FACU
6	<i>Carex flava</i>	5	No	OBL
7	<i>Plantago major</i>	5	No	FACU
8	<i>Sonchus arvensis</i>	2	No	FACU
9	<i>Betula papyrifera</i>	1	No	FACU
10	<i>Viola sp.</i>	N/A	N/A	N/A
11				
12				
13				
14				
15				
		128	= Total Cover	
		50% of total cover: 64	20% of total cover: 26	

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	15	x 1 = 15
FACW species	0	x 2 = 0
FAC species	45	x 3 = 135
FACU species	68	x 4 = 272
UPL species	0	x 5 = 0
Column Totals:	128 (A)	422 (B)

Prevalence Index = B/A = 3.296875

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (If observed, list morphological adaptations below).

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10 YR 3/2	100	N/A				loamy fine sand	
2-6	2.5 Y 3/2	98	7.5 YR 3/4	2	C	M	loamy fine sand	
6-8	10 YR 2/2	100	N/A				loamy fine sand	
8-12	2.5 Y 4/3	30	N/A				loamy fine sand	
12-15	2.5 Y 4/4	100	N/A				loamy fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR R, MLRA 149B)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Dark Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A
 Depth (inches): N/A

Hydric Soil Present? Yes No

Remarks:

Dark organic streaking (70%) from 8 - 12 inches.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/17/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB7
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): N/A Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°53'1.04" N Long: 74°19'3.33" W Datum: WGS84
 Soil Map Unit Name: Birdsall loam, 0-2% slopes (Bda) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W4</u>
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)

Wetland area behind rifle range. Holds water from surrounding slopes. Wetland continues to the north; on the southern/eastern/western extents flagged in vicinity of site.

Flags W4-17, 18, and 19 form a triangle of wetland within upland area. (Flag 16 was deleted).

Streams S1 and S2 are in vicinity of W4:

S1 = double culvert stream, 8 ft wide at mouth, 3 inch water depth, substrate primarily cobble, gravel, and sand w/ minimal vegetation. S1 narrows past mouth to approximately 3 ft wide w/ steep cut banks. Flows from portion of S1 on E side of W1.

S2 = single culvert, joins S1 downstream, starts 2 ft wide, 1 inch water depth, substrate silt, sand. Limited to no flow.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input checked="" type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aqua Fauna (B13) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) |
| <input checked="" type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsley Vegetated Concave Surface (B8) | |

Secondary Indicators (minimum of two required)

- | |
|--------------------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input checked="" type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): 1
 Water Table Present? Yes No Depth (inches): 8
 Saturation Present? Yes No Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<i>Betula nigra</i>	60	Yes	FACW
2	<i>Acer rubrum</i>	50	Yes	FAC
3				
4				
5				
6				
7				
8				
		110	= Total Cover	
		50% of total cover: 55	20% of total cover: 22	

Sapling/Shrub Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
6				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Herb Stratum	(Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	<i>Carex comosa</i>	30	Yes	OBL
2	<i>Osmunda regalis</i>	25	Yes	OBL
3	<i>Dryopteris clintoniana</i>	5	No	FACW
4	<i>Epilobium ciliatum</i>	1	No	FACW
5	<i>Sphagnum sp.</i>	N/A	N/A	N/A
6	<i>Glyceria sp.</i>	N/A	N/A	N/A
7	<i>Avens sp.</i>	N/A	N/A	N/A
8				
9				
10				
11				
12				
13				
14				
15				
		61	= Total Cover	
		50% of total cover: 31	20% of total cover: 12	

Woody Vine Stratum	(Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1	none			
2				
3				
4				
5				
		0	= Total Cover	
		50% of total cover: 0	20% of total cover: 0	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	<u>55</u>	x 1 =	<u>55</u>
FACW species	<u>66</u>	x 2 =	<u>132</u>
FAC species	<u>50</u>	x 3 =	<u>150</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>171</u>	(A)	<u>337</u> (B)

Prevalence Index = B/A = 1.970760234

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (If observed, list morphological adaptations below).

Sampling Point: SB7

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10 YR 2/1	95	G2 6/10B	5	D	M	loamy fine sand	
8-12	2.5 Y 3/1	100	N/A				loamy fine sand	
12-20	2.5 Y 4/2	100	N/A				loamy fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Water in hole at 8 inches.
Sulfidic odor.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Franklin Correctional Facility City/County: Malone/Franklin Sampling Date: 10/17/2012
 Applicant/Owner: NYSOGS State: NY Sampling Point: SB8
 Investigator(s): K. Buelow, S. Wason Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): N/A Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 44°53'1.47" N Long: 74°19'4.72" W Datum: WGS84
 Soil Map Unit Name: Birdsall loam, 0-2% slopes (Bda) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>N/A</u>
Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Remarks: (Explain alternative procedures here or in separate report.)

Upland plot for W4.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aqua Fauna (B13) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Marl Deposits (B15) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsley Vegetated Concave Surface (B8) | |

Secondary Indicators (minimum of two required)

- | |
|--------------------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): N/A
 Water Table Present? Yes No Depth (inches): N/A
 Saturation Present? Yes No Depth (inches): N/A
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1 <u><i>Prunus serotina</i></u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>
2 <u><i>Fagus grandifolia</i></u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>
3 <u><i>Quercus rubra</i></u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>
4 <u><i>Acer saccharum</i></u>	<u>25</u>	<u>No</u>	<u>FACU</u>
5 <u><i>Acer rubrum</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
	<u>155</u>	= Total Cover	
	50% of total cover: <u>78</u>	20% of total cover: <u>31</u>	

Sapling/Shrub Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1 <u><i>Rubus sp.</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
6 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Herb Stratum (Plot size: 5 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1 <u><i>Dryopteris clintoniana</i></u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>
2 <u><i>Symphoricarpos orbiculatus</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>
3 <u>Graminoids</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
4 <u><i>Galium sp.</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
5 <u><i>Avens sp.</i></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
9 _____	_____	_____	_____
10 _____	_____	_____	_____
11 _____	_____	_____	_____
12 _____	_____	_____	_____
13 _____	_____	_____	_____
14 _____	_____	_____	_____
15 _____	_____	_____	_____
	<u>31</u>	= Total Cover	
	50% of total cover: <u>16</u>	20% of total cover: <u>6.2</u>	

Woody Vine Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1 <u>none</u>	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
	50% of total cover: <u>0</u>	20% of total cover: <u>0</u>	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Column Totals:	Multiply by:	Column Totals:
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>30</u>	x 2 =	<u>60</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>146</u>	x 4 =	<u>584</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>186</u>	(A)	<u>674</u> (B)

Prevalence Index = B/A = 3.62

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.01
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet).
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in (7.6cm) DBH and greater than or equal to 3.28 ft (1 m) tall

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (If observed, list morphological adaptations below).

Sampling Point: SB8

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-10	10 YR 3/1	100	N/A			loamy fine sand	
10-15	10 YR 3/3	80	10 YR 3/1	20	D	loamy fine sand	streaking
15-20	2.5 3/6	100	N/A			loamy fine sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, MLRA 149B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Dark Surface (S8) (LRR K, L)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)			
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Red Parent Material (F21)			
<input checked="" type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
		<input type="checkbox"/> Other (Explain in Remarks)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): <u>N/A</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
-------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------

Remarks:

Attachment 3

*Photograph Log
(Revised May 2013)*



Photo 1. Looking northwest at Rifle Range in the western portion of the Site.
Date: October 16, 2012



Photo 2. Looking south at southernmost portion of W1 and location of surface water runoff into W1.
Date: October 16, 2012



Photo 3. Looking west from the eastern boundary of the Skip Range, towards the center of W1.
Date: October 16, 2012



Photo 4. Looking west at the central portion of W2 (along the western boundary of the Rifle Range).
Date: October 16, 2012



Photo 5. Looking southwest at W3 in the southern portion of the Pistol Range.
Date: October 16, 2012



Photo 6. Looking southeast at the eastern portion of W3, which conveys water under gravel/sand road via culvert.
Date: October 16, 2012



Photo 7. Looking southeast at berm and debris located north of the Skip Range.
Date: October 17, 2012



Photo 8. Looking northwest at the western portion of W4.
Date: October 17, 2012



Photo 9. Looking at the wetland/upland boundary in the central portion of W4.
Date: October 17, 2012



Photo 10. Looking south at double culvert at the mouth of S1 in the southern portion of W4.
Date: October 17, 2012



Photo 11. Looking at surface water within W4 between S1 and S2.

Date: October 17, 2012



Photo 12. Looking south at culvert at the mouth of S2 in the southern portion of W4.

Date: October 17, 2012



Photo 13. Looking northeast from S1 culvert along S1 and associated wetland, W4.
Date: October 17, 2012



Photo 14. Looking east along convergence of S1 and S2 within W4.
Date: October 17, 2012



Photo 15. Looking at culvert discharge point on eastern side of Access Road.
Date: April 11, 2013



Photo 16. Looking east from Access Road at location of discharge from culvert.
Date: April 11, 2013

\\Rochestersvr\Projects\Nys-Ogs.2069\49703.Franklin-Remedi\Docs\Reports\FINAL Wetland Delineation Report\Photolog.Docx

Attachment 4

USACE Correspondence

- 1) March 11, 2013 Request for Additional Information (Permit Application Number NAN-2013-00184)***
- 2) February 28, 2013 Email Correspondence Regarding Wetland Data Form Revisions***



DEPARTMENT OF THE ARMY
US Army Corps of Engineers, ATTN: CENAN-OP-RU
Upstate Regulatory Field Office
1 Buffington St., Building 10, 3rd Fl. North
Watervliet, New York 12189-4000

REPLY TO
ATTENTION OF

MAR 11 2013

Upstate New York Section

SUBJECT: Permit Application Number NAN-2013-00184
by the New York State Office of General Services

Jeremy Wolf
O'Brien and Gere Engineers, Inc.
400 Andrews Street
Harro East Building, Suite 710
Rochester, NY 14604

Dear Mr. Wolf:

We have received your application for a Department of the Army permit pursuant to:

Section 10 of the Rivers and Harbors Act of 1899

Section 404 of the Clean Water Act

Please use the above referenced application number when requesting information concerning your application. This number will be used on any further correspondence.

The above referenced request for authorization indicated that the proposed work would include the discharge of fill material into waters of the United States, including wetlands and streams, to facilitate the remediation of an existing firing range. The request was submitted by O'Brien and Gere Engineers, Inc., as consultants for the applicant. The site is located at the Franklin County Correctional Facility off Bare Hill Road, in the Town of Malone, Franklin County, New York.

On March 6, 2013, I inspected the project site accompanied by Mr. Kyle Buelow, of your office. I have also reviewed the submitted information and determined that additional information and clarification is necessary in order for the application to be considered as complete for processing as a pre-construction notification under the Nationwide Permit Program. So we may continue processing your application, please provide the following information:

1. The submitted Joint Application for Permit was not signed by the applicant or land owner. Please provide a signed copy of this form;

2. Please provide revised delineation data forms for the project site as indicated in an electronic mail message to Ms. Samantha Wason, of your office, dated February 28, 2013;
3. At the inspection, we identified a proposed impact area within the existing rifle range that is currently uplands. In addition, we identified additional wetlands and a stream channel within the clearing limits of the project. Please clarify the total extent of waters of the United States, including wetlands and streams, proposed to be impacted for this project;
4. Submit a revised drawing showing the revised extent of all streams and wetlands within the limits of the project site, and revised impact drawings showing all proposed disturbance within waters of the United States. This drawing should indicate the acres of proposed disturbance in waters of the US, consistent with our discussion on the project site on March 6, 2013, and the revised work description requested in (3) above;
5. At our inspection of the project site on March 6, 2013, we discussed the proposed wetland restoration plan, including the placement of trees within forested wetland impact areas to reestablish the existing canopy conditions within a reasonable timeframe and to ensure these impacts are indeed temporary in nature. We also discussed the need for adequate post-construction monitoring to ensure the proposed impact areas successfully reestablish the existing wetland characteristics. Please provide a planting plan for the forested wetlands proposed to be impacted, and a proposed wetland monitoring and management plan to ensure the plan meets the stated goals;
6. At our inspection of the project site on March 6, 2013, we also discussed the importance of stream functions, and the need for specific details of the proposed stream restoration activities. Please provide additional details, including proposed goals and objectives, detailed construction plans for these areas, and a proposed stream monitoring and management plan to ensure the plan meets the stated goals; and
7. In addition, a review of the GIS resources map on the N.Y.S. Office of Parks, Recreation and Historic Preservation (SHPO) website shows that the project site is located within areas identified by the SHPO as "Archeo Sensitive Areas". Please indicate whether any sites eligible for listing in the National Register of Historic Places exist in the vicinity of the proposed project site, provide evidence of any coordination with the SHPO on the potential presence of historic sites, and copies of any reports from cultural resource surveys performed for this undertaking. In accordance with 33 CFR Part 325, Appendix C, this office will only be able to make a determination as to the

eligibility of the project to proceed in accordance with the Nationwide Permit Program once these issues are resolved, and any required consultation regarding cultural resources is complete.

You are advised not to undertake any activity in connection with the proposed work within waters of the United States until any required Section 106 consultation has been completed and Department of the Army authorization has been obtained.

You may contact the undersigned at (518) 266-6357, or john.r.connell@usace.army.mil if you have any questions.

Sincerely,



John R. Connell
Senior Project Manager
Upstate New York Section

cc: E. Burns - NYSDEC, Region 5 (Ray Brook)
S. Nair - NYSOGS
Town of Malone
K. Buelow - O'Brien and Gere

Samantha Wason

From: Connell, John R NAN02 <John.R.CConnell@usace.army.mil>
Sent: Thursday, February 28, 2013 12:54 PM
To: Samantha Wason
Cc: Kyle Buelow; Jeremy Wolf
Subject: RE: Malone JPA Followup/Site Visit (UNCLASSIFIED)
Attachments: NCNE WetlandDeterminationDataForm.pdf

Classification: UNCLASSIFIED
Caveats: NONE

Samantha,

Please my comments, which are CAPITALIZED below.

Thanks,
John

John R. Connell
Senior Project Manager, Upstate New York Section DEPARTMENT OF THE ARMY US Army Corps of Engineers, ATTN:
CENAN-OP-RU
1 Buffington St., Bldg. 10, 3rd Fl. North Watervliet, NY 12189 office (518) 266-6357 mobile (518) 487-0423

*****CORPS ENVIRONMENTAL PRINCIPLES*****

- Strive to achieve environmental sustainability.
- Recognize the interdependence of life and the physical environment.
- Seek balance and synergy among human development activities and natural systems.
- Continue to accept corporate responsibility and accountability under the law.
- Seek ways and means to assess and mitigate cumulative impacts to the environment.
- Build and share an integrated scientific, economic, and social knowledge base.
- Respect the views of individuals and groups interested in Corps activities.

In order for us to better serve you, please complete our Customer Service Survey located at:

<http://per2.nwp.usace.army.mil/survey.html>

-----Original Message-----

From: Samantha Wason [mailto:Samantha.Wason@obg.com]
Sent: Thursday, February 28, 2013 11:54 AM
To: Connell, John R NAN02
Cc: Kyle Buelow; Jeremy Wolf
Subject: Malone JPA Followup/Site Visit

Mr. Connell,

Below is a summary of yesterday's conversation regarding the Malone Wetland Delineation forms included as part of the Malone Firing Range JPA. Please take a look and let me know if your comments are accurately represented, as we would like to resolve these issues before/during the Site visit next Wednesday (3/6). Kyle Buelow from our Syracuse office will be able to meet you at the Site at 10:30 AM. Access to the Site may require use of a four-wheel drive vehicle, so please arrange accordingly.

I WILL BRING A 4-WHEEL DRIVE VEHICLE, HOWEVER IF THE ACCESS ROAD IS TOO DIFFICULT TO NAVIGATE I AM NOT OPPOSED TO WALKING.

1) Prevalence index should use the "Total % Cover" instead of the number of species with each hydrologic indicator. Calculations are incorrect in the Excel data form and need to be updated.

2) Identify to the species level if possible. If not possible (e.g., Sphagnum sp. or Graminoids), add it to the list but do not include its percent cover in the dominance calculation.

NOTE THAT THIS LIST IS NOT STATIC, AND I HAVE NOT CROSS-REFERENCED YOUR ENTRIES WITH THE CURRENT VERSION. ALSO, CHAPTER 5 PROCEDURES FOR DIFFICULT WETLAND SITUATIONS CAN BE USED FOR MANAGED AREAS, AS WELL AS AREAS DOMINATED BY PEAT MOSSES THAT ARE ACTING AS HYDROPHYTES. PLEASE ALSO NOTE THAT THE NPL DOES NOT ADDRESS BRYOPHYTES AT ALL, ONLY VASCULAR PLANTS. MOREOVER, AREAS SUCH AS THE PROJECT SITE THAT ARE MANAGED AND/OR DOMINATED BY GRAMINOIDS SHOULD BE DELINEATED AT TIMES OF THE YEAR WHEN THESE SPECIES CAN BE IDENTIFIED, OR THEY SHOULD BE RELOOKED AT DURING OPTIMUM GROWING CONDITIONS TO VERIFY THESE SPECIES.

3) Need to fill out all slots on the form; for example, texture for soils. Example: SB1A, 0-10 inches was "dark organics." Specify the texture (muck) and put "organics" in the remarks line.

TO CLARIFY, I CANNOT VERIFY WHETHER MUCK IS PRESENT AT THIS LOCATION WITHOUT INSPECTING THE SOILS IN THE FIELD.

4) In that same example, the hydric soil indicator should be Histic Epipedon (A2): surface horizons 8 inches or more thick of organic soil material underlain by mineral soil with a chroma of 2 or less.

THE ACTUAL INDICATOR DESCRIPTIONS ARE IN THE MANUAL SUPPLEMENT FINAL VERSION 2.0

5) Thin Dark Surface (S9) is not applicable to SB1A because it is only applicable to sandy soils.

IF SB1A IS LOAMY FINE SAND OR COARSER, S9 COULD BE USED. HOWEVER, YOUR DATA SHEET SUGGESTED A2 WAS PRESENT.

6) Can't use Depleted Matrix (F3) in sandy soils.

7) Sandy mucky mineral (S1): Not applicable in all areas of the Northcentral and Northeast region. In the regional supplement, however, it states that it is. Will need to clarify.

THIS IS MY MISTAKE IN THAT I WAS READING THE NOTATION ON YOUR DATA SHEET THAT INDICATES S1 IS ONLY FOR USE IN LRRs O AND S. HOWEVER, YOUR DATA SHEET IS NOT CORRECT AND YOU ARE RIGHT THAT THIS INDICATOR CAN BE USED THROUGHOUT NC-NE. ATTACHED IS THE OFFICIAL VERION 2.0 DATA SHEET WITH THE CORRECT NOTATIONS. YOU CAN COPY THIS AND FILL IT OUT BY HAND FOR RESUBMISSION OF YOUR DATA SHEETS, OR REVISE YOUR EXCEL VERSION AS NECESSARY.

8) No vegetative species should have the indicator status "Not Listed." The goal of the new plant list is to ensure that everything is listed. If, for any reason, something is identified as "Not Listed," you can use an indicator for that species from another nearby region; however, indicate that in the remarks.

YOU ALSO NEED TO LOOK AT SYNONYMY CAREFULLY AS WELL AS CHAPTER 5 IF APPLICABLE TO YOUR SITE.

9) Data form SB7 has a redox of "G2 6/10B." This refers to page 2 of the Gley's in Munsell. Can discuss during site visit.

NOW I UNDERSTAND, G2 REFERS TO GLEY PAGE 2.

10) If you notice a sulfur odor, use hydric soil indicator Hydrogen Sulfide (A4).

THE ACTUAL INDICATOR DESCRIPTIONS ARE IN THE MANUAL SUPPLEMENT FINAL VERSION 2.0

Thank you,

Samantha

Description: Description: Description: C:\DOCUME~1\WasonSJ.OBG\LOCALS~1\Temp\XPgrpwise\IMAGE.gif

Samantha J. Wason

PROJECT SCIENTIST

Description: Description: Description: C:\DOCUME~1\WasonSJ.OBG\LOCALS~1\Temp\XPgrpwise\IMAGE_1.gif

O'BRIEN & GERE

333 West Washington Street | P.O. Box 4873 Syracuse, NY 13221- 4873 p 315-956-6100 | f 315-463-7554

direct 315-956-6975

samantha.wason@obg.com <mailto:samantha.wason@obg.com> www.obg.com <http://www.obg.com/>

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Classification: UNCLASSIFIED

Caveats: NONE

Attachment 5
NYSOPRHP Correspondence



New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

April 15, 2013

Subramaniam Nair
Corning Tower, 33rd Floor
Empire State Plaza
Albany, New York 12242

Re: DEC, CORPS
Village Firing Range, Franklin Correctional
Facility, East side of Bare Hill Rd
(1600' N of Bare Hill Rd
MALONE, Franklin County
13PR01550

Dear Mr. Nair:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, it is the SHPO's opinion that your project will have No Effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont
Deputy Commissioner for Historic Preservation

Attachment 6
Restoration Plan

RESTORATION PLAN

**Remediation of Village Firing Range
Franklin Correctional Facility
Project No. 44345**

Malone, New York

May 2013



**Remediation of
Village Firing Range
Franklin Correctional Facility
Project No. 44345**

Prepared for:

New York State Office of General Services

May 2013



JEREMY WOLF, MANAGING SCIENTIST
O'Brien & Gere Engineers, Inc.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

This Restoration Plan has been prepared for the New York State Office of General Services (NYSOGS) to supplement the Pre-Construction Notification (PCN) that was submitted to obtain coverage under U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) No. 38 (Cleanup of Hazardous and Toxic Waste; Permit Application Number NAN-2013-00184) for the approximately 9-acre former Town of Malone Village Firing Range (the Site) at the Franklin Correctional Facility in Malone, New York ([Sheet G-001](#)). The project consists of *in-situ* soil stabilization of hazardous soil, excavation of contaminated soil, recovery of projectiles, and off-Site disposal of contaminated and/or stabilized soil at a NYCRR Part 360 permitted Non-Hazardous Waste landfill. This Restoration Plan provides details of how the values and services associated with existing on-Site wetlands and streams will be restored once impacted soils are remediated.

As requested by New York State Department of Corrections and Community Supervision (NYSDOCCS), the intent of this project is to “remediate the former Town of Malone Village Firing Range, remove all lead from existing berms, along with the removal of the storage shed, office trailer and disconnect the Site utilities. Restore property to its original condition.” Contract Drawings illustrating existing features and proposed project activities are bound separately.

2. OBJECTIVES

2.1 SUMMARY OF OBJECTIVES

The primary objectives of the Restoration Plan are:

- to offset unavoidable impacts to waters of the United States authorized under Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344)
- to replace values and services of wetlands impacted by construction of the proposed facilities
- to serve the aquatic resource needs of the watershed
- to provide a Restoration Plan that is not contrary to the public interest (*i.e.*, the benefits, which reasonably may be expected to accrue from the project, will be balanced against its reasonably foreseeable detriments)
- to identify Restoration Plan components.

2.2 UNAVOIDABLE IMPACTS TO WATERS OF THE UNITED STATES

As presented in **Table 1** below, an estimated 0.39 acre of delineated wetland and 0.03 acre (264 lf) of stream habitat are expected to be impacted temporarily during remediation; no permanent impacts are proposed. Activities include excavation (to depths of 1 and 2 feet below ground surface; **Sheet C-104**), placement and grading of clean fill (**Sheet C-106**), and wetland and stream restoration in accordance with this Restoration Plan and the Contract Documents.

Table 1. Delineated on-Site Wetland/Stream Summary

Wetland ID	Covertypes	Delineated Acreage	Encroachment Acreage ²
W1	Fen	0.82	0.25
W2	Scrub-shrub	0.01	0.00
W3	Shallow emergent ¹	0.03	0.003
W4	Forested	0.42	0.14
S1	Intermittent; cobble, gravel, sand and silt substrate	0.04 (477 lf)	0.03 (197 lf)
S2	Intermittent; gravel, sand and silt substrate	0.004 (89 lf)	0.003 (67 lf)
Total	----	Wetland = 1.28 Stream = 0.04 ac (566 lf)	Wetland = 0.39 Stream = 0.03 (264 lf)

Note: W4, S1, and S2 continue north beyond delineation boundaries. Stream impacts do not include culverted portions of S1 and S2.

¹ W3 will be restored as fen.

² Encroachment Acreage includes excavation areas and disturbed areas surrounding the excavations that will be impacted by the movement of construction vehicles and construction activities

It should be noted that the culvert that connects the western and eastern portions of W1 will be removed during remediation and the area restored as an open vegetated swale. It is anticipated that the 0.01-acre of upland will be restored in that area as wetland once remediation is completed, thereby increasing on-Site wetland acreage.

3. RESTORATION WORK PLAN

3.1 GENERAL PRINCIPLES

The overall goal of the Restoration Plan is to restore the values and services provided by the existing 0.39 acre of wetland habitat and 0.03 acre (264 lf) of stream habitat that will be impacted by the proposed remediation. Restoration will be implemented concurrent with other Site restoration activities. The Contract Documents include plans, notes, details, and specifications that provide additional guidance to the Contractor on how to restore these resources. The following information provides details of restoration strategies to be utilized in the following restoration areas as shown on the plans:

- **Fen (0.25-acre):** These areas include W1 and W3 and will be restored with organic soils and herbaceous species that currently exist on-Site.
- **Forested Wetland (0.14-acre):** This area includes W4 and will be restored to support a mix of herbaceous and deciduous tree species that promote succession to a forested wetland.
- **Intermittent Stream (0.03-acre/264 lf):** The bed and banks of impacted stream segments of S1 and S2 will be restored to maximize stability and aquatic habitat.

The following sections present zone-specific specifications. Additional details are provided in [Section 327101](#) “Wetland Restoration” of the Contract Documents.

3.2 WETLAND

3.2.1 Backfill

Once contaminated soil removal is complete, excavations that exceed one foot in depth shall be backfilled to within one foot of the proposed final grade by the Contractor with existing on-Site borrow soil obtained from the designated clean berms at the Site. After backfill, the entire encroachment area (disturbed wetland areas) shall subsequently be restored as follows:

3.2.1.1 Fen Areas

Sandy loam shall be placed to a depth of six inches below final grade throughout the fen restoration areas (W1 and W3). Subsequently, six inches of peat shall be placed over the sandy loam without compacting.

3.2.1.2 Forested Wetland Areas

Sandy loam shall be placed to a depth of six inches below final grade throughout the forested wetland restoration areas (W4). Subsequently, six inches of peat shall be placed over the sandy loam without compacting.

3.2.2 Donor Cores

Much of the existing fen (W1 and W3) that will be impacted is dominated by horsetail species (*Equisetum* spp.) which are more suited to transplant than propagation with spores. As a result, donor cores shall be installed by the Engineer within the established fen soil media by hand throughout the restoration areas in accordance with the following:

- Cores shall be harvested between April 1st and May 15th or between August 15th and October 1st, except as otherwise approved in writing by the Owner's Representative. Cores shall be stored as needed in shade and shall be watered to avoid desiccation (*i.e.*, watered daily unless precluded by rain). The cores shall be transplanted within the restoration areas specified within 3 days of harvest (not to be staged over a weekend or holiday). This work shall be performed by the Engineer prior to seeding or planting woody stock.
- Cores shall be transplanted on 4-foot centers throughout the prepared soil bed. A spade, bulb planter, or equivalent shall be used to create a hole sufficient to hold the transplant. The peat shall be replaced surrounding the transplant to avoid significant void space using hand or heel pressure; the area shall not be compacted additionally. Care shall be taken to prevent impacts to viable roots and stems growing within the cores.

- Cores shall be collected by the Engineer from non-impacted wetland portions of the Site using a spade, bulb planter, or equivalent and consist of a minimum of 4-inches deep by 3-inches in diameter of *Sphagnum* moss, to be determined by the root depth encountered in that specific location. Living vegetation growing on the cores shall remain rooted and maintained viable to the extent practicable. A minimum of 25% of the cores shall contain viable *Equisetum* spp. No invasive species shall be harvested.

3.2.3 Fen Vegetation

Seed shall be applied to the restored soil by hand or seed spreader by the Contractor between April 1st and May 15th or between August 15th and October 1st at a rate of 20 pounds per acre. Mulch shall then be applied by the Contractor at a rate of 2 tons per acre to achieve an even thickness of 1 to 1.5 inches in depth. Mulch shall be left in place and allowed to disintegrate.

The following seed mixture shall be applied:

Table 2. Fen Seed Mixture

Scientific name	Common name	% Weight
<i>Calamagrostis canadensis</i>	Bluejoint grass	20
<i>Glyceria striata</i>	Fowl mannagrass	8
<i>Glyceria canadensis</i>	Rattlesnake mannagrass	7
<i>Asclepias incarnatus</i>	Swamp milkweed	5
<i>Eupatorium maculatum</i>	Spotted joe-pye weed	5
<i>Eupatorium perfoliatum</i>	Boneset, thoroughwort	5
<i>Euthamia graminifolia</i>	Bush goldenrod	8
<i>Potentilla palustris</i>	Marsh cinquefoil	5
<i>Scirpus acutus</i>	Hardstem bulrush	5
<i>Scirpus atrovirens</i>	Green bulrush	5
<i>Carex flava</i>	Yellow sedge	3
<i>Carex hystericina</i>	Bottlebrush sedge	3
<i>Carex lacustris</i>	Hairy sedge	3
<i>Carex lasiocarpa</i>	Woolyfruit sedge	3
<i>Carex pellita</i>	Wooly sedge	3
<i>Carex stricta</i>	Upright sedge	3
<i>Geum rivale</i>	Purple avens	2
<i>Chelone glabra</i>	Turtlehead	1
<i>Equisetum arvense</i>	Common horsetail	1
<i>Equisetum fluviatile</i>	Water horsetail	1
<i>Fragaria virginiana</i>	Wild strawberry	1
<i>Iris versicolor</i>	Blue flag	1
<i>Triadenum virginicum</i>	Marsh St. John's wort	1
<i>Viola cucullata</i>	Marsh blue violet	1

3.2.4 Forested Vegetation

The Contractor shall avoid impacts to trees outside of the limits of disturbance as these will serve as seed sources for the restoration areas. Grading and vehicle movements shall be minimized within the drip line of the tree crown of these surrounding trees. Alternative trees may be selected for removal by the Contractor on a one to one basis if required, only after approval is received from the Owner's Representative.

The 0.14-acre forested wetland area shall be planted by the Contractor in accordance with the following:

- A. Individual size #3 specimens of the following species shall be planted at an approximate density of one tree per 100 square feet (21 trees total), alternating species such that equal numbers of each species are planted:
 - River birch (*Betula nigra*)
 - Red maple (*Acer rubrum*)
 - Black Willow (*Salix nigra*)
- B. Tree stems shall be wrapped from ground level to a height of 24-inches to prevent damage from voles (*Microtus pennsylvanicus*), beaver (*Castor canadensis*), and other mammals.
- C. Forested wetland areas shall be seeded with the seed mix specified for the fen wetland at a rate of 20 lb per acre after placement of trees. Mulch shall be applied in these areas at a rate of 2 tons per acre.

3.3 INTERMITTENT STREAM

Impacted stream segments will be restored by the Contractor by placing clean fill and topsoil within excavated areas to restore the existing channel cross section and profile. Stream banks and stream beds shall be restored in accordance with the following:

3.3.1 Stream Banks

Once contaminated soil removal is complete, stream banks shall be backfilled with clean on-Site borrow soil obtained from the designated clean berms at the Site to within 4 inches of the proposed final grade. Imported topsoil shall be spread over the backfill to a depth of 4 inches.

3.3.2 Stream Beds

The stream beds will be backfilled by the Contractor with designated clean remaining berm material overlain with 4 inches of topsoil to within 2-inches of the proposed finished elevation and topped with a minimum of 2 inches of washed run-of-bank gravel per the following:

- thoroughly washed, clean, sound, tough, hard, round, cobbly, stone or other approved equal material from a local source that is free from coatings and organic matter
- gradation by weight of 80 to 90% passing a 3-inch square opening, 80 to 60% passing a 2-inch square opening and 0 to 10% passing a 1-inch sieve as determined by washing through the sieve in accordance with ASTM D422 (Standard Test Method for Particle-Size Analysis of Soils).

Washed run-of-bank gravel shall be placed in a uniform 2-inch minimum thickness lift within the two impacted stream segments (S1 and S2) within W4. Compaction of the gravel is not required.

3.3.2 Stream Banks

The banks will be vegetated by the Contractor with the fast growing *Graminoid* species specified in [Section 329219](#) "Seeding (Non Wetland Areas)" to promote rapid vegetative stabilization:

Table 3. Stream Bank Seed Mixture

Name	Variety	A	B	C
Chewing's Fescue (<i>Festuca rubra commutata</i>)	Banner, Highlight, Jamestown, or an approved equal	85	97	25
Kentucky Bluegrass* (<i>Poa pratensis</i>)	Barron, Flying, Glade, or an approved equal	80	95	55
Perennial Ryegrass** (<i>Lolium perenne</i>)	Manhattan II, Pennfine, Yorktown II, or an approved equal	90	98	20
*Approximately equal proportions of 2 or more improved Bluegrass varieties as listed in the Cornell Recommendations for Turfgrass. **One or more of the improved Ryegrass varieties as listed in the Cornell Recommendations for Turfgrass.				

It is anticipated that establishment of these species will maximize the stability of the streams and minimize post-construction erosion once flow is reestablished.

Seed shall be applied to the restored soil by the Contractor by hand or seed spreader between April 1st and May 15th or between August 15th and October 1st at a rate of 5 pounds per 1,000 square feet. Erosion control blanket and stakes shall be applied to banks within one day after seeding in accordance with the manufacturer's written instructions.

4. MAINTENANCE PLAN

A description and schedule of maintenance requirements that will be performed by the Engineer to provide for the continued viability of the resource once construction is completed is provided in Table 4.

Table 4. Maintenance Plan

Component	Timeframe
Conveyance Structures	<ul style="list-style-type: none"> ■ monitor condition of culverts and swales. Remove accumulated debris as needed to maintain system hydrology
Vegetation	<ul style="list-style-type: none"> ■ reseed or replant areas that do not achieve performance standards ■ hand-pull invasive species (<i>e.g.</i>, purple loosestrife, common reed (<i>Phragmites australis</i>)) observed during monitoring events. Dispose of materials outside of wetland and stream boundaries ■ add measures to control herbivory ■ remove downed woody vegetation from channels if needed to maintain non-erosive flow through channels
Area Protection (Site Access Restriction)	<ul style="list-style-type: none"> ■ monitor for signs of trespassing and/or vandalism.
Stream Channels	<ul style="list-style-type: none"> ■ monitor for aggrading material, erosion of substrate, particle sorting ■ assess the condition of channel banks relative to erosion (<i>e.g.</i>, undercutting, sloughing) ■ evaluate for areas of destabilization, including headcutting and scour, that may be due to construction related impacts
Source: O'Brien & Gere	

5. PERFORMANCE STANDARDS

The following performance standards will be used by the Contractor and/or the Engineer (as specified below) to evaluate whether the Restoration Plan meets its objectives:

- seed germination by the Contractor that results in a minimum of 80% ground cover as soon as practicable, to be maintained throughout the monitoring period by the Engineer
- planted woody species survival of a minimum of 80% at the end of the first growing season (one year) after planting, to be monitored by the Engineer and maintained by the Contractor
- the minimum density for woody vegetation at the end of the monitoring period shall be 17 trees within the 0.14-acre forested wetland (80% of the 21 trees planted). This density can include either planted stock or non-invasive volunteer species and is to be monitored by the Engineer. Newly planted trees are to be maintained by the Contractor within the monitoring period and replaced as needed based on the Engineers observations
- the Engineer will monitor whether the areal coverage of invasive plant species remains below 5%
- the Engineer will monitor whether a dominance of hydrophytic (water tolerant) species is established within the wetlands by the end of the monitoring period. A dominance of hydrophytes requires that more than 50% of the vegetative species in an area are identified as hydrophytic. A species is considered hydrophytic per U.S. Army Corps of Engineers' (USACE) methodology if it has an assigned indicator status of obligate (OBL), facultative wet (FACW), or facultative (FAC) in *The National Wetland Plant List* (Lichvar 2012)
- the Engineer will monitor stream channels such that they provide functional aquatic habitat consistent with pre-construction conditions and do not indicate significant signs of destabilization (*e.g.*, undercutting, sloughing, headcutting, and scour) at the end of the monitoring period.

6. MONITORING REQUIREMENTS

Long-term monitoring of the restoration areas will be a process managed by the NYSOGS. Short-term monitoring of the Site to determine if the project is meeting performance standards (see Section 5), and to determine if adaptive measures (see Section 7) are necessary to attain the Restoration Plan objectives, will be the responsibility of the NYSOGS. A biologist knowledgeable of aquatic habitats, vegetation, and biota shall be consulted throughout the process.

Consistent with 33 CFR § 332.6(b), a five year monitoring period is proposed to demonstrate that the project has met performance standards. It is understood that the District Engineer may reduce or waive the remaining monitoring requirements upon a determination that the restoration project has achieved performance standards. Field monitoring activities shall be performed by the Contractor and the Engineer during the growing season (*i.e.*, April 15 through October 25) and as outlined in Section 5 (Performance Standards).

A total of four 10-foot by 10-foot vegetation plots will be established by the Engineer in the restored wetland areas to provide representative data: two plots in W1 (fen), one plot in W3 (fen) and one in W4 (forested wetland). Specific plot locations will be selected based on observed post-construction field conditions. Vascular plant community composition will be quantified by estimating the absolute percent cover of each species rooted or hanging within the individual plots. Woody species density will be estimated by counting individual trees throughout the restored wetland areas.

Annual reports, prepared by the Engineer, regarding the status of the restoration areas will be submitted to the District Engineer and shall include:

- estimated frequencies and percent cover of vegetative species within the established vegetation plots
- woody species density within the restored forested wetland area
- photographs showing representative portions of the restoration areas from fixed reference points with photo-location map
- surface water depth and date of measurement from representative locations within the restored areas. The sample points will be fixed locations and shall be plotted on a map

The reports will be prepared, formatted, and submitted in accordance with the special conditions of the federal permit.

7. ADAPTIVE MANAGEMENT PLAN

To address unforeseen changes in Site conditions or other components of the Restoration Plan, an adaptive management plan has been developed to be implemented by the Owner, which is summarized in Table 5, below.

Table 5. Adaptive Management Plan

Component	Adaptive Measure
Vegetation	<ul style="list-style-type: none"> ■ if Canada geese (<i>Branta canadensis</i>) activities prevent establishment of plant communities, prohibitive measures such as installation of dead goose decoys and/or an overhead grid system may be employed ■ if horsetail species do not become established, additional donor cores may be planted ■ if damage to tree saplings from mammals is rampant, preventative measures may be employed or alternate, less palatable species selected ■ if selected species are unsuccessful, alternate seed mixes or species shall be used, or water levels will be altered, if practicable ■ if purple loosestrife (<i>Lythrum salicaria</i>) becomes dominant, introduction of biological control agents such as <i>Galerucella</i> beetles should be considered ■ invasive species proliferation would need to be controlled through manual or chemical means
Soil	<ul style="list-style-type: none"> ■ pH control could be applied if soil pH differs significantly from surrounding areas
Water levels	<ul style="list-style-type: none"> ■ control modification including adding weirs to existing conveyance structures.
Source: O'Brien & Gere	

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