PUBLIC NOTICE

US Army Corps of Engineers ®
New England District
696 Virginia Road
Concord, MA 01742-2751

Comment Period Begins: November 23, 2010
Comment Period Ends: December 23, 2010
File Number: NAE-2010-2126
In Reply Refer To: Barbara Newman
Phone: (978) 318-8515
E-mail: barbara.h.newman @usace.army.mil

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below.

APPLICANT City of Bristol, CT., Dept. of Parks and Recreation

ACTIVITY Pequabuck River bank stabilization. A detailed description and plans of the activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK
This work is proposed in the Pequabuck River in Rockwell Park at Dutton Avenue, Bristol, CT. The proposed location on the USGS CT- Bristol quadrangle sheet is at 41.673Lat and -72.961Long

AUTHORITY
Permits are required pursuant to:
_____Section 10 of the Rivers and Harbors Act of 1899
__x__ Section 404 of the Clean Water Act
_____Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

SECTION 106 COORDINATION

Rockwell Park is listed on the National Register of Historic Places. Based on his initial review, the District Engineer has determined that the proposed work may impact this property. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

ENDANGERED SPECIES CONSULTATION

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The following authorizations have been applied for, or have been, or will be obtained:

(x) Permit, License or Assent from State.
(x) Permit from Local Wetland Agency or Conservation Commission.
(x) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Barbara Newman at (978) 318-8515 or (800) 343-4789.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

In accordance with 33 CFR 325.2(a) (8), we publish monthly a list of permits issued or denied during the previous month at www.nae.usace.army.mil/reg, under the heading "Monthly General and Individual Permit Authorizations." Relevant environmental documents and the SOFs or RODs are available upon written request and, where applicable, upon the payment of administrative fees. Also visit www.nae.usace.army.mil for more information on the New England District Corps of Engineers programs.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

Diane M. Ray
Acting Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____

PROPOSED WORK AND PURPOSE

The work includes the discharge of fill material for the stabilization of three areas along the Pequabuck River bank in Rockwell Park in Bristol, CT. The City of Bristol is proposing Phase III of a multi phased project in its 104-acre Rockwell Park. Phase III proposes the removal of the existing retaining walls, regrading of the banks to allow for greater flow conveyance, riprap/boulder placement below the Ordinary High Water Mark (OHWM) and within a Federal Emergency Management Agency (FEMA) floodway, removal of invasive vegetation and replanting of native vegetation. The Pequabuck River flows through Rockwell Park and is a natural channel with steep vegetated banks underlain with sandy till soil. The project will impact approx. 2, 965 square feet of river bank below the OHWM. The following describes the work being done at each location:

Route 72 Bridge Abutments.

Remove the left bank stone retaining wall, regrade the bank and install riprap for stabilization, remove invasive vegetation, shrubs and riprap. Plant tubelings (young seedling trees grown in plastic "plug" containers) will be inserted within the proposed riprap bank to create a more natural stream bank. There will be 425 SF of impacts below the OHWM.

Banks near Pedestrian Bridge

Hand install large rounded boulders behind existing stones at the toe of slope along both banks upstream of the existing pedestrian bridge. Stabilize and repair existing swales along the stone dust trail. There will be 270 SF of impacts below the OHWM.

Banks near Parks and Recreation Maintenance Facility.

Remove the existing boulder wall on the right bank and regrade bank, place boulders from the removed wall along 115 linear feet of left bank for slope protection, fill in existing scour holes and regraded bank along right bank with riprap, remove invasive vegetation, remove the last two bays of the maintenance building, relocate a portion of the existing stone dust walking trail; install a vortex weir within the river channel and insert a boulder overhang (lunker) structure on the left bank. There will be 2,270 SF of impacts below the OHWM.

The construction activity will take place during the summer months and is expected to last one month. Filters will be installed to prevent sediment migration from the work sites.

The work is described on the enclosed plans entitled "Improvements to Rockwell Park, Pequabuck River Bank Stabilization," on ten (10) sheets, and dated "July 2010."

MITIGATION – the applicant states that it is not possible to avoid the placement of some type of fill below the OHWM in order to stabilize the currently eroded banks of this fast moving river. However the applicant is minimizing the impacts by planting tubelings, and using large boulders, rock weirs, and a lunker. Large boulders and the spaces between them can provide near shore habitat for a variety of fish. The rock weir and lunker provide a lateral cover for fish, and the weir would create localized scour holes, which are important for fish survival during low flow periods. In addition the plantings used in and amongst the large boulders can provide soil stabilization, shading and wildlife habitat over time.

IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

BRISTOL, CONNECTICUT

MMI #:2235-34

NOV 2010

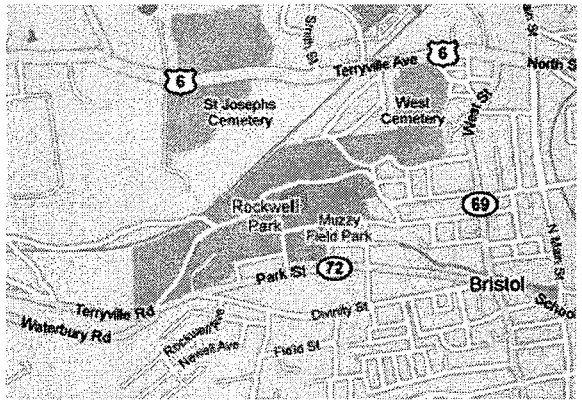
PRELIMINARY DESIGN PLANS

CONSTRUCTION SEQUENCE

1. PRIOR TO COMMENCEMENT OF WORK A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH CITY STAFF AND REPRESENTATIVES OF THE CONTRACTOR AND OWNER. AT THIS MEETING, ONE PERSON WILL BE PLACED IN CHARGE OF SEDIMENT AND EROSION CONTROL FOR THE ENTIRE SITE.
2. CONTRACTOR TO STAKE OUT LIMIT OF DISTURBANCE AND VEGETATION TO BE RETAINED. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN.
3. CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS.
4. PLACE SEDIMENT FILTER FENCE AND HAY BALES AROUND STOCKPILES.
5. CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS PER THE SEDIMENT AND EROSION CONTROL PLAN.
6. SEDIMENT AND EROSION CONTROLS ARE TO BE CONSTRUCTED PRIOR TO EACH PHASE OF WORK AND MODIFIED AS NECESSARY TO FUNCTION.
7. STABILIZE ALL SLOPES IMMEDIATELY AFTER THEIR ESTABLISHMENT.
8. SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER.
9. THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AND THE CITY'S DESIGNATED REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS
10. INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERIOD OF THREE MONTHS AFTER COMPLETION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
11. ALL DEWATERING WASTE WATERS SHALL BE DISCHARGED IN A MANNER WHICH MINIMIZES THE DISCOLORATION OF THE RECEIVING WATERS.
12. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
13. A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.

OPERATION AND MAINTENANCE PLAN (POST-CONSTRUCTION)

1. A VEGETATIVE OR IMPROVED COVER SHALL BE MAINTAINED ON ALL EARTH SURFACES TO MINIMIZE SOIL EROSION. USE OF FERTILIZER SHOULD BE MINIMIZED AND APPLIED USING PRUDENT APPLICATION PROCEDURES.
5. A LOG OF ALL INSPECTION AND CLEANING SHALL BE MAINTAINED BY THE OCCUPANT AND BE AVAILABLE FOR INSPECTION.
6. DURING CONSTRUCTION AND FOR THREE MONTHS AFTER PROJECT COMPLETION INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE ON A WEEKLY BASIS AND AFTER RAINFALL EVENTS OF 1" OR GREATER. A LOG OF SUCH INSPECTIONS SHALL BE MAINTAINED AT THE SITE.



LOCATION MAP NOT TO SCALE

PREPARED FOR:

BRISTOL PARKS DEPARTMENT
City Hall
111 North Main Street
Bristol, CT 06010

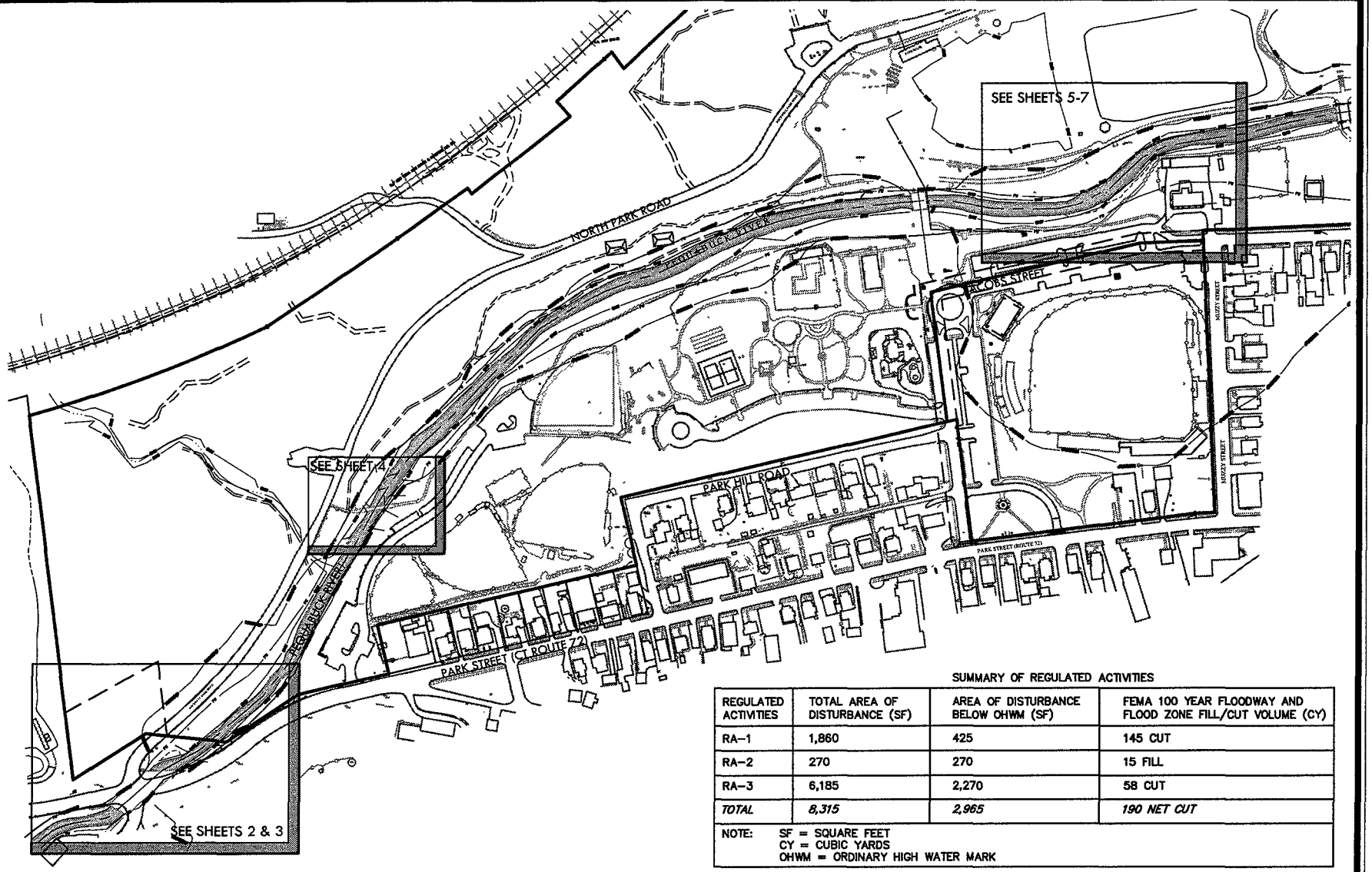
PREPARED BY:

MILONE & MACBROOM,
Engineering, Landscape Architecture and Environmental Science
99 Realty Drive
Cheshire, Connecticut 06410
(203) 271-1773 Fax (203) 272-9733
www.milonemacbroom.com

GENERAL NOTES

1. BOUNDARY INFORMATION IS BASED UPON FIELD SURVEY CONDUCTED BY: MILONE AND MACBROOM, INC., TAKEN FROM A MAP ENTITLED PROPERTY SURVEY AT A SCALE OF 1"=60', DATED: OCTOBER 10, 2005
2. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAYBE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455.ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIAYELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
3. MILONE & MACBROOM INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
4. OHWM WAS FLAGGED BY MATTHEW SANFORD, CERTIFIED SOIL SCIENTIST OF MILONE AND MACBROOM INC., ON AUGUST 2005, AS SHOWN ON THE EXISTING CONDITIONS DRAWING AND FIELD LOCATED BY MILONE AND MACBROOM INC.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
6. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
7. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, AND BE SEEDED WITH GRASS OR SODDED, AS SHOWN ON THE PLANS.
8. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
9. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE CITY OF BRISTOL REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 816 AND ADDENDUMS
10. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
11. ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS SHOULD BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
12. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
13. PERIMETER SWALES AND RESPECTIVE SILTATION BASINS SHALL BE COMPLETED AND RESTORED PRIOR TO PROCEEDING WITH OTHER SITE CONSTRUCTION.
14. THE CONTRACTOR SHALL (REPAIR/REPLACE WHEN NECESSARY) THE SILTATION CONTROL UNTIL ALL WORK IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
15. THE CONTRACTOR SHALL EXERCISE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO RECENTLY COMPLETED PHASE I AND PHASE 2 IMPROVEMENTS OR OTHER EXISTING SITE IMPROVEMENTS TO REMAIN. ANY DAMAGE TO ITEMS DESCRIBE HEREIN WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNER.
16. THE OWNER IS THE CITY OF BRISTOL (TELEPHONE 860-584-6159).

LIST OF DRAWINGS:



SUMMARY OF REGULATED ACTIVITIES

REGULATED ACTIVITIES	TOTAL AREA OF DISTURBANCE (SF)	AREA OF DISTURBANCE BELOW OHWM (SF)	FEMA 100 YEAR FLOODWAY AND FLOOD ZONE FILL/CUT VOLUME (CY)
RA-1	1,860	425	145 CUT
RA-2	270	270	15 FILL
RA-3	6,185	2,270	58 CUT
TOTAL	*8,315*	*2,965*	*190 NET CUT*

NOTE: SF = SQUARE FEET
CY = CUBIC YARDS
OHWM = ORDINARY HIGH WATER MARK

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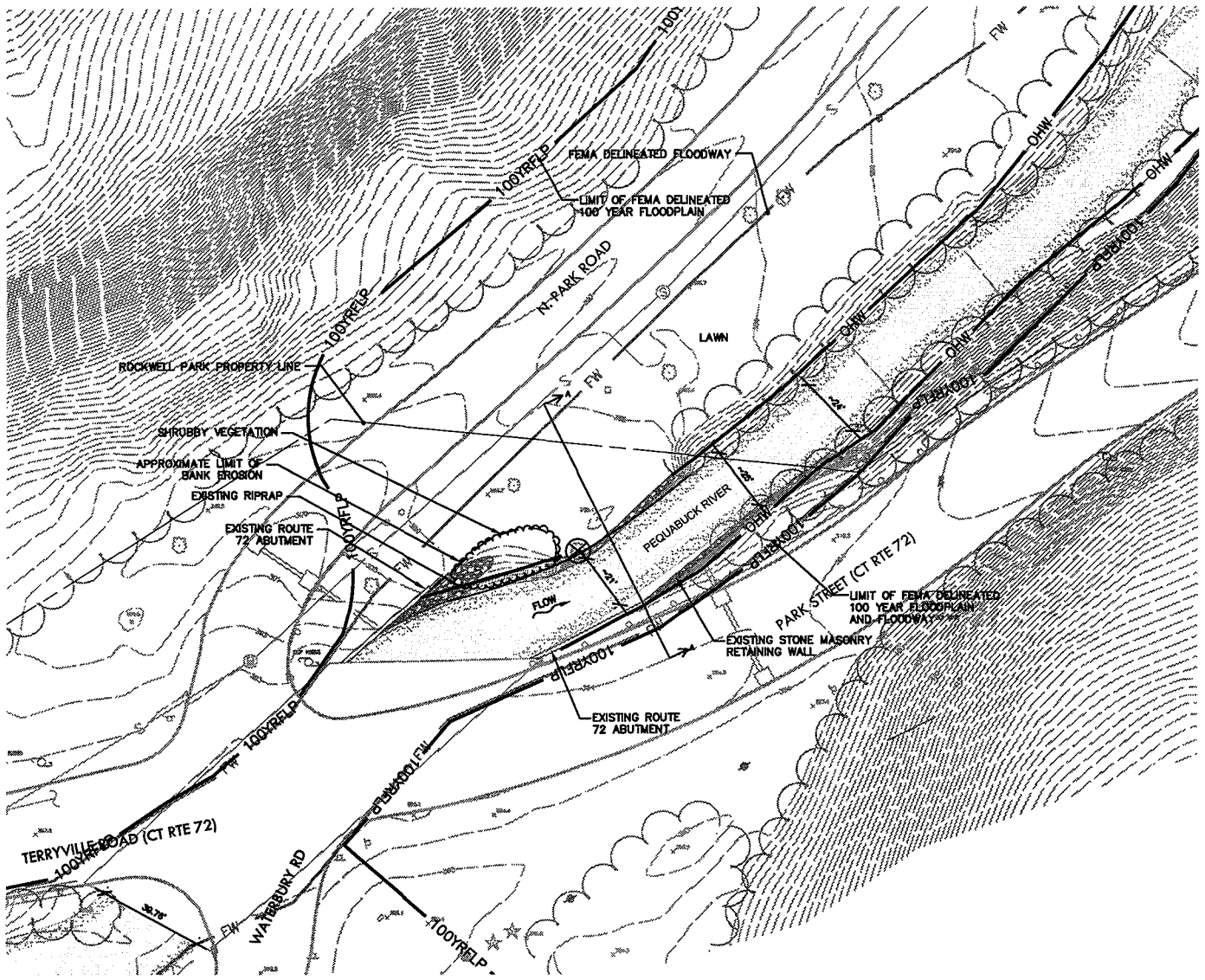
IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

ON: ---
AT: ---

MASTER PLAN - OVERALL PROJECT SITE

DATE: NOV 2010
SCALE: 1"=350'
SHEET: 01



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IMPROVEMENTS TO ROCKWELL PARK PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

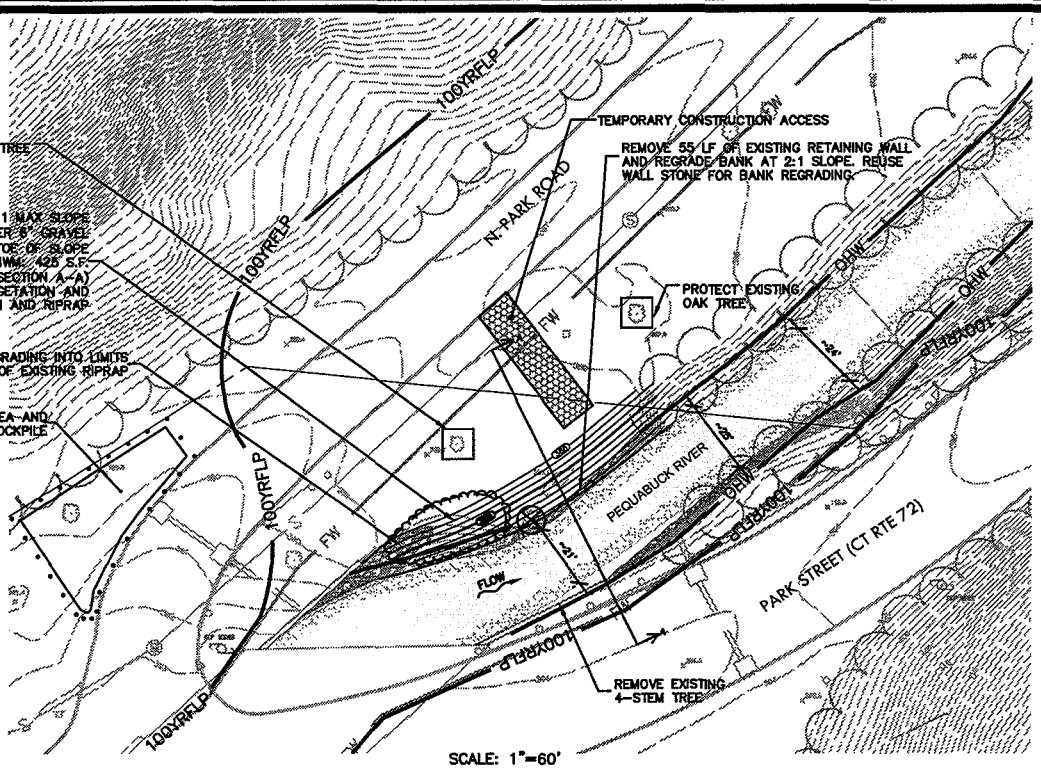
ON: ---
AT: ---

EXISTING CONDITIONS - ROUTE 72 ABUTMENTS

DATE: NOV 2010

SCALE: 1"=60'

SHEET: 02



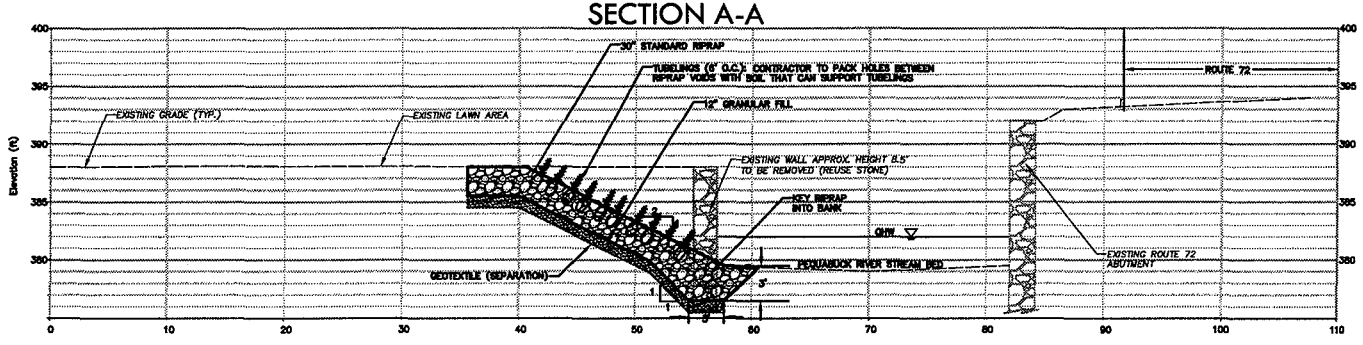
DORMANT LIVE STAKES/TUBELINGS	
SCIENTIFIC NAME	COMMON NAME
Cornus amomum	Silky Dogwood
Cornus sericea	Red-Osier Dogwood
Salix exigua	Sand Bar Willow
Salix nigra	Black Willow
Salix x cotteti	Dwarf Bankers Willow

PLANTING NOTES:

1. CONTRACTOR TO PACK HOLES BETWEEN RIPRAP VOIDS WITH SOIL THAT CAN SUPPORT TUBELINGS.
2. ANY EXPOSED SOIL AREAS SHALL BE SEEDED WITH NEW ENGLAND WILDLIFE/CONSERVATION SEED MIX

NOTES:
1. GRADING AND RETAINING WALL REMOVAL PROPOSED IN CTDOT RIGHT OF WAY

SECTION A-A



NOTE: Protect live stakes from damage during installation.
(a) Use pry bar to make opening in rock. OR
(b) Use tubing to provide opening.

SCALE: NTS

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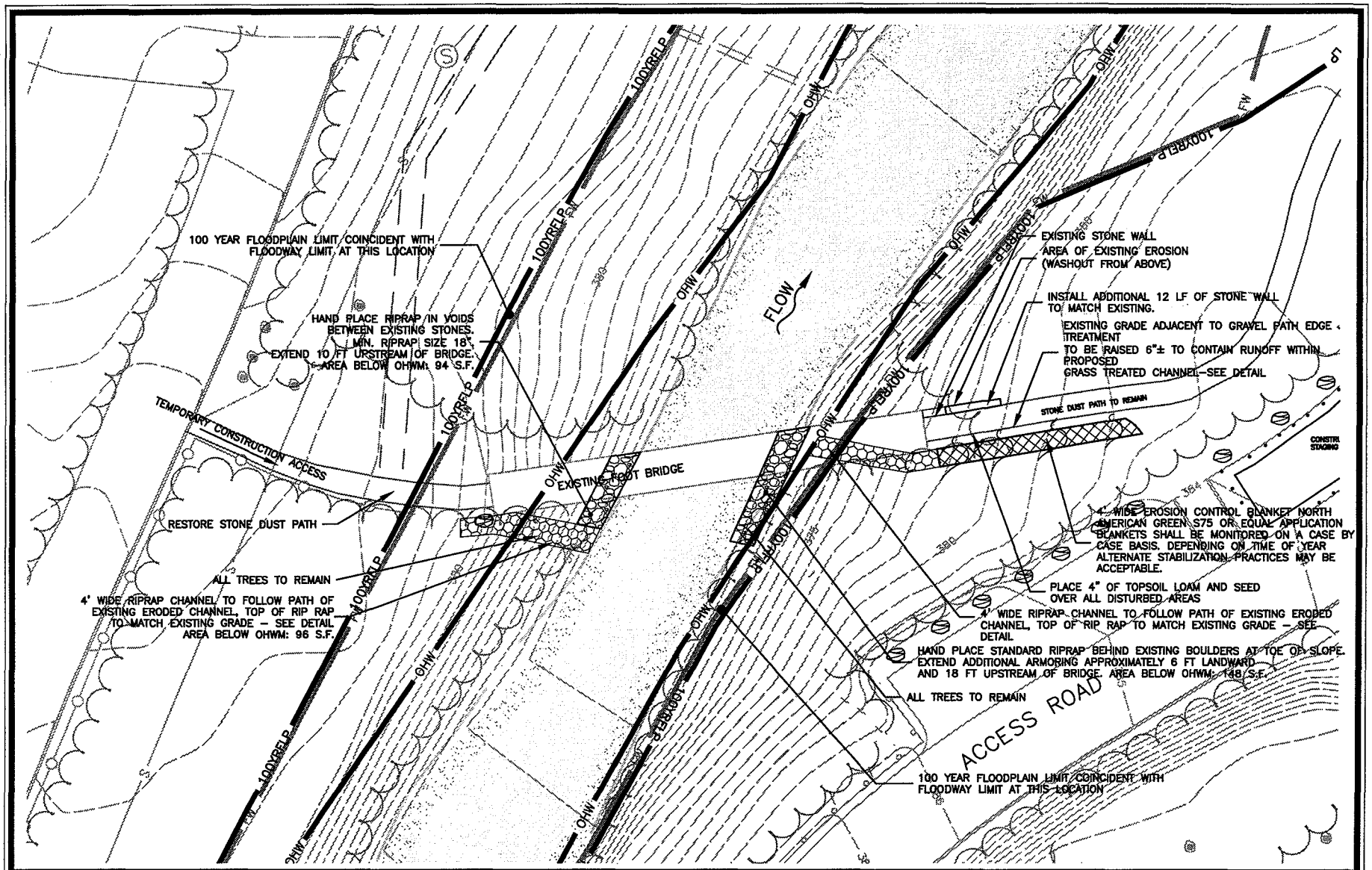
IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

ON: ---
AT: ---

PROPOSED CONDITIONS - ROUTE 72 ABUTMENTS

DATE: NOV 2010
SCALE: AS NOTED
SHEET: 03



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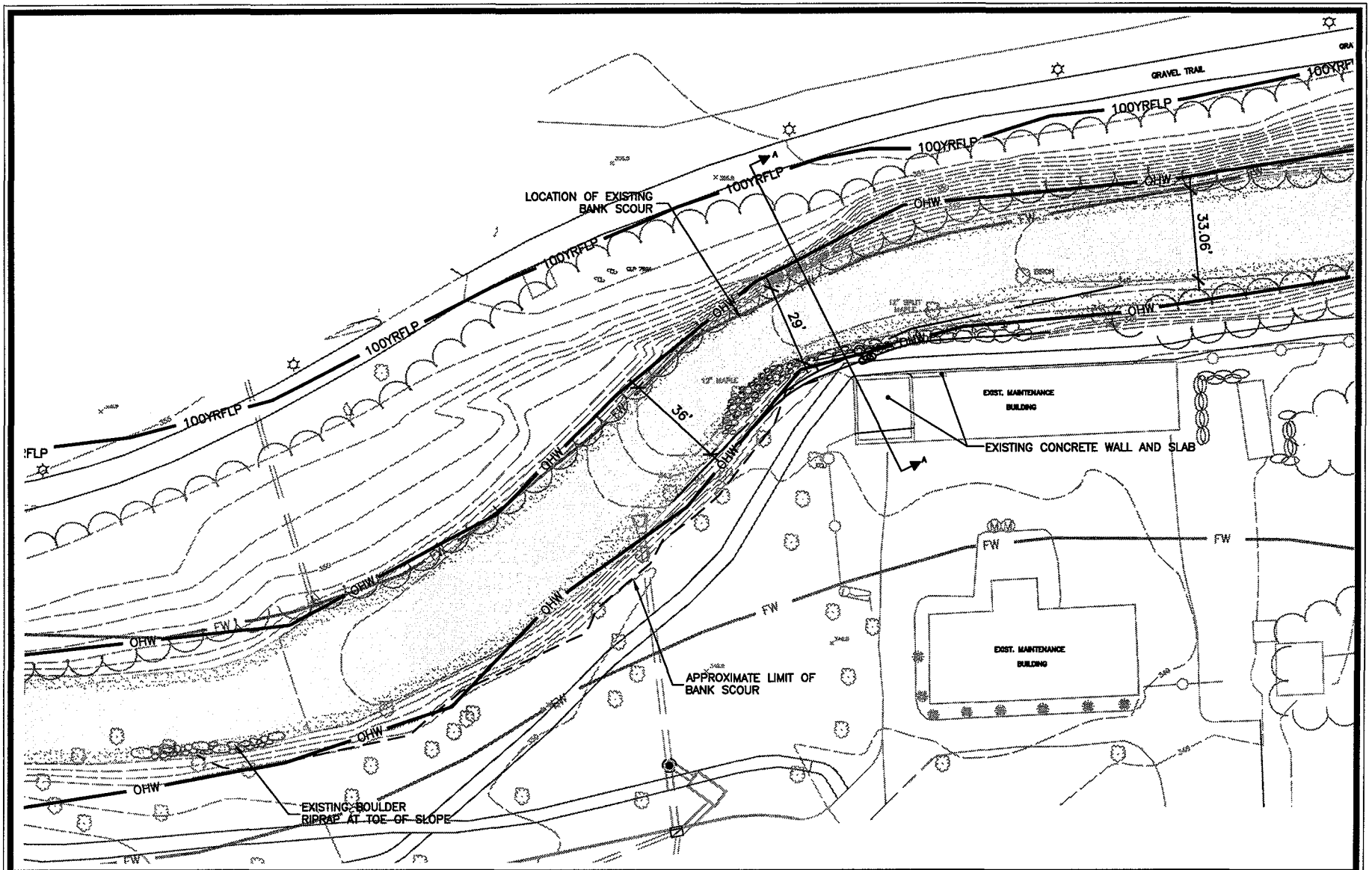
PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

ON: ---
AT: ---

PROPOSED CONDITIONS - PEDESTRIAN BRIDGE

DATE: NOV 2010
SCALE: 1"=30'
SHEET: 04



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IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

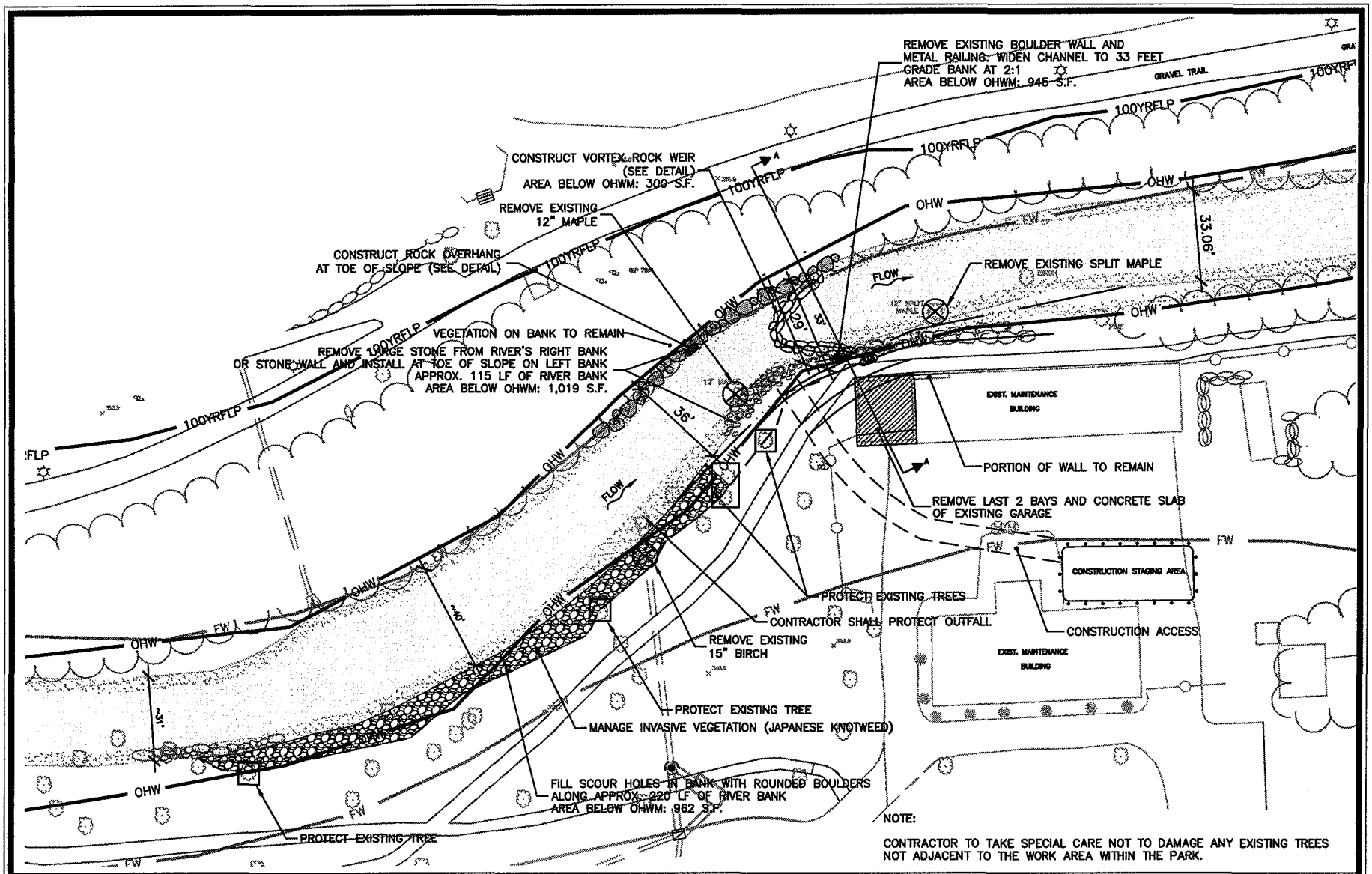
ON: ---
AT: ---

EXISTING CONDITIONS - MAINTENANCE BUILDING

DATE: NOV 2010

SCALE: 1"=50'

SHEET: 05



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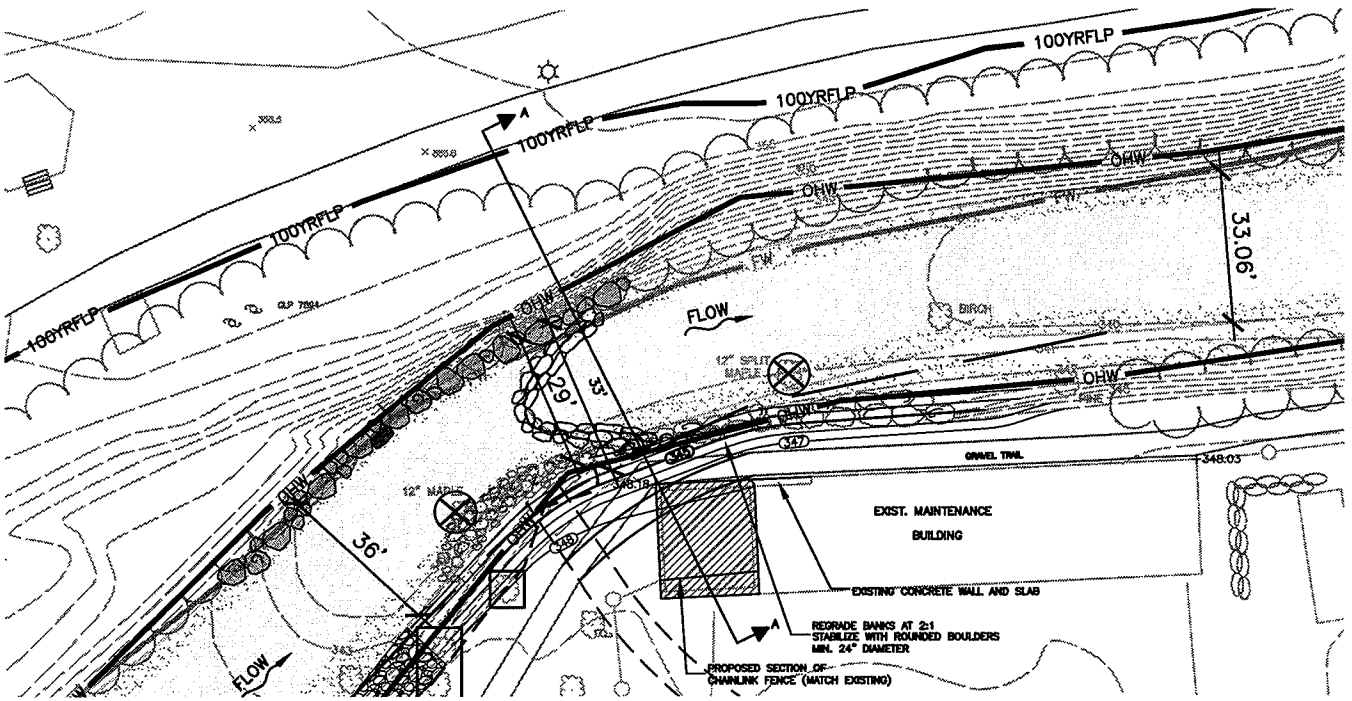
IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

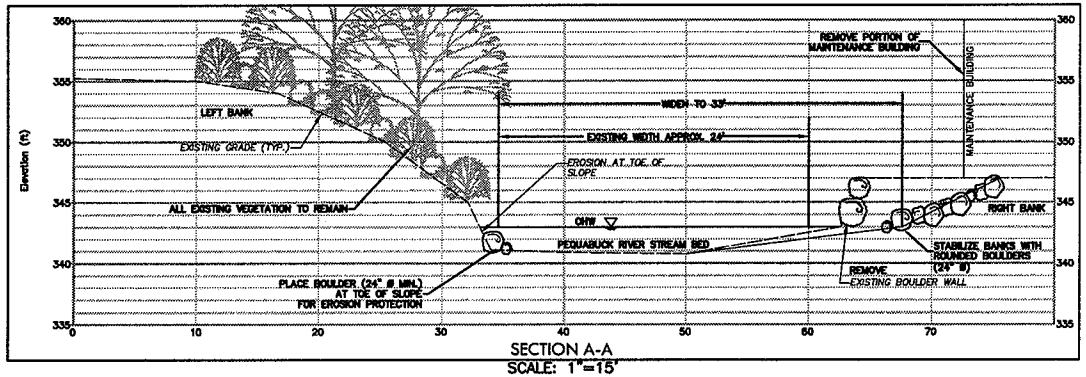
ON: ---
AT: ---

PROPOSED LAYOUT - MAINTENANCE BUILDING

DATE: NOV 2010
SCALE: 1"=50'
SHEET: 06



SCALE: 1"=40'



SECTION A-A
SCALE: 1"=15'

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IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

APPLICANT:
BRISTOL PARKS DEPARTMENT

ON: ---
AT: ---

PROPOSED GRADING - MAINTENANCE BUILDING

DATE: NOV 2010
SCALE: AS NOTED
SHEET: 07

SEDIMENT & EROSION CONTROL SPECIFICATIONS

GENERAL:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATERBODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

LAND GRADING

GENERAL:

1. THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:

a. THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).

b. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).

c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).

d. PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.

e. EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.

f. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATERBODIES.

g. PRIOR TO ANY REGRADING, A STABILIZED CONSTRUCTION ENTERANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

TEMPORARY VEGETATIVE COVER

GENERAL:

1. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY SEPTEMBER 1.

SITE PREPARATION:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
3. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

ESTABLISHMENT:

1. SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
2. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
3. UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 4 INCHES OF SOIL USING SUITABLE EQUIPMENT.
4. MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW.) APPLY STRAW OR HAY MULCH AND ANCHOR TO SLOPES GREATER THAN 3% OR WHERE CONCENTRATED FLOW WILL OCCUR.

TOPSOILING

GENERAL:

1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.
2. UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL.
3. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS.
4. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE.

MATERIAL:

1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.
2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.
3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF STONES (OVER 1" IN DIAMETER), LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.
4. AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL.
5. SOLUBLE SALT CONTENT OF OVER 500 PARTS PER MILLION (PPM) IS LESS SUITABLE. AVOID TIDAL MARSH SOILS BECAUSE OF HIGH SALT CONTENT AND SULFUR ACIDITY.
6. THE pH SHOULD BE MORE THAN 6.0. IF LESS, ADD LIME TO INCREASE pH TO AN ACCEPTABLE LEVEL.

APPLICATION

1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
2. SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST FOUR INCHES (4"), OR TO THE DEPTH SHOWN ON THE LANDSCAPING PLANS.

PERMANENT VEGETATIVE COVER

GENERAL:

1. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

SITE PREPARATION:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
5. APPLY FERTILIZER ACCORDING TO SOIL TEST OR:
   - SPREAD SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 300 LBS. OF 10-10-10 FERTILIZER PER ACRE (7 LBS. PER 1,000 SQ. FT.); THEN SIX (6) TO EIGHT (8) WEEKS LATER, APPLY ON THE SURFACE AN ADDITIONAL 300 LBS. OF 10-10-10 FERTILIZER PER ACRE. AFTER SEPTEMBER 1, TEMPORARY VEGETATIVE COVER SHALL BE APPLIED.
   - FALL SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 600 LBS. OF 10-10-10 FERTILIZER PER ACRE (14 LBS. PER 1,000 SQ. FT.).

MULCHING:

STRAW OR HAY (TEMPORARY VEGETATIVE AREAS) 70-90 LBS./1,000 SQ.FT.

WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

VEGETATIVE COVER SELECTION & MULCHING

TEMPORARY VEGETATIVE COVER:

PERENNIAL RYEGRASS (IOLUIUM PERENNE) 3 LBS./1,000 SQ.FT.

PERMANENT VEGETATIVE COVER:

CREEPING RED FESCUE (FESTUCA RUBRA)	2 LBS./1,000 SQ.FT.
REDTOP (AGROSTIS ALBA)	1 LB./1,000 SQ.FT.
TALL FESCUE (FESTUCA ARUNDINACEA)	2 LBS./1,000 SQ.FT.

MULCHING:

STRAW OR HAY (TEMPORARY VEGETATIVE AREAS) 70-90 LBS./1,000 SQ.FT.

WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

ESTABLISHMENT:

1. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
2. SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. BELOW).
3. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
4. COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
6. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
7. USE SOD WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

MAINTENANCE:

1. TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.
2. ON SITES WHERE GRASSES PREDOMINATE, BROADCAST ANNUALLY 500 POUNDS OF 10-10-10 FERTILIZER PER ACRE (12 LBS. PER 1,000 SQ. FT.) OR AS NEEDED ACCORDING TO ANNUAL SOIL TESTS.
3. ON SITES WHERE LEGUMES PREDOMINATE, BROADCAST EVERY THREE (3) YEARS OR AS INDICATED BY SOIL TEST 300 POUNDS OF 0-20-20 OR EQUIVALENT PER ACRE (8 LBS PER 1,000 SQ. FT.).

EROSION CHECKS

GENERAL:

1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR SEDIMENT GEOTEXTILE FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

CONSTRUCTION:

1. BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4") INCHES.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. GEOTEXTILE SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

INSTALLATION AND MAINTENANCE:

1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS WHEN BASIN IS BOTTOM OF ALL SLOPES.
2. BALED HAY EROSION BARRIERS AND SEDIMENT FILTER FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
3. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
4. INSPECTION SHALL BE FREQUENT (AT MINIMUM WEEKLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.

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IMPROVEMENTS TO ROCKWELL PARK
PEQUABUCK RIVER BANK STABILIZATION

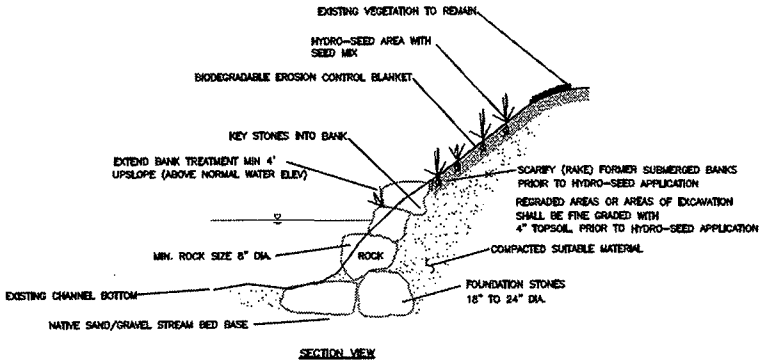
APPLICANT:
BRISTOL PARKS DEPARTMENT

ON: ---
AT: ---

DETAILS

DATE: NOV 2010
SCALE: ---

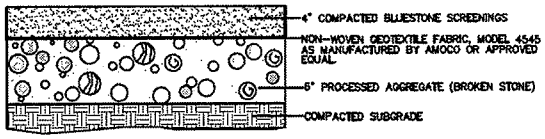
SHEET: 08



SECTION VIEW

NOTES: (Stone Stabilization)
1. Use 18" to 3' diameter weathered rounded stones.
2. Embed the stone several inches into the stream bank to key into the bank.
3. Finished elevation of the stones will be determined in the field

RIGHT BANK STABILIZATION
N.T.S.



STONEDUST PATH DETAIL
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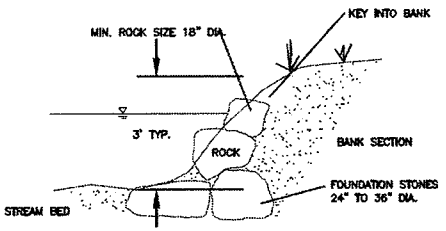
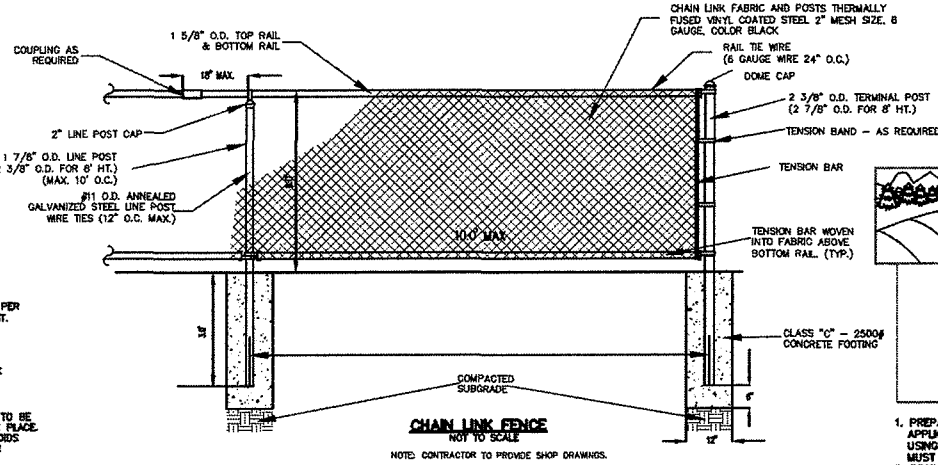


SECTION VIEW

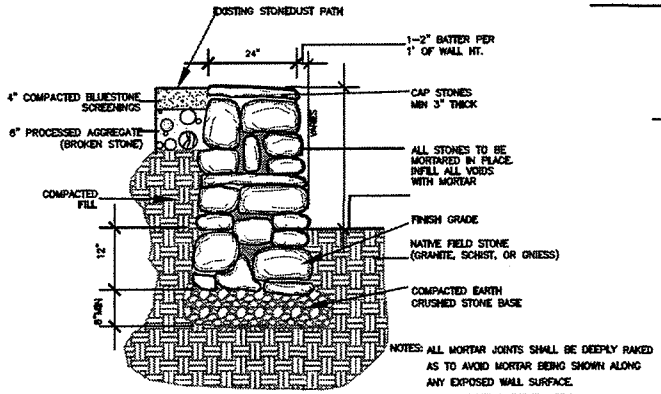
BOULDER PLACEMENT AT TOE OF LEFT BANK AT MAINTENANCE BUILDING
N.T.S.

NOTES: (Stone Stabilization)
- Use 18" to 3' diameter weathered rounded stone.
- Embed the stone several inches into the stream bank to key into the bank.
- Finished elevation of the stones will be determined in the field.



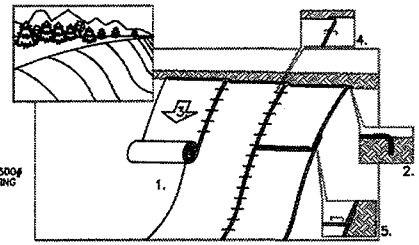
CHAIN LINK FENCE
NOT TO SCALE

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS.



NOTES: ALL MORTAR JOINTS SHALL BE DEEPLY RAKED AS TO AVOID MORTAR BEING SHOWN ALONG ANY EXPOSED WALL SURFACE. MATCH EXISTING STONE WORK

STONE WALL AT PEDESTRIAN BRIDGE
N.T.S.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING S150, DO NOT SEED PREPARED AREA. S150 MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART.

REFER TO GENERAL STAPLE PATTERN GUIDE IN NORTH AMERICAN GREEN CATALOG FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

APPLICATION OF EROSION CONTROL BLANKET ON SLOPES
NOT TO SCALE

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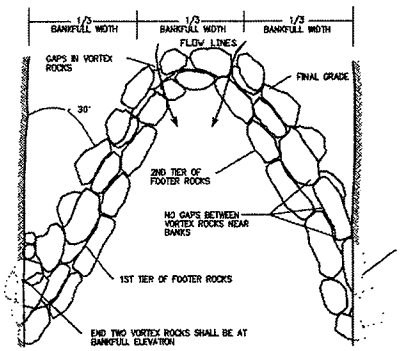
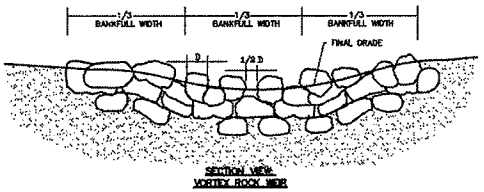


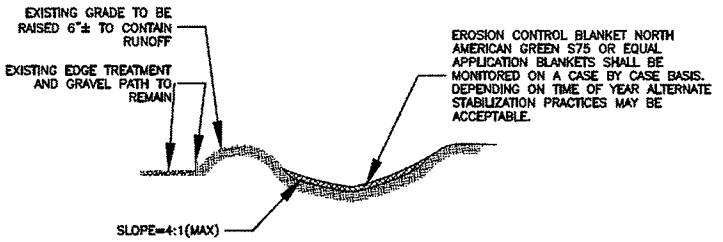
PLAN VIEW:



PROFILE VIEW:

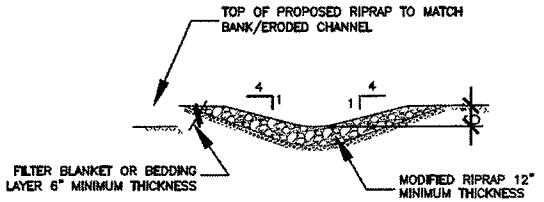
MODIFIED TO FIT FIELD CONDITIONS

VORTEX ROCK WEIR



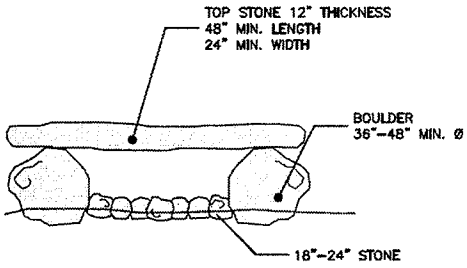
EROSION CONTROL CHANNEL -CROSS SECTION

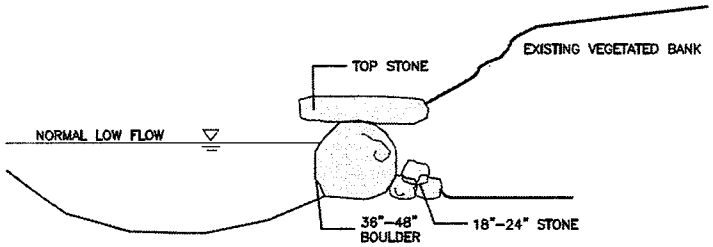
AT PEDESTRIAN BRIDGE
(NOT TO SCALE)



TYPICAL CROSS-SECTION OF RIPRAP LINED CHANNEL

AT PEDESTRIAN BRIDGE
(NOT TO SCALE)





ROCK OVERHANG

LEFT BANK AT MAINTENANCE BUILDING
(NOT TO SCALE)

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