



**US Army Corps
of Engineers®**
New England District

696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Date: April 22, 2008
Comment Period Ends: May 22, 2008
File Number: NAE-2008-1144
In Reply Refer To: William J. Mullen
Or by e-mail: William.J.Mullen@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. The Corps is soliciting comments on both the project itself and the range of issues to be addressed in the environmental documentation.

APPLICANT: Town of East Hartford, Connecticut

ACTIVITY Place fill within, or otherwise impact, approximately 2.74 acres of wetlands and/or waters in association with a program of correcting maintenance deficiencies along the 3.9-mile-long East Hartford Flood Protection System in East Hartford, Connecticut. A detailed description and plans of the activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK

This work is proposed along the Connecticut and Hockanum Rivers in East Hartford, Connecticut. The proposed location on the USGS Manchester and Hartford North quadrangle sheets is in the vicinity of UTM coordinates 694331 E and 4626629 N, or lat/long 41.7696 degrees north 72.6621 degrees west.

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
 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.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

This project will impact 4.4 acres (total area of vegetation clearing along the Connecticut River) of Essential Fish Habitat (EFH) for Atlantic salmon juveniles and adults. This habitat consists of benthic areas with gravel and cobble riffles interspersed with deeper riffles and pools for resting and holding in the mixing water/brackish salinity zone and tidal freshwater salinity zone of the watercourse. All areas impacted by this project are within 15 feet of the toe of the earthen dike portion of the flood protection project. Removal of vegetation will be done during times of low flow, accordingly, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

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 proposed project site during the construction and subsequent operation/use period sought by the applicant. It is our 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

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threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved **Coastal Zone Management Programs**. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

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

- Permit, License or Assent from State.
- Permit from Local Wetland Agency or Conservation Commission.
- 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 Bill Mullen at (978) 318-8559, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

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.

For more information on the New England District Corps of Engineers programs, visit our website at <http://www.nae.usace.army.mil>.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.



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

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FILE NO. NAE-2008-1144

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 into, and/or disturbance of, approximately 2.74 acres of wetlands and/or waters in association with a program of correcting maintenance deficiencies along the 3.9-mile-long East Hartford Flood Protection System in East Hartford, Connecticut. The East Hartford Flood Control System consists of approximately 20,000 feet of earthen dike and approximately 750 feet of concrete floodwall along the Connecticut and Hockanum Rivers, extending from high ground near Greene Terrace in the north, to Brewer Lane and Central Avenue in the south. The flood control system also includes two stoplog structures (one at a railroad crossing and one at the Main Street crossing), three pumping stations (Pitkin Street, Cherry Street and Meadow Hill), and appurtenant drainage structures and facilities. All of the work included in this Public Notice is proposed to occur within 15 feet of the toe of the landward and waterward sides of the dike.

Specifically, the work involves the following:

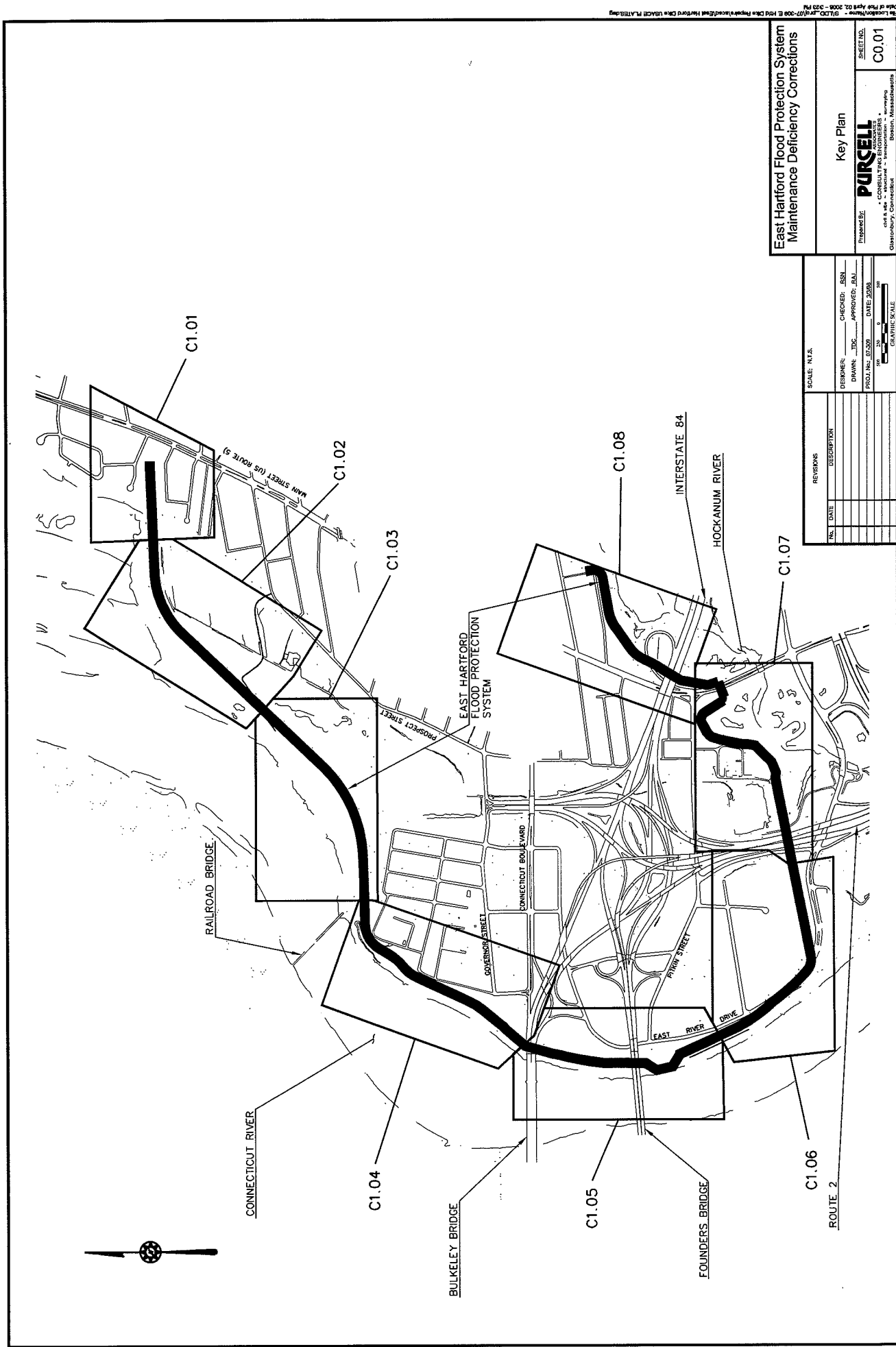
1. The clearing of approximately 13.6 acres of vegetation from within 15 feet of the toes of the dike (11.9 acres riverside and 1.7 acres landside) along the 3.9-mile long flood protection system. Approximately 5 acres of this work involves the removal of rootballs of large trees and stumps, the remainder of the clearing work involves the cutting of vegetation flush with the ground surface. Purpose of this clearing is to bring the structure into compliance with guidance provided in the U.S. Army Corps of Engineers maintenance manual for vegetation management at floodwalls, levees and embankment dams. It is additionally required in order to keep the continued accreditation of the levee in the National Flood Insurance program.
2. The construction of a new 2600 foot-long gravel maintenance road on the landward side of the northernmost portion of the levee. The new road would be constructed entirely within the 15-foot clearing area at the landward toe of the dike. The road is required for inspection and maintenance access to this otherwise inaccessible portion of the project.
3. The installation of steel sheet piling along a 1770-foot reach within the 70-foot wide impervious blanket at the riverside toe of the dike at the upstream (northern) end of the flood control system. Purpose of the sheet piling at the toe of the dike is to prevent seepage beneath the dike structure. The impervious blanket, which now has a substantial stand of mature trees growing on it, will be abandoned. If the blanket were to remain active, the entire blanket plus an additional 15 feet would need to be cleared of vegetation. By installing the sheeting, the area of clearing has been reduced by 2.7 acres. The sheet piling will be "topped" with a 12-foot-wide layer of compacted impervious fill, to be placed within a shallow excavated trench, so that the final ground surface would be the same as the current ground surface.
4. Impervious plastic fill will be placed along a 1000-foot reach of dike (between the dike and East River Road at the southern end of the project) in an area currently protected by an impervious blanket. Purpose of placement of this fill is to build up eroded and/or subsided areas.
5. The control of numerous animal burrows within the earthen dike. The burrows have the potential of compromising the effectiveness of the dike system during a major flood event.

Mitigation will not be required of the applicant due to the proposed work being considered primarily as maintenance of a key flood control structure protecting a major town. As part of the clearing and grubbing proposed in the area of the proposed maintenance road, the applicant will remove invasive plant species (phragmites) mixed in with mature woody vegetation, however this is not considered to be mitigation.

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The project is being undertaken primarily to address regular maintenance items that have not received the required attention over the history of the dike system. The project involves no filling riverside of the dike and will have no effect on either the Connecticut or Hockanum River floodplains.

The work is described on the enclosed plans entitled "East Hartford Flood Protection System Maintenance Deficiency Corrections" on 9 sheets (Sheet numbers C0.01, and C1.01 through C1.08) and dated "March 3, 2008" and entitled "East Hartford Flood Protection System, East Hartford, Connecticut" on 3 sheets (sheet numbers 1, 2, and 3) dated March 8, 2008.



REV. NO.	DATE	DESCRIPTION

SCALE: N/A.

DESIGNER: _____ CHECKED: BSN
 DRAWN: JDC APPROVED: JAL
 PROJECT: 0550 DATE: 2008

DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 APPROVED BY: _____

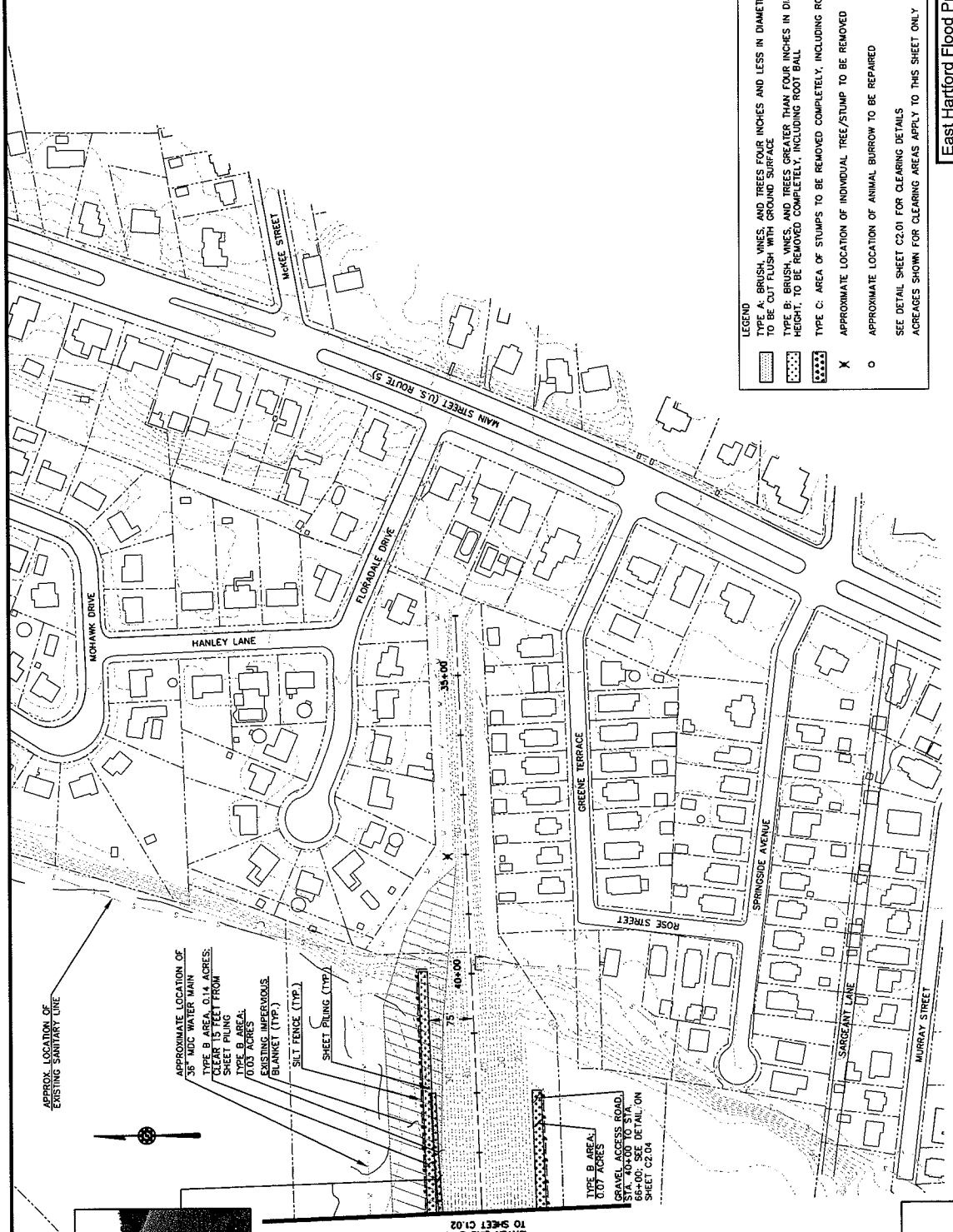
GRAPHIC SCALE

**East Hartford Flood Protection System
 Maintenance Deficiency Corrections**

Key Plan

SHEET NO. C0.01

Prepared by: **PURCELL CONSULTING ENGINEERS**
 401 Main Street, Suite 200
 East Hartford, Connecticut 06027



LEGEND

- TYPE A: BRUSH, VINES, AND TREES FOUR INCHES AND LESS IN DIAMETER, TO BE CUT FLUSH WITH GROUND SURFACE
- TYPE B: BRUSH, VINES, AND TREES GREATER THAN FOUR INCHES IN DIAMETER AT BREAST HEIGHT, TO BE REMOVED COMPLETELY, INCLUDING ROOT BALL
- TYPE C: AREA OF STUMPS TO BE REMOVED COMPLETELY, INCLUDING ROOT BALL
- X APPROXIMATE LOCATION OF INDIVIDUAL TREE/STUMP TO BE REMOVED
- O APPROXIMATE LOCATION OF ANIMAL BURROW TO BE REPAIRED

SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
 AREAS SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY

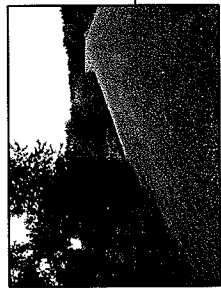
APPROX. LOCATION OF EXISTING SANITARY LINE

APPROXIMATE LOCATION OF 36" MIDC WATER MAIN
 TYPE B AREA, 0.14 ACRES;
 CLEAR 15 FEET FROM SHEET PILING
 100% BRUSH AREA
 EXISTING IMPERVIOUS BLANKET (TYP.)

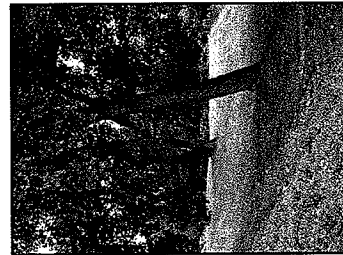
SILT FENCE (TYP.)

SHEET PILING (TYP.)

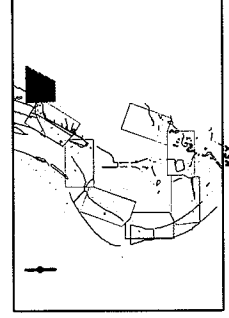
TYPE B AREA, 0.07 ACRES
 GRAVEL ACCESS ROAD, STA. 40+00 TO STA. 40+20 TO BE TAIL ON SHEET C2.04



TYPE B AREA



TREE TO BE REMOVED (TYP.)



KEY

REV. NO.	DATE	DESCRIPTION

SCALE: N.T.S.

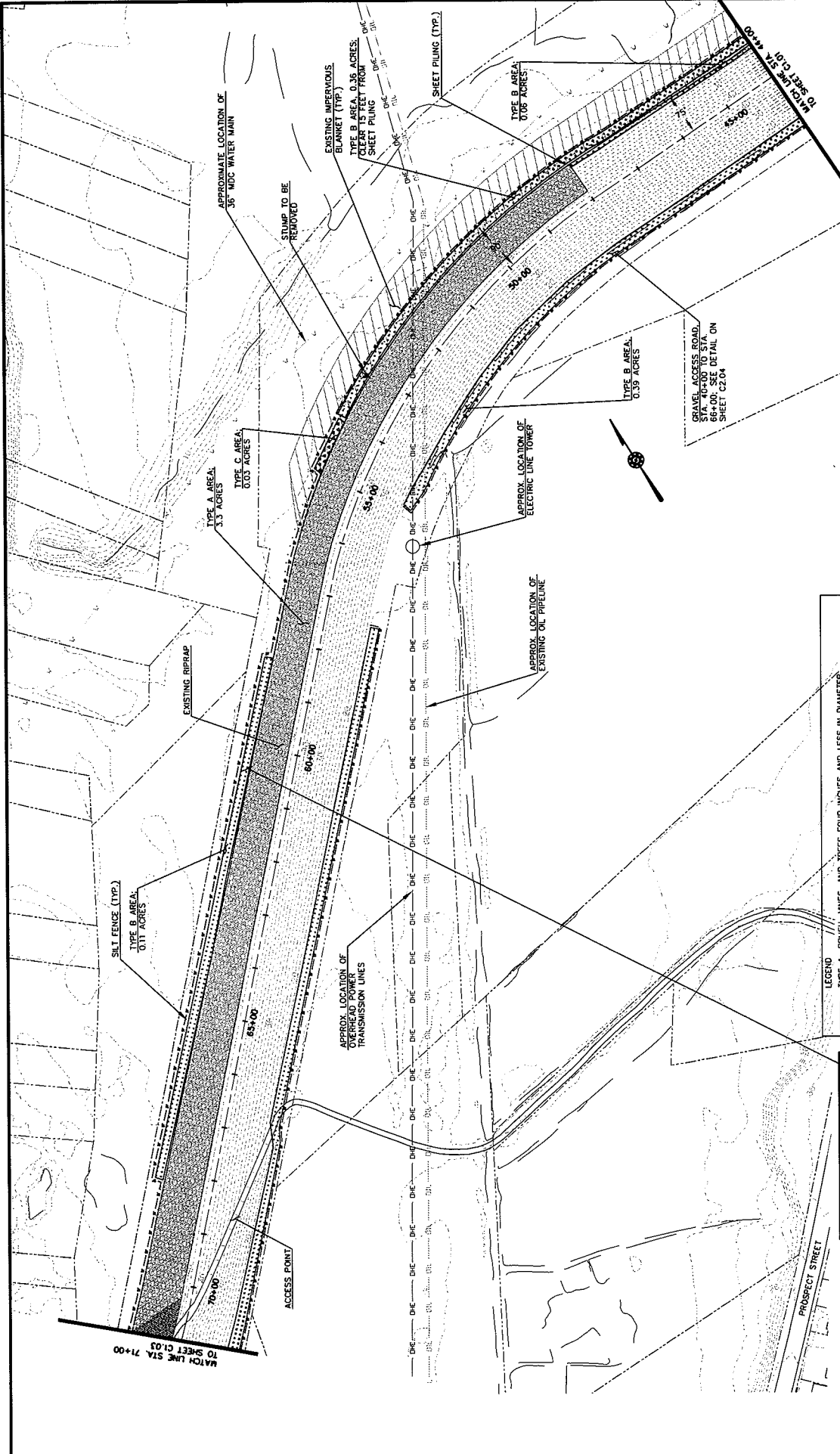
DESIGNER: _____ CHECKED: BEN
 DRAWN: JDC APPROVED: JOL
 PROJ. NO.: 07-039 DATE: 2/20/08
 OR
 GRAPHIC SCALE

**East Hartford Flood Protection System
 Maintenance Deficiency Corrections**

Dike Repairs

Prepared by: **PURCELL ENGINEERS**
 CONSULTING ENGINEERS
 100 State Street, Suite 200
 East Hartford, Connecticut 06108
 Telephone: (860) 281-1111
 Fax: (860) 281-1112
 E-mail: info@purcell-engineers.com
 Website: www.purcell-engineers.com

SHEET NO. **C1.01**



**East Hartford Flood Protection System
 Maintenance Deficiency Corrections**

PURCELL
 CONSULTING ENGINEERS
 441 S. MAIN STREET
 Glastonbury, Connecticut 06033

Project No. 07-008-B
 Date: 2/08
 Scale: N.T.S.

Checked: ESN
 Drawn: JDC
 Approved: BAL

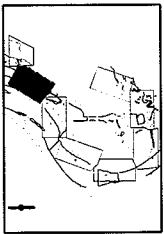
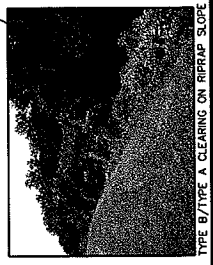
SHEET NO. C1.02

NO.	DATE	DESCRIPTION

LEGEND

- TYPE A: BRUSH, VINES, AND TREES FOUR INCHES AND LESS IN DIAMETER TO BE CUT FLUSH WITH GROUND SURFACE
- TYPE B: BRUSH, VINES, AND TREES GREATER THAN FOUR INCHES IN DIAMETER AT BREAST HEIGHT, TO BE REMOVED COMPLETELY, INCLUDING ROOT BALL
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- APPROXIMATE LOCATION OF ANIMAL BURROW TO BE REPAIRED
- SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
- ACREAGES SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY

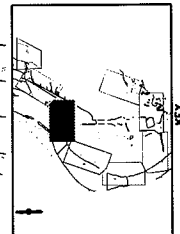
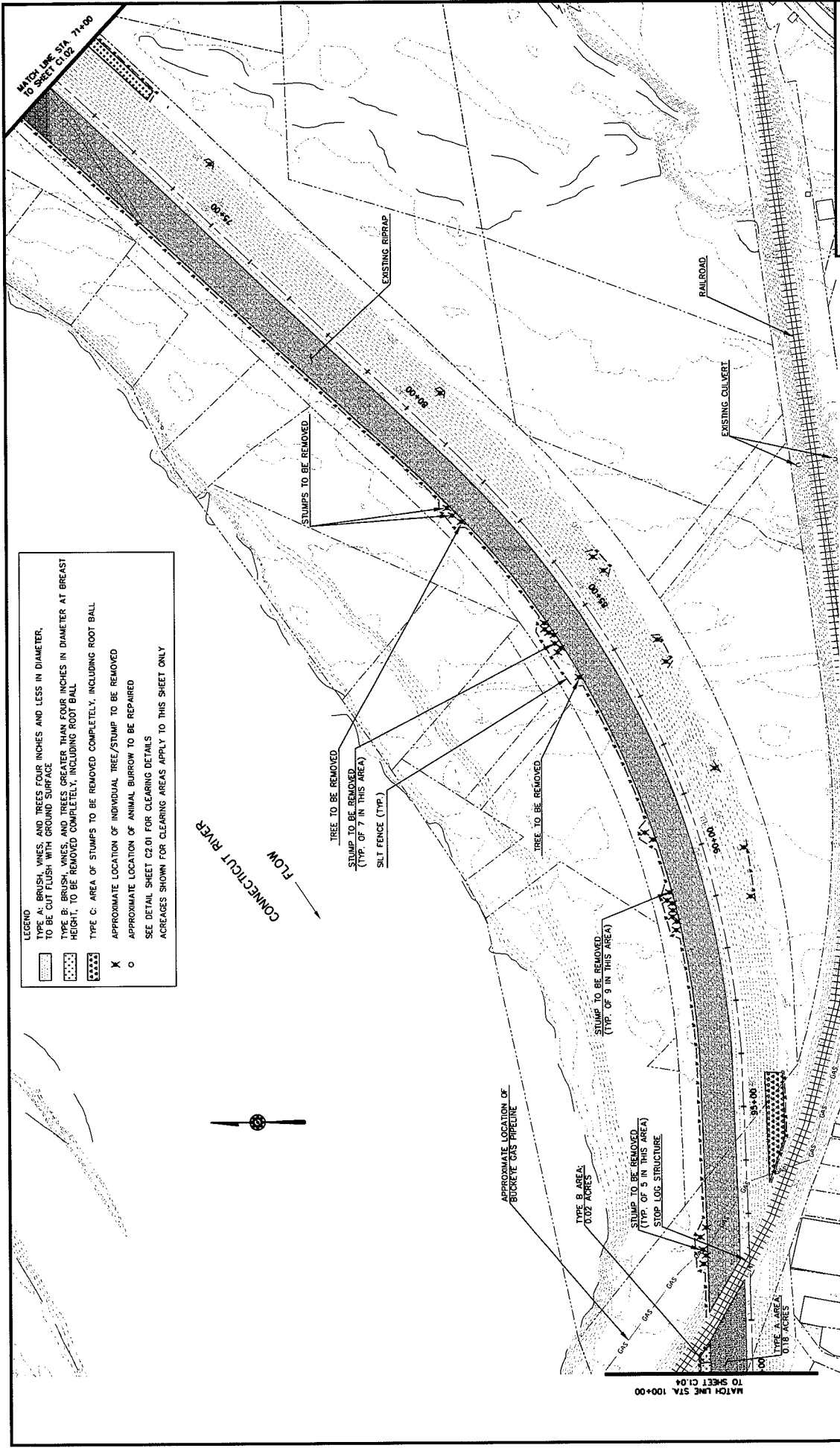
TYPE A
 TYPE B
 TYPE C
 ANIMAL BURROW
 RIPRAP SLOPE



LEGEND

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SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
ACREAGES SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY



SCALE: N.T.S.

NO.	DATE	REVISIONS	DESCRIPTION

DESIGNER: JEN CHECKED: JEN
 DRAWN: JDC APPROVED: EAU
 PROJ. NO. 02.009 DATE: 03/08
 0' 40' 80'
 GRAPHIC SCALE

**East Hartford Flood Protection System
Maintenance Deficiency Corrections**

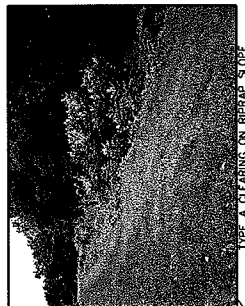
Dike Repairs

Presented by: **PURSELL**
CONSULTANTS & ENGINEERS
 400 Main Street • Hartford, Connecticut 06103
 Telephone: (860) 234-1100 • Fax: (860) 234-1101
 www.pursell.com

SHEET NO. **C1.03**



CONNECTICUT RIVER
 FLOW



TYPE B AREA

STUMPS TO BE REMOVED



CHERRY STREET PUMPING STATION

EXISTING RIPRAP

TYPE B AREA 0.22 ACRES

SILT FENCE (TYP.)

ACCESS POINTS

TYPE B AREA 0.10 ACRES

100+00

95+00

80+00

70+00

60+00

50+00

40+00

30+00

20+00

10+00

0+00

115+00

120+00

125+00

130+00

135+00

140+00

145+00

150+00

155+00

160+00

165+00

170+00

175+00

180+00

185+00

190+00

195+00

200+00

MATCH LINE STA. 129+00 TO SHEET C1.03

INTERSTATE ROUTE 84

LIBERTY STREET
 GOVERNOR STREET
 CONNECTICUT BOULEVARD (US ROUTE 44)

WILSON STREET

CHERRY STREET

HOLLAND STREET

JEWIS STREET

NELSON STREET

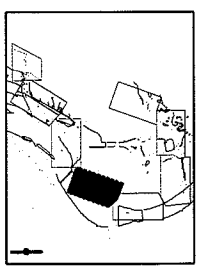
MARSHALL STREET

ACCESS POINT

LEGEND

- TYPE A: BRUSH, WILES, AND TREES FOUR INCHES AND LESS IN DIAMETER, TO BE CUT FLUSH WITH GROUND SURFACE
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SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
 ACRES SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY



REVISIONS	
NO.	DESCRIPTION

SCALE: N.T.S.

DESIGNER: JSH
 CHECKED: JSH
 DRAWN: JDC
 APPROVED: EAU
 PROJECT: 04-259
 DATE: 2/08

DATE: 2/08

SCALE: 1" = 40'

GRAPHIC SCALE

East Hartford Flood Protection System Maintenance Deficiency Corrections

Dike Repairs

PROJECT: 04-259

DATE: 2/08

SCALE: 1" = 40'

GRAPHIC SCALE

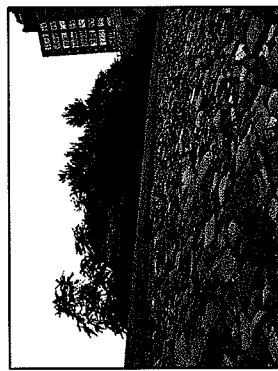
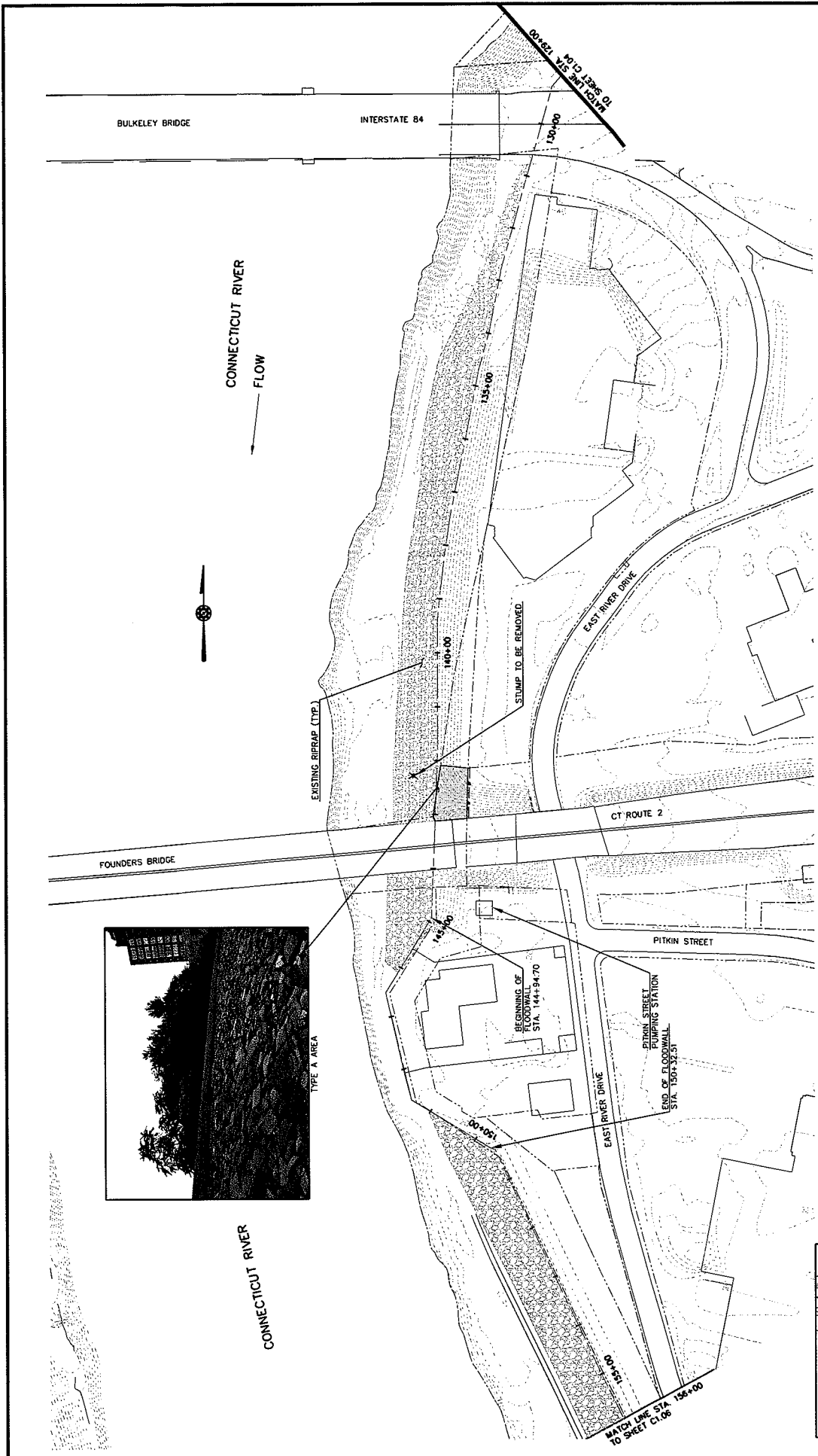
SHEET NO. C1.04

PURCELL CONSULTING ASSOCIATES, INC. CONSULTING ENGINEERS

1000 WEST STREET, SUITE 200, EAST HARTFORD, CT 06105

PH: 860.426.1111 FAX: 860.426.1112

Project Location: 04-259 E. Hill Drive (Project) East Hartford, CT 06105
 Date of Plot: April 03, 2008 - 10:30 AM
 Plot Scale: 1" = 40'

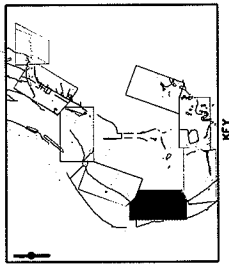


TYPE A AREA

LEGEND

- TYPE A: BRUSH, VINES, AND TREES FOUR INCHES AND LESS IN DIAMETER, TO BE CUT FLUSH WITH GROUND SURFACE
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SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
ACREAGES SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY



East Hartford Flood Protection System Maintenance Deficiency Corrections

Dike Repairs

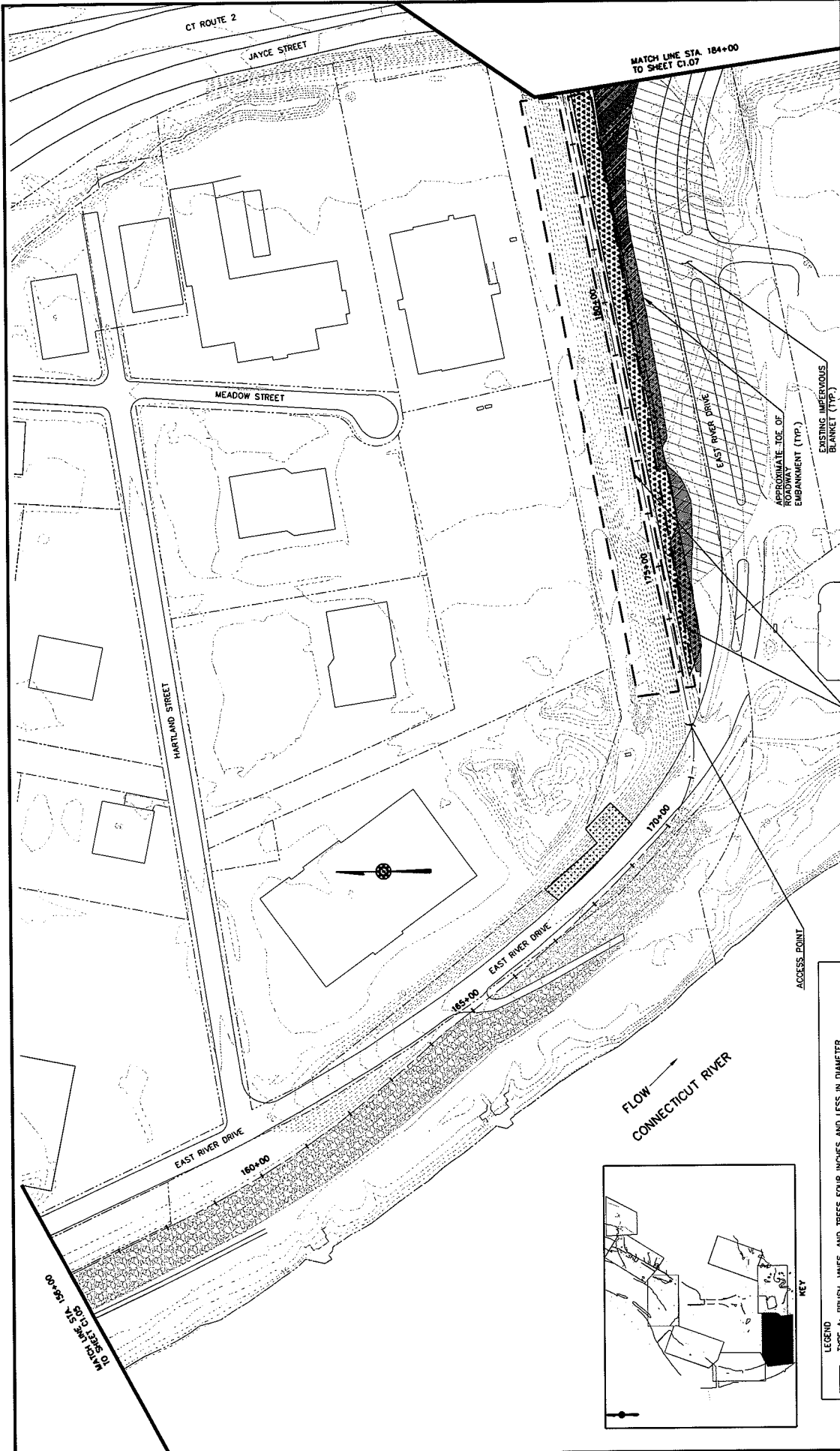
REVISIONS		SCALE: N.T.S.	
NO.	DATE	DESCRIPTION	

DESIGNED BY	CHECKED	DATE
DRAWN	APPROVED	DATE
PROJECT NO.	DATE	

DRAWN BY		DATE
PROJECT NO.		DATE

PURSELL
CONSULTING ENGINEERS
INCORPORATED

200 WEST MAIN STREET
HARTFORD, CONNECTICUT 06103
TEL: 860.264.0000



**East Hartford Flood Protection System
Maintenance Deficiency Corrections**

Dike Repairs

PURSELL
CONSULTANTS & ENGINEERS
INCORPORATED
1000 WEST MAIN STREET
HARTFORD, CONNECTICUT 06102

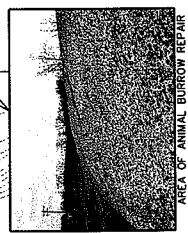
SHEET NO. C1.06

NO.	DATE	REVISIONS	DESCRIPTION

DESIGNER: JTC
DRAWN: JTC
CHECKED: JEN
APPROVED: JEA
PROJ. NO. 02-09
DATE: 2008

SCALE: N.T.S.

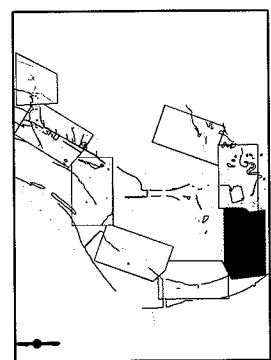
GRAPHIC SCALE: 1" = 20'



LEGEND

- TYPE A: BRUSH, WINES, AND TREES FOUR INCHES AND LESS IN DIAMETER TO BE CUT FLUSH WITH GROUND SURFACE
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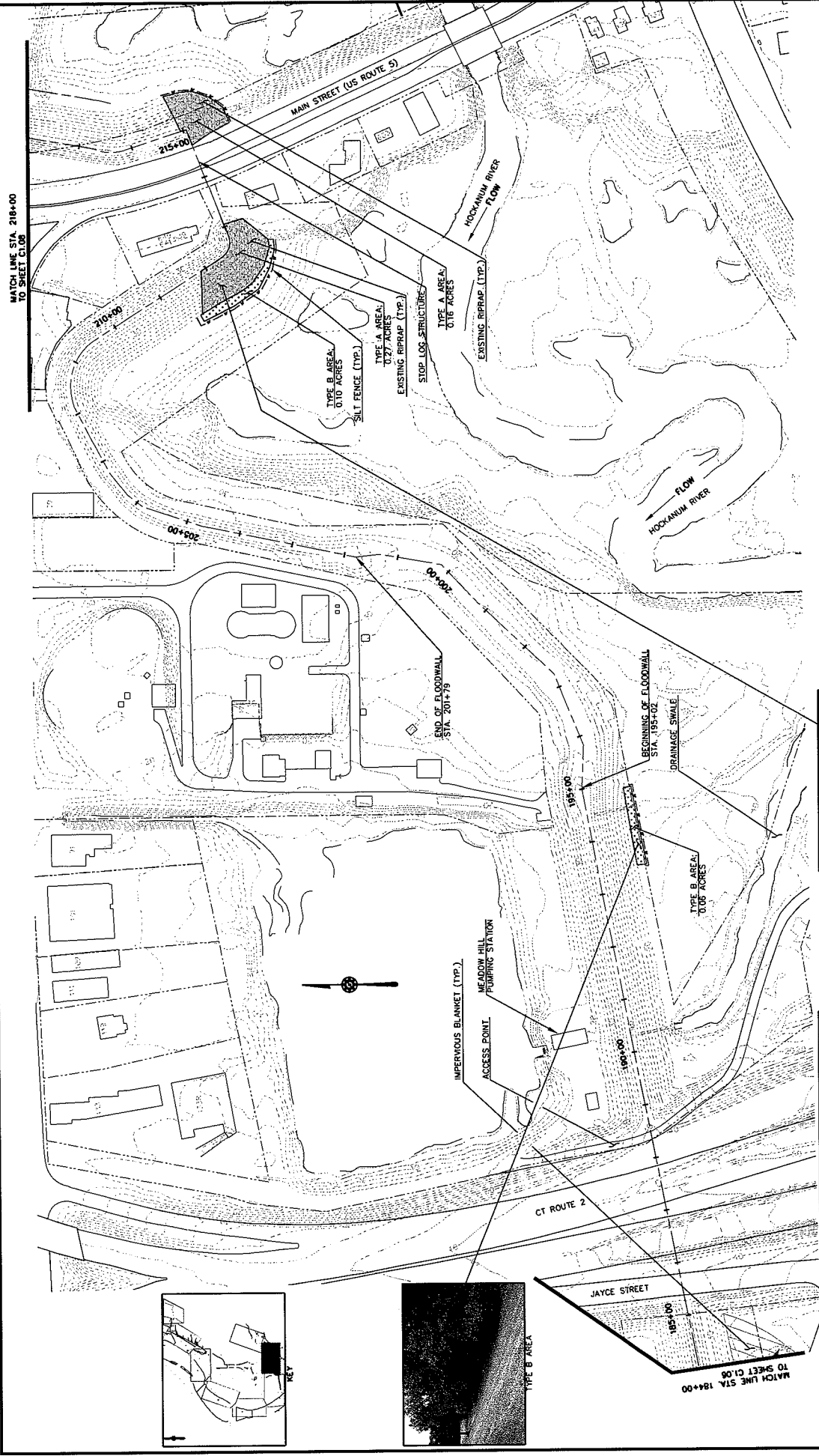
SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
ACREAGES SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY



MATCH LINE STA. 184+00
TO SHEET C1.07

MATCH LINE STA. 184+00
TO SHEET C1.07

MATCH LINE STA. 218+00
TO SHEET C1.00



**East Hartford Flood Protection System
Maintenance Deficiency Corrections**

Dike Repairs

PROJECT NO. **PURSELL**
INCORPORATING CONSULTING ENGINEERS • SURVEYING • GEOTECHNICAL CONSULTING • DESIGN • CONSTRUCTION

SHEET NO. **C1.07**

REVISIONS	
NO.	DESCRIPTION

SCALE: N.T.S.

DESIGNER: _____ CHECKED: SEN
 DRAWN: JTC APPROVED: BEJ
 PROJ. NO. 02-09 DATE: 3/20/08

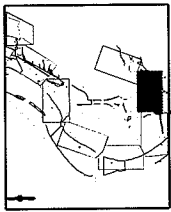
DATE: _____
 IN _____ OF _____
 CONTRACT SCALE



LEGEND

- TYPE A: BRUSH, VINES, AND TREES FOUR INCHES AND LESS IN DIAMETER, TO BE CUT FLUSH WITH GROUND SURFACE
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SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS
 ACRES ARE SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY



MATCH LINE STA. 184+00
TO SHEET C1.00

MATCH LINE STA. 218+00
TO SHEET C1.00

LEGEND

TYPE A: BRUSH, VINES, AND TREES FOUR INCHES AND LESS IN DIAMETER, TO BE CUT FLUSH WITH GROUND SURFACE

TYPE B: BRUSH, VINES, AND TREES GREATER THAN FOUR INCHES IN DIAMETER AT BREAST HEIGHT, TO BE REMOVED COMPLETELY, INCLUDING ROOT BALL

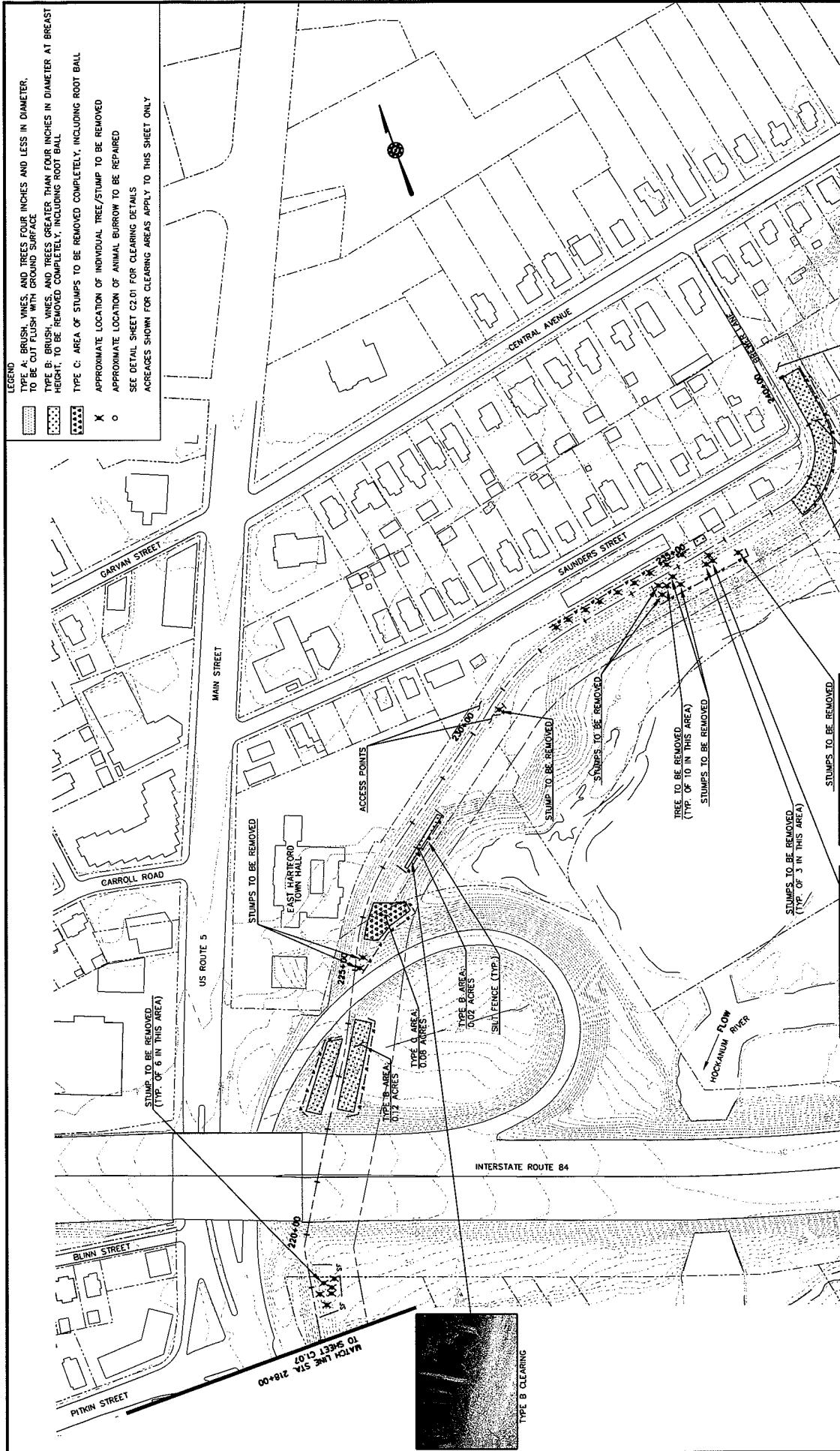
TYPE C: AREA OF STUMPS TO BE REMOVED COMPLETELY, INCLUDING ROOT BALL

X APPROXIMATE LOCATION OF INDIVIDUAL TREE/STUMP TO BE REMOVED

o APPROXIMATE LOCATION OF ANIMAL BURROW TO BE REPAIRED

SEE DETAIL SHEET C2.01 FOR CLEARING DETAILS

ACREAGES SHOWN FOR CLEARING AREAS APPLY TO THIS SHEET ONLY



**East Hartford Flood Protection System
 Maintenance Deficiency Corrections**

Dike Repairs

Prepared By: **PURCELL**
 CONSULTING ENGINEERS
 475 S. Main Street - Hartford - Connecticut 06103

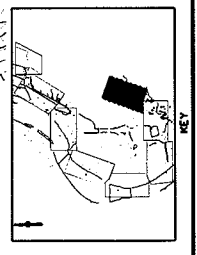
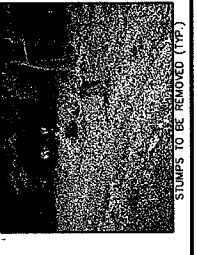
Project No.: **C1.08**

Sheet No.: **C1.08**

NO.	DATE	DESCRIPTION

SCALE: N.T.S.

DESIGNER: _____ CHECKED: JSM
 DRAWN: JDC APPROVED: EAU
 PROJECT NO.: 02-000 DATE: 2008
 PROJECT: _____
 DRAWING NO.: _____
 SHEET NO.: _____



MATCH LINE STA. 218+00 TO SHEET C1.07

240+00

242+00

244+00

246+00

248+00

250+00

252+00

254+00

256+00

258+00

260+00

262+00

264+00

266+00

268+00

270+00

272+00

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278+00

280+00

282+00

284+00

286+00

288+00

290+00

292+00

294+00

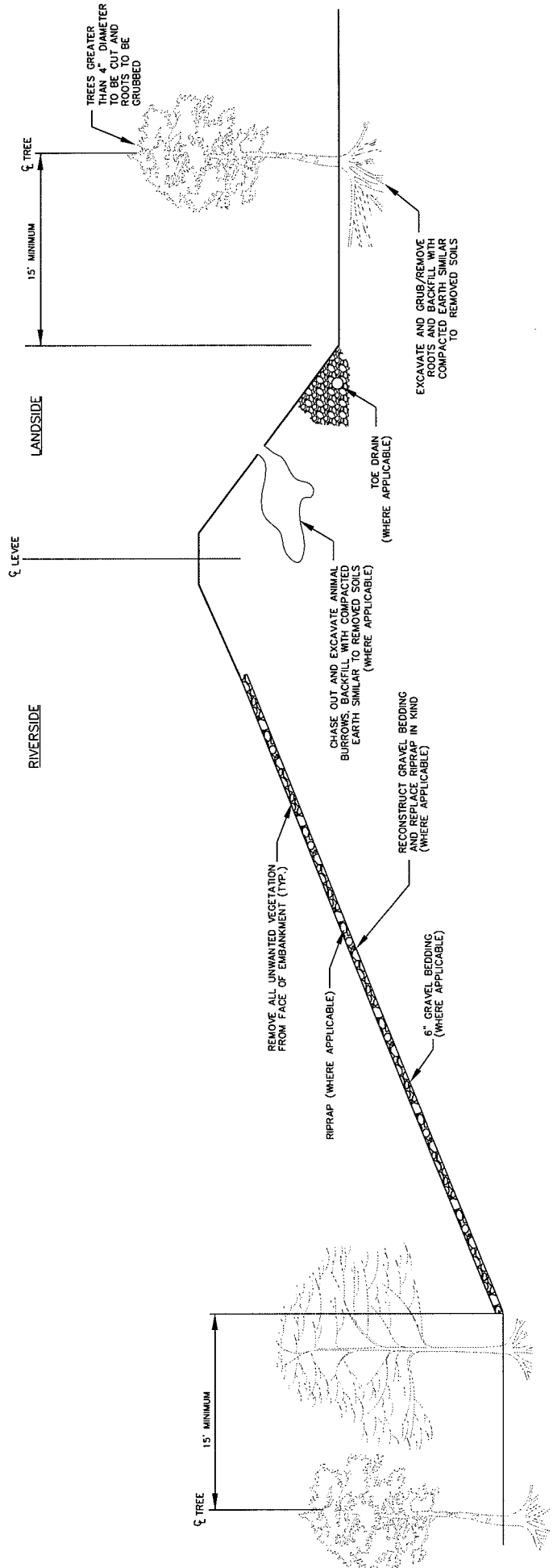
296+00

298+00

300+00

NOTES:

1. THIS DRAWING SHOWS A TYPICAL SECTION OF LEVEE DESIGN FEATURES. REFER TO SPECIFIC SECTION VIEW BY STATION IN THE UNITED STATES ARMY CORPS OF ENGINEERS RECORD DRAWINGS FOR MORE DETAILS.
2. DISTANCES BETWEEN EDGE OF RIVER, TOE OF SLOPE, AND BOTTOM OF RIPRAP SLOPE MAY VARY. REFER TO RECORD DRAWING BY STATION FOR DIMENSIONS OF FEATURES TO BE REPLACED (IN KIND) WHERE DISTURBED BY REMEDIAL WORK.
3. LIMIT GROUND COVER WITHIN 15 FEET OF TOE OF EMBANKMENT, OR TO PROPERTY LINE, WHICHEVER IS CLOSER, TO A GOOD GROWTH OF SOD MAINTAINED WITH GRASS, FREE OF WEEDS AND BARE SPOTS. REMOVE ALL OTHER VEGETATION FROM THIS AREA. GRIND ALL STUMPS AND REMOVE ALL ROOT BALLS OF TREES GREATER THAN 4" IN DIAMETER, AND BACKFILL ANY VOID WITH COMPACTED FILL IN KIND.
4. ALL CLEARED AND GRUBBED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND MUST BE DISPOSED OF OFFSITE. TREE TRUNKS AND BRANCHES MAY BE CHIPPED PRIOR TO OFFSITE REMOVAL WITH APPROVAL OF THE ENGINEER. UNDER NO CIRCUMSTANCES WILL BURNING BE PERMITTED.
5. A LICENSED APPLICATOR SHALL APPLY CHEMICAL HERBICIDES IN AREA OF CLEARING IN STRICT COMPLIANCE WITH THE TECHNICAL SPECIFICATIONS, MANUFACTURER'S RECOMMENDATIONS, AND APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
6. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH TOPSOIL AND COVER WITH SEED. FILL DEPRESSIONS GREATER THAN 6" IN DEPTH WITH IN-KIND MATERIAL, THEN TOPSOIL AND SEED.



TYPICAL SECTION OF LEVEE REPAIR
N.T.S.

PROJECT TITLE

E. Hartford Flood Protection System
East Hartford, Connecticut

DIKE REPAIR TYPICAL SECTION

CONSULTING ENGINEERS

PURCELL
ASSOCIATES

90 National Drive • Glastonbury, Connecticut 06033
(860) 633-8341

DRAWN BY

TDC

DATE

03/03/08

SHEET NO.

1

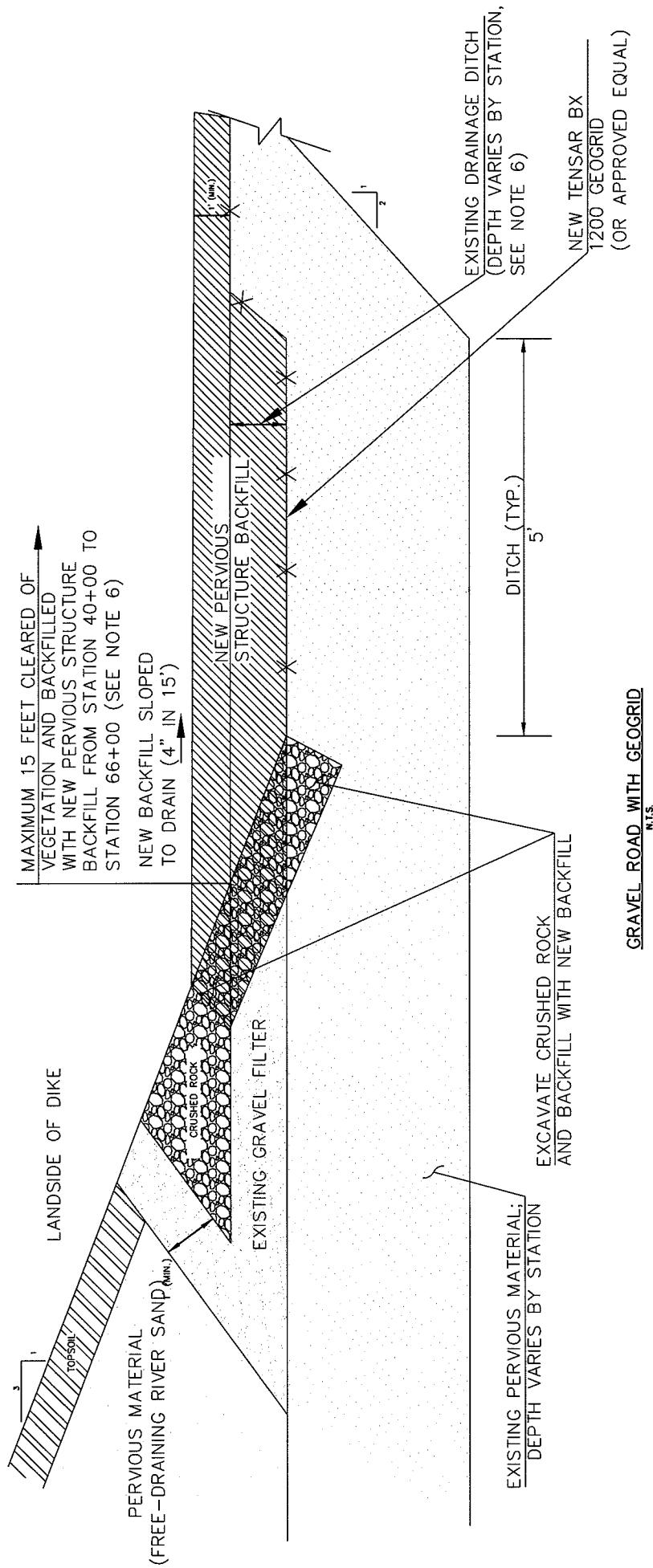
SCALE

07-309

N.T.S.

NOTES:

1. CLEAR AND GRUB VEGETATION 15 FEET FROM TOE OF DIKE OR DITCH SPRING LINE.
2. PLACE TENSAR BX 1200 GEOGRID (OR APPROVED EQUAL). NOTE DETAIL FOR EXCAVATION/REPLACEMENT OF EXISTING CRUSHED ROCK. GEOGRID TO EXTEND UNDER NEW PERVIOUS STRUCTURE BACKFILL.
3. PLACE AND COMPACT CONNECTICUT DOT SECTION M.02.05, PERVIOUS STRUCTURE BACKFILL, CONFORMING TO GRADATION "A". COMPACT TO 90% OF MAXIMUM DENSITY PER ASTM 4253 D OR SIMILAR.
4. MAXIMUM LOOSE LIFT THICKNESS OF BACKFILL SHALL BE 8 INCHES. SLOPE FINAL SURFACE TO DRAIN.
5. TERMINATE MOST DISTANT LANDSIDE TOE OF NEW FILL WITH 2H:1V SLOPE TO MEET EXISTING GRADE. MINIMUM THICKNESS OF NEW PERVIOUS BACKFILL IS 1 FOOT.
6. EXISTING DRAINAGE DITCH APPLIES TO SECTIONS "D" AND "F" FROM SHEETS 21 AND 22 OF THE 1941 RECORD DRAWINGS, RESPECTIVELY. BEYOND APPROXIMATELY STATION 54+00, SECTION "G" FROM SHEET 22 APPLIES. AT LOCATIONS WITHOUT EXISTING DRAINAGE DITCH, 15-FOOT CLEARING ZONE WILL INCLUDE 1 FOOT OF SOIL STRIPPING FOLLOWED BY PLACEMENT OF GEOGRID AND PLACEMENT/COMPACTION OF NEW PERVIOUS BACKFILL (1 FOOT MINIMUM).



GRAVEL ROAD WITH GEOGRID
N.T.S.

PROJECT TITLE

E. Hartford Flood Protection System
East Hartford, Connecticut

PROJECT NO.

07-309

SCALE

N.T.S.

GRAVEL ROAD TYPICAL SECTION

DRAWN BY

TDC

DATE

03/03/08

SHEET NO.

90 National Drive • Glastonbury, Connecticut 06033
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CONSULTING ENGINEERS
PURCELL
ASSOCIATES

2

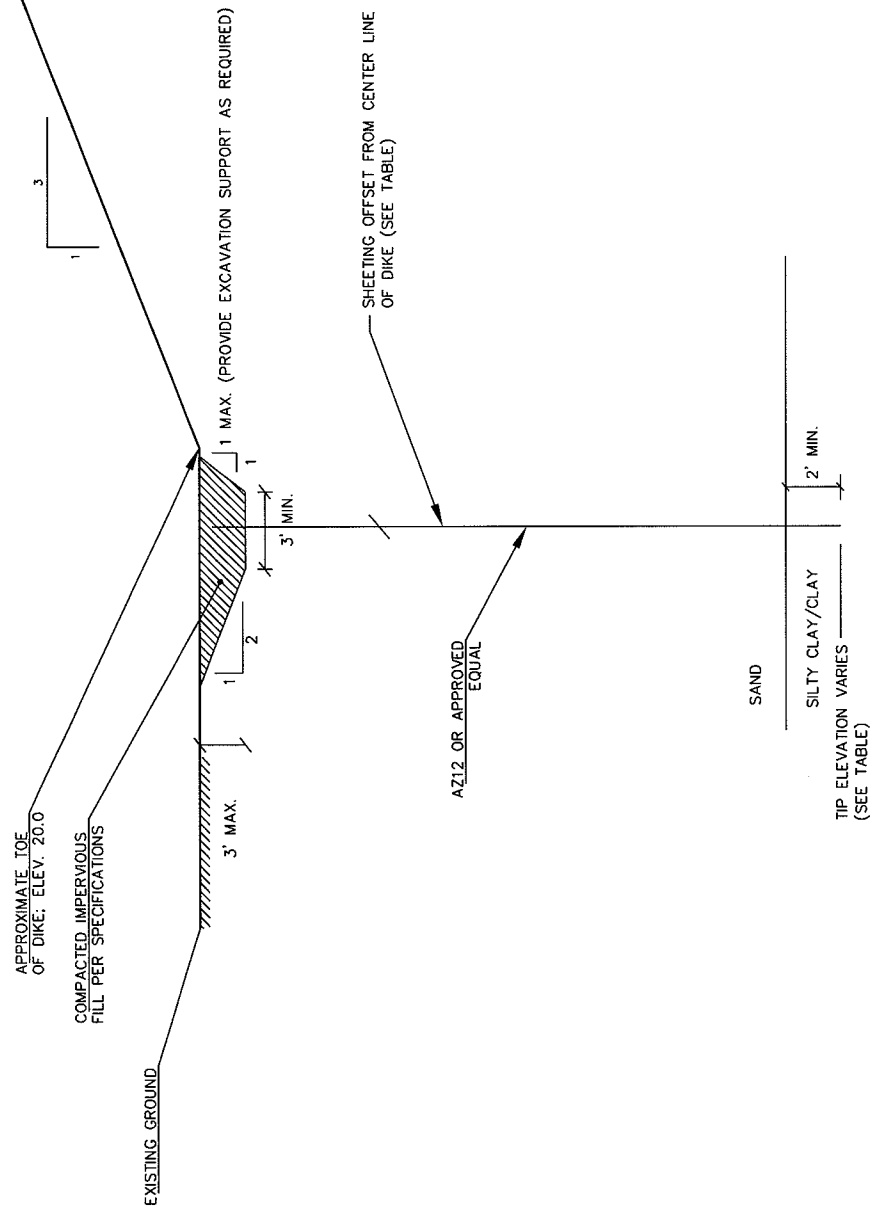
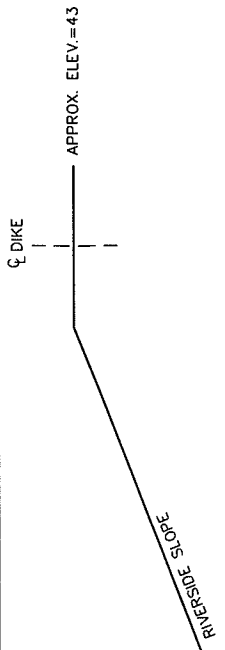


TABLE OF STATIONS AND OFFSETS

STATION RANGE	DIST. FROM C.L.
STA. 39+70 TO 40+50	VARIES
STA. 40+50 TO 46+70	75 FT
STA. 46+70 TO 47+95	VARIES
STA. 47+95 TO 55+95	90 FT
STA. 55+95 TO 57+40	VARIES

SHEET PILING
N.T.S.

PROJECT TITLE
 E. Hartford Flood Protection System
 East Hartford, Connecticut

PROJECT NO. 07-309
 SCALE N.T.S.

STEEL SHEETING TYPICAL SECTION

CONSULTING ENGINEERS
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 90 National Drive • Glastonbury, Connecticut 06033
 (860) 633-8341

DRAWN BY TDC
 DATE 03/03/08
 SHEET NO. 3