

Chepachet River Park

Chepachet, Rhode Island

Phase 2 Permitting

PREPARED FOR:

The Town of Glocester
1145 Putnam Pike
Chepachet, Rhode Island

PREPARED BY:

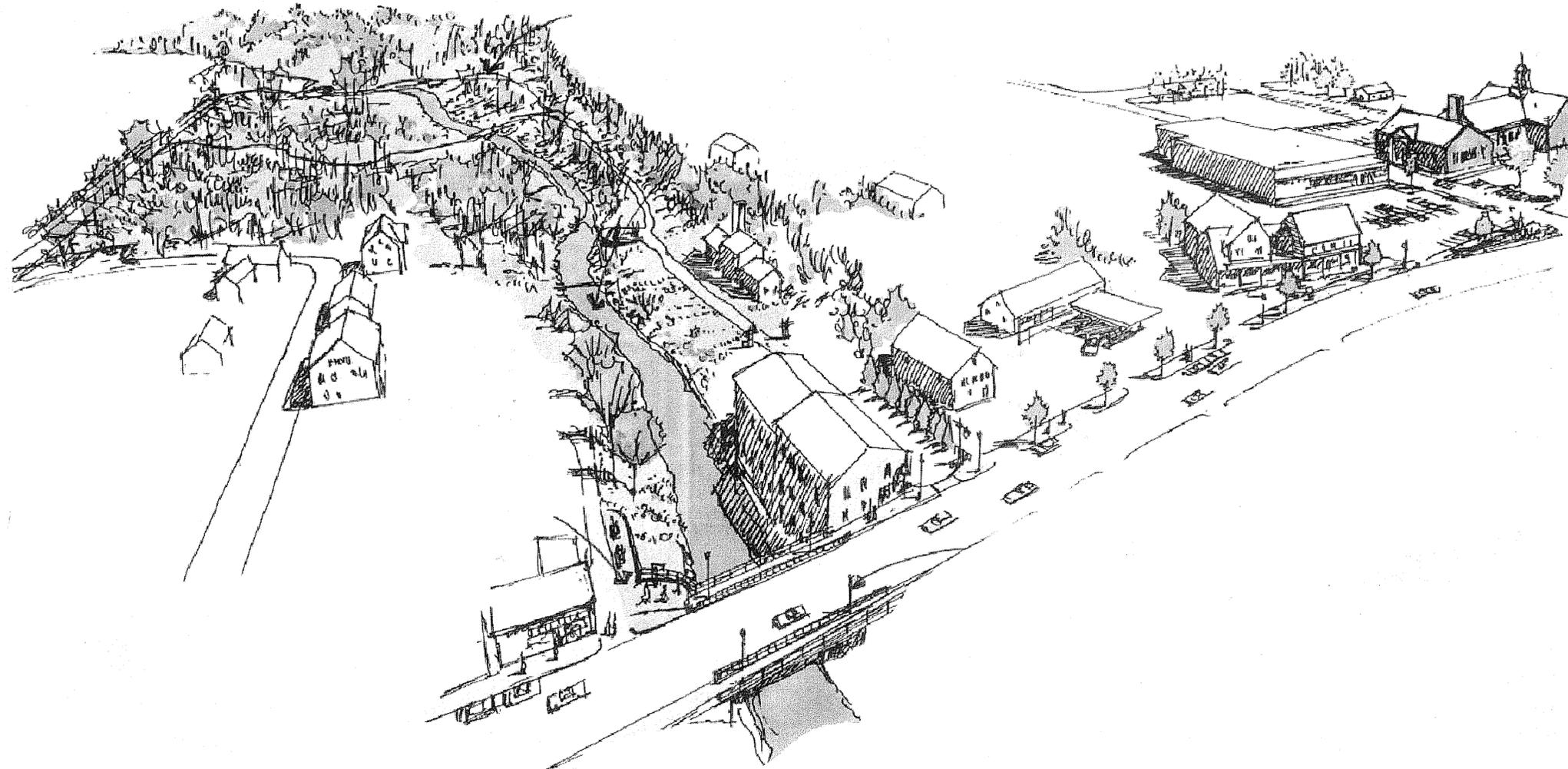


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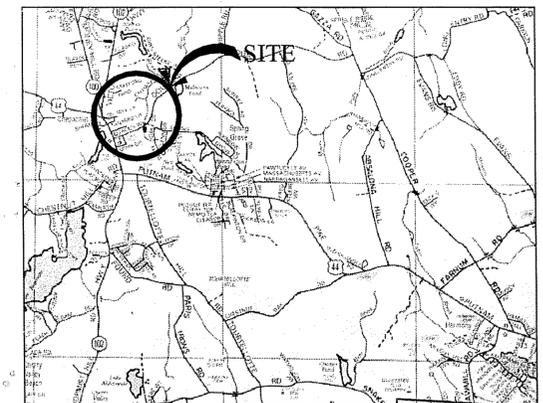
CDE

CASALI & D'AMICO ENGINEERING, INC.
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FAX: 401-884-9832

DAVEY ASSOCIATES INC
STRUCTURAL ENGINEERS
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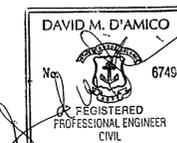
VICINITY MAP



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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 22 2008 FILE # 18-2069
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy



9/24/08

PROJECT SKETCH

NOTE:
EXISTING GRADES AND LAYOUT OF EXISTING SITE INFORMATION SHOWN ON THESE PLANS ARE FROM INFORMATION SUPPLIED BY THE TOWN OF GLOCESTER, RHODE ISLAND. GPS SURVEY INFORMATION PROVIDED BY BETA, Inc., AND DIGITAL TERRAIN MAPPING PROVIDED BY WATERMAN ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMATION OF ACTUAL SITE GRADE AND LAYOUT CONDITIONS. GATES, LEIGHTON & ASSOCIATES, INC. ACCEPTS NO RESPONSIBILITY FOR EXISTING TOPOGRAPHIC AND SITE INFORMATION.

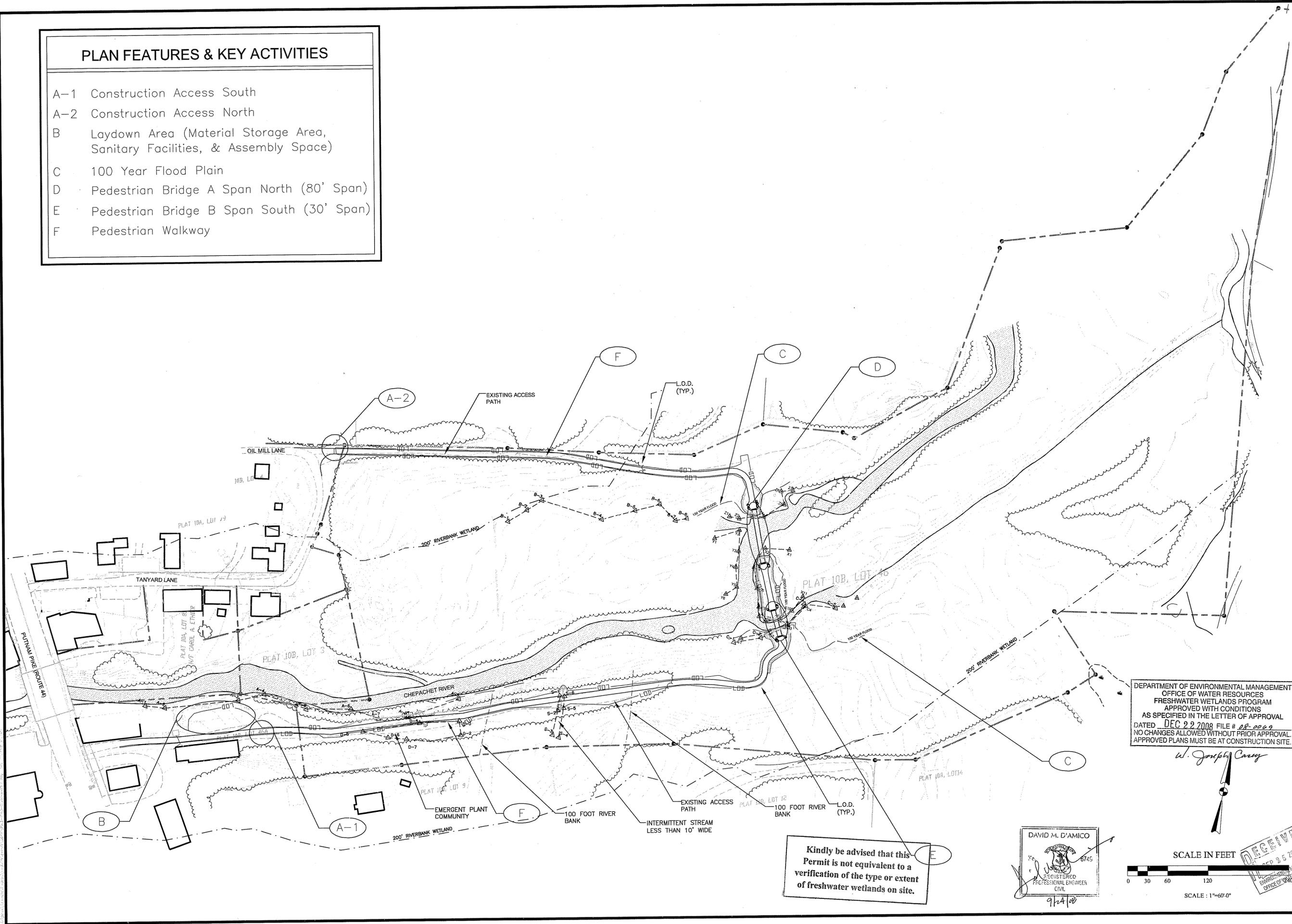
PERMITTING SET
March, 2008

REVISION SET
September, 2008



PLAN FEATURES & KEY ACTIVITIES

- A-1 Construction Access South
- A-2 Construction Access North
- B Laydown Area (Material Storage Area, Sanitary Facilities, & Assembly Space)
- C 100 Year Flood Plain
- D Pedestrian Bridge A Span North (80' Span)
- E Pedestrian Bridge B Span South (30' Span)
- F Pedestrian Walkway



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W. Joseph Carey

DAVID M. D'AMICO
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 6745
 9/24/08

SCALE IN FEET
 0 30 60 120
 SCALE : 1"=60'-0"



Job No: P-209	Drawn: A/B/A/R	Checked: DSL	Issued: MARCH 2008
Dwg No: P01			
Revisions:			
PERMITTING: SEPTEMBER 2008			
Not Issued For Construction			

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PROJECT OVERVIEW
CHEPACHET RIVER PARK PHASE II
 GLOUCESTER, RHODE ISLAND

Permitting Documents

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Sheet 1 of 10

PO.1

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LEGEND

EDGE OF PAVEMENT		BORINGS	
CURB		TEST PIT	
GUARDRAIL		FENCE	
MAILBOX		WOOD OR BRUSH LINE	
UTILITY POLE		TREES	
POLE GUY		RIVER OR STREAM	
LUMINAIRE		STANDING WATER	
SIGN		ASSF / WETLAND	
UNDERDRAIN		BUILDING	
STORMDRAIN		FOUNDATION	
SANITARY SEWER		CUT & MATCH	
WATER MAIN		RIP-RAP	
GAS MAIN		CUT SLOPE	
TELEPHONE DUCT		FILL SLOPE	
ELECTRIC DUCT		ROCK CUT	
SUBDRAIN		AREA GRADED TO DRAIN	
WATER GATE		EDGE OF WETLAND	
GAS GATE		AREA SUBJECT TO STORM FLOWAGE	
CATCH BASIN		100 YEAR FLOOD PLAIN	
MANHOLE		PROPERTY LINE	
HYDRANT		PROPOSED DECIDUOUS TREES	
BASILINE OR CENTERLINE		PROPOSED EVERGREEN TREES	
PROPERTY LINE		PROPOSED SHRUBS & PERENNIALS	
PAVED WATERWAY		HAYBALES/ SILT EROSION CONTROL COMBINATION	
CONTOUR LINE		SILT FENCE	
STONE BOUND		LIMIT OF DISTURBANCE	
RETAINING WALL		100' RIVERBANK WETLAND	
FIELD STONE WALL		200' RIVERBANK WETLAND	

SPECIAL PLANT REQUIREMENTS AND NOTES

- All plant material must be tagged in the ground, at the nursery by the Landscape Architect. All plant material shall be commercially obtained and shall meet the American Association of Nurseryman standards for nursery stock, latest edition, and its amendments. Plant only during season normal to the particular variety. All plant inspections will be at the expense of the contractor. Permanent seals will be required.
- Cover all planting beds with 3" shredded hardwood bark mulch within a seventy-two hour period after planting. See plan for bed layout.
- All existing and proposed trees shown in lawn areas shall receive a 6" diameter mulch bed. Mulch shall be placed to a depth of 3". Remove all sod, roots, sticks and stones prior to placement of mulch.
 - All plant materials furnished by the contractor shall be guaranteed for a period of one year from final acceptance of landscape work.
 - Stake all trees over 5' as shown on details. Remove stakes at the end of the guarantee period.
 - The contractor is responsible for keeping the site clean of miscellaneous debris throughout the construction period. All waste material is to be disposed of immediately to an off-site location, unless otherwise indicated on the plans.
 - The contractor shall perform all work in accordance with all local, state, and federal regulations, and shall obtain all necessary permits for this project.
 - Layout: All notes and dimensions are typical unless otherwise noted. All dimensions are square (parallel or perpendicular) unless otherwise noted. The contractor shall notify the owner/owner's representative immediately in the event of any discrepancies found in the contract documents and/or in the field, or of conditions uncovered in the work which are not reflected in the plans.
 - Loam: Loam moved during the course of construction shall be retained and distributed within the site in accordance with the landscape plan. Stockpiled loam shall not be mixed with any subsoil or unsuitable materials. All excess loam shall remain on the property of the owner. New loam if required to provide the specified depth, shall be a fertile, friable medium textured sandy loam free of material toxic to healthy plant growth. Loam shall also be free of all stumps, roots, stones and other extraneous matter an inch (1") or greater in diameter. The PH shall be between 5.5 and 7.5 when tested.
 - Lawn Preparation: Remove all debris and other inorganic materials on the prepared subgrade, reshape and dress any damaged or eroded area prior to spreading the loam. Scarify and loosen subgrade in any areas where compaction may have occurred. Spread stockpiled and off-site loam on all disturbed areas to produce a depth of 6". Fine grade loamed areas to produce a smooth and unbroken finish grade to the required depth. Apply a starter fertilizer (10-20-10) at a rate of 20 lbs. per 1000 square feet and lime at a rate of 40 lbs. per 1000 square feet. Once spread, the fertilizer and lime shall be thoroughly incorporated into the loam. The loam shall be rolled, and depression shall be top dressed and raked to create a smooth surface.
 - Seeding: Seeding shall take place between March 15 and May 31 or August 15 and October 15 only. Seed shall be pure, live, fresh seed from commercial sources meeting and labeled in accordance with State and Federal rules and regulations. The seed mixture shall be:

Proportion by Type	Weight	Pur.	Germl.
Palmer Perennial Ryegrass	20.0%	99%	90%
Ranger Perennial Ryegrass	20.0%	99%	90%
Baron Kentucky Bluegrass	30.0%	95%	85%
Merion Kentucky Bluegrass	30.0%	95%	85%
Inert Materials	2.5%		

(maximum)

Seeded areas shall, at a minimum, include all areas of the site that have been disturbed or are barren unless otherwise noted on the plans. Seed shall be applied at a rate of 7 lbs. per 1000 square feet.
 - Protection of Existing Plantings: Maximum effort should be made to save tree or other plant specimens which are large for their species, rare to the area, or of special horticultural or landscape value. Contact owner/landscape architect before removing any specimen of this type unless otherwise noted on the plans. No material or temporary soil deposits shall be placed within the drip line of shrubs or trees designated on the landscape plan to be retained. Protective barriers are to be installed around each plant and/or group of plants that are to remain on the site. Barriers shall not be supported by the plants they are protecting, but shall be self supporting. They shall be of minimum of four feet (4') high and constructed of a durable material, such as snow or silt fence, that will last until construction is completed.
 - Pruning: The contractor shall carefully prune branches in the way of construction by using only approved methods and tools. The use of axes for trimming or spurs for climbing will not be permitted.
 - Existing Utilities: In accordance with Dig-Safe law (1-800-225-4977), the contractor shall contact all applicable utility companies and verify utility line locations. Record locations of Dig-Safe utility line markings on project record documents.
 - Disturbed Areas: Any areas disturbed during the course of construction are to be restored to original (or better) condition by contractor before completion of the project, and are subject to approval by landscape architect and owner. All grass areas disturbed during construction shall be yolk raked to remove stones and loamed and seeded as per specifications.
 - Drainage Systems: Contractor is responsible for general clean-out of all catch basins, manholes, and/or other drainage features on the site which have accumulated sediment as a result of construction activities.
 - Cleaning: Contractor is responsible for keeping site clean of miscellaneous debris throughout the construction period. All waste material is to be disposed of immediately to an off-site location, unless otherwise indicated on the plan.

**JOB SPECIFIC NOTES:
GENERAL CONSTRUCTION**

- Construction within the stream channel shall occur during a period of low flow in the dry season between July 1 and October 31. The estimated time to complete construction of the stream crossing is 2-weeks.
- All construction shall be performed in the dry season. The contractor shall provide, operate and maintain all pumps, drains, wet points, screens, or other facilities necessary to control, collect and dispose of all surface and subsurface water encountered in the performance of the work. A dewatering basin as shown on the details shall be used if dewatering is necessary. The dewatering basin shall be placed within the Limit of Disturbance shown on these plans on the existing path. Dewatering basins shall be contracted in accordance with the R.I. Soil Erosion and Sedimentation Control Manual.
- The contractor is responsible for complying with OSHA requirements including excavation and shoring activities.
- Existing Utilities: In accordance with Dig-Safe law (1-800-225-4977), the contractor shall contact all applicable utility companies and verify utility line locations. The contractor shall be solely responsible for any/all utility damage. Record locations of Dig-Safe utility line markings on project record documents.
- Protection of Existing Plantings: Maximum effort should be made to save tree or other plant specimens which are large for their species, rare to the area, or of special horticultural or landscape value. Contact owner/landscape architect before removing any specimen of this type unless otherwise noted on the plans.
- Protective barriers are to be installed around each plant and/or group of plants that are to remain on the site. Barriers shall not be supported by the plants they are protecting, but shall be self supporting. They shall be of minimum of four feet (4') high and constructed of a durable material, such as snow or silt fence, that will last until construction is completed.
- Pruning: The contractor shall carefully prune branches in the way of construction by using only approved methods and tools. The use of axes for trimming or spurs for climbing will not be permitted.
- Cleaning: Contractor is responsible for keeping site clean of miscellaneous debris throughout the construction period. All waste material is to be disposed of immediately to an off-site location in accordance with state and local rules and regulations, unless otherwise indicated on the plan.

SEQUENCE OF CONSTRUCTION

- The perimeter erosion control (hay bole and/or silt fence) shall be installed prior to all construction activities.
- Stake limits of clearing and grubbing operations for field review and approval by the project engineer and/or Landscape Architect prior to start of construction.
- Install tree protection devices prior to start of construction operations.
- Install the sand bag erosion check to access bridge abutments 2 and 3 where indicated on the plans.
- Install temporary Bridge to access area 3, so that bridge abutment work can be done on both side before installation of final bridge.
- Construct bridge abutment 3 then construct abutment 2.
- Bring the area between abutments 2 and 3 to final grade then seed, loam and mulch the disturbed area adjacent to the abutment.
- Install the sand bag erosion checks for abutments 1 and 4 then construct the abutments. Bring the abutment area to final grade then seed, loam and mulch the disturbed area adjacent to the abutments.
- Install the bridges, bring the remaining areas of the walking path to final grade then seed, loam and mulch the disturbed area.
- Once the vegetation has become well established, remove all sediment controls: hay boles, silt fence, sand bag erosion check.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

- The haybole/ silt fence line illustrated on these plans, to be staked in the field prior to construction, shall serve as the strict limit of disturbance for the project within or adjacent to regulated freshwater wetland areas. No alterations, including vegetative clearing or surface disturbance, shall occur beyond this haybole/ silt fence line.
 - The limits of clearing, grading, and disturbance shall be kept to a minimum within the proposed area of construction. All areas outside of these limits, as depicted on the project site plans, shall be totally undisturbed, to remain in a completely natural condition.
 - It shall be the responsibility of the contractor to maintain all soil erosion and sediment controls on the project site for the entire duration of the construction period. The contractor shall follow the direction of the resident engineer with regard to installation, maintenance, and repair of all soil erosion and sedimentation controls (SESC) on the project site. Temporary soil erosion and sedimentation controls (hay boles, silt fence, etc.) shall be maintained until all exposed soils are satisfactorily stabilized.
 - SESC measures shall be inspected at least once every seven calendar days and within twenty four hours after an event which generates 0.25 inches of rain in a twenty four hour period. Maintenance shall include cleanout of accumulated sediment behind the boles if 1/2 the original height of the boles/fence barrier becomes filled with sediment. Any sediment deposits remaining in place after the silt fence has been removed should be dressed to conform to the existing grade, prepared and seeded.
- A) All referenced soil erosion and sedimentation controls including materials used, application rates, and the installation procedures shall be performed per the "Rhode Island Erosion and Sedimentation Handbook", dated 1993.
- B) The contractor shall read, become familiar with, and adhere to all of the provisions, conditions, and stipulations stated in the environmental permits issued for this project from the Department of Environmental Management and US Army Corps of Engineers. All costs associated with complying with these conditions shall be considered incidental to the construction and included with the cost for the associated bid item.
- C) No undisturbed areas will be cleared of existing vegetation after October 15 of any calendar year.
- D) All disturbed slopes either newly created or currently exposed shall be seeded, protected and maintained by the contractor. The contractor shall regularly check all seeded areas to ensure that a good stand is maintained.
- E) The toe of any fill slope is to remain at least one foot inside of all erosion controls. Under no circumstance shall the contractor cover any portion of the erosion controls with fill material. Any fill material which is placed on any erosion controls by the contractor, shall be immediately removed by the contractor, and any necessary repairs to the erosion controls accomplished, at no cost to the Town of Glocester.
- F) Stockpiles of topsoil shall not be located near waterways. They shall have side slopes of no greater than 2:1 and shall be temporarily seeded and/or stabilized per contract specifications.

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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
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W. Joseph Casey
DAVID A. D'AMICO

Kindly be advised that this Permit is not equivalent to a vegetation permit of the type or extent of the wetlands on site.

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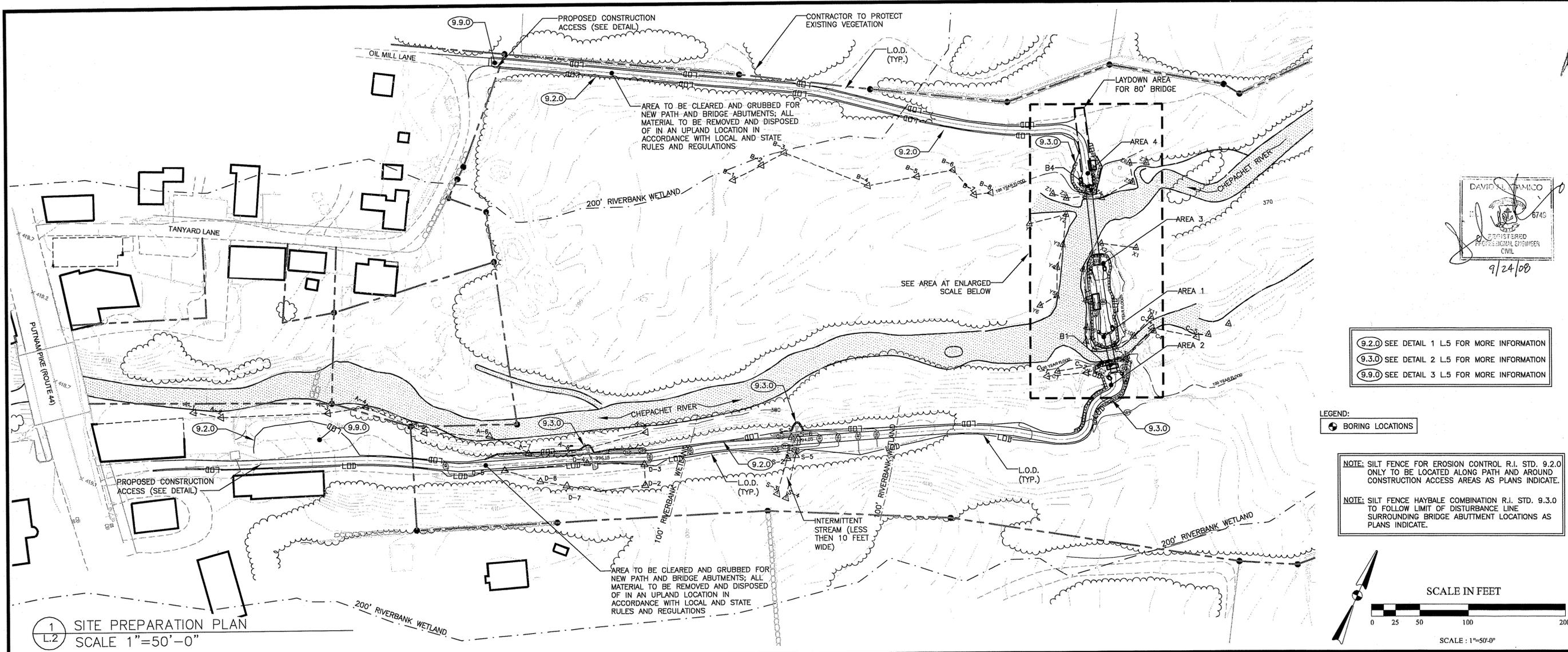
Not Issued For Construction
Revisions:
PERMITTING: SEPTEMBER, 2008
Job No: P-920
Dwg No: L1
Drawn: A/E/A/R
Checked: DSL
Issued: MARCH, 2008

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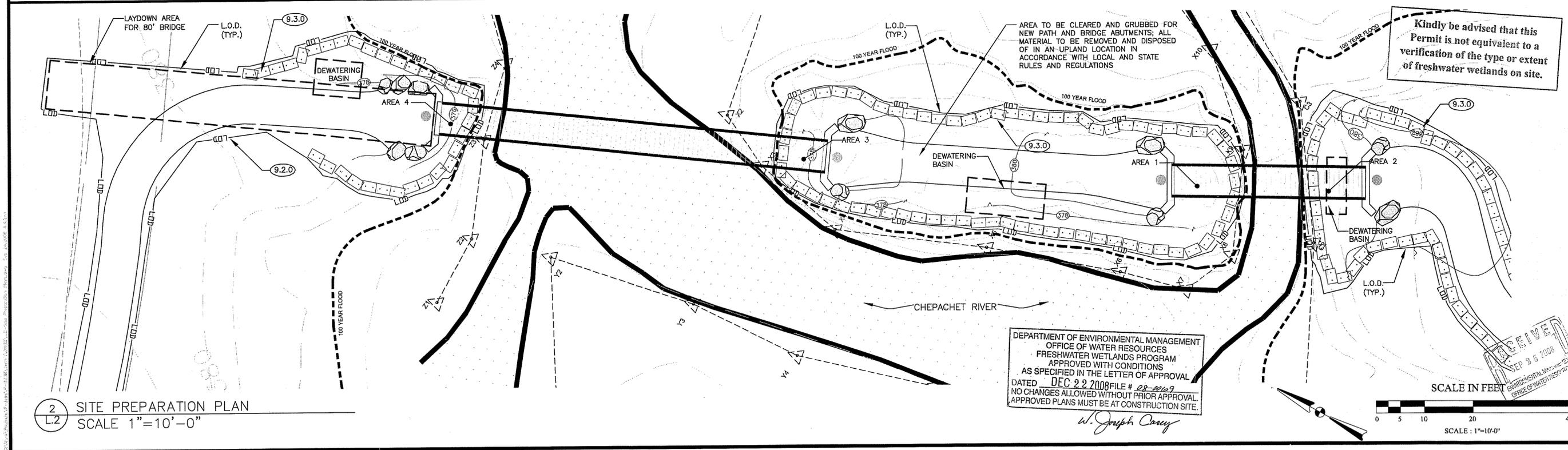
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C-STATE PLANNING ENGINEERING INC.
1000 WASHINGTON STREET
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TEL: 401-885-1100 FAX: 401-885-1101

**GENERAL PLAN
SYMBOLS & LEGENDS**
Chepachet River Park Design
Village of Chepachet
Town of Glocester, Rhode Island

Permitting Documents



1 SITE PREPARATION PLAN
L.2 SCALE 1"=50'-0"



2 SITE PREPARATION PLAN
L.2 SCALE 1"=10'-0"

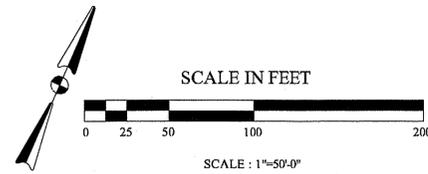
DAVID J. RAMICO
REGISTERED PROFESSIONAL ENGINEER
CIVIL
No. 6743
9/24/08

- 9.2.0 SEE DETAIL 1 L.5 FOR MORE INFORMATION
- 9.3.0 SEE DETAIL 2 L.5 FOR MORE INFORMATION
- 9.9.0 SEE DETAIL 3 L.5 FOR MORE INFORMATION

LEGEND:
BORING LOCATIONS

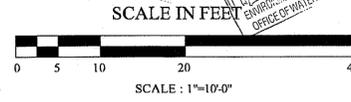
NOTE: SILT FENCE FOR EROSION CONTROL R.I. STD. 9.2.0 ONLY TO BE LOCATED ALONG PATH AND AROUND CONSTRUCTION ACCESS AREAS AS PLANS INDICATE.

NOTE: SILT FENCE HAYBALE COMBINATION R.I. STD. 9.3.0 TO FOLLOW LIMIT OF DISTURBANCE LINE SURROUNDING BRIDGE ABUTMENT LOCATIONS AS PLANS INDICATE.



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W. Joseph Casey

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Not Issued For Construction

Revisions:
PERMITTING: SEPTEMBER, 2008

Job No: P-920
Dwg No: L.2
Drawn: A/E/A/R
Checked: DSL
Issued: MARCH, 2008

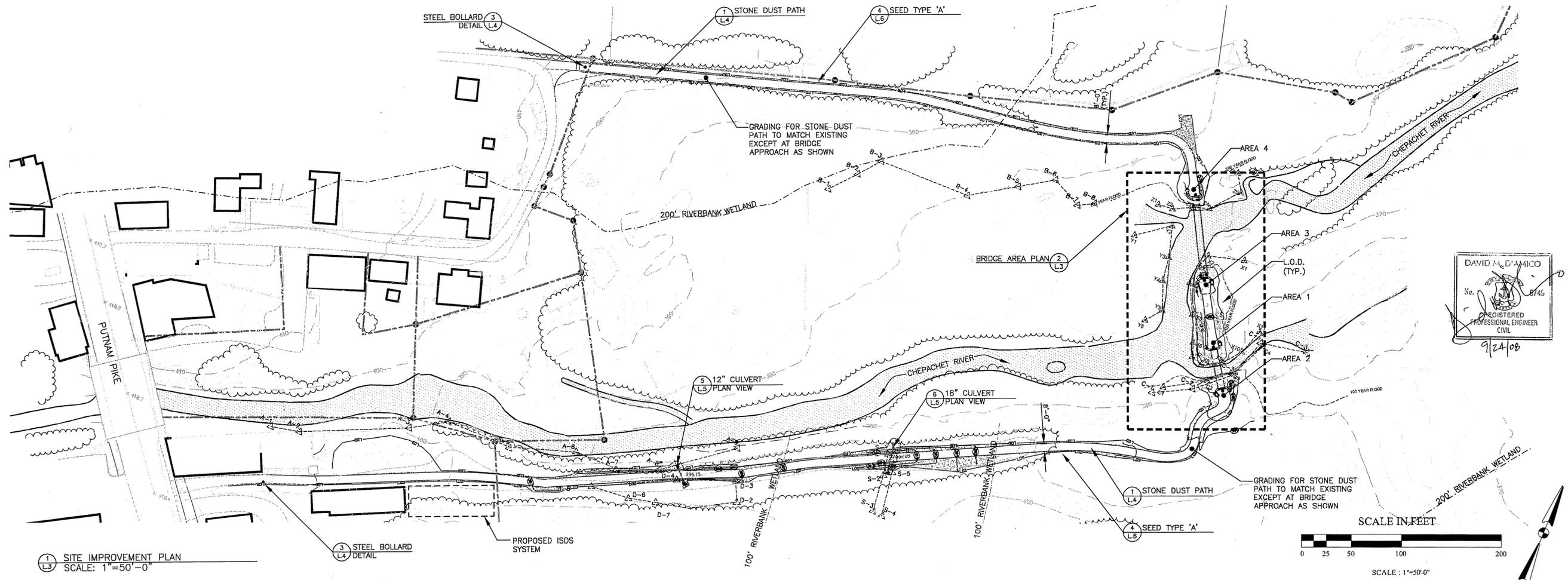
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LANDSCAPE ARCHITECTURE
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PROVIDENCE, RI 02903

SITE PREPARATION PLANS
Chepachet River Park Design
Village of Chepachet
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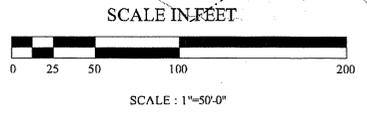
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Sheet 3 of 10
L.2



1 SITE IMPROVEMENT PLAN
SCALE: 1"=50'-0"

3 STEEL BOLLARD
DETAIL



DAVID M. DIAMICO
No. 8745
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
9/24/08



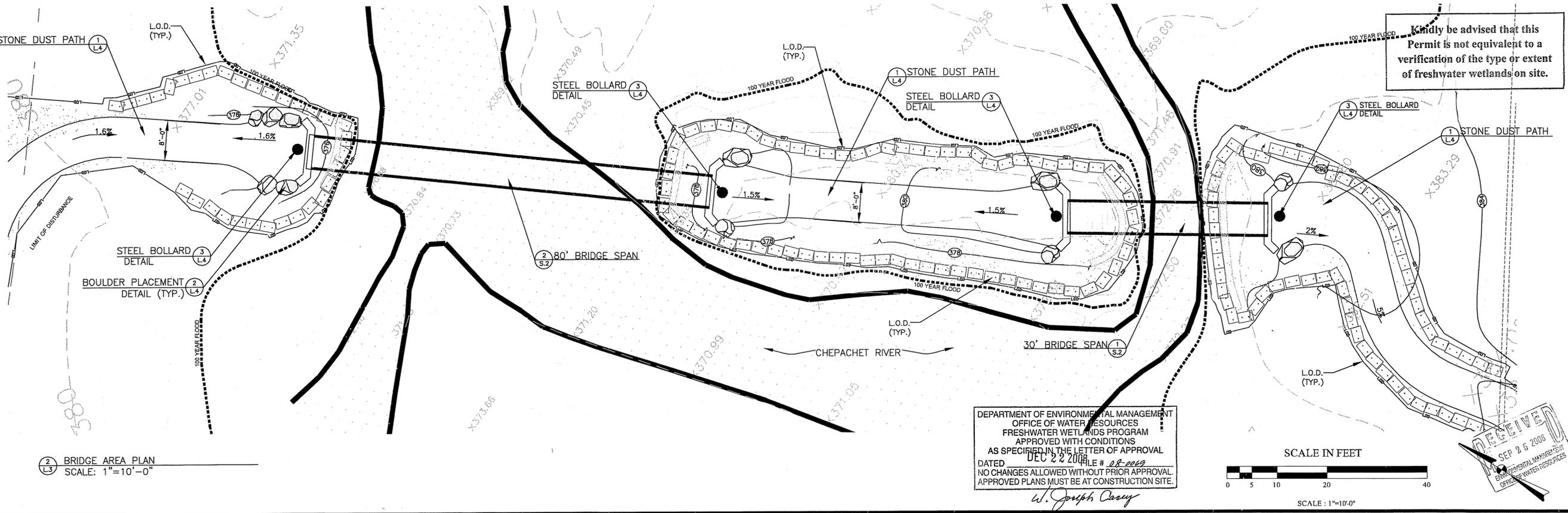
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Revisions:
PERMITTING: SEPTEMBER, 2008

Job No: P-930
Dwg No: L3
Drawn: ALJ/AJR
Checked: DSL
Issued: MAR/CIL, 2008

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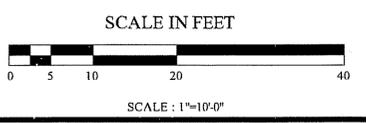
DAVID M. DIAMICO, P.E.
REGISTERED PROFESSIONAL ENGINEER
CIVIL
No. 8745
State of Rhode Island



2 BRIDGE AREA PLAN
SCALE: 1"=10'-0"

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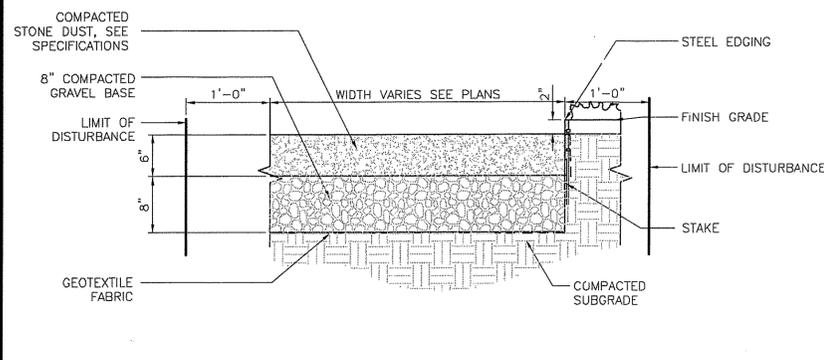


SITE IMPROVEMENT AND
GRADING PLANS
Chepachet River Park Design
Village of Chepachet
Town of Glocester, Rhode Island

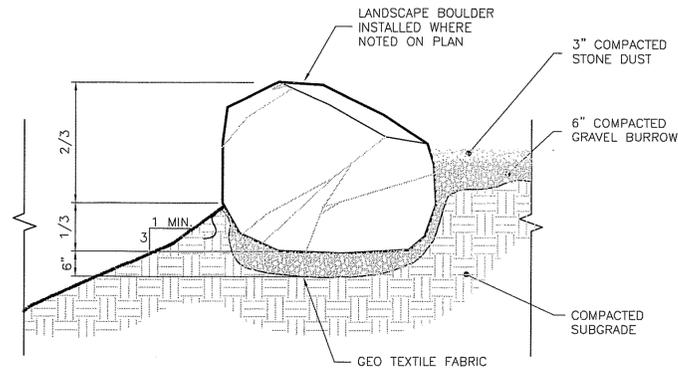
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Documents

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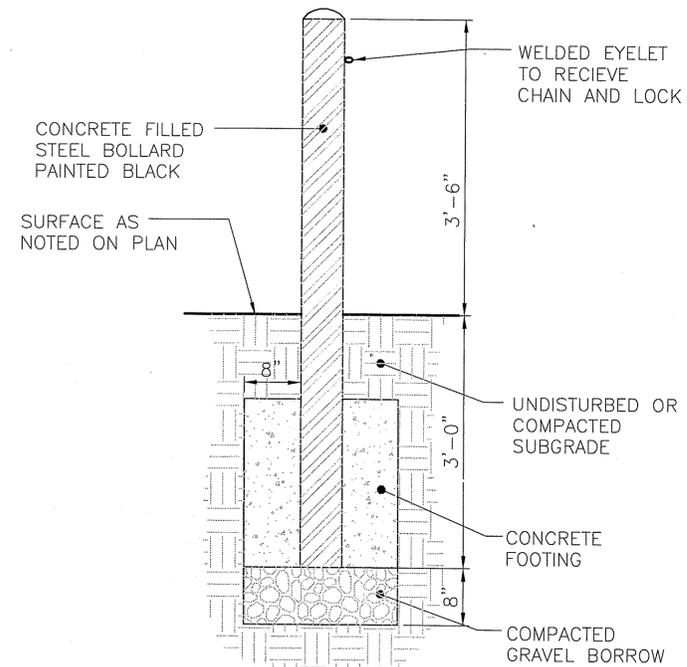
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L.3



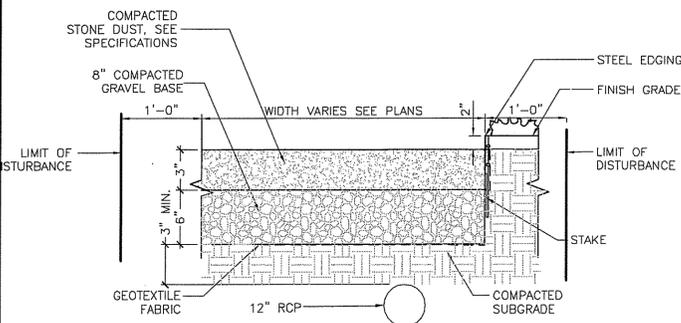
1 STONE DUST PATH DETAIL
L.4 NOT TO SCALE



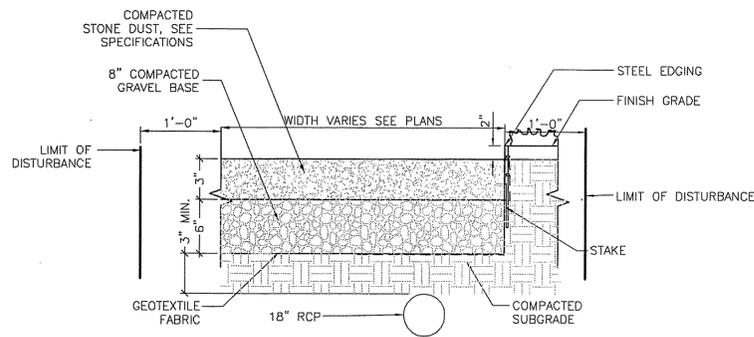
2 BOULDER PLACEMENT DETAIL
L.4 SCALE: 1"=1'-0"



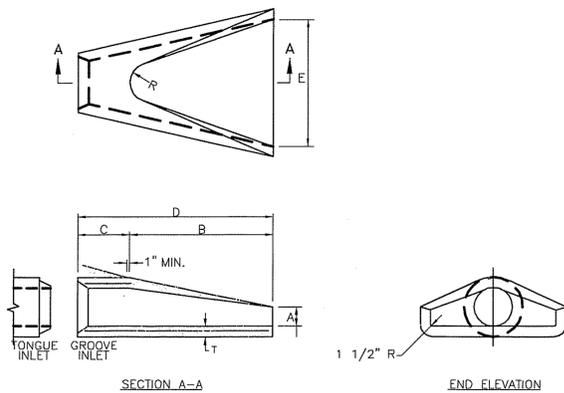
3 STEEL BOLLARD DETAIL
L.4 SCALE: 1"=1'-0"



4 12" RCP, CLASS V CULVERT CROSS SECTION
L.4 NOT TO SCALE



5 18" RCP, CLASS V CULVERT CROSS SECTION
L.4 NOT TO SCALE



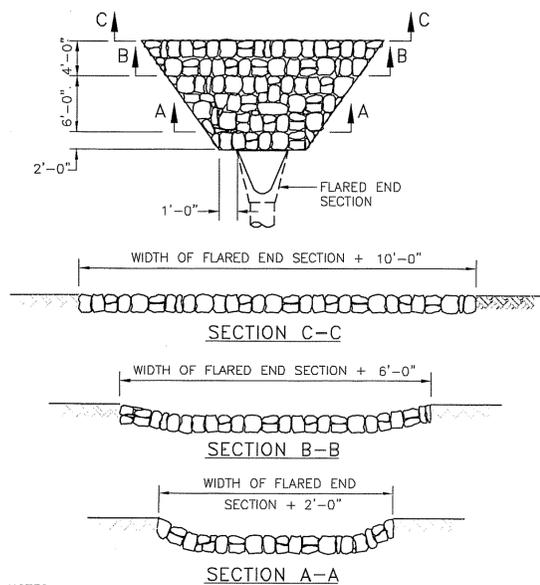
DIA.	DIMENSIONS							REINFORCEMENT
	A	B	C	D	E	R	T	ONE LAYER REINFORCEMENT IN CENTER OF WALL MIN. AREA OF EACH WAY (SQ. IN./FT.)
1'-0"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	2"	0.048
1'-3"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	2 1/4"	0.054
1'-6"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	2 1/2"	0.060
2'-0"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	1'-2"	3"	0.072
2'-6"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	1'-3"	3 1/2"	0.084
3'-0"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	1'-8"	4"	0.096
3'-6"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	1'-10"	4 1/2"	0.108
4'-0"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	1'-10"	5"	0.120
4'-6"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	2'-0"	5 1/2"	0.132
5'-0"	2'-6"	5'-0"	3'-3"	8'-3"	8'-0"	2'-0"	6"	0.144

NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 701 OF THE R.I. STANDARD SPECIFICATIONS.
NOT TO SCALE

PRECAST CONCRETE FLARED END SECTION



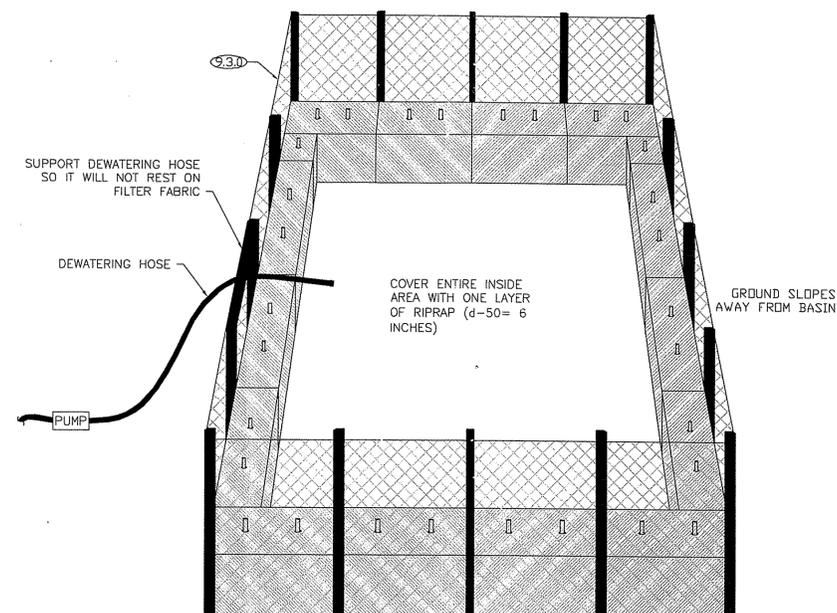
6 PRECAST CONCRETE FLARED END SECTION
L.4 NOT TO SCALE



NOTES:
1. CLASS OF RIP-RAP AND BEDDING TO BE SPECIFIED IN CONTRACT DOCUMENTS.
2. DIMENSIONS MAY BE MODIFIED BY ENGINEER TO MEET FIELD CONDITIONS.
3. UNLESS OTHERWISE SPECIFIED, DUMPED RIP-RAP SHALL BE USED.

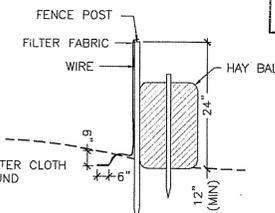
ROCK FILL RIP-RAP AT
FLARED END SECTIONS
NOT TO SCALE

7 ROCK FILL RIP-RAP AT FLARED END SECTIONS
L.4 NOT TO SCALE



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FRESHWATER WETLANDS PROGRAM
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DATED DEC 22 2008 FILE # 08-008
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W. Joseph Casey



Kindly be advised that this
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verification of the type or extent
of freshwater wetlands on site.

DAVID N. D'AMICO
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6745

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8 DEWATERING BASIN DETAIL
L.4 NOT TO SCALE

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Revisions:
PERMITTING: SEPTEMBER, 2008

Job No: P-920
Dwg No: L4
Drawn: AUBAIR
Checked: DBL
Issued: MARCH, 2008

Gates, Leighton & Associates, Inc.
LANDSCAPE ARCHITECTURE
855-N. Waterman Ave., East Providence, R.I. 02914
Tel: (401) 434-3311 Fax: (401) 434-3312
www.gatesleighton.com

CHEPACHET RIVER PARK DESIGN

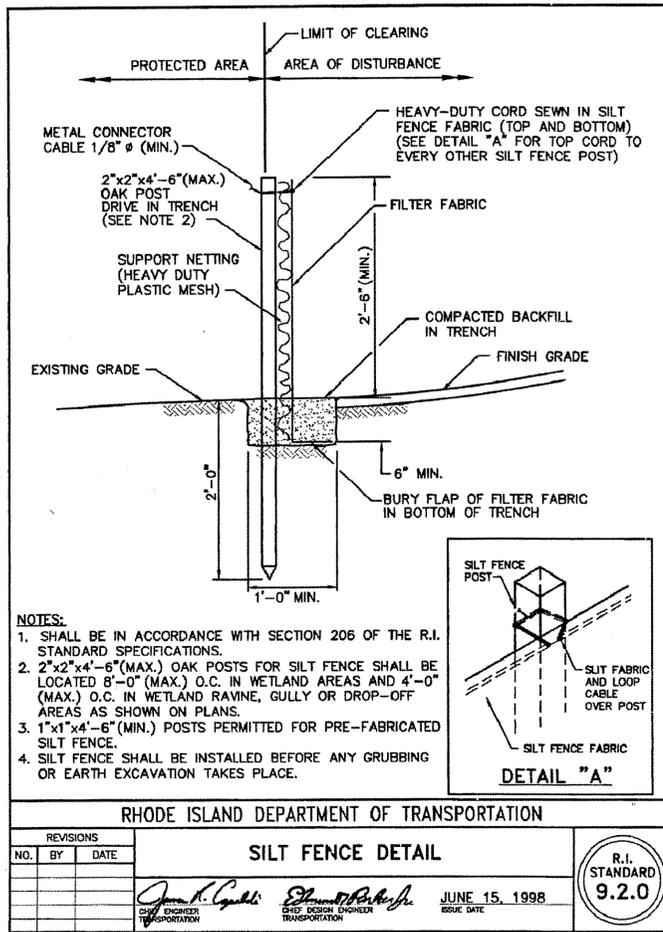
Village of Chepachet
Town of Glocester, Rhode Island

SITE DETAILS

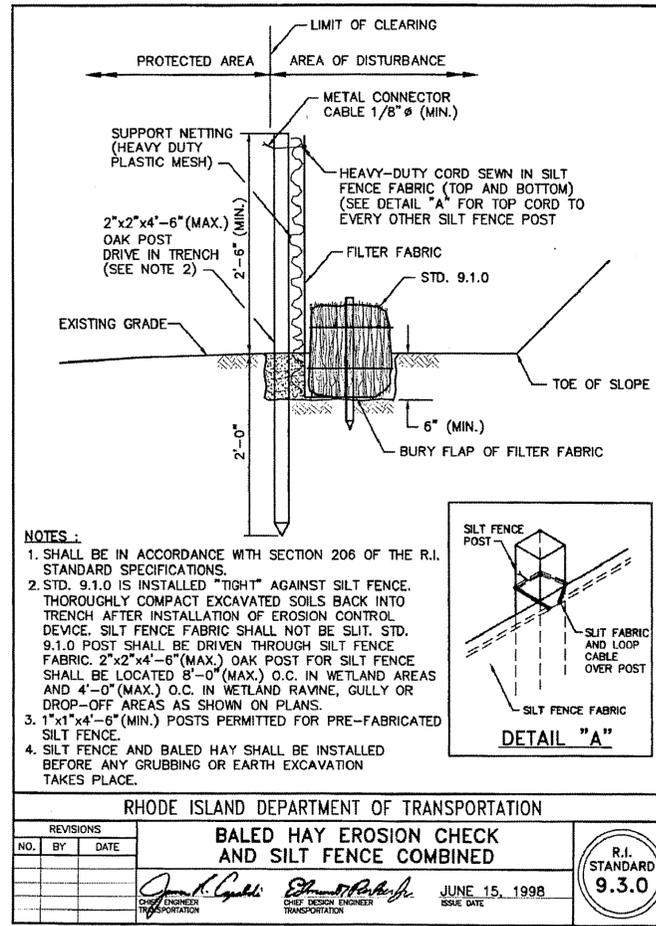
Permitting Documents

Sheet 5 of 10

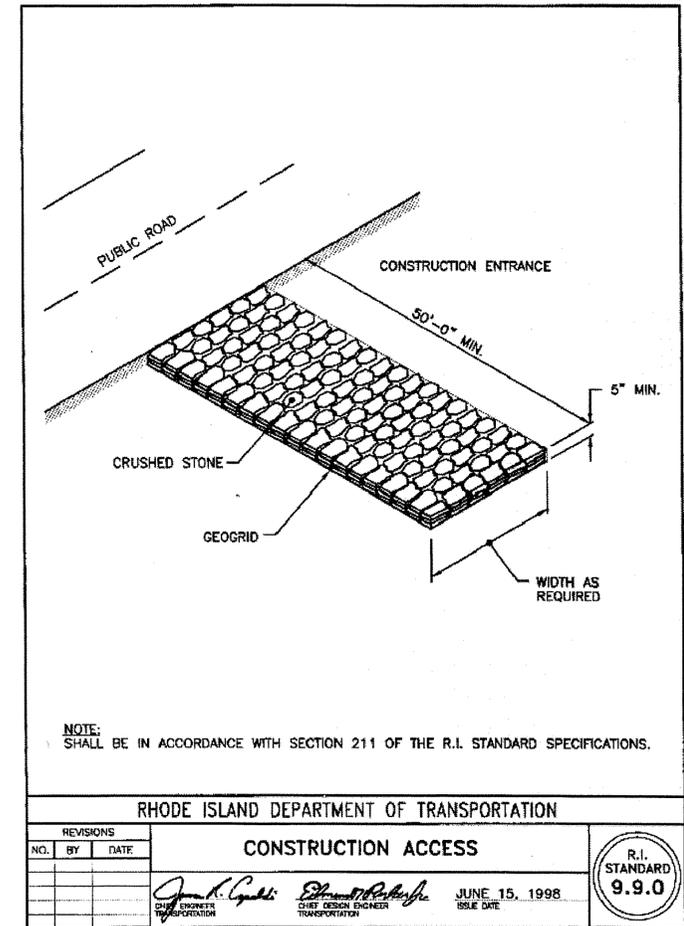
L.4



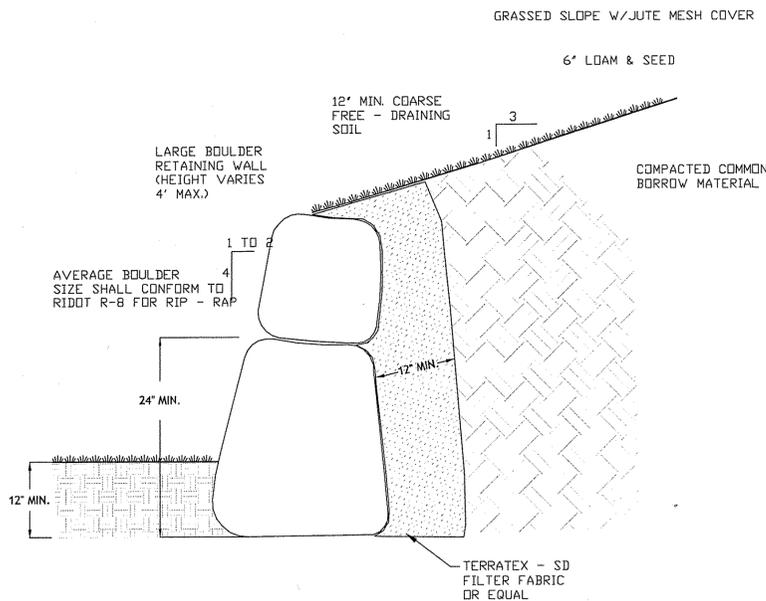
1 SILT FENCE DETAIL
L5 NOT TO SCALE



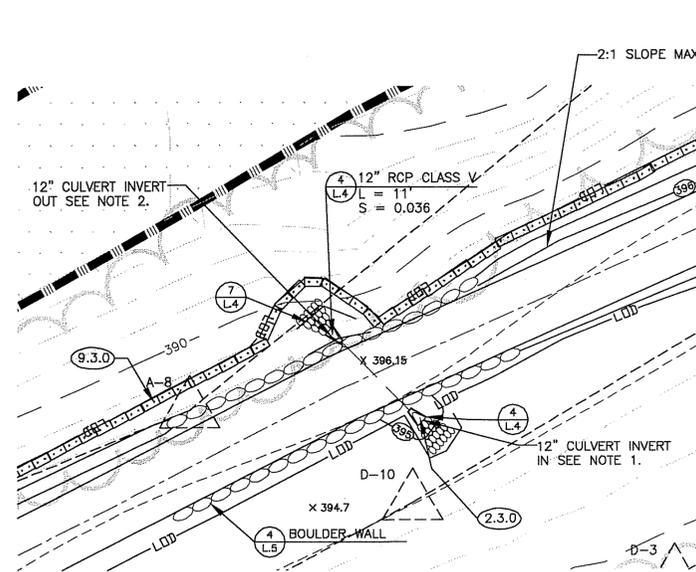
2 HAY AND SILT FENCE COMBINATION
L5 NOT TO SCALE



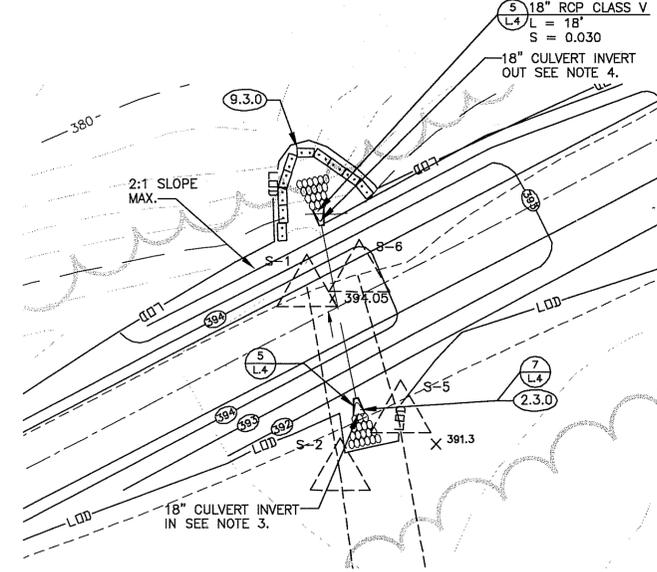
3 CONSTRUCTION ACCESS
L5 NOT TO SCALE



4 BOULDER RETAINING WALL DETAIL
L5 NOT TO SCALE



5 12" CULVERT PLAN
L5 1"=10'



6 18" CULVERT PLAN
L5 1"=10'

DAVID M. D'AMICO
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 9/24/08

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NOTE:

- PROPOSED CONCRETE FLARED END SECTION (SEE DETAIL) INV. IN = 394.40.
- PROPOSED CONCRETE FLARED END SECTION WITH RIP-RAP (SEE DETAIL) INV. OUT = 394.0
- PROPOSED CONCRETE FLARED END SECTION (SEE DETAIL) INV. IN = 391.54
- PROPOSED CONCRETE FLARED END SECTION WITH RIP-RAP (SEE DETAIL) INV. OUT = 391.0

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W. Judith Conroy

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Revisions: PERMITTING: SEPTEMBER, 2008

Job No: P-920
 Dwg No: L5
 Drawn: ALE/AR
 Checked: DSL
 Issued: MARCH, 2008

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 LANDSCAPE ARCHITECTURE
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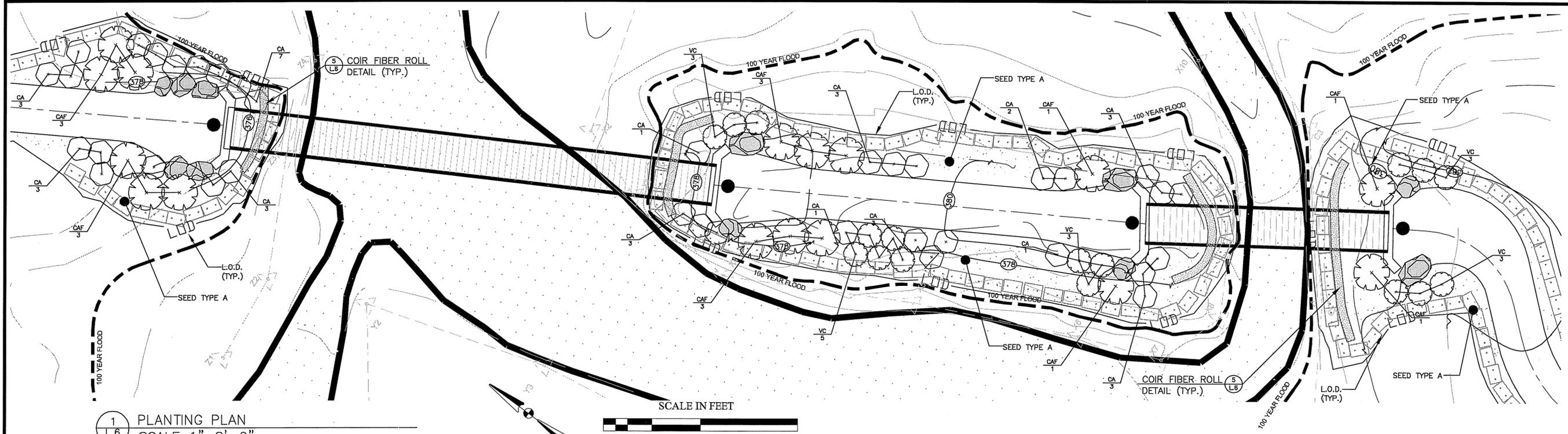
CDE
 CIVIL ENGINEER

SITE DETAILS
Chepachet River Park Design
 Village of Chepachet
 Town of Gloucester, Rhode Island

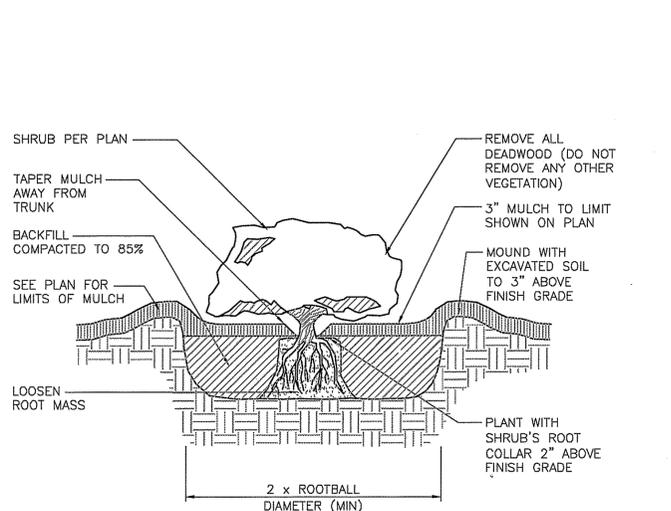
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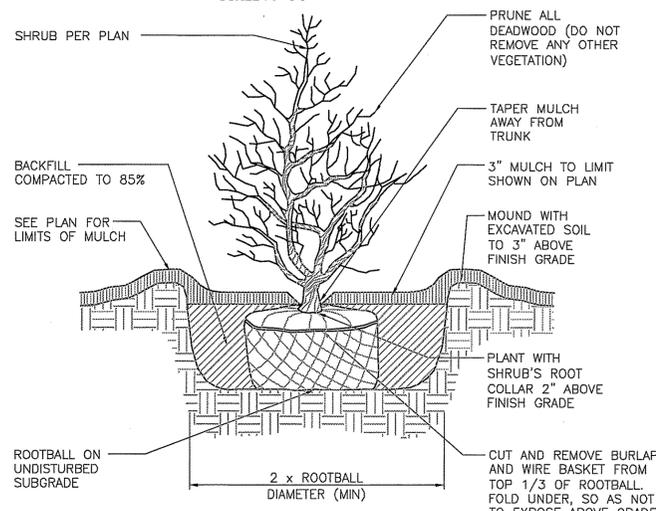
Sheet 6 of 10
 L5



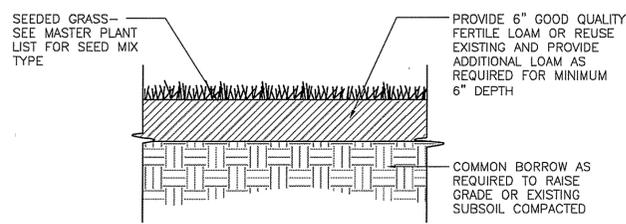
1 PLANTING PLAN
SCALE 1"=8'-0"



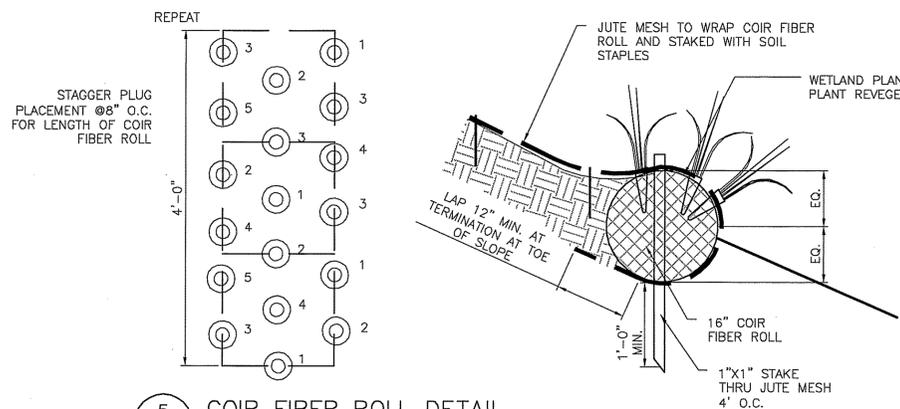
2 CONTAINER SHRUB PLANTING
SCALE 1"=1'-0"



3 CONTAINER SHRUB PLANTING
SCALE 1"=1'-0"



4 LOAM AND SEED: SEED TYP 'A'
SCALE 1"=1'-0"



5 COIR FIBER ROLL DETAIL
SCALE 1"=1'-0"

Key	Botanical Name Common Name	Qty.	Size	Notes
CAF	<i>Clethra alnifolia</i> Summersweet Clethra	16	2.5'-3'	B&B
CA	<i>Cornus amomum</i> Silky Dogwood	35	24"-30"	B&B
VC	<i>Vaccinium corymbosum</i> Highbush Blueberry	17	2.5'-3'	B&B

SEED TYPE	NAME	Qty.	APPLICATION RATE
SEED TYPE A	NEW ENGLAND WETLAND SEED MIX	2.70 ACRES	18 LBS/ACRE

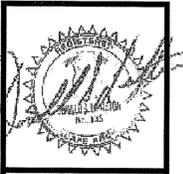
SPECIES:
 Fox Sedge (*Carex vulpinoidea*), Bearded Sedge (*Carex comosa*), Lurid Sedge (*Carex lurida*), Soft Rush (*Juncus effusus*), Grass-leaved Goldenrod (*Euthamia graminifolia*), Boneset (*Eupatorium perfoliatum*), Hop Sedge (*Carex lupulina*), Blue Vervain (*Verbena hastata*), Nodding Sedge (*Carex gynandra*), Green Bulrush (*Scirpus cyperinus*), Spotted Joe Pye weed (*Eupatorium maculatum*), Swamp Milkweed (*Asclepias incarnata*), Monkey Flower (*Mimulus ringens*), Soft-Stem Bulrush (*Shoenoalethes tabernaemontani*) (ex-S. validus), Hardstem Bulrush (*Shoenoalethes acutus*)(ex-*Scirpus acutus*), Nodding Bur Marigold (*Bidens cernua*), Flat-top Aster (*Asterumbellatus*).

Key	Botanical Name Common Name	Qty.	Size	Notes
1	<i>Carex Comosa</i> Bearded Sedge		Plug	Notes
2	<i>Eupatorium maculatum</i> 'Purpureum' Joe Pye Weed		Plug	Notes
3	<i>Iris versicolor</i> Blue Flag		Plug	Notes
4	<i>Juncus canadensis</i> Canadian Rush		Plug	Notes
5	<i>Lobelia cardinalis</i> Cardinal Flower		Plug	Notes

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 DATED DEC 9 2008 FILE # 08-0064
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
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 SEP 26 2008
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 OFFICE OF WATER RESOURCES



Not Issued For Construction
 Revisions:
 PERMITTING: SEPTEMBER, 2008
 Job No: P-220
 Dwg No: L.P. 6
 Drawn: ABE/AJR
 Checked: DSL
 Issued: MARCH, 2008

Gates, Leighton & Associates, Inc.
 LANDSCAPE ARCHITECTURE
 85-4 William Ave., East Providence, RI 02814 Ph: (401) 434-7511 E: info@gla.com
 CDE
 CONSULTING DESIGN ENGINEERS

LANDSCAPE PLAN
 Chepachet River Park Design
 Village of Chepachet
 Town of Gloucester, Rhode Island

Permitting Documents
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 Sheet 7 of 10
 L.6

INSTALLATION GUIDELINES FOR E.T. TECHNICS BRIDGE

For bridges shipped in component parts or partially assembled, E.T. Technics, Inc. shall provide assembly drawings and a recommended assembly procedure for building the bridge. Temporary supports or rigging equipment, if needed, is the responsibility of the client. For bridges shipped assembled, E.T. Technics, Inc. shall advise the client of the actual lifting weights, attachment points and all necessary information to install the bridge.

In Component Parts: This is our most common form of shipment. Components can be unloaded by as few as 2 workers, usually at the trail head or a nearby staging area. Because no equipment is required to unload, bridge arrival does not need to be coordinated with the bridge assembly. When you are ready for assembly, volunteers or park crews carry the components to the bridge site. No site is too remote. We often have components carried several miles or more on park trails. Once everything is at the bridge site, the bridge is easily assembled using standard hand tools. Short spans up to 40' can usually be built by as few as two workers, in less than a day.

Assembly Tools Required: Most bridges are constructed with no more than a socket wrench and a few common hand tools. All components arrive pre-cut and pre-drilled, and customized assembly instructions with drawings are provided to show exactly how to assemble the bridge onto your foundations. Typical connections are 1/2 inch diameter A307 hot dipped galvanized bolts. All hardware required to assemble the span is included with the shipment. Just line up the holes, insert a bolt, and tighten the nut.

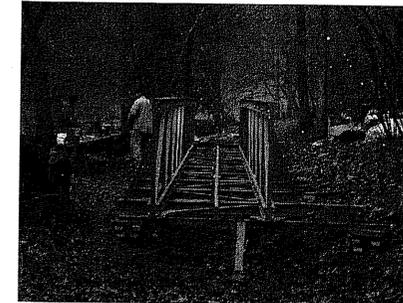
Long Spans on shallow sites -On shallow sites the easiest method is to construct several temporary supports in the scrubland using construction lumber, and then build the bridge in place. Bottom chords, posts, diagonals, and top chords are sequentially added until the bridge is fully constructed on your foundations. Then supports are removed and decking is added. A step-by-step set of assembly instructions will be provided, and this type of assembly is appropriate to volunteer groups with experience using hand tools. An 80' foot span can be easily assembled by this method, with a small work crew or volunteers in about 2-3 days.

Bridge Abutment Construction Sequencing

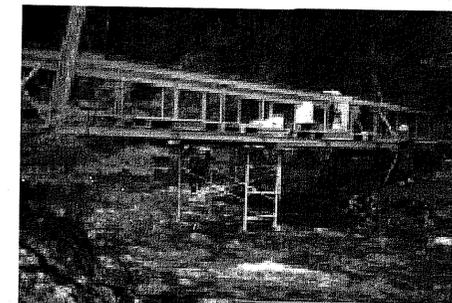
1. Rough grading for stone dust path to allow construction access to east bridge abutment of 30'span (Area 2 - see sheet 3 of 10 for area designations) and west abutment of 80' span (Area 4), from Putnam Pike and Oil Mill Lane.
2. A hydraulic excavator will excavate area number 2 for the east abutment of the 30' span.
3. A small trax skid steer with an auger attachment will be used to place helical piles for east abutment of 30' span.
4. Concrete formwork and steel reinforcement will be placed for 30' span east abutment area number 2.
5. Concrete will be poured using a concrete pump truck with boom.
6. 30' span east abutment will be backfilled and rough grading completed.
7. A hydraulic excavator with a 30' plus reach will excavate area number 1 30' span west abutment from 30' span east abutment area number 2.
8. Temporary Bridge to be placed to get to center island area number 1 west abutment. Temporary bridge to be specified by contractor.
9. A small trax skid steer with an auger attachment will go over temporary bridge and place helical piles for west abutment of 30' span.
10. Concrete formwork and steel reinforcement will be placed for 30' span east abutment area number 1.
11. Concrete will be poured using a concrete pump truck with boom.
12. 30' span west abutment will be backfilled and rough grading completed.
13. Bridge truss and decking to be fitted and placed by hand.
14. Small trax skid steer will conduct excavation at area number three 80' span east abutment.
15. A small trax skid steer with an auger attachment will be used to place helical piles for east abutment of 80' span.
16. Concrete formwork and steel reinforcement will be placed for 80' span east abutment area number 3.
17. Concrete to be poured by boom truck if complications arise due to obstruction of trees all concrete to be transported and placed manually.
18. 80' span east abutment will be backfilled and rough grading completed.
19. 80' west abutment to be installed with hydraulic excavator from area number 4.
20. Once completed a small trax skid steer with an auger attachment will be used to place helical piles for west abutment of 80' span.
21. Concrete formwork and steel reinforcement will be placed for 80' span east abutment area number 3.
22. Concrete will be poured using a concrete pump truck with boom.
23. 80' span west abutment will be backfilled and rough grading completed.
24. 80' Span to be pre-assembled in lay down area within area number 4
25. Pre-assembled bridge to be placed on temporary scaffolding system, supports are removed as decking is added.



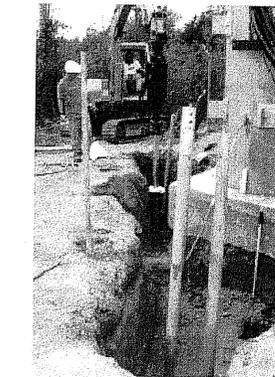
EXAMPLE OF HYDRAULIC EXCAVATOR USED FOR ABUTMENTS WITH 30' PLUS EXTENSION CAPABILITY



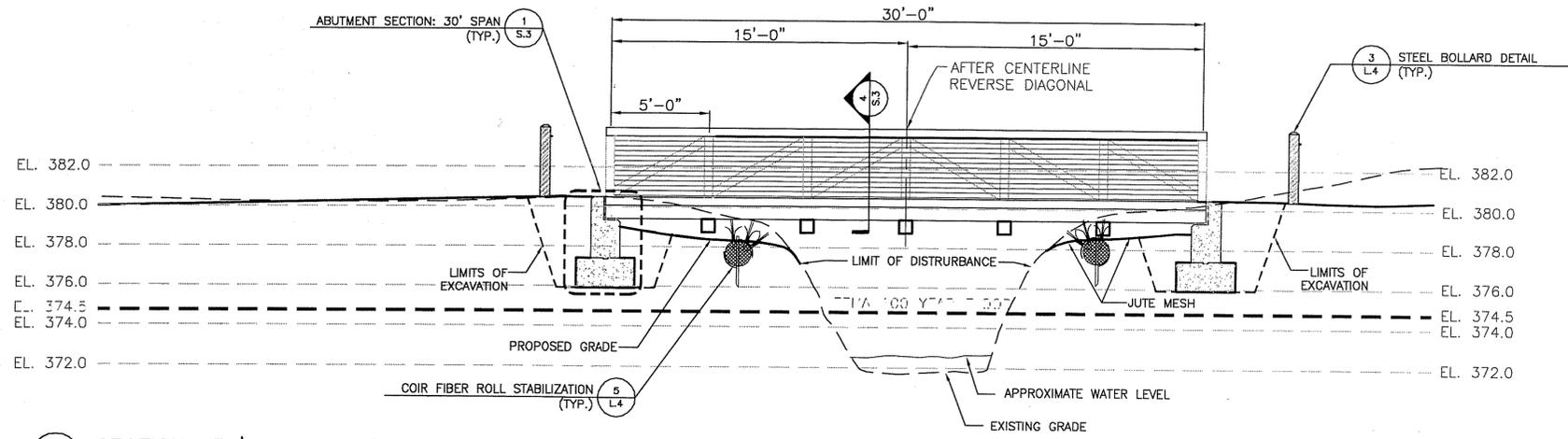
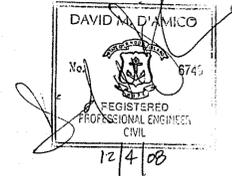
PRE-ASSEMBLED BRIDGE, WHEN THE BRIDGE IS DELIVERED AS COMPONENT PARTS NO PIECE WEIGHS MORE THAN 90 LBS.



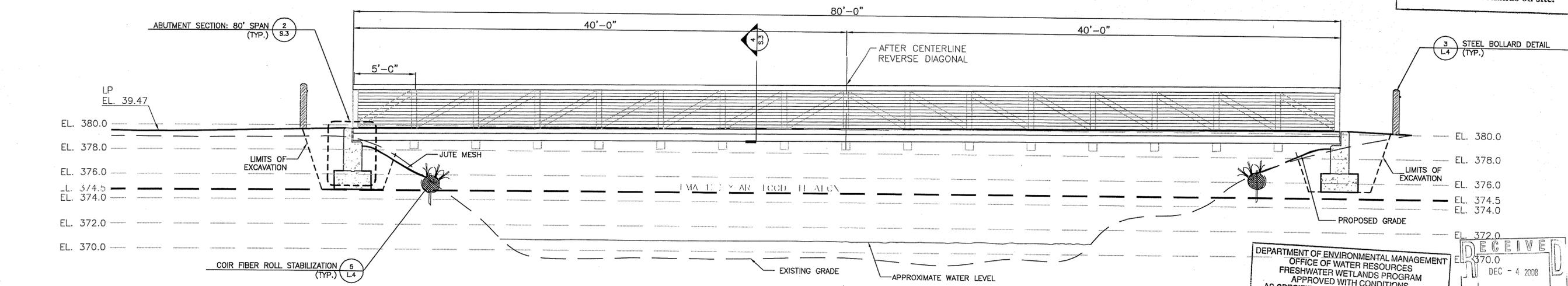
ASSEMBLY OF BRIDGE USING TEMPORARY SUPPORTS, TIMBER IS COMMONLY USED AS THE MATERIAL FOR THESE SUPPORTS



EXAMPLE OF SMALL TRAX SKID STEER WITH AN AUGER ATTACHMENT TO DRIVE HELICAL PILES



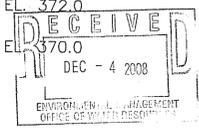
1 SECTION: 30' SPAN
S.3 SCALE 1/4" = 1'-0"



2 SECTION: 80' SPAN
S.2 SCALE 1/4" = 1'-0"

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FRESHWATER WETLANDS PROGRAM
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DATED DEC 22 2008 FILE # 08-002
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
W. Joseph Cheng



Not Issued For Construction

Revisions:	PERMITTING: SEPTEMBER, 2008
	PERMITTING: DECEMBER, 2008

Job No: P-920	Drawn: A/E/A/R
Dwg No: S.2	Checked: DSL
Issued: MARCH, 2008	

Gates, Leighton & Associates, Inc.
LANDSCAPE ARCHITECTURE
885-A Wilburton Ave., East Providence, RI 02914 (401)934-2071 Fax: (401)934-2011 E-mail: gl@a-g-l.com

DAVEY ASSOCIATES INC.
LANDSCAPE ARCHITECTURE
1000 WASHINGTON ST. SUITE 200
PROVIDENCE, RI 02902

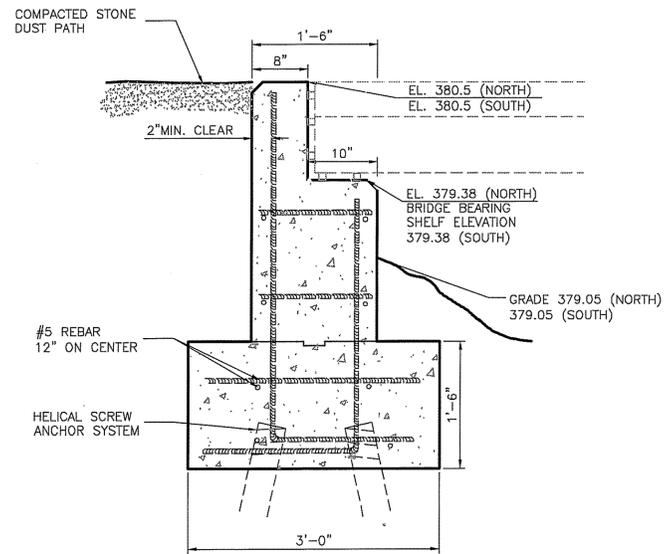
CDE
CONSTRUCTION DOCUMENTS

BRIDGE SECTIONS:
80' SPAN AND 30' SPAN
Chepachet River Park Design
Village of Chepachet
Town of Gloucester, Rhode Island

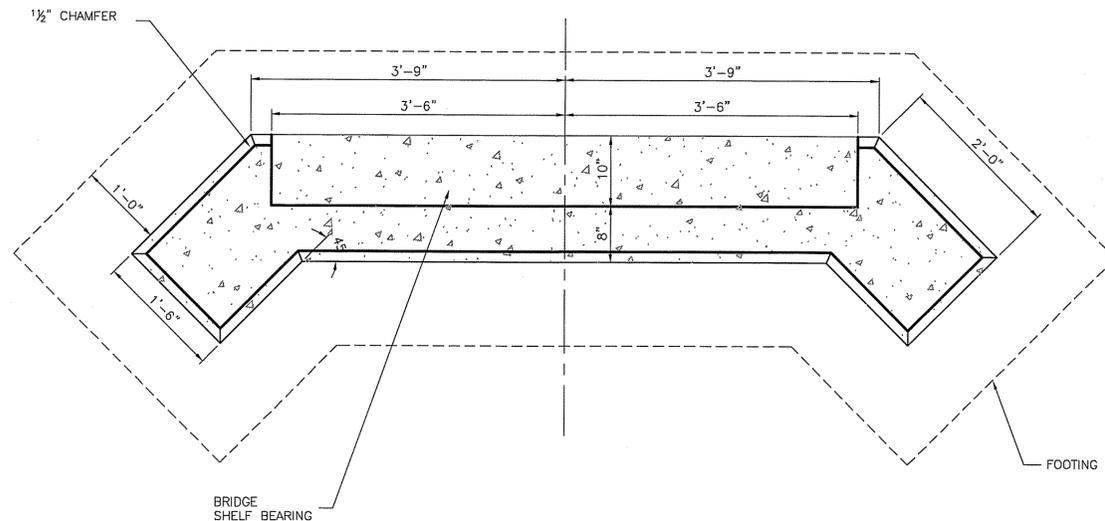
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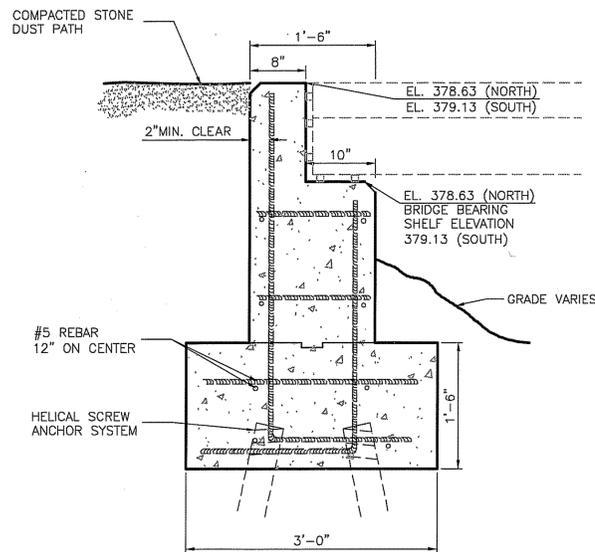
Sheet 9 of 10
S.2



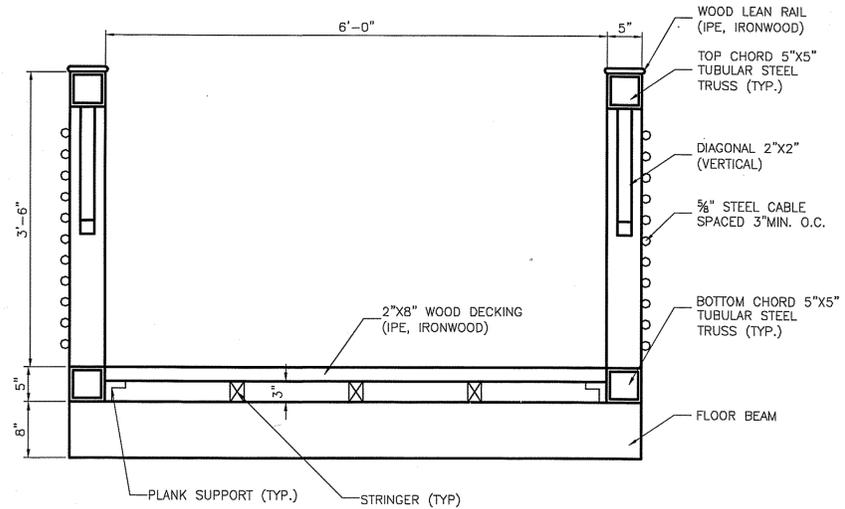
1 SECTION: 30' ABUTMENT
S.3 SCALE 1"=1'-0"



3 BRIDGE ABUTMENT PLAN (TYP.)
S.3 SCALE 1"=1'-0"



2 SECTION: 80' ABUTMENT
S.3 SCALE 1"=1'-0"



BRIDGE
TYPICAL SECTION DETAIL
NOT TO SCALE

4 BRIDGE SECTION (TYP.)
S.3 SCALE 1"=1'-0"

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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W. Joseph Conroy

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SEP 25 2008
ENVIRONMENTAL PLANNING
OFFICE OF WATER RESOURCES



Not Issued For Construction
Revisions: PERMITTING: SEPTEMBER, 2008
Job No: P-200 Dwg No: S.3 Drawn: A/B/A/R Checked: DSL Issued: MARCH, 2008

Gates, Leighton & Associates, Inc.
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100 WEST STREET, SUITE 200
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ABUTMENT DETAILS AND PLANS
BRIDGE SECTION
Chepachet River Park Design
Village of Chepachet
Town of Gloucester, Rhode Island