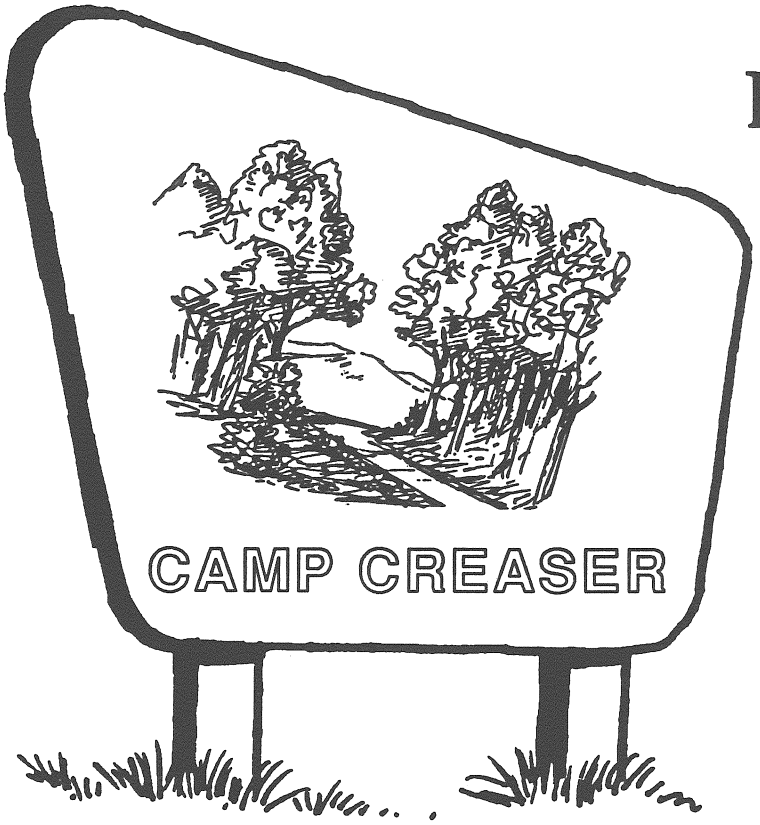


Environmental Interpretive Center

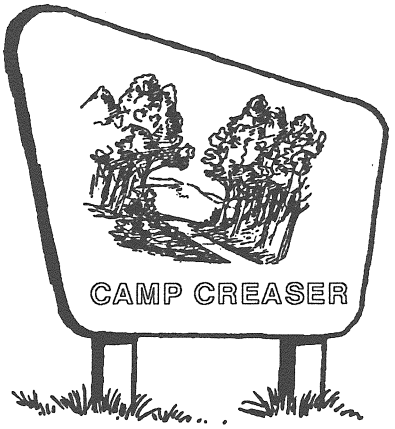
Coventry, Connecticut

March 1996

EASTERN CONNECTICUT ENVIRONMENTAL REVIEW TEAM REPORT

Eastern Connecticut Resource Conservation & Development Area, Inc.

Camp Creaser
Environmental Interpretive Center
Coventry, Connecticut



Environmental Review Team Report

Prepared by the Eastern Connecticut Environemntal Review Team
of the Eastern Connecticut Resource Conservation and Development Area, Inc.

for the

Town Manager
Coventry, Connecticut

March 1996

CT Environmental Review Teams
1066 Saybrook Road
P.O. Box 70
Haddam, CT 06438
(860) 345-3977

Acknowledgments

The Eastern Connecticut Environmental Review Team Coordinator, Elaine Sych, would like to thank and gratefully acknowledge the following Team members whose professionalism and expertise were invaluable to the completion of this report.

The field review took place on Thursday, November 16, 1996.

David Askew	District Manager Tolland County Soil and Water Conservation District (860) 875-3881
Nicholas Bellantoni	State Archaeologist Connecticut State Museum of Natural History (860) 486-5248
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Peter Picone	Urban Wildlife Biologist DEP - Sessions Woods WMA (860) 675-8130
Julie Victoria	Wildlife Biologist DEP - Franklin Wildlife Management Area (860) 642-7239

I would also like to thank Town Manager John Elsessor, Coventry Grounds Facilitator Charles Conkling, Town Planner Eric Trott, Recreation Director Mark Paquette and Denise Conkling representing "Friends of Camp Creaser" for their cooperation and assistance during this environmental review.

Prior to the review day, each Team member received a summary of the proposed project, and location and soils maps. During the field review the Team members were able to view additional maps and photos at the town hall. The Team met with and were accompanied by town officials. Following the review, reports from each Team member were submitted to the ERT coordinator for compilation and editing into this final report.

This report represents the Team's findings. It is not meant to compete with private consultants by providing site designs or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project - all final decisions rest with the Town. This report identifies the existing resource base and evaluates its significance to the proposed development, and also suggests considerations that should be of concern to the Town. The results of this Team action are oriented toward the development of better environmental quality and the long term economics of land use.

The Eastern Connecticut RC&D Executive Council hopes you will find this report of value and assistance in making your plans for this proposed environmental interpretive center.

If you require additional information please contact:

Elaine A. Sych, ERT Coordinator
CT ERT programs
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Table of Maps and Illustrations

Introduction

An environmental review was requested by the Coventry Town Manger for the Camp Creaser property to aid the town in the planning and development of a regional environmental interpretive center.

Camp Creaser is a 57 acre parcel that has been leased by the town from the CT Department of Environmental Protection. The camp is located on Case Road and is bordered by state forest, residential homes and a small farm. The terrain varies from flood plain along the Skungamaug River to upland forest with ledge outcroppings. Also on the site are two ponds. Originally a dairy farm the site was used as a CT Department of Mental Retardation summer camp and those buildings and improvements still exist.

The town is proposing to use the camp as an environmental interpretive center which could be used by the Windham region. They envision a variety of recreational and educational opportunities including picnicking, hiking, camping for scout groups, nature trails, fishing, bird watching and maple sugaring. They plan to renovate the existing facilities to include an interpretive center and a restroom. The town plans to improve the access road and parking, to construct nature/hiking trails and to establish a picnic area with a pavilion. The site is handicapped accessible with some paved walkways and handrails.

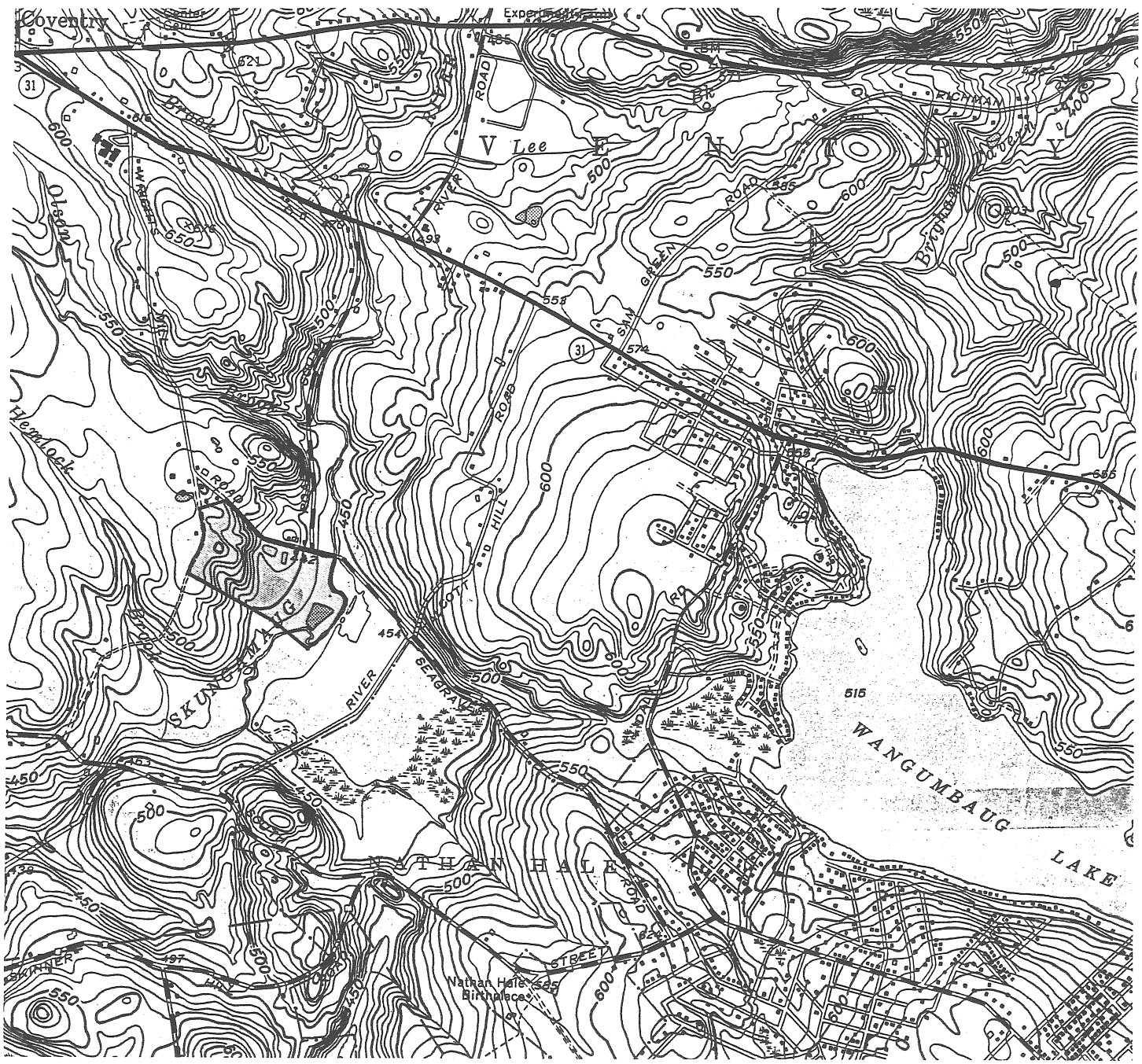
The following sections of the report include a discussion of the resources on site and include recommendations for site development, highlight areas of concern and discuss educational possibilities.

Location Map

N

Scale 1" = 2000'

Approximate Site



Geology

Bedrock Geology

The area is underlain by interlayered dark grey schists and greenish grey, fine to medium grained calc-silicate gneisses, both of which are considered to be Silurian (440 million to 480 million years old) in age (Rodgers, 1985). The bedrock is very close to the surface on the hillsides, and many outcrops can be seen. A thin (0 to 10 feet) discontinuous blanket of poorly sorted glacial till covers much of the bedrock on the steep hillsides but many outcrops remain visible. The foliation, a prominent plane of weakness of the rocks, dips uniformly at 43° to the northwest.

Topography and Hydrology

The topography of the area is strongly influenced by NW and NE trending fractures in the underlying bedrock. Taking advantage of these fractures preglacial weathering and subsequent glacial action eroded the deep, 4000 by 3000 foot rectangular bedrock basin now delineated by the extensive wetlands SW of the review site. These wetlands are underlain by at least 10 feet of glacial-lake clays. The flat lying area of the site of the proposed environmental interpretive center is actually part of a pro-glacial lake bottom, that formed in the bedrock basin as a result of the last glaciation 15,000 to 18,000 years ago. A bedrock ridge along South River Road dammed the Skungamaug River in the vicinity of Bishop Lane. Eventually the river managed to cut a ravine through the ridge and the lake drained, leaving the wetland area of today. Before its dam was breached a small delta built out into the northwestern corner of the lake depositing sands and gravel on top of some of the finer grained lake bottom sediments. The hummocky area at the entrance to the site is underlain by these deltaic sediments.

The hydrology of the area is controlled by the bedrock fractures of the surrounding basin walls, as well as the bedrock's close proximity to the surface. These upland areas provide the basin with a recharge source for groundwater.

Geologic Recommendations

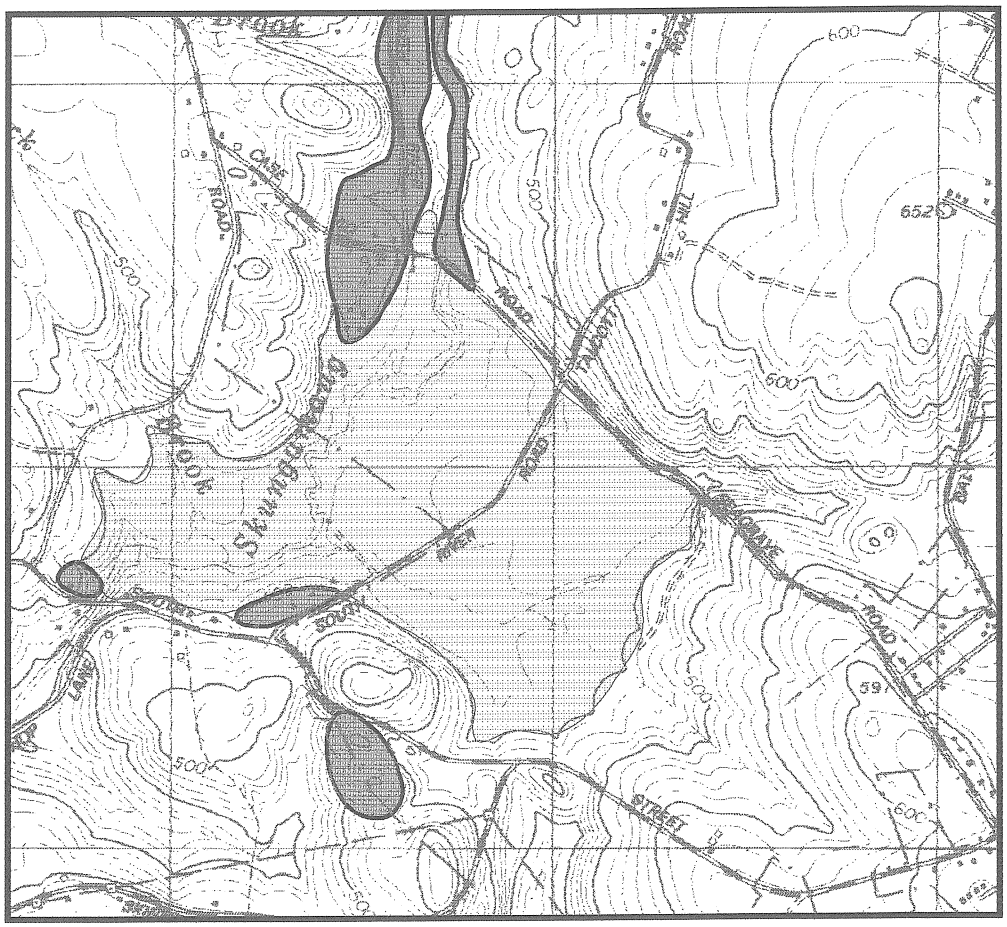
The topography and geology of the area provide a picturesque setting for an environmental center. Given the post-glacial history of the site, a display combining actual sediment cores and a series of panoramic views of the area covered first by ice, then by an extensive pro-glacial lake which was slowly filled by deltaic and lake bottom sediments, and then finally drained to form the wetlands of today would be an informative display for the interpretive center.

References

Rodgers, John, 1985. Bedrock Geologic Map of Connecticut. Connecticut Geological and Natural Resources Center, Department of Environmental Protection.

Stone, Janet R., Schafer, John P., London, Elizabeth H., Thompson, Woodrow B., 1992. Surficial Materials Map of Connecticut. Connecticut Geological and Natural Resources Center, Department of Environmental Protection, USGS.

Surficial Geology of the Skungamaug River Valley-South River Road Area



Scale

2000 ft

Glacial Lake bottom silts and clay overlain by 0 -10 ft feet of peat and/or post-glacial sandy alluvium

Stratified coarse sands and gravels, deposited as glacial deltas and kames

Soil Resource and E&S Control Information

Soils

The soils as mapped in the Tolland County Soil Survey appear to be adequate for planning purposes. The soils present on this site can be broken down into two major groups: the well drained Charlton, Hollis, and Merrimac (used interchangeably with Agawam) soils in the upland areas, and the poorly drained Limerick and Saco in the low-lying wetland areas. Descriptions of these soils, including soil and water features, are attached to this report. Also included are the following: lists of hydric and Prime Farmland soils, tables delineating the limitations of the soils for recreational development, sanitary facilities, and building site development, and tables describing the potential for wildlife habitat and woodland management. Please note that some limitations labeled as "severe" do not preclude the use of the land for development, but it may mean the need for special design, significant increases in construction costs or possibly increased maintenance.

Erosion and Sediment Control

At present there are no apparent serious erosion problems aside from the areas of minor streambank instability due to natural causes (animal burrows, water currents). In developing the site as an interpretive/recreational facility, the following should be considered:

1. Streambank stability. Maintain a native vegetative buffer including shrubs and grasses along the streambank. Currently there is a 5-10 foot buffer between the open meadow and the Skungamaug River. This buffer should be increased to also provide additional wildlife cover. The Team fisheries biologist recommends a 50 foot buffer. Provide several small cleared viewing sites that are cut perpendicular to the river and that will limit access. Avoid locating trails in areas subject to flooding.

2. Pond shore stability. The bank of the pond is steep and eroded in a few areas. Maintain a native vegetated buffer around the pond perimeter, especially on the embankment slopes. Provide several stable fishing areas, wooden platforms or other stable structures may be appropriate to provide shore protection. Control invasion of the pond embankment by tree species. Large trees are prone to windthrow, and threaten the integrity of the dike.

3. Trail erosion. When building or upgrading a hiking/nature trail system, avoid creating long, steep sections of trail. A "switchback" configuration may help to reduce erosion due to foot traffic. Water bars can be used to shorten the flow length of runoff on the trail, and to prevent concentrated flows on the path. Trails along wetland areas should be located along the periphery, where soils are not permanently saturated. Refer to publications by the Appalachian Mountain Club for more information on trail building and maintenance.

4. Parking areas. Gravel or grassed parking areas will allow infiltration of stormwater, reducing the amount of runoff leaving the area. Parking areas should be created in well drained areas using a pervious gravel base. To maintain the integrity of grassed or gravel lots, the installation of a manufactured ground reinforcement mesh beneath the gravel base is recommended.

5. If the sand beach is not going to be used as part of the overall program for the center, it is recommended that the sand be removed and the area stabilized with vegetation. Sand from the beach has alreday washed into the pond in near-shore areas.

Other

Mowing the hay field once a year will control invasion by woody vegetation. Mow in late winter. Consider mowing one half or one third of the field each year, allowing other areas to be wild. Rotate mowed sections each year. (Also see Wildlife Resources section.)

Locate future tenting sites, pavilions, etc., on well drained soils. The area of he parcel mapped as Merrimac (MrB) will probably be most suitable.

The presence of twelve foot high Elaeagnus sp. (Russian olive) shrubs on the septic system leachfield suggests that the system may no longer be functional. This should be determined by a qualified sanitarian. Shrubs can be eradicated chemically (following the recommendations of the University of Connecticut Cooperative Extension System) to kill the root systems and prevent re-sprouting. Removal using heavy equipment is appropriate if the system will be replaced.

Tenting activities on top of a leaching field are acceptable as long as the system is functioning properly, and no heavy equipment is driven on the site.

There are a number of isolated wetlands that may function as vernal pool habitat. The wetlands should be observed in the spring for the presence of species that are dependent on vernal pools.

Soils Map

N

Scale 1" = 1320

Approximate Site

SOIL MAP LEGEND

Camp Creaser

Map symbol	Soil name
CrC	Charlton very stony fine sandy loam, 3 to 15 percent slopes
HrC	Hollis very rocky fine sandy loam, 3 to 15 percent slopes
HrE	Hollis very rocky fine sandy loam, 15 to 35 percent slopes
Lm	Limerick silt loam
MrB	merrimac fine sandy loam, 3 to 8 percent slopes
Sb	Saco silt loam

Vegetation

Type 1: Riparian Zone. Vegetation found within 50 feet of the Skungamaug River includes: red maple, willow, speckled alder, bittersweet, red osier dogwood, multiflora rose, autumn olive, golden rod, high bush blueberry, grape, tartarian honeysuckle, elm, blackberry, sumac, bayberry, cherry, red cedar, and poison ivy. Vegetation around both ponds and two wetlands is similar and with the addition of spicebush, sweet pepperbush and winterberry in wooded areas.

Type 2: Oak-hickory. This area is the lowland west of the large pond and river. Tree species include oaks, hickory, sugar maple, red maple and white pine. Trees in the area overtop buildings on site and provide shade in a high activity area. Special considerations will be taken into account regarding vegetation in this area. Understory vegetation is viburnum, spicebush, and poison ivy.

Type 3: Mixed Hardwoods. This is a typical upland mixed hardwood area displaying a variety of tree species as it progresses from pasture to forest. Species on site are black, red and white oaks, white pine, red and sugar maple, black and yellow birch, white ash, American beech, white birch, hickory, aspen and hemlock. The area is uneven-aged with evidence of past uses and weather events, i.e. 1938 hurricane, lightening damage, and fire scars. The understory includes American chestnut, hazelnut, viburnum, raspberry, blackberry, witch hazel, winterberry, spicebush and sweet pepperbush.

The trees in vegetation Type 2 completely shade the existing buildings in this area. This will increase humidity around the structures causing mildew and water stains on roofs and walls. Several dead branches occur in the trees causing a hazard for people using the area, especially during windy or icy conditions. Tree roots are also exposed creating walking hazards and opening the trees up to insect and disease infestations. Increased activity will result in further soil compaction and reduced tree health and vigor from reduced oxygen/carbon dioxide exchange and water absorption to tree roots. Some solutions to these situations include: 1) select well rooted single stemmed, well spaced species (oak, hickory, sugar maple, and white pine) for retention in the area; 2) prune dead limbs out of trees retained on the site; 3) remove trees from overtopping the buildings; 4) remove red maple clumps and crooked trees; 5) no nails in trees; 6) wood chips over exposed roots; 7) designated walking paths; and 8) limited and contained fires, if fires are allowed at all.

The riparian zone along the Skungamaug River could be widened to protect the water resource. Trees could be planted along the field edge. Trees to plant include white pine, white spruce, and northern or Atlantic white cedar. A planting might be expanded to include a wide variety of species as a trail side arboretum. Trees could be labeled identifying each species. Trees can be used for a roadside buffer. One suggestion would be to plant 4 (four) foot tall white pine and larch staggered at 15 (fifteen) foot intervals to screen the area, yet allow a view from the road for security.

In vegetation Type 3, upland hardwoods, there is an opportunity for trails to meander over the higher ground and illustrate vegetative succession, forest management, upland wetlands, wildlife habitat, land use history, and scenic conditions with possible vistas. Trails should be constructed to specifications that match the intent and purpose of the center. The cover page and enclosures to the Appalachian Mountain Club Field Guide to Trail Building and Maintenance are enclosed for preliminary guidelines (see Appendix). Be sure to define trail use and restrictions so incompatible uses do not occur. Having trails follow higher ground will improve drainage and reduce maintenance due to erosion. Trails in a valley tend to collect water and build erosive power in loosened soils. Trails along the Skungamaug River flood plain would be on flat ground, easily accessible and short distances. They will need to be designed to accommodate seasonally wet soils, streams and/or wetland crossings, and carry appropriate restrictions also.

It does not appear that fire access roads, with an 8 foot wide road bed and slope restrictions are appropriate. Restricting fires will reduce forest fire risk and water is nearby. However, the homes along Wrights Mill Road are on the upper slope along the wildlife-urban interface so precautions against forest fire should be an important priority.

An environmental interpretive center in this area can be a benefit to the community. The center should be self-contained so as not to mix with less compatible uses on adjoining state forest land where hunting, wildlife and forest management have high priority. Plan trail purpose and design with restrictions (such as limited to foot traffic only). Do not attempt to combine several incompatible uses into too small an area, i.e. wilderness camping and outdoor classroom. Also, plan to initiate programs sequentially over a 5-10 year time frame. Prioritize programs, needs, work to do, and schedule appropriately. Several natural resource concepts can be illustrated on this property. With proper planning a positive experience can be attained by people using the facility.

Fisheries Resources

The property borders the Skungamaug River, a major tributary of the Hop River. This stream is managed as a put-and-take coldwater fishery by the DEP Fisheries Division being annually stocked with over 3,370 adult (9-12") brook, brown and rainbow trout. This resource was last sampled by the Fisheries Division on 6/20/94 along a 150 meter stretch downstream below the Case Road bridge crossing. In addition to stocked trout, the survey documented abundant populations of blacknose dace, fallfish, white sucker, and common shiner. Warmwater fish such as bluegill were also documented.

The main pond on the property contains a diversity of deep and shallow water habitat. The pond has an abundant and diverse warmwater fish population. Species known to inhabit this pond include: largemouth bass, chain pickerel, yellow perch, pumpkinseed, bluegill sunfish, brown bullhead and golden shiner. The small pond next to Case Road also supports a warmwater fish community.

Recommendations

1. The bypass pond, since it receives flow from the river, appears to be free of nuisance types and growth of aquatic vegetation; thus, aquatic weed management is not an issue in this pond. The smaller pond next to Case Road has a build up of phragmites along its perimeter which is limiting access to the pond. If this pond is to be developed for recreational purposes, weed control should be considered. Although phragmites is difficult to control, manual removal may be the best alternative at this location.

2. Coldwater species such as trout could be stocked into the main bypass pond during early spring utilizing a "put-and-take" strategy in which most fish would be harvested from the pond before environmental conditions became unsuitable for survival. Removal of fish can be enhanced by holding a children's fishing derby. This management strategy will limit the number of fish living in the pond during the summer; hence, minimizing fish mortalities due to warm water temperatures. A total of 100-150 adult rainbow and brook trout are recommended.

3. The main pond has good fishing access with a handicapped accessible ramp down to the water's edge near the southwest corner of the pond. Unfortunately, this section of the pond is very shallow and does not offer the best location for handicapped fishing opportunities. If handicapped fishing is being considered, a fishing pier is recommended that would be located near the northeast corner of the pond. The northeast corner contains deeper water habitat more likely to produce fish and increase fishing success.

4. Development of the hayfield next to the Skungamaug River has led to a very narrow strip of riparian vegetation along the river. It is recommended to maintain a 50 foot vegetated riparian buffer along the river in this area to restore lost riparian function. To accomplish this objective, riparian plantings will have to be established along the

field edge. Plantings of conifer are most desirable and would include such species as white pine and white spruce (refer to forestry report).

5. The Skungamaug River and the two ponds on the property could serve as a valuable ecological study area. Aspects of stream ecology such as water quality and the aquatic invertebrate community could be monitored in the river. Identification of streamside riparian vegetation and the important role riparian ecosystems play in protecting watercourses could also be studied. The two ponds provide multiple opportunities to study the pond eutrophication or aging process through water quality analysis. Identification, abundance, and life history of aquatic vegetation, zooplankton, phytoplankton, and fish populations could be investigated. Food web and trophic relationships could be identified. Water quality and aquatic community comparisons could be made between stream and pond habitats.

Wildlife Resources - With an Emphasis on Educational Opportunities

The 57 acre Camp Creaser property contains a variety of wildlife habitats which can serve well as an outdoor education area. Time constraints did not permit a thorough field evaluation of this property. This report will focus on making recommendations on the following questions that relate to wildlife habitat and education.

1. What are some of the concepts, habitat features, or points of interest that may be valuable for incorporating into an educational curriculum as part of the nature trails/ outdoor classroom?

2. What are some "hands on" wildlife management techniques that can be employed to enhance the habitats and also serve as an educational experience?

3. What are some practical censusing techniques that can be undertaken on a seasonal basis to learn about the wildlife use of the property?

Concepts, Habitat Features and Points of Interest

A trail system should revolve around the theme that wildlife need food, water, shelter, and space to survive. The following are examples of wildlife components that can be identified on the property through interpretive methods:

Food/Cover Habitat Components	Some Examples
Summer foods and cover plants	highbush blueberry, huckleberry, raspberry
Spring and Summer seeds	silver maple, red maple, American elm
Fall Foods and cover plants	arrowwood, viburnum, silky dogwood
Winter foods and cover plants	red cedar, highbush cranberry, viburnum
Conifers and evergreens	Eastern hemlock, white pine, mountain laurel
Nut and acorn-bearing plants	white oak, shagbark hickory
Grasses and forbs	little bluestem, golden rods
Nectar plants for hummingbirds	jewelweed, tulip tree
Nectar plants for butterflies	milkweed, asters

Structural Habitat Components	Some Examples
Dead or decaying trees	snags, den trees, hollow logs
Nest box placement	bluebird, screech owl, squirrel, wood duck
Brush piles and rock piles	materials from cut non-native brush
Water sources	ponds, streams, vernal pools, artificial pools
Dust and grit areas	natural or man-made
Artificial feeders	Suet feeders, hummingbird feeders
Salt licks and mineral licks	Naturally occurring or man-made
Unique caves or crevices	Naturally occurring: geologic, wildlife-made

The various components of habitat listed above can be identified along the trails edge with markers and their seasonal food value and/or structural value can be explained to the user. Trail guides or trail signs can be used to convey messages to the user. Each category has only a few examples of each component.

"Hands On" Wildlife Habitat Management

Some of the structural habitat components can be constructed. Some habitat components can be established by managing the vegetation through cutting or planting.

Construction:

- building nest boxes, placing in appropriate habitats, and maintaining them seasonally
- constructing brushpiles using cut brush, used Christmas trees, and/or rocks
- constructing artificial feeders

Planting or cutting vegetation:

- planting appropriate native trees and shrubs to enhance seasonal food sources
- cutting out non-native invasive plants
- girdling appropriate trees to create snags
- cutting appropriate trees to increase understory vegetation and berry production
- mowing some areas to maintain grasses and forbs and field habitat

Practical Wildlife Censusing Techniques

Censusing wildlife on the property can document basic information about the presence of the wildlife, but it can also teach visitors about practical wildlife techniques. It teaches the value of record keeping, identification of wildlife (directly and indirectly) and helps them to understand the dynamic nature of wildlife.

Establish transect lines:

- lines can be walked following snow fall or seasonally to record tracks, droppings, sounds, or visual sitings of wildlife
- small mammal traps (DEP permit needed) can be set along transect lines in varying habitats

Locate nests and other important wildlife occurrences:

- seasonally locate nests and plot on habitat maps
- locate vernal pools and document use

Spotlight fields:

- spotlight field edges with hand-held light to document deer use and presence

Maintain records:

- maintain accurate field notes and records on a seasonal and annual basis

Owl hooting survey

- seasonal owl hooting survey and documentation

Christmas bird count:

- annual survey of wintering birds

The techniques and ideas mentioned in this report are only a handful of recommendations that apply to wildlife resources education. Some of the techniques and procedures require the assistance of a trained wildlife biologist and the Team wildlife biologist is available to provide technical assistance upon request.

Other Recommendations for the Property

The riparian zone along the Skungamaug River should be enlarged to include a larger wooded buffer zone. A larger wooded buffer can increase salamander and reptile habitat as well as foraging corridors for other river-associated wildlife.

The invasive non-native shrubs (multiflora rose and autumn/Russian olive) that are presently over-taking the pond area should be removed and replaced with native plants (silky dogwood/winterberry for the moist sites; and gray dogwood, elderberry, blackberry, raspberry, arrowwood/highbush cranberry/nannyberry, viburnums and pasture rose).

Field mowing should be done preferably on an annual basis to prevent woody plants from establishing (once a year in the late winter so that that overwintering wildlife have forage, seeds and/or cover). If haying is allowed then it should not be allowed until after July 1 to reduce ground nesting losses.

Demand for Wildlife-Based Education

In a survey of residents in five metropolitan areas of New York state, 96 percent of the respondents indicated that it was important for their children to learn about nature and 73 percent were interested in wildlife in their backyard or neighborhood area (Brown et al. 1979). The Camp Creaser property offers the opportunity for the Coventry area to have an outdoor interpretive area which can assist citizens in learning more about the natural environment and the habitats right in their own backyards.

For those on the planning committee for this property, the Team wildlife biologist recommends visiting the Sessions Woods wildlife management area in Burlington. The DEP wildlife division has developed a demonstration area which citizens can visit to gain insight on practical wildlife habitat techniques that can be employed on a small or large scale. There are two self-guided trails that can be walked on the property. Please write the DEP Wildlife Division at P.O. Box 1550, Burlington, CT 06013 or call 860-675-8130. The Team wildlife biologist is available for further consultation upon request.

Literature Cited

Brown, T.L., C.P. Dawson, and R.L. Miller. 1979. Interests and attitudes of metropolitan New York residents about wildlife. Transactions of the North American Wildlife and Natural Resource Conference. 44: 289-297.

The Natural Diversity Data Base

The Natural Diversity Data Base maps and files regarding the project area have been reviewed. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at the site. However, our information indicates that a State Species of Special Concern *Thamnophis sauritus* (Eastern ribbon snake) may occur in close proximity to this site.

Eastern ribbon snakes inhabit areas with shallow water, grassy or shrubby areas bordering streams and wooded swamps. They also prefer sunny areas with low dense vegetation near shallow water areas. Their diet consists of insects, fish, frogs, salamanders and toads.

The Wildlife Division has not made an on-site inspection of the project area nor been provided with details or a timetable of the work to be done. Since this site is to be used as an environmental interpretive center, it is recommended that any suitable Eastern ribbon snake habitat be surveyed, enhanced and/or set aside to benefit this species and the public that may observe it.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Park Planner Review

Camp Creaser's fifty seven acres affords an opportunity to educate the public to a variety of ecological systems. Any development should be low key and sensitive to the surroundings. It is important to limit vehicle access to the arrival process, there should be no intrusion past that point.

Modification should be made to the current entrance and parking; the drive in should culminate in a turnaround (drop off area for school groups). Pea stone surfacing is not handicapped accessible, a more angular stone that locks in place is somewhat easier to traverse. A combination of surfaces could be explored; the travel way could be bituminous concrete with the parking stalls in gravel or a grass paver.

The main trails from the drop off point should be bituminous (quite a few exist with handrails - check heights, top should be 34-38" above finish grade) or crushed stone and under 5% slope (1' rise in 20' length) to avoid the installation of a handrail system. The secondary routes can have other surfacing but should be labeled at the head that they are of a steeper gradient and would present more of a challenge.

Handicapped trails must be a minimum of 36" wide and the slope can not exceed 1:20 (1' rise in 20'). If the route is less than 60" clear width, then passing spaces at least 60" x 60" should be located at reasonable intervals (not to exceed 200'). The surface of the path should be stable, firm and slip resistant. Rest areas should be provided at intervals of 200-300', out of the travel way and have benches. The "trail" around the pond could easily be upgraded for handicapped access. The soils were wet so any surfacing should have a filter fabric (ex. Mirafi) under it, stone dust surfacing (4" deep after compaction) of good quality is recommended; an upgrade would consist of seven (7) parts stone dust to one (1) part of portland cement (mixed dry and placed, watered down and compacted); the next upgrade would be to bituminous concrete. The Team park planner would advise leaving the hard surfacing to what already exists.

The best location for a pavilion would be in the wooded area between the buildings and the pond. There is quite a bit of dead wood in the area and selective clearing would be helpful. Included are suggested picnic site layouts, details of the State Parks standard table and fire ring, all handicapped accessible. The Parks Division also uses pedestal type grills (Pilot Rock #J20 and fire grills FS-30/18-PA. They are from R.J. Thomas Mfg. Co. 1-800-762-5002).

A nice area for group camping would be down near the bend in the river south of the existing buildings, it was reached by walking through the "forest" of Russian olive. It offers a more unique setting than other areas. A composting toilet unit would be useful due to the distance from the existing facilities.

The area of Russian olive should be investigated, if the septic system does underlie it, the area should be cleared!

Recreation should be limited. There is no reason to have more active sports in the park. If there is swimming at another town facility, it would be appropriate to close the beach to swimmers at Camp Creaser. The only activities that could be added would be interpretive signs along the trails, some viewing decks/blinds around the upper pond or along the river and some handicapped accessible fishing decks.

At several parks, wood posts with a routed letter or number serve as "points of interest"; a leaflet at the trail head has the correlating interpretive pieces. The system has worked well and a good portion of the leaflets find there way back to the box.

A word of caution in retrofitting the buildings, state code calls for a single user bathroom to have an emergency call button. If the buildings are only open when staff or town personnel are there this would not present a problem. If the toilets are open from 8-5 every day with no one on site, a liability issue could come in to play. If the latter is the case, it would be better to have restrooms with two or more stalls, then the call units are not necessary.

Any increase in use of the area will be noticed by neighbors. It would be beneficial to provide some natural screening (such as pines) to reduce any adverse effect.

Planning Comments

Consistence with State/Regional/Local Plans

State Plan of Conservation and Development, 1992-1997

Camp Creaser was formerly part of the Mansfield Training School (MTS) properties. Following the closing of MTS, ownership of the camp was transferred in 1992 to the Department of Environmental Protection. Effective as of that transfer, the parcel is considered to be "existing preserved open space" for the purpose of the State Plan of Conservation and Development. Development of the former camp as an environmental interpretive center would be consistent with this designation.

Regional Growth and Preservation Guide Plan for the Windham Region (1981)

The Camp Creaser site was used as a camp by the Department of Mental Retardation at the time that the Regional Guide Plan was prepared. In this plan, the site falls in a "Historic - Land Preservation District" and that portion of the site along the Skungamaug River lies in a "River Corridor Preservation District." Development of an interpretive center on the site would be consistent with the goals for land so designated under the Regional Guide Plan: preservation and passive recreation.

Coventry Plan of Development (1978)

The land use map accompanying Coventry's Plan of Development, adopted in 1978, shows the Camp Creaser site as open space, abutting additional open space to the southwest, south, and southeast (including the Skungamaug River and Nathan Hale State Forest to the south and southeast), and abutting rural density residential land along Wrights Mill and Case Road. The Plan lists the land along the Skungamaug River, among others, as important for preservation for the "scenic amenities, recreational opportunities, wildlife habitat and ...[for its] major role in controlling future surface and groundwater quality." The development of an environmental interpretive center and the passive recreation opportunities proposed for the site (hiking, picnicking, fishing, etc.) are consistent with the Plan's stated natural resource goals of protecting the land along the Skungamaug River and encouraging the development of passive recreation opportunities. With an adequate septic system and water supply already in place on the site (these need to be checked), the former camp offers a good opportunity to foster both preservation and environmental awareness and education.

Planning Considerations

Roads/Traffic

Access to Camp Creaser is via Case Road, a town road with a sparse residential development. Case Road is reached from Route 31 via Talcott Road, and from Route 44 via Wrights Mill Road. All of these roads provide adequate access to the parcel. Development of the parcel as proposed would not be anticipated to regularly increase daily traffic volumes significantly on these roads. Groups and school classes may arrive by bus, increasing traffic, but probably not at peak hours.

Site Plan

Any site plan developed should include sufficient parking spaces for the anticipated use. Parking should be discouraged along the adjacent town road (Case Road).

The proposed use of the property as an environmental interpretive center suggests that many of the users will be children and will arrive in groups (school classes, groups from day camps). Adequate pull-off and parking space, along with an appropriate and safe traffic circulation pattern, needs to be provided for bus and van drop-offs and turn-arounds.

Toilet facilities in the building(s) are minimal and may not be adequate to serve those using the camp, particularly if they are removed from all but one building as described during the site visit. They have the additional disadvantage of being accessible only when the buildings are open. The addition of an appropriately placed portable toilet and/or composting toilet should be considered.

Handicapped Accessibility

With the existing buildings and paved path to the pond, the Town has a great head start on providing handicapped accessible interpretive center and trail system, and should build on this. Toilet facilities should be made handicapped accessible; paved trails wide enough to meet ADA specifications should be provided and maintained where possible; a platform or suitable paved area should be made convenient for loading and unloading wheelchair passengers.

Need for an Environmental Interpretive Center

In response to Coventry's question regarding the need for a regional center of this type, a limited telephone survey of several towns in the are was undertaken. This survey revealed that some towns have developed their own "outdoor classrooms" for environmental education, generally on the initiative of an individual teacher. The programs vary in the extent to which they are made available to the various grade levels and school in the host town, none has been developed as a regional center. The fact that they exist may limit the interest of neighboring towns in using such a facility

in Coventry, but should not discourage Coventry from developing one for its own use. Programs already in place in other towns could prove to be valuable resources for Coventry in planning its center.

Town Programs:

Columbia — Contact: Miss Terry Jordan (Enrichment Program, Porter School). Is very interested in developing or having access to such a program for Columbia students.

Hebron: — Contact: Sandy Brown (Hebron Elementary School). Program is in place. Seven outdoor sites have been developed on a town-owned 10 acre parcel along the Blackledge River on which the school is located. These are used by grades K-6, and high school science students are also brought in to work with the younger children as they use the sites.

Mansfield: — Contact: Fred Baruzzi (Director of Curriculum, Mansfield Schools). Contact: Curt Vincente (Mansfield Recreation Department). A paved interpretive trail is being developed at "Merrow Meadow" along the Willimantic River in the Merrow section of Mansfield.

Willington: — Contact: David Blanchard and/or Patricia Pinney (Hall Memorial School). The school is developing an interpretive trail on school property along the Willimantic River.

Windham: — Windham school system does not have any outdoor classroom program of its own, but does make use of Project Oceanography (Noank) for middle and high school students.

Other Resources in Eastern Connecticut

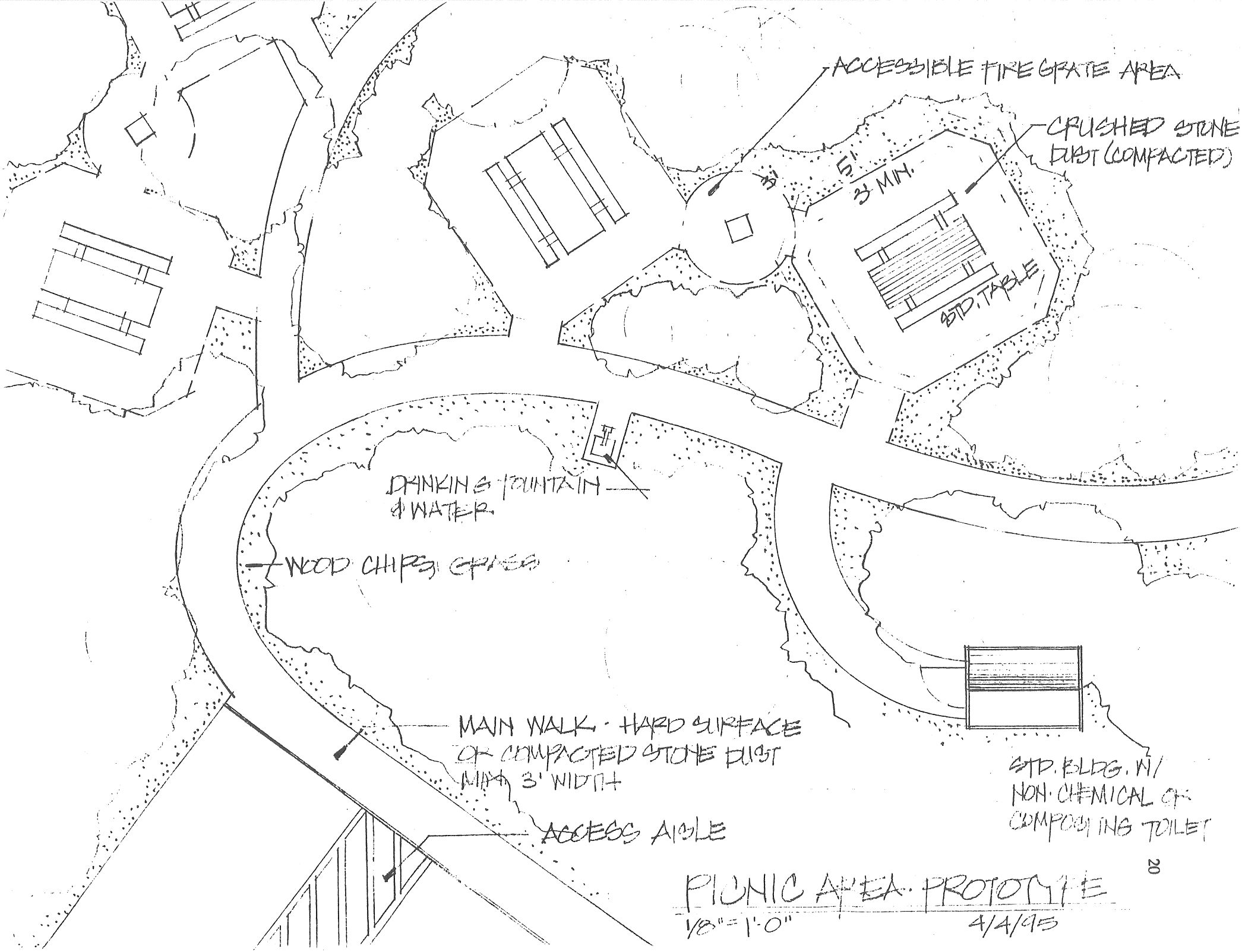
Hampton	James L. Goodwin State Forest and Conservation Center Contact: Richard Haley
Brooklyn	Ragged Woods
Glastonbury	CT Audubon Society Centers: Holland Brook Nature Center
Hebron	Hemlock Recreation Center

Archaeological Review

A review of the State of Connecticut Archaeological Site Files and Maps shows no known archaeological site within the project area. However, our files indicate a series of eight prehistoric native American encampments along the Skungamaug River in near proximity to Camp Creaser. These sites date from 4,000 to 1,000 years ago and represent hunting and gathering adaptations within the riverine environment. In addition, local informant evidence indicates that projectile points similar to artifacts recovered have also been found on the camp property. Camp Creaser would appear to possess a moderate-to-high sensitivity toward undiscovered prehistoric archaeological sites. Topographic and environmental features of the property also suggest a high archaeological sensitivity. Site locations should be expected along the Skungamaug floodplain, upland knolls and shelters associated with outcroppings of bedrock, all natural features on the camp property. Based on the location of other adjacent archaeological sites the most archaeologically sensitive areas are those within 200 yards of the wetlands and/or the Skungamaug River. Unless the extant facility reflects extensive ground disturbance, a professionally-conducted archaeological reconnaissance survey and subsequent management plan appears highly warranted.

In contrast, structures located at Camp Creaser lack architectural distinction and therefore, are not eligible for the National or State Register of Historic Places. Extensive historic and architectural surveys undertaken by Historic Resource Consultants, Inc. for the various Route 6 alternatives identified no structures as possessing architectural merit in the vicinity of Camp Creaser.

In summary, any proposed land use activities should have an archaeological survey for all areas within 200 yards of any wetland system conducted prior to any construction activities due to the high sensitivity toward undiscovered archaeological sites on the property. All archaeological fieldwork should be conducted in accordance with the Connecticut Historical Commission's **Environmental Review Primer for Connecticut's Archaeological Resources.** The Office of State Archaeology is prepared to offer the Town of Coventry any technical assistance in conducting this survey and developing a management plan for the center.



PICNIC AREA PROTOTYPE

1/8" = 1'-0"

4/4/95

DESCRIPTION	DIMENSION	QUANTITY
SEAT	2×10×8	2 PCS
TOP	2×6×8	6 PCS
SEAT BEAM	2×6×65	2 PCS
LEG	2×6×32	4 PCS
SEAT BRACE	2×4×62 1/2	2 PCS
DIAGONAL BRACE	2×4×45	2 PCS
TABLETOP CLEAT	2×4×37 1/2	2 PCS
END BRACE	3/4×11/2×34 9/16	2 PCS
CARRIAGE BOLTS	3/8×3 1/2	17 PCS
	3/8×5 1/2	4 PCS
	3/8×7 1/2	8 PCS
	3/8×8	2 PCS
NAILS	#12	84 PCS
WASHERS		31 PCS
NUTS		31 PCS
LEG CLEAT		2 PCS

NOTES

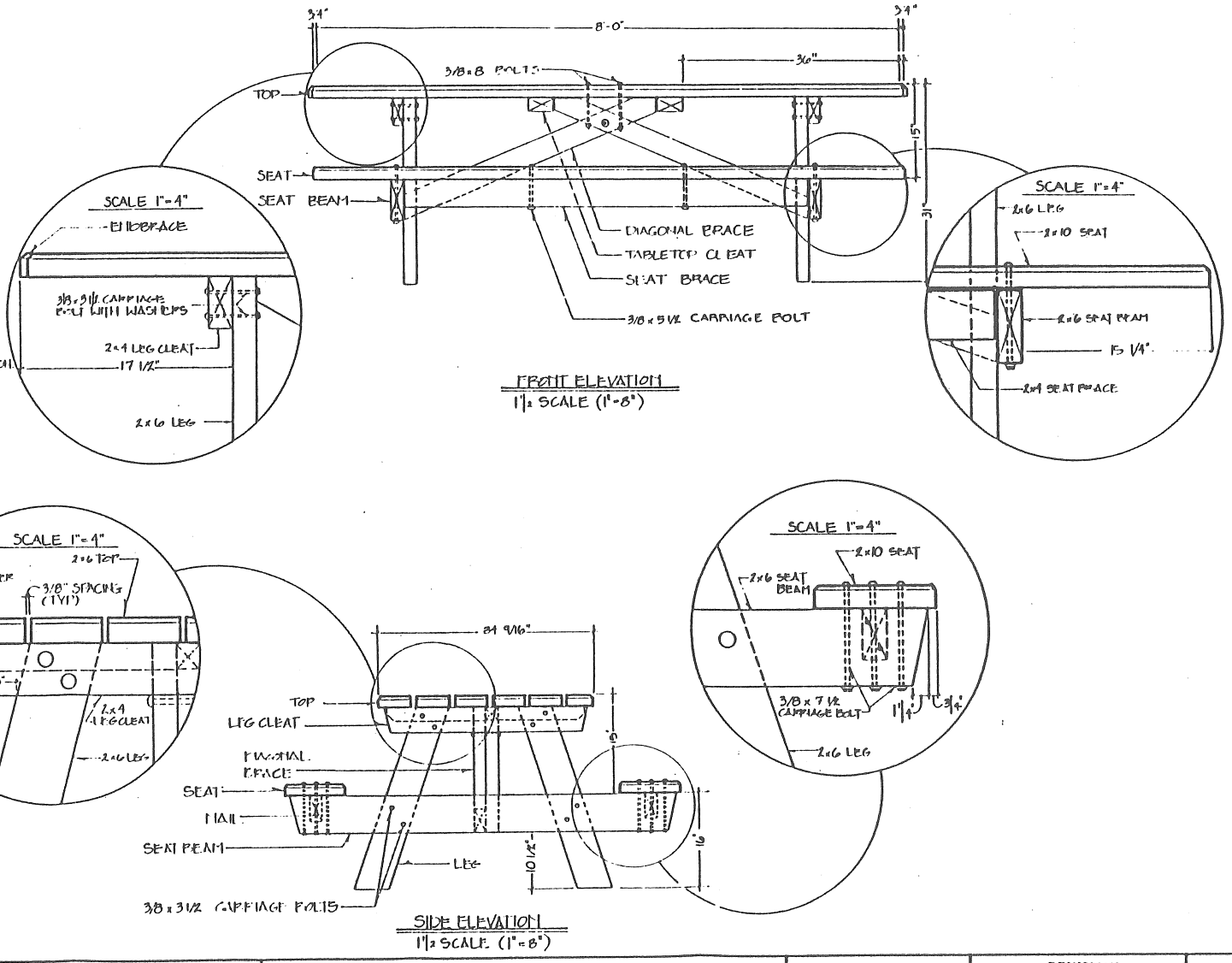
1 ALL BOLTS MUST BE CUT FLUSH TO THE SURFACE OF NUTS AND FILED SMOOTH AFTER INSTALLATION.

2 PREDRILL ALL HOLES WHERE #12 SPECIFIED NAILS ARE TO BE USED.

3 NOTCH DIAGONAL BRACE TO ACCEPT WASHER AND NUT.

4 BEVEL CUT ENDS OF TABLETOP CENTER CLEAT.

5 TABLE TOPS AND SEATS MUST BE HARDWOOD. ALL OTHER LUMBER TO BE PRESSURE TREATED SOUTHERN YELLOW PINE.



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
State Parks Division

PICNIC TABLE

SCALE- AS NOTED
DATE- AUGUST 1990
DWN. BY- GD

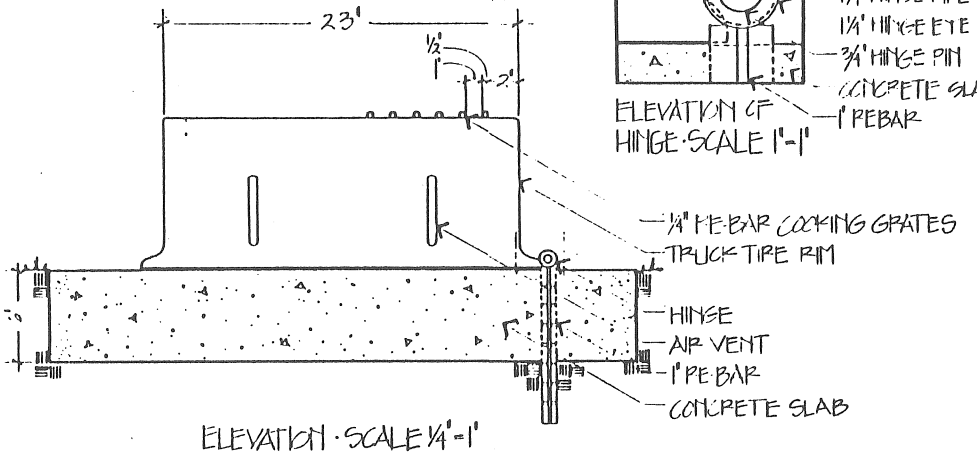
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	Long Picnic Table	LDD	6-92

MATERIALS

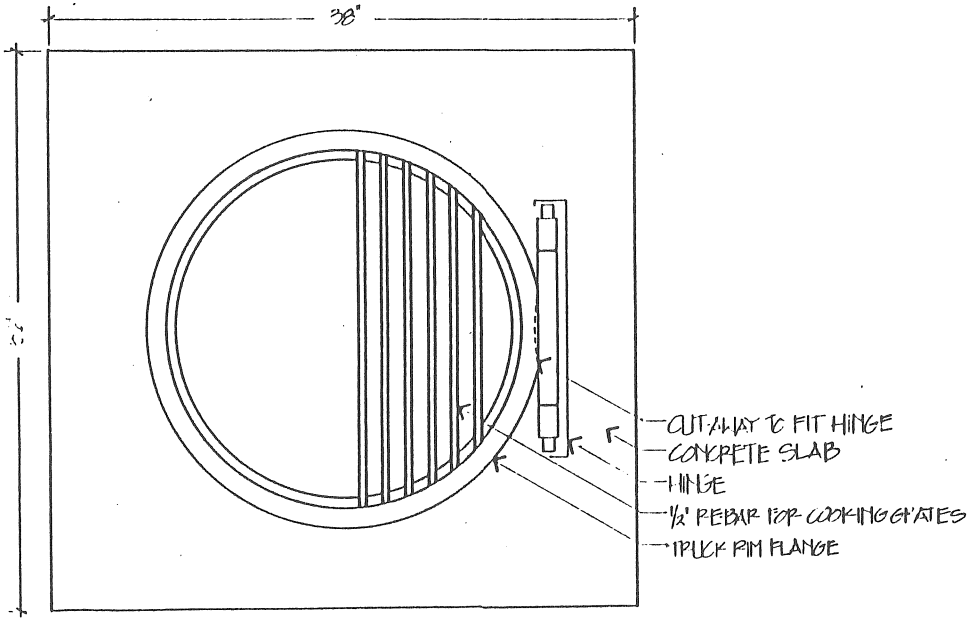
USED DOT TRUCK RIM
1" NON-GALVANIZED OR BLACK IRON PIPE - 1¼" DIAMETER
25' REINFORCING ROD - ½" DIAMETER
2' HEAVY REINFORCING ROD - 1" DIAMETER
6" PIN. - ¾" DIAMETER
MILD STEEL WELDING RODS
2 BAGS PORTLAND CEMENT
1 TON FEET IRREGGEL GRAVEL.
(20 SQUARE FEET) 6 STEEL MESH (TIRE SLAB REINFORCEMENT)
REJECT LUMBER - 2"x6"
2 GRATE RAILS
USE GRAY PAN OF HIGH-HEAT FLAT BLACK PAINT.

CONSTRUCTION SEQUENCE

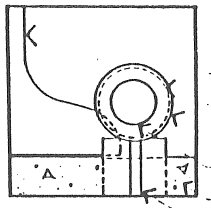
1. DRIVE ANGLE IRON STAKES
2. STAND RIM IN A KEPT PERPENDICULAR
3. WELD TIES TO REINFORCING ROD INT. HINGE PIN AND GRATE SUPPORT RODS
4. INSTALL AND WELD A HINGE PIN.
5. CLEAN AND PAINT REPLACE ASSEMBLY.
6. DIG 2½' HOLES AND PLACE RIM
7. CONSTRUCT FIRE SLAB. 1 BAG CEM. STEEL MESH AND REBAR. MAKE IN HALF
8. POUR AND FINISH CEMENT FIRE SLAB
9. REMOVE FORMS, BACKFILL AND GRADE.
10. CLEAN PAINT AND PLACE GRATE



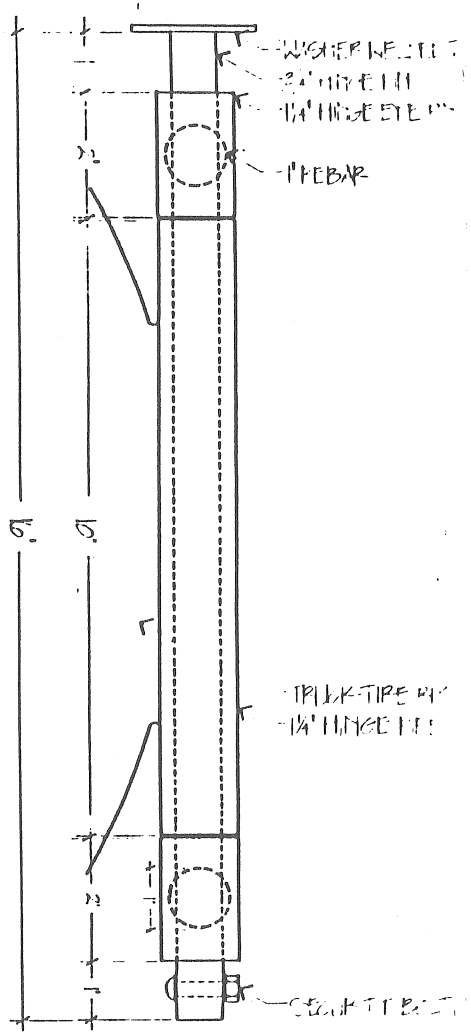
ELEVATION - SCALE ¼"=1'



PLAN VIEW - SCALE ¼"=1'



ELEVATION OF HINGE - SCALE 1"=1'



PLAN OF HINGE - SCALE 1"=1'

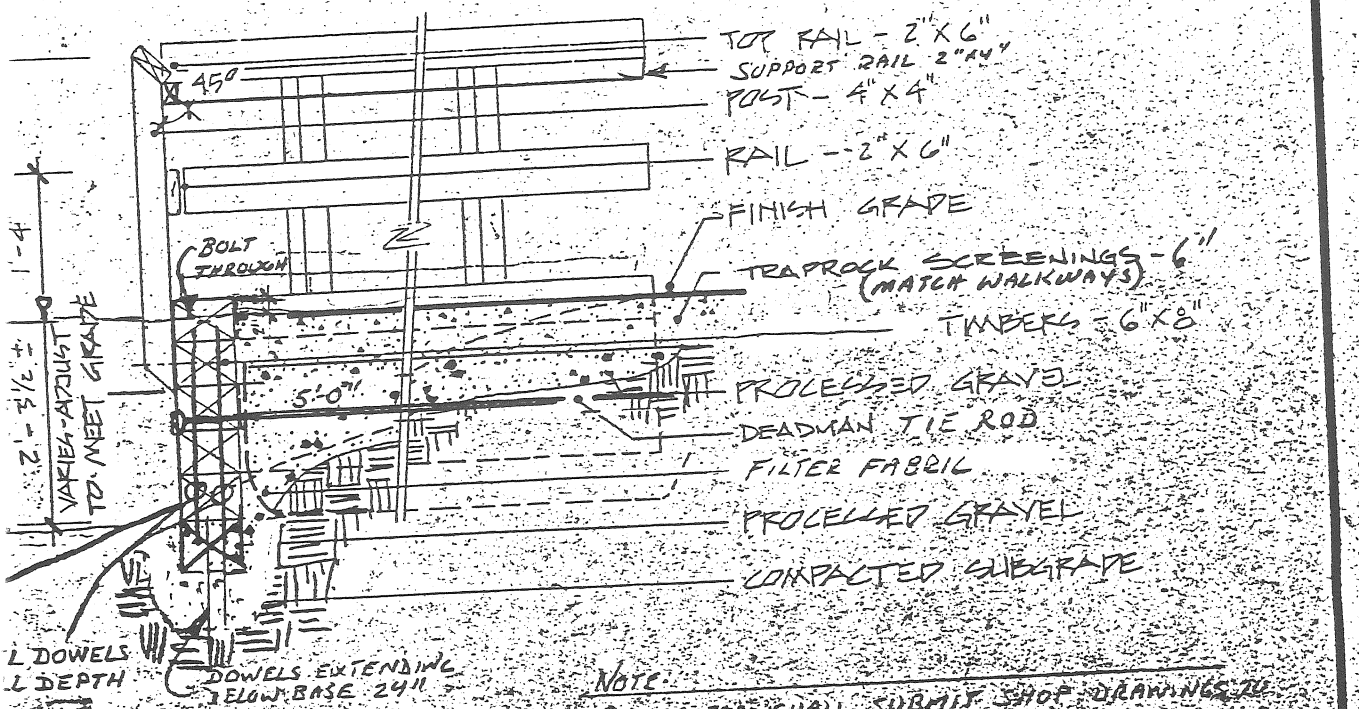
STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Parks and Forests

TIRE-RIM BBQ

SCALE: AS NOTED
DATE: 1991
DRAWING: 2

REVISIONS			
#	DESCRIPTION	BY	DATE

N



Section A–A

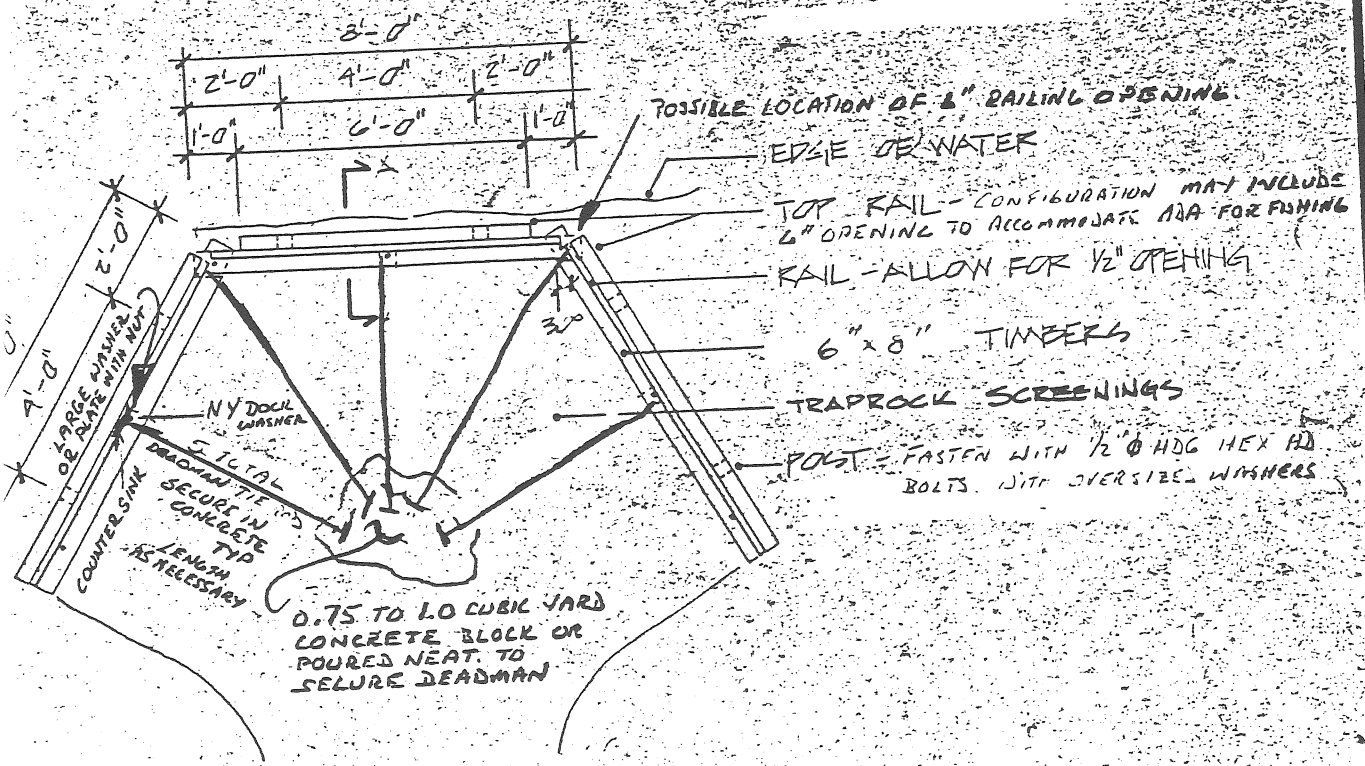
NOT TO SCALE

NOTE:

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO PROJECT SUPERVISOR FOR APPROVAL DETAILING WALL AND RAILING CONFIGURATION. SKETCH ABOVE DEPICTS GENERAL APPEARANCE AND CONFIGURATION DESIRED.

b. HARDWARE TO BE UTILIZED

c. ANCHORING MECHANISM



Accessible Fishing Deck

Not To Scale

SUPPLEMENT BID #54 (NEW)

REPAIR OF EXISTING FISHING DECK IS INCLUDED IN THE CONTRACT

Appendix

For Appendix Information please contact
the ERT Office at 860-345-3977

ABOUT THE TEAM

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a varety of federal, state and regional agencies. Specialists on the Team include geologists, biologists, foresters, soil specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area — an 86 town region.

The services of the Team are available as a public service at no cost to Connecticut towns.

PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in reviewing a wide range of projects including subdivisions, landfills, commercial and industrial developments, sand and gravel excavations, elderly housing, recreation/open space projects, watershed studies and resource inventories.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

REQUESTING A REVIEW

Environmental reviews may be requested by the chief elected official of a municipality or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the chairman of your local Soil and Water Conservation District and the ERT Coordinator. A request form should be completely filled out and should include the required materials. When this request is approved by the local Soil and Water Conservation District and the Eastern Connecticut RC&D Executive Council, the Team will undertake the review on a priority basis.

For additional information and request forms regarding the Environmental Review Team please contact the ERT Coordinator: 860-345-3977, Eastern Connecticut RC&D Area, P.O. Box 70, Haddam, Connecticut 06438.