US Army Corps
of Engineers
Rock Island District

OPERATION AND MAINTENANCE MANUAL

PEORIA LAKE ENHANCEMENT

UPPER MISSISSIPPI RIVER ENVIRONMENTAL MANAGEMENT PROGRAM

PEORIA POOL

RIVER MILES 178.5 – 181.0

WOODFORD COUNTY, ILLINOIS

MAY 1998

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PEORIA POOL, RIVER MILES 178.5 THROUGH 181
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1. INTRODUCTION.

a. Purpose and Scope.

(1) This manual serves as a guide for the operation and maintenance of the Peoria Lake Enhancement project. It provides operation and maintenance instructions for the major features of this environmental management project. These instructions are consistent with the general procedures presented in the July 1990 Definite Project Report. This document is written for project and management personnel who are familiar with the project and does not contain detailed information which is common to site personnel or which is presented in other existing manuals or regulations.

(2) The intent of the operating instructions is to provide information which allows orderly and efficient use of the constructed features to meet project goals and objectives. The intent of the maintenance instructions is to provide preventative maintenance information consisting of systematic inspections and subsequent corrective actions which should ensure long-term serviceability of equipment and features.

b. Use of Manual.

(1) This manual is divided into six sections: Section 1: Introduction; Section 2: Historical Summary; Section 3: Description of Project Features; Section 4: Inspections; Section 5: Operation and Maintenance of Project Features; and Section 6: Performance Monitoring and Assessment.

(2) The attached drawings have been included to provide general project "as-built" plans and typical sections.

2. HISTORICAL SUMMARY.

a. Authorization and Location.

(1) This project is authorized by the 1985 Supplemental Appropriations Act (Public Law 99-88) and Section 1103 of the Water Resources Development Act of 1986 (Public Law 99-662). The project was funded and constructed under this authorization by the U.S. Army Corps of Engineers, Rock Island District, in cooperation with the Illinois Department of Natural Resources (ILDNR).

(2) Peoria Lake encompasses approximately 168 acres of forested wetland management area (FWMA), a 1.0-mile-long barrier island, and a 9,500-foot-long flowing side channel. It is located in the Peoria Pool on the Illinois Waterway navigation channel between river miles (RM) 178.5 and 181.0.

b. Planning and Construction Activities.

(1) Table 2-1 provides a summary of planning and construction activities.

TABLE 2-1
SUMMARY OF PLANNING AND CONSTRUCTION ACTIVITIES

Project Phase	Purpose	Responsible Agency	Significant Events Item	Date	Reference
Pre-project	Identify and define problems and establish need of project	CORPS/ILDNR	Fact Sheet Approved by Assistant Secretary of the Army (ASA)	23 OCT 87	
Design	Quantify project objectives, perform preliminary design, satisfy NEPA and permit requirements, develop performance evaluation plan, and obtain project approval for construction.	CORPS	Definite Project Report, NEPA Compliance and Public Review		
			Approved	1 SEP 92	
			Local Cooperation Agreement with O&M Agreement	14 MAY 92	
			Section 401 Permit	3 MAY 90	
			Section 404 Permit	6 JUN 90	
Construction	Finalize plans and specifications, obtain operation and maintenance agreement, advertise and award construction contract, construct project	CORPS	Plans and Specifications		
			Stage I (FWMA) Awarded	23 SEP 93	
			Stage I (FWMA) Completed	16 MAR 96	Reference Sections 4 and 5
			Stage II (Barrier Island, E.R. Channel) Awarded	20 JUN 94	
			Stage II (Barrier Island, E.R. Channel) Completed	9 DEC 94	
			Stage III (Vegetation) Awarded	31 MAR 95	
			Stage III (Vegetation) Completed	12 JUL 96	
			Stage IIIb (Rock Placement) Awarded	18 JUN 96	
			Stage IIIb (Rock Placement) Completed	15 OCT 96	
			Stage IV (Rock Closure Structure) Awarded	25 APR 97	
			Stage IV (Rock Closure Structure) Completed	12 SEP 97	
Post-Construction	Operate and maintain project	ILDNR		N/A	Reference Section 6
	Perform evaluation monitoring	CORPS		N/A	

(2) Goals and objectives were defined during the design phase. Table 2-2 provides a summary of project objectives.

TABLE 2-2
PROJECT GOALS, OBJECTIVES, AND ENHANCEMENT POTENTIAL

			Enhancement Potential					
			Habitat Value Based			Physical Value Based		
Goal	Objective	Feature	Unit	Existing	50-Year Target	Unit	Existing	50-Year Target
Enhance Wetland Habitat	Increase reliable food production and resting area for waterfowl	Forested Wetland Management Area (FWMA)	Habitat Unit 1/	79	137	Acres of Vegetation	0	168
	Increase diversity and total area of submergent and emergent vegetation for waterfowl	Barrier Island	Habitat Unit	15	69	Acres of Aquatic Vegetation	0	100
Enhance Aquatic Habitat	Provide flowing side channel aquatic habitat area	East River Channel Excavation	Habitat Unit	5	15	Acres of Flowing Channel Surface	0	20

1/ The Habitat Unit is a methodology used to quantitatively measure wildlife habitat characteristics. The Methodology was developed by Missouri Department of Conservation (MDOC) and the Soil Conservation Service (SCS) The methodology is called the Wildlife Habitat Appraisal Guide (WHAG).

(3) The project was designed by the Rock Island District, U.S. Army Corps of Engineers, in cooperation with the ILDNR. Design considerations and investigations are presented in the Definite Project Report dated July 1990. The Rock Island District administered the construction contracts.

(4) There were five construction contracts. The FWMA contract (DACW25-93-C-0134) was awarded to Halverson Construction Company, Inc. of Springfield, Illinois, on 23 September 1993, in the amount of $994,857.50. The Barrier Island and East River Channel Enhancement contract (DACW25-94-C-0083) was awarded to T. L. James & Co. of Vidalia, Louisiana, on 20 June 1994, in the amount of $1,484,904. The Vegetation contract (DACW25-95-C-0041) was awarded to Geode RC&D, Inc. of Burlington, Iowa, on 31 March 1995, in the approximate amount of $159,439.00. The rock supply contract (DACW25-96-M-0877) was awarded on 20 September, 1996, in the amount of $24,849.00. Placement of the rock was accomplished by IDNR personnel. The Rock Closure Structure contract (DACW-97-M-0515) was awarded to Midwest Foundation Corporation of Tremont, Illinois on 25 April 1997 in the amount of $92,006.25.

c. **Actual Construction Costs.** The actual project costs are presented in Table 2-3.

TABLE 2-3
ACTUAL CONSTRUCTION COSTS

CONTRACT NO: DACW25-93-C-0134 (FORESTED WETLAND MANAGEMENT AREA (FWMA)) – Stage I

Item	Description	Quantity	U/M	U/P	Amount
0001	Performance Bond	1	LS	$5,940	$5,940
0002	Clearing And Grubbing	1	LS	$184,000	$184,000
0003	Drain Tile Replacement	520	LF	$11.50	$5,980
0004	Embankment	--	--	--	--
0004AA	First 35,225 CY	35,225	CY	$3.85	$135,616.25
0004AB	Over 35,225 CY	34,493	CY	$3.85	$132,798.05
0005	Pump Station	1	LS	$280,000	$280,000
0006	Stoplog Water Control Structure	1	LS	$60,000	$60,000
0007	Stoplog Water Control Structure	1	LS	$60,000	$60,000
0008	Stoplog Water Control Structure	1	LS	$60,000	$60,000
0009	Granular Surfacing	2,311.70	TON	$13.25	$30,630.03
0010	Stone Protection, Riprap	749.66	TON	$47.00	$35,234.02
0011	Seedling Tree Planting				
0011AA	Pin Oak	1,700	EA	$3.95	$6,715
0011AB	Swamp White Oak	1,700	EA	$3.95	$6,715
0011AC	Northern Pecan	1,100	EA	$3.95	$4,345
0012	Transplant Existing N. Pecan	0	EA	$75.00	$0
0013	Seeding	30	AC	$895.00	$26,850
0014	Work By Central Il Light Co.	1	LS	$5,000	$5,000
0015	Government Field Office	1	LS	$6,000	$6,000
0016	Monthly Telephone Bills				
0016AA	First $720.00	615.27	DL	$1.00	$615.27
0016AB	Over $720.00	0	DL	$1.00	$0
0017	P00004 Pump Station Modification	1	LS	$2,926	$2,926.00

TABLE 2-3 (Continued)
ACTUAL CONSTRUCTION COSTS

Item	Description	Quantity	U/M	U/P	Amount
0018	P00005 Cell A Adjustment	1	LS	$38,367.74	$38,367.74
0019	P00006 V.E.C.P. Root Masses	1	LS	-$6,794.64	-$6,794.64
0020	P00007 Standby Cost & Time Extension	1	LS	$23,536.65	$23,536.65
0021	P00008 Sta 1 To 5 & 40 To 41+50 EM	1	LS	$67,461.91	$67,461.91
0022	P00015 Hydraulic Excavator	10	HR	$218.23	$2,182.30
0023	P00015 Disc	8	HR	$116.75	$934.00
0024	P00015 Levee Repair (2 Dozer)	100.75	HR	$406.16	$40,920.62
0025	P00015 Debris Removal	88.3	HR	$306.19	$27,036.58
0026	P00015 Survey	1	LS	$5,240	$5,240.00
0027	P00015 Riprap	278.86	TON	$36.66	$10,223.01
0028	P00015 Erosion Mat	1200	SY	$12.67	$15,204.00
0029	P00015 Construction Platform	1	LS	$866	$866.00
0030	P00015 Stone Protection	144.57	TON	$53.40	$7,720.04
0031	P00015 Seeding	20	AC	$938	$18,760.00
	TOTAL FOR DACW25-93-C-0134 (FWMA)				**$1,301,022.82**
CONTRACT NO: DACW25-94-C-0083 (BARRIER ISLAND & EAST RIVER ENHANCEMENT) – Stage II					
0001	Performance Bond	1	LS	$9,000	$9,000.00
0002	East River Channel & Outlet Channel				
0002AA	Clearing	1	LS	$75,000	$75,000.00
0002AB	Excavation	100,000	CY	$2.25	$253,199.25
0002AC	Seeding (East River Channel only)	1	LS	$30,000	$30,000
0002AC	P0006 Seeding (East River Channel only)	1	LS	($30,000)	($30,000)
0003	Barrier Island				
0003AA	Clearing	1	LS	$95,000	$95,000.00
0003AB	Embankment	1	LS	$973,800	$973,800.00
0003AC	Barrier Island Seeding	1	LS	$40,000	$40,000
0003AC	P0006 Barrier Island Seeding	1	LS	($40,000)	($40,000)
0004	P0006 Contractor Furnished Boat and	1	LS	$14,000	$14,000.00

TABLE 2-3 (Continued)
ACTUAL CONSTRUCTION COSTS

Item	Description	Quantity	U/M	U/P	Amount
	Motor				
0005	P0006 Temporary Field Office	1	LS	$15,000	$15,000.00
0006	Monthly Telephone Bills				
0006AA	First $480.00			$1.15	$552.00
0006AB	Over $480.00			$1.15	$239.42
	TOTAL FOR DACW25-94-C-0083 (BARRIER ISLAND & EAST RIVER ENHANCEMENT)				**$1,435,790.67**
	CONTRACT NO: DACW25-95-C-0041 (VEGETATION) – Stage III				
0001	Performance Bond	1	LS	$2,669	$2,669.00
0002	FWMA, Seedling Tree Plantings	1	LS	$9,216	$9,216.00
0003	East River Channel Seedling Tree Plantings	1	LS	$22,080	$22,080.00
0004	Barrier Island				
0004AA	Deleted	--	--	--	--
0004AB	Vegetation Plantings, Willow Wattles	1	LS	$18,600	$18,600.00
0004AC	Vegetation Plaintings Willow Stakes	1	LS	$54,270	$54,270.00
0004AC	P0004 Deleted Willow Stakes in Sections B & D	1	LS	($24,000)	($24,000)
0004AD	Vegetation Plantings, Arrowhead	1	LS	$3,400	$3,400.00
0004AE	Vegetation Plantings, Arrowheads	1	LS	$30,850	$30,850.00
0004AF	Vegetation Plantings, Bulrush	1	LS	$13,354	$13,354.00
000AG	Vegetation Plantings, Reedgrass	1	LS	$2,500	$2,500.00
0004AH	Vegetation Plantings, Cattails	1	LS	$2,500	$2,500.00
0006	P0003 Hand Plant Trees	1	LS	$9,040	$9,040
	TOTAL FOR DACW25-95-C-0041 (VEGETATION)				**$144,479.00**
	CONTRACT NO: DACW25-96-M-0877 (ROCK PLACEMENT) – Stage III(b)				
0001	Riprap	899.94	TN	$27.61	$24,847.34
	TOTAL FOR DACW25-97-M-0515 (ROCK PLACEMENT)				**$24,847.34**

TABLE 2-3 (Continued) ACTUAL CONSTRUCTION COSTS					
Item	**Description**	**Quantity**	**U/M**	**U/P**	**Amount**
CONTRACT NO: DACW25-97-M-0515 (ROCK CLOSURE STRUCTURE) – Stage IV					
0001	Clearing Debris From Closure Structure Foundation	1	LS	$2,000	$2,000
0002AA	Rock, First 1,275 Tons	1,275	TN	$47.75	$60,881.25.00
002AB	Rock, Over 1,275 Tons (P00001)	406	TN	$45.00	$18,270.00
0003	Surveys	1	LS	$5,000	$5,000.00
0004	Steel H-Piles	2	EA	$7,000	$14,000.00
	TOTAL FOR DACW25-97-M-0515 (ROCK CLOSURE STRUCTURE)				**$100,151.25**
	TOTAL FOR ALL FIVE PROJECTS				**$3,006,291.08**

d. Total Costs for the Peoria Lake Enhancement Project. Table 2-4 summarizes the total costs for the entire Peoria Lake Enhancement project.

TABLE 2-4 TOTAL COSTS FOR THE PEORIA LAKE ENHANCEMENT PROJECT		
Project Item	**Cost**	**Total Cost**
Lands and Damages	$17,509.86	**$17,509.86**
Detailed Project Report and Environmental Assessment	$293,633.17	**$293,633.17**
Engineering Design – Plans and Specifications	$556,516.25	**$556,516.25**
Closeout (O&M/As-Builts)	$10,000	**$10,000**
Construction S&A	$284,637.01	**$284,637.01**
Construction		
Forested Wetland Management Area – Stage I	$1,301,022.82	
Barrier Island and East River Enhancement – Stage II	$1,435,790.67	
Vegetation – Stage III	$144,479.00	
Rock Placement – Stage IIIb	$24,847.34	
Rock Closure Structure – Stage IV	$100,151.25	**$3,006,291.08**
TOTALS		**$4,328,000.00**

c. **Project References.** Table 2-5 summarizes the related project references.

TABLE 2-5
PROJECT REFERENCES

Title	Date	Purpose
Peoria Lake Enhancement Definite Project Report (R-6F)	Mar 90	Provides planning, engineering and sufficient construction details of the selected plan for project approval purposes.
Construction As-Builts	May 98	Provides as-built construction drawings.
Manufacturer's Data (Shop Drawings)	May 98	Provides detailed operation and maintenance instructions for specific pieces of equipment as recommended by the manufacturer, manufacturer's warranty, and other construction details.

3. DESCRIPTION OF PROJECT FEATURES.

a. **Project Data.** Table 3-1 presents an approximate summary of project data.

TABLE 3-1
PROJECT DATA SUMMARY

Item	Quantity	U/M
Stage I: Forested Wetland Management Area		
General		
Levee Embankment	56,000	Cubic Yards
Levee Length	18,585	Feet
Ponding Area	168	Acres
Crushed Stone Surface Length	8,700	Feet
Cell A		
Levee Embankment	21,000	Cubic Yards
Levee Length	7,720	Feet
Top Width	12	Feet
Top Elevation	450	MSL
Side Slopes	3:1	H:V
Ponding Depth	0-2	Feet (from Elevation 446-448)
Ponding Area	69	Acres
Stoplog Water Control Structures		
Hydraulic Opening	20	Lineal Feet (4-5 foot wide bays)
Concrete Sill Elevation	443	MSL
Cell B		
Levee Embankment	16,000	Cubic Yards
Levee Length	5,810	Feet
Top Width	12	Feet
Top Elevation	448	MSL
Side Slopes	3:1	H:V
Ponding Depth	0-2	Feet (from Elevation 444-446)
Ponding Area	50	Acres

TABLE 3-1
PROJECT DATA SUMMARY (Continued)

Item	Quantity	U/M
Cell B (continued)		
Stoplog Water Control Structures		
Hydraulic Opening	20	Lineal Feet (4-5 foot wide bays)
Concrete Sill Elevation	441	MSL
Cell C		
Levee Embankment	19,000	Cubic Yards
Levee Length	5,055	Feet
Top Width	12	Feet
Top Elevation	446	MSL
Side Slopes	6	H:V on the riverside slope
	3	H:V all other slopes
Ponding Depth	0	Feet (from Elevation 442-444)
Ponding Area	49	Acres
Stoplog Water Control Structures		
Hydraulic Opening	20	Lineal Feet (4-5 foot wide bays)
Concrete Sill Elevation	439	MSL
Water Supply		
Pump Station		
Submersible Pump	1	EBARA Model # 500DSZ. 6,000 gpm at 12 .5' TDH
Station Invert	434	MSL
Trash Rack	1	Each, 2 inch spacing between bars
Electric Power Source	1	1 Phase, 7620/120-240 volt transformer, 50 KVA transformer; with a 30 hp static power converter: 240 Volt/1 phase input, 480 Volt/3 phase output

TABLE 3-1
PROJECT DATA SUMMARY (Continued)

Item	Quantity	U/M
Pressure Supply Pipe		
Length	468	Feet
Diameter	24	Inch, RCP with gasketed joints
Discharge Assembly Elevation	449	MSL
Trees (Seedlings)	1,100	Each
Stage II: Barrier Island and East River Side Channel Excavation		
Barrier Island		
Length	1.0	Miles
Top Width	50	Feet at crest elevation of 446
Side Slopes	6:1	H:V
Aquatic Bed Establishment	134	Acres (1,000 feet on island lee side)
Surface Area	16	Acres at flat pool elevation of 440
Embankment Fill	482,000	Cubic Yards
Borrow		
Depth	15	Feet from flat pool
Width	135	Feet at bottom elevation of 425
East River Side Channel Excavation		
Length		
Actual Excavation	3,550	Feet
Opened Side Channel	9,500	Feet
Depth	7	Feet from flat pool elevation 440
Width	95	Feet wide at the bottom of the channel
Surface Area of Flowing Water		
Excavated Area	7	Acres
Open Side Channel	20	Acres
Excavation Volume	112,533	Cubic yards

TABLE 3-1 PROJECT DATA SUMMARY (Continued)		
Item	**Quantity**	**U/M**
Stage III: Vegetation		
FWMA		
Pin Oak	512	Each
Swamp White Oak	512	Each
Northern Pecan	512	Each
Barrier Island		
Willow Cutting 7' to 8' long 1½" min. dia.	12,060 ±	Each
Willow Cutting 3.5' to 5' long, 1" min. dia.	6,030 ±	Each
Willow Wattle	1,700	Linear Feet
Arrowhead Seedling	14,688 ±	Each
Arrowhead Burlap Plant Roll	1,700	Linear Feet
Bulrush Seedling	6,677 ±	Each
Cattail Seedling	1,000	Each
Reed 1/8" dia. Rhizomes 5" to 10" long	1,000	Each
East River Channel		
Pin Oak	1,840 ± 1	Each
Stage III(b): Vegetation		
Riprap	900	Tons
Stage IV: Rock Closure Structure		
Rock (400 pound stone)	1,681	Tons
Steel H-Pile Markers	2	Each

b. General Description. The Peoria Lake project consists of both wetland and aquatic habitat enhancement. Wetland habitat will be enhanced by a forested wetland management area (FWMA) and a barrier island. Aquatic habitat will be enhanced by restoring a flowing side channel.

(1) The FWMA increases reliable food production and resting area for waterfowl by controlling water levels within its boundaries. Water level control is provided by low levees which impound water during seasonal waterfowl migrations. A pump station pumps river water to the project.

(2) The barrier island increases the diversity and total area of submergent and emergent vegetation for waterfowl by acting as a breakwater. It also will act as a resting area for waterfowl. Currently, the prevailing winds create strong waves in the lake. These waves disturb soft bottom sediments which prevents aquatic plants from growing. The wave action also increases turbidity. By preventing significant waves from reaching the lee side of the island, bottom sediments should settle. This should help aquatic plants grow and reduce turbidity. To promote the growth of aquatic plants, arrowhead and bulrush were planted along the island shoreline.

(3) Re-establishment of the flowing side channel improves fishery resources. The flowing side channel habitat was restored by removing a silt plug from the south end of the East River Channel.

c. Forested Wetland Management Area (FWMA). The FWMA is a 168-acre area of land adjacent to Goose Lake which is the northern end of Peoria Lake. Three earthen levees and associated water control structures and pump station create three independently managed forested wetland areas (see Stage I drawings C-1 and C-6 for details).

(1) Water Control Plan. To flood the FWMA, water would be pumped into Cell A where it could be either ponded or allowed to flow through the stoplog into Cell B. The water could then be retained in Cell B, or allowed to flow through another stoplog into Cell C. To drain the FWMA, all the stoplog structures would be opened. This would drain all the water through Cell C into the Illinois River. This system allows the three cells to be operated independently of each other. Table 3-2 gives planned water surface elevations. These water surface elevations represent maximum levels for design purposes. Actual operation levels may be adjusted to enhance feeding areas (see Stage I drawing C-10 for details).

TABLE 3-2
WATER SURFACE ELEVATIONS

Cell	Elevation (MSL)
A	448.0
B	446.0
C	444.0

(2) Water Source. The water used to flood the FWMA comes from an existing channel adjacent to the project. The channel connects to the Illinois River and Upper Peoria Lake (see Stage I drawing C-6).

(3) Pump Station. The plans and details for the pump station are shown on drawings C-6 and S-1. The pump station is provided with a model 500DSZ pump which is manufactured by the EBARA Corporation. It is a 30 hp, submersible, propeller-type pump with a capacity of 6,000 gpm against a total dynamic head of 12.5 feet. This pump should fill the FWMA within 10 days. It is housed in a vandal-resistant, cast-in-place housing. The intake entrance is equipped with a trash rack. Underground electrical power is provided to the site, and all necessary electrical equipment is located on an overhead platform in the

vicinity of the pump station (see plates S-1, E-1, and E-2). Water will be pumped from the pump station through a 24-inch concrete pipe to a discharge assembly in Cell A. The discharge assembly is used to slow the exit velocity and to protect the pipe from vandalism.

(4) Water Control Structures. The FWMA requires the use of three concrete stoplog water control structures (see drawing S-5), each with four 5-foot-wide stoplog bays. Their purpose is to allow independent operation of the cells and to protect the FWMA from flood damage. All of the water control structures have a steel grate deck to allow for vehicle passage overhead.

(5) Levees. The levees were constructed to provide 2 feet of water depth inside the cells with 2 feet of freeboard. The top of the levee for Cell C is at El 446.0 MSL; the top of the levee for Cell B is at El 448.0 MSL; and the top of the levee for Cell A is at El 450.0 MSL. The riverside of Cell C levee has a 6H:1V slope to prevent high water wave erosion. All other slopes are 3H:1V. The levees are 12 feet wide at the crown to facilitate access within the FWMA (see drawings C-7, C-8 and C-9 for sections and profiles.)

(6) Levee Borrow. Borrow for the levees came from an adjacent ditch excavation or was scraped from areas shown on drawings C-6 and C-9. The ditches serve as an internal drainage system for the FWMA and facilitate the water control plan as described previously.

(7) Access. Access to the FWMA is controlled by the ILDNR. Public vehicular and watercraft traffic is prohibited to minimize consequent disturbance.

d. Barrier Island. The barrier island is an earthen embankment constructed by mechanical excavation of adjacent sediment. It is 1 mile long and approximately 182 feet wide at the base. It has a 50-foot-wide crown, side slopes of 6H:1V, and a top elevation of 446.0 MSL (see Stage II drawings C-1, C-7, and C-8 for details).

(1) Location. The island follows historical high ground that was shown on surveys made in 1903. After the optimal foundation support was established, the island was further shifted to minimize hydraulic impacts. Also, the site provided navigation channel construction access.

(2) Borrow Site. The borrow site is located on the riverside of the island (see Stage II drawings C-1, C-7 and C-8 for details). This location was chosen because waves should be dampened, erosion on the island should be reduced, and plants should propagate into the lake without interruption. The top 4 feet of sediment was spoiled on the riverside of the borrow excavation. This material was beneficial in protecting the island from wave wash erosion.

(3) Hydraulic Impacts. The Corps of Engineers Waterways Experiment Station (WES) hydraulically modeled the Barrier Island. The modeling showed that the

island would not have any significant impact on sedimentation or flow patterns in the navigation channel or on adjacent, privately owned lands.

(4) Bank Stabilization. The bank stabilization plan consisted of planting vegetation on the flattened slopes. A 12-foot-wide, permanent erosion control mat was anchored at each end of the island. Arrowheads and bulrushes were planted on the lower parts of the island. Willow cuttings were planted just above the normal low pool waterline at each end of the island. A small plot of reed and cattail plants was added for diversity. (See Stage III drawing C-2 for details.)

e. Flowing Side Channel. The flowing side channel is located on the historic East River channel (see Stage II drawings C-1 and C-6). It is divided into two sections. One excavation is 2,250 feet long and 95 feet wide at the bottom. Material from this excavation was placed on the adjacent banks. Pin oak seedlings were planted on these embankments. The other excavation is 1,300 feet long and is also 95 feet wide at the bottom. It serves as an outlet channel for the flow from the first section. The material from this excavation was placed on the adjacent banks and was not vegetated. Both sections have been excavated to a depth of 433.0 MSL, 7 feet below flat pool. However, the long-term project depth is 4 feet below flat pool. The additional 3 feet of excavation accounts for expected sedimentation. Based on historic sedimentation rates, it is expected that the channel will require re-excavation in approximately 25 years.

f. Vegetation. Stage III drawings C-1 and C-2 show the location and planting schedule for vegetation of the Peoria Lake project. Other tree seedlings were planted near the refuge office for later transplanting to the FWMA.

4. INSPECTIONS.

a. Purpose. An active preventative maintenance program reduces breakdown of essential equipment and damage to constructed features by taking early corrective action. By reducing breakdowns and damage, the high costs associated with repair and rehabilitation are avoided. An effective preventive maintenance program requires regular, thorough inspections. Inspections will aid the Site Manager in discovering deficiencies in the project. They will also provide the Corps and the Site Manager with baseline condition data. This data is necessary for considering repair options of major damage caused by a storm or flood.

b. Types of Inspections. Two types of inspections will be used for this project. One is conducted by the Site Manager alone, called Project Inspections. The other is conducted by the Site Manager and the Corps of Engineers, called Joint Inspections.

(1) Project Inspections.

i. Annual. Annual Project Inspections should be performed by the Site Manager or an appropriate representative. This inspection will be performed at periods not exceeding 12 months and will follow inspection guidance presented in Section 5 of this manual. It is suggested that the inspection be conducted every May, which is representative of conditions after the spring floods.

ii. Other Inspections. Other Project Inspections can and should occur prior to the beginning of an inundation period (for the FWMA), immediately following major high water periods, and at other times that the Site Manager deems necessary.

(2) Joint Inspections.

i. Routine. A Joint Inspection by the Site Manager and the Corps of Engineers shall be made in accordance with ER 1130-2-339. The purpose of this inspection is to assure that adequate maintenance is being performed as presented in the Definite Project Report (DPR) and this manual. The District Engineer or authorized representative should have access to all portions of the constructed project upon coordination with the Site Manager for this purpose.

ii. Catastrophic. A joint inspection should be formally requested by the Site Manager immediately following a specific storm or flood which causes excessive damage. These joint inspections will be the basis for determining maintenance responsibility and potential rehabilitation by the Corps of Engineers.

(3) Checklist. Appendix B presents a project inspection checklist. The Site Manager should furnish a copy of the completed checklist to the U.S. Army Corps of Engineers, Rock Island District, immediately following each project inspection. The address is U.S. Army Corps of Engineers, Rock Island District, ATTN: CENCR-OD-S, Clock Tower Building, PO Box 2004, Rock Island, Illinois 61204-2004.

5. OPERATION AND MAINTENANCE OF PROJECT FEATURES.

a. General.

(1) The Site Manager has overall responsibility for the operation and maintenance of the project, and will take steps to correct any adverse conditions discovered by the project and joint inspections. Any repair and maintenance operations should be scheduled for the appropriate seasons. Also, the Site Manager should ensure that adequate labor and materials are available in advance.

(2) No encroachment or trespass which will adversely affect the efficient operation or maintenance of the project should be permitted. No improvements or excavation should be permitted over, under, through, or within the constructed features without prior approval by the Corps of Engineers, Rock Island District. Such improvements or alterations which are desirable and permissible should be constructed in accordance with standard engineering practice. Advice regarding the effect of proposed improvements or alterations on the functioning of the project and information concerning methods of construction acceptable under standard engineering practice should be obtained from the District Engineer or, if otherwise obtained, should be submitted for approval. Drawings or prints showing improvements or alterations as finally constructed should be furnished to the District Engineer after completion of such work.

b. Levees.

(1) Operation. The Site Manager should regularly examine the levees for anything which may adversely affect them. Anything that is found should be corrected as soon as possible.

(2) Maintenance.

i. The project and joint inspections of the levees shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections:

A. any settlement, sloughing or material loss of grade or cross section;

B. any caving which might affect its stability;

C. any wave wash, scouring, or overtopping erosion;

D. any seepage, saturated areas, or sand boils;

E. any burrowing animals;

F. any displaced, washed out, or removed revetment work or riprap;

G. any drainage problems on the levee or rutting caused by vehicular traffic;

H. any activity which is retarding or destroying the growth of sod (e.g., burning grass and weeds during inappropriate seasons);

I. any unauthorized vehicular traffic;

J. any debris on the levees;

K. any damage to the erosion mat;

L. there is adequate mowing or burning;

M. any unfavorable tree or shrub growth; or

N. any encroachments which might endanger or hinder its proper and efficient functioning.

ii. The Site Manager should take measures to promote the growth of sod, control burrowing animals, remove wild growth and drift deposits, repair any damage, and provide routine mowing or annual burning on the levees. The levees should be mowed to a point extending 5 feet from the toe of the levee.

iii. The Site Manager should place additional riprap as needed to protect eroding banks and to replace any original riprap that has been lost. Riprap adjacent to the stoplog structures and along the riverside Cell A is classified as IDOT RR5. Table 5-1 provides the proper gradation.

TABLE 5-1
RIPRAP REPLACEMENT MATERIAL

Rock Size (lb.)	Percent Passing
400	100
90	50±20
3	8±8

c. Water Control Structures.

(1) Operation.

i. Table 5-2 gives specific instructions for placing the stoplogs for normal operation of the FWMA.

TABLE 5-2
STOPLOG PLACEMENT INSTRUCTIONS

Scenario	Instructions	Remarks
Fill Cells A, B, & C to normal operating levels of 448, 446, & 444, respectively	1) Place 5 feet of stoplogs in stoplog structures A, B, & C 2) Start pump 3) Stop pump once water overflows stoplog structure C	Provides ponding level from 0-2 feet in all cells
Drain all cells leaving water in adjacent drainage ditches	Remove all but 3 feet of stoplogs from stoplog structures A, B, & C	Provides approximately 3 feet of water in all adjacent drainage ditches
Drain all cells including water in adjacent ditches to extent possible	Remove all stoplogs in all structures	With Peoria Lake at 440, drainage ditches A & B will be dry; C will have 1 foot of water in lower ditch
Fill Cell A only to normal operating level of 448	1) Place 3 feet of stoplogs in structures B & C if water in adjacent ditches is desired. Otherwise, don't place any stoplogs in B & C. Place 5 feet of stoplogs in structure A. 2) Start pump 3) Stop pump when water overflows structure A	Provides Cell A with ponding depths of 0-2 feet; Cells B & C remain dry
Fill Cell B only to normal operating level of 446	1) Place 3 feet of stoplogs in structures A & C if water in adjacent ditches is desired. Otherwise, don't place any stoplogs in A & C. Place 5 feet of stoplogs in structure B. 2) Start pump 3) Stop pump when water overflows structure B	Provides Cell B with ponding depths of 0-2 feet; Cells A & C remain dry
Fill Cell C only to normal operating level of 444	1) Place 3 feet of stoplogs in structures A & B if water in adjacent ditches is desired. Otherwise, don't place any stoplogs in A & B. Place 5 feet of stoplogs in structure C. 2) Start pump 3) Stop pump when water overflows structure C	Provides Cell C with ponding depths of 0-2 feet; Cells A & B remain dry

ii. Special operation of the structures is required during floods. Site personnel must monitor river flows and forecasts. If the Illinois River is **not** expected to overtop the FWMA levees, close stoplog structures. This will keep sediment out of the FWMA. If overtopping is expected, open the stoplog structures. This will protect the levees from damage. As shown in Table 5-3, when river levels are within 1 foot of overtopping a levee and are expected to rise further, all stoplogs for that levee should be opened. The structures are sized to fill the FWMA cells to within 1 foot of the levee crown before the flood water overtops it. This will minimize overtopping erosion on the levee at the moment overtopping occurs.

TABLE 5-3
STOPLOG PLACEMENT INSTRUCTIONS DURING FLOODS

Scenario	River Stage at Peoria Gage	Instructions	Remarks
Illinois River is NOT expected rise above El 446.0 MSL.	446.0	Leave all stoplog structures closed.	Prevents sediments from collecting inside the FWMA.
Illinois River IS expected rise above El 446.0 MSL but NOT above El 448.0 MSL.	446.0/447.9	Open stoplog structure C when the river reaches El 445.0 MSL. Leave the other two stoplogs closed.	Prevents damage to the levee around Cell C. Prevents sediments from entering Cells A & B.
Illinois River IS expected rise above El 448.0 MSL but NOT above El 450.0.	447.9/449.8	Structure C should be open. Open stoplog structure B when the river reaches El 447.0 MSL. Leave the stoplogs on structure A closed.	Prevents damage to the levees around Cells B & C. Prevents sediments from entering Cell A.
Illinois IS expected rise above El 450.0.	449.8	Structures B & C should be open. Open stoplog structure A when the river reaches El 449.0 MSL.	Prevents damage to all the levees.

iv. A stoplog lifting hook is furnished with the project for the installation and removal of the stoplogs. This tool is intended for use on all three of the structures and should be stored in a secure place.

v. The Site Manager should regularly examine the structures for anything which may adversely affect them. Anything that is found should be corrected as soon as possible.

(2) Maintenance.

i. The project and joint inspections of the structures shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections:

A. any stoplogs, stoplog slots, stoplog keepers, or the stoplog lifting hook in bad condition;

B. any staff gages, steel rails, rail posts, grating, and fasteners in bad condition;

C. any concrete in bad condition;

D. any debris or sedimentation in the culverts, inlet channels, or outlet channels;

E. any erosion or seepage around the structures;

F. any displaced or missing riprap; or

G. any encroachments which might endanger or hinder its proper and efficient functioning.

ii. If any riprap around the structures needs replacing, use IDOT RR5 class riprap. See Table 5-1 for proper gradation.

d. Drainage Ditches.

(1) Operation. The Site Manager should regularly examine the ditches for anything which may adversely affect them. Anything that is found should be corrected as soon as possible.

(2) Maintenance. The project and joint inspections of the ditches shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections:

i. any debris, weeds, or wild growth which could lead to obstructions in the ditch;

ii. any unauthorized structures or encroachments; or

iii. any erosion on the banks.

c. Pump Station.

(1) Operation.

i. The pump must be activated and deactivated manually. The controls are located in an overhead platform located near the station (see Stage I drawing S-1). A start-up delay of approximately 6 minutes has been designed into the circuitry to prevent possible pump start-up against back flow in the discharge line. See the instruction manual for the pump for specific operating instructions. The Site Manager should keep the platform locked when left unattended.

ii. To prevent damage to the mast trees in the FWMA, initial flooding should not start until after the mast trees have gone dormant.

iii. Before operating the pump, the Site Manager should ensure that:

A. the water in the sump is at the proper depth and is clear of debris, sediment, and ice;

B. all electrical and mechanical parts of the pump are functioning properly; and

C. the trash racks are clear and there are no obstructions in the pipes or discharge assembly.

iv. Avoid operating the pump when it cavitates or during ice conditions.

v. To recover a 0.5-foot drop in interior water level, approximately two days of pumping will be required. The pump station and water control structures have staff gages mounted on them to easily determine water levels in the FWMAs.

vi. The pump will automatically shut down through the controls located in the electrical panel on high stator winding temperature, stator casing leakage, or low sump water level.

vii. The Site Manager should regularly examine the pump for anything else which may adversely affect it. Anything that is found should be corrected as soon as possible.

(2) Maintenance. Pump station inspections should be performed by the Site Manager. Steps should be taken to correct adverse conditions disclosed by such inspections. The pump station inspection should include the following:

i. Structure. Visually inspect all structural surfaces to discover any adverse conditions such as cracks, excessive corrosion, etc., of the concrete slab, steel sheet piling, and elevated control platform. Conditions that may affect the integrity of the structure should be corrected as soon as practicable.

ii. Controls. All electrical controls and associated wiring should be examined closely and their overall condition assessed. Watertight connections should be inspected for integrity. Any corroded, loose, or broken contacts should be cleaned, tightened, and repaired as needed.

iii. Pump.

A. Ebara Model 500DSZ-B185. Rated capacity of 6000 gpm @ 12.5 ft TDH.

B. Pump should be observed for indications of improper operation or damage. Avoid operation of pump during sump cavitation or ice conditions. The pump will automatically shut down through the controls located in the electrical panel on high stator winding temperature, stator casing leakage, or low sump level (approximate elevation 437.0 feet). When the pump automatically shuts down, the condition which caused the automatic shut down must be reset manually before the pump can be restarted. Periodically check the sump for proper water depth, especially prior to extended operation. Mud in the sump may be a cause for cavitation during operation.

C. The Site Manager should have an authorized representative conduct pump inspections and maintenance and repair work in accordance with Ebara "Instruction Manual," Document Number RP17801-1166-0034. Ancillary equipment such as cables, level sensors, starter and monitoring equipment also should be inspected periodically. Damaged components should be repaired or replaced by a qualified mechanic or electrician.

iv. Trash Racks. The Site Manager should check for trash accumulation at racks and clear as necessary. Should operating conditions or observations indicate trouble is developing and operation conditions will permit, inspections should be performed to investigate the general condition.

v. Sump. The Site Manager should check for sedimentation in the sump of the pump station. Accumulated sediments in the sump may interfere with the proper operation of the pump and should be cleaned out prior to use of the pump.

vi. Riprap. If any riprap around the pump station needs replacing, use IDOT RR5 class riprap. See Table 5-1 for proper gradation.

f. Vegetation in the FWMA.

(1) Operation. The Site Manager should regularly examine the tree seedlings for anything which may adversely affect them. Anything that is found should be corrected as soon as possible.

(2) Maintenance. The project and joint inspections of the vegetation shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections.

i. condition of the seedlings and mast trees

ii. any unfavorable tree or shrub growth

g. Barrier Island.

(1) Operation. The Site Manager should regularly examine the barrier island for anything which may adversely affect it. Anything that is found should be corrected as soon as possible.

(2) Maintenance. The project and joint inspections of the barrier island shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections.

i. The Site Manager should make project inspections to be certain that:

A. any settlement, sloughing, or material loss of grade or cross section;

B. any wave wash, scouring, or overtopping erosion;

C. any burrowing animals;

D. any unauthorized grazing or traffic;

E. any debris on the island;

F. any damage to the erosion mat;

G. any encroachments which might endanger its stability;

H. any unfavorable plant growth;

I. the condition of the vegetative cover;

J. the condition of the arrowheads and bulrushes; and

K. any other wetland vegetation that is taking root.

h. Flowing Side Channel.

(1) Operation. The Site Manager should regularly examine the flowing side channel for anything which may adversely affect it. Anything that is found should be corrected as soon as possible.

(2) Maintenance. The project and joint inspections of the channel shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections:

i. anything that restricts the flow through the channel;

ii. any settlement, sloughing, caving or material loss of grade or cross section of the side embankments;

iii. any seepage, saturated areas, or sand boils;

iv. any wave wash, scouring, or overtopping erosion of the side embankments;

iii. any burrowing animals;

v. any unauthorized grazing or traffic;

vi. any debris on the island;

vii. any unfavorable plant growth; or

viii. the condition of the pin oak seedlings.

i. Rock Closure Structure.

(1) Operation. The Site Manager should regularly examine the area near the rock closure structure for any conditions which may adversely affect it. Any problems that are identified should be corrected as soon as possible.

(2) Maintenance. The project and joint inspections of the rock closure structure shall include the following items. The Site Manager should correct any deficiencies discovered by these inspections:

i. anything that restricts the flow through the channel by becoming entangled with the H-Piles;

ii. any settlement, sloughing, caving or material loss of grade at the two ends of the closure structure; or

iii. any loss of rock.

6. PERFORMANCE MONITORING AND ASSESSMENT.

a. General. The purpose of this section is to summarize the monitoring and data collection aspects of the project. Table 6-1 presents the principal types, purposes, and responsibility of monitoring and data collection. Table 6-2 summarizes actual monitoring and data parameters grouped by project phase, responsible agency and data collection intervals. Changes to the monitoring plan should be coordinated with USFWS, ILDNR, and the Corps of Engineers.

b. Post-Construction. Table 6-3 presents the post-construction evaluation plan. The monitoring parameters were developed to measure the effectiveness of the stated goals. The Site Manager should follow Table 6-3, as shown, to make annual field observations. These observations are summarized in checklist form in Appendix B. The annual field observations and the quantitative monitoring parameters will form the basis of project evaluation.

TABLE 6-1
MONITORING AND PERFORMANCE EVALUATION PLAN

Project Phase	Type of Activity	Purpose	Responsible Agency	Implementing Agency	Funding Source	Remarks
Pre-Project	Sedimentation Problem Analysis	System-wide problem definition. Evaluates planning assumptions.	USFWS	USFWS (EMTC)	LTRM	
	Pre-Project Monitoring	Identifies and defines problems at HREP site. Establishes need of proposed project features.	ILDNR	ILDNR	ILDNR	
	Baseline Monitoring	Establishes baselines for performance evaluations.	Corps	Field station or sponsor through cooperative agreements or Corps	LTRM	See Table 6-2
Design	Data Collection for Design	Includes quantifying project objectives, design project, and development of performance evaluation plan.	Corps	Corps	HREP	See Table 6-2

TABLE 6-1 (Continued)
MONITORING AND PERFORMANCE EVALUATION PLAN

Project Phase	Type of Activity	Purpose	Responsible Agency	Implementing Agency	Funding Source	Remarks
Construction	Construction Monitoring	Assess construction impacts. Assure permit conditions are met.	Corps	Corps	HREP	See State Section 401 stipulations
Post-Construction	Performance Evaluation Monitoring	Determine success of project.	Corps (quantitative) Sponsor (field observations)	Field station or sponsor through cooperative agreement, sponsor through O&M, or Corps	LTRM	See Table 6-3
	Analysis of Biological Responses to Projects	Evaluate predictions and assumptions of habitat unit analysis. Studies if projects do not have the desired biological results. Studies beyond the scope of performance evaluations.	USFWS	USFWS (EMTC)	LTRM	

TABLE 6-2
RESOURCE MONITORING AND DATA COLLECTION SUMMARY

TYPE OF MEASUREMENT[1]	WATER QUALITY DATA						ENGINEERING DATA						NATURAL RESOURCE DATA						Remarks
	Pre-Project Phase		Design Phase		Post-Const. Phase		Pre-Project Phase		Design Phase		Post-Const. Phase		Pre-Project Phase		Design Phase		Post-Const. Phase		
	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	
Point Measurements Stations UPL - A, B, C																			
Turbidity	2W	M	2W	M															
Secchi Disk Transparency	2W	M	2W	M															
Dissolved Oxygen	2W	M	2W	M															
Specific Conductance	2W	M	2W	M															
Water Temperature	2W	M	2W	M															
Velocity	M	M	M	M															
Water Depth	2W	M	2W	M															
Water Elevation	2W	M	2W	M															
Percent Ice Cover	-	M	-	M															
Ice Depth	-	M	-	M															
Percent Snow Cover	-	M	-	M															
Snow Depth	-	M	-	M															
Substrate Particle Presence	6M	M	6M	M															
Substrate Hardness	6M	M	6M	M															
pH	2W	M	2W	M															
Chlorophyll	2W	M	2W	M															
Suspended Solids	2W	M	2W	M															
Wind Direction[2]	2W	M	2W	M	C														
Wind Velocity[2]	2W	M	2W	M	C														
Wave Height	2W	M	2W	M															

TABLE 6-2 (Continued)
RESOURCE MONITORING AND DATA COLLECTION SUMMARY

Type of Measurement	WATER QUALITY DATA						ENGINEERING DATA						NATURAL RESOURCE DATA						Remarks
	Pre-Project Phase		Design Phase		Post-Const. Phase		Pre-Project Phase		Design Phase		Post-Const. Phase		Pre-Project Phase		Design Phase		Post-Const. Phase		
	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct Mar	
Station UPL-1, 2, 3, 4 Elutriate Bulk Sediment Column Settling (except UPL 3, 4)			1 1						1										
East River Transects C, D, & E Velocity[3]																			
Select Point Locations Soil Borings[4] Nutrient Analyses UPL 3, 4 Seed Bank Analyses UPL 3, 4 Floating Island Inspections							1		1				5Y		1 1				
TRANSECT MEASUREMENTS																			
Transects C, D, E, H (East River Only) Hydrographic Soundings							M		M		5Y								
Transects A, B, C, D, E Hydrographic Soundings Aquatic Vegetation									1		5Y		1		1		2Y		
Transects C, F, G, Vegetation (Understory and Timber)													1		1		5Y		
Transect I Vegetation																	2Y		

TABLE 6-2 (Continued)
RESOURCE MONITORING AND DATA COLLECTION SUMMARY

Type of Measurement	WATER QUALITY DATA						ENGINEERING DATA						NATURAL RESOURCE DATA						Remarks
	Pre-Project Phase		Design Phase		Post-Const. Phase		Pre-Project Phase		Design Phase		Post-Const. Phase		Pre-Project Phase		Design Phase		Post-Const. Phase		
	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	Apr-Sep	Oct-Mar	
AREA MEASUREMENTS																			
Vertical Stereo Aerial Photographs (1:5000)															1		5Y		
Topographic Mapping (1' Contours)									1										
Romc Point Mussel Survey															1		1		

Legend
W = Weekly
M = Monthly
Y = Yearly
C = Continuous
nW = n-Week Interval
nY = n-Year Interval
1, 2, 3, ... = Number of times data is collected within the designated project phase

Notes
/1 See drawing 21 for locations of sampling points, transects, and areas except as noted.
/2 A wind station will be placed on the mid-point of the island and measurements will be taken continuously from April – September.
/3 Velocity measurements will be taken twice per year in the East River channel along transects C, D, and E.
/4 See drawing 7 for soil borings.

TABLE 6-3
POST-CONSTRUCTION QUANTITATIVE MEASUREMENTS

Goal	Objective	Alternative	Enhancement Feature	Unit	Initial Value	Current Value	Target value at 50 years	Feature Measurement From Table 6-2	Annual Field Observations by Site Manager
Enhance Wetland Habitat	Increase reliable food production and resting area	Forested Wetland Management Area	Water control	Acres of vegetation	0		168	Perform transects C, F, and G vegetation (understory) survey	Estimate numbers of waterfowl
			Mast tree area	Acre	0		10	Perform transects C, F, and G vegetation (timber) survey	Estimate survival of plantings
	Increase diversity and extent of submergent and emergent vegetation for waterfowl	Barrier Island	Aquatic vegetation bed	Acres of aquatic vegetation	0		100	Perform transects A, B, C, D, and E vegetation (aquatic) survey	Estimate acres of emergent, submergent, and floating vegetation
								Perform transects A, B, C, D, and E hydrographic soundings	Record erosional deposition patterns

TABLE 6-3 (Continued)
POST-CONSTRUCTION QUANTITATIVE MEASUREMENTS

Goal	Objective	Alternative	Enhancement Feature	Unit	Initial Value	Current Value	Target value at 50 years	Feature Measurement From Table 6-2	Annual Field Observations by Site Manager
Enhance aquatic habitat	Increase diversity and extent of submergent and emergent vegetation for waterfowl	Barrier Island	Island Vegetation	Acre	0		16	Perform transect I vegetation survey	Describe condition of shoreline erosion, sprigs, mat, cuttings, seedlings, and cover.
			Improved Water Quality	mg/L suspended solids	100		50	Perform water quality tests at stations UPL - A, B, and C	Describe presence of suspended solids on lee side of island
				Acres of flowing channel surface	0		20	Perform transect H (East River) hydrographic sounding	Describe presence of snags, channel sedimentation, and vegetation
	Provide flowing side channel aquatic habitat	Flowing Side Channel	Side channel excavation	Sq ft of cross-sectional area of flowing channel	0		500	Perform transects C, D, and E (East River) hydrographic soundings	

TABLE 6-3 (Continued)
POST-CONSTRUCTION QUANTITATIVE MEASUREMENTS

Goal	Objective	Alternative	Enhancement Feature	Unit	Initial Value	Current Value[1]	Target Value at 50 Years	Feature Measurement From Table 6-2	Annual Field Observations by Site Manager
Enhance aquatic habitat (cont.)	Provide flowing side channel aquatic habitat (cont.)	Flowing Side Channel (cont.)	Side channel excavation (cont.)	Velocity of flowing channel in ft/s	0		1	Perform transects C, D, E (East River) velocity measurements	
			Mast trees	Acre	0		2	Perform transect I vegetation survey	Describe condition of shoreline, sprigs, cuttings, and seedlings

[1] This column is completed for the year the enhancement feature is monitored.

APPENDIX A

LOCAL COOPERATION AGREEMENT

LOCAL COOPERATION AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
THE STATE OF ILLINOIS
FOR CONSTRUCTION OF THE
PEORIA LAKE HABITAT REHABILITATION PROJECT
PEORIA AND WOODFORD COUNTIES, ILLINOIS

THIS AGREEMENT is entered into this 30th day of March, 19 93, by and between the DEPARTMENT OF THE ARMY (hereinafter referred to as the "Government"), acting by and through the District Engineer for the Rock Island District U.S. Army Corps of Engineers, and the STATE OF ILLINOIS (hereinafter referred to as the "State"), acting by and through the Director, Illinois Department of Conservation,

WITNESSETH, that:

WHEREAS, construction of the Peoria Lake Habitat Rehabilitation Project at Peoria Lake in Peoria and Woodford Counties, Illinois (hereinafter referred to as the "Project", as defined in Article I.a of this Agreement), was approved under the terms of the Upper Mississippi River System Environmental Management Program, as authorized by Section 1103(e) of the Water Resources Development Act of 1986, Public Law 99-662, as amended; and

WHEREAS, Section 906(e) of the Water Resources Development Act of 1986, Public Law 99-662, as amended, specifies the cost-sharing requirements applicable to the Project; and

WHEREAS, the State in order to insure the continued operation of the Project, has voluntarily agreed to provide 100 percent of the cost of operation and maintenance of the Project.

WHEREAS, Section 221 of the Flood Control Act of 1970, Public Law 91-611, as amended, provides that the construction of any water resources project by the Secretary of the Army shall not be commenced until each non-Federal interest has entered into a written agreement to furnish its required cooperation for the Project; and

WHEREAS, the State has the authority and capability to furnish the cooperation hereinafter set forth and is willing to participate in cost-sharing and financing in accordance with the terms of this Agreement;

NOW THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS

For purposes of this Agreement:

a. The term "Project" shall mean construction of a barrier island approximately 1.1 miles long; development of a forested wetland management area of approximately 168-acres; and excavation of approximately 3550 feet through an existing blocked side channel with placement of submerged rock substrate, as generally described in the Report entitled "Peoria Lake Enhancement, Peoria Pool, Illinois Waterway," dated July 1990 and approved by the Assistant Secretary of the Army (Civil Works) on September 1, 1992, (hereinafter referred to as the "Definite Project Report").

b. The term "total project costs" shall mean all costs incurred by the State and the Government directly related to construction of the Project. Such costs shall include, but not necessarily be limited to, continuing planning and engineering costs incurred after October 1, 1985; costs of applicable engineering and design (including the Definite Project Report); actual construction costs; supervision and administration costs; costs of plans and specifications; costs of contract dispute settlements or awards; and the value of utility and facility alterations or relocations, provided for the Project by the State, but shall not include any costs for lands, easements, rights-of-way, betterments, operation, maintenance, or rehabilitation.

c. The term "period of construction" shall mean the time from the advertisement of the first construction contract to the time of acceptance of the Project by the Contracting Officer.

d. The term "Contracting Officer" shall mean the U.S. Army District Engineer for the Rock Island District, or his designee.

e. The term "highway" shall mean any highway, thoroughfare, roadway, street, or other public road or way.

f. The term "fiscal year" shall mean one fiscal year of the United States Government, unless otherwise specifically indicated. The Government fiscal year begins on October 1 and ends on September 30.

g. The term "functional portion of the Project" shall mean a completed portion of the Project as determined by the Contracting Officer to be suitable for tender to the State to operate and maintain in advance of completion of construction of the entire Project.

h. The term "relocations" shall mean alterations, modifications, lowering or raising in place, and/or new construction related to, but not limited to, existing: buildings, railroads, highways, bridges, railroad bridges and approaches thereto, pipelines, public utilities (such as municipal water and sanitary sewer lines, telephone lines, and storm drains), aerial utilities, cemeteries, and other facilities, structures and improvement determined by the Government to be necessary for the construction, operation and maintenance of the project.

ARTICLE II - OBLIGATIONS OF THE PARTIES

a. The Government, subject to and using funds provided by the State and appropriated by the Congress of the United States, shall expeditiously construct the Project (including relocations of railroad bridges and approaches thereto), applying those procedures usually followed or applied in Federal projects, pursuant to Federal laws, regulations, and policies. The State shall be afforded the opportunity to review and comment on all contracts, including relevant plans and specifications, prior to the issuance of invitations for bid. To the extent possible the State will be afforded the opportunity to review and comment on all modifications and change orders prior to the issuance to the contractor of a Notice to Proceed. The Government will consider the comments of the State, but award of the contracts, modifications or change orders, and performance of all work on the Project (whether the work is performed under contract or by Government personnel), shall be exclusively within the control of the Government.

b. As further specified in Article VI hereof, the State shall provide, during the period of construction, a cash contribution of 25 percent of total project costs.

c. As further specified in Article III hereof, the State shall provide all lands, easements, rights-of-way, and suitable borrow and dredged material disposal areas determined by the Government to be necessary for construction of the Project.

d. As further specified in Article III hereof, the State shall perform all relocations determined by the Government to be necessary for construction, operation and maintenance of the Project.

e. The value of the contributions provided under paragraph d. of this Article may be applied as a credit against the cash contribution required pursuant to paragraph b. of this Article.

f. As further specified in Article VIII hereof, when the Government determines that the Project or a functional portion of the Project is complete, the Government shall turn the completed Project or functional portion over to the State, which shall accept the Project or functional portion and be solely responsible for operating and maintaining the Project or functional portion in accordance with Article VIII hereof.

g. No Federal funds may be used to meet the State share of total project costs under this Agreement unless the expenditure of such funds is expressly authorized by statute as verified in writing by the Federal granting agency.

ARTICLE III - LANDS, FACILITIES, AND PUBLIC LAW 91-646 RELOCATION ASSISTANCE

a. The State shall furnish to the Government all lands, easements, and rights-of-way, including suitable borrow and dredged material disposal areas, as may be determined by the Government to be necessary for the construction, operation, and maintenance of the Project, and shall furnish to the Government evidence supporting the State's legal authority to grant rights-of-entry to such lands. The necessary lands, easements, and rights-of-way may be provided incrementally, but all lands, easements, and rights-of-way determined by the Government to be necessary for work to be performed under a construction contract must be furnished prior to the advertisement of the construction contract.

b. Upon notification from the Government, the State shall accomplish or arrange for accomplishment at no cost to the Government all relocations determined by the Government to be necessary for construction of the Project.

c. The State shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform

Regulations contained in 49 C.F.R. Part 24, in acquiring lands, easements, and rights-of-way for construction and subsequent operation and maintenance of the Project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

ARTICLE IV - CREDIT FOR RELOCATIONS

The costs of relocations which will be included in total project costs and credited towards the State's share of total project costs shall be that portion of the actual costs as set forth below and approved by the Government:

a. Highways and Highway Bridges: Only that portion of the cost as would be necessary to construct substitute bridges and highways to the design standard that the State of Illinois would use in constructing a new bridge or highway under similar conditions of geography and traffic loads.

b. Utilities and Facilities (including railroads): Actual relocation costs, less depreciation, less salvage value, plus the cost of removal, less the cost of betterments. With respect to betterments, new materials shall not be used in any alteration or relocation if materials of value and usability equal to those in the existing facility are available or can be obtained as salvage from the existing facility or otherwise, unless the provision of new material is more economical. If, despite the availability of used material, new material is used, where the use of such new material represents an additional cost, such cost will not be included in total project costs nor credited towards the State's share.

ARTICLE V - CONSTRUCTION PHASING AND MANAGEMENT

a. To provide for consistent and effective communication between the State and the Government during the period of construction, the State and the Government shall appoint representatives to coordinate on scheduling, plans, specifications, modifications, contract costs, and other matters relating to construction of the Project. The State will be informed of any changes in cost estimates.

b. The representatives appointed above shall meet as necessary during the period of construction and shall make such recommendations as they deem warranted to the Contracting Officer.

c. The Contracting Officer shall consider the recommendations of the representatives in all matters relating to construction of the Project, but the Contracting Officer, having

ultimate responsibility for construction of the Project, has complete discretion to accept, reject, or modify the recommendations.

ARTICLE VI - METHOD OF PAYMENT

a. The State shall provide, during the period of construction, the cash payments required under Article II of this Agreement. Total project costs are currently estimated to be $4,950,900. In order to meet its share, the State must provide a cash contribution currently estimated to be $1,237,700. The dollar amounts set forth in this Article are based upon the Government's best estimates which will reflect projection of costs, price level changes, and anticipated inflation. Such cost estimates are subject to adjustments based upon costs actually incurred and are not to be construed as the total financial responsibilities of the Government and the State.

b. The State shall provide its required cash contribution in accordance with the following provisions:

1. For purposes of budget planning, the Government shall notify the State by February 15th of each year of the estimated funds that will be required from the State to meet its share of total project costs for the upcoming fiscal year.

2. No later than 60 calendar days prior to the award of the first construction contract, the Government shall notify the State of the State's share of total project costs, including its share of costs attributable to the Project incurred prior to the initiation of construction, for the first fiscal year of construction. No later than 30 calendar days thereafter, the State shall verify to the satisfaction of the Government that it has deposited the requisite amount in an escrow account acceptable to the Government, with interest accruing to the State.

3. For the second and subsequent fiscal years of project construction, the Government shall, no later than 60 calendar days prior to the beginning of the fiscal year, notify the State of the State's share of total project costs for that fiscal year. No later than 30 calendar days prior to the beginning of the fiscal year, the State shall make the necessary funds available to the Government through the funding mechanism specified in Article VI.b.2 of this Agreement. As construction of the Project proceeds, the Government shall adjust the amounts required to be provided under this paragraph to reflect actual costs.

4. If at any time during the period of construction the Government determines that additional funds will be needed from the State, the Government shall so notify the State, and the State, no later than 45 calendar days from receipt of such notice, shall make the necessary funds available through the funding mechanism specified in Article VI.b.2. of this Agreement.

c. The Government will draw on the escrow account provided by the State such sums as the Government deems necessary to cover contractual and in-house fiscal obligations attributable to the Project as they are incurred, as well as costs incurred by the Government prior to the initiation of construction.

d. Upon completion of the Project and resolution of all relevant claims and appeals, the Government shall compute the total project costs and tender to the State a final accounting of the State's share of total project costs. In the event the total contribution by the State is less than its minimum required share of total project costs, the State shall, no later than 90 calendar days after receipt of written notice, make a cash payment to the Government of whatever sum is required to meet its minimum required share of total project costs.

e. If the States' total contributions under Article II.b and II.d of this Agreement (including relocations) exceed 25 percent of total project costs, the Government shall, no later than 90 calender days after the final accounting is complete, subject to the availability of funds, return said excess to the State.

ARTICLE VII - DISPUTES

Before any party to this Agreement may bring suit in any court concerning an issue relating to this Agreement, such party must first seek in good faith to resolve the issue through negotiation or other forms of nonbinding alternative dispute resolution mutually acceptable to the parties.

ARTICLE VIII - OPERATION AND MAINTENANCE

a. After the Government has turned the completed Project, or functional portion of the Project, over to the State, the State shall operate and maintain the completed Project, or functional portion of the Project, at no cost to the Government in accordance with regulations or directions prescribed by the Government.

b. The State hereby gives the Government a right to enter, at reasonable times and in a reasonable manner, upon land which it owns or controls for access to the Project for the

purpose of inspection, and, if necessary, for the purpose of operating and maintaining the Project. If an inspection shows that the State for any reason is failing to fulfill its obligations under this Agreement without receiving prior written approval from the Government, the Government will send a written notice to the State. If the State persists in such failure for 30 calendar days after receipt of the notice, then the Government shall have a right to enter, at reasonable times and in a reasonable manner, upon lands the State owns or controls for access to the Project for the purpose of operating and maintaining the Project. No operation and maintenance by the Government shall operate to relieve the State of responsibility to meet its obligations as set forth in this Agreement, or to preclude the Government from pursuing any other remedy at law or equity to assure faithful performance pursuant to this Agreement.

ARTICLE IX - RELEASE OF CLAIMS

The State shall hold and save the Government free from all damages arising from the construction, operation and maintenance of the Project, except for damages due to the fault or negligence of the Government or its contractors.

ARTICLE X - HAZARDOUS SUBSTANCES

a. After execution of this Agreement and upon direction by the Contracting Officer, the State shall perform, or cause to be performed, such environmental investigations as are determined necessary by the Government or the State to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601-9675, on lands necessary for Project construction, operation, and maintenance. All actual costs incurred by the State which are properly allowable and allocable to performance of any such environmental investigations shall be included in total project costs and cost-shared as a construction cost in accordance with Public Law 99-662.

b. In the event it is discovered through an environmental investigation or other means that any lands, easements, rights-of-way, or disposal areas to be acquired or provided for the Project contain any hazardous substances regulated under CERCLA, the State and the Government shall provide prompt notice to each other, and the State shall not proceed with the acquisition of lands, easements, rights-of-way, or disposal areas until mutually agreed.

c. The Government and the State shall determine whether to initiate construction of the Project, or, if already in construction, to continue with construction of the Project, or to terminate construction of the Project for the convenience of the Government in any case where hazardous substances regulated under CERCLA are found to exist on any lands necessary for the Project. Should the Government and the State determine to proceed or continue with construction after considering any liability that may arise under CERCLA, the State shall be responsible, as between the Government and the State, for any and all necessary clean up and response costs, to include the costs of any studies and investigations necessary to determine an appropriate response to the contamination. Such costs shall not be considered a part of total project costs as defined in this Agreement. In the event the State fails to provide any funds necessary to pay for clean up and response costs or to otherwise discharge its responsibilities under this paragraph upon direction by the Government, the Government may either terminate or suspend work on the Project or proceed with further work as provided in Article XVII of this Agreement.

d. The State and the Government shall consult with each other under the Construction Phasing and Management Article of this Agreement to assure that responsible parties bear any necessary clean up and response costs as defined in CERCLA. Any decision made pursuant to paragraph c. of this Article shall not relieve any party from any liability that may arise under CERCLA.

e. The State shall operate and maintain the Project in a manner so that liability will not arise under CERCLA.

ARTICLE XI - MAINTENANCE OF RECORDS

The Government and the State shall keep books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement to the extent and in such detail as will properly reflect total project costs. The Government and the State shall maintain such books, records, documents, and other evidence for a minimum of three years after completion of construction of the Project and resolution of all relevant claims arising therefrom, and shall make available at their offices at reasonable times, such books, records, documents, and other evidence for inspection and audit by authorized representatives of the parties to this Agreement.

ARTICLE XII - GOVERNMENT AUDIT

The Government shall conduct an audit when appropriate of the State's records for the Project to ascertain the allowability, reasonableness, and allocability of its costs for inclusion as credit against the non-Federal share of project costs.

ARTICLE XIII - FEDERAL AND STATE LAWS

In acting under its rights and obligations hereunder, the State agrees to comply with all applicable Federal and State laws and regulations, including Section 601 of Title VI of the Civil Rights Act of 1964, Public Law 88-352, and Department of Defense Directive 5500.11 issued pursuant thereto and published in Part 300 of Title 32, Code of Federal Regulations, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army."

ARTICLE XIV - RELATIONSHIP OF PARTIES

The parties to this Agreement act in an independent capacity in the performance of their respective functions under this Agreement, and neither party is to be considered the officer, agent, or employee of the other.

ARTICLE XV - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

ARTICLE XVI - COVENANT AGAINST CONTINGENT FEES

The State warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the State for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability, or, in its discretion, to add to the Agreement or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XVII - TERMINATION OR SUSPENSION

a. If at any time the State fails to make the payments required under this Agreement, the Assistant Secretary of the Army (Civil Works) shall terminate or suspend work on the Project until the State is no longer in arrears, unless the Assistant Secretary of the Army (Civil Works) determines that continuation of work on the Project is in the interest of the United States or is necessary in order to satisfy agreements with any other non-Federal interests in connection with the Project. Any delinquent payment shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13-week Treasury Bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3-month period if the period of delinquency exceeds 3 months.

b. If the Government fails to receive annual appropriations for the Project in amounts sufficient to meet project expenditures for the then-current or upcoming fiscal year, the Government shall so notify the State. After 60 calendar days either party may elect without penalty to terminate this Agreement pursuant to this Article or to defer future performance hereunder, except for the operation and maintenance of any functional portion of the project previously turned over to the State; however, deferral of future performance under this Agreement shall not affect existing obligations or relieve the parties of liability for any obligation previously incurred. In the event that either party elects to terminate this Agreement pursuant to this Article, both parties shall conclude their activities relating to the Project and proceed to a final accounting in accordance with Article V of this Agreement. In the event that either party elects to defer future performance under this Agreement pursuant to this Article, such deferral shall remain in effect until such time as the Government receives sufficient appropriations or until either party elects to terminate this Agreement.

ARTICLE XVIII - NOTICES

a. All notices, requests, demands, and other communications required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally, given by prepaid telegram, or mailed by first-class (postage pre-paid), registered, or certified mail, as follows:

If to the State:

Director
Illinois Department of Conservation
Lincoln Tower Plaza
524 South 2nd Street
Springfield, Illinois 62701-1787

If to the Government:

District Engineer
U.S. Army Engineer District, Rock Island
Clock Tower Building, P.O. Box 2004
Rock Island, Illinois 61204-2004

b. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

c. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at such time as it is personally delivered or seven calendar days after it is mailed, as the case may be.

ARTICLE XIX - OBLIGATION OF FUTURE APPROPRIATION

Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the Illinois General Assembly when such obligation would be inconsistent with the State's constitutional or statutory limitations.

ARTICLE XX - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer for the Rock Island District U.S. Army Corps of Engineers.

THE DEPARTMENT OF THE ARMY

By: _____
Albert J. Kraus
Colonel, U.S. Army
District Engineer

Date: 30 March 1993

THE STATE OF ILLINOIS
DEPARTMENT OF CONSERVATION

By: _____
Director

Date: 21 Jan 92

CERTIFICATE OF AUTHORITY

I, Roland W. Burris, do hereby certify that I am the Attorney General for the State of Illinois, that the State of Illinois is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the State of Illinois in connection with a Habitat Rehabilitation Project at Peoria Lake in Peoria and Woodford Counties, Illinois, and to pay damages, if necessary, in the event of the failure to perform, in accordance with Section 221 of Public Law 91-611, as amended, and that the person who has executed this Agreement on behalf of the State of Illinois has acted within his statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this 17th day of March, 19 93.

Roland W. Burris

Attorney General for the
State of Illinois

LOCAL COOPERATION AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
THE STATE OF ILLINOIS
FOR CONSTRUCTION OF THE
PEORIA LAKE HABITAT REHABILITATION PROJECT
PEORIA AND WOODFORD COUNTIES, ILLINOIS

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the

required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

THE STATE OF ILLINOIS
DEPARTMENT OF CONSERVATION

By _____
Director

Date: 21 Jan 92

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB 0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:
[C] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action: N/A
[ ] a. bid/offer/application
b. initial award
c. post-award

3. Report Type:
[ ] a. initial filing
b. material change
For Material Change Only:
year _____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity:
[X] Prime [ ] Subawardee
Tier _____, if known:

Illinois Dept. of Conservation
524 S. 2nd St.
Springfield, IL 62706

Congressional District, if known: IL 18th District

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, if known:

6. Federal Department/Agency:

U.S. Army Corps of Engineers
Rock Island District

7. Federal Program Name/Description:

Environmental Management Program

CFDA Number, if applicable: _____

8. Federal Action Number, if known:

9. Award Amount, if known:

$

10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):

b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):

(attach Continuation Sheet(s) SF-LLL-A, if necessary)

11. Amount of Payment (check all that apply):

$ _____ [ ] actual [ ] planned

12. Form of Payment (check all that apply):

[ ] a. cash
[ ] b. in-kind; specify: nature _____
value _____

13. Type of Payment (check all that apply):

[ ] a. retainer
[ ] b. one-time fee
[ ] c. commission
[ ] d. contingent fee
[ ] e. deferred
[ ] f. other; specify: _____

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment indicated in Item 11:

Local sponsor of a fish and wildlife habitat rehabilitation and enhancement project.

(attach Continuation Sheet(s) SF-LLL-A, if necessary)

15. Continuation Sheet(s) SF-LLL-A attached: [ ] Yes [X] No

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: Edwin R. Parkinson
Print Name: Edwin R. Parkinson
Title: Chief Legal Counsel
Telephone No.: 217/782-1809 Date: March 18, 1993

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL

INSTRUCTIONS FOR COM.. LETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

    (b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.

13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.

15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.

16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

DI CLOSURE OF LOBBYING AC VITIES
CONTINUATION SHEET

Approved by OM
0348-0046

Reporting Entity: _____ Page _____ of _____

APPENDIX B

SITE MANAGER'S

PROJECT INSPECTION AND MONITORING RESULTS

OPERATION AND MAINTENANCE MANUAL
PEORIA LAKE ENHANCEMENT
UPPER MISSISSIPPI RIVER

ENVIRONMENTAL MANAGEMENT PROGRAM
PEORIA POOL, RIVER MILES 178.5 THROUGH 181
WOODFORD COUNTY, ILLINOIS

SITE MANAGER'S PROJECT INSPECTION AND MONITORING RESULTS			
Inspected by: _____			Date_____
Type of Inspection:	Project Inspection: Joint inspection:	( ) annual ( ) routine	( ) other ( ) catastrophic

1. PROJECT INSPECTION.

	Item	Condition
a. Cell A Levee		
( )	Settlement, sloughs, or material loss	
( )	Caving	
( )	Wavewash, scouring, or overtopping erosion	
( )	Seepage, saturated areas, or sand boils	
( )	Burrowing animals	
( )	Displaced revetment or riprap	
( )	Drainage or rutting problems	
( )	Growth of sod	
( )	Unauthorized vehicular traffic	
( )	Debris	
( )	Erosion mat	
( )	Adequate mowing or burning	
( )	Unfavorable tree or shrub growth	
( )	Encroachments	
b. Cell A Water Control Structure		
( )	Stoplogs, stoplog keepers, stoplog slots, and stoplog lifting hook	
( )	Staff gages, steel rails, rail posts, grating, and fasteners	
( )	Concrete	
( )	Culverts, inlet and outlet channels	
( )	Erosion or seepage adjacent to structure	
( )	Displaced or missing riprap	

	Item	Condition
b. Cell A Water Control Structure (continued)		
( )	Encroachments	
c. Cell B Levee		
( )	Settlement, sloughs, or material loss	
( )	Caving	
( )	Wavewash, scouring, or overtopping erosion	
( )	Seepage, saturated areas, or sand boils	
( )	Burrowing animals	
( )	Displaced revetment or riprap	
( )	Drainage or rutting problems	
( )	Growth of sod	
( )	Unauthorized vehicular traffic	
( )	Debris	
( )	Erosion mat	
( )	Adequate mowing or burning	
( )	Unfavorable tree or shrub growth	
( )	Encroachments	
d. Cell B Water Control Structure		
( )	Stoplogs, stoplog keepers, stoplog slots, and stoplog lifting hook	
( )	Staff gages, steel rails, rail posts, grating, and fasteners	
( )	Concrete	
( )	Culverts, inlet and outlet channels	
( )	Erosion or seepage adjacent to structure	
( )	Displaced or missing riprap	
( )	Encroachments	
e. Cell C Levee		
( )	Settlement, sloughs or material loss	
( )	Caving	
( )	Wavewash, scouring, or overtopping erosion	
( )	Seepage, saturated areas, or sand boils	
( )	Burrowing animals	
( )	Displaced revetment or riprap	
( )	Drainage or rutting problems	
( )	Growth of sod	
( )	Unauthorized vehicular traffic	
( )	Debris	
( )	Erosion mat	
( )	Adequate mowing or burning	

	Item	Condition
( )	Unfavorable tree or shrub growth	
( )	Encroachments	
f. Cell C Water Control Structure		
( )	Stoplogs, stoplog keepers, stoplog slots, and stoplog lifting hook	
( )	Staff gages, steel rails, rail posts, grating, and fasteners	
( )	Concrete	
( )	Culverts, inlet and outlet channels	
( )	Erosion or seepage adjacent to structure	
( )	Displaced or missing riprap	
( )	Encroachments	
g. Drainage Ditches		
( )	Debris	
( )	Unauthorized structures	
( )	Bank erosion	
h. Pump		
( )	Items listed in the instruction manual	
( )		
( )		
( )		
( )	Ancillary equipment	
( )		
( )		
i. Pump Station		
( )	Pump Structure	
( )	Control stand	
( )	Piping and discharge assembly	
( )	Displaced or missing riprap	
( )	Sump	
j. Vegetation in the FWMA		
( )	Seedlings and mast trees	
( )	Unfavorable tree or shrub growth	
k. Barrier Island		
( )	Settlement, sloughs or material loss	
( )	Wavewash, scouring, or overtopping erosion	
( )	Burrowing animals	
( )	Unauthorized traffic	

Item		Condition
( )	Debris	
( )	Erosion mat	
( )	Encroachments	
( )	Unfavorable plant growth	
( )	Vegetative cover	
( )	Arrowheads and bulrushes	
( )	Other wetland vegetation	
l. Flowing Side Channel		
( )	Restricted flow through the channel	
( )	Settlement, sloughs or material loss	
( )	Seepage, saturated areas, or sand boils	
( )	Burrowing animals	
( )	Unauthorized traffic	
( )	Debris	
( )	Erosion mat	
( )	Encroachments	
( )	Unfavorable plant growth	
( )	Pin Oaks	
m. Rock Closure Structure		
( )	Debris	
( )	Erosion of the shoreline on each end of the structure	
( )	Settlement, sloughs, or material loss	
( )	Delaminated, damage, or weathered painted markings	
( )	Bent or damaged steel beams	
( )	Missing bouys (if bouys are deployed)	
( )	Displaced or missing riprap	

Item	Condition
2. COMMENTS	
Site Manager Signature _____	Date _____

APPENDIX C

DISTRIBUTION LIST

DISTRIBUTION

All addressees receive one copy of the document except where noted in parentheses.

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Refuge Manager
Woodford County State Fish and Wildlife Area
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Ms. Karen Westphall
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Mark Twain National Wildlife Refuge
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Rock Island, IL 61201

Division Engineer
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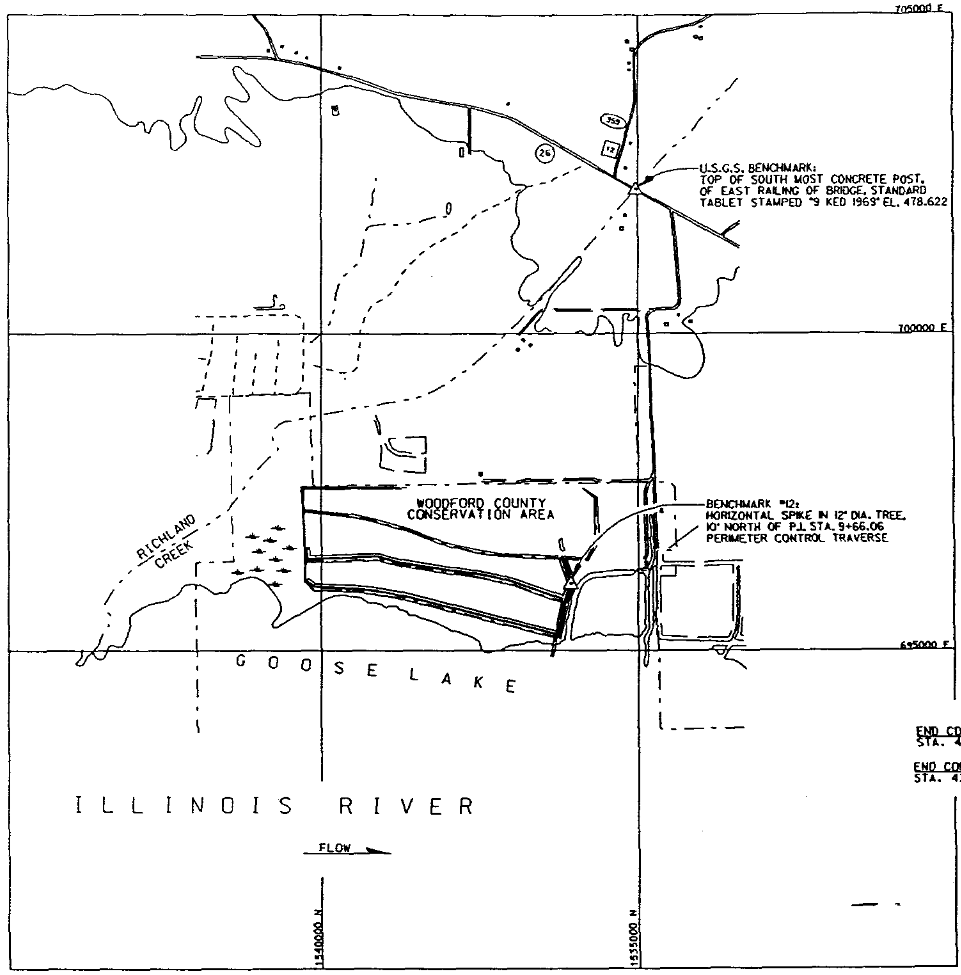
Vicksburg, Mississippi 39181-0800

District Engineer
U.S. Army Engineer District, Rock Island
Clock Tower Building
P.O. Box 2004
Rock Island, IL 61204-2004
ATTN:
CEMVR-ED
CEMVR-ED-D
CEMVR-ED-DG
CEMVR-ED-DN (3)
CEMVR-ED-DS
CEMVR-ED-G
CEMVR-ED-H
CEMVR-CD
CEMVR-EM
CEMVR-OD-I
CEMVR-PD-E
CEMVR-PD-W

PLATES

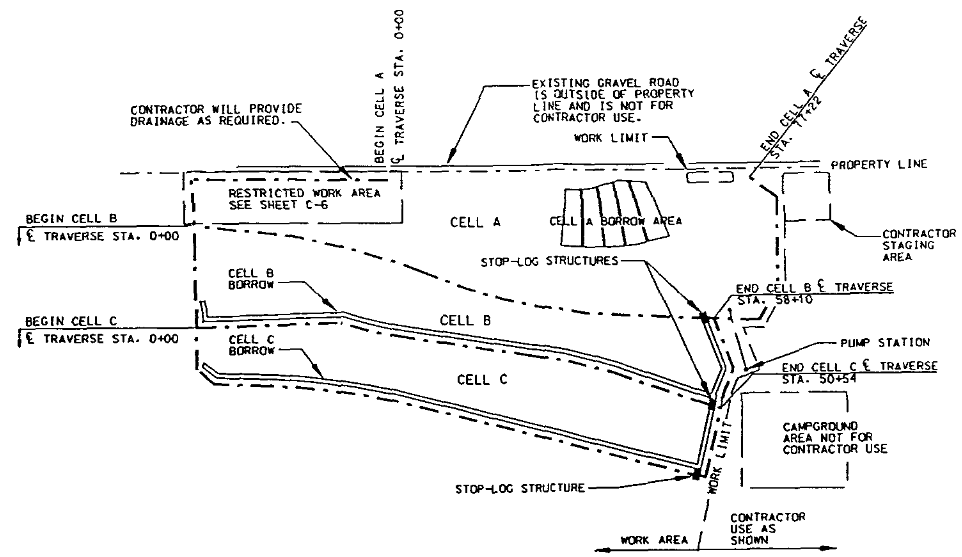


705000 E
700000 E
695000 E
U.S.G.S. BENCHMARK: TOP OF SOUTH MOST CONCRETE POST, OF EAST RAILING OF BRIDGE. STANDARD TABLET STAMPED "9 KED 1969" EL. 478.622
WOODFORD COUNTY CONSERVATION AREA
BENCHMARK #12: HORIZONTAL SPIKE IN 12" DIA. TREE, 10' NORTH OF P.I. STA. 9+66.06 PERIMETER CONTROL TRAVERSE
RICHLAND CREEK
G O O S E L A K E
I L L I N O I S R I V E R
FLOW
1540000 N
1535000 N

WORK AREA

1000 500 0 1000 2000FT

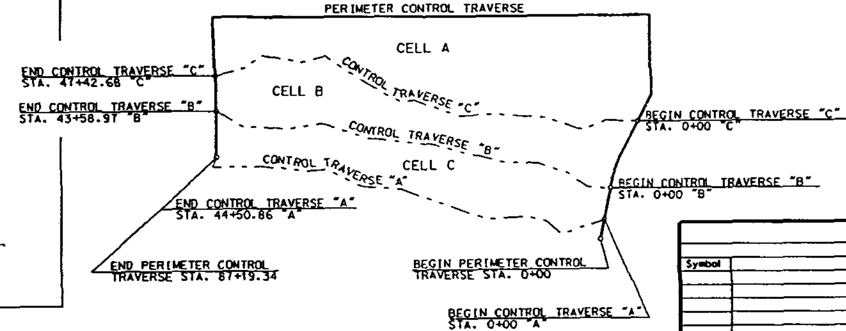
SCALE: 1"= 1000'



BEGIN CELL A ℄ TRAVERSE STA. 0+00
EXISTING GRAVEL ROAD IS OUTSIDE OF PROPERTY LINE AND IS NOT FOR CONTRACTOR USE.
END CELL A ℄ TRAVERSE STA. 71+22
CONTRACTOR WILL PROVIDE DRAINAGE AS REQUIRED.
WORK LIMIT
PROPERTY LINE
RESTRICTED WORK AREA SEE SHEET C-6
BEGIN CELL B
℄ TRAVERSE STA. 0+00
CELL A
CELL A BORROW AREA
CONTRACTOR STAGING AREA
STOP-LOG STRUCTURES
CELL B BORROW
END CELL B ℄ TRAVERSE STA. 58+10
BEGIN CELL C
℄ TRAVERSE STA. 0+00
CELL B
PUMP STATION
CELL C BORROW
END CELL C ℄ TRAVERSE STA. 50+54
CELL C
CAMPGROUND AREA NOT FOR CONTRACTOR USE
STOP-LOG STRUCTURE
WORK LIMIT
CONTRACTOR USE AS SHOWN
WORK AREA

SITE PLAN

NO SCALE



PERIMETER CONTROL TRAVERSE
CELL A
END CONTROL TRAVERSE "C" STA. 41+42.68 "C"
CONTROL TRAVERSE "C"
CELL B
END CONTROL TRAVERSE "B" STA. 43+58.97 "B"
CONTROL TRAVERSE "B"
BEGIN CONTROL TRAVERSE "C" STA. 0+00 "C"
CONTROL TRAVERSE "A"
CELL C
BEGIN CONTROL TRAVERSE "B" STA. 0+00 "B"
END CONTROL TRAVERSE "A" STA. 44+50.86 "A"
END PERIMETER CONTROL TRAVERSE STA. 87+19.34
BEGIN PERIMETER CONTROL TRAVERSE STA. 0+00
BEGIN CONTROL TRAVERSE "A" STA. 0+00 "A"

PERIMETER AND CONTROL TRAVERSES

NO SCALE

GENERAL NOTES

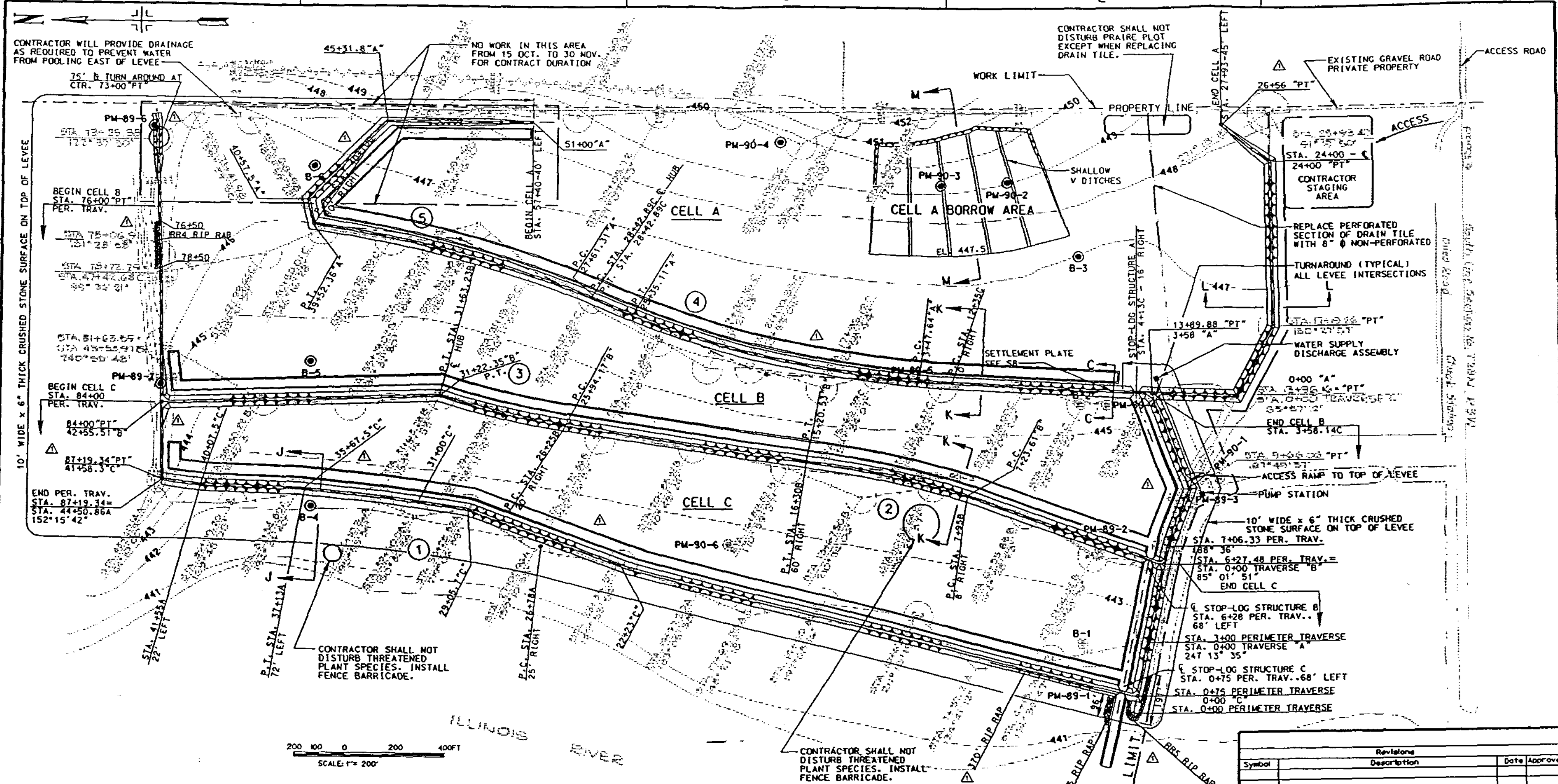
1. THE SCOPE OF WORK GENERALLY CONSISTS OF CONSTRUCTING A 168 ACRE FORESTED WETLAND MANAGEMENT AREA (FWMA). CONSTRUCTION INCLUDES:
   A. UNCOMPACTED LEVEE. APPROXIMATE LENGTH IS 3.52 MILES.
   B. THREE CONCRETE STOP-LOG WATER CONTROL STRUCTURES.
   C. 6000 G.P.M. ELECTRICAL PUMP STATION WITH DISCHARGE PIPE APPROXIMATELY 470' LONG.
   D. REVEGETATION OF CELL A BORROW AREA.
2. THE LAYOUT OF PROJECT FEATURES AS SHOWN SHALL BE FIELD STAKED BY CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY THE CONTRACTING OFFICER. (C.O.)
3. VEGETATION WITHIN THE WORK LIMITS SHALL REMAIN UNDISTURBED. UNLESS WITHIN CLEARING LIMITS ON SHEET C-9. HAUL ROADS AND/OR OTHER CONTRACTOR REQUIREMENTS SHALL BE SUBJECT TO C.O. APPROVAL. PRIOR TO CLEARING OPERATIONS.

Revisions

Symbol	Description	Date	Approved
1	AS CONSTRUCTED	18APRIL91	KJB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: DJH	ILLINOIS WATERWAY ENVIRONMENTAL MANAGEMENT PROGRAM RIVER MILE 178.5 TO 181.0 PEORIA LAKE FORESTED WETLAND MANAGEMENT AREA WORK AREA AND GENERAL SITE PLAN
Drawn by: CKM	
Checked by: DRC	
Reviewed by: JJC	Scale: AS SHOWN
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS	Date: 4 AUG 1993
	Drawing Code: 1-P2-3-EMP-3
Sheet reference number: C-1	File No. EP13SITE.DGN
Solicitation No. DACW25-93-B-0052	Sheet 2 of 23



CONTRACTOR WILL PROVIDE DRAINAGE AS REQUIRED TO PREVENT WATER FROM POOLING EAST OF LEVEE
75' ¢ TURN AROUND AT CTR. 73+00"PT"
NO WORK IN THIS AREA FROM 15 OCT. TO 30 NOV. FOR CONTRACT DURATION
CONTRACTOR SHALL NOT DISTURB PRAIRE PLOT EXCEPT WHEN REPLACING DRAIN TILE.
WORK LIMIT
PROPERTY LINE
EXISTING GRAVEL ROAD PRIVATE PROPERTY
ACCESS ROAD
ACCESS
CONTRACTOR STAGING AREA
SHALLOW V DITCHES
CELL A
CELL A BORROW AREA
CELL B
CELL C
BEGIN CELL B
BEGIN CELL C
END CELL B
END CELL C
REPLACE PERFORATED SECTION OF DRAIN TILE WITH 8" ϕ NON-PERFORATED
TURNAROUND (TYPICAL) ALL LEVEE INTERSECTIONS
WATER SUPPLY DISCHARGE ASSEMBLY
SETTLEMENT PLATE
ACCESS RAMP TO TOP OF LEVEE
PUMP STATION
10' WIDE x 6" THICK CRUSHED STONE SURFACE ON TOP OF LEVEE
STOP-LOG STRUCTURE B
STOP-LOG STRUCTURE C
CONTRACTOR SHALL NOT DISTURB THREATENED PLANT SPECIES. INSTALL FENCE BARRICADE.
ILLINOIS RIVER
200 100 0 200 400FT
SCALE: 1"= 200'
RR5 RIP RAP
WORK LIMIT
WORK AREA
CONTRACTOR USE AS SHOWN

NOTES:

1. CONTRACTOR SHALL FIELD STAKE THE LEVEE ALIGNMENT FOR C.O. REVIEW. THE CONTRACTING OFFICER MAY MAKE MINOR ADJUSTMENTS TO LEVEE ALIGNMENT.
2. FOR SECTIONS SEE SHEET C9.
3. ◉ INDICATES THE LOCATION OF BORINGS.

FIELD BOOK

FC-89-49 PGS. 1-10. TRAVERSE
FC-89-49 PGS. 12-17. "X" SECTIONS
FC-89-49 PGS. 19-22. PROFILE LEVEE "B"
FC-89-49 PGS. 23-26. PROFILE LEVEE "C"

(1) (crossed out) △	(2) △	(3) △	(4) △	(5) △
P.I. STA. 32+10A - ℄	P.I. STA.11+15B-70'R	P.I. STA. 28+98B-15'L	P.I. STA. 19+90C-3'R	P.I. STA. 34+92C-38'L
Δ= 13°00'00"	Δ= 12°18'46"	Δ = 9°59'04"	Δ= 20°15'51"	Δ= 17°07'51"
D = 1°18'20"	D = 1°32'42"	D = 1°53'25"	D = 1°42'23"	D = 1°26'18"
R = 4388.44'	R = 3798.35'	R = 3030.96'	R = 3357.49'	R = 3983.58'
T = 500.00'	T = 400.00'	T = 264.76'	T = 600.00'	T = 600.00'
L = 995.71'	L = 796.92'	L = 528.18'	L = 1187.47'	L = 1191.05'
E = 28.39'	E = 21.51'	E = 11.54'	E = 53.19'	E = 44.93'
P.C. STA. 26+78A - 25'R	P.C. STA.7+95B - 8'R	P.C. STA. 26+25B - 20'R	P.C. STA. 12+35C - 10'R	P.C. STA. 28+42.89C - ℄
P.T. STA. 37+13A - 72'L	P.T. STA. 16+30B - 60'R	P.T. STA. 31+63.23B - ℄	P.T. STA. 28+42.89C - ℄	P.T. STA. 40+70C - 40'R

Revisions			
Symbol	Description	Date	Approved
△1	REVISED AS CONSTRUCTED	18APR91	KJB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

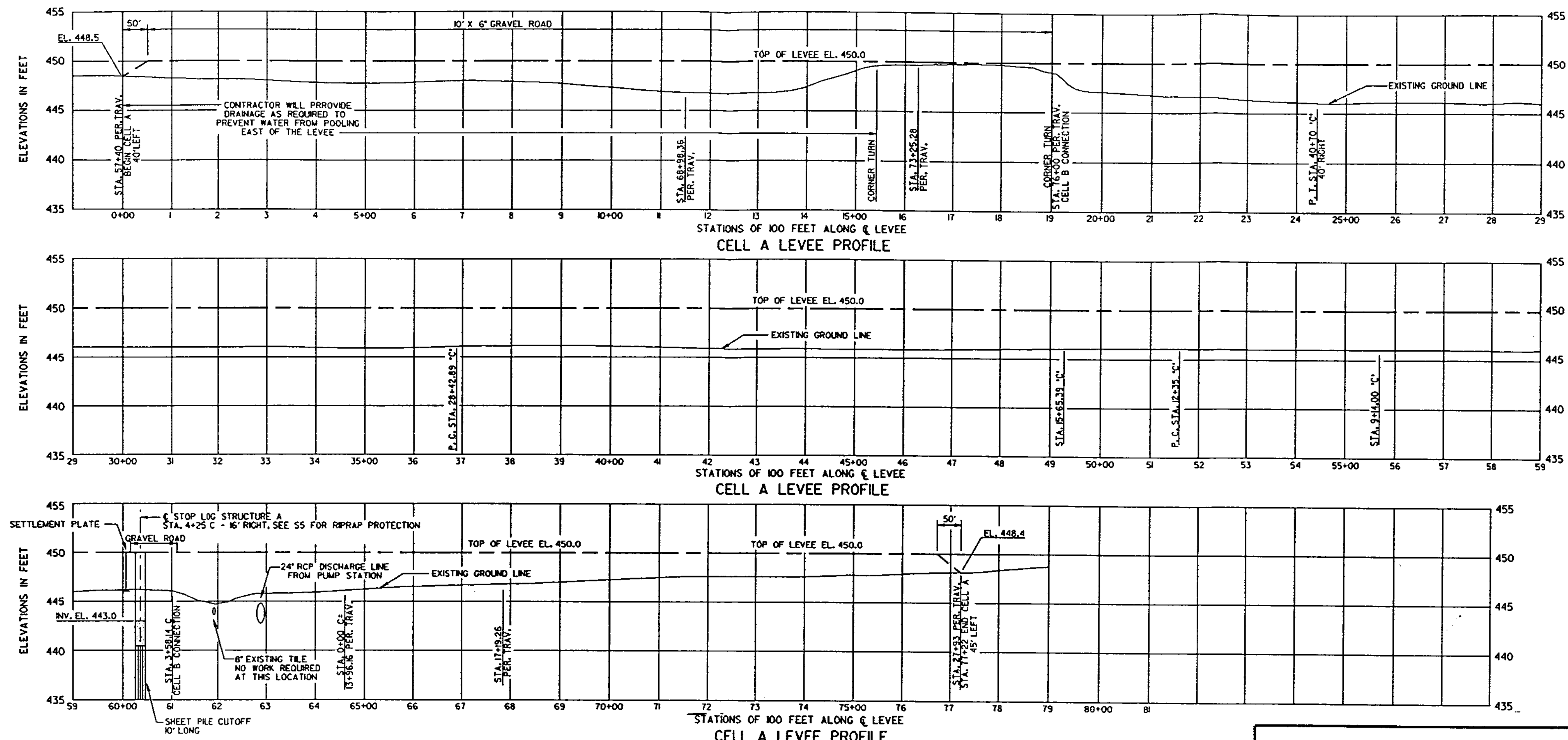
ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0

PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA

DETAILED SITE PLAN

Designed by: D.J.H.
Drawn by: H.D.G.
Checked by: D.R.C.
Reviewed by: J.J.C.
Approved by: ALBERT J. LEWIS, COL., CORPS OF ENGINEERS

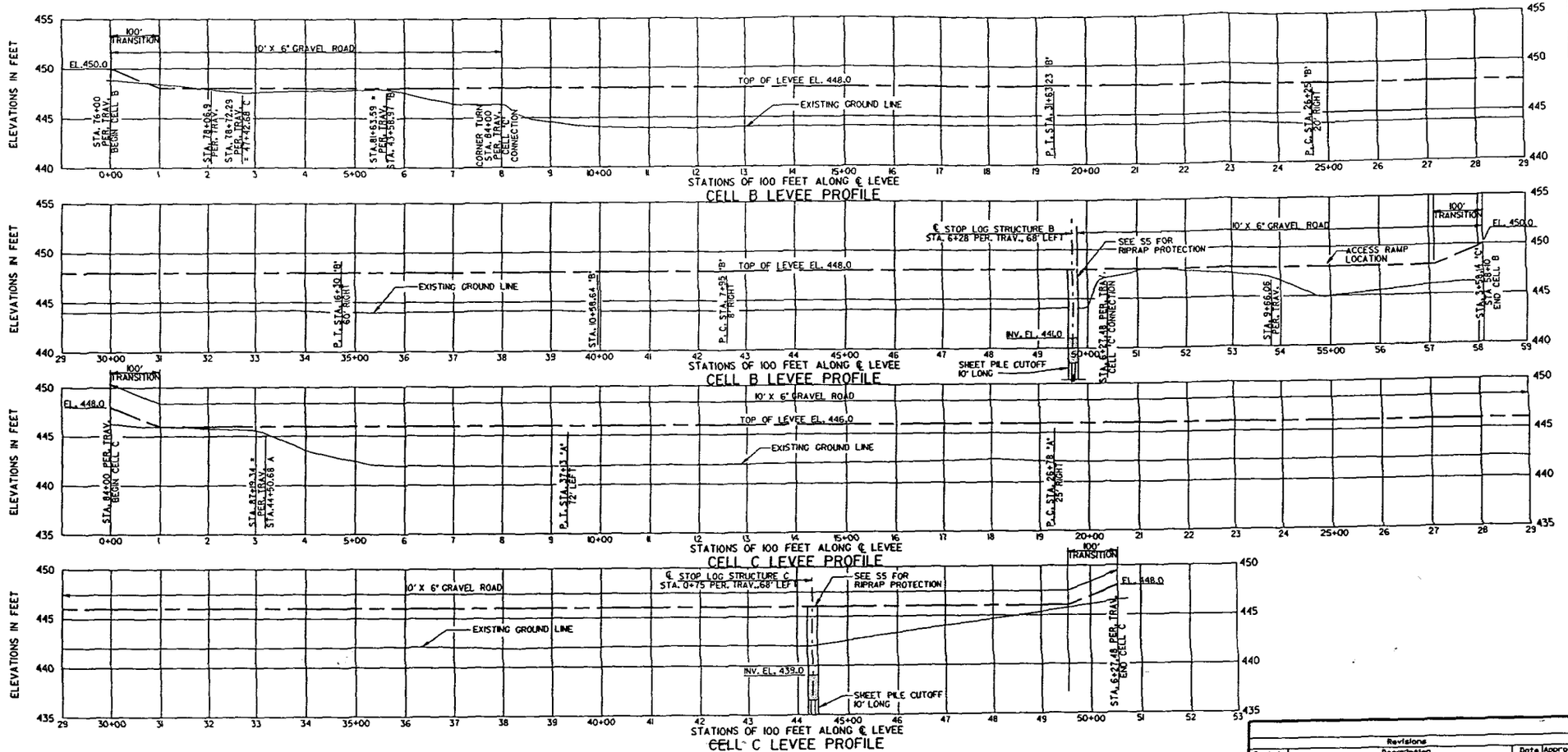
Scale: AS SHOWN
Date: 4 AUG 1993
Drawing Code: I-P2-3-EMP-3
Sheet reference number: C6
File Number: EP13/EP13C014
Solicitation Number: DACW25-93-B-0052
Sheet 7 of 23


10' X 6" GRAVEL ROAD
50'
EL. 448.5
TOP OF LEVEE EL. 450.0
EXISTING GROUND LINE
CONTRACTOR WILL PROVIDE DRAINAGE AS REQUIRED TO PREVENT WATER FROM POOLING EAST OF THE LEVEE
STA. 57+40 PER. TRAV. BEGIN CELL A 40' LEFT
STA. 68+98.36 PER. TRAV.
CORNER TURN
STA. 73+25.28 PER. TRAV.
CORNER TURN STA. 76+00 PER. TRAV. CELL B CONNECTION
P.T. STA. 40+70 "C" 40' RIGHT
ELEVATIONS IN FEET
STATIONS OF 100 FEET ALONG ℄ LEVEE
CELL A LEVEE PROFILE
P.C. STA. 28+42.89 "C"
STA. 15+65.39 "C"
P.C. STA. 12+35 "C"
STA. 9+14.00 "C"
CELL A LEVEE PROFILE
SETTLEMENT PLATE
℄ STOP LOG STRUCTURE A STA. 4+25 C - 16' RIGHT, SEE S5 FOR RIPRAP PROTECTION
GRAVEL ROAD
24" RCP DISCHARGE LINE FROM PUMP STATION
INV. EL. 443.0
STA. 3+58.14 C CELL B CONNECTION
8" EXISTING TILE NO WORK REQUIRED AT THIS LOCATION
STA. 0+00 C 13+96.16 PER. TRAV.
STA. 17+19.26 PER. TRAV.
EL. 448.4
STA. 27+93 PER. TRAV. STA. 11+22 END CELL A 45' LEFT
SHEET PILE CUTOFF 10' LONG
CELL A LEVEE PROFILE

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	18APRIL97	KJB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

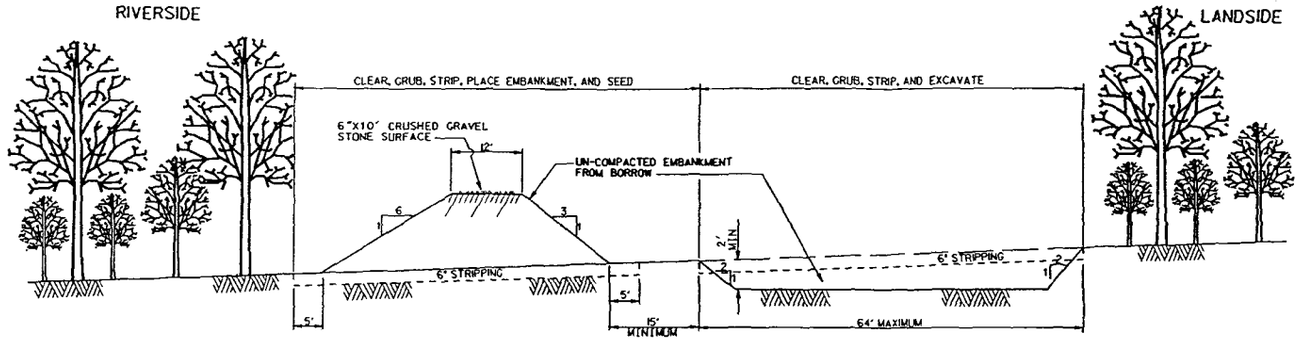
Designed by: D.J.H.	ILLINOIS WATERWAY ENVIRONMENTAL MANAGEMENT PROGRAM RIVER MILE 178.5 TO 181.0
Drawn by: H.D.G.	PEORIA LAKE FORESTED WETLAND MANAGEMENT AREA
Checked by: D.R.C.	CELL A LEVEE PROFILE
Reviewed by: J.J.C.	Scale: AS SHOWN; Date: 4 AUG 1993; Drawing Code: 1-P2-3-EMP-3; Sheet reference number: C7; File Number: EP13\EP13C015.DGN; Solicitation Number: DACW25-93-B-0052; Sheet 8 of 23
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS	



Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	8APR97	K.JB/BLK

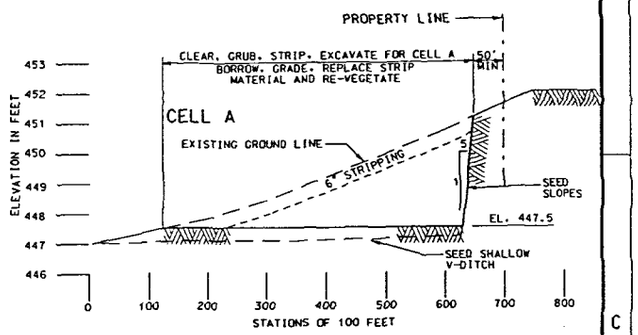
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: D.J.H.	ILLINOIS WATERWAY ENVIRONMENTAL MANAGEMENT PROGRAM RIVER MILE 178.5 TO 181.0
Drawn by: H.D.G.	PEORIA LAKE FORESTED WETLAND MANAGEMENT AREA
Checked by: D.R.C.	CELL B & C LEVEE PROFILES
Reviewed by: J.J.C.	Scale: AS SHOWN
Approved by: ALBERT LEWIS COL., CORPS OF ENGINEERS	Dated: 4 AUG 1993
Sheet reference numbers: C8	File Number: EPLS\EPLSC06.DGN
Solicitation Number: DACW25-93-B-0052	
Drawing Code: I-P2-3-EMP-3	Sheet 9 of 23

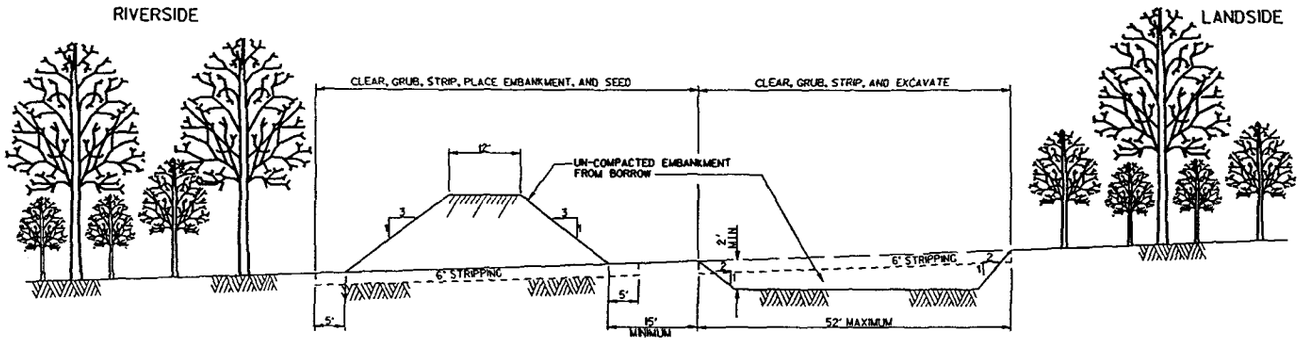


SECTION J - J

TYPICAL SECTION CELL C
STA. 44+50.86A TO STA. 0+71.0
NO SCALE

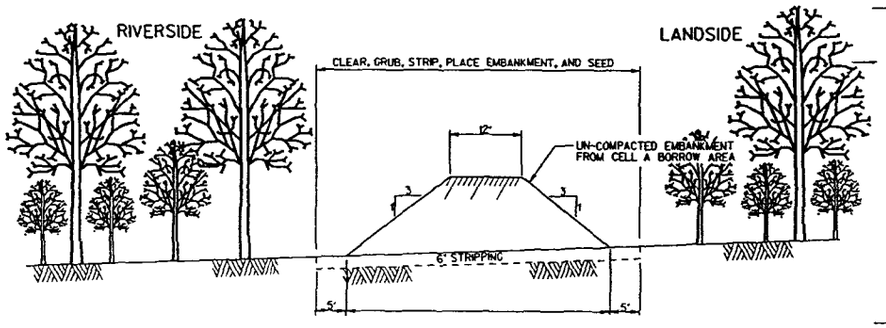


SECTION M - M
CELL A BORROW SITE



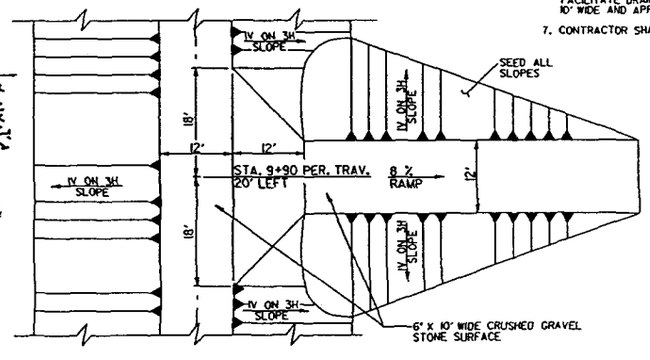
SECTION K - K

TYPICAL SECTION CELL B & CELL A NORTH SLS "A" ⚠
NO SCALE



SECTION L - L

TYPICAL SECTION CELL A SOUTH SLS "A" ⚠
NO SCALE



ACCESS RAMP DETAIL

NO SCALE

GENERAL NOTES:

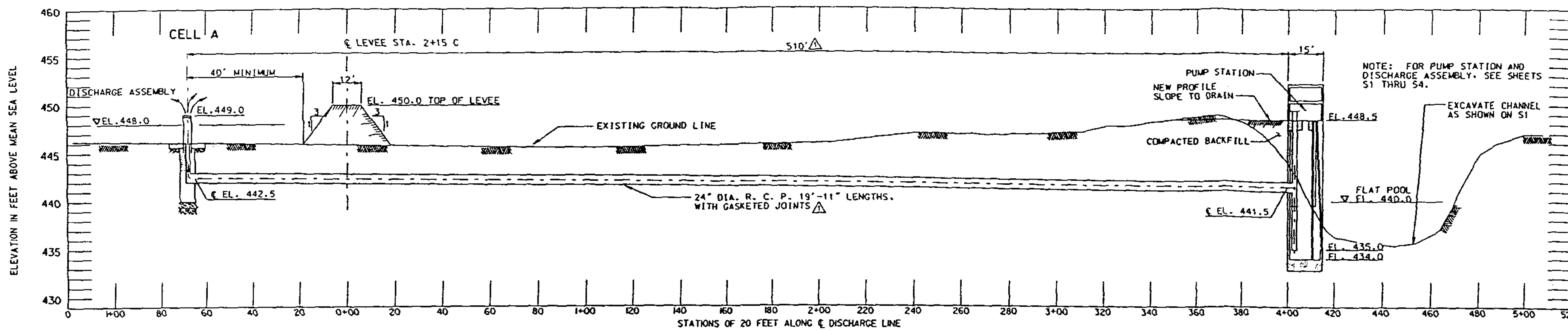
1. *FINAL BORROW AREA DIMENSIONS FOR CELLS B & C, ADJACENT TO LEVEE* EMBANKMENT, WILL BE DETERMINED BY EMBANKMENT QUANTITY. MAXIMUM WIDTH IS SHOWN; MINIMUM DEPTH IS SHOWN. SIDE SLOPES SHALL REMAIN CONSTANT. BORROW AREAS SHALL BE CONTINUOUS WITH NO ABRUBT ELEVATION OR WIDTH CHANGES.
2. TIMBER CLEARING SHALL BE KEPT TO A MINIMUM.
3. CLEARED TIMBER SHALL BE BURNED ON SITE OR HAULED OFF SITE. BURN PILE LOCATIONS SHALL BE APPROVED BY THE COR.
4. STRIPPING MATERIAL SHALL BE REPLACED ON THE LEVEE AT THE SAME LEVEE SIDE SLOPES IN A UNIFORM MANNER AFTER COMPLETE EMBANKMENT PLACEMENT INCLUDING OVERBUILD AND PRIOR TO SEEDING.
5. APPROXIMATELY 20 EXISTING NORTHERN PECAN TREES APPROXIMATELY 2' TO 10' IN HEIGHT SHALL BE TRANSPLANTED ON SITE.
6. CONTRACTOR SHALL EXCAVATE 4 SHALLOW V DITCHES IN BORROW AREA CELL "A" TO FACILITATE DRAINAGE. DITCHES WILL BE .5 TO 1FOOT DEEP AT THE CENTER. 10' WIDE AND APPROXIMATELY 150' APART.
7. CONTRACTOR SHALL OVERBUILD EMBANKMENT INDICATED BY 25 %. SEE SPECIFICATIONS.

Revisions			
Symbol	Description	Date	Approved
⚠	REVISED AS CONSTRUCTED	18APR1STK.JB/BLK	

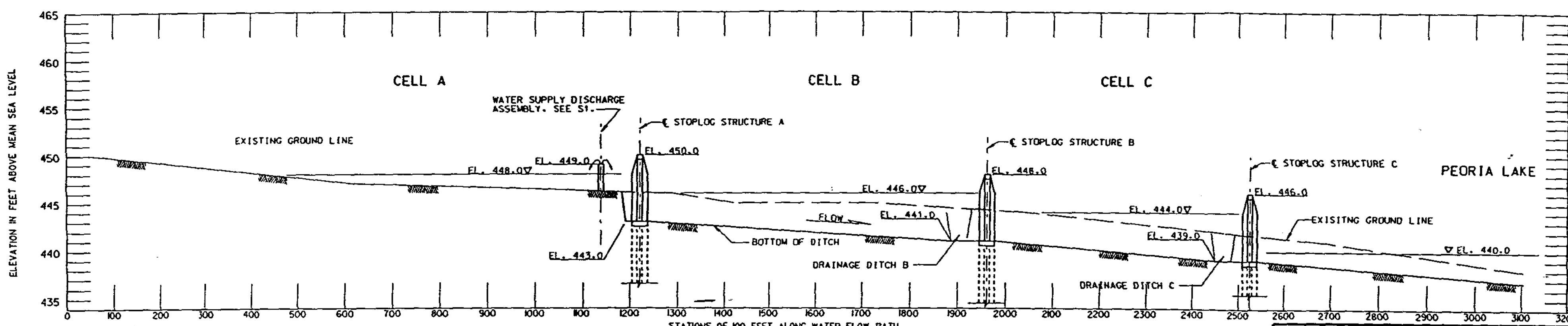
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by:	D.J.H.
Drawn by:	H.D.G.
Checked by:	D.R.C.
Reviewed by:	J.J.C.
Approved by: ALBERT J. LINNEE, COL., CORPS OF ENGINEERS	
Scales	
Date: 4 AUG 1993	
Drawing Code:	I-P2-3-EMP-3
Sheet reference numbers	C9
File Numbers: EP13C07	
Solicitation Number: DACW25-93-B-0052	
Sheet 10 of 23	

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA
TYPICAL SECTIONS



WATER SUPPLY PLAN



WATER CONTROL PLAN

NOTES:

1. FOR PUMP STATION DETAILS SEE S1 THRU S4.
2. FOR STOPLOG STRUCTURE DETAILS SEE S5 THRU S9.

Revisions			
Symbol	Description	Date	Approved
△	REVISED AS CONSTRUCTED	18APR97	KJB/BLK

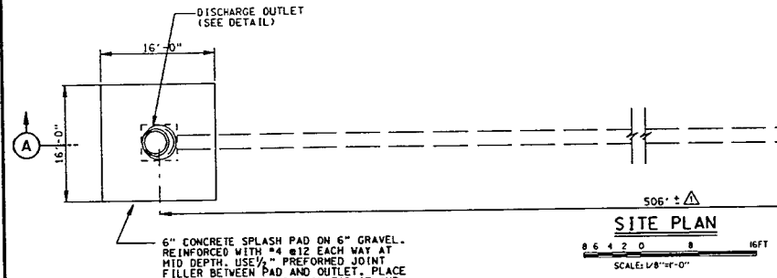
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA

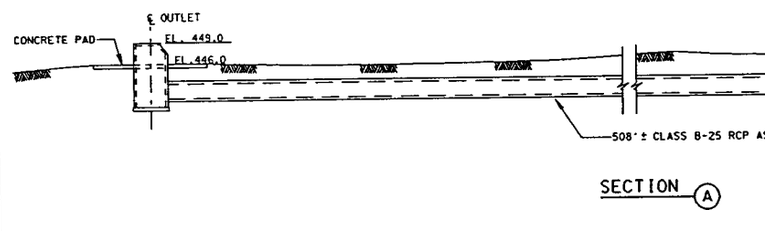
AREA WATER CONTROL

Designed by:	D.J.H.
Drawn by:	H.D.G.
Checked by:	D.R.C.
Reviewed by:	J.J.C.
Approved by:	ALBERT J. DAVIS, COL., CORPS OF ENGINEERS
Scale:	AS SHOWN
Date:	4 AUG 1993
Drawing Code:	I-P2-3-EMP-3
Sheet reference number:	C10
File Number:	EPISC010
Solicitation Number:	DACW25-93-B-0052
	Sheet 11 of 23

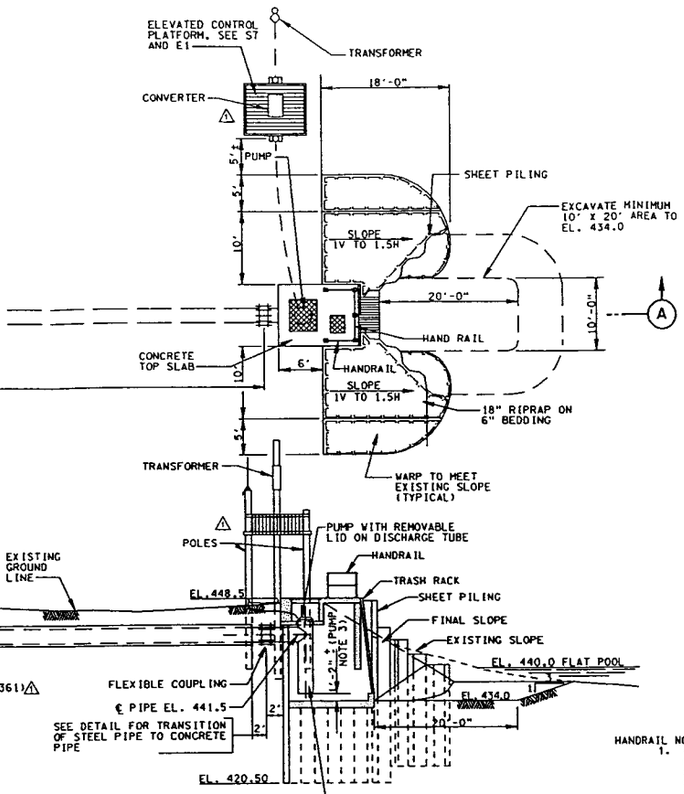
PUMP NOTES:
1. THE DISCHARGE TUBE, SUPPORTS, AND REDUCING ELBOW OUT OF THE PUMP STATION SHALL BE FABRICATED AND INSTALLED AS RECOMMENDED BY THE PUMP MANUFACTURER.
2. THE DISCHARGE TUBE SHALL BE PROVIDED WITH A REMOVABLE, FLANGED, AND WATERTIGHT ACCESS COVER.
3. ADJUST DISCHARGE TUBE/SUMP FLOOR CLEARANCE AS RECOMMENDED BY PUMP MANUFACTURER.
4. SEE ELECTRICAL SHEETS E1 AND E2 FOR PUMP ELECTRICAL DETAILS.

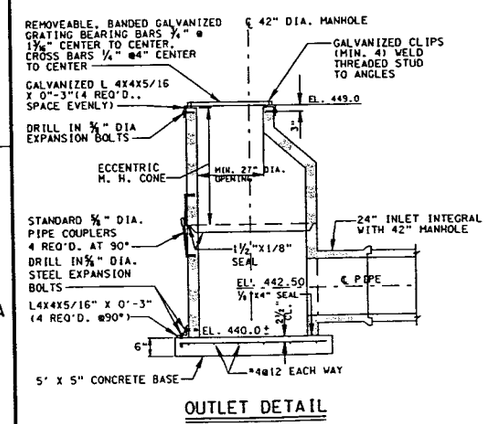


SITE PLAN
SCALE: 1/8"=1'-0"



SECTION (A)

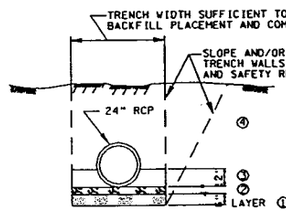




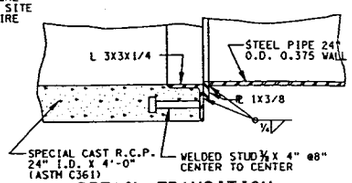
OUTLET DETAIL
NO SCALE

BACKFILL LAYER NO.	MATERIAL	COMPACTION
1	GRANULAR FREE DRAINING, LESS THAN 5% PASSING 200 SIEVE	70% RELATIVE DENSITY AS PER ASTM TESTS D4253 AND D4254
2	SAME AS 1	UNCOMPACTED
3	COHESSIVE OR GRANULAR MORE THAN 5% PASSING 200 SIEVE	PLACE IN 6" LAYERS COMPACT EACH TO 95% MAXIMUM DENSITY AS PER ASTM TEST D698
4	COHESSIVE OR GRANULAR	PLACE IN 12" LAYERS COMPACT TO EQUAL ADJACENT MATERIAL

PIPE INSTALLATION

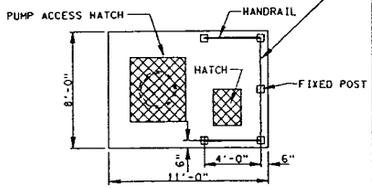


PIPE BEDDING
NO SCALE

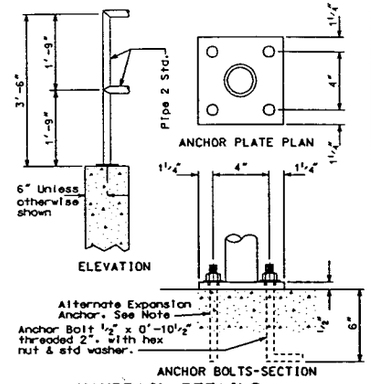


DETAIL TRANSITION STEEL PIPE TO CONCRETE PIPE
NO SCALE

AT TOP RAIL AND MID-RAIL ELEVATION INSTALL SIZE 10 GALVANIZED JACK CHAIN, EACH LENGTH REMOVEABLE AT CENTER POST W/ GALV. UTILITY SNAP.



HANDRAIL PLAN
SCALE: ¼" = 1'-0"



HANDRAIL DETAILS
NO SCALE

HANDRAIL NOTES:
1. Anchor bolts-either embedded bolts or expansion bolts may be used. Expansion bolts shall be 1/2" dia., have atleast 5 inch embeddment, 4000 lb. ultimate pullout and 6000 lb. ultimate shear. All anchor bolts and fasteners to be galvanized.
2. Weld all pipe joints with continuous bead, size equal to pipe wall thickness, and dress smooth.
3. Handrail to be galvanized after fabrication.

Revisions			
Symbol	Description	Date	Approved
⚠	REVISED AS CONSTRUCTED		RAPP/STIK/JB/BLK

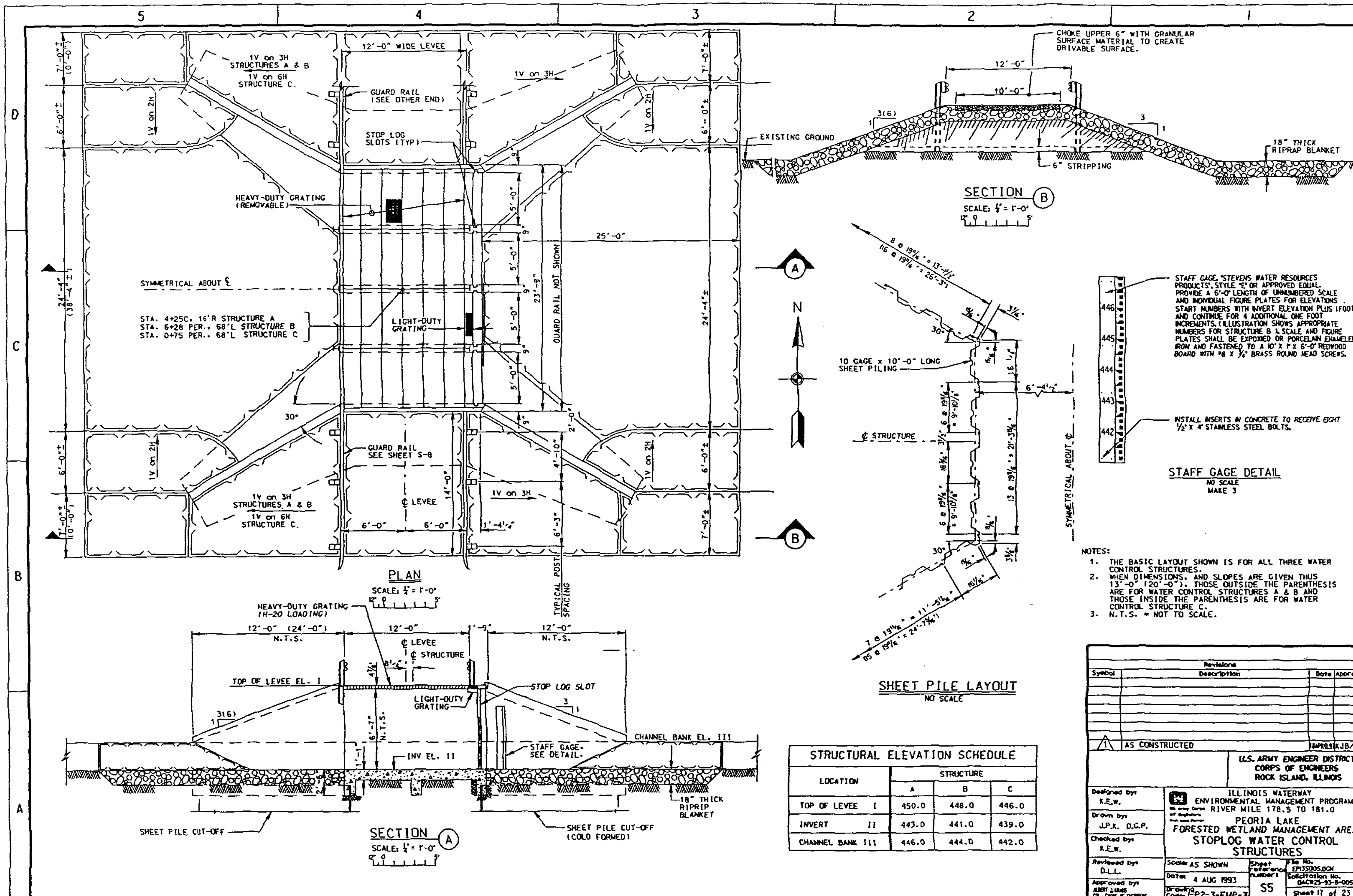
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by	D.A.P.
Drawn by	D.G.P./H.D.G.
Checked by	D.A.P.
Reviewed by	R.C.A.
Approved by	ALBERT J. LINDS DIR., CORPS OF ENGINEERS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
US Army Corps of Engineers
RIVER MILE 178.5 TO 181.0
PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA
PUMP STATION SITE PLAN

Scale	AS SHOWN
Date	4 AUG 1993
Drawing Code	H-P2-3-EMP-3
Sheet reference number	S1
File Number	EMP3SOOLDGN
Solicitation Number	DACW25-93-B-0052
	Sheet 13 of 23

01-AUG-1993 13:22



NOTES:

1. THE BASIC LAYOUT SHOWN IS FOR ALL THREE WATER CONTROL STRUCTURES.
2. WHEN DIMENSIONS, AND SLOPES ARE GIVEN THUS 13'-0" (20'-0"), THOSE OUTSIDE THE PARENTHESIS ARE FOR WATER CONTROL STRUCTURES A & B AND THOSE INSIDE THE PARENTHESIS ARE FOR WATER CONTROL STRUCTURE C.
3. N.T.S. = NOT TO SCALE.

STRUCTURAL ELEVATION SCHEDULE

LOCATION	STRUCTURE		
	A	B	C
TOP OF LEVEE I	450.0	448.0	446.0
INVERT II	443.0	441.0	439.0
CHANNEL BANK III	446.0	444.0	442.0

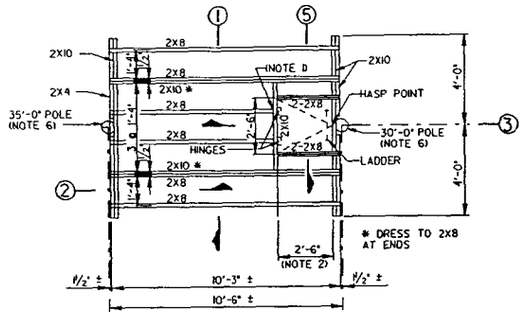
Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	[illegible]	KJB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA
STOPLOG WATER CONTROL STRUCTURES

Designed by: K.E.W.
Drawn by: J.P.K. D.G.P.
Checked by: K.E.W.
Reviewed by: D.L.L.
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS

Scale: AS SHOWN
Date: 4 AUG 1993
Drawing Code: I-P2-3-EMP-3
Sheet reference number: S5
File No. EP13S005.DGN
Solicitation No. DACW25-93-B-0052
Sheet 17 of 23

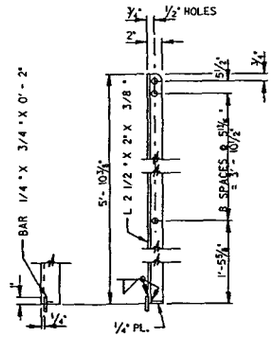


FRAMING PLAN

SCALE: 1/2" = 1'-0"

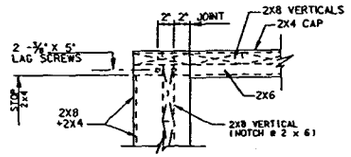
NOTES:

1. JOIST HANGERS SHALL CARRY A MINIMUM LOAD OF 620#.
2. PROVIDE BRIDGING AT THE ENDS AND MID-SPAN OF JOISTS.
3. PROVIDE A 2" THICK WOOD HATCH COVER FLUSH WITH THE DECK. PROVIDE HEAVY DUTY HINGES AND HASP FOR PADLOCK.
4. ALL BOLTS AND LAG SCREWS SHALL BE GALVANIZED, AND SHALL HAVE WASHERS AT HEAD AND NUT.
5. GLUE SHALL BE EXTERIOR GRADE.
6. PROVIDE DOUGLAS FIR OR SOUTHERN PINE, CLASS 3 POLES. SET A MINIMUM OF 8' - 0" INTO GROUND.



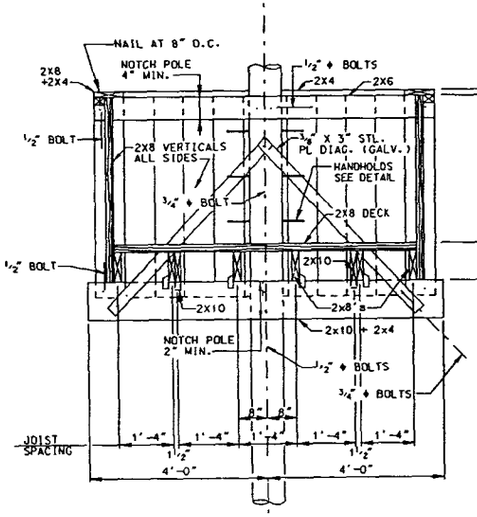
STOP LOG KEEPERS

MAKE 12 (AS SHOWN AND 12 OPP. HAND)



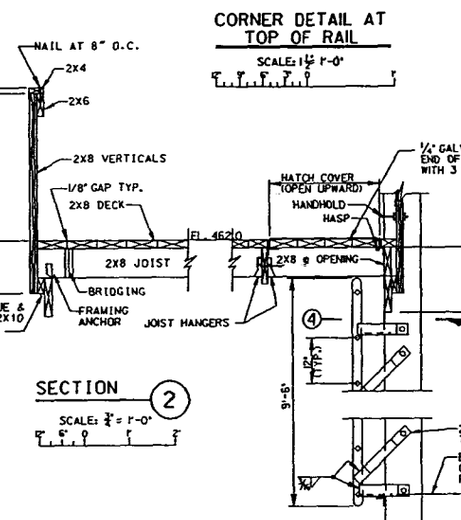
CORNER DETAIL AT TOP OF RAIL

SCALE: 1 1/2" = 1'-0"



SECTION 1

SCALE: 3/4" = 1'-0"



SECTION 2

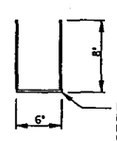
SCALE: 3/4" = 1'-0"

SECTION 3

SCALE: 3/4" = 1'-0"

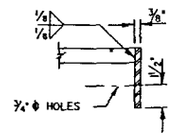
NOTE:

LADDER TO BE FABRICATED IN LENGTHS THAT WILL PERMIT GALVANIZING AFTER FABRICATION. SPLICES WILL BE FULL PENETRATION WELDS. GALVANIZING DESTROYED BY WELDING SHALL BE REPAIRED AS DESCRIBED IN SPECIFICATIONS.



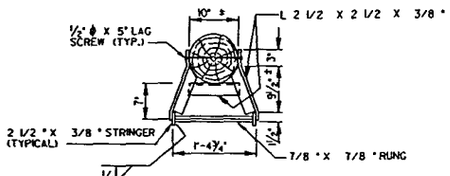
BAR 1/2 X 22" THREAD EACH END 3" PROVIDE 4 HEX NUTS AND 4 FLAT WASHERS FOR EACH HANDHOLD

HANDHOLD



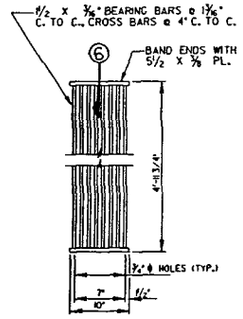
SECTION 6

NO SCALE



SECTION 4

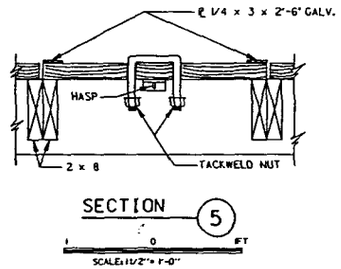
SCALE: 1" = 1'-0"



LIGHT DUTY GRATING DETAILS

NO SCALE

(MAKE 12) (ASTM A36)



SECTION 5

SCALE: 1 1/2" = 1'-0"

REFERENCES:

1. SEE SHEET S-1 FOR LOCATION OF ELEVATED CONTROL PLATFORM.
2. SEE SHEET S-5 FOR LOCATION OF LIGHT-DUTY GRATING.

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	16APR97	KJB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

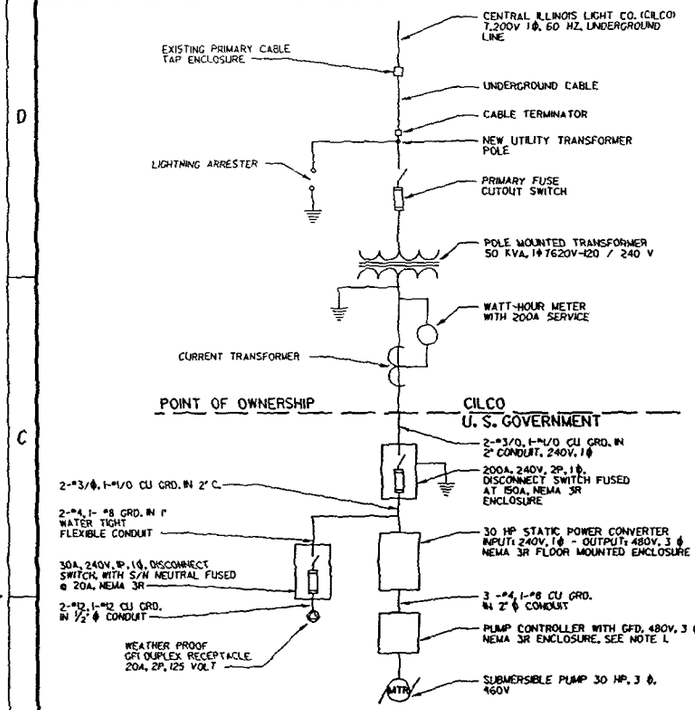
Designed by: K.E.W.
Drawn by: H D C.
Checked by: K.E.W.
Reviewed by: D.J.L.
Approved by: ALBERT J. EBERS COL., CORPS OF ENGINEERS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 180

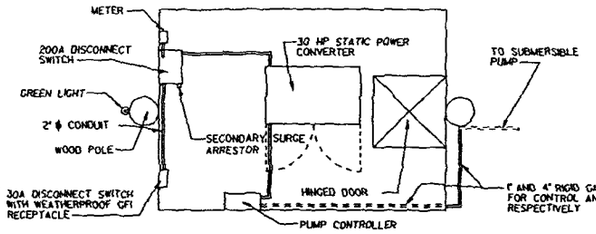
PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA

ELEVATED CONTROL PLATFORM

Scales: AS SHOWN
Date: 4 AUG 1993
Drawing Code: I-P2-3-EMP-3
Sheet reference number: S7
File Number: EP93S007.DGN
Solicitation Number: DACW25-93-B-0052
Sheet 19 of 23



ONE-LINE DIAGRAM OF PUMP STATION POWER SERVICE



ELEVATED WOOD PLATFORM ASSEMBLY PLAN

NOT TO SCALE

CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING IN ACCORDANCE WITH CENTRAL ILLINOIS LIGHT CO. STANDARDS:

1. ELEVATED WOOD PLATFORM ASSEMBLY
2. WEATHERHEAD
3. SERVICE CONDUCTORS FROM TRANSFORMER TO METER
4. SECONDARY CONDUITS AND APPURTENANCES
5. GROUND RODS AND CONNECTIONS FOR PLATFORM ASSEMBLY
6. SECONDARY FUSED DISCONNECT SWITCHES
7. WEATHERPROOF RECEPTACLE
8. STATIC POWER CONVERTER
9. METER BASE (INSTALLED ONLY)
10. LIGHTING PROTECTION SYSTEM FOR PLATFORM ASSEMBLE
11. STAND OFF BRACKETS AND U-CLAMPS (INSTALLED BY CONTRACTOR AND FURNISHED BY UTILITY)

CENTRAL ILLINOIS LIGHT CO. TO FURNISH AND INSTALL THE FOLLOWING:

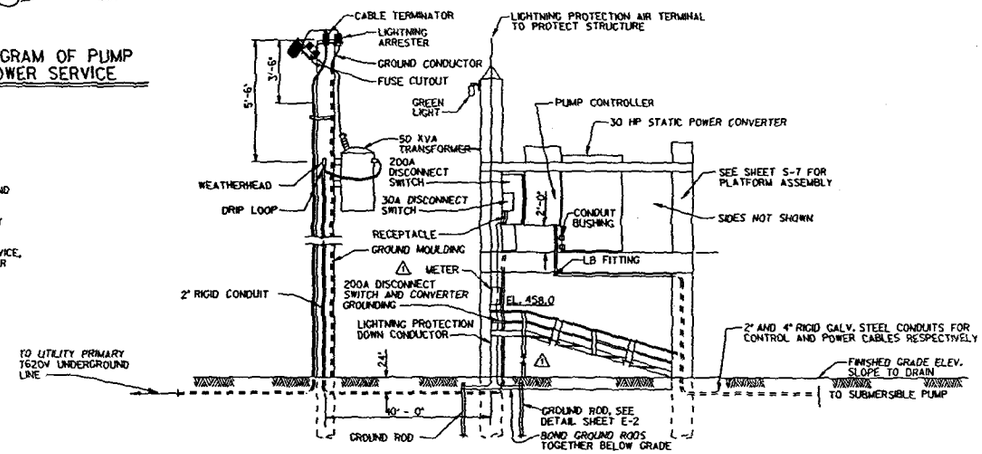
1. UTILITY TRANSFORMER POLE
2. PRIMARY CABLES AND APPURTENANCES
3. POLE MOUNTED TRANSFORMER
4. PRIMARY LIGHTNING ARRESTER AND APPURTENANCES
5. PRIMARY FUSED CUTOUT SWITCH
6. CABLE TERMINATOR
7. METER (INSTALLED) & METER BASE (FURNISHED ONLY)

ELECTRICAL LEGEND

- FUSIBLE DISCONNECT SWITCH
- GROUNDING
- MTR MOTOR
- 125V, 20A WEATHERPROOF DUPLEX GFI RECEPTACLE W/ SPRING HINGE COVER

NOTES:

1. PUMP MANUFACTURER TO FURNISH PUMP CONTROLLER AND CABLE BETWEEN PUMP CONTROLLER AND PUMP MOTOR.
2. FOR PLATFORM ASSEMBLY DETAIL, SEE SHEET S-7.
3. LIGHTING PROTECTION SYSTEM FOR PLATFORM ASSEMBLY SHALL BE A CLASS I INSTALLATION PER NFPA 780.
4. FOR PUMP STATION SITE PLAN, SEE SHEET S-1.
5. WHEN THE PUMP IS REQUIRED TO BE REMOVED FOR SERVICE, ITS CABLE SHALL BE DISCONNECTED AT THE CONTROLLER AND PULLED THROUGHT THE 4" CONDUIT.
6. NO SPLICES SHALL BE MADE TO PUMP MANUFACTURER SUPPLIED POWER OR CONTROL CABLES.
7. ALL SAFETY GROUNDING AND LIGHTNING GROUNDING SYSTEMS SHALL BE BONDED TOGETHER AT THE GROUND RODS ONLY.
8. GREEN LIGHT IS SIMILAR TO TYPE 107B FIXTURE WITH POLYCARBONATE GLASS LENS. ITS RATING IS 100 WATTS INCANDESCENT.
9. MOUNT ALL EQUIPMENT A MINIMUM OF 2 INCHES OFF FLOOR OF ELEVATED WOOD PLATFORM.



UTILITY TRANSFORMER POLE AND PLATFORM ASSEMBLY

NOT TO SCALE

Revisions			
Symbol	Description	Date	Approved
⚠	REVISED AS CONSTRUCTED		RAPHE/STK/JB/BLK

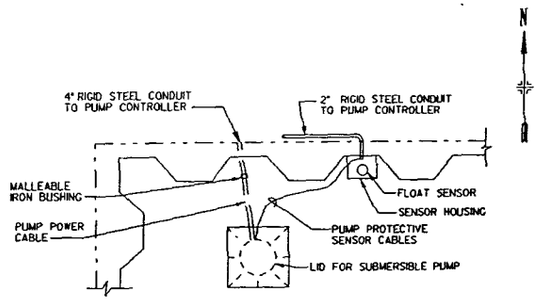
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by C.J.A.
Drawn by K.D.G.
Checked by D.N.R.
Reviewed by J.J.C.
Approved by ALBERT G. DAVIS, DIV., CORPS OF ENGINEERS

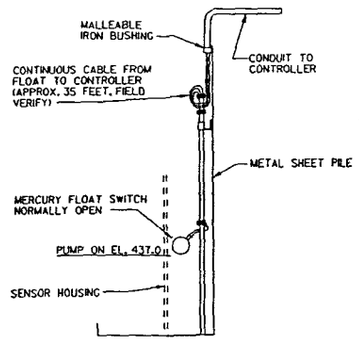
ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 180

PEORIA LAKE
FORESTED WETLAND MANAGEMENT AREA
ELECTRICAL ONE-LINE DIAGRAM AND LEGEND

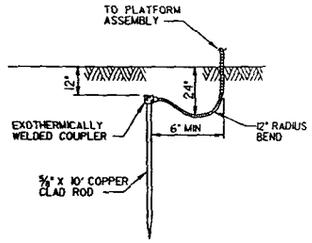
Scales: NO SCALE
Date: 4 AUG 1993
Drawing Code: I-P2-3-EMP-3
Sheet reference numbers: E1
File Number: Solicitation Numbers: DACW25-93-B-0052
Sheet 22 of 23



ELECTRICAL EQUIPMENT PLAN



FLOAT STATION



GROUND ROD DETAIL

NOT TO SCALE

NOTES:

1. UPON SUMP LOW LEVEL TRIP, PUMP WILL REQUIRE MANUAL RESET TO RESTART.

NOTES:

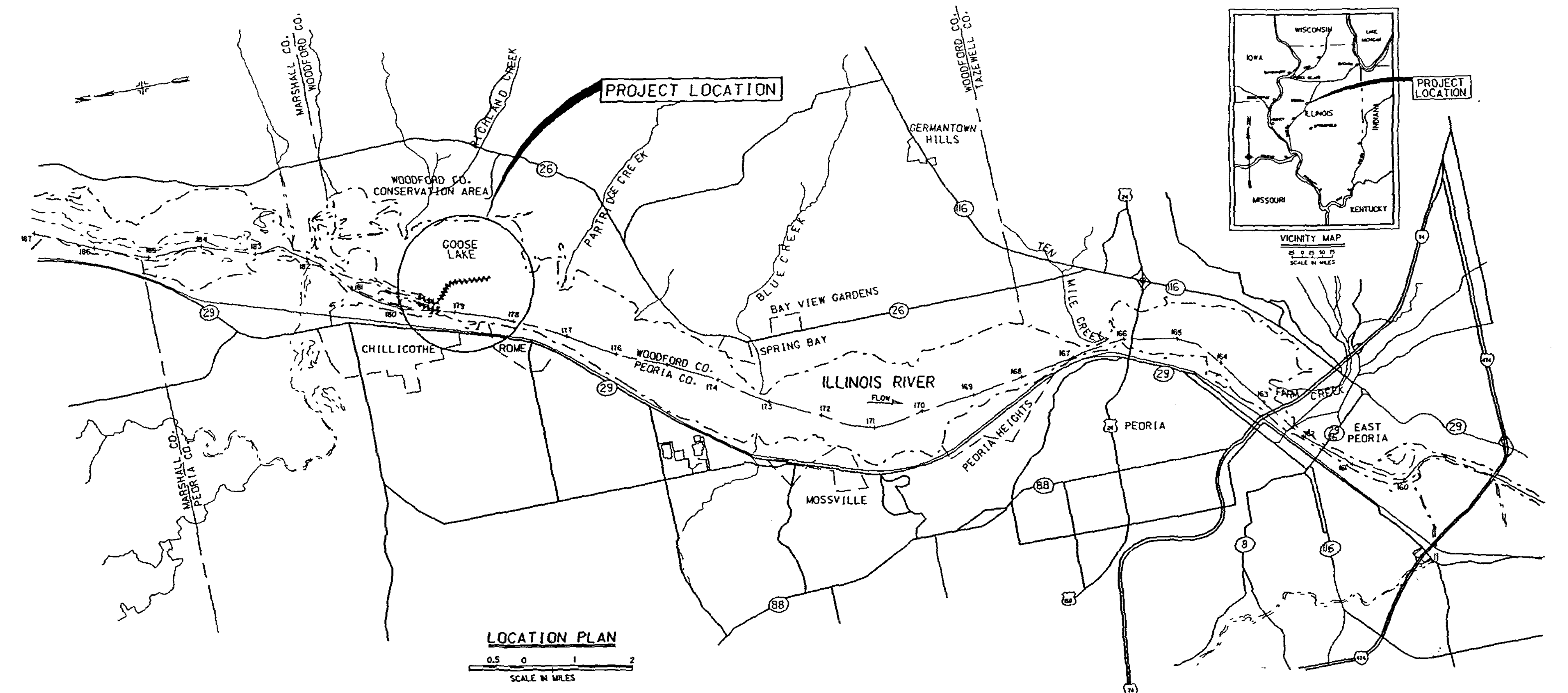
1. USE 1" AND 4" RIGID GALV. STEEL CONDUITS FOR CONTROL AND POWER CABLES RESPECTIVELY.
2. PUMP MANUFACTURER TO FURNISH SUBMERSIBLE PUMP CABLE.
3. FOR ELECTRICAL LEGEND, SEE SHEET E-1.

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	4APR97	KJB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: C.J.A.	ILLINOIS WATERWAY ENVIRONMENTAL MANAGEMENT PROGRAM RIVER MILE 178.5 TO 181.0
Drawn by: H.D.G.	PEORIA LAKE FORESTED WETLAND MANAGEMENT AREA
Checked by: D.N.R.	ELECTRICAL DETAILS
Reviewed by: J.J.C.	Scales: NO SCALE; Dates: 4 AUG 1993; Sheet cross-reference numbers: E2; File Number: EP13E003; Solicitation Number: DACW25-93-B-0052
Approved by: ALBERT J. EDMUNDS COL., CORPS OF ENGINEERS	Drawing Code: I-P2-3-EMP-3; Sheet 23 of 23

01-JUN-1998 13:16



LOCATION PLAN

0.5 0 1 2

SCALE IN MILES

INDEX		
SHEET NO.	SHEET REF.NO	DESCRIPTION
1	X-1	LOCATION PLAN, VICINITY MAP AND INDEX
2	C-1	SITE PLAN
3	C-2	HYDRAULIC DATA I
4	C-3	HYDRAULIC DATA II
5	C-4	HYDRAULIC DATA III
6	C-5	BORING LOGS BARRIER ISLAND / EAST RIVER
7	C-6	EAST RIVER PLAN STA 42+62.91 TO STA 92+83.91
8	C-7	BARRIER ISLAND PLAN STA 92+83.91 TO STA 129+04.98
9	C-8	BARRIER ISLAND PLAN STA 129+04.98 TO STA 153+97.41
~~10~~	~~C-9~~	~~EAST RIVER PLAN STA 0+00 TO STA 42+62.91~~ DELETED
11	C-10	EAST RIVER / BARRIER ISLAND TYPICAL SECTIONS
12	C-11	TURBIDITY CURTAIN / WATER SAMPLE LOCATIONS
13	C-12	EAST RIVER / BARRIER ISLAND CONSTRUCTION SEQUENCE

SIGNATURES AFFIXED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF ALL DRAWINGS IN THIS SET AS INDICATED ON EACH INDIVIDUAL TITLE BLOCK.

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	4 APRIL 97	KGB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

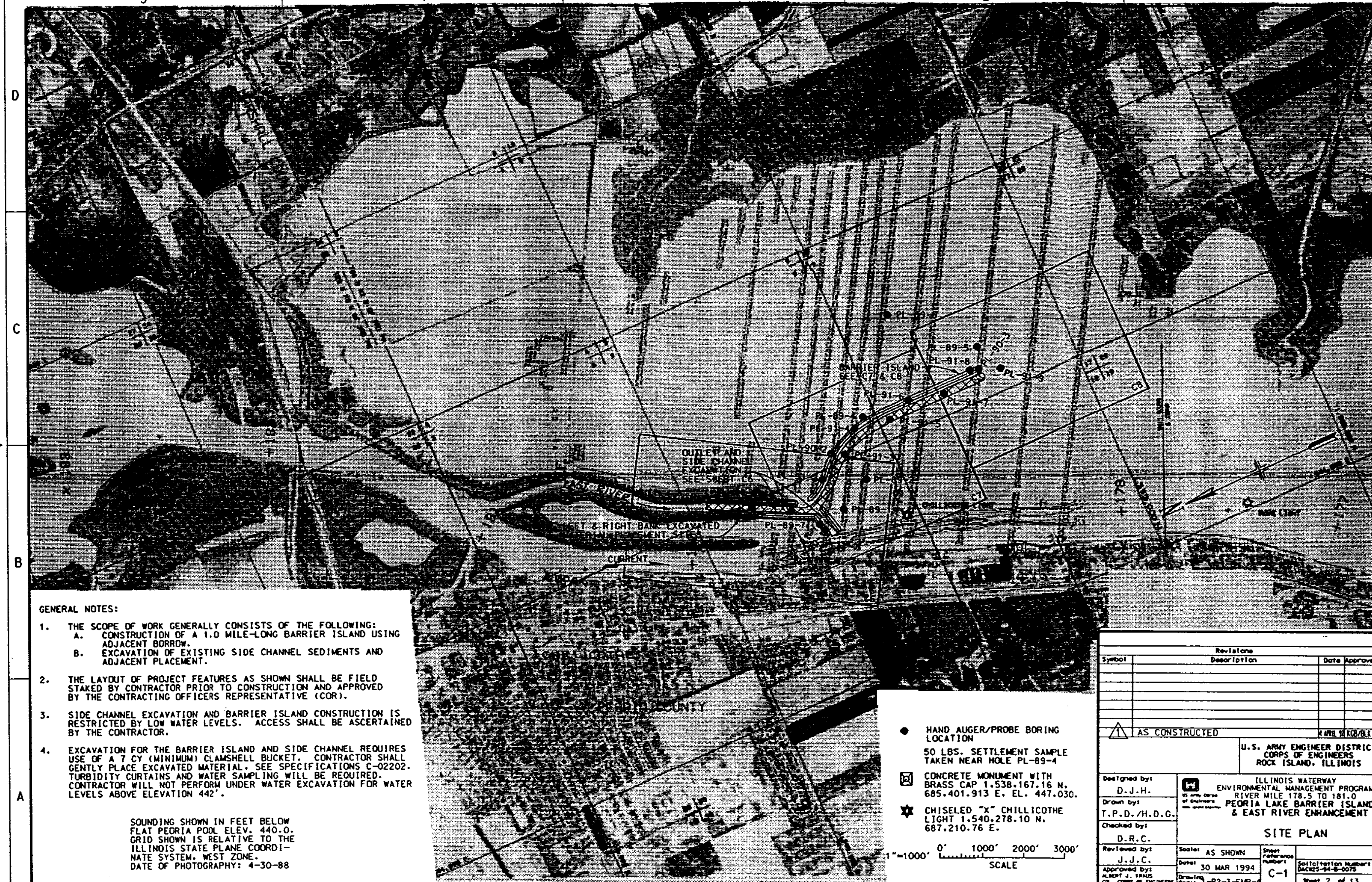
ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE BARRIER ISLAND
& EAST RIVER ENHANCEMENT

LOCATION PLAN, VICINITY MAP AND INDEX

Prepared by: U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
Submitted by: CHIEF, DESIGN BR.
CHIEF, HYDRAULICS BR.
CHIEF, GEOTECHNICAL BR.
Recommended by: CHIEF, ENGINEERING DIV.
Approved by: COL., CORPS OF ENGINEERS Date

Designed by: D.J.H.
Drawn by: T.P.D./H.D.G.
Checked by: D.R.C.
Reviewed by: J.J.C.
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS

Scale: AS SHOWN
Date: 30 MAR 1994
Drawing Code: 1-P2-3-EMP-4
Sheet reference number: X-1
ep14/epx002
Solicitation Number: DACW25-94-B-0075
Sheet 1 of 13



GENERAL NOTES:

1. THE SCOPE OF WORK GENERALLY CONSISTS OF THE FOLLOWING:
   A. CONSTRUCTION OF A 1.0 MILE-LONG BARRIER ISLAND USING ADJACENT BORROW.
   B. EXCAVATION OF EXISTING SIDE CHANNEL SEDIMENTS AND ADJACENT PLACEMENT.

2. THE LAYOUT OF PROJECT FEATURES AS SHOWN SHALL BE FIELD STAKED BY CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY THE CONTRACTING OFFICERS REPRESENTATIVE (COR).

3. SIDE CHANNEL EXCAVATION AND BARRIER ISLAND CONSTRUCTION IS RESTRICTED BY LOW WATER LEVELS. ACCESS SHALL BE ASCERTAINED BY THE CONTRACTOR.

4. EXCAVATION FOR THE BARRIER ISLAND AND SIDE CHANNEL REQUIRES USE OF A 7 CY (MINIMUM) CLAMSHELL BUCKET. CONTRACTOR SHALL GENTLY PLACE EXCAVATED MATERIAL. SEE SPECIFICATIONS C-02202. TURBIDITY CURTAINS AND WATER SAMPLING WILL BE REQUIRED. CONTRACTOR WILL NOT PERFORM UNDER WATER EXCAVATION FOR WATER LEVELS ABOVE ELEVATION 442'.

SOUNDING SHOWN IN FEET BELOW FLAT PEORIA POOL ELEV. 440.0.
GRID SHOWN IS RELATIVE TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM. WEST ZONE.
DATE OF PHOTOGRAPHY: 4-30-88

● HAND AUGER/PROBE BORING LOCATION

50 LBS. SETTLEMENT SAMPLE TAKEN NEAR HOLE PL-89-4

⊠ CONCRETE MONUMENT WITH BRASS CAP 1.538.167.16 N. 685.401.913 E. EL. 447.030.

✡ CHISELED "X" CHILLICOTHE LIGHT 1.540.278.10 N. 687.210.76 E.

1"=1000' 0' 1000' 2000' 3000'
SCALE

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	4 APRIL 95	KCB/BLK

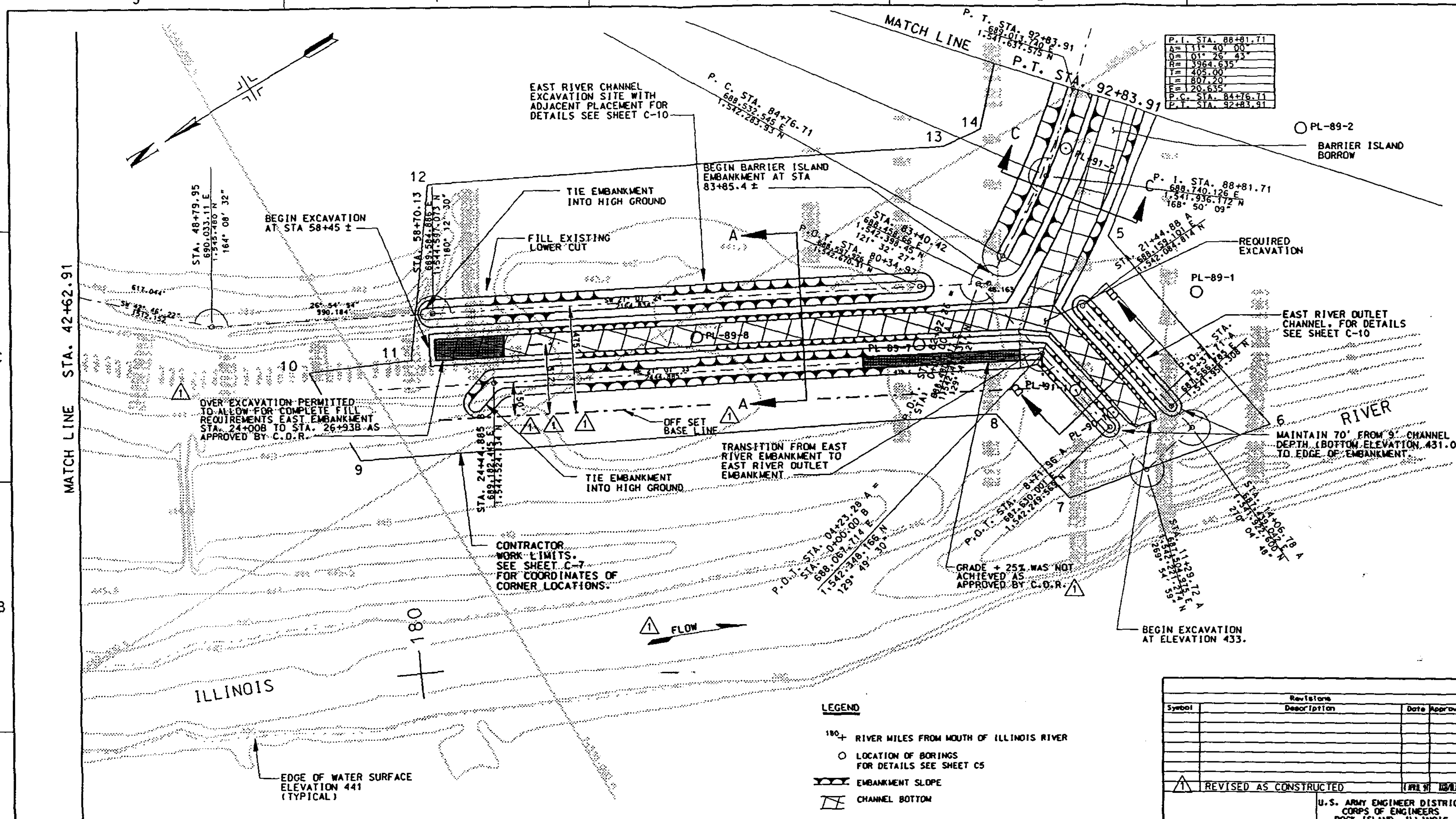
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

US Army Corps of Engineers

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE BARRIER ISLAND
& EAST RIVER ENHANCEMENT

SITE PLAN

Designed by:	D.J.H.
Drawn by:	T.P.D./H.D.G.
Checked by:	D.R.C.
Reviewed by:	J.J.C.
Approved by:	ALBERT J. KRAUS COL., CORPS OF ENGINEERS
Scale:	AS SHOWN
Date:	30 MAR 1994
Drawing Code:	1-P2-3-EMP-4
Sheet reference number:	C-1
Solicitation Number:	DACW25-94-B-0075
Sheet	2 of 13



P.I. STA. 88+81.71
Δ= 11° 40' 00"
D= 01° 26' 43"
R= 3964.635'
T= 405.00'
L= 807.20'
E= 20.635'
P.C. STA. 84+76.71
P.T. STA. 92+83.91

EAST RIVER PLAN STA. 42+62.91 TO STA. 92+83.91

SCALE: 1" = 200'

LEGEND

- 180+ RIVER MILES FROM MOUTH OF ILLINOIS RIVER
- O LOCATION OF BORINGS FOR DETAILS SEE SHEET C5
- EMBANKMENT SLOPE
- CHANNEL BOTTOM

NOTES:

1. DATES OF RIVER SOUNDINGS ARE 17-20 APRIL 1988. CONTRACTOR SHOULD EXPECT ADDITIONAL MATERIAL DEPOSITION SINCE THE SOUNDINGS WERE TAKEN.
2. FOR SECTIONS A - A, B - B & C - C, SEE SHEET C-10
3. ALL ELEVATIONS REFER TO N.G.V.D. 1929 ADJUSTMENT.

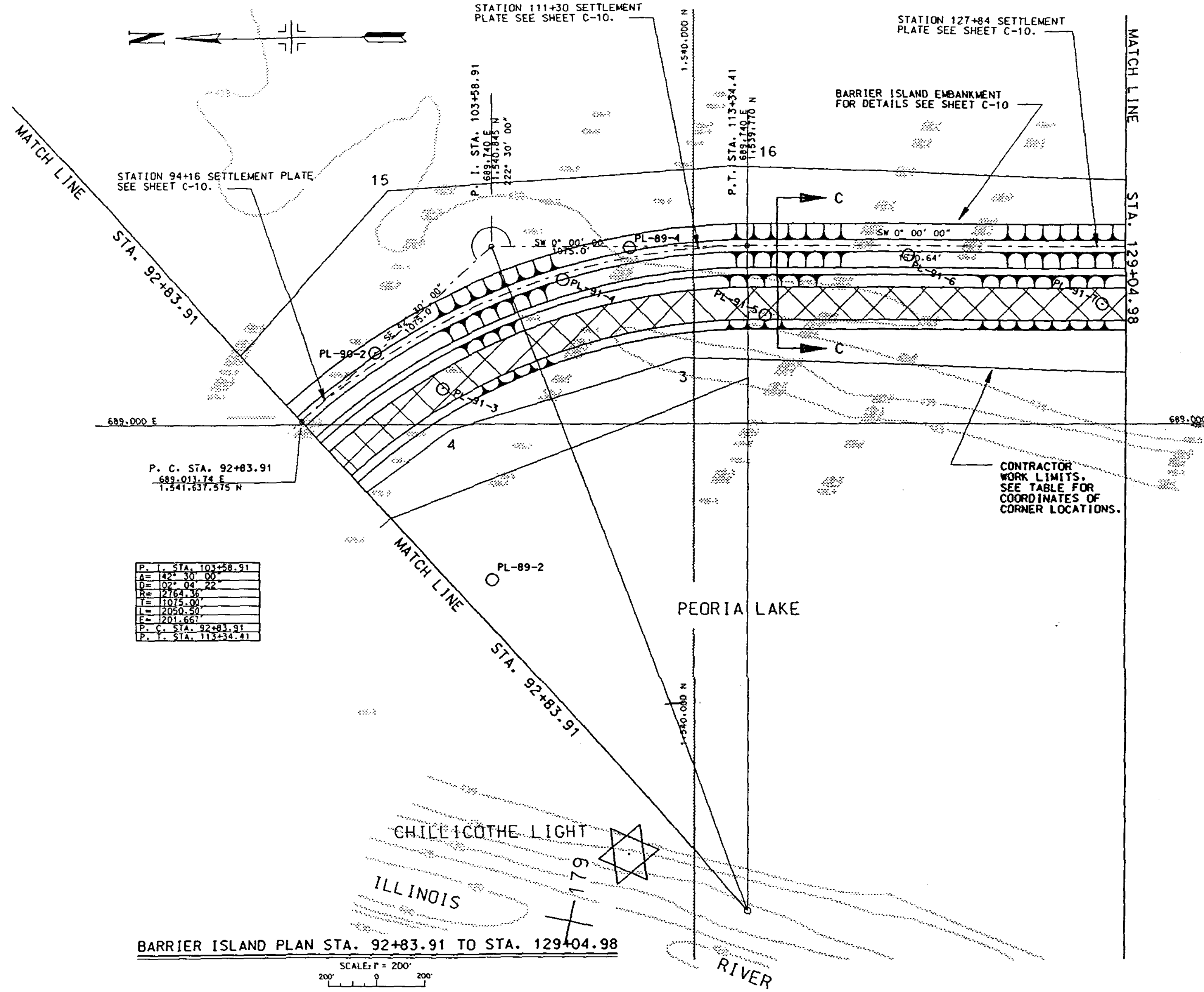
Revisions			
Symbol	Description	Date	Approved
1	REVISED AS CONSTRUCTED	[illegible]	[illegible]

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE BARRIER ISLAND
& EAST RIVER ENHANCEMENT
EAST RIVER PLAN
STA. 42+62.91 TO STA. 92+83.91

Designed by: D.J.H.
Drawn by: T.P.D./H.D.G.
Checked by: D.R.C.
Reviewed by: J.J.C.
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS

Scale: AS SHOWN
Date: 30 MAR 1994
Drawing Code: 1-P2-3-EMP-4
Sheet reference number: C-6
epl4/epl4c006
Solicitation Number: DACW25-94-B-0075
Sheet 7 of 13



P. I. STA. 103+58.91	
Δ=	42° 30' 00"
D=	02° 04' 22"
R=	2764.36'
T=	1075.00'
L=	2050.50'
E=	201.667'
P. C. STA. 92+83.91	
P. T. STA. 113+34.41	

BARRIER ISLAND PLAN STA. 92+83.91 TO STA. 129+04.98

WORK LIMIT COORDINATES

POINT	NORTHING	EASTING
1	1,535,434.7	689,926.1
2	1,535,420.6	689,126.2
3	1,540,042.5	689,276.4
4	1,541,021.5	688,975.8
5	1,541,827.0	688,368.6
6	1,541,615.7	687,281.5
7	1,542,565.1	687,448.9
8	1,542,660.5	687,939.7
9	1,545,205.8	689,181.2
10	1,545,205.9	689,634.8
11	1,544,784.4	689,453.0
12	1,544,327.9	690,088.2
13	1,542,271.0	689,084.9
14	1,542,090.0	689,069.1
15	1,541,272.9	689,975.1
16	1,539,842.0	690,070.3
1A	1,547,451.3	691,518.0
2A	1,547,588.5	691,230.2
3A	1,549,203.4	691,391.6
4A	1,549,170.5	691,689.8

LEGEND

- 179 — RIVER MILES FROM MOUTH OF ILLINOIS RIVER
- ○ — LOCATION OF BORINGS FOR DETAILS SEE SHEET C5
- EMBANKMENT SLOPE
- CHANNEL BOTTOM

NOTES:

1. DATES OF RIVER SOUNDINGS ARE 17-20 APRIL 1988. CONTRACTOR SHOULD EXPECT ADDITIONAL MATERIAL DEPOSITION SINCE THE SOUNDINGS WERE TAKEN.
2. FOR SECTION C – C SEE SHEET C-10
3. ALL ELEVATIONS REFER TO N.G.V.D. 1929 ADJUSTMENT

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	4 APRIL 97	KGB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

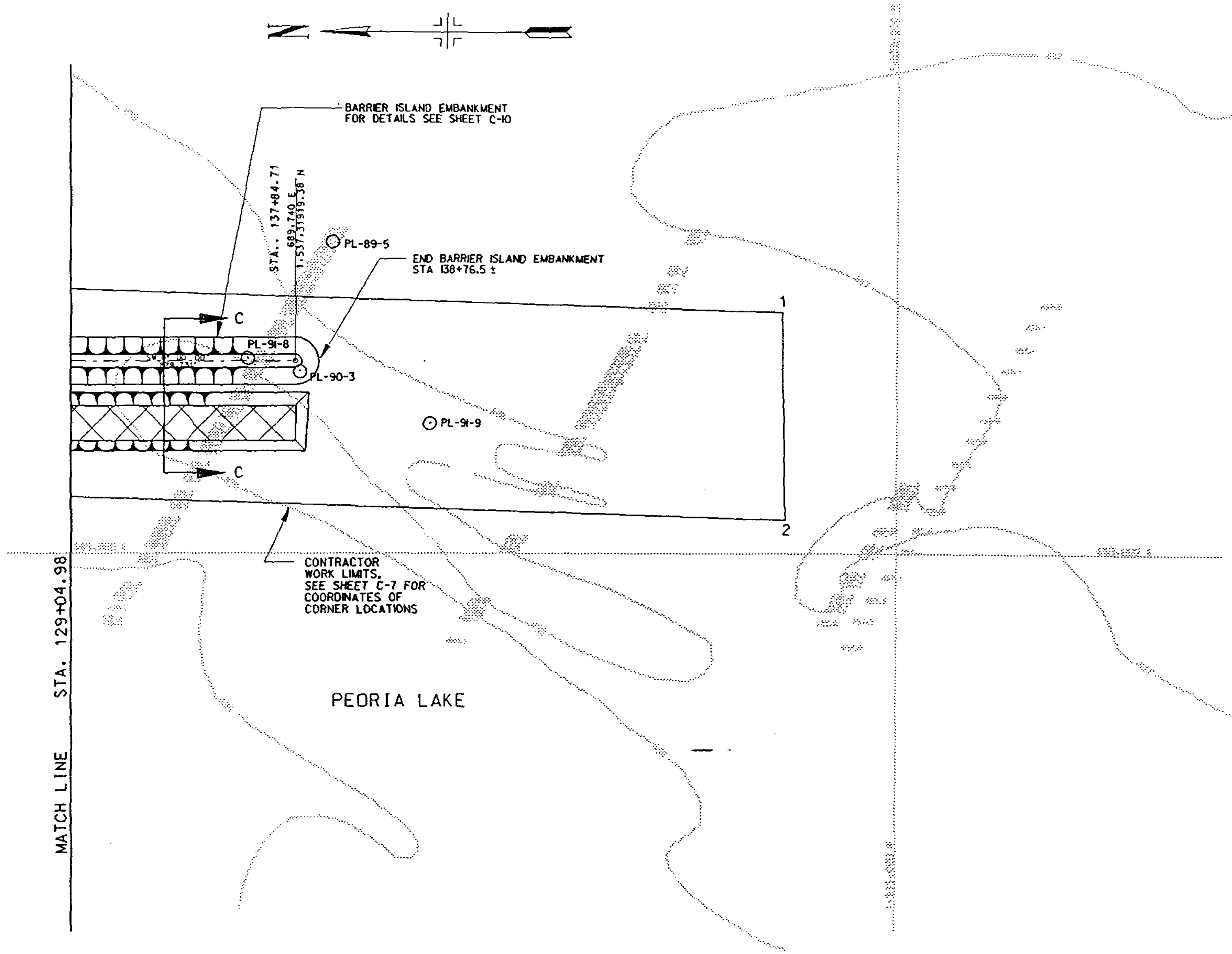
US Army Corps of Engineers

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE BARRIER ISLAND
& EAST RIVER ENHANCEMENT

BARRIER ISLAND PLAN
STA. 92+83.91 TO STA. 129+04.98

Designed by:
Drawn by:
Checked by:
Reviewed by:
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS

Scale: AS SHOWN
Date: 30 MAR 1994
Drawing Code: 1-P2-3-EMP-4
Sheet reference number: C-7
epl4/epl4c007
Solicitation Number: DACW25-94-B-0075
Sheet 8 of 13



178.1 L

LEGEND

- O LOCATION OF BORINGS FOR DETAILS SEE SHEET C5
- EMBANKMENT SLOPE
- CHANNEL SLOPE

NOTES:

1. DATES OF RIVER SOUNDINGS ARE 17-20 APRIL 1988. CONTRACTOR SHOULD EXPECT ADDITIONAL MATERIAL DEPOSITION SINCE THE SOUNDINGS WERE TAKEN.
2. FOR SECTION C-C SEE SHEET C-10.
3. ALL ELEVATIONS REFER TO N.G.V.D. 1929 ADJUSTMENT

BARRIER ISLAND PLAN STA. 129+04.98 TO STA. 153+97.41

SCALE: 1" = 200'

Revisions			
Symbol	Description	Date	Approved
1	AS CONSTRUCTED	4 APRIL 97	[illegible]

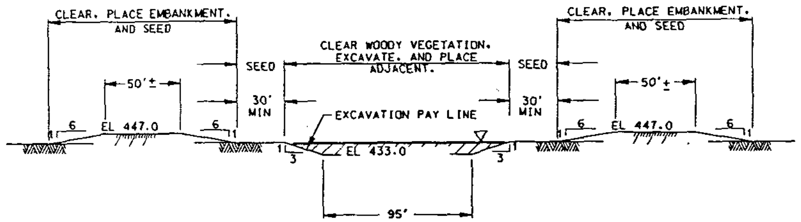
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by:
Drawn by:
Checked by:
Reviewed by:
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS

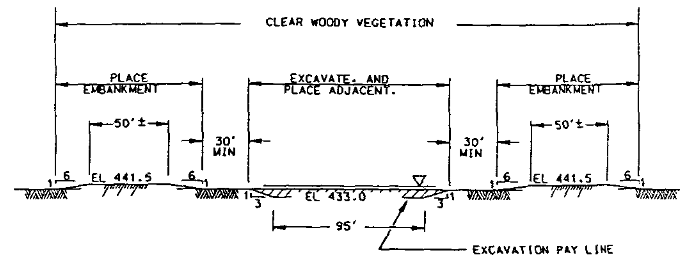
US Army Corps of Engineers

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE BARRIER ISLAND
& EAST RIVER ENHANCEMENT
BARRIER ISLAND PLAN
STA. 129+04.98 TO STA. 153+97.41

Scale: AS SHOWN
Date: 30 MAR 1994
Drawing Code: 1-P2-3-EMP-4
Sheet reference number: C-8
epl4/epl4c008
Solicitation Number: DACW25-94-B-0075
Sheet 9 of 13



SECTION A-A
EAST RIVER EXCAVATION



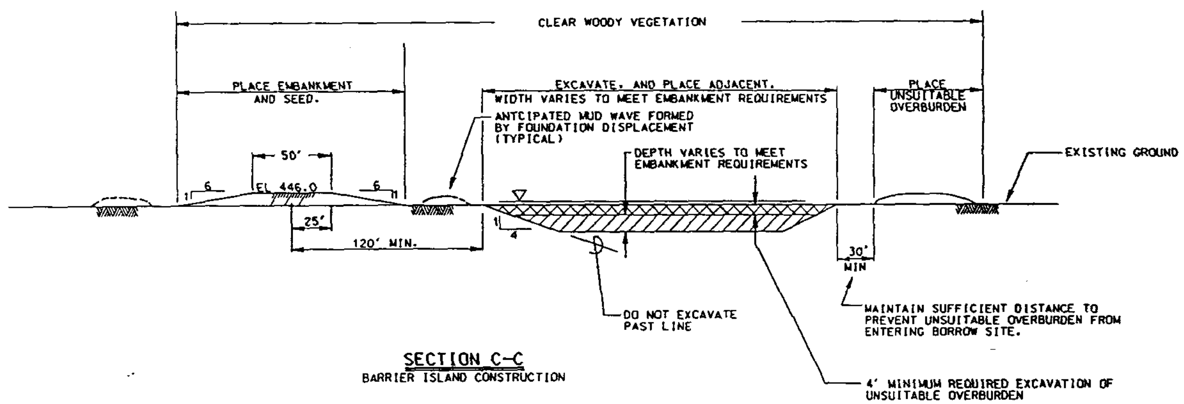
SECTION B-B
EAST RIVER OUTLET CHANNEL

LEGEND:

▽ WATER SURFACE ELEVATION. SEE HYDROGRAPHS SHEET C-2 THRU C-4.

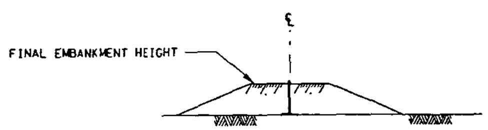
NOTES:

1. CONTRACTOR MUST USE ADJACENT BORROW AS SHOWN.
2. CONTRACTOR SHALL OVERBUILD ALL EMBANKMENTS SHOWN BY 25%.
3. SECTIONS FROM SHEETS C-6 THRU C-9.
4. UNCONSOLIDATED TOP SEDIMENTS FROM THE EAST RIVER EXCAVATION AND EAST RIVER OUTLET CHANNEL SHOULD BE PLACED TOWARD THE OUTER EDGE OF THE EMBANKMENT.

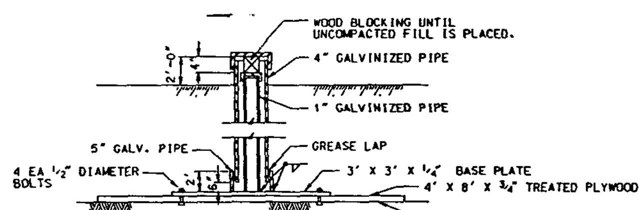


SECTION C-C
BARRIER ISLAND CONSTRUCTION

40' 0 40'
SCALE



SETTLEMENT PLATE SCHEMATIC
NO SCALE



SETTLEMENT PLATE DETAIL (1)
NO SCALE

SETTLEMENT PLATE NOTES:

1. PLACE 3 SETTLEMENT PLATES TO MEASURE BARRIER ISLAND CONSOLIDATION AT STA 94+16; STA 111+30; AND STA 127+84.
2. ADD PIPE LENGTHS AS REQUIRED WHILE CONSTRUCTING ISLAND. MARK 1" PIPE AT 1' 0" INTERVALS TO INSURE ACCURATE CONSOLIDATION READINGS.
3. SEE SPECIFICATIONS FOR REQUIRED DATA SUBMISSION.

△1 THE SETTLEMENT PLATES WERE DAMGED DURING CONSTRUCTION.

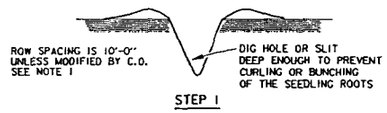
Revisions			
Symbol	Description	Date	Approved
△1	REVISED AS CONSTRUCTED	4 APRIL 94	[illegible]

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

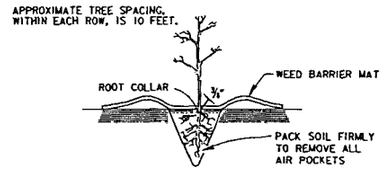
Designed by: D.J.H.	ILLINOIS WATERWAY ENVIRONMENTAL MANAGEMENT PROGRAM RIVER MILE 178.5 TO 181.0 PEORIA LAKE BARRIER ISLAND & EAST RIVER ENHANCEMENT
Drawn by: T.P.D./H.D.C.	
Checked by: D.R.C.	EAST RIVER/BARRIER ISLAND TYPICAL SECTIONS
Reviewed by: J.J.C.	Scale: AS SHOWN; Sheet reference number: C-10; ep14/ep14c010
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS	Date: 30 MAR 1994; Drawing Code: 1-P2-3-EMP-4; Solicitation Number: DACW25-94-B-0075; Sheet 11 of 13

PLANTING SCHEDULE

NAME / STOCK TYPE	LOCATION / QUANTITY	PLANTING SEASON / REMARKS
WILLOW (SALIX SPP.) CUTTING / STAKE 7' TO 8' LONG 1½" DIA. MIN.	BARRIER ISLAND 12,060 EACH ±	WILLOWS COLLECTED WHILE DORMANT, 1 OCT - 28 FEB MUST BE PLANTED NLT 30 APR
WILLOW (SALIX SPP.) CUTTING / STAKE 3.5' TO 5' LONG 1" DIA. MIN.	BARRIER ISLAND 6,030 EACH ±	
WILLOW (SALIX SPP.) WATTLE	BARRIER ISLAND 1700 LF	
ARROWHEAD (SAGITTARIA SPP.) SEEDLING / TUBER	BARRIER ISLAND 14,688 EACH ±	PLANTED 1 OCT. - 30 NOV. 95 (25%) AND 1 FEB. - 31 JULY 96 (75%) ⚠1
ARROWHEAD (SAGITTARIA SPP.) BURLAP PLANT ROLL	BARRIER ISLAND 1700 LF	ARROWHEAD TUBERS HARVESTED IN FALL AND PLANTED INTO BURLAP ROLLS. ROLLS WILL BE KEPT ON SITE UNTIL NEEDED. PLANTED 1 OCT. - 30 NOV. 95(25%) AND 1 FEB. - 31 JULY 96(75%) ⚠1
BULRUSH (SCIRPUS SPP.) ROOTSTOCK / TUBER	BARRIER ISLAND 6,677 EACH ±	PLANTED 1 OCT. - 30 NOV. 95 (25%) AND 1 FEB. - 31 JULY 96 (75%) ⚠1
CATTAIL (TYPHA SPP.) SEEDLING / TUBER	BARRIER ISLAND 1000 EA.	PLANTED 1 OCT. - 30 NOV. 15 MAR. - 15 JUL. PLANT 18" O.C. EACH WAY
REED (PHRAGMITES AUSTRIALIS OR PHRAGMITES COMMUNIS) ⅛" DIA. RHIZOMES 5" TO 10" IN LENGTH	BARRIER ISLAND 1000 EA.	PLANTED 1 OCT. - 30 NOV. 15 MAR. - 15 JUL. PLANT 18" O.C. EACH WAY
PIN OAK (QUERCUS PALUSTRIS) BARE ROOT SEEDLING 12" TO 18"	EAST RIVER EMBANKMENT CRESTS 1,840 EACH. 1 PLANT / 10' X 10'±	1 APR - 15 MAY
	APPROX. 500 PIN OAKS PLANTED NEAR WILDLIFE REFUGE OFFICE TO BE RELOCATED AT A LATER DATE ⚠1	1 APR - 15 MAY MIX SPECIES TOGETHER
SWAMP WHITE OAK (QUERCUS BICOLOR) BARE ROOT SEEDLING 12" TO 18"	APPROX. 600 SWAMP WHITE OAK PLANTED NEAR ENTRANCE ROAD AND CAMPER DUMP STATION TO BE RELOCATED AT A LATER DATE ⚠1	
NORTHERN PECAN (CARYA ILLINOENSIS) BARE ROOT SEEDLING 12" TO 18"	PLANTED NEAR ENTRANCE ROAD AND CAMPER DUMP STATION TO BE RELOCATED AT A LATER DATE ⚠1	

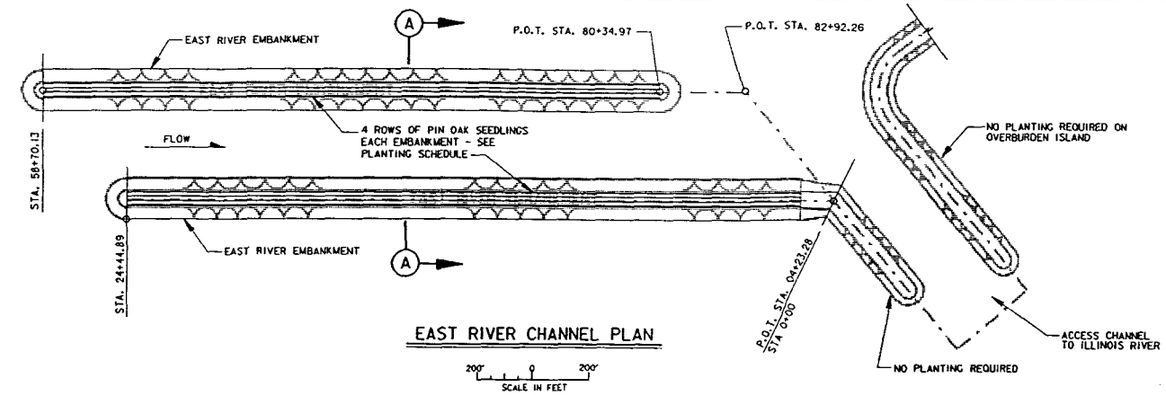


STEP 1



STEP 2

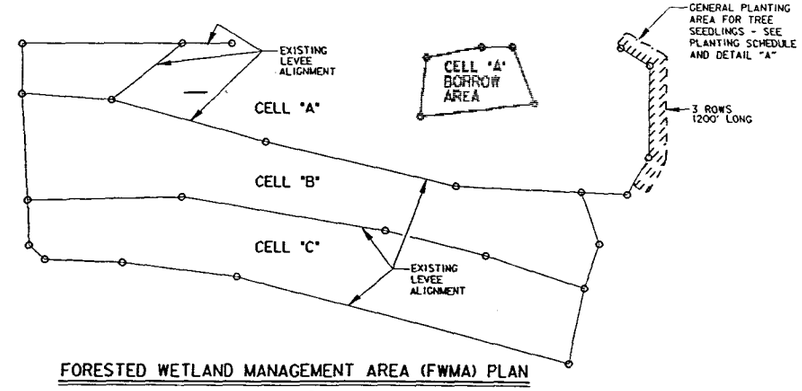
DETAIL
TYPICAL SEEDLING PLANT (A)
NO SCALE



EAST RIVER CHANNEL PLAN

200' 0 200'
SCALE IN FEET

SECTION
EAST RIVER CHANNEL (A)
NO SCALE



FORESTED WETLAND MANAGEMENT AREA (FWMA) PLAN

NO SCALE

NOTES

1. CONTRACTOR SHALL STAKE WORK AREAS AND PLANTING LOCATIONS, PRIOR TO GROUND DISTURBANCE, FOR CONTRACTING OFFICER (C.O.) APPROVAL. THE C.O. RESERVES THE RIGHT TO ADJUST ROW SPACING AND PLANTING AREAS WITHIN THE FWMA.
2. A THREATENED PLANT SPECIES (DECURRENT FALSE ASTER) IS IN THE CONSTRUCTION AREA. DISTURBANCE OF THIS PLANT IS PROHIBITED. ALL MOVEMENT OF EQUIPMENT/VEHICLES SHALL BE RESTRICTED TO AREAS APPROVED BY THE C.O.
3. STAGING AREAS SHALL BE COORDINATED WITH AND APPROVED BY THE C.O.
4. SEE SHEET C-2 FOR BARRIER ISLAND PLANTING DETAILS.
5. A SURVEY IS NOT REQUIRED FOR HORIZONTAL LAYOUT OR VERTICAL ELEVATIONS. LAYOUT SHALL BE DONE IN COORDINATION WITH THE C.O. AND MEASURED WITH A TAPE MEASURE. ELEVATION SHALL BE MEASURED FROM THE WATER SURFACE, USING THE PEORIA BOAT YARD GAGE AS A REFERENCE. SEE SHEET H-2.
6. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FWMA CONTRACTOR TO AVOID INTERFERENCE.

Symbol	Revisions Description	Date	Approved
⚠1	REVISED AS CONSTRUCTED	23MAY97	KGB/BLK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: DRC/JS
Drawn by: RLC/RHC/BLV/PLC
Checked by: DJH - JWJ
Reviewed by: JJC
Approved by: CHARLES S. COX COL., CORPS OF ENGINEERS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 to 181
PEORIA LAKE VEGETATION
STAGE III

VEGETATION PLAN

Scale: 1" = 200'
Date: 10 FEB. 1995
Drawing Code: 1-P2-3-EMP-5
Sheet Reference Number: C-1
EP181EP180COL.DGN
Solicitation Number: DACW25-95-B-0041
Sheet 6 of 7

01-JUN-1998 13:34
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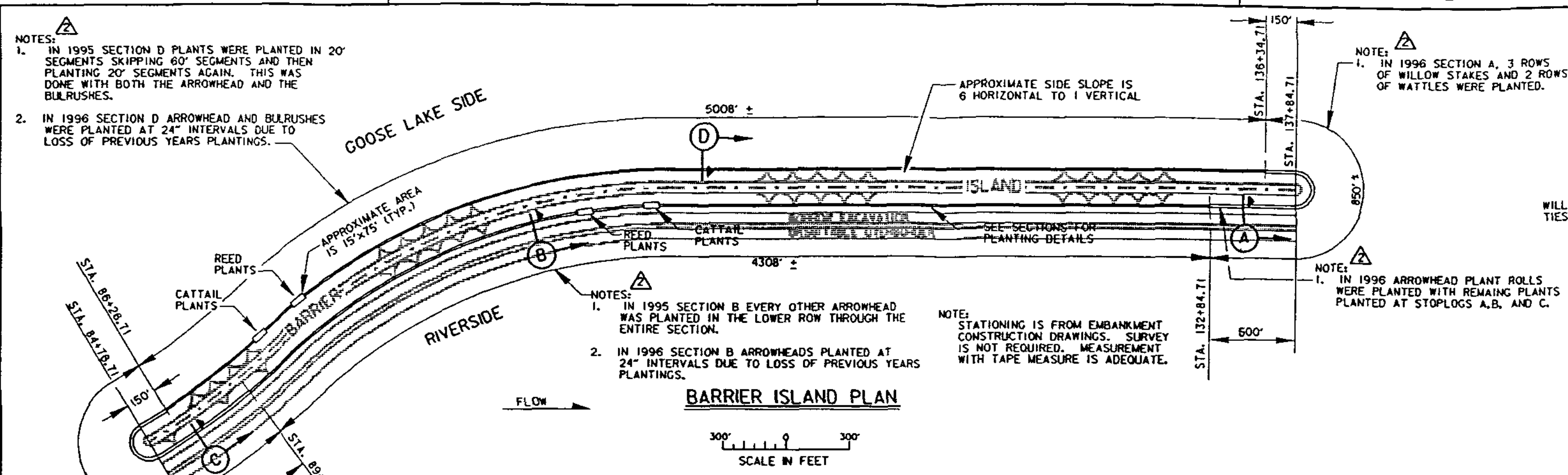
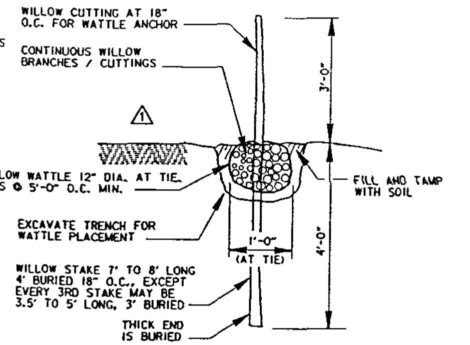
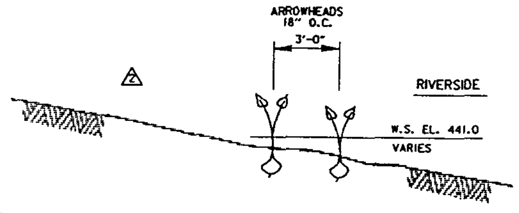


NOTES: ⚠2
1. IN 1995 SECTION D PLANTS WERE PLANTED IN 20' SEGMENTS SKIPPING 60' SEGMENTS AND THEN PLANTING 20' SEGMENTS AGAIN. THIS WAS DONE WITH BOTH THE ARROWHEAD AND THE BULRUSHES.
2. IN 1996 SECTION D ARROWHEAD AND BULRUSHES WERE PLANTED AT 24" INTERVALS DUE TO LOSS OF PREVIOUS YEARS PLANTINGS.
GOOSE LAKE SIDE
APPROXIMATE AREA IS 15'x75' (TYP.)
REED PLANTS
CATTAIL PLANTS
BARRIER
ISLAND
5008' ±
4308' ±
APPROXIMATE SIDE SLOPE IS 6 HORIZONTAL TO 1 VERTICAL
SEE SECTIONS FOR PLANTING DETAILS
STA. 136+34.71
STA. 137+84.71
STA. 132+84.71
150'
500'
850' ±
NOTE:
1. IN 1996 SECTION A, 3 ROWS OF WILLOW STAKES AND 2 ROWS OF WATTLES WERE PLANTED.
NOTE:
1. IN 1996 ARROWHEAD PLANT ROLLS WERE PLANTED WITH REMAING PLANTS PLANTED AT STOPLOGS A,B, AND C.
NOTE:
STATIONING IS FROM EMBANKMENT CONSTRUCTION DRAWINGS. SURVEY IS NOT REQUIRED. MEASUREMENT WITH TAPE MEASURE IS ADEQUATE.
NOTES:
1. IN 1995 SECTION B EVERY OTHER ARROWHEAD WAS PLANTED IN THE LOWER ROW THROUGH THE ENTIRE SECTION.
2. IN 1996 SECTION B ARROWHEADS PLANTED AT 24" INTERVALS DUE TO LOSS OF PREVIOUS YEARS PLANTINGS.
RIVERSIDE
FLOW
STA. 86+26.71
STA. 84+76.71
STA. 89+76.71
150'
500'
850' ±
NOTE:
1. IN 1998 SECTION C PLANTS WERE PLANTED AT 3 ROWS 3' APART BETWEEN WILLOW STAKES.
BARRIER ISLAND PLAN
300' 0 300'
SCALE IN FEET

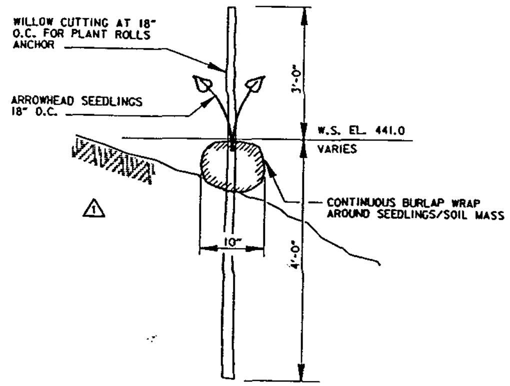


WILLOW CUTTING AT 18" O.C. FOR WATTLE ANCHOR
CONTINUOUS WILLOW BRANCHES / CUTTINGS
WILLOW WATTLE 12" DIA. AT TIE. TIES @ 5'-0" O.C. MIN.
FILL AND TAMP WITH SOIL
EXCAVATE TRENCH FOR WATTLE PLACEMENT
WILLOW STAKE 7' TO 8' LONG 4' BURIED 18" O.C., EXCEPT EVERY 3RD STAKE MAY BE 3.5' TO 5' LONG, 3' BURIED
THICK END IS BURIED
3'-0"
4'-0"
1'-0" (AT TIE)

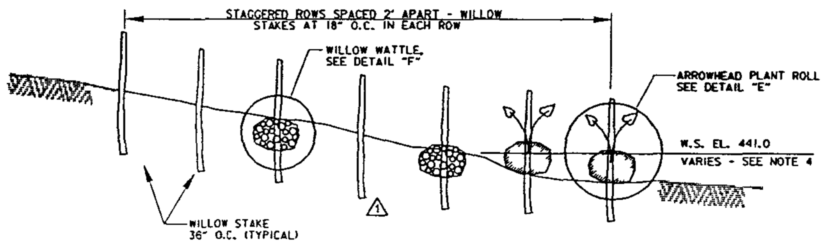
DETAIL (F)
WILLOW WATTLE
(NO SCALE)



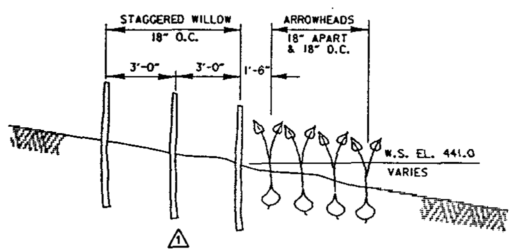
SECTION (B)
TYPICAL STA. 89+76.71 RIGHT TO STA. 132+84.71 RIGHT
NO SCALE



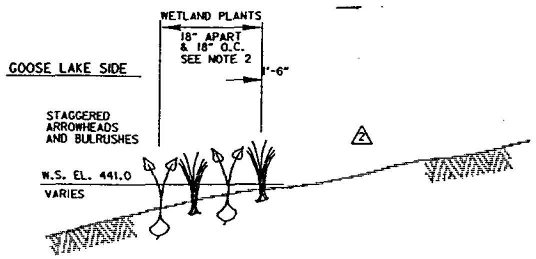
DETAIL (E)
ARROWHEAD PLANT ROLL
(NO SCALE)



SECTION (A)
TYPICAL STA. 132+84.71 RIGHT TO STA. 136+34.71 LEFT
NO SCALE



SECTION (C)
TYPICAL STA. 86+26.71 LEFT TO STA. 89+76.71 RIGHT
NO SCALE



SECTION (D)
TYPICAL STA. 86+26.71 LEFT TO STA. 136+34.71 LEFT
NO SCALE

NOTES:

1. CONTRACTOR MAY SUBSTITUTE ARROW HEAD PLANTS FOR UP TO 75% OF BULRUSH PLANTS BASED ON INSUFFICIENT LOCAL SUPPLY OF BULRUSH.
2. CONTRACTOR SHALL PLANT WETLAND PLANTS IN SECTIONS B & D (ARROW HEAD AND BULRUSH) IN 2 PLANTING SEASONS. IN THE FIRST PLANTING SEASON THE CONTRACTOR SHALL EITHER PLANT 20' SECTIONS WITH A 20' GAP OR SKIP EVERY OTHER PLANT.
3. CONTRACTOR SHALL PLANT 1000 CATTAIL AND 1000 REED PLANTS ON BARRIER ISLAND AS DIRECTED BY THE C.O. THEY SHALL BE SPACED 18" ON CENTER (O.C.) EACH WAY IN AREAS 15'x75', AS SHOWN.
4. CONTRACTOR SHALL NOT PLANT ON BARRIER ISLAND WHEN WATER ELEVATION EXCEEDS 441.8 OR FALLS BELOW EL. 440.2. PLANTING SHALL BE LOCATED AROUND WATER LINE, AS INDICATED.
5. ACCESS IS RESTRICTED BY SHALLOW WATER BETWEEN BORROW EXCAVATION AND ISLAND EMBANKMENT.
6. SEE SHEET C-1 FOR PLANTING SCHEDULE.

Symbol	Revisions Description	Date	Approved
2	REVISED AS CONSTRUCTED	29MAY'97	KGB/BLK
1	AMD. #2 - EROSION CONTROL MAT DELETED	14MAR95	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 to 181
PEORIA LAKE VEGETATION
STAGE III

VEGETATION PLAN II

Designed by: DRC/JS
Drawn by: RHC/BLV/PLC
Checked by: DJH - JWJ
Reviewed by: JJC
Approved by: CHARLES S. COX, COL., CORPS OF ENGINEERS
Scale: AS SHOWN
Date: 10 FEB. 1995
Drawing Code: 1-P2-3-EMP-5
Sheet reference number: C-2
EP18/EP18C002.DGN
Solicitation Number: DACW25-95-B-0041
Sheet 7 of 7

LV=15, CO=12, WT=3 LANDSCAPING
LV=1, CO=0, WT=2, TEXT
LV=10, CO=4, WT=3, NEW WORK
LV=5, CO=12, WT=1, EXIS. GROUND

01-JUN-1998 13:36

NOTES:

1. DELIVER APPROX. 900 TONS RR4 RIPRAP TO LOCATION SHOWN BELOW.
2. DO NOT DELIVER BETWEEN 1 OCT AND 15 DEC.
3. CONTRACTOR SHALL COORDINATE DELIVERY TIME AND EXACT LOCATION WITH SITE MANAGER, MR. FRED DAVIDSON, PH. 309-822-8861.
4. DAMAGE DUE TO DELIVERY OF RIPRAP TO EXISTING STRUCTURES, ROADS, AND LEVEES SHALL BE REPAIRED, AT CONTRACTOR EXPENSE.
5. DELIVERY MAY BE RESTRICTED BY HIGH WATER. RIPRAP SHALL NOT BE DELIVERED WHEN RIVER ELEVATION IS ABOVE 443.0 FT. CELL "C" LEVEE TOP ELEVATION IS 446.0 FT. LEVEE TOP WIDTH IS 12.0 FT.

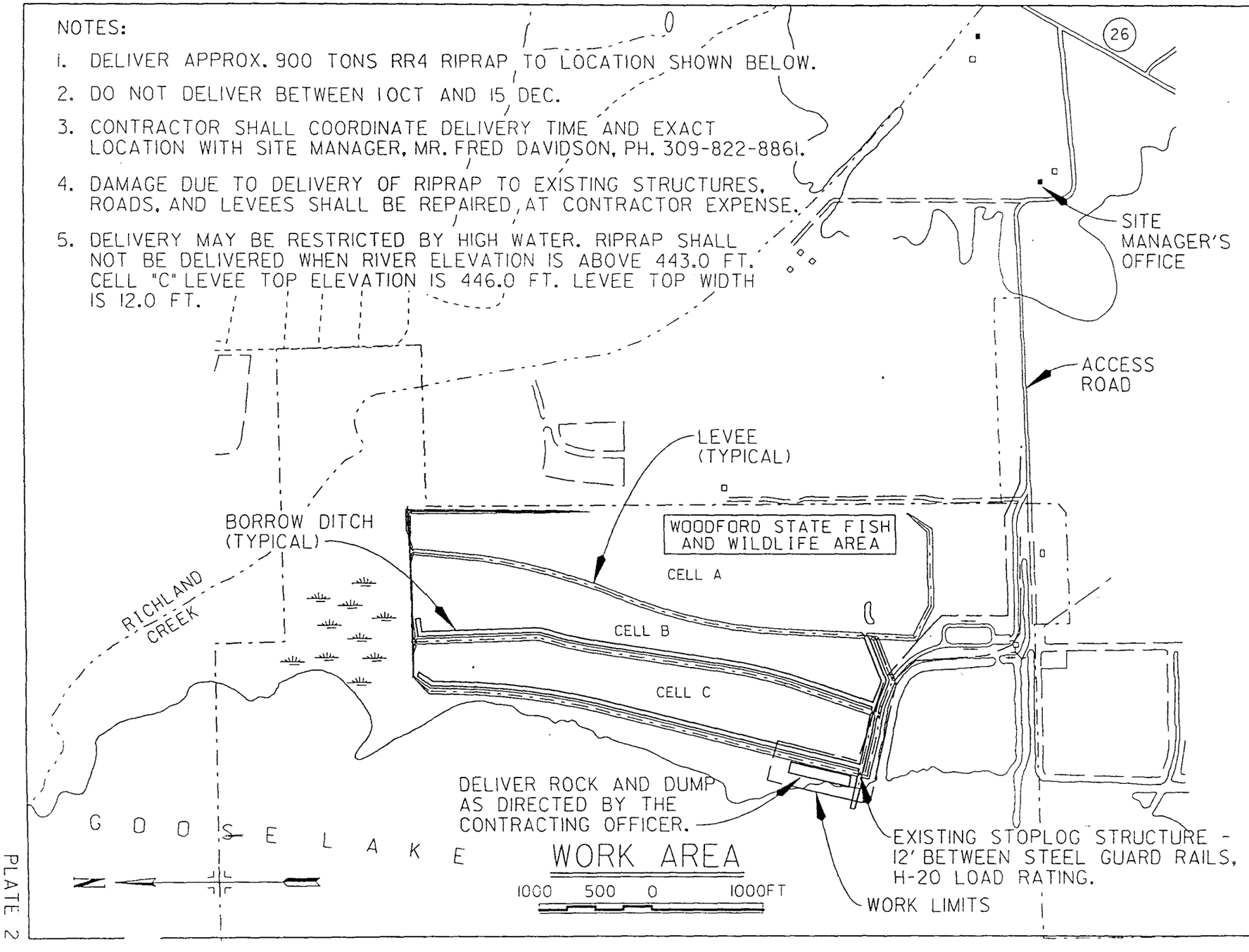
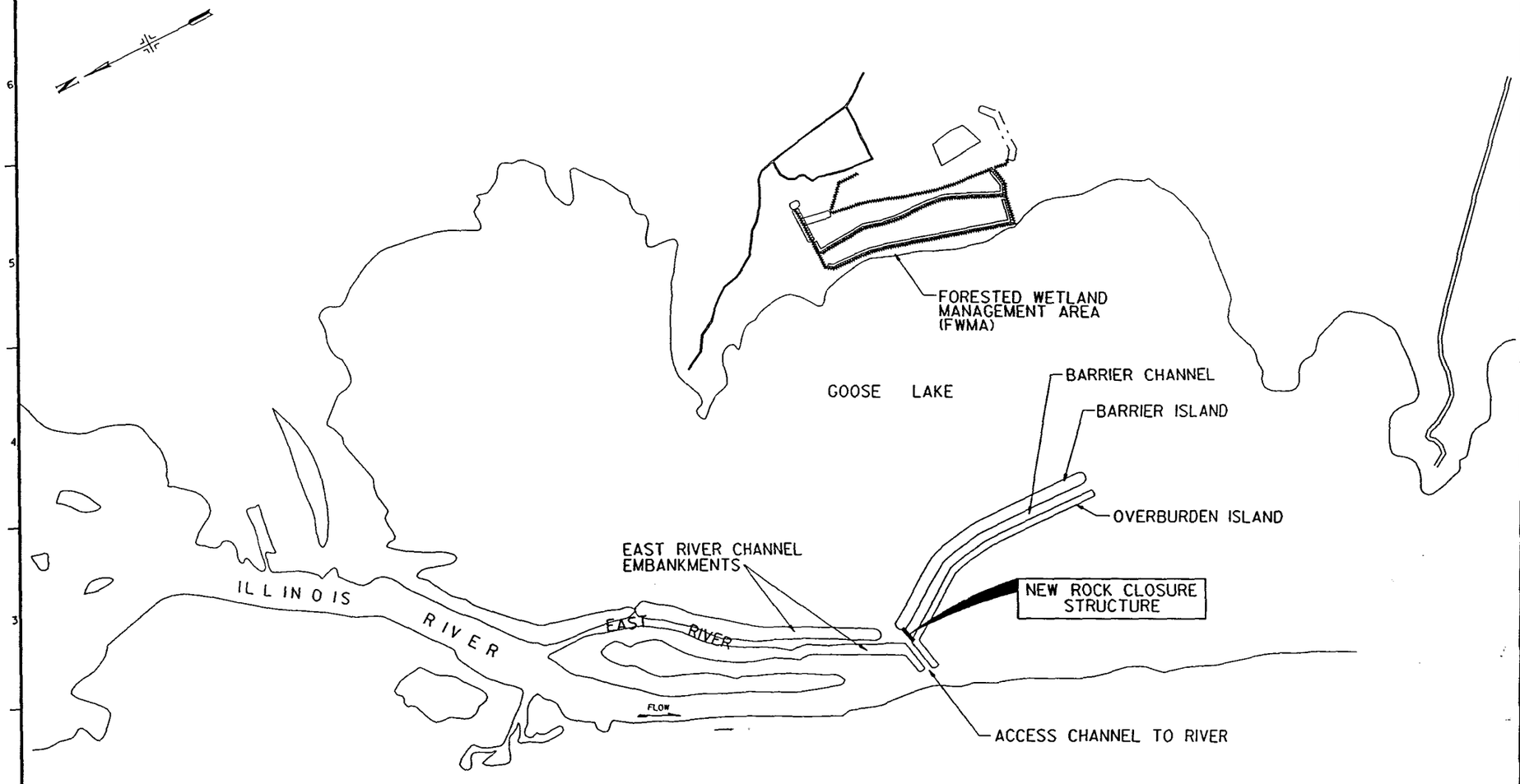


PLATE 2



SITE PLAN

1000 500 0 1000 2000

SCALE IN FEET

US Army Corps of Engineers
Rock Island District

Symbol	Date	Description	Approved
	15 DEC 93	As Constructed	

Designed by	KOB	Dates	14 MAR. '97
Drawn by	TPD	Scales	AS SHOWN
Checked by	DJJ	Drawing Codes	41-1-1-1/80
Reviewed by	BLK	Solicitation/Contract Numbers	DACW25-97-C-0051

U.S. ARMY ENGINEER DISTRICT
ROCK ISLAND, ILLINOIS

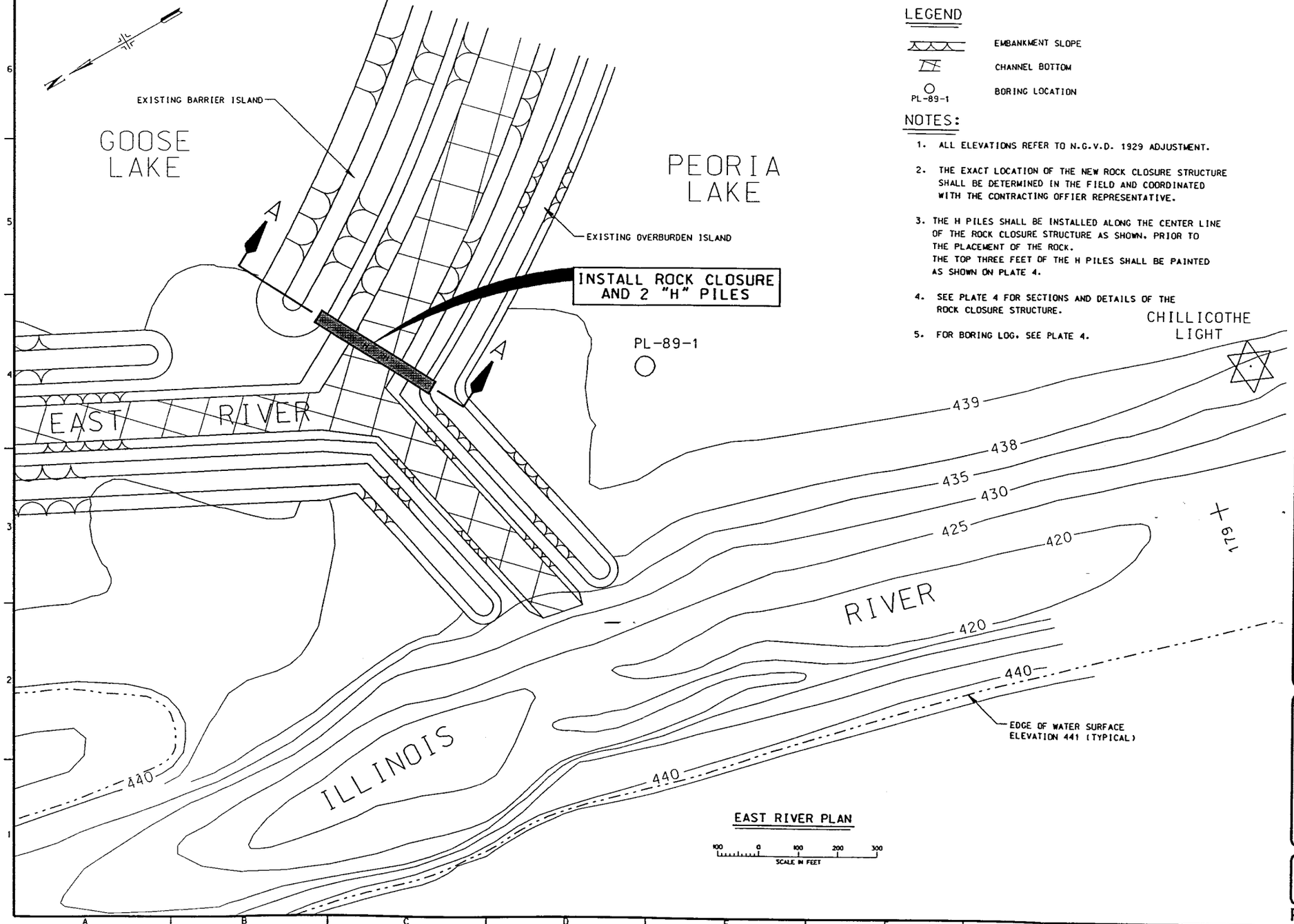
ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 59.5 TO 61.0
EAST RIVER ENHANCEMENT

SITE PLAN

Sheet Reference Number:

Sheet 2 of 4

PLATE 2



LEGEND

- EMBANKMENT SLOPE
- CHANNEL BOTTOM
- PL-89-1 — BORING LOCATION

NOTES:

1. ALL ELEVATIONS REFER TO N.G.V.D. 1929 ADJUSTMENT.
2. THE EXACT LOCATION OF THE NEW ROCK CLOSURE STRUCTURE SHALL BE DETERMINED IN THE FIELD AND COORDINATED WITH THE CONTRACTING OFFIER REPRESENTATIVE.
3. THE H PILES SHALL BE INSTALLED ALONG THE CENTER LINE OF THE ROCK CLOSURE STRUCTURE AS SHOWN. PRIOR TO THE PLACEMENT OF THE ROCK. THE TOP THREE FEET OF THE H PILES SHALL BE PAINTED AS SHOWN ON PLATE 4.
4. SEE PLATE 4 FOR SECTIONS AND DETAILS OF THE ROCK CLOSURE STRUCTURE.
5. FOR BORING LOG. SEE PLATE 4.

US Army Corps of Engineers Rock Island District

Symbol	Description	Date	Approved
	AS CONSTRUCTED	15 DEC 98	KDB/BLK

Revisions

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS

Developed By	KDB	Dated	14 MAR. '97
Drawn By	TPD	Scales	AS SHOWN
Checked By	DJJ	Drawing Codes	1-4.1-4-1/80
Reviewed By	BLK	Solicitation Number	DACW25-41-0-0091

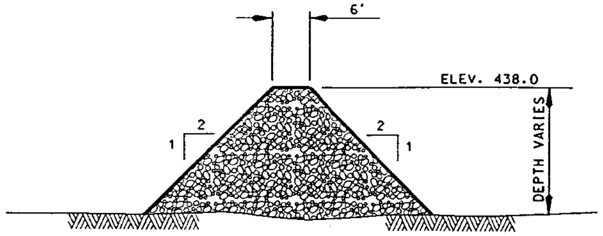
ILL INOIS WATERWAY ENVIRONMENTAL MANAGEMENT PROGRAM RIVER MILE 179.5 TO 181.0 EAST RIVER ENHANCEMENT

EAST RIVER PLAN

Sheet Reference Number:

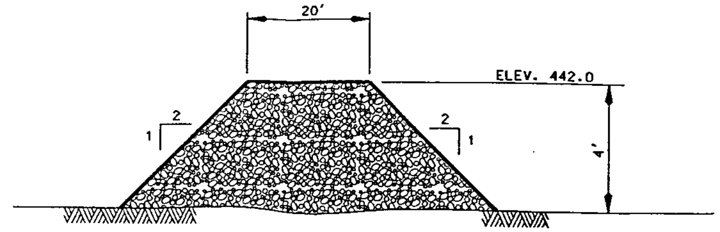
Sheet 3 of 4

PLATE 3



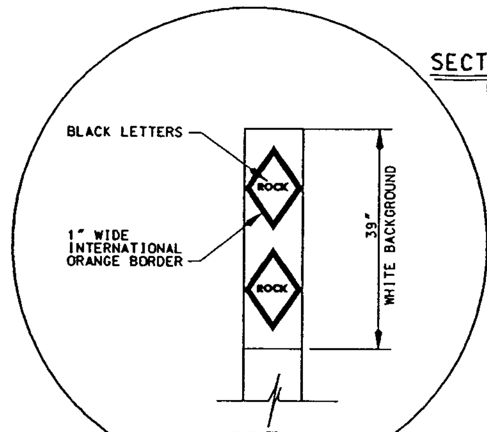
SECTION C-C

NO SCALE

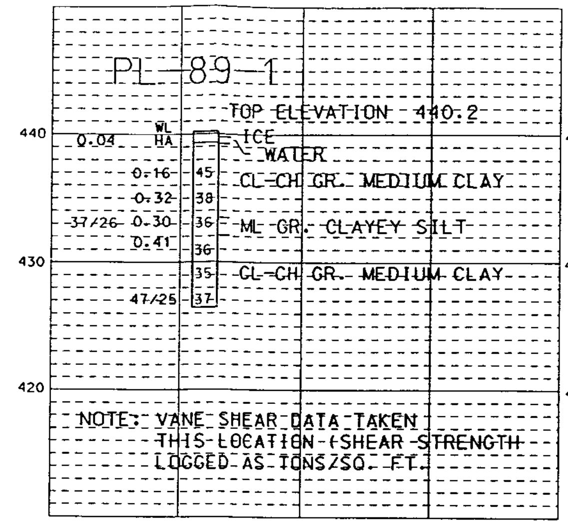


SECTION B-B

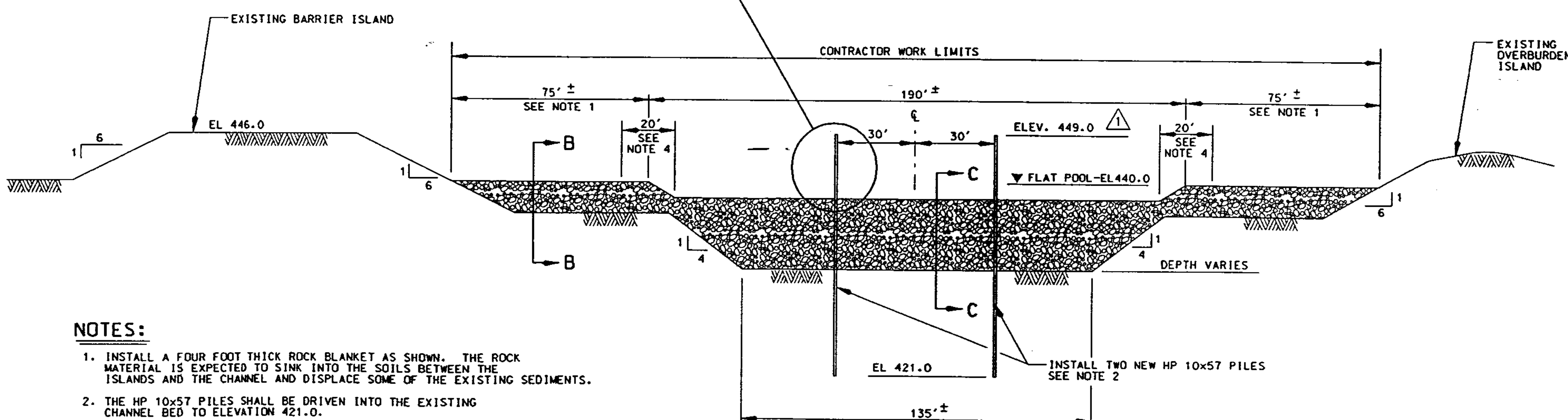
NO SCALE



DETAIL



BORING LOG



SECTION A-A

NO SCALE

NOTES:

1. INSTALL A FOUR FOOT THICK ROCK BLANKET AS SHOWN. THE ROCK MATERIAL IS EXPECTED TO SINK INTO THE SOILS BETWEEN THE ISLANDS AND THE CHANNEL AND DISPLACE SOME OF THE EXISTING SEDIMENTS.
2. THE HP 10x57 PILES SHALL BE DRIVEN INTO THE EXISTING CHANNEL BED TO ELEVATION 421.0.
3. THE FLANGES (FOUR) OF THE HP 10x57 PILES SHALL BE PAINTED AS PER THE DETAIL.
4. TRANSITION THE PLACEMENT OF THE ROCK BETWEEN THE CHANNEL AND THE FOUR FOOT THICK ROCK BLANKET ON THE BENCHED AREA OVER A 20' LENGTH OF THE CLOSURE STRUCTURE.

US Army Corps of Engineers
Rock Island District

Symbol	Description	Date	Approved
1	REVISED AS CONSTRUCTED	14 DEC 97	KGB/BLK

Revisions

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS	Designed By: KGB	Date: 14 MAR. '97
	Drawn By: TPD	Scale: AS SHOWN
	Checked By: DJJ	Drawing Code: 1-L1-4-1/80
	Reviewed By: BLK	Solicitation Number: DACW25-97-0-0091

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
EAST RIVER ENHANCEMENT

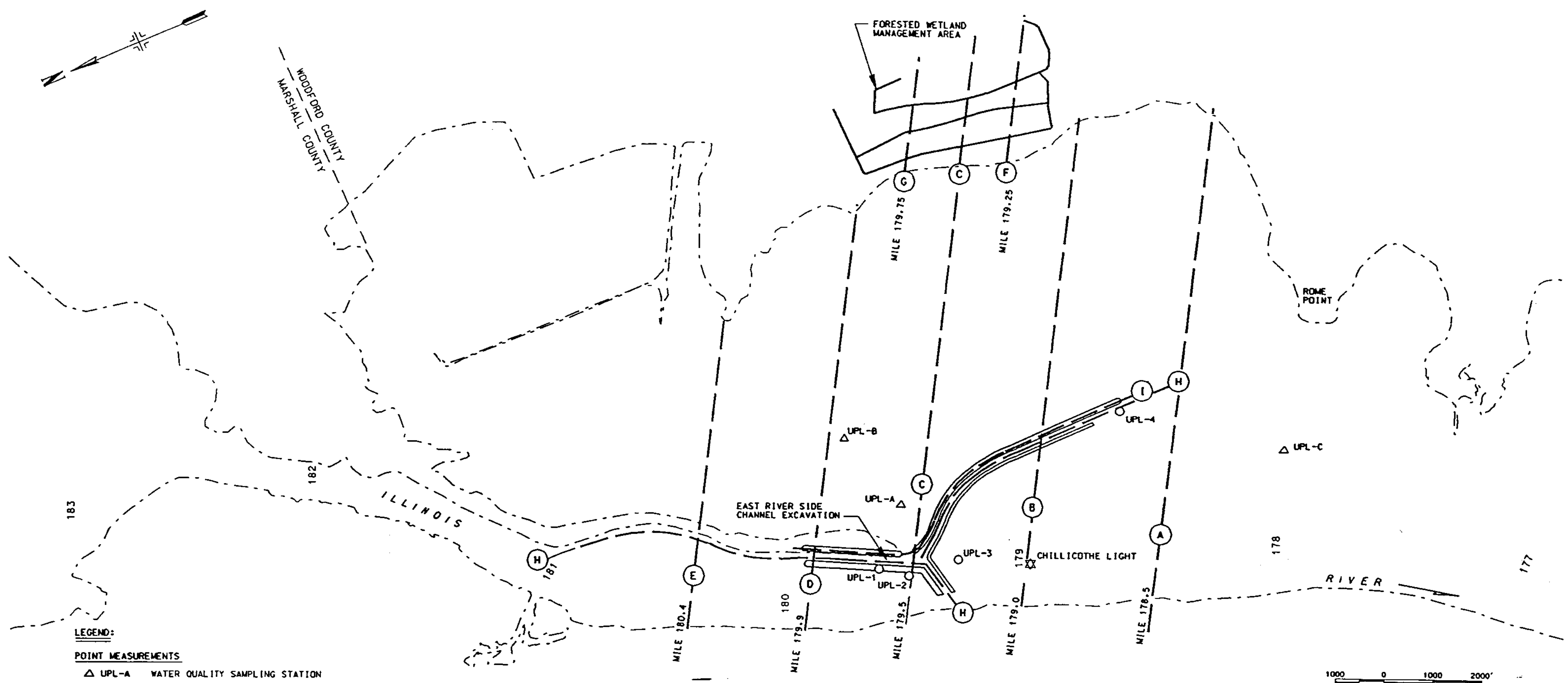
TYPICAL SECTIONS AND DETAILS

Sheet Reference Number:

Sheet 4 of 4

PLATE 4

01-JUN-1998 13:39



LEGEND:

POINT MEASUREMENTS

- △ UPL-A — WATER QUALITY SAMPLING STATION
- ○ UPL-1 — SEDIMENT AND ELUTRIATE SAMPLING STATION

TRANSECT MEASUREMENTS

- C,D,E,H — EAST RIVER HYDROGRAPHIC SOUNDINGS AND VELOCITIES
- A,B,C,D,E — SEDIMENTATION RANGE HYDROGRAPHIC SOUNDINGS
- A,B,C,D,E — VEGETATION (AQUATIC)
- C,F,G — VEGETATION (UNDERSTORY AND TIMBER)
- I — VEGETATION

AREAL MEASUREMENTS

VERTICAL STEREO AERIAL PHOTOGRAPHY RM176-181
ROCK SUBSTRATE (EAST RIVER) MUSSEL SURVEY
ROME POINT MUSSEL SURVEY

CONTROL POINTS

NUMBER	N. - COORDINATES	- E.	ELEV.
ROME LIGHT	1.532.736.01	684.164.51	
178.1L	1.532.876.84	689.607.76	
CHILLICOTHE LIGHT	1.540.278.10	687.210.75	

NOTES:

1. GRID SHOWN IS RELATIVE TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM. WEST ZONE.
2. DATE OF PHOTOGRAPHY: 4-30-88
3. SOUNDING DATA IS AVAILABLE AT THE U.S. ARMY CORPS OF ENGINEERS. ROCK ISLAND DISTRICT HEADQUARTERS.

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

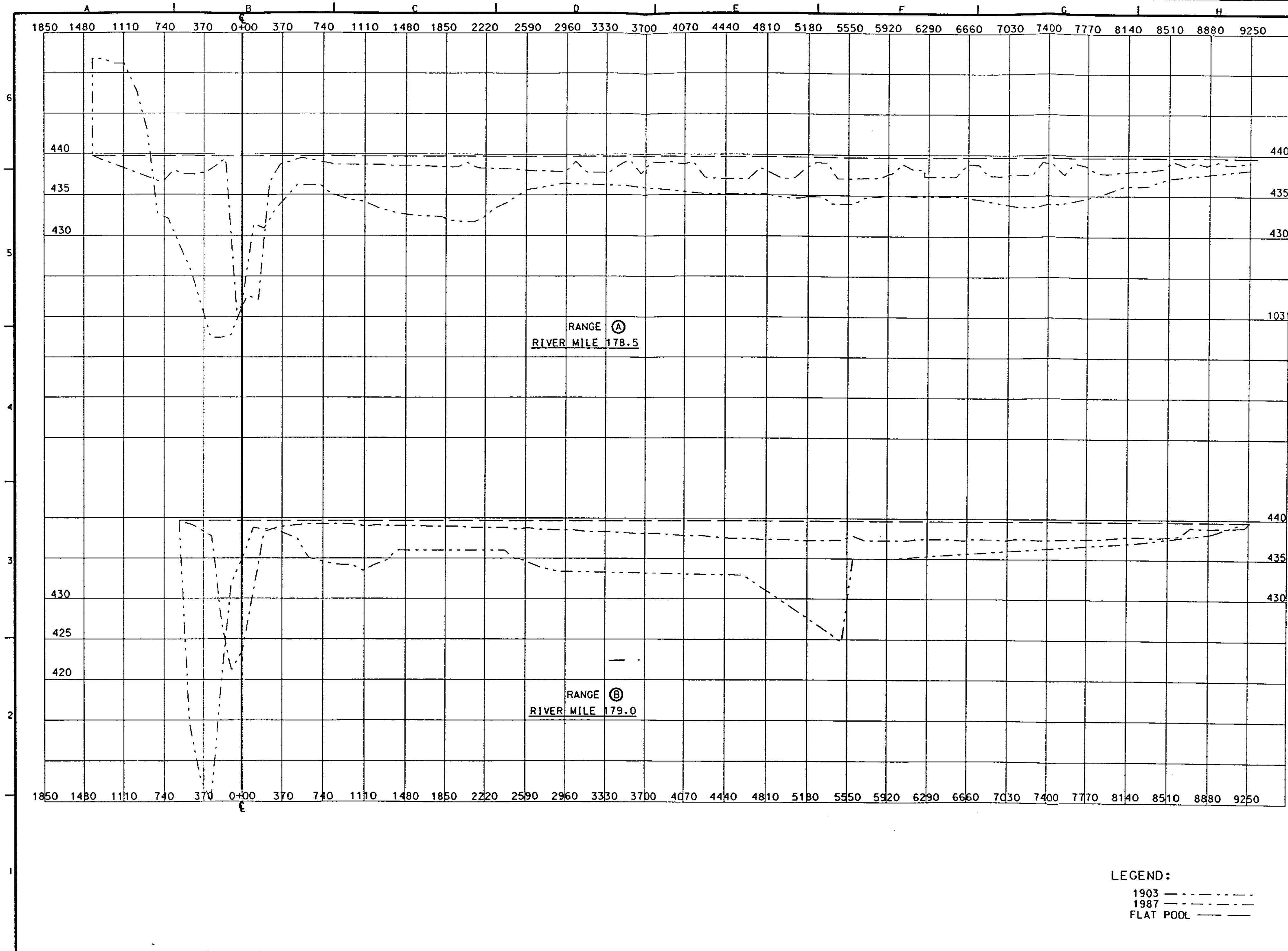
Designed by: D.J.H.
Drawn by: D.D.
Checked by: D.R.C.
Reviewed by: J.J.C.
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS

US Army Corps of Engineers

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
PEORIA LAKE BARRIER ISLAND
& EAST RIVER ENHANCEMENT

MONITORING PLAN I

Scale: AS SHOWN
Date: 30 MAR 1994
Drawing Code: 1-P2-3-EMP-4
Sheet reference number:
Solicitation Number: DACW25-94-B-0075
Sheet of 13



US Army Corps of Engineers Rock Island District

AS CONSTRUCTED

Designed By: KGB
Drawn By: TPD
Checked By: DJJ
Reviewed By: BLK
Date: 14 MAR. '97
Scale: AS SHOWN
Drawing Code: 1-L1-4-1/80
Solicitation Number: DACW25-97-Q-0091

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 178.5 TO 181.0
EAST RIVER ENHANCEMENT

SEDIMENTATION MONITORING RANGES
RM 178.5 - 179.0

Sheet Reference Number:
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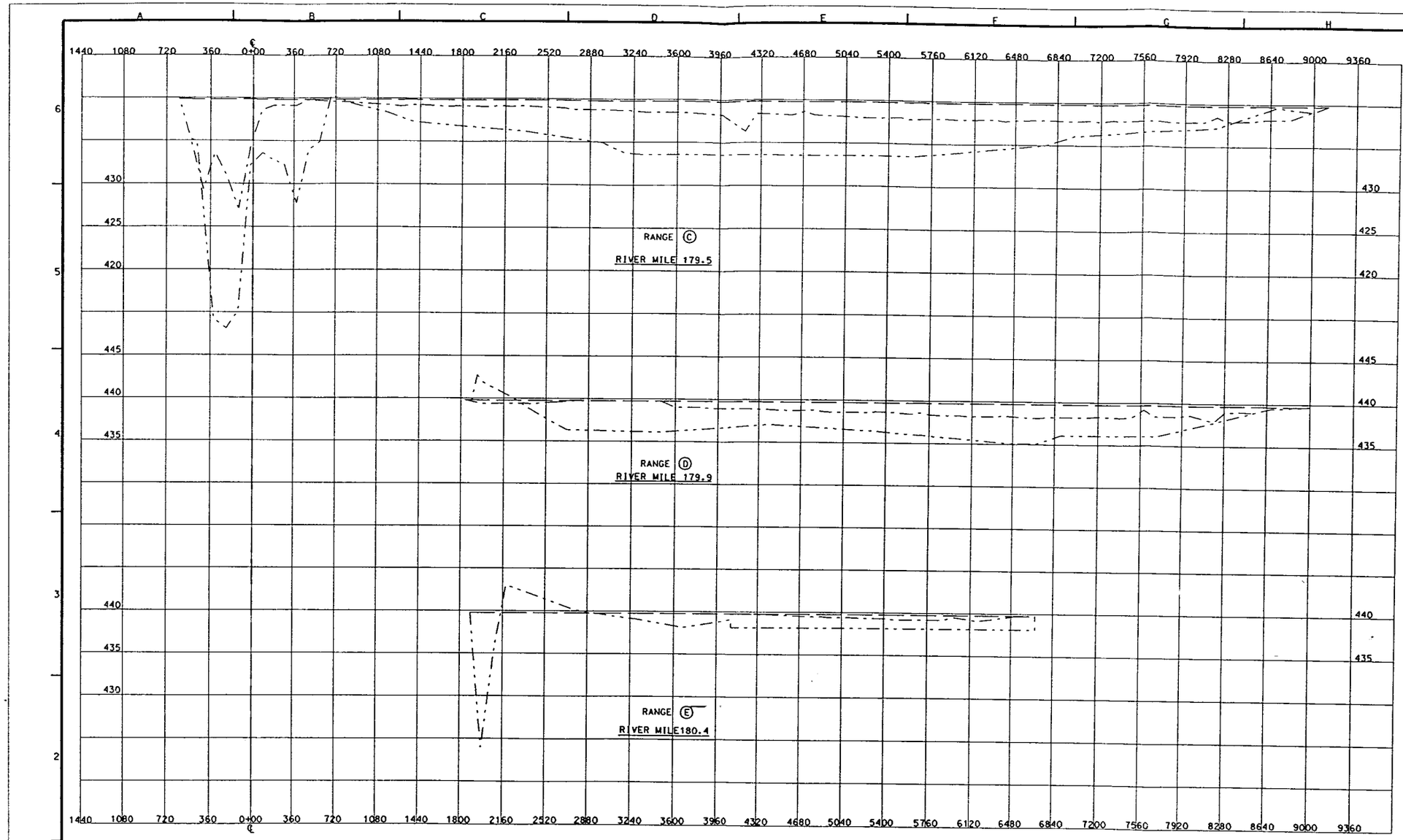

US Army Corps of Engineers
Rock Island District

Symbol	AS CONSTRUCTED	15 DEC 97	COMPLT
	Description	Date	Approved
	Revisions		

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by	KOB	Date	14 MAR. '97
Drawn by	TPD	Scale	AS SHOWN
Checked by	DJJ	Drawing Code	1-L1-14-1/80
Reviewed by	BLK	Satisfaction Number	DACW25-97-C-0091

ILLINOIS WATERWAY
ENVIRONMENTAL MANAGEMENT PROGRAM
RIVER MILE 179.5 TO 180.4
EAST RIVER ENHANCEMENT

SEDIMENTATION MONITORING RANGES RM. 179.5 - 180.4

Sheet Reference Number:
XX
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