

# **Forest Lake Dam 2024 Inspection Report**

**Ela Township Highway Department  
23605 N. Echo Lake Road  
Lake Zurich, Illinois 60047**



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March 27, 2024

**FOREST LAKE DAM INSPECTION REPORT  
ELA TOWNSHIP HIGHWAY DEPARTMENT**

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**SUMMARY OF MAINTENANCE DONE AND/OR  
REPAIRS MADE SINCE THE LAST INSPECTION**

DATE OF PRESENT INSPECTION March 27, 2024

DATE OF LAST INSPECTION March 20, 2023

**1. EARTH EMBANKMENT DAMS**

Routine vegetation removal and trimming.

**2. CONCRETE MASONRY DAMS**

N/A

**3. PRINCIPAL SPILLWAY**

None

**4. OUTLET WORKS**

None

**5. EMERGENCY SPILLWAY**

Ongoing shoulder restoration.

**Earth Embankment**

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Surface Cracks	NE		
Vertical and Horizontal Alignment of Crest ( <i>Bituminous Roadway</i> )	GC		
Unusual Movement or Cracking At or Beyond Toe	NE		
Sloughing or Erosion of Embankment and Abutment Slopes	NE		
Upstream Face Slope Protection ( <i>Rip Rap</i> )	GC		
Seepage	NE		
Filter and Filter Drains	NA		

Earth Embankment (Continued)

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Animal Damage	NE		
Embankment Drainage Ditches	NA		
Vegetative Cover	GC		Recommend continued periodic removal/trimming of brush and trees on embankment and within 10' of revetment mattress
Other (Name) Revetment Mattress on Downstream Slope	OB		Small tear noted in wire cage of revetment mattress has increased in size, but stone remains stable and is not migrating out of wire cage. Continue monitoring.
Other			
Other			
Other			



**Concrete or Masonry Dams**

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Seepage	NA		
Structure to Abutment/Embankment Junctions	NA		
Water Passages	NA		
Foundation	NA		
Surface Cracks in Concrete Surfaces	NA		
Structural Cracking	NA		
Vertical and Horizontal Alignment	NA		

Concrete or Masonry Dams (Continued)

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Monolith Joints	NA		
Construction Joints	NA		
Spalling of Concrete	NA		
Filters, Drains, etc.	NA		
Riprap	NA		
Other (Name)	NA		

IF THE DAM IS GATED- Fill out the portion of the Principal Spillway Form related to Gated Spillways



Principal Spillway

Approach Channel

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Debris	NE		
Side Slope Stability	GC		
Slope Protection	GC		
Other (Name)			
Other			
Other			
Other			

**Principal Spillway**

**Drop Inlet Spillway**

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	NE		
Structure to Embankment Junction	GC		
Drains	NA		
Seepage Around or Into Structure	NE		Sinkhole between structure and roadway was repaired with stone in 2021 and has not reappeared during follow-up inspections. Township will continue to monitor pipe condition by camera and visual inspection.
Surface Cracks	NE		
Structural Cracks	NE		

IF THE SPILLWAY IS GATED FILL OUT THE GATES SECTION

Principal Spillway (Continued)

Drop Inlet Spillway

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Alignment of Abutment Walls	NA		
Construction Joints	NA		
Filter and Filter Drains	NA		
Trash Racks	NA		
Bridge and Piers	NA		
Differential Settlement	NA		
Other (Name)			

IF THE SPILLWAY IS GATED FILL OUT THE GATES SECTION

Principal Spillway (Continued)

Conduit (36" RCP)

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	NE		
Joint Separation	NE		
Seepage Around or Into Conduit	NE		
Surface Cracks	NE		
Structural Cracks	NE		
Trash Racks	NE		
Differential Settlement	NE		
Alignment	GC		
Other (Name)			

IF THE SPILLWAY IS GATED FILL OUT THE GATES SECTION

Principal Spillway (Continued)

Chute

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	NA		
Structure to Embankment Junction	NA		
Construction Joints	NA		
Expansion and Contraction Joints	NA		
Differential Settlement	NA		
Surface Cracks	NA		
Structural Cracks	NA		
Wall Alignment	NA		
Other (Name)			

IF THE SPILLWAY IS GATED FILL OUT THE GATES SECTION

Principal Spillway

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Gate Sill	NA		
Gate Seals	NA		
Gate and Frame	NA		
Operating Machinery	NA		
Emergency Operating Machinery	NA		
Other (Name)			
Other			



**Outlet Works**

**If Separate from Principal Spillway Structure**

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	NA		
Joint Separation	NA		
Seepage Around or Into Conduit	NA		
Intake Structure	NA		
Outlet Structure	NA		
Outlet Channel	NA		
Riprap	NA		
Other (Name)			
Other			

Energy Dissipator

Principal Spillway Type: Rip Rap

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	NE		
Structure to Embankment Junction	NA		
Construction Joints	NA		
Surface Cracks	NE		
Structural Cracks	NA		
Differential Alignment	NE		
Expansion and Contraction Joints	NA		

**Energy Dissipator (Continued)**

**Principal Spillway**

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Riprap	GC		
Outlet Channel	MM		
Debris	NE		
Other (Name)			
Other			
Other			
Other			

**Emergency Spillway**

Other: Name Bituminous Roadway

ITEM	CONDITION CODE	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion	NE		
Weeds, Logs, Other Obstructions	NE		
Side Slope Sloughing	NE		
Vegetation	NE		
Sedimentation	NE		
Riprap (Revetment Mattress)	GC		
Settlement of Crest	NE		
Downstream Channel	GC		
Other (Name)			

MILES DOWNSTREAM FROM DAM	DOWNSTREAM DEVELOPMENT													Loss of Life Potential			Economic Loss Potential		
	OCCUPIED HOMES	UNOCCUPIED HOMES	AGRICULTURAL BUILDINGS	INDUSTRIAL BUILDINGS	COMMERCIAL BUILDINGS	SCHOOLS	HOSPITALS	ROADS & BRIDGES	DAMS	OVERHEAD UTILITIES	OTHER DEVELOPMENT (Name)	OTHER DEVELOPMENT (Name)	NONE	1 TO 10	OVER 10	MINIMAL EXPECTED	APPRECIABLE EXPECTED	EXCESSIVE EXPECTED	
0 to 1/4	12	0	0	0	0	0	0	0	0	0	*1 Golf Course		x			x			
1/4 to 1/2	0	0	0	0	0	0	0	1	0	0			x			x			
1/2 to 3/4	0	0	0	0	0	0	0	1	0	0			x			x			
3/4 to 1	0	0	0	0	0	0	0	1	0	0			x			x			
1 to 1-1/4	0	0	0	0	0	0	0	1	0	0			x			x			
1-1/4 to 1-1/2	0	0	0	0	0	0	0	0	0	0			x			x			
1-1/2 to 1-3/4	0	0	0	0	0	0	0	1	0	0			x			x			
1-3/4 to 2	0	0	0	0	0	0	0	2	0	0			x			x			
OVER 2	0												x			x			

\*15 inch sanitary sewer located 4' above stream bed

The number of homes, buildings or other items in the floodplain downstream of the dam should be placed in the appropriate row and column to designate their location.

Note: Refers only to development within the downstream floodplain.



**Owner's Maintenance Statement**

I, Mike DePouw, owner of Forest Lake dam,  
Dam Identification Number 00638, in Lake County,  
am maintaining the dam in accordance with the accepted maintenance plan which is a part of  
Permit Number 19162.

Mr. Mike Depouw represents the owner, Ela Township, as the Highway Superintendent.



**Signature**

3/28/2024

**Date**

**Owner's Operation and Maintenance Statement**

I, Mike Depouw, owner of Forest Lake dam,  
Dam Identification Number 00638, in Lake County,  
have reviewed the operation and maintenance plan including the Emergency Action Plan (EAP),  
which is part of Permit Number 19162.

I ( ) have enclosed the appropriate revisions

have determined that no revisions to the plan are necessary.



**Signature**

3/28/2024

**Date**

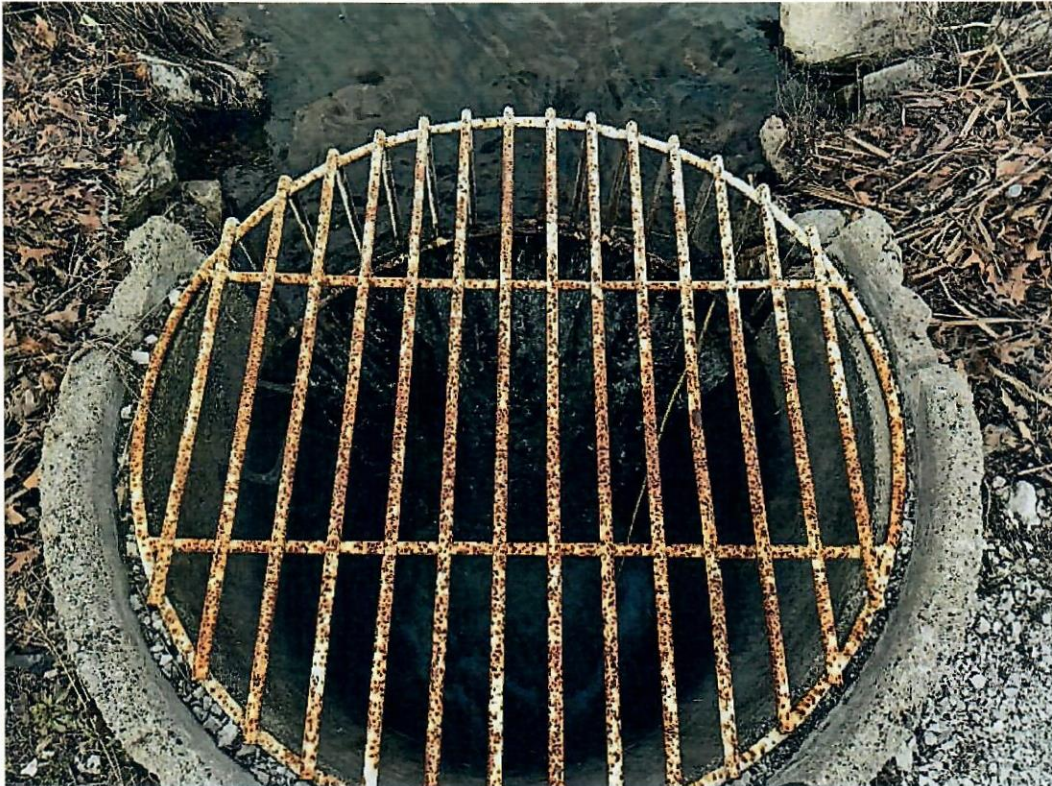
Mr. Mike DePouw represents the owner, Ela Township, as the Highway Superintendent..

The Department of Natural Resources is requesting information that is necessary to accomplish the statutory purpose as outlined under the River, Lakes, and Streams Act 615 ILCS 5. Submittal of this information is REQUIRED. Failure to provide the required information could result in the initiation of non-compliance procedures as outlined in Section 3702.160 of the "Rules for Construction and Maintenance of Dams."





Drop Manhole Control Structure- 3/27/24

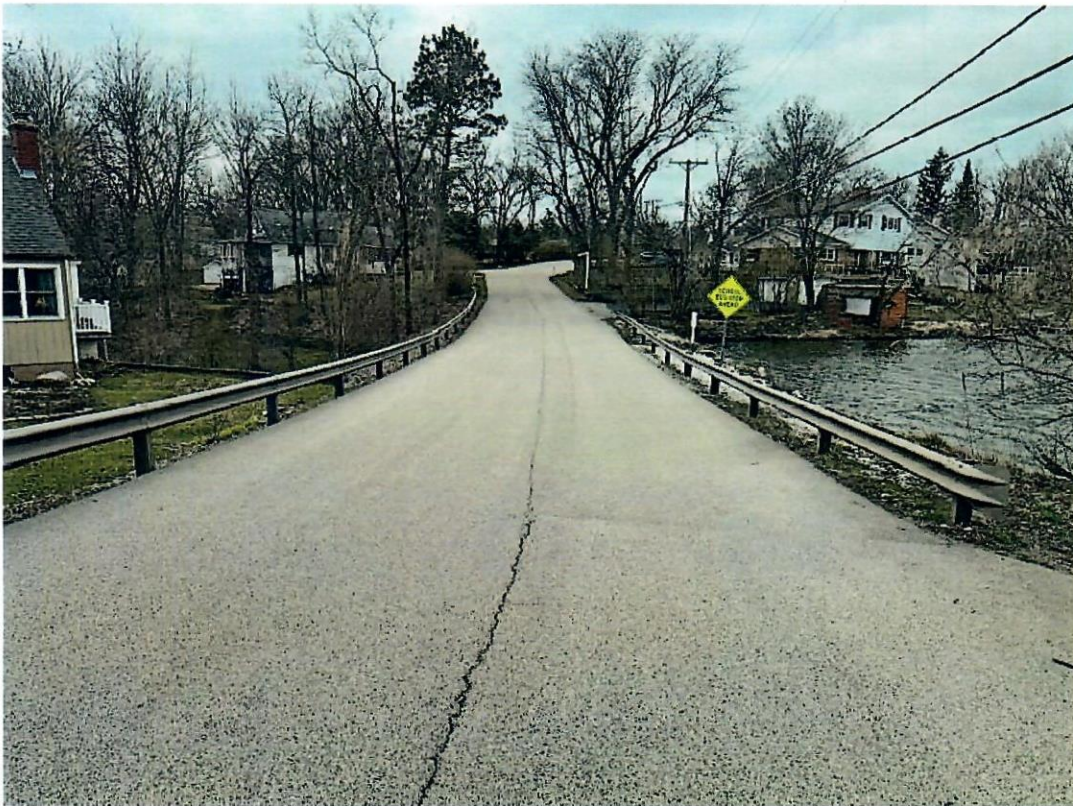


Control Structure- Water Level Approximately 5" Above Concrete Sill- 3/27/24





36" RCP Outlet Pipe- 3/27/24



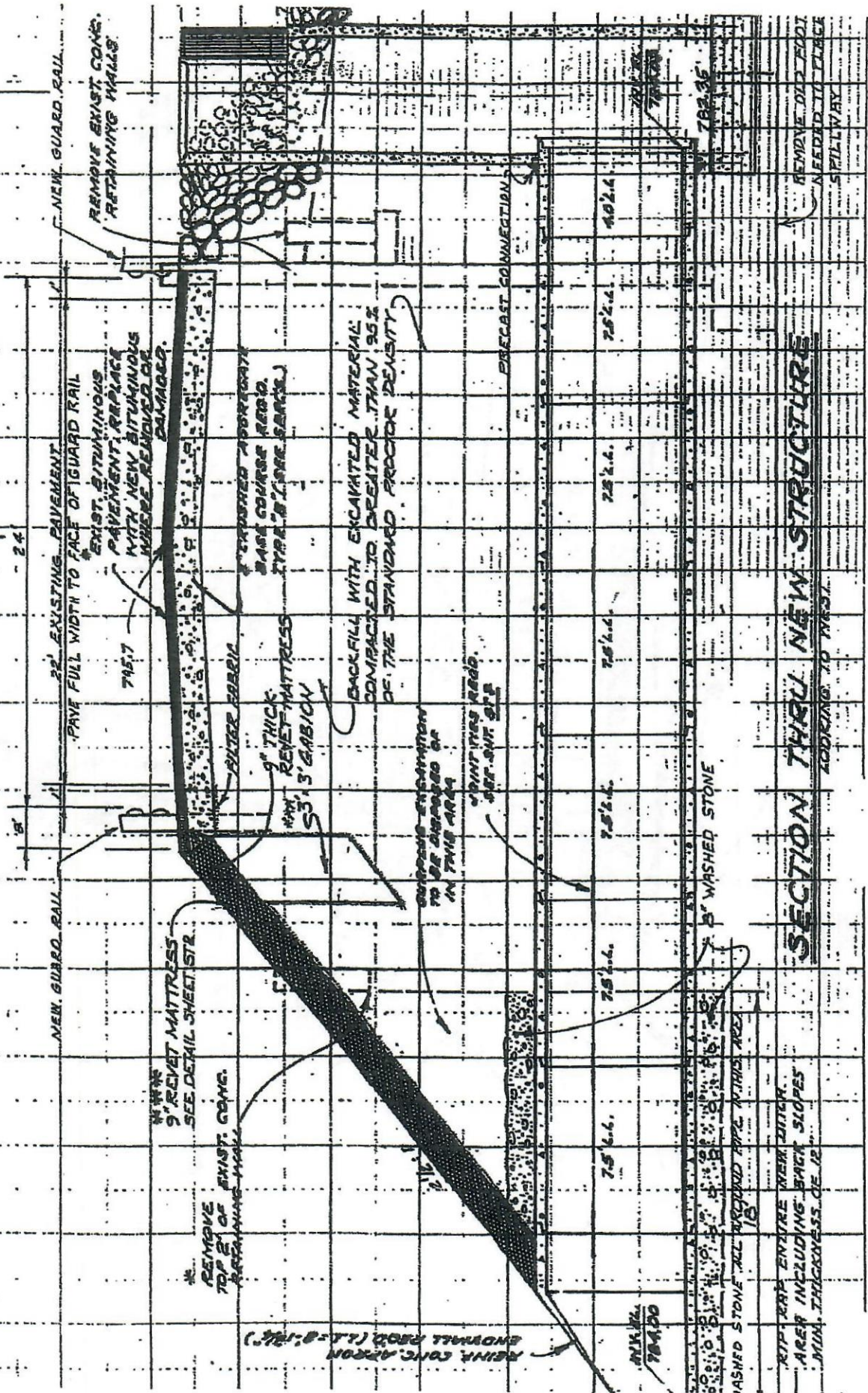
Lakeside Drive- 3/27/24 (Forest Lake on right side of road, outlet pipe on left side)







17' (N.T.S)



22' EXISTING PAVEMENT  
PAVE FULL WIDTH TO FACE OF GUARD RAIL

EXIST. BITUMINOUS PAVEMENT REPLACE WITH NEW BITUMINOUS WHERE REMOVED OR DAMAGED.

REMOVE TOP 2" OF EXIST. CONC. RETAINING WALL  
9" REVEY MATTRESS SEE DETAIL SHEET STR.

9" THICK REVEY MATTRESS  
3' GABION

BACKFILL WITH EXCAVATED MATERIAL COMPACTED TO GREATER THAN 95% OF THE STANDARD PROCTOR DENSITY

CONCRETE EXCAVATION TO BE DISPOSED OF IN THIS AREA  
PAINTING ROAD SURF OUT OF

PRECAST CONNECTION

5' WASHED STONE

RIPT RAP ENTIRE NEW DITCH AREA INCLUDING BACK SLOPES MIN. THICKNESS OF 12"

### SECTION THRU NEW STRUCTURE

REMOVE OLD FOOT  
NEEDED TO CLEAR  
SPILL WAY

ANKER  
784.00

75' 6.6.

75' 6.6.

75' 6.6.

75' 6.6.

75' 6.6.

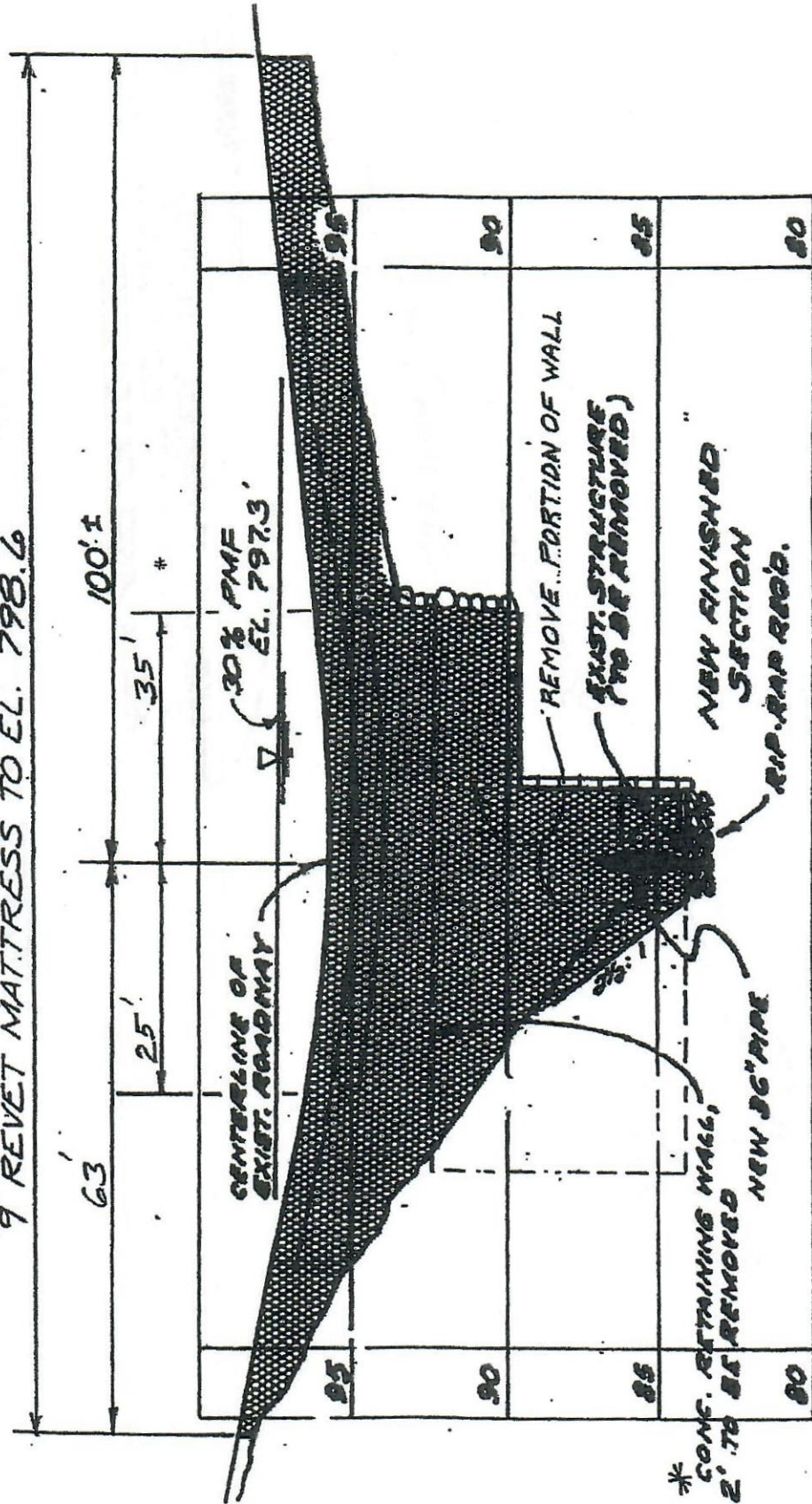
75' 6.6.

75' 6.6.

782.35



9" REVET MATTRESS TO EL. 798.6'

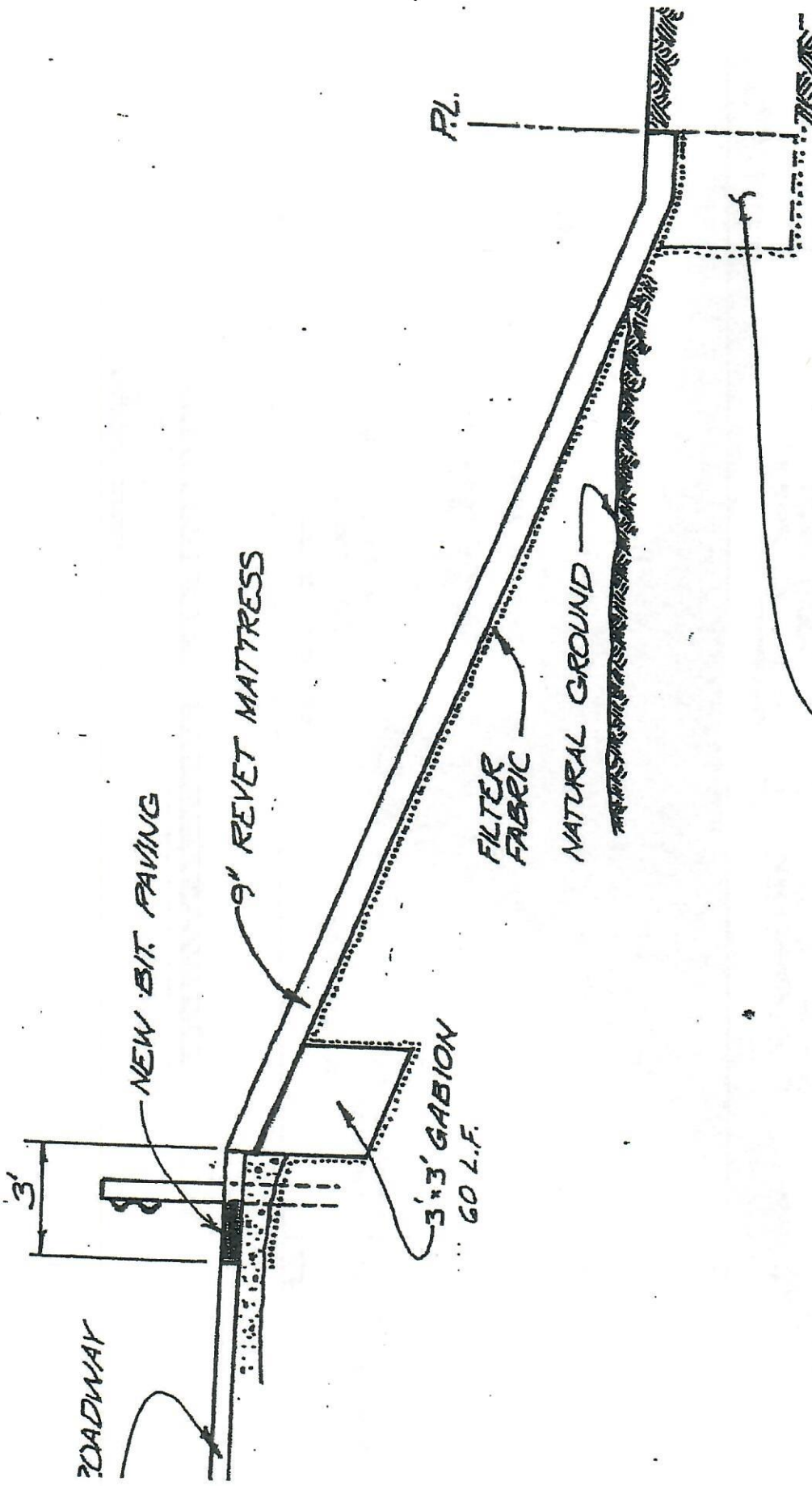


\* CONC. RETAINING WALL, TOP 2' TO BE REMOVED

**DOWNSTREAM ELEVATION**

HOR: 1"=20'  
VERT: 3/16"=1'

SCALE:



USE 3'x3' GABIONS WHERE NECESSARY TO KEEP MATRESS WITHIN ROADWAY ROW AND EASEMENT

REKET MATRESS DETAIL

SCALE 1/4" = 1'-0"