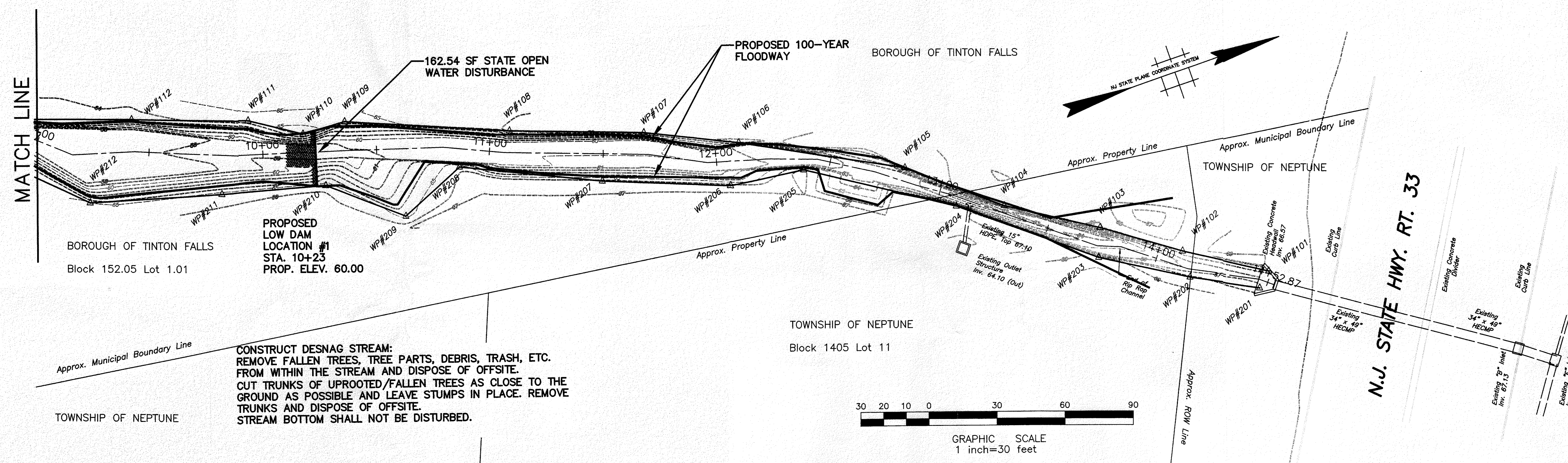


NO.	DATE	REVISION	DRAWN	CHECK'D	RELE'D
2	10/14/11	REVISED PER NDEP LETTER, DATED 2/23/11	TKR	TKR	TKR
1	12/16/10	REVISED PER NDEP COMMENTS	TKR	TKR	TKR

Bsg
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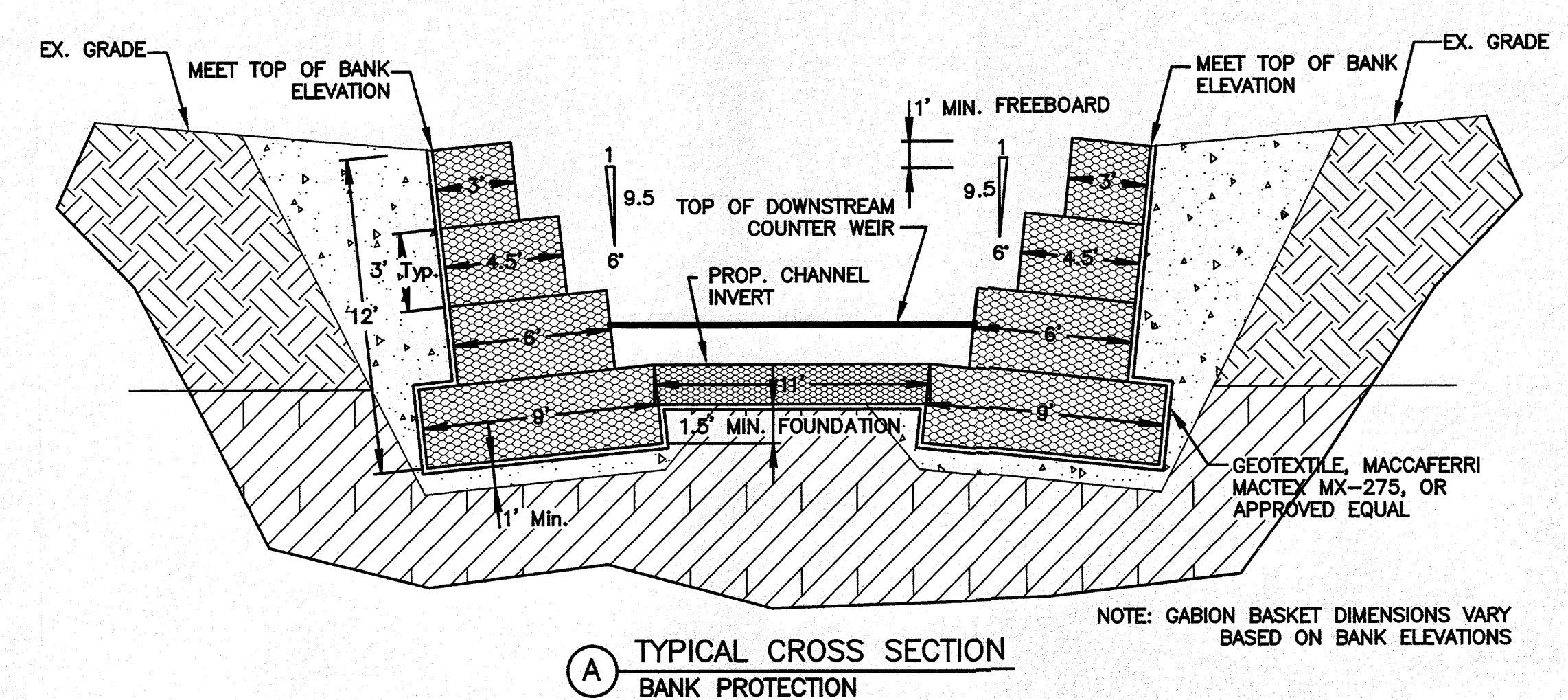
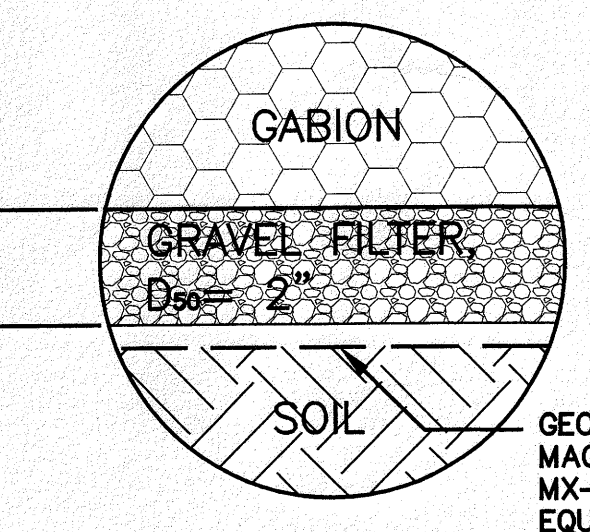
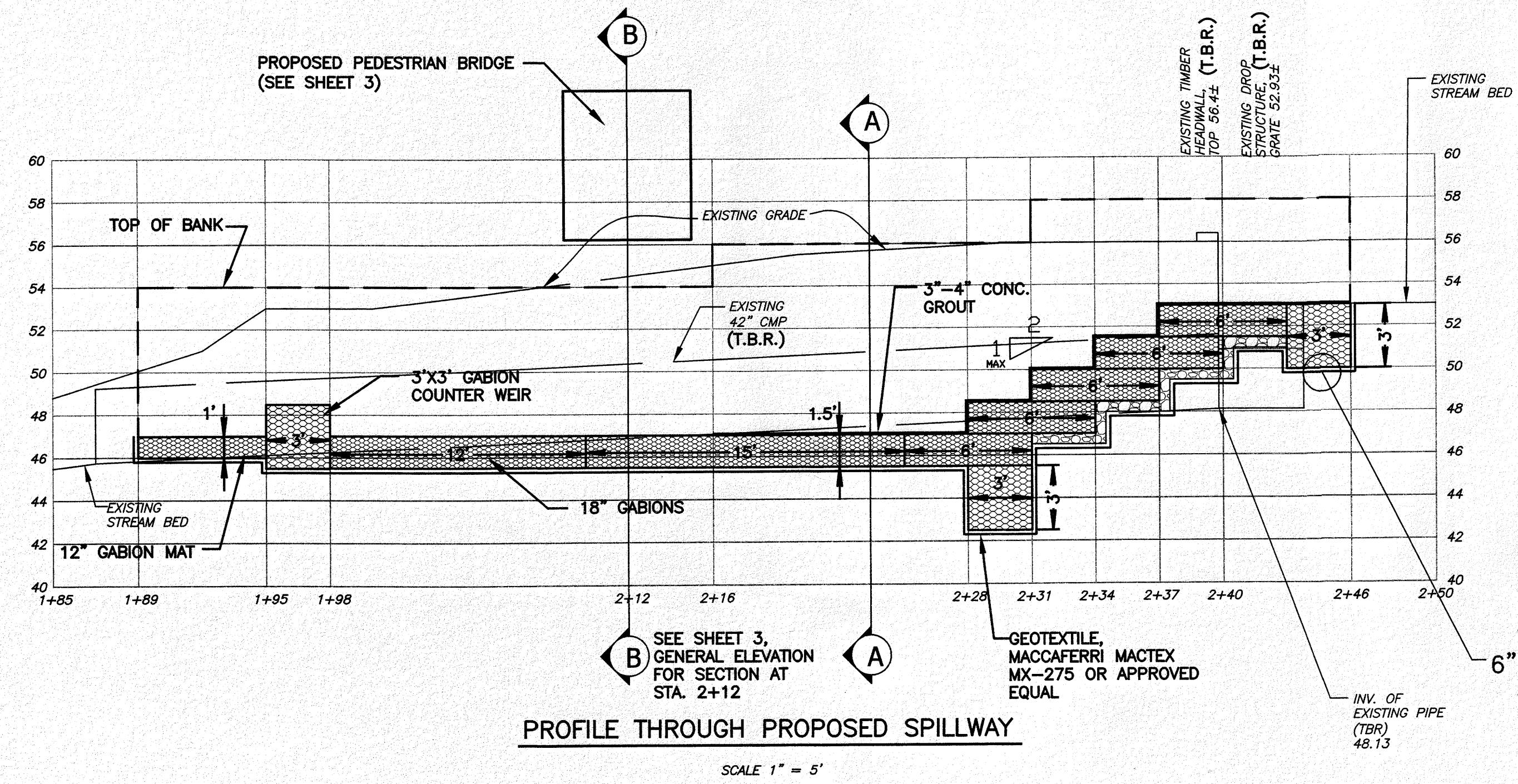
PROPOSED 100-YEAR FLOODWAY



NOTE: THE PROJECT SITE IS NOT LOCATED WITHIN THE 100-YEAR FLOOD HAZARD OR FLOODWAY AREA AS SHOWN ON THE NFIP FLOOD INSURANCE RATE MAP FOR MONMOUTH COUNTY, NEW JERSEY, PANEL 328 OF 457, BOROUGH OF TINTON FALLS, NUMBER 340318-0328-F EFFECTIVE SEPTEMBER 25, 2009.

DATE: _____
 THOMAS K. ROSPOS, P.E., P.P., C.M.E.
 NJ PROFESSIONAL ENGINEER License No. 2460270380

BLOCK 152.01, LOT 1.01
 SCHOOLHOUSE ROAD
 BOROUGH OF TINTON FALLS
 MONMOUTH COUNTY
 NEW JERSEY



(A) TYPICAL CROSS SECTION BANK PROTECTION

NOTE: GABION BASKET DIMENSIONS VARY BASED ON BANK ELEVATIONS

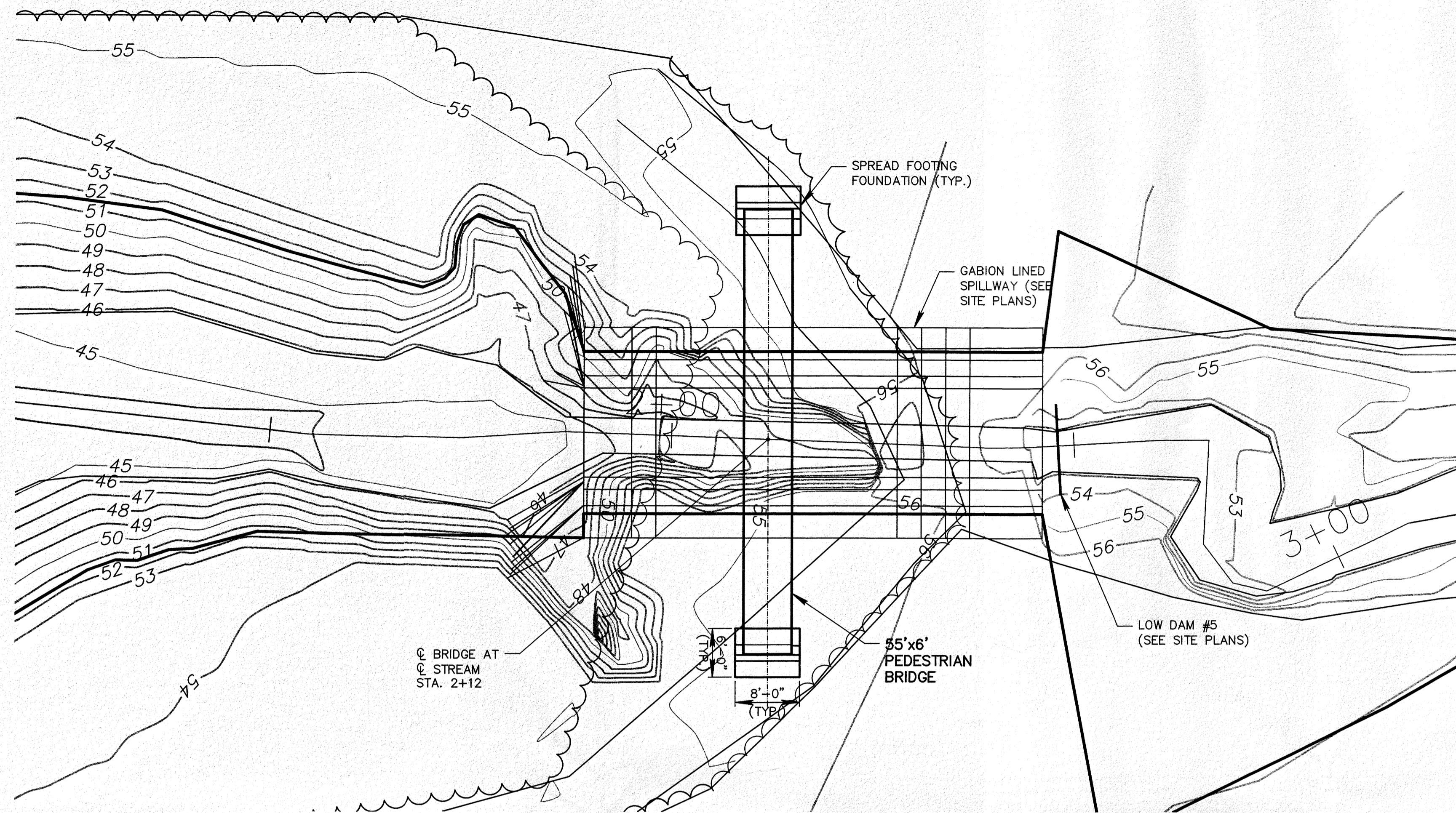
PROFILE THROUGH PROPOSED SPILLWAY

SCALE 1" = 5'

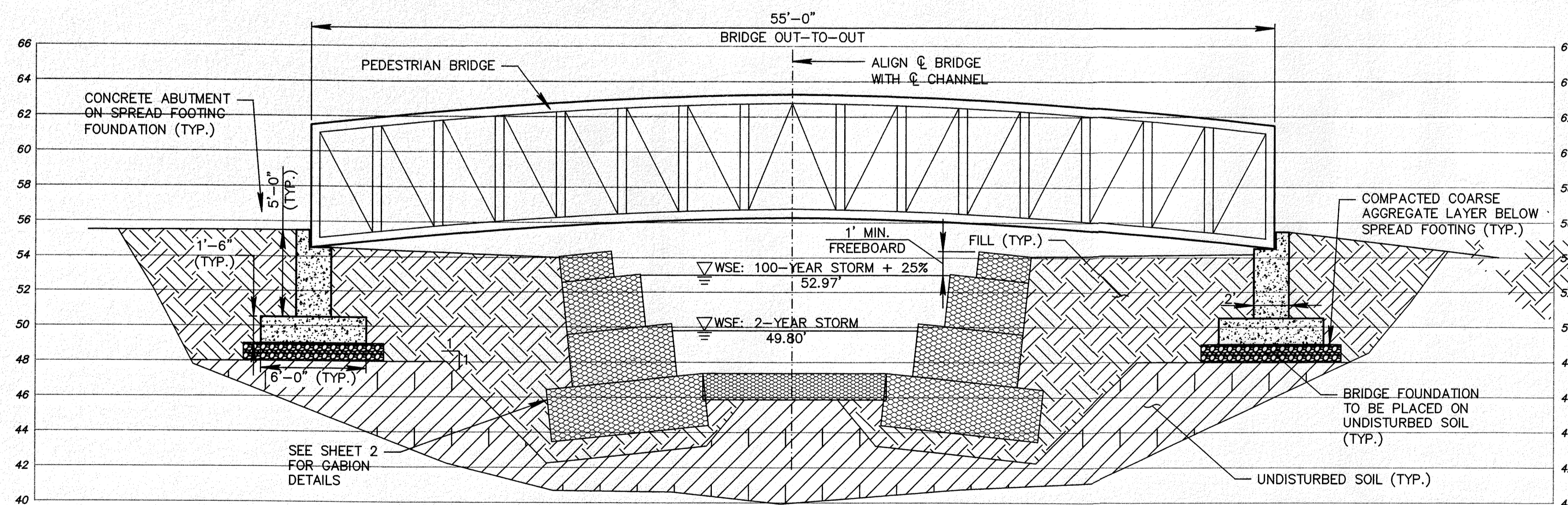
SOIL EROSION & SEDIMENTATION CONTROL
 SUPPLEMENTAL SHEET 3 of 5 9-17-14

PLAN VIEW
 STREAM STABILIZATION OF AN
 UNNAMED TRIBUTARY TO THE SHARK RIVER
 MONMOUTH COUNTY SHARK RIVER PARK

Job No.
 2-02079-002500
 Scale: (H) 1"=30'
 (V) AS SHOWN
 Drawn: JDF
 Checked: DDJ
 Date: 7/15/2010
 SHEET No. **2**
 OF 5



GENERAL PLAN
SCALE: 1" = 10'



(B) GENERAL ELEVATION
SCALE: 1" = 5'

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NEW JERSEY UNIFORM CONSTRUCTION CODE, AND ITS ADOPTED BUILDING SUBCODE, THE INTERNATIONAL BUILDING CODE (IBC-2006).
- PROVIDE TEMPORARY BRACING AS REQUIRED TO SUPPORT LOADS WHICH NEW AND EXISTING STRUCTURES MAY BE SUBJECT TO DURING CONSTRUCTION.
- CONTRACTOR TO FIELD MEASURE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN FIELD. ANY UNUSUAL CONDITIONS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE PURCHASE, FABRICATION OR ERECTION OF ANY MATERIAL.
- CONTRACTOR SHALL SUBMIT ERECTION AND DETAILED SHOP DRAWINGS OF ALL STRUCTURAL MATERIALS FOR REVIEW, INCLUDING:
 - CONCRETE REINFORCING AND CONCRETE MIX.
 - DATA SHEETS ON ALL STRUCTURAL MATERIALS, INCLUDING:
 - ANCHOR BOLTS.
 - BRIDGE DRAWINGS WITH FINAL DIMENSIONS AND REACTIONS, SIGNED AND SEALED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER.
- BRIDGE ABUTMENTS AND ANCHOR BOLT LAYOUTS ARE BASED ON PRELIMINARY INFORMATION. ABUTMENT DESIGN, DIMENSIONS, AND ANCHOR ROD LAYOUT NEED TO BE RECONFIRMED WITH FINAL APPROVED SHOP DRAWINGS. SUBMITTAL OF AN ALTERNATE BRIDGE WILL REQUIRE REDESIGN OF THE BRIDGE ABUTMENTS. SUCH REVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NEED TO BE SIGNED AND SEALED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER.
- A WATERSTOP SHALL BE CAST INTO THE ABUTMENT AT THE CAP-BACKWALL INTERFACE. WATERSTOP SHALL CONFORM TO NJDOT STANDARD SPECIFICATIONS.
- SEE SITE PLANS FOR ANY DRAINAGE, FILL, SCOUR MITIGATION, GRADING, OR SOIL COMPACTION REQUIREMENTS. SEE BRIDGE PLANS FOR BRIDGE SUPERSTRUCTURE DETAILS AND MATERIALS.
- COORDINATE FOUNDATION LOCATIONS WITH SITE ENGINEER'S PLANS. ANY DISCREPANCY BETWEEN THESE PLANS AND THE SITE ENGINEER'S PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ANY EARTHWORK OR FABRICATION.

EXCAVATION, FOUNDATION AND BACKFILLING

- FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ALLOWABLE SOIL PRESSURE OF 2000 PSF. ALL FOUNDATIONS SHALL BE FOUNDED ON FIRM, UNDISTURBED SOIL. ALL SOFT SPOTS OR OVER-EXCAVATION OF FOOTINGS SHALL BE FILLED WITH ACCEPTABLE FILL MATERIAL AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- BACKFILL SHALL BE PLACED IN 6- TO 8-INCH MAXIMUM LIFTS AND COMPACTED TO A MINIMUM DENSITY OF 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D-1557 MODIFIED PROCTOR.
- BACKFILL SHALL CONSIST OF NON-EXPANSIVE, FREE-DRAINING, WELL GRADED SAND AND GRAVEL, FREE OF DEBRIS AND ORGANIC MATERIAL.
- BACKFILLING WITHIN FIVE (5) FEET OF THE ABUTMENT SHOULD BE COMPACTED USING HAND TAMPERS. NO HEAVY ROLLERS SHOULD BE ALLOWED WITHIN FIVE (5) FEET OF ANY STRUCTURE.
- CONTRACTOR WILL BE RESPONSIBLE FOR, AND SHALL SAFEGUARD AND PROTECT, ALL EXCAVATIONS AND EXISTING STRUCTURES DURING CONSTRUCTION OF FOUNDATIONS BY PROPER SAFEGUARDS WHICH MAY INCLUDE BRACING.
- THE DESIGN AND OPERATION OF THE GROUNDWATER CONTROLS DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IF WATER IS ENCOUNTERED DURING CONSTRUCTION, DEWATERING SHALL BE EMPLOYED TO REMOVE WATER FROM FOUNDATION EXCAVATIONS. ALL FOUNDATION CONSTRUCTION SHALL OCCUR "IN THE DRY".

STRUCTURAL STEEL

- ALL STRUCTURAL STEEL FABRICATION AND ERECTION SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION", LATEST EDITION.
- STRUCTURAL STEEL MATERIALS -
 - ALL OTHER SHAPES, BARS, AND PLATES SHALL CONFORM TO ASTM A36 (MINIMUM).
 - ALL ANCHOR RODS SHALL BE OF ASTM F1554 GR. 50, MIN.
- THE DRAWINGS REPRESENT THE PERMANENT FRAMING AND FINAL DETAILS WHERE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, TEMPORARY BRACING, SHORING, AND RECOMMENDED ERECTION PROCEDURES.

GALVANIZING

- ALL STEEL PLATES AND FABRICATIONS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A-123.
- ALL STEEL HARDWARE AND ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A-153, UNLESS OTHERWISE NOTED.
- GALVANIZING DAMAGED DURING SHIPMENT, ERECTION, OR FIELD WELDING SHALL BE REPAIRED USING "ZRC COLD GALVANIZING COMPOUND". OR APPROVED EQUAL (IF NECESSARY).

CONCRETE

- ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI 318 AND "SPECIFICATIONS FOR CONCRETE BUILDINGS" ACI 301, LATEST EDITIONS.
- ALL CONCRETE SHALL HAVE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI, UNLESS OTHERWISE NOTED. CONCRETE SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI STANDARDS. MAXIMUM SLUMP SHALL BE 4 INCHES. ALL CONCRETE SHALL BE NORMAL WEIGHT, U.N.O.
- REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH ASTM A615, GRADE 60. EPOXY COAT OR GALVANIZE AT OWNER'S REQUEST.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED OVER REINFORCEMENT, UNLESS OTHERWISE NOTED ON THE DRAWINGS:
 - CONCRETE EXPOSED TO EARTH OR WEATHER: 2 INCHES
 - CONCRETE CAST AGAINST EARTH: 3 INCHES
 - CONCRETE IN DRILLED SHAFT EXPOSED TO WATER: 4 INCHES
- ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND SUPPORTED IN FORMS AND SPACED WITH ACCESSORIES FOLLOWING THE REQUIREMENTS OF THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315. PLACING OF BARS SHALL CONFORM TO THE LATEST CRSI RECOMMENDED PRACTICES FOR PLACING REINFORCING BARS.
- NO ADMIXTURE SHALL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER. THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
- AFTER CONCRETING HAS STARTED, IT SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL PLACING OF A PANEL OR SECTION, AS DEFINED BY ITS BOUNDARIES OR PREDETERMINED JOINTS, IS COMPLETED.
- ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY SUITABLE MEANS SUCH AS MECHANICAL VIBRATION DURING PLACEMENT AND THOROUGHLY WORKED AROUND REINFORCEMENT.
- ALL BOLTS, SLEEVES, AND OTHER EMBEDDED ITEMS SHALL BE SET BEFORE CONCRETE IS PLACED. COORDINATE ANCHOR ROD LOCATIONS WITH BRIDGE FABRICATOR DRAWINGS.
- AN EPOXY WATERPROOFING COAT SHALL BE APPLIED TO THE CONCRETE ABUTMENT SEATS. THE COAT SHALL BE CARRIED 4" UP THE INSIDE FACE OF THE ABUTMENT AND CARRIED 4" DOWN ON THE OUTSIDE CAP FACE. THIS EPOXY WATERPROOFING COAT SHALL CONFORM TO CURRENT NJDOT SPECIFICATIONS. SEE CROSS SECTION FOR LOCATION.

CONCRETE CURING

- PROPER CURING OF CONCRETE IS OF THE UTMOST IMPORTANCE. BEGINNING IMMEDIATELY AFTER PLACEMENT, CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY AND SHALL BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR AT LEAST 7 DAYS. THE MATERIALS AND METHODS OF CURING SHALL BE SUBJECT TO ACCEPTANCE BY THE ENGINEER. UNSATISFACTORY FINISHED CONCRETE THAT RESULTS FROM FAILURE TO FOLLOW THE SPECIFIED CURING PROCEDURES MAY BE REQUESTED BY THE OWNER OR ENGINEER TO BE REMOVED AND REPLACED. ALL COSTS ASSOCIATED WITH REMOVAL AND REPLACEMENT OF CONCRETE WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- COLD WEATHER - WHEN THE MEAN DAILY OUTDOOR TEMPERATURE IS LESS THAN 40°F, THE TEMPERATURE OF THE CONCRETE SHALL BE MAINTAINED BETWEEN 50°F AND 70°F FOR THE REQUIRED CURING PERIOD. WHEN NECESSARY, ARRANGEMENTS FOR HEATING, COVERING, INSULATING, OR HOUSING THE CONCRETE WORK SHALL BE MADE IN ADVANCE OF PLACEMENT AND SHALL BE ADEQUATE TO MAINTAIN THE REQUIRED TEMPERATURE WITHOUT INJURY TO THE CONCRETE DUE TO CONCENTRATION OF HEAT.
- HOT WEATHER - WHEN NECESSARY, PROVISION FOR WINDBREAKS, SHADING, AND/OR COVERING WITH A LIGHT-COLORED MATERIAL SHALL BE MADE IN ADVANCE OF CONCRETE PLACEMENT. SUCH PROTECTIVE MEASURES SHALL BE TAKEN AS QUICKLY AS CONCRETE HARDENING AND FINISHING OPERATIONS WILL ALLOW. TEMPERATURE OF CONCRETE AT PLACEMENT SHALL NOT EXCEED 85°F.
- UNLESS OTHERWISE NOTED, DO NOT LOAD PIER CAP UNTIL FULL CURE IS ATTAINED AS PROVEN BY BREAK TESTS OR CURE PERIOD.

TRK	RELD
DDU	CHKD
RFD	DRAWN
REVISED PER NADREP LETTER, DATED 2/23/11	REVISION
NO.	DATE
2	10/14/11

Bsg
ENGINEERS & CONSULTANTS

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ENGINEERS & CONSULTANTS

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DATE: _____
THOMAS K. ROSPOS, P.E., P.P., C.M.E.
NJ PROFESSIONAL ENGINEER License No. 2460702860

BLOCK 152.01, LOT 1.01
SCHOOLHOUSE ROAD
BOROUGH OF TINTON FALLS
MONMOUTH COUNTY
NEW JERSEY

**GENERAL PLAN AND ELEVATION
PEDESTRIAN BRIDGE OVER
UNNAMED TRIBUTARY TO THE SHARK RIVER
MONMOUTH COUNTY SHARK RIVER PARK**

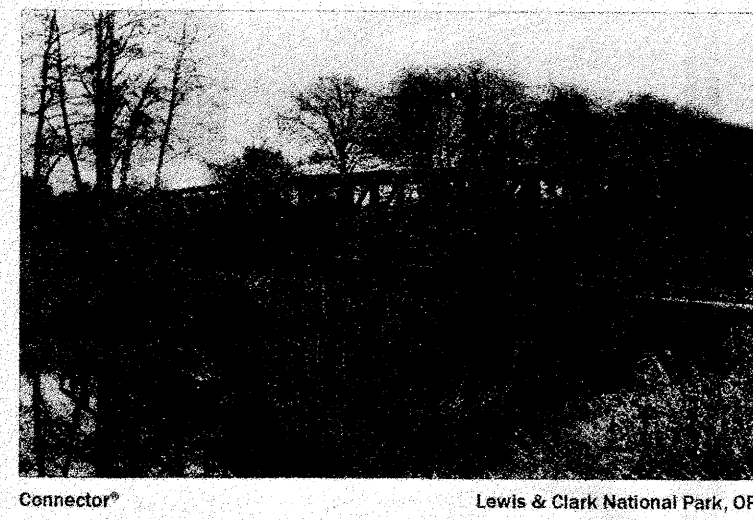
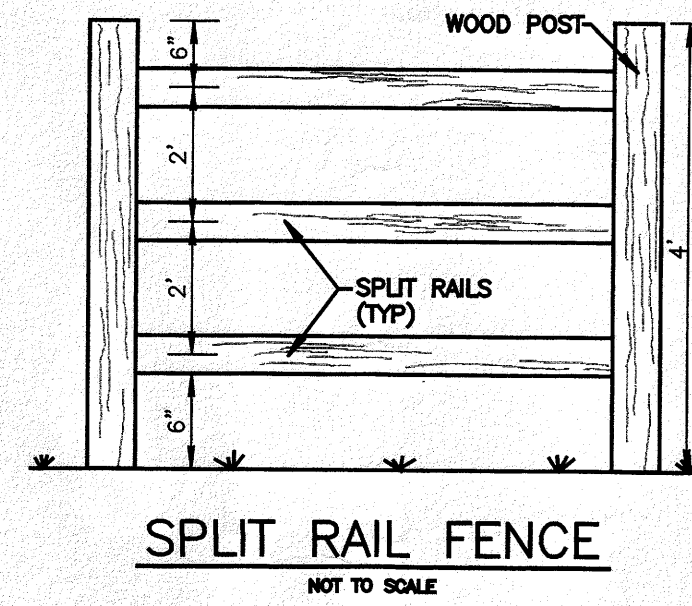
Job No.
2-02079-002500

Scale: (H) AS SHOWN
(V) AS SHOWN

Drawn JDF	Designed DDJ
Checked DDJ	Released TKR
Date 7/15/2010	Drawer Number

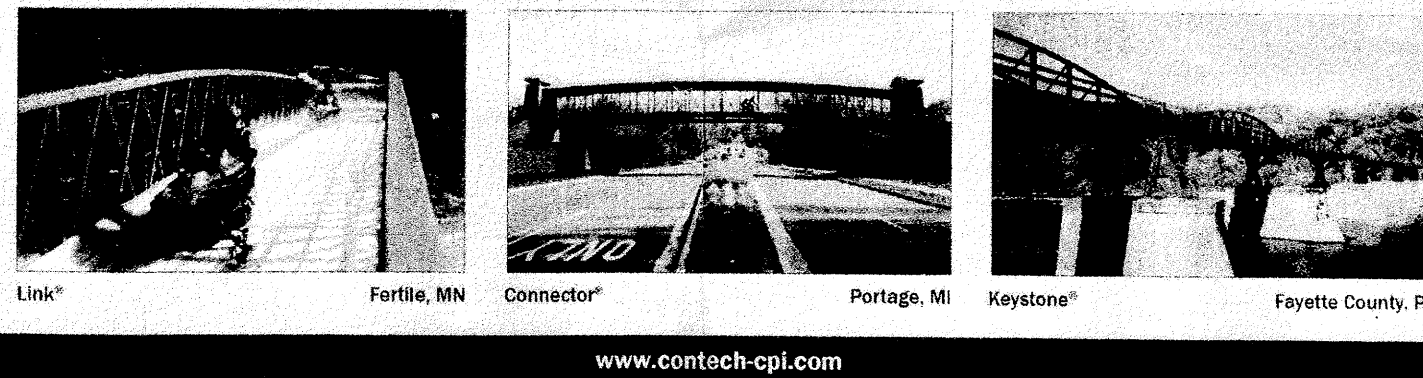
SHEET No.
3

OF 5

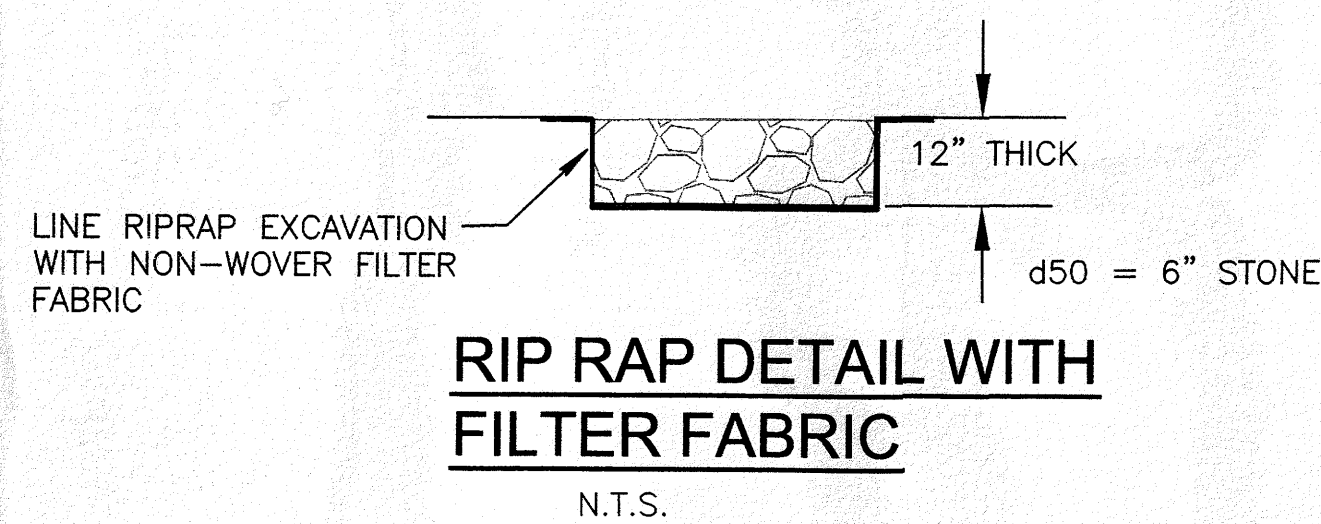


Parks & Trails

Steadfast and Continental prefabricated steel truss bridges can be found in parks, down wilderness trails, high above wetlands, and along riverbanks. These structures reduce time consuming permitting processes by clear spanning wetland areas. Counties, municipalities, and state departments often choose these truss structures for park greenway systems or for Rails-to-Trails projects. The bridges can accommodate unique architectural styles to blend in with park systems for large river or small stream crossings.

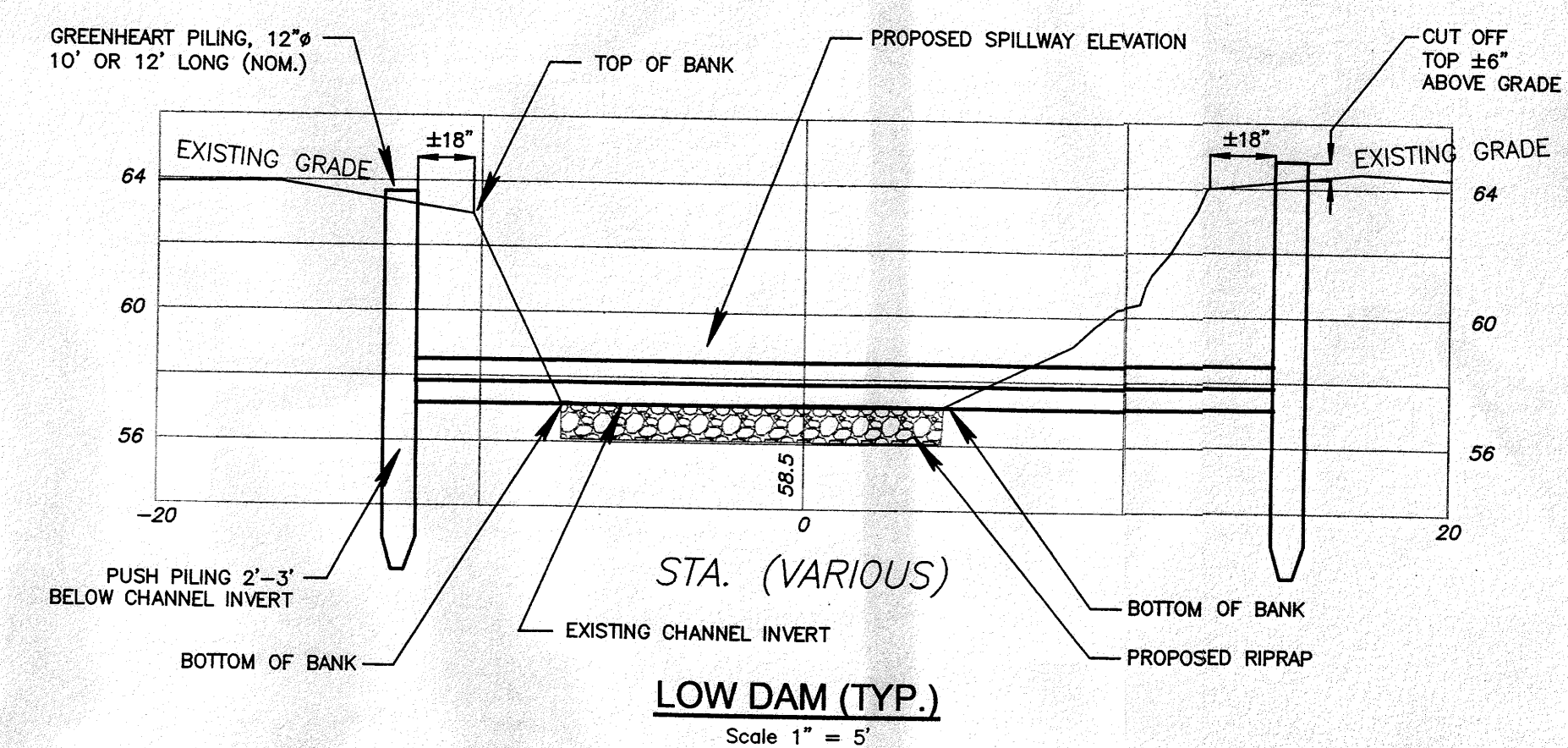
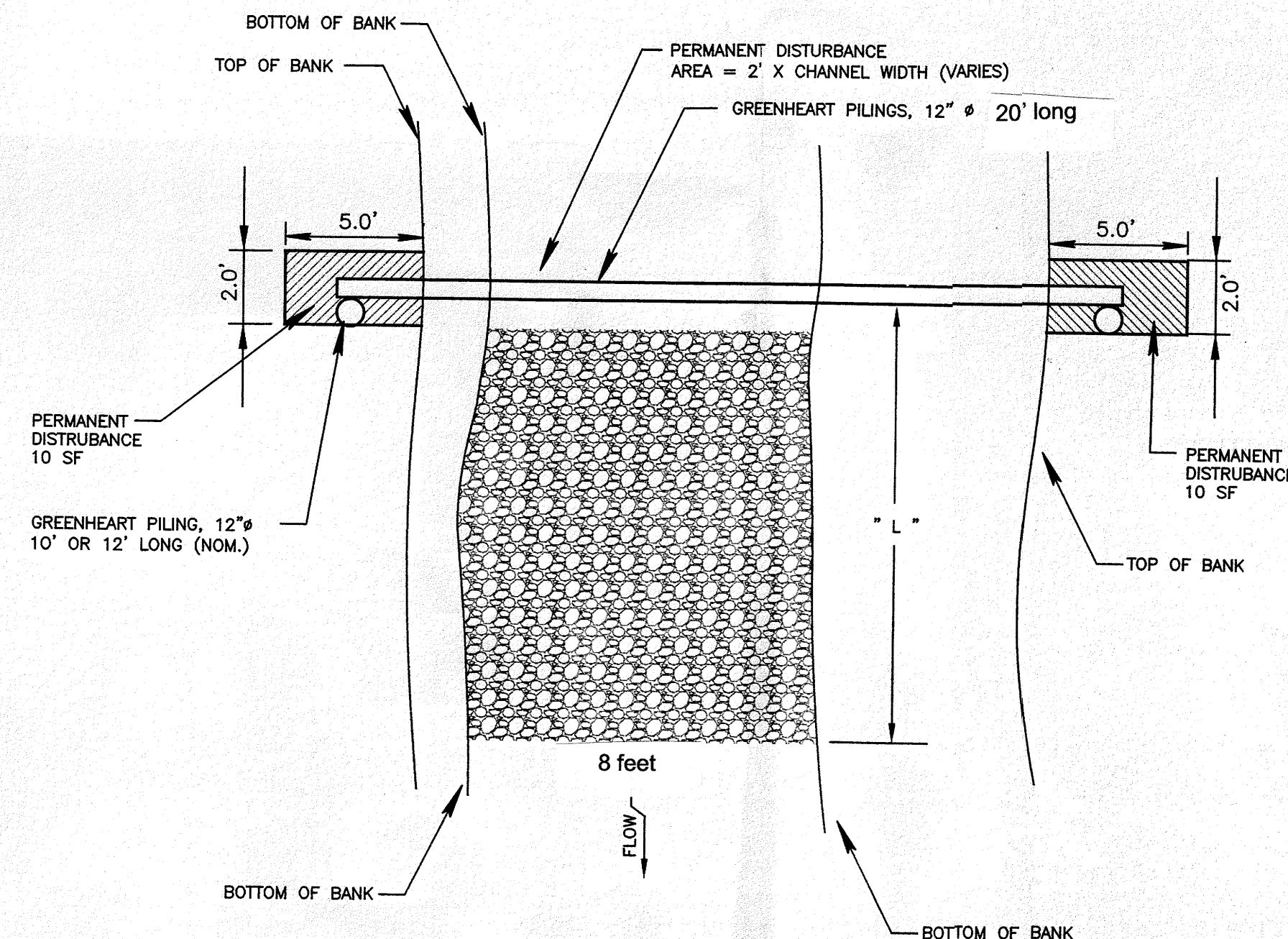


**PEDESTRIAN BRIDGE
(AS APPROVED BY OWNER)**



LOW DAM DATA						
LOW DAM #	STA.	EXIST. CHANNEL INV. (±)	PROP. SPILLWAY ELEV.	BOTTOM SPILLWAY PILE SIZE	TOP SPILLWAY PILE SIZE	"L" LENGTH OF CHANNEL STABILIZATION
1	10+23	58.5	60.00	12" ø	8" ø	12 feet
2	8+77	56.9	58.66	12" ø	12" ø	12 feet
3	6+80	55.0	56.66	12" ø	12" ø	8 feet
4	3+51	53.3	55.00	12" ø	8" ø	12 feet
5	2+48	53.0	54.00	12" ø	-	MEET GABION BASKETS

NOTE: BURY BOTTOM SPILLWAY PILE IN CHANNEL BOTTOM TO MAINTAIN PROP. SPILLWAY ELEVATION (VARIES ±0.25' MAX.)



**SOIL EROSION & SEDIMENTATION CONTROL
SUPPLEMENTAL SHEET 5 of 5 9-17-14**

NO.	DATE	REVISION	DRAWN	CHECKED	REL'D
2	10/14/11	REVISED PER NUDEP LETTER, DATED 2/23/11	RFD	TKR	TKR
1	12/16/10	REVISED PER NUDEP COMMENTS	RFD	TKR	TKR

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DATE: **THOMAS K. ROSFOS, P.E., P.P., C.M.E.**
NJ PROFESSIONAL ENGINEER Lic. No. 24E0702800

Block 152.01, Lot 1.01
SCHOOLHOUSE ROAD
BOROUGH OF TINTON FALLS
MONMOUTH COUNTY
NEW JERSEY

Drawing Name: CONSTRUCTION DETAILS

**CONSTRUCTION DETAILS
STREAM STABILIZATION OF AN
UNNAMED TRIBUTARY TO THE SHARK RIVER
MONMOUTH COUNTY SHARK RIVER PARK**

Job No. 2-02079-002500
Scale(H) 1"=30'
(V) AS SHOWN

Drawn JDF Designed DDJ
Checked DDJ Released TKR

Date 2/2012 Drawer Number

SHEET No. **5**
OF 5

Plotted: 3/12/2014 8:59 AM By: Conall Prosser
File: H:\Information\Monmouth County\Shark River\CONSTR-DETAILS.dwg -> DETAILS