

**Vermont Department of Environmental Conservation**

Watershed Management Division  
Springfield Regional Office  
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Springfield, VT 05156  
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*Agency of Natural Resources*

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**AUTHORIZATION TO CONDUCT STREAM ALTERATION ACTIVITIES**

Pursuant to Section C.2.2.4 of the VT Stream Alteration General Permit (Reporting activities not requiring an application)

Project Number: **SA-05-034-2015 Wilmington Whites Rd TH 23 BR 55** FEMA # PA-01-VT-4022-PW-2375  
Applicant Name: Selectboard, Town of Wilmington, Vermont Contact: Scott Murphy or Bill Hunt  
Mailing Address: Town of Wilmington, PO Box 217, Wilmington, VT 05363 Phone: (802) 384-8591 or (802) 384-5515  
Project Location: Whites Road Bridge 55 over Beaver Brook Email: [smurphy@wilmingtonvt.us](mailto:smurphy@wilmingtonvt.us)

The Secretary of the Vermont Agency of Natural Resources (VT ANR) has determined that:

1. This project authorizes the replacement of four stone wing walls with concrete wing walls to protect the bridge damaged by T.S. Irene as an after-the-fact follow-up to prior e:mail authorization for FEMA funding.
2. The completed activity is eligible for coverage under the VT ANR Stream Alteration General Permit.
3. The completed activity will meet the terms and conditions of the General Permit provided:
  - a) The project will be completed and approved as shown on the attached plans dated 12/12, prepared by Greenman-Pederson, and as approved by the VT ANR herein.
  - b) The project will not adversely affect the public safety by increasing flood hazards.
  - c) The project will not significantly damage fish life or wildlife.
  - d) The project will not significantly damage the rights of riparian owners.
  - e) The project will not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
  - f) The project is conducted in a manner which minimizes or avoids any discharge of sediment or other pollutants to surface waters in violation of the VT Water Quality Standards.
  - g) The ANR River Management Engineer is notified by phone or email when construction begins and when the project is complete.
  - h) In-stream working dates for all GP activities are from July 1<sup>st</sup> through October 1<sup>st</sup>; any in-stream work outside these dates will require an Individual Stream Alteration Permit authorization by the River Management Engineer.
  - i) This authorization has been posted for three days public comment. This authorization constitutes final approval.

If there are any changes in the project plan or deviation in construction from the plan, the Permittee must notify the River Management Engineer immediately.

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

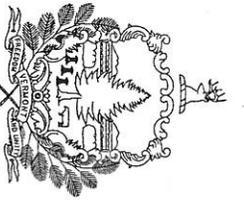
Signed this 15<sup>th</sup> day of September, 2015  
Alyssa B. Schuren, Commissioner  
Department of Environmental Conservation

This permit expires October 1, 2015.

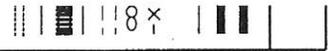
by   
\_\_\_\_\_  
Todd Menees, P.E., P.H., River Management Engineer



PROJECT  
LOCATION



REHABILITATION OF  
WHITES ROAD BRIDGE  
OVER  
BEAVER BROOK  
TOWN OF WILMINGTON,  
WINDHAM COUNTY, VERMONT



STRUCTURAL EXCAVATION	CY	697	
GRANULAR BACKFILL FOR STRUCTURES	CY	415	
SUBBASE OF DENSE GRADED CRUSHED STONE	CY	10	
AGGREGATE SURFACE COURSE	CY	4	
CONCRETE, HIGH PERFORMANCE CLASS B	CY	122	
EPOXY COATED REINFORCING STEEL	LB	13,850	
WATER REPELLENT, SILANE	GAL	8	
STONE FILL, TYPE III	CY	80	
REMOVE AND RESET GUARDRAIL	LF	145	
MODULIZATION / DEMOLITION	LS	1	
TRAFFIC CONTROL	LS	1	
GEOTEXTILE UNDER STONE FILL	SY	42	
GEOTEXTILE FOR SILT FENCE	SY	50	
SEED	LB	10	
HAY MULCH	TON	0.2	
TOPSOIL	CY	16	
PROJECT DEMARCATION FENCE	FT	175	

2	ESTIMATE OF QUANTITIES AND INDEX
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3 BY:

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GENERAL NOTES

1. DESIGN SPECIFICATIONS, REPRODUCTION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND VERMONT AGENCY OF TRANSPORTATION 2010 STRUCTURES DESIGN MANUAL.
2. CONSTRUCTION AND MATERIALS SPECIFICATIONS: VERMONT AGENCY OF TRANSPORTATION 2009 CONSTRUCTION MANUAL WITH 2010 AND 2011 UPDATES.
3. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS FOR WHICH NO SCALE IS SHOWN ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
4. THE COST OF WATER USED FOR COMPACTION OF FILL ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THAT ITEM.
5. THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT. UNLESS OTHERWISE SPECIFIED ON THE PLANS.
6. THIS BRIDGE SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT EDITION OF THE MASSHO MAINTENANCE MANUAL: THE MAINTENANCE AND MANAGEMENT OF ROADWAYS AND BRIDGES.
7. THE CONTRACTOR SHALL PROVIDE A DRY EXCAVATION TO CONSTRUCT THE WINGWALLS. ANY WATERING THAT IS REQUIRED WILL BE INCLUDED IN THE COST FOR THE VARIOUS EXCAVATION ITEMS.
8. THE CONTRACTOR SHALL CONTACT THE GROUND UNDER THE FOOTINGS TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY PRIOR TO STARTING THE FOOTING CONSTRUCTION.
9. ALL PLACEMENTS OF SELECT STRUCTURE FILL BEHIND THE WINGWALLS SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.
10. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE ITEMS OF WORK SHALL BE REPEATED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME ACTUAL FIELD WORK IS UNDERWAY. ANY MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES, THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE TOWN, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE OR WHICH ARE TO REMAIN THE PROPERTY OF THE TOWN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
12. ALL CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS. IF THE CONTRACTOR REQUESTS TO LOAD CONCRETE PRIOR TO THE 7 DAY CURE TIME, TWO (2) ADDITIONAL CONCRETE CYLINDERS SHALL BE TESTED AT 7 DAYS, A MINIMUM AVERAGE STRENGTH OF 5000 PSI MUST BE ACHIEVED FROM EARLY BREAKS PRIOR TO ANY EARLY LOADING.
13. ALL REINFORCEMENT SHALL HAVE A COVER OF 3 INCHES UNLESS SHOWN OTHERWISE. ALL REINFORCEMENT SHALL BE EPOXY COATED AND PAID FOR UNDER ITEM 507.17.
14. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:  
SPACING +/- 1"  
CLEARANCE +/- 1/4"
15. WHEN EPOXY COATED REINFORCING STEEL IS CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE STRUCTURE FABRICATOR. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL WILL NOT BE PERMITTED.

GENERAL NOTES CONTINUED:

16. ALL PORTIONS OF THE SUBSTRUCTURES SHALL BE " CONCRETE HIGH PERFORMANCE CLASS B".
17. THE KEY IN THE CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTERNALLY WITH THE CONCRETE BELOW THE JOINT.
18. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
19. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH UNLESS OTHERWISE NOTED.
20. IN STREAM CONSTRUCTION DATES FOR THIS PROJECT ARE FROM JULY 1ST TO OCTOBER 1ST. CONTRACTOR PROPOSALS FOR CONSTRUCTION ACTIVITIES IN OR ADJACENT TO FLOWING WATER MUST BE ISOLATED FROM STREAM FLOW AND MUST RECEIVE PRIOR APPROVAL FROM THE VERMONT AGENCY OF NATURAL RESOURCES RIVER MANAGEMENT PROGRAM.
21. STOCKPILING AND RESSETTING THE NECESSARY QUANTITY OF STONE FILL SHALL BE INCLUDED IN THE UNIT COST BID FOR ITEM 613.12, STONE FILL, TYPE III.
22. TEMPORARILY REMOVE AND STOCKPILE GUARDRAIL FOR ACCESS TO WINGWALL LOCATIONS. REMOVE GUARDRAIL INSTALLATIONS AS NECESSARY. REMOVE TEMPORARILY STOCKPILING AND RESSETTING THE NECESSARY QUANTITY OF STONE FILL TO REPAIR GUARDRAIL DAMAGED DURING REMOVAL OF REPLACEMENT OPERATIONS SHALL BE INCLUDED UNDER ITEM 621.75.
23. THE FORMER WILMUNGTON TOWN GARAGE, LOCATED ON BEAVER ST. APPROXIMATELY 1/2 MILE FROM THE PROJECT SITE, IS TO BE DEMOLISHED. TEMPORARILY STOCKPILING LOCATION FOR THE STONE FILL AND GUARDRAIL TO BE REMOVED AND RESET.
24. DATUM ELEVATION 94.00 IS EQUAL TO THE SOUTHEAST CORNER OF THE SOUTH ABUTMENT BACKWALL.

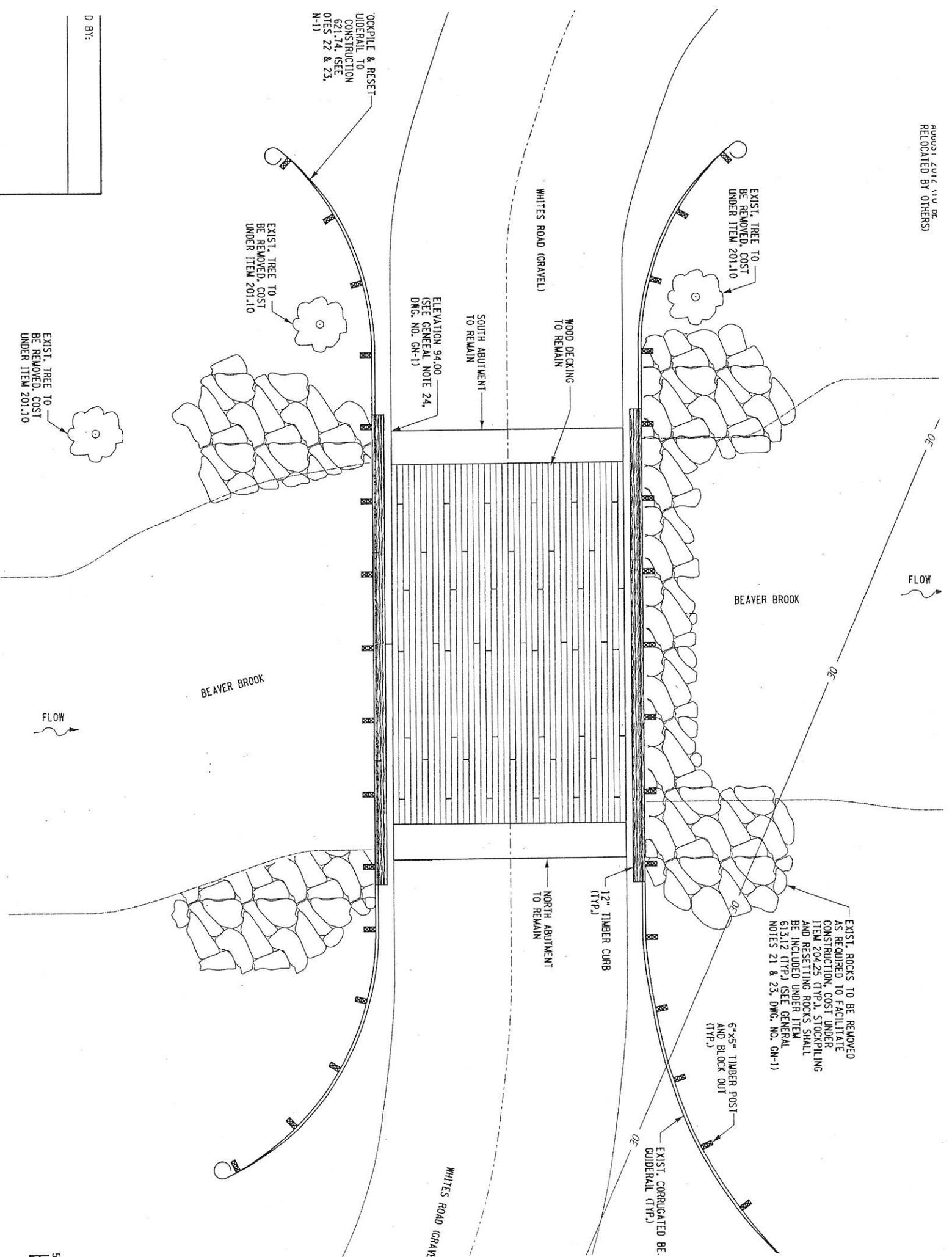


ALTERED BY:  
ONE

ASBUILT REVISIONS  
DESCRIPTION OF ALTERATIONS:

WHITES ROAD BRIDGE	FIN
OVER BEAVER BROOK	
TOWN OF WILMUNGTON	
COUNTY: WINDHAM	
DATE: DECEMBER 2012	

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
GENERAL NOTES	<b>GPI</b>
DRAWING NO. GN-1	SHEET NO. 3 OF 14
NO. GN-11	



EXIST. ROCKS TO BE REMOVED AS REQUIRED TO FACILITATE CONSTRUCTION. COST UNDER ITEM 204.25 (TYP). STOCKPILING AND RESETTLE ROCKS SHALL BE INCLUDED UNDER ITEM 613.12 (TYP) (SEE GENERAL NOTES 21 & 23, DWG. NO. GN-1)

6"x5" TIMBER POST AND BLOCK OUT (TYP.)

EXIST. CORRUGATED BE. GUIDERAIL (TYP.)

12" TIMBER CURB (TYP.)

NORTH ABUTMENT TO REMAIN

SOUTH ABUTMENT TO REMAIN

ELEVATION 94.00 (SEE GENERAL NOTE 24, DWG. NO. GN-1)

WOOD DECKING TO REMAIN

EXIST. TREE TO BE REMOVED. COST UNDER ITEM 201.10

EXIST. TREE TO BE REMOVED. COST UNDER ITEM 201.10

STOCKPILE & RESET UNDER RAIL TO CONSTRUCTION 621.14, (SEE NOTES 22 & 23, N-1)

EXIST. TREE TO BE REMOVED. COST UNDER ITEM 201.10

D BY:

TEMPORARY SIGN  
 "STOP" (R1-1) WITH  
 TYPE A LOW INTENSITY  
 WARNING LIGHT. COST  
 UNDER ITEM 641.10  
 (TYP.)

**WORKZONE SIGNAGE PLAN**  
 SCALE: NONE

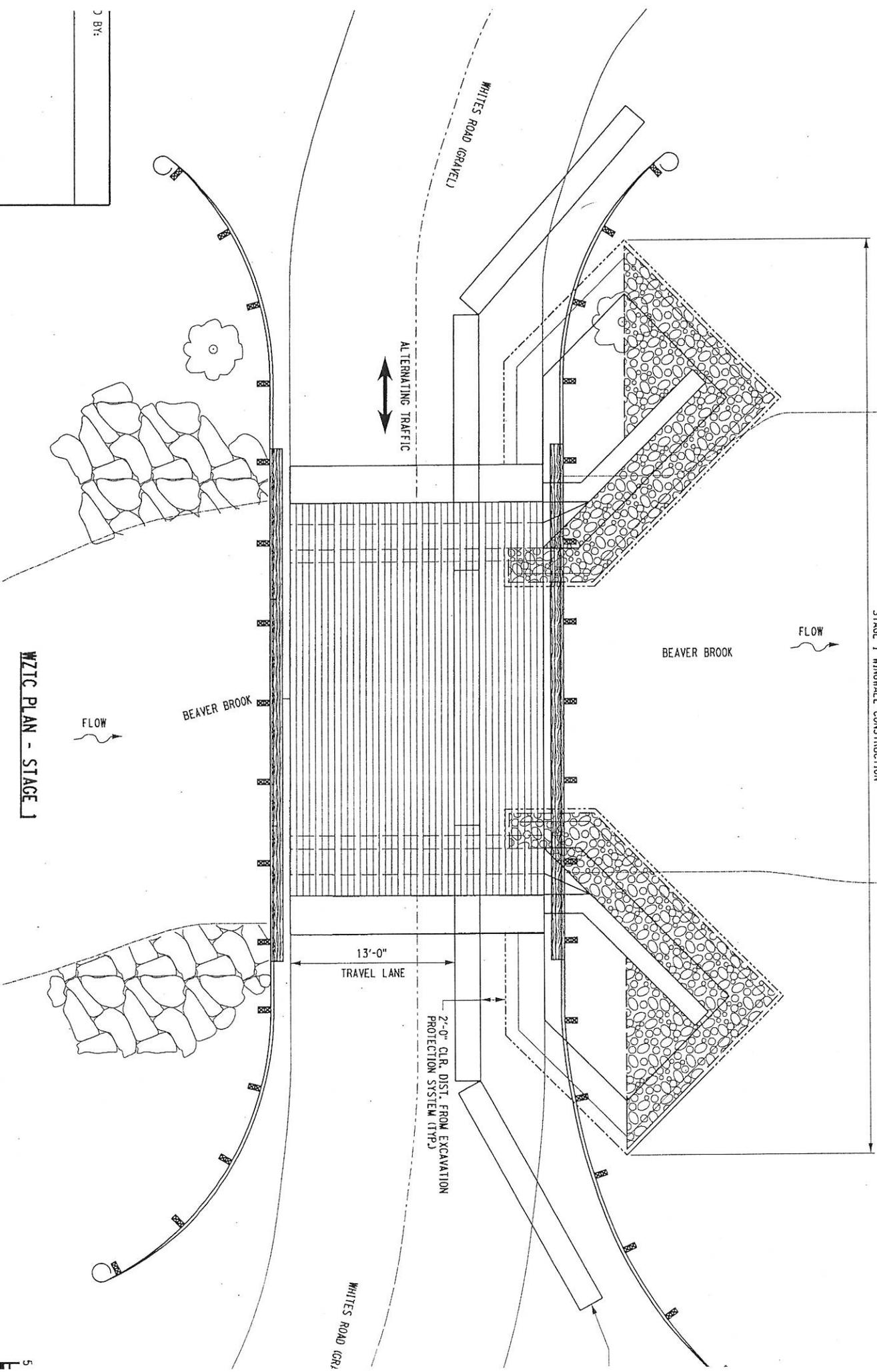


ITEM 641.10  
 (TYP.)

COST UNDER  
 ITEM 641.10  
 (TYP.)

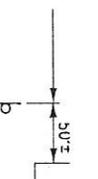
STAGE 1 WINDOW WALL CONSTRUCTION

AP  
 RE  
 AN  
 PR



BY:

**WZTC PLAN - STAGE 1**



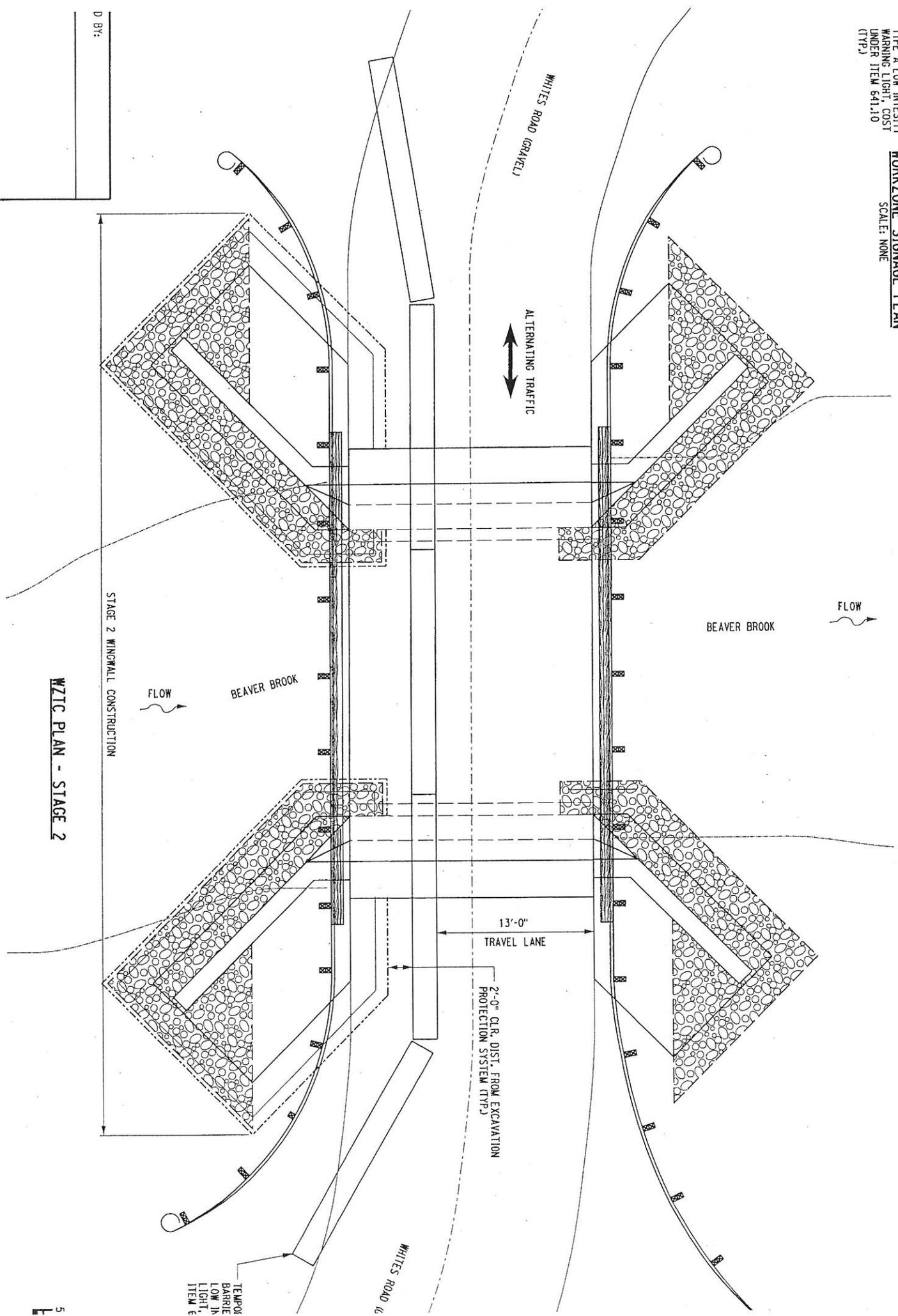
TEMPORARY SIGN  
 "STOP" (R1-1) WITH  
 TYPE A LOW INTENSITY  
 WARNING LIGHT, COST  
 UNDER ITEM 641.10  
 (TYP.)

**WORKZONE SIGNAGE PLAN**  
 SCALES NONE

(TYP.)

ITEM 641.10  
 (TYP.)

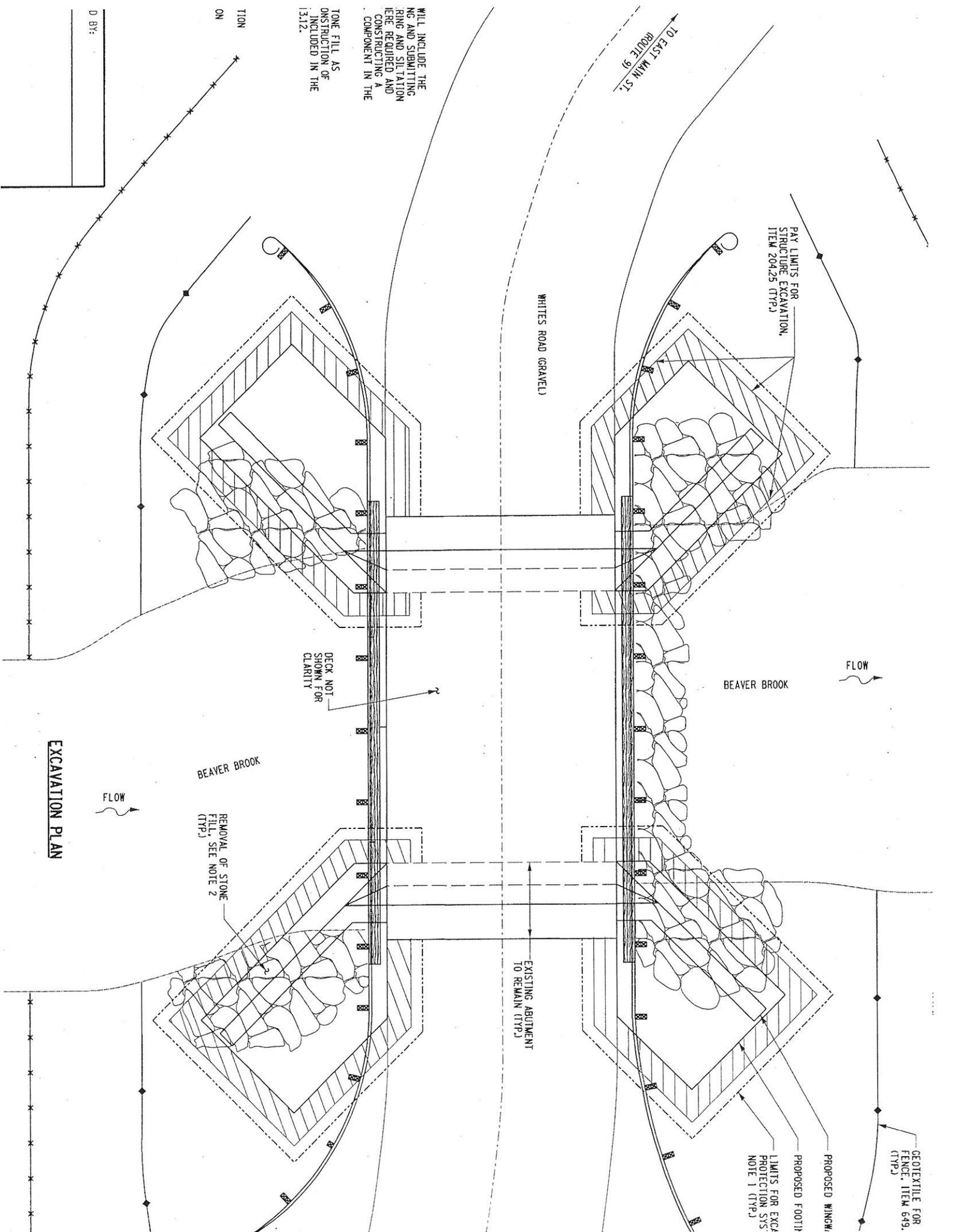
APPRO  
 RELOC  
 AND P  
 PRIOR



D BY:

**WZIC PLAN - STAGE 2**

TEMPORARY  
 BARRIER  
 LOW IN  
 LIGHT,  
 ITEM 6



WILL INCLUDE THE  
 NG AND SUBMITTING  
 RING AND SILTATION  
 HERE REQUIRED AND  
 CONSTRUCTING A  
 COMPONENT IN THE  
 TONE FILL AS  
 ONSTRUCTION OF  
 INCLUDED IN THE  
 13.12.

TION  
 ON

D BY:

**EXCAVATION PLAN**

FLOW

FLOW

BEAVER BROOK

BEAVER BROOK

WHITES ROAD (GRAVEL)

TO EAST MAIN ST.  
 (ROUTE 9)

PAY LIMITS FOR  
 STRUCTURE EXCAVATION,  
 ITEM 204.25 (TYP.)

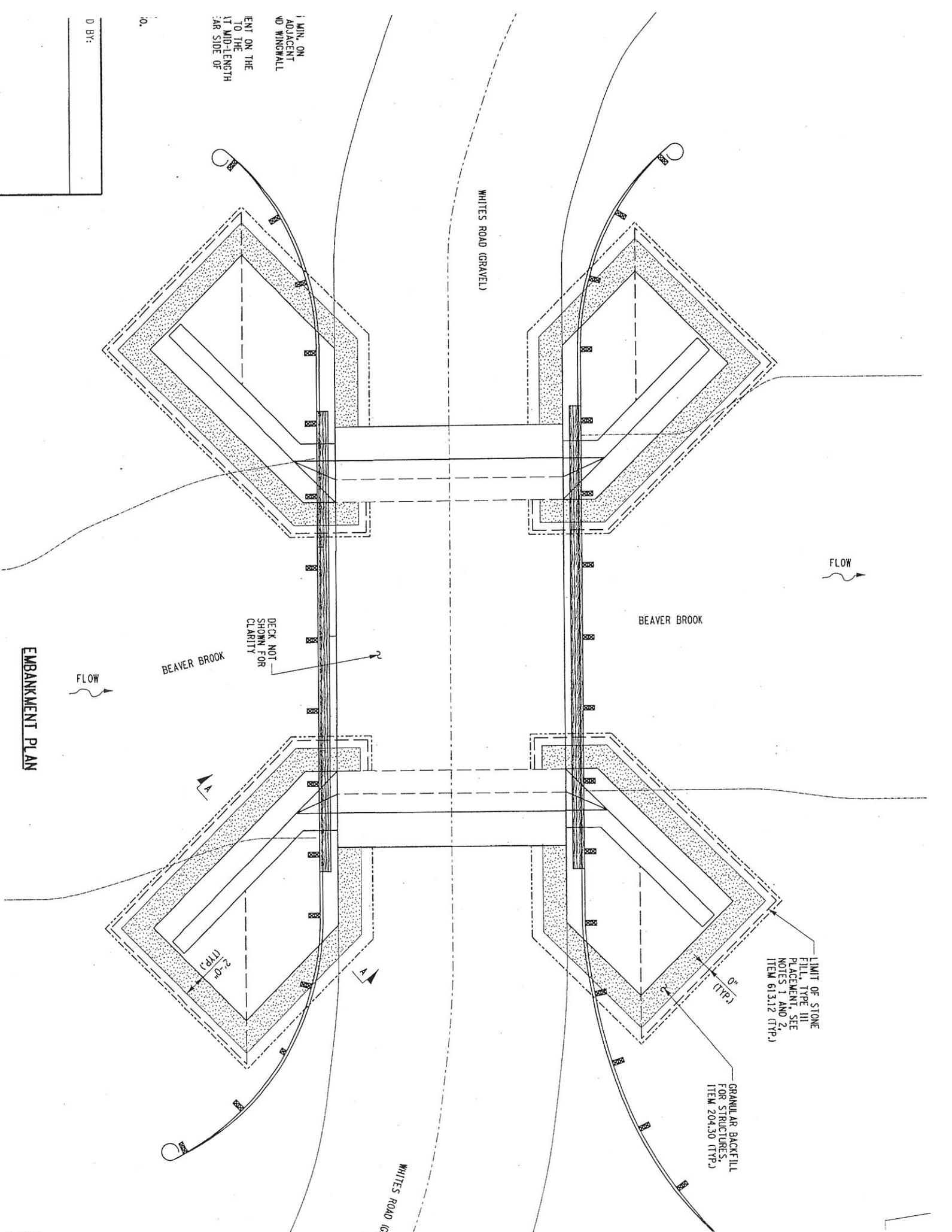
DECK NOT  
 SHOWN FOR  
 CLARITY

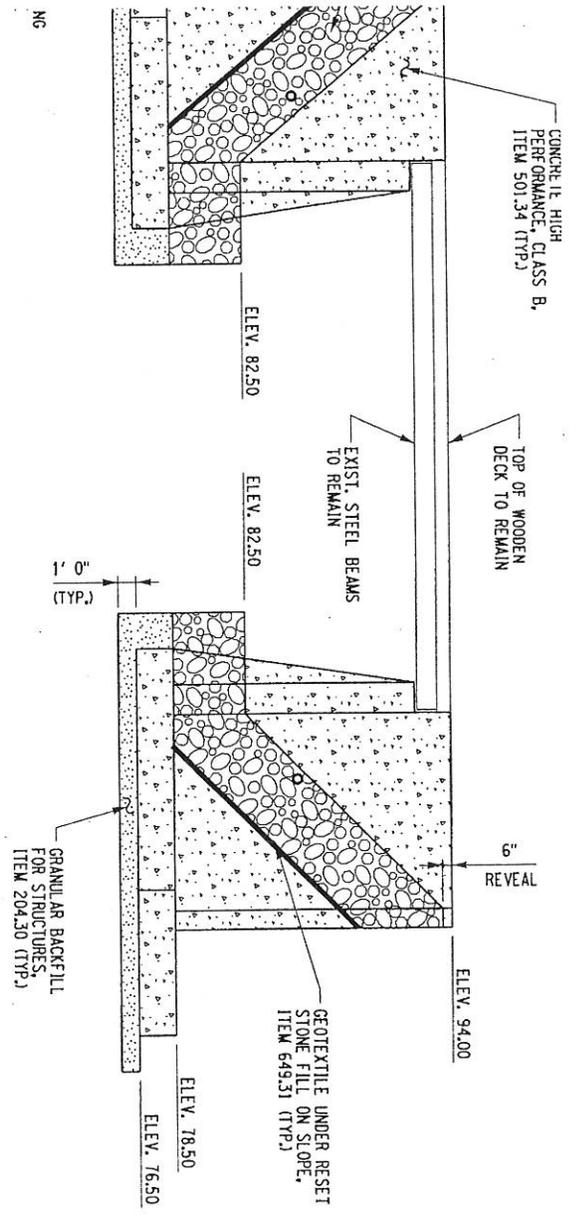
REMOVAL OF STONE  
 FILL, SEE NOTE 2  
 (TYP.)

EXISTING ABUTMENT  
 TO REMAIN (TYP.)

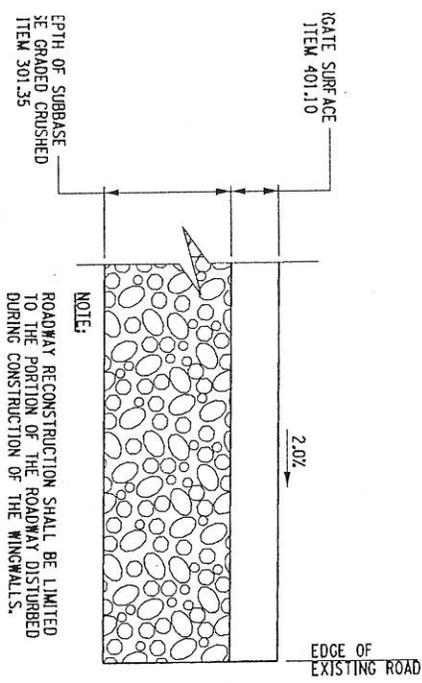
PROPOSED WINGWALL  
 PROPOSED FOOTING  
 LIMITS FOR EXCAVATION  
 PROTECTION SYS.  
 NOTE 1 (TYP.)

GEOTEXTILE FOR  
 FENCE, ITEM 649,  
 (TYP.)

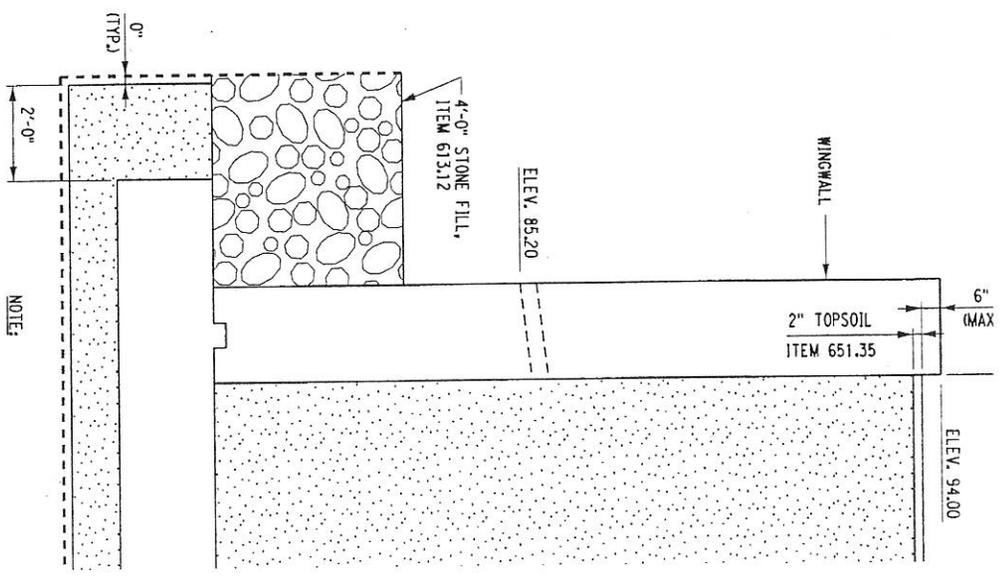




**ELEVATION EMBANKMENT SECTION**  
SCALE: 3/8" = 1'-0"

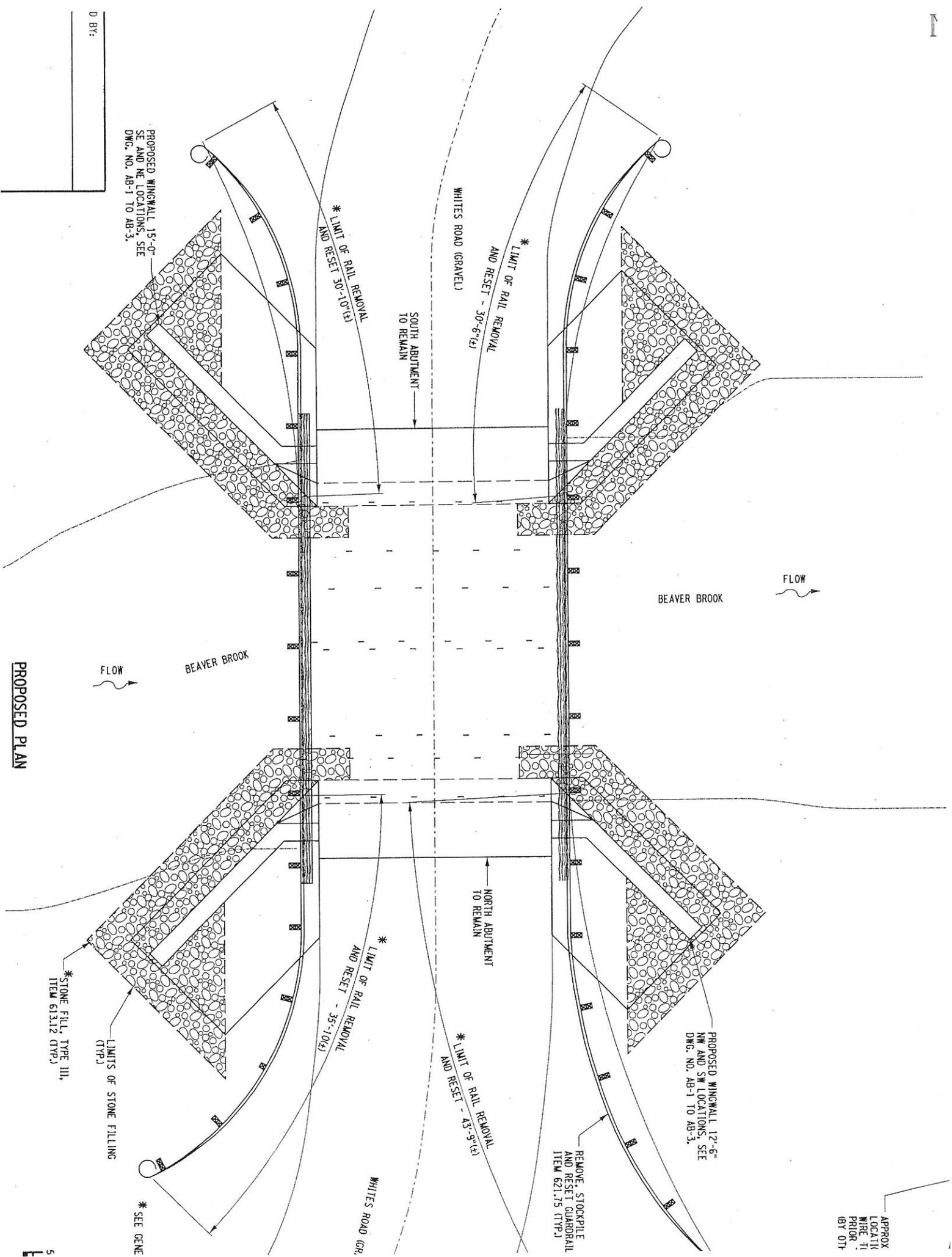


**TYPICAL ROADWAY SECTION**  
SCALE: 1" = 1'-0"



**SECTION A-A**  
SCALE: 1/2" = 1'-0"

D BY:



D BY:

PROPOSED WINGWALL 15'-0"  
SE AND NE LOCATIONS, SEE  
DWG. NO. AB-1 TO AB-3.

\* LIMIT OF RAIL REMOVAL  
AND RESET - 30'-6" (F)

SOUTH ABUTMENT  
TO REMAIN

WHITES ROAD (GRAVEL)

\* LIMIT OF RAIL REMOVAL  
AND RESET - 30'-6" (F)

BEAVER BROOK

FLOW

FLOW

BEAVER BROOK

PROPOSED PLAN

NORTH ABUTMENT  
TO REMAIN

\* LIMIT OF RAIL REMOVAL  
AND RESET - 35'-10" (E)

WHITES ROAD (GR.

\* LIMIT OF RAIL REMOVAL  
AND RESET - 43'-9" (E)

REMOVE STOCKPILE  
AND RESET GUARDRAIL  
ITEM 621.75 (TYP.)

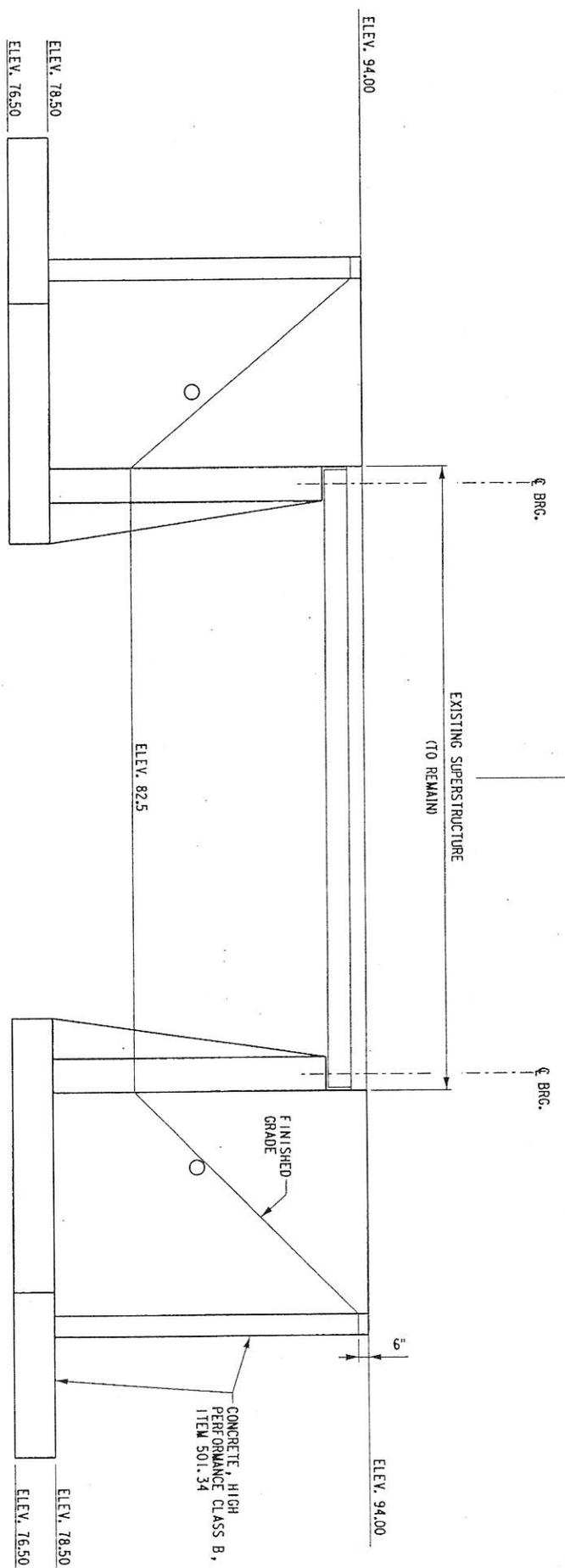
PROPOSED WINGWALL 12'-6"  
NW AND SW LOCATIONS, SEE  
DWG. NO. AB-1 TO AB-3.

LIMITS OF STONE FILLING  
(TYP.)

\* STONE FILL, TYPE III,  
ITEM 613.12 (TYP.)

\* SEE GENE

APPROX  
LOCATE  
WIRE IN  
PRIOR  
(BY 07-



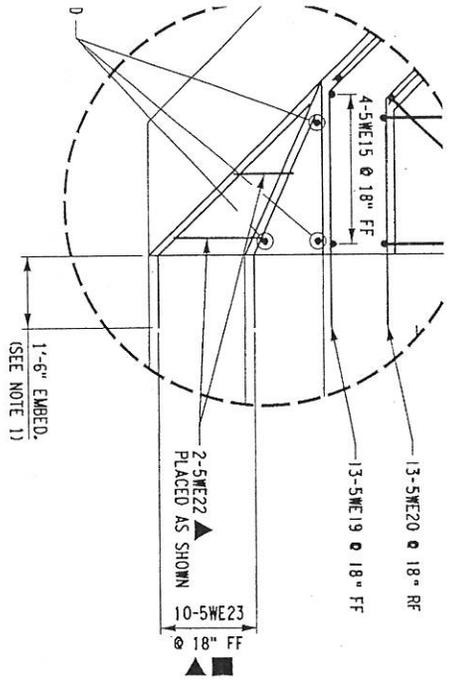
ELEV. 78.50  
ELEV. 76.50  
DATUM 74.00

**NOTE:**  
RAILING NOT SHOWN FOR CLARITY.

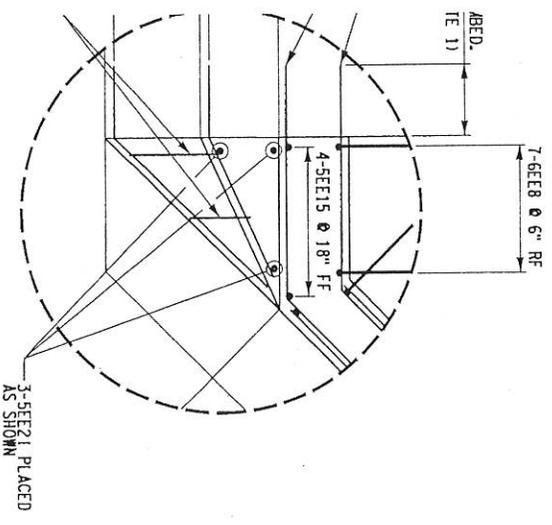
**PROPOSED ELEVATION**  
SCALE: 1/4"=1'-0"

D BY:	
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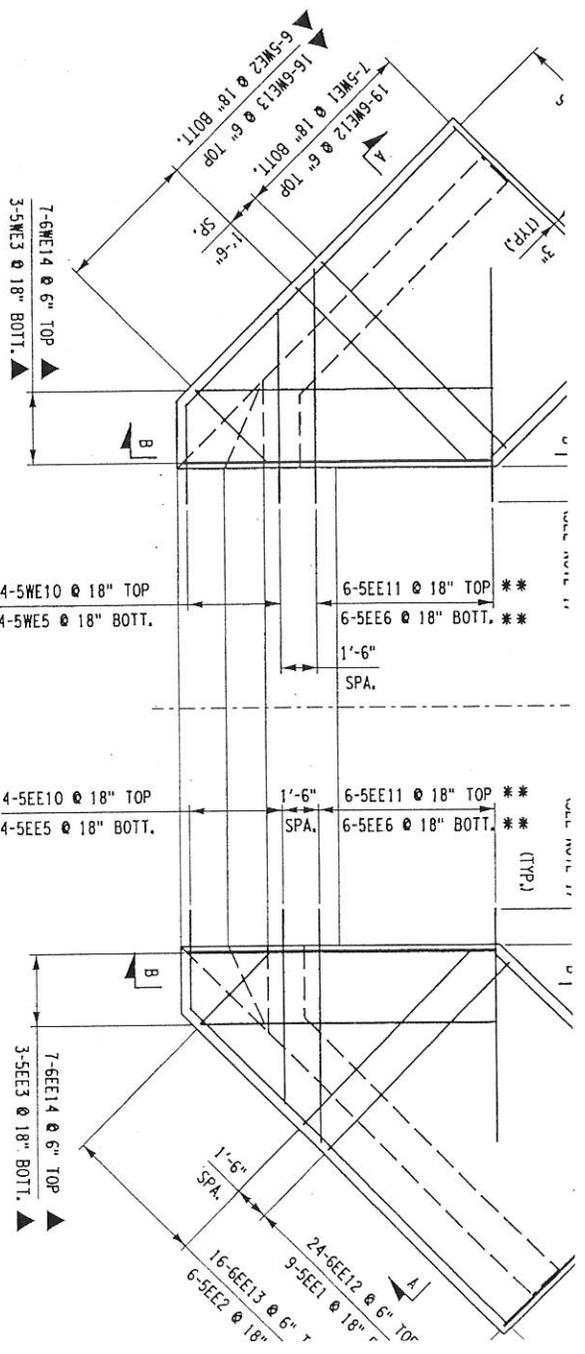




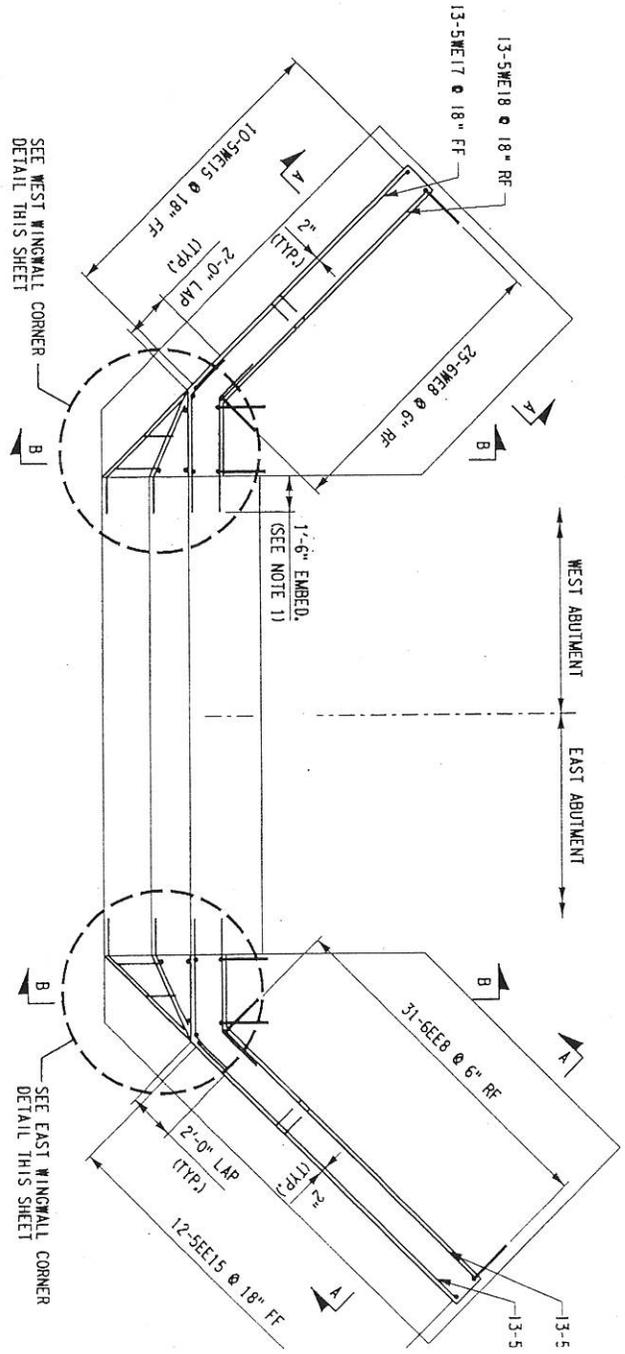
**WEST WINGWALL CORNER DETAIL**  
SCALE: NONE



**EAST WINGWALL CORNER DETAIL**  
SCALE: NONE

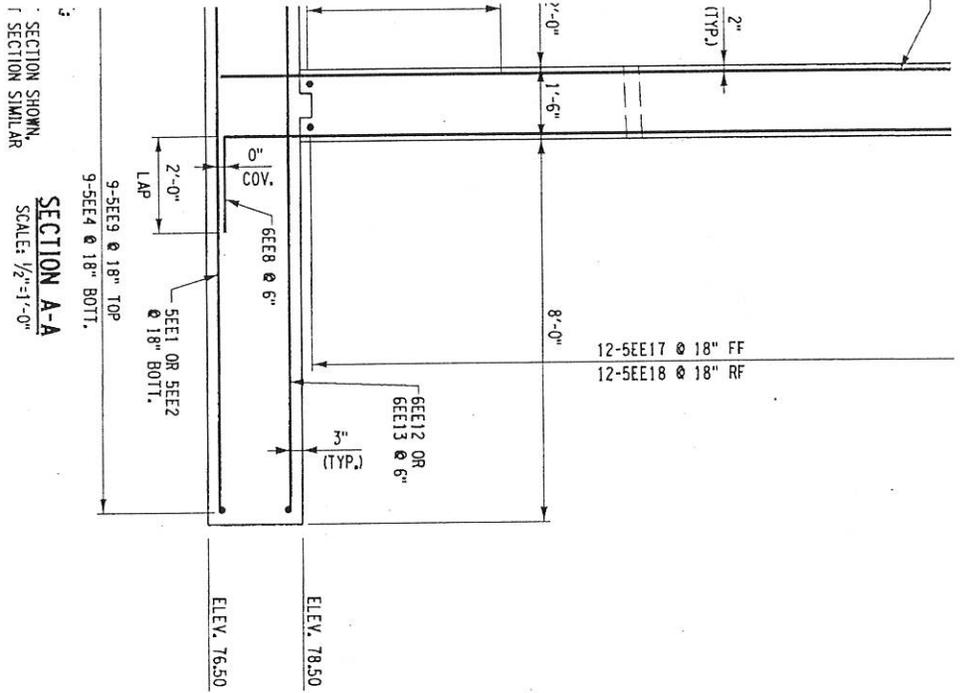


**WINGWALL FOOTING PLAN**  
SCALE: 1/4"=1'-0"



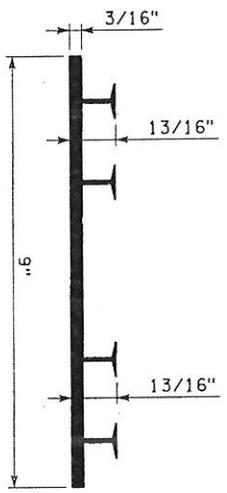
**WINGWALL STEM PLAN**  
SCALE: 1/4"=1'-0"

D BY:



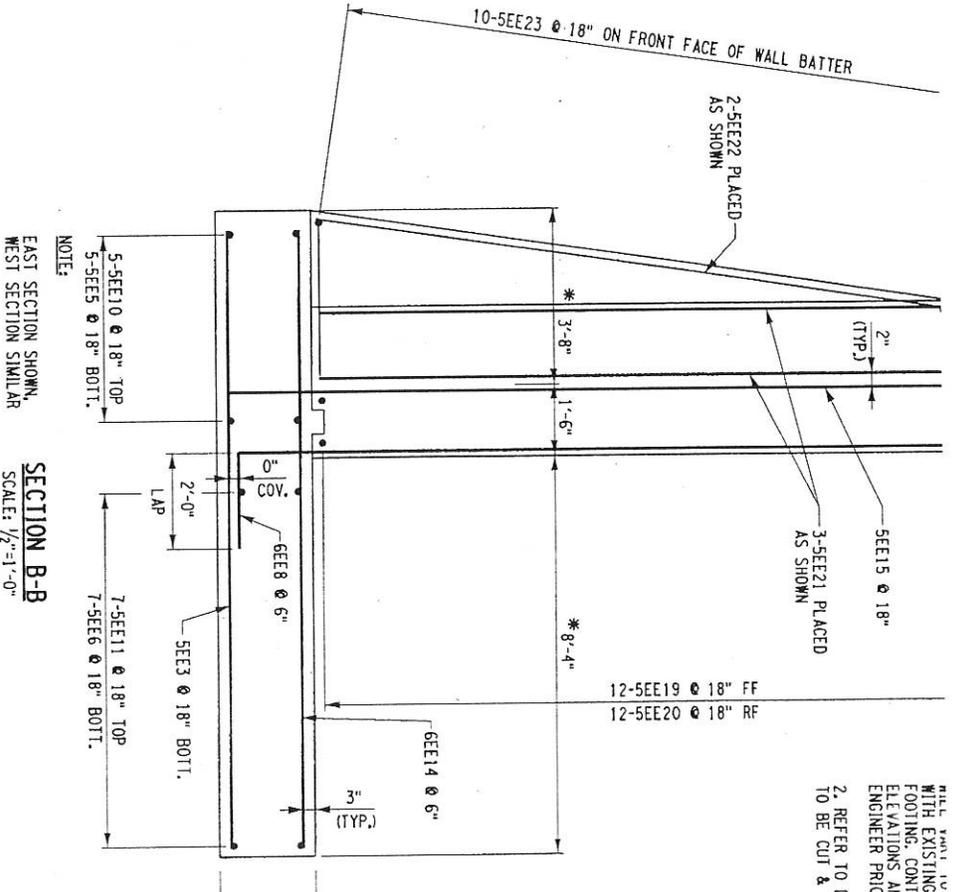
**SECTION A-A**  
SCALE: 1/2"=1'-0"

- NOTES:**
1. PAYMENT FOR THE P.V.C. WATERSTOP SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR THE ADJACENT CONCRETE.
  2. OTHER CONFIGURATIONS OF WATERSTOP MAY BE USED UPON APPROVAL OF THE ENGINEER.



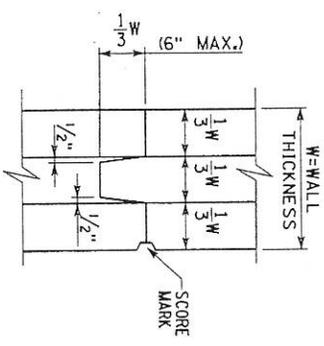
**P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS**

SCALE: 6"=1'-0"



**SECTION B-B**  
SCALE: 1/2"=1'-0"

ALL PARTS TO BE CUT & REFER TO 1  
ENGINEER'S PRICE  
ELEVATIONS IN  
FOOTING CONT  
WITH EXISTING  
2. REFER TO 1



**NOTE:**  
ALL EXPOSED EDG  
CONCRETE SHALL  
CHAMFERED 1" X 1"  
OTHERWISE NOTE

**TYPICAL CONCRETE CONSTRUCTION JOINT**

SCALE: 6"=1'-0"

