



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

THE DEPARTMENT USES THE BID EXPRESS WEBSITE, <http://www.bidx.com> AS AN OFFICIAL REPOSITORY FOR ELECTRONIC BID SUBMITTAL. BIDDERS MUST PREPARE THEIR BIDS ELECTRONICALLY USING EXPEDITE AND SUBMITTED VIA BID EXPRESS.

October 3, 2008

Re: Project 080597 **Addendum No. 1**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
155	442E10001	16659	CY	Asphalt Concrete Surface Course, 12.5 MM, Type A (446), As Per Plan
156	442E10100	20097	CY	Asphalt Concrete Intermediate Course, 19 MM, Type A (446)
160	451E14000	24658	SY	9" Reinforced Concrete Pavement
585	202E35200	110	FT	Pipe Removed, Over 24"
597	603E26200	110	FT	72" Conduit, Type B

Deleted Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
589	203E10000	83	CY	Excavation
590	203E20000	4553	CY	Embankment
591	301E46001	75	CY	Asphalt Concrete Base, PG64-22, As Per Plan
592	304E20000	82	CY	Aggregate Base
593	448E46050	21	CY	Asphalt Concrete Intermediate Course, Type 2, PG64-22
594	448E47020	15	CY	Asphalt Concrete Surface Course, Type 1, PG64-22

Added Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
1000	507E98010	12	Each	Piling Misc.: Pile Splice
1001	507E98010	12	Each	Piling Misc.: Pile Splice
1002	507E98010	19	Each	Piling Misc.: Pile Splice
1003	507E98010	19	Each	Piling Misc.: Pile Splice
1004	507E98010	5	Each	Piling Misc.: Pile Splice
1005	507E98010	5	Each	Piling Misc.: Pile Splice
1006	507E98010	25	Each	Piling Misc.: Pile Splice

Revise the plan sheet as follows:

Delete the following plan sheets 55, 184, 1316, 1317, 1319, 1320, 1323 and 1326.

Add the following plan sheets 55, 1316, 1317, 1320, 1323, 1319 and 1326.

Add the following General Note:

The contractor shall be assessed disincentives, as designated in the lane value contract table below, for each unit of time the described critical ramp is restricted from full use by the traveling public within the time period. The disincentives will be assessed for all restrictions of the critical work.

Critical work is shown in the lane value contract table.

Critical work is defined as having the designated sections open to unrestricted traffic as shown in the table, or the entire project if not otherwise listed.

Unrestricted traffic is defined as all traffic lanes being available for use with temporary safety features in place.

Description or Location of Critical Work	Completion Date	Time Unit	Disincentive
All work needed to re-open SR-91 Ramp A to traffic	Day 30	Day	\$5000/Day
All work needed to re-open SR-91 Ramp B to traffic	Day 30	Day	\$7000/Day
All work needed to re-open SR-640 Ramp A to traffic	Day 30	Day	\$5000/Day
All work needed to re-open SR-640 Ramp D to traffic	Day 30	Day	\$5000/Day
All work needed to re-open SR-6401 Ramp E to traffic	Day 30	Day	\$5000/Day
All work needed to re-open SR-640 Ramp H to traffic	Day 30	Day	\$5000/Day
All work needed to re-open Lost Nation Ramp A to traffic	Day 30	Day	\$6000/Day
All work needed to re-open Lost Nation Ramp B to traffic	Day 30	Day	\$7500/Day
All work needed to re-open Lost Nation Ramp E to traffic	Day 30	Day	\$500/Day
All work needed to re-open Lost Nation Ramp F to traffic	Day 30	Day	\$4500/Day
All work needed to re-open SR-306 Ramp I to traffic	Day 30	Day	\$11,500/Day
All work needed to re-open SR-306 Ramp K to traffic	Day 30	Day	\$9000/Day
All work needed to re-open SR-306 Ramp N to traffic	Day 30	Day	\$13,000/Day
All work needed to re-open SR-306 Ramp O to traffic	Day 30	Day	\$7500/Day

All references to the Vine St. culvert (LAK-2-0395) in Phase B, Step 7 shall be disregarded. The following note shall apply.

Vine Street Culvert
Phase A Step 1

The culvert lining of LAK-2-0395 shall be completed in Stage 1, Phase A. All work associated with this work must be done by June 1, 2009.

Vehicular access to the properties south of Lakeland Boulevard via E. 367th must be maintained at all times during construction operations.

The contractor is alerted to the fact that before the temporary excavation of work area number 1 can begin two sections of the existing waterline must be relocated as shown on sheet 1033.

Also note that before the initial stage of the existing 72-inch removal can begin, the existing power pole is to be relocated, by others, as indicated on the plans.

The existing 72-inch RCP that flows into the inlet of the existing 180-inch CMP is in conflict with the temporary excavation required for work area No. 1. The contractor is required to remove and replace 110' of the existing 72-inch RCP.

Note that during construction, the storm water currently flowing through the existing 72-inch RCP must be

maintained. Any temporary diversion of the storm water around work area number 1 is the responsibility of the contractor and the temporary storm water bypass system used by the contractor to divert the storm water is subject to the approval of the engineer. All contractor expenses related to diverting the storm water including the temporary storm water bypass system provided by the contractor is incidental to the construction of the proposed 72-inch RCP.

Answer to pre-bid question:

Q: Could you please provide the "office calcs" for the bituminous asphalt pavement items listed in the general summary.

A: The "office calculations" are linked to this addendum.



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October 21, 2008

Re: Project 080597 **Addendum No. 2**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
513	509E10001	109,168	LB	Epoxy Coated Reinforcing Steel, As Per Plan
553	509E10001	109,627	LB	Epoxy Coated Reinforcing Steel, As Per Plan
834	509E10001	53,632	LB	Epoxy Coated Reinforcing Steel, As Per Plan
854	509E10001	53,458	LB	Epoxy Coated Reinforcing Steel, As Per Plan
931	606E10310	126,752	SF	Special – Noise Barrier (Absorptive), Over 10’ to 14’ Height
936	606E10920	4391	SF	Special – Noise Barrier, Misc.: Structure Mounted TL-4 Noise Barrier
944	619E16021	36	MNTH	Field Office, Type C, As Per Plan

Replace all notes in the plans referring to Item 511 – Class HP Concrete with the following note:

- Item 511 – Class HP Concrete, Bridge Deck, As Per Plan**
- Item 511 – Class HP Concrete, Bridge Deck (Parapet), As Per Plan**
- Item 511 – Class HP Concrete, Substructure, As Per Plan**
- Item 511 – Class HP Concrete, Superstructure, As Per Plan**
- Item 511 – Class HP Concrete, Sidewalk, As Per Plan**
- Item 511 – Class HP Concrete, Test Slab**

General Requirements:

The provisions of Item 511 shall apply except as noted below.

Mix Options:

All superstructure, bridge deck, sidewalk, parapet, median barrier and approach slab concrete shall be this mix, as modified by Table A. All other structure concrete shall be this mix, as modified by Table B.

The following proportions will be used as a starting mix design:

Table A

Quantities per Cubic Yard
Aggregates (SSD)

HP4, AS PER PLAN (GGBF SLAG + MICROSILICA)								
Aggregate Type	Fine Aggre. (LB)	#8 Coarse Aggre. (LB)*	#57 Coarse Aggre. (LB)	Cement Content (LB)	GGBF Slag (LB)	Micro - Silica (LB)	W/CM Ratio ± .01	Air Content ± 2%
Gravel	1245	360	1315	400	170	30	0.43	7
Limestone	1245	360	1335	400	170	30	0.43	7
Slag	1245	315	1155	400	170	30	0.43	7

Table B

Quantities per Cubic Yard
Aggregates (SSD)

HP2, AS PER PLAN (GGBF SLAG WITHOUT MICROSILICA)								
Aggregate Type	Fine Aggre. (LB)	#8 Coarse Aggre. (LB)*	#57 Coarse Aggre. (LB)	Cement Content (LB)	GGBF Slag (LB)	Micro - Silica (LB)	W/CM Ratio ± .01	Air Content ± 2%
Gravel	1245	360	1315	430	170	0	0.43	7
Limestone	1245	360	1335	430	170	0	0.43	7
Slag	1245	315	1155	430	170	0	0.43	7

*All coarse aggregate shall have an absorption of 1.00% or greater as defined per ASTM C127.

The weights specified in the concrete table were calculated for materials of the following bulk specific gravities (SSD): natural sand and gravel 2.62, limestone sand 2.68, limestone 2.65, slag 2.30, fly ash 2.65, GGBF slag 2.90, micro-silica solids 2.20, and Portland cement 3.15. For aggregates of specific gravities differing more than plus or minus 0.02 from these, the weights in the table will be corrected.

Parapet Construction (Formed and Poured):

Forms shall not be removed until at least 2 hours after the final set. Determination of the final set shall be as per ASTM C266 (Gillmore Needle). Testing shall be performed by the Contractor at no cost to the State.

The minimum concrete slump during the placement of formed concrete parapets shall be 6 inches, with a maximum slump of 8 inches.

Parapet Construction (Slip Formed):

Slip forming parapet is prohibited.

Basis of Payment

Payment for the above completed and accepted quantities will be made at the contract bid price for:

Item	Units	Description
511E50001	Cu yd	Class HP Concrete, Bridge Deck, As Per Plan
511E50101	Cu yd	Class HP Concrete, Bridge Deck (Parapet), As Per Plan

511E50201 Cu yd Class HP Concrete, Substructure, As Per Plan
511E51001 Cu yd Class HP Concrete, Superstructure, As Per Plan
511E51501 Cu yd Class HP Concrete, Sidewalk, As Per Plan
511E52000 Lump Class HP Concrete, Test Slab



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October 27, 2008

Re: Project 080597 **Addendum No. 3**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

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Respectfully,

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
22	204E13000	14,204	CY	Excavation of Subgrade

Answer to Prebid Question:

- Q: There appears to be a duplication of quantity for the undercut at retaining wall #3. Ref # 22 "excavation of subgrade" includes approximately 7200 cyds of undercut at wall #3 as shown on cross section sheets 358 to 361. Ref # 480 "unclassified excavation, app" at wall #3 has a quantity of 5140 cyds for undercut excavation in the same location. See detail on plan page 965. Please review this duplication and decide which bid item will be utilized for the undercut at wall #3 and make the appropriate quantity revisions to the proposal.
- A: Ref # 22, Item 204 - Excavation of Subgrade has been decreased by a quantity of 4513 cy. Item 503 (Ref #480) should be utilized.



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October 28, 2008

Re: Project 080597 **Addendum No. 4**
 PID No. 13486
 LAK-2-3.32
 Major Widening
 Letting: December 5, 2008

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following general notes:

On sheet 53A:

LONGITUDIANL BUTT JOINTS

LONGITUDINAL BUTT JOINTS ARE REQUIRED ALONG AREAS WHERE TRAFFIC WILL CROSS FROM OLD TO NEW PAVEMENT. WHERE THE OLD PAVEMENT IS LOW, ITEM 614 - ASPHALT FOR MAINTAINING TRAFFIC SHALL BE PLACED. IF THE OLD PAVEMENT IS HIGHER, MILLING SHALL BE PERFORMED. THE TAPER RATE SHALL BE 1" OM 2' OR FLATTER. THE FOLLOWING ITEMS SHALL BE USED FOR THIS PURPOSE:

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE 3,000 SQ. YD.

ITEM 614 - ASPHALT FOR MAINTAINING TRAFFIC 50 CU. YD.

The fifth line should read: "BE PERFORMED. THE TAPER RATE SHALL BE 1" PER 10' OR FLATTER".

Also on sheet 53A:

MAINTAINING TRAFFIC AND SEQUENCE OF OPERATIONS

ALL ASPHALT CONCRETE OPERATIONS SHALL BE CONDUCTED IN A MANNER THAT WILL ASSURE MINIMUM DANGER AND INCONVENIENCE TO THE HIGHWAY USERS. ALL WORK SHALL BE PERFORMED AT THE TIMES PROVIDED IN THE "SCHEDULE OF THROUGH LANES TO BE MAINTAINED." THE PROCEDURE FOR THE REMOVAL OR PLACEMENT OF ANY EXISTING OR PROPOSED ASPHALT COURSE SHALL BE SUCH THAT NO GREATER THAN 1/2" DISCONTINUITY IN THE ELEVATION OF THE TRAVELED SURFACE SHALL BE EXPOSED TO TRAFFIC.

The seventh line should read: "SUCH THAT NO GREATER THAN 1 1/2" DISCONTINUITY IN THE."



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November 5, 2008

Re: Project 080597 **Addendum No. 5**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
423	614E12756	3	Each	Work Zone Crossover Lighting System
206	625E10500	174	Each	Light Pole Misc.: Design ALM35

Please revise the proposal note:

“PN 090 - 7/21/2006 - Work Type Codes and Descriptions” the third paragraph shall read: ‘Listed below are the work types for this proposal. In accordance with Ohio Law, a bidder must possess work types, and perform work equal to at least forty percent of the total amount of the submitted bid price.’”

Prebid Questions from prebid meeting 10/30/08:

Q: There is discrepancy in the crossover lighting quantity.

A: The crossover lighting quantity has been revised to 3 in addendum #5.

Q: Does ODOT want to keep the temporary lighting in the plans?

A: Yes, for safety reasons.

Q: It appears that there is not enough quantity of temporary signals.

A: The only actual temporary signal installation is at the EB exit ramp at Vine Street, all others are changes to phasing, timing or head locations covered under the maintenance of traffic signal/flasher installation note on sheet 51.

Q: Does ODOT want break away poles on top of the median barrier?

A: No. The poles are called out correctly on the plan sheets, but the description was incorrect in the lighting general summary. See addendum #5.



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November 6, 2008

Re: Project 080597 **Addendum No. 6**
 PID No. 13486
 LAK-2-3.32
 Major Widening
 Letting: December 5, 2008

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
21	204E10000	35411	SY	Subgrade Compaction
150	302E46000	124532	CY	Asphalt Concrete Base, PG64-22
151	304E20000	74870	CY	Aggregate Base
152	407E10000	41859	GAL	Tack Coat
153	407E14000	20671	GAL	Tack Coat for Intermediate Course
154	408E10000	171245	GAL	Prime Coat
156	442E10100	19436	CY	Asphalt Concrete Intermediate Course, 19 MM, Type A, As Per Plan (446)
323	625E30706	18	Each	Pull Box, 725.08, 24"

Added Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
1007	446E46050	661	CY	Asphalt Concrete Intermediate Course, Type 2, PG64-22
1008	448E47020	472	CY	Asphalt Concrete Surface Course, Type 1, PG64-22

Deleted Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
324	625E30720	2	Each	Pull Box, 725.08, 36"
598	604E31500	1	Each	Manhole, No. 3

Answers to Prebid Questions:

- Q: Bid reference 324 2 Ea Pull Box, 725.08, 36". After review of the plan sheets and the general notes I have been unable to locate a detail for this pull box. Will the engineer provide a detail so the pull box can be fabricated.
- A: The pull boxes have been revised to 24" in this addendum.
- Q: GPD calculations recently provided appear to be grossly overstated. Please verify quantities on Item 302 Asphalt Concrete Base, Item 407 Tack Coat, Item 408 Prime Coat, and Item 442 Asphalt Concrete Surface Course 12.5mm.
- A: The quantities have been adjusted in this addendum.
- Q: GPD calculations recently provided for ramps at SR 306 and SR 91 show quantities for 1.75 inches of Item 446 Asphalt Concrete Intermediate Course PG 64-22 and 1.25 inches of Item 446 Asphalt Concrete Surface Course PG 64-22. Typical sections for these areas show them receiving 1.75 inches Item 442 19mm and 1.5 inches Item 442 12.5mm. What is the Departments intent for these ramps?
- A: The typical sections are correct. The quantities have been adjusted in this addendum.
- Q: GPD calculations recently provided for side roads on SR 91 and SR 306 show quantities for Item 446 Asphalt Concrete Intermediate Course PG 64-22 and Item 446 Asphalt Concrete Surface Course PG

64-22. Typical sections for these areas show them receiving Item 446 Asphalt Concrete Intermediate Course PG 64-22 and Item 448 Asphalt Concrete Surface Course PG 64-22. These quantities seem to be included in Item 442 19mm and Item 442 12.5mm for payment. What is the Departments intent for these side road areas?

A: Revised pavement calculations have been linked, and the quantities have been corrected in this addendum. The typical sections are correct.

Q: Ref. 598 "Manhole #3- 1 Each"- this manhole is covered under subsummary for LAK-2-0395. Plan sheet 1319 shows it in the estimated summary. However, cannot find this manhole anywhere on plan sheets 1316-1326. Please provide information as to where this manhole is located.

A: This item has been deleted in this addendum.



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November 13, 2008

Re: Project 080597 **Addendum No. 7**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

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Respectfully,

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
25	206E11000	422,965	SY	Curing Coat
26	206E15000	422,965	SY	Cement Stabilized Subgrade, 12" Deep
150	302E46000	125,268	CY	Asphalt Concrete Base, PG64-22
151	304E20000	75,316	CY	Aggregate Base
152	407E10000	42,123	GAL	Tack Coat
153	407E14000	20,803	GAL	Tack Coat for Intermediate Course
154	408E10000	172,317	GAL	Prime Coat
155	442E10001	16,769	CY	Asphalt Concrete Surface Course, 12.5MM, Type A (446), As Per Plan
156	442E10100	19,564	CY	Asphalt Concrete Intermediate Course, 19MM, Type A (446)
160	451E14000	26,357	SY	9" Reinforced Concrete Pavement
085	603E01500	6565	FT	6" Conduit, Type F
142	605E13410	5390	FT	6"Unclassified Pipe Underdrains with Fabric Wrap

Answers to Prebid Questions:

- Q: The quantity given on the pavement calculation sheet in addendum one shows a quantity of 566.3 sy of 9" concrete pavement on Lakeland Blvd. Calculating the sy of pavement from the two typical sections on sheet 36 of 1679 for Lakeland Blvd. indicates a greater quantity. Please verify.
- A: Quantity has been adjusted in this addendum.
- Q: For the underdrain items References 0141 and 0143 the item descriptions include "with Fabric Wrap". Should Reference 0142 also include "with Fabric Wrap"?
- A: The item has been revised to include fabric wrap in this addendum.
- Q: Revised Office Calcs under the worksheet named LNAT Ramps have incorrect summations. Please revise quantities to include the last two rows listed as LN Ramp BF station 203+30 to station 203+80 and station 203+80 to station 207+14.
- A: The spreadsheet quantities have been revised and the revised spreadsheets are linked to this addendum.
- Q: Note 11 on plan sheet 188 of 1679 states that following removal of 621 RPMs resurfacing of the transition area shall be performed. General summary for this project do not provide quantities for resurfacing existing pavement beyond project limits. Please provide appropriate proposal items for this work.
- A: The quantities are shown in the MOT general notes on sheet 50 under Item - 614 Work Zone Pavement Marker, As Per Plan. The quantities are also in the MOT general summary on sheet 57.



Ohio Department of Transportation

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November 14, 2008

Re: Project 080597 **Addendum No. 8**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Ref. No.	Item Number	Quantity	Unit	Description
159	448E46061	1548	CY	Asphalt Concrete Intermediate Course, Type 1, Under Guardrail, PG64-22, As Per Plan
446	615E20000	83,567	SY	Pavement For Maintaining Traffic, Class A

Add the following note to the plans:

Removal of temporary pavement for maintaining traffic is included with the provisions of Item 615, unless otherwise specified in the plans.

Answer to prebid questions:

- Q: Ref. 446 and 447 (Pavement for Maintaining Traffic, Types A and B)- will ODOT please allow contractor at their own option to substitute additional 2" of 302 asphalt in lieu of 4" 304 stone as opposed to Value Engineering after the bid?
- A: This is an acceptable alternative providing it doesn't add any cost to the project.
- Q: Ref. 446- Pavement for Maintaining Traffic, Class A: Quantities on subsummary sheet 67 (1622 sy) were not carried to plan sheet 75 subsummary which in turn was not carried to general summary. Final quantity appears to be understated by this quantity. Please verify and address in an addendum.
- A: Quantity has been revised in this addendum
- Q: Plan sheets 121, 122, 167 and 168 show temporary pavement ramp connectors with the item designated as "Pavement for Maintaining Traffic, Class A". These two sections of temporary pavement appear to run across existing pavements and shoulders. Is the contractor supposed to reconstruct temporary pavement over existing here? Since these two area are paid as temporary pavements, when are they supposed to be constructed? Construction of these will require multiple lane, shoulder, and ramp shifts if they are required to be done prior to Stage 1, Phase C.
- A: The existing pavement is higher in these locations. The existing pavement is to be removed under the roadway quantities and temporary pavement is to tie the proposed ramp into the proposed mainline. The time period for construction is during the ramp closure when constructing the mainline pavement on the east side. At the tie in to the proposed mainline pavement the contractor shall place the pavement during the permitted lane closure times to only maintain one lane on SR 2. (weekend or nighttime). The barrier will only be moved once to reopen the ramp.



Ohio Department of Transportation

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November 20, 2008

Re: Project 080597 **Addendum No. 9**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: December 5, 2008

Please be advised that the above referenced project has been delayed from the December 5, 2008 letting and is rescheduled to sell on **Wednesday, December 17, 2008.**

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum. The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
171	622E10061	2534	FT	Concrete Barrier, Single Slope, Type B, As Per Plan
172	622E10100	19815	FT	Concrete Barrier, Single Slope, Type B1
173	622E10160	8619	FT	Concrete Barrier, Single Slope, Type D

Added Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
1009	622E10200	3	Each	Barrier Transitions
1010	622E24840	2	Each	Concrete Barrier End Section, Type B
1011	622E24850	1	Each	Concrete Barrier End Section, Type B1
1012	622E25000	6	Each	Concrete Barrier End Section, Type D
1013	622E25020	83	Each	Concrete Barrier End Anchor, Reinforced
1014	622E25050	31	Each	Concrete Barrier End Anchor, Reinforced, Type D

ITEM SPECIAL - ASBESTOS ABATEMENT

Two asbestos surveys were conducted on the bridges along the SR-2 within the project area and were completed on June 27, 2006 and July 20, 2006 by a certified asbestos hazard evaluation specialist from HzW Environmental Consultants, Inc. The survey identified the asbestos containing materials at the location listed in the chart below.

Insert Attached Table

Bridge	Description	SFN	ACM	Location	Amount to be removed	Amount to remain on Structure
LAK-2-3.63	Beidler Road over SR-2	4300 483	Structural Expansion Construction Joint	On the superstructure		128 linear feet
LAK-2-3.63	Beidler Road over SR-2	4300 513	Structural Expansion Construction Joints	On the superstructure		128 linear feet
LAK-2-4.00	WB SR-2 bridge over Vinestreet	4300 572	Gasket Material	Under rail posts	30 square feet	
LAK-2-4.00	EB SR-2 bridge over Vinestreet	4300 602	Gasket Material	Under rail posts	30 square feet	

LAK-2-4.56	NYCRR Bridge over SR-2	4300 661	Asphalt Mastic	On the superstructure		1,980 square feet
			Water proofing asphalt treated felt	On the superstructure		3,114 square feet
			Asphalt roofing felt for Backwall Flashing	On the superstructure		216 square feet
			½-inch Preformed Expansion Joint Filler	On the superstructure		30 square feet
			Damp-Proofing Material	On back of abutments and wing walls		3,465 square feet
			4-6-inch Perforated Bituminous Coated Corrugated Metal Pipe	In the abutments		235 linear feet
			4-6-inch Bituminous Coated Corrugated Metal Pipe	In the abutments		80 linear feet
LAK-2-4.86	WB SR-2 over Erie Road	4300 696	Gasket Material	Under rail posts	25 square feet	
LAK-2-4.86	EB SR-2 over Erie Road	4300 726	Gasket Material	Under rail posts	25 square feet	
LAK-2-5.30	EB SR-2 over the Chagrin River	4300 785	Waterproofing, pre-molded sealing strips	In the abutments		42 linear feet
			1-inch Preformed Expansion Joint Filler	In the abutments		31 linear feet
LAK-2-5.30	WB SR-2 over the Chagrin River	4300 750	Waterproofing, pre-molded sealing strips	In the abutments		48 linear feet
			1-inch Preformed Expansion Joint Filler	In the abutments		35 linear feet

LAK-2-9.55	WB SR-2 Bridge over SR-615	4301005	½ 2-inch Preformed Expansion Joint Filler	On the superstructure		293 square feet
LAK-2-9.55	EB SR-2 Bridge over SR-615	4301013	½ 2-inch Preformed Expansion Joint Filler	On the superstructure		293 square feet
LAK-2-11.41	Hendricks Road Bridge over SR-2	4301110	Caulking Material	Under rail posts	18 square feet	
LAK-2-11.69	WB SR-2 over Heisley Creek	4301145	Rail Gasket Material	On the parapet wall	4 square feet	
LAK-2-11.69	EB SR-2 over Heisley Creek	4301234	Rail Gasket Material	On the parapet wall	4 square feet	
LAK-2-12.62	WB SR-2 over Heisley Creek	4301269	Caulking Material	Under rail posts	22 square feet	
LAK-44-6.20	SR-44 Ramp to WB SR-2	4301323	Rail Gasket Material	On top of parapet wall	40 square feet	
LAK-2-13.54	SR-2 Ramp to SB-44	4301293	Rail Gasket Material	On top of parapet wall	30 square feet	
LAK-2-14.28	Newell Street Bridge over SR-2	4301358	Rail Gasket Material	On top of parapet wall	16 square feet	
LAK-2-14.76	WB SR-2 over SR-283	4301382	Electrical Conduits for lighting	In the parapets	528 linear feet	
LAK-2-14.76	WB SR-2 over SR-283	4301412	Electrical Conduits for lighting	In the parapets	528 linear feet	
LAK-2-15.17	WB SR-2 over Sanford Street	4301447	Electrical Conduits for lighting	In the parapets	181 linear feet	
LAK-2-15.17	EB SR-2 over Sanford Street	4301471	Electrical Conduits for lighting	In the parapets	181 linear feet	

The removal and disposal of any asbestos containing material during the reconstruction of the bridges must comply with the Ohio Administrative Code, the Occupational Safety and Health Administration (OSHA) regulations, and the National Emission Standard for Hazardous Air Pollutants (NESHAP) Standards for

Asbestos.

A copy of the Ohio Environmental Protection Agency (OEPA) Notification of Demolition and Renovation forms with sections I-VII and XVI completed is included with the bid package. A copy of these form signed by the bridge owner will be provided to the successful bidder. The Contractor will complete sections VIII-XIII of the signed forms and submit the completed forms to the Local Air Authority at least ten (10) days prior to reconstruction of the bridges. The Contractor will provide a copy of the completed form to the Engineer. The Local Air Authority is:

Attn: Bert Mechenbier
Lake County
Air Pollution Control
33 Mill Street
Painesville, Ohio 44077

A copy of the Ohio Department of Health notification form is also included with the bid package. A copy of this form must be completed and submitted to the Ohio Department of Health at least ten days (10) prior to the reconstruction of the bridges. The Contractor will provide a copy of the completed forms to the Engineer. The address is:

Ohio Department of Health
Asbestos Program
246 North High Street
P.O. Box 118
Columbus, Ohio 4326-0118

The Contractor will provide an individual trained in the provisions of NESHAP that will be on-site during removal of the asbestos containing materials. In addition to the asbestos containing material identified in the Asbestos Survey Report, this individual will also, monitor any additional non-visible asbestos encountered within the project work limits.

The Contractor will furnish all labor, equipment, and materials necessary to complete, submit, and comply with the OEPA Notification form and to remove, transport, and dispose of the materials containing asbestos from within the project work limits. Payment of this work will be included in the bid Lump Sum price Item Special - Asbestos Abatement.

Item	Unit
Item Special - Asbestos Abatement	<u>Lump Sum</u>

Answers to Prebid Questions:

- Q: Bid item 171 622 Single Slope Barrier, APP. B-2 on sheets 292-293 and B-1 on sheet 580 is the same piece and is listed twice in the summary tables. Also does there need to be a bid item for Single Slope Barrier APP End Section where abutting the attenuators - what about End Anchors at the ends of some of the runs?
- A: The quantities have been revised in this addendum.
- Q: The inlet, sign and light foundation wall sections have not been deleted from the total length of the type B, B1 and D barrier wall items.
- A: The quantity has been revised in this addendum.
- Q: Sheet 261 shows Type D barrier wall for sheet 580 references B-2(56 LF) and B-3(57 LF).

However, sheet 253 indicates that there is 72 LF of Type D wall on sheet 293 for reference B-3 (72 LF). There is a double up of wall, please delete 72 LF from the total quantity.

A: The quantity has been revised in addendum I.

Q: Sheet 286 shows barrier wall B-4 as a type D wall. It should be type B wall. A: Yes you are correct.

A: The quantity has been revised in this addendum.

Q: Sheet 252 shows a quantity of 207 LF for reference B-2 on Sheet 288. According to sheet 288 this barrier wall run ends at station 392+75 where the guardrail begins. Please verify?

A: On Sheet 252, eliminate B-2, 307' of Concrete Barrier, Type B, APP. The concrete barrier was converted to guardrail. Also, change the B-4 (sheet 287) on Sheet 252 to be 917' (not 958') of Concrete Barrier, Type B, APP. This accounts for the barrier from Sta. 383+04 to Sta. 392+75. The quantity has been revised in this addendum.

Q: Sheet 255 shows a summary for Type D wall of sheet 254 of 1190 LF. However, looking at sheet 254 for the Type D wall shows a quantity of only 432 LF. Please correct.

A: The quantity has been revised in this addendum. All of the concrete barrier quantities have been corrected in this addendum.

Q: Sheet 858 has a note to reseal the pipe joints in accordance with item 516. Item 516 in the spec book is for expansion and contraction joints joint sealers and bearing devices. What is the intent of this note?

A: Remove the reference to Item 516 from the profile. See the Note #3 for more details which explains that the cleaning, joining, and sealing of the pipe, is to be done as per Item 603.08.

Q: In regards to reference items 0047, 0048 and 0049 (asbestos abatement) on the LAK-2-3.32 project, we have the following question: On page 46/1679, a takeoff of the summary of the two asbestos surveys (conducted by HZW Environmental) shows a total of 110 SF of asbestos removal and 146 LF of asbestos removal for the bridges within the scope of this project (LAK-2-4.00, LAK-2-4.86 and LAK-2-5.30). However, sheet 46B/1679 shows a total of 6300 SF (REF 0047) and 200 LF (REF 0048). How do the quantities on sheet 46/1679 correlate with the summaries on sheet 46B/1679 in regards to references 0047 and 0048. Additionally, what does reference 0049 (asbestos abatement – 1.0 LS) encompass?

A: Ref items 47 and 48 pertain to the quantities on sheet 46B/1679 and the special provisions-asbestos inspection report for parcel 9, dated 3/24/08 for the building demolition at 36628 Vine St. Ref item 49 pertains to sheet 47/1679 dealing with asbestos removal for the bridges and is a lump sum pay item. The Asbestos Abatement note on sheet 46/1679 has been revised in this addendum.

Q: Please clarify how the quantities were determined for Ref. 47 and 48. What is this material, and where is it located?

A: There is a general note on sheet 46B/1679 which explains the quantities for reference numbers 47 and 48. The special provisions asbestos inspection report for parcel 9, dated 3/24/08 describes the materials found and where they are located.

Q: The lump sum Asbestos Abatement item (Ref. 49) has notes on plan sheet 46/1679 that are confusing. Several of the structures listed there are not even within the scope of this project. For the structures that are in this project, why are the Square Foot and Linear Foot quantities shown not part of Ref. 47 and 48?

A: Ref item 49 refers to the asbestos removal from the bridges which will be paid as a lump sum. The Item Special - Asbestos Abatement note has been revised in this addendum.

- Q: Based on the note "REINFORCED END ANCHORAGES" in RM 4.3 page 2 of 2, it would appear that some end anchorages would be required in the Concrete Barrier, Single Slope items (171, 172, and 173). However, we do not find any end anchorage pay items. Please clarify.
- A: You are correct. See revisions in this addendum.



Ohio Department of Transportation

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December 11, 2008

Re: Project 080597 **Addendum No. 10**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Please be advised that the above referenced project has been delayed from the December 17, 2008 letting and is rescheduled to sell in a special letting scheduled for **Wednesday**, January 21, 2009.

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum. The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

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Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
for
LAK-2-3.32; PID 13486
Project 080597**

General Information for Proposed Alternative Bids for Project Typical Section

The plans and proposal are being changed by this addendum to add Alternate Bid provisions to the proposal to incorporate Item 452 – Non-Reinforced Portland Cement Concrete Pavement as an alternate to the full depth flexible pavement as shown in the plans. Separate typical sections for the PCC alternative have also been provided.

The Contractor will be responsible to supply bids for both alternates. Bid items for PCC specific work will be added (as AA2 items) and the full depth asphalt pavement related items will re-identified as AA1. All non-specific items will remain as originally shown in the proposal or as revised in previous addenda. Although the pavement build up (thickness) for alternative AA2 is 1 ½” less than alternative AA1, the profile grade, drainage structures and underdrains will be unchanged from sheets 274-297, 450, 451, 468, 469, 482, 488-490, 500, 501, 506, 507, 512, 513, 526, 532, 533, 542, 543, 551, 556, 561, 562, 580, 581, 594, 595, 616, 617. The cross sections in the plans were developed with alternative AA1 in mind, but earthwork quantity adjustments for alternative AA2 have been incorporated to account for the pavement thickness and edge detail differences.

The contractor is required to submit a Contractor Prepared MOT Plan by bid item for both alternates and implement the MOT plan based on the notes and contract items provided. The maintenance of traffic plans, MOT contract items and quantities that may have been previously viewed are for informational purposes only, or are revised as noted.

All plan references to “maintenance of traffic time frames” other than noted, or specified within this addendum, shall be disregarded.

All requirements of CMS 401 shall apply with the exception of 401.20. An “Asphalt Binder Price Adjustment” will not be provided by the Department, for any of the work provided for within the Bid Documents or any changes during the implementation of the project.

Alternate AA1:

Ref. No.	Item Number	Alternate Item	Quantity	Unit	Description
150	302E46000	AA1	120116	CY	Asphalt Concrete Base, PG64-22
151	304E20000	AA1	74763	CY	Aggregate Base
152	407E10000	AA1	40687	Gal	Tack Coat
153	407E14000	AA1	20344	Gal	Tack Coat for Intermediate Course
154	408E10000	AA1	172035	Gal	Prime Coat
155	442E10001	AA1	16370	CY	Asphalt Concrete Surface Course, 12.5 MM, Type A (446), As Per Plan
156	442E10100	AA1	19089	CY	Asphalt Concrete Intermediate Course, 19 MM, Type A (446)
171	622E10061	AA1	2534	FT	Concrete Barrier, Single Slope, Type B, As Per Plan
172	622E10101	AA1	19815	FT	Concrete Barrier, Single Slope, Type B1, As Per

Ref. No.	Item Number	Alternate Item	Quantity	Unit	Description
					Plan
173	622E10161	AA1	8619	FT	Concrete Barrier, Single Slope, Type D, As Per Plan
943	614E11000	AA1	LS	LS	Maintaining Traffic
1009	622E10200	AA1	3	Each	Barrier Transition
1010	622E24840	AA1	2	Each	Concrete Barrier End Section, Type B
1011	622E24850	AA1	1	Each	Concrete Barrier End Section, Type B1
1012	622E25000	AA1	6	Each	Concrete Barrier End Section, Type D
1013	622E25020	AA1	83	Each	Concrete Barrier End Anchor, Reinforced
1014	622E25050	AA1	31	Each	Concrete Barrier End Anchor, Reinforced, Type D

Deleted Items:

19	203E10000	AA1	361191	CY	Excavation
20	203E20000	AA1	279277	CY	Embankment
24	206E10500	AA1	12562	Ton	Cement
25	206E11000	AA1	422965	SY	Curing Coat
26	206E15000	AA1	422965	SY	Cement Stabilized Subgrade 12" Deep
27	206E20000	AA1	211	Hour	Test Rolling
28	206E30000	AA1	LS	LS	Contractor Designed Chemically Stabilized Subgrade
174	622E90200	AA1	6	Each	Concrete Barrier End Section, Type D

Added Items:

Ref. No.	Item Number	Alternate Item	Quantity	Unit	Description
1015	451E30000	AA1	178	FT	Pressure Relief Joint, Type A
1016	614E18000	AA1	1	Each	Maintaining Traffic Misc.: Contractor Prepared Maintenance of Traffic Plan
1017	618E40600	AA1	17.72	Mile	Rumble Strip, (Asphalt Concrete)
1018	203E10000	AA1	387194	CY	Excavation
1019	203E20000	AA1	279277	CY	Embankment
1020	206E10500	AA1	12388	Ton	Cement
1021	206E11000	AA1	416280	SY	Curing Coat
1022	206E15000	AA1	416280	SY	Cement Stabilized Subgrade 12" Deep
1023	206E20000	AA1	209	Hour	Test Rolling
1024	206E30000	AA1	LS	LS	Contractor Designed Chemically Stabilized Subgrade

Alternative AA2:

Added Items:

Ref. No.	Item Number	Alternate Item	Quantity	Unit	Description
1025	203E10000	AA2	380099	CY	Excavation
1026	203E20000	AA2	296425	CY	Embankment
1027	206E10500	AA2	12147	Ton	Cement

Ref. No.	Item Number	Alternate Item	Quantity	Unit	Description
1028	206E11000	AA2	408974	SY	Curing Coat
1029	206E15000	AA2	408974	SY	Cement Stabilized Subgrade 12" Deep
1030	206E20000	AA2	204	Hour	Test Rolling
1031	206E30000	AA2	LS	LS	Contractor Designed Chemically Stabilized Subgrade
1032	304E20000	AA2	50332	CY	Aggregate Base
1033	451E30000	AA2	2028	FT	Pressure Relief Joint, Type A
1034	452E17200	AA2	394559	SY	Non-Reinforced Concrete Pavement, Misc.: 11.5" thickness
1035	614E18000	AA2	1	Each	Maintaining Traffic Misc.: Contractor Prepared Maintenance of Traffic Plan
1036	618E40700	AA2	17.72	Mile	Rumble Strips, (Concrete)
1037	622E10061	AA2	2534	FT	Concrete Barrier, Single Slope, Type B, As Per Plan
1038	622E10101	AA2	19815	FT	Concrete Barrier, Single Slope, Type B1, As Per Plan
1039	622E10161	AA2	8619	FT	Concrete Barrier, Single Slope, Type D, As Per Plan
1040	622E10200	AA2	3	Each	Barrier Transition
1041	622E24840	AA2	2	Each	Concrete Barrier End Section, Type B
1042	622E24850	AA2	1	Each	Concrete Barrier End Section, Type B1
1043	622E25000	AA2	6	Each	Concrete Barrier End Section, Type D
1044	622E25020	AA2	83	Each	Concrete Barrier End Anchor, Reinforced
1045	622E25050	AA2	31	Each	Concrete Barrier End Anchor, Reinforced, Type D
1046	614E11000	AA2	LS	LS	Maintaining Traffic

Revise the Note From Addendum #1 to Read:

The contractor shall be assessed disincentives, as designated in the lane value contract table below, for each unit of time the described critical ramp is restricted from full use by the traveling public within the time period. The disincentives will be assessed for all restrictions of the critical work.

Critical work is shown in the lane value contract table.

Critical work is defined as having the designated sections open to unrestricted traffic as shown in the table, or the entire project if not otherwise listed.

Unrestricted traffic is defined as all traffic lanes being available for use with temporary safety features in place.

Description or Location of Critical Work	Completion Date	Time Unit	Disincentive
All work needed to re-open SR-91 Ramp A to traffic	Day 45	Day	\$5000/Day
All work needed to re-open SR-91 Ramp B to traffic	Day 45	Day	\$7000/Day

Description or Location of Critical Work	Completion Date	Time Unit	Disincentive
All work needed to re-open SR-640 Ramp A to traffic	Day 45	Day	\$5000/Day
All work needed to re-open SR-640 Ramp D to traffic	Day 45	Day	\$5000/Day
All work needed to re-open SR-6401 Ramp E to traffic	Day 45	Day	\$5000/Day
All work needed to re-open SR-640 Ramp H to traffic	Day 45	Day	\$5000/Day
All work needed to re-open Lost Nation Ramp A to traffic	Day 45	Day	\$6000/Day
All work needed to re-open Lost Nation Ramp B to traffic	Day 45	Day	\$7500/Day
All work needed to re-open Lost Nation Ramp E to traffic	Day 45	Day	\$500/Day
All work needed to re-open Lost Nation Ramp F to traffic	Day 45	Day	\$4500/Day
All work needed to re-open SR-306 Ramp I to traffic	Day 45	Day	\$11,500/Day
All work needed to re-open SR-306 Ramp K to traffic	Day 45	Day	\$9000/Day
All work needed to re-open SR-306 Ramp N to traffic	Day 45	Day	\$13,000/Day
All work needed to re-open SR-306 Ramp O to traffic	Day 45	Day	\$7500/Day

Add the following Notes:

Item 614 – Maintaining Traffic, Misc.: Contractor Prepared Maintenance of Traffic Plans (Asphalt Concrete Alternate)

Item 614 – Maintaining Traffic, Misc.: Contractor Prepared Maintenance of Traffic Plans (Portland Cement Concrete Alternate)

This item of work shall include the preparation of a complete Maintenance of Traffic Plan by the Contractor for each alternate. These plans shall include all necessary phases and details to construct the improvements on SR-2, all ramps, all side streets and all of the bid document work that impacts traffic.

The plans shall be sealed by a Professional Engineer, registered in the State of Ohio and three (3) review sets of 11” x 17” plans along with one copy of the electronic images in (.tif format) shall be submitted one month prior to the initial project commencement of work for a compliance and acceptance review by the Department.

All Department comments on the plans be shall addressed and resolved prior to the commencement of work. Upon the acceptance of the plan, based on its compliance with the Bid Documents, provide the Department with three (3) copies of the accepted final sets of the 11” x 17” plans along with one copy of the accepted final electronic images in (.tif format).

The plan shall comply with all current ODOT standard drawings, Traffic Engineering Manual, Ohio Uniform Manual of Traffic Control Devices (OMUTCD) and applicable design guidelines for maintaining traffic.

The contractor prepared Maintenance of Traffic plans shall provide for the following:

1. For SR-2, two lanes in each direction at all times, unless noted.
2. 11’ minimum lane width (12’ desired) for all lanes maintained.
3. 1’ minimum offset between edge line and toe of portable concrete barrier (1.5’ offset between edge line and toe of portable concrete barrier desired, as per sheet 189) for all lanes maintained.
4. 1’ minimum offset between edge line and edge of pavement (2’ desirable) for all lanes maintained.
5. The drop-off treatment detailed in the plans on sheet 189/1679 must be followed.
6. 50” Portable Concrete Barrier required for SR-2 mainline and ramps. 32” Portable Concrete Barrier will be acceptable on side streets.
7. Crossover Lighting is to be utilized if a crossover is proposed for SR-2. Crossover lighting shall meet all applicable provisions of the OMUTCD and the TEM.

8. Detour routes for ramp reconstruction on sheets 175, 176, 179, 180-182, 185 including details and work items, shall be incorporated into the plan.
9. No consecutive ramps in the eastbound or westbound direction (i.e. EB SR-2 to Lost Nation Rd., Ramp E and EB SR-2 to Reynolds Rd., Ramp K) shall be closed at the same time. Also, at each interchange, a maximum of only two ramps may be closed concurrently.
10. Contractor prepared Maintenance of Traffic plans shall be compatible with the bridge Maintenance of Traffic details in the bridge plans, sheets 1272-1618. No changes in the bridge, approach slab or substructure longitudinal cut line will be permitted.
11. Side street reconstruction shall be coordinated with ramp closures and reconstruction.
12. All normal lanes of traffic shall be open to unrestricted traffic from November 1 to March 1.
13. For possible mainline tie-ins between new and old pavement, the maximum grade shall be 1" in 35'. For possible ramp tie-ins between new and old pavement, the maximum grade shall be 1" in 15'.
14. The following revised sheets refer to the asphalt alternative 47-53, 53A including details and work items, shall be incorporated into the plan.
15. The following added sheets refer to the concrete alternative 29A-Q, 56A-H and 188A including details and work items, shall be incorporated into the plan.
16. The following revised sheets refer to both alternatives 89-91, 175, 176, 179, 183, 185-187 including details and work items, shall be incorporated into the plan.
17. The plans shall ensure a reasonable and practical design comparable to conventional ODOT plans, while utilizing cost-effective measures.
18. The contractor prepared MOT plan shall provide for the completion of work by the established completion date within the proposal.
19. Contractor shall maintain positive drainage.
20. In addition to the requirements for the Contractor Prepared Maintenance of Traffic plans, the Contractor will be responsible to supply the Department a jointing plan for the concrete pavement alternative. These jointing plan details will only be required outside of the normal standard drawing applications (i.e. for ramps, pavement transition sections and intersections). The jointing plans shall be prepared in accordance to the Typical Sections, Standard Drawings and Pavement Design manual. Jointing plans shown sheets 822-829 shall be incorporated into contractor prepared plans.
21. The contractor prepared Maintenance of Traffic plans shall depict the project being completed in four separate stages. The stages shall be constructed in order, beginning with Stage 1 and ending with Stage 4. All work (*) in the previous stage shall be completed and opened to unrestricted traffic prior to starting the next phase.
*For the asphalt alternative, the mainline and ramp pavement work in Stage 1, 2 and 3 shall include the asphalt up to and including the intermediate course. The final surface course shall be placed in Stage 4.
22. If temporary signals are utilized, the contractor shall meet all applicable provisions of the OMUTCD and the TEM.
23. Plans shall provide a sequence of operations based on the Stages outlined within this addendum.
24. The MOT plans shall be developed in compliance with the permitted lane closure note unless otherwise permitted or restricted by this addendum. Specified time frames and road closure provisions within this addendum shall override any time provisions provided for within the permitted lane closure note.
25. The MOT plans shall include "beam-erection detour" plans as necessary to perform the work. Intermittent roadway closures for beam erection shall only occur during off peak or

nighttime hours and in addition shall comply with the permitted lane closure note and all other provisions within this addendum and the Bid Documents.

26. The plans must, at all times, provide for the maintenance of at least one point of access to properties adjacent to the work, which retain legal access to the public rights of way.
27. **Detour Notification:** The plans shall provide for, and the contractor shall advise the ODOT District 12 Office (216-584-2007), the Lake County Engineer (440-350-2770), the City of Eastlake (440-951-9361), the City of Willoughby (440-951-2800) and the City of Mentor (440-255-1100) eighteen (18) days in advance of when a detour route should be in effect. All signs and supports required for the designated detours shall be furnished, erected, maintained, and subsequently removed by the contractor. See detour sheets 175, 176, 179, 183, 185-187.

The Contractor Prepared Maintenance of Traffic Plans shall be prepared to include and provide for the following format and details:

- A. Plan scale for the SR-2 reconstruction, 1"=50 feet
- B. Plan scale for side streets and ramp reconstruction, 1"=20 feet or 1"= 40'
- C. Work Limits identified.
- D. Portable Concrete Barrier offsets to edge lines.
- E. Edge Line offsets to edges of pavement
- F. Temporary lane widths
- G. Lane taper rates
- H. Barrier taper rates
- I. Proposed MOT signs
- J. Temporary pavement marking locations.
- K. Begin and end station callouts for all details.
- L. Sub summaries of all required quantities with standard ODOT items and extensions.
- M. Develop the plans in 11" x 17" format and develop electronic images in (.tif format).
- N. The time table established within the lane value contract table shall be incorporated into the plan.
- O. Temporary pavement locations and quantities.

The work required for each stage and the contractor sequence of operations is outlined below:

For Stage 1, the following must be completed:

- Reconstruct SR-2 pavement, full width, including the median barrier, new drainage and signing from Sta. 420+00 to Sta. 521+50. (Note: due to the elevation differences between the old and new pavement at Sta. 420+00, a temporary pavement tie-in may be required)
- The Reynolds Rd. interchange work shall include the widening of Reynolds Rd., the reconstruction and realignment of Ramp I, K, N and O, new drainage, signing and pavement markings.
 1. During construction, Ramps I, K, N and O can be closed for 45 days each. See sheets 180, 181, 182 and 185 for detour details.
 2. For Reynolds Rd., a minimum of 2 thru lanes (11' min.) in one direction and one thru lane in the opposite direction (11' min.) along with the left turn lane onto the entrance ramps shall be maintained in the interchange area with a one lane closure adjacent to the ramp for ramp reconstruction tie in work. These closures shall be staggered so at no time will Reynolds Rd. be limited to one lane in each direction.

- The Lost Nation Rd. interchange work shall include the reconstruction and realignment of Lost Nation Rd., replacement of the Lost Nation Rd. bridge, reconstruction of the Oak Hill Lane and Reeves Rd. intersections, reconstruction and realignment of Ramp A from the Lost Nation intersection to Sta. 89+85, Ramp E from the Lost Nation intersection to Sta. 97+85, Ramps B and F from the Lost Nation intersection to Sta. 205+00, Ramp D from the Lost Nation intersection to Sta. 89+00, new drainage, signing, pavement markings, the removal of the high mast lighting and install temporary lighting.
 1. Prior to beginning work at the SR-2/Lost Nation Rd. interchange, the contractor shall remove the high mast towers at the interchange which shall be completed prior to setting up work zones on Lost Nation Rd. and SR-2.
 2. During construction, Lost Nation Ramps A, E, B and F can be closed for 45 days each. See sheet 179 for detour details.
 3. For Lost Nation Rd., one lane (11' min.) in each direction on Lost Nation Rd. shall be maintained at all times.
 4. Reeves Rd. shall be detoured as per sheet 187 when constructing the Lost Nation Rd./Reeves Rd. intersection.
 5. When constructing the Lost Nation Rd./Oak Hill Lane intersection, one lane of traffic shall be maintained for Oak Hill Lane.

- The culvert lining work and related construction activities at Sta. 308+66.09, centerline SR-2 and at E 367 St. shall be completed by the contractor in Stage 1, by June 1, 2009.
 1. Vehicular access to the properties south of Lakeland Blvd. E. 367th must be maintained at all times during construction operations.

- Construct the 8'x5' and 42" culverts at Sta. 336+05 and Sta. 345+16, respectively. The contractor shall construct the outlet end first which will require the closing of Stevens Blvd. Stevens Blvd. shall only be closed for one weekend.
 1. If needed, the contractor is limited to three weekend one lane closures of SR-2 (10 PM Fri to 6AM Mon) to facilitate the construction of the 8'x5' and 42" culverts which shall be at the approval of ODOT. The contractor shall contact the surrounding cities and ODOT 18 days prior to closing SR-2 to one lane.
 2. Stevens Blvd. traffic shall be detoured as per sheet 183 for one weekend only (10 PM Fri to 6AM Mon).

- The following construction activities shall also be constructed during this phase:
 - **Metro Park Retaining Wall.**
 - Newell Creek bridges
 - Lost Nation Rd. Ramp D bridge.
 - Chagrin River Substructure work in the river.
 - Culvert at Sta. 341+45
 - Wall #3 (Lost Nation Rd.)

- The following construction activities may be constructed during this phase (work may commence in Stage 1 but does not have to be completed prior to starting Stage 2):

- East 361ST St. left structure.
- Erie St. bridge substructure work.

For Stage 2, the following must be completed:

- Reconstruct SR-2 pavement, full width, including the median barrier, new drainage and signing from Sta. 351+25 to Sta. 420+00. (Note: due to the elevation differences between the old and new pavement at Sta. 351+25, a temporary pavement tie-in may be required).
- For the Lost Nation interchange, reconstruct and realign the remainder of Ramps A, E, B, F and D.
 1. During construction, Lost Nation Ramps A, E, B and F can be closed for 45 days each. See sheet 179 for detour details.
- The following construction activities shall also be constructed during this phase:
 - Erie St. Bridge.
 - Chagrin River Bridge.
 - Erie St. Retaining Wall

For Stage 3, the following must be completed:

- Reconstruct SR-2 pavement, full width, including the median barrier, new drainage and signing from Sta. 276+00 to Sta. 351+25.
 1. During construction of SR-2 and Vine St. during Stage 3, the westbound entrance ramp on the south side of Vine St. may only be closed during the AM peak (6AM to 10 AM, Mon. – Fri.) hours and detoured per sheet 177.
- The SOM Center Rd. work shall include the reconfiguration and widening of SOM Center Rd. and the reconstruction of Ramp A and B, new drainage, signing and pavement markings.
 1. During Stage 3 construction, when SOM Center Rd. Ramp A remains open it shall be closed during PM Peak hours (3 PM to 6 PM, Mon. – Fri.) and detoured as per sheet 175.
 2. During construction, SOM Center Rd. Ramps A and B can be closed for 45 days each. See sheet 175 for detour details.
 3. SOM Center Rd. Ramps C and D shall remain open at all times.
 4. SOM Center Rd. shall be completed in part-width construction, maintaining one 11' thru lane of traffic in each direction and the northbound left turn lanes at Ramp D and Curtis Blvd.
- The Vine St. interchange work shall include the reconfiguration and widening of Vine St. the reconstruction and realignment of Ramp A, D, E and H, new drainage, signing and pavement markings.
 1. During construction, Vine St. Ramps A, D, E and H can be closed for 45 days each. See sheet 176 for detour details.
 2. A minimum of one lane (11' min.) in each direction along with one left turn lane onto the

entrance ramps shall be maintained on Vine St. in the interchange area.

- Lakeland Blvd. shall be constructed in two phases, and shall coincide with the work on the south side of Vine St.
 1. Access shall be maintained to the local businesses on Lakeland Blvd. throughout each phase of construction.
 2. Each phase shall be completed within thirty (30) calendar days and opened to traffic using part width construction. Liquidated damages in accordance with the C&MS Table 108.07-1 or as revised in the Contract Documents shall be assessed for each Calendar day phased work extends beyond that required herein.

- The following construction activities shall also be constructed during this phase:
 1. Vine St. Retaining Wall.
 2. East 361ST St. right structure.
 3. Vine St. bridge

Stage 4 (Asphalt Alternative), the following must be completed:

- Stage 4 shall consist of placing the final surface course over the entire roadway surface of the mainline and ramps, final pavement markings, raised pavement markers and all work completed.
 1. Traffic shall be maintained in accordance with the permitted lane closure note.

Stage 4 (Concrete Alternative), the following must be completed:

- Stage 4 shall consist of placing the final pavement markings, raised pavement markers and all work completed.
 1. Traffic shall be maintained in accordance with the permitted lane closure note.

Develop all necessary changes to the Department accepted Contractor Prepared MOT Plan, to implement the work and to effectively manage traffic and operations, in accordance with the Contract Documents and the identified intent, in accordance with the provisions of this item. Provide the Department three (3) copies of all MOT Plan changes made during the prosecution of the work. If during the prosecution of work, errors are identified in the Contractor Prepared MOT Plan, revisions to the plan shall be developed and provided to the Department. Develop and provide MOT Plan modifications requested by the Department during the prosecution of the work to bring the plan into compliance with the Contract Documents.

Any payment for changes to the Contract Prepared MOT Plan requested by the Department to facilitate the performance of Department directed extra work will be resolved in accordance with the Contract Document change order provisions.

Payment for all work provided for within this item and any changes to the work for this item shall be included within and accounted for by the Bidder at the unit price bid for each Item 614 – Maintaining Traffic, Misc.: Contractor Prepared Maintenance of Traffic Plan (by Type).

Maintaining Traffic:

Work necessary to implement the Contractor Prepared Maintenance of Traffic Plan, for the project, shall be Bid in accordance with the Bid Documents. Payment for all work necessary to implement the MOT Plan in full and as may be modified, in accordance with the Bid Documents, will be made in accordance with the following:

[Department MOT Plan implementation payment in full and as may be modified.] = [Lump sum bid for Item 614 – Maintaining Traffic (Asphalt Concrete Alternate) **or** (Portland Cement Concrete Alternate)] + [The sum of: {MOT item unit bid prices, provided for and Bid upon in the Bid Documents} x {MOT items quantity provided for within the Department accepted Contractor Prepared MOT Plan (as accepted prior to the commencement of work), the actual quantity used, **or** up to the contract item quantity provided in the Bid Documents whichever is less.}]

Item 614 – Maintaining Traffic (Asphalt Concrete Alternate):

Item 614 – Maintaining Traffic (Portland Cement Concrete Alternate):

This item of work, and the lump sum unit bid item for this work, shall provide for the Contractor's, along with his Work Zone Traffic Supervisor(s) implementation, effective management, and maintenance of the accepted Item 614 – Maintaining Traffic, Misc.: Contractor Prepared Maintenance of Traffic Plan (by Type) and provides for complete and full payment for Item 614 – Maintaining Traffic detailed in the Bid Documents and payment for all MOT items of work and work task (as determined by each Contractor in his "accepted" MOT Plan), above, not provided in, or in excess of that which is provide for within the bid documents. The Department will make payment for MOT items listed in the Bid Documents at the unit bid prices provide at the time of bid up to the quantity provided for within the Department accepted Contractor Prepared MOT plan, as accepted prior to the commencement of work, the actual quantity used, or up to the contract item quantity provided in the Bid Documents whichever is less. All cost to implement the MOT plan or modifications or revisions thereto in order to complete project work are considered to be provided for as incidental to the work compensated for and are provided for under this item of work. The Department will not provide any further compensation to implement the Contractor MOT Plan or to complete the work beyond that which is provided herein. MOT modifications requested by the Department, during the prosecution of the work, to bring the plan into compliance with the Contract Documents are considered to be provided for as incidental to the work compensated for and provided for by this item of work.

All work and traffic control devices shall be in accordance with CMS 614 and other applicable portions of the specifications, as well as the Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614, Maintaining Traffic, unless separately itemized in the bid documents.

Any payment for changes to the Contract MOT work as provided for within the Bid Documents requested by the Department to facilitate the performance of Department directed extra work will be resolved in accordance with the Contract Document change order provisions.

Payment for all work provided for by this item and any changes to the work for included within this item shall be and accounted for by the Bidder within the lump sum bid for Item 614 – Maintaining Traffic (by type).

Maintenance of Traffic Bid Quantities:

The following contract MOT items and associated quantities are to be Bid upon by all Bidders to establish the basis of pay for the performance of work necessary to implement Item 614 – Maintaining Traffic, Misc.: Contractor Prepared Maintenance of Traffic Plan (by Type) in accordance with the Bid Documents.

Bid items to implement the Item 614 – Maintaining Traffic, Misc.: Contractor Prepared Maintenance of Traffic Plan (by Type) are either specifically listed below or are to be provided for in accordance with the lump sum bid for Item 614 – Maintaining Traffic (by type). MOT contract items that remain in the Bid Documents other than what is provided for herein will be administered in accordance with the Contract Documents.

<u>Ref No.</u>	<u>Item Ext.</u>	<u>Quantity</u>	<u>Unit</u>	<u>Description</u>
395	204E13000	1530	CY	Excavation of Subgrade
396	204E30010	1530	CY	Granular Material, Type B
397	254E01000	90000	SY	Pavement Planing, Asphalt Concrete
398	301E46000	75	CY	Asphalt Concrete Base, PG64-22
399	304E20000	815	CY	Aggregate Base
400	407E10000	200	Gal	Tack Coat
401	410E12000	480	CY	Traffic Compacted Surface, Type A or B
402	442E10100	470	CY	Asphalt Concrete Intermediate Course, 19MM, Type (446)
403	448E47020	25	CY	Asphalt Concrete Surface Course, Type 1, PG64-22
404	451E15500	6563	SY	11" Reinforced Concrete Pavement
405	603E96600	510	Ft	Conduit, Bored or Jacked: 15" Type B
406	603E96600	70	Ft	Conduit, Bored or Jacked: 18" Type B
407	603E96600	30	Ft	Conduit, Bored or Jacked: 21" Type B
408	603E96600	15	Ft	Conduit, Bored or Jacked: 24" Type B
409	603E96600	15	Ft	Conduit, Bored or Jacked: 27" Type B
410	604E04500	9	Each	Catch Basin, No. 2-2B
411	604E09000	2	Each	Catch Basin Adjusted to Grade
412	604E31500	4	Each	Manhole, No. 3
413	604E34500	2	Each	Manhole Adjusted to Grade
414	614E11100	2500	Hour	Law Enforcement Officer With Patrol Car
415	614E11300	1	Each	Special – Work Zone Traffic Signal
416	614E11500	36	Mnth	Worksite Traffic Supervisor
417	614E12200	2263	FT	Special – Workzone Guardrail
418	614E12336	22	Each	Workzone Impact Attenuator
419	614E12470	110	Each	Work Zone Speed Limit Sign
420	614E12484	95	Each	Work Zone Increased Penalties Sign
423	614E12756	3	Each	Workzone Crossover Lighting System
424	614E12801	4500	Each	Workzone Raised Pavement Marker, As Per Plan
425	614E13000	345	CY	Asphalt Concrete For Maintaining Traffic
426	614E13300	2510	Each	Barrier Reflector, Type B
427	614E13350	3916	Each	Object Marker, One Way
428	614E18601	144	SNMT	Portable Changeable Message Sign, As Per Plan
429	614E20100	22.32	Mile	Workzone Lane Line, Class I, 642 Paint
430	614E20200	0.08	Mile	Workzone Lane Line, Class I, 740.06
431	614E21100	0.92	Mile	Workzone Center Line, Class I, 642 Paint
432	614E21200	1.47	Mile	Workzone Center Line, Class I, 740.06, Type 1
433	614E22100	69.07	Mile	Workzone Edge Line, Class I, 642 Paint
434	614E22200	3.08	Mile	Workzone Edge Line, Class I, 740.06, Type 1
435	614E23200	61279	Ft	Workzone Channelizing Line, Class I, 642 Paint
436	614E23400	3359	Ft	Workzone Channelizing Line, 740.06, Type 1
437	614E24200	14770	Ft	Workzone Dotted Line, Class I, 642 Paint
438	614E24400	180	Ft	Workzone Dotted Line, Class I, 740.06, Type 1
439	614E26200	490	Ft	Workzone Stop Line, Class I, 642 Paint

440	614E26400	210 Ft	Workzone Stop Line, Class I, 740.06, Type 1
441	614E27400	210 Ft	Workzone Cross Walk Line, Class I, 642 Paint
442	614E30200	14 Each	Workzone Arrow, Class I, 642 Paint
443	614E30400	17 Each	Workzone Arrow, Class I, 740.06, Type 1
444	614E31400	4 Each	Workzone Word On Pavement, 72", Class I, 740.06, Type 1
445	615E10000	1 LS	Roads For Maintaining Traffic
446	615E20000	83567SY	Pavement For Maintaining Traffic, Class A
447	615E25000	3301 SY	Pavement For Maintaining Traffic, Class B
448	616E10000	3159 MGal	Water
449	622E40020	780 Ft	Portable Concrete Barrier, 32"
450	622E40031	126178Ft	Portable Concrete Barrier, 50", As Per Plan
451	622E40100	5 Each	Portable Concrete Barrier, "Y" Connector
452	630E80300	709 SF	Sign, Temporary Overlay
453	630E89894	33 Each	Removal of Temporary Overlay Sign and Disposal
454	642E00290	2 Mile	Center Line

All work and traffic control devices shall be in accordance with CMS 614 and other applicable portions of the specifications, as well as the Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614, Maintaining Traffic, unless separately itemized in the bid documents.

The Department will make payment for MOT items and quantities listed above at the unit bid prices provide at the time of bid up to the quantity provided for within the Department accepted Contractor Prepared MOT plan, as accepted prior to the commencement of work, the actual quantity used, or up to the contract item quantity provided in the Bid Documents whichever is less. All other compensation to implement the Contractor MOT plan shall be provided for within the lump sum bid for Item 614 – Maintaining Traffic (by type).

PRESSURE RELIEF JOINT, TYPE A (CONCRETE ALTERNATIVE)

This item of work shall consist of constructing pressure relief joints for the concrete pavement alternative in accordance with SCD BP-2.3 and the applicable sections of the construction and material specifications. Pressure relief joints shall be provided for at all bridge approaches within the rigid pavement alternate (AA2).

Pressure relief joints, type A are required at the Lost Nation Bridge, as shown in the plan, regardless of the pavement alternative selected.

Revise the following proposal notes:

PN 090 – 04/18/08 – Work Type Codes and Descriptions the third paragraph shall read: Listed below are the work types for this proposal. In accordance with Ohio law, a bidder must possess work types, and perform work equal to at least forty percent of the total amount of the submitted bid price.

PN 525 – 08/02/04 – Steel Price Adjustment under price adjustment criteria and conditions, table B-1, Steel product title, reinforcing steel, all applies with the exception of any steel related to mainline, ramp and side street concrete pavement including tiebars, bolts, dowels and dowel baskets.

PN 104 – 01/07/1998 – Value Engineering Change Proposal Construction Costs & Time No Value Engineering Change Proposals to the Contractor prepared maintenance of traffic plan or the asphalt and concrete pavement related alternate bid item work will be accepted by the Department.

Notice to all Bidders: Bidders are required to provide a responsive Bid, which shall include responsive unit bid prices for each alternate contract item provided for within the Bid Documents. In accordance with section 102.14 of the Department's Construction and Material Specifications Manual non-responsive and ineligible Bid's will be disqualified. The Department will follow section 103.02 of the Department's Construction and Material Specifications Manual and award the contract to the lowest competent and responsible Bidder.

The following sheets are revised:

40, 47-53, 53A, 89-91, 175, 176, 179, 183, 185, 186, 187

Add the Following Plan Sheets:

29A-Q, 56A-56H, 188A

The following sheets are to be disregarded and shall not be used by ODOT or the contractor to perform the work, for the basis of payment or for the settling of disputes or claims. The contractor prepared MOT plans will be the basis of payment for MOT items and will provide for the staged progress of work:

54-56, 58-88, 92-174, 191-197, 201-221, 224-243, 215A

Add/Revise the following standard drawings:

BP-2.1 Dated 07/18/08

BP-2.2 Dated 07/18/08

BP-6.1 Dated 07/28/00



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

THE DEPARTMENT USES THE BID EXPRESS WEBSITE, <http://www.bidx.com> AS AN OFFICIAL REPOSITORY FOR ELECTRONIC BID SUBMITTAL. BIDDERS MUST PREPARE THEIR BIDS ELECTRONICALLY USING EXPEDITE AND SUBMITTED VIA BID EXPRESS.

December 15, 2008

Re: Project 080597 **Addendum No. 11**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
3	202E23000	179637	SY	Pavement Removed
21	204E10000	33848	SY	Subgrade Compaction
29	209E60201	151	STA	Linear Grading, As Per Plan
159	448E46061	734	CY	Asphalt Concrete Intermediate Course, Type 1, Under Guardrail, PG64-22, As Per Plan
505	202E22901	200	SY	Approach Slabs Removed, As Per Plan
545	202E22901	200	SY	Approach Slabs Removed, As Per Plan
760	202E22901	167	SY	Approach Slabs Removed, As Per Plan
796	202E22901	167	SY	Approach Slabs Removed, As Per Plan
831	202E22901	133	SY	Approach Slabs Removed, As Per Plan
851	202E22901	133	SY	Approach Slabs Removed, As Per Plan
895	202E22901	278	SY	Approach Slabs Removed, As Per Plan
933	606E10810	653	Each	Special – Noise Barrier, Misc.: Concrete Noise Barrier Post and Drilled Shaft Foundation
71	671E15020	4000	SY	Erosion Control Mat, Type C
86	603E04400	1626	FT	12” Conduit, Type B
790	524E94404	269	FT	Drilled Shafts, 18” Diameter, Into Bedrock
825	524E94404	194	FT	Drilled Shafts, 18” Diameter, Into Bedrock
2	202E20010	32	Each	Headwall Removed
10	202E35200	3003	FT	Pipe Removed, Over 24”
52	601E32104	78	CY	Rock Channel Protection, Type B With Fabric Filter
54	601E32304	41	CY	Rock Channel Protection, Type D With Fabric Filter
77	602E20000	63	CY	Concrete Masonry
89	603E05900	3312	FT	15” Conduit, Type B
90	603E06100	1991	FT	15” Conduit, Type C
93	603E07400	984	FT	18” Conduit, Type B
98	603E10600	1329	FT	24” Conduit, Type C
100	603E12100	603	FT	27” Conduit, Type C
112	603E96600	4701	FT	Conduit, Bored or Jacked: 15”, Type B
123	604E04500	6	Each	Catch Basin, No. 2-2B
447	615E25000	3676	SY	Pavement For Maintaining Traffic, Class B
931	606E10310	122209	SF	Special – Noise Barrier (Absorptive), Over 10’ to 14’ Height
102	603E16200	67	FT	36” Conduit, Type A, 706.02 (2250 D Load)
104	603E19200	225	FT	42” Conduit, Type A, 706.02
106	603E23800	17	FT	60” Conduit, Type B, 706.02

Added Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
1047	254E01000	7572	SY	Pavement Planing, Asphalt Concrete
1048	448E46050	661	CY	Asphalt Concrete Intermediate Course, Type 2, PG64-22
1049	448E47020	472	CY	Asphalt Concrete Surface Course, Type 1, PG64-22
1050	622E40046	3059	FT	Portable Concrete Barrier, 50", Bridge Mounted
1051	509E10000	1553	LB	Epoxy Coated Reinforcing Steel
1052	511E46600	9.5	CY	Class C Concrete, Headwall
1053	603E16600	20	FT	36" Conduit, Type C
1054	603E16200	211	FT	36" Conduit, Type A, 706.02 (1250 D Load)

Deleted Items:

Ref. No.	Item Number	Quantity	Unit	Description
72	671E15030	2000	SY	Erosion Control Mat, Type D
103	603E16400	21	FT	36" Conduit, Type B

Revised Plan Sheets Linked to this Addendum

Plan sheet 960/1679

Plan sheet 248, 249,250, 251, 252, 253, 254, 255

Plan sheet 261

Plan sheet 1647

Reports are attached to this Addendum

Asbestos abatement inspection report for parcel 9, dated 3/24/08 for the Building Demolition at 36628 Vine St.

Special Provisions are attached to this Addendum

Special Provisions, 404 Permit

Spreadsheet linked to this Addendum

Rebar list for headwalls

Revise the following sheets:

The cross section sheets 714-716 incorrectly show pavement to be removed, please disregard.

Clarification on the plan note on sheets 1274 and 1465, Inspection of Existing Structural Steel: The contractor can assume, for repair of cracks, a hole drilling per crack found.

Revise Sheet:

Revise sheet 1603/1679, under section A-A, the porous backfill is to REMAIN instead of being removed.

Revised plan sheet 1647/1679 to include a 75' x 45' temporary parking pad using 375 SY of Item 615E25000 - Pavement For Maintaining Traffic, Class B (linked to this addendum).

Add supplemental Specification:

SS 839 Dated 04/20/07

SS 939 Dated 04/18/08

Answers to Prebid Questions:

Q: The proposal has not provided a pay quantity for Item 254 Pavement Planing 3 inch max. listed in the proposed Typical section sheet 40 of 1679 on SR 306. Please clarify.

A: The quantity has been corrected in this addendum and revised spread sheets have been posted. <ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

Q: General Summary quantities do not provide for Item 202 Pavement Removed on Lost Nation Road Ramps, Lost Nation Road, St. Clair Street, Riverside Commons Drive, SR 91 Ramp A and B, and all acceleration and deceleration lanes throughout the project. Furthermore, the quantities provided for Som Center Road (24,990 SY) on sheet 260 of 1679 would be sufficient to remove all existing pavement within the entire Som Center Road work limits. Similarly the quantities for Item 202 Traffic Island Removed listed on sheet 260 of 1679 for sheet 632 and the blank row beneath it are wrong.

A: The quantities have been corrected in this addendum and revised spreadsheets have been posted.

Q: Ref. #3 "Pavement Removed"- Plan Sheet 260 in the roadway subsummary states that there are 24,990 SY on SR 91 (SOM Center Rd.). The breakdown provided on pp 260 is as follows: 3,711 SY on pp 630, 3,206 SY on pp 632, 11,685 SY on pp 634 and 6,388 SY on pp 636, all of which reference the SR 91 plan and profile plan sheets (pp 630 – 637). A pavement removal takeoff based on cross-hatched sections of the SR 91 cross sections yields quantities that are much less than the given 24,990 SY. The roadway subsummary also does not reference any pavement removal quantities for any of the SR 91 ramps A and B, despite existing typical sections (page 24) that show existing concrete pavement and proposed typical sections (page 19) that show proposed asphalt pavement, as well as office calculations that give subgrade compaction quantities. These office calculations, however, show no pavement removed quantities for either SR 91 or ramps A or B. Can the Department please check and clarify pavement removed quantities on SR 91 and its adjoining ramps and address in an addendum?

A: Quantities have been corrected in this addendum and revised quantity spreadsheets have been posted.

Q: The office calculations for S.R. 306 (Reynolds Road) include subgrade compaction and proof rolling quantities for asphalt overlay, which appear to be erroneous when this work will not be performed. The stations included are the entire length of S.R. 306 within the project limits, Sta. 14+50 – 30+05. Please verify and update quantities in an addendum.

A: The quantity has been corrected in addendum #11 and revised spread sheets have been posted.

Q: Roadway Subsummary pages 258-259 for Lost Nation Rd./St. Clair St./River Side Commons Drive do not include any quantity for Item 202 – Pavement Removed. The existing typical sections, however, show 9" to 10" of concrete on Lost Nation Rd. The cross sections for Lost Nation Rd. and St. Clair St. show Item 202 – Pavement Removed detailed in these sections. The stations on Lost Nation Rd are from Sta. 46+10 – 70+22 and the on St. Clair St. from Sta. 114+00 – 116+00.

A: The pavement removal quantities for Lost Nation Road and Riverside Commons are shown on the revised pavement calculation spreadsheets. St. Clair St does not have concrete pavement or a concrete base. The cross sections incorrectly show pavement to be removed..

- Q: Sheet 960 of 1679 has missing information at the top of the page. Can you reissue this sheet?
A: A complete sheet 960 is linked to this addendum.
- Q: Plan sheet 901- existing catch basin is located at station 65+52 RT.- Plan sheet 850 calls for this to be adjusted while plan sheet 709 calls for this to be removed. Is this catch basin to be removed or adjusted? If removed, does existing 18" pipe connecting it to catch basin at 64+98 RT. also get removed or abandoned?
A: The existing catch basin on Lost Nation Road, at Sta. 65+52, 47.7' Rt. Should be adjusted to grade as shown on the summary sheet 850. It was incorrectly labeled to be removed on the plan and profile sheets, but is correct in the general summary.
- Q: Revised Office Calcs show full depth pavement replacement from station 510+00 to station 514+50. There is no quantity for Item 202 Pavement Removed in this area, nor are there excavation/embankment quantities provided in the cross sections. Is this area to be replaced full depth?
A: It is assumed that temporary pavement for the LAK-2-3.32 project will be in place in Construction Year #1 from Sta. 510+00 to 520+50. Quantities for temporary pavement and the required earthwork are included plans. The contractor will need to develop maintenance of traffic plans according to addendum #10. The LAK-2-3.32 project will start in reverse order – the contractor will start full depth pavement and the normal typical section at Sta. 510+00 and go towards Sta. 276+00. Construction year #2, the LAK-2-7.76 project will begin its full depth pavement section at Sta. 510+00 and move towards Sta. 805+00. The existing pavement and temporary pavement will be removed, and all of the earthwork will be completed under this contract. If the LAK-2-7.76 project is delayed and the LAK-2-3.32 project is completed in the mean time, a detail on sheet 790 has been included for the final pavement elevations. The intent is to only resurface this area (including the temporary pavement area as the base) and place the asphalt wedge course and the surface course.
- Q: The structure drawings showing the phased construction show temporary bridge mounted concrete barrier wall with anchors. There is no bid item for this wall.
A: A quantity for bridge mounted portable concrete barrier has been added to this addendum.
- Q: The project cover sheet shows the old date for standard drawings BP 2.1 and BP 2.2, please update these to the current standards shown online.
A: Updated in alternate bid addendum (#10).
- Q: The phased bridges show anchored barrier (i.e. sheet 1277), however there is no bid item for this. Please provide a bid item for 32" PCB, Bridge Mounted.
A: A bid item for 50" PCB bridge mounted was added to this addendum.
- Q: All Portable Concrete Barrier on SR 2 is shown as 50", As Per Plan, however most of this barrier is to protect the work zone; not face-on-face traffic. Is it ODOT's intention to use 50", APP PCB for all PCB on SR 2?
A: Yes.
- Q: On sheet 52 under Side Road Maintenance of Traffic for Bridge Construction, the plans call for the using Standard Drawing MT-96.10 on East 361st St Bridge and Erie St Bridge. This standard utilizes temporary signals, however, these signals are not paid under the work zone signals item. Is it ODOT's intent to include this cost in the lump sum item 614, Maintenance of Traffic?
A: Yes. See the maintaining traffic note on sheet 47/1679 states: Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614, Maintaining Traffic, unless separately itemized in the plan.

- Q: The note on sheet 53 under Work Zone Pavement Markings for Winter Months states that states that polyester markings are to be placed between November 1st and April 1st. Please provide bid items for this work.
- A: This item of work has been deleted in the alternate bid addendum (#10).
- Q: Also, under Winter Time Limitations, note 3 states that we are to return traffic to their unshifted position by October 1st and have pavement markings placed by October 15th. This conflicts with the note under WZ Pavement Markings for Winter Months note. Please clarify.
- A: The work zone pavement markings for winter months note has been deleted in the alternate bid addendum (#10), so there is no conflict.
- Q: Sheet 55 states that the remaining portion of Lost Nation Ramp A is to be constructed in Stage 2, Phase C. However, there is no Maintenance of Traffic shown for this work. Can the ramp be closed and detoured in Stage 2 Phase C as it was in Stage 1 Phase B Step 3?
- A: In the alternate bid addendum(#10), the contractor is required to prepared the MOT plans within the guidelines provided.
- Q: Where the concrete pavement widening on Vine St are shown on page 36 of the plans there is a note (Note A) that says "INSTALL A BUTT JOINT PER BP 2.5 & SPEC 255". On standard BP 2.5 we cannot find a reference to a "butt joint". Please clarify if the longitudinal joint between the old pavement and the proposed pavement on Vine is to be a Doweled joint as shown on BP 2.5 or a Type D tied joint as shown on BP 2.1?
- A: The joint between the old pavement and proposed pavement on Vine St. should be doweled unless greater than 10' in length. If greater than 10' in length, the joint should be as a type D tied joint as per BP-2.1.
- Q: The approach slab removal bid item quantities for bid items 505,545,760,796,831,851,895 appear to be substantially overstated. Please revise these quantities in an addendum.
- A: The quantities have been corrected in this addendum.
- A: Addendum #8 questions & answers regarding the asbestos abatement mentions an inspection report for parcel 9, dated 3/24/08 for the Building Demolition at 36628 Vine St. We cannot locate this report, please provide.
- A: The inspection report for parcel 9 has been linked to this addendum.
- Q: The general Notes on plan sheets 41 and 42 of 1679 mention that the 404 and 401 permits are attached to the plans. The 401 permit is but the 404 permit is not. Is there a Nationwide permit that is in effect for this project? If so which one?
- A: The Special Provisions, 404 Permit is linked to this addendum.
- Q: The total count for bid item 606E10810 "Noise Barrier Concrete Posts" shown on sheet 970 (qty=653) conflicts with the values shown on sheet no. 247A (qty=673) and in the bid pay schedule (qty=673). Please confirm the correct amount.
- A: The correct quantity is 653, revised in this addendum.
- Q: "Top of Barrier Elevation" and "Barrier Height" are understated by 1 ft for Noise Barrier Bays B168-B171 (ref sheets nos. 985 & 986). As a result, item 606E10310 is understated by 4x 8sq.ft =32 sq.ft on sheets 247A, 970 and Schedule of Pay items. Please review and confirm.
- A: 32 SF has been added to ref# 931 in this addendum.

- Q: Reference 0072 671 Erosion Control Mat, Type D is no longer available for purchase. An Item Master Search on the ODOT website reveals that Erosion Control Mat, Type D has not been bid on other projects for several years as "No matching records found" is the response. Please consider deleting this item.
- A: The item has been deleted, and the Type C quantity has been revised in this addendum. Erosion Control Mat, Type C will be used where Type D was specified.
- Q: The quantities for Bid items 790 & 825 appear to be overstated. It appears that Bid item 790 should be 263 lf and 825 should be 194 LF. Please revise in the next addendum.
- A: The quantities have been corrected in this addendum.
- Q: Plan sheet 901, ref. D-1 shows a 12" B Conduit crossing the pavement on Lost Nation Rd. at station 63+59.5. This sheet shows it on the plan and profile as a 12" pipe. Plan sheet 850 in the subsummary shows this as a 15" B Conduit.
- A: The quantity for D-1 (99' of pipe) should be 12" Conduit, Type B as shown on the plan and profile sheets and cross sections, not the 15" Conduit, Type B shown in the subsummary sheet. It was put into the incorrect column. Corrected in this addendum.
- Q: Plan sheet 874, references D-3, D-4 show a pair of longitudinal pipe runs as 15" B pipe. Drainage subsummary on plan sheet 842 shows both of these as "Conduit Bored or Jacked, 15" Type B". Given that these are longitudinal runs that do not cross pavement, should these be bored or open cut as 15" B? Please review and address in an addendum.
- A: D-3 and D-4 have been revised to 15" Conduit, Type B in this addendum.
- Q: Plan sheet 887, reference D-5 shows a crossover on the westbound side of mainline SR 2. Drainage subsummary shows this as 15" Conduit, Type C. Should this run of pipe be paid for as a bored or jacked pipe? Please review and address in an addendum.
- A: This 83' of pipe has been revised to Conduit Bored or Jacked, 15" Type B in this addendum.
- Q: Plan sheets 858 and 862 call for full-size headwalls to be built for elliptical pipe and box culvert. ODOT Standard Drawings HW-1.1 sheets 1 and 2 give details for round pipe. Please provide additional information for elliptical and box culvert so formwork and reinforcing steel can be taken off.
- A: Headwall quantities will not be appreciably different between elliptical and round pipe. SCD HW-1.1 can be adjusted for elliptical pipe as stated in the notes. The box culvert headwalls are detailed on sheets 865 and 866. Quantities for Item 509 - epoxy coated reinforcing steel and Item 511 - Class C Concrete have been added to this addendum. A bar list spreadsheet has also been linked to this addendum.
- Q: Plan sheet 967 under method of measurement for the noise walls states "Square feet of noise barrier constructed below ground line shall also not be included for payment". Noise Wall 'C' is a buried wall. The quantities in the plans appear to be the entire SF of wall installed. Please provide the quantity of noise wall above the ground line which will be included for payment.
- A: The quantity has been adjusted in this addendum.
- Q: There are no quantities provided in the General Summary for the large size Conduits Removed as shown on pages 855-862. Please verify and address in an addendum.
- A: Quantities for Pipe Removed, Over 24" and Headwalls Removed have been added to this addendum.

- Q: In regards to Bridge No. LAK-2-0760 L&R, we have the following question. On page 1603/1679, Section A-A shows the existing porous backfill to be removed. However, pages 1604/1679 and 1605/1679 show the limits of the porous backfill with filter fabric ending at approximately 12' LT/RT of CL. Also, Section B-B on page 1606/1679 notes the existing 2'-0" +/- of porous backfill to remain. Will the Department please clarify if the existing porous backfill beyond 12' LT/RT of CL is to be removed or retained.
- A: Section A-A, on sheet 1603, the porous backfill is to REMAIN instead being removed.
- Q: Ref. 103- 36" Conduit, Type B: Plan sheet 898 calls this out as Type C conduit and not Type B. Please verify which this should be since this is outside of the paved area. Also, drainage subsummary on plan sheet 850 calls for 1' of 36" B on Lost Nation Rd. sta. 69+42L. Is this a mistake?
- A: 20' of 36" Conduit, Type C was added to this addendum. The 1' of 36", Type B was in the wrong column. 1 each Catch Basin 2-2B was added to this addendum.
- Q: Ref. 102- 36" Conduit, Type A: Plan sheet 860 specifies this pipe for two of the sections to be 706.02, D-2750. Is pipe limited to this or is open to all applicable type A pipes?
- A: The pipe is limited to 706.02, D-2250. The item has been added to this addendum.
- Q: Also, plan sheet 856 shows 211' of this item which crosses the SR 2 mainline at station 450+95. Plan sheet 115 in the MOT plans shows this as being "bored or jacked under pavement". Given that this section of pavement must be built in three phases (1B, 1C, 1D), it will be impossible to properly maintain flow given that an adjacent 36" pipe must also be removed in these three phases. Also note that there is no quantity setup for removal of existing 36" pipe at this location. Please review this and revise in an addendum as there is no bid item for 36" pipe bored or jacked as well as for the adjacent removal.
- A: The proposed pipe has been offset 10' from the existing pipe so the flow can be maintained. See addendum #10 for changes to the MOT.
- Q: Addendum No.9 made significant modifications and additions to the concrete barrier wall items. Please provide the revised Roadway Subsummary sheets for these added items and also the revised items.
- A: Revised plan sheets containing subsummaries are linked to this addendum.
- Q: Ref. 89- 15" Conduit, Type B- Plan sheet 880, references D-5 and D-6 call for 15" B in drainage subsummary which is then carried to general summary. Plan sheets 330-332 and 881 show these as both 18" B. Please clarify this plan conflict in an addendum.
- A: The quantities were placed in the incorrect column on the sub-summary sheet, but the drainage plan and profile are correct. 500' was deducted from the 15" conduit, type B quantity and 500' was added to the 18" conduit, type B in this addendum.
- Q: Ref. 89, 12" Conduit, Type B: plan sheet 881, ref. D-15 and plan sheet 884, ref. D-13. Subsummary says these are type B conduits, however cross-sections specify these as type C and both runs are outside of pavement. Please clarify whether type B or type C in an addendum.
- A: The quantities for D-15 on sheet 881, and D-13 on sheet 884 were placed in the incorrect columns. 48' of 15" conduit, type C was added, and 48' of 15" conduit, type B was subtracted in this addendum.
- Q: Ref. 90- 15" Conduit, Type C. Plan sheet 886, ref. D-9 calls for 62' of 15"C. Cross-sections on plan sheet 911 show this as 15"B, as a good portion of this run of pipe goes under pavement. Please clarify what this should be in an addendum.
- A: 62' of 15" Conduit, Type B was added, and 62' of 15" Conduit, Type C was subtracted from this

addendum.

Q: Ref. 93- 18" Conduit, Type B: Plan sheet 893, ref. D-2 is called out in the subsummary as 18" B but is shown on plan sheet 893 and cross section sheets 423-425 as 15" B. Please clarify what size this run of pipe is to be in an addendum.

A: The 15" conduit is correct. 345' of 15" Conduit, Type B was added, and 345' of 18" Conduit, Type B was subtracted from this addendum.

Q: The typical sections on page 15 and 16 appear to show a raceway in the Type D Barrier. Does all Type D Barrier get raceway, or only the walls with light poles in them? Also, how is this raceway paid for? Please note Detail "A" on page 15 appears to show 3 conduits in the Type D Barrier!

A: Only one raceway should be located on the backside of the Type D barrier and only where it is required for the lighting design. This also holds true for the center median Type B1 barrier. The raceways are included in the cost of the barrier where required as per details RM-4.3, 4.4, and 4.5, so no quantity changes are required.

Q: There are conflicts in shoulder with dimensions shown between Rt.2 plans sheets and Ramp Gore detail sheets. Please see sheets 292 and 811 for Ramp I conflicts. Also see sheets 295 and 814 for Ramp O conflicts. Please confirm shoulder widths 8ft or 10ft.

A: The shoulder detail for mainline SR 2/ Ramp I on Sheet 811 is correct and is as shown below:

STATION	EOP OFFSET	PAVEMENT WIDTH	OUTSIDE SHOULDER WIDTH
344+44.00	49' LT	36'	10'
356+94.00=56+94	74' LT	61'	10'
RAMP I			
57+94 RAMP I	76.79' LT	63.79'	6'

The mainline SR 2/ Ramp O details on Sheet 814 is correct. Similar information for the SR 2/ Ramp O interface is shown below:

STATION	EOP OFFSET	PAVEMENT WIDTH	OUTSIDE SHOULDER WIDTH
487+78.01=187+78.01	61' LT	48'	8'Shoulder + 2' Barrier Offset =10'
RAMP O			
489+56.26	61' LT	48'	8'Shoulder + 2' Offset =10'
490+55.77	49' LT	36'	10'Shoulder + 2' Offset =12'

The conflict between the plan sheets arises from that the SR 2 mainline Sheet 295 calls out the actual shoulder widths to be 8' and 10', as opposed to the overall shoulder widths of 10' and 12' at each location respectively.

Q: Ref. 98- 24" Conduit, Type C: Plan sheet 532, Ref. D-2 shown in subsummary as 24" C. Details on plan sheet 917 calls this out as 27" C. Please clarify whether 24" or 27" in an addendum.

A: The 27" Conduit is correct. 148' of 27" Conduit, Type C was added, and 148' of 24" Conduit, Type C was subtracted from this addendum.



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

THE DEPARTMENT USES THE BID EXPRESS WEBSITE, <http://www.bidx.com> AS AN OFFICIAL REPOSITORY FOR ELECTRONIC BID SUBMITTAL. BIDDERS MUST PREPARE THEIR BIDS ELECTRONICALLY USING EXPEDITE AND SUBMITTED VIA BID EXPRESS.

December 16, 2008

Re: Project 080597 **Addendum No. 12**
PID No. 13486
Lake-SR 2 – 3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
9	202E35100	13402	FT	Pipe Removed, 24" and Under
10	202E35200	1013	FT	Pipe Removed, Over 24"
141	605E11110	100354	FT	6" Shallow Pipe Underdrains With Fabric Wrap
143	605E14020	100478	FT	6" Base Pipe Underdrains With Fabric Wrap
630	513E10281	255271	LB	Structural Steel Members, Level 4, As Per Plan
671	513E10281	255548	LB	Structural Steel Members, Level 4, As Per Plan
712	513E10240	230201	LB	Structural Steel Members, Level 2
743	513E10240	185934	LB	Structural Steel Members, Level 2
89	603E05900	3269	FT	15" Conduit, Type B
90	603E06100	2034	FT	15" Conduit, Type C
1034	888E14060	394559	SY AA2	Portland Cement Concrete Pavement, 11.52" Thick (Non-Reinforced Per 452)

Revise Sheet:

Revise typical sections to depict Shallow Pipe Underdrains (30" Deep Typ.) for all of SR-91 and SR-306 Ramps, while SR-91 and SR-306 side roads should depict Base Pipe Underdrains, unless called out in the tables to utilize unclassified underdrains.

Revise the note, on sheet 967/1679, that is titled Wall, Material and Color to delete any reference to motor joint color. This project will not utilize a separate motor joint color. The entire brick panel (highway and resident side), with the exception of the icons, posts and caps, shall be Federal Color #595B-20109 red brick in color. The brick formliner brick size shall be 2 2/3" x 8" for the highway and resident side.

Add the following supplemental specification:

888 Portland Cement Concrete Pavement QC/QA Dated 04/18/08

All reference to Item 452 – 11.5" Non-Reinforced Concrete Pavement within the Bid Documents shall be revised to read Item 888 – Portland Cement Concrete Pavement, 11.5" Thick (Non-Reinforced per 452). Supplemental Specification 888 Portland Cement Concrete Pavement QC/QA applies to the mainline and ramp concrete pavement, for the concrete alternative only. CMS 451 or 452 shall apply to side road concrete pavement as detailed in the plans.

PN 420 applies only to Asphalt Concrete Pavement.

Answers to Prebid Questions:

- Q: Further to data on sheet 976 please confirm that all steel components of the TL-4 transparent barrier system are coated “buff” after galvanizing.
- A: Per note 8 on sheet 976, only the vertical support posts shall be coated as per item 514, Buff color.
- Q: We would suggest that coating be applied to all areas “exposed to view”. Since there is colored acrylic sheeting covering all steel from the top of the precast barrier to the deck, could this portion of the steel framing just be left in a galvanized state?
- A: Per note 8 on sheet 976, only the vertical support posts shall be coated as per item 514, Buff color.
- Q: It is clear on sheet 976, that the non transparent acrylic panels are to be “buff color”. Is the GSCC transparent sheet to be clear transparent with black filaments or a tinted color, (smoky brown), with black filaments?
- A: There are no non transparent acrylic panels specified for this project. The transparent panels are not to be tinted, but should contain black filaments.
- Q: On past projects the icon(sign) panels have always been a separate bid item to avoid an escalated cost for the regular noise wall items. Will ODOT consider the sign panels as a separate unit price item?
- A: The icons should be included in the bid price of the concrete panels.
- Q: Please clarify that the icon, (sign)panels is a projected relief from the face of the panel. What is the minimum relief of this projection?
- A: The minimum relief should conform to the manufacturers specifications.
- Q: Please clarify the brick formliner finish on the absorptive surface. Is the brick size 4" x 12" or 6" x 12"?
- A: The "brick" size should be 2- 2/3" x 8". See addendum this addendum.
- Q: There is no specific elevation view of the residential side of the panels. Typically the rolled brick pattern has been a large CMU type pattern (8" x 16"). Please clarify the pattern on the concrete face of the noise wall panels.
- A: The "brick" size should be the same on both sides 2-2/3" x 8".
- Q: Also please clarify the coating for this side. Are the mortar joints to be left natural color? or is the whole panel to be coated one color, (buff)?
- A: The panel color should be Federal color #595B-20109 Red Brick. A separate mortar joint color is not to be utilized on this project. See addendum this addendum.
- Q: On sheet 973 Post and panel caps are detailed and there is a note that integral caps are acceptable as decided by the project engineer. Integral caps cannot have the same dimensions as detailed on sheet 973, (20" wide for panel cap, and 26" wide for post caps)

as typically the maximum overhang on a panel is 2" and on the post there is no overhang, the cap detail is a false joint cast into the top of the post. If the post and panel caps can in fact be integral, please clarify the dimensions that the post and panel caps must be for this alternate.

A: If the contractor elects, an integral cap may be used. The successful bidder would submit an integral cap detail to the engineer for approval.

Q: Can manufacturers approved spacing, ie: 24 feet be used on this project or must we adhere to the plans as detailed?

A: The spacing in the plans must be adhered to.

Q: For the Bridge mounted TL-4 system, please specify the type and method of coating after all steel components are galvanized. Powder coating has been used in the past but is more expensive than an epoxy-urethane type finish. Please confirm which method is acceptable to ODOT?

A: Use an epoxy-urethane finish.

Q: Ref. 89- 15" Conduit, Type B: plan sheet 881, ref. D-11 calls for type B conduit in subsummary but is shown on cross sections as type C conduit. Pipe run is outside the paved area. Please clarify whether this is to be type B or type C in an addendum.

A: The conduit should be 15", Type C. The quantities have been corrected in addendum #12.



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December 17, 2008

Re: Project 080597 **Addendum No. 13**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
7	202E30800	3900	SY	Traffic Island Removed
913	513E10280	662000	LB	Structural Steel Members, Level 4

Deleted Items:

Ref. No.	Item Number	Quantity	Unit	Description
912	513E10220	36500	LB	Structural Steel Members, Level 1

The following documents were referenced in Addendum #11. These documents have been attached to this addendum.

1. Reports are attached to this Addendum

Asbestos abatement inspection report for parcel 9, dated 3/24/08 for the Building Demolition at 36628 Vine St.

2. Special Provisions attached to this Addendum

Special Provisions, 404 Permit.

Add the following Note:

Item 619 Field Office, Type C, As Per Plan

In addition to the requirements of the CMS and the plan note on Sheet 44/1679, provide an additional 25'x25' (minimum) area of floor space to be used as a conference room for project-related meetings, provide a scanner capable of scanning 11x17 documents to a computer and increase the number of all-weather parking spaces to 20 spaces total.

Revise sheets 1421, 1423 and 1424: Delete the "Prebored Grouted Anchor Rod Assembly" note.

REVISED plan sheet 260 is linked to this addendum.

Answers to Prebid Questions:

Q: Ref. 7- Traffic Island Removed: included in total plan quantity of 15,656 sq. yd. is a quantity of 7099 s.y. indicated on roadway subsummary sheet 260. Is this a mistaken quantity? Please review this bid item takeoff and address in an addendum.

A: The quantities have been corrected in this addendum. See revised sheet 260 which is linked to this addendum.

Q: The underdrain subsummary on plan sheet 926 conflicts with the typical sections for some of the ramps and sideroads. For examples, 1.sr91 ramps and lost nation ramps typ sections call out 18" deep base ud but the subsummary calls out shallow ud which seems wrong 2.sr91 typ sections call out shallow ud with a depth of 18" but the subsummary lists it as base which seems right 3. lost nation

typ sections call out shallow ud with a depth of 18" and the subsummary lists it as shallow which seems like it should be 18" base ud

A: Lost Nation Road Ramps/ Sideroad:

8692 Feet of Shallow Pipe Underdrain should be deducted from the bid contract, and 8692 Feet of Base Pipe Underdrain should be added. The Lost Nation Road/ St. Clair St./ Riverside Commons Typical Sections should show bubble #18 for Base Pipe Underdrains as opposed to #17 Shallow Pipe Underdrains. Quantities have been revised in addendum #12.

SR 91 & SR 306 Ramps/ Sideroads:

The actual depths for each run of underdrain are shown in the underdrain detail sheets. This is the accurate information and what should be used for bidding purposes. The quantities are correct. However, the typical sections are incorrect at some locations – All of SR 91 and SR 306 Ramps should use Shallow Pipe Underdrains (30" Deep Typ.), while SR 91 and SR 306 sideroads should use Base Pipe Underdrains, unless called out in the tables to use unclassified underdrains.

Q: Reference plan sheet 284 West bound Rt-2 approximate stations 349+75lt. to 357+00 lt. Please provide stations along with widths for the shoulder pavement and tapers. The shoulder widens in this area and typical sections or details do not provide this information. Also, sheet 804 Ramp D Pavement details have conflicting shoulder widths.

A: Below is the information from Microstation/ Geopak for the shoulder tapers:

STATION	OFFSET	SHOULDER WIDTH
349+74.87	59' LT/ 61' LT	10' Shoulder + 2' Barrier Offset = 12'
352+18.79	71.17' LT/ 73' LT	20.6' Shoulder + 1.83 Barrier Offset = 22.43'
356+04.15	75.22' LT/ 78.45' LT	18.33' Shoulder + 1.83' Barrier Offset = 20.16'

(Begin Approach Slab)

Q: Bridge LAK-2-0363 Lt & Rt

- Plan sheets 1282 and 1283, rear abutment left and right, show 5 ea steel (bearing) retainers per abutment. Plan sheets 1294 and 1295, rear abutment left and right, show 3 ea steel retainers per abutment. Which is correct, 5 ea or 3 ea per local?

A: The correct number is 3. The beam locations are indicated correctly on sheet 1299.

Q: Plan sheets 1283 and 1285, forward abutment right and left, show 5 ea steel (bearing) retainers per abutment. Plan sheets 1296 and 1297, forward abutment left and right, show 3 ea steel retainers per abutment. Which is correct 5 ea or 3 ea per local?

A: The correct number is 3. The beam locations are indicated correctly on sheet 1299.

Q: Bridge LAK-2-0400 Lt & Rt

- Plan sheet 1348, upper right hand corner, under "Legend" heading, has two notes. The double asterisk note calls for 6 ea seismic steel retainers per abutment. The triple asterisk note calls for 4 ea bearing retainers per abutment. That totals 10 ea steel retainers per each abutment! These retainers do not show on the abutment drawings, bearing drawings, or abutment diaphragm drawings. Please confirm that 10 ea steel retainers are required at both abutments for both bridges.

A: The designer confirmed that 10 total at each abutment for both bridges (total=40) is correct.

Q: Plan sheet 1362, bottom half shows existing girder elevation. It appears ODOT wants 4 ea new bearing stiffeners 3/4" x 7 3/4" to be field welded at each pier on all existing (left/right) plate girders.

There are no notes to address this. Please confirm if these stiffeners are required.

A: On sheet 1362 the existing girder elevation calls out the proposed 3/4-inch X 7 3/4-inch bearing stiffeners. The designer confirms that they are required. For clarity the Pier Bearing Stiffener Detail on sheet 1364 should state the following under the detail title "Proposed Girder Shown, Existing Girder Similar"

Q: Where is this steel paid?

A: The additional quantity for the bearing stiffeners is 3956 LBS for the Lt. structure and 3956 lbs for the Rt. structure to be included under Item 513E10281 Structural Steel Members, Level 4, As Per Plan. See addendum #12.

Q: Where is the existing paint removal and touch-up paid for these locations?

A: This is paid for under Item 514E00050 Surface Preparation of Existing Structural Steel; 514E00056 Field Painting of Existing Structural Steel, Prime Coat; 514E00060 Field Painting Structural Steel, Intermediate Coat; and 514E00066 Field Painting Structural Steel, Finish Coat. See note 5 on sheets 1362 & 1364.

Q: Bridge LAK-2-0486 Lt & Rt

- Plan sheet 1421 (eastbound piers 1 and 2), and plan sheets 1423 and 1424 (westbound pier 1 and pier 2) have a note in plan view stating "prebored grouted anchor rod assembly (typ). See sheet 30/70 for details." Plan sheet 30/70 has no such detail and pier bearing detail on plan sheet 1449 shows no anchoring requirements. Please confirm that the referenced note does not apply to these bridges.

A: The notes in question on plan sheets 1421, 1423, and 1424 do not apply and should have been deleted. See addendum #13.

Q: Structural steel, level 2 (left and right bridges) plan quantity appears low. The takeoff weight appears to include WF beams, splices and connection plates, only. Adding type 3 crossframes to both bridges, will make plan weight overrun. Please check left and right bridge steel weights.

A: It appears that your observation is correct. The quantities have been revised in addendum #12:

a)LAK-2-0486L (Westbound): Item 51310240 Structural Steel Members, Level 2 = 230,201 LBS

b)LAK-2-0486R (Eastbound): Item 51310240 Structural Steel Members, Level 2 = 185,934 LBS

Q: Bridge LAK-2-0530 Lt & Rt

- Plan sheet 1514 (rear abutment-drilled shaft spiral) SP 402 appear to weigh 107.5 lb/ea. On plan sheet 1515 (forward abutment drilled shaft spiral) SP 402 appear to weigh 34.25 lb/ea. Both rear and forward abutment drilled shaft spirals, SP 402 are identical in size/shape and should be the same weight. Please correct the appropriate plan sheet "table" weight.

Plan sheet 1514 (rear abutment-drilled shaft spiral) SP 403 appears to weigh 203.2 lb/ea. On plan sheet 1515 (forward abutment drilled shaft spiral) SP 403 appears to weigh 64.7 lb/ea. Both rear and forward abutment drilled shaft spirals, SP 403 are identical in size/shape and should be the same weight. Please correct the appropriate plan sheet "table" weight.

A: The revised weight for SP402 is 1737 lbs and SP403 is 4173lbs, on sheet 1514. The revised weight for SP402 is 1853lbs and SP403 is 3734lbs on sheet 1515. This reinforcing is included with respective Item 524 for payment.

Q: Bridge LAK-2-0542

- Plan sheet 1551 lists two structural steel estimated quantity pay items: the first is level 1 and

the second is level 4. There are no general notes or steel notes defining what is to be included under each pay item. Level 4 appears to include girders, stiffeners and splice plates. Level 1 appears to cover intermediate crossframes. Please confirm that it is the designer's intent to split these items as outlined above.

A: Item 513 - Structural Steel Members, Level 1 has been deleted, and Item 513 - Structural Steel Members, Level 4 has been increased to 662,000 lbs in addendum #13.

Q: Plan sheet 1576, web splice detail shows the bottom flange "outside" plate as 5/8" x 12" and 3' - 7' long and the bottom flange "inside" plates as 1/2" x 5" and 3' - 7' long. Since the bottom flange is 24" wide on both sides of the splice, we believe the bottom flange outside plate should be 5/8" x 24" and 3' - 7' long and the bottom flange "inside" plates should be 1/2" x 11" and 3' - 7' long. Please review and advise what is required at the bottom flange.

A: On sheet 1576, the inside bottom flange splice plates should be 1/2" x 11" x 3'-7". The outside flange splice plates should be 5/8" x 24" x 3'-7". No quantity changes are required.

Q: Please confirm that the ATT utility work (ls) includes 20 ea steel bottom chord supports not paid as part of level 1 steel.

A: Confirmed.

Q: Please confirm that the Dominion utility work (ls) includes 6 ea steel bottom chord supports not paid as part of level 1 steel.

A: Confirmed.

Q: Bridge LAK-2-0760 Lt & Rt

- Plan sheet 1607 and 1609 show 1 ea intermediate diaphragm for each structure (WB and EB). Can these diaphragms be galvanized steel MC 18 x 42.7, or must they be cast in place concrete intermediate diaphragms?

A: The diagrams shall be cast-in-place concrete as shown in the plans.

Q: Addendum No. 1 – Added Bid Items

ODOT added 97 ea pile splices in addendum no. 1 between the following bridges:

Bridge	Piles	Splices	Percent
0363 L/R	72 ea	24 ea	33.3
0400 L/R	44 ea	38 ea	26.4
0486 L/R	95 ea	10 ea	10.5
0542	112 ea	25 ea	22.3

Since none of the bridges require splices due to order lengths, what is ODOT's intent here? We don't see why any of these would be performed. Based on soil borings piles will probably underdrive!

A: These were added as a contingency quantity as directed by FHWA.

Q: There is no quantity for subgrade compaction or 12" cement stabilization for Vine St., Lakeland Blvd. or Riverside Commons Drive in the latest version of the office calculations (posted 12/2/08). Is this accurate?

A: A revised spreadsheet has been posted on the Department's Question & Answer board today (December 17, 2008.) There are quantities for subgrade compaction for Vine St., Lakeland Blvd. and Riverside Commons on the spreadsheet. Since cement stabilization is not specified for these roads, there is no quantity for it.

Q: Ref. 10- Pipe Removed, over 24": Plan sheets 881 and 882 call for 870' of 24" pipe to be removed as part of this item, which in the subsummary sheet 840 is listed as "Pipe Removed, 24" and over". This

appears to be under the wrong bid item. Please review and revise quantities for ref. 9 and ref. 10 in addendum.

A: The item description was incorrect. 870 FT was subtracted from Ref. No. 10 and 870 was added to ref. No. 9 in addendum #12.

Q: The bid quantity for Subgrade Compaction per Addendum No. 6 is 35,411 SY. However, the sum of the Subgrade Compaction quantities from the latest version of the pavement office calculations (posted 12/2/08) is 27,456 SY. Please clarify.

A: A revised spreadsheet has been posted on the Department's Question & Answer board today (December 17, 2008.) According to the latest spreadsheet, the subgrade compaction quantity is 33,848 SY which was reflected in addendum #11.

Q: In the latest version of the roadway office calculations (posted 12/2/08) the Vine Street & associated ramps quantities from the "copy13468GC200" spreadsheet differ from the summary in the "ARCADIS Revised PAVEMENT-CALCS_11-21-08" spreadsheet. Please clarify.

A: A revised spreadsheet has been posted on the Department's Question & Answer board today (December 17, 2008.)

Q: Ref. 52- Rock Channel Protection, Type B, with Filter: Quantities on plan sheets 855 through 858 appear to be understated when actually taking off areas that are designated. Please review, revise, and address these volumes in an addendum.

A: In general, the quantity that is dimensioned, or called out in the plan/profile view should be used, as opposed to what is geometrically shown in the plan view. That being said, there were some small quantity changes reflected in addendum #11.

SPECIAL PROVISIONS

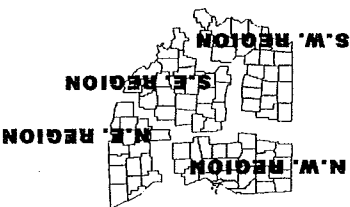
ASBESTOS INSPECTION REPORTS
FOR

LAK-2-3.32

EFFECTIVE DATES:

ASBESTOS INSPECTION REPORT FOR PARCEL 9, DATED: 03/24/08

ODOT OFFICE OF REAL ESTATE
Interoffice Communication
"Quality Through Partnership"



DATE: March 28, 2008

TO: Bonnie Teeuwen, Deputy Director, District 12

ATTENTION: Dan Dougherty, Real Estate Administrator

FROM: Joan K. Short, Projects Manager, NE Region

BY: Leon Bell, Realty Specialist

SUBJECT: Building Removal Notification
LAK 2 - 3.32 Parcel 9 WL, EL
PID 13486

The referenced structure has been inspected for asbestos and is referred to District for proposed asbestos abatement and building removal. (See attached)

NOTE: Have the Demolition or Abatement Contractor notify the Local Air Pollution Control Board (EPA) ten (10) working days prior to demolition or abatement.

NOTE: The Demolition Contractor should be aware of the Ohio EPA fee assessment for asbestos for any structure demo'd.

NOTE: The Demolition Contractor should keep all debris properly wet during demolition, according to standards.

NOTE: This structure is for demolition or abatement only, not burning.

JKS:LB

Attachments

c: Short/Everett/Carpenter/Lorello/Dougherty/PM File/Reading File

3/28/08

Asbestos Inspection Survey LAK 2 - 3.32 PID 13486
Parcel 9 36628 Vine Street Eastlake, Ohio

The highway, demolition or abatement contractor is required to file an OSHA Demolition and /or Renovation Notification at least ten (10) working days prior to the commencement of any demolition or construction activity and pay any and all applicable permit fees.

Should the highway or demolition contractor encounter any ACM during demolition or construction activity, they should cease all work and immediately notify the OSHA and ODOT.

The bulk samples were taken to the following lab by this writer:

Pinnacle Environmental Consultants, Inc.
2000 Prestige Park
Hurricane, WV 25526

Results of the bulk sample Lab Analysis reports attached herein.

This writer is of the opinion that all observable ACM has been identified. Material concealed from view is not included in the scope of this survey. In addition, the following items may be located on the above properties are not within the scope of this survey:

Unaccessible areas of the structure
Any buried or subterranean debris or piping
Miscellaneous fire prevention accessories, such as fire hoses or steel fire door insulating cores.

ACM refers to Asbestos Containing Material & PLM refers to Lab test used

All required ACM should be abated on the listed parcels and Asbestos Bid Specifications should include the following:

1. An EPA Notification will be required for each structure
2. Contractor will inspect and abate as necessary all heating vents, ducts, piping & boiler units in each structure.
3. All quantities are considered as reasonable estimates and contractor will check square footage, linear footage or cubic feet necessary and abate.
4. Abatement of plaster or outside (transite) siding may require the removal of plasterboard, paneling, ceiling tile (panels), carpet or insulation. This material should be disposed of as required or in proper containers. No loose insulating material to be left on outside walls.
5. Structures are secured but will be the responsibility of the contractor to secure there business equipment. All electrical and water have been disconnected.

ACM that should be abated as listed: (Refer to asbestos site & photo sheets & lab analysis attached)

Parcel 9

36628 Vine Street Eastlake, Ohio

2 sty brick/frame commercial building w/ basement (converted house to commercial)

40 yrs old 1342 SF

ACM (Plaster/Plasterboard) located in all walls and ceilings is 2 - 3 % Chrysotile (PLM) point count varies .25 - .75 %. Assume all plaster/plasterboard ACM and recommend to abate. This will require the removal of all plaster & plasterboard, insulation, any ceiling tile or panels or any building material necessary to be removed in order for the abatement. This ACM (plaster/plasterboard) is Friable in poor condition, damaged.

Approx 5000 SF +/- ABATE

ACM (window glaze/caulk) building windows, PLM is 3%, point count 2.25% Chrysotile. Assume all window glaze ACM and recommend to abate. This will probably require the removal of all window casings or any related building material to abate ACM. This ACM is CAT II non friable but will become friable during demolition. This ACM (window glaze/caulk) will be friable in fair condition, damaged.

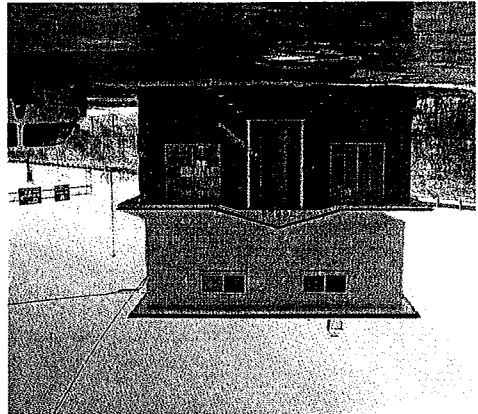
Approx 200 LF +/- ABATE

ACM (vinyl floor tile/linoelum & mastic) this vinyl floor tile/linoelum& mastic is located on the 1st and 2nd floors and steps. This ACM (vinyl floor tile/linoelum & mastic) is 3% Chrysotile (PLM) assume all ACM. This ACM is CAT I - Non Friable in fair condition, damaged. Recommend to abate all floors & steps.

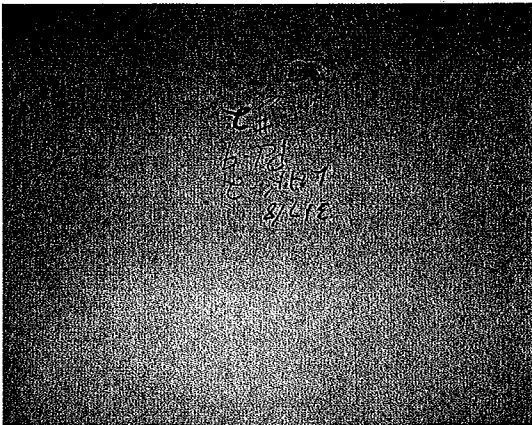
Approx 1300 SF +/- ABATE

Recommend that the Asbestos Abatement Company review, site inspect structure prior to bidding to determine his requirements for the abatement of ACM.

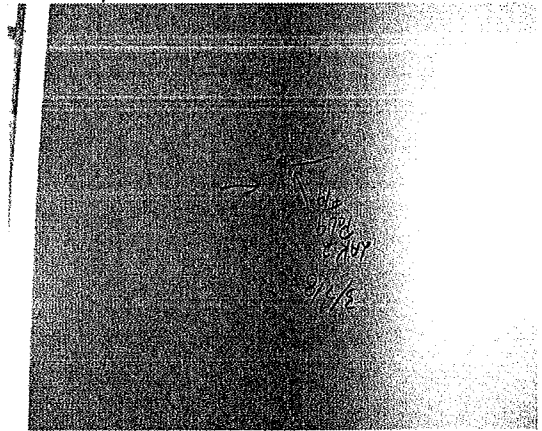
LAK 2-3.32 Parcel 9 PID 13486
36628 Vine Street, Eastlake, Ohio



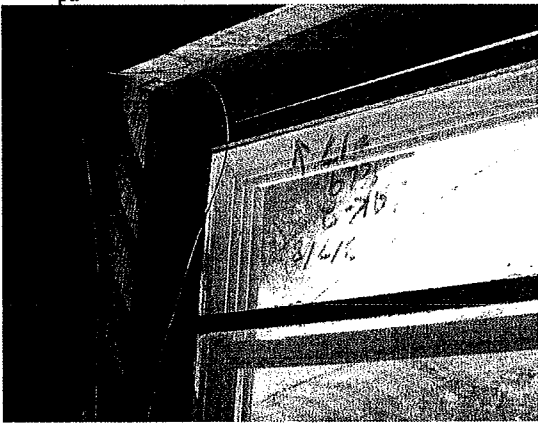
2 sty. Brick/frame commercial house w/ basement & asphalt shingle roof



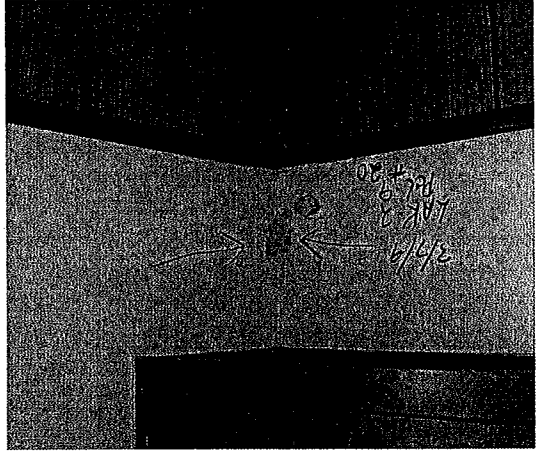
Sample # 2 Plaster, Basement stairs ceiling
2% Chry (PLM) PC .50% Assume ACM



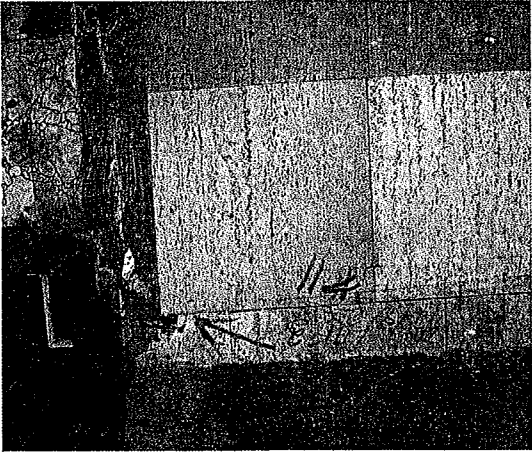
Sample # 19 Plasterboard Joint 1st Flr.
2% Chry (PLM) PC .75 Assume ACM



Sample #17 Window Glaze/caulk, 2nd Flr.
Hallway 3% Chry (PLM) PC 2.25% ACM



Sample #20 Plasterboard Corner Joint
2nd Flr. 3% Chry (PLM) PC .50 Assume ACM



Sample #11 Vinyl Flooring Tile&Mastic
3% Chry (PLM) Assume all ACM

Commercial building is a converted house used for business offices
Building is 2 sty brick frame w/basement 40 yrs. old 1342 SF

ACM (Plaster/Plasterboard) located in all walls and ceilings is 2 - 3% Chrysotile (PLM) point count varies .25 - .75%. Assume all plaster/plasterboard ACM and recommend abating. This will require the removal of all plaster and plasterboard, insulation, any ceiling tile or panels or any building material necessary to be removed in order for the abatement. This ACM (plaster/plasterboard) is Friable in poor condition, damaged.

Approx 5000 SF +/- ABATE

ACM (window glaze/caulk) located in the building windows, PLM is 3%, and point count is 2.25% Chrysotile. Assume all window glaze/caulk ACM and recommend to abate. This will probably require the removal of all window casings or any related building material to abate ACM. This ACM is CAT II non friable but will become friable during demolition. This ACM (window glaze/caulk) will be friable in fair condition, damaged.

Approx 200 LF +/- ABATE

ACM (vinyl floor tile/linoleum & mastic) is located on the 1st and 2nd floors and steps. This ACM (vinyl floor tile/linoleum & mastic) is 3% Chrysotile (PLM) assume all ACM. This ACM is CAT I - Non Friable in fair condition, damaged.

Approx 1300 SF +/- ABATE

Recommend that the Asbestos Abatement Company review and site inspect structure prior to bidding to determine there requirements for the abatement of the ACM.

Leon Bell ODOT (Asbestos Evaluation Specialist) Certification # 32976

BULK SAMPLE LAB AND CUSTODY DATA

Job Number: LAK-2-3.32

PID 13486

10/2

Building: PARCEL 9

36628 YINE STREET
EASTAHE, OHIO

LAB RESULTS

SAMPLE DESCRIPTION AND LOCATION

SAMPLE NUMBER

SAMPLE NUMBER	SAMPLE DESCRIPTION AND LOCATION	LAB RESULTS
LAK-2-PLG-#1	Acoustic Ceiling Panels - Basement Ceiling	ND
#2	Plaster - Basement Stairway Ceiling	2% chry / .50 Pc
#3	Plaster Board - Basement Stairway Wall	ND
#4	Plaster Board Joint - 1st Flr. S. Office Wall Center	ND
#5	Plaster Board - 1st Flr. Front Office Wall	ND
#6	Plaster Board - 1st Flr. Front Office Ceiling	3% chry / .75 Pc
#7	Plaster Board - 1st Flr. Rear Office Wall	2% chry / .75 Pc
#8	Vinyl Flr. Tile - 1st Flr. Front Office Floors	ND
#9	Plaster - 2nd Flr. Stairway Wall End Joint	3% chry / .50 Pc
#10	Vinyl Flooring - 2nd Flr. Stairway Steps	ND
#11	Vinyl Flr. Tile - 2nd Flr. Office Floors	3% chry + Plastic
#12	Plaster Board - 2nd Flr. Bath Wall	ND
#13	Plaster - 2nd Flr. S. Office Wall	2% chry / .25 Pc
#14	Plaster - 2nd Flr. Hallway Ceiling	2% chry / .50 Pc
#15	Plaster Board - 2nd Flr. N-Office Wall	2% chry / Trace

SPECIAL NOTES:

PC = Point Count

ABBREVIATIONS: ND = Not detected CHR1 = Chrysothle TRFN = Tremolite CROC = Crocidolite
 RA = Not Analyzed AMOS = Amosite ACT = Actinolite ANTH = Anthophyllite

LABORATORY ID#:

Date: 3/7/8

SAMPLING BY: Leon Bell

ANALYSIS METHOD: PLM

Date: 3/2/08

TRANSPORTED BY: JHL

Date: 3/2/08

RECEIVED BY: Chris Brown

Date: 3/24/08

ANALYZED BY:

LEON BELL
 Lead Specialist
 3033 South Adams Street
 Akron, Ohio 44304
 Phone: 330-452-1130
 Fax: 330-786-4879
 Email: 330.914.6046

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BULK SAMPLE LAB AND CUSTODY DATA

Job Number: LAK-2-332

PID-13486

2 of 2

Building: Parcel 9

36628 Vine Street
East Lake, Ohio

LAB RESULTS

SAMPLE DESCRIPTION AND LOCATION

SAMPLE NUMBER

SAMPLE NUMBER	SAMPLE DESCRIPTION AND LOCATION	LAB RESULTS
LAK-2-Pc9-16	Plaster Board - 2nd Flr. Rear Office Wall	ND
#17	Window Glass - 2nd Flr. Window	3% chry / 2.25 Pc
#18	Asphalt Shingle - House Roof	ND
#19	Plaster Board Joint	2% chry / .75 Pc
"	1st Flr. Front Office Part Wall Corner	
LAK-2-Pc9-20	Plaster Board Joint	3% chry / .50 Pc
"	2nd Flr. S-Office Corner Joint	
LAK-2-Pc9-21	Plaster Board Joint	2% chry / .75 Pc
"	2nd Flr. Rear Office Corner Joint	
LAK-2-Pc9-22	Plaster - 2nd Flr. Stairway Corner Ceiling	ND

ABBREVIATIONS: ND = Not Detected CHRY = Chrysothia TRM = Tremolite CROC = Crocidolite
 NA = Not Analyzed AMOS = Amosite ACT = Actinolite ANTH = Anthophyllite
 SPECIAL NOTES: PC = Point Count

SAMPLING BY: Leon Bell Date: 3/21/8

TRANSPORTED BY: DJC Date: _____

RECEIVED BY: _____ Date: _____

ANALYZED BY: _____ Date: 3/24/8

LEON BELL
 Entry Specialist
 ANALYSIS METHOD: PLM
 LABORATORY ID#: _____

30



200 Presidge Park
Hurricane, West Virginia
26526
Phone: 304-757-5204
Fax: 304-757-5205

Asbestos Identification by Polarized Light Microscopy

Analysis Report

NVLAP LAB CODE 200718-0

License # L1000303

Attn: Leon Bell

Ohio Dept. of Transportation

2088 South Arlington Street

Akron, OH 44306

Received Date: 3/24/2008

Analysis Date: 3/24/2008

RE: Parcel 9 - 36628 Vine Street, East Lake, OH

REG LAB #	CLIENT ID #	LOCATION
08WB-07099	LAK2PCL9#1	Basement Ceiling (Acoustic)
Texture/Description: Fibrous/Ceiling Panels		
TOTAL ASBESTOS:	0 %	
Cellulose:	88 %	
Fiber Glass:	0 %	
Others:	0 %	
Actinolite:	0 %	
Chrysotile:	0 %	
Amosite:	0 %	
Others:	0 %	
Filler/Binder:	12 %	

Tan/White
COLOR

REG LAB #	CLIENT ID #	LOCATION
08WB-07100a	LAK2PCL9#2	Basement Stairway Ceiling
Texture/Description: Solid/Plaster		
TOTAL ASBESTOS:	2 %	
Cellulose:	0 %	
Fiber Glass:	0 %	
Others:	3 %	
Actinolite:	0 %	
Chrysotile:	2 %	
Amosite:	0 %	
Others:	0 %	
Filler/Binder:	95 %	

Grey
COLOR

REG LAB #	CLIENT ID #	LOCATION
08WB-07100b	LAK2PCL9#2	Basement Stairway Ceiling
Texture/Description: Solid/Top Coat		
TOTAL ASBESTOS:	0 %	
Cellulose:	0 %	
Fiber Glass:	0 %	
Others:	0 %	
Actinolite:	0 %	
Chrysotile:	0 %	
Amosite:	0 %	
Others:	0 %	
Filler/Binder:	100 %	

White
COLOR

REG LAB #	CLIENT ID #	LOCATION
08WB-07101	LAK2PCL9#3	Basement Stairway Wall
Texture/Description: Solid/Plasterboard		
TOTAL ASBESTOS:	0 %	
Cellulose:	10 %	
Fiber Glass:	0 %	
Others:	0 %	
Actinolite:	0 %	
Chrysotile:	0 %	
Amosite:	0 %	
Others:	0 %	
Filler/Binder:	90 %	

Beige/Tan
COLOR

REG LAB #	CLIENT ID #	LOCATION
08WB-07102	LAK2PCL9#4	1st Fir S Office Wall Center
Texture/Description: Solid/Plasterboard Joint		
TOTAL ASBESTOS:	0 %	
Cellulose:	0 %	
Fiber Glass:	0 %	
Others:	0 %	
Actinolite:	0 %	
Chrysotile:	0 %	
Amosite:	0 %	
Others:	0 %	
Filler/Binder:	100 %	

Cream
COLOR

08WB-07103	LAK2PCL9#5	1st Fir Front Office Wall	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 14%	Fiber Glass: 0%	Others: 0%	Amosite: 0%	Chrysotile: 0%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 86%	TOTAL ASBESTOS: 0%	Texture/Description: Solid/Plasterboard
08WB-07104	LAK2PCL9#6	1st Fir Front Office Ceiling	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 18%	Fiber Glass: 0%	Others: 0%	Amosite: 0%	Chrysotile: 3%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 79%	TOTAL ASBESTOS: 3%	Texture/Description: Solid/Plasterboard
08WB-07105	LAK2PCL9#7	1st Fir Rear Office Wall	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 14%	Fiber Glass: 0%	Others: 0%	Amosite: 0%	Chrysotile: 2%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 84%	TOTAL ASBESTOS: 2%	Texture/Description: Solid/Plasterboard
08WB-07106a	LAK2PCL9#8	1st Fir Front Office Floors	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 0%	Fiber Glass: 0%	Others: 0%	Amosite: 0%	Chrysotile: 0%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 100%	TOTAL ASBESTOS: 0%	Texture/Description: Solid/Vinyl Tile
08WB-07106b	LAK2PCL9#8	1st Fir Front Office Floors	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 0%	Fiber Glass: 0%	Others: 3%	Amosite: 0%	Chrysotile: 0%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 97%	TOTAL ASBESTOS: 0%	Texture/Description: Solid/Mastic
08WB-07107a	LAK2PCL9#9	2nd Fir Stairway Wall End Joint	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 2%	Fiber Glass: 0%	Others: 4%	Amosite: 0%	Chrysotile: 3%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 91%	TOTAL ASBESTOS: 3%	Texture/Description: Solid/Plaster
08WB-07107b	LAK2PCL9#9	2nd Fir Stairway Wall End Joint	REC LAB #	CLIENT ID #	LOCATION	Cellulose: 0%	Fiber Glass: 0%	Others: 0%	Amosite: 0%	Chrysotile: 0%	Tremolite: 0%	Anthophyllite: 0%	Crocidolite: 0%	Filler/Binder: 100%	TOTAL ASBESTOS: 0%	Texture/Description: Solid/Top Coat

<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07108 LAK2PCL9#10 2nd Fir Stairway Steps</p> <p>Texture/Description: Solid/Vinyl Flooring TOTAL ASBESTOS: 0% Cellulose: 10% Fiber Glass: 0% Others: 5% Amosite: 0% Chrysotile: 0% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 85%</p> <p>Cream/Beige COLOR [REDACTED]</p>	<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07109a LAK2PCL9#11 2nd Fir Office Floors</p> <p>Texture/Description: Solid/Vinyl Tile TOTAL ASBESTOS: 3% Cellulose: 0% Fiber Glass: 0% Others: 0% Amosite: 0% Chrysotile: 3% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 97%</p> <p>Beige COLOR [REDACTED]</p>	<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07109b LAK2PCL9#11 2nd Fir Office Floors</p> <p>Texture/Description: Solid/Mastic TOTAL ASBESTOS: 3% Cellulose: 0% Fiber Glass: 0% Others: 0% Amosite: 0% Chrysotile: 3% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 97%</p> <p>Black COLOR [REDACTED]</p>	<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07110 LAK2PCL9#12 2nd Fir Bath Wall</p> <p>Texture/Description: Solid/Plasterboard TOTAL ASBESTOS: 0% Cellulose: 10% Fiber Glass: 0% Others: 0% Amosite: 0% Chrysotile: 0% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 90%</p> <p>Bge/TanWhit COLOR [REDACTED]</p>	<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07111a LAK2PCL9#13 2nd Fir S Office Wall</p> <p>Texture/Description: Solid/Plaster TOTAL ASBESTOS: 2% Cellulose: 0% Fiber Glass: 0% Others: 4% Amosite: 0% Chrysotile: 2% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 94%</p> <p>Grey COLOR [REDACTED]</p>	<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07111b LAK2PCL9#13 2nd Fir S Office Wall</p> <p>Texture/Description: Solid/Top Coat TOTAL ASBESTOS: 0% Cellulose: 0% Fiber Glass: 0% Others: 0% Amosite: 0% Chrysotile: 0% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 100%</p> <p>White COLOR [REDACTED]</p>	<p>REC LAB # [REDACTED] CLIENT ID # [REDACTED] LOCATION [REDACTED]</p> <p>08WB-07112a LAK2PCL9#14 2nd Fir Hallway Ceiling</p> <p>Texture/Description: Solid/Plaster TOTAL ASBESTOS: 2% Cellulose: 3% Fiber Glass: 0% Others: 3% Amosite: 0% Chrysotile: 2% Tremolite: 0% Anthophyllite: 0% Crocidolite: 0% Filler/Binder: 92%</p> <p>Grey COLOR [REDACTED]</p>
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REC LAB # CLIENT ID # LOCATION	08WB-07112b LAK2PCL9#14 2nd Fir Halfway Ceiling	White COLOR	Texture/Description: Solid/Top Coat TOTAL ASBESTOS: 0 % Cellulose: 0 % Fiber Glass: 0 % Others: 0 % Amosite: 0 % Chrysotile: 0 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 100 %
REC LAB # CLIENT ID # LOCATION	08WB-07113 LAK2PCL9#15 2nd Fir N Office Wall	Bge/Tan/Crm COLOR	Texture/Description: Solid/Plasterboard TOTAL ASBESTOS: 2 % Cellulose: 13 % Fiber Glass: 0 % Others: 0 % Amosite: 0 % Chrysotile: 2 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 85 %
REC LAB # CLIENT ID # LOCATION	08WB-07114 LAK2PCL9#16 2nd Fir Rear Office Wall	Beige/Tan COLOR	Texture/Description: Solid/Plasterboard TOTAL ASBESTOS: 0 % Cellulose: 8 % Fiber Glass: 0 % Others: 0 % Amosite: 0 % Chrysotile: 0 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 92 %
REC LAB # CLIENT ID # LOCATION	08WB-07115 LAK2PCL9#17 2nd Fir Window	Grey COLOR	Texture/Description: Solid/Glaze TOTAL ASBESTOS: 3 % Cellulose: 0 % Fiber Glass: 0 % Others: 0 % Amosite: 0 % Chrysotile: 3 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 97 %
REC LAB # CLIENT ID # LOCATION	08WB-07116 LAK2PCL9#18 House Roof	Black/Brown COLOR	Texture/Description: Solid/Asphalt Shingle TOTAL ASBESTOS: 0 % Cellulose: 0 % Fiber Glass: 0 % Others: 9 % Amosite: 0 % Chrysotile: 0 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 91 %
REC LAB # CLIENT ID # LOCATION	08WB-07117 LAK2PCL9#19 1st Fir Front Office Front Wall Corner	Cream COLOR	Texture/Description: Solid/Plasterboard Joint TOTAL ASBESTOS: 2 % Cellulose: 0 % Fiber Glass: 0 % Others: 0 % Amosite: 0 % Chrysotile: 2 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 98 %
REC LAB # CLIENT ID # LOCATION	08WB-07118 LAK2PCL9#20 2nd Fir S Office Corner Joint	Cream COLOR	Texture/Description: Solid/Plasterboard Joint TOTAL ASBESTOS: 3 % Cellulose: 0 % Fiber Glass: 0 % Others: 0 % Amosite: 0 % Chrysotile: 3 % Tremolite: 0 % Anthophyllite: 0 % Crocidolite: 0 % Filler/Binder: 97 %

RE: Parcel 9 - 36628 Vine Street, East Lake, OH

PEQ LAB # CLIENT ID # LOCATION

08WB-07119 LAK2PCL9#21 2nd Fir Rear Office Corner Joint

Texture/Description: Solid/Plasterboard Joint
TOTAL ASBESTOS: 2 %
Cellulose: 0%
Fiber Glass: 0%
Chrysotile: 2%
Amosite: 0%
Actinolite: 0%
Tremolite: 0%
Anthophyllite: 0%
Crocidolite: 0%
Filler/Binder: 98 %

COLOR: Cream

PEQ LAB # CLIENT ID # LOCATION

08WB-07120a LAK2PCL9#22 2nd Fir Stairway Center Ceiling

Texture/Description: Solid/Plaster
TOTAL ASBESTOS: 0 %
Cellulose: 2%
Fiber Glass: 0%
Chrysotile: 0%
Amosite: 0%
Actinolite: 0%
Tremolite: 0%
Anthophyllite: 0%
Crocidolite: 0%
Filler/Binder: 95 %

COLOR: Grey

PEQ LAB # CLIENT ID # LOCATION

08WB-07120b LAK2PCL9#22 2nd Fir Stairway Center Ceiling

Texture/Description: Solid/Top Coat
TOTAL ASBESTOS: 0 %
Cellulose: 0%
Fiber Glass: 0%
Chrysotile: 0%
Amosite: 0%
Actinolite: 0%
Tremolite: 0%
Anthophyllite: 0%
Crocidolite: 0%
Filler/Binder: 100 %

COLOR: White

Analytical Method: Polarized light microscopy using dispersion staining (EPA-600/M4-82-020). PLM should not be used to demonstrate the absence of asbestos in floor tiles. All samples will be held for sixty (60) days unless otherwise requested. This report relates only to items tested and makes no statement as to the contents of surrounding materials. Multi-layered material which have distinct and separable layers shall be reported separately. This report shall not be reproduced, except in full, without written permission. The results of this report should not be used as an endorsement for NVLAP or any other government agency.

Analyzed by:

Tina Long

Asbestos Identification by Polarized Light Microscopy

Point Count Analysis Report

License # LT000303

NVLAP LAB CODE: 200718-0



200 Preslige Park
Hurricane, West Virginia
25526
Phone: 304-757-5204
Fax: 304-757-5205

Attn: Leon Bell

Ohio Dept. of Transportation

2088 South Arlington Street

Akron, OH 44306

Received Date: 3/24/2008

Analysis Date: 3/26/2008

PEC Project #:

Client Project #: PID 13486

RE: Parcel 9 - 36628 Vine Street, East Lake, OH

CLIENT ID #	LAB #	PLM ANALYSIS	% Asbestos	Type	POINT COUNT ANALYSIS	% Asbestos	Type
LAK2PCL9#15	08WB-07113	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	Trace	Chrysotile
LAK2PCL9#14	08WB-07112a	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	0.50 %	Chrysotile
LAK2PCL9#13	08WB-07111a	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	0.25 %	Chrysotile
LAK2PCL9#9	08WB-07107a	PLM ANALYSIS	3 %	Chrysotile	POINT COUNT ANALYSIS	0.50 %	Chrysotile
LAK2PCL9#7	08WB-07105	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	0.75 %	Chrysotile
LAK2PCL9#6	08WB-07104	PLM ANALYSIS	3 %	Chrysotile	POINT COUNT ANALYSIS	0.75 %	Chrysotile
LAK2PCL9#2	08WB-07100a	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	0.50 %	Chrysotile

RE: Parcel 9 - 36628 Vine Street, East Lake, OH

CLIENT ID #	REC LAB #	PLM ANALYSIS	% Asbestos	Chrysotile	POINT COUNT ANALYSIS	% Asbestos	Chrysotile
LAK2PCL9#17	08WB-07115	PLM ANALYSIS	3 %	Chrysotile	POINT COUNT ANALYSIS	2.25 %	Chrysotile
LAK2PCL9#19	08WB-07117	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	0.75 %	Chrysotile
LAK2PCL9#20	08WB-07118	PLM ANALYSIS	3 %	Chrysotile	POINT COUNT ANALYSIS	0.50 %	Chrysotile
LAK2PCL9#21	08WB-07119	PLM ANALYSIS	2 %	Chrysotile	POINT COUNT ANALYSIS	0.75 %	Chrysotile

Analytical Method Reference: Perkins, RL, 1989, "Point Counting Techniques for Friable Asbestos Containing Materials", Research Triangle Institute, Microscope, 1990, pp. 29-39. The sample(s) above were submitted for Point Count Verification analysis. NESHAP Standard, 40 CFR Part 61, Section 141, states that if asbestos is identified by Polarized Light Microscopy and the estimated quantity is less than 10% by visual estimation, the client may choose either of the following: 1.) Elect to assume the amount to be greater than 1% and treat the material as asbestos containing, or 2.) require verification of the quantity by point counting. TRACE is defined as no asbestos fibers being detected during the point count analysis. The results of this report should not be used as an endorsement for NVLAP or any other government agency.

Casey Brown

Analyzed by:

Casey Brown

SPECIAL PROVISIONS

404 PERMIT- WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **404 INDIVIDUAL PERMIT FROM THE US ARMY CORPS OF ENGINEERS. (Permit No. 2006-2200-CHA, EFFECTIVE 10/29/2008, EXPIRES ON 12/31/2013)**



DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

October 29, 2008

Operations and Readiness Division
Regulatory Branch
2006-2200-CHA (Chagrin River)
LAK-2-3.32, PID: 13486

Mr. James G. Beasley
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

Dear Mr. Beasley:

Enclosed is one original and one copy of Department of the Army (DA) Permit Number 2007-342-GMR, authorizing the placement of fill material into waters of the United States for activities associated with the State Route (SR) 2 reconstruction project located between SR 91 on the west and SR 44 on the east, near the municipalities of Eastlake, Willoughby and Mentor in Lake County, Ohio.

Work associated with the proposed project would involve the permanent placement of approximately 4,285 cubic yards of fill material into 3,547 linear feet of fourteen jurisdictional streams and approximately 32,295 cubic yards of fill material into 3.53 acres of six jurisdictional wetlands for the construction of a fourth lane in both east and west bound directions of SR 2 between SR 91 and SR 640 (Vine Street), and between SR 44 N (Heisley Road) and SR 44 S; a third lane in both east and west bound directions of SR 2 between SR 640 and SR 44 N. In addition, the project also consists of reconfiguration of seven interchanges along SR 2 (SR 91, SR 640, Lost Nation Road, SR 306, SR 615, SR 44 north and SR 44 south), widening the existing bridges over Newell Creek (Stream 10) and the Chagrin River, replacement of the existing bridge over Heisley Creek (Stream 15), construction of a new 37-foot wide bridge over the Chagrin River for Ramp D, replacement of existing culverts, and patching and waterproofing of concrete slab structures within this section of the SR 2 corridor. The project would also involve the temporary placement of approximately 444 cubic yards of fill material into 0.07 acre of the Chagrin River for construction access.

The original copy of this permit is for your records. The enclosed copy of the authorization must be supplied to the project engineers responsible for the construction activities.

If any changes in the location and plans of the work are found necessary, revised plans must be submitted to this office for approval as required by law, before work is initiated. It is imperative that this office be notified two weeks prior to the commencement of construction, and again upon completion of activities.

If you have any questions regarding the information in this letter or the enclosures, please contact Peter Clingan at 614-692-4654.

Sincerely,



Rebecca A. Rutherford
Chief, North Regulatory Section

Enclosures

Copies Furnished w/ enclosures

Mr. Arthur Coleman
Ohio Environmental Protection Agency
Division of Surface Water
Post Office Box 1049
Columbus, Ohio 43215

Mr. Mark Epstein
Ohio Historic Preservation Office
567 East Hudson Street
Columbus, Ohio 43221-1130

Ms. Mary Knapp
U.S. Fish and Wildlife Service
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127

Mr. Michael Pettegrew
Office of Environmental Services
Ohio Department of Transportation
Post Office Box 899
Columbus, Ohio 43216-0899

Mr. Ric Queen
Ohio Environmental Protection Agency
Division of Surface Water
Post Office Box 1049
Columbus, Ohio 43215

Mr. Donald Rostofer
Office of Environmental Services
Ohio Department of Transportation
Post Office Box 899
Columbus, Ohio 43216-0899

Mr. Dave Schulenburg
U.S. Environmental Protection Agency
Region V, WQW-16-J
77 West Jackson Street
Chicago, Illinois 60604-3590

DEPARTMENT OF THE ARMY PERMIT

Permittee: Ohio Department of Transportation

Permit No: 2006-2200-CHA (Chagrin River)

Issuing Office: Huntington District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: This permit authorizes the placement of fill material for activities associated with the State Route (SR) 2 reconstruction project located between SR 91 on the west and SR 44 on the east, near the municipalities of Eastlake, Willoughby and Mentor in Lake County, Ohio.

Work associated with the proposed project would involve the permanent placement of approximately 4,285 cubic yards of fill material into 3,547 linear feet of fourteen jurisdictional streams and approximately 32,295 cubic yards of fill material into 3.53 acres of six jurisdictional wetlands for the construction of a fourth lane in both east and west bound directions of SR 2 between SR 91 and SR 640 (Vine Street), and between SR 44 N (Heisley Road) and SR 44 S; a third lane in both east and west bound directions of SR 2 between SR 640 and SR 44 N. In addition, the project also consists of reconfiguration of seven interchanges along SR 2 (SR 91, SR 640, Lost Nation Road, SR 306, SR 615, SR 44 north and SR 44 south), widening the existing bridges over Newell Creek (Stream 10) and the Chagrin River, replacement of the existing bridge over Heisley Creek (Stream 15), construction of a new 37-foot wide bridge over the Chagrin River for Ramp D, replacement of existing culverts, and patching and waterproofing of concrete slab structures within this section of the SR 2 corridor. The project would also involve the temporary placement of approximately 444 cubic yards of fill material into 0.07 acre of the Chagrin River for construction access.

Project Location: The project is located in fourteen jurisdictional streams and six jurisdictional wetlands along State Route (SR) 2 between SR 91 on the west and SR 44 on the east, near the municipalities of Eastlake, Willoughby and Mentor in Lake County, Ohio.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2013. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

-

The Special Conditions for this permit are listed on a separate page and are titled “Special Conditions for the Authorization Issued to Ohio Department of Transportation 2006-2200-CHA, LAK-2-3.32, PID: 13486.”

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.

Special Conditions for the Authorization
Issued to Ohio Department of Transportation
2006-2200-CHA
LAK-2-3.32, PID: 13486
Page 1(2)

1. Work shall be done in accordance with the attached plans labeled 2006-2200-CHA, LAK-2-3.32, PID: 13486, sheets 1-50.
2. All conditions attached to or contained within the Ohio Environmental Protection Agency's Water Quality Certification dated August 12, 2008, are hereby incorporated by reference as being special conditions of this permit.
3. To compensate for 3.53 acres of unavoidable wetland impacts, the permittee shall purchase a total of 5.4 acres of wetland credit from the Trumbull Creek Wetland Mitigation Bank located on SR 166 along the Ashtabula-Geauga County line and provide this office with an updated balance sheet.
4. To compensate for 3,547 linear feet of unavoidable stream impacts, the applicant proposes to place a 200-foot easement (100 feet on each side) along 5,321 linear feet of stream on a 155-acre parcel in northwest Trumbull County identified as Groves Woods, which includes a portion of Garden Creek as well as Class II and Class III primary headwater tributaries. The permittee shall provide this office with a copy of the conservation easement within one year from the date of issuance of a permit.
5. All temporary fill material must be removed to an upland location at the completion of construction activities and the river bottom restored to pre-construction contours to the maximum extent practicable.
6. Appropriate site specific best management practices (BMP) for sediment and erosion control will be fully implemented during construction activities at the site. The BMPs include, but are not limited to, the utilization of silt fences, straw bales, check dams, mulching and seeding.
7. Prior to the initiation of any construction activities on bridges, including the removal of any bridge structures, the underside of each bridge must be carefully examined for the presence of bats, especially between April 1 and September 30. If any bats are found roosting on the underside of the bridge, you will immediately contact the United States Fish and Wildlife Service, Reynoldsburg Field Office at (614) 469-6923.

2006-2200-CHA
LAK-2-3.32, PID: 13486
Page 2(2)

8. Section 7 obligations under the Federal Endangered Species Act must be reconsidered if new information revealing impacts of the proposed project that may affect federally listed species or critical habitat in a manner not previously considered, the project is subsequently modified to include actions which were not considered during Section 7 consultation with the USFWS or new species are listed or critical habitat designated might be affected by the proposed project.

9. In the event of an inadvertent discovery of archaeological or cultural resources, including suspected human remains, during construction activities on site, you shall immediately cease all work and contact this office at 614-692-4654 and the Ohio Historic Preservation Office at 614-298-2000. We will initiate the Federal, state, and Native American coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places. If such events occur, you shall ensure work on site is not reinitiated until you have received notification in writing from this office that obligations under Section 106 or the National Historic Preservation Act are fulfilled and on-site disturbance may occur. In the event that human remains are discovered, you shall also contact the Lake County Sheriff's office at 440-350-5620.

10. The permittee must obtain any required flood hazard area development permits prior to construction.

11. The permittee is solely responsible for insuring that all activities are performed in compliance with all permit conditions.

12. The permittee is responsible for ensuring that all contractors and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document with attached special conditions and site development plan is kept at the site during construction.

13. If any changes in the location and/or plans, or proposed impacts of the project are found necessary, the permittee must submit written information concerning the proposed modification(s) to this office for review and evaluation.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Ohio Department of Transportation		File Number: 2006-2200-CHA	Date: 10/29/08
Attached is:			See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I: The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg-or> Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Ginger Mullins, Chief, Regulatory Branch, 304-399-5389
Rebecca Rutherford, Ch, North Regulatory Section 304-399-5210
Mark Taylor, Chief, South Regulatory Section, 304 399-5710

Address: U.S. Army Corps of Engineers
Regulatory Branch
502 8th Street
Huntington, WV 25701

If you only have questions regarding the appeal process you may also contact:

Mr. Mike Montone
Great Lakes and Ohio River Division
550 Main Street, Room 10032
Cincinnati, Ohio 45202-3222
Phone: (513) 684-6212

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Date:

Telephone number:

Signature of appellant or agent.

SPECIAL PROVISIONS

401 WATER QUALITY CERTIFICATION – WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **401 WATER QUALITY CERTIFICATION FROM THE OHIO EPA (PERMIT NO. 083387; EFFECTIVE 08/12/2008, **EXPIRES ON 08/12/2013**)**



State of Ohio Environmental Protection Agency

OHIO E.P.A.

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

AUG 12 2008 MAILING ADDRESS:

RECEIVED
Columbus, OH 43216-1049 P.O. Box 1049

Certified Mail

August 12, 2008

Mr. James G. Beasley, P.E., P.S., Director
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By Tim Lassiter Date: 8-12-08

c/o Timothy M. Hill, Administrator, Office of Environmental Services

Re: Lake County
Grant of Section 401 Water Quality Certification
Project: (Minimal Degradation Alternative) to enhance safety and reduce congestion, and add third lane on State Route (SR) 2 in Lake County, Ohio.
ACOE Public Notice No. 2006-2200-CHA
Ohio EPA ID No. 083387
ODOT ID Code: LAK-2-3.32, PID 13486

Ladies and Gentlemen:

The Director of Ohio Environmental Protection Agency hereby authorizes the above referenced project under the following authority.

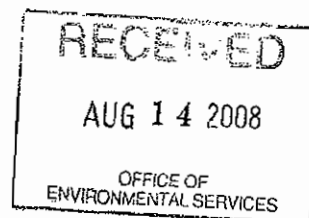
Section 401 Water Quality Certification

Pursuant to Section 401 of the Federal Water Pollution Control Act, Public Law 95-217, the Director of Ohio Environmental Protection Agency hereby certifies that the above-referenced project will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act.

This authorization is specifically limited to a 401 water quality certification with respect to water pollution and does not relieve the applicant of further certifications or Permits as may be necessary under the law. I have determined that a lowering of water quality in the Chagrin River Watershed (HUC 04100009) as authorized by this certification is necessary. I have made this determination based upon the consideration of all public comments, and including the technical, social, and economic considerations concerning this application and its impact on waters of the state.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Ohio EPA is an Equal Opportunity Employer



I. On-Site Water Resources and Impacts

A. Jurisdictional Wetlands

TABLE - 1									
Wetland ID	Wetland Location		GRAM Score*	Cat	Wetland Type F ¹ , NF ² , PEM ³ , PSS ⁴ , PFO ⁵	Total Size (acres)	Total Size Impacted (acres)	Impact Type	% Avoided
	Lat	Long							
Wetland 4/5	41°39'48" N	81°22'52" W	36.0 29.0	Mod. 2 1	PEM	1.48	0.02	Fill	98.65
Wetland 7	41°39'15" N	81°24'28" W	27.0	1	PEM/ Scrub- Shrub	2.23	1.92	Fill	14.35
Wetland 11	41°41'10" N	81°20'16" W	22.0	1	PEM	2.40	0.01	Fill	99.58
Wetland 12	41°39'10" N	81°24'33" W	24	1	PEM	1.64	1.41	Fill	14.02
Wetland 21	41°41'34" N	81°19'37" W	6.0	1	PEM	0.20	0.12	Fill	40.0
Wetland 30	41°39'12" N	81°26'16" W	7.0	1	PEM	0.56	0.05	Fill	91.07
TOTAL						8.51	3.53		

* As provided by applicant, ⁴ Palustrine Scrub-Shrub

² Non-Forest, ³ Palustrine Emergent Marsh

¹ Forest, ⁵ Palustrine Forested

B. Jurisdictional Streams

Stream ID	Stream Location USGS Coordinate)		QHEI/HHEI Score	Use Designation	Impact Length (lf)	Impact Type
	Lat	Long				
Stream 1 (UT to Mentor Marsh)	41°43'13" N	81°17'23" W	56 HHEI	Class II, PHWH	70	Culvert replacement
Stream 2 (UT to Chagrin River)	41°38'38" N	81°25'34" W	64 HHEI	Class II, PHWH	40	Culvert
Stream 3 (UT to Stream 1 to Mentor Marsh)	41°43'03" N	81°17'53" W	45 HHEI	Class II, PHWH	907	Relocation
Stream 4 (UT to Wasson Ditch)	41°43'03" N	81°18'03" W	50 HHEI	Class II, PHWH	1,050	Relocation
Stream 5 (UT to Heisley Creek)	41°42'17" N	81°18'54" W	64 HHEI	Class III, PHWH	33	Culvert replacement
Stream 6 (Marsh Creek)	41°41'34" N	81°19'38" W	64.25 QHEI	WWH	65	Repair concrete slab
Stream 8 (UT to Stream 9)	41°41'34" N	81°19'38" W	14 HHEI	Class I, PHWH	70	Culvert replacement
Stream 9 (UT to UT to Chagrin River)	41°40'50" N	81°21'30" W	78 HHEI	Class III, PHWH	120	Repair concrete slab
Stream 10 (Newell Creek)	41°40'17" N	81°22'12" W	24 HHEI	Class I, PHWH	240	Bridge work
Stream 12 (UT to Chagrin River)	41°39'43" N	81°22'53" W	69 HHEI	Class III, PHWH	161	Culvert replacement
Stream 13 (UT to Chagrin River)	41°38'56" N	81°25'00" W	51 HHEI	Class II, PHWH	85	Culvert replacement
Stream 14 (Wasson Ditch)	41°43'03" N	81°18'03" W	56 HHEI	WWH, provisional	105	Culvert replacement
Stream 15 (Heisley Creek)	41°42'31" N	81°18'43" W	57.5 QHEI	WWH	320	Bridge work
Stream 16 (Chagrin River)	41°39'17" N	81°24'21" W	56 QHEI	WWH	281	Bridge work
TOTALS					3547	

* As provided by applicant

II. General Conditions

- A. All water resources and their buffers which are to be avoided shall be clearly indicated on site drawings and demarcated in the field with suitable materials, prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process. The water resources also shall be protected with suitable materials, including silt fencing if appropriate, prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process.
- B. Best Management Practices (BMPs) must be employed throughout the course of this project to avoid the creation of unnecessary turbidity which may degrade water quality or adversely affect aquatic life outside of the project area.
- C. Work shall only take place during low water conditions in order to minimize adverse impacts to water quality away from the project site.
- D. Temporary fill shall consist of suitable non-erodible material or shall be stabilized to prevent erosion.
- E. Materials used in this project for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as bank protection.
- F. BMPs shall be taken during construction to minimize erosion.
- G. BMPs shall be taken upon completion of this project, to ensure bank stability. This may include, but is not limited to, bank seeding.
- H. Procedures shall be developed and implemented to eliminate the possibility of spills and to control dust that may enter the waterway by runoff or point discharge.
- I. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project will be reported within 24 hours of occurrence to Ohio EPA for further evaluation.
- J. In temporary impact areas where trees have been removed to facilitate construction, they shall be replaced with appropriate native tree species.
- L. Permittee shall be in compliance with the NPDES General Construction Permit for all phases of this project.

- M. Other permits may be required by Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office at the following address:

Northeast District office
2110 East Aurora Road
Twinsburg, Ohio 44087

- N. Representatives from the Ohio EPA, Division of Surface Water will be allowed to inspect the authorized activity at any time deemed necessary to insure that it is being or has been accomplished in accordance with the terms and conditions of this water quality certification.
- O. In order to protect the Indiana bat from impacts from this development, the applicant shall not cut bat habitat trees between April 15th and September 15th.
- P. The bottom elevations shall be restored as nearly as possible to pre-project conditions.
- Q. Blasting will not be done within or near stream channels without prior consultation with the Ohio Department of Natural Resources, Division of Wildlife, to determine what protective measures should be taken to minimize damage to fish and other aquatic life.
- R. Cadmium chromium arsenate (CCA) and creosote treated lumber shall not be used in structures in contact with waters of the state.
- S. This project may affect the drinking water wells for the adjoining City/Village. Precautions must be taken to limit any affect on the water supply. Officials at the City/Village should be notified before beginning the project and activities shall be coordinated with them.
- T. If pesticide application(s) are proposed for the control of invasive plant species, a site specific application permit must be obtained by calling 614-644-2001 and speaking with the Toxicology Specialist.

III. MITIGATION

A. Description of Required Wetland Mitigation

The Permittee shall compensate for the 3.53 acres of impacts to jurisdictional wetlands by purchasing a minimum of 5.4 mitigation credits from the Trumbull Creek Wetlands Mitigation Bank, located on SR 166 along the Ashtabula-Geauga County line.

B. Timing of Required Wetland Mitigation

The Permittee shall provide Ohio EPA with an updated balance sheet showing it has purchased 5.4 mitigation credits from the Trumbull Creek Wetlands Mitigation Bank within six months from the date of issuance of this certificate.

C. Compensatory Stream Mitigation

The Permittee shall compensate for the estimated 3,547 linear feet of impacts to the designated streams in the project area by preserving 5,321 linear feet (3,547 lf X 1.5) of streams at Groves Woods, a Cleveland Museum of Natural History site in Trumbull, County, Ohio. The mitigation streams consists of Class II and Class III Primary Headwater Habitat (PHWH) streams.

B. Timing of Required Stream Mitigation

The Permittee shall obtain a minimum of 5,321 linear feet of streams that are protected with a conservation easement, in perpetuity. The Permittee shall further provide Ohio EPA with a copy of the conservation easement for the Groves Woods site within one year from the date of issuance of this certificate.

IV. Notifications To Ohio EPA

All notifications, correspondence, and reports regarding this certification shall reference the following information:

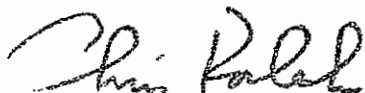
Permittee: Ohio Department of Transportation (ODOT)
Project: Enhancement of SR 2
LAK-2-3.32, PID 13486

Ohio EPA ID#: 083387

and shall be sent to: Ohio EPA, Division of Surface Water, 401 Unit
Lazarus Government Center
55 West Town Street, Suite 700
Columbus, Ohio 43216

You are hereby notified that this action of the Director is final and may be Appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address: Environmental Review Appeals Commission, 309 South Fourth Street, Room 222, Columbus, OH 43215

Sincerely,



Chris Korleski
Director

cc: Deborah L Wegmann, Team Leader, U.S. Army Corps of Engineers,
Huntington District, Ohio Regulatory Transportation Office
Wayne Gorski, U.S. EPA, Region 5,
William Cody, Asst. Administrator, OES/ODOT
Mike Pettegrew, Supervisor, Waterway Permits Unit, OES/ODOT
Don Rostofer, Supervisor, Ecological Unit, OES/ODOT
Karen L. Hallberg, USF&W (Reynoldsburg Office)
Brian Mitch, ODNR
Ed Wilk, NEDO/Ohio EPA
Joe Loucek, NEDO/Ohio EPA

SPECIAL PROVISIONS

OHIO EPA ISOLATED WETLAND PERMIT – WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **OHIO EPA ISOLATED WETLAND PERMIT
(PERMIT No. 083337; EFFECTIVE 3/12/2008,
EXPIRES ON 3/12/2010)**



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

March 12, 2008

Timothy M. Hill, Administrator
Ohio Department of Transportation
Office of Environmental Services
PO Box 899
Columbus, Ohio 43216-0899

Re: **Pre-Activity Notification: General Isolated Wetland Permit (Level 1)**
Ohio EPA SWIMS ID#: 083337
Project: Construction of a fourth lane between SR 91 and Vine Street and a third lane between Heisley Road and SR 44; miscellaneous work
Project ID #: LAK-2-3.32, PID 13486

Dear Mr. Hill:

On April 10, 2007, the Director of the Ohio EPA, pursuant to Ohio Revised Code (ORC) Section 6111.021 issued the Ohio General Permit for filling Category 1 and Category 2 Isolated Wetlands. The Ohio Department of Transportation (ODOT) has submitted a complete and acceptable General Isolated Wetland Permit Application (Level 1) and, after our review, hereby has been granted a General Isolated Wetland Permit, effective March 12, 2008, relative to the above referenced project. This permit only authorizes the designated impacts (0.02 acres) to Isolated Wetlands W-3 and W-13 described in the application.

We received the permit application in our office on March 7, 2008. The project consists of the construction of a fourth lane between SR 91 and Vine Street, and third lane between Heisley Road and SR 44, in Lake County, Ohio. In addition, construction work will include full shoulders and concrete median barrier, and modification of seven freeway interchanges. The project is estimated to impact 0.02 acres of isolated wetlands.

Please note ODOT is required to abide by all of the provisions of the General Permit, specifically the permit conditions listed in Part III and the mitigation requirements listed in Part IV. Per ORC Section 6111.022 (E) and Part V of the General Permit, the proposed filling of the isolated wetlands must be completed within two years of the date of this permit. If ODOT does not complete the filling within this two year period, it must submit a new pre-activity notice (PAN) to Ohio EPA. According to the application, ODOT shall provide compensatory mitigation for the 0.02 acres of impacts to Wetlands W-3 and W-13 by deducting 0.03 acres of wetland mitigation credits from the Trumbull

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

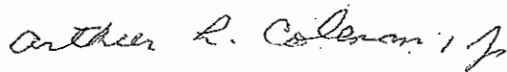
Timothy M. Hill, Administrator
Ohio Department of Transportation
Office of Environmental Services
General Isolated Wetland Permit (Level One)
LAK-2-3.31, PID 13486
Page 2 of 2

Creek Wetlands Mitigation Bank located on State Route 166 along the Ashtabula-Geauga County line. ODOT shall provide Ohio EPA with a balance sheet or equivalent documentation showing it has withdrawn the specified number of credits.

Please note in accordance with Part IV (F) of the General Permit, when mitigation will occur at an approved wetland mitigation bank, mitigation credits must be acquired within 15 days after receipt of the written notice of approval authorizing impacts to isolated wetlands.

We thank you for submitting the isolated wetland permit application for our review. If you have any questions or issues you would like to discuss regarding this determination or the project, please contact me at (614) 644-2138.

Sincerely,



Arthur L. Coleman, Jr.
Ohio EPA, DSW
Environmental Mitigation and Special Permitting Section

cc: Deborah Wegmann, USACE, Huntington District
Wayne Gorski, US EPA/Region V
William Cody, Asst. Administrator, OES/ODOT
Mike Pettegrew, Supervisor, Waterway Permit Unit, OES/ODOT
Donald Rostofer, Supervisor, Ecological Systems Unit, OES/ODOT
Ed Wilk, NEDO/Ohio EPA
Megan Seymour, USF&W (Reynoldsburg Office)
Brian Mitch, ODNR

SPECIAL PROVISIONS

COMBINED 404/401 WATERWAY PERMIT APPLICATION – WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **COMBINED 404/401 WATERWAY PERMIT APPLICATION (SUBMITTED TO THE US ARMY CORPS OF ENGINEERS AND OHIO EPA ON MARCH 5, 2008)**

**Section 404 Application for Department of the Army Permit and
Section 401 Application for the Ohio Environmental Protection Agency
Water Quality Certification**

**LAK-2-3.32 (PID 13486) Reconstruction Project in the Municipalities of Eastlake,
Willoughby, and Mentor
Lake County, Ohio**

By

Richard M. Paul, Ecologist/Environmental Specialist

Submitted By:

**Andrew Campbell
Project Manager
ASC Group, Inc.
4620 Indianola Avenue
Columbus, Ohio 43214
614.268.2514**

Submitted to:

**Scott Graham, P.E.
ARCADIS U.S., Inc.
1100 Superior Avenue
Suite 1250
Cleveland, Ohio 44114
216.781 6177**

Lead Agency: Ohio Department of Transportation

March 3, 2008

Table of Contents

404 Permit Application

Exhibit 1 - 404 Application: Block 13. Summary of Streams and Wetlands Impacted

Exhibit 2 - 404 Application: Block 24. Addresses of Adjoining Property Owners

401 Permit Application

Exhibit 1 - 401 Application: Block 5. Locations of Impacted Features for Minimal Degradation Alternative

Exhibit 2 - 401 Application: Block 8a, 8c, and Block 9. Description of Activity

Exhibit 3 - 401 Application: Block 10. Water Quality Certification Anti-degradation Evaluation

Tables

Appendix A: General Maps and Design Drawings

Figure 1. Project Vicinity Map.

Figure 2. Project Location.

Figure 3. Soil Survey Map.

Figure 4. Minimum Degradation Alternative.

Figure 5. Preferred Alternative.

Figure 6. Plan Views of Stream and Wetland Crossings.

Appendix B: Photographs and Key to Photograph Locations

Appendix C: Minimal Degradation Costs

Appendix D: Agency Correspondence

Appendix E: Conceptual Mitigation Plan

404 Permit Application

18. Nature of Activity (Description of project, include all features)

The proposed project includes the addition of a third lane from State Route 640 to State Route 44, the reconfiguration of seven Interchanges, concrete slab structures need to be patched and waterproofed, existing pipe culverts and box culverts need to be replaced, widening of existing I beam and three-span steel beam bridge, and the construction of a new 37 foot wide three-span steel beam bridge are all required. Fourteen streams and six wetlands will be affected by the proposed project. The streams and wetlands were identified through the preparation of the Ecological Survey Report including QHEI and HHEI data forms for the streams and ORAM forms for wetlands. Reference Table A, summary of streams impacted and Table B, summary of wetlands impacted for more detailed information.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The primary purposes for improvements to the LAK-2-3.32 corridor are to enhance safety and reduce congestion on State Route 2 in Lake County for both local and through traffic. This limited-access freeway facility displays functional and operational issues based on current traffic operation, safety considerations, and physical roadway deficiencies. Traffic congestion and outdated design features contribute to a high accident rate and safety concerns on the State Route 2 freeway mainline and interchanges. Maintenance activities for the roadway surface, highway lighting, and drainage facilities are becoming more extensive, frequent, and expensive for the responsible agencies.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Placement of fill in streams and wetlands is necessary to allow for proper roadway geometry and to be in compliance with ODOT specifications. Existing concrete slab structures need to be patched and waterproofed, existing pipe culverts and box culverts need to be replaced, widening of existing I beam and three-span steel beam bridge, and the construction of a new 37 foot wide three-span steel beam bridge are all required. Temporary discharge is necessary to create a temporary work area for replacement of the existing piers and abutments. Temporary fill will be removed upon completion of the project. Permanent fill will be necessary for construction of the abutments and approach slabs. The discharge associated with the placement of rock channel protection is needed to prevent erosion under the structure.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

The types of material being discharged are specified by the ODOT Construction and Material Specifications 203. This includes natural soil, natural granular material, granular material types, shale, and rock. The total amount being discharged is 37,264 cubic yards.

Wetland Fill Material Quantity - 32,295 cubic yards (See Table C for Stream and Wetland Impacts)

Stream Fill Material Quantity - 4,729 cubic yards (See Table C for Stream and Wetland Impacts)

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Overall, a total of 14 streams will be impacted resulting in 3,547 linear feet, or 2.366 acres, of impact. A total of six wetlands will be impacted resulting in 3.53 acres of impact (See Table C for Stream and Wetland Impacts)

23. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK N/A

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).


See Exhibit 2.

25. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
USACE	Jurisdictional Determination	n/a	n/a	1/12/07	n/a
Ohio EPA	Isolated Wetland Permit	n/a	March 2008	n/a	n/a
USFWS	Ecological Coordination	n/a	January 2005	n/a	n/a
City of Willoughby	Floodplain Permit	n/a	n/a	n/a	n/a
City of Mentor	Floodplain Permit	n/a	January 2006	n/a	n/a
Ohio EPA	Section 401 WQC	n/a	March 2008	n/a	n/a

* Would include but is not restricted to zoning, building, and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

 3/5/08
SIGNATURE OF APPLICANT DATE


SIGNATURE OF AGENT

3/4/08
DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Exhibit 1 - 404 Application: Block 13. Summary of Streams and Wetlands Impacted

Block 13. Summary of Streams and Wetlands Impacted

Site / Feature	USGS 7.5" Quadrangle	USGS Coordinates
Stream 1; UT ¹ to Mentor Marsh	Mentor	41°43'13"N 81°17'23"W
Stream 2; UT ¹ to UT ¹ to Chagrin River	Eastlake	41°38'38"N 81°25'34"W
Stream 3; UT ¹ to Stream 1 to Mentor Marsh	Mentor	41°43'03"N 81°17'53"W
Stream 4; UT ¹ to Wasson Ditch	Mentor	41°43'03"N 81°18'03"W
Stream 5; UT ¹ to Heisley Creek	Mentor	41°42'17"N 81°18'54"W
Stream 6; Marsh Creek	Mentor	41°41'34"N 81°19'38"W
Stream 8; UT ¹ to Stream 9	Mentor	41°40'34"N 81°21'51"W
Stream 9; UT ¹ to UT ¹ to Chagrin River	Mentor	41°40'50"N 81°21'30"W
Stream 10; Newell Creek	Mentor	41°40'17"N 81°22'12"W
Stream 12; UT ¹ to Chagrin River	Eastlake	41°39'43"N 81°22'53"W
Stream 13; UT ¹ to Chagrin River	Eastlake	41°38'56"N 81°25'00"W
Stream 14; Wasson Ditch	Mentor	41°43'03"N 81°18'03"N
Stream 15; Heisley Creek	Mentor	41°42'31"N 81°18'43"W
Stream 16; Chagrin River	Eastlake	41°39'17"N 81°24'21"W
Wetland 4/5 ²	Eastlake	41°39'48"N 81°22'52"W
Wetland 7	Eastlake	41°39'15"N 81°24'28"W
Wetland 11	Mentor	41°41'10"N 81°20'16"W
Wetland 12	Eastlake	41°39'10"N 81°24'33"W
Wetland 21	Mentor	41°41'34"N 81°19'37"W
Wetland 30	Eastlake	41°38'12"N 81°26'16"W

¹UT = Unnamed Tributary

²Wetlands were combined into one wetland after a Jurisdictional Determination was completed on November 8, 2006.

Exhibit 2 - 404 Application: Block 24. Addresses of Adjoining Property Owners

Yousef and Loubaba Karim
3901 Harvard Dr.
Willoughby, OH

Wm. W. and Patricia Ann
Burkey
3893 Harvard Dr.
Willoughby, OH

Constance A. Rawlry
3883 Harvard Dr.
Willoughby, OH

Paul and Denise Winegar
3875 Harvard Dr.
Willoughby, OH

Sonia & Brothers, Inc.
35000 Curtis Blvd.
Eastlake, OH

Cornerstone Church
7510 Reynolds Rd.
Mentor, OH

Edward and Teresa Sherry
7707 Kittery Ln.
Mentor, OH

John and Renee Dickson
7717 Kittery Ln.
Mentor, OH

DWK Properties, ILC
7275 Industrial Pk.
Mentor, OH

Freeway Lanes Holdings,
LLC
7300 Palisades Pkwy.
Mentor, OH

Hugh Carroll
7184 Bunker Cove
Mentor, OH

Robert and Evelyn Orlando
7727 Kittery Ln.
Mentor, OH

Vivianni Family Limited
Partnership
7255 Industrial Pk.
Mentor, OH

Richard Parker
3460 Lost Nation Rd.
Mentor, OH

Jason Grimm and Leslie
Wuest
7860 Champaign Dr.
Mentor, OH

Douglas and Barbara Denton
7866 Champaign Dr.
Mentor, OH

Shelly and Barbara Detrick
7600 Tyler Blvd.
Mentor, OH

Jeff and Nancy Sloat
7620 Tyler Blvd.
Mentor, OH

Jim Brown Chevrolet, Inc.
6877 Center St.
Mentor, OH

Marie and Phillip Plestis
8477 Tyler Blvd.
Mentor, OH

Thomas Wheeler
8507 Tyler Blvd.
Mentor, OH

Zoltan and Stacy
Dudevszsky
8567 Tyler Blvd.
Mentor, OH

Hendricks Commercial
Properties, LLC
8745 Munson Rd.
Mentor, OH

Brijovia Properties, LLC
6520 Hopkins Rd.
Mentor, OH

United Way of Lake County,
Inc.
9285 Progress Pkwy.
Mentor, OH

Donald and Sandra Berlin
9372 Trillium Ln.
Mentor, OH

Jamie and Kim Tavano
9382 Trillium Ln.
Mentor, OH

Charles and Linda Croaker
9392 Trillium Ln.
Mentor, OH

Bruce and Kristine Harper
9362 Trillium Ln.
Mentor, OH

David and Lisa Huffman
5876 Primavera Dr.
Mentor, OH

Kevin Shoda and Dawn
Murphy
5684 Primavera Dr.
Mentor, OH

BP Exploration and Oil Inc.
5711 Heisley Rd.
Mentor, OH

Ventas Realty
5700 Emerald St.
Mentor, OH

401 Permit Application

APPLICATION FOR OHIO EPA SECTION 401 WATER QUALITY CERTIFICATION

Effective October 1, 1996
Revised August 1998

This application must be completed whenever a proposed activity requires an individual Clean Water Act Section 401 Water Quality Certification (Section 401 certification) from Ohio EPA. A Section 401 certification from the State is required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps Engineers, or any other federal permits or licenses for projects that will result in a discharge of dredged or fill material to any waters of the State. To determine whether you need to submit this application to Ohio EPA, contact the U.S. Army Corps of Engineers District Office with jurisdiction over your project, or other federal agencies reviewing your application for a federal permit to discharge dredged or fill material to waters of the State, or an Ohio EPA Section 401 Coordinator at (614) 644-2001.

The Ohio EPA Section 401 Water Quality Certification Program is authorized by Section 401 of the Clean Water Act (33 U.S.C. 1251) and the Ohio Revised Code Section 6111.03(P). Ohio Administrative Code (OAC) Chapter 3745-32 outlines the application process and criteria for decision by the Director of Ohio EPA. In order for Ohio EPA to issue a Section 401 certification, the project must comply with Ohio's Water Quality Standards (OAC 3745-1) and not potentially result in an adverse long-term or short-term impact on water quality. Included in the Water Quality Standards is the Antidegradation Rule (OAC Rule 3745-1-05), effective October 1, 1996, revised October 1997 and May 1998. The Rule includes additional application requirements and public participation procedures. **Because there is a lowering of water quality associated with every project being reviewed for Section 401 certification, every Section 401 certification applicant must provide the information required in Part 10 (pages 3 and 4) of this application.** In addition, applications for projects that will result in discharges of dredged or fill material to wetlands must include a wetland delineation report approved by the Corps of Engineers, a wetland assessment with a proposed assignment of wetland category (ies), official documentation on evaluation of the wetland for threatened or endangered species, and appropriate avoidance, minimization, and mitigation as prescribed in OAC 3745-1-50 to 3745-1-54. Ohio EPA will evaluate the applicant's proposed wetland category assignment and make the final assignment.

Information provided with the application will be used to evaluate the project for certification and is a matter of public record. If the Director determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in OAC Rule 3745-32-05(A) and OAC Chapter 3745-1, Ohio EPA will inform the applicant in writing of the additional information that must be submitted. The application will not be accepted until the application is considered complete by the Section 401 Coordinator. An Ohio EPA Section 401 Coordinator will inform you in writing when your application is determined to be complete.

Please submit the following to "Section 401 Supervisor, Ohio EPA/DSW, P.O. Box 1049, Columbus, Ohio 43216-1049:

- Four (4) sets of the completed application form, including the location of the project (preferably on a USGS quadrangle) and 8-1/2 x 11" scaled plan drawings and sections.
- One (1) set of original scaled plan drawings and cross-sections (or good reproducible copies).

(See Application Primer for detailed instructions)

1. The federal permitting agency has determined this project: (check appropriate box and fill in blanks)

- requires an individual 404 permit/401 certification- Public Notice # (if known) _____.
- _____ requires a Section 401 certification to be authorized by Nationwide Permit # _____.
- _____ requires a modified 404 permit/401 certification for original Public Notice # _____.
- _____ requires a federal permit under _____ jurisdiction identified by # _____.
- _____ requires a modified federal permit under _____ jurisdiction identified by # _____.

Application number (to be assigned by Ohio EPA):

3. Name and address of applicant:

Mr. James Beasley, Director, P.E., P.S.
Ohio Department of Transportation
1980 West Broad Street, Columbus, Ohio 43223

Telephone number during business hours:

(614) 466-7102 (Office)

(614) 728-7368 (Fax)

3a. Signature of Applicant:

James M Beasley - Dir

Date: 3/5/08

4. Name, address and title of authorized agent:

Mr. Michael Pettegrew, Supervisor, Waterway Permits Unit
Ohio Department of Transportation
1980 West Broad Street, Columbus, Ohio 43223

Telephone number during business hours:

(614) 466-7102 (Office)

(614) 728-7368 (Fax)

4a. Statement of Authorization: I hereby designate and authorize the above-named agent to act in my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application.

Signature of Applicant

James M Beasley - Dir

Date:

3/5/08

5. Location on land where activity exists or is proposed. Indicate coordinates of a fixed reference point at the impact site (if known) and the coordinate system and datum used.

The proposed LAK-2-3.32 project begins at existing SR 91 in Lake County (east of Cleveland) and extends approximately 10 miles east to the SR 44 south junction in Lake County, just west of Painesville. A total of 14 streams and six wetlands occurring in the Chagrin River drainage basin will be impacted by this proposed project.

See Exhibit 1 for USGS Coordinates and other location information for impacted streams and wetlands.

Chagrin River Watershed Lake County, Ohio

Watershed	County	Township	City	State	Zip Code
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6. Is any portion of the activity for which authorization is sought complete? Yes No
If answer is "yes," give reasons, month and year activity was completed. Indicate the existing work on the drawings.

7. List all approvals or certifications and denials received from other federal, interstate, state or local agencies for any structures, construction, discharge or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial
USACE	Jurisdictional Determination	n/a	n/a	January 12 2007	n/a
Ohio EPA	Isolated Wetland Permit	n/a	March 2008	n/a	n/a
USFWS	Ecological Coordination	n/a	January 2005	n/a	n/a
City of Willoughby	Floodplain Permit	n/a	n/a	n/a	n/a
City of Mentor	Floodplain Permit	n/a	January 2006	n/a	n/a
Department of the Army	404 Permit	n/a	March 2008	n/a	n/a

8. DESCRIPTION OF THE ACTIVITY (fill in information in the following four blocks - 8a, 8b, 8c & 9)

8a. Activity: Describe the Overall Activity: SR 2 is a six-lane divided highway with three lanes in both directions to the west of Vine Street. East of Vine Street, SR 2 consists of a four-lane divided highway with two lanes in each direction. The proposed improvement will consist of the construction of a fourth lane between SR 91 and Vine Street and a third lane between Heisley Road and SR 44. Full shoulders and a concrete median barrier will be provided. In addition, the proposed improvements will include the modification of even freeway interchanges in order to reduce congestion and crash hazards at these locations.

Affected Streams and Wetlands: The proposed project affects 14 streams and six wetlands in the Chagrin River watershed. See Exhibit 2 for descriptions of proposed actions to these features.

b. Purpose: Describe the purpose, need and intended use of the activity: The primary purposes for improvements to the LAK-2-3.32 corridor are to enhance safety and reduce congestion on SR 2 in Lake County for both local and through traffic. Three primary needs were identified for the project: Roadway capacity is insufficient to accommodate the existing and future traffic demands; Safety characteristics need to be improved; and Physical deficiencies exist in the corridor.

See Exhibit 2, Block 8b summarizing additional information regarding project.

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards). **(OAC 3745-1-05(B)(2)(a))**

Streams: Excavation: 5,640 yds³ (total project)
Fill: 4,969 yds³ (total project)

Wetlands: Excavation: 2,532 yds³ (total project)
Fill: 32,295 yds³ (total project)

The types of material being discharged are specified by the ODOT Construction and Material Specifications 203. This includes natural soil, natural granular material, granular material types, shale, and rock.

See Table C for summary of discharge quantities by feature.

9. Waterbody and location of waterbody or upland where activity exists or is proposed, or location in relation to a stream, lake, wetland, wellhead or water intake (if known). Indicate the distance to, and the name of any receiving stream, if appropriate.

The proposed project impacts a total of 14 streams and six wetlands.

See Exhibit 2 for additional information.

10. To address the requirements of the Antidegradation Rule, your application must include a report evaluating the:

- Preferred Design (your project) and Mitigative Techniques
- Minimal Degradation Alternative(s) (scaled-down version(s) of your project) and Mitigative Techniques
- Non-Degradation Alternative(s) (project resulting in avoidance of all waters of the state)

At a minimum, item a) below must be completed for the Preferred Design, the Minimal Degradation Alternative(s), and the Non-Degradation Alternative(s), followed by completion of item b) for each alternative, and so on, until all items have been discussed for each alternative (see Primer for specific instructions). (Application and review requirements appear at **OAC 3745-1-05(B)(2)**, **OAC 3745-1-05(C)(6)**, **OAC 3745-1-05(C)(1)** and **OAC 3745-1-54**).

See Exhibit 3.

- 10a) Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water. **(OAC 3745-1-05(B)(2)(b))**
- 10b) Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation. **(OAC 3745-1-05(C)(6)(a, b)** and **OAC 3745-1-54**)

0c) Include a discussion of the technical feasibility, cost effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.) (OAC 3745-1-05(C)(6)(h, j-k) and OAC 3745-1-54)

10d) For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents. (OAC 3745-1-05(C)(6)(i))

10e) To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource. (OAC 3745-1-05(B)(2)(g))

10f) Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project. (OAC 3745-01-05(C)(6)(g))

10g) Describe any impacts on human health and the overall quality and value of the water resource. (OAC 3745-1-05(C)(6)(c) and OAC 3745-1-54)

10h) Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of jobs created and tax revenues generated and a brief discussion on the condition of the local economy. (OAC 3745-1-5(B)(2)(e), and OAC 3745-1-05(C)(6)(i))

10i) Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans. (OAC 3745-1-05(B)(2)(e,f), and OAC 3745-1-05(C)(6)(e))

10j) Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species. (OAC 3745-1-05 (B)(2)(e,f), OAC 3745-1-05 (C)(6)(b) and OAC 3745-1-54)

10k) Describe mitigation techniques proposed (except for the Non-Degradation Alternative):

° Describe proposed Wetland Mitigation (see OAC 3745-1-54 and Primer)

° Describe proposed Stream, Lake, Pond Mitigation (see Primer)

11. Application is hereby made for a Section 401 Water Quality Certification. I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or I am acting as the duly authorized agent of the applicant.

James D Beasley *Chris* *3/5/09*

Signature of Applicant

Date

Michael *3/4/09*

Signature of Agent

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in Block 3 has been filled out and signed.

Exhibit 1 - 401 Application: Block 5. Locations of Impacted Features for Minimal Degradation Alternative

401 Application: Block 5. Locations of Impacted Features for Minimal Degradation Alternative

Site / Feature	USGS 7.5" Quadrangle	USGS Coordinates
Stream 1; UT ¹ to Mentor Marsh	Mentor	41°43'13"N 81°17'23"W
Stream 2; UT ¹ to UT ¹ to Chagrin River	Eastlake	41°38'38"N 81°25'34"W
Stream 3; UT ¹ to Stream 1 to Mentor Marsh	Mentor	41°43'03"N 81°17'53"W
Stream 4; UT ¹ to Wasson Ditch	Mentor	41°43'03"N 81°18'03"W
Stream 5; UT ¹ to Heisley Creek	Mentor	41°42'17"N 81°18'54"W
Stream 6; Marsh Creek	Mentor	41°41'34"N 81°19'38"W
Stream 8; UT ¹ to Stream 9	Mentor	41°40'34"N 81°21'51"W
Stream 9; UT ¹ to UT ¹ to Chagrin River	Mentor	41°40'50"N 81°21'30"W
Stream 10; Newell Creek	Mentor	41°40'17"N 81°22'12"W
Stream 12; UT ¹ to Chagrin River	Eastlake	41°39'43"N 81°22'53"W
Stream 13; UT ¹ to Chagrin River	Eastlake	41°38'56"N 81°25'00"W
Stream 14; Wasson Ditch	Mentor	41°43'03"N 81°18'03"N
Stream 15; Heisley Creek	Mentor	41°42'31"N 81°18'43"W
Stream 16; Chagrin River	Eastlake	41°39'17"N 81°24'21"W
Wetland 4/5 ²	Eastlake	41°39'48"N 81°22'52"W
Wetland 7	Eastlake	41°39'15"N 81°24'28"W
Wetland 11	Mentor	41°41'10"N 81°20'16"W
Wetland 12	Eastlake	41°39'10"N 81°24'33"W
Wetland 21	Mentor	41°41'34"N 81°19'37"W
Wetland 30	Eastlake	41°38'12"N 81°26'16"W

¹UT = Unnamed Tributary
²Wetlands were combined into one wetland after a Jurisdictional Determination was completed on November 8, 2006.

TABLES

Table A. 404/401 Application: Streams Affected by the Proposed Project for the Minimal Degradation Alternative.

Stream No.	USGS Coord.	Description and Length Impacted	Drainage Basin	Total Length	Receiving Stream	Distance to Receiving Stream	Drainage Area/Area at Impact Site	QHEI or HHEI Score/OEPA Use Designation (if available)	Riparian Corridor and Adjacent Habitats
1	41°43'13"N 81°17'23"W	Unnamed Stream; 70 linear feet	0.61 mi ²	2.28 mi	Mentor Marsh	1.27 mi	0.37 mi ²	56 (HHEI)	Residential, Commercial
2	41°38'38"N 81°25'34"W	Unnamed Stream; 40 linear feet	0.03 mi ²	0.93 mi	Unnamed Tributary of Chagrin River	0.72 mi	<0.01 mi ²	64 (HHEI)	Residential
3	41°43'03"N 81°17'53"W	Unnamed Stream; 907 linear feet	0.01 mi ²	0.63 mi	Stream #1	0.23 mi	0.01 mi ²	45 (HHEI)	Commercial
4	41°43'03"N 81°18'03"W	Tributary of Wasson Ditch; 1,050 linear feet	0.01 mi ²	0.75 mi	Wasson Ditch	0.24 mi	<0.01 mi ²	50 (HHEI)	Residential
5	41°42'17"N 81°18'54"W	Tributary of Heisley Creek; 33 linear feet	0.01 mi ²	0.27 mi	Heisley Creek	0.40 mi	0.02 mi ²	64 (HHEI)	Residential, Commercial
6	41°41'34"N 81°19'38"W	Marsh Creek; 65 linear feet	17 mi ²	5 mi	Lake Erie	1.1 mi	1.18 mi ²	64.25 (QHEI); WWH	Commercial
8	41°40'34"N 81°21'51"W	Unnamed Stream; 70 linear feet	0.06 mi ²	0.69 mi	Stream #9	20 ft	0.06 mi ²	14 (HHEI)	Commercial, Residential
9	41°40'50"N 81°21'30"W	Unnamed Stream; 120 linear feet	0.23 mi ²	2.05 mi	Unnamed Tributary of Chagrin River	0.59 mi	0.17 mi ²	78 (HHEI)	Commercial, Residential
10	41°40'17"N 81°22'12"W	Newell Creek; 240 linear feet	1.16 mi ²	7.03 mi	Chagrin River	3.42 mi	0.78 mi ²	24 (HHEI)	Commercial
12	41°39'43"N 81°22'53"W	Tributary of Chagrin River; 161 linear feet	0.03 mi ²	1.79 mi	Chagrin River	200 ft	1.79 mi ²	69 (HHEI)	Commercial, Residential
13	41°38'56"N 81°25'00"W	Tributary of Chagrin River; 85 linear feet	<0.01 mi ²	0.31 mi	Chagrin River	0.21 mi	0.004 mi ²	51 (HHEI)	Commercial, Residential
14	41°43'03"N 81°18'03"W	Wasson Ditch; 105 linear feet	0.85 mi ²	3.35 mi	Mentor Marsh	1.7 mi	0.57 mi ²	56 (HHEI)	Commercial, Residential

Table A. 404/401 Application: Streams Affected by the Proposed Project for the Minimal Degradation Alternative.

Stream No.	USGS Coord.	Description and Length Impacted	Drainage Basin	Total Length	Receiving Stream	Distance to Receiving Stream	Drainage Area/Area at Impact Site	QHEI or HHEI Score/OEPA Use Designation (if available)	Riparian Corridor and Adjacent Habitats
15	41°42'31"N 81°18'43"W	Heisley Creek; 320 linear feet	3.8 mi ²	3.79 mi	Marsh Creek	1.21 mi	0.54 mi ²	57.5 (QHEI); WWH	Commercial, Residential
16	41°39'17"N 81°24'21"W	Chagrin River; 281 linear feet	264 mi ²	47.9 mi	Lake Erie	3.1 mi	16.3 mi ²	56 (QHEI); WWH	Metro Park, Wetlands, Commercial

Table B. 404/401 Application: Wetlands Affected by the Proposed Project for the Minimal Degradation Alternative.

Wetland No.	USGS Coordinate	Drainage Basin	Wetland Description	Cowardin et al., 1979 Classification	ORAM v5.0 Score	OEPA Category	Total Size (Area Impacted)	Adjacent Habitats	Proximity to Other Surface Waters
4/5	41°39'48"N 81°22'52"W	Chagrin River	Low quality and non-native emergent species; Green Ash-Silver Maple component	Emergent/Forested Wetland	36/29	Modified Category 2/Category 1	0.02 ac	Residential, State Route 2	Adjacent to Stream 12
7	41°39'15"N 81°24'28"W	Chagrin River	Giant Reed and Black Willow Wetland	Emergent/Scrub-Shrub Wetland	27	Category 1	1.92 ac	Chagrin River Metro Park, Chagrin River Riparian Corridor, State Route 2	Within 200 feet of Chagrin River
11	41°41'10"N 81°20'16"W	Marsh Creek	Giant Reed-Cattail Marsh	Emergent Wetland	22	Category 1	0.01 ac	Commercial, State Route 2	Tributary of Marsh Creek flows through Wetland 11
12	41°39'10"N 81°24'33"W	Chagrin River	Giant Reed-Purple Loosestrife Marsh	Emergent Wetland	24	Category 1	1.41 ac	Surrounded by State Route 2 and St. Clair Street	Within 100 feet of Chagrin River
21	41°41'34"N 81°19'37"W	Marsh Creek	Giant Reed Marsh	Emergent Wetland	6	Category 1	0.12	Commercial and State Route 2	Adjacent to Stream 6
30	41°38'12"N 81°26'16"W	Unnamed Stream	Mixed Emergent Marsh	Emergent Wetland	7	Category 1	0.05	Commercial and State Route 91	Adjacent to roadside ditch that flows into unnamed stream

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

A. STREAMS

Stream No./Name	Approx. Station (Sta.) Location	Proposed Structure or Action	Existing Channel Disturbed Due to Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection ⁽¹⁾						Existing Channel Disturbed Due to Temporary Crossing		
			Length of Channel Disturbed (linear feet)	Excavation Below OHW		Fill Below OHW		Length of Channel Disturbed	Excavation / Fill Below OHW		
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)		Volume (yd ³)	Area (yd ²)	
1/Unnamed Stream	Sta. 794+63	Replace existing 58"x91" culvert with a 12'x6' box culvert	70	40	315	15	315	N/A	N/A	N/A	N/A
2/Unnamed Stream	Sta. 308+66.09	Reline existing 15' and 10' corrugated metal pipe with 11' and 8' smooth lined pipe	40	N/A	N/A	20	70	N/A	N/A	N/A	N/A
3/Unnamed Stream	Heisley Road Interchange, Ramp B Sta. 361+50 to Sta. 370+00 and State Route 2 Sta. 776+30 to Sta. 776+90 (south)	Re-grading of Heisley Road ramp unnamed stream	907	1,235	4,275	2,045	4,275	N/A	N/A	N/A	N/A
4/Tributary of Wasson Ditch	Sta. 755+00 to Sta. 775+00 (North)	Re-grading of Heisley Road Interchange, Ramp A and Ramp D, and parallel Tributary of Wasson Ditch	1,050	350	1,050	N/A	N/A	N/A	N/A	N/A	N/A
5/Tributary of Heisley Creek	Sta. 701+08	Replace existing 48"x76" pipe culvert with 8'x5' Existing 16'x7' reinforced concrete slab structure to be patched and waterproofed	33	N/A	N/A	20	50	N/A	N/A	N/A	N/A
6/Marsh Creek	Sta. 646+04		65	N/A	N/A	55	165	N/A	N/A	N/A	N/A

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

A. STREAMS

Stream No./Name	Approx. Station (Sta.) Location	Proposed Structure or Action	Existing Channel Disturbed Due to Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection [1]				Existing Channel Disturbed Due to Temporary Crossing			
			Length of Channel Disturbed (linear feet)	Excavation Below OHW		Fill Below OHW		Length of Channel Disturbed	Excavation / Fill Below OHW	
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)		Volume (yd ³)	Area (yd ²)
8/Unnamed Stream	Sta. 524+97.8	Replace existing twin 48" pipe culverts with 58"x91" reinforced concrete elliptical pipe	70	N/A	N/A	20	95	N/A	N/A	N/A
9/Unnamed Stream	Sta. 548+21	Existing 12'x10' reinforced concrete slab structure to be patched and waterproofed	120	N/A	N/A	75	225	N/A	N/A	N/A
10/Newell Creek	Sta. 501+81	Widen existing prestressed I-beam, simple span bridge	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12/Tributary of Chagrin River	S.R. 2, Sta. 395+00 to Sta. 451+00 (right); Sta. 451+00 to Sta. 459+00 (left); S.R. 306 Ramp I, Sta. 59+00 to Sta. 68+75; Lost Nation Road Ramp B (entire limits); and Lost nation Road, Sta. 50+54	Replace existing 96" reinforced concrete pipe with 77"x121" reinforced concrete elliptical pipe under Lost Nation Road; Additional impacts at median drain outlets	161	N/A	N/A	240	265	N/A	N/A	N/A
13/Tributary of Chagrin River	Sta. 345+16	Replace existing 42" reinforced concrete pipe with 42" reinforced concrete pipe	85	N/A	N/A	150	100	N/A	N/A	N/A

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

A. STREAMS

Stream No./Name	Approx. Station (Sta.) Location	Proposed Structure or Action	Existing Channel Disturbed Due to Highway Fill, Channel Change or Channel Protection ⁽¹⁾				Existing Channel Disturbed Due to Temporary Crossing			
			Length of Channel Disturbed (linear feet)	Excavation Below OHW		Fill Below OHW		Length of Channel Disturbed	Excavation / Fill Below OHW	
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)		Volume (yd ³)	Area (yd ²)
14/Wasson Ditch	Sta. 738+57	Replace existing 72" reinforced concrete pipe and 15" reinforced concrete pipe with 84" reinforced concrete pipe	105	N/A	N/A	155	200	N/A	N/A	N/A
15/Heisley Creek	Sta. 717+65	Replace existing 3-span reinforced concrete slab bridge with single span steel beam with concrete deck structure	320	N/A	N/A	975	1,830	N/A	N/A	N/A
16/Chagrin River	Sta. 381+16	Widen existing 3-span steel beam with reinforced concrete deck bridge and construct a new 37' (out-to-out) wide 3-span steel beam with reinforced concrete deck bridge for Ramp D; relocate existing sanitary sewer	281	N/A	N/A	515	515	20	444	333

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

B. WETLANDS

Feature	Location	Description	Total Area Impacted (acres)	Proposed Action	Direct Impacts (within construction limits)			Indirect Impact Area (outside construction limits)
					Volume Excavated (yd ³)	Volume Filled (yd ³)	Area Excavated and/or Filled (ft ²)	
Wetland 4/5	S.R. 2, Sta. 454+00, 160 ft Lt. to S.R. 306 ramp I, Sta. 70+50, 100 ft Lt.	Modified Category 2 Forested/Emergent Wetland	0.02	Sideslope and ditch grading	15	0	870	0
Wetland 7	S.R. 2, Sta. 359+75 to Sta. 379+50, 100 ft Lt.	Category 1 Emergent/Scrub-Shrub Wetland	1.92	Sideslope and ditch grading; Storm sewer and retaining wall construction	400	27,023	83,635	0
Wetland 11	S.R. 615 Ramp B, Sta. 0+50 to Sta. 11+00 (S.R. 2 Sta. 614+50), 60 ft Rt.	Category 1 Emergent Wetland	0.01	Sideslope and ditch grading	15	0	435	0
Wetland 12	S.R. 2, Sta. 359+80 to Sta. 378+75, 80 ft Rt.	Category 1 Emergent Wetland	1.41	Sideslope and ditch grading, and storm sewer construction	1,944	5,222	61,420	0
Wetland 21	S.R. 2, Sta. 645+90 to Sta. 647+90, 120 ft Rt.	Category 1 Emergent Wetland	0.12	Sideslope and ditch grading, and culvert construction	208	0	5,227	0
Wetland 30	Som Center Rd. (S.R. 91), Sta. 27+50 (S.R. 2, Sta. 308+00), 390 ft Rt.	Category 1 Emergent Wetland	0.05	Sideslope grading	50	50	2178	0

C. WHOLE PROJECT SUMMARY OF ACTIVITIES

Total Project Linear Stream Disturbances	Total Project Excavation						Total Project Fill							
	Total Length Disturbed due to Proposed Structures, Highway Fill, Channel Change or Channel Protection	Length Disturbed due to Temporary Crossing	Net Length Disturbed ⁽²⁾	Stream Excavated		Wetland Excavated		Total Excavation		Stream Filled (standard roadfill, channel protection, temp crossing & other materials)	Wetland Filled		Total Filled	
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)		Volume (yd ³)	Area (yd ²)		
3,547	20	3,567	1,625	5,640	2,632	59,903	4,157	65,543	4,429	10,228	32,295	102,434	37,264	112,662

Table D. 404/401 Application: Proposed Lowering of Water Quality by the Preferred, Minimal, and Non-Degradation Alternatives.

Alternative	Expected Impacts by Alternative							
	Direct Stream Impacts	Aquatic Hab. (QHEI/HHEI)/Use Designation/Stream Flow	Aquatic Biota	T & E Species ^[1]	Terrestrial Plant/Animals (Riparian Area)	Wetlands	Summary for Alternative	
Preferred	<p>Primarily short-term construction impacts (increased erosion and sedimentation); Overall, no long-term impacts to water quality are expected.</p> <p>Total Stream Impacts: 5,141 linear feet Temporary Fill: 0.440 acres Permanent Fill: 2.465 acres</p>	<p>Stream 1/56 (HHEI)/Intermittent Stream 2/64 (HHEI)/Intermittent Stream 3/45 (HHEI)/Intermittent Stream 4/50 (HHEI)/Intermittent Stream 5/64 (HHEI)/Intermittent Stream 6/64.25 (QHEI)/Perennial Stream 8/14 (HHEI)/Intermittent Stream 9/78 (HHEI)/Intermittent Stream 10/24 (HHEI)/Intermittent Stream 12/69 (HHEI)/Intermittent Stream 13/51 (HHEI)/Intermittent Stream 14/56 (HHEI)/Intermittent Stream 15/57.5 (QHEI)/Perennial Stream 16/56 (QHEI)/Perennial Stream 17/62.25 (QHEI)/Perennial Stream 18/35 (HHEI)/Intermittent</p>	<p>The existing fish and macrobenthos are expected to be displaced, but not significantly affected within any stream. Examples of fish species include: largemouth bass (<i>Micropterus salmoides</i>), white suckers (<i>Catostomus commersoni</i>), smallmouth bass (<i>Micropterus dolomieu</i>), creek chub (<i>Semotilus atromaculatus</i>), sunfish (<i>Lepomis</i> sp.). Several examples of macrobenthos species include: <i>Hydropsyche</i> sp., <i>Argia</i> sp., <i>Gammarus</i> sp., <i>Chironomidae</i> sp., and <i>Hirudinea</i> sp.</p>	<p>No federal/state threatened or endangered species were identified in the project area. The range of the Indiana bat (<i>Myotis sodalis</i>), the piping plover (<i>Charadrius melanotos</i>), and the bald eagle (<i>Haliaeetus leucocephalus</i>) include Lake County. It is unlikely that any of these species will be adversely affected.</p>	<p>Very common plant, mammal, bird, and amphibian species. Examples of mammal, bird, and amphibian species include: white-tailed deer (<i>Odocoileus virginianus</i>), raccoon (<i>Procyon lotor</i>), European starling (<i>Sturnus vulgaris</i>), Northern cardinal (<i>Cardinalis cardinalis</i>), and green frog (<i>Rana clamitans</i>). Examples of plant species include: silver maple (<i>Acer saccharinum</i>), chicory (<i>Cichorium intybus</i>), tall fescue (<i>Festuca elatior</i>), common reed (<i>Phragmites australis</i>), and Kentucky bluegrass (<i>Poa pratensis</i>). These species are expected to be displaced, but not significantly affected.</p>	<p>Non-Isolated Total Impact: 4.55 acres 3.81 acres of impact for non-forested Category 1 wetlands; 0.65 acres of impact for forested Category 2 wetlands <u>Isolated</u> Total Impact: 0.12 acres 0.07 acres of impact for non-forested Category 1 wetlands; 0.05 acres of impact for forested Category 1 wetlands</p>	<p>No permanent impacts to sensitive habitats, T&E species, terrestrial species, or aquatic biota. Siltation resulting from the construction activities may reduce species diversity and abundance during construction and shortly afterwards. However, it is unlikely that construction activities will result in the permanent loss of any aquatic species. The project may require the cutting of several trees that possess Indiana bat roosting potential.</p>	

Table D. 404/401 Application: Proposed Lowering of Water Quality by the Preferred, Minimal, and Non-Degradation Alternatives.

Alternative	Expected Impacts by Alternative							Summary for Alternative
	Direct Stream Impacts	Aquatic Hab. (QHEI/HHEI)/Use Designation/Stream Flow	Aquatic Biota	T & E Species ^[1]	Terrestrial Plant/Animals (Riparian Area)	Wetlands		
Minimal Degradation	Primarily short-term construction impacts (increased erosion and sedimentation); Overall, no long-term impacts to water quality are expected. Total Stream Impacts: 3,547 linear feet Temporary Fill: 0.439 acres Permanent Fill: 1.927 acres	Stream 1/56 (HHEI)/Intermittent Stream 2/64 (HHEI)/Intermittent Stream 3/45 (HHEI)/Intermittent Stream 4/50 (HHEI)/Intermittent Stream 5/64 (HHEI)/Intermittent Stream 6/64.25 (QHEI)/Perennial Stream 8/14 (HHEI)/Intermittent Stream 9/78 (HHEI)/Intermittent Stream 10/24 (HHEI)/Intermittent Stream 12/69 (HHEI)/Intermittent Stream 13/51 (HHEI)/Intermittent Stream 14/56 (HHEI)/Intermittent Stream 15/57.5 (QHEI)/Perennial Stream 16/56 (QHEI)/Perennial	The existing fish and macrobenthos are expected to be displaced, but not significantly affected within any stream. Examples of fish species include: largemouth bass (Micropterus salmoides), white suckers (Catostomus commersoni), smallmouth bass (Micropterus dolomieu), creek chub (Semotilus atromaculatus), sunfish (Lepomis sp.). Several examples of macrobenthos species include: Hydropsyche sp., Argia sp., Gammarus sp., Chironomidae sp., and Hirudinea sp.	No federal/state threatened or endangered species were identified in the project area. The range of the Indiana bat (Myotis sodalis), the piping plover (Charadrius melodus), and the bald eagle (Haliaeetus leucocephalus) include Lake County. It is unlikely that any of these species will be adversely affected.	Very common plant, mammal, bird, reptile, and amphibian species. Examples of mammal, bird, and amphibian species include: white-tailed deer (Odocoileus virginianus), raccoon (Procyon lotor), European starling (Sturnus vulgaris), Northern cardinal (Cardinalis cardinalis), and green frog (Rana clamitans). Examples of plant species include: silver maple (Acer saccharinum), chicory (Cichorium intybus), tall fescue (Festuca elatior), common reed (Phragmites australis), and Kentucky bluegrass (Poa pratensis). These species are expected to be displaced, but not significantly affected within any stream.	<u>Non-Isolated</u> Total Impact: 3.53 acres 3.51 acres of impact for non-forested Category 1 wetlands; 0.02 acres of impact for forested Category 2 wetlands <u>Isolated</u> Total Impact: 0.02 acres 0.01 acres of impact for non-forested Category 1 wetlands; 0.01 acres of impact for forested Category 1 wetlands	No permanent impacts to sensitive habitats, T&E species, or terrestrial species, or aquatic biota. Siltation resulting from the construction activities may reduce species diversity and abundance during construction and shortly afterwards. However, it is unlikely that construction activities will result in the permanent loss of any aquatic species. The project may require the cutting of several trees that possess Indiana bat roosting potential.	
Non-Degradation	None	No impacts as current structures are in place (culverts, bridges, etc.)	None	None	None	None	No impacts for this alternative.	

[1] Impact footprint of the Preferred Alternative includes areas upstream and/or downstream of proposed structures where energy and erosion control components (channel protection) are required to achieve pre-construction stream velocity, water surface elevation and channel stability conditions; no impact to stream flow patterns are expected.

Table E. 404/401 Application; Proposed Stream Mitigation for the Preferred and Minimal Degradation Alternatives.
LAK-2-3.32; PID 13486 October 2007

Stream Name	Impacted Length	Type of Mitigation ¹	Watershed (8 Digit HUC)		QHEI Score	HHEI Score	Mitigated Length ¹	
			Impacted	Mitigated ¹			On-site	Off-site
Stream 1	65 linear feet (Preferred Alternative); 70 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	56	N/A	N/A
Stream 2	50 linear feet (Preferred Alternative); 40 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	64	N/A	N/A
Stream 3	907 linear feet (Preferred Alternative); 907 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	45	N/A	N/A
Stream 4	1,960 linear feet (Preferred Alternative); 1,050 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	50	N/A	N/A
Stream 5	50 linear feet (Preferred Alternative); 33 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	64	N/A	N/A
Stream 6	129 linear feet (Preferred Alternative); 65 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	64.25	N/A	N/A	N/A
Stream 8	61 linear feet (Preferred Alternative); 70 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	14	N/A	N/A
Stream 9	125 linear feet (Preferred Alternative); 120 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	78	N/A	N/A
Stream 10	240 linear feet (Preferred Alternative); 240 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	24	N/A	N/A
Stream 12	161 linear feet (Preferred Alternative); 161 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	69	N/A	N/A
Stream 13	108 linear feet (Preferred Alternative); 85 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	51	N/A	N/A
Stream 14	150 linear feet (Preferred Alternative); 105 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	56	N/A	N/A
Stream 15	320 linear feet (Preferred Alternative); 320 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	57.5	N/A	N/A	N/A
Stream 16	285 linear feet (Preferred Alternative); 281 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	56	N/A	N/A	N/A
Stream 17	80 linear feet (Preferred Alternative); No impact (Minimal Degradation Alternative)	N/A	04110004	N/A	64.25	N/A	N/A	N/A
Stream 18	450 linear feet (Preferred Alternative); No impact (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	35	N/A	N/A

¹ODOT has proposed two stream mitigation projects to mitigate for the impacts off-site – the Gully Brook Property and the purchase of a conservation easement in the Grand River watershed.

Table F. 404/401 Application: Proposed Wetland Mitigation for the Preferred and Minimal Degradation Alternatives.
LAK-2-3.32; PID 13486 September 2007

Wetland No.	Impacted Area	Type of Wetland (Isolated/Non-Isolated)	Watershed (8 Digit HUC)		ORAM v5.0 Score	OEPA Category	Mitigated Area	
			Impacted	Mitigated ¹			On-site	Off-site ¹
3	0.03 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Isolated	04110003	N/A	22	Category 1	N/A	N/A
4/5	0.06 acres (Preferred Alternative); 0.02 acres (Minimal Degradation)	Non-Isolated	04110003	N/A	38/29	Modified Category 2/ Category 1	N/A	0.04
7	1.92 acres (Preferred Alternative); 1.92 acres (Minimal Degradation Alternatives)	Non-Isolated	04110003	N/A	27	Category 1	N/A	2.88
11	0.15 acres (Preferred Alternative); 0.01 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	22	Category 1	N/A	0.02
12	1.47 acres (Preferred Alternative); 1.41 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	24	Category 1	N/A	2.12
13	0.07 acres (Preferred Alternative); 0.01 acres (Minimal Degradation Alternative)	Isolated	04110003	N/A	17	Category 1	N/A	0.02
17/18	0.06 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	33/43	Modified Category 2	N/A	N/A
19	0.01 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Isolated	04110003	N/A	23	Category 1	N/A	N/A
20	0.01 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Isolated	04110003	N/A	24	Category 1	N/A	N/A
21	0.17 acres (Preferred Alternative); 0.12 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	6	Category 1	N/A	0.18
23	0.65 (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Non-Isolated	04110004	N/A	36	Modified Category 2	N/A	N/A
30	0.07 acres (Preferred Alternative); 0.05 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	7	Category 1	N/A	0.08

¹ The acreages are for the minimal degradation alternative only.

Table G. 404/401 Application: Impacts and Avoidance Estimations.

Resource	Acres/Feet Impacted (Alt)	Total Resource (acres/miles)	Volume of Fill (CY)	% Avoided
Stream 1	0.061 acres/65 linear feet (Preferred Alternative) 0.065 acres/70 linear feet (Minimal Degradation Alternative)	2.28 miles	51 CY (Preferred Alternative) 55 CY (Minimal Degradation Alternative)	99.42% (Preferred Alternative) 99.40% (Minimal Degradation Alternative)
Stream 2	0.018 acres/50 linear feet (Preferred Alternative) 0.014 acres/40 linear feet (Minimal Degradation Alternative)	0.93 miles	25 CY (Preferred Alternative) 70 CY (Minimal Degradation Alternative)	98.98% (Preferred Alternative) 99.10% (Minimal Degradation Alternative)
Stream 3	0.883 acres/907 linear feet (Preferred Alternative) 0.883 acres/907 linear feet (Minimal Degradation Alternative)	0.63 miles	2,045 CY (Preferred Alternative) 2,045 CY (Minimal Degradation Alternative)	72.73% (Preferred Alternative) 72.70% (Minimal Degradation Alternative)
Stream 4	0.405 acres/1,960 linear feet (Preferred Alternative) 0.217 acres/1,050 linear feet (Minimal Degradation Alternative)	0.75 miles	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	50.51% (Preferred Alternative) 73.50% (Minimal Degradation Alternative)
Stream 5	0.016 acres/50 linear feet (Preferred Alternative) 0.010 acres/33 linear feet (Minimal Degradation Alternative)	0.40 miles	30 CY (Preferred Alternative) 20 CY (Minimal Degradation Alternative)	97.63% (Preferred Alternative) 98.50% (Minimal Degradation Alternative)
Stream 6	0.034 acres/129 linear feet (Preferred Alternative) 0.034 acres/65 linear feet (Minimal Degradation Alternative)	5 miles	55 CY (Preferred Alternative) 55 CY (Minimal Degradation Alternative)	99.51% (Preferred Alternative) >99.99% (Minimal Degradation Alternative)
Stream 8	0.017 acres/61 linear feet (Preferred Alternative) 0.020 acres/70 linear feet (Minimal Degradation Alternative)	0.69 miles	17 CY (Preferred Alternative) 20 CY (Minimal Degradation Alternative)	98.33% (Preferred Alternative) 99.98% (Minimal Degradation Alternative)
Stream 9	0.049 acres/125 linear feet (Preferred Alternative) 0.046 acres/120 linear feet (Minimal Degradation Alternative)	2.05 miles	78 CY (Preferred Alternative) 75 CY (Minimal Degradation Alternative)	98.85% (Preferred Alternative) 98.88% (Minimal Degradation Alternative)
Stream 10	0.370 acres/240 linear feet (Preferred Alternative) 0.370 acres/240 linear feet (Minimal Degradation Alternative)	7.03 miles	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	99.35% (Preferred Alternative) 99.94% (Minimal Degradation Alternative)
Stream 12	0.069 acres/161 linear feet (Preferred Alternative) 0.055 acres/161 linear feet (Minimal Degradation Alternative)	1.79 miles	305 CY (Preferred Alternative) 240 CY (Minimal Degradation Alternative)	98.30% (Preferred Alternative) 98.30% (Minimal Degradation Alternative)
Stream 13	0.027 acres/108 linear feet (Preferred Alternative) 0.021 acres/85 linear feet (Minimal Degradation Alternative)	6.60 miles	190 CY (Preferred Alternative) 150 CY (Minimal Degradation Alternative)	99.69% (Preferred Alternative) 99.95% (Minimal Degradation Alternative)

Table G. 404/401 Application: Impacts and Avoidance Estimations.

Resource	Acres/Feet Impacted (Alt)	Total Resource (acres/miles)	Volume of Fill (CY)	% Avoided
Stream 14	0.059 acres/150 linear feet (Preferred Alternative) 0.041 acres/105 linear feet (Minimal Degradation Alternative)	3.35 miles	220 CY (Preferred Alternative) 155 CY (Minimal Degradation Alternative)	99.15% (Preferred Alternative) 99.40% (Minimal Degradation Alternative)
Stream 15	0.378 acres/320 linear feet (Preferred Alternative) 0.378 acres/320 linear feet (Minimal Degradation Alternative)	3.79 miles	975 CY (Preferred Alternative) 975 CY (Minimal Degradation Alternative)	98.40% (Preferred Alternative) 98.39% (Minimal Degradation Alternative)
Stream 16	0.178 acres/285 linear feet (Preferred Alternative) 0.175 acres/281 linear feet (Minimal Degradation Alternative)	47.9 miles	522 CY (Preferred Alternative) 515 CY (Minimal Degradation Alternative)	>99.99% (Preferred Alternative) >99.99% (Minimal Degradation Alternative)
Stream 17	0.056 acres/80 linear feet (Preferred Alternative) No Impact (Minimal Degradation Alternative)	2.40 miles	272 CY (Preferred Alternative) 170 CY (Minimal Degradation Alternative)	99.37% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Stream 18	0.341 acres/450 linear feet (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.56 miles	1,585 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	84.78% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 3	0.03 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.47 acres	24 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	93.62% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 4/5	0.06 acres (Preferred Alternative) 0.02 acres (Minimal Degradation Alternative)	1.48 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	95.95% (Preferred Alternative) 98.65% (Minimal Degradation Alternative)
Wetland 7	1.92 acres (Preferred Alternative) 1.92 acres (Minimal Degradation Alternative)	2.23 acres	27,023 CY (Preferred Alternative) 27,023 CY (Minimal Degradation Alternative)	13.99% (Preferred Alternative) 13.99% (Minimal Degradation Alternative)
Wetland 11	0.15 acres (Preferred Alternative) 0.01 acres (Minimal Degradation Alternative)	2.40 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	93.75% (Preferred Alternative) 99.58% (Minimal Degradation Alternative)
Wetland 12	1.47 acres (Preferred Alternative) 1.41 acres (Minimal Degradation Alternative)	1.64 acres	5,444 CY (Preferred Alternative) 5,222 CY (Minimal Degradation Alternative)	10.37% (Preferred Alternative) 14.02% (Minimal Degradation Alternative)
Wetland13	0.07 acres (Preferred Alternative) 0.01 acres (Minimal Degradation Alternative)	0.71 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	90.14% (Preferred Alternative) 98.59% (Minimal Degradation Alternative)

Table G. 404/401 Application: Impacts and Avoidance Estimations.

Resource	Acres/Feet Impacted (Alt)	Total Resource (acres/miles)	Volume of Fill (CY)	% Avoided
Wetland 17/18	0.06 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	8.69 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	99.31% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 19	0.01 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.07 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	85.71% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 20	0.01 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.12 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	91.67% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 21	0.17 acres (Preferred Alternative) 0.12 acres (Minimal Degradation Alternative)	0.20 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	15% (Preferred Alternative) 67.57% (Minimal Degradation Alternative)
Wetland 23	0.65 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.85 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	33.52% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 30	0.07 acres (Preferred Alternative) 0.05 acres (Minimal Degradation Alternative)	0.56 acres	114 CY (Preferred Alternative) 50 CY (Minimal Degradation Alternative)	87.5 % (Preferred Alternative) 91.07% (Minimal Degradation Alternative)

APPENDIX A: GENERAL MAPS AND DESIGN DRAWINGS

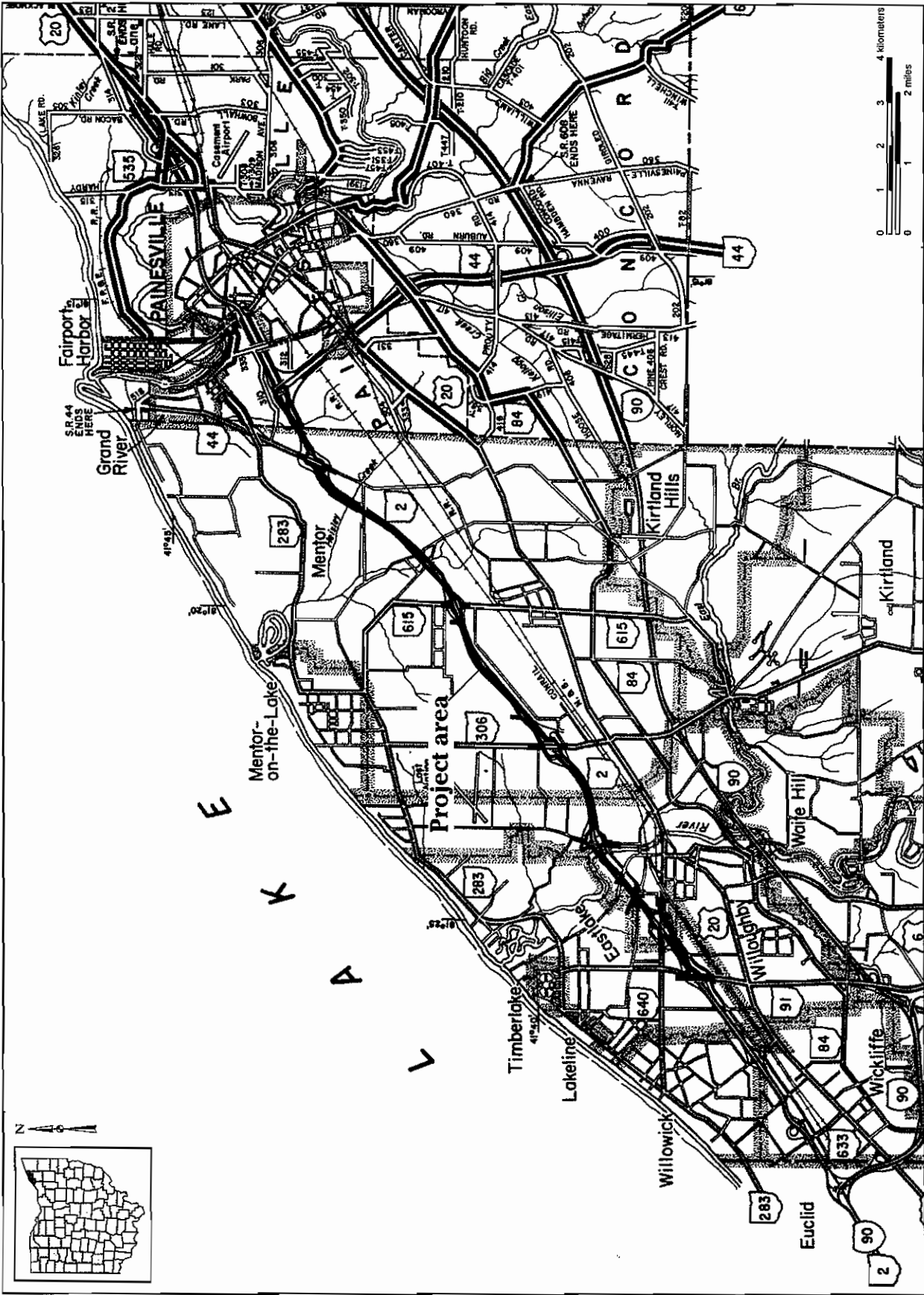


Figure 1. Project Vicinity Map.

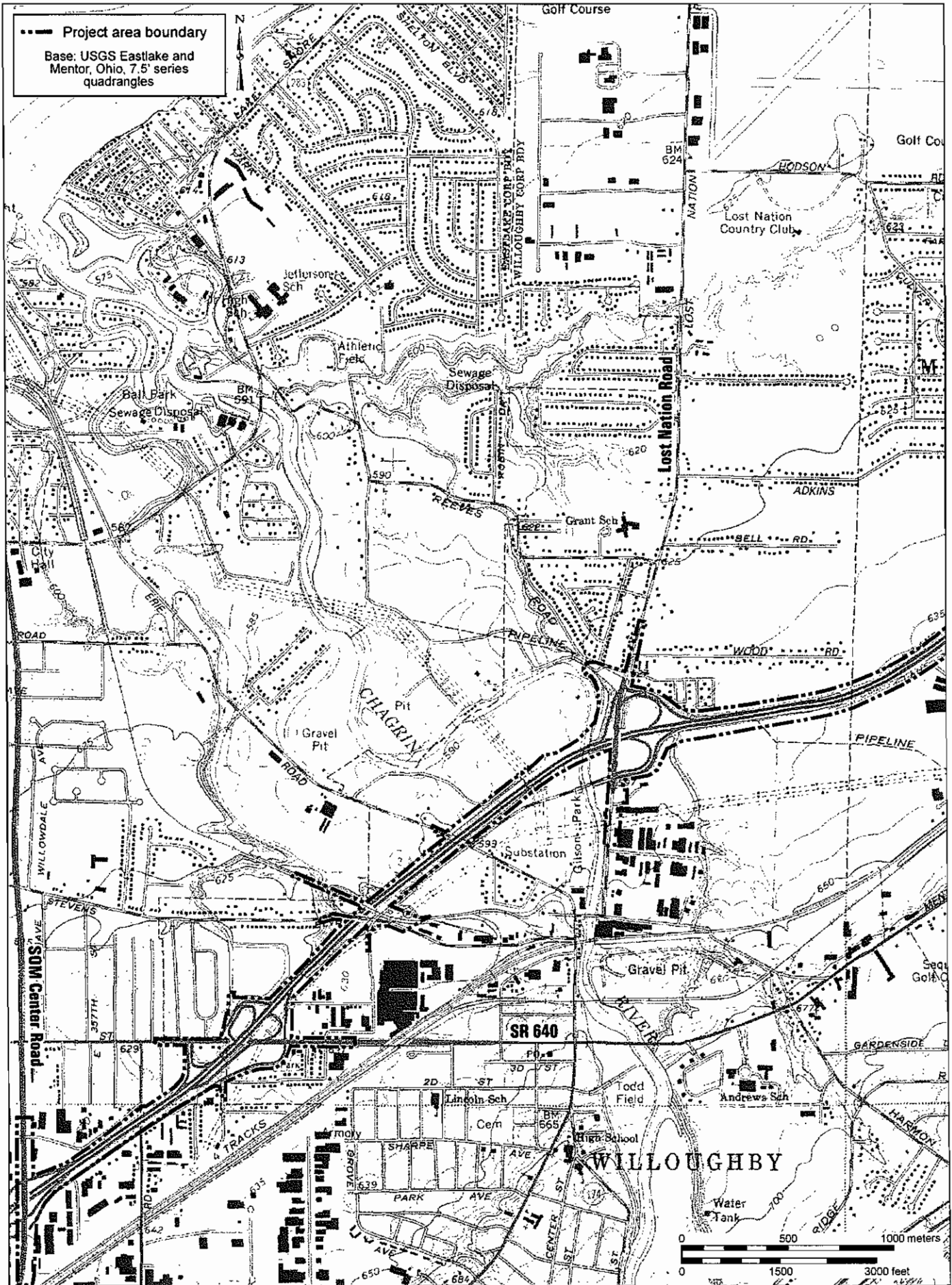


Figure 2. Project Location. (4 sheets)

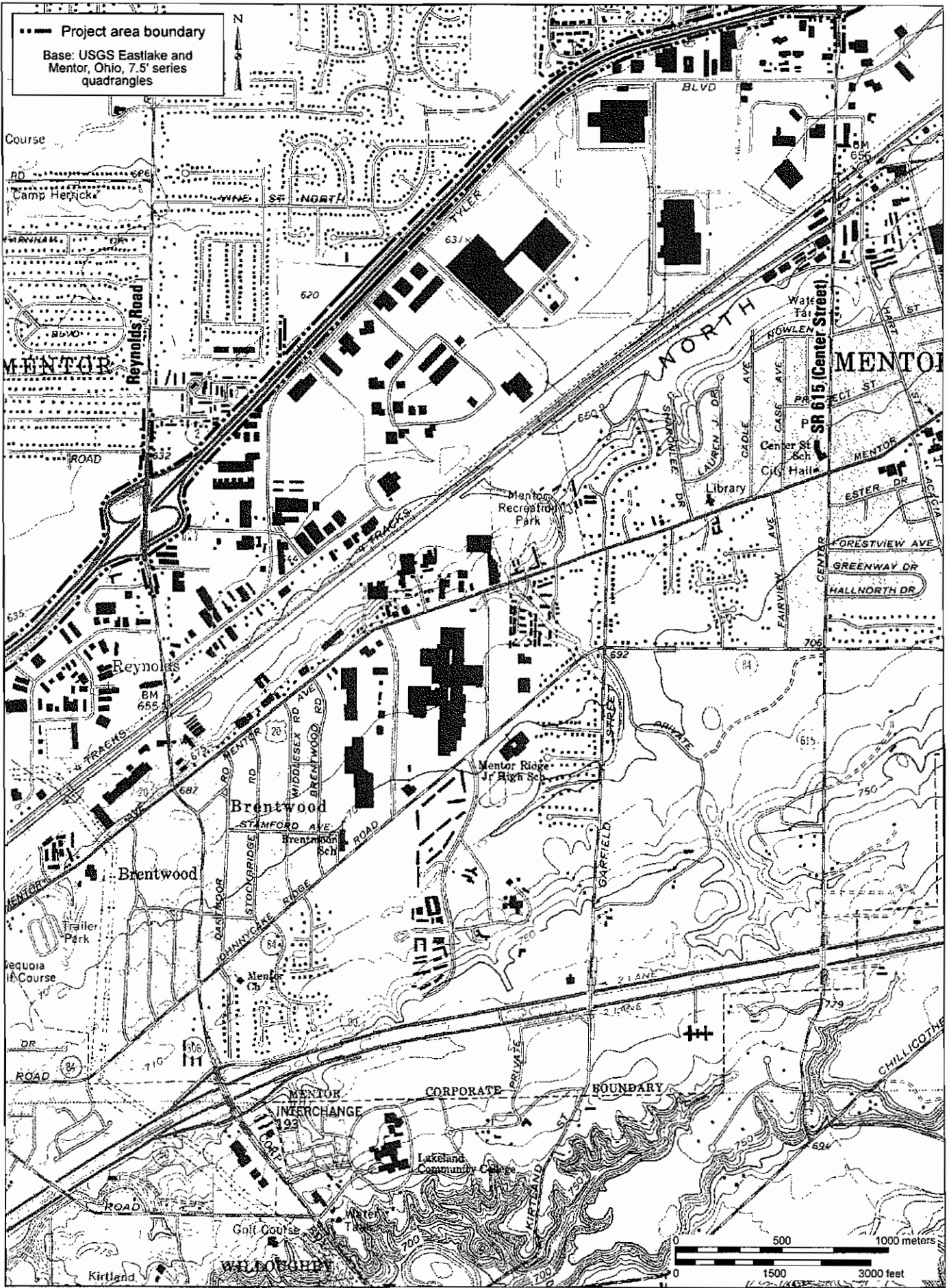


Figure 2. Project Location. (4 sheets)

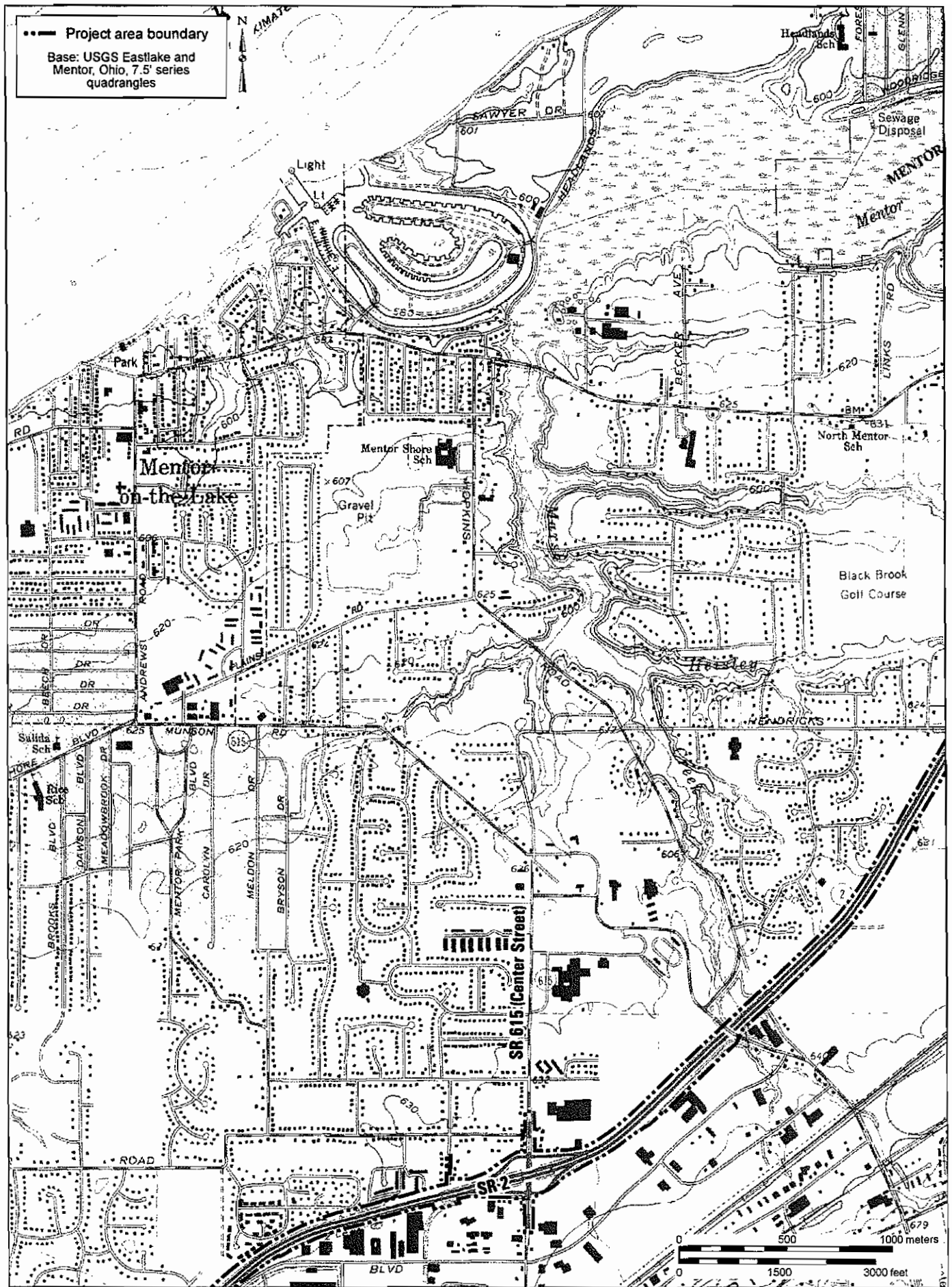


Figure 2 Project Location. (4 sheets)

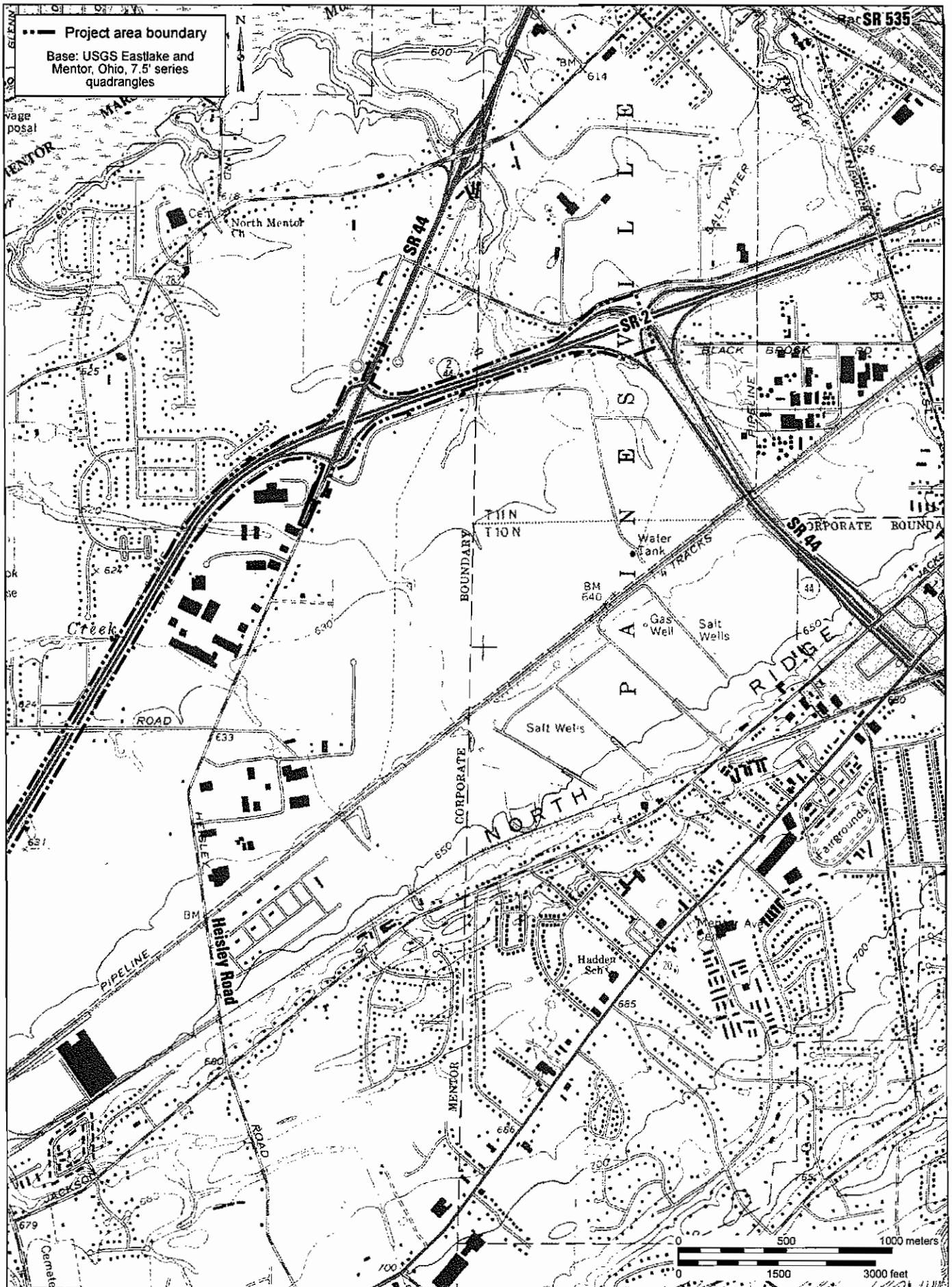


Figure 2 Project Location. (4 sheets)

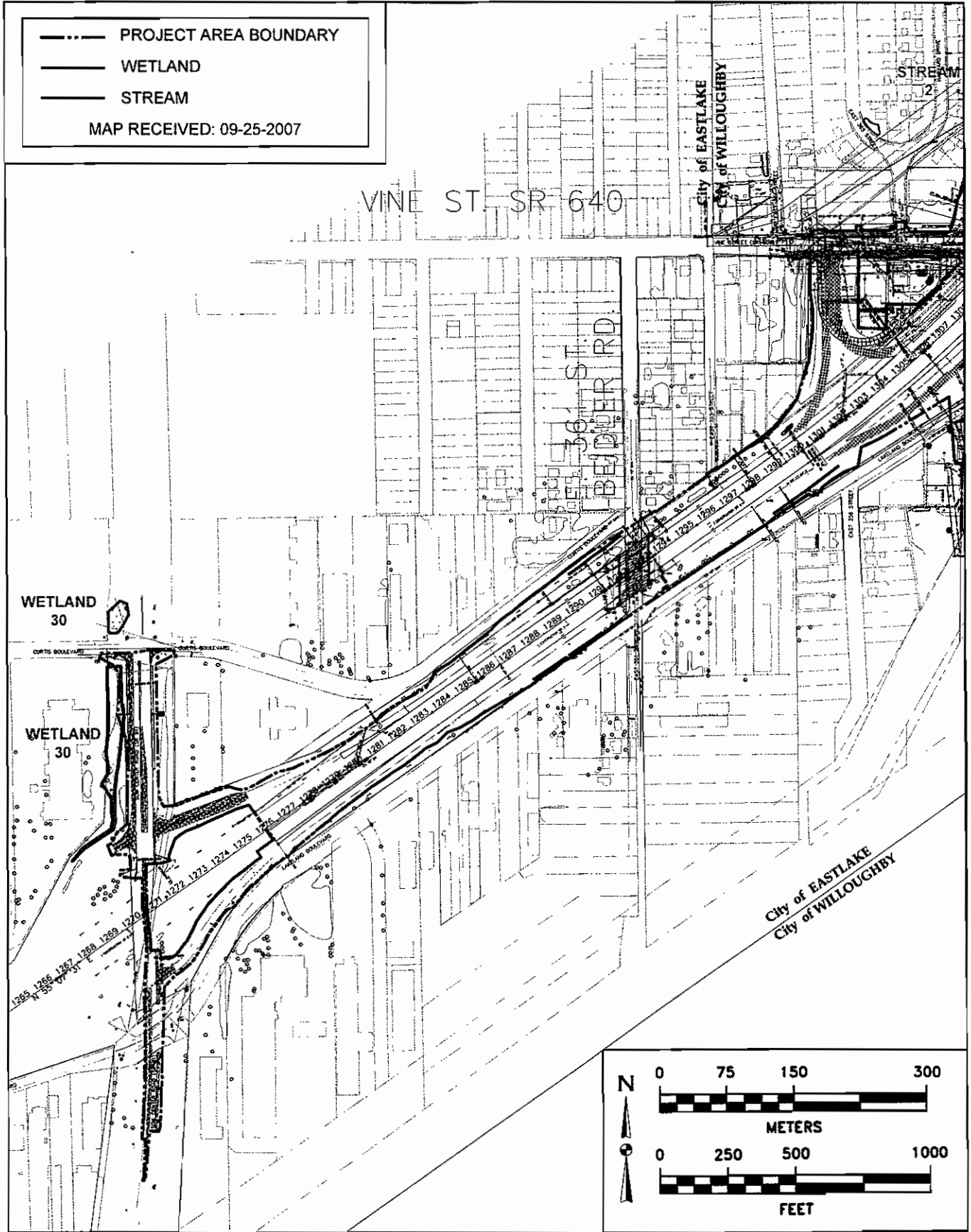


Figure 4. Minimum Degradation Alternative. (14 sheets)

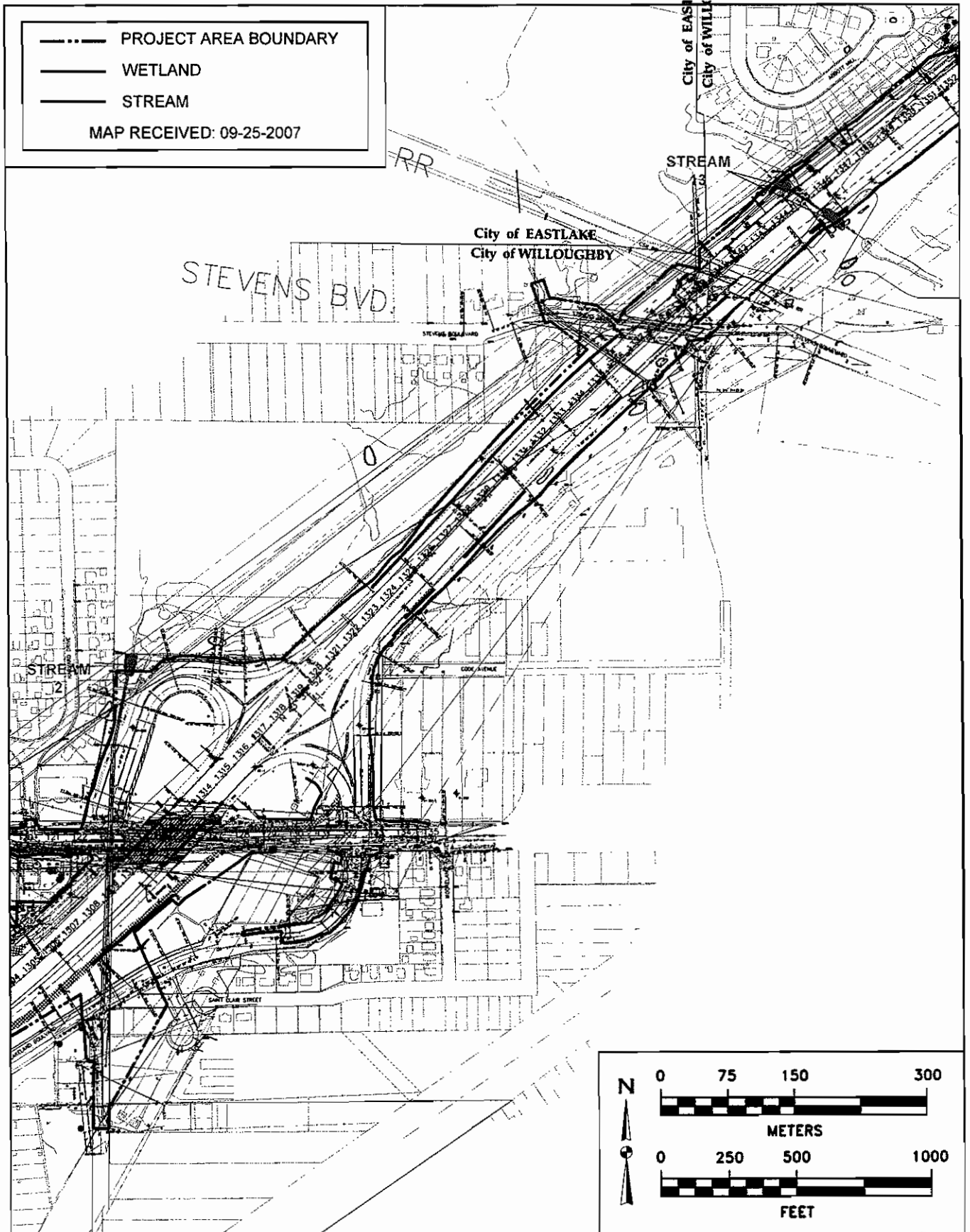


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 4
Sheet 2 of 14

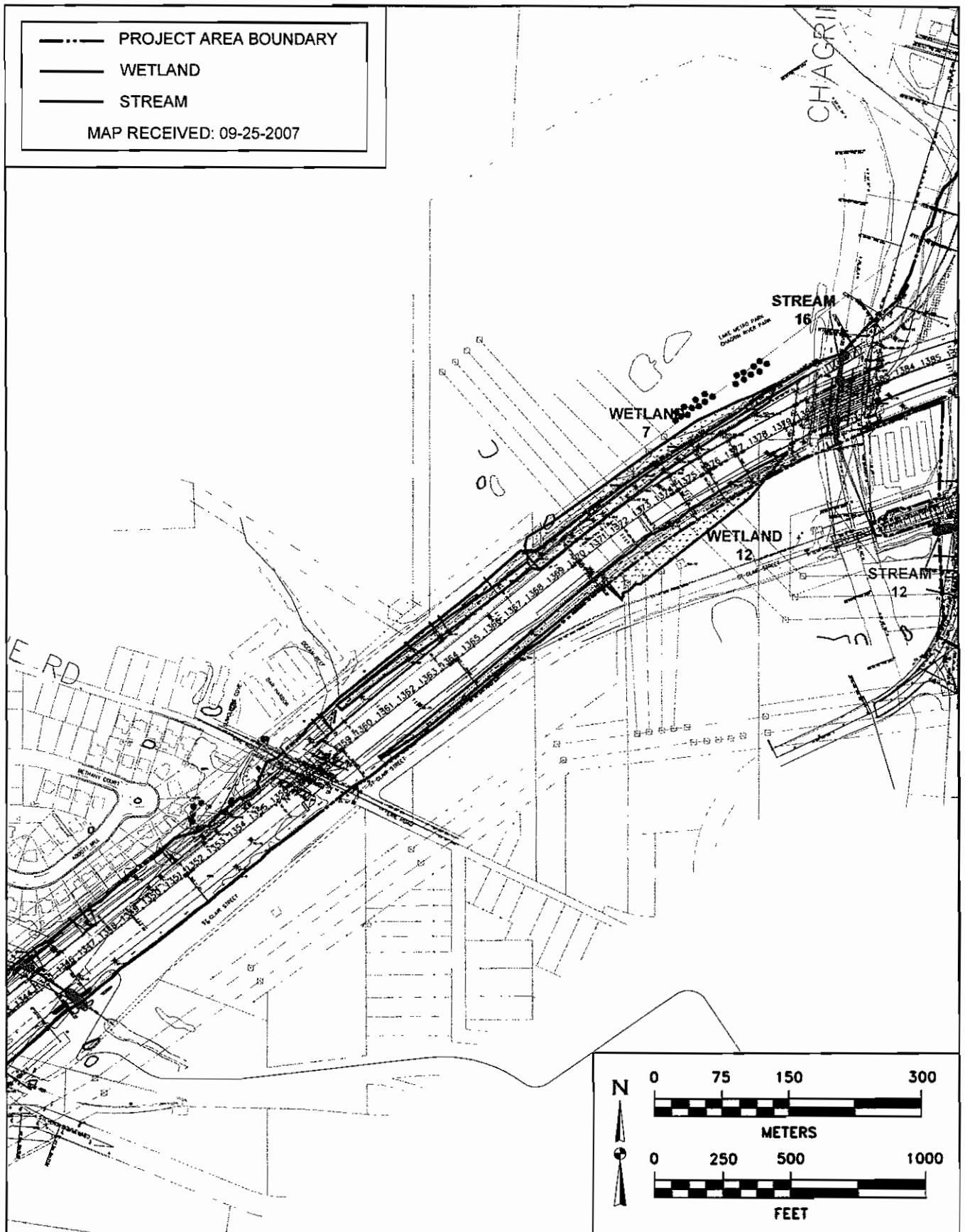


Figure 4. Minimum Degradation Alternative. (14 sheets)

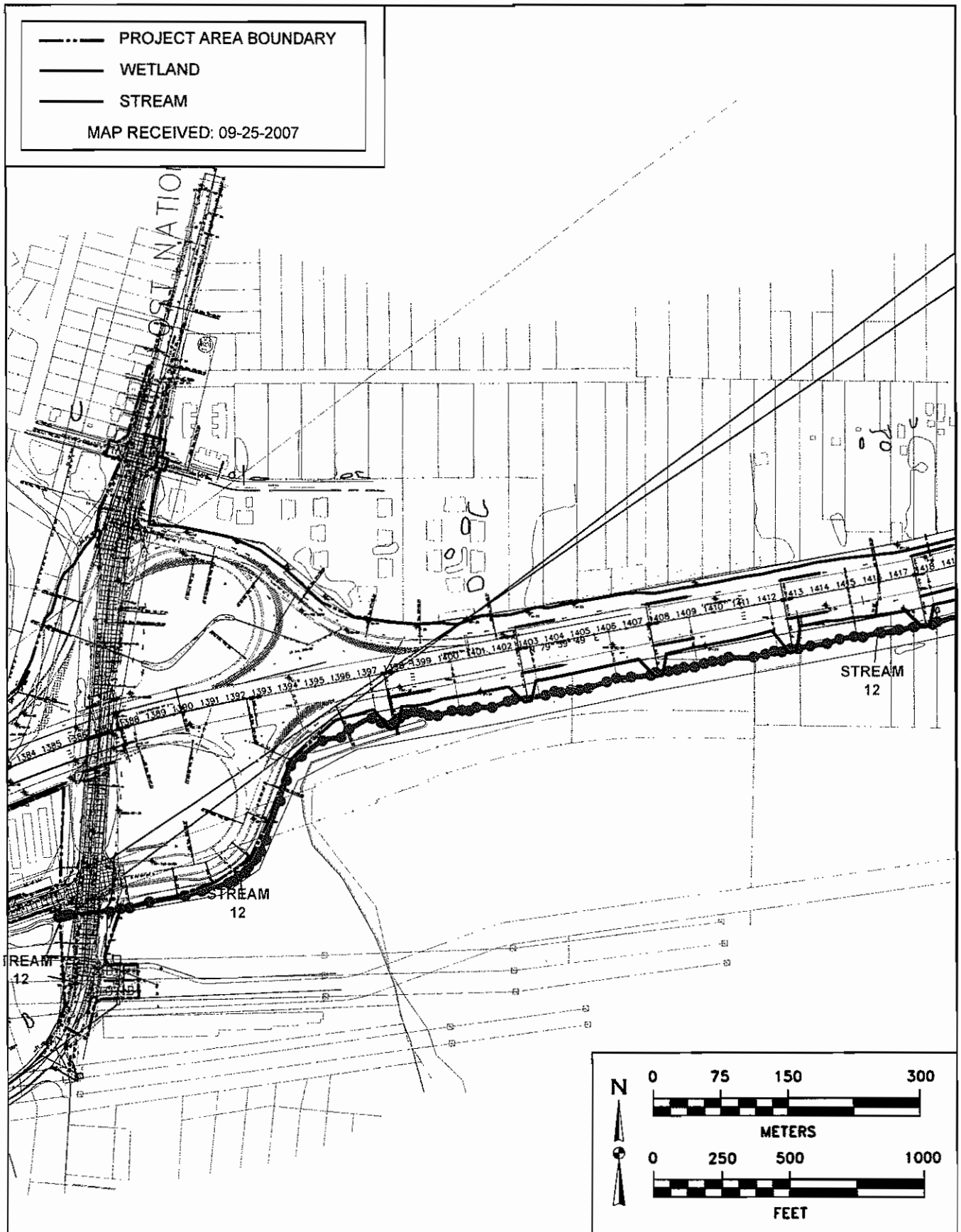


Figure 4. Minimum Degradation Alternative. (14 sheets)

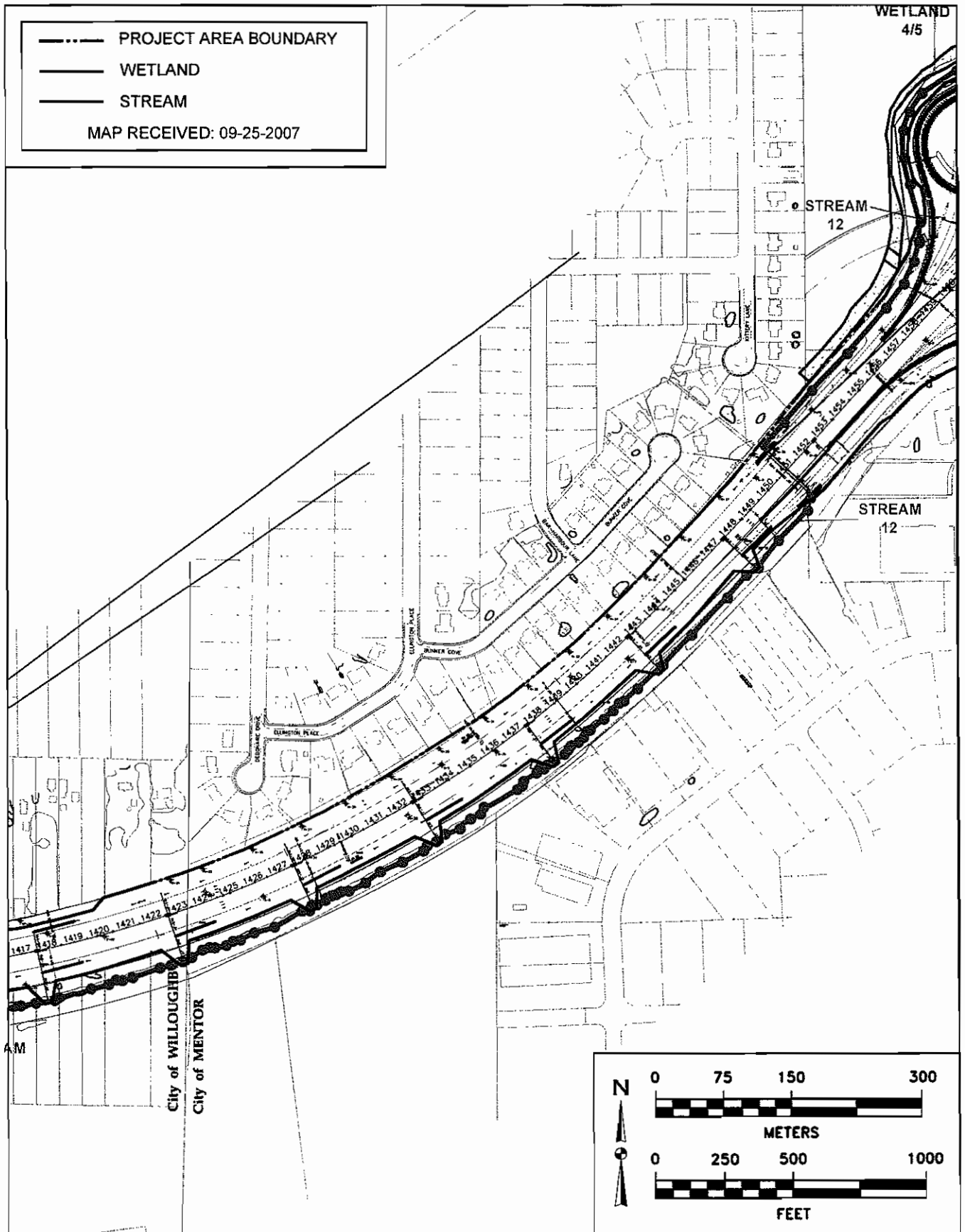


Figure 4. Minimum Degradation Alternative. (14 sheets)

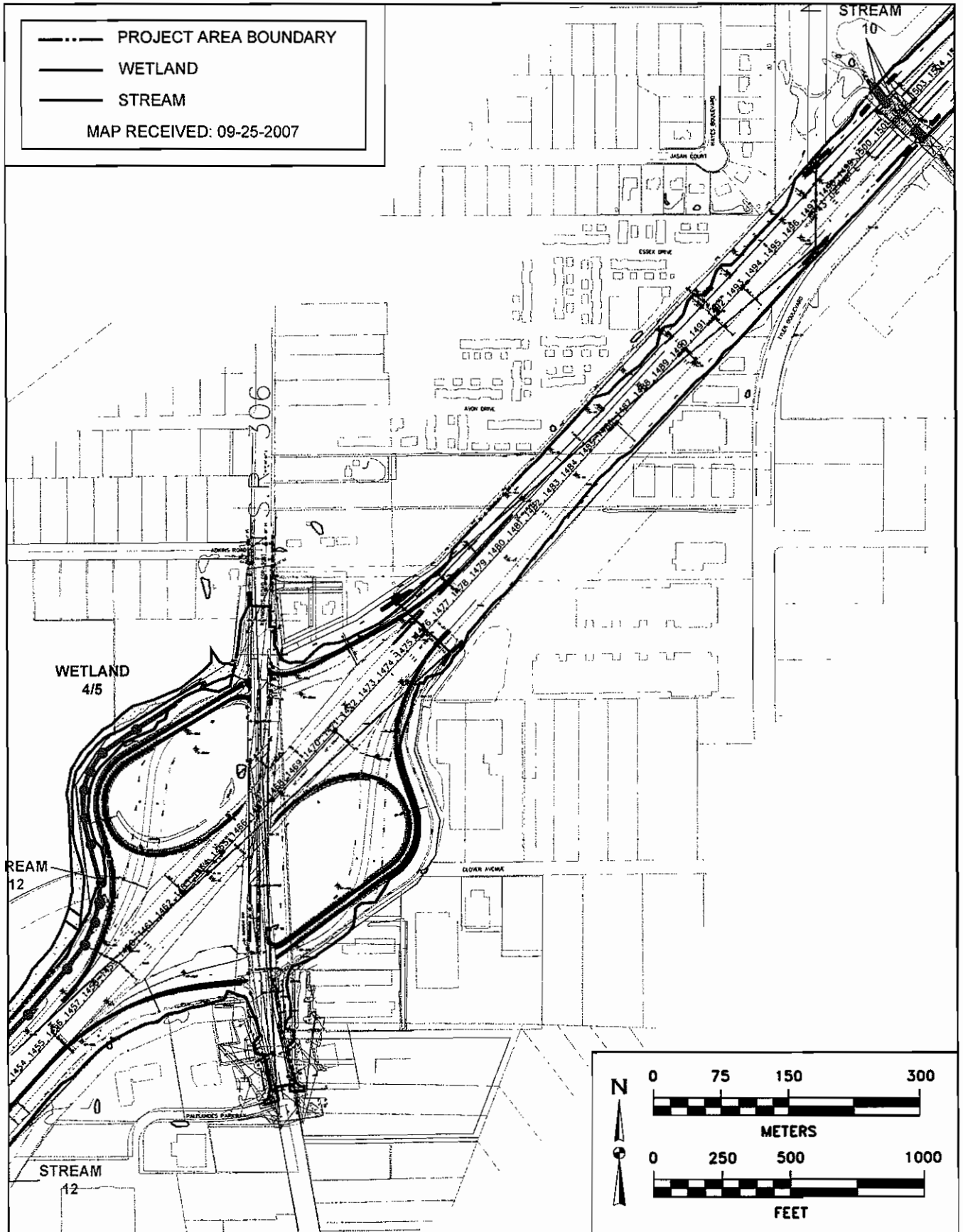


Figure 4. Minimum Degradation Alternative. (14 sheets)

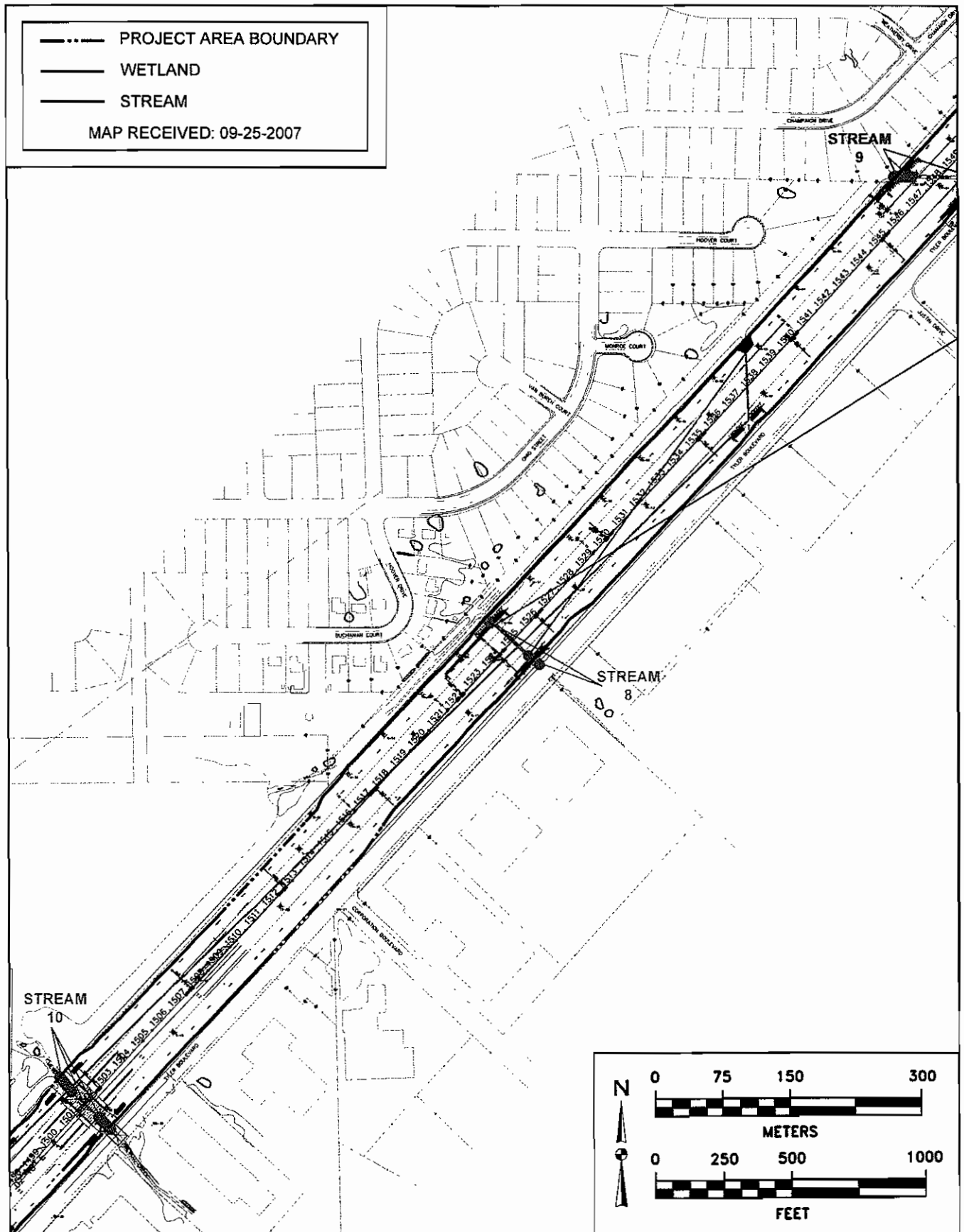


Figure 4. Minimum Degradation Alternative. (14 sheets)

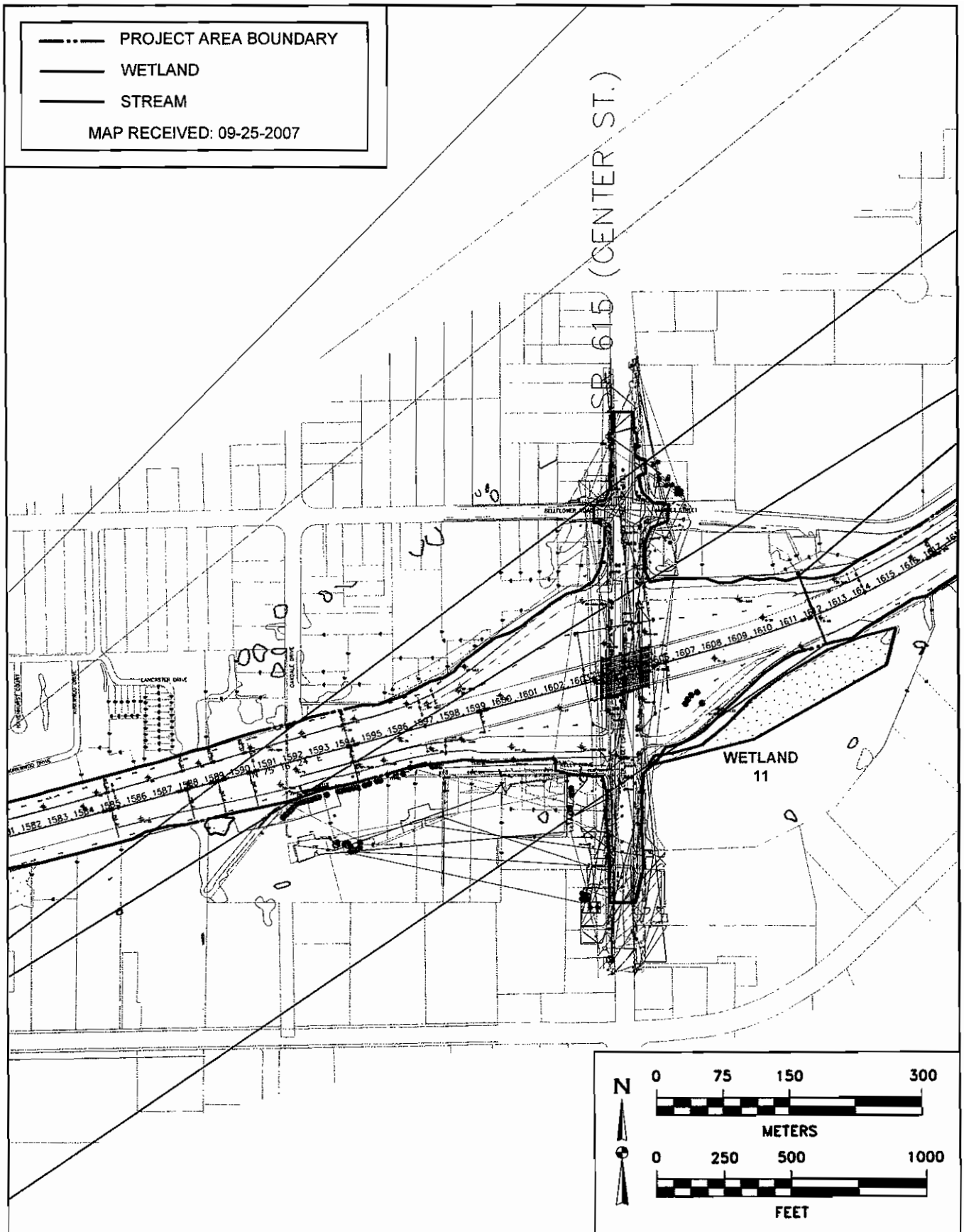


Figure 4. Minimum Degradation Alternative. (14 sheets)

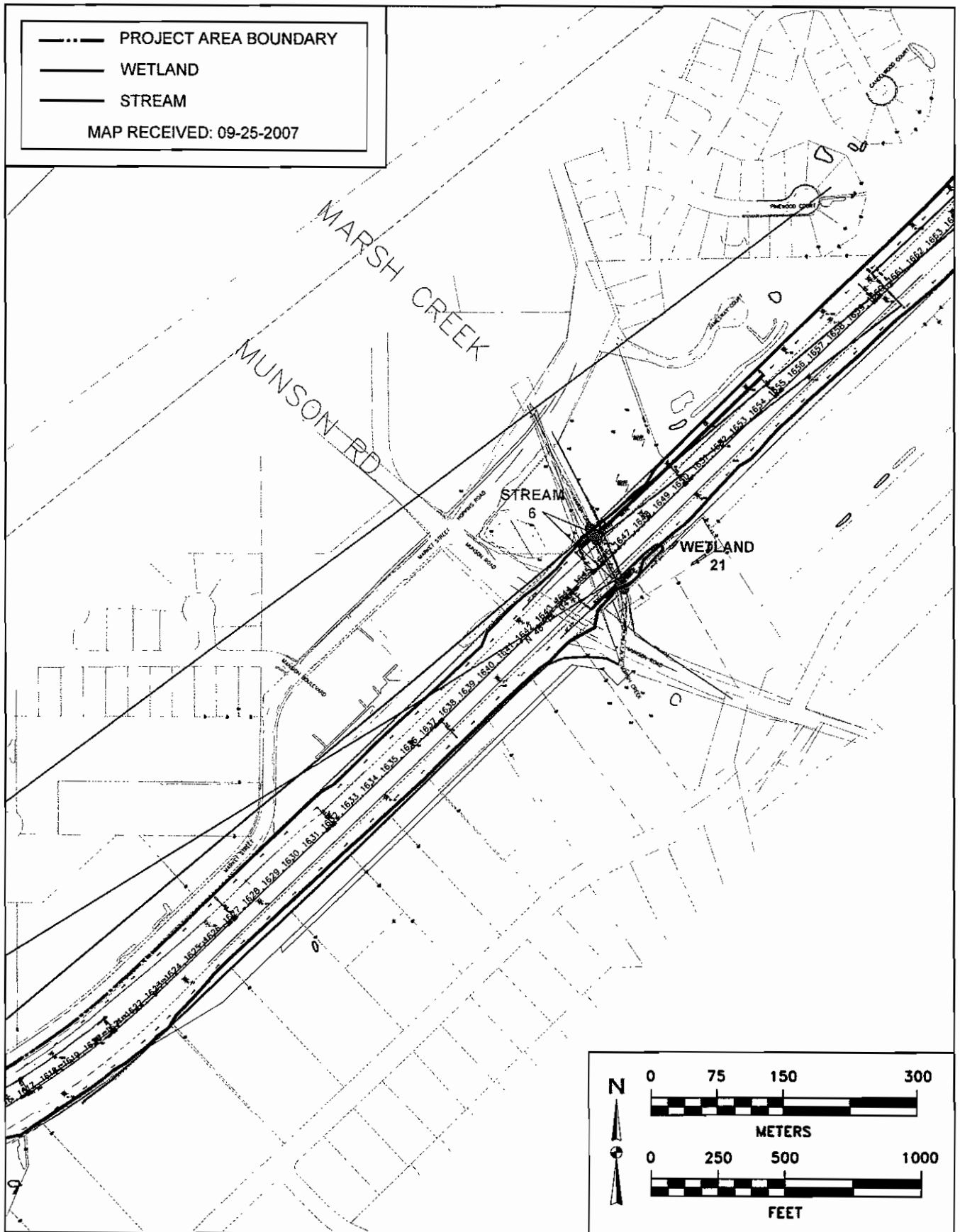


Figure 4. Minimum Degradation Alternative. (14 sheets)

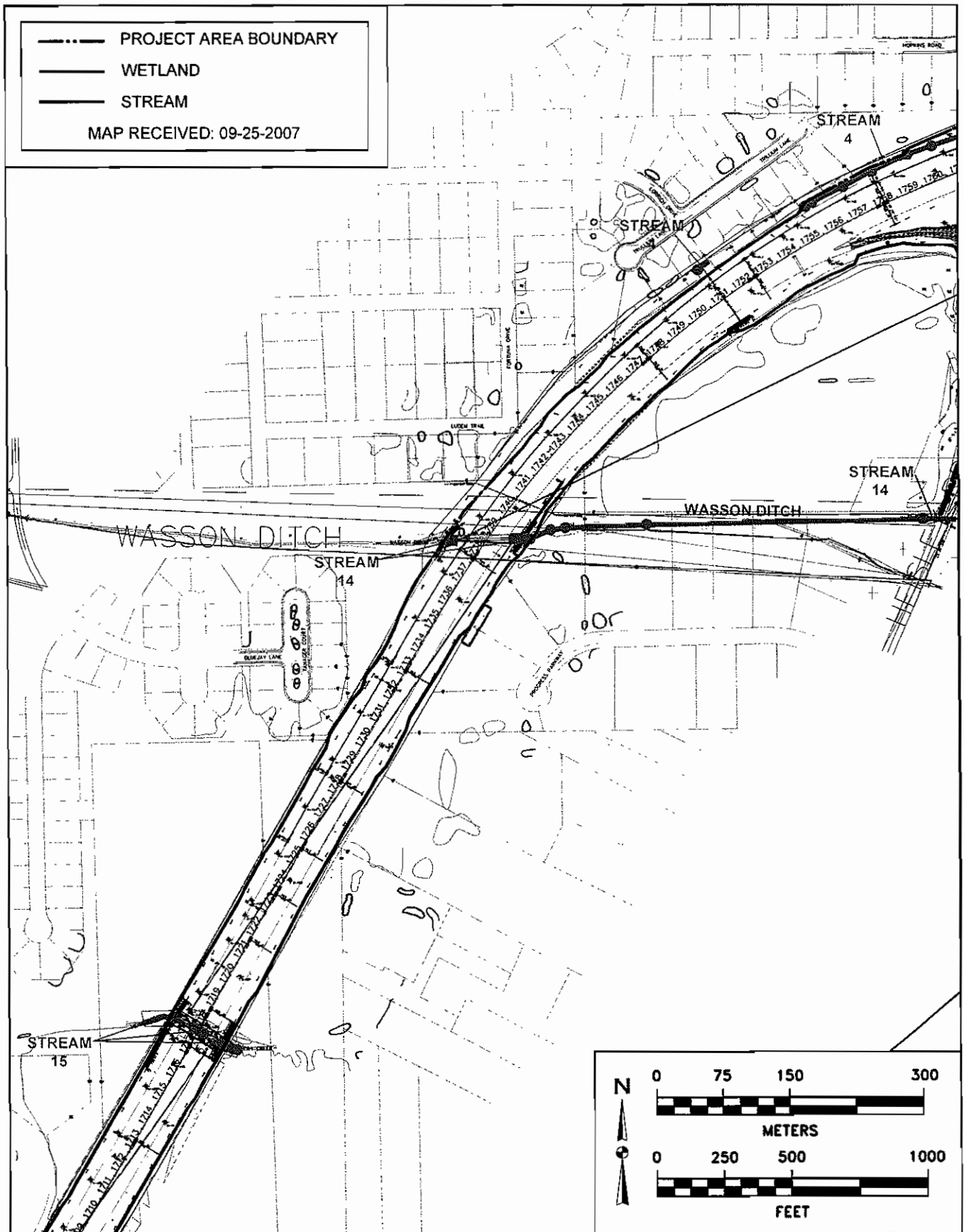


Figure 4. Minimum Degradation Alternative. (14 sheets)

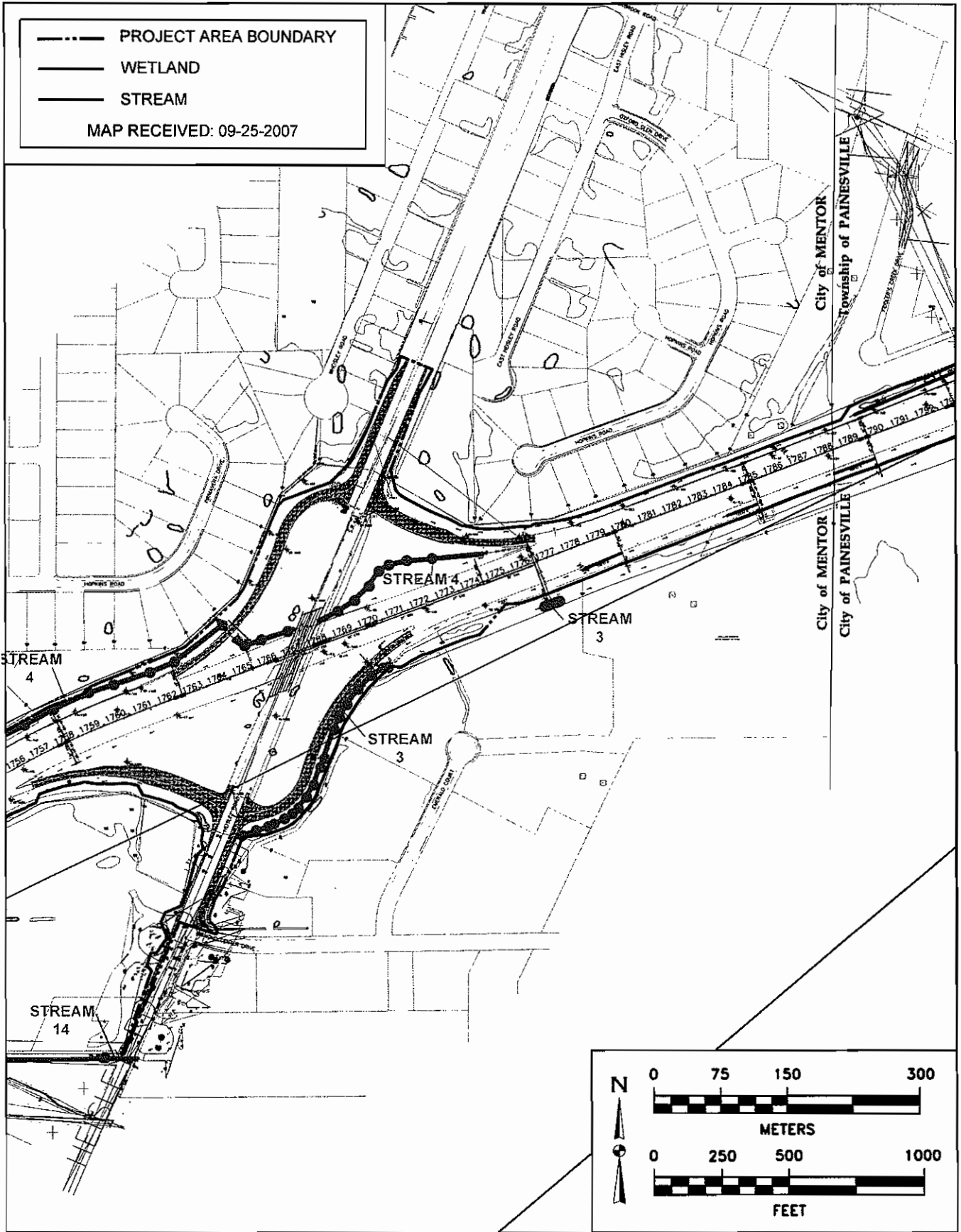
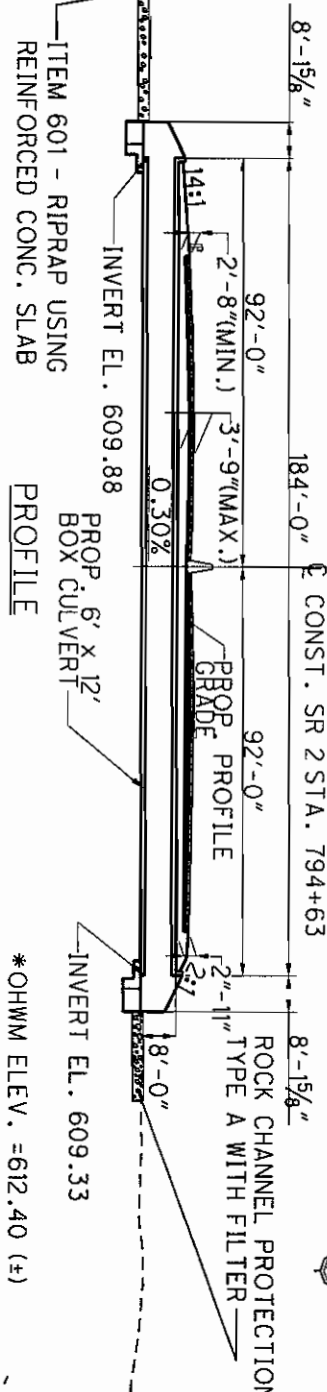
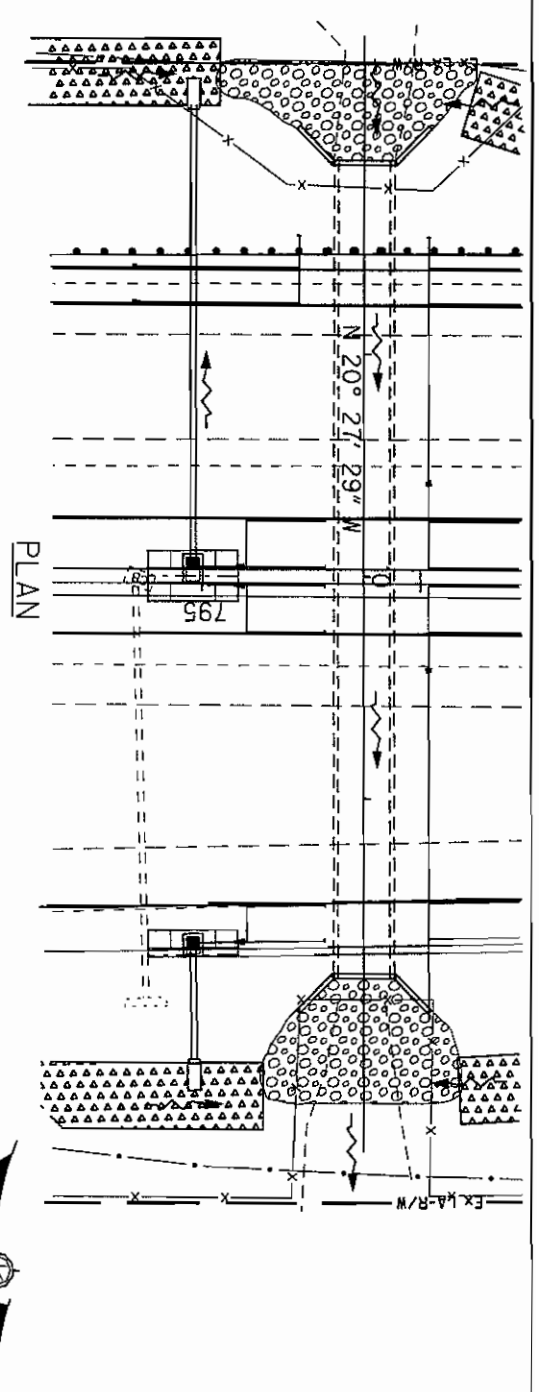


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 4
Sheet 13 of 14

Figure 6. Plan views of stream and wetland crossings.



630	PROP. I-3B, TYPE B1 STA. 793+10, 2.75' RT.	58"x91" RCP STA. 794+63 TO BE REMOVED	PROP. I-3B, TYPE B1 STA. 795+02, 2.75' RT.
620	PROP. I-3B, TYPE D STA. 793+10, 78.48' LT.		PROP. I-3B, TYPE D STA. 795+02, 82.25' LT.
610	EX. CB STA. 793+13, 0.8' LT. TO BE REMOVED		EX. CB STA. 795+13, 0.9' LT. TO BE REMOVED
600			PROP. 12' X 6' CONDUIT, TYPE A, STA. 794+62

CROSS SECTION

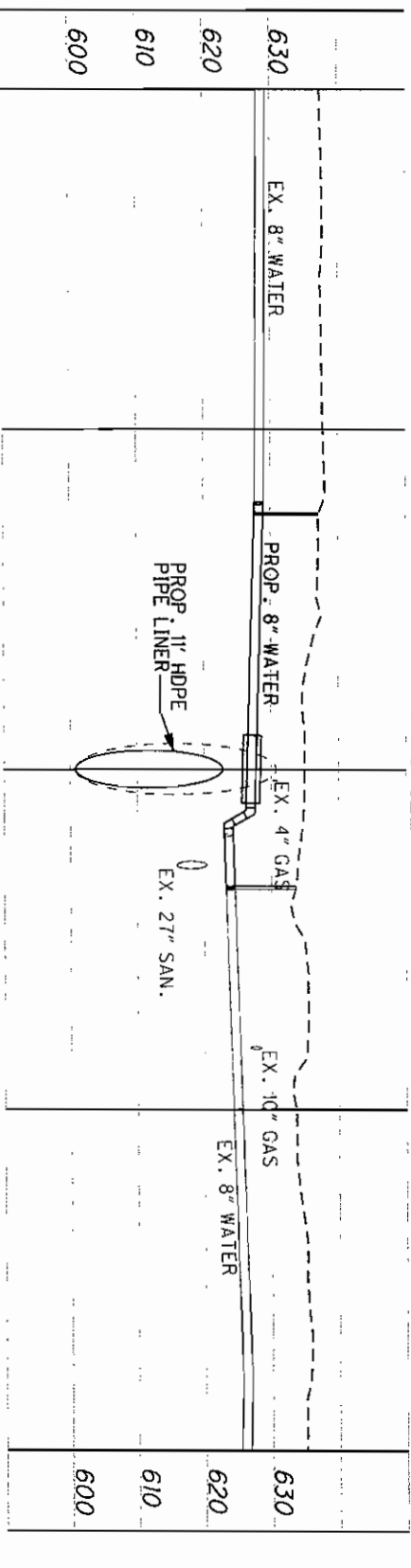
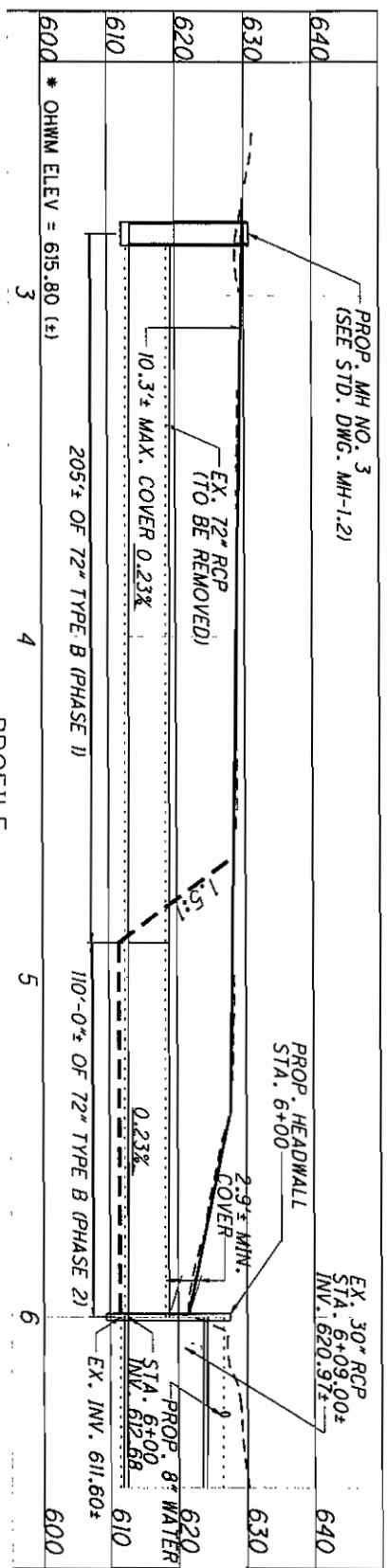
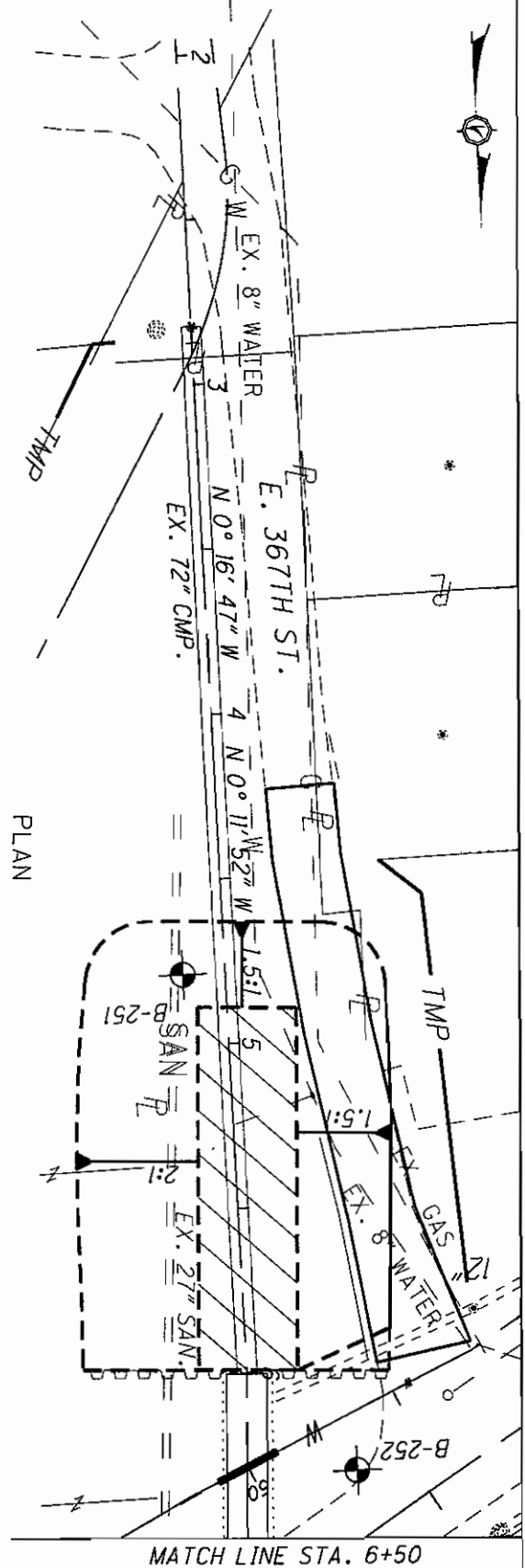
PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'

*OHWM ELEV. = 612.40 (±)



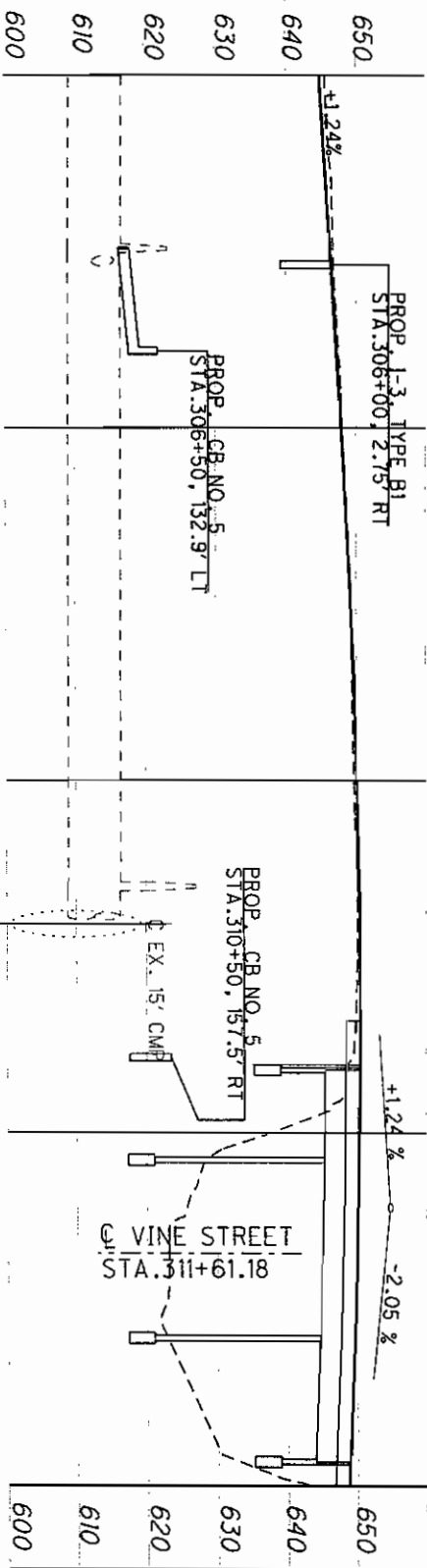
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 1
 UNNAMED STREAM
 STA. 794+63

PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'

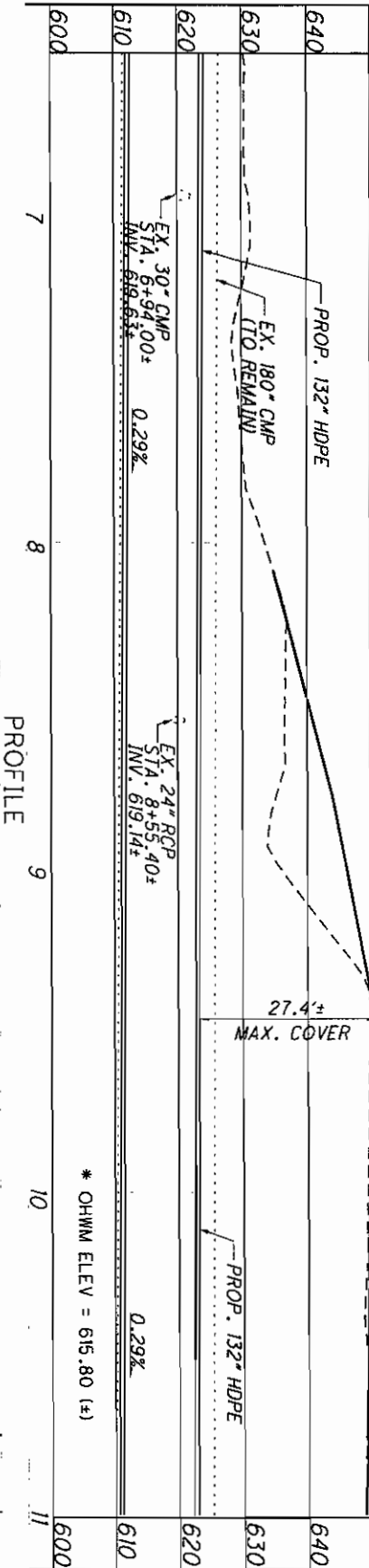


LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 2+00 TO STA. 6+50

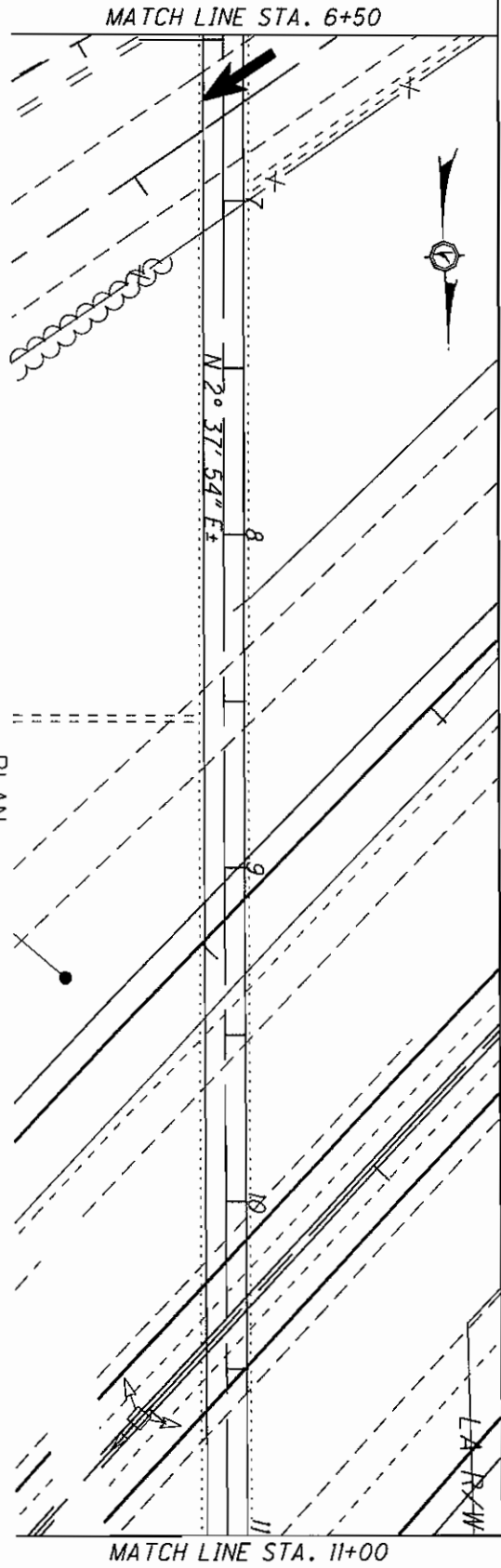
PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'



CROSS SECTION 1" SR 2)



PROFILE

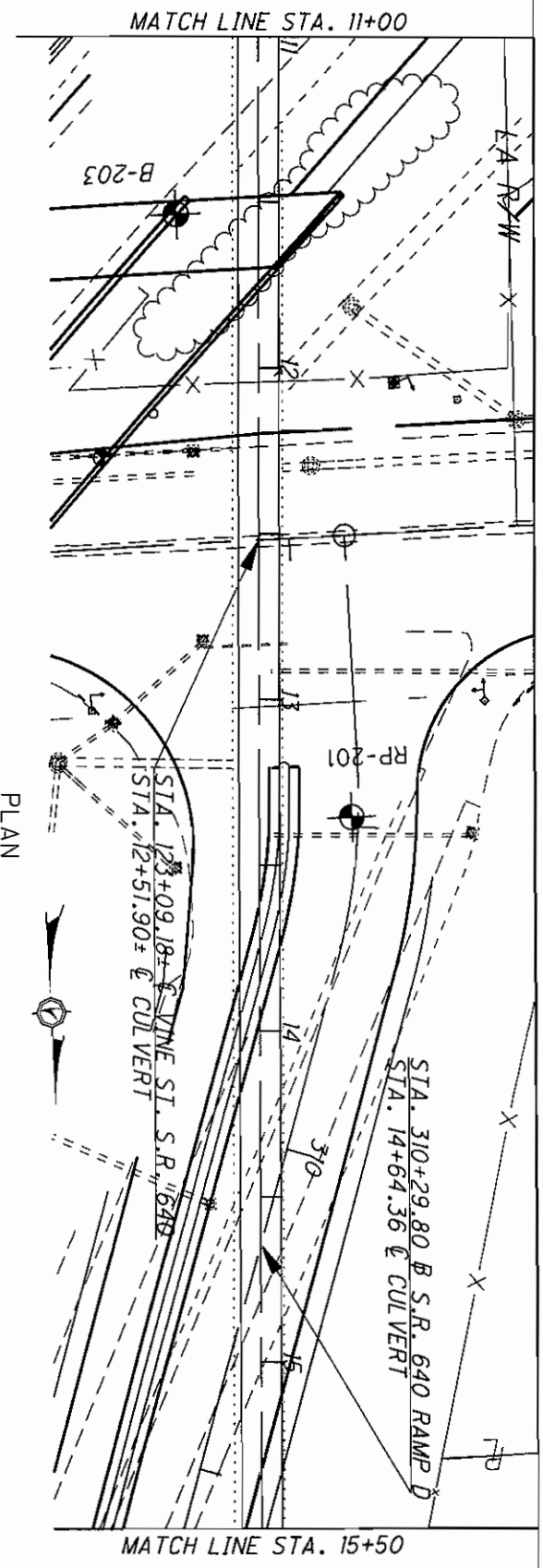
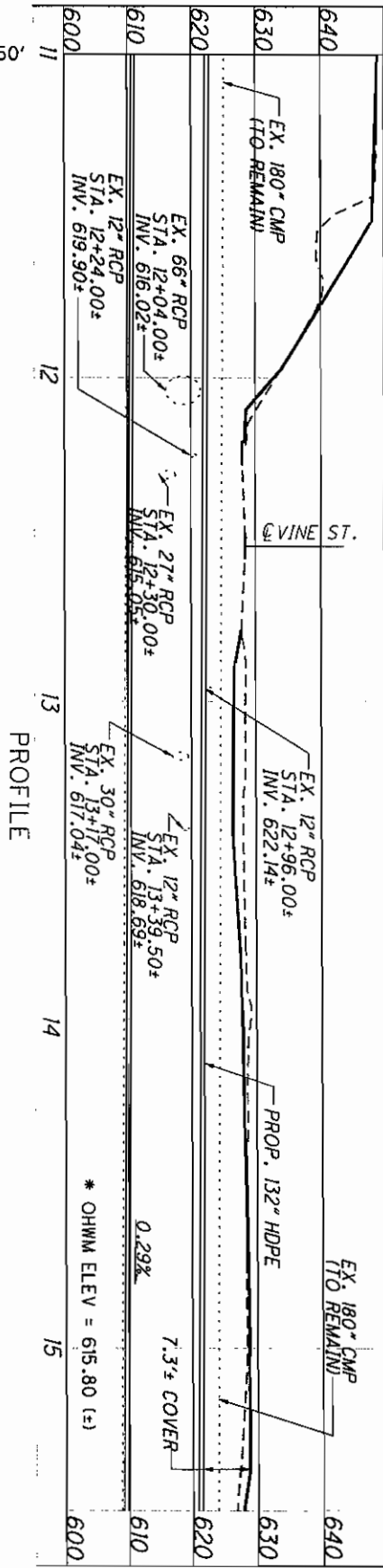
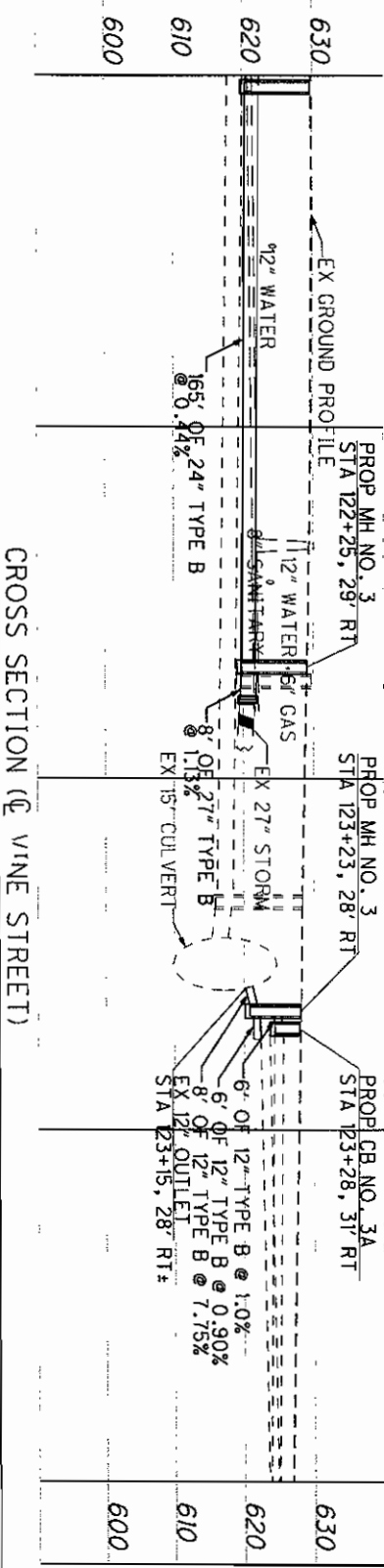


PLAN



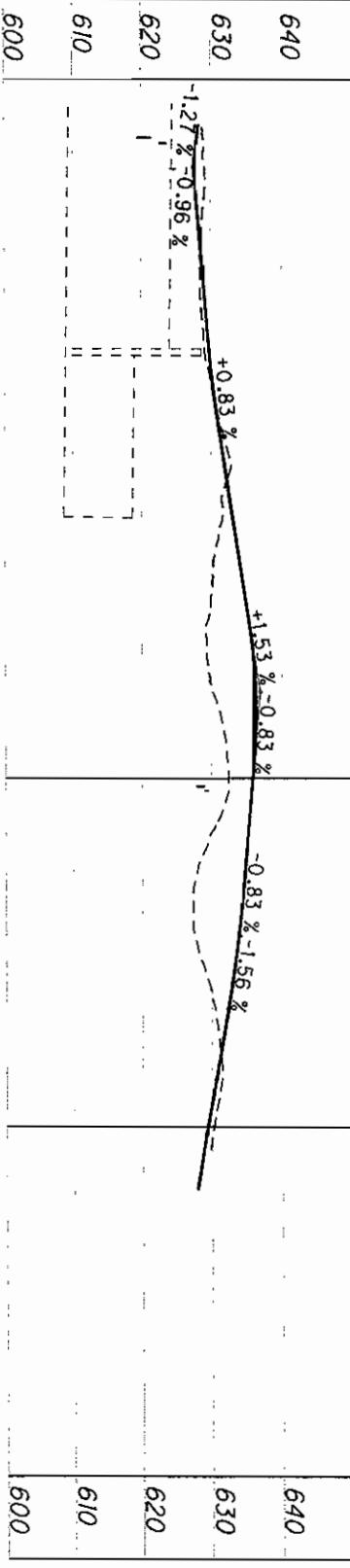
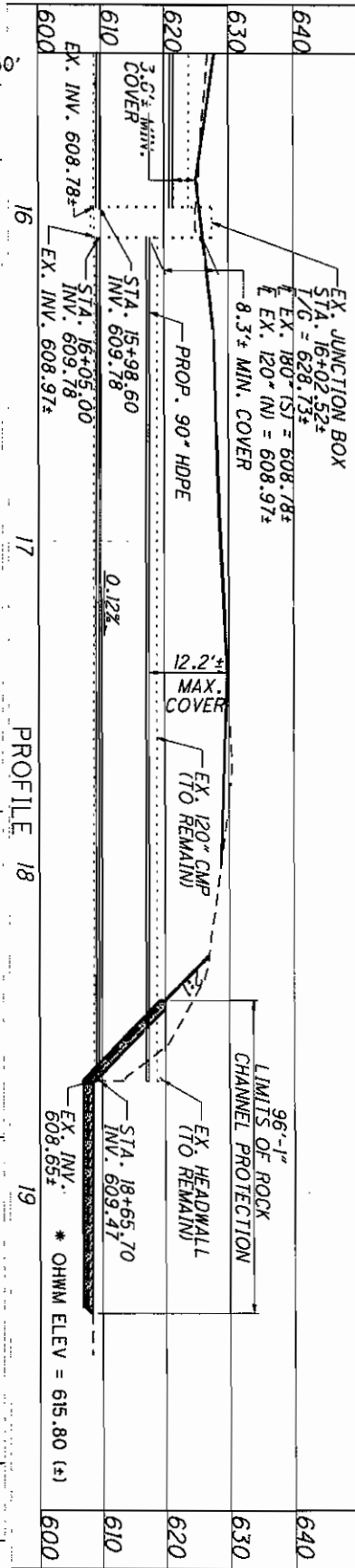
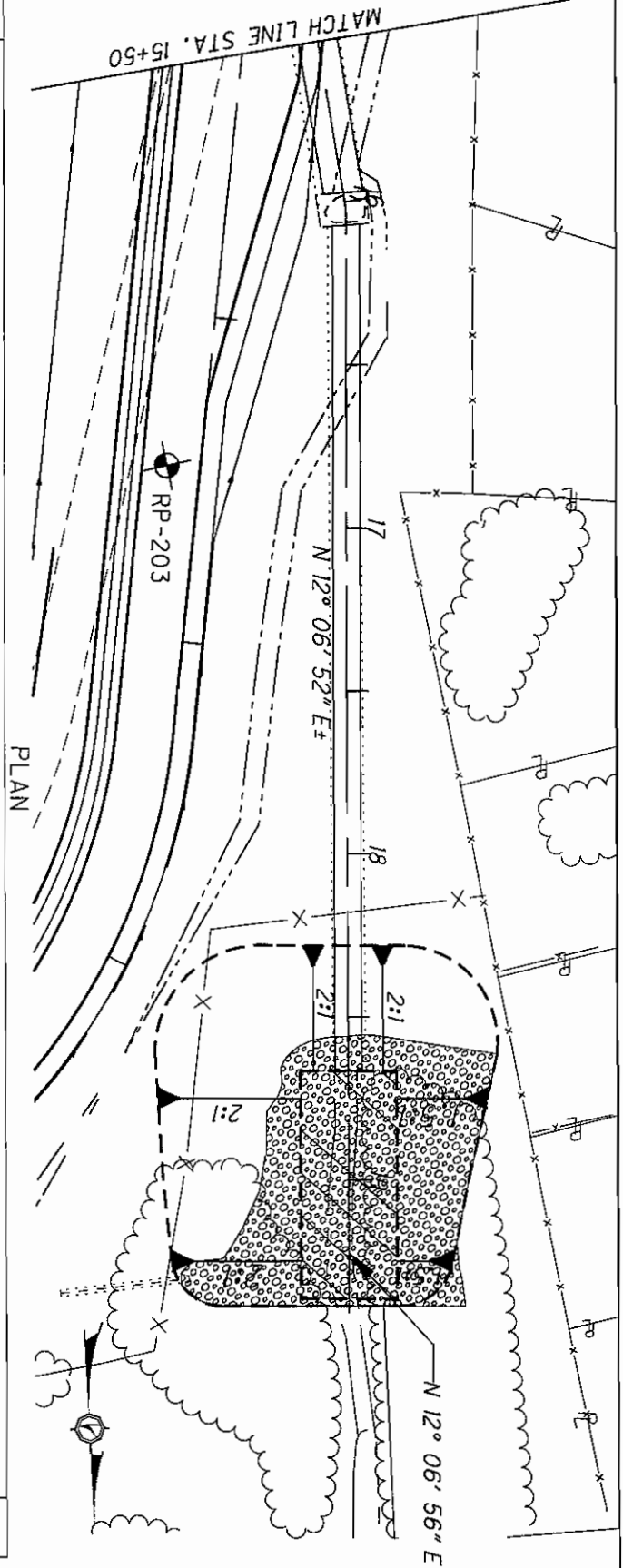
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 6+50 TO STA. 11+00

PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 11+00 TO STA. 15+50

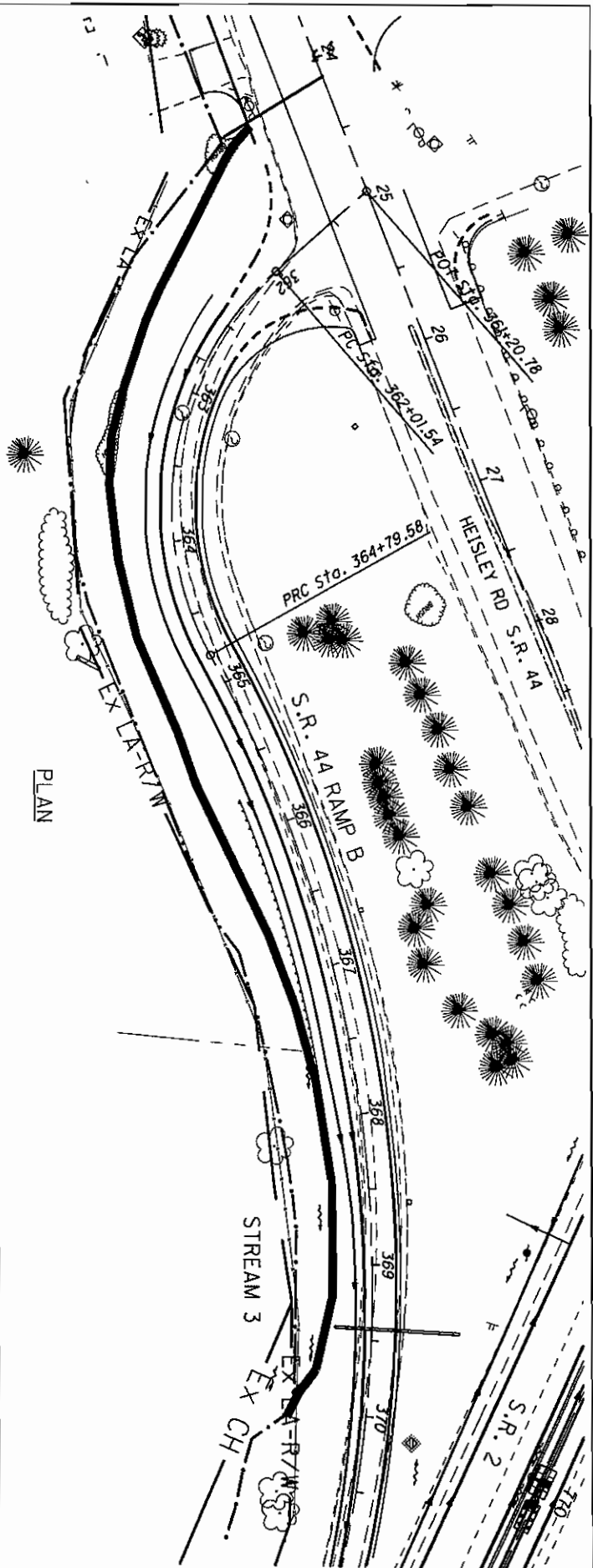
PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'



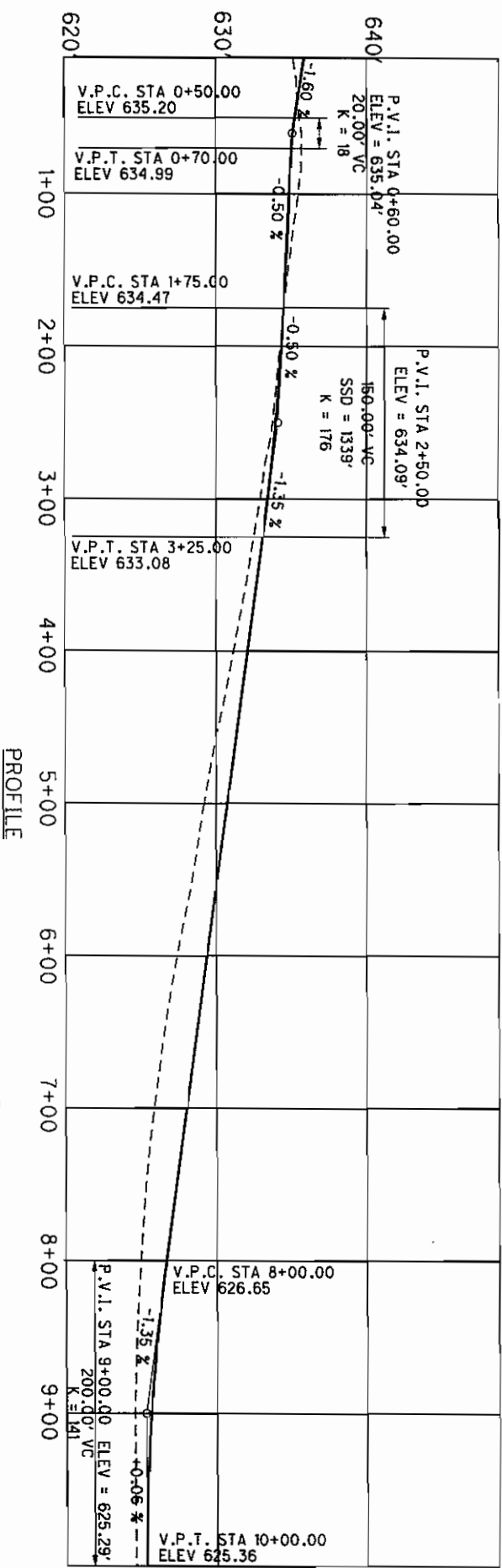
CROSS SECTION (RAMP D)



LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 15+50 TO STA. 19+50



PLAN



PROFILE

NOTE:
* OHWM ELEV = 624.00 (±)

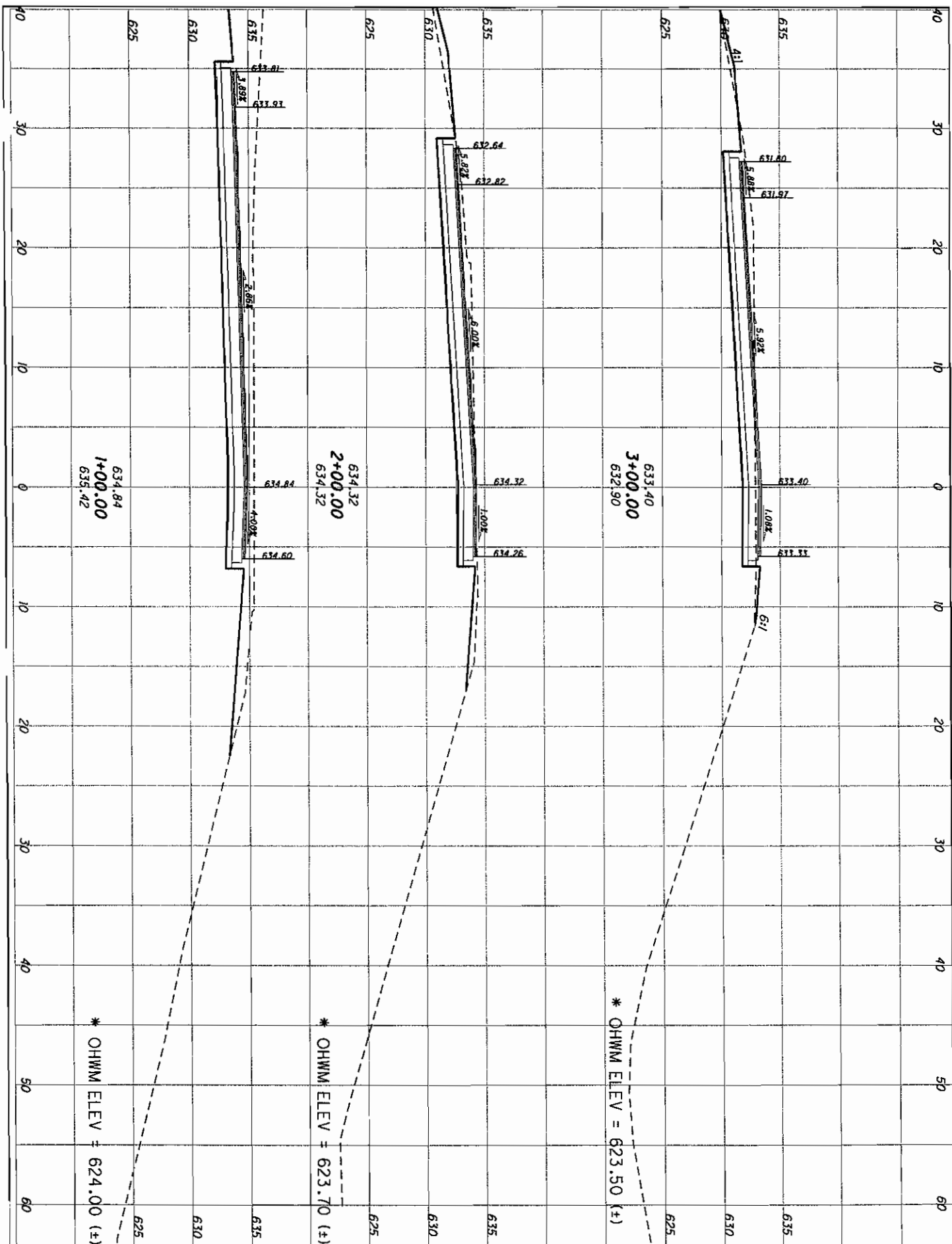


LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 PLAN AND PROFILE STA. 361+20.78 TO STA. 371+50

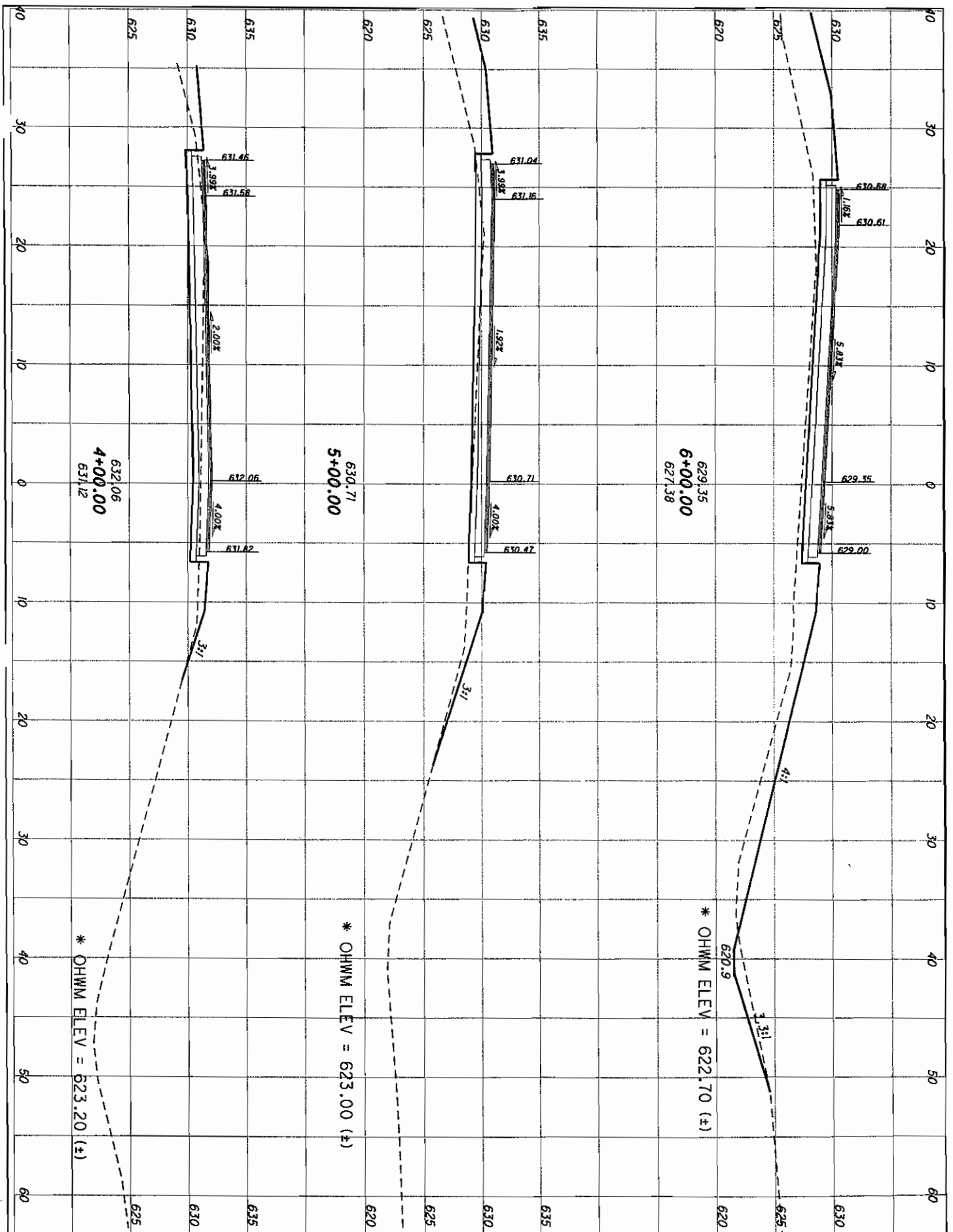
SCALE 1"=100'





LAK-2-7.76

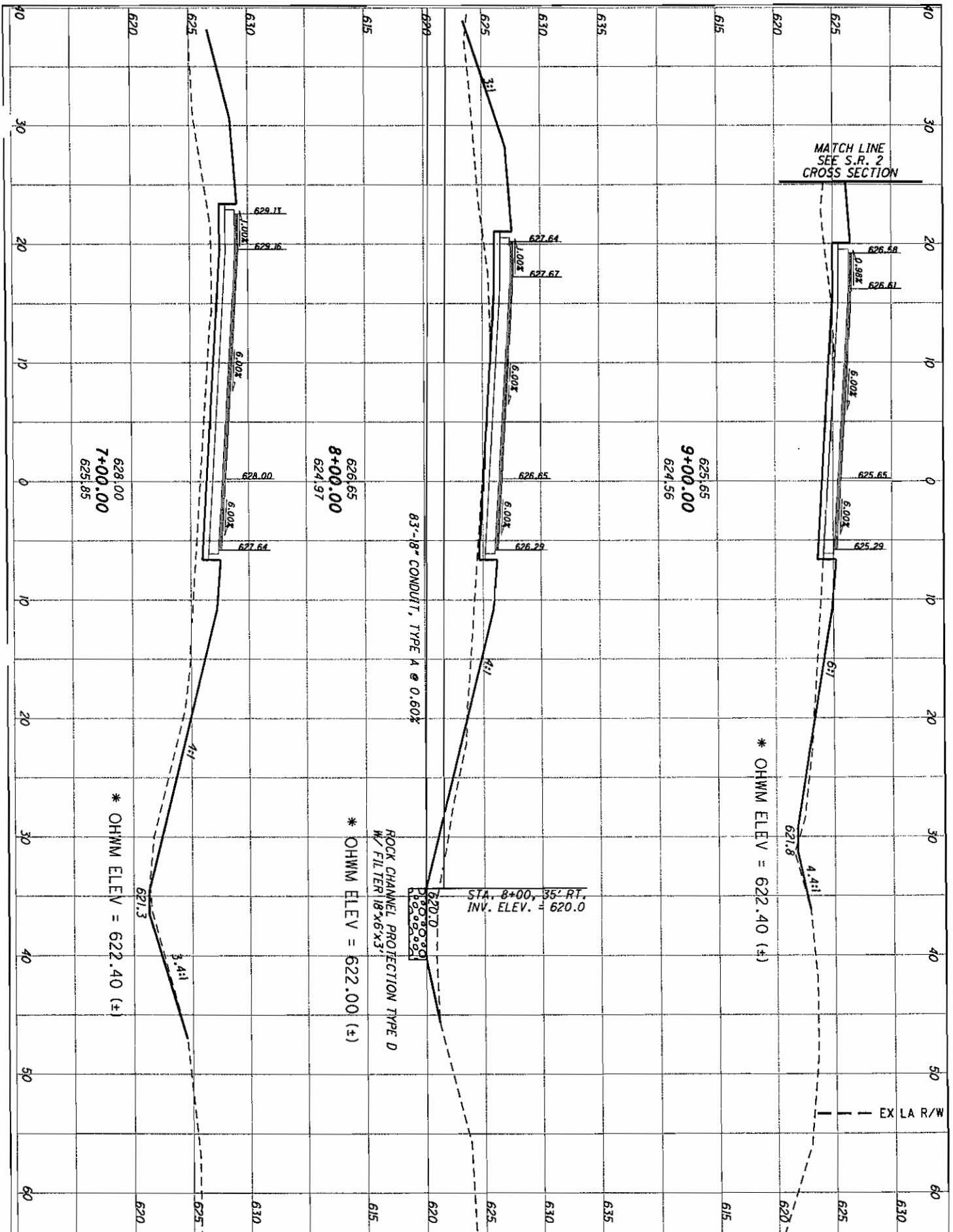
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 CROSS SECTIONS STA. 1+00 TO STA. 3+00



LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 CROSS SECTIONS STA. 4+00 TO STA. 6+00



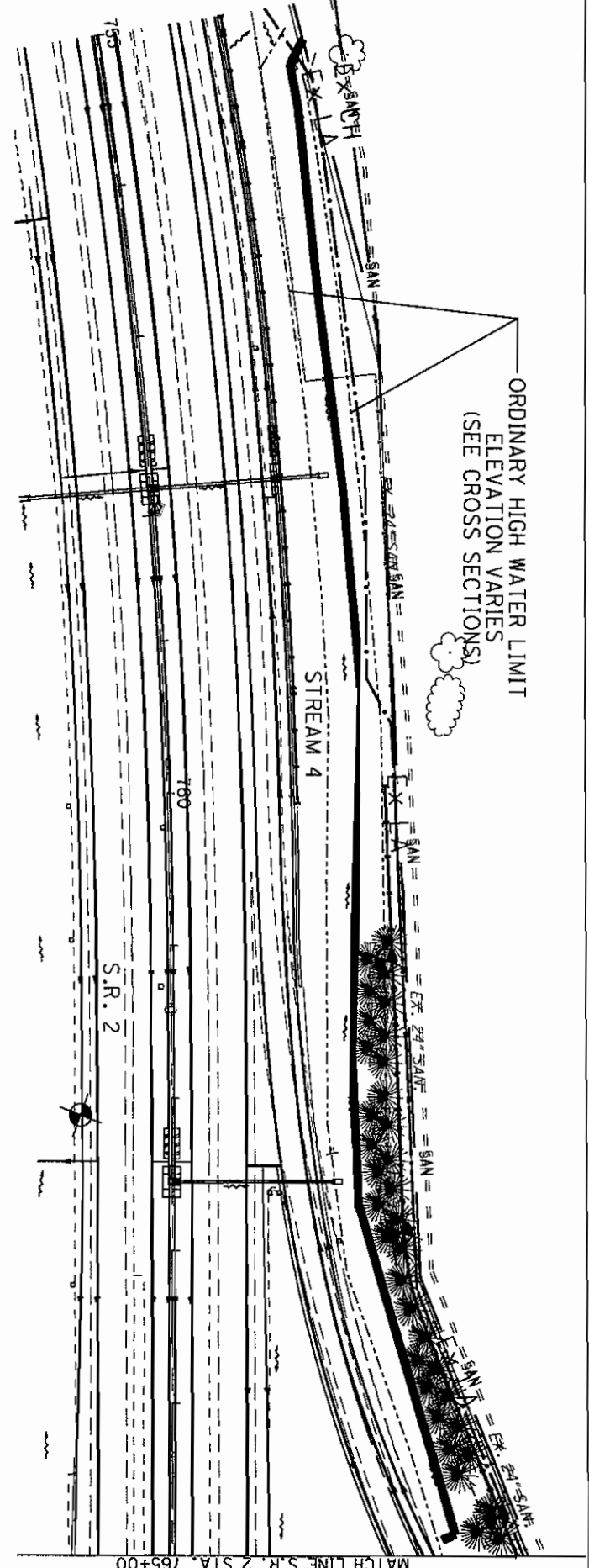
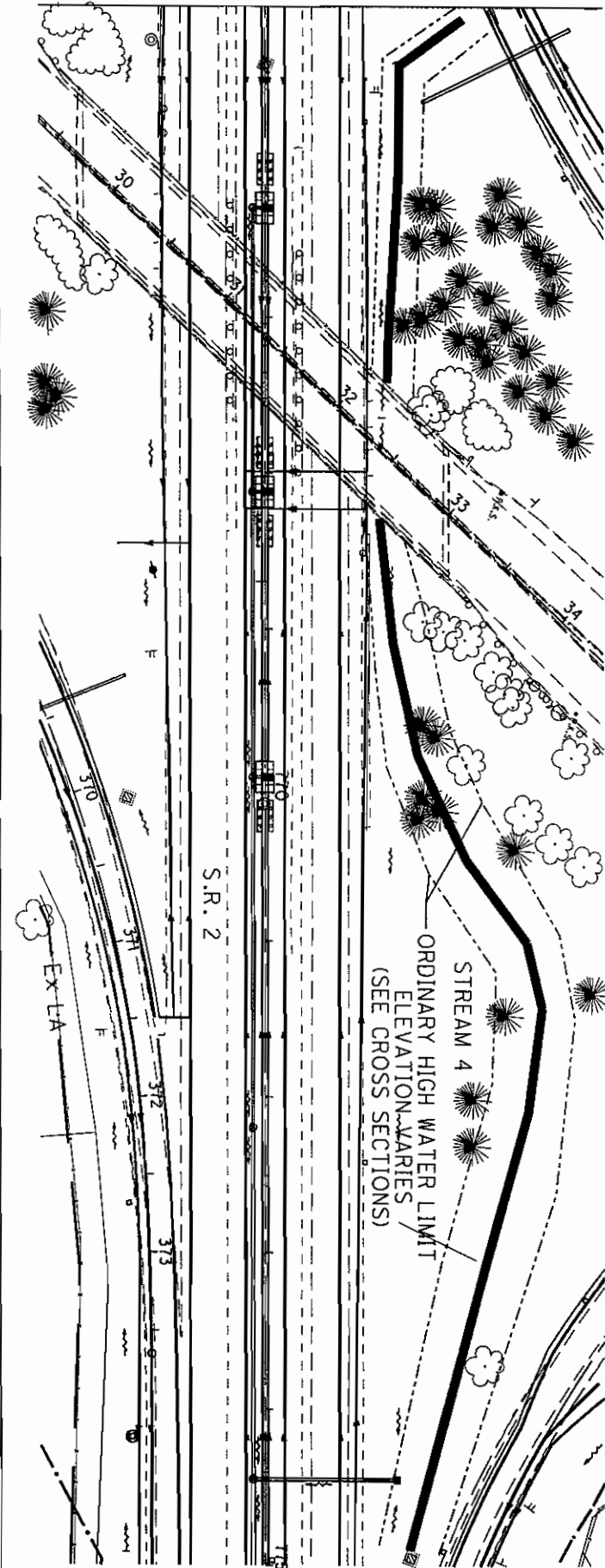
LAK-2-7.76



LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 CROSS SECTIONS STA. 7+00 TO STA. 9+00

MATCH LINE S.R. 2 STA. 765+00



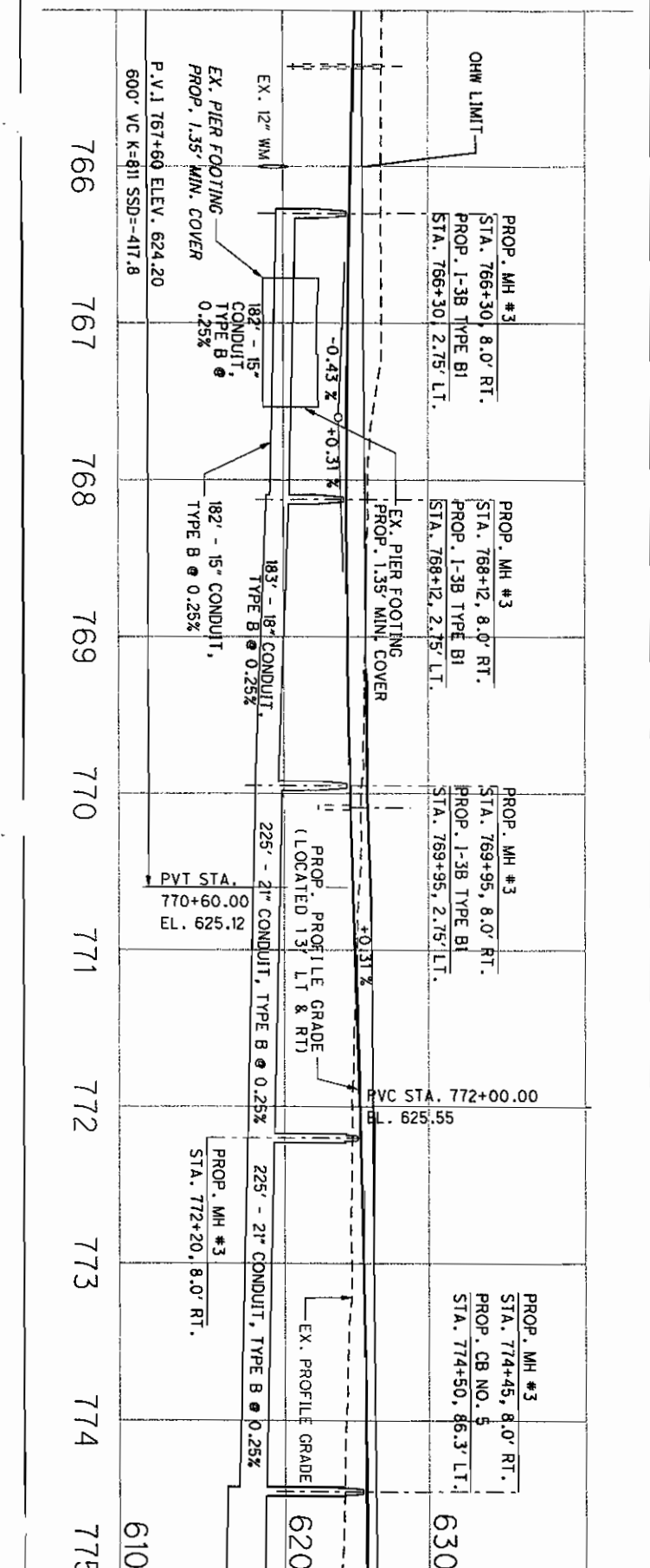
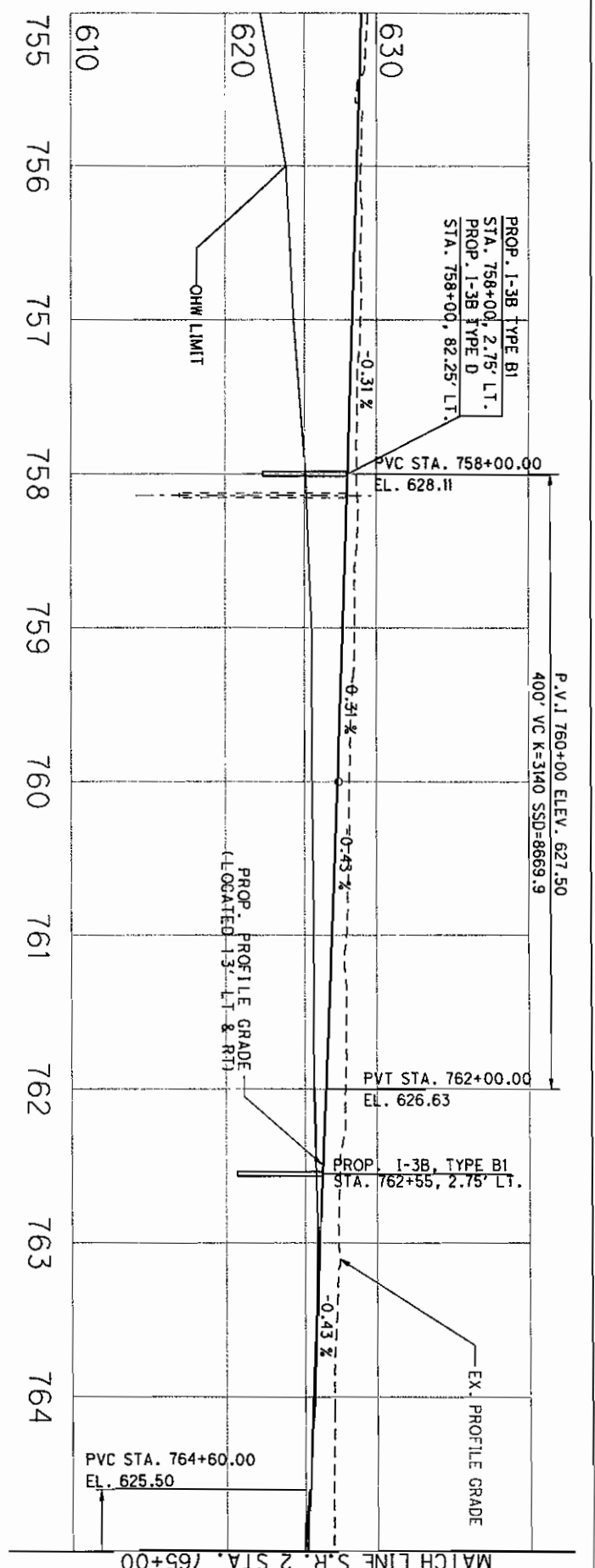
ORDINARY HIGH WATER LIMIT
ELEVATION VARIES
(SEE CROSS SECTIONS)

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
PROPOSED IMPACTS FOR STREAM NO. 4
TRIBUTARY OF WASSON DITCH
SR 2 PLAN STA. 755+00 TO STA. 775+00

SCALE 1"=100'

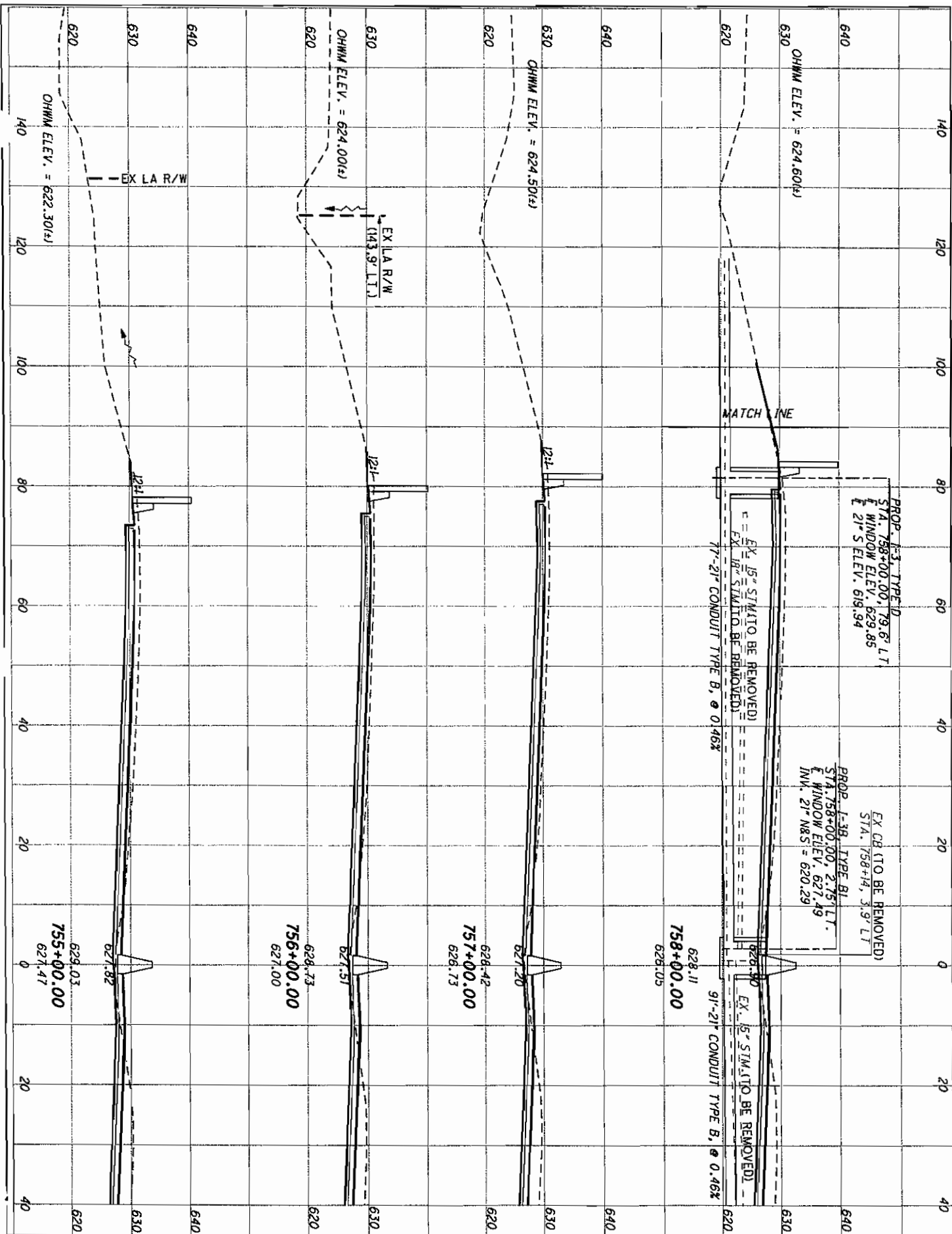


MATCH LINE S.R. 2 STA. 765+00



MATCH LINE S.R. 2 STA. 765+00





PROP. I-3, TYPE ID
 STA. 758+00.00, 79.6' LT
 EX WINDOW ELEV. 629.85
 EX 21" S ELEV. 619.94

PROP. I-3B, TYPE B1
 EX CB (TO BE REMOVED)
 STA. 758+14, 3.9' LT
 EX WINDOW ELEV. 627.49
 INV. 21" N&S = 620.29

EX 12" STIM (TO BE REMOVED)
 EX 12" STIM (TO BE REMOVED)
 7'-21" CONDUIT TYPE B, @ 0.46%

EX 5" STIM (TO BE REMOVED)
 9'-21" CONDUIT TYPE B, @ 0.46%

628.11
 758+00.00
 626.105

628.42
 757+00.00
 626.73

624.73
 756+00.00
 627.00

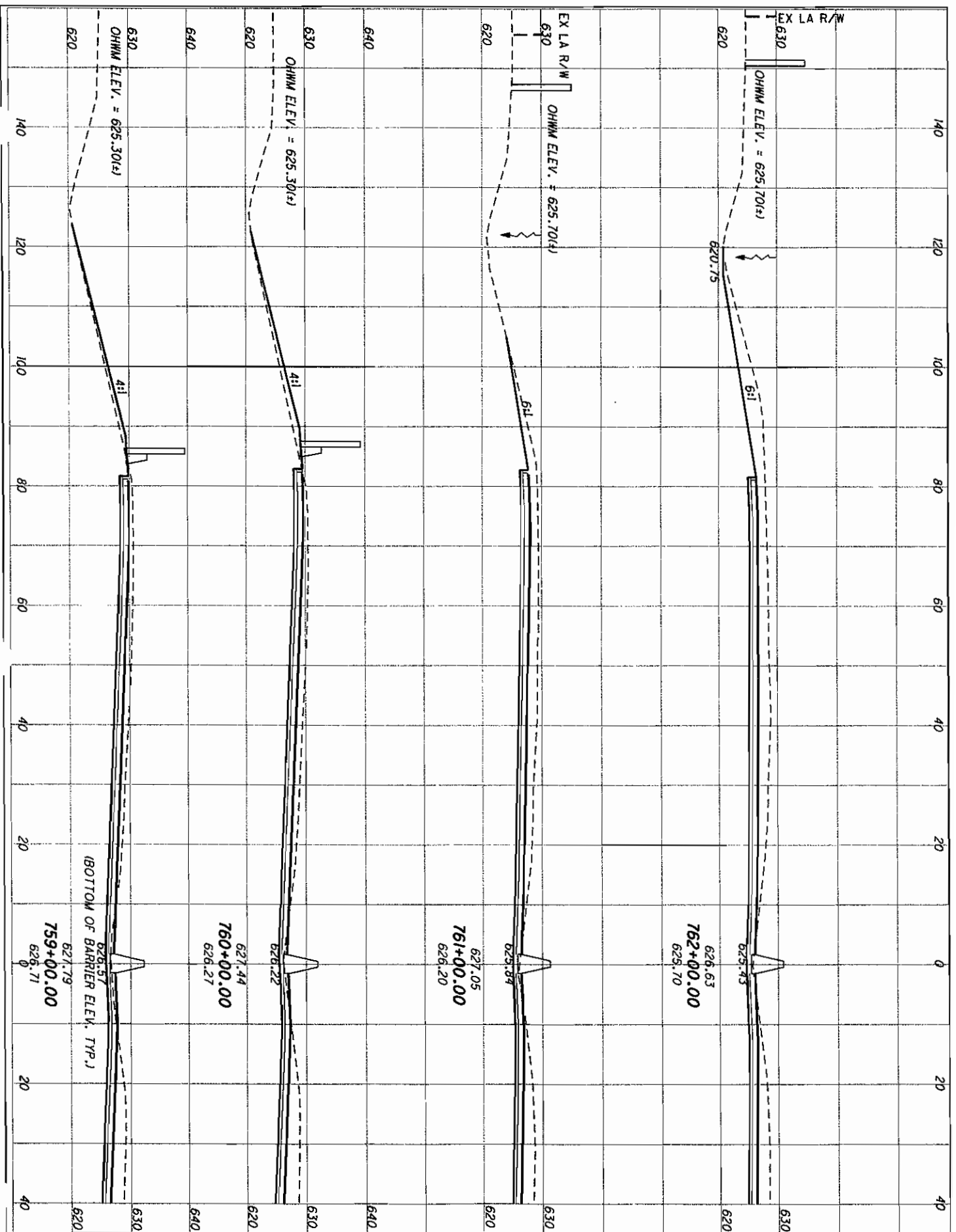
624.03
 755+00.00
 627.47

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 755+00 TO STA. 758+00

SHEET 3 OF 8



LAK-2-7.76

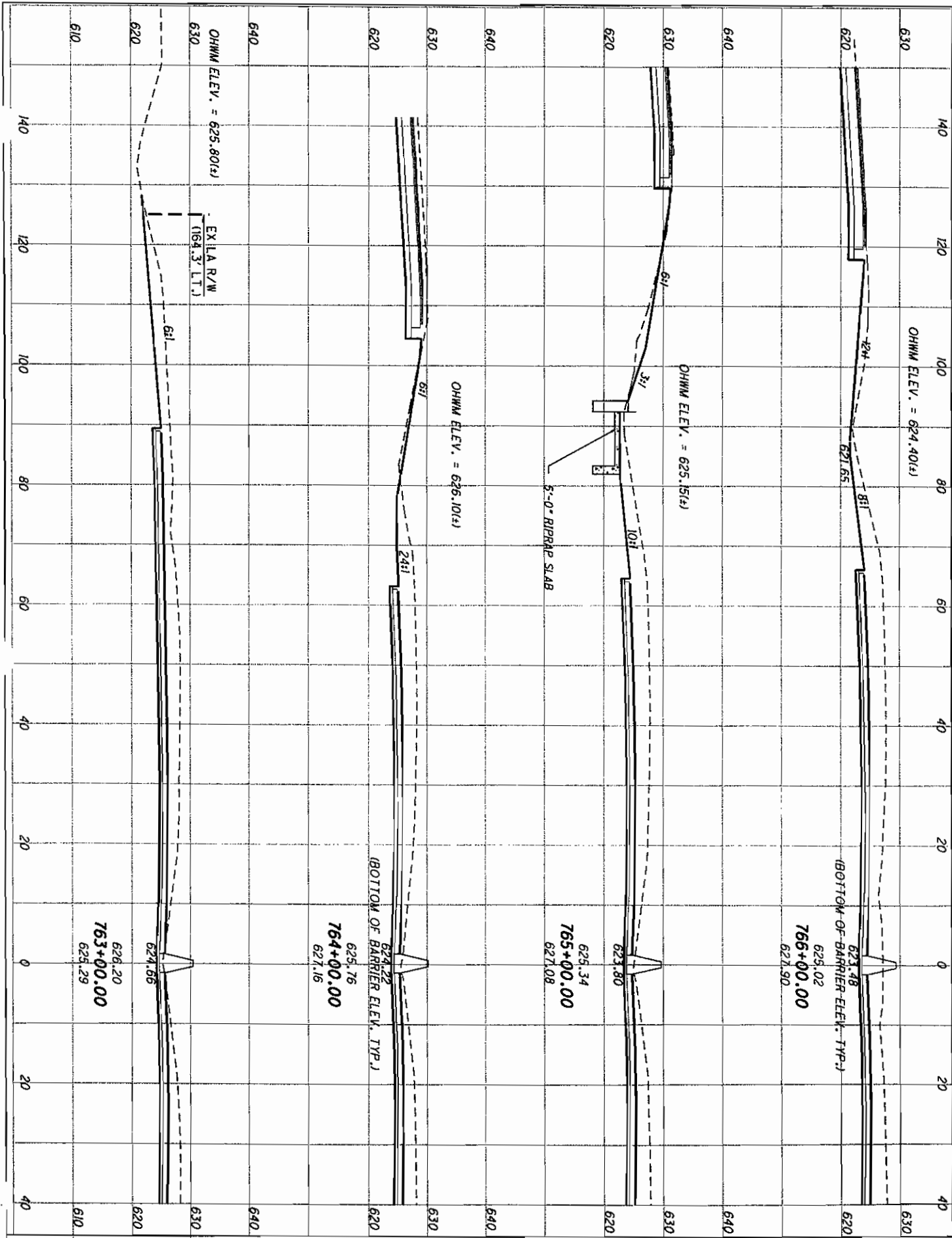


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 759+00 TO STA. 762+00



LAK-2-7.76

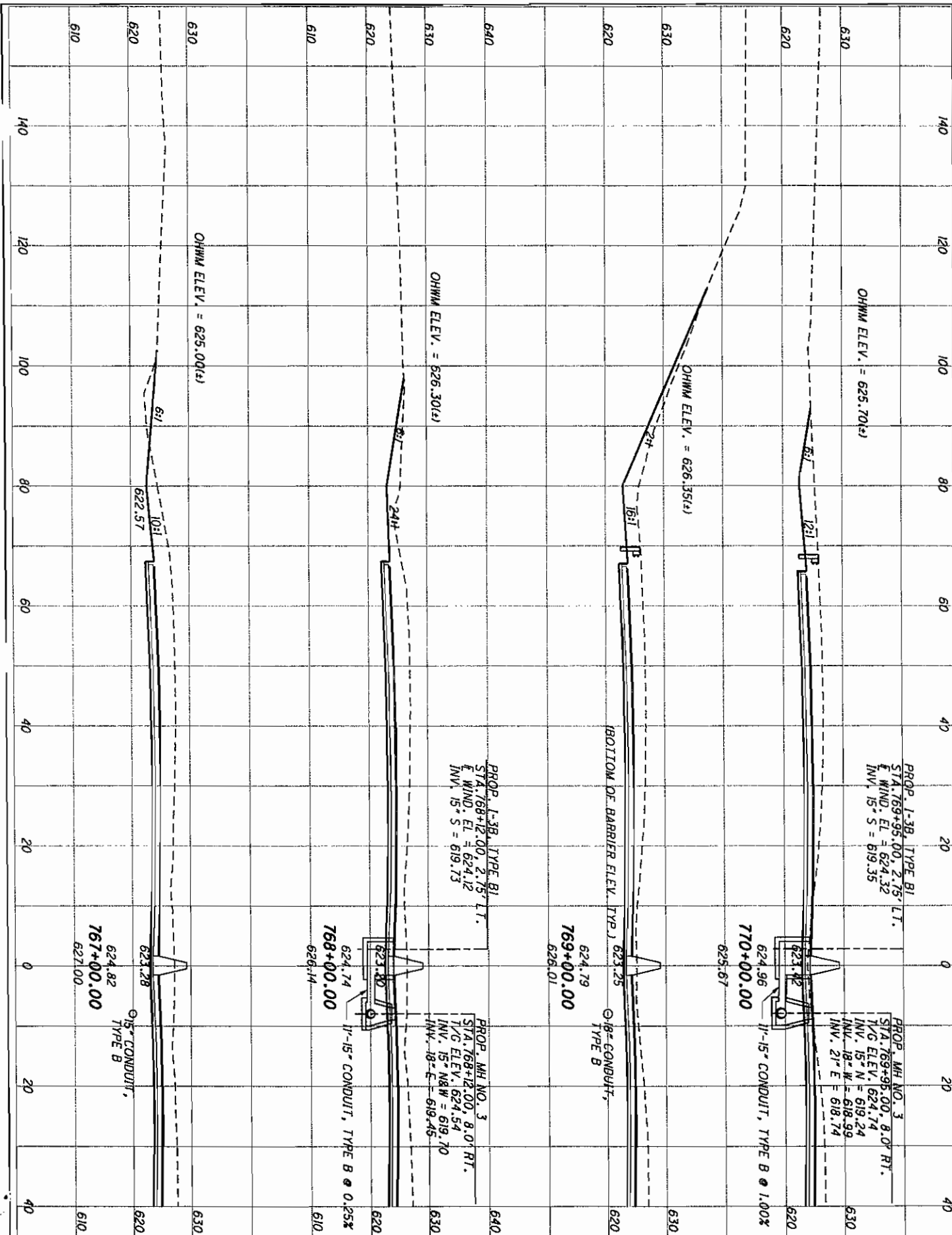
SHEET 4 OF 8



LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 763+00 TO STA. 766+00

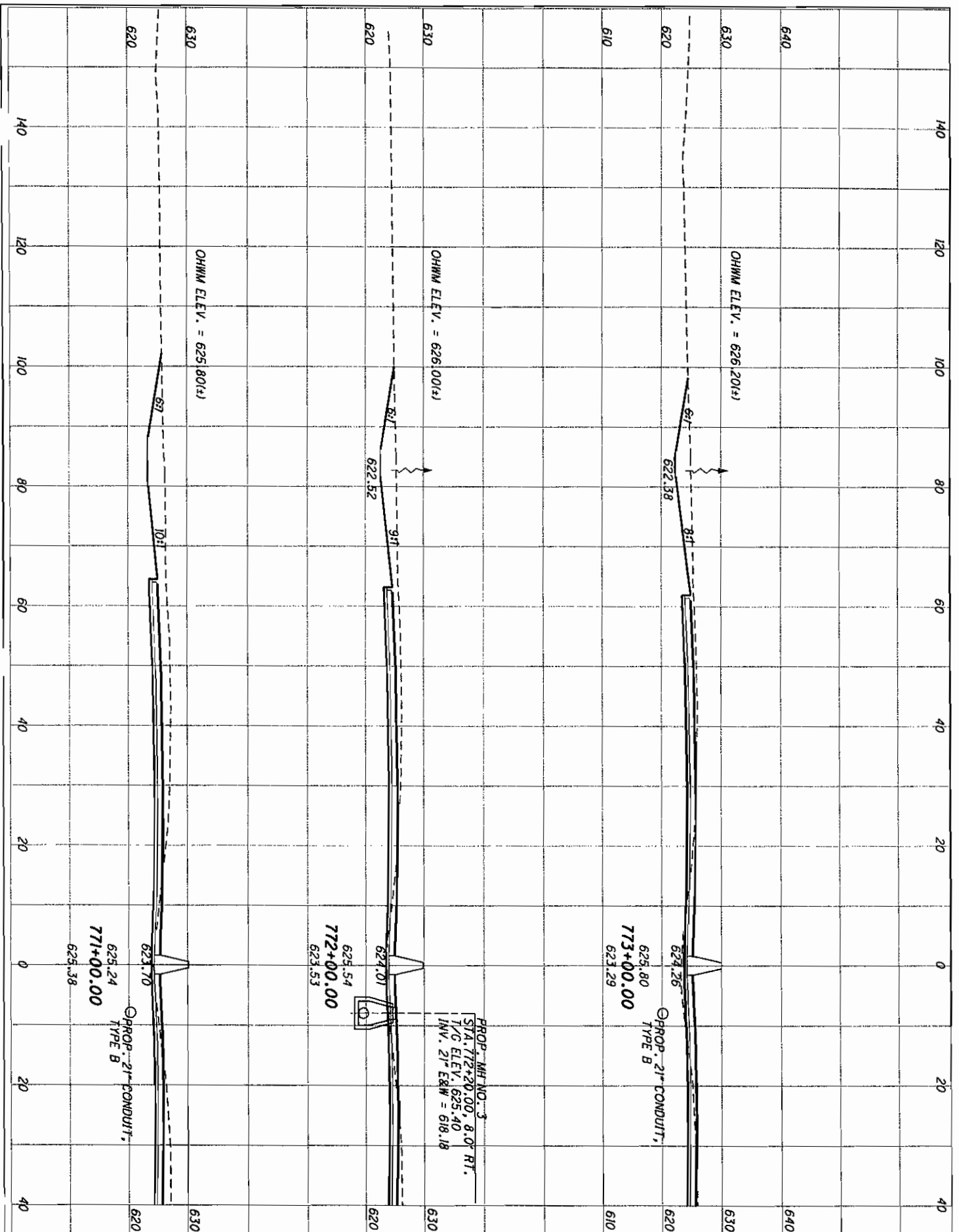
SHEET 5 OF 8



LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 767+00 TO STA. 770+00

SHEET 6 OF 8



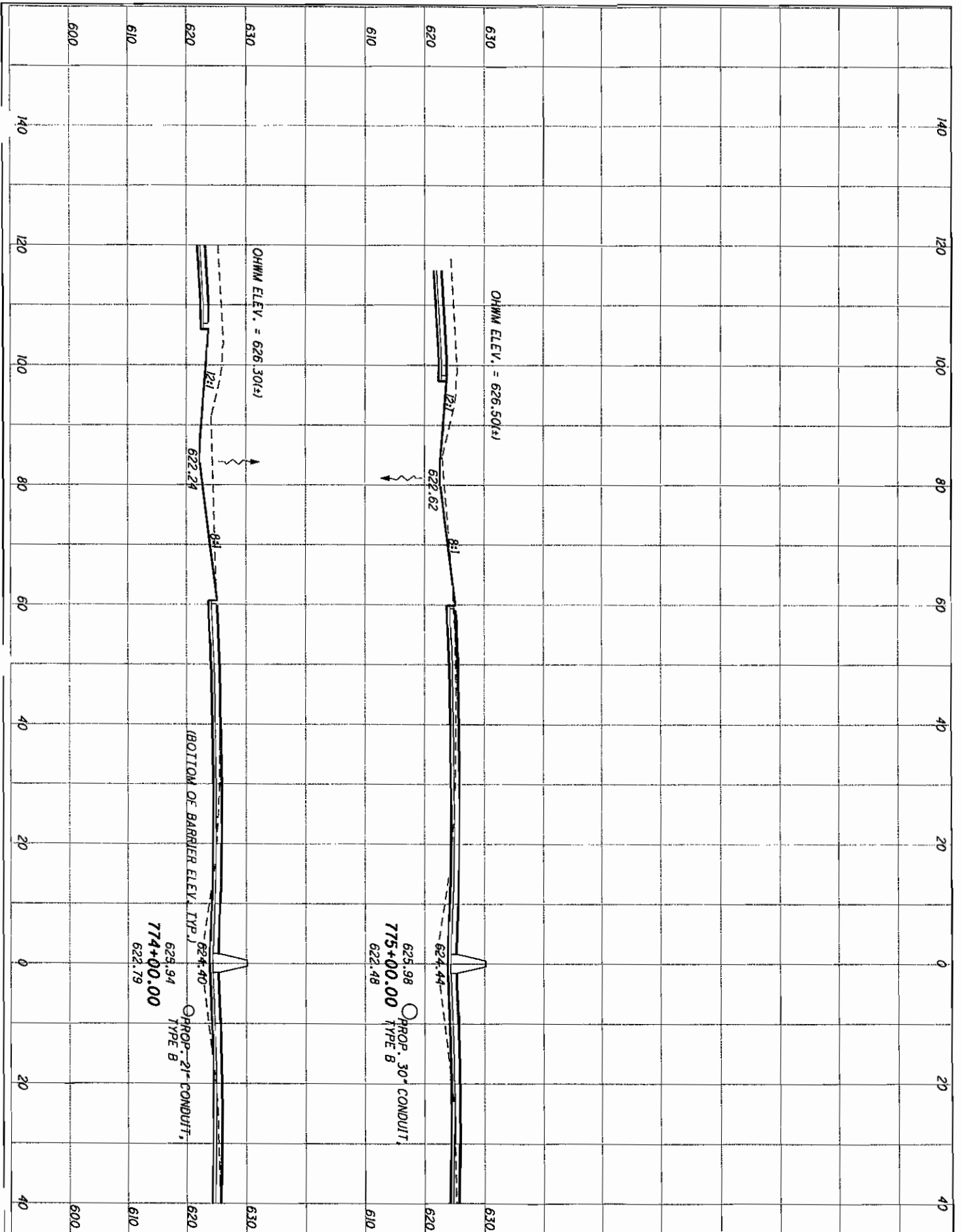
PROP. MH NO. 3
 STA. 772+20.00, 8.0' RT.
 T/C ELEV. 625.40
 INV. 21" E&W = 618.18

LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 771+00 TO STA. 773+00

SHEET 7 OF 8



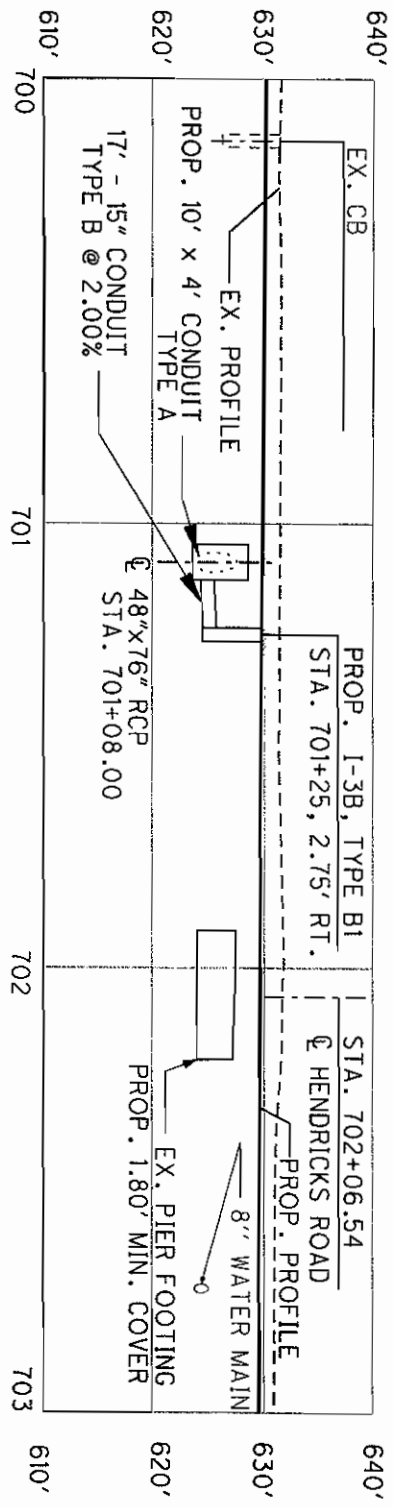
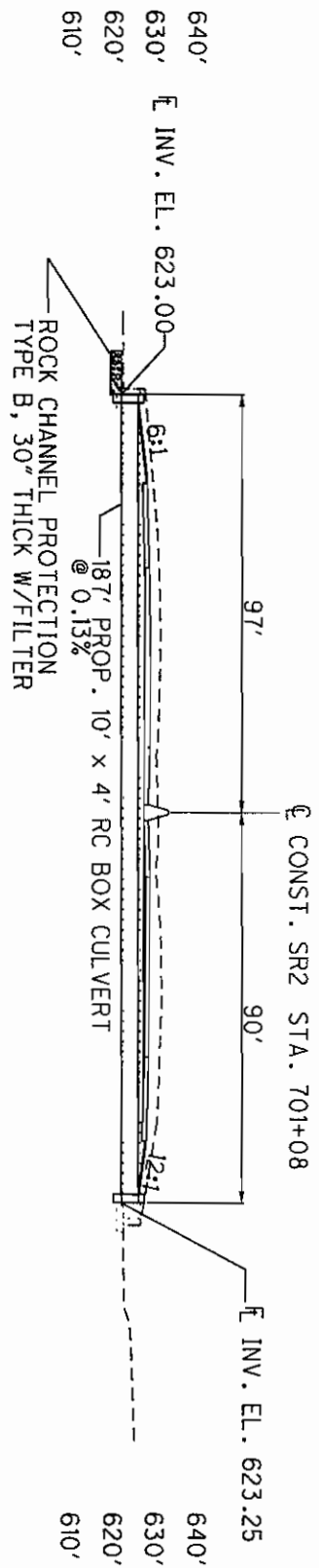
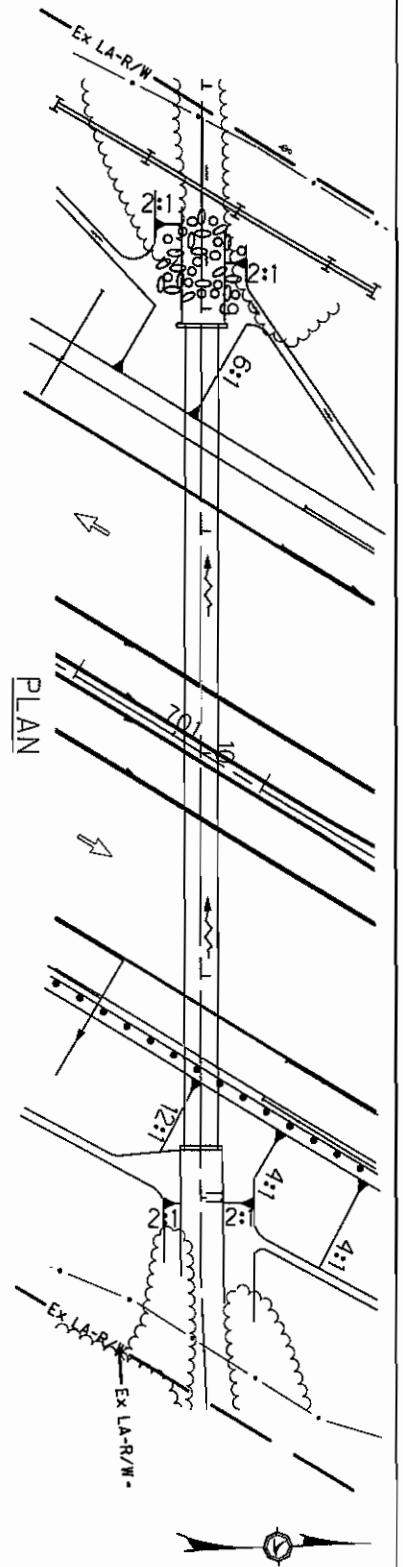


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 CROSS SECTION STA. 774+00 TO STA. 775+00

LAK-2-7.76

SHEET 8 OF 8



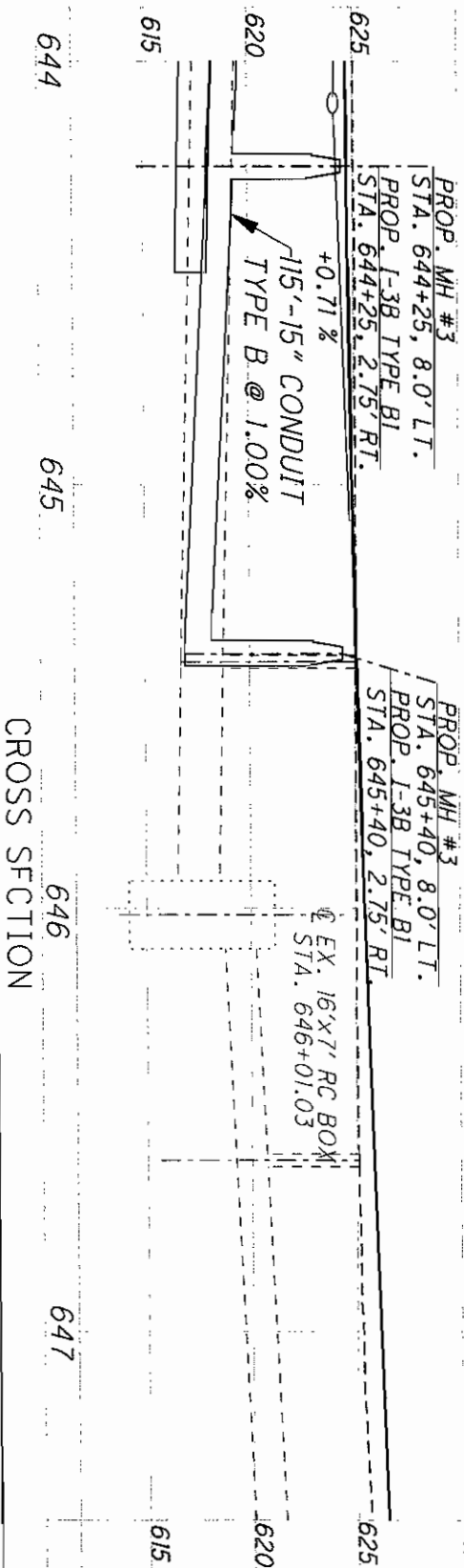
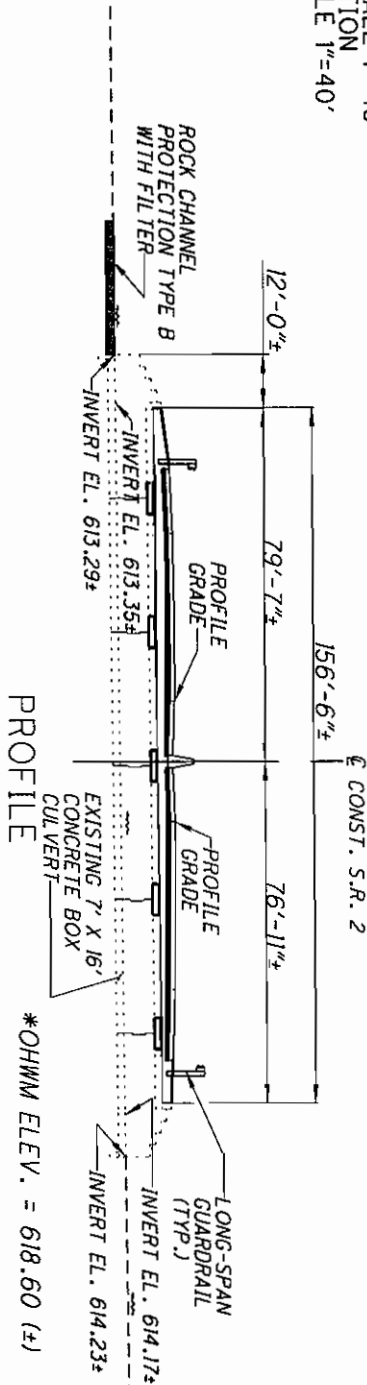
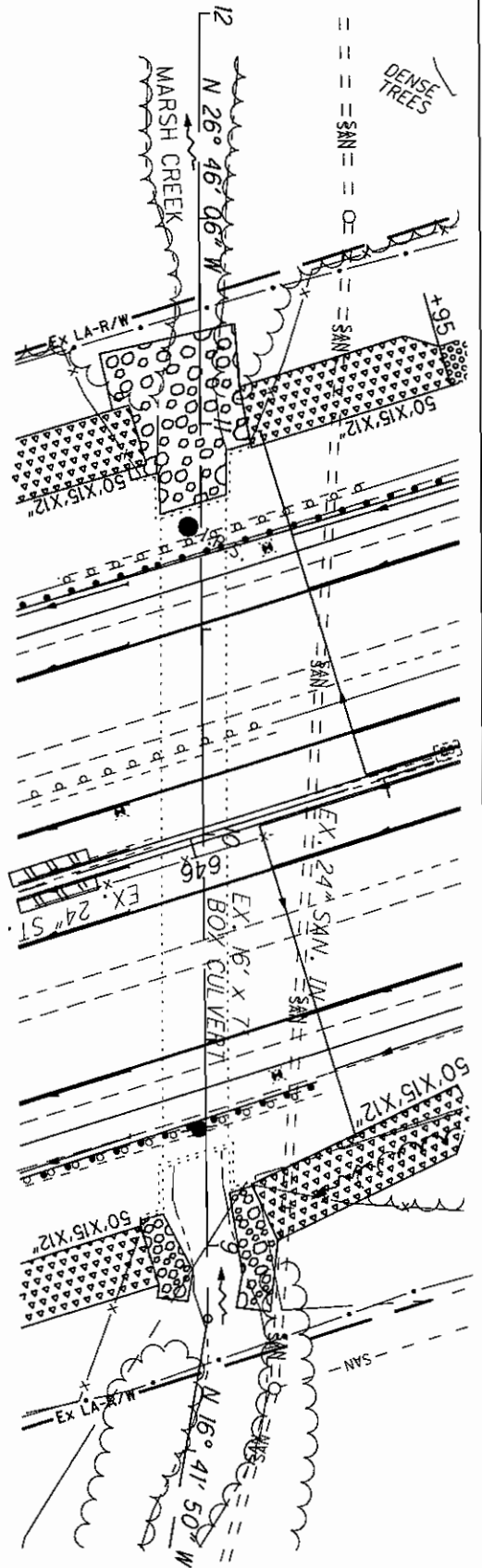


PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'

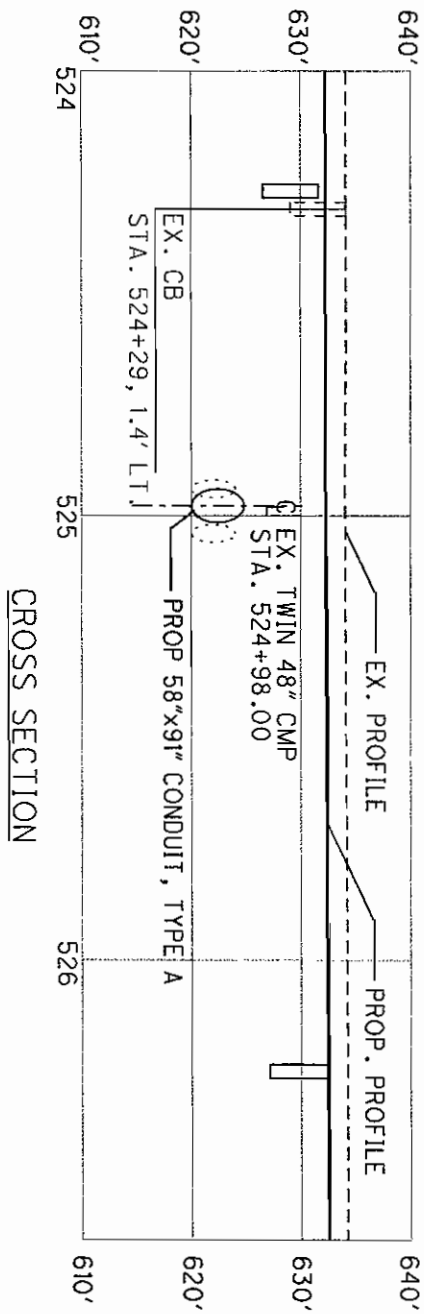
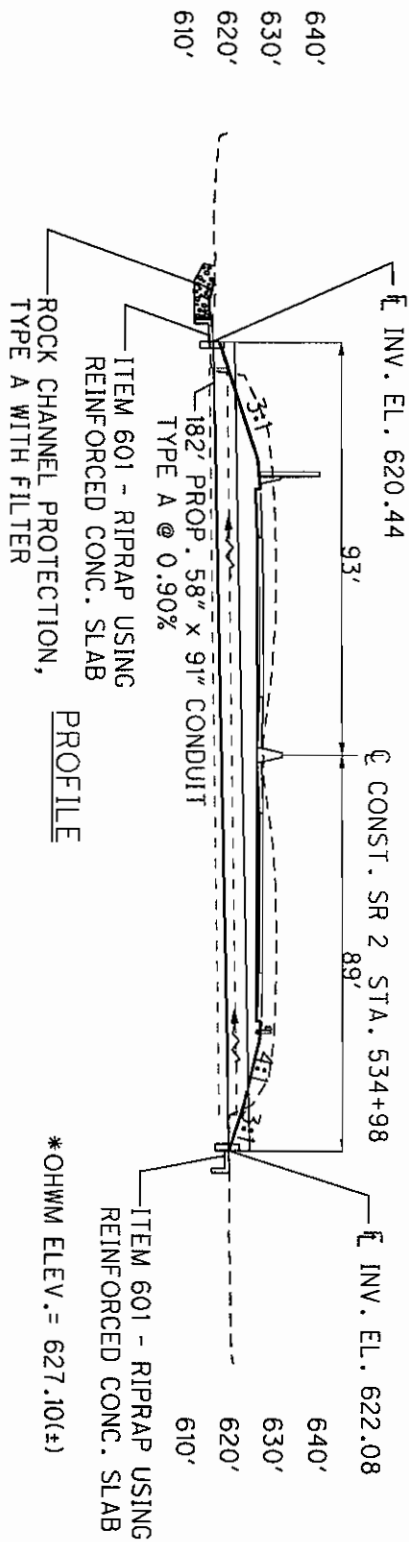
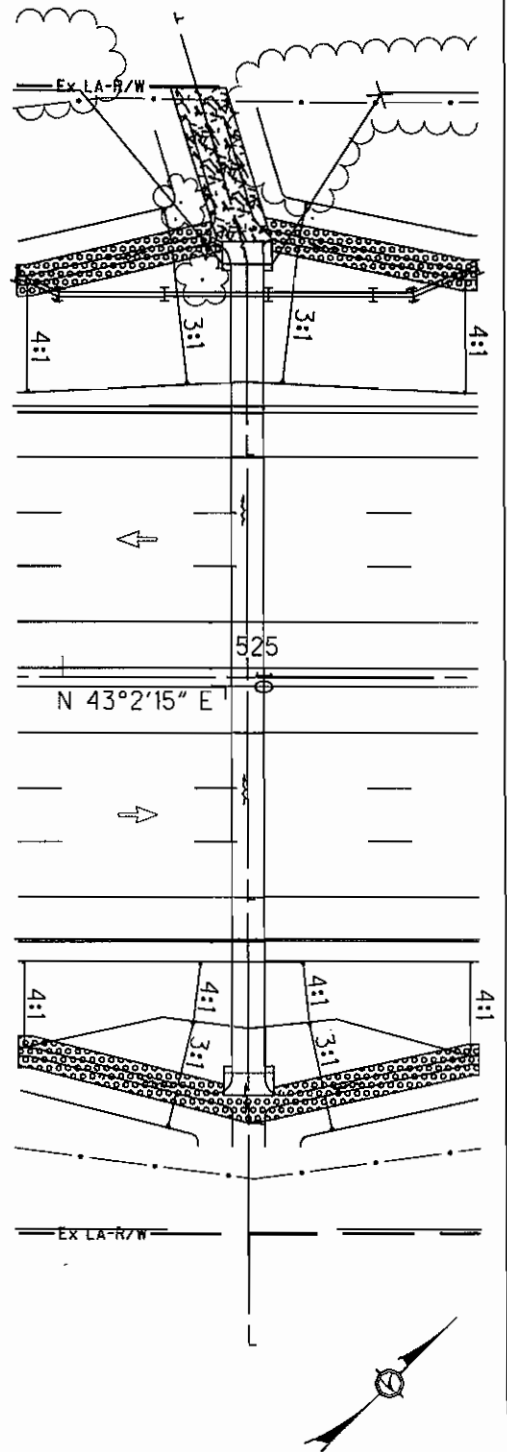


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 5
 TRIBUTARY OF HEISLEY CREEK
 STA. 701+08

PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION
 HORIZ. SCALE 1"=40'



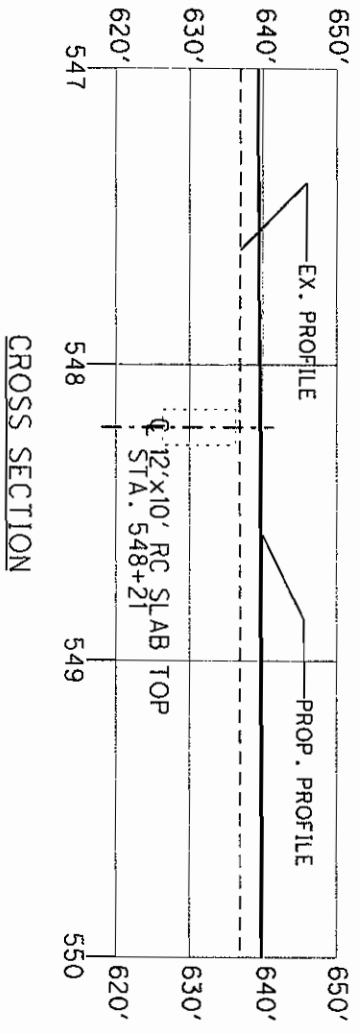
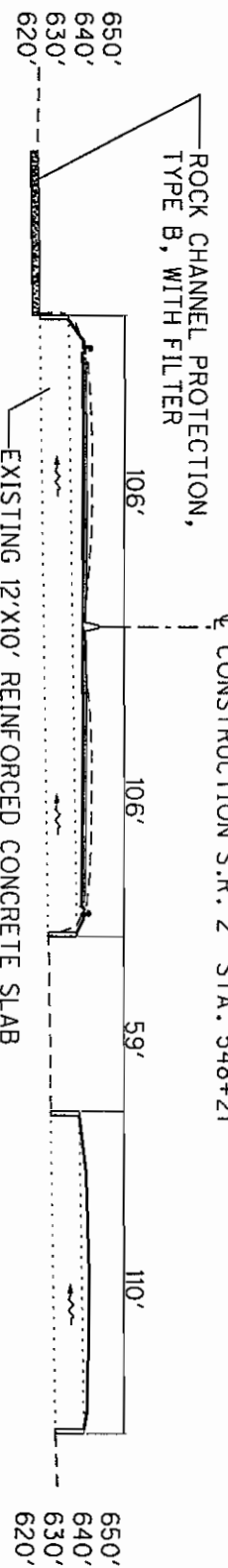
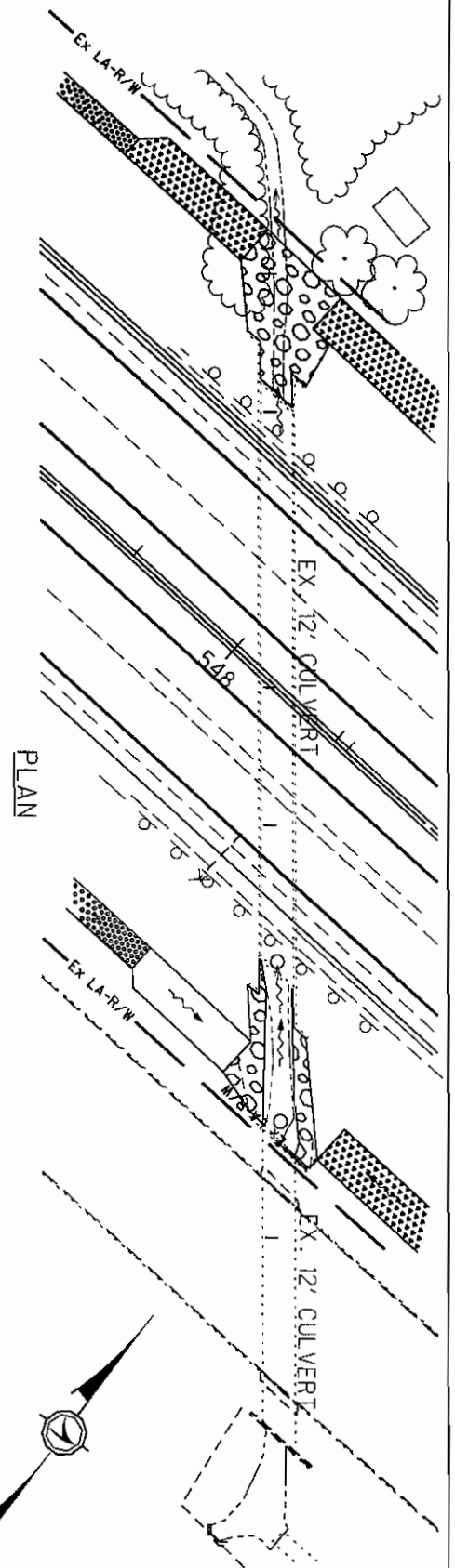
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 6
 MARSH CREEK STA. 646+04



PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 8
 UNNAMED STREAM
 STA. 524+98

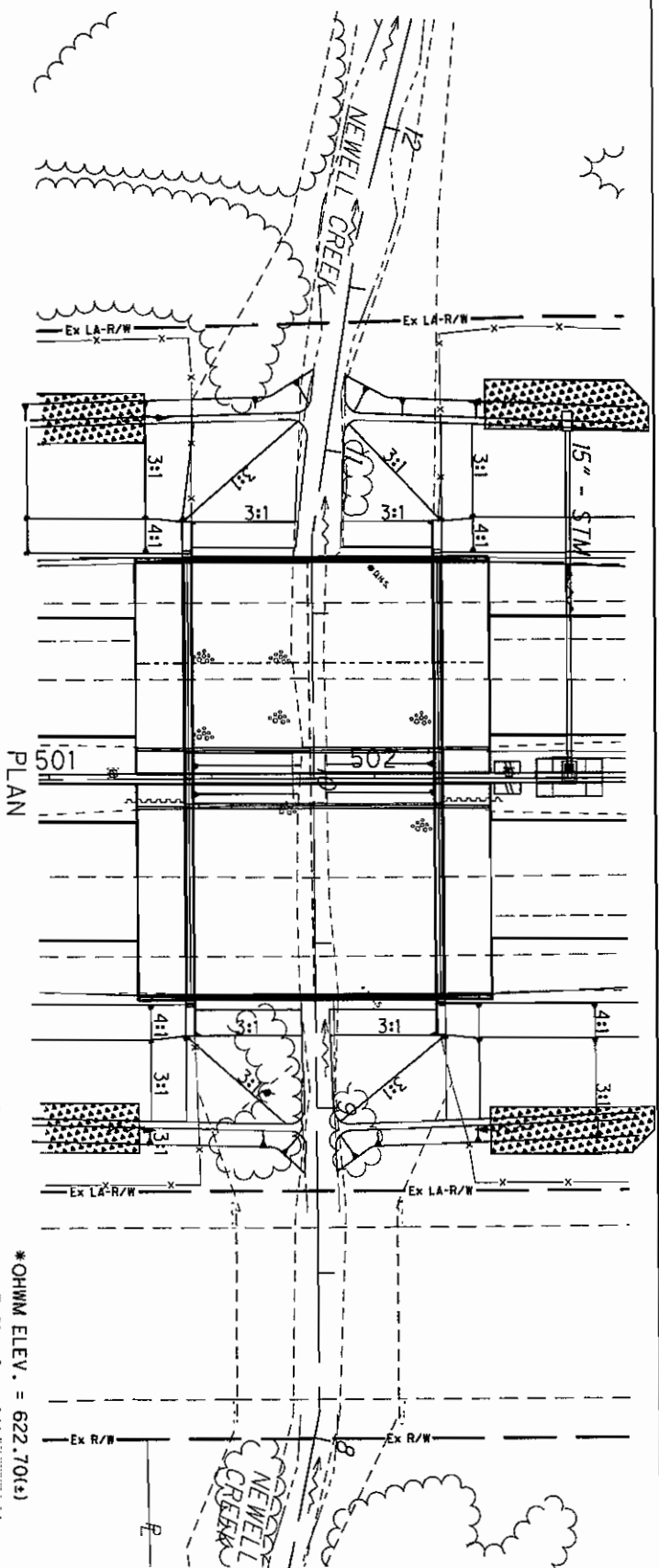


*OHWM ELEV. = 626.60(±)

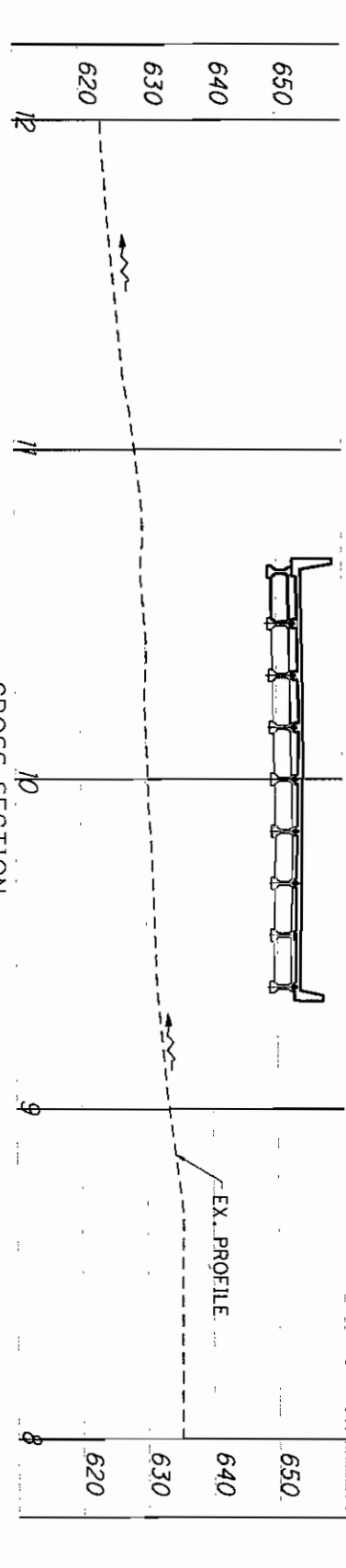
PLAN SCALE 1"=60'
 PROFILE SCALE 1"=60'
 CROSS SECTION HORIZ. SCALE 1"=60'



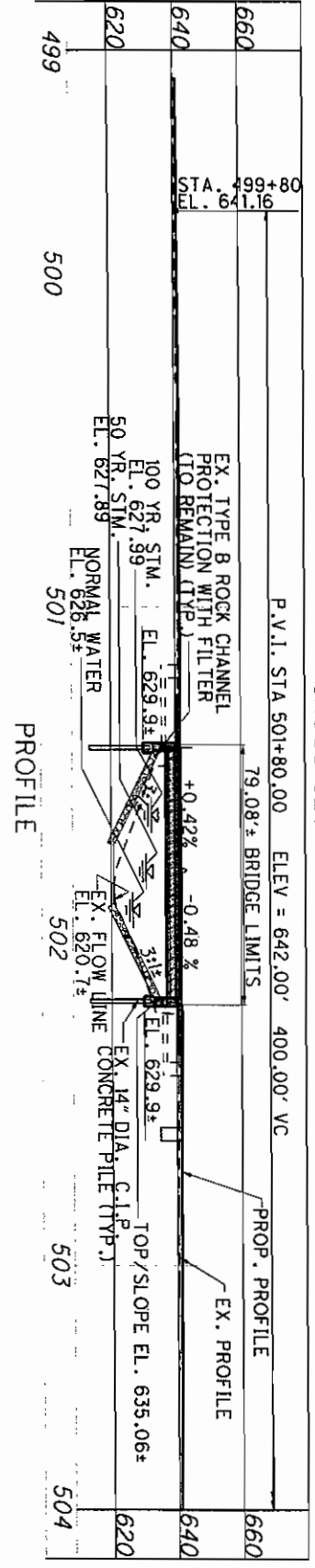
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 9
 UNNAMED STREAM
 STA. 548+21



*OHWM ELEV. = 622.70(±)



CROSS SECTION

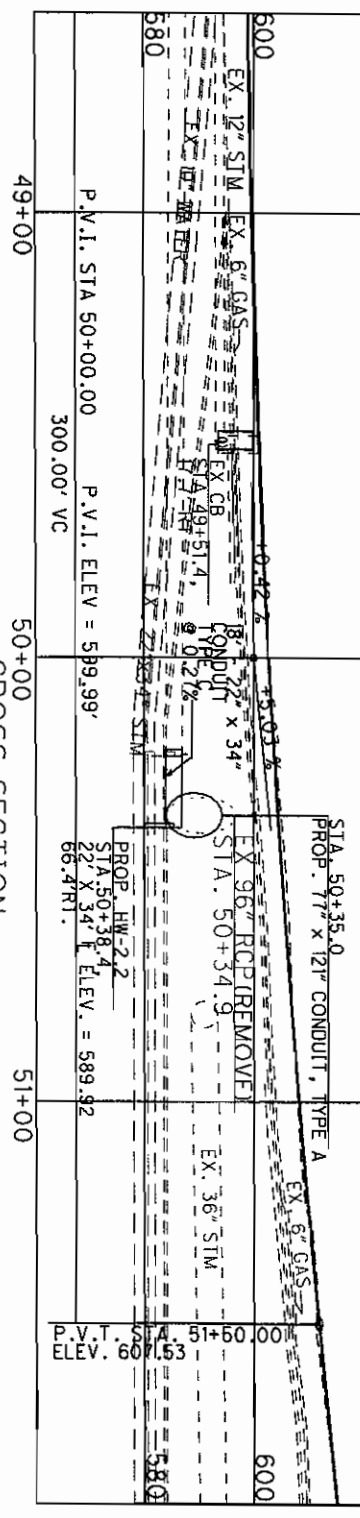
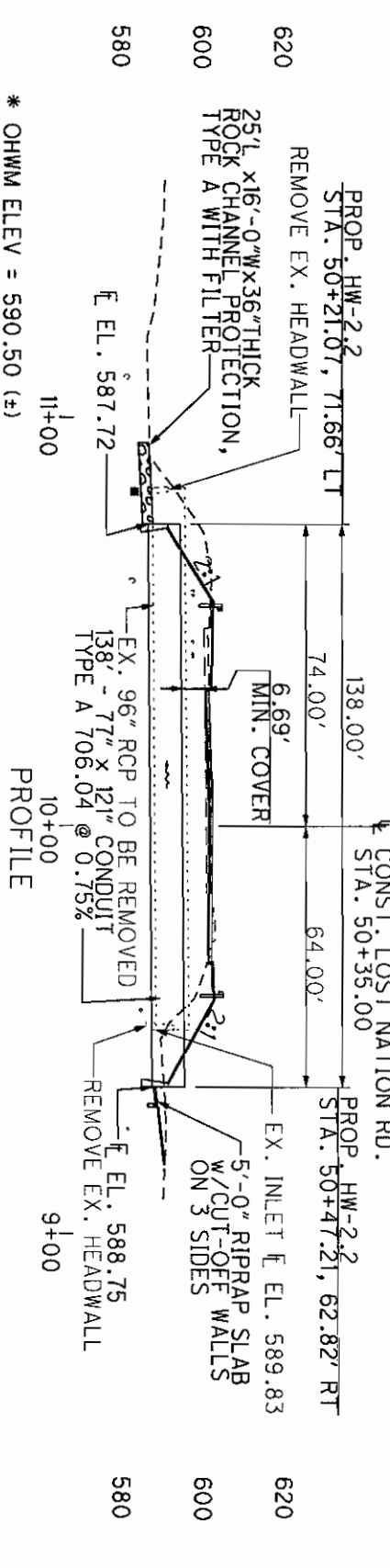
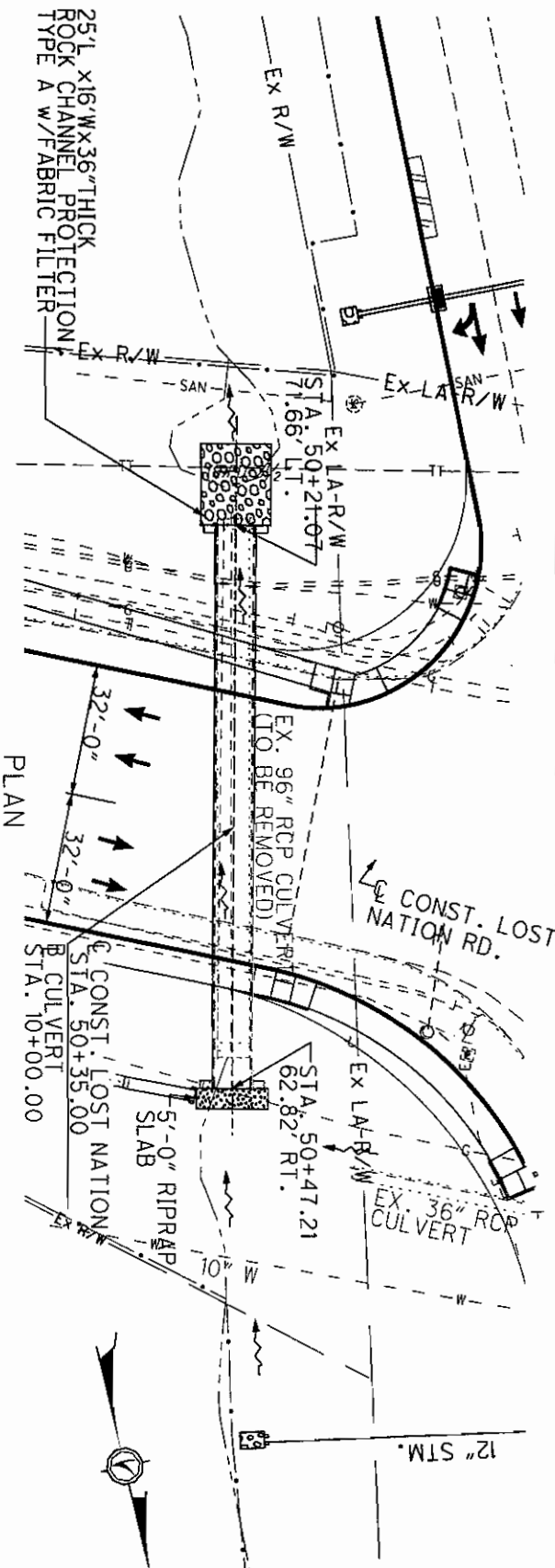


PROFILE

P.V.I. STA 501+80.00 ELEV = 642.00' 400.00' VC
79.08% BRIDGE LIMITS



LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
PROPOSED IMPACTS FOR STREAM NO. 10
NEWELL CREEK STA. 501+81

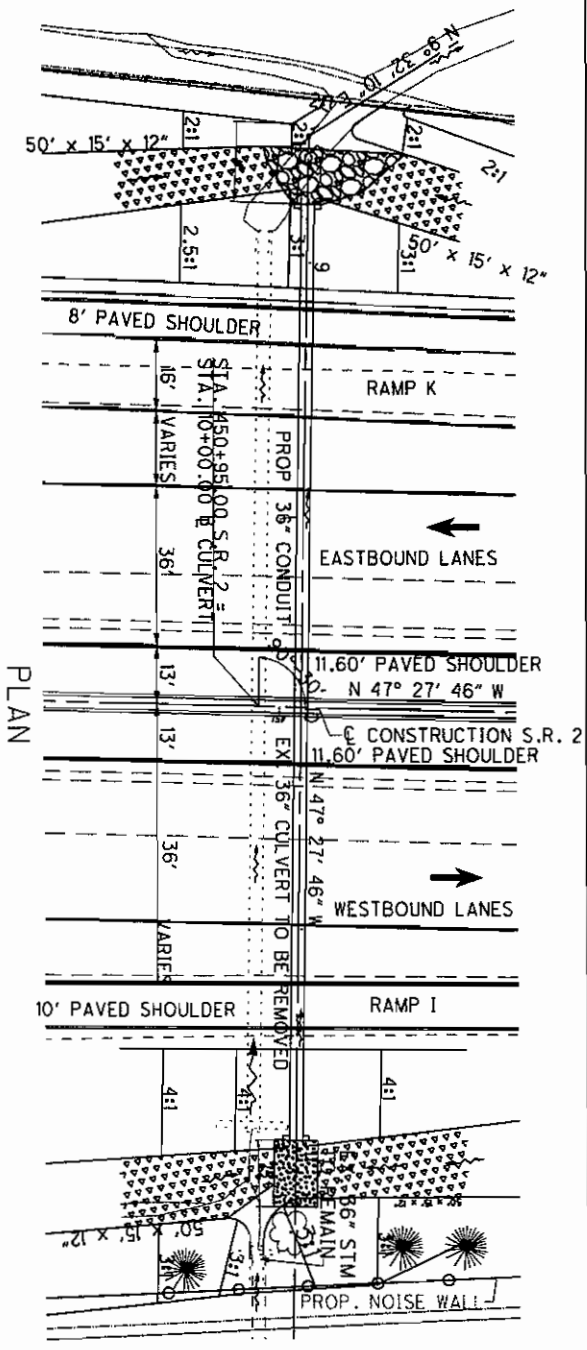


* OHWM ELEV = 590.50 (+)

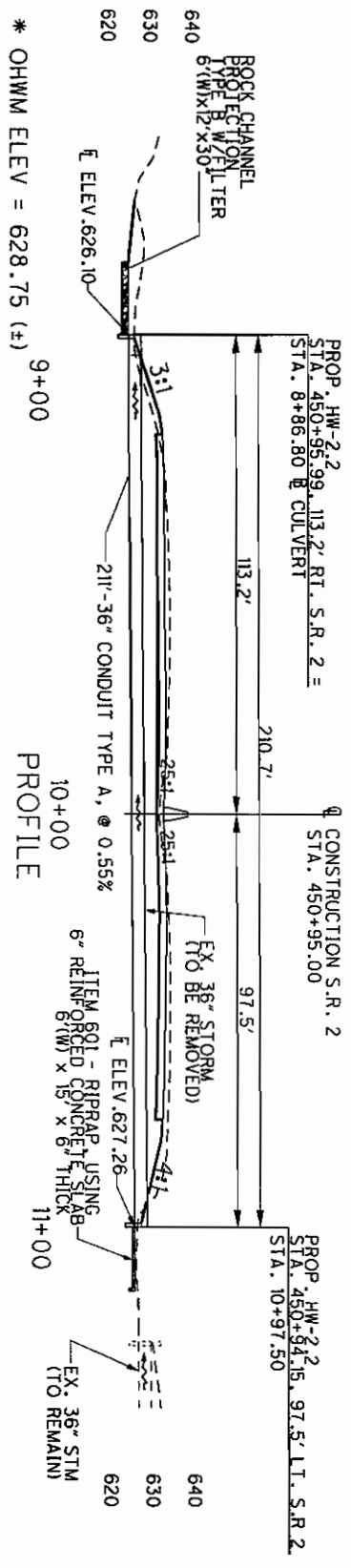
PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



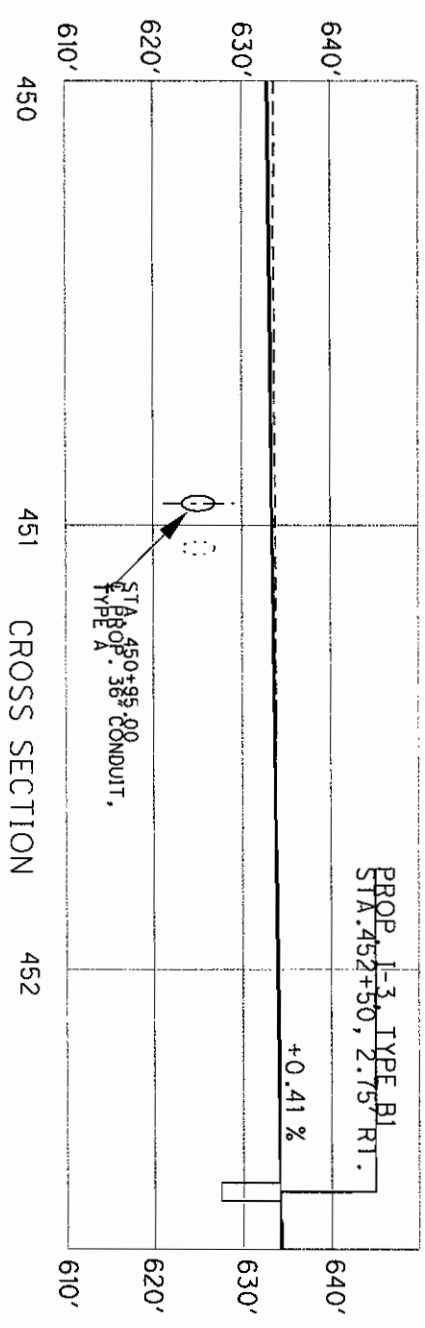
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 LOST NATION ROAD CULVERT DETAIL STA. 50+36



PLAN



PROFILE

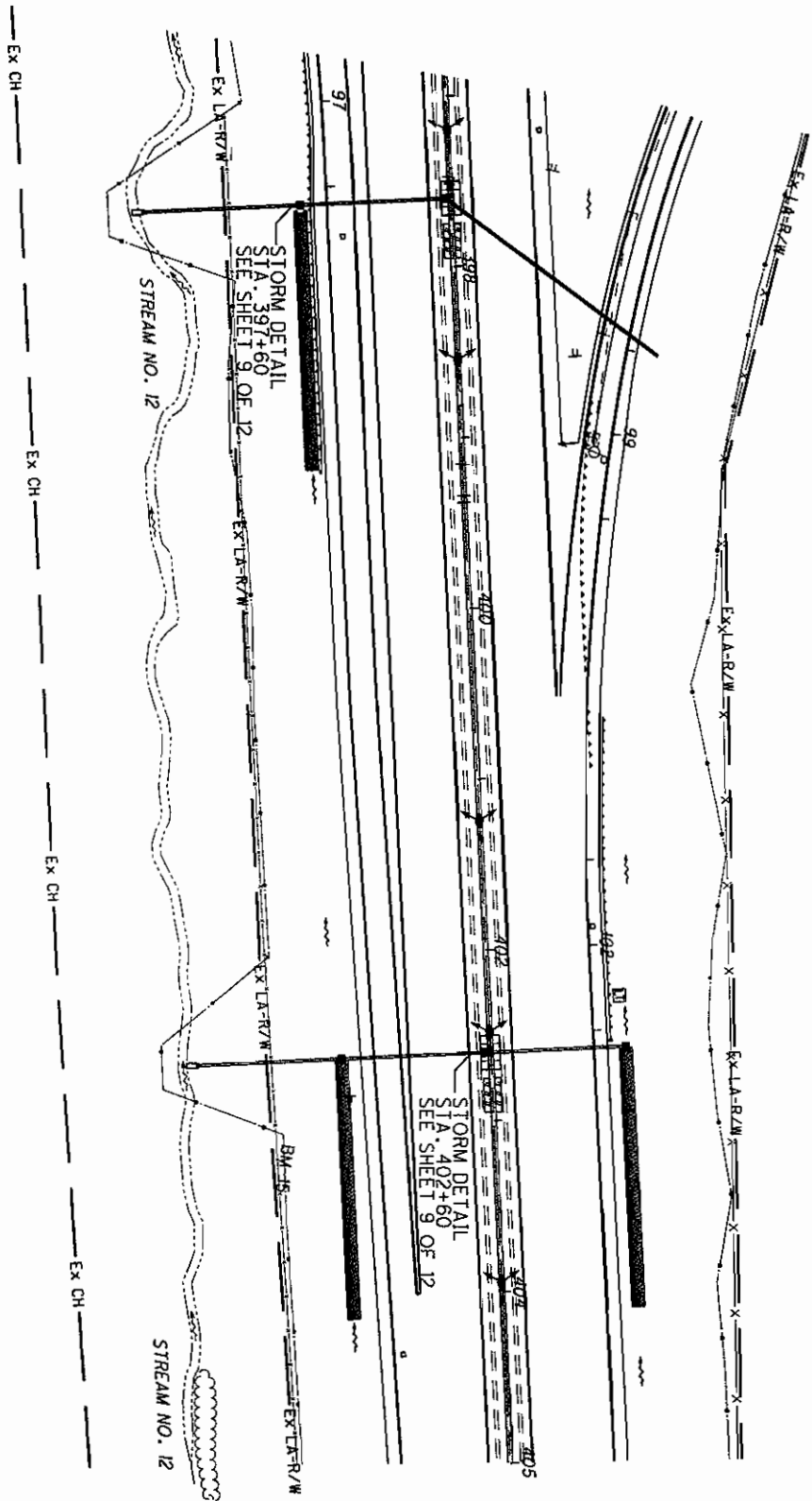


CROSS SECTION

PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



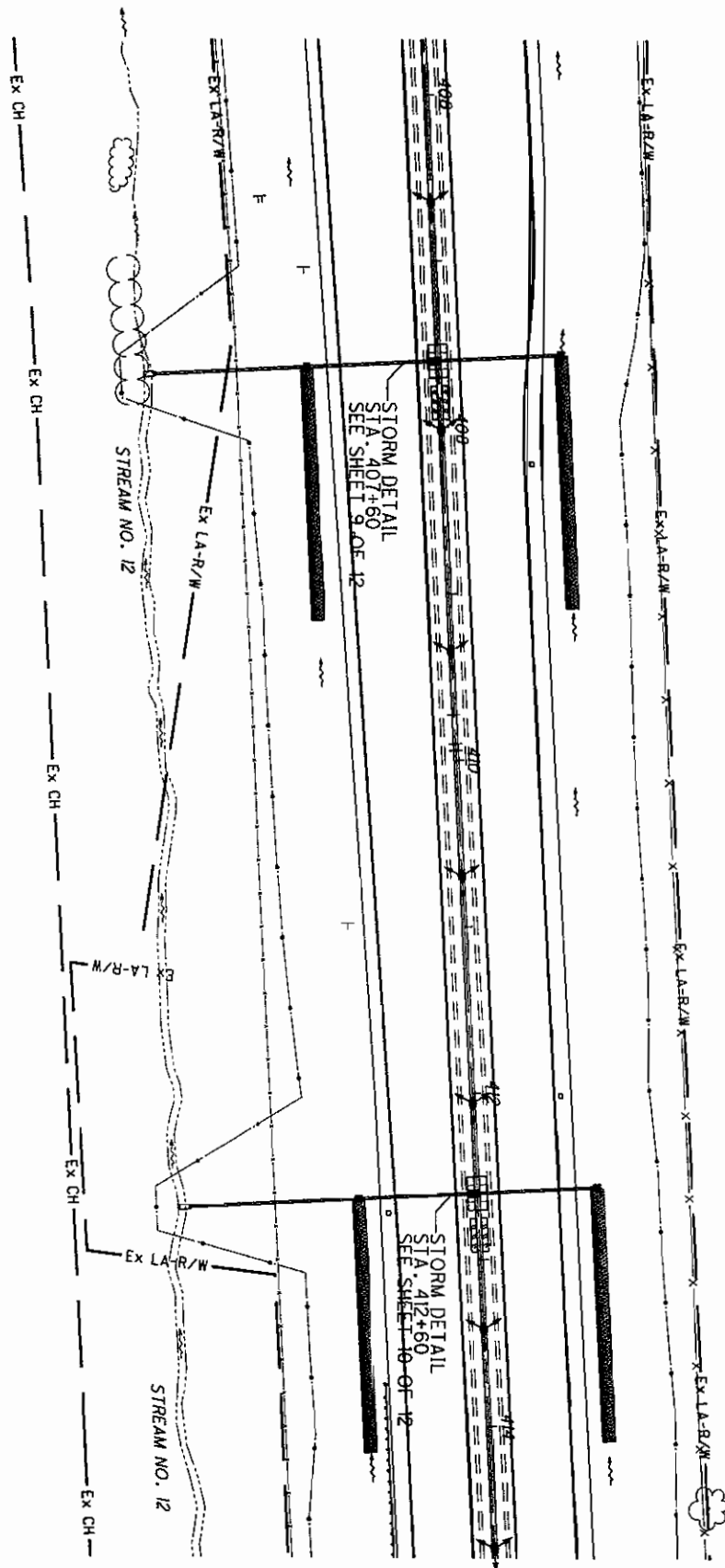
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR2 CULVERT DETAIL STA. 450+95



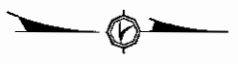
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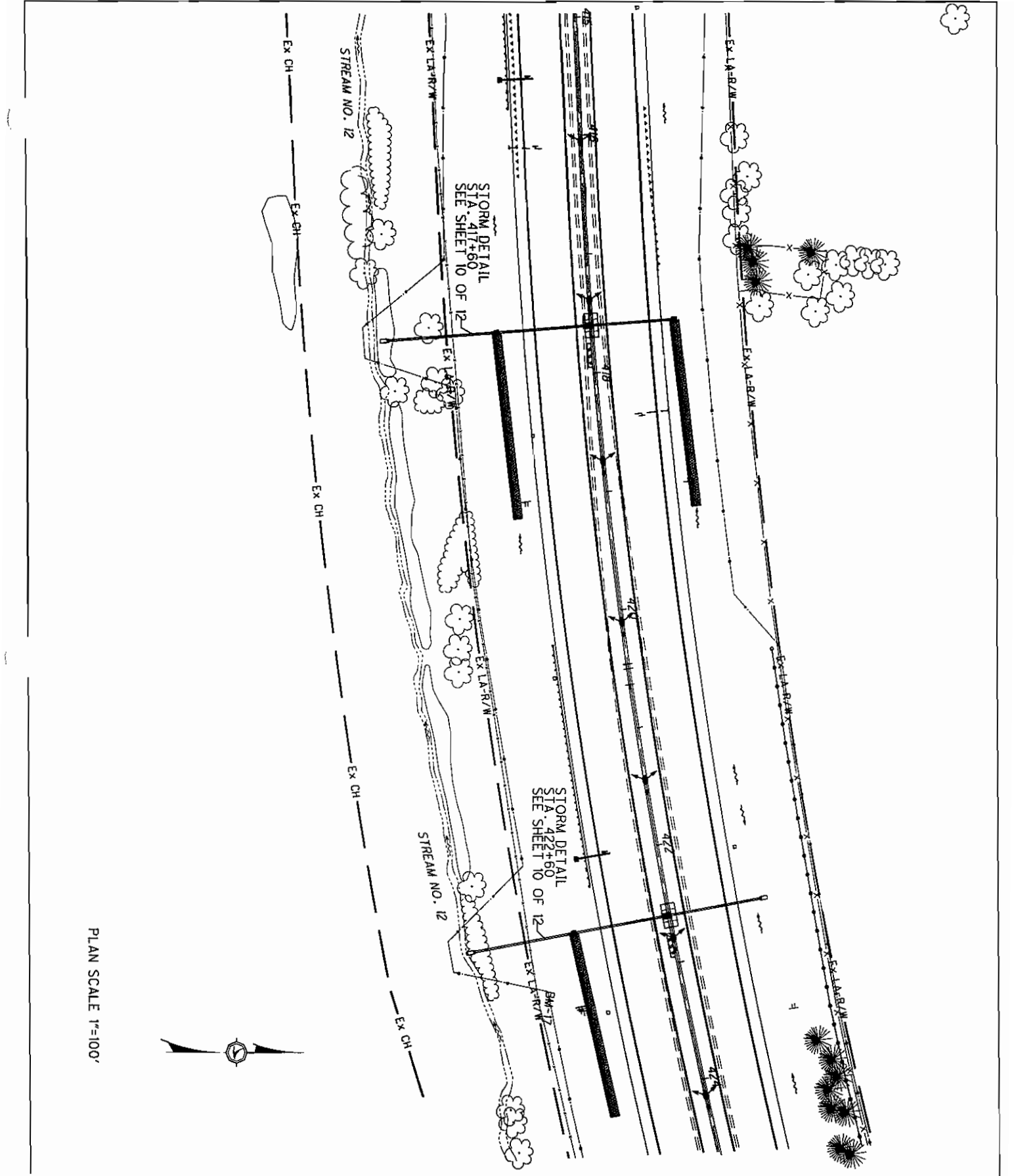
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 397+00 TO STA. 405+00



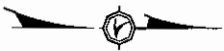
PLAN SCALE 1"=100'



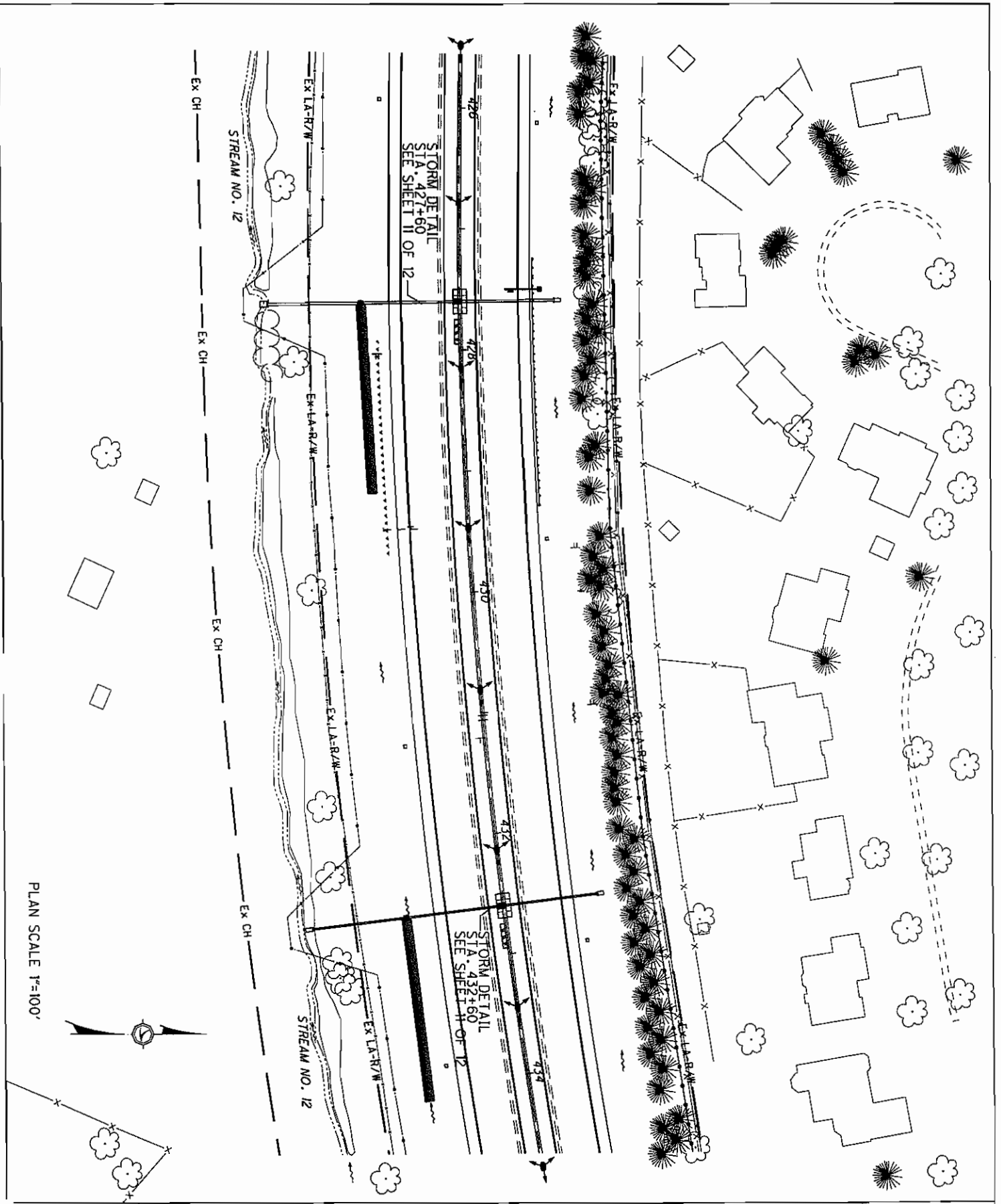
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 406+00 TO STA. 414+00



PLAN SCALE 1"=100'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 415+00 TO STA. 424+00



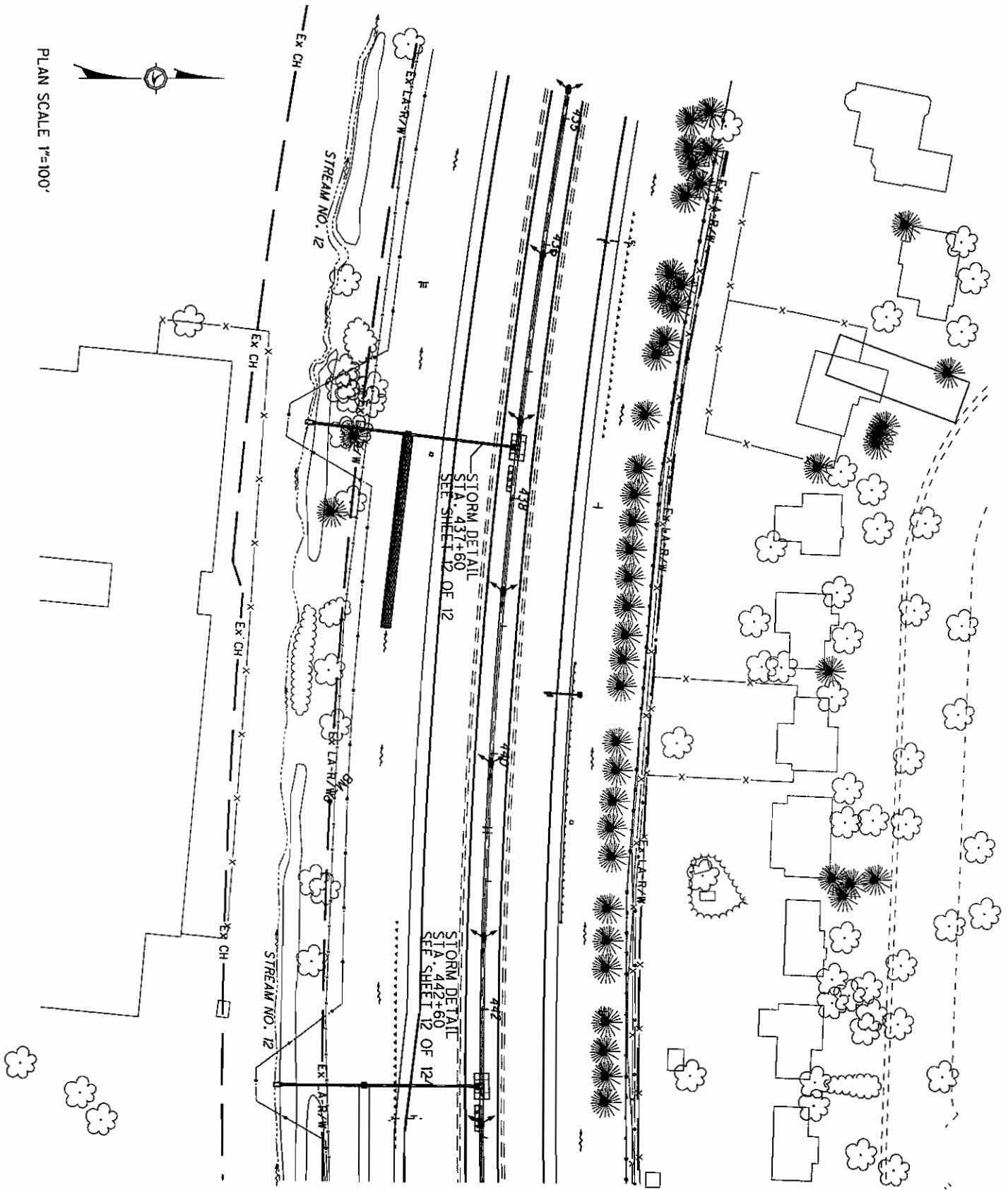
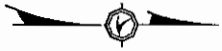
PLAN SCALE 1"=100'



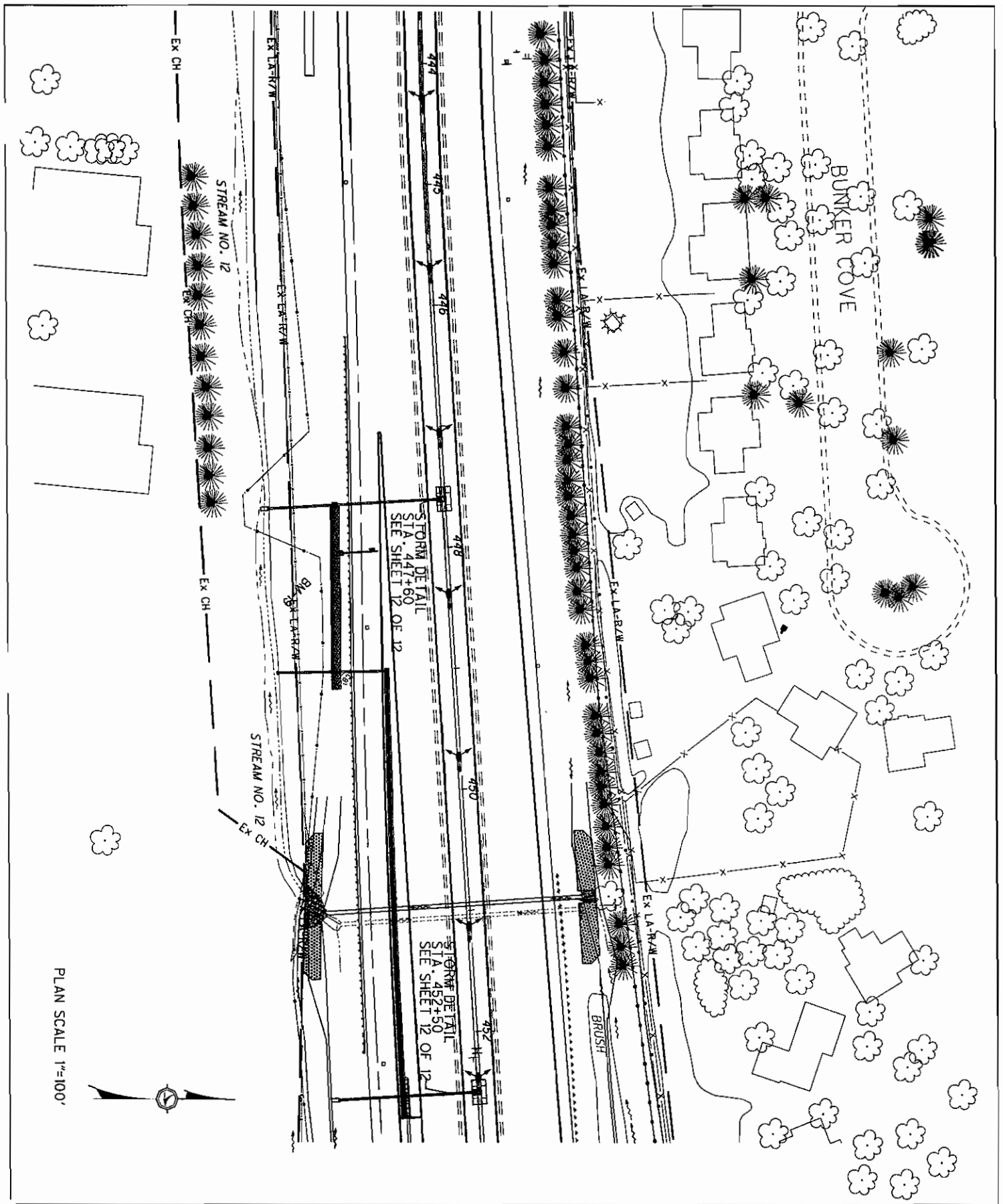
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 426+00 TO STA. 434+00

SHEET 6 OF 12

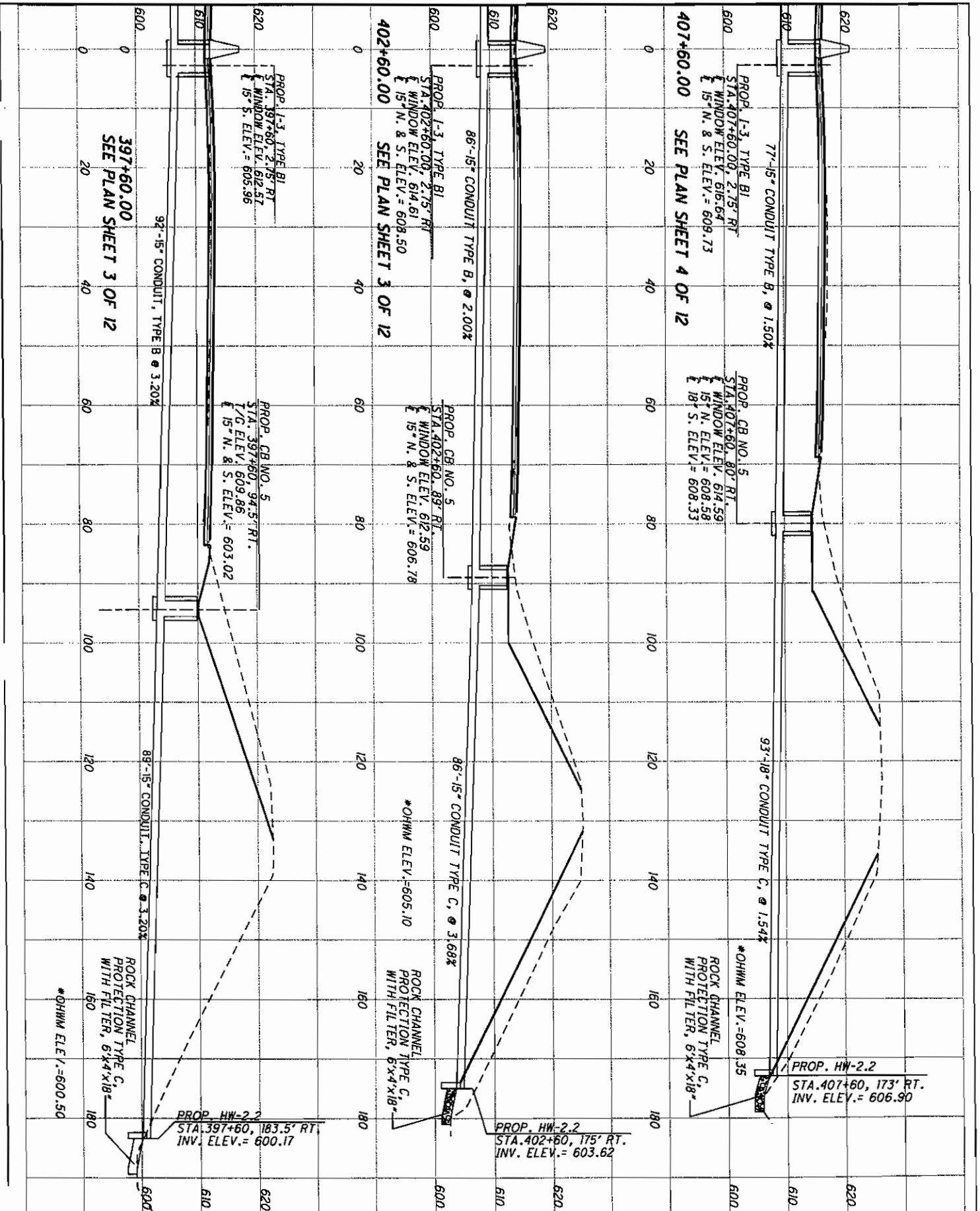
PLAN SCALE 1"=100'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
PROPOSED IMPACTS FOR STREAM NO. 12
TRIBUTARY OF CHAGRIN RIVER
SR 2 PLAN STA. 435+00 TO STA. 443+00

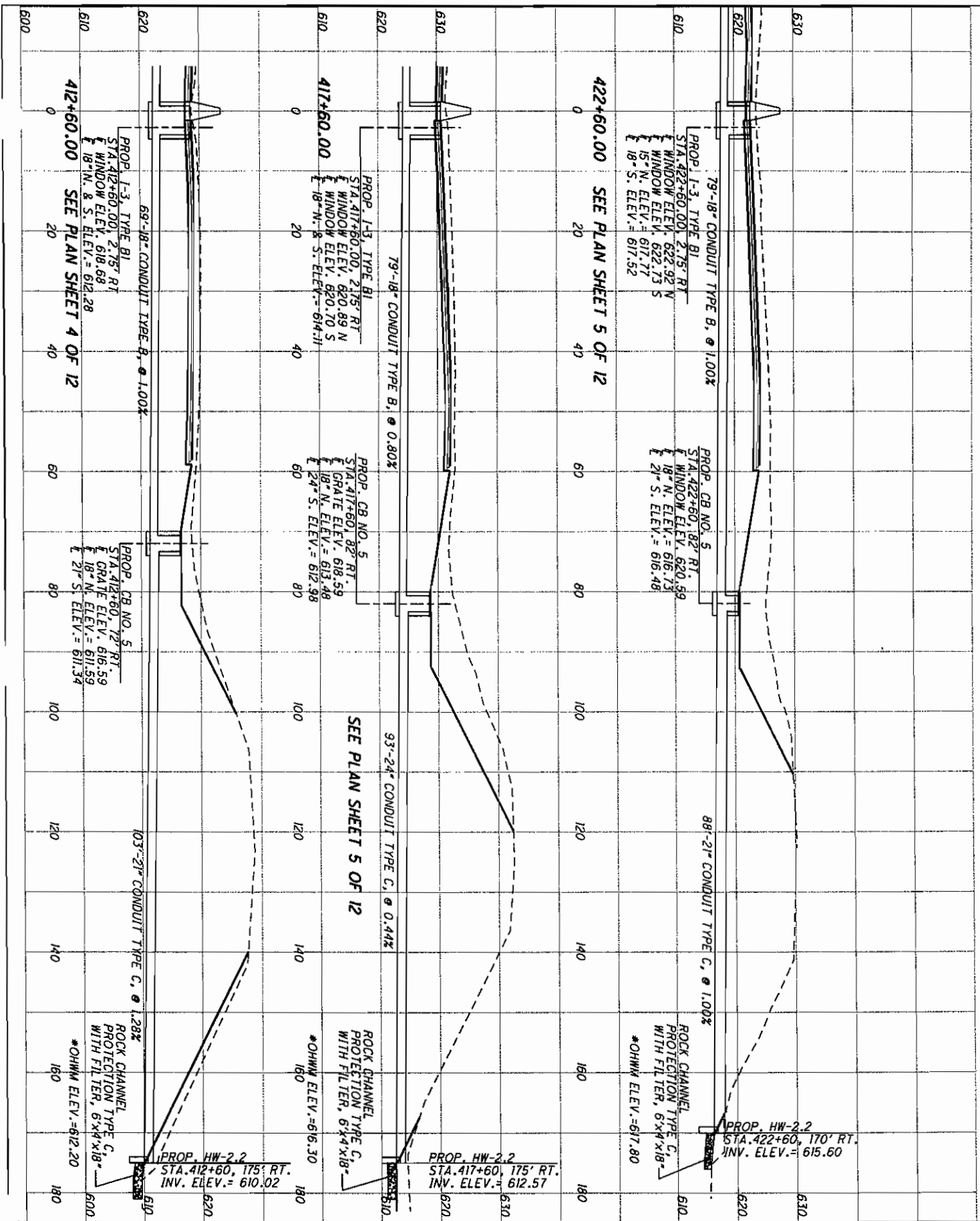


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 444+00 TO STA. 452+00



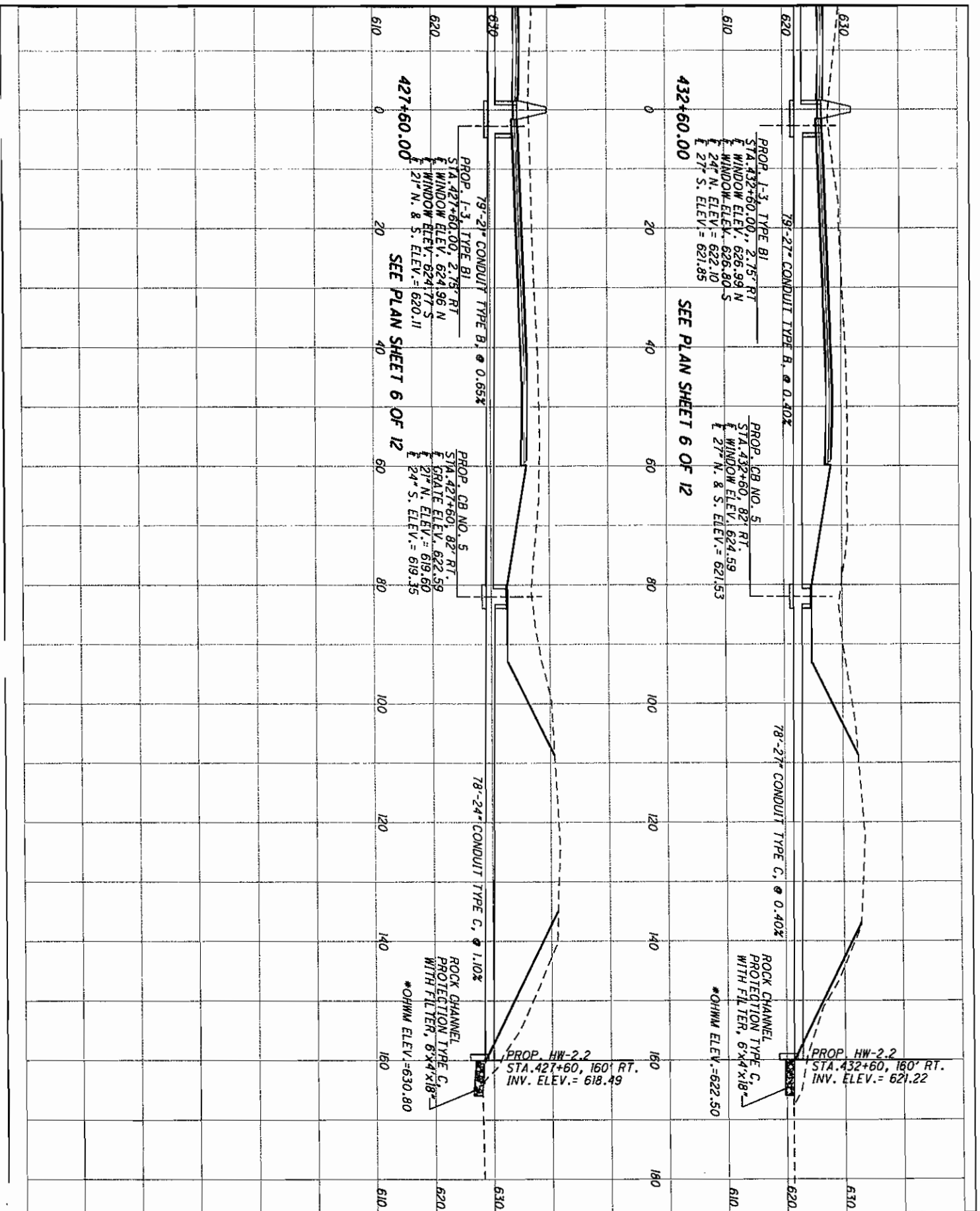
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 397+60 TO STA. 407+60





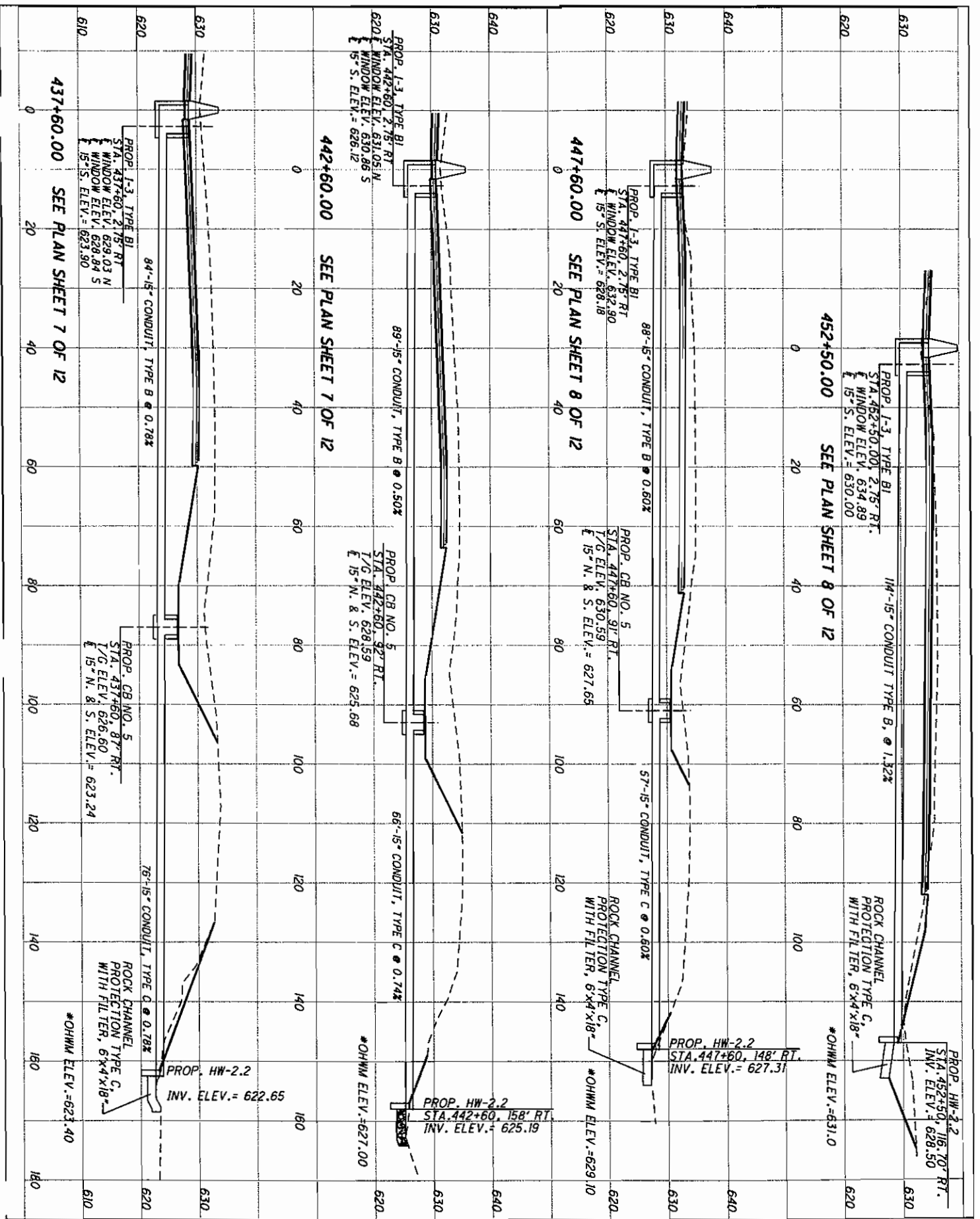
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 412+60 TO STA. 422+60





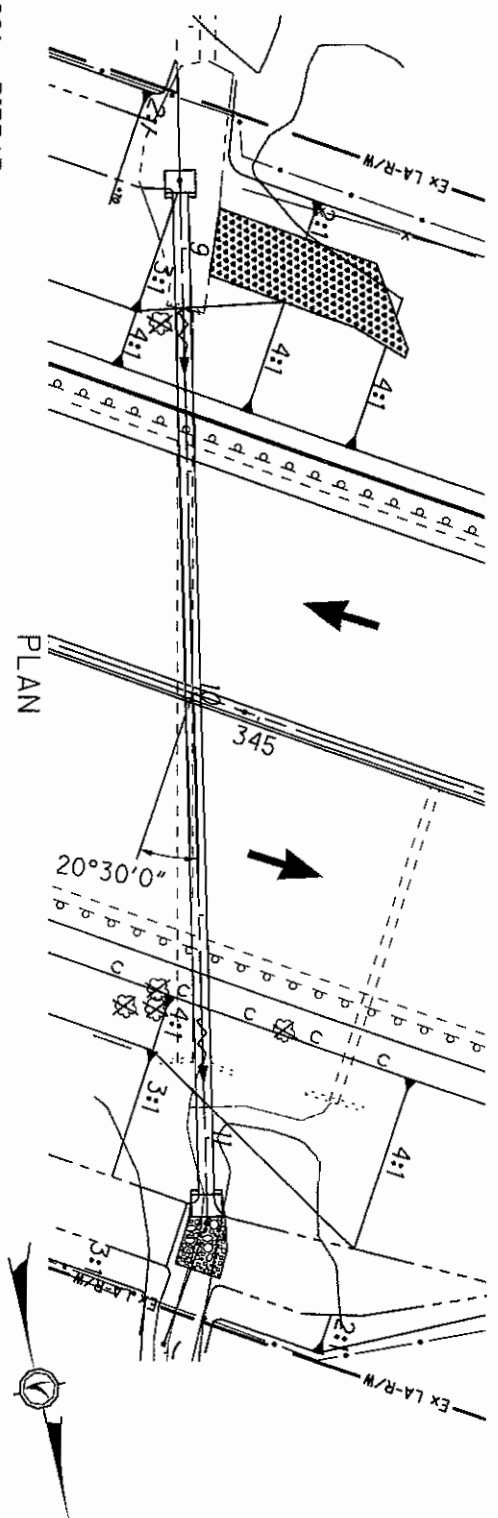
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 427+60 TO STA. 432+60



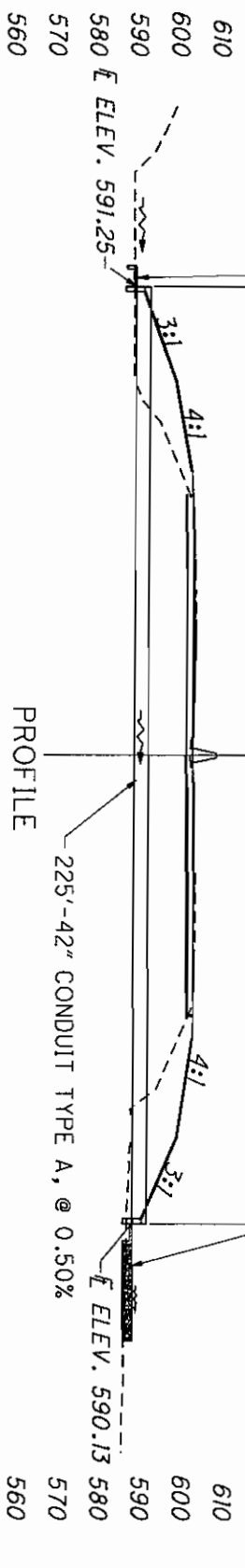


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 437+60 TO STA. 452+50





ITEM 601 - RIPRAP
W/ 6" REINFORCED
CONCRETE SLAB
5' (L) X 7' (W)



*OHWM ELEV. = 593.50(+)

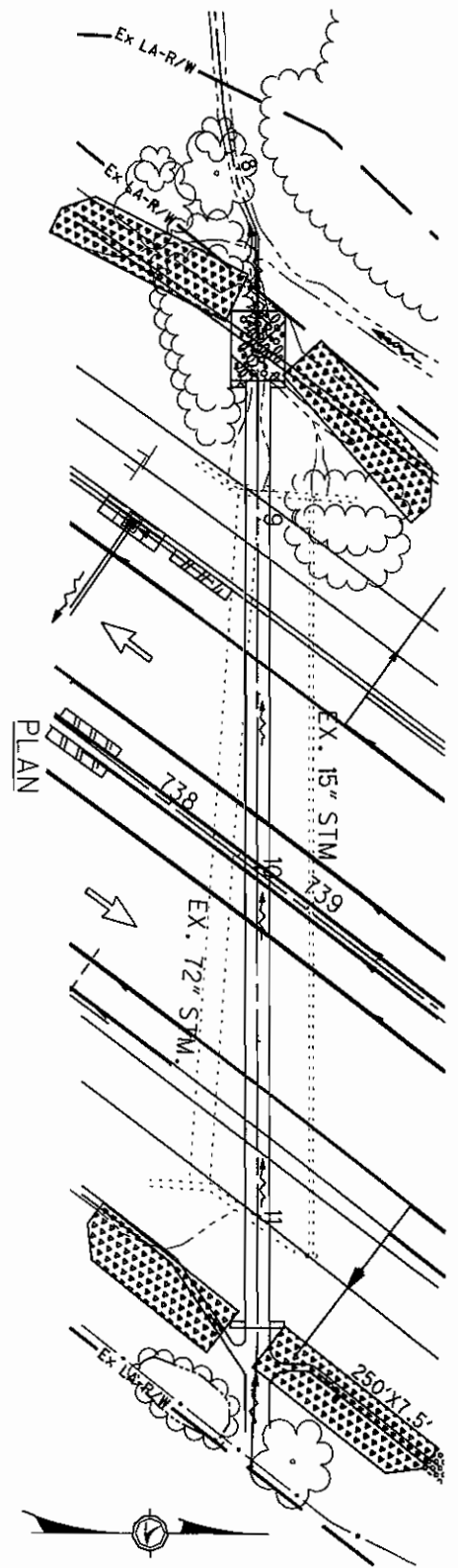
	EX. MH STA. 344+57, 10' LT	
	EX. CB STA. 344+57, 0' 2' LT	
		STA. 345+16 48" RCP
		PROP. I-3, TYPE B1 STA. 346+00, 2.75' RT. PROP. I-3, TYPE D STA. 346+00, 59.25' LT.
		PROP. 48" CONDUIT TYPE A

344 CROSS SECTION 345 346

PLAN SCALE 1"=40'
PROFILE SCALE 1"=40'
CROSS SECTION HORIZ. SCALE 1"=40'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
PROPOSED IMPACTS FOR STREAM NO. 13
TRIBUTARY OF CHAGRIN RIVER
STA. 345+16



640
630
620
610
600

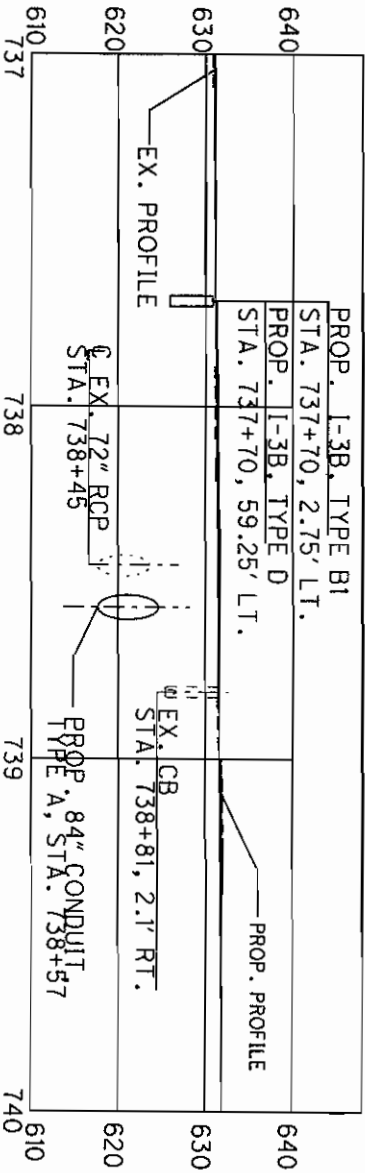
E INV. EL. 614.79
ROCK CHANNEL
PROTECTION,
TYPE A WITH FILTER
20'(L)x16'(W)x36"(T)

ITEM 601 - RIPRAP USING
REINFORCED CONC. SLAB

PROFILE

ITEM 601 - RIPRAP USING
REINFORCED CONC. SLAB

*OHWM ELEV. = 619.90(+)

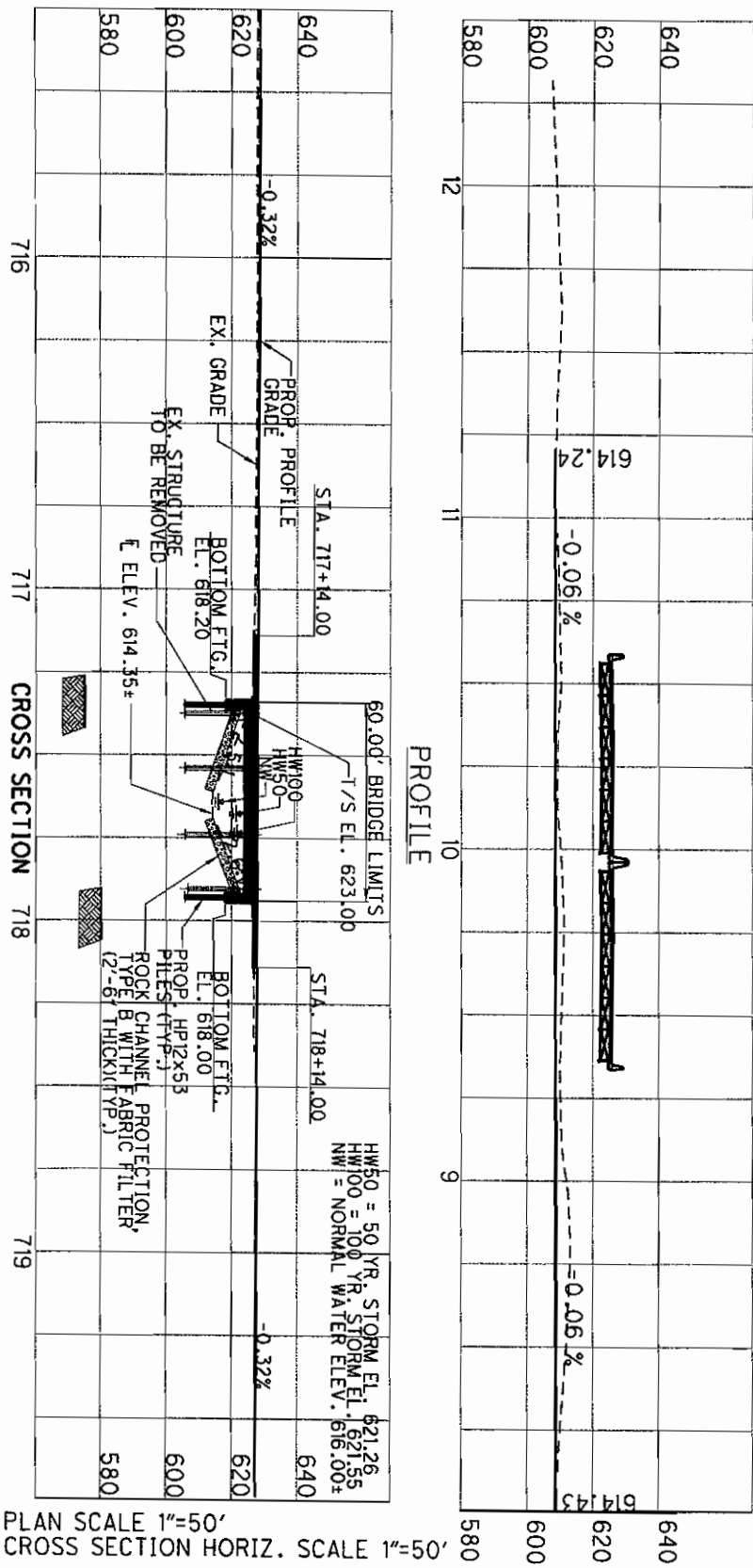


CROSS SECTION

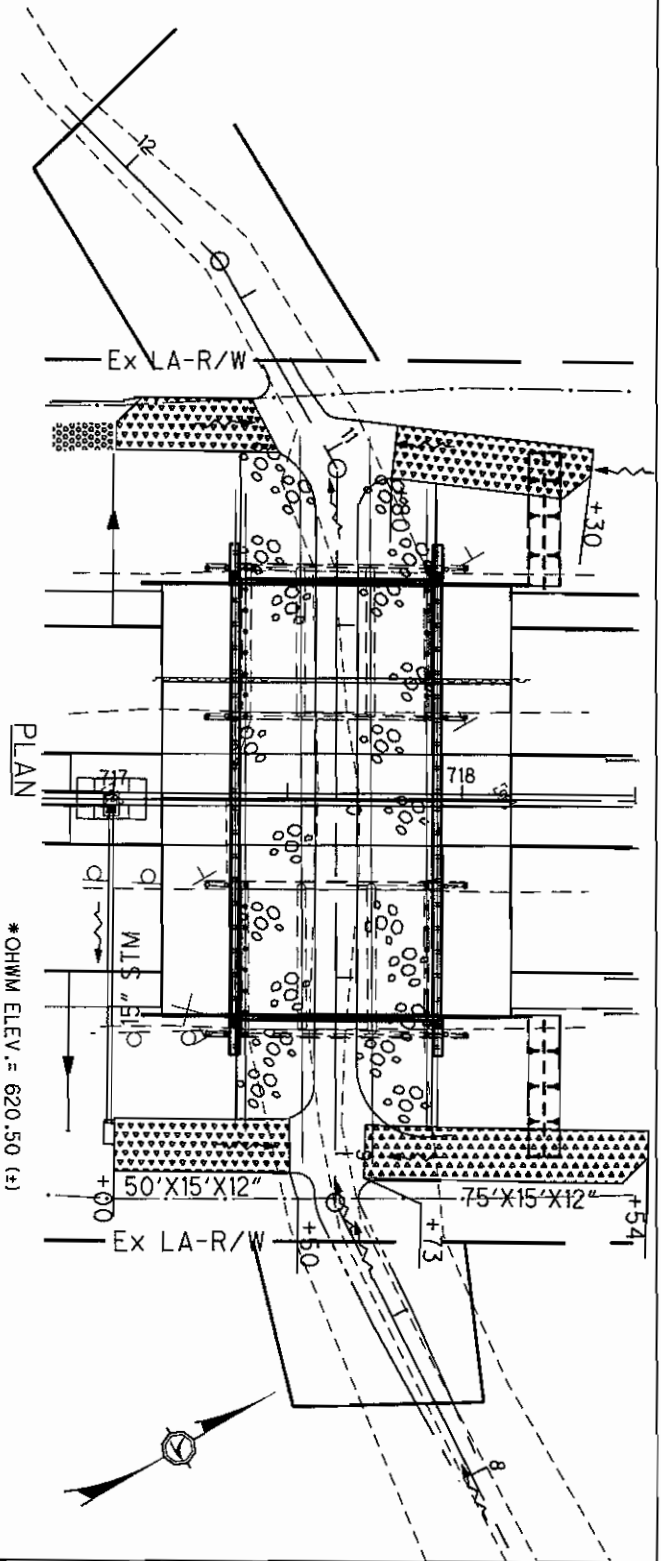
PLAN SCALE 1"=50'
PROFILE SCALE 1"=50'
CROSS SECTION HORIZ. SCALE 1"=50'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
PROPOSED IMPACTS FOR STREAM NO. 14
WASSON DITCH
STA. 738+57



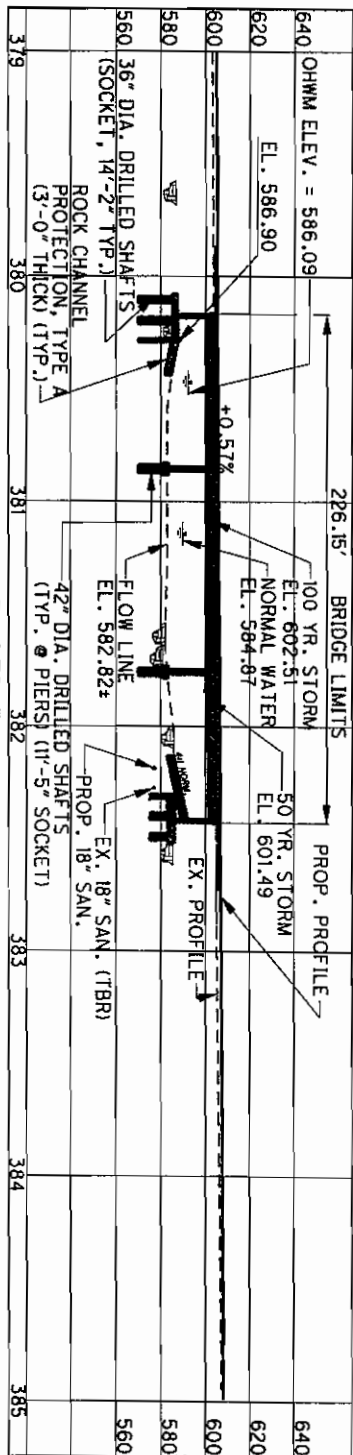
PLAN SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'



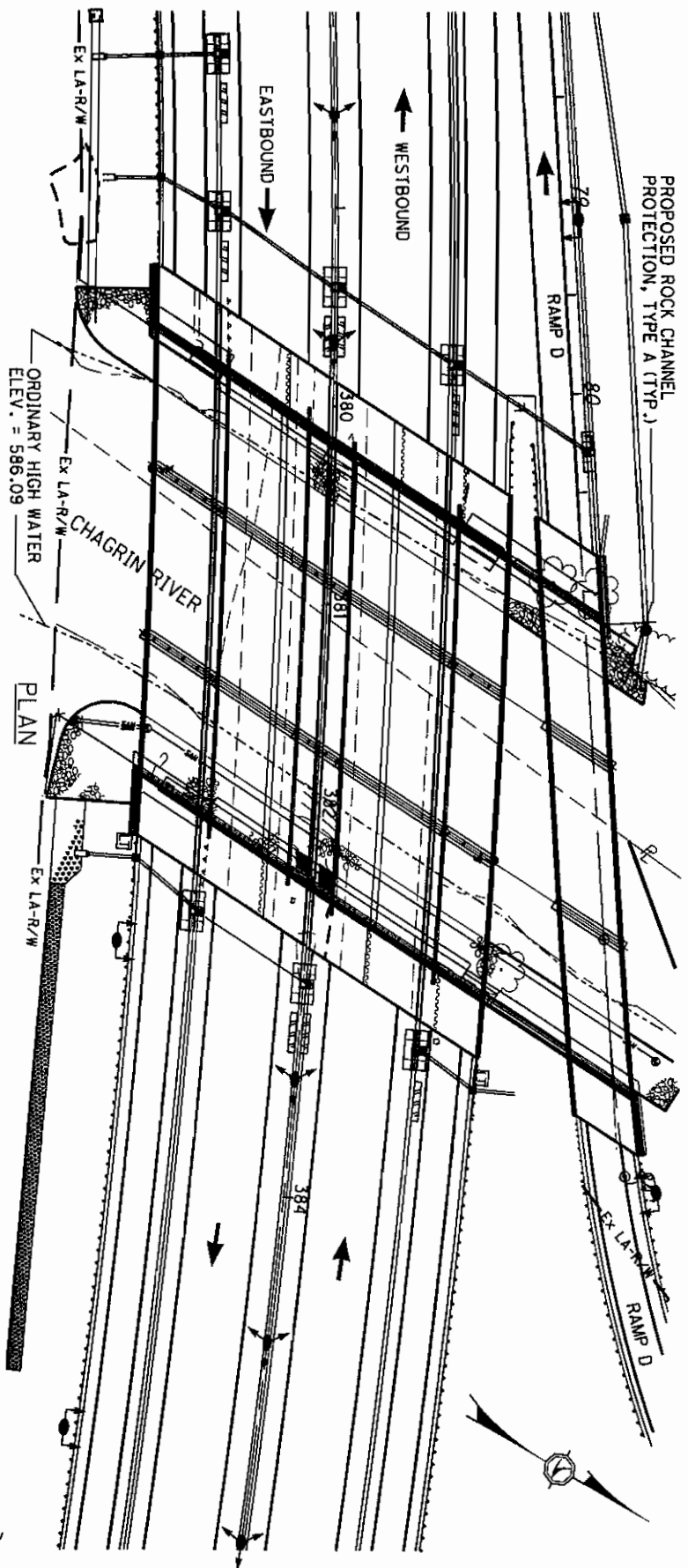
*OHWM ELEV. = 620.50 (+)



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 15
 HEISLEY CREEK
 STA. 717+65



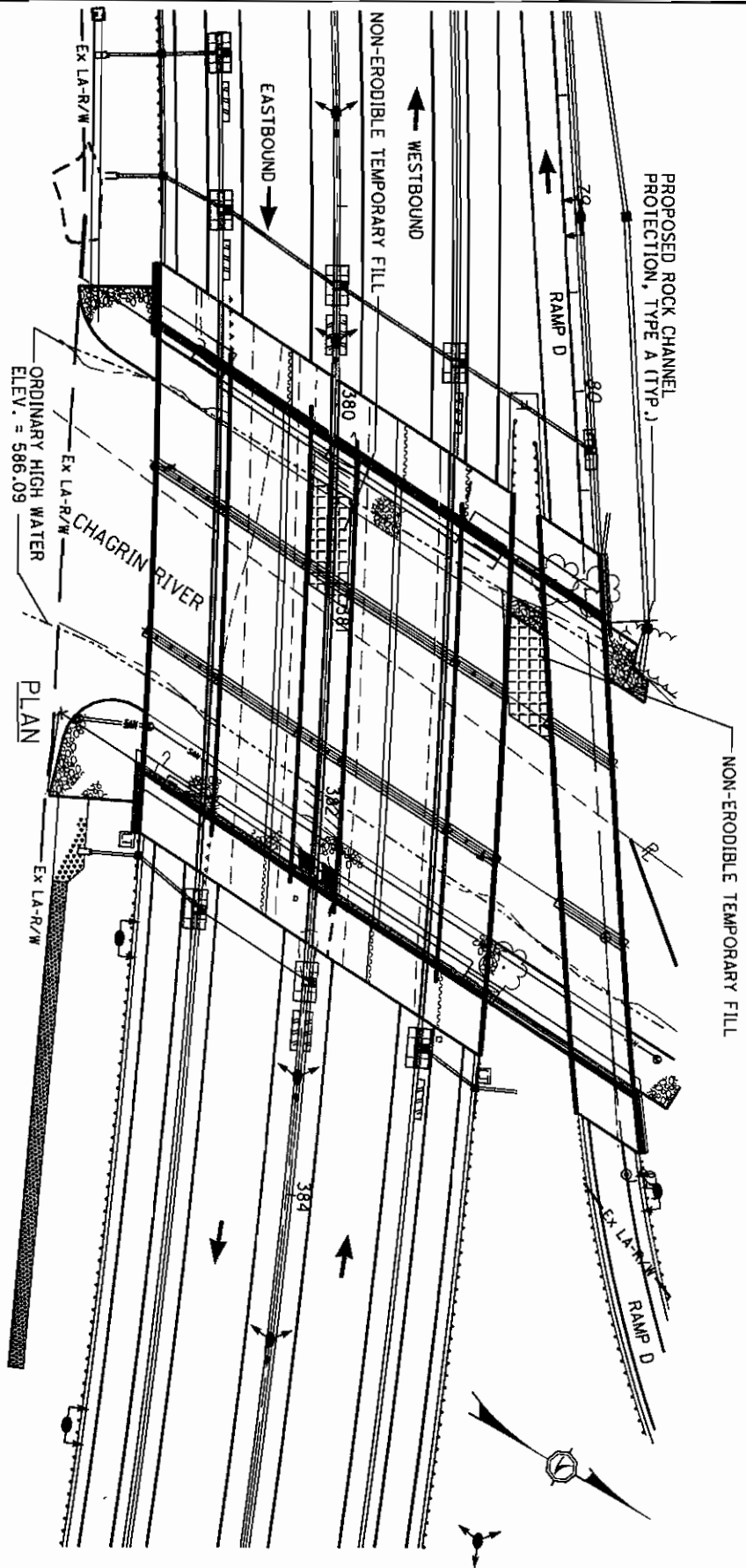
PROFILE



PLAN SCALE 1"=80'
 CROSS SECTION HORIZ. SCALE 1"=80'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 16
 CHAGRIN RIVER
 STA 381+16



TEMPORARY CROSSING LOCATION

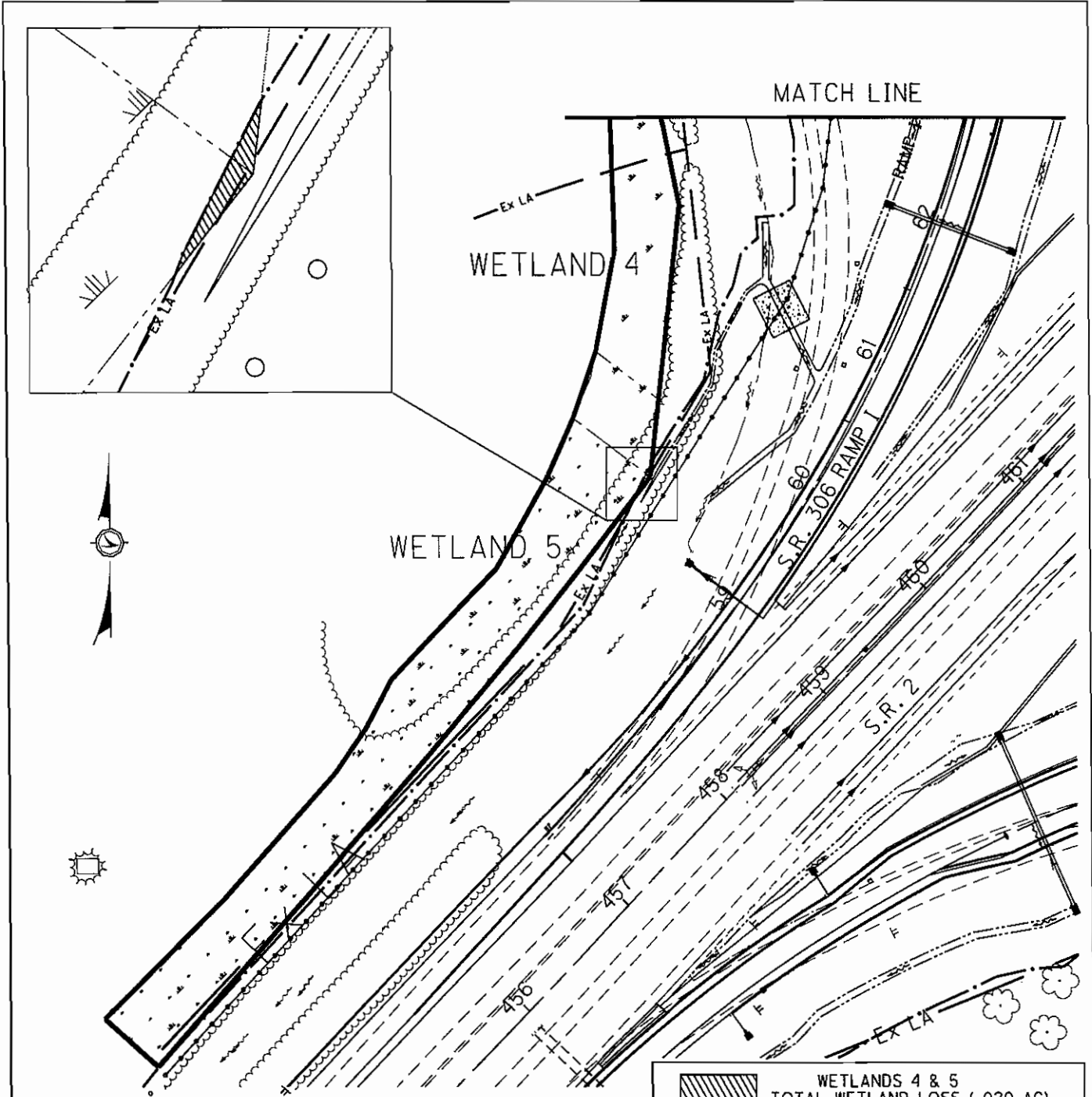
NOTE:

THE MAJORITY OF THE BRIDGE SPAN NO. 3 (EAST BANK) HAS AGGRADATED AND ALLOWS LITTLE OR NO FLOW TO BE CONVEYED. THEREFORE, THE CONTRACTOR WILL NOT NEED A TEMPORARY CONSTRUCTION STREAM CROSSING IN THIS AREA. LIKEWISE, THE BRIDGE SPAN NO 2 (CENTER BAY) WILL NOT BE IMPACTED WITH THE EXCEPTION OF THE PROPOSED SHEETING/ COFFERDAMS TO CONSTRUCT THE PROPOSED PIERS. LASTLY, THE RIVER'S FLOW WILL BE DIRECTED TOWARD THE CENTER SPAN NO. 2 AND A TEMPORARY STREAM CROSSING WILL BE CONSTRUCTED ONLY WITHIN SPAN NO. 1 WHEN CONSTRUCTING THE WEST ABUTMENT AND THE WEST PIERS. IN ANY CASE, NO TEMPORARY PIPES WILL BE NEEDED TO COMPLETE THE CONSTRUCTION.

PLAN SCALE 1"=80'




LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 16
 CHAGRIN RIVER
 STA 381+16



PLAN

PLAN SCALE 1"=100'
 INSET PLAN SCALE 1"=20'

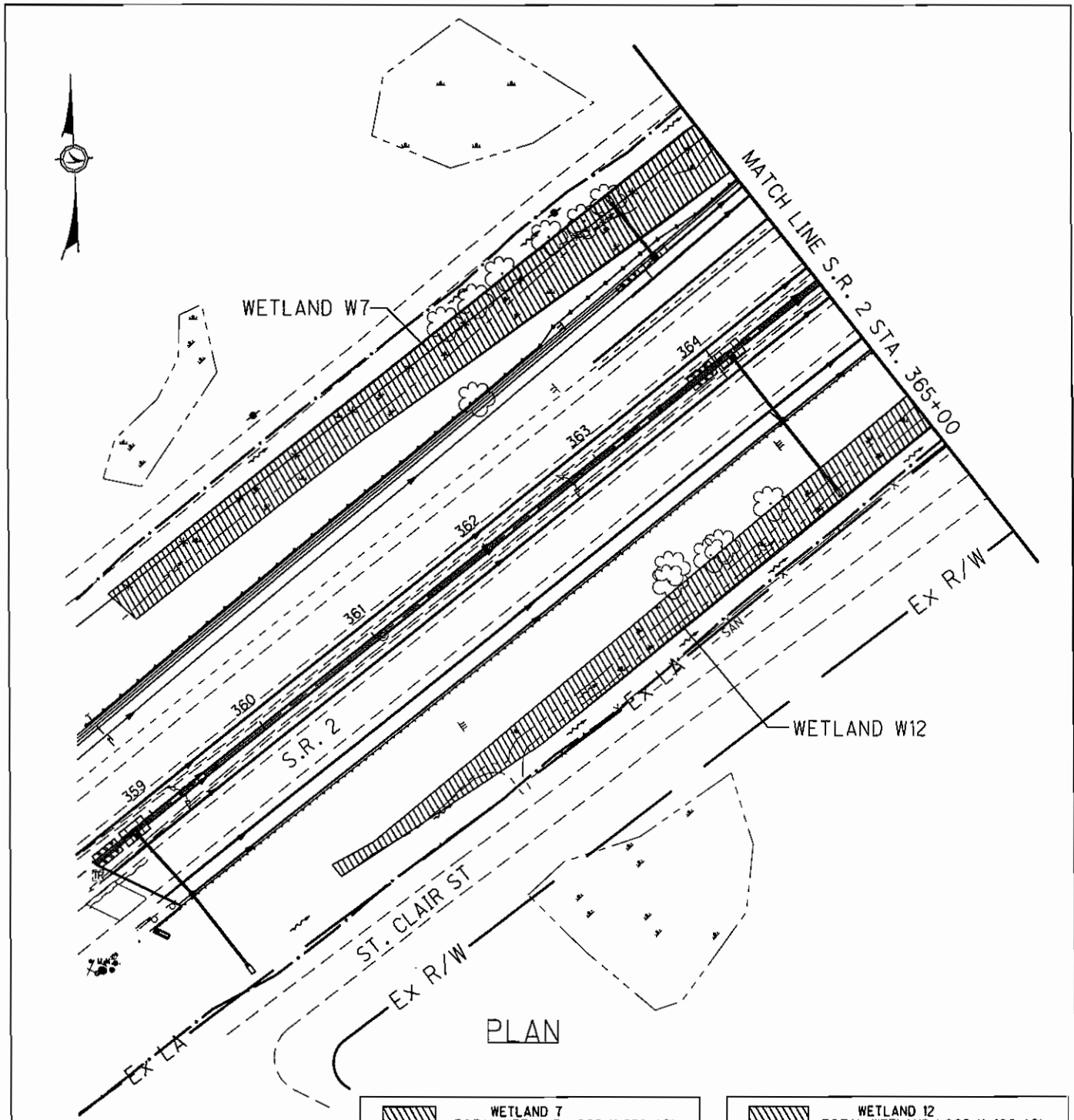
	WETLANDS 4 & 5 TOTAL WETLAND LOSS (.020 AC)
	AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): .020 AC
	EXCAVATION BELOW OHW: 15 CY
	FILL BELOW OHW: 0.0 CY
	INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC



**IMPACTS TO WETLANDS
 W4 & W5**


OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 2 IN LAKE COUNTY
 LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545


SHEET 1 / 2



PLAN

PLAN SCALE 1"=100'

	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
EXCAVATION BELOW OHW:	400 CY
FILL BELOW OHW:	27023 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

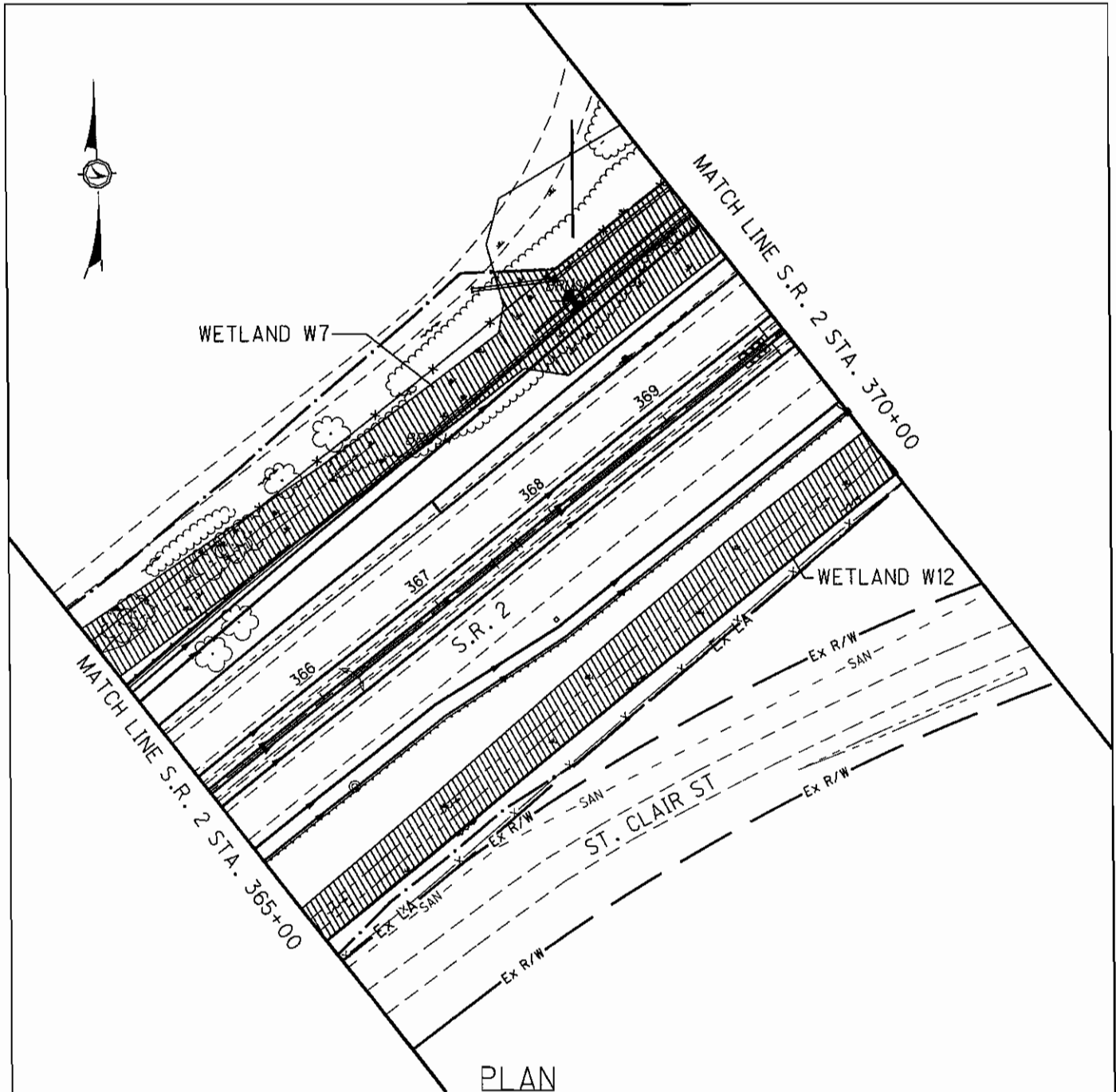
	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC




**IMPACTS TO WETLANDS
W7 & W12**


OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

SHEET 1 / 4



PLAN

	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
EXCAVATION BELOW OHW:	400 CY
FILL BELOW OHW:	27023 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

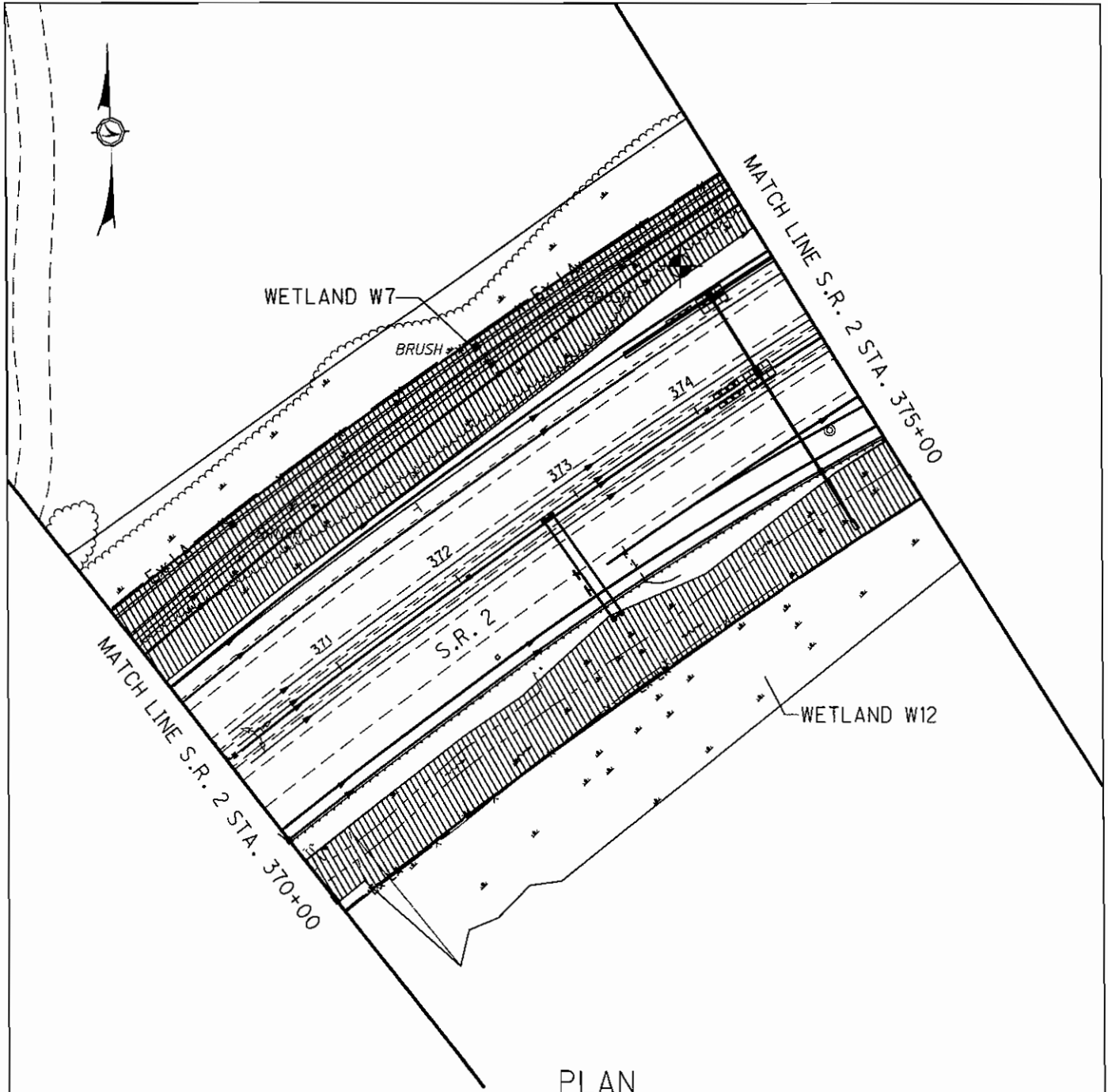
PLAN SCALE 1"=100'



IMPACTS TO WETLANDS W7 & W12


OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545


SHEET 2 / 4



PLAN

PLAN SCALE 1"=100'

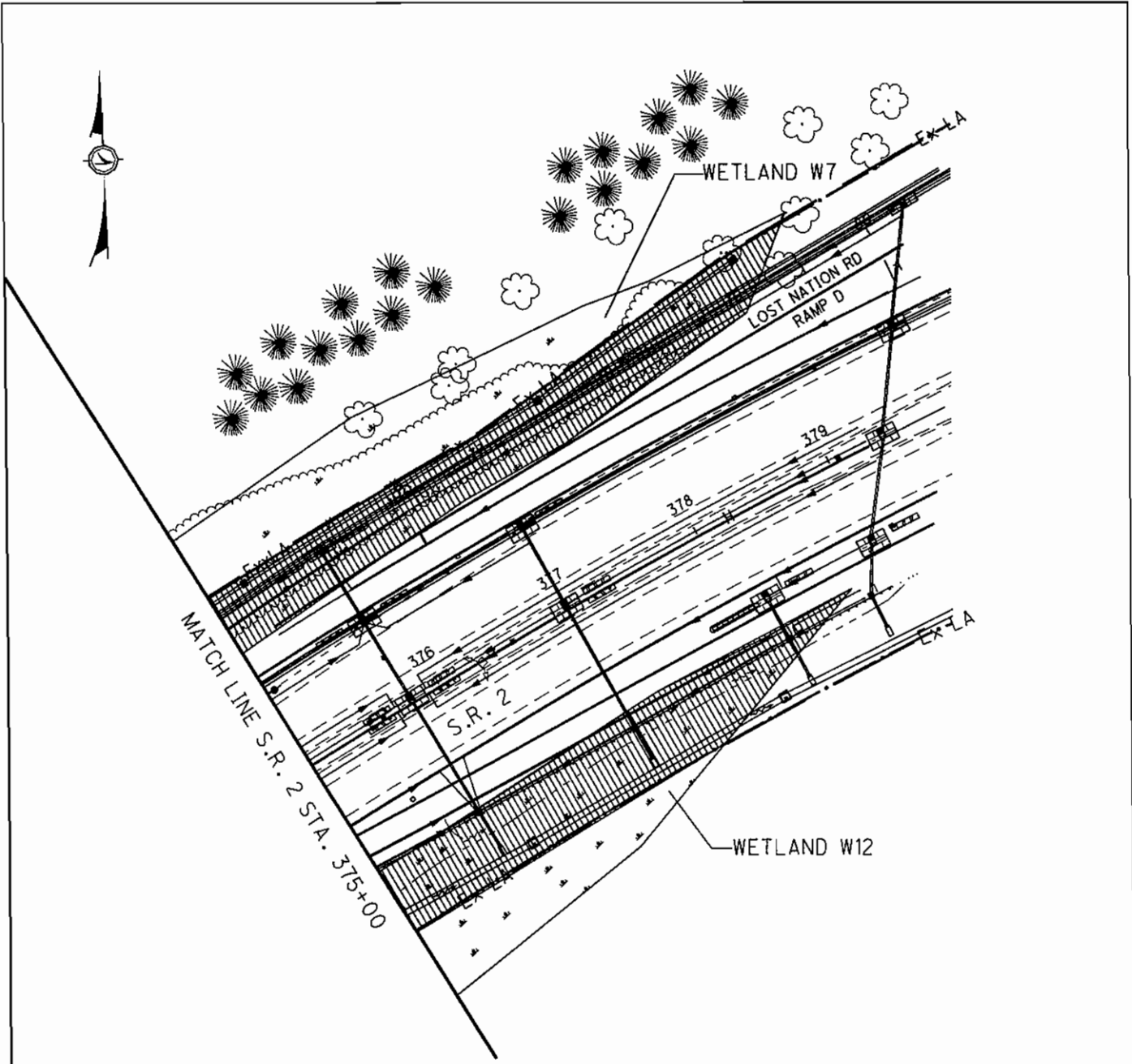
	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): 1.920 AC	
EXCAVATION BELOW OHW: 400 CY	
FILL BELOW OHW: 27023 CY	
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC	

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): 1.406 AC	
EXCAVATION BELOW OHW: 1944 CY	
FILL BELOW OHW: 5222 CY	
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC	



IMPACTS TO WETLANDS W7 & W12

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



PLAN

PLAN SCALE 1"=100'

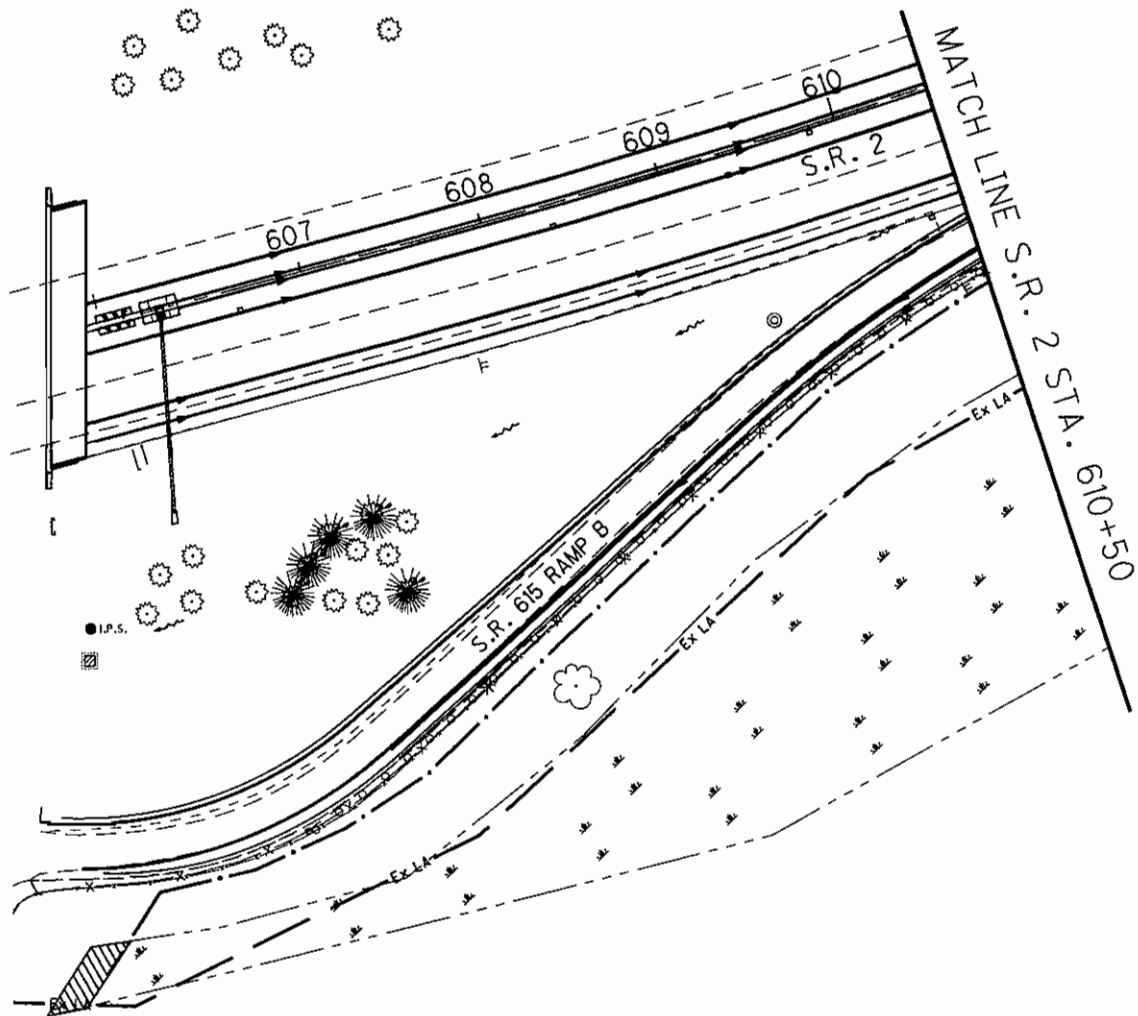
	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
EXCAVATION BELOW OHW:	400 CY
FILL BELOW OHW:	27023 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC




**IMPACTS TO WETLANDS
W7 & W12**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



PLAN

	WETLAND 11 TOTAL WETLAND LOSS (.010 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	.010 AC
EXCAVATION BELOW OHW:	15 CY
FILL BELOW OHW:	0 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

PLAN SCALE 1"=100'

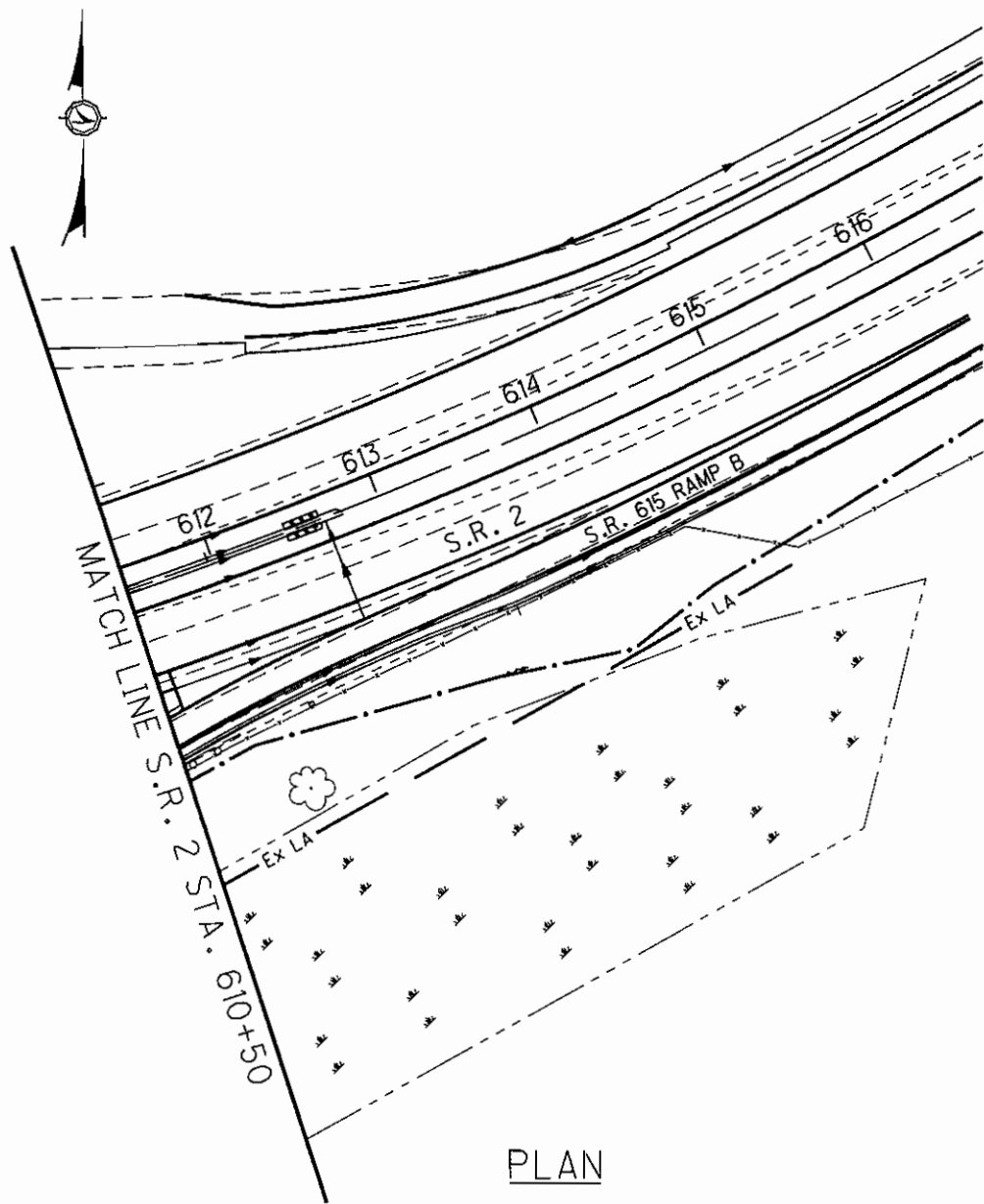


IMPACTS TO WETLANDS W11

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY


LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

SHEET 1 / 2



PLAN

PLAN SCALE 1"=100'

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): .574 AC	
EXCAVATION BELOW OHW: 1944 CY	
FILL BELOW OHW: 5222 CY	
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC	

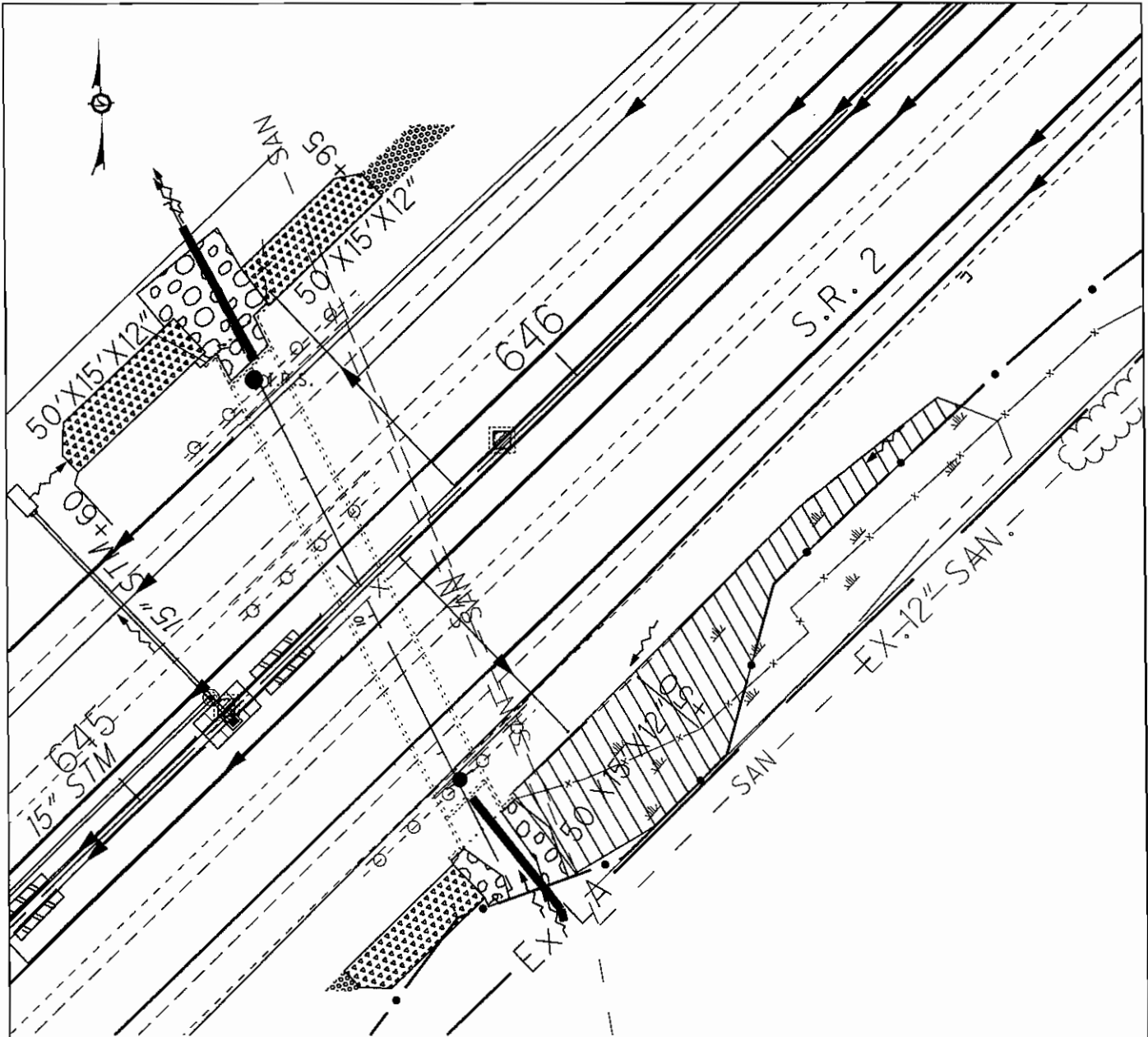


IMPACTS TO WETLANDS W11


OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

SHEET 2 / 2



PLAN

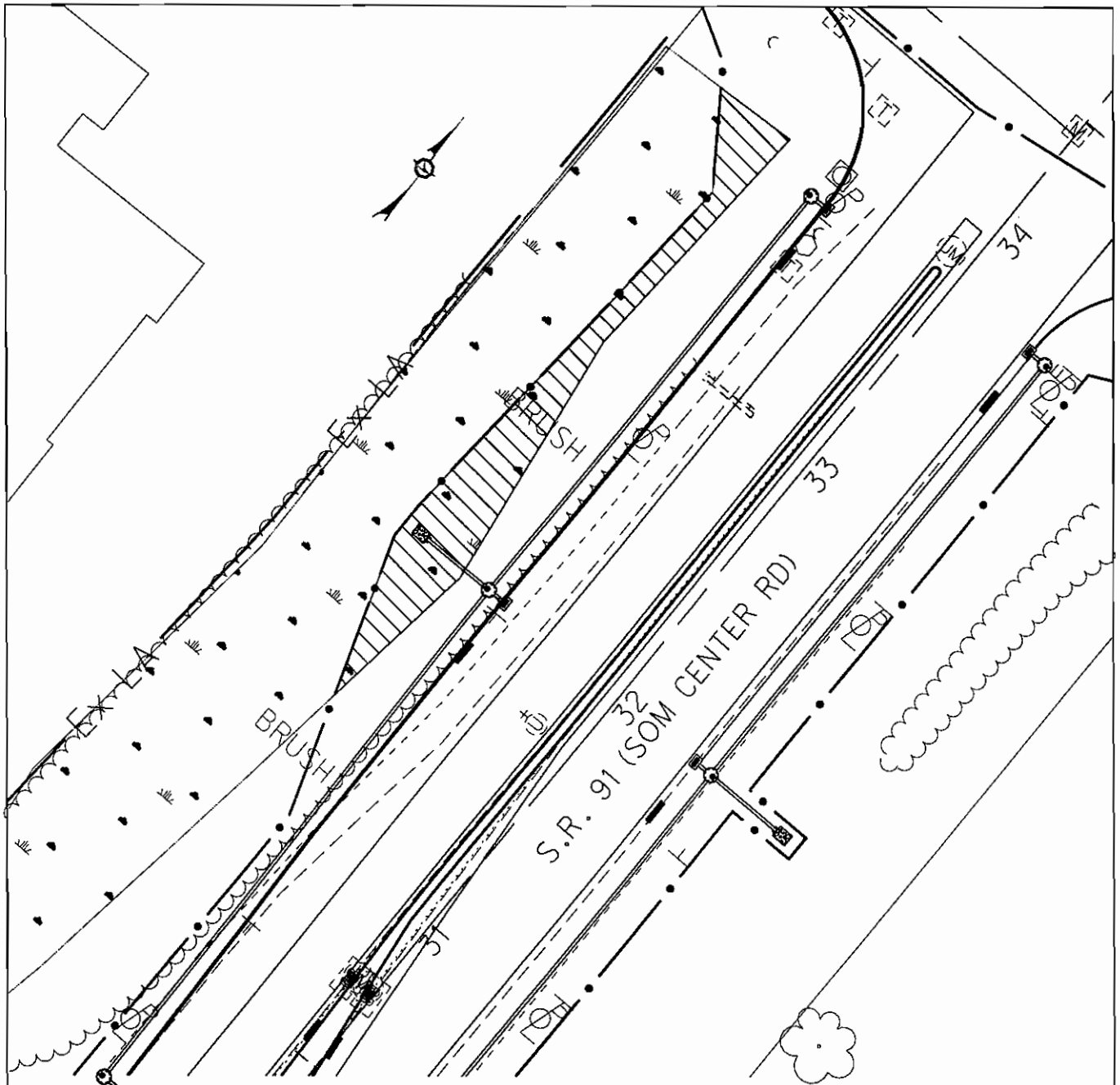
	WETLAND 21 TOTAL WETLAND LOSS (.120 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	.120 AC
EXCAVATION BELOW OHW:	208 CY
FILL BELOW OHW:	0.0 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC


PLAN SCALE 1"=50'



IMPACTS TO WETLANDS W21

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



	WETLAND 30 TOTAL WETLAND LOSS (.050 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): .050 AC	
EXCAVATION BELOW OHW: 50 CY	
FILL BELOW OHW: 50 CY	
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC	

PLAN

PLAN SCALE 1"=50'



IMPACTS TO WETLANDS W30

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

**Pre-Activity Notification Application for the General Isolated Wetland Permit Application
(Level One Review) for the LAK-2-3.32 (PID 13486) Project in Eastlake, Willoughby, and
Mentor, Lake County, Ohio**

By

Richard M. Paul, Ecologist/Environmental Specialist

Submitted By:

Andrew Campbell

Project Manager

ASC Group, Inc.

4620 Indianola Avenue

Columbus, Ohio 43214

614.268.2514

Submitted to:

Scott Graham, P.E.

ARCADIS U.S., Inc.

1100 Superior Avenue

Suite 1250

Cleveland, Ohio 44114

216.781 6177

Lead Agency: Ohio Department of Transportation

March 3, 2008

TABLE OF CONTENTS

General Isolated Wetland Permit Application (Level One Review)

Appendix A – General Maps And Design Drawings

Figure 1 – Portion of the ODOT Lake County highway map showing the project area.

Figure 2 – Portions of the 1963 (photo revised 1992) Eastlake and the 1963 (photo revised 1992) Mentor quadrangles (USGS 7.5' topographic map illustrating the project area and isolated wetland locations (2 Sheets).

Figure 3 – Plan view of wetlands.

Appendix B – ORAM V.5.0

Appendix C – Photographs

Appendix D – U.S.A.C.E Isolated Waters Determination

General Isolated Wetland Permit Application (Level One Review)



State of Ohio Environmental Protection Agency

GENERAL ISOLATED WETLAND PERMIT APPLICATION (Level One Review)

For impacts of 1/2 acre or less to Category 1 & 2 isolated wetlands

Please Print or Type (attach additional sheets if necessary)

	Applicant	Agent:
Company Name:	Ohio Department of Transportation	ODOT, Office of Environmental Services
Address:	1980 West Broad Street, 3rd Floor	1980 West Broad Street, 3rd Floor
City, State, Zip:	Columbus, Ohio 43223	Columbus, Ohio 43223
Contact Person:	James Beasley, Director, P.E., P.S.	Michael Pettegrew, Supervisor
Phone Number(s):	(614) 466-7102	(614) 466-7102
Fax Number:	(614) 728-7368	(614) 728-7368
E-Mail Address:	mike.pettegrew@dot.state.oh.us	mike.pettegrew@dot.state.oh.us

PROJECT INFORMATION

Project Name: Lak-2-3.32 Watershed (include USGS 8-Digit HUC): Chagrin R. 04110003
 Street: State Route 2 City/Township: Eastlake, Willoughby, and Mentor
 County: Lake Latitude: 41.41.11N; 41.41.04N Longitude: 81.20.31W; 81.20.51

Project Description:

The proposed improvement will consist of the construction of a fourth lane between SR 91 and Vine Street and a third lane between Heisley Road and SR 44. Full shoulders and a concrete median barrier will be provided. In addition, the proposed improvements will include the modification of seven freeway interchanges.

Project Type (Check all that apply):

- | | | |
|---|---|--|
| <input type="checkbox"/> Commercial | <input type="checkbox"/> Landfill | <input type="checkbox"/> Remediation |
| <input type="checkbox"/> Erosion Control | <input type="checkbox"/> Mining | <input type="checkbox"/> Residential |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Mitigation Bank | <input checked="" type="checkbox"/> Transportation |
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Navigation/Boating | <input type="checkbox"/> Utility |
| <input type="checkbox"/> Lake/Pond Creation | <input type="checkbox"/> Public | <input type="checkbox"/> Other: _____ |

I have included the following in this submittal:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Maps showing project footprint/wetlands including USGS map | <input checked="" type="checkbox"/> Wetland categorization |
| <input type="checkbox"/> Wetland delineation | <input checked="" type="checkbox"/> Site photographs |
| <input checked="" type="checkbox"/> Corps isolated waters determination | <input type="checkbox"/> Mitigation proposal |
| | <input type="checkbox"/> Check for applicable fees |

Are there other aquatic resources on the project site (please check all that apply):

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Perennial Streams | <input checked="" type="checkbox"/> Intermittent Streams | <input type="checkbox"/> Ephemeral Streams |
| <input checked="" type="checkbox"/> Non-isolated wetlands | <input checked="" type="checkbox"/> Lakes/Ponds | |

List other water-related permits pending, issued, or required for this project (Nationwide permits, Coastal Zone Management, Mining, NPDES, etc.):

Department of Army, 404 Permit
Ohio EPA, 401 Water Quality Certification



Individual Isolated Wetland Information Table*. Please list all isolated wetlands:

Wetland ID	ORAM Score	Category	Size (Acres)			Impacts (Acres)		
			Forest	Non-Forest	Total Acreage	Forest	Non-Forest	Total Impacts
W-3	22	1	0.47		0.47	0.01		0.01
W-13	17	1		0.71	0.71		0.01	0.01
					0.00			0.00
					0.00			0.00
					0.00			0.00
Totals			0.47	0.71	1.18	0.01	0.01	0.02
Totals - Category 1 Wetlands			0.47	0.71	1.18	0.01	0.01	0.02
Totals - Category 2 Wetlands					0.00			0.00
Totals - Category 3 Wetlands					0.00			0.00

*List more on separate sheets if needed.

List mitigation techniques utilized for the proposed filling:

Onsite (check)	Offsite (check)	Mitigation Acreage				Name of Bank (If Appl.)	Watershed (include USGS 8-Digit HUC)
		Restored	Created	Enhanced	Preserved		
	X		0.03			Trumbull Creek	04110004
Totals		0.00	0.03	0.00	0.00		

Fee Table:

a. Application Fee:	<u>\$0</u>	
b. Review Fee (\$500.00 X _____): (Acres of impacts to the nearest 1/100 of an acre)	<u> </u>	(Maximum \$5,000.00)
c. Subtotal (add lines a and b):	<u>\$0</u>	(Maximum \$5,200.00)
d. After the Fact Fee (equal to line c): (Only if impacts have occurred without authorization)	<u> </u>	(Maximum \$5,200.00)
e. Total Fee Amount (add lines c and d):	<u>\$0</u>	(Maximum \$10,400.00)

Please make fee check payable to: "Treasurer, State of Ohio"

I certify that the information provided on this form and as part of this submittal regarding the project is true and accurate to the best of my knowledge:

Applicant Name (Print): James G Beasley Applicant Signature: James G Beasley Date: 3/5/08

Send completed application, including fee check, to: Ohio EPA, Division of Surface Water
P.O. Box 1049, Columbus, Ohio 43216-1049
ATTN: Isolated Wetlands Permitting



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

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December 18, 2008

Re: Project 080597 **Addendum No. 14**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

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Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
90	603E06100	2061	FT	15" Conduit, Type C
95	603E09100	213	FT	21" Conduit, Type C

REVISED plan sheet 975 is linked to this addendum.

Revise Addendum #11: Portable Concrete Barrier, 32 inches high with an 18 inch minimum height glare screen may be used at the option of the contractor. All conditions of the Item 622, Portable Concrete Barrier, 50", As Per Plan note on sheet 51 and 56E shall be followed.

Answer to Prebid Question:

- Q: Plan sheet 723, ref. D-405 shows a 15" pipe leading from a catch basin to a headwall on Reynolds Road. Cross-section on plan sheet concurs that this is 15" pipe. Subsummary sheet 851 shows this run as a 21" pipe and not a 15" pipe (which in turn gets carried to general summary). Please clarify in an addendum whether this is 15" C or 21" C.
- A: The 15" Conduit, Type C is correct. 27' of 15" Conduit, Type C has been added and 27' of 21" Conduit, Type C has been subtracted in this addendum.
- Q: Please check the details on sheet 975 for the noise barrier drainage details. According to the dimensions on this sheet each drain measures 32' wide x 64' long x 8' deep with each drain spaced at 48' intervals.
- A: Revised dimensions are 4' wide x 8' long x 1' deep. Please see revised sheet 975 which is linked to this addendum.
- Q: Ref. 123- Catch Basin, 2-2B. Plan sheet 848- drainage subsummary shows 2 each but no source of quantity shown. Where are these 2 basins? Also, plan sheet 902 calls for a 2-2B catch basin with a solid top. Does this get paid for under this bid item or should it be paid separately under a new bid item?
- A: The two (2) CB-2-2B basins on sheet 848 was a typo. They should be removed from the overall quantity for CB-2-2Bs. On sheet 902, the intent is to use the proposed CB-2-2B catch basin as a junction structure. The solid top is not necessary, use the grate.



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December 23, 2008

Re: Project 080597 **Addendum No. 15**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

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<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

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Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised Bid Items:

Ref. No.	Item Number	Quantity	Unit	Description
3	202E23000	208706	SY	Pavement Removed
150	302E46000	120142	CY	Asphalt Concrete Base, PG64-22
151	304E20000	74789	CY	Aggregate Base
152	407E10000	40703	Gal	Tack Coat
153	407E14000	20352	Gal	Tack Coat for Intermediate Course
1007	446E46050	666	CY	Asphalt Concrete Intermediate Course, Type 2, PG64-22
1008	448E47020	480	CY	Asphalt Concrete Surface Course, Type 1, PG64-22
112	603E96600	4628	FT	Conduit, Bored or Jacked: 15", Type B
113	603E96600	669	FT	Conduit, Bored or Jacked: 18", Type B

NEW ROW sheet is linked to this addendum.

NEW Plan sheet 29R is linked to this addendum.

A REVISED pavement calculation spreadsheet has been posted on the Department's question and answer board. <https://extranet.dot.state.oh.us/groups/contracts/Construction/PrebidQs.pdf>

Answers to Prebid Questions:

- Q:** Ref. 3- Pavement Removed- the updated spreadsheets appear to total as follows: Mainline SR 2 = 146024 SY; VINE/SR 91/SR 306 Ramps = 45998 SY; Lost Nation Ramps = 10409 SY; Lost Nation Rd. = 14282 SY. In addition to these, plan sheet 834 shows 881 SY. These total 217,594 SY. Latest addendum received shows an updated plan quantity of 179,637 SY. Please clarify, review and make necessary revisions in an addendum.
- A:** The pavement removed quantity has been revised for a total of 208,706 CY. Reference #3 has been revised in this addendum, and a revised spreadsheet has been posted.
- Q:** The box culvert replacement at station 336 +/- shows an existing 16" waterline going directly over the culvert. Can this line be taken out of service? Will removal and replacement be paid as extra work?
- A:** It is not anticipated that the waterline will require replacement or relocation, but will require support during construction.
- Q:** The maintenance of traffic notes for this box replacement allows for weekend lane closures. The web site says friday from 7pm to 11am saturday, then 7pm saturday to 6am monday. This needs to be changed to allow work continuously from 7pm friday to 6am monday. The mot shows only barrels for protecting the work area which will be at least 13 feet deep with traffic only feet away. Barrier protection needs to be included for reasonable safety.
- A:** The successful bidder may include these items the contractor prepared MOT plans. The web site for lane closures will not be revised.

- Q: The new and existing boxes are on differing alignments. This greatly complicates the excavation and water handling schemes. Is there a compelling reason not to place the new structure on the existing alignment?
- A: The proposed box was placed on a different alignment for several reasons: To maintain minimum cover over the pipe at SR 2, maintain as much clearance as possible from the existing sanitary sewer and manhole on Stevens Blvd, to keep the junction structure near the top of the slope for easier maintenance and provide sufficient length for the flow discharge to return to a "less turbulent" regime due to the presence of the junction structure. Also, it allows for a better angle to outlet into the stream.
- Q: The box cuts through Stevens Blvd. What is the pavement cross section for Stevens? Will pavement replacement be paid under the various bid items?
- A: The pavement replacement detail is on sheet 199/1679. The quantities associated with this detail are:
5.4 CY of Item 448 1.25" AC Surface Course
7.6 CY of Item 446 1.75" AC Intermediate Course
26 CY of Item 302 6" AC Base
26 CY of Item 304 6" Aggregate Base
16 Gal of Item 407 Tack Coat
8 Gal of Item 407 Tack Coat for Intermediate Course
These quantities have been added to this addendum.
- Q: Sanitary sewer ss-4 is shown on sheets 1030a/b. This installation will require a very wide excavation with an area for temporary storage of excavated materials. Is the adjacent property available for use to accomplish this work?
- A: The temporary right of way acquired by the City of Willoughby has been included with this addendum. A new ROW sheet has been linked to this addendum.
- Q: There is no quantity for pavement removed for Lakeland Blvd in the plans or office calculations. Could the District please include this quantity or identify where it is?
- A: The quantity has been added to addendum #15 and an updated spreadsheet posted.
- Q: Addendum No.10 added Concrete Alternate items to bid including separate alternate bid items for the various Concrete Barrier Wall items. Will ODOT provide square yard compensation for item 888 11.5" Non Reinforced Concrete Pavement for pavement areas under the proposed barriers? Asphalt typical sections indicate and provide compensation for the 302 10" Asphalt Concrete Base. Please confirm and advise.
- A: The bid price for the concrete alternative concrete barrier should include the concrete required for the entire barrier. Per standard drawing RM-4.3: "When barrier is constructed in conjunction with new concrete pavement, place it directly on the base material. Construct the concrete slab against the barrier".
- Q: Plan sheet 889, Ref. D-1- shown on this sheet as well as sheet 912 as 18" Bored Pipe. Plan sheet 846 subsummary shows this as a 15" Bored Pipe, which is then continued to general summary. Please verify bore size in an addendum.
- A: 18" bored pipe is correct. See this addendum.
- Q: Regarding an answer in Addendum # 11 about the raceway in the barrier wall the owner answered, "The raceways are included in the cost of the barrier where required as per details RM-4.3, 4.4, and 4.5, so no quantity changes are required." Please clarify what item # 223 - "CONDUIT 4", 725.05 (MEDIAN BARRIER)" is for? We assumed this was to pay for the raceway in the barrier wall.
- A: You are correct, the raceway is paid for separately under ref. No. 223. The quantities are correct with

only one raceway.

Q: There are no existing typical sections for the Lost Nation Road ramps provided in the plans. Could the District please provide these typical sections?

A: A plan sheet with the existing Lost Nation Rd. ramps is linked to this addendum.



Ohio Department of Transportation

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December 24, 2008

Re: Project 080597 **Addendum No. 16**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

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Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revised the following Items:

Ref. No.	Item Number	Quantity	Unit	Description	TRAC	Major Rehab
1050	622E40047	3059	FT	Portable Concrete Barrier, 50", Bridge Mounted, As Per Plan	2294	765

Add the following notes:

Bridge mounted portable concrete barrier, 32 inches high with an 18 inch minimum height glare screen shall be used. The glare screen shall be constructed using one of the screens provided on the approved list, available on the Office of Material Management web page at <http://www.dot.state.oh.us/testlab/applists/misc/glarecreen.htm>.

Paddle or intermittent type glare screens shall be designed using a 20 degree cut off angle based on tangent alignment. That spacing shall be used throughout the barrier length without regard to barrier curvature.

The glare screen system shall be securely fastened to the 32 inch bridge mounted portable concrete barrier using the hardware and procedures specified by the manufacturer.

Payment shall include all labor, material and equipment necessary to perform the work and shall be paid for at the contract price per foot for Item 622, Bridge Mounted Portable Concrete Barrier, 50", As Per Plan.

Any reference in the bidding documents to October 1st as the winter time limitation shall read November 1st. By November 1st of each year, complete all pavement work (up to and including the proposed intermediate course, for the asphalt alternative) required for the affected stage of construction and return traffic to unshifted position with full lane widths.

Answers to Prebid Questions:

Q: Addendum 10 addressed in the maintenance of traffic in requirement #12 that all normal lanes of traffic shall be open to unrestricted traffic from November 1 through March 1. Does this mean the winter time limitation note #1 on plan sheets 53 and 56G should be changed from October 1 to November 1? Also, winter time limitation note #2 states that traffic shifts for bridge work may remain in place between November 1 and March 1. Does this still apply?

A: The winter time restriction has been changed to November 1st in this addendum. Yes bridge work may remain in place between November 1st and March 1st with the limitations specified in the winter time limitations note #2.

Q: Addendum No. 11 added reference No.1050, Portable Concrete Barrier 50" Bridge Mounted. Per SCD RM-4.1 (10/20/06) wall is not to be used on bridge deck edges or similar drop-offs. The only suitable barrier is 32" PCB per Structural Engineering's Standard Drawing PCB-91 (7/19/02). Please advise, there is no 50" approved Bridge Mounted Portable Concrete Barrier for ODOT.

A: Portable concrete barrier 50", bridge mounted as per plan has been added to this addendum. Use 32" PCB bridge mounted with 18" high glare screen.



Ohio Department of Transportation

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January 5, 2009

Re: Project 080597 **Addendum No. 17**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

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Respectfully,

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
10	202E35200	2133	FT	Pipe Removed, Over 24"
931	606E10310	126752	SF	Special – Noise Barrier (Absorptive), Over 10' to 14' Height
1027	206E10500	12230	Ton	Cement
1028	206E11000	411788	SY	Curing Coat
1029	206E15000	411788	SY	Cement Stabilized Subgrade 12" Deep
1032	304E20000	66790	CY	Aggregate Base
1034	888E14060	386215	SY	Portland Cement Concrete Pavement, 11.5" Thick (Non-Reinforced Per 452)

Answers to prebid Questions:

- Q: The noisewall method of measurement on sheet 967 states that noise barrier constructed below the ground line shall not be included for payment. This is an old note and is contrary to the current ODOT measurement for noisewall. Please amend this note to pay for all wall from the bottom of the bottom panel to the top of the top panel including coping. This has been an issue on several recent projects, please review the most recent noisewall guidelines from central office and revise this project accordingly.
- A: The quantities have been revised in this addendum to include the entire SF of wall for payment.
- Q: The noisewall notes on sheet 967 state that there is incidental seeding and mulching paid with the noisewalls. This has been changed on many projects since there are already established unit prices for this work in other items. In order to simplify measurement and payment of erosion control items, we request that any seeding and mulching around the noisewalls be paid for at the established project unit prices.
- A: The seeding and mulching included with the restoration of work area is for crown vetch, which is different from a standard roadside mix, so bid as per plan.
- Q: Quantities for Item 202 Pipe Removed Over 24 inches, was revised in addendum 11 and addendum 12. The quantity added in addendum 11 was not taken into consideration when the department deleted quantity in addendum 12. Please revise and include a corrected quantity spreadsheet, which references pipe locations that are to be removed using this bid item, and add it in an addendum.
- A: The quantity has been revised in this addendum.
- Q: Quantities derived on "scratch paper" for Alternate AA2 appear to be inconsistent with quantities provided for the same work in Alternate AA1. Please provide some documentation proving that these two alternate bids are indeed comparative for bidding purposes. Original Asphalt calculation sheets have had numerous errors (some still yet to be corrected). For example AA2 Item 304 Aggregate Base is shown at T = 6" in the revised typical sections (for concrete alternate). The quantity of this item (50,332 CY) is 24,431 CY less than the Asphalt Alternate AA1 for the same thickness and comparative areas. Please advise in an addendum.
- A: Revised calculations have been posted at <ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>.

The quantities were based on the most current spreadsheet from the consultant. Some differences from my original quantities were found, (probably due to the numerous revisions of the spreadsheet), and have revised them in this addendum.

- Q: #304 Aggregate base quantities for both alternates appear to be incorrect. The up-to-date aggregate base quantity for the asphalt alternate is 74789 cy. The aggregate base quantity for the concrete alternate is 50332 cy. Based on the foot print areas covered by both, the asphalt alternate's #304 base appears to be overstated and the concrete alternate's #304 base appears to be understated. One suggestion to these differences could be the volume of stone base under areas not covered in the alternates being included in one but not the other. Should there be a separate #304 aggregate base item for those areas not covered in the alternates? Please review, revise, and provide updated calculations for both alternates including all 304, asphalt, concrete, and affected quantities in an addendum.
- A: I have posted the concrete pavement calculation <ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/> and the aggregate base quantity has increased.
- Q: Addendum 11 added reference 1048 Item 448 Asphalt Concrete Intermediate Course, PG 64-22 and reference 1049 Item 448 Asphalt Concrete Surface Course, PG 64-22. Items already exist in the EBS file for this work. What is the Department's intent for these items?
- A: Reference numbers 1048 and 1049 were added for the paving of SR-91 and SR-306 that was inadvertently omitted from the general summary. Reference numbers 157, 158 and 159 are for driveways or under guardrail.
- Q: How is the pavement widening on side roads SR 306 and SR 91 to be handled if the concrete alternate is accepted?
- A: The side road pavements are unchanged regardless of the alternative chosen. If the concrete alternative is chosen, the ramps would be paved up to the saw cut already shown in the plans.
- Q: In the revised roadway subsummary submitted in Addendum # 11 it appears that at each "CONCRETE BARRIER END ANCHOR REINFORCED" 15 ft of barrier is being subtracted from the quantity of the "CONCRETE BARRIER, SINGLE SLOPE, TYPE B1". However, in the standard drawings RM - 4.3 no mention is made of deducting any footage from the barrier wall at end anchors (see list of what is to be deducted at bottom of page RM 4.3 page 1/2). Also, on RM 4.5 page 1/2 it shows the pay length of "Item 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D" overlapping the 15ft of end anchor. Please clarify if the Concrete Barrier, Single Slope, Type B1 and Type D will be paid through the end anchorages, or if 15ft of wall will be deducted at each end anchor, thus requiring the cost of this deducted barrier to be added to the end anchor pay item.
- A: According to the standard drawings, the 15' sections were subtracted from the concrete barrier quantity and included with the end anchor quantity.
- Q: A prebid question was asked back on November 24, 2008 regarding construction noise and lane closure availabilities. The response was that ODOT was awaiting signed noise variances from 2 of 3 cities, and that only one had been signed. Is there an update on the status of this? Will there be any restrictions on night work?
- A: We have signed noise variances from all three Cities. There will be no restrictions on night work concerning noise, except the contractor must adhere with the construction noise note on sheet 41/1679.



Ohio Department of Transportation

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January 12, 2009

Re: Project 080597 **Addendum No. 18**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

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<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

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Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
30	604E38500	10	Each	Monument Assembly
455	503E21101	205	CY	Unclassified Excavation, As Per Plan
480	503E21101	4511	CY	Unclassified Excavation, As Per Plan
939	604E38500	57	Each	Monument Assembly
1032	304E20000	72509	CY	Aggregate Base

Revise sheet 953:

The callouts and dimension lines for “WALL QUANTITIES” and “ROADWAY QUANTITIES” at the bottom of the Section A-A should be removed. The hatch for the fill material should be extended to the cutline that the excavation limits are currently extended too. The legend note should be revised to read “FILL MATERIAL TO BE INCLUDED WITH ROADWAY ITEM 203 FOR PAYMENT” instead of “FILL MATERIAL TO BE INCLUDED IN WALL QUANTITIES FOR PAYMENT.”

Add Note:

Longitudinal tining as per SS 800, dated 10-17-2008 is approved by the Director. Should Concrete Pavement be the awarded alternate, the successful bidder will provide longitudinal tinning as per SS 800 dated 10-17-08. Reference is made to PN 420 for surface smoothness requirements, including corrective action.

In response to a pre-bid question, existing plan sheets are linked to the internet address listed on the cover page of this addendum.



Ohio Department of Transportation

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January 12, 2009

Re: Project 080597 **Addendum No. 19**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

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<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

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Respectfully,

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James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
17	202E70100	500	FT	Special – Pipe Cleanout
302	645E00400	3793	FT	Channelizing Line, Type A1
307	646E10401	1401	FT	Stop Line, As Per Plan
308	646E10501	2542	FT	Crosswalk Line, As Per Plan
309	646E10601	1719	FT	Transverse/Diagonal Line, As Per Plan
310	646E10801	190	SF	Island Marking, As Per Plan
311	646E20301	80	Each	Lane Arrow, As Per Plan
312	646E20501	7904	FT	Dotted Line, As Per Plan

Delete the following items:

Ref. No.	Item Number	Quantity	Unit	Description
1007	446E46050	661	CY	Asphalt Concrete Intermediate Course, Type 2, PG64-22
1049	448E47020	472	CY	Asphalt Concrete Surface Course, Type 1, PG64-22

Add the following items:

Ref. No.	Item Number	Quantity	Unit	Description
1055	645E01300	120	Each	Lane Arrow, Type A1

Revise sheet 14/1679 as follows:

Add: (34) Item 448E46050 – Asphalt Concrete Intermediate Course, Type 2, PG64-22

(35) Item 448E47020 – Asphalt Concrete Surface Course, Type 1, PG64-22

to the legend.

The 404/401 Permit is attached to this addendum.

Sheet 40/1679 has been replaced with the linked sheet 40/1679. To view this sheet, go to the internet address listed on the cover of this addendum.

SPECIAL PROVISIONS

404 PERMIT- WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **404 INDIVIDUAL PERMIT FROM THE US ARMY CORPS OF ENGINEERS. (Permit No. 2006-2200-CHA, EFFECTIVE 10/29/2008, EXPIRES ON 12/31/2013)**



DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

October 29, 2008

Operations and Readiness Division
Regulatory Branch
2006-2200-CHA (Chagrin River)
LAK-2-3.32, PID: 13486

Mr. James G. Beasley
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

Dear Mr. Beasley:

Enclosed is one original and one copy of Department of the Army (DA) Permit Number 2007-342-GMR, authorizing the placement of fill material into waters of the United States for activities associated with the State Route (SR) 2 reconstruction project located between SR 91 on the west and SR 44 on the east, near the municipalities of Eastlake, Willoughby and Mentor in Lake County, Ohio.

Work associated with the proposed project would involve the permanent placement of approximately 4,285 cubic yards of fill material into 3,547 linear feet of fourteen jurisdictional streams and approximately 32,295 cubic yards of fill material into 3.53 acres of six jurisdictional wetlands for the construction of a fourth lane in both east and west bound directions of SR 2 between SR 91 and SR 640 (Vine Street), and between SR 44 N (Heisley Road) and SR 44 S; a third lane in both east and west bound directions of SR 2 between SR 640 and SR 44 N. In addition, the project also consists of reconfiguration of seven interchanges along SR 2 (SR 91, SR 640, Lost Nation Road, SR 306, SR 615, SR 44 north and SR 44 south), widening the existing bridges over Newell Creek (Stream 10) and the Chagrin River, replacement of the existing bridge over Heisley Creek (Stream 15), construction of a new 37-foot wide bridge over the Chagrin River for Ramp D, replacement of existing culverts, and patching and waterproofing of concrete slab structures within this section of the SR 2 corridor. The project would also involve the temporary placement of approximately 444 cubic yards of fill material into 0.07 acre of the Chagrin River for construction access.

The original copy of this permit is for your records. The enclosed copy of the authorization must be supplied to the project engineers responsible for the construction activities.

If any changes in the location and plans of the work are found necessary, revised plans must be submitted to this office for approval as required by law, before work is initiated. It is imperative that this office be notified two weeks prior to the commencement of construction, and again upon completion of activities.

If you have any questions regarding the information in this letter or the enclosures, please contact Peter Clingan at 614-692-4654.

Sincerely,



Rebecca A. Rutherford
Chief, North Regulatory Section

Enclosures

Copies Furnished w/ enclosures

Mr. Arthur Coleman
Ohio Environmental Protection Agency
Division of Surface Water
Post Office Box 1049
Columbus, Ohio 43215

Mr. Mark Epstein
Ohio Historic Preservation Office
567 East Hudson Street
Columbus, Ohio 43221-1130

Ms. Mary Knapp
U.S. Fish and Wildlife Service
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127

Mr. Michael Pettegrew
Office of Environmental Services
Ohio Department of Transportation
Post Office Box 899
Columbus, Ohio 43216-0899

Mr. Ric Queen
Ohio Environmental Protection Agency
Division of Surface Water
Post Office Box 1049
Columbus, Ohio 43215

Mr. Donald Rostofer
Office of Environmental Services
Ohio Department of Transportation
Post Office Box 899
Columbus, Ohio 43216-0899

Mr. Dave Schulenburg
U.S. Environmental Protection Agency
Region V, WQW-16-J
77 West Jackson Street
Chicago, Illinois 60604-3590

DEPARTMENT OF THE ARMY PERMIT

Permittee: Ohio Department of Transportation

Permit No: 2006-2200-CHA (Chagrin River)

Issuing Office: Huntington District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: This permit authorizes the placement of fill material for activities associated with the State Route (SR) 2 reconstruction project located between SR 91 on the west and SR 44 on the east, near the municipalities of Eastlake, Willoughby and Mentor in Lake County, Ohio.

Work associated with the proposed project would involve the permanent placement of approximately 4,285 cubic yards of fill material into 3,547 linear feet of fourteen jurisdictional streams and approximately 32,295 cubic yards of fill material into 3.53 acres of six jurisdictional wetlands for the construction of a fourth lane in both east and west bound directions of SR 2 between SR 91 and SR 640 (Vine Street), and between SR 44 N (Heisley Road) and SR 44 S; a third lane in both east and west bound directions of SR 2 between SR 640 and SR 44 N. In addition, the project also consists of reconfiguration of seven interchanges along SR 2 (SR 91, SR 640, Lost Nation Road, SR 306, SR 615, SR 44 north and SR 44 south), widening the existing bridges over Newell Creek (Stream 10) and the Chagrin River, replacement of the existing bridge over Heisley Creek (Stream 15), construction of a new 37-foot wide bridge over the Chagrin River for Ramp D, replacement of existing culverts, and patching and waterproofing of concrete slab structures within this section of the SR 2 corridor. The project would also involve the temporary placement of approximately 444 cubic yards of fill material into 0.07 acre of the Chagrin River for construction access.

Project Location: The project is located in fourteen jurisdictional streams and six jurisdictional wetlands along State Route (SR) 2 between SR 91 on the west and SR 44 on the east, near the municipalities of Eastlake, Willoughby and Mentor in Lake County, Ohio.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2013. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

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The Special Conditions for this permit are listed on a separate page and are titled "Special Conditions for the Authorization Issued to Ohio Department of Transportation 2006-2200-CHA, LAK-2-3.32, PID: 13486."

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.

Special Conditions for the Authorization
Issued to Ohio Department of Transportation
2006-2200-CHA
LAK-2-3.32, PID: 13486
Page 1(2)

1. Work shall be done in accordance with the attached plans labeled 2006-2200-CHA, LAK-2-3.32, PID: 13486, sheets 1-50.
2. All conditions attached to or contained within the Ohio Environmental Protection Agency's Water Quality Certification dated August 12, 2008, are hereby incorporated by reference as being special conditions of this permit.
3. To compensate for 3.53 acres of unavoidable wetland impacts, the permittee shall purchase a total of 5.4 acres of wetland credit from the Trumbull Creek Wetland Mitigation Bank located on SR 166 along the Ashtabula-Geauga County line and provide this office with an updated balance sheet.
4. To compensate for 3,547 linear feet of unavoidable stream impacts, the applicant proposes to place a 200-foot easement (100 feet on each side) along 5,321 linear feet of stream on a 155-acre parcel in northwest Trumbull County identified as Groves Woods, which includes a portion of Garden Creek as well as Class II and Class III primary headwater tributaries. The permittee shall provide this office with a copy of the conservation easement within one year from the date of issuance of a permit.
5. All temporary fill material must be removed to an upland location at the completion of construction activities and the river bottom restored to pre-construction contours to the maximum extent practicable.
6. Appropriate site specific best management practices (BMP) for sediment and erosion control will be fully implemented during construction activities at the site. The BMPs include, but are not limited to, the utilization of silt fences, straw bales, check dams, mulching and seeding.
7. Prior to the initiation of any construction activities on bridges, including the removal of any bridge structures, the underside of each bridge must be carefully examined for the presence of bats, especially between April 1 and September 30. If any bats are found roosting on the underside of the bridge, you will immediately contact the United States Fish and Wildlife Service, Reynoldsburg Field Office at (614) 469-6923.

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Page 2(2)

8. Section 7 obligations under the Federal Endangered Species Act must be reconsidered if new information revealing impacts of the proposed project that may affect federally listed species or critical habitat in a manner not previously considered, the project is subsequently modified to include actions which were not considered during Section 7 consultation with the USFWS or new species are listed or critical habitat designated might be affected by the proposed project.

9. In the event of an inadvertent discovery of archaeological or cultural resources, including suspected human remains, during construction activities on site, you shall immediately cease all work and contact this office at 614-692-4654 and the Ohio Historic Preservation Office at 614-298-2000. We will initiate the Federal, state, and Native American coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places. If such events occur, you shall ensure work on site is not reinitiated until you have received notification in writing from this office that obligations under Section 106 or the National Historic Preservation Act are fulfilled and on-site disturbance may occur. In the event that human remains are discovered, you shall also contact the Lake County Sheriff's office at 440-350-5620.

10. The permittee must obtain any required flood hazard area development permits prior to construction.

11. The permittee is solely responsible for insuring that all activities are performed in compliance with all permit conditions.

12. The permittee is responsible for ensuring that all contractors and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document with attached special conditions and site development plan is kept at the site during construction.

13. If any changes in the location and/or plans, or proposed impacts of the project are found necessary, the permittee must submit written information concerning the proposed modification(s) to this office for review and evaluation.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Ohio Department of Transportation		File Number: 2006-2200-CHA	Date: 10/29/08
Attached is:		See Section below	
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I: The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecw0/reg/or/Corps/regulations> at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Ginger Mullins, Chief, Regulatory Branch, 304-399-5389
Rebecca Rutherford, Ch, North Regulatory Section 304-399-5210
Mark Taylor, Chief, South Regulatory Section, 304 399-5710

Address: U.S. Army Corps of Engineers
Regulatory Branch
502 8th Street
Huntington, WV 25701

If you only have questions regarding the appeal process you may also contact:

Mr. Mike Montone
Great Lakes and Ohio River Division
550 Main Street, Room 10032
Cincinnati, Ohio 45202-3222
Phone: (513) 684-6212

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

SPECIAL PROVISIONS

401 WATER QUALITY CERTIFICATION – WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **401 WATER QUALITY CERTIFICATION FROM THE OHIO EPA (PERMIT NO. 083387; EFFECTIVE 08/12/2008, **EXPIRES ON 08/12/2013**)**



State of Ohio Environmental Protection Agency

OHIO E.P.A.

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail

August 12, 2008

Mr. James G. Beasley, P.E., P.S., Director
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By: Donna Kasseker Date: 8-12-08

c/o Timothy M. Hill, Administrator, Office of Environmental Services

Re: Lake County
Grant of Section 401 Water Quality Certification
Project: (Minimal Degradation Alternative) to enhance safety and reduce congestion, and add third lane on State Route (SR) 2 in Lake County, Ohio.
ACOE Public Notice No. 2006-2200-CHA
Ohio EPA ID No. 083387
ODOT ID Code: LAK-2-3.32, PID 13486

Ladies and Gentlemen:

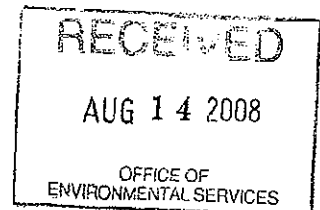
The Director of Ohio Environmental Protection Agency hereby authorizes the above referenced project under the following authority.

Section 401 Water Quality Certification

Pursuant to Section 401 of the Federal Water Pollution Control Act, Public Law 95-217, the Director of Ohio Environmental Protection Agency hereby certifies that the above-referenced project will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act.

This authorization is specifically limited to a 401 water quality certification with respect to water pollution and does not relieve the applicant of further certifications or Permits as may be necessary under the law. I have determined that a lowering of water quality in the Chagrin River Watershed (HUC 04100009) as authorized by this certification is necessary. I have made this determination based upon the consideration of all public comments, and including the technical, social, and economic considerations concerning this application and its impact on waters of the state.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



I. On-Site Water Resources and Impacts

A. Jurisdictional Wetlands

TABLE - 1									
Wetland ID	Wetland Location		ORAM Score ¹	Cat	Wetland Type F ¹ , NF ² , PEM ³ , PSS ⁴ , PEO ⁵	Total Size (acres)	Total Size Impacted (acres)	Impact Type	% Avoided
	Lat	Long							
Wetland 4/5	41°39'48" N	81°22'52" W	36.0 29.0	Mod. 2 1	PEM	1.48	0.02	Fill	98.65
Wetland 7	41°39'15" N	81°24'28" W	27.0	1	PEM/ Scrub-Shrub	2.23	1.92	Fill	14.35
Wetland 11	41°41'10" N	81°20'16" W	22.0	1	PEM	2.40	0.01	Fill	99.58
Wetland 12	41°39'10" N	81°24'33" W	24	1	PEM	1.64	1.41	Fill	14.02
Wetland 21	41°41'34" N	81°19'37" W	6.0	1	PEM	0.20	0.12	Fill	40.0
Wetland 30	41°39'12" N	81°26'16" W	7.0	1	PEM	0.56	0.05	Fill	91.07
TOTAL						8.51	3.53		

¹ As provided by applicant, ⁴ Palustrine Scrub-Shrub
² Non-Forest, ³ Palustrine Emergent Marsh
¹ Forest, ⁵ Palustrine Forested

B. Jurisdictional Streams

Stream ID	Stream Location USGS Coordinate)		QHEI/HHEI Score	Use Designation	Impact Length (lf)	Impact Type
	Lat	Long				
Stream 1 (UT to Mentor Marsh)	41°43'13" N	81°17'23" W	56 HHEI	Class II, PHWH	70	Culvert replacement
Stream 2 (UT to Chagrin River)	41°38'38" N	81°25'34" W	64 HHEI	Class II, PHWH	40	Culvert
Stream 3 (UT to Stream 1 to Mentor Marsh)	41°43'03" N	81°17'53" W	45 HHEI	Class II, PHWH	907	Relocation
Stream 4 (UT to Wasson Ditch)	41°43'03" N	81°18'03" W	50 HHEI	Class II, PHWH	1,050	Relocation
Stream 5 (UT to Heisley Creek)	41°42'17" N	81°18'54" W	64 HHEI	Class III, PHWH	33	Culvert replacement
Stream 6 (Marsh Creek)	41°41'34" N	81°19'38" W	64.25 QHEI	WWH	65	Repair concrete slab
Stream 8 (UT to Stream 9)	41°41'34" N	81°19'38" W	14 HHEI	Class I, PHWH	70	Culvert replacement
Stream 9 (UT to UT to Chagrin River)	41°40'50" N	81°21'30" W	78 HHEI	Class III, PHWH	120	Repair concrete slab
Stream 10 (Newell Creek)	41°40'17" N	81°22'12" W	24 HHEI	Class I, PHWH	240	Bridge work
Stream 12 (UT to Chagrin River)	41°39'43" N	81°22'53" W	69 HHEI	Class III, PHWH	161	Culvert replacement
Stream 13 (UT to Chagrin River)	41°38'56" N	81°25'00" W	51 HHEI	Class II, PHWH	85	Culvert replacement
Stream 14 (Wasson Ditch)	41°43'03" N	81°18'03" W	56 HHEI	WWH, provisional	105	Culvert replacement
Stream 15 (Heisley Creek)	41°42'31" N	81°18'43" W	57.5 QHEI	WWH	320	Bridge work
Stream 16 (Chagrin River)	41°39'17" N	81°24'21" W	56 QHEI	WWH	281	Bridge work
TOTALS					3547	

* As provided by applicant

II. General Conditions

- A. All water resources and their buffers which are to be avoided shall be clearly indicated on site drawings and demarcated in the field with suitable materials, prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process. The water resources also shall be protected with suitable materials, including silt fencing if appropriate, prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process.
- B. Best Management Practices (BMPs) must be employed throughout the course of this project to avoid the creation of unnecessary turbidity which may degrade water quality or adversely affect aquatic life outside of the project area.
- C. Work shall only take place during low water conditions in order to minimize adverse impacts to water quality away from the project site.
- D. Temporary fill shall consist of suitable non-erodible material or shall be stabilized to prevent erosion.
- E. Materials used in this project for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as bank protection.
- F. BMPs shall be taken during construction to minimize erosion.
- G. BMPs shall be taken upon completion of this project, to ensure bank stability. This may include, but is not limited to, bank seeding.
- H. Procedures shall be developed and implemented to eliminate the possibility of spills and to control dust that may enter the waterway by runoff or point discharge.
- I. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project will be reported within 24 hours of occurrence to Ohio EPA for further evaluation.
- J. In temporary impact areas where trees have been removed to facilitate construction, they shall be replaced with appropriate native tree species.
- L. Permittee shall be in compliance with the NPDES General Construction Permit for all phases of this project.

- M. Other permits may be required by Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office at the following address:
- Northeast District office
2110 East Aurora Road
Twinsburg, Ohio 44087
- N. Representatives from the Ohio EPA, Division of Surface Water will be allowed to inspect the authorized activity at any time deemed necessary to insure that it is being or has been accomplished in accordance with the terms and conditions of this water quality certification.
- O. In order to protect the Indiana bat from impacts from this development, the applicant shall not cut bat habitat trees between April 15th and September 15th.
- P. The bottom elevations shall be restored as nearly as possible to pre-project conditions.
- Q. Blasting will not be done within or near stream channels without prior consultation with the Ohio Department of Natural Resources, Division of Wildlife, to determine what protective measures should be taken to minimize damage to fish and other aquatic life.
- R. Cadmium chromium arsenate (CCA) and creosote treated lumber shall not be used in structures in contact with waters of the state.
- S. This project may affect the drinking water wells for the adjoining City/Village. Precautions must be taken to limit any affect on the water supply. Officials at the City/Village should be notified before beginning the project and activities shall be coordinated with them.
- T. If pesticide application(s) are proposed for the control of invasive plant species, a site specific application permit must be obtained by calling 614-644-2001 and speaking with the Toxicology Specialist.

III. MITIGATION

A. Description of Required Wetland Mitigation

The Permittee shall compensate for the 3.53 acres of impacts to jurisdictional wetlands by purchasing a minimum of 5.4 mitigation credits from the Trumbull Creek Wetlands Mitigation Bank, located on SR 166 along the Ashtabula-Geauga County line.

B. Timing of Required Wetland Mitigation

The Permittee shall provide Ohio EPA with an updated balance sheet showing it has purchased 5.4 mitigation credits from the Trumbull Creek Wetlands Mitigation Bank within six months from the date of issuance of this certificate.

C. Compensatory Stream Mitigation

The Permittee shall compensate for the estimated 3,547 linear feet of impacts to the designated streams in the project area by preserving 5,321 linear feet (3,547 lf X 1.5) of streams at Groves Woods, a Cleveland Museum of Natural History site in Trumbull, County, Ohio. The mitigation streams consists of Class II and Class III Primary Headwater Habitat (PHWH) streams.

B. Timing of Required Stream Mitigation

The Permittee shall obtain a minimum of 5,321 linear feet of streams that are protected with a conservation easement, in perpetuity. The Permittee shall further provide Ohio EPA with a copy of the conservation easement for the Groves Woods site within one year from the date of issuance of this certificate.

IV. Notifications To Ohio EPA

All notifications, correspondence, and reports regarding this certification shall reference the following information:

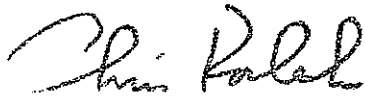
Permittee: Ohio Department of Transportation (ODOT)
Project: Enhancement of SR 2
LAK-2-3.32, PID 13486

Ohio EPA ID#: 083387

and shall be sent to: Ohio EPA, Division of Surface Water, 401 Unit
Lazarus Government Center
55 West Town Street, Suite 700
Columbus, Ohio 43216

You are hereby notified that this action of the Director is final and may be Appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address: Environmental Review Appeals Commission, 309 South Fourth Street, Room 222, Columbus, OH 43215

Sincerely,



Chris Korleski
Director

cc: Deborah L Wegmann, Team Leader, U.S. Army Corps of Engineers,
Huntington District, Ohio Regulatory Transportation Office
Wayne Gorski, U.S. EPA, Region 5,
William Cody, Asst. Administrator, OES/ODOT
Mike Pettegrew, Supervisor, Waterway Permits Unit, OES/ODOT
Don Rostofer, Supervisor, Ecological Unit, OES/ODOT
Karen L. Hallberg, USF&W (Reynoldsburg Office)
Brian Mitch, ODNR
Ed Wilk, NEDO/Ohio EPA
Joe Loucek, NEDO/Ohio EPA

SPECIAL PROVISIONS

OHIO EPA ISOLATED WETLAND PERMIT – WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **OHIO EPA ISOLATED WETLAND PERMIT
(PERMIT No. 083337; EFFECTIVE 3/12/2008,
EXPIRES ON 3/12/2010)**



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

March 12, 2008

Timothy M. Hill, Administrator
Ohio Department of Transportation
Office of Environmental Services
PO Box 899
Columbus, Ohio 43216-0899

Re: **Pre-Activity Notification: General Isolated Wetland Permit (Level 1)**
Ohio EPA SWIMS ID#: 083337
Project: Construction of a fourth lane between SR 91 and Vine Street and a third lane between Heisley Road and SR 44; miscellaneous work
Project ID #: LAK-2-3.32, PID 13486

Dear Mr. Hill:

On April 10, 2007, the Director of the Ohio EPA, pursuant to Ohio Revised Code (ORC) Section 6111.021 issued the Ohio General Permit for filling Category 1 and Category 2 Isolated Wetlands. The Ohio Department of Transportation (ODOT) has submitted a complete and acceptable General Isolated Wetland Permit Application (Level 1) and, after our review, hereby has been granted a General Isolated Wetland Permit, effective March 12, 2008, relative to the above referenced project. This permit only authorizes the designated impacts (0.02 acres) to Isolated Wetlands W-3 and W-13 described in the application.

We received the permit application in our office on March 7, 2008. The project consists of the construction of a fourth lane between SR 91 and Vine Street, and third lane between Heisley Road and SR 44, in Lake County, Ohio. In addition, construction work will include full shoulders and concrete median barrier, and modification of seven freeway interchanges. The project is estimated to impact 0.02 acres of isolated wetlands.

Please note ODOT is required to abide by all of the provisions of the General Permit, specifically the permit conditions listed in Part III and the mitigation requirements listed in Part IV. Per ORC Section 6111.022 (E) and Part V of the General Permit, the proposed filling of the isolated wetlands must be completed within two years of the date of this permit. If ODOT does not complete the filling within this two year period, it must submit a new pre-activity notice (PAN) to Ohio EPA. According to the application, ODOT shall provide compensatory mitigation for the 0.02 acres of impacts to Wetlands W-3 and W-13 by deducting 0.03 acres of wetland mitigation credits from the Trumbull

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

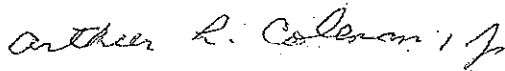
Timothy M. Hill, Administrator
Ohio Department of Transportation
Office of Environmental Services
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Creek Wetlands Mitigation Bank located on State Route 166 along the Ashtabula-Geauga County line. ODOT shall provide Ohio EPA with a balance sheet or equivalent documentation showing it has withdrawn the specified number of credits.

Please note in accordance with Part IV (F) of the General Permit, when mitigation will occur at an approved wetland mitigation bank, mitigation credits must be acquired within 15 days after receipt of the written notice of approval authorizing impacts to isolated wetlands.

We thank you for submitting the isolated wetland permit application for our review. If you have any questions or issues you would like to discuss regarding this determination or the project, please contact me at (614) 644-2138.

Sincerely,



Arthur L. Coleman, Jr.
Ohio EPA, DSW
Environmental Mitigation and Special Permitting Section

cc: Deborah Wegmann, USACE, Huntington District
Wayne Gorski, US EPA/Region V
William Cody, Asst. Administrator, OES/ODOT
Mike Pettegrew, Supervisor, Waterway Permit Unit, OES/ODOT
Donald Rostofer, Supervisor, Ecological Systems Unit, OES/ODOT
Ed Wilk, NEDO/Ohio EPA
Megan Seymour, USF&W (Reynoldsburg Office)
Brian Mitch, ODNR

SPECIAL PROVISIONS

COMBINED 404/401 WATERWAY PERMIT APPLICATION – WATERWAY PERMITS

CRS: LAK-2-3.32

PID: 13486

- **COMBINED 404/401 WATERWAY PERMIT APPLICATION (SUBMITTED TO THE US ARMY CORPS OF ENGINEERS AND OHIO EPA ON MARCH 5, 2008)**

**Section 404 Application for Department of the Army Permit and
Section 401 Application for the Ohio Environmental Protection Agency
Water Quality Certification**

**LAK-2-3.32 (PID 13486) Reconstruction Project in the Municipalities of Eastlake,
Willoughby, and Mentor
Lake County, Ohio**

By

Richard M. Paul, Ecologist/Environmental Specialist

Submitted By:

**Andrew Campbell
Project Manager
ASC Group, Inc.
4620 Indianola Avenue
Columbus, Ohio 43214
614.268.2514**

Submitted to:

**Scott Graham, P.E.
ARCADIS U.S., Inc.
1100 Superior Avenue
Suite 1250
Cleveland, Ohio 44114
216.781 6177**

Lead Agency: Ohio Department of Transportation

March 3, 2008

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404 Permit Application

(33 CFR 325)

Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require authorizing activities in, or affecting, navigable waters of the United States, the discharge or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine Uses: Information provided on this form will be used in evaluating the application for a permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME James Beasley, Director, P.E., P.S.	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) Michael Pettegrew, Supervisor, Waterway Permits Unit
6. APPLICANT'S ADDRESS Ohio Department of Transportation 1980 West Broad Street Columbus, Ohio 43223	9. AGENT'S ADDRESS Ohio Department of Transportation, Office of Environmental Services 1980 West Broad Street, 3 rd Floor Columbus, Ohio 43223
7. APPLICANT'S PHONE Nos. w/AREA CODE a. Residence n/a b. Business 614-466-7102	10. AGENT'S PHONE Nos. w/AREA CODE a. Residence n/a b. Business 614-466-7102

11. STATEMENT OF AUTHORIZATION

I hereby authorize, Michael Pettegrew to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

James M. Beasley - [Signature]
APPLICANT'S SIGNATURE

3/5/08
DATE

NAME, LOCATION, AND DESCRIPTION OR PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) LAK-2-3.32 Road Improvement (PID 13486)	
13. NAME OF WATERBODY, IF KNOWN (if applicable) See Exhibit 1.	14. PROJECT STREET ADDRESS (if applicable) N/A
15. LOCATION OF PROJECT Lake Ohio _____ COUNTY STATE	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) Section, Township, Range, Lat/Lon, and/or Accessors's Parcel Number, for example. Along State Route 2 near the municipalities of Eastlake, Willoughby, and Mentor in Lake County.	
17. DIRECTIONS TO THE SITE From Cleveland take I-90 east. Exit at Exit 189 (State Route 91) and go north. The project begins at the State Route 2/ State Route 91 intersection and extends east to the State Route 44 junction.	

18. Nature of Activity (Description of project, include all features)

The proposed project includes the addition of a third lane from State Route 640 to State Route 44, the reconfiguration of seven Interchanges, concrete slab structures need to be patched and waterproofed, existing pipe culverts and box culverts need to be replaced, widening of existing I beam and three-span steel beam bridge, and the construction of a new 37 foot wide three-span steel beam bridge are all required. Fourteen streams and six wetlands will be affected by the proposed project. The streams and wetlands were identified through the preparation of the Ecological Survey Report including QHEI and HHEI data forms for the streams and ORAM forms for wetlands. Reference Table A, summary of streams impacted and Table B, summary of wetlands impacted for more detailed information.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The primary purposes for improvements to the LAK-2-3.32 corridor are to enhance safety and reduce congestion on State Route 2 in Lake County for both local and through traffic. This limited-access freeway facility displays functional and operational issues based on current traffic operation, safety considerations, and physical roadway deficiencies. Traffic congestion and outdated design features contribute to a high accident rate and safety concerns on the State Route 2 freeway mainline and interchanges. Maintenance activities for the roadway surface, highway lighting, and drainage facilities are becoming more extensive, frequent, and expensive for the responsible agencies.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Placement of fill in streams and wetlands is necessary to allow for proper roadway geometry and to be in compliance with ODOT specifications. Existing concrete slab structures need to be patched and waterproofed, existing pipe culverts and box culverts need to be replaced, widening of existing I beam and three-span steel beam bridge, and the construction of a new 37 foot wide three-span steel beam bridge are all required. Temporary discharge is necessary to create a temporary work area for replacement of the existing piers and abutments. Temporary fill will be removed upon completion of the project. Permanent fill will be necessary for construction of the abutments and approach slabs. The discharge associated with the placement of rock channel protection is needed to prevent erosion under the structure.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

The types of material being discharged are specified by the ODOT Construction and Material Specifications 203. This includes natural soil, natural granular material, granular material types, shale, and rock. The total amount being discharged is 37,264 cubic yards.

Wetland Fill Material Quantity - 32,295 cubic yards (See Table C for Stream and Wetland Impacts)

Stream Fill Material Quantity - 4,729 cubic yards (See Table C for Stream and Wetland Impacts)

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Overall, a total of 14 streams will be impacted resulting in 3,547 linear feet, or 2.366 acres, of impact. A total of six wetlands will be impacted resulting in 3.53 acres of impact (See Table C for Stream and Wetland Impacts)

23. Is Any Portion of the Work Already Complete? Yes ___ No X IF YES, DESCRIBE THE COMPLETED WORK N/A

24. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

See Exhibit 2.

25. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
USACE	Jurisdictional Determination	n/a	n/a	1/12/07	n/a
Ohio EPA	Isolated Wetland Permit	n/a	March 2008	n/a	n/a
USFWS	Ecological Coordination	n/a	January 2005	n/a	n/a
City of Willoughby	Floodplain Permit	n/a	n/a	n/a	n/a
City of Mentor	Floodplain Permit	n/a	January 2006	n/a	n/a
Ohio EPA	Section 401 WQC	n/a	March 2008	n/a	n/a

* Would include but is not restricted to zoning, building, and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

James R. Beasley, Jr. 3/5/08
SIGNATURE OF APPLICANT DATE

Michael Pitt 3/4/08
SIGNATURE OF AGENT DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Exhibit 1 - 404 Application: Block 13. Summary of Streams and Wetlands Impacted

Block 13. Summary of Streams and Wetlands Impacted

Site / Feature	USGS 7.5" Quadrangle	USGS Coordinates
Stream 1; UT ¹ to Mentor Marsh	Mentor	41°43'13"N 81°17'23"W
Stream 2; UT ¹ to UT ¹ to Chagrin River	Eastlake	41°38'38"N 81°25'34"W
Stream 3; UT ¹ to Stream 1 to Mentor Marsh	Mentor	41°43'03"N 81°17'53"W
Stream 4; UT ¹ to Wasson Ditch	Mentor	41°43'03"N 81°18'03"W
Stream 5; UT ¹ to Heisley Creek	Mentor	41°42'17"N 81°18'54"W
Stream 6; Marsh Creek	Mentor	41°41'34"N 81°19'38"W
Stream 8; UT ¹ to Stream 9	Mentor	41°40'34"N 81°21'51"W
Stream 9; UT ¹ to UT ¹ to Chagrin River	Mentor	41°40'50"N 81°21'30"W
Stream 10; Newell Creek	Mentor	41°40'17"N 81°22'12"W
Stream 12; UT ¹ to Chagrin River	Eastlake	41°39'43"N 81°22'53"W
Stream 13; UT ¹ to Chagrin River	Eastlake	41°38'56"N 81°25'00"W
Stream 14; Wasson Ditch	Mentor	41°43'03"N 81°18'03"W
Stream 15; Heisley Creek	Mentor	41°42'31"N 81°18'43"W
Stream 16; Chagrin River	Eastlake	41°39'17"N 81°24'21"W
Wetland 4/5 ²	Eastlake	41°39'48"N 81°22'52"W
Wetland 7	Eastlake	41°39'15"N 81°24'28"W
Wetland 11	Mentor	41°41'10"N 81°20'16"W
Wetland 12	Eastlake	41°39'10"N 81°24'33"W
Wetland 21	Mentor	41°41'34"N 81°19'37"W
Wetland 30	Eastlake	41°38'12"N 81°26'16"W

¹UT = Unnamed Tributary
²Wetlands were combined into one wetland after a Jurisdictional Determination was completed on November 8, 2006.

Exhibit 2 - 404 Application: Block 24. Addresses of Adjoining Property Owners

Yousef and Loubaba Karim
3901 Harvard Dr.
Willoughby, OH

Wm. W. and Patricia Ann
Burkey
3893 Harvard Dr.
Willoughby, OH

Constance A. Rawlry
3883 Harvard Dr.
Willoughby, OH

Paul and Denise Winegar
3875 Harvard Dr.
Willoughby, OH

Sonia & Brothers, Inc.
35000 Curtis Blvd.
Eastlake, OH

Cornerstone Church
7510 Reynolds Rd.
Mentor, OH

Edward and Teresa Sherry
7707 Kittery Ln.
Mentor, OH

John and Renee Dickson
7717 Kittery Ln.
Mentor, OH

DWK Properties, LLC
7275 Industrial Pk.
Mentor, OH

Freeway Lanes Holdings,
LLC
7300 Palisades Pkwy.
Mentor, OH

Hugh Carroll
7184 Bunker Cove
Mentor, OH

Robert and Evelyn Orlando
7727 Kittery Ln.
Mentor, OH

Vivianni Family Limited
Partnership
7255 Industrial Pk.
Mentor, OH

Richard Parker
3460 Lost Nation Rd.
Mentor, OH

Jason Grimm and Leslie
Wuest
7860 Champaign Dr.
Mentor, OH

Douglas and Barbara Denton
7866 Champaign Dr.
Mentor, OH

Shelly and Barbara Detrick
7600 Tyler Blvd.
Mentor, OH

Jeff and Nancy Sloat
7620 Tyler Blvd.
Mentor, OH

Jim Brown Chevrolet, Inc.
6877 Center St.
Mentor, OH

Marie and Phillip Plestis
8477 Tyler Blvd.
Mentor, OH

Thomas Wheeler
8507 Tyler Blvd.
Mentor, OH

Zoltan and Stacy
Dudevszsky
8567 Tyler Blvd.
Mentor, OH

Hendricks Commercial
Properties, LLC
8745 Munson Rd.
Mentor, OH

Brijovia Properties, LLC
6520 Hopkins Rd.
Mentor, OH

United Way of Lake County,
Inc.
9285 Progress Pkwy.
Mentor, OH

Donald and Sandra Berlin
9372 Trillium Ln.
Mentor, OH

Jamie and Kim Tavano
9382 Trillium Ln.
Mentor, OH

Charles and Linda Croaker
9392 Trillium Ln.
Mentor, OH

Bruce and Kristine Harper
9362 Trillium Ln.
Mentor, OH

David and Lisa Huffman
5876 Primavera Dr.
Mentor, OH

Kevin Shoda and Dawn
Murphy
5684 Primavera Dr.
Mentor, OH

BP Exploration and Oil Inc.
5711 Heisley Rd.
Mentor, OH

Ventas Realty
5700 Emerald St.
Mentor, OH

401 Permit Application

APPLICATION FOR OHIO EPA SECTION 401 WATER QUALITY CERTIFICATION

Effective October 1, 1996
Revised August 1998

This application must be completed whenever a proposed activity requires an individual Clean Water Act Section 401 Water Quality Certification (Section 401 certification) from Ohio EPA. A Section 401 certification from the State is required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps Engineers, or any other federal permits or licenses for projects that will result in a discharge of dredged or fill material to any waters of the State. To determine whether you need to submit this application to Ohio EPA, contact the U.S. Army Corps of Engineers District Office with jurisdiction over your project, or other federal agencies reviewing your application for a federal permit to discharge dredged or fill material to waters of the State, or an Ohio EPA Section 401 Coordinator at (614) 644-2001.

The Ohio EPA Section 401 Water Quality Certification Program is authorized by Section 401 of the Clean Water Act (33 U.S.C. 1251) and the Ohio Revised Code Section 6111.03(P). Ohio Administrative Code (OAC) Chapter 3745-32 outlines the application process and criteria for decision by the Director of Ohio EPA. In order for Ohio EPA to issue a Section 401 certification, the project must comply with Ohio's Water Quality Standards (OAC 3745-1) and not potentially result in an adverse long-term or short-term impact on water quality. Included in the Water Quality Standards is the Antidegradation Rule (OAC Rule 3745-1-05), effective October 1, 1996, revised October 1997 and May 1998. The Rule includes additional application requirements and public participation procedures. **Because there is a lowering of water quality associated with every project being reviewed for Section 401 certification, every Section 401 certification applicant must provide the information required in Part 10 (pages 3 and 4) of this application.** In addition, applications for projects that will result in discharges of dredged or fill material to wetlands must include a wetland delineation report approved by the Corps of Engineers, a wetland assessment with a proposed assignment of wetland category (ies), official documentation on evaluation of the wetland for threatened or endangered species, and appropriate avoidance, minimization, and mitigation as prescribed in OAC 3745-1-50 to 3745-1-54. Ohio EPA will evaluate the applicant's proposed wetland category assignment and make the final assignment.

Information provided with the application will be used to evaluate the project for certification and is a matter of public record. If the Director determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in OAC Rule 3745-32-05(A) and OAC Chapter 3745-1, Ohio EPA will inform the applicant in writing of the additional information that must be submitted. The application will not be accepted until the application is considered complete by the Section 401 Coordinator. An Ohio EPA Section 401 Coordinator will inform you in writing when your application is determined to be complete.

Please submit the following to "Section 401 Supervisor, Ohio EPA/DSW, P.O. Box 1049, Columbus, Ohio 43216-1049:

- Four (4) sets of the completed application form, including the location of the project (preferably on a USGS quadrangle) and 8-1/2 x 11" scaled plan drawings and sections.
- One (1) set of original scaled plan drawings and cross-sections (or good reproducible copies).

(See Application Primer for detailed instructions)

1. The federal permitting agency has determined this project: (check appropriate box and fill in blanks)

- requires an individual 404 permit/401 certification- Public Notice # (if known) _____.
- requires a Section 401 certification to be authorized by Nationwide Permit # _____.
- requires a modified 404 permit/401 certification for original Public Notice # _____.
- requires a federal permit under _____ jurisdiction identified by # _____.
- requires a modified federal permit under _____ jurisdiction identified by # _____.

Application number (to be assigned by Ohio EPA):

3. Name and address of applicant:
Mr. James Beasley, Director, P.E., P.S.
Ohio Department of Transportation
1980 West Broad Street, Columbus, Ohio 43223

Telephone number during business hours:
(614) 466-7102 (Office)
(614) 728-7368 (Fax)

3a. Signature of Applicant:

James M Beasley - Dir

Date: 3/5/08

4. Name, address and title of authorized agent:
Mr. Michael Pettegrew, Supervisor, Waterway Permits Unit
Ohio Department of Transportation
1980 West Broad Street, Columbus, Ohio 43223

Telephone number during business hours:
(614) 466-7102 (Office)
(614) 728-7368 (Fax)

4a. Statement of Authorization: I hereby designate and authorize the above-named agent to act in my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application.

Signature of Applicant

James M Beasley - Dir

Date: 3/5/08

5. Location on land where activity exists or is proposed. Indicate coordinates of a fixed reference point at the impact site (if known) and the coordinate system and datum used.

The proposed LAK-2-3.32 project begins at existing SR 91 in Lake County (east of Cleveland) and extends approximately 10 miles east to the SR 44 south junction in Lake County, just west of Painesville. A total of 14 streams and six wetlands occurring in the Chagrin River drainage basin will be impacted by this proposed project.

See Exhibit 1 for USGS Coordinates and other location information for impacted streams and wetlands.

Chagrin River Watershed Lake County, Ohio

Watershed	County	Township	City	State	Zip Code
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6. Is any portion of the activity for which authorization is sought complete? Yes No
If answer is "yes," give reasons, month and year activity was completed. Indicate the existing work on the drawings.

7. List all approvals or certifications and denials received from other federal, interstate, state or local agencies for any structures, construction, discharge or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial
USACE	Jurisdictional Determination	n/a	n/a	January 12 2007	n/a
Ohio EPA	Isolated Wetland Permit	n/a	March 2008	n/a	n/a
USFWS	Ecological Coordination	n/a	January 2005	n/a	n/a
City of Willoughby	Floodplain Permit	n/a	n/a	n/a	n/a
City of Mentor	Floodplain Permit	n/a	January 2006	n/a	n/a
Department of the Army	404 Permit	n/a	March 2008	n/a	n/a

8. DESCRIPTION OF THE ACTIVITY (fill in information in the following four blocks - 8a, 8b, 8c & 9)

8a. Activity: Describe the Overall Activity: SR 2 is a six-lane divided highway with three lanes in both directions to the west of Vine Street. East of Vine Street, SR 2 consists of a four-lane divided highway with two lanes in each direction. The proposed improvement will consist of the construction of a fourth lane between SR 91 and Vine Street and a third lane between Heisley Road and SR 44. Full shoulders and a concrete median barrier will be provided. In addition, the proposed improvements will include the modification of even freeway interchanges in order to reduce congestion and crash hazards at these locations.

Affected Streams and Wetlands: The proposed project affects 14 streams and six wetlands in the Chagrin River watershed. See Exhibit 2 for descriptions of proposed actions to these features.

b. Purpose: Describe the purpose, need and intended use of the activity: The primary purposes for improvements to the LAK-2-3.32 corridor are to enhance safety and reduce congestion on SR 2 in Lake County for both local and through traffic. Three primary needs were identified for the project: Roadway capacity is insufficient to accommodate the existing and future traffic demands; Safety characteristics need to be improved; and Physical deficiencies exist in the corridor.

See Exhibit 2, Block 8b summarizing additional information regarding project.

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards). (OAC 3745-1-05(B)(2)(a))

Streams:	Excavation: 5,640 yds ² (total project)	Wetlands:	Excavation: 2,532 yds ³ (total project)
	Fill: 4,969 yds ³ (total project)		Fill: 32,295 yds ³ (total project)

The types of material being discharged are specified by the ODOT Construction and Material Specifications 203. This includes natural soil, natural granular material, granular material types, shale, and rock.

See Table C for summary of discharge quantities by feature.

9. Waterbody and location of waterbody or upland where activity exists or is proposed, or location in relation to a stream, lake, wetland, wellhead or water intake (if known). Indicate the distance to, and the name of any receiving stream, if appropriate.

The proposed project impacts a total of 14 streams and six wetlands.

See Exhibit 2 for additional information.

10. To address the requirements of the Antidegradation Rule, your application must include a report evaluating the:

- Preferred Design (your project) and Mitigative Techniques
- Minimal Degradation Alternative(s) (scaled-down version(s) of your project) and Mitigative Techniques
- Non-Degradation Alternative(s) (project resulting in avoidance of all waters of the state)

At a minimum, item a) below must be completed for the Preferred Design, the Minimal Degradation Alternative(s), and the Non-Degradation Alternative(s), followed by completion of item b) for each alternative, and so on, until all items have been discussed for each alternative (see Primer for specific instructions). (Application and review requirements appear at OAC 3745-1-05(B)(2), OAC 3745-1-05(C)(6), OAC 3745-1-05(C)(1) and OAC 3745-1-54).

See Exhibit 3.

- 10a) Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water. (OAC 3745-1-05(B)(2)(b))
- 10b) Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation. (OAC 3745-1-05(C)(6)(a, b) and OAC 3745-1-54)

0c) Include a discussion of the technical feasibility, cost effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.) (OAC 3745-1-05(C)(6)(h, j-k) and OAC 3745-1-54)

10d) For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents. (OAC 3745-1-05(C)(6)(i))

10e) To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource. (OAC 3745-1-05(B)(2)(g))

10f) Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project. (OAC 3745-01-05(C)(6)(g))

10g) Describe any impacts on human health and the overall quality and value of the water resource. (OAC 3745-1-05(C)(6)(c) and OAC 3745-1-54)

10h) Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of jobs created and tax revenues generated and a brief discussion on the condition of the local economy. (OAC 3745-1-5(B)(2)(e), and OAC 3745-1-05(C)(6)(i))

10i) Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans. (OAC 3745-1-05(B)(2)(e,f), and OAC 3745-1-05(C)(6)(e))

10j) Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species. (OAC 3745-1-05 (B)(2)(e,f), OAC 3745-1-05 (C)(6)(b) and OAC 3745-1-54)

10k) Describe mitigation techniques proposed (except for the Non-Degradation Alternative):

° Describe proposed Wetland Mitigation (see OAC 3745-1-54 and Primer)

° Describe proposed Stream, Lake, Pond Mitigation (see Primer)

11. Application is hereby made for a Section 401 Water Quality Certification. I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or I am acting as the duly authorized agent of the applicant.

James D Beasley - Aus 3/5/09

Signature of Applicant

Date

Michael [Signature] 3/4/09

Signature of Agent

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in Block 3 has been filled out and signed.

Exhibit 1 - 401 Application: Block 5. Locations of Impacted Features for Minimal Degradation Alternative

401 Application: Block 5. Locations of Impacted Features for Minimal Degradation Alternative

Site / Feature	USGS 7.5" Quadrangle	USGS Coordinates
Stream 1; UT ¹ to Mentor Marsh	Mentor	41°43'13"N 81°17'23"W
Stream 2; UT ¹ to UT ¹ to Chagrin River	Eastlake	41°38'38"N 81°25'34"W
Stream 3; UT ¹ to Stream 1 to Mentor Marsh	Mentor	41°43'03"N 81°17'53"W
Stream 4; UT ¹ to Wasson Ditch	Mentor	41°43'03"N 81°18'03"W
Stream 5; UT ¹ to Heisley Creek	Mentor	41°42'17"N 81°18'54"W
Stream 6; Marsh Creek	Mentor	41°41'34"N 81°19'38"W
Stream 8; UT ¹ to Stream 9	Mentor	41°40'34"N 81°21'51"W
Stream 9; UT ¹ to UT ¹ to Chagrin River	Mentor	41°40'50"N 81°21'30"W
Stream 10; Newell Creek	Mentor	41°40'17"N 81°22'12"W
Stream 12; UT ¹ to Chagrin River	Eastlake	41°39'43"N 81°22'53"W
Stream 13; UT ¹ to Chagrin River	Eastlake	41°38'56"N 81°25'00"W
Stream 14; Wasson Ditch	Mentor	41°43'03"N 81°18'03"W
Stream 15; Heisley Creek	Mentor	41°42'31"N 81°18'43"W
Stream 16; Chagrin River	Eastlake	41°39'17"N 81°24'21"W
Wetland 4/5 ²	Eastlake	41°39'48"N 81°22'52"W
Wetland 7	Eastlake	41°39'15"N 81°24'28"W
Wetland 11	Mentor	41°41'10"N 81°20'16"W
Wetland 12	Eastlake	41°39'10"N 81°24'33"W
Wetland 21	Mentor	41°41'34"N 81°19'37"W
Wetland 30	Eastlake	41°38'12"N 81°26'16"W

¹UT = Unnamed Tributary
²Wetlands were combined into one wetland after a Jurisdictional Determination was completed on November 8, 2006.

TABLES

Table A. 404/401 Application: Streams Affected by the Proposed Project for the Minimal Degradation Alternative.

Stream No.	USGS Coord.	Description and Length Impacted	Drainage Basin	Total Length	Receiving Stream	Distance to Receiving Stream	Drainage Area/Area at Impact Site	QHEI or HHEI Score/OEPA Use Designation (if available)	Riparian Corridor and Adjacent Habitats
1	41°43'13"N 81°17'23"W	Unnamed Stream; 70 linear feet	0.61 mi ²	2.28 mi	Mentor Marsh	1.27 mi	0.37 mi ²	56 (HHEI)	Residential, Commercial
2	41°38'38"N 81°25'34"W	Unnamed Stream; 40 linear feet	0.03 mi ²	0.93 mi	Unnamed Tributary of Chagrin River	0.72 mi	<0.01 mi ²	64 (HHEI)	Residential
3	41°43'03"N 81°17'53"W	Unnamed Stream; 907 linear feet	0.01 mi ²	0.63 mi	Stream #1	0.23 mi	0.01 mi ²	45 (HHEI)	Commercial
4	41°43'03"N 81°18'03"W	Tributary of Wasson Ditch; 1,050 linear feet	0.01 mi ²	0.75 mi	Wasson Ditch	0.24 mi	<0.01 mi ²	50 (HHEI)	Residential
5	41°42'17"N 81°18'54"W	Tributary of Heisley Creek; 33 linear feet	0.01 mi ²	0.27 mi	Heisley Creek	0.40 mi	0.02 mi ²	64 (HHEI)	Residential, Commercial
6	41°41'34"N 81°19'38"W	Marsh Creek; 65 linear feet	17 mi ²	5 mi	Lake Erie	1.1 mi	1.18 mi ²	64.25 (QHEI); WWH	Commercial
8	41°40'34"N 81°21'51"W	Unnamed Stream; 70 linear feet	0.06 mi ²	0.69 mi	Stream #9	20 ft	0.06 mi ²	14 (HHEI)	Commercial, Residential
9	41°40'50"N 81°21'30"W	Unnamed Stream; 120 linear feet	0.23 mi ²	2.05 mi	Unnamed Tributary of Chagrin River	0.59 mi	0.17 mi ²	78 (HHEI)	Commercial, Residential
10	41°40'17"N 81°22'12"W	Newell Creek; 240 linear feet	1.16 mi ²	7.03 mi	Chagrin River	3.42 mi	0.78 mi ²	24 (HHEI)	Commercial
12	41°39'43"N 81°22'53"W	Tributary of Chagrin River; 161 linear feet	0.03 mi ²	1.79 mi	Chagrin River	200 ft	1.79 mi ²	69 (HHEI)	Commercial, Residential
13	41°38'56"N 81°25'00"W	Tributary of Chagrin River; 85 linear feet	<0.01 mi ²	0.31 mi	Chagrin River	0.21 mi	0.004 mi ²	51 (HHEI)	Commercial, Residential
14	41°43'03"N 81°18'03"W	Wasson Ditch; 105 linear feet	0.85 mi ²	3.35 mi	Mentor Marsh	1.7 mi	0.57 mi ²	56 (HHEI)	Commercial, Residential

Table A. 404/401 Application: Streams Affected by the Proposed Project for the Minimal Degradation Alternative.

Stream No.	USGS Coord.	Description and Length Impacted	Drainage Basin	Total Length	Receiving Stream	Distance to Receiving Stream	Drainage Area/Area at Impact Site	QHEI or HHEI Score/OEPA Use Designation (if available)	Riparian Corridor and Adjacent Habitats
15	41°42'31"N 81°18'43"W	Heisley Creek; 320 linear feet	3.8 mi ²	3.79 mi	Marsh Creek	1.21 mi	0.54 mi ²	57.5 (QHEI); WWH	Commercial, Residential
16	41°39'17"N 81°24'21"W	Chagrin River; 281 linear feet	264 mi ²	47.9 mi	Lake Erie	3.1 mi	16.3 mi ²	56 (QHEI); WWH	Metro Park, Wetlands, Commercial

Table B. 404/401 Application: Wetlands Affected by the Proposed Project for the Minimal Degradation Alternative.

Wetland No.	USGS Coordinate	Drainage Basin	Wetland Description	Cowardin et al., 1979 Classification	ORAM v5.0 Score	OEPA Category	Total Size (Area Impacted)	Adjacent Habitats	Proximity to Other Surface Waters
4/5	41°39'48"N 81°22'52"W	Chagrin River	Low quality and non-native emergent species; Green Ash-Silver Maple component	Emergent/Forested Wetland	36/29	Modified Category 2/Category 1	0.02 ac	Residential, State Route 2	Adjacent to Stream 12
7	41°39'15"N 81°24'28"W	Chagrin River	Giant Reed and Black Willow Wetland	Emergent/Scrub-Shrub Wetland	27	Category 1	1.92 ac	Chagrin River Metro Park, Chagrin River Riparian Corridor, State Route 2	Within 200 feet of Chagrin River
11	41°41'10"N 81°20'16"W	Marsh Creek	Giant Reed-Cattail Marsh	Emergent Wetland	22	Category 1	0.01 ac	Commercial, State Route 2	Tributary of Marsh Creek flows through Wetland 11
12	41°39'10"N 81°24'33"W	Chagrin River	Giant Reed-Purple Loosestrife Marsh	Emergent Wetland	24	Category 1	1.41 ac	Surrounded by State Route 2 and St. Clair Street	Within 100 feet of Chagrin River
21	41°41'34"N 81°19'37"W	Marsh Creek	Giant Reed Marsh	Emergent Wetland	6	Category 1	0.12	Commercial and State Route 2	Adjacent to Stream 6
30	41°38'12"N 81°26'16"W	Unnamed Stream	Mixed Emergent Marsh	Emergent Wetland	7	Category 1	0.05	Commercial and State Route 91	Adjacent to roadside ditch that flows into unnamed stream

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

A. STREAMS

Stream No./Name	Approx. Station (Sta.) Location	Proposed Structure or Action	Existing Channel Disturbed Due to Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection ⁽¹⁾				Existing Channel Disturbed Due to Temporary Crossing			
			Length of Channel Disturbed (linear feet)	Excavation Below OHW		Fill Below OHW		Length of Channel Disturbed	Excavation / Fill Below OHW	
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)		Volume (yd ³)	Area (yd ²)
1/Unnamed Stream	Sta. 794+63	Replace existing 58"x91" culvert with a 12'x6' box culvert	70	40	315	15	315	N/A	N/A	N/A
2/Unnamed Stream	Sta. 308+66.09	Reline existing 15' and 10' corrugated metal pipe with 11' and 8' smooth lined pipe	40	N/A	N/A	20	70	N/A	N/A	N/A
3/Unnamed Stream	Heisley Road Interchange, Ramp B Sta. 361+50 to Sta. 370+00 and State Route 2 Sta. 776+30 to Sta. 776+90 (south)	Re-grading of Heisley Road ramp unnamed stream	907	1,235	4,275	2,045	4,275	N/A	N/A	N/A
4/Tributary of Wasson Ditch	Sta. 755+00 to Sta. 775+00 (North)	Re-grading of Heisley Road Interchange, Ramp A and Ramp D, and parallel Tributary of Wasson Ditch	1,050	350	1,050	N/A	N/A	N/A	N/A	N/A
5/Tributary of Heisley Creek	Sta. 701+08	Replace existing 48"x76" pipe culvert with 8' x5' Existing 16'x7' reinforced concrete slab structure to be patched and waterproofed	33	N/A	N/A	20	50	N/A	N/A	N/A
6/Marsh Creek	Sta. 646+04		65	N/A	N/A	55	165	N/A	N/A	N/A

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

A. STREAMS

Stream No./Name	Approx. Station (Sta.) Location	Proposed Structure or Action	Existing Channel Disturbed Due to Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection [1]				Existing Channel Disturbed Due to Temporary Crossing			
			Length of Channel Disturbed (linear feet)	Excavation Below OHW		Fill Below OHW		Length of Channel Disturbed	Excavation / Fill Below OHW	
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)		Volume (yd ³)	Area (yd ²)
8/Unnamed Stream	Sta. 524+97.8	Replace existing twin 48" pipe culverts with 58"x91" reinforced concrete elliptical pipe	70	N/A	N/A	20	95	N/A	N/A	N/A
9/Unnamed Stream	Sta. 548+21	Existing 12'x10' reinforced concrete slab structure to be patched and waterproofed	120	N/A	N/A	75	225	N/A	N/A	N/A
10/Newell Creek	Sta. 501+81	Widen existing prestressed I-beam, simple span bridge	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12/Tributary of Chagrin River	S.R. 2, Sta. 395+00 to Sta. 451+00 (right); Sta. 451+00 to Sta. 459+00 (left); S.R. 306 Ramp I, Sta. 59+00 to Sta. 68+75; Lost Nation Road Ramp B (entire limits); and Lost nation Road, Sta. 50+54	Replace existing 96" reinforced concrete pipe with 77"x121" reinforced concrete elliptical pipe under Lost Nation Road; Additional impacts at median drain outlets	161	N/A	N/A	240	265	N/A	N/A	N/A
13/Tributary of Chagrin River	Sta. 345+16	Replace existing 42" reinforced concrete pipe with 42" reinforced concrete pipe	85	N/A	N/A	150	100	N/A	N/A	N/A

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

A. STREAMS

Stream No./Name	Approx. Station (Sta.) Location	Proposed Structure or Action	Existing Channel Disturbed Due to Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection ⁽¹⁾				Existing Channel Disturbed Due to Temporary Crossing			
			Length of Channel Disturbed (linear feet)	Excavation Below OHW		Fill Below OHW		Length of Channel Disturbed	Excavation / Fill Below OHW Volume (yd ³)	Area (yd ²)
				Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)			
14/Wasson Ditch	Sta. 738+57	Replace existing 72" reinforced concrete pipe and 15" reinforced concrete pipe with 84" reinforced concrete pipe	105	N/A	N/A	155	200	N/A	N/A	N/A
15/Heisley Creek	Sta. 717+65	Replace existing 3-span reinforced concrete slab bridge with single span steel beam with concrete deck structure	320	N/A	N/A	975	1,830	N/A	N/A	N/A
16/Chagrin River	Sta. 381+16	Widen existing 3-span steel beam with reinforced concrete deck bridge and construct a new 37' (out-to-out) wide 3-span steel beam with reinforced concrete deck bridge for Ramp D; relocate existing sanitary sewer	281	N/A	N/A	515	515	20	444	333

Table C. 404/401 Application: Nature of Proposed Activities by Impacted Feature for the Minimal Degradation Alternative.

B. WETLANDS

Feature	Location	Description	Total Area Impacted (acres)	Proposed Action	Direct Impacts (within construction limits)			Indirect Impact Area (outside construction limits)
					Volume Excavated (yd ³)	Volume Filled (yd ³)	Area Excavated and/or Filled (ft ²)	
Wetland 4/5	S.R. 2, Sta. 454+00, 160 ft Lt. to S.R. 306 ramp I, Sta. 70+50, 100 ft.Lt.	Modified Category 2 Forested/Emergent Wetland	0.02	Sideslope and ditch grading	15	0	870	0
Wetland 7	S.R. 2, Sta. 359+75 to Sta. 379+50, 100 ft Lt.	Category 1 Emergent/Scrub-Shrub Wetland	1.92	Sideslope and ditch grading; Storm sewer and retaining wall construction	400	27,023	83,635	0
Wetland 11	S.R. 615 Ramp B, Sta. 0+50 to Sta. 11+00 (S.R. 2 Sta. 614+50), 60 ft. Rt.	Category 1 Emergent Wetland	0.01	Sideslope and ditch grading	15	0	435	0
Wetland 12	S.R. 2, Sta. 359+80 to Sta. 378+75, 80 ft. Rt.	Category 1 Emergent Wetland	1.41	Sideslope and ditch grading, and storm sewer construction	1,944	5,222	61,420	0
Wetland 21	S.R. 2, Sta. 645+90 to Sta. 647+90, 120 ft. Rt.	Category 1 Emergent Wetland	0.12	Sideslope and ditch grading, and culvert construction	208	0	5,227	0
Wetland 30	Som Center Rd. (S.R. 91), Sta. 27+50 (S.R. 2, Sta. 308+00), 390 ft. Rt.	Category 1 Emergent Wetland	0.05	Sideslope grading	50	50	2178	0

C. WHOLE PROJECT SUMMARY OF ACTIVITIES

Total Length Disturbed due to Proposed Structures, Highway Fill, Channel Change or Channel Protection	Length Disturbed due to Temporary Crossing	Net Length Disturbed ⁽²⁾	Total Project Excavation						Total Project Fill					
			Stream Excavated		Wetland Excavated		Total Excavation		Stream Filled (standard roadfill, channel protection, temp crossing & other materials)		Wetland Filled		Total Filled	
			Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)	Volume (yd ³)	Area (yd ²)
3,547	20	3,567	1,625	5,640	2,632	59,903	4,157	65,543	4,429	10,228	32,295	102,434	37,264	112,662

Table D. 404/401 Application: Proposed Lowering of Water Quality by the Preferred, Minimal, and Non-Degradation Alternatives.

Alternative	Expected Impacts by Alternative						
	Direct Stream Impacts	Aquatic Hab. (QHEI/HHEI)/Use Designation/Stream Flow	Aquatic Biota	T & E Species ⁽¹⁾	Terrestrial Plant/Animals (Riparian Area)	Wetlands	Summary for Alternative
Preferred	<p>Primarily short-term construction impacts (increased erosion and sedimentation); Overall, no long-term impacts to water quality are expected.</p> <p>Total Stream Impacts: 5,141 linear feet Temporary Fill: 0.440 acres Permanent Fill: 2.465 acres</p>	<p>Stream 1/56 (HHEI)/Intermittent Stream 2/64 (HHEI)/Intermittent Stream 3/45 (HHEI)/Intermittent Stream 4/50 (HHEI)/Intermittent Stream 5/64 (HHEI)/Intermittent Stream 6/64-25 (QHEI)/Perennial Stream 8/14 (HHEI)/Intermittent Stream 9/78 (HHEI)/Intermittent Stream 10/24 (HHEI)/Intermittent Stream 12/69 (HHEI)/Intermittent Stream 13/51 (HHEI)/Intermittent Stream 14/56 (HHEI)/Intermittent Stream 15/57.5 (QHEI)/Perennial Stream 16/56 (QHEI)/Perennial Stream 17/62.25 (QHEI)/Perennial Stream 18/35 (HHEI)/Intermittent</p>	<p>The existing fish and macrobenthos are expected to be displaced, but not significantly affected within any stream. Examples of fish species include: largemouth bass (<i>Micropterus salmoides</i>), white suckers (<i>Catostomus commersoni</i>), smallmouth bass (<i>Micropterus dolomieu</i>), creek chub (<i>Semotilus atromaculatus</i>), sunfish (<i>Lepomis</i> sp.). Several examples of macrobenthos species include: <i>Hydropsyche</i> sp., <i>Argia</i> sp., <i>Gammarus</i> sp., <i>Chironomidae</i> sp., and <i>Hirudinea</i> sp.</p>	<p>No federal/state threatened or endangered species were identified in the project area. The range of the Indiana bat (<i>Myotis sodalis</i>), the piping plover (<i>Charadrius melodus</i>), and the bald eagle (<i>Haliaeetus leucocephalus</i>) include Lake County. It is unlikely that any of these species will be adversely affected.</p>	<p>Very common plant, mammal, bird, and amphibian species. Examples of mammal, bird, and amphibian species include: white-tailed deer (<i>Odocoileus virginianus</i>), raccoon (<i>Procyon lotor</i>), European starling (<i>Sturnus vulgaris</i>), Northern cardinal (<i>Cardinalis cardinalis</i>), and green frog (<i>Rana clamitans</i>). Examples of plant species include: silver maple (<i>Acer saccharinum</i>), chicory (<i>Cichorium intybus</i>), tall fescue (<i>Festuca elatior</i>), common reed (<i>Phragmites australis</i>), and Kentucky bluegrass (<i>Poa pratensis</i>). These species are expected to be displaced, but not significantly affected.</p>	<p><u>Non-Isolated</u> Total Impact: 4.55 acres 3.81 acres of impact for non-forested Category 1 wetlands; 0.65 acres of impact for forested Category 2 wetlands <u>Isolated</u> Total Impact: 0.12 acres 0.07 acres of impact for non-forested Category 1 wetlands; 0.05 acres of impact for forested Category 1 wetlands</p>	<p>No permanent impacts to sensitive habitats, T&E species, terrestrial species, or aquatic biota. Siltation resulting from the construction activities may reduce species diversity and abundance during construction and shortly afterwards. However, it is unlikely that construction activities will result in the permanent loss of any aquatic species. The project may require the cutting of several trees that possess Indiana bat roosting potential.</p>

Table D. 404/401 Application: Proposed Lowering of Water Quality by the Preferred, Minimal, and Non-Degradation Alternatives.

Alternative	Expected Impacts by Alternative						
	Direct Stream Impacts	Aquatic Hab. (QHEI/HHEI)/Use Designation/Stream Flow	Aquatic Biota	T & E Species ^[1]	Terrestrial Plant/Animals (Riparian Area)	Wetlands	Summary for Alternative
Minimal Degradation	<p>Primarily short-term construction impacts (increased erosion and sedimentation); Overall, no long-term impacts to water quality are expected.</p> <p>Total Stream Impacts: 3,547 linear feet Temporary Fill: 0.439 acres Permanent Fill: 1.927 acres</p>	<p>Stream 1/56 (HHEI)/Intermittent Stream 2/64 (HHEI)/Intermittent Stream 3/45 (HHEI)/Intermittent Stream 4/50 (HHEI)/Intermittent Stream 5/64 (HHEI)/Intermittent Stream 6/64.25 (QHEI)/Perennial Stream 8/14 (HHEI)/Intermittent Stream 9/78 (HHEI)/Intermittent Stream 10/24 (HHEI)/Intermittent Stream 12/69 (HHEI)/Intermittent Stream 13/51 (HHEI)/Intermittent Stream 14/56 (HHEI)/Intermittent Stream 15/57.5 (QHEI)/Perennial Stream 16/56 (QHEI)/Perennial</p>	<p>The existing fish and macrobenthos are expected to be displaced, but not significantly affected within any stream. Examples of fish species include: largemouth bass (Micropterus salmoides), white suckers (Catostomus commersoni), smallmouth bass (Micropterus dolomieu), creek chub (Serrinotilus atramaculatus), sunfish (Lepomis sp.). Several examples of macrobenthos species include: Hydropsyche sp., Argia sp., Gammarus sp., Chironomidae sp., and Hirudinea sp.</p>	<p>No federal/state threatened or endangered species were identified in the project area. The range of the Indiana bat (Myotis sodalis), the piping plover (Charadrius melodus), and the bald eagle (Haliaeetus leucocephalus) include Lake County. It is unlikely that any of these species will be adversely affected.</p>	<p>Very common plant, mammal, bird, reptile, and amphibian species. Examples of mammal, bird, and amphibian species include: white-tailed deer (Odocoileus virginianus), raccoon (Procyon lotor), European starling (Sturnus vulgaris), Northern cardinal (Cardinalis cardinalis), and green frog (Rana clamitans). Examples of plant species include: silver maple (Acer saccharinum), chicory (Cichorium intybus), tall fescue (Festuca elatior), common reed (Phragmites australis), and Kentucky bluegrass (Poa pratensis). These species are expected to be displaced, but not significantly affected within any stream.</p>	<p><u>Non-Isolated</u> Total Impact: 3.53 acres 3.51 acres of impact for non-forested Category 1 wetlands; 0.02 acres of impact for forested Category 2 wetlands <u>Isolated</u> Total Impact: 0.02 acres 0.01 acres of impact for non-forested Category 1 wetlands; 0.01 acres of impact for forested Category 1 wetlands</p>	<p>No permanent impacts to sensitive habitats, T&E species, terrestrial species, or aquatic biota. Siltation resulting from the construction activities may reduce species diversity and abundance during construction and shortly afterwards. However, it is unlikely that construction activities will result in the permanent loss of any aquatic species. The project may require the cutting of several trees that possess Indiana bat roosting potential.</p>
Non-Degradation	None	No impacts as current structures are in place (culverts, bridges, etc.)	None	None	None	None	No impacts for this alternative.

[1] Impact footprint of the Preferred Alternative includes areas upstream and/or downstream of proposed structures where energy and erosion control components (channel protection) are required to achieve pre-construction stream velocity, water surface elevation and channel stability conditions; no impact to stream flow patterns are expected.

Table E. 404/401 Application; Proposed Stream Mitigation for the Preferred and Minimal Degradation Alternatives.
LAK-2-3-32; PID 13486 October 2007

Stream Name	Impacted Length	Type of Mitigation ¹	Watershed (8 Digit HUC)		QHEI Score	HHEI Score	Mitigated Length ¹	
			Impacted	Mitigated ¹			On-site	Off-site
Stream 1	65 linear feet (Preferred Alternative); 70 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	56	N/A	N/A
Stream 2	50 linear feet (Preferred Alternative); 40 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	64	N/A	N/A
Stream 3	907 linear feet (Preferred Alternative); 907 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	45	N/A	N/A
Stream 4	1,960 linear feet (Preferred Alternative); 1,050 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	50	N/A	N/A
Stream 5	50 linear feet (Preferred Alternative); 33 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	64	N/A	N/A
Stream 6	129 linear feet (Preferred Alternative); 65 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	64.25	N/A	N/A	N/A
Stream 8	61 linear feet (Preferred Alternative); 70 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	14	N/A	N/A
Stream 9	125 linear feet (Preferred Alternative); 120 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	78	N/A	N/A
Stream 10	240 linear feet (Preferred Alternative); 240 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	24	N/A	N/A
Stream 12	161 linear feet (Preferred Alternative); 161 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	69	N/A	N/A
Stream 13	108 linear feet (Preferred Alternative); 85 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	51	N/A	N/A
Stream 14	150 linear feet (Preferred Alternative); 105 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	56	N/A	N/A
Stream 15	320 linear feet (Preferred Alternative); 320 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	57.5	N/A	N/A	N/A
Stream 16	285 linear feet (Preferred Alternative); 281 linear feet (Minimal Degradation Alternative)	N/A	04110003	N/A	56	N/A	N/A	N/A
Stream 17	80 linear feet (Preferred Alternative); No impact (Minimal Degradation Alternative)	N/A	04110004	N/A	64.25	N/A	N/A	N/A
Stream 18	450 linear feet (Preferred Alternative); No impact (Minimal Degradation Alternative)	N/A	04110003	N/A	N/A	35	N/A	N/A

¹ODOT has proposed two stream mitigation projects to mitigate for the impacts off-site – the Gully Brook Property and the purchase of a conservation easement in the Grand River watershed.

Table F. 404/401 Application: Proposed Wetland Mitigation for the Preferred and Minimal Degradation Alternatives.
LAK-2-3-32; PID 13486 September 2007

Wetland No.	Impacted Area	Type of Wetland (Isolated/Non-Isolated)	Watershed (8 Digit HUC)		ORAM v5.0 Score	OEPA Category	Mitigated Area	
			Impacted	Mitigated ¹			On-site	Off-site ¹
3	0.03 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Isolated	04110003	N/A	22	Category 1	N/A	N/A
4/5	0.06 acres (Preferred Alternative); 0.02 acres (Minimal Degradation)	Non-Isolated	04110003	N/A	38/29	Modified Category 2/ Category 1	N/A	0.04
7	1.92 acres (Preferred Alternative); 1.92 acres (Minimal Degradation Alternatives)	Non-Isolated	04110003	N/A	27	Category 1	N/A	2.88
11	0.15 acres (Preferred Alternative); 0.01 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	22	Category 1	N/A	0.02
12	1.47 acres (Preferred Alternative); 1.41 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	24	Category 1	N/A	2.12
13	0.07 acres (Preferred Alternative); 0.01 acres (Minimal Degradation Alternative)	Isolated	04110003	N/A	17	Category 1	N/A	0.02
17/18	0.06 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	33/43	Modified Category 2	N/A	N/A
19	0.01 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Isolated	04110003	N/A	23	Category 1	N/A	N/A
20	0.01 acres (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Isolated	04110003	N/A	24	Category 1	N/A	N/A
21	0.17 acres (Preferred Alternative); 0.12 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	6	Category 1	N/A	0.18
23	0.65 (Preferred Alternative); No Impact (Minimal Degradation Alternative)	Non-Isolated	04110004	N/A	36	Modified Category 2	N/A	N/A
30	0.07 acres (Preferred Alternative); 0.05 acres (Minimal Degradation Alternative)	Non-Isolated	04110003	N/A	7	Category 1	N/A	0.08

¹ The acreages are for the minimal degradation alternative only.

Table G. 404/401 Application: Impacts and Avoidance Estimations.

Resource	Acres/Feet Impacted (Alt)	Total Resource (acres/miles)	Volume of Fill (CY)	% Avoided
Stream 1	0.061 acres/65 linear feet (Preferred Alternative) 0.065 acres/70 linear feet (Minimal Degradation Alternative)	2.28 miles	51 CY (Preferred Alternative) 55 CY (Minimal Degradation Alternative)	99.42% (Preferred Alternative) 99.40% (Minimal Degradation Alternative)
Stream 2	0.018 acres/50 linear feet (Preferred Alternative) 0.014 acres/40 linear feet (Minimal Degradation Alternative)	0.93 miles	25 CY (Preferred Alternative) 70 CY (Minimal Degradation Alternative)	98.98% (Preferred Alternative) 99.10% (Minimal Degradation Alternative)
Stream 3	0.883 acres/907 linear feet (Preferred Alternative) 0.883 acres/907 linear feet (Minimal Degradation Alternative)	0.63 miles	2,045 CY (Preferred Alternative) 2,045 CY (Minimal Degradation Alternative)	72.73% (Preferred Alternative) 72.70% (Minimal Degradation Alternative)
Stream 4	0.405 acres/1,960 linear feet (Preferred Alternative) 0.217 acres/1,050 linear feet (Minimal Degradation Alternative)	0.75 miles	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	50.51% (Preferred Alternative) 73.50% (Minimal Degradation Alternative)
Stream 5	0.016 acres/50 linear feet (Preferred Alternative) 0.010 acres/33 linear feet (Minimal Degradation Alternative)	0.40 miles	30 CY (Preferred Alternative) 20 CY (Minimal Degradation Alternative)	97.63% (Preferred Alternative) 98.50% (Minimal Degradation Alternative)
Stream 6	0.034 acres/129 linear feet (Preferred Alternative) 0.034 acres/65 linear feet (Minimal Degradation Alternative)	5 miles	55 CY (Preferred Alternative) 55 CY (Minimal Degradation Alternative)	99.51% (Preferred Alternative) >99.99% (Minimal Degradation Alternative)
Stream 8	0.017 acres/61 linear feet (Preferred Alternative) 0.020 acres/70 linear feet (Minimal Degradation Alternative)	0.69 miles	17 CY (Preferred Alternative) 20 CY (Minimal Degradation Alternative)	98.33% (Preferred Alternative) 99.98% (Minimal Degradation Alternative)
Stream 9	0.049 acres/125 linear feet (Preferred Alternative) 0.046 acres/120 linear feet (Minimal Degradation Alternative)	2.05 miles	78 CY (Preferred Alternative) 75 CY (Minimal Degradation Alternative)	98.85% (Preferred Alternative) 98.88% (Minimal Degradation Alternative)
Stream 10	0.370 acres/240 linear feet (Preferred Alternative) 0.370 acres/240 linear feet (Minimal Degradation Alternative)	7.03 miles	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	99.35% (Preferred Alternative) 99.94% (Minimal Degradation Alternative)
Stream 12	0.069 acres/161 linear feet (Preferred Alternative) 0.055 acres/161 linear feet (Minimal Degradation Alternative)	1.79 miles	305 CY (Preferred Alternative) 240 CY (Minimal Degradation Alternative)	98.30% (Preferred Alternative) 98.30% (Minimal Degradation Alternative)
Stream 13	0.027 acres/108 linear feet (Preferred Alternative) 0.021 acres/85 linear feet (Minimal Degradation Alternative)	6.60 miles	190 CY (Preferred Alternative) 150 CY (Minimal Degradation Alternative)	99.69% (Preferred Alternative) 99.95% (Minimal Degradation Alternative)

Table G. 404/401 Application: Impacts and Avoidance Estimations.

Resource	Acres/Feet Impacted (Alt)	Total Resource (acres/miles)	Volume of Fill (CY)	% Avoided
Stream 14	0.059 acres/150 linear feet (Preferred Alternative) 0.041 acres/105 linear feet (Minimal Degradation Alternative)	3.35 miles	220 CY (Preferred Alternative) 155 CY (Minimal Degradation Alternative)	99.15% (Preferred Alternative) 99.40% (Minimal Degradation Alternative)
Stream 15	0.378 acres/320 linear feet (Preferred Alternative) 0.378 acres/320 linear feet (Minimal Degradation Alternative)	3.79 miles	975 CY (Preferred Alternative) 975 CY (Minimal Degradation Alternative)	98.40% (Preferred Alternative) 98.39% (Minimal Degradation Alternative)
Stream 16	0.178 acres/285 linear feet (Preferred Alternative) 0.175 acres/281 linear feet (Minimal Degradation Alternative)	47.9 miles	522 CY (Preferred Alternative) 515 CY (Minimal Degradation Alternative)	>99.99% (Preferred Alternative) >99.99% (Minimal Degradation Alternative)
Stream 17	0.056 acres/80 linear feet (Preferred Alternative) No Impact (Minimal Degradation Alternative)	2.40 miles	272 CY (Preferred Alternative) 170 CY (Minimal Degradation Alternative)	99.37% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Stream 18	0.341 acres/450 linear feet (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.56 miles	1,585 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	84.78% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 3	0.03 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.47 acres	24 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	93.62% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 4/5	0.06 acres (Preferred Alternative) 0.02 acres (Minimal Degradation Alternative)	1.48 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	95.95% (Preferred Alternative) 98.65% (Minimal Degradation Alternative)
Wetland 7	1.92 acres (Preferred Alternative) 1.92 acres (Minimal Degradation Alternative)	2.23 acres	27,023 CY (Preferred Alternative) 27,023 CY (Minimal Degradation Alternative)	13.99% (Preferred Alternative) 13.99% (Minimal Degradation Alternative)
Wetland 11	0.15 acres (Preferred Alternative) 0.01 acres (Minimal Degradation Alternative)	2.40 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	93.75% (Preferred Alternative) 99.58% (Minimal Degradation Alternative)
Wetland 12	1.47 acres (Preferred Alternative) 1.41 acres (Minimal Degradation Alternative)	1.64 acres	5,444 CY (Preferred Alternative) 5,222 CY (Minimal Degradation Alternative)	10.37% (Preferred Alternative) 14.02% (Minimal Degradation Alternative)
Wetland 13	0.07 acres (Preferred Alternative) 0.01 acres (Minimal Degradation Alternative)	0.71 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	90.14% (Preferred Alternative) 98.59% (Minimal Degradation Alternative)

Table G. 404/401 Application: Impacts and Avoidance Estimations.

Resource	Acres/Feet Impacted (Alt)	Total Resource (acres/miles)	Volume of Fill (CY)	% Avoided
Wetland 17/18	0.06 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	8.69 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	99.31% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 19	0.01 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.07 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	85.71% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 20	0.01 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.12 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	91.67% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 21	0.17 acres (Preferred Alternative) 0.12 acres (Minimal Degradation Alternative)	0.20 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	15% (Preferred Alternative) 67.57% (Minimal Degradation Alternative)
Wetland 23	0.65 acres (Preferred Alternative) No Impact (Minimal Degradation Alternative)	0.85 acres	0 CY (Preferred Alternative) 0 CY (Minimal Degradation Alternative)	33.52% (Preferred Alternative) 100% (Minimal Degradation Alternative)
Wetland 30	0.07 acres (Preferred Alternative) 0.05 acres (Minimal Degradation Alternative)	0.56 acres	114 CY (Preferred Alternative) 50 CY (Minimal Degradation Alternative)	87.5 % (Preferred Alternative) 91.07% (Minimal Degradation Alternative)

APPENDIX A: GENERAL MAPS AND DESIGN DRAWINGS

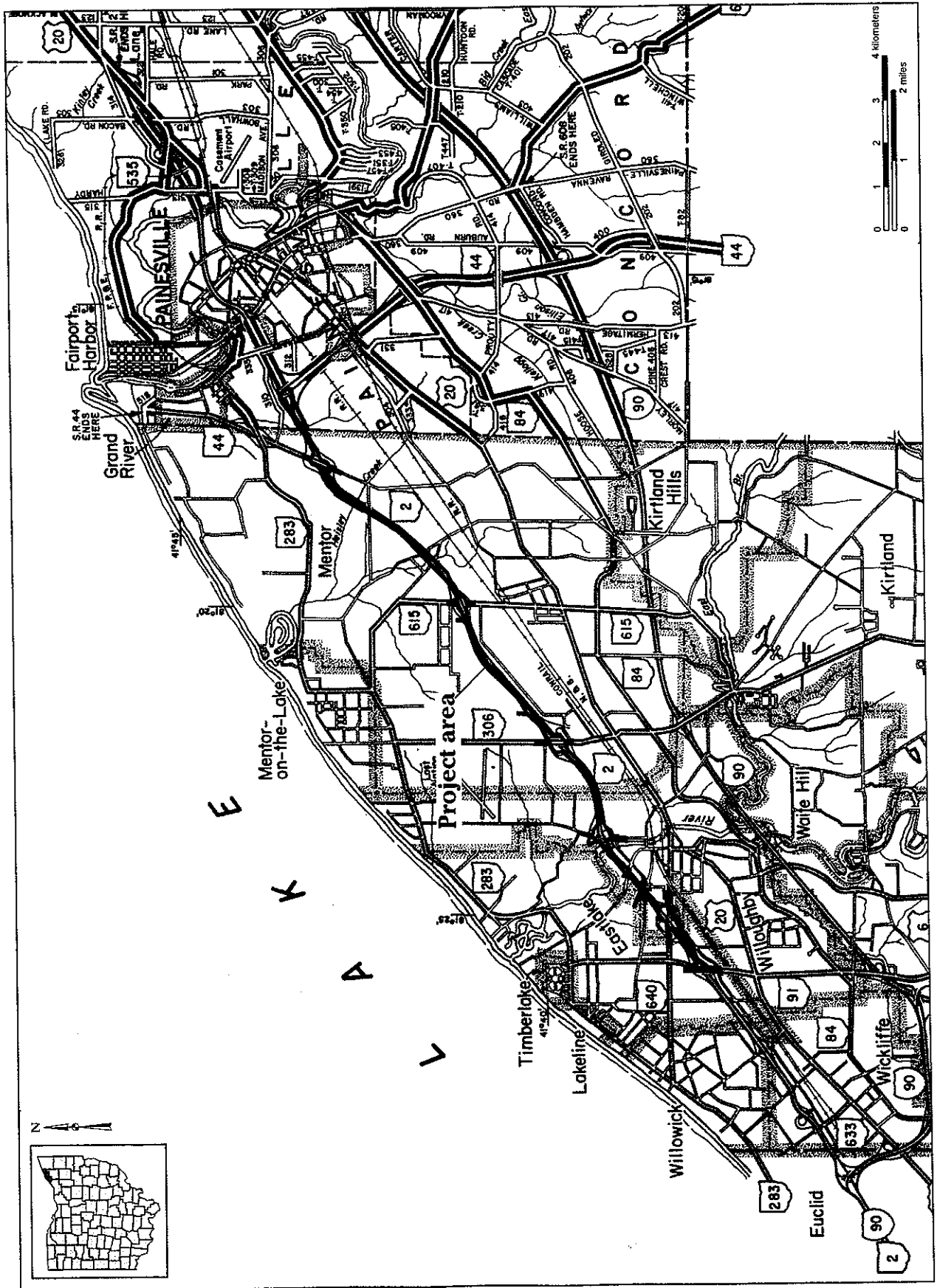


Figure 1. Project Vicinity Map.

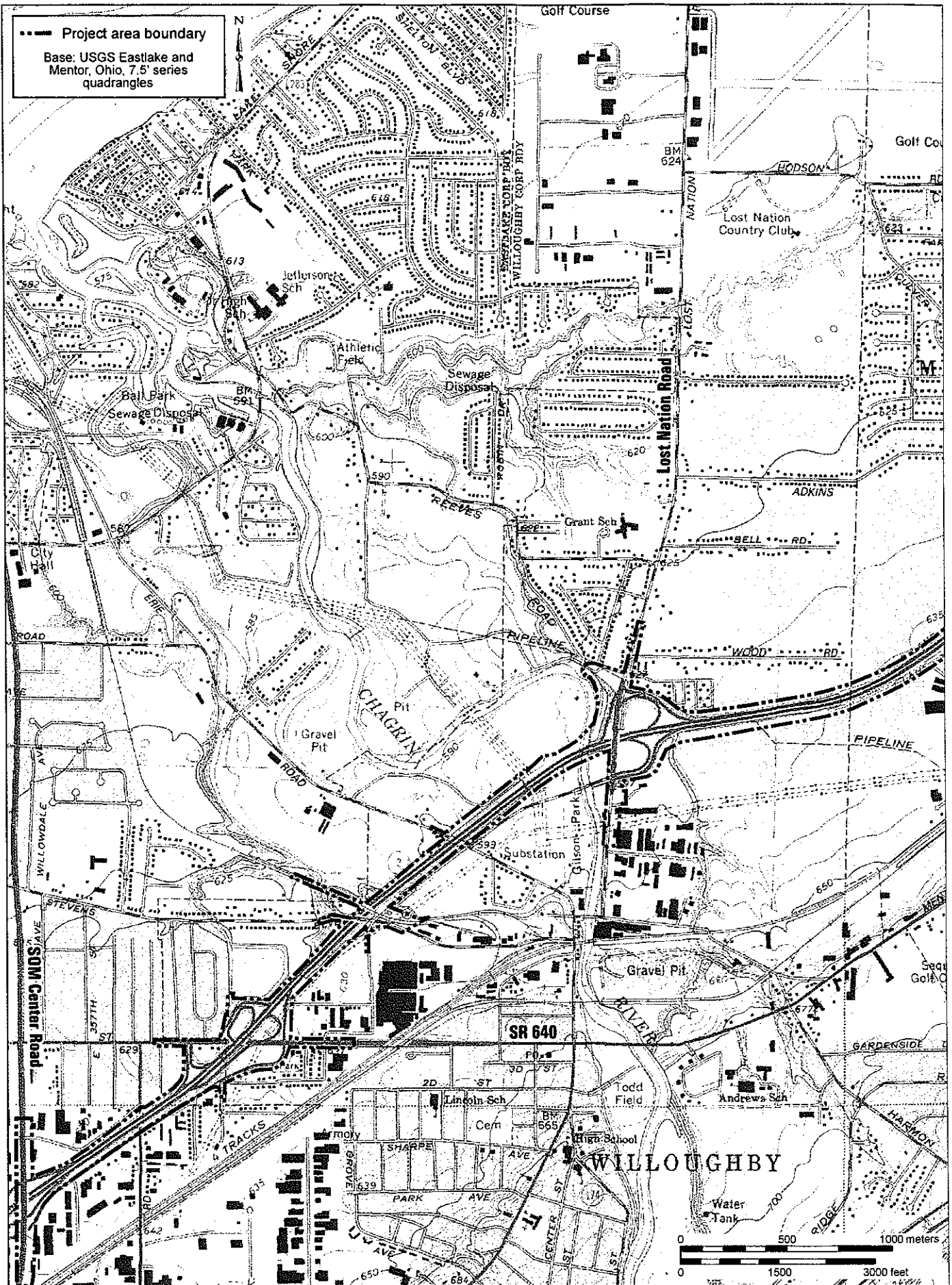


Figure 2. Project Location. (4 sheets)

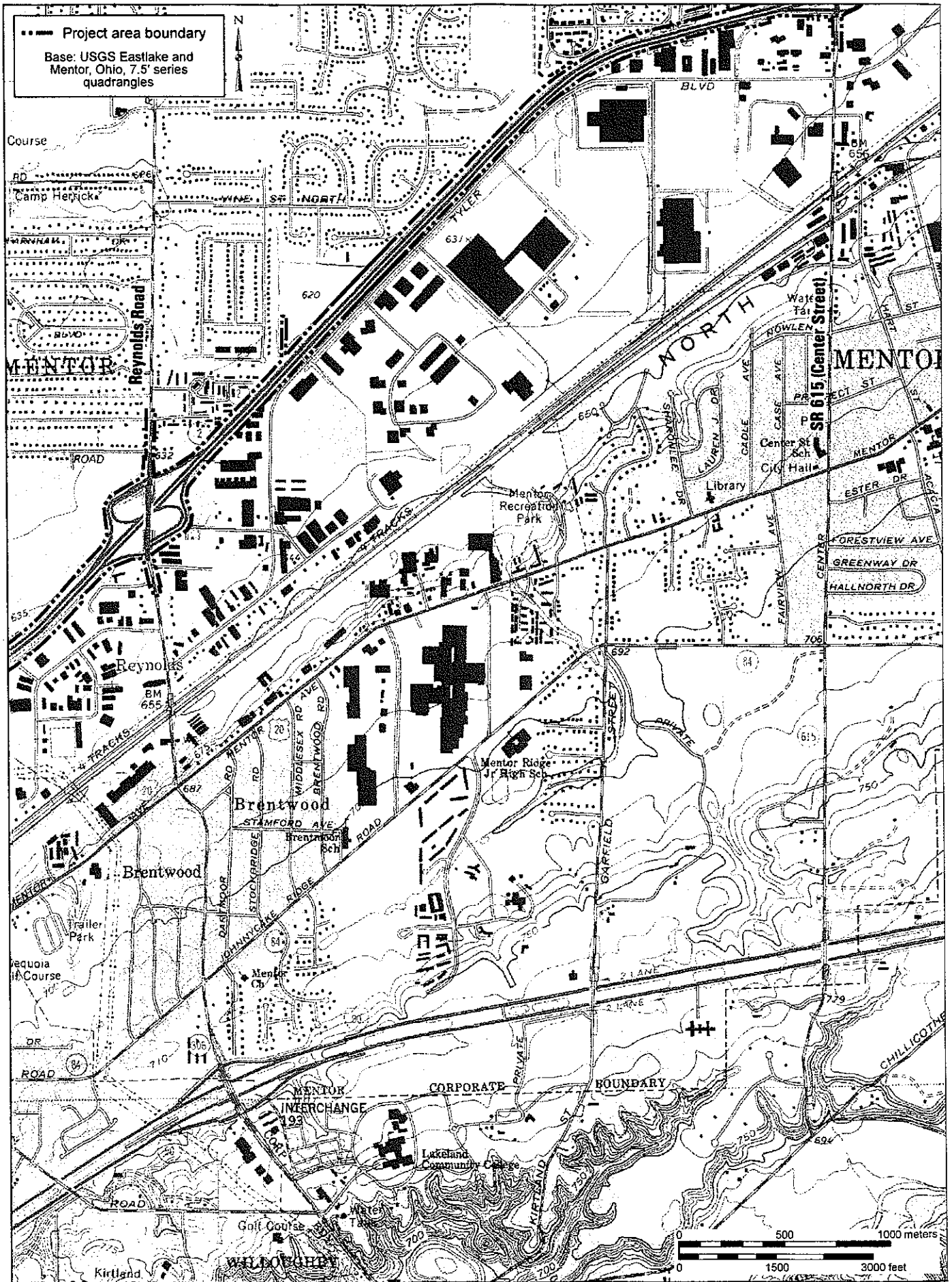


Figure 2. Project Location. (4 sheets)

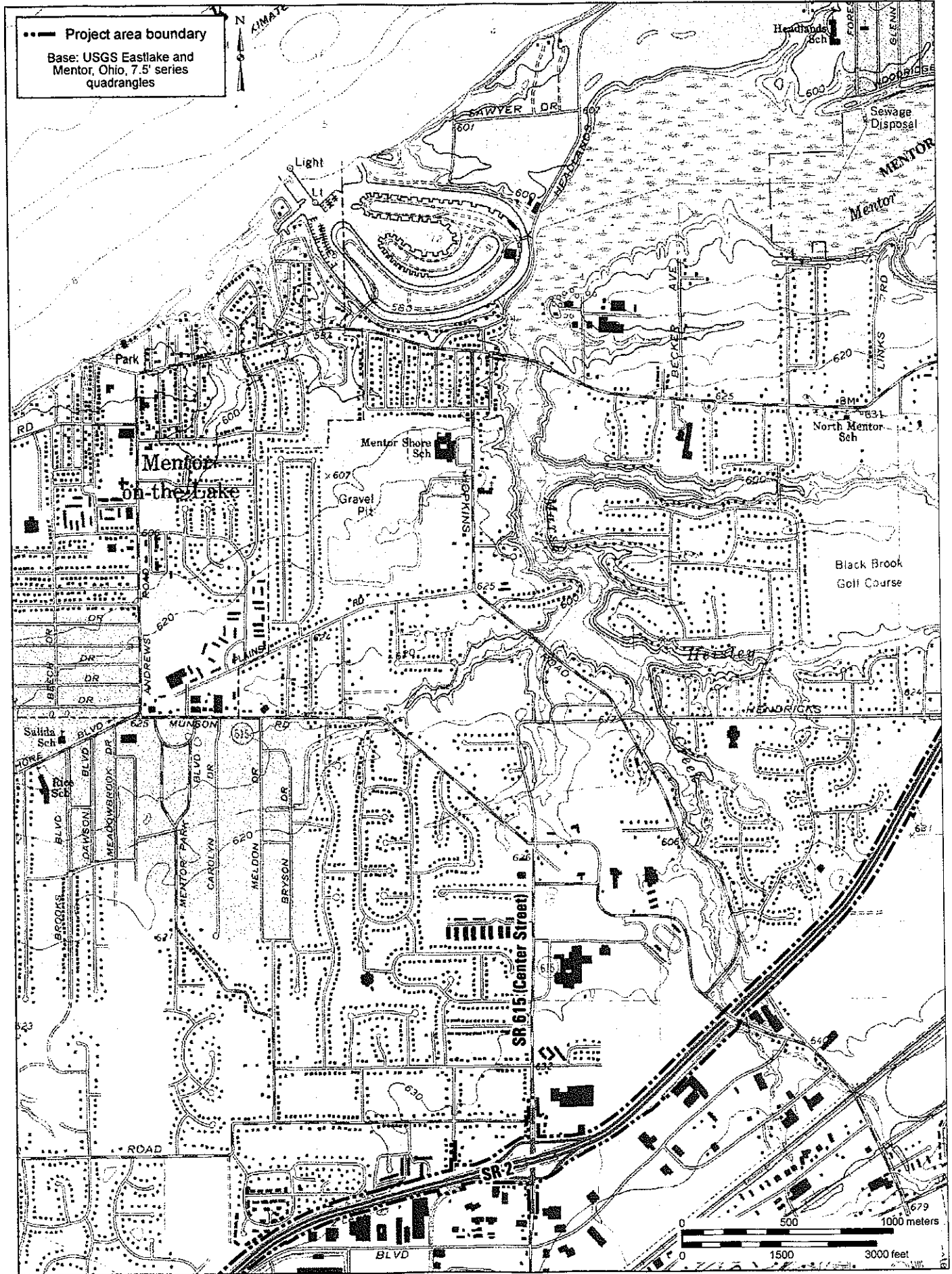


Figure 2 Project Location. (4 sheets)

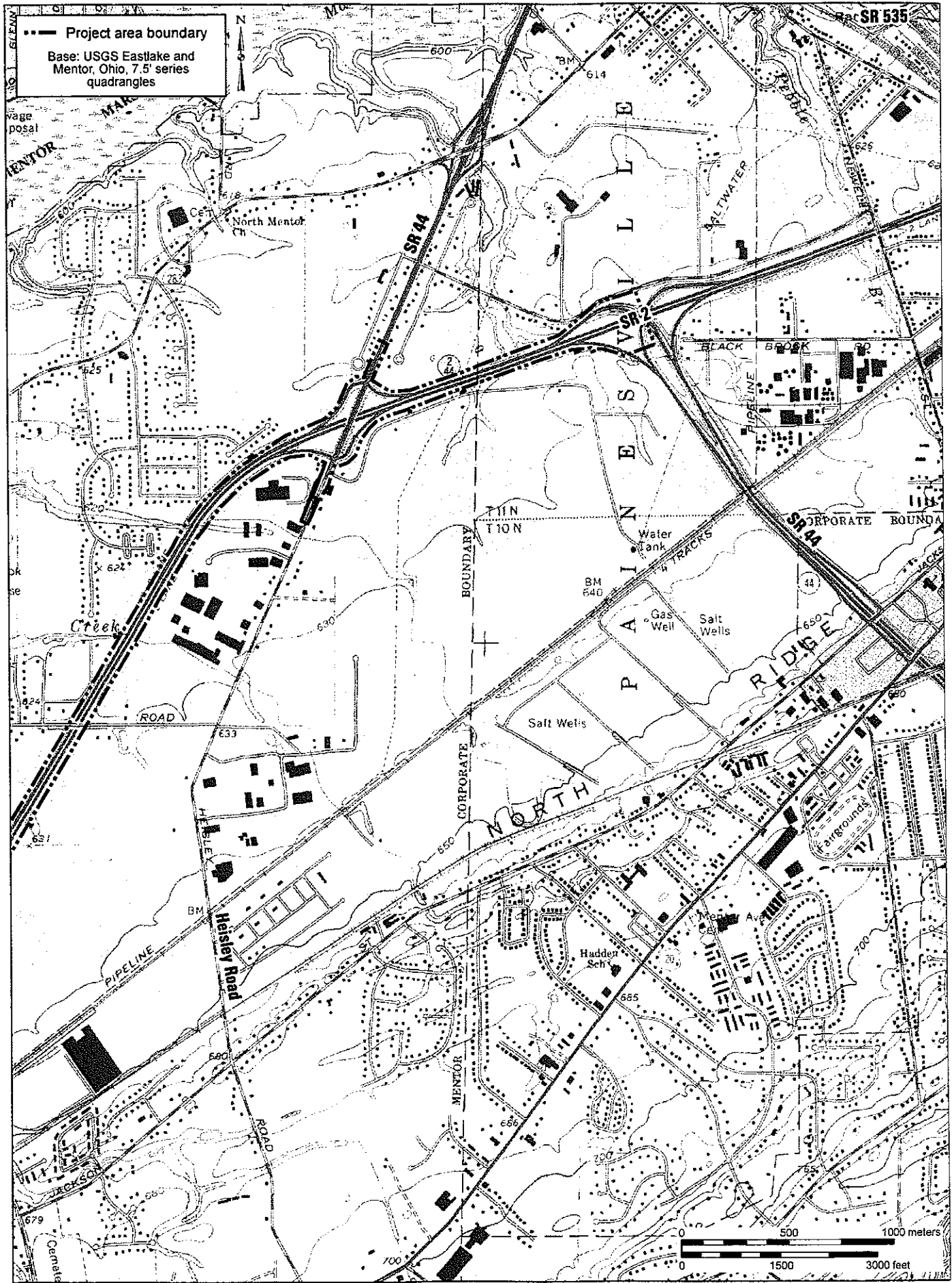


Figure 2 Project Location. (4 sheets)

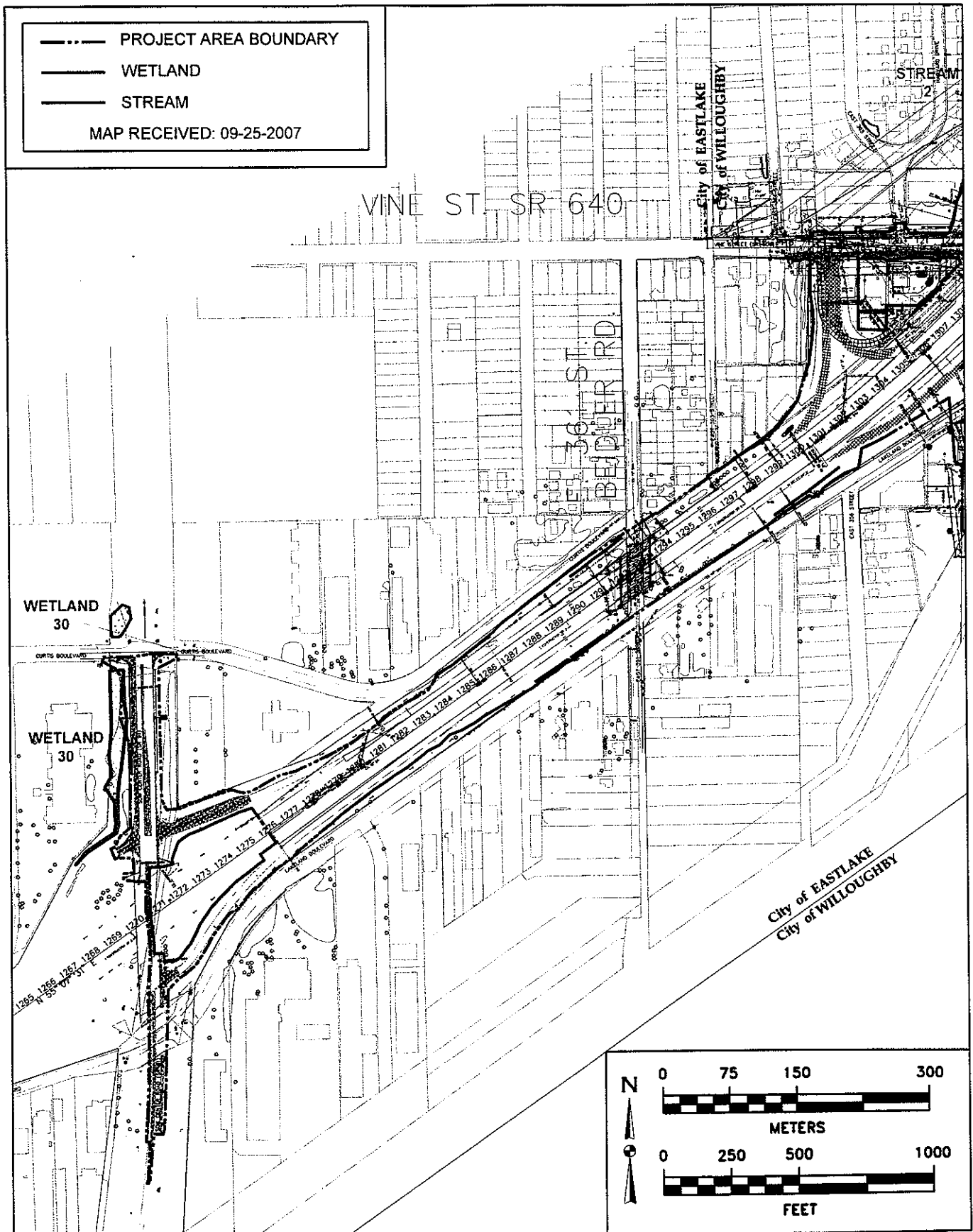


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 4
Sheet 1 of 14

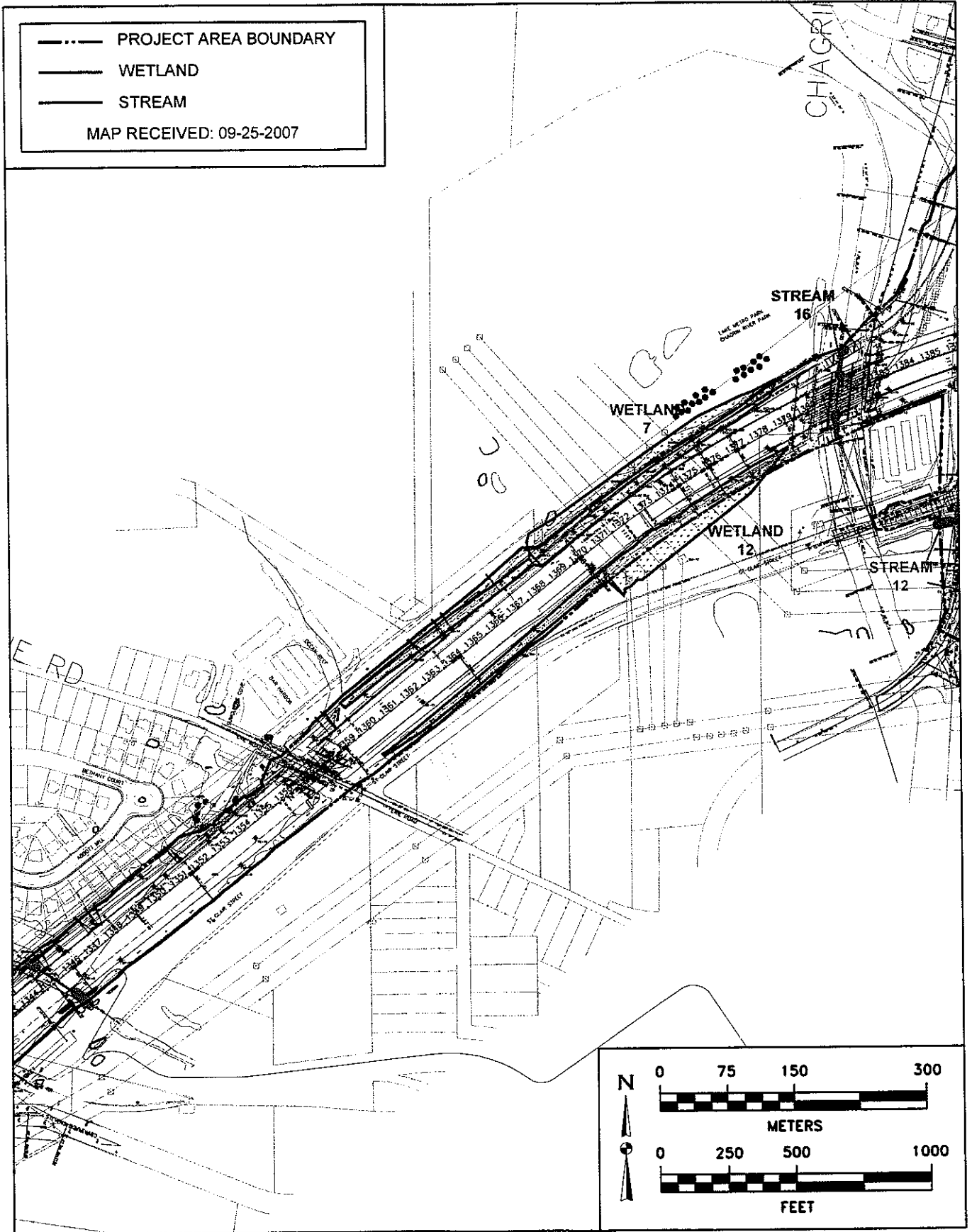


Figure 4. Minimum Degradation Alternative. (14 sheets)

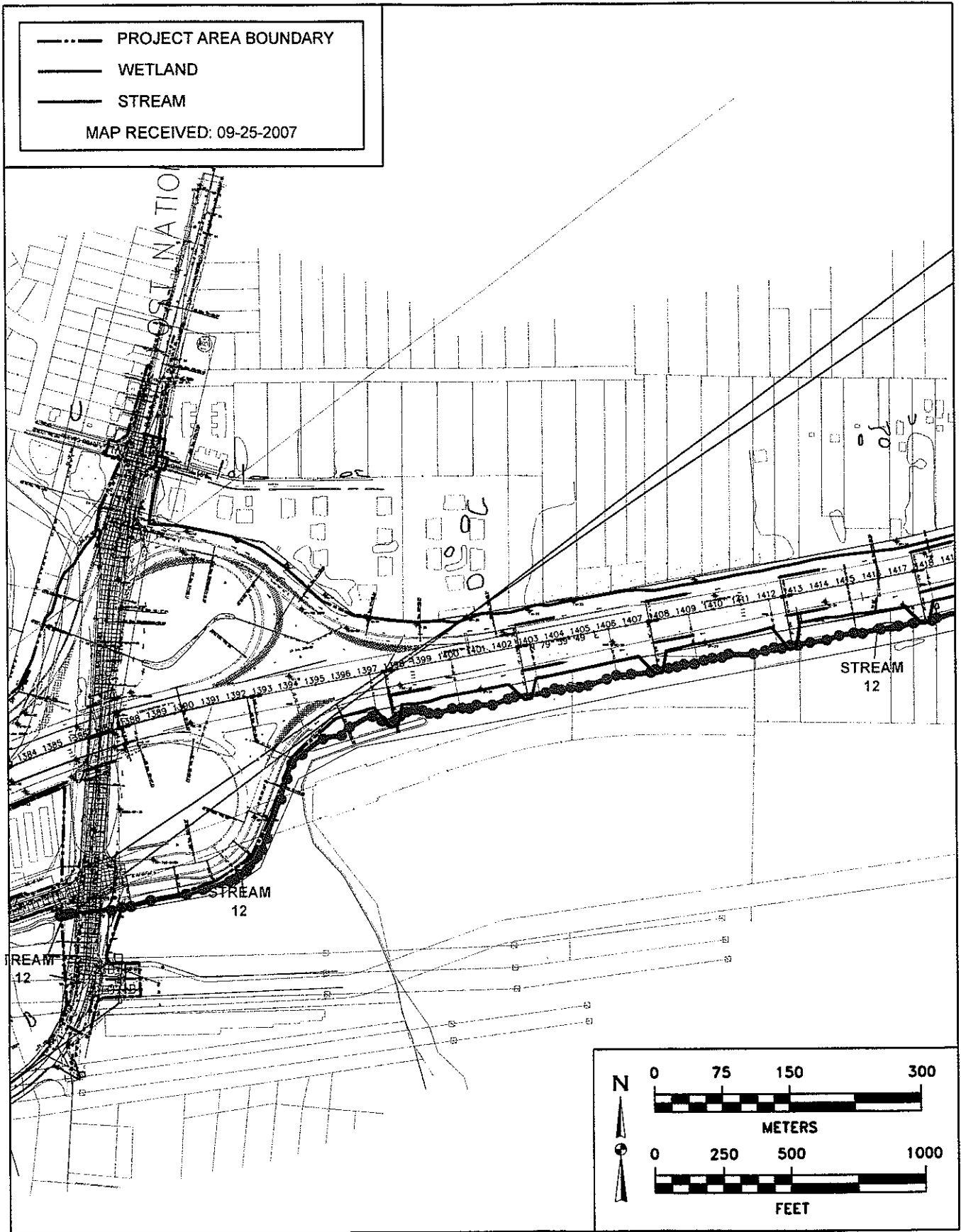


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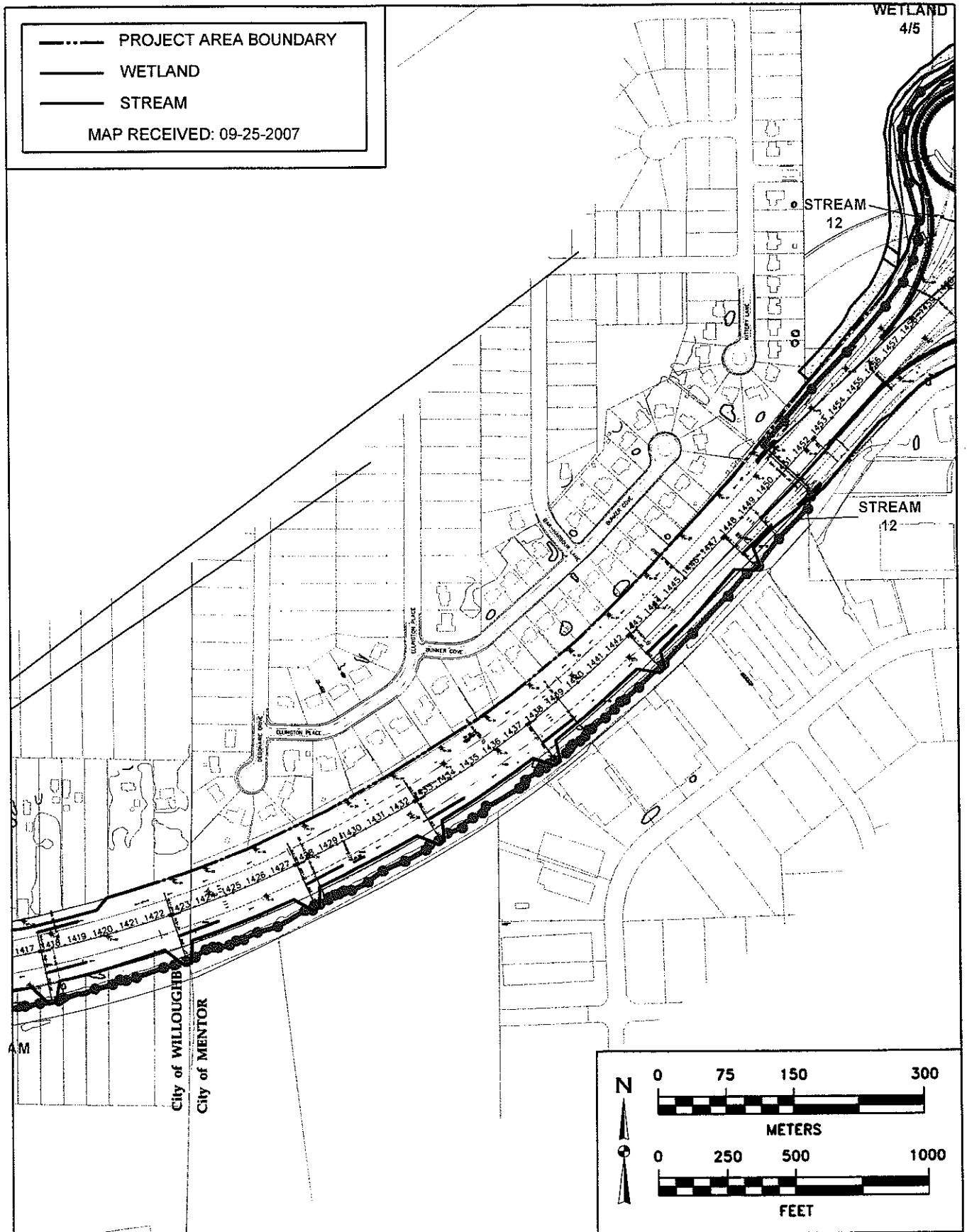


Figure 4. Minimum Degradation Alternative. (14 sheets)

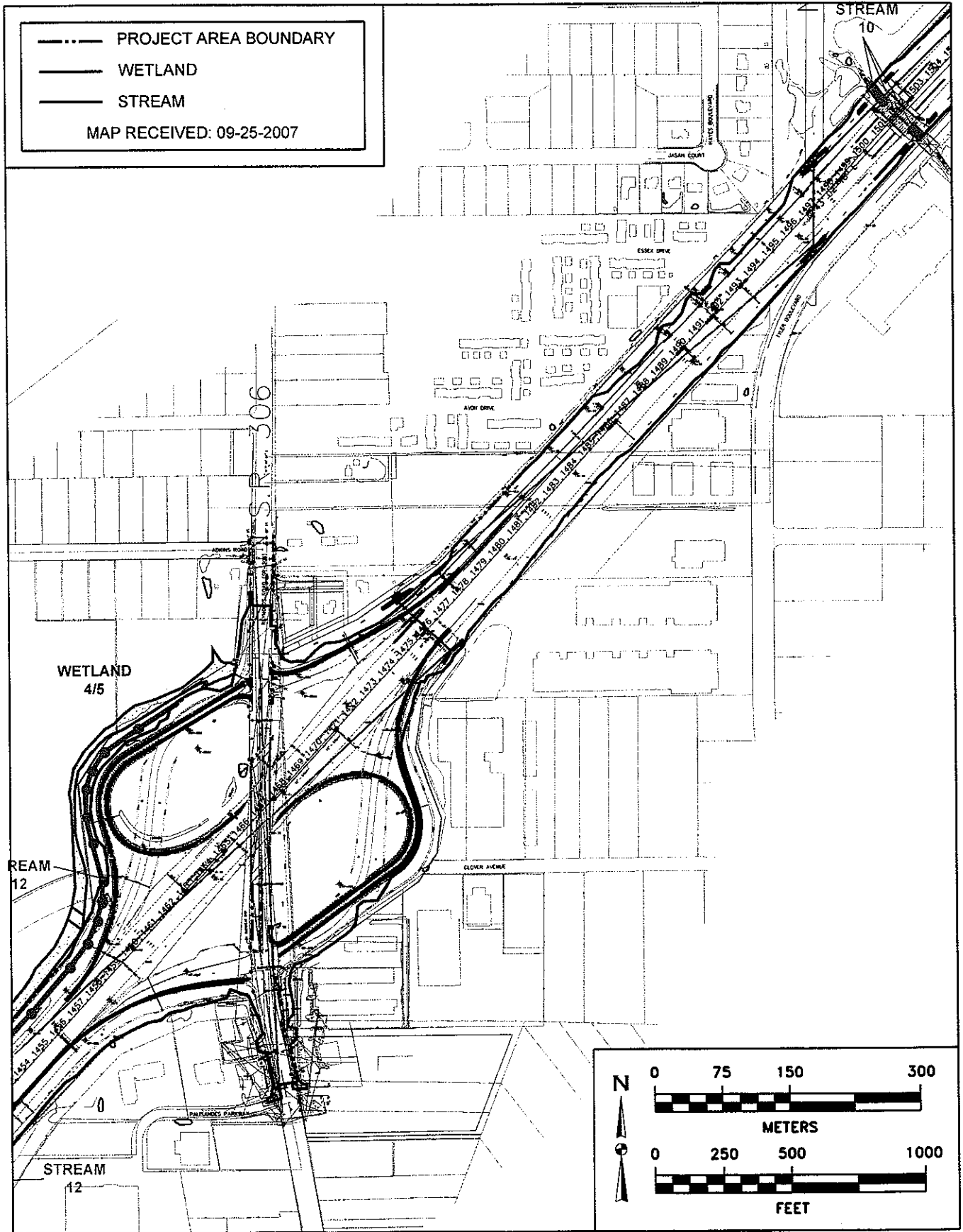


Figure 4. Minimum Degradation Alternative. (14 sheets)

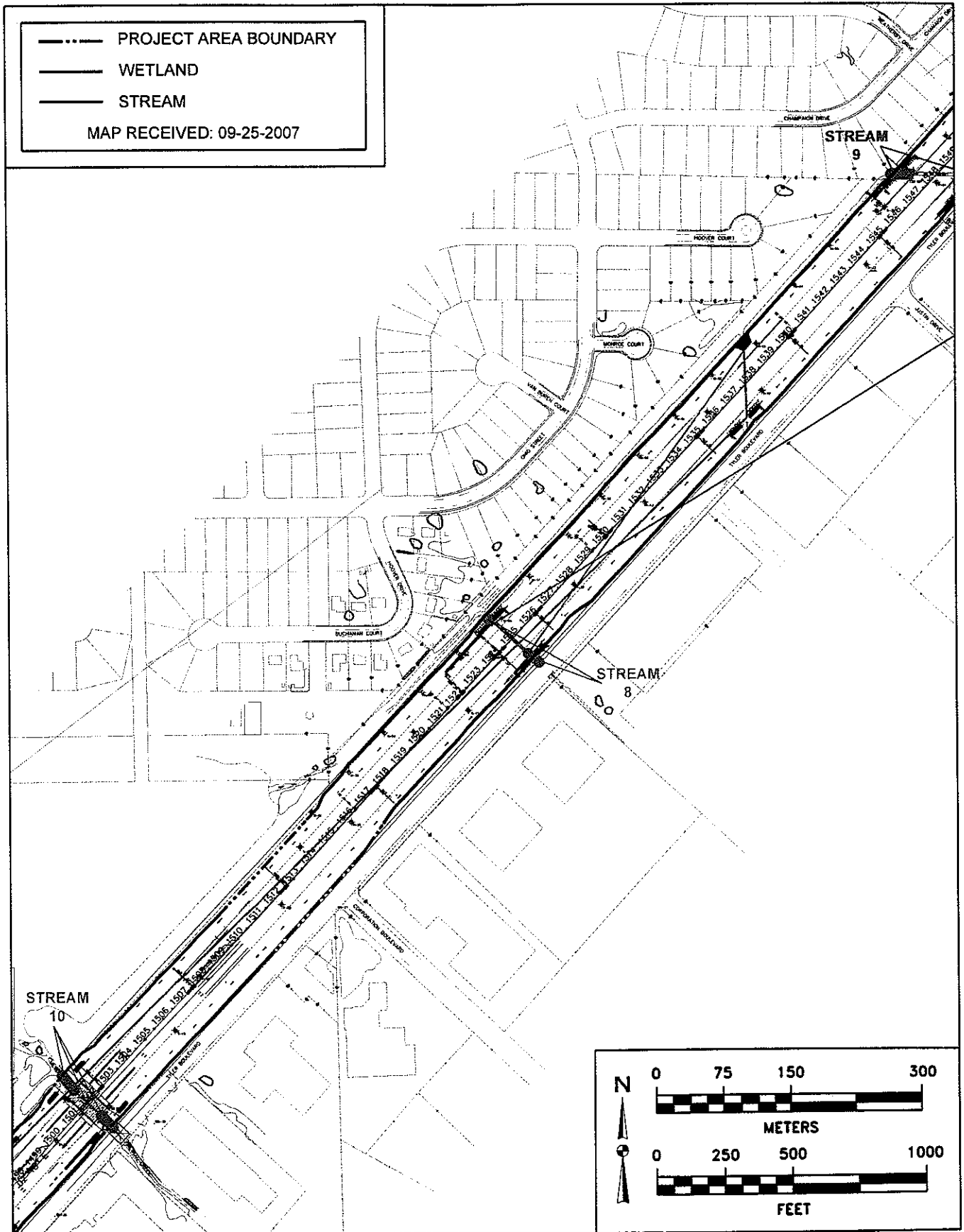


Figure 4. Minimum Degradation Alternative. (14 sheets)

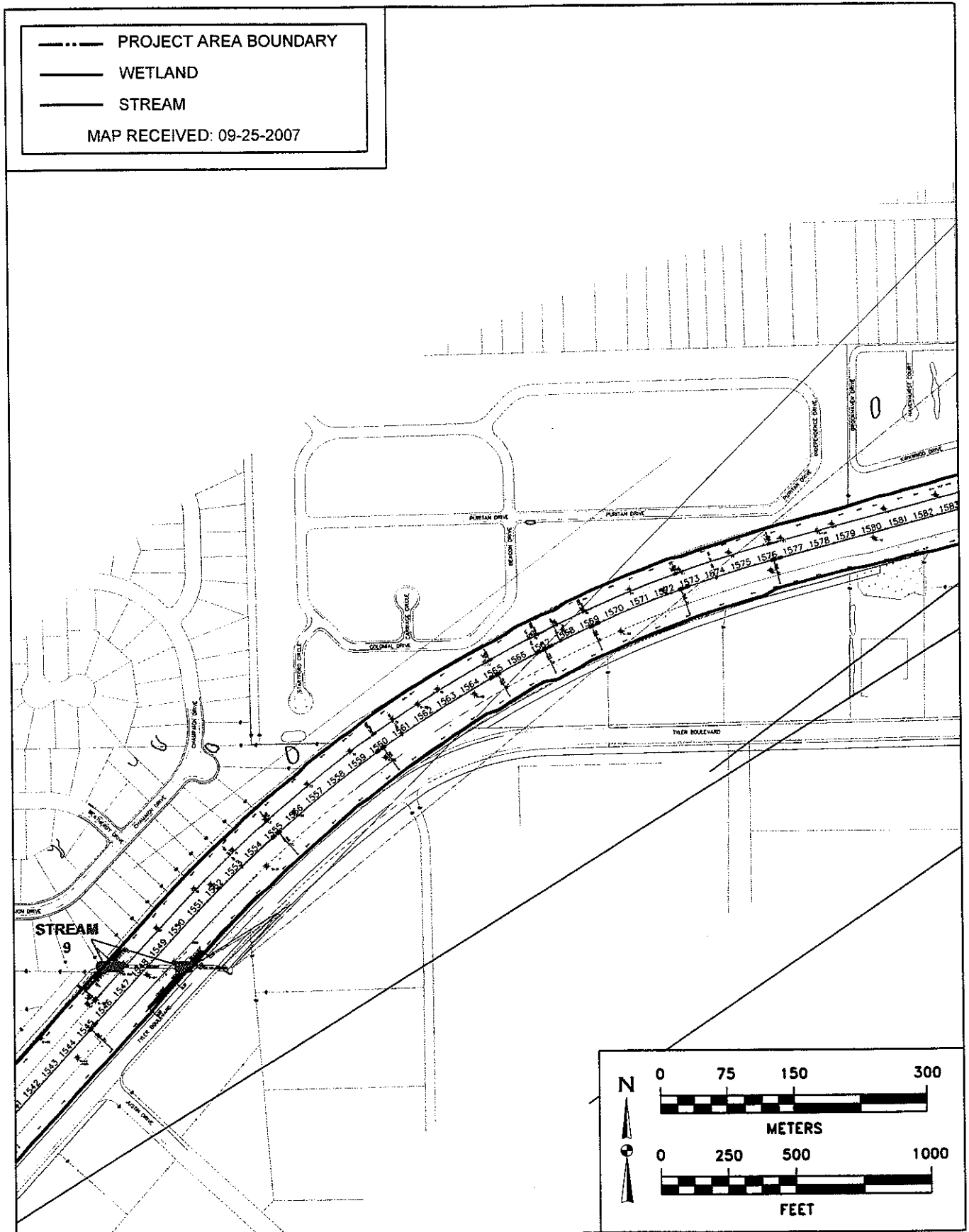


Figure 4. Minimum Degradation Alternative. (14 sheets)

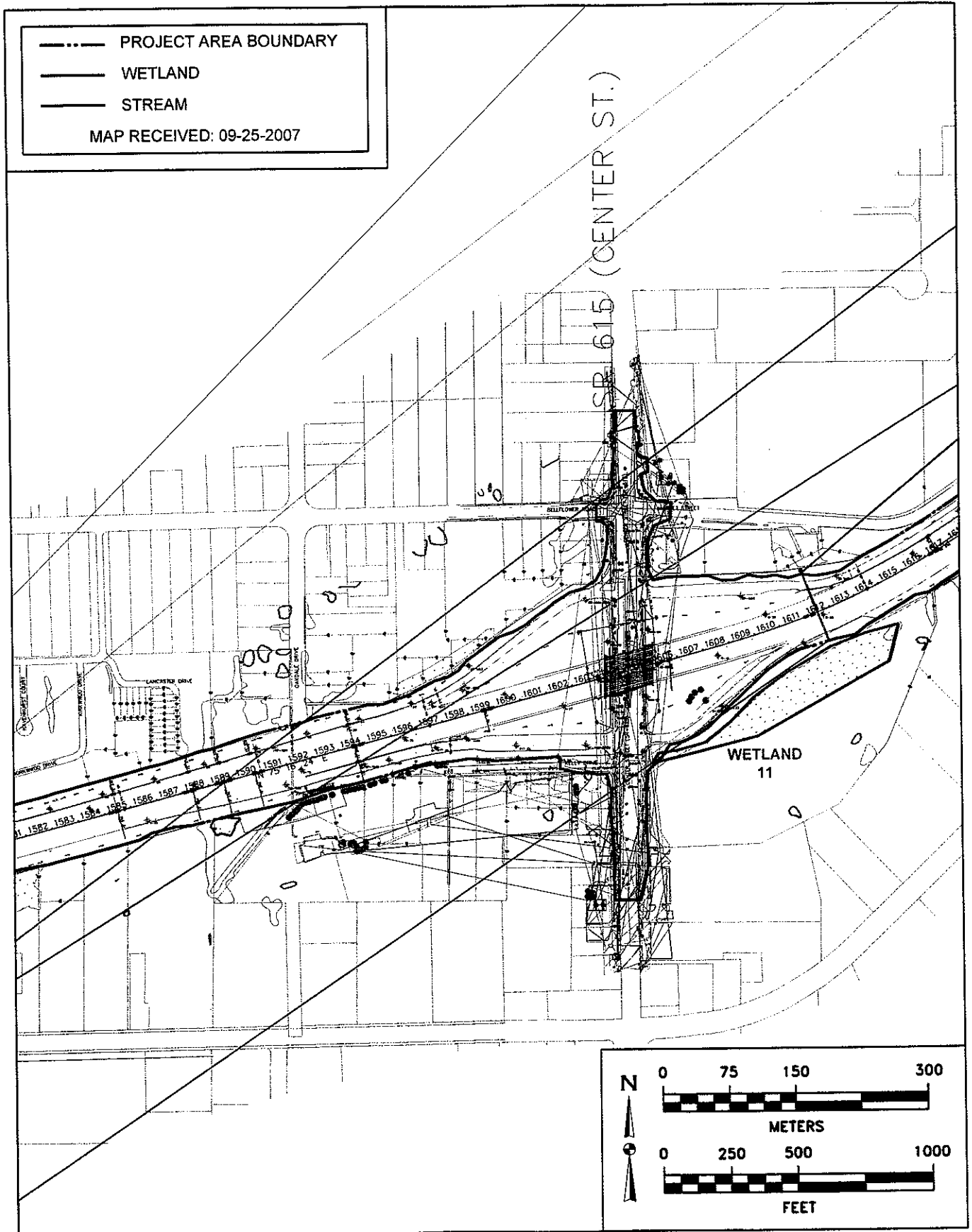


Figure 4. Minimum Degradation Alternative. (14 sheets)

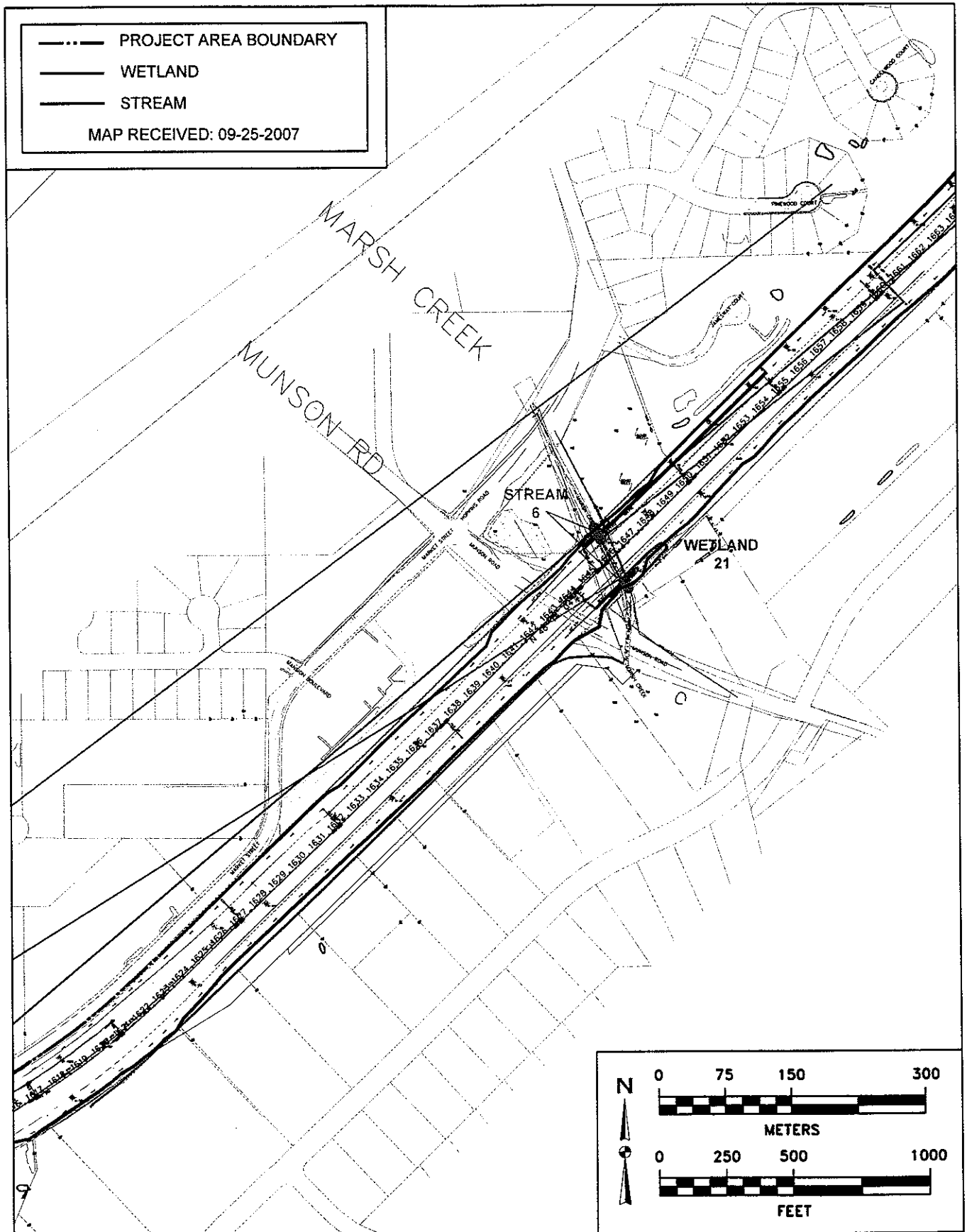


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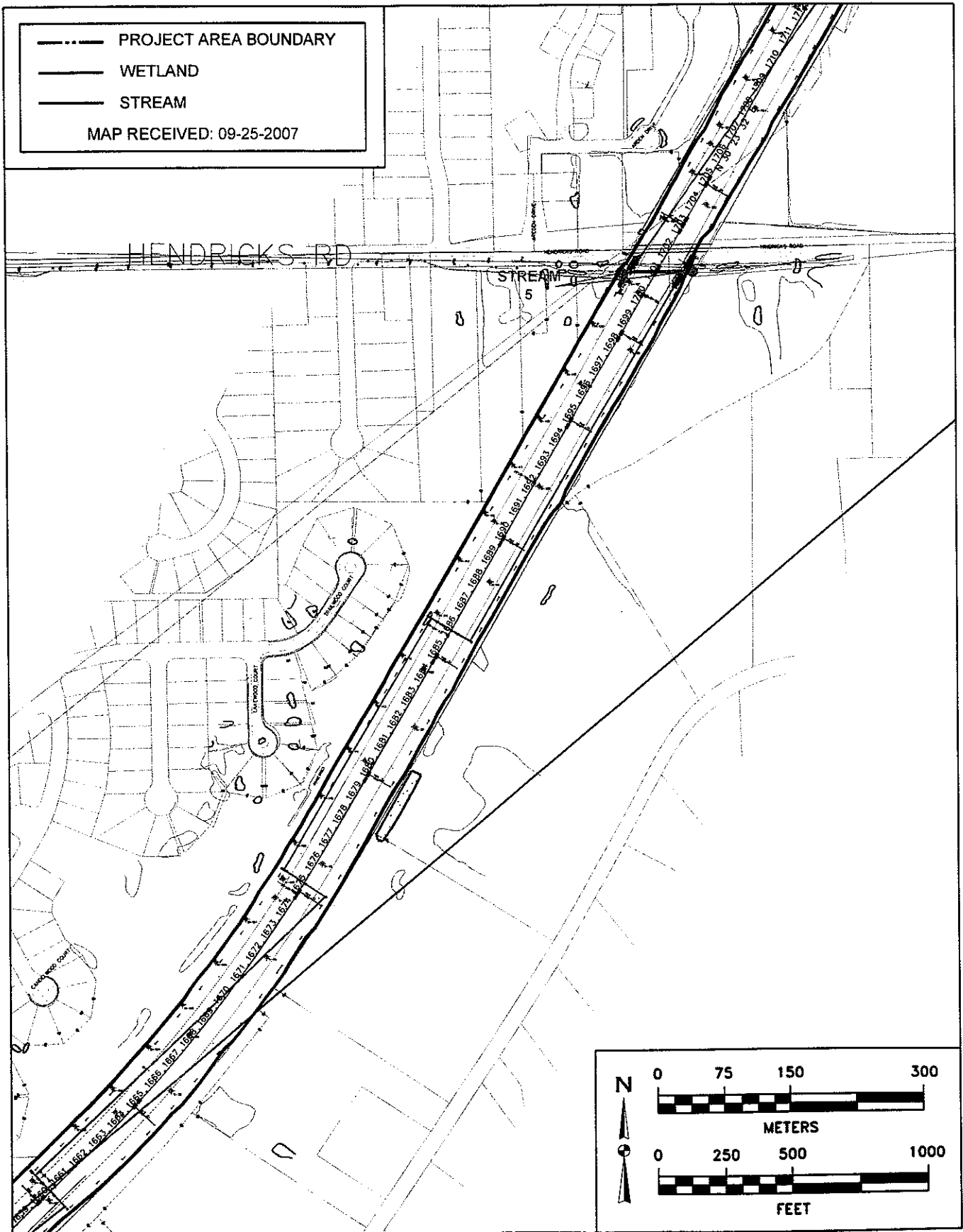


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 4
Sheet 11 of 14

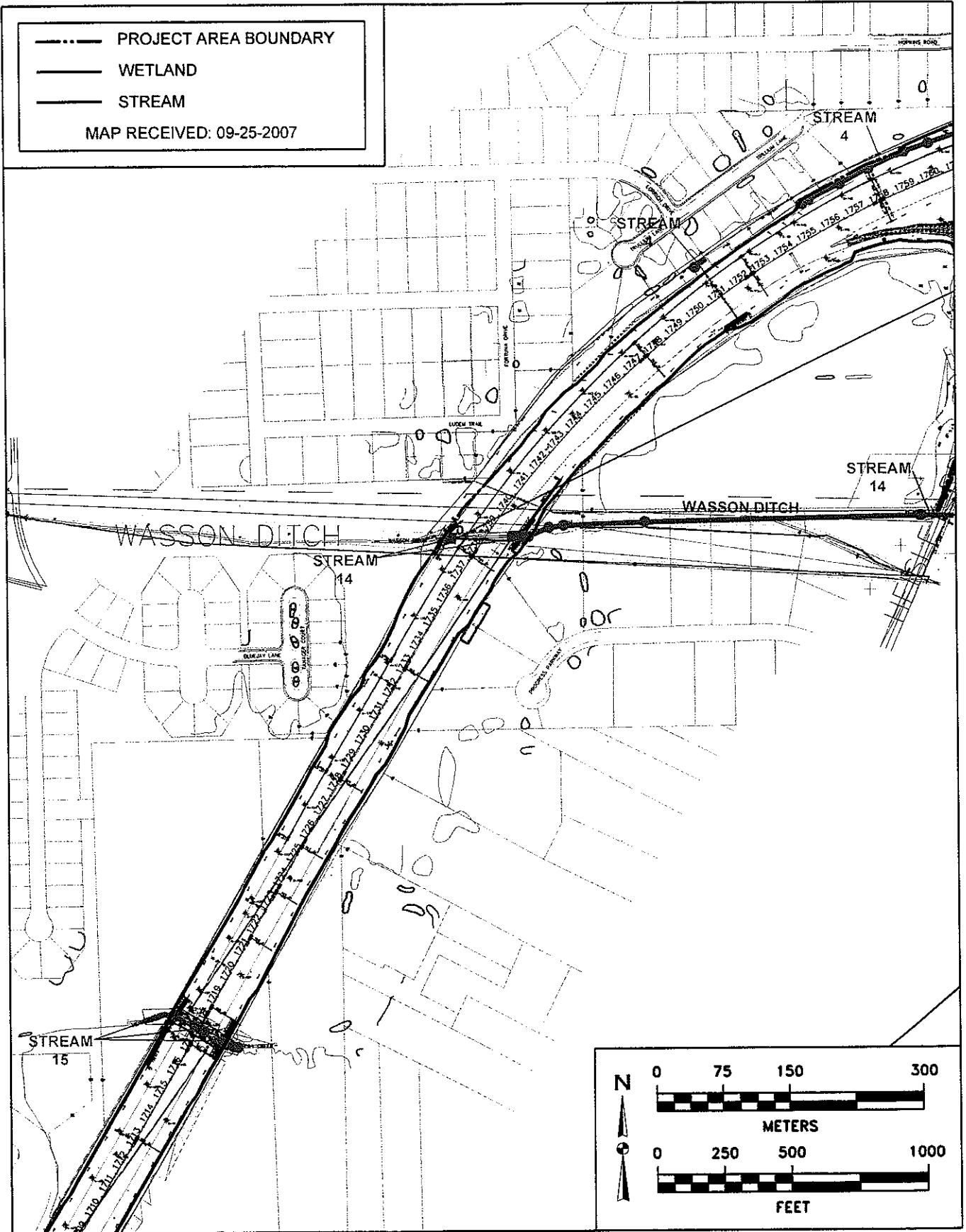


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 4
Sheet 12 of 14

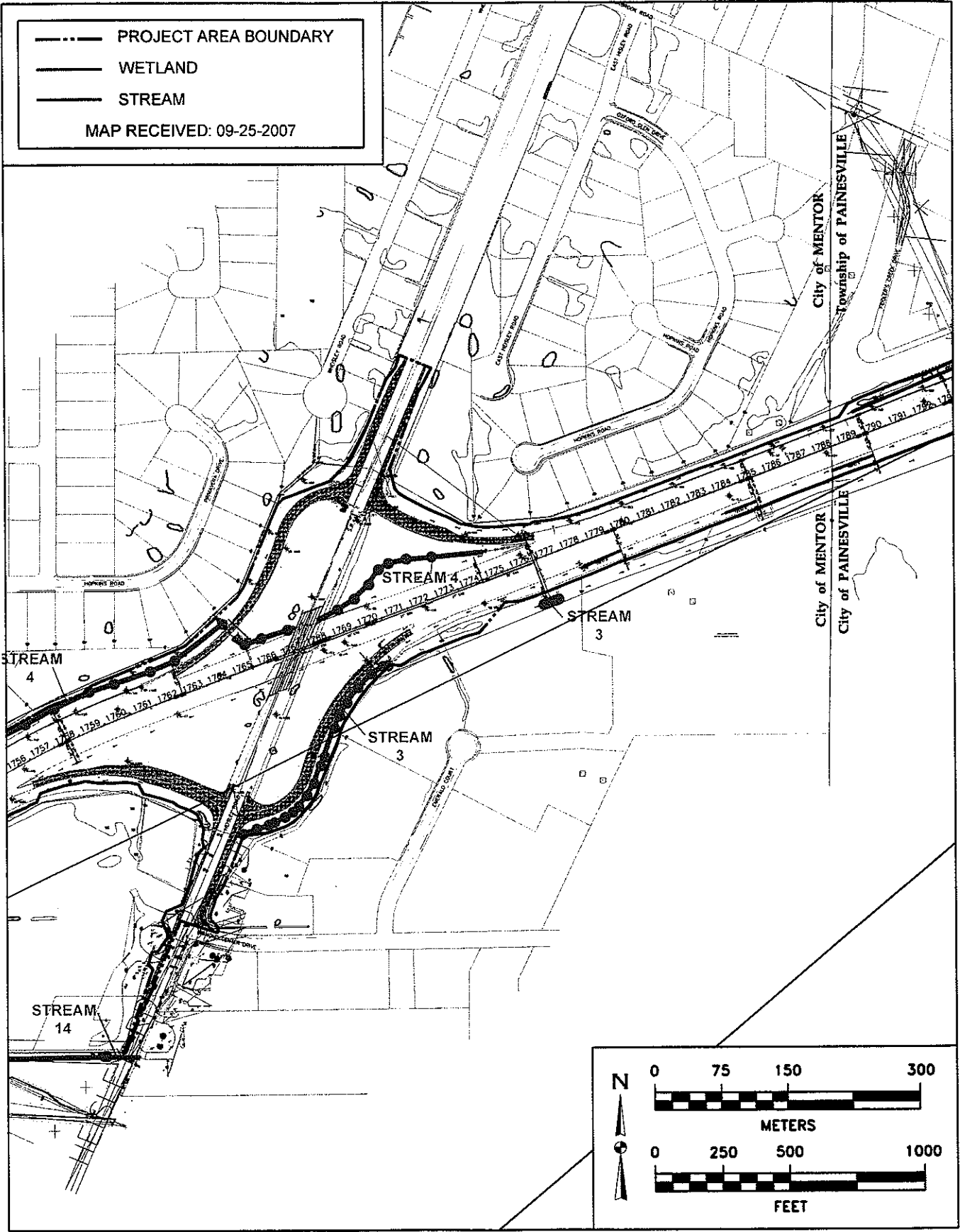


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 4
Sheet 13 of 14

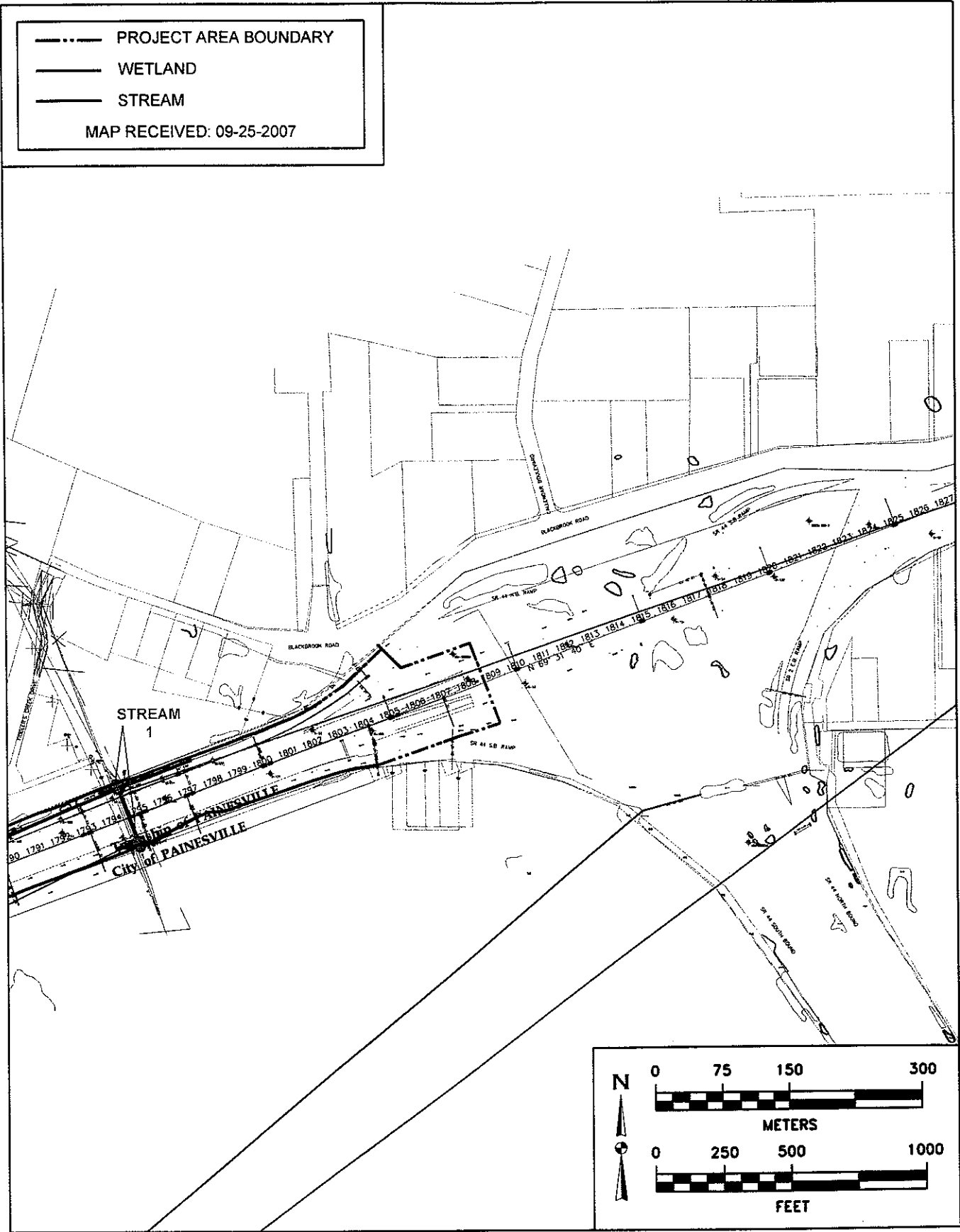
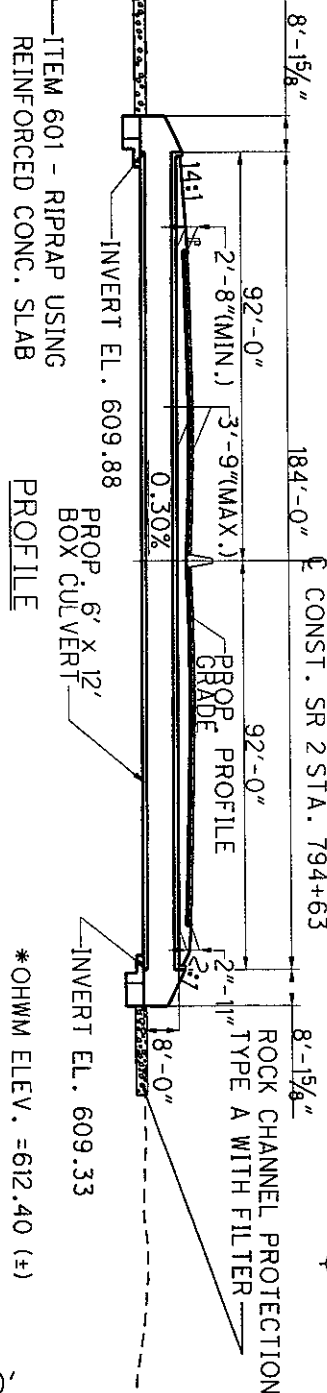
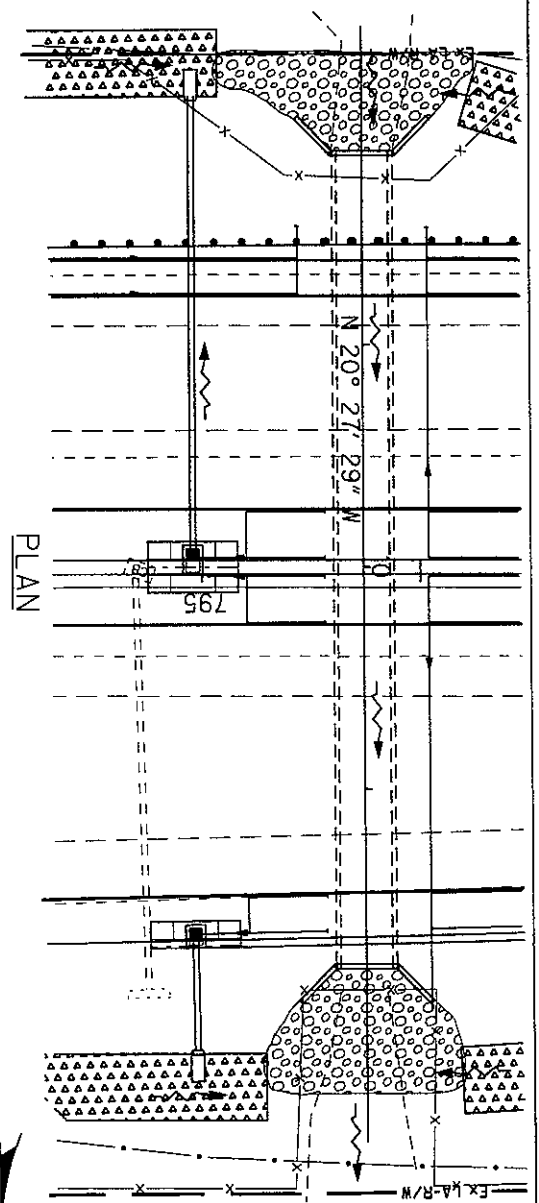


Figure 4. Minimum Degradation Alternative. (14 sheets)

Figure 6. Plan views of stream and wetland crossings.



630	PROP. 1-3B, TYPE B1 STA. 793+10, 2.75' RT.	PROP. 1-3B, TYPE D STA. 793+10, 78.48' LT.	PROP. 1-3B, TYPE B1 STA. 795+02, 2.75' RT.	PROP. 1-3B, TYPE D STA. 795+02, 82.25' LT.
620				
610	EX. CB STA. 793+13, 0.8' LT. TO BE REMOVED	PROP. 12' X 6' CONDUIT, TYPE A, STA. 794+62	EX. CB STA. 795+13, 0.9' LT. TO BE REMOVED	
600	793	794	795	796

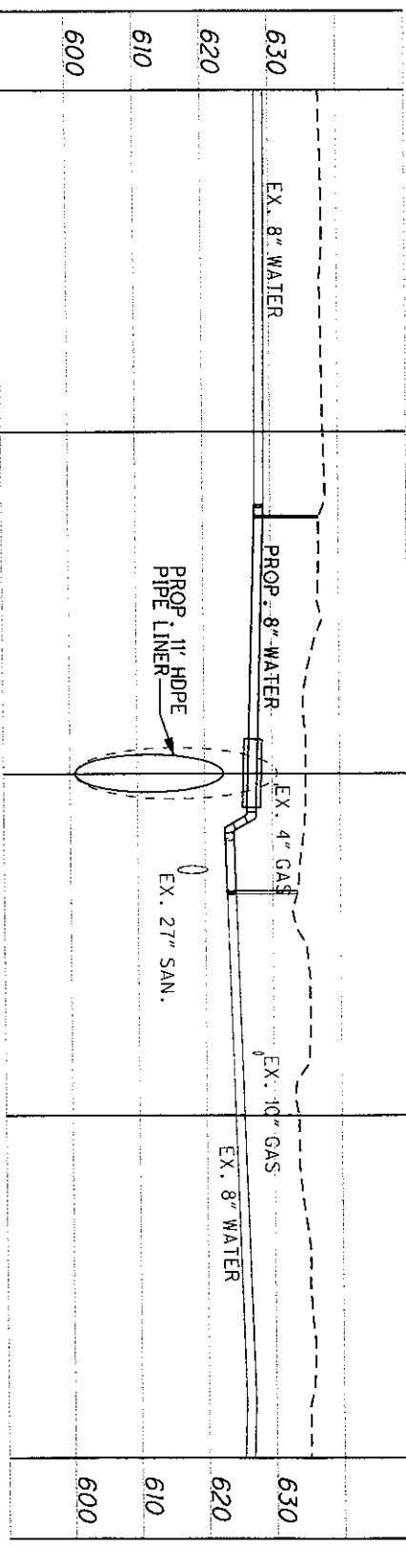
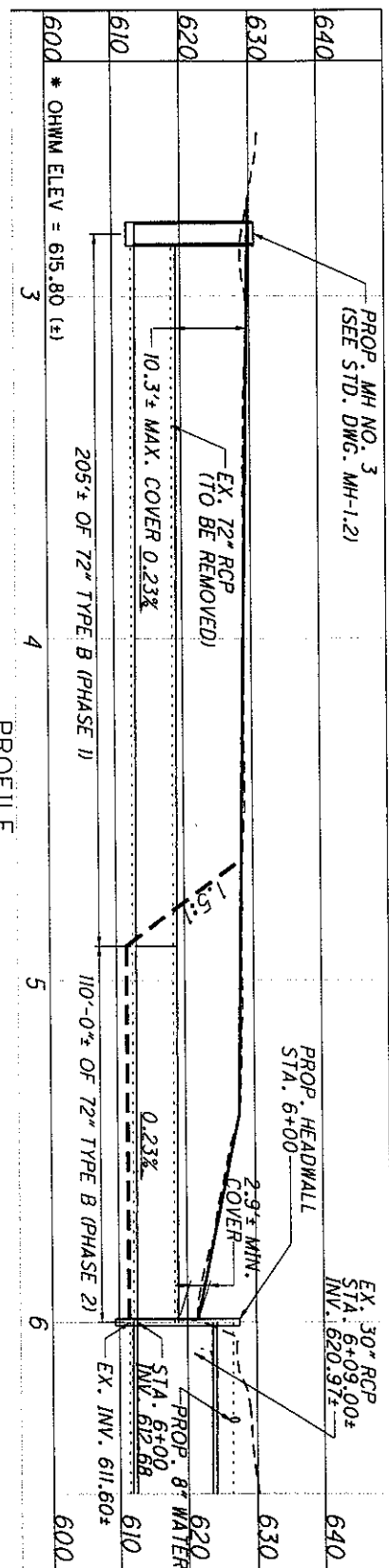
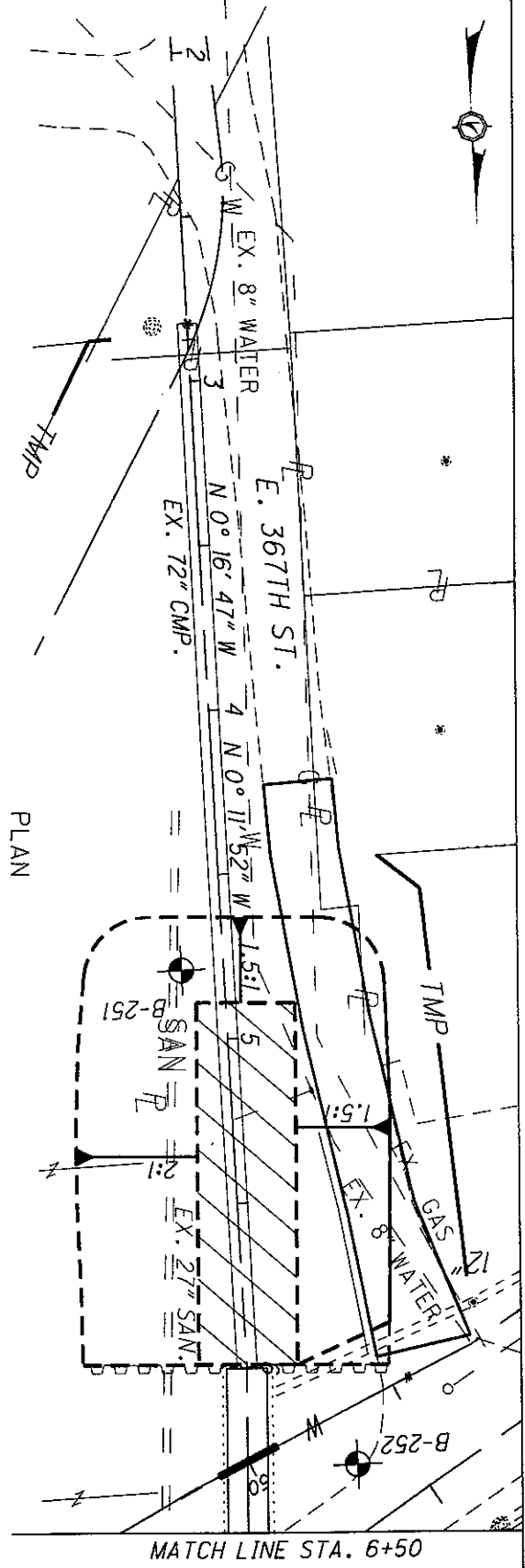
CROSS SECTION

PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 1
 UNNAMED STREAM
 STA. 794+63

PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'



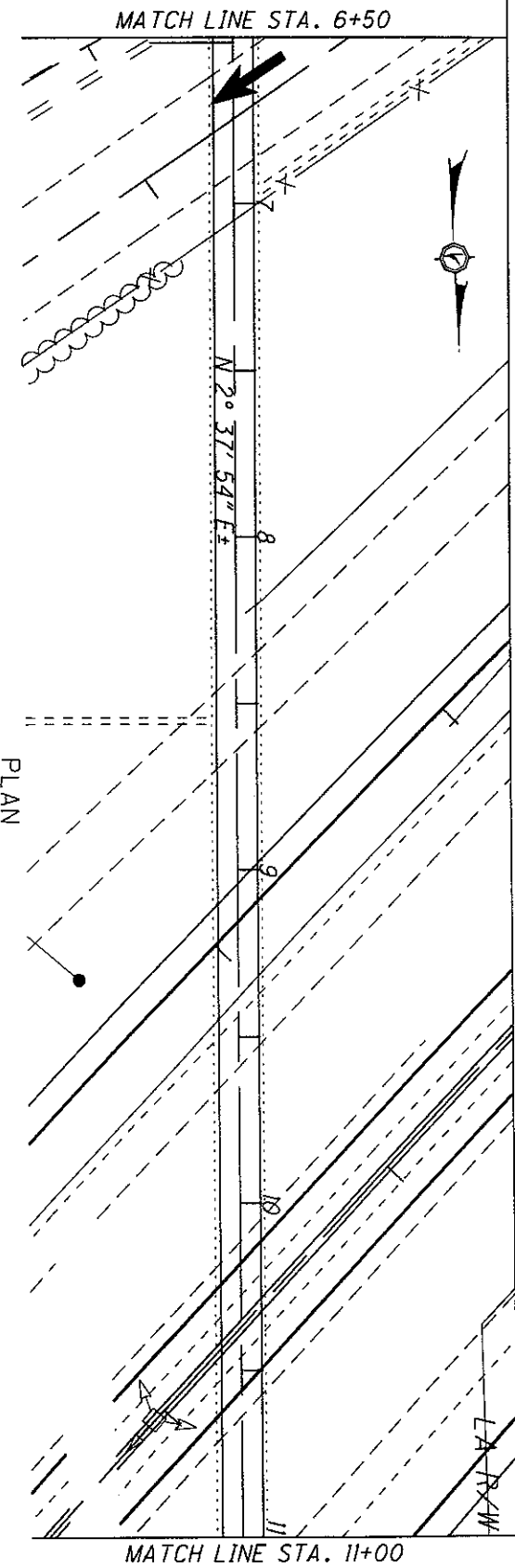
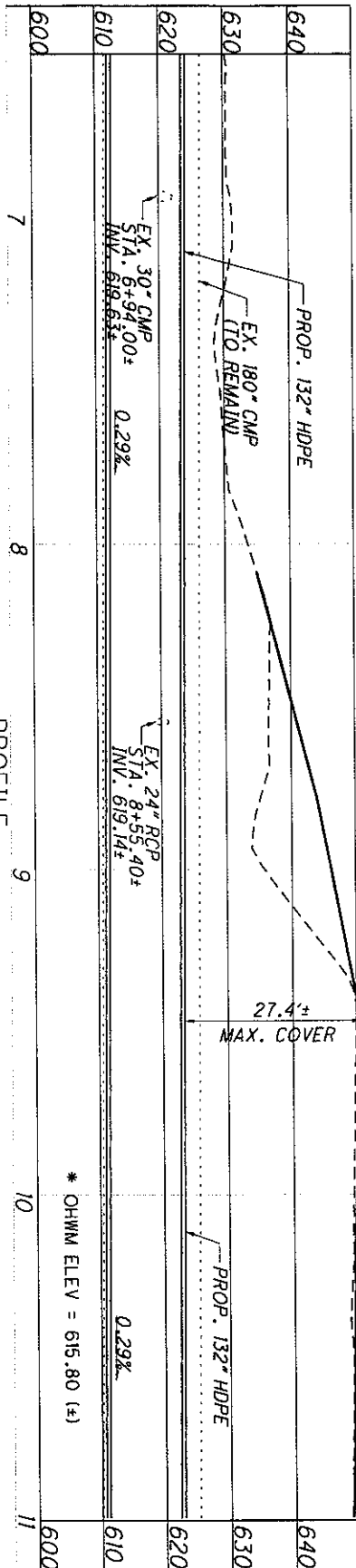
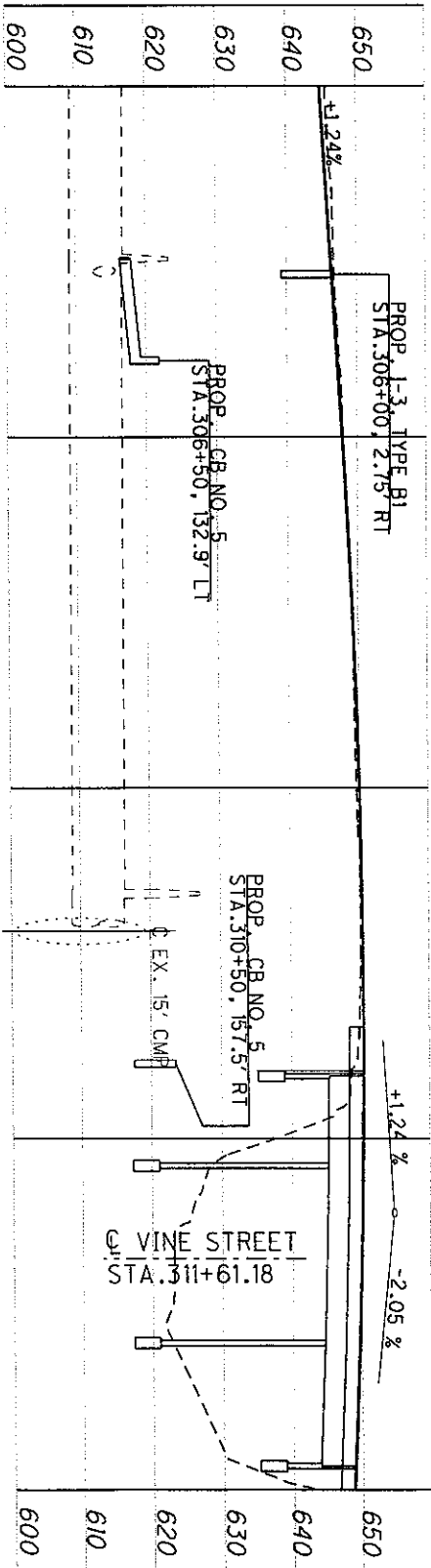
CROSS SECTION (C/L AND BLVD.)

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 2+00 TO STA. 6+50

SHEET 1 OF 4



PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'

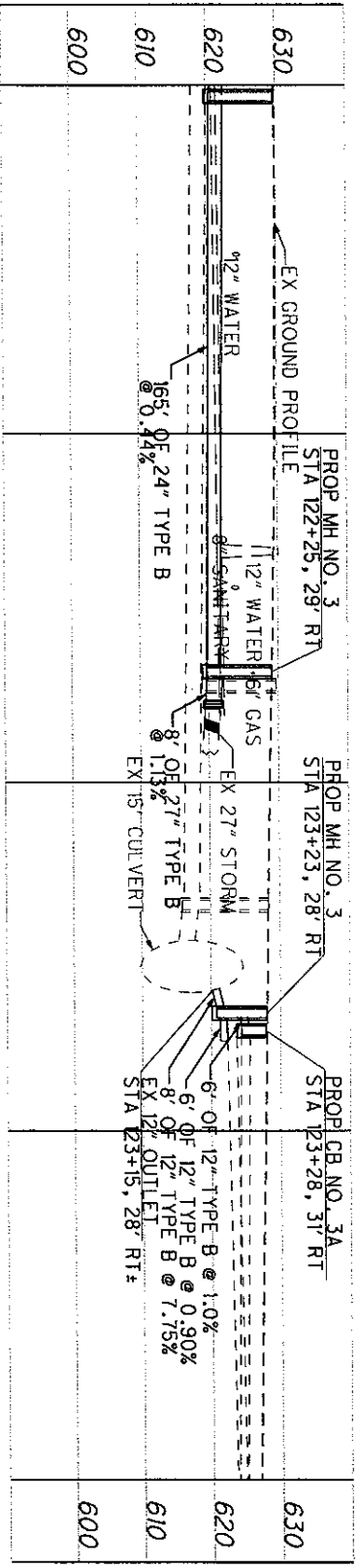
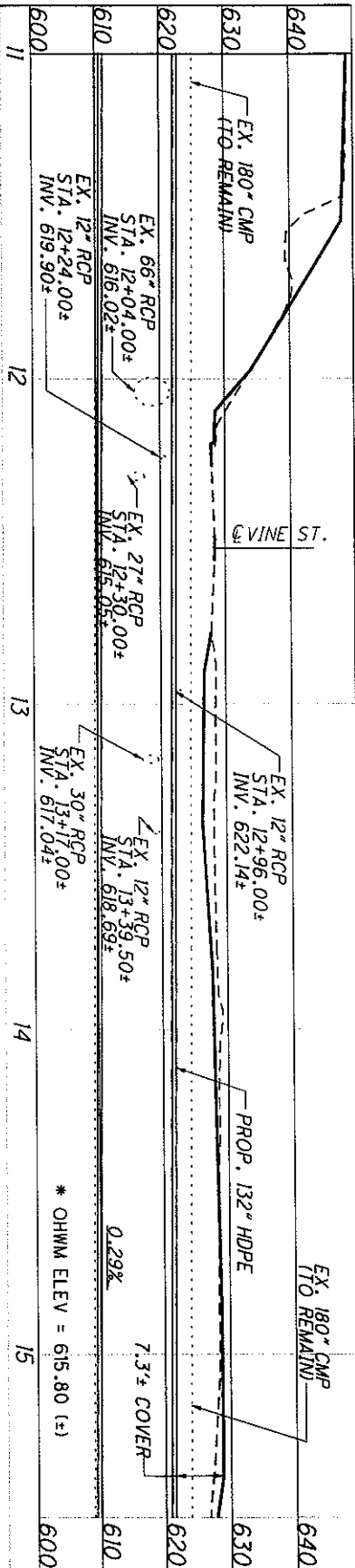
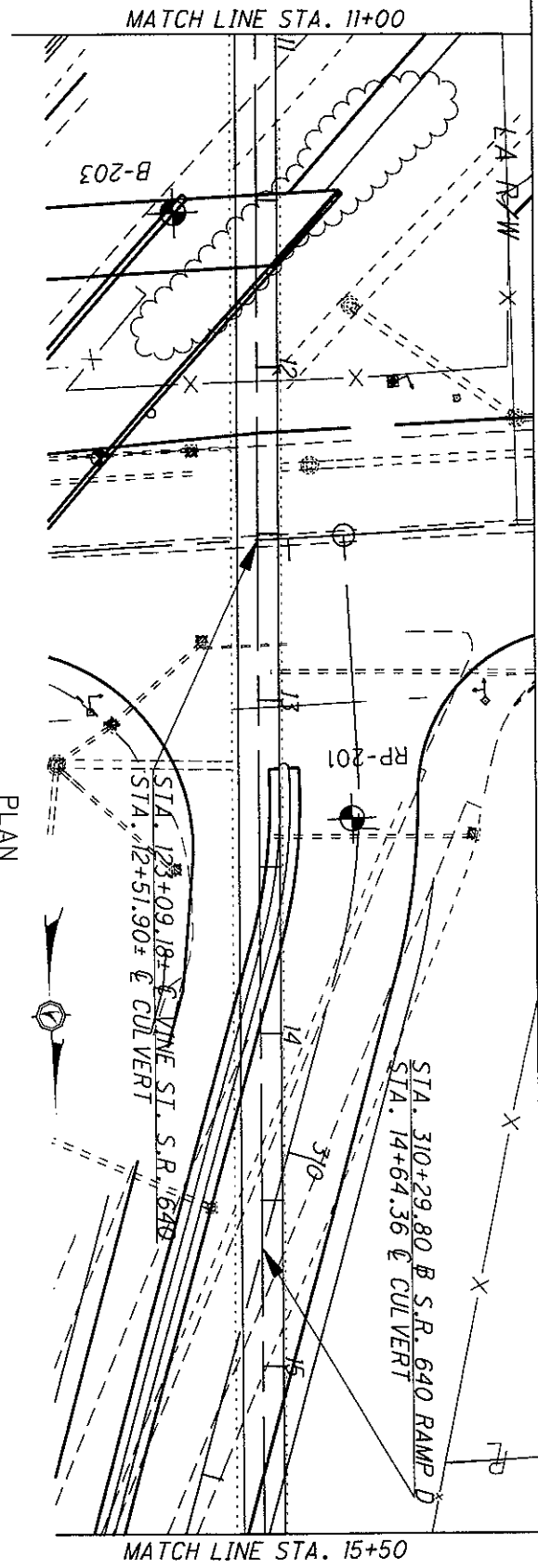


CROSS SECTION (SR 2)



LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 6+50 TO STA. 11+00

PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'

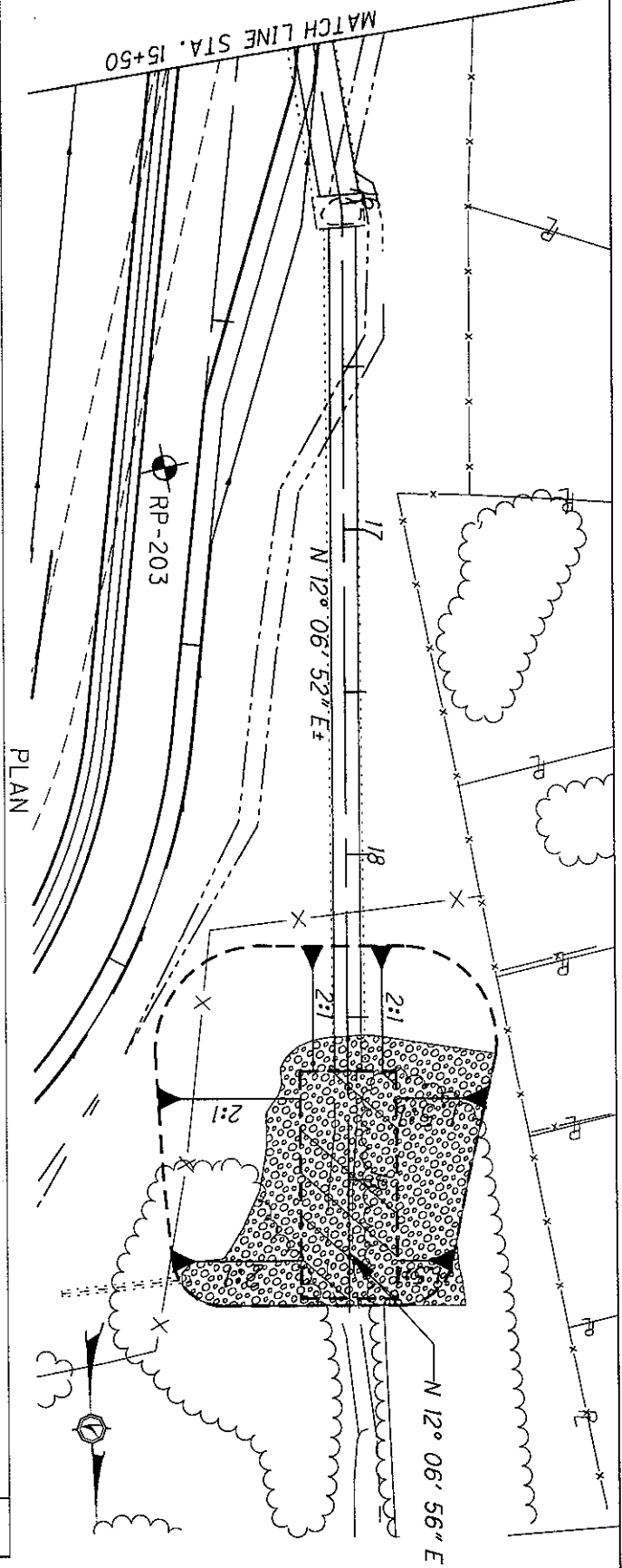


CROSS SECTION (C/VINE STREET)

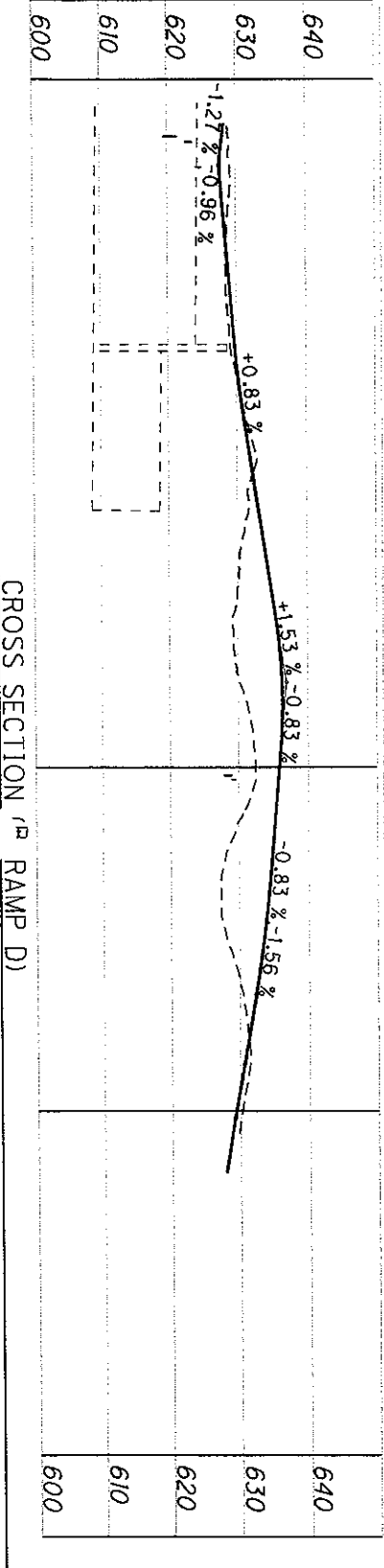


LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 11+00 TO STA. 15+50

PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'



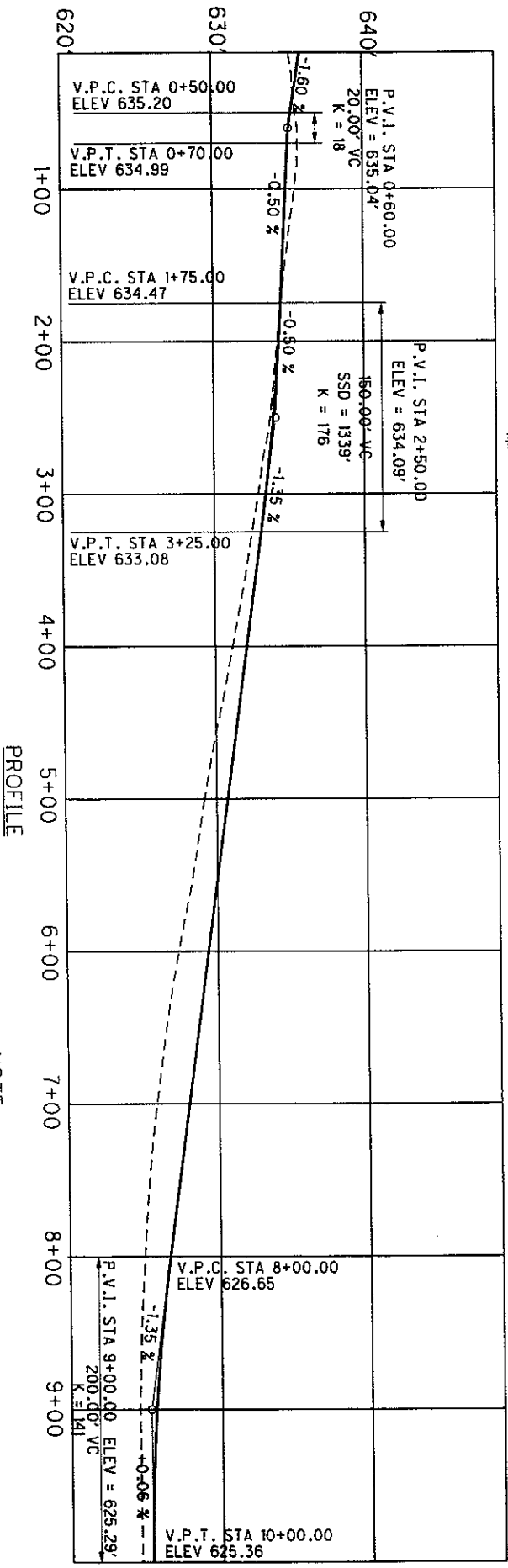
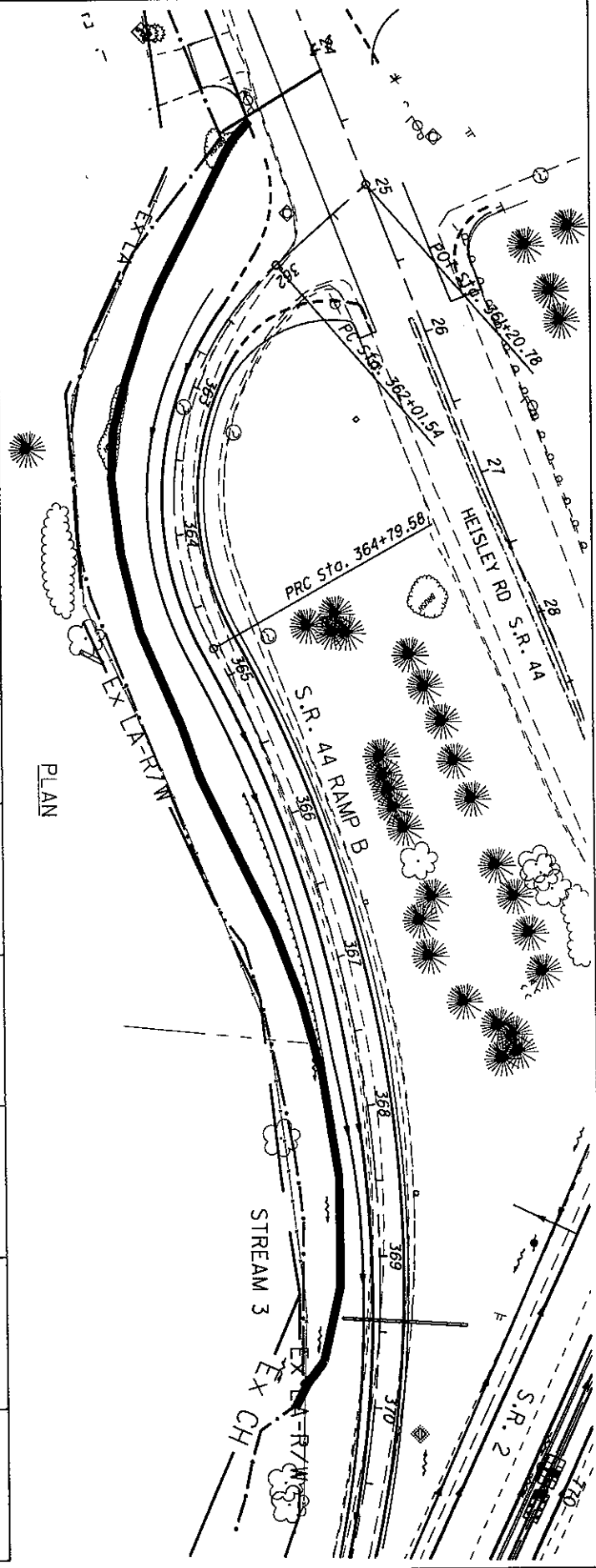
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630	PROP. 90° HDPE	630
620	3.6± MIN. COVER STA. 15+98.60 INV. 609.78	620
610	EX. INV. 608.78±	610
600	EX. INV. 608.97±	600
640	LIMITS OF ROCK CHANNEL PROTECTION 96'-1"	640
630	EX. 120° CMP (TO REMAIN)	630
620	EX. HEADWALL (TO REMAIN)	620
610	STA. 18+65.70 INV. 609.47	610
600	EX. INV. 608.65±	600



CROSS SECTION (RAMP D)

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 2
 UNNAMED STREAM STA. 308+66
 STA. 15+50 TO STA. 19+50





NOTE:
* OHWM ELEV = 624.00 (±)

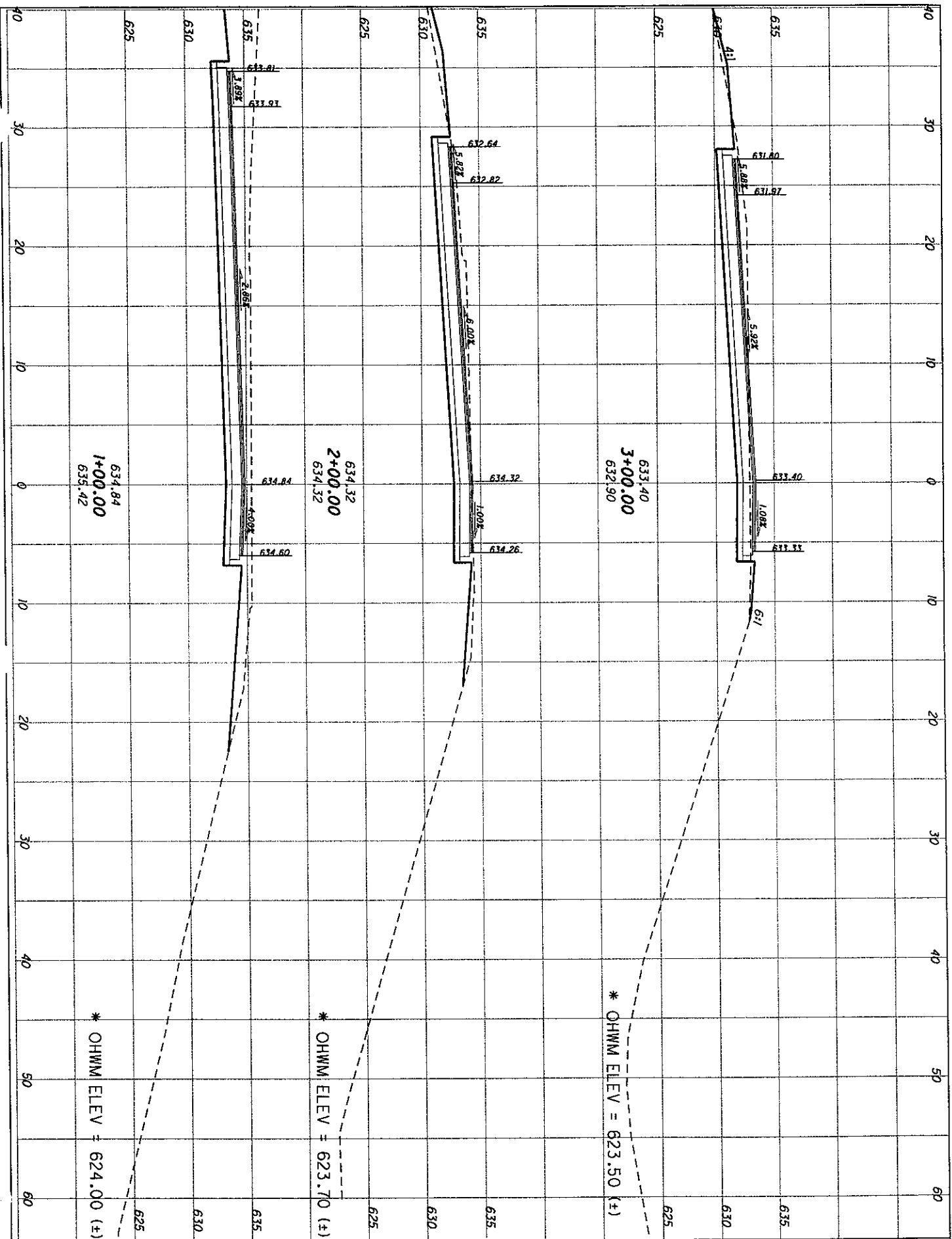


LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 PLAN AND PROFILE STA. 361+20.78 TO STA. 371+50

SCALE 1"=100'

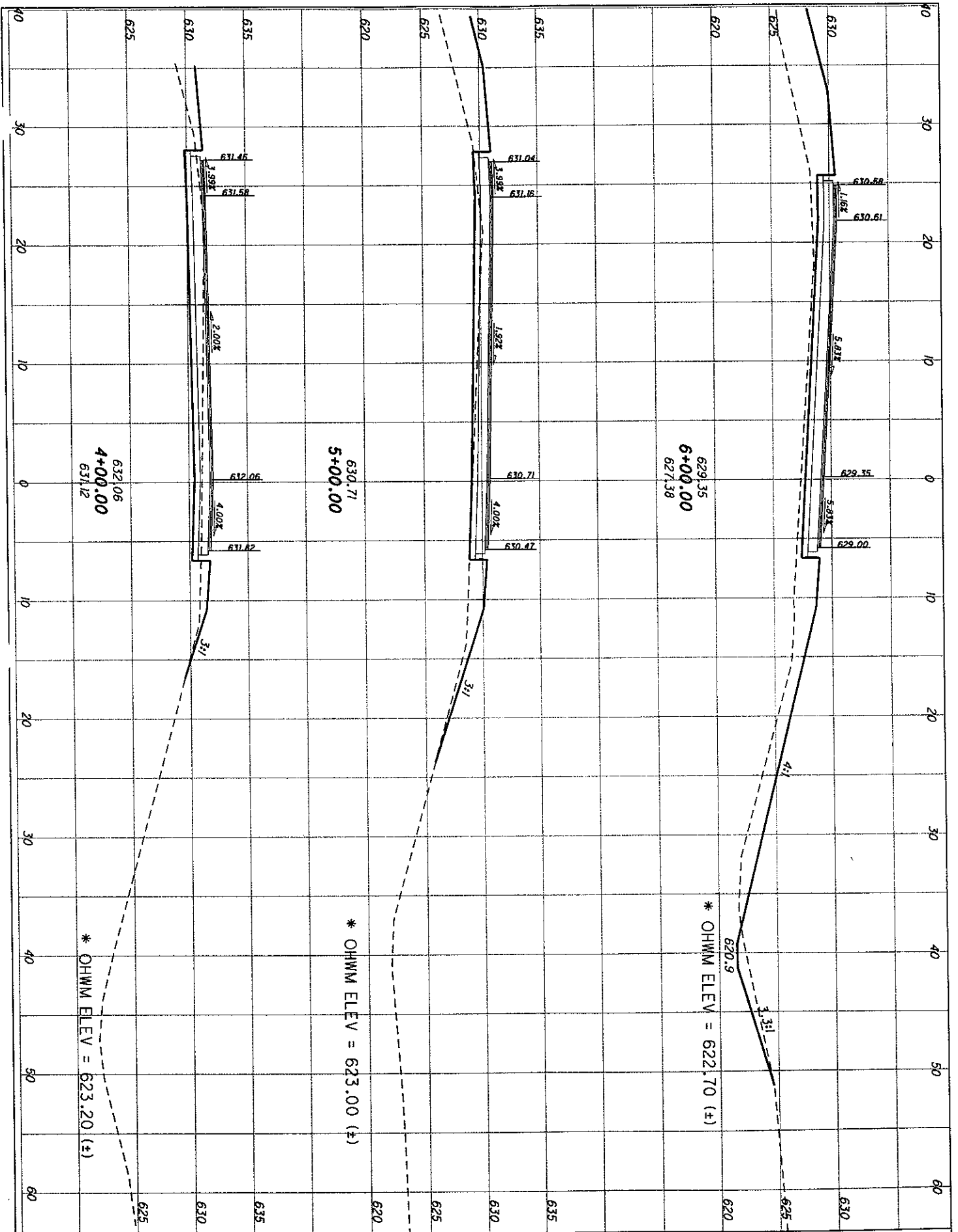




LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 CROSS SECTIONS STA. 1+00 TO STA. 3+00



LAK-2-7.76



* OHWM ELEV = 623.20 (+)

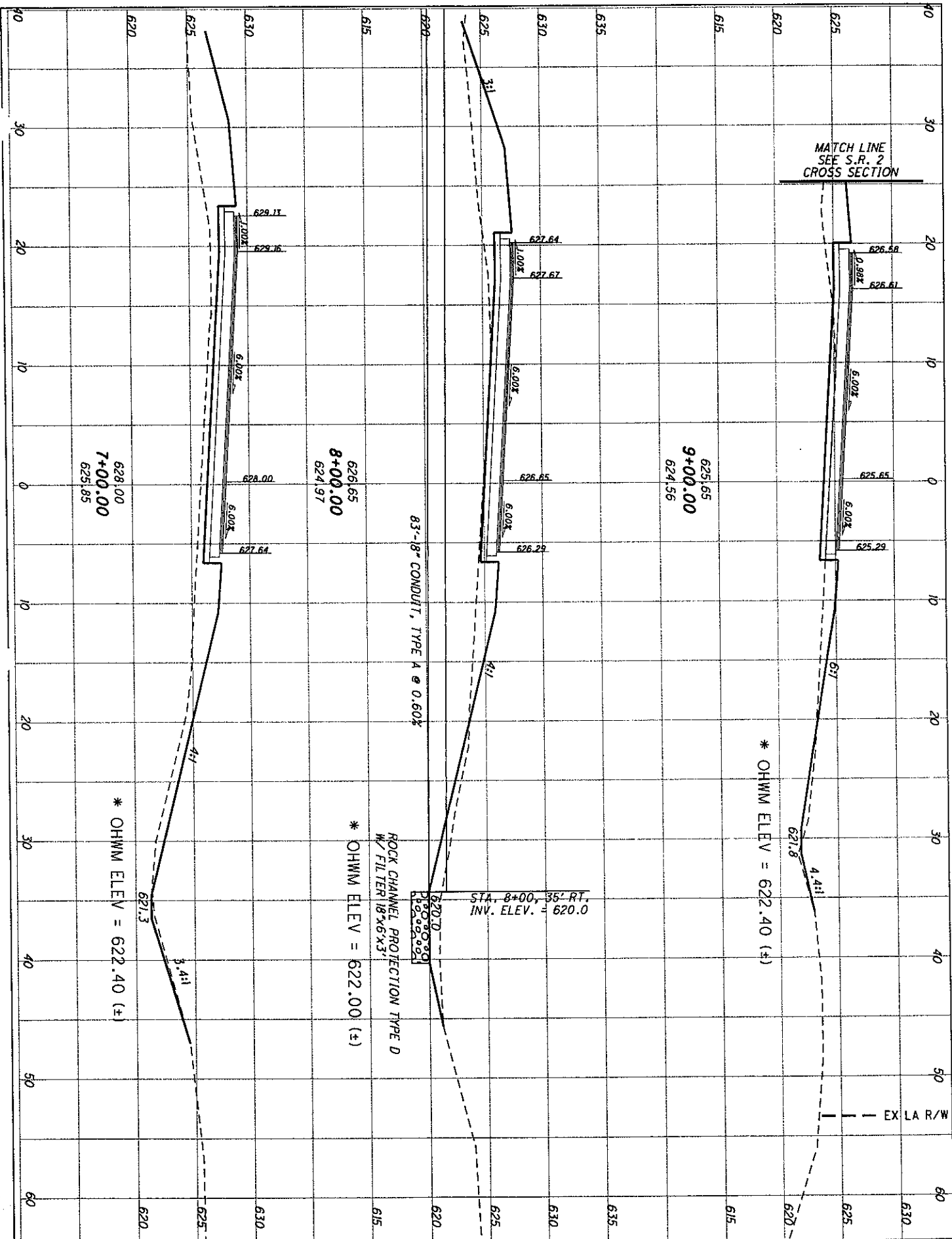
* OHWM ELEV = 623.00 (+)

* OHWM ELEV = 622.70 (+)

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 CROSS SECTIONS STA. 4+00 TO STA. 6+00



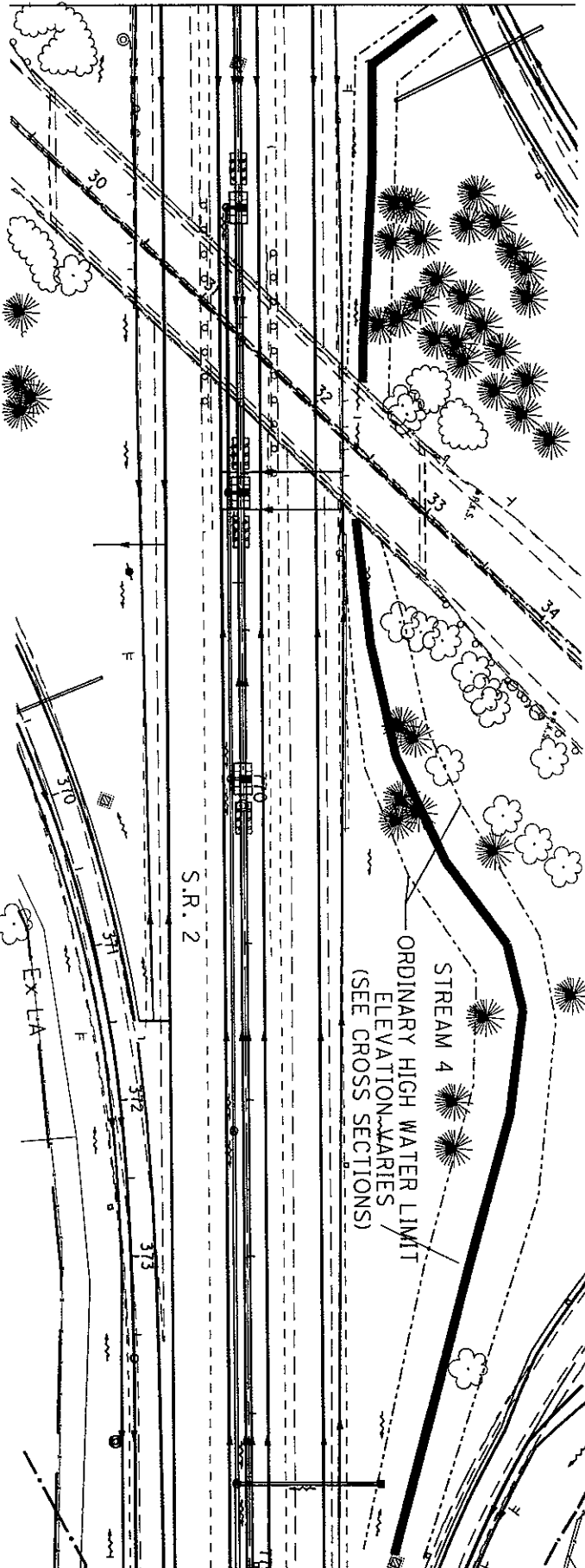
LAK-2-7.76



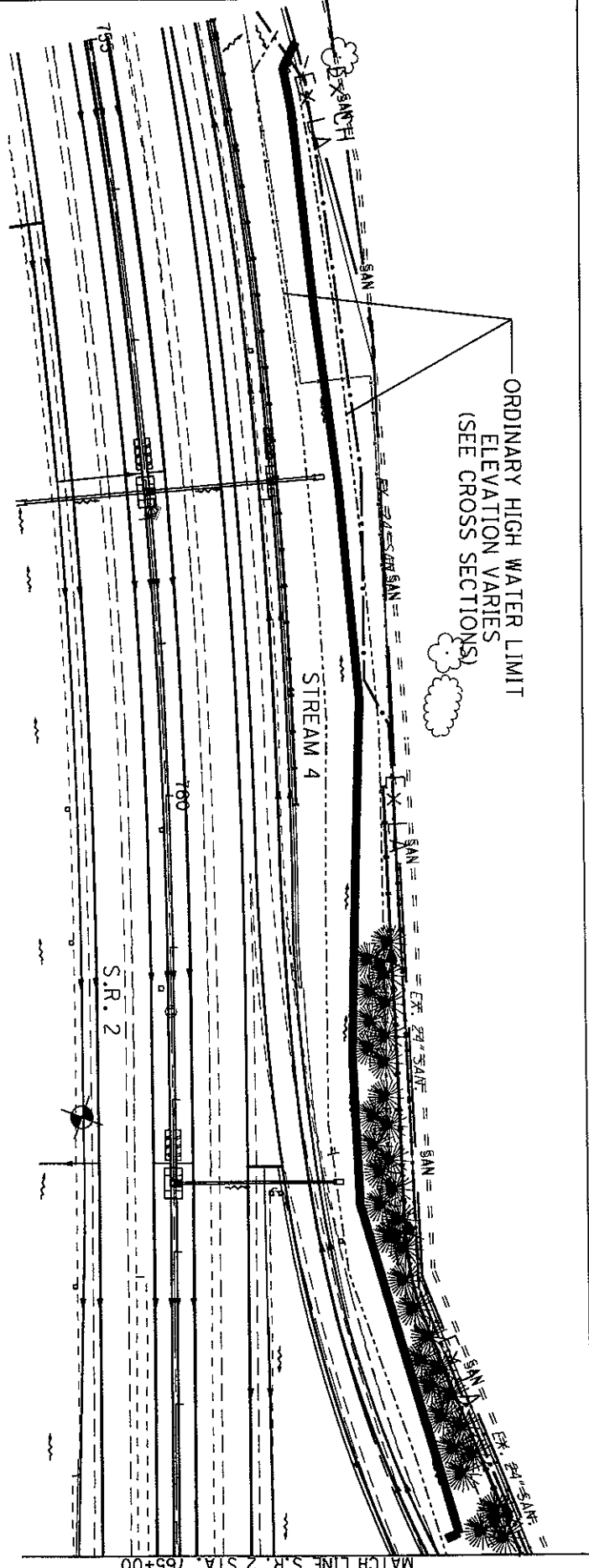
LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 3
 UNNAMED STREAM @ HEISLEY ROAD - RAMP B
 CROSS SECTIONS STA. 7+00 TO STA. 9+00

MATCH LINE S.R. 2 STA. 765+00



ORDINARY HIGH WATER LIMIT
ELEVATION VARIES
(SEE CROSS SECTIONS)

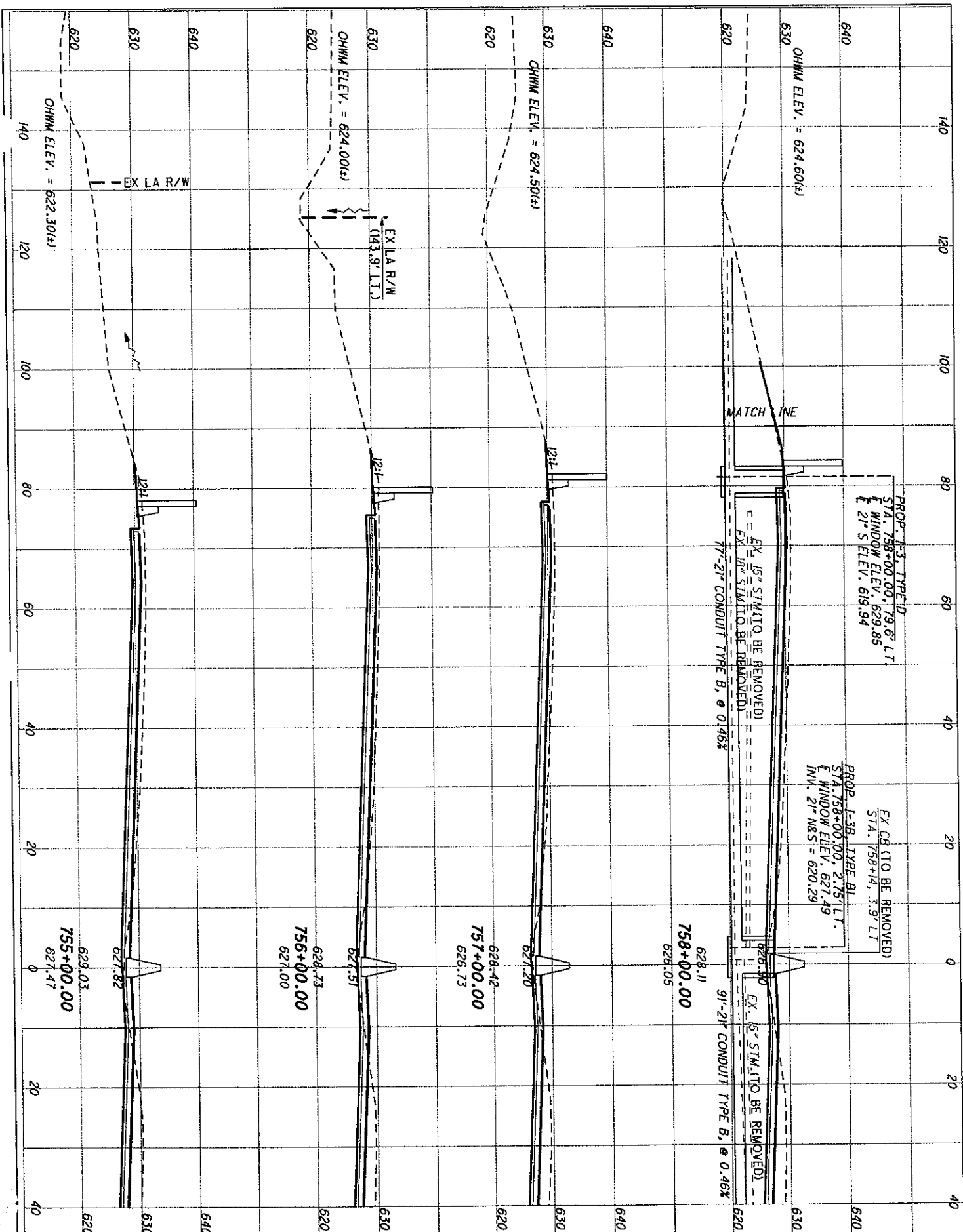


ORDINARY HIGH WATER LIMIT
ELEVATION VARIES
(SEE CROSS SECTIONS)

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
PROPOSED IMPACTS FOR STREAM NO. 4
TRIBUTARY OF WASSON DITCH
SR 2 PLAN STA. 755+00 TO STA. 775+00

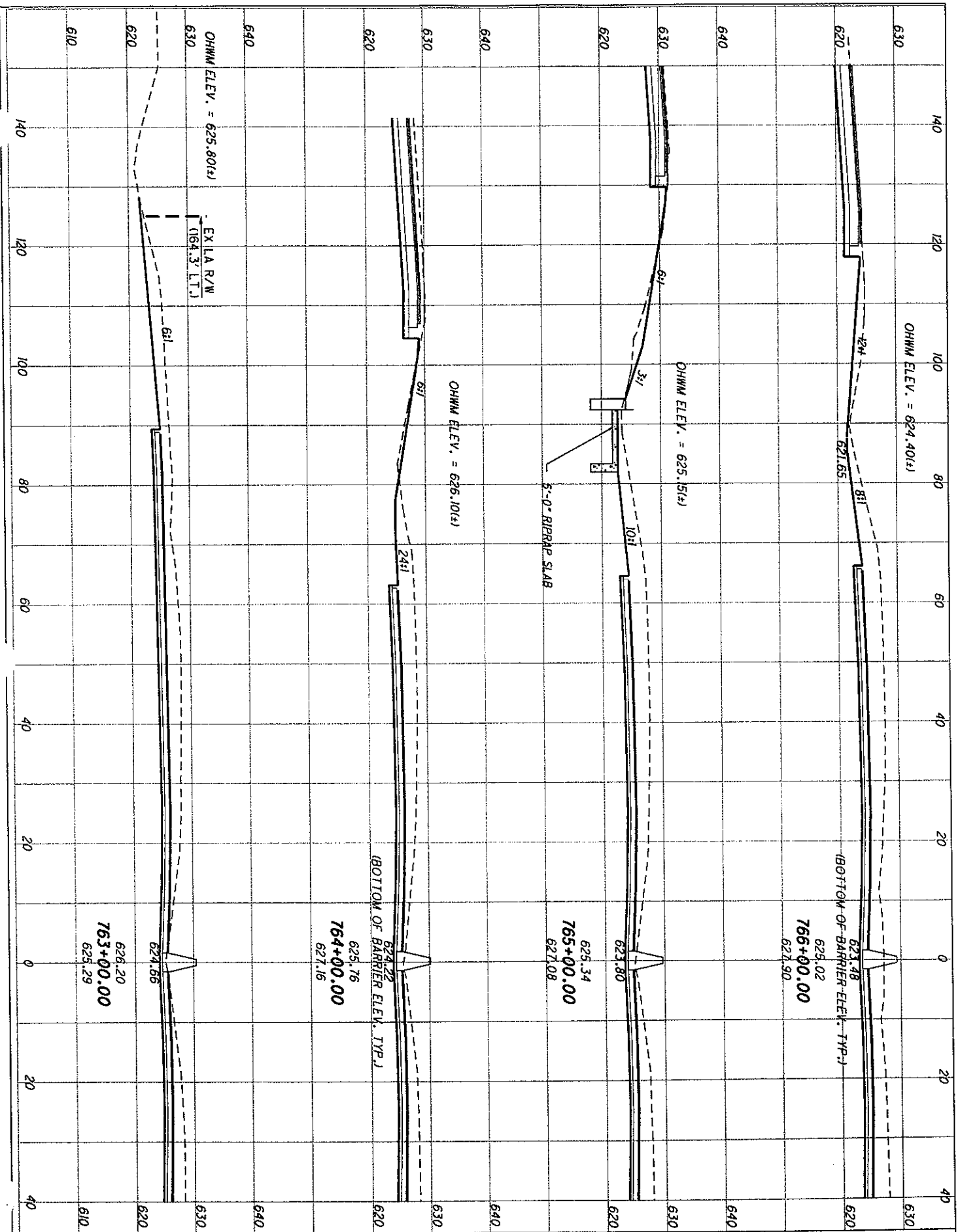
SCALE 1"=100'





LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 755+00 TO STA. 758+00

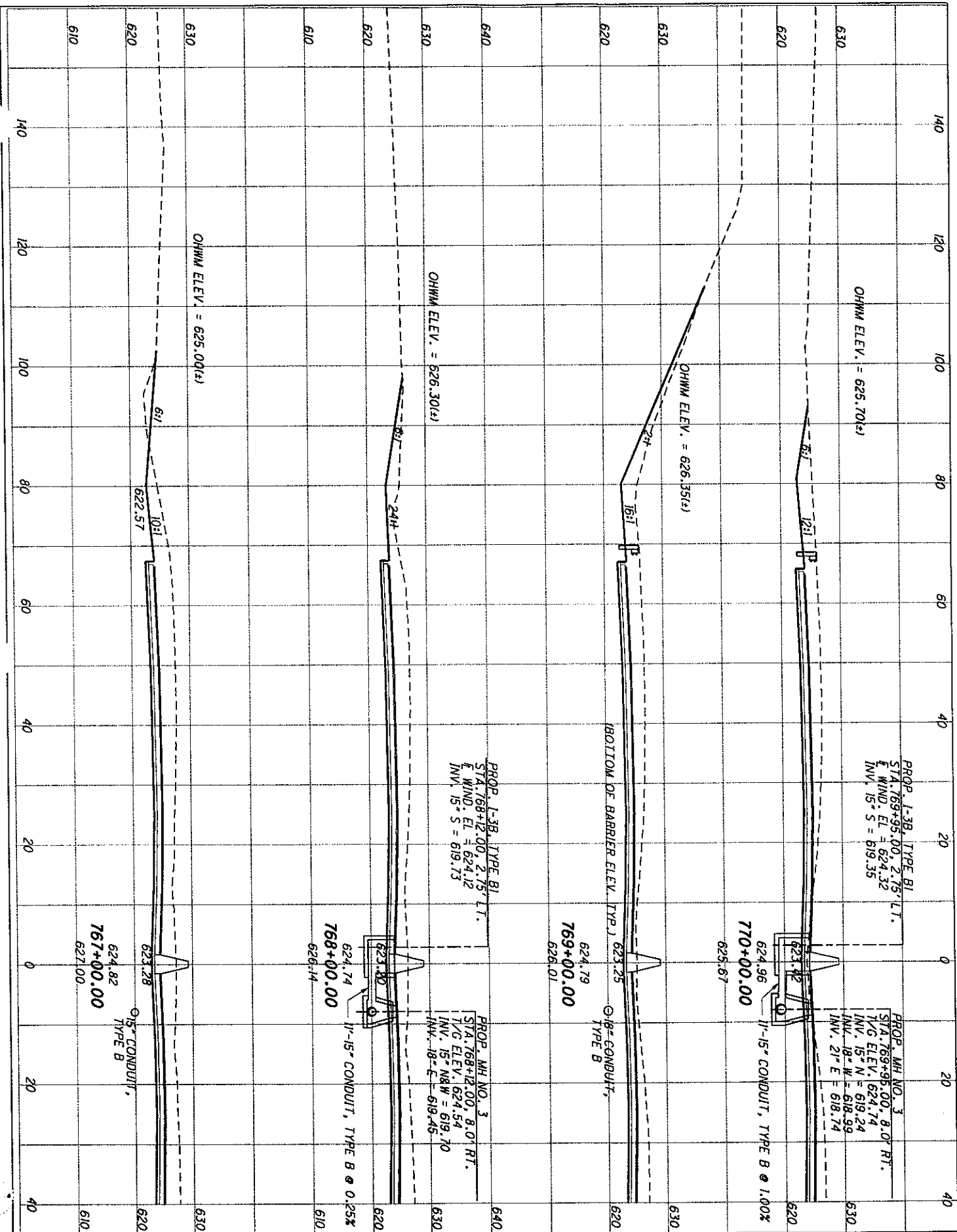




LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 763+00 TO STA. 766+00

SHEET 5 OF 8



PROP. 1-3B, TYPE B1
 STA. 769+95.00, 2.75' L.T.
 T/G ELEV. = 624.32
 INV. 15" S = 619.35

PROP. MH NO. 3
 STA. 769+95.00, 8.0' RT.
 T/G ELEV. 624.14
 INV. 15" N = 619.24
 INV. 15" W = 618.39
 INV. 18" E = 618.14
 INV. 21" E = 618.14

PROP. 1-3B, TYPE B1
 STA. 768+12.00, 2.75' L.T.
 T/G ELEV. = 624.12
 INV. 15" S = 619.73

PROP. MH NO. 3
 STA. 768+12.00, 8.0' RT.
 T/G ELEV. 624.54
 INV. 15" NW = 619.70
 INV. 18" E = 619.45

PROP. 1-3B, TYPE B1
 STA. 770+00.00, 2.75' L.T.
 T/G ELEV. = 624.12
 INV. 15" S = 619.35

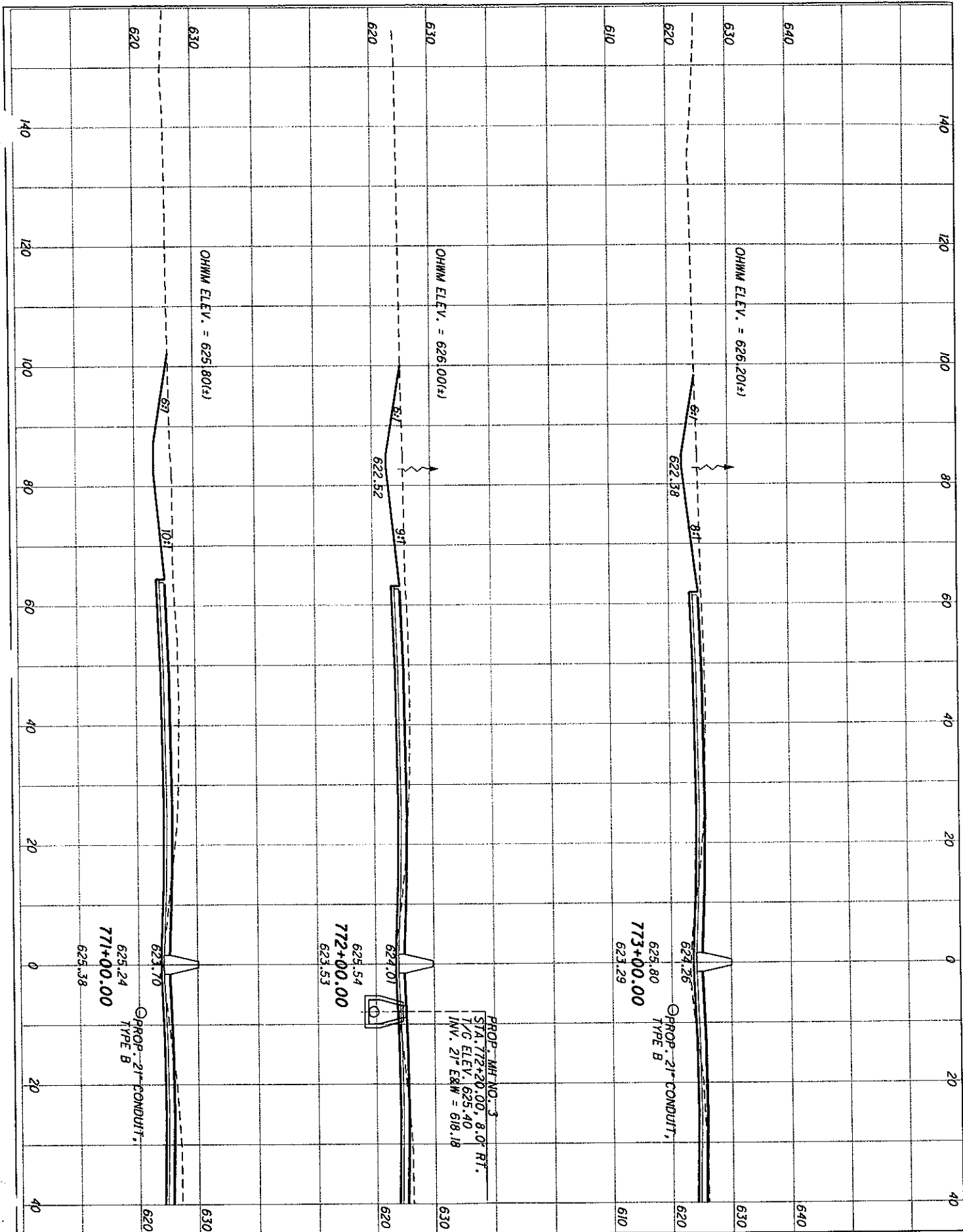
PROP. MH NO. 3
 STA. 770+00.00, 8.0' RT.
 T/G ELEV. 624.96
 INV. 15" N = 619.24
 INV. 15" W = 618.39
 INV. 18" E = 618.14
 INV. 21" E = 618.14

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 767+00 TO STA. 770+00



LAK-2-7.76

SHEET 6 OF 8



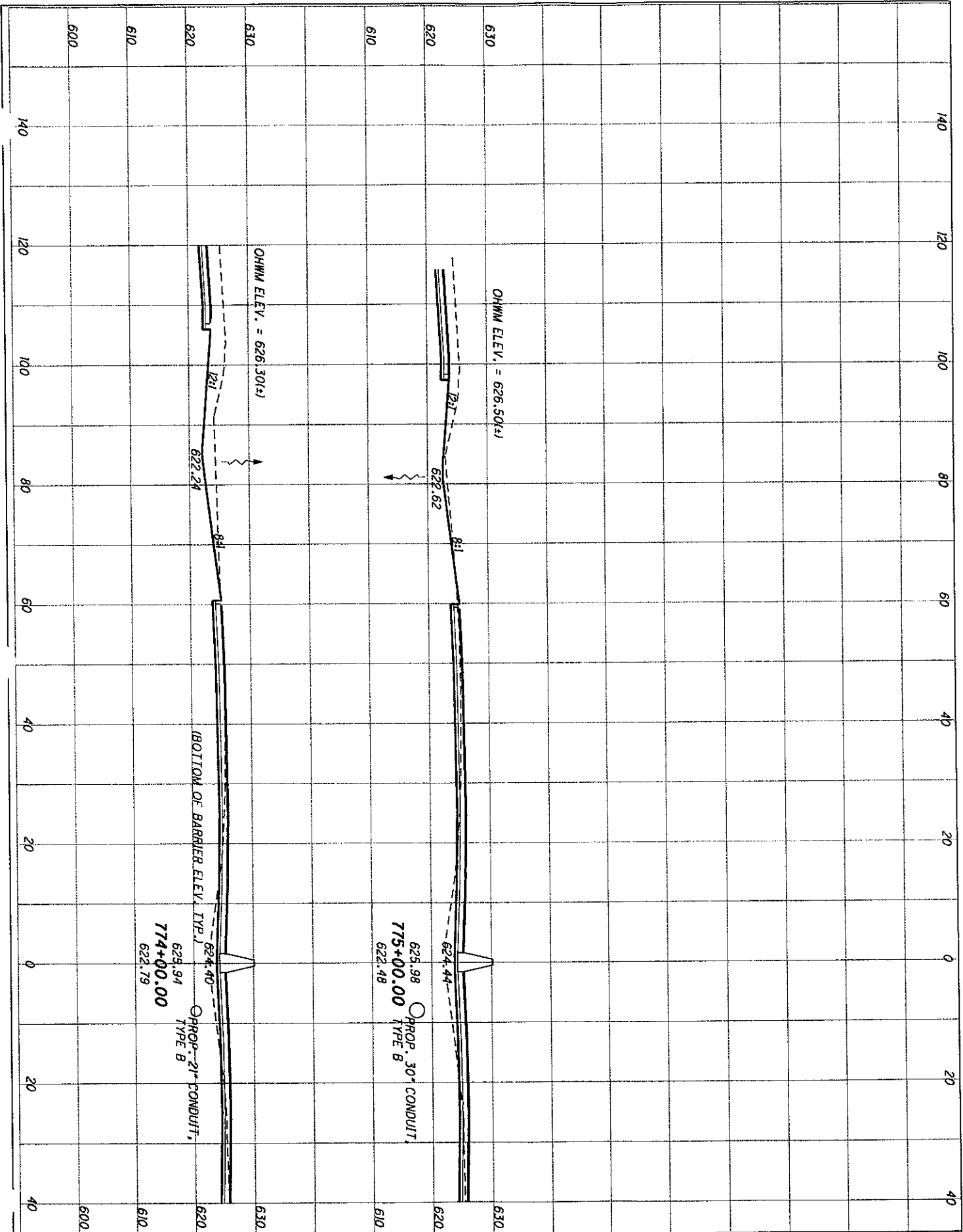
PROP. MH NO. 3
 STA. 772+20.00, 8.0' RT.
 T/G ELEV. 625.40
 INV. 21' EXH = 618.18

LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 SR 2 CROSS SECTION STA. 771+00 TO STA. 773+00

SHEET 7 OF 8

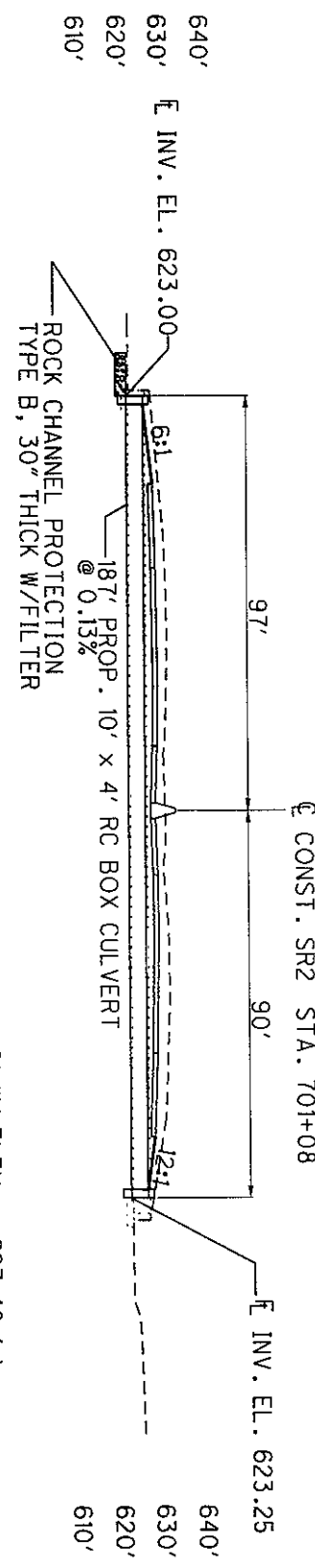
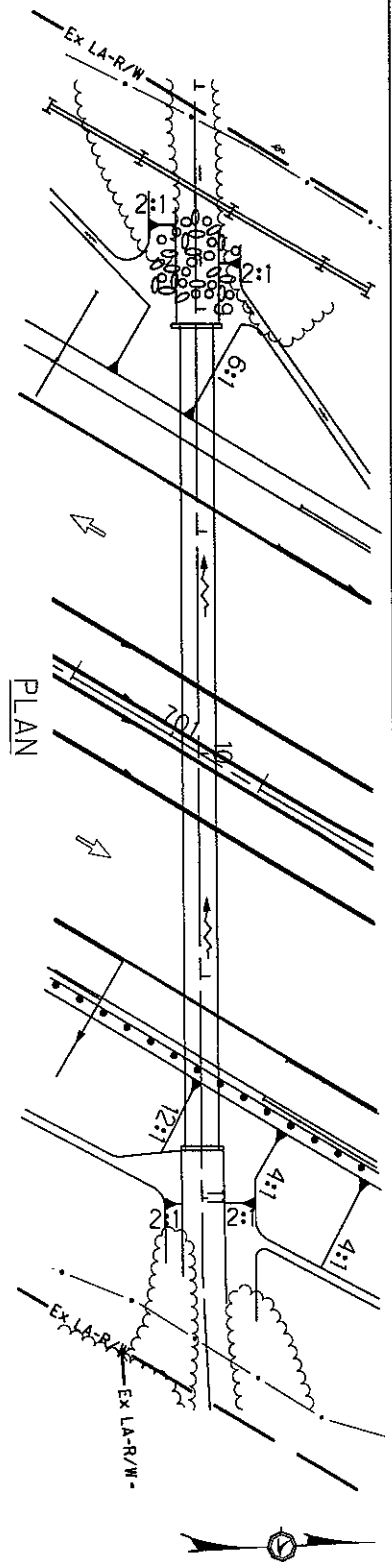




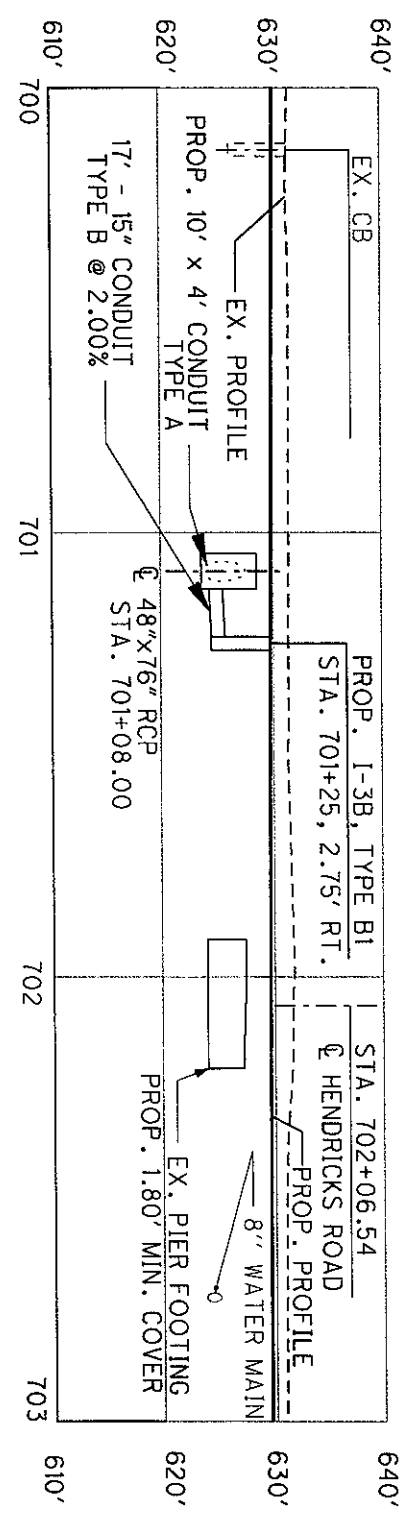
LAK-2-7.76

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 4
 TRIBUTARY OF WASSON DITCH
 CROSS SECTION STA. 774+00 TO STA. 775+00

SHEET 8 OF 8



PROFILE

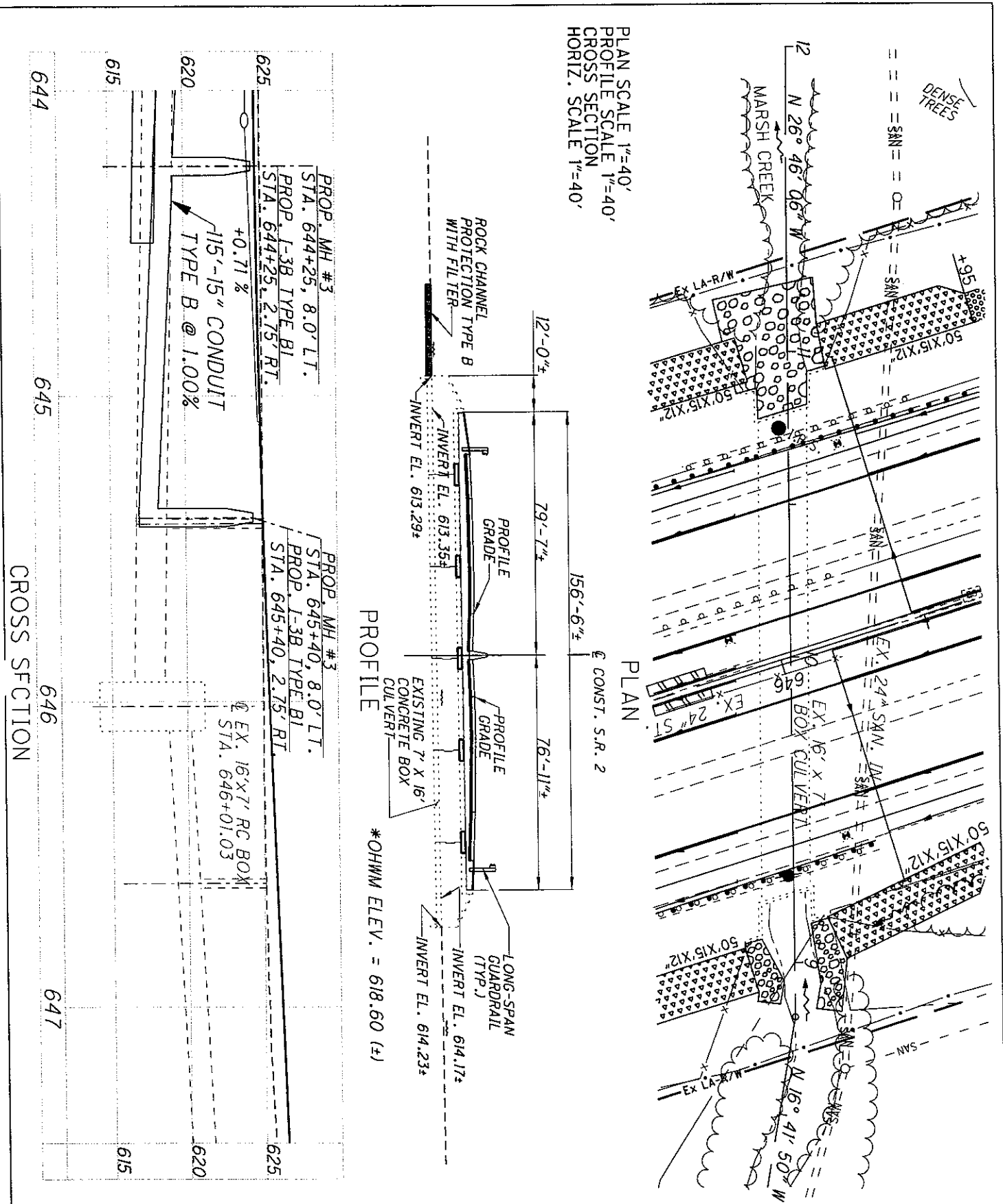


CROSS SECTION

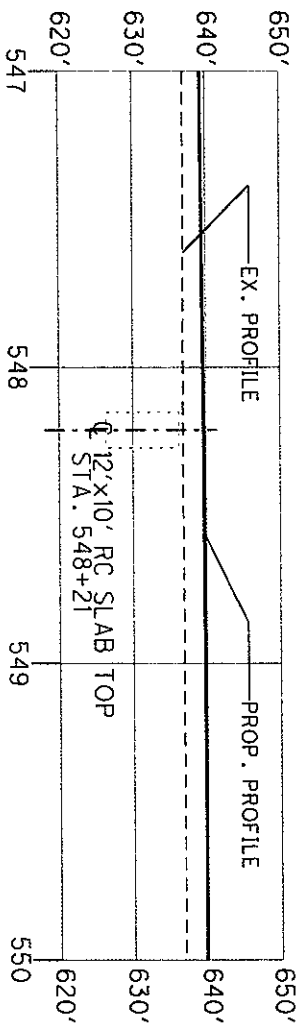
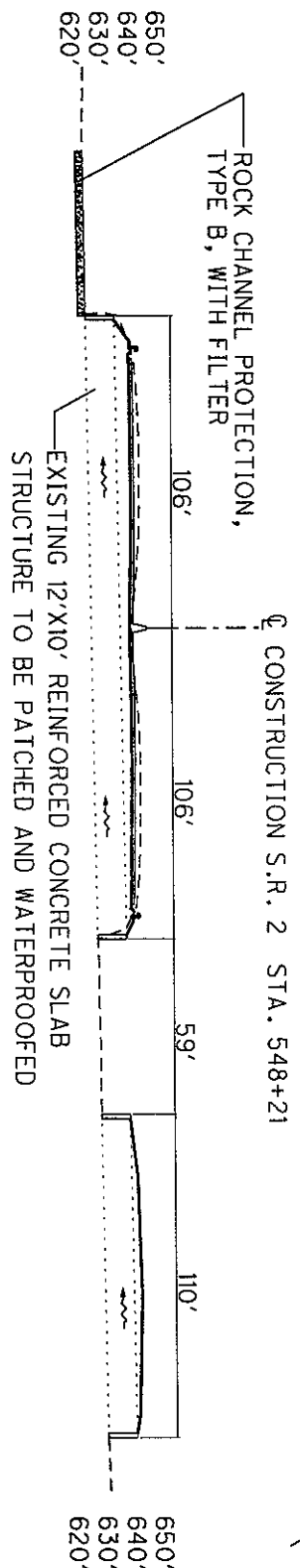
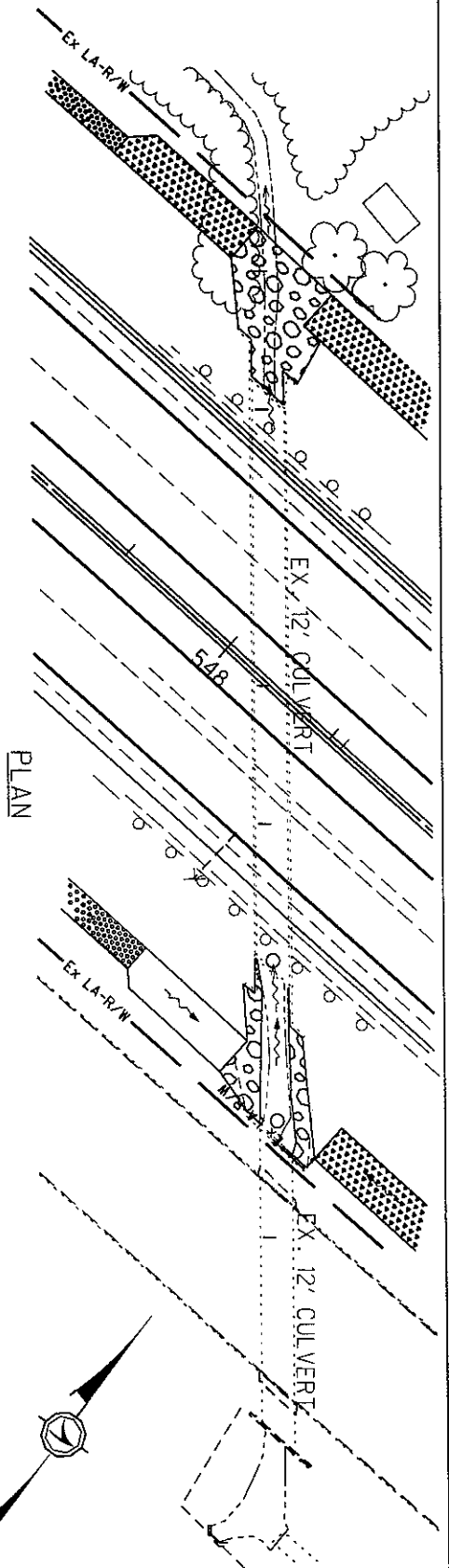
PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 5
 TRIBUTARY OF HEISLEY CREEK
 STA. 701+08



LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 6
 MARSH CREEK STA. 646+04

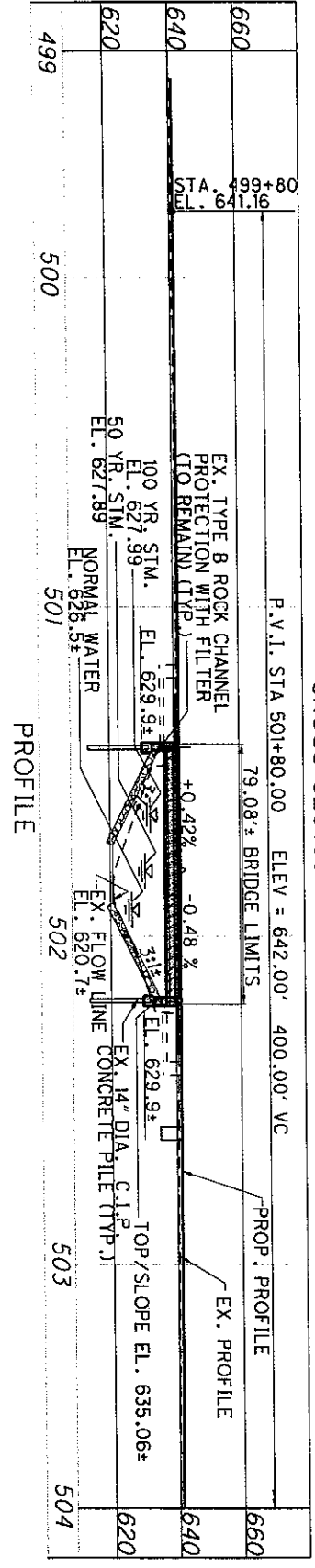
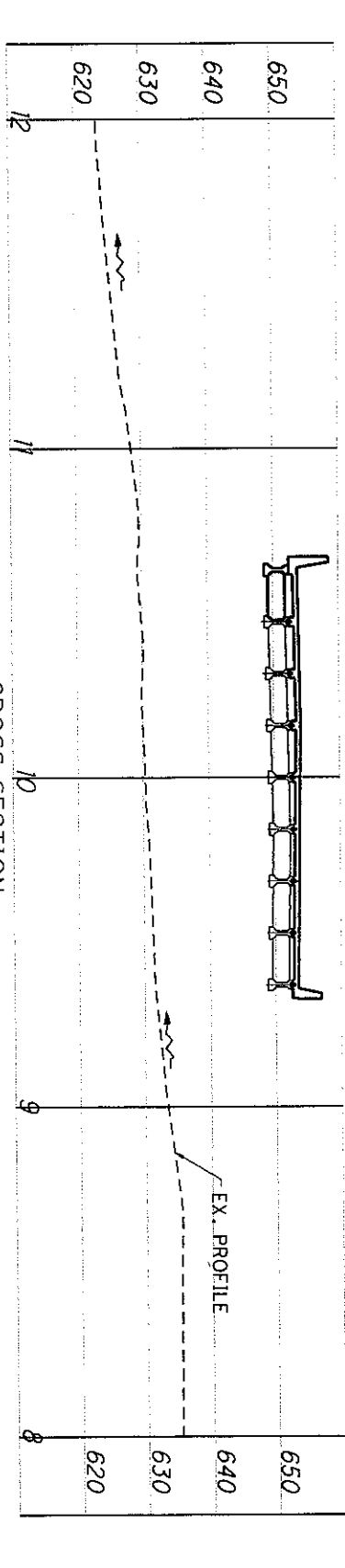
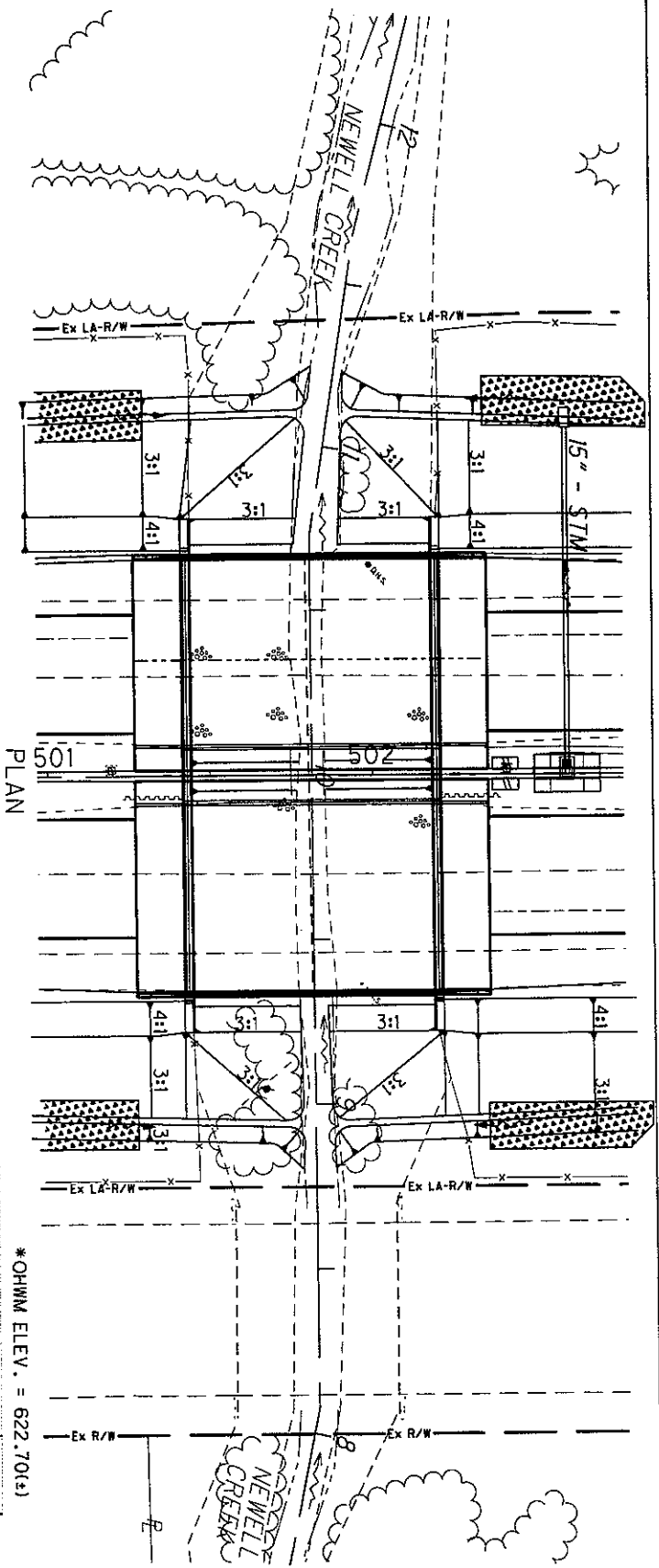


*OHWM ELEV. = 626.60(±)

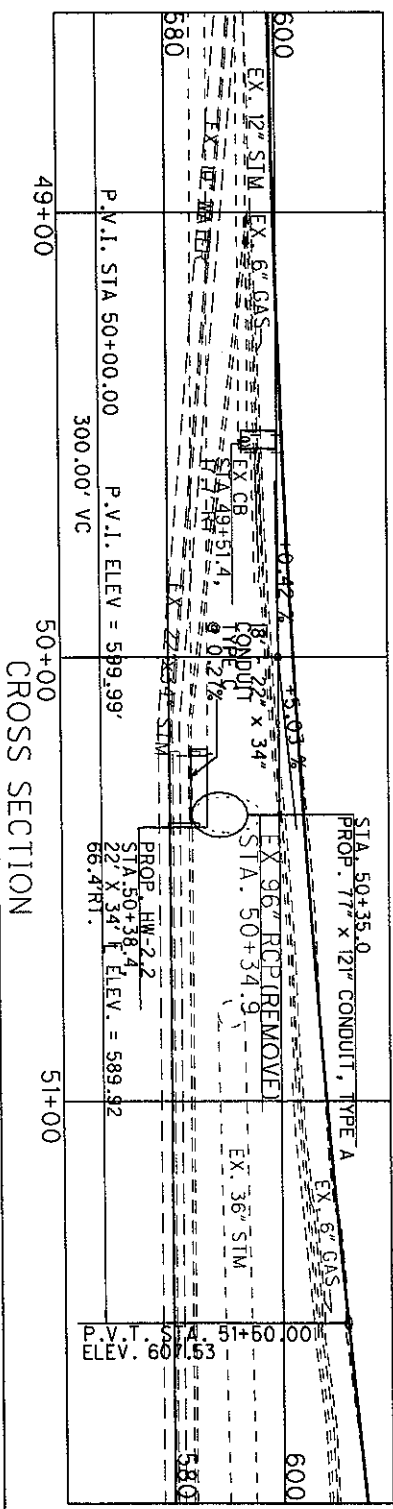
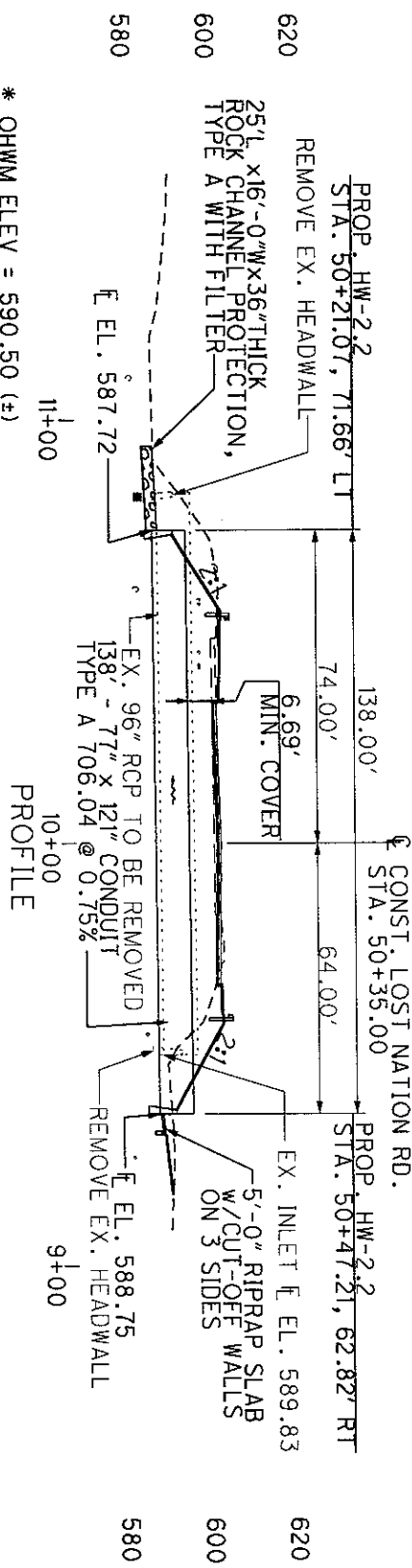
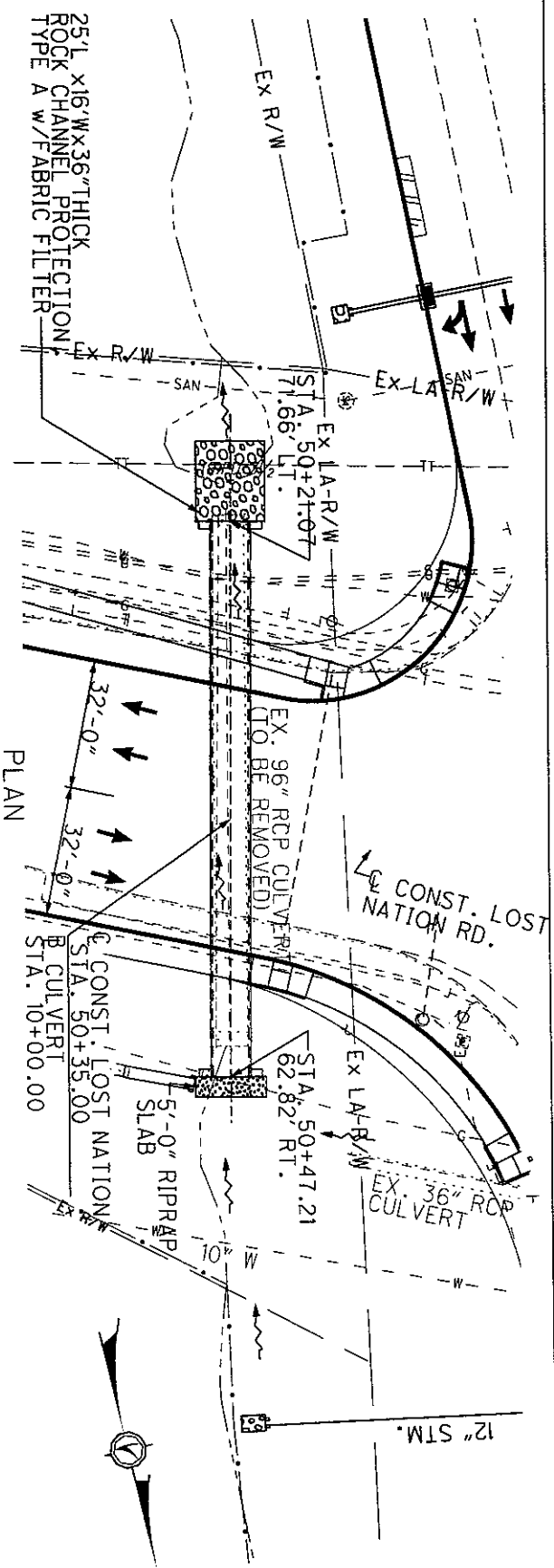
PLAN SCALE 1"=60'
 PROFILE SCALE 1"=60'
 CROSS SECTION HORIZ. SCALE 1"=60'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 9
 UNNAMED STREAM
 STA. 548+21



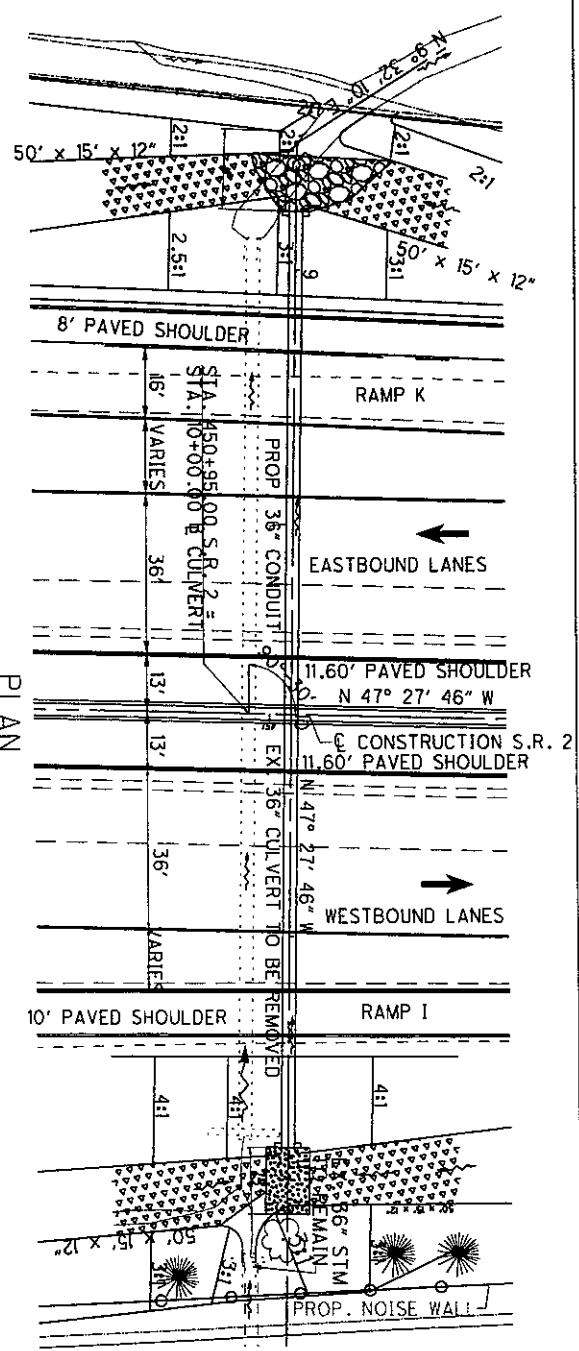
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND 79545
 PROPOSED IMPACTS FOR STREAM NO. 10
 NEWELL CREEK STA. 501+81



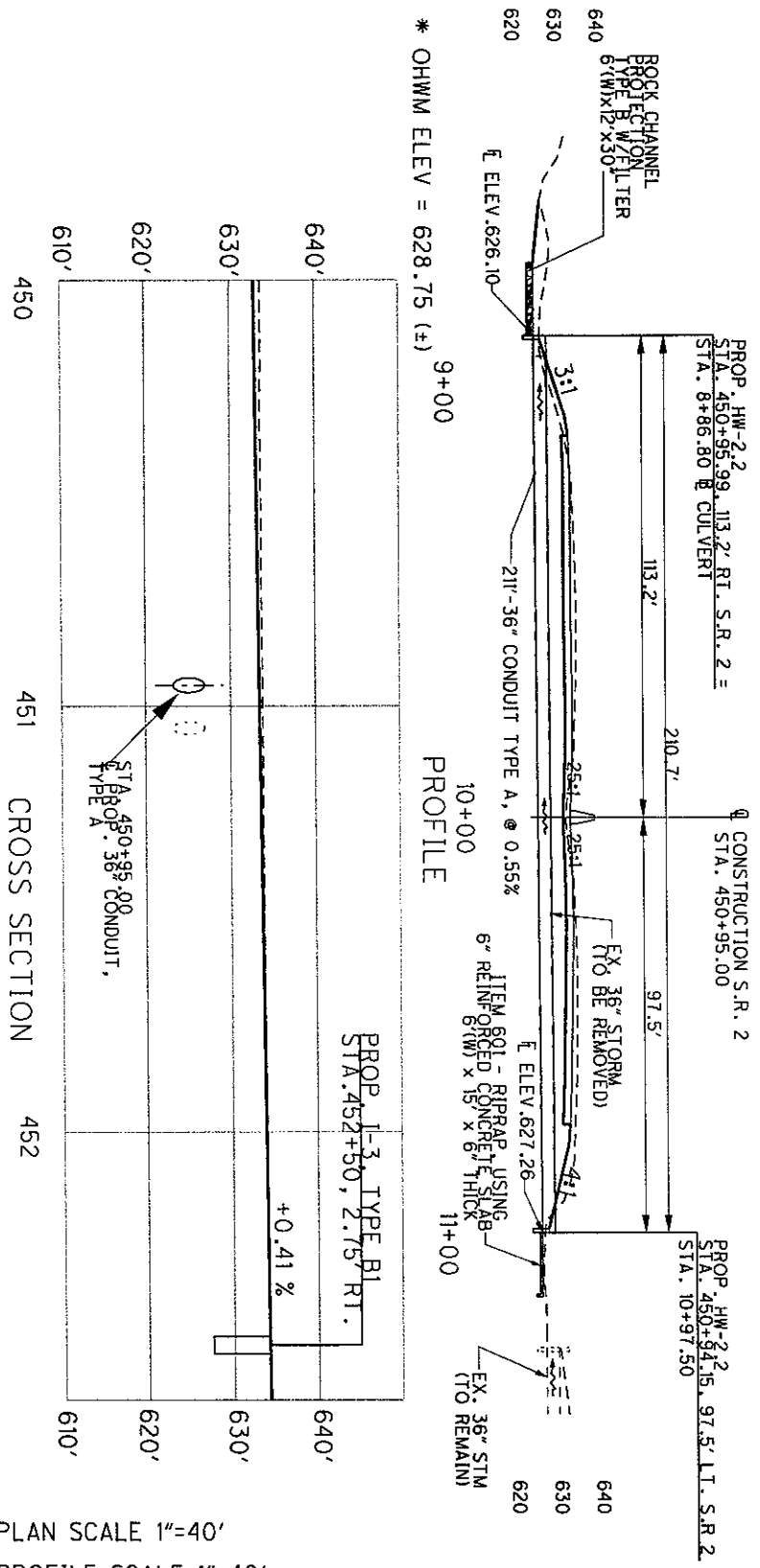
PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 LOST NATION ROAD CULVERT DETAIL STA. 50+36



PLAN

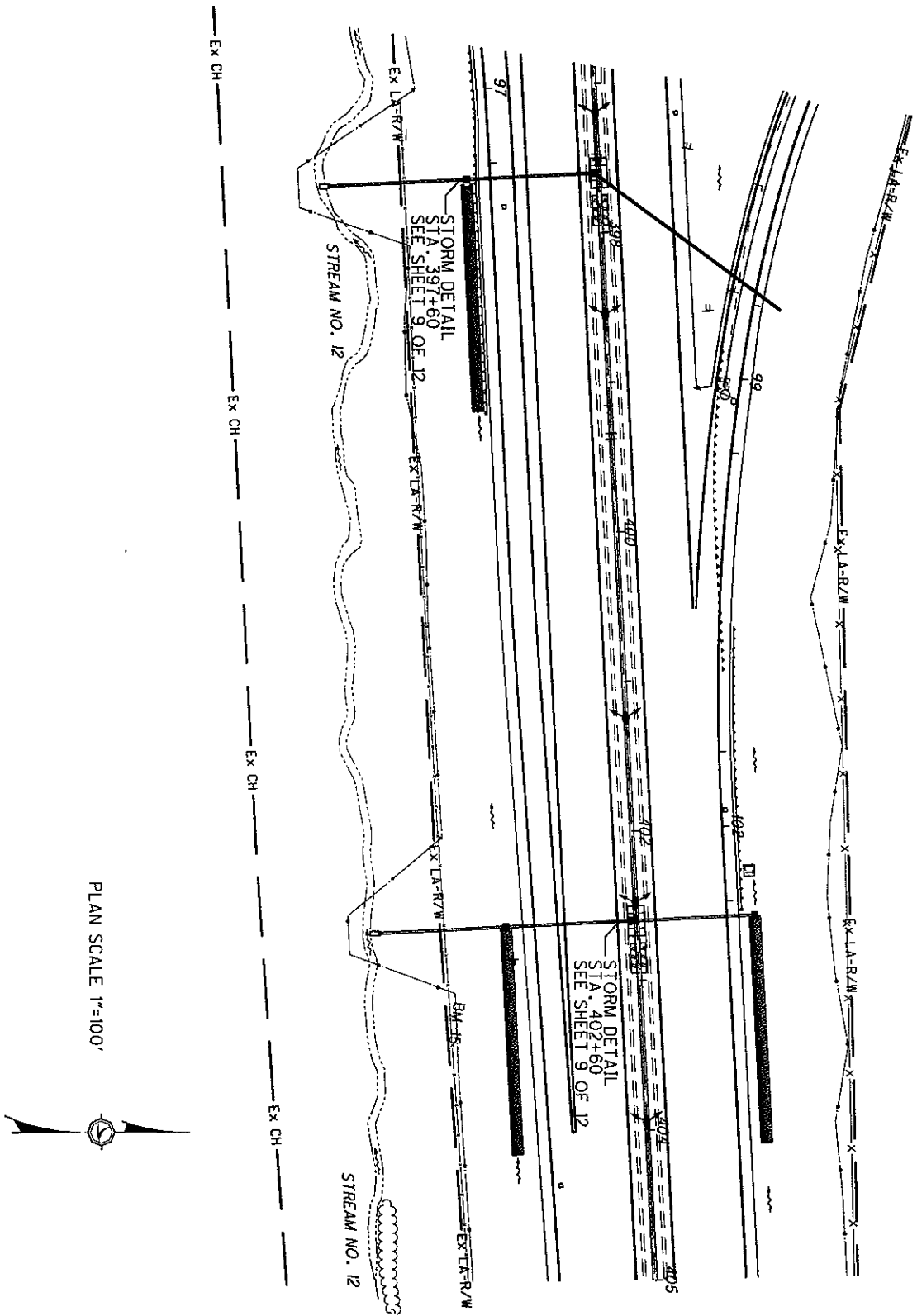


PROFILE

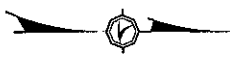
PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



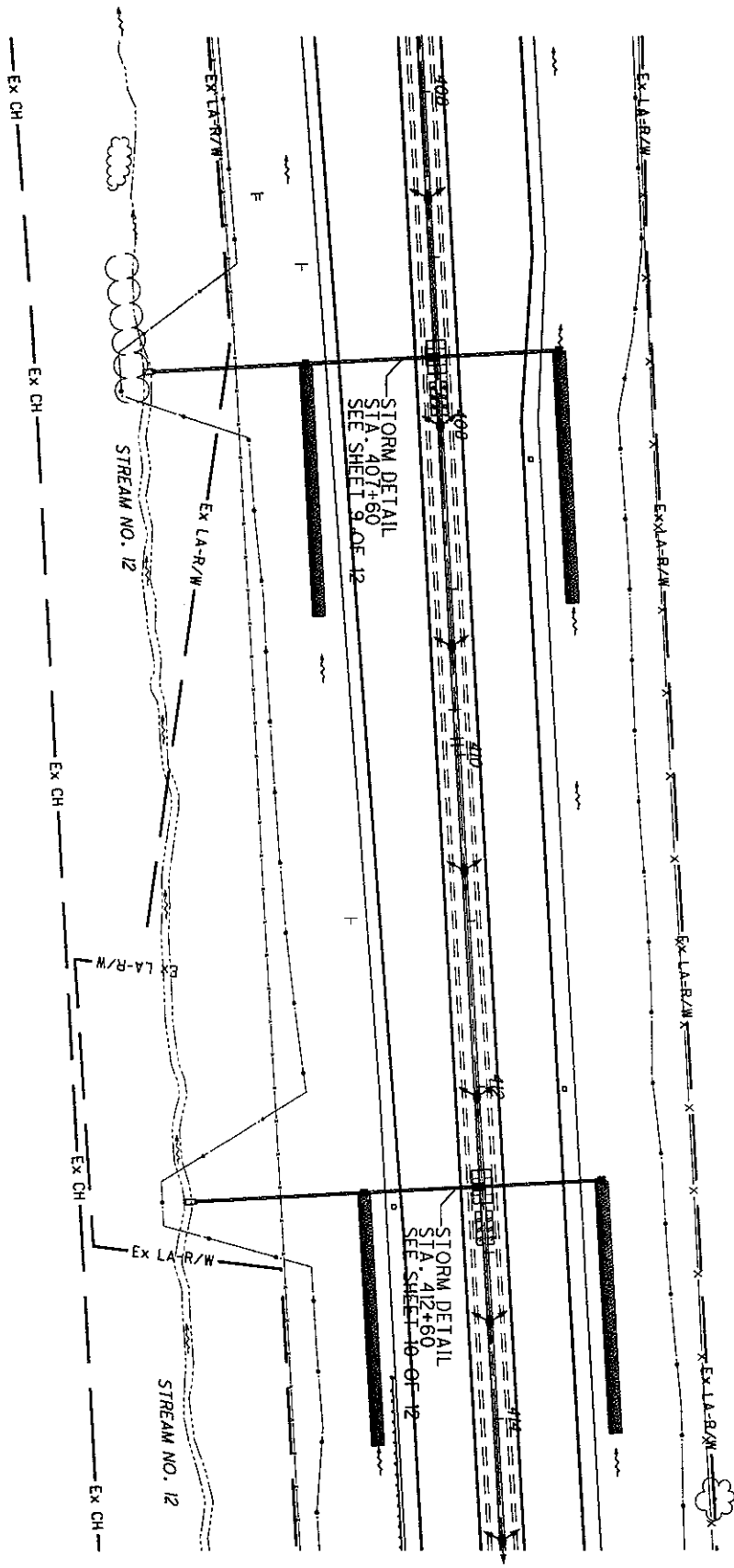
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CULVERT DETAIL STA. 450+95



PLAN SCALE 1"=100'



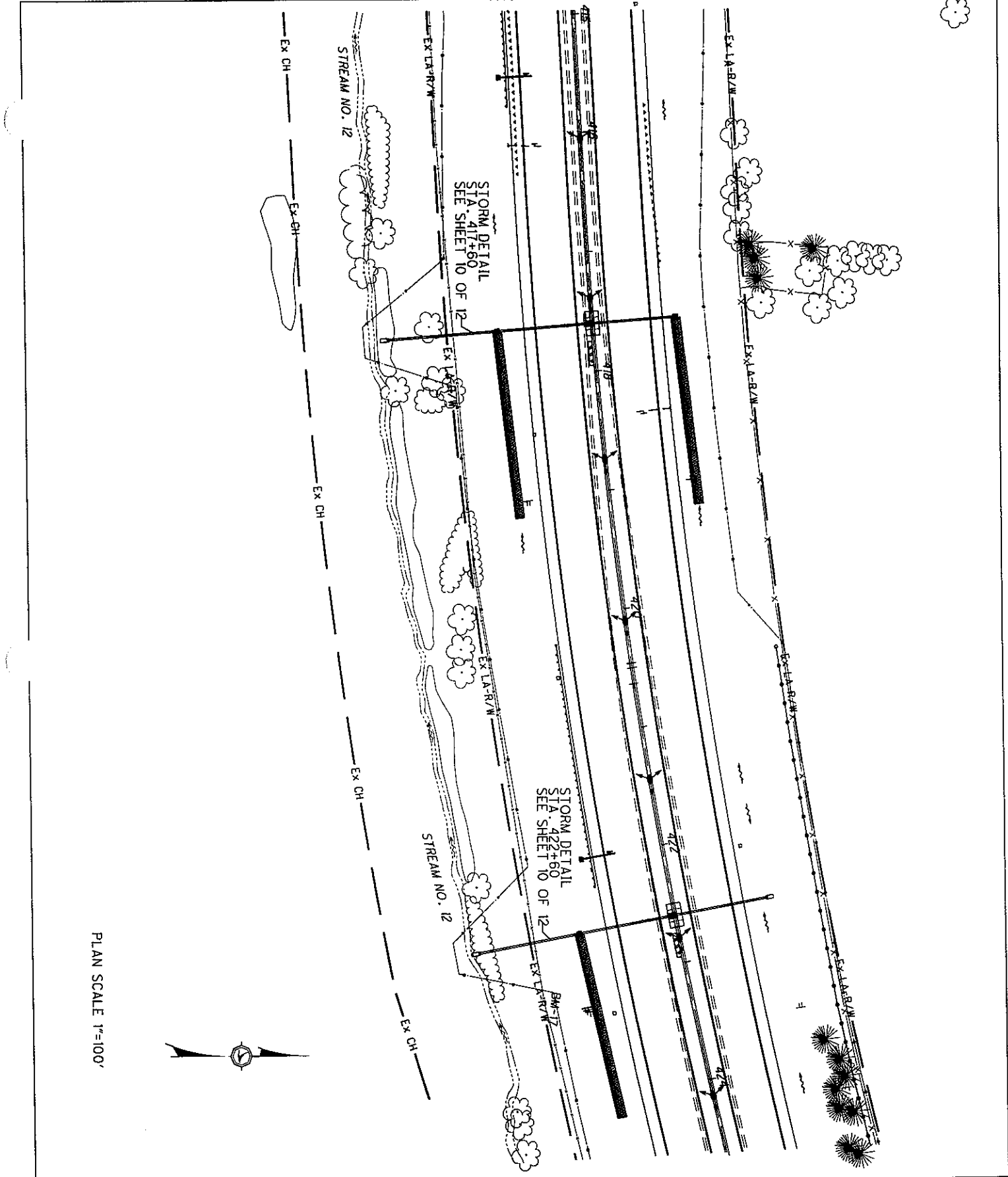
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 397+00 TO STA. 405+00



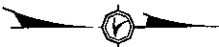
PLAN SCALE 1"=100'



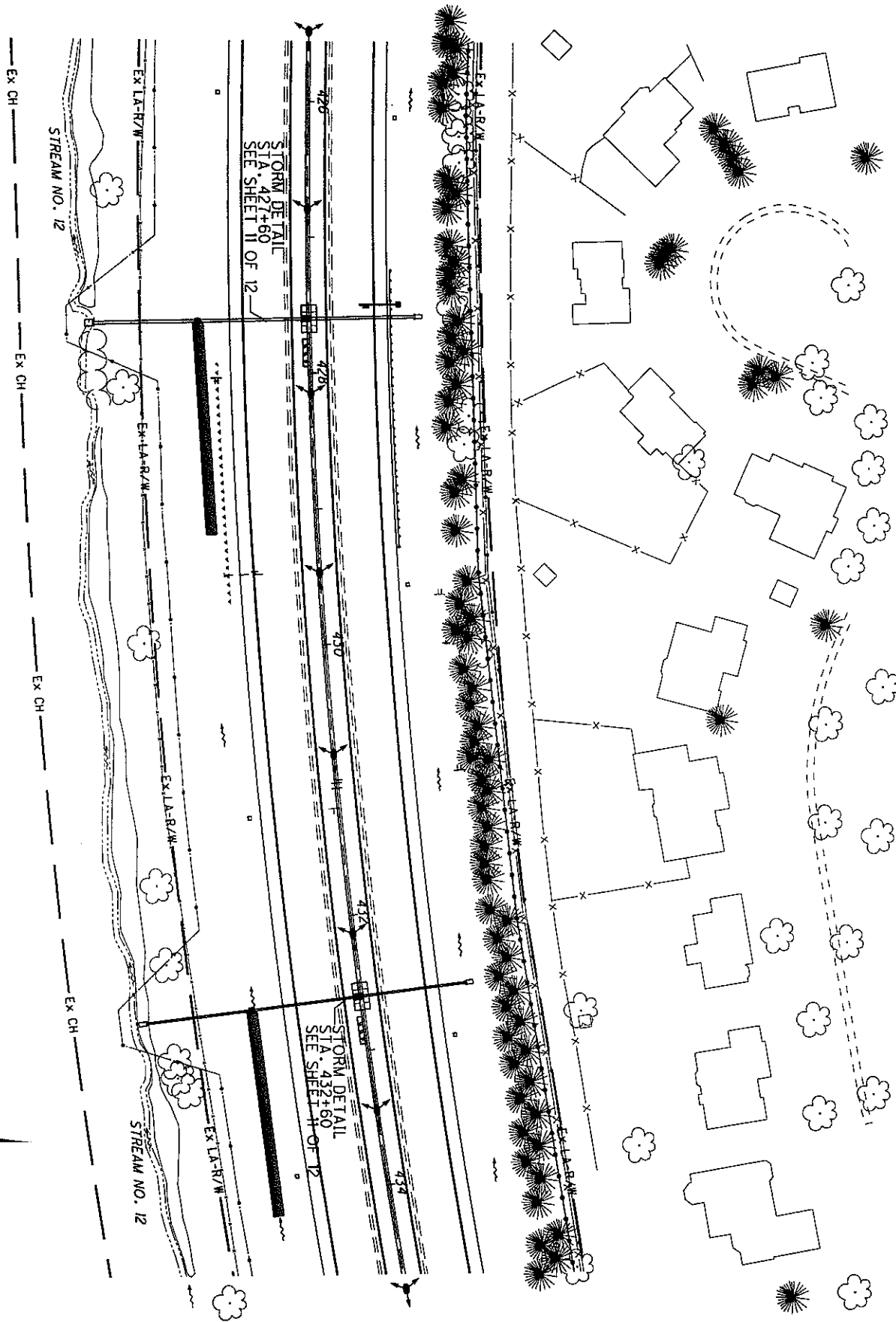
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 406+00 TO STA. 414+00



PLAN SCALE 1"=100'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 415+00 TO STA. 424+00

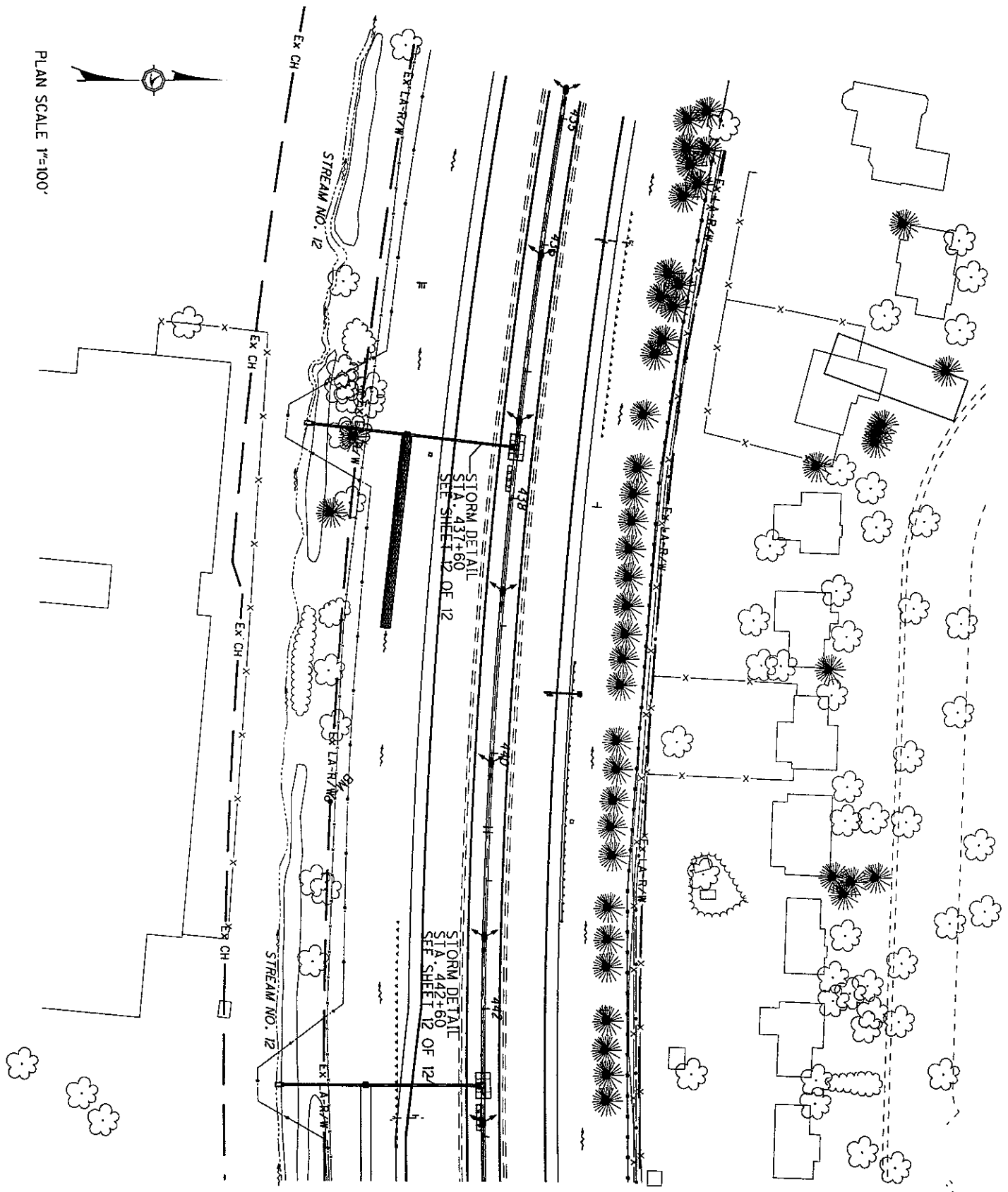
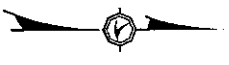


PLAN SCALE 1"=100'

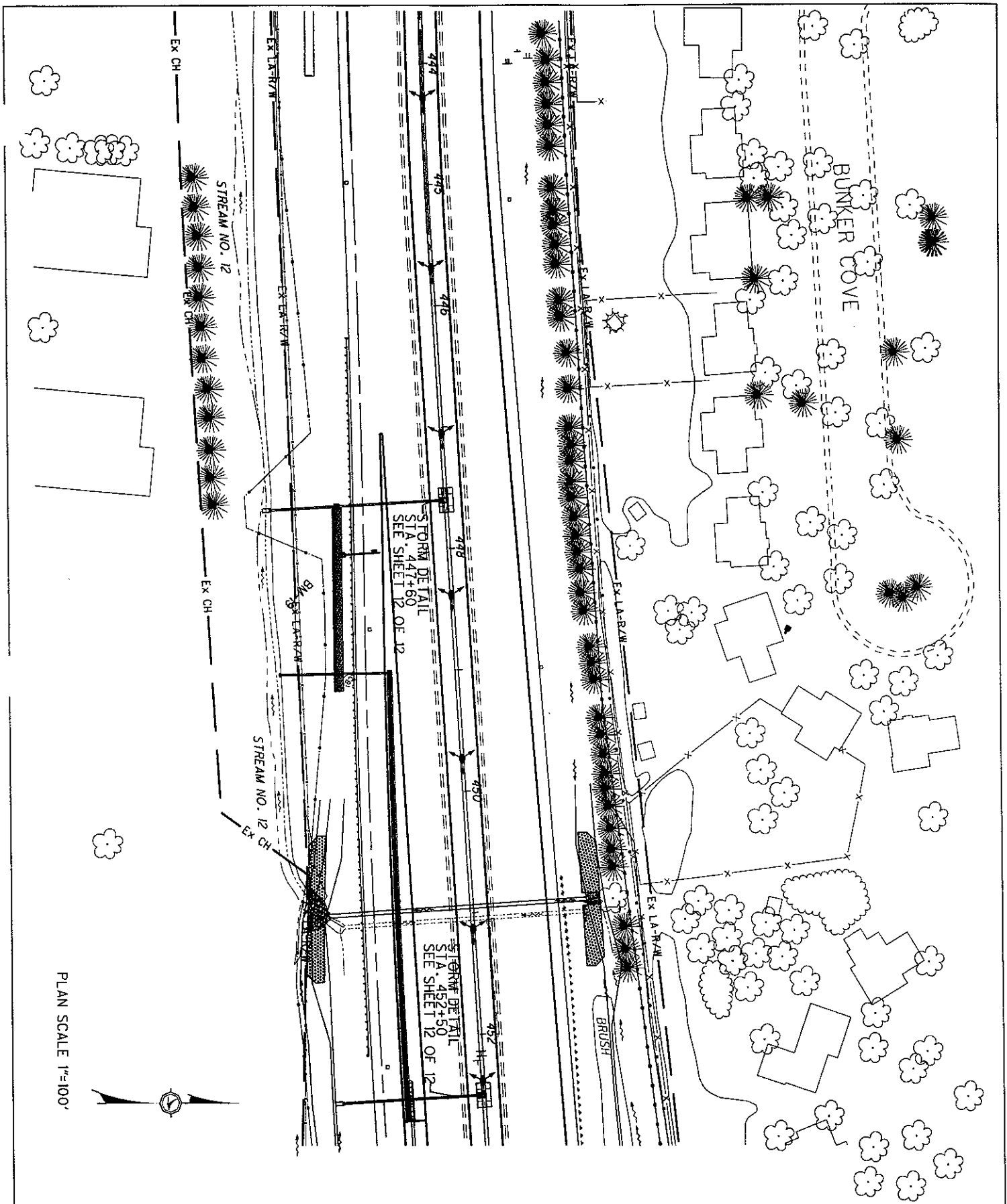


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 426+00 TO STA. 434+00

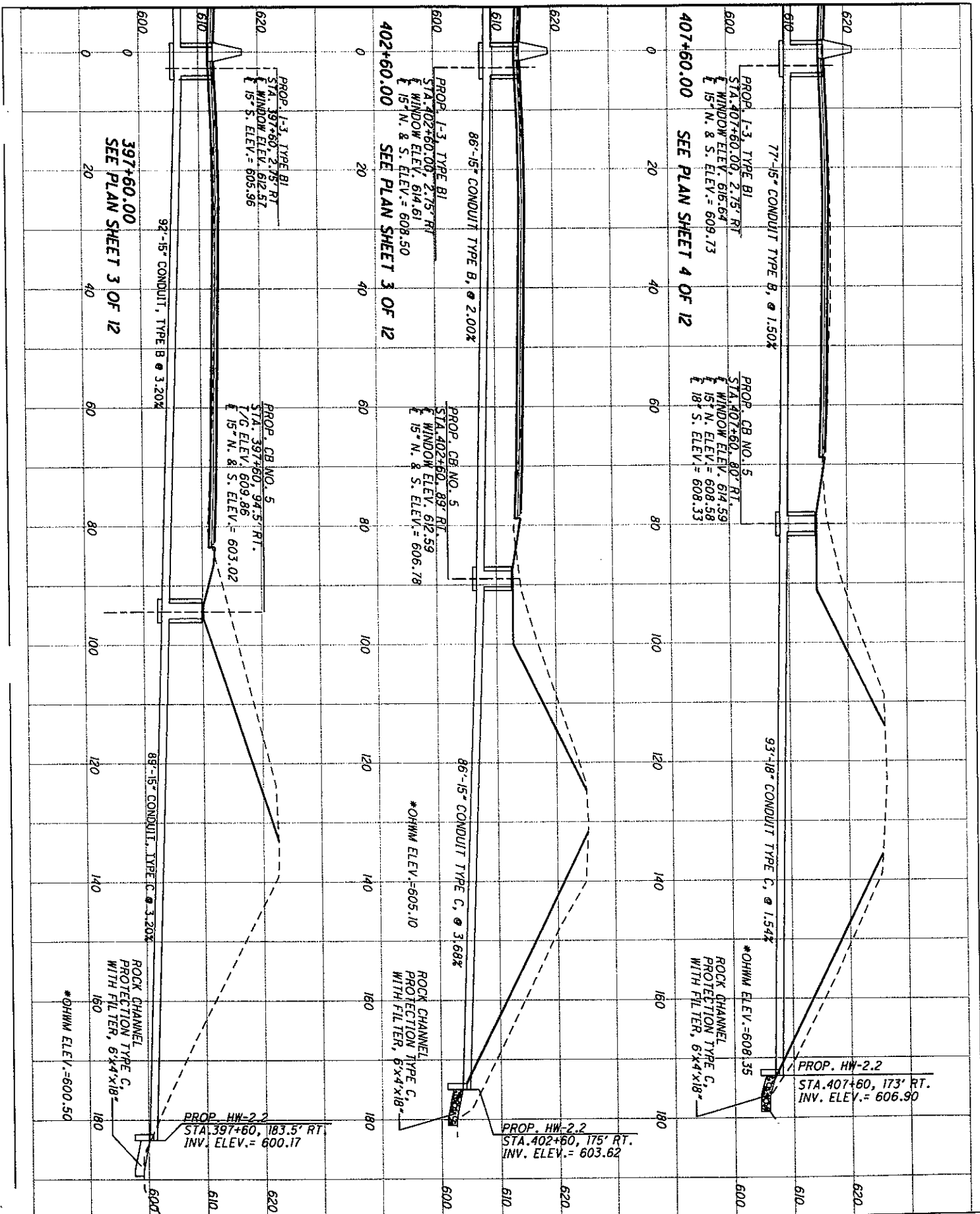
PLAN SCALE 1"=100'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 435+00 TO STA. 443+00

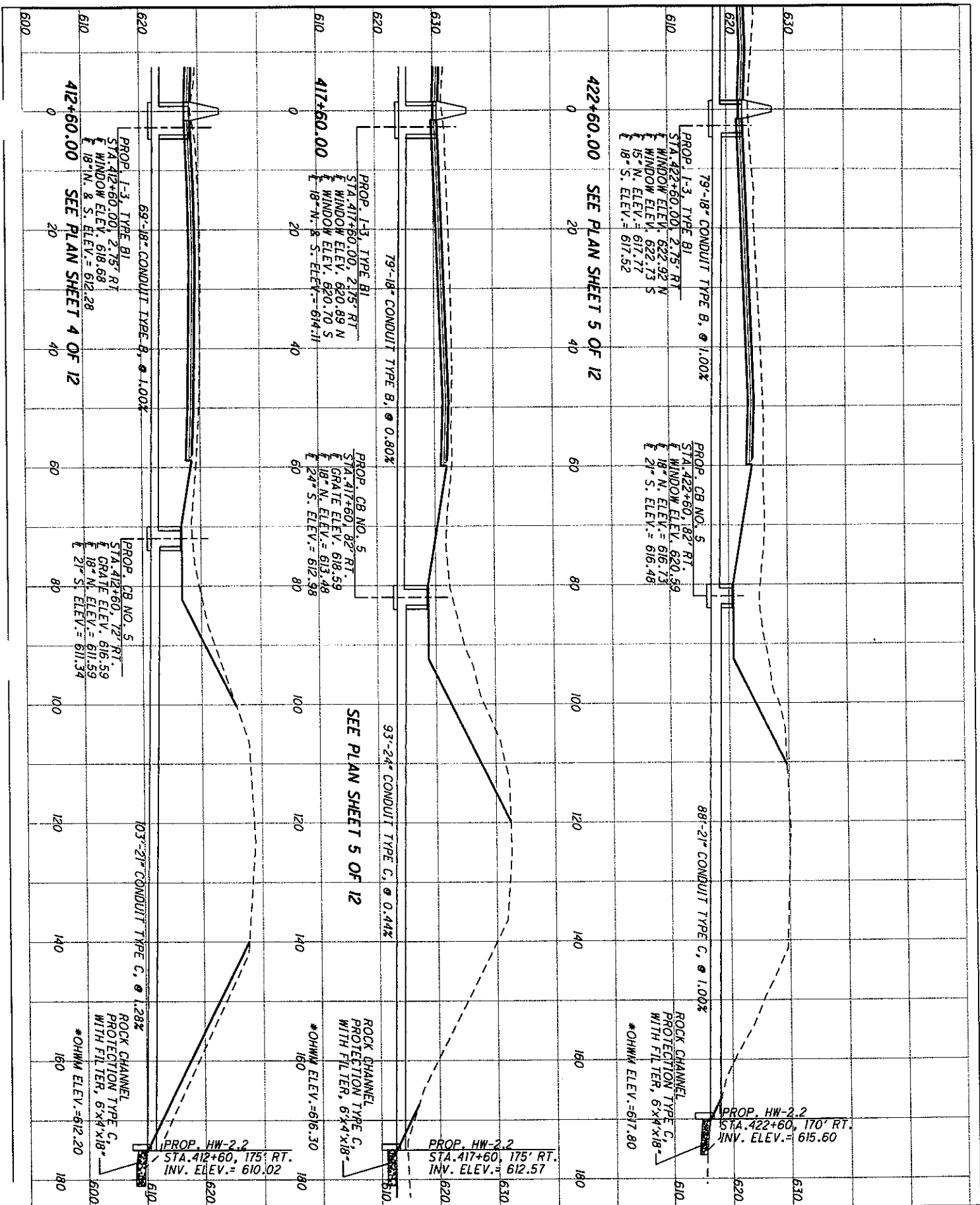


LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 PLAN STA. 444+00 TO STA. 452+00



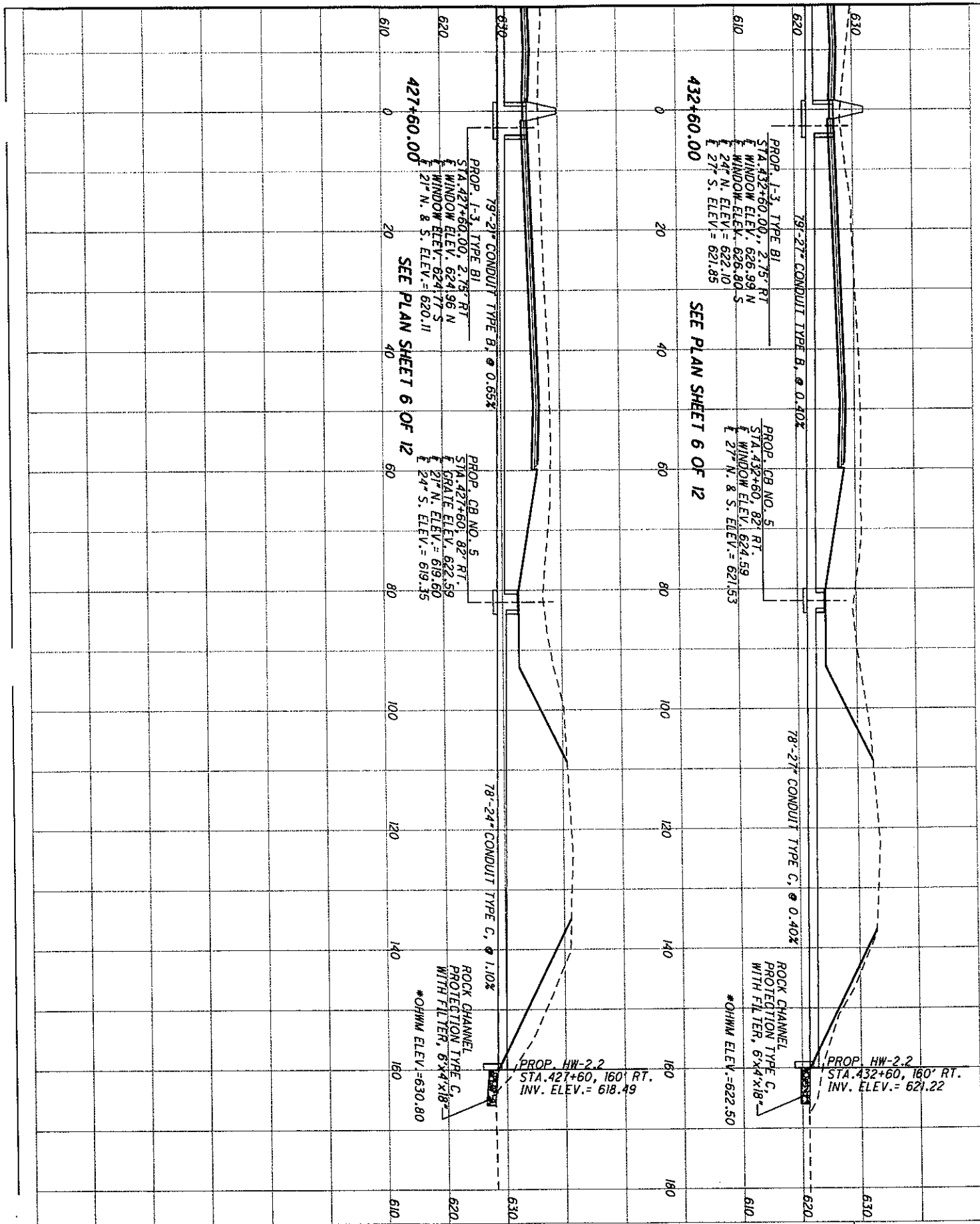
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 397+60 TO STA. 407+60





LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 412+60 TO STA. 422+60

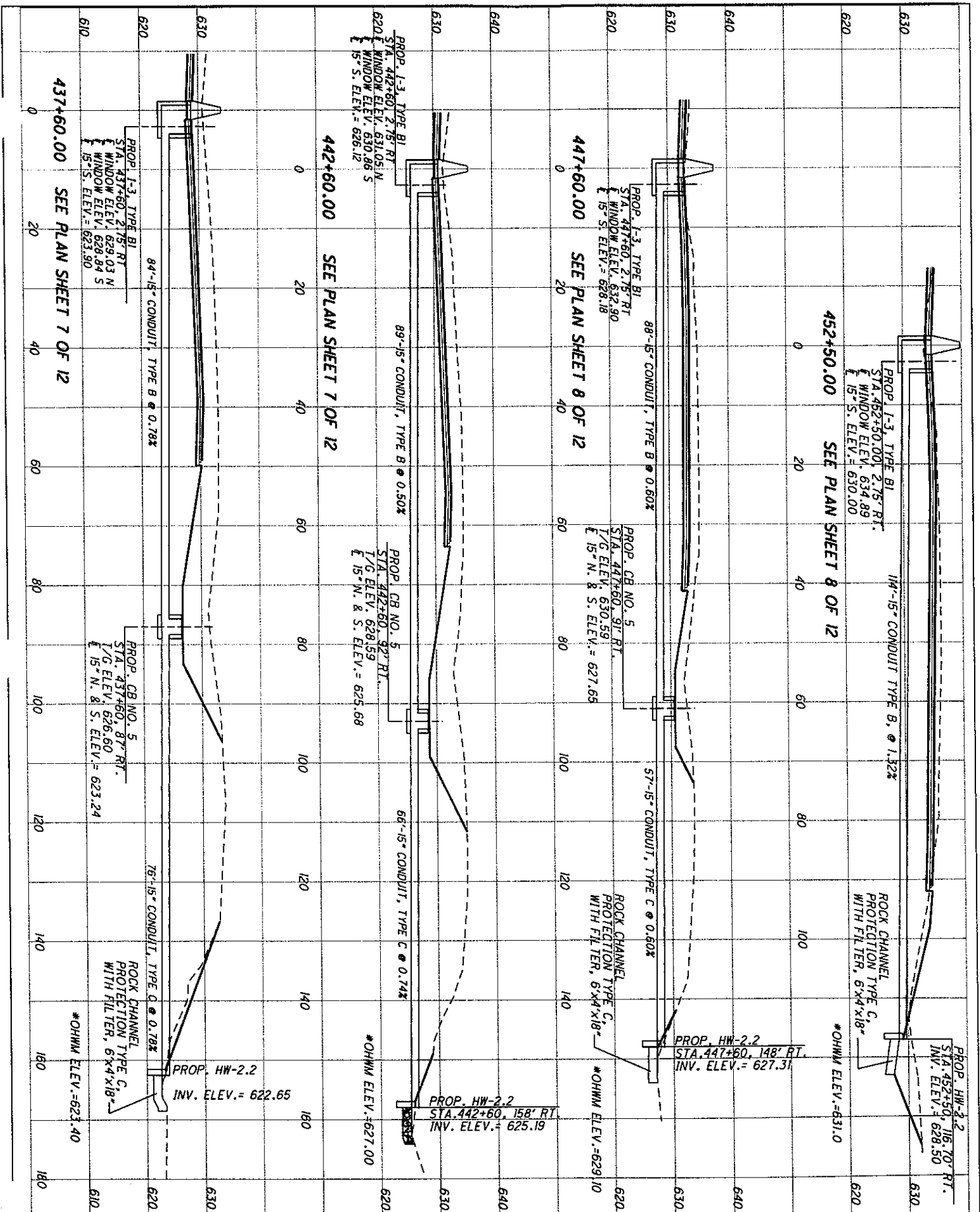




LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 427+60 TO STA. 432+60

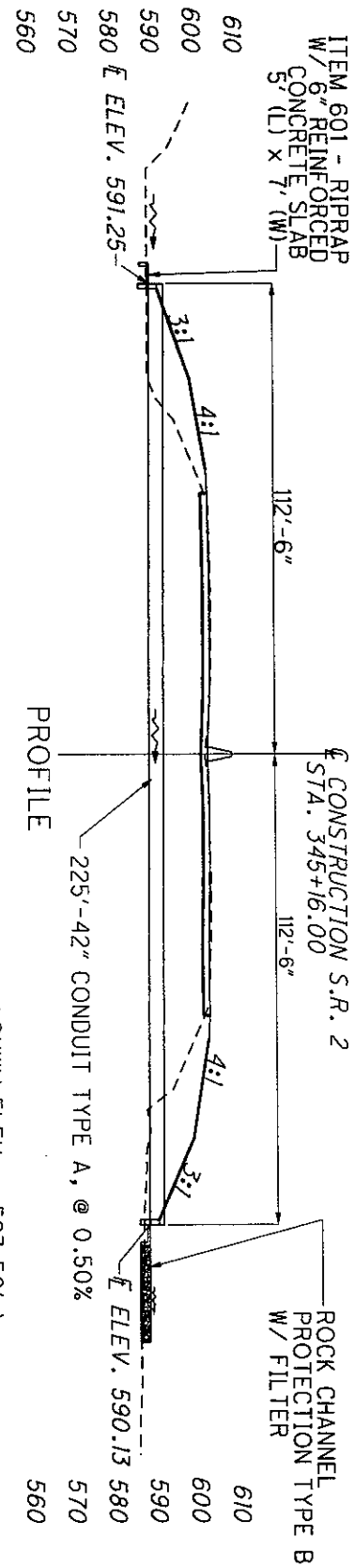
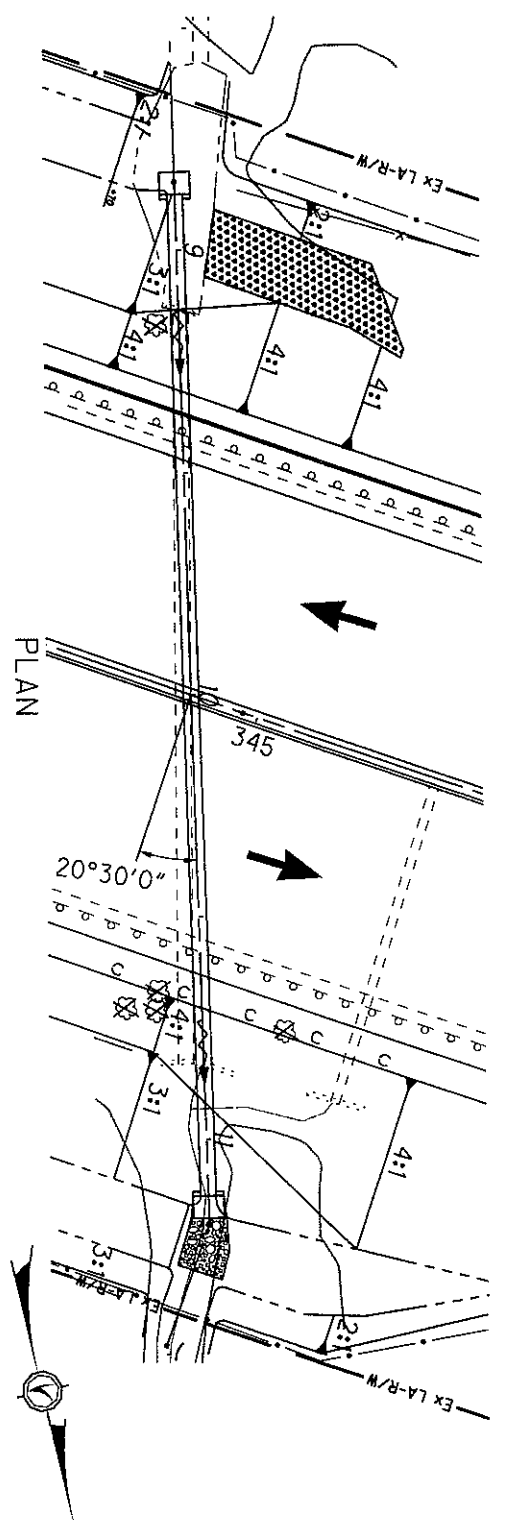
SHEET 11 OF 12





LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 12
 TRIBUTARY OF CHAGRIN RIVER
 SR 2 CROSS SECTION STA. 437+60 TO STA. 452+50



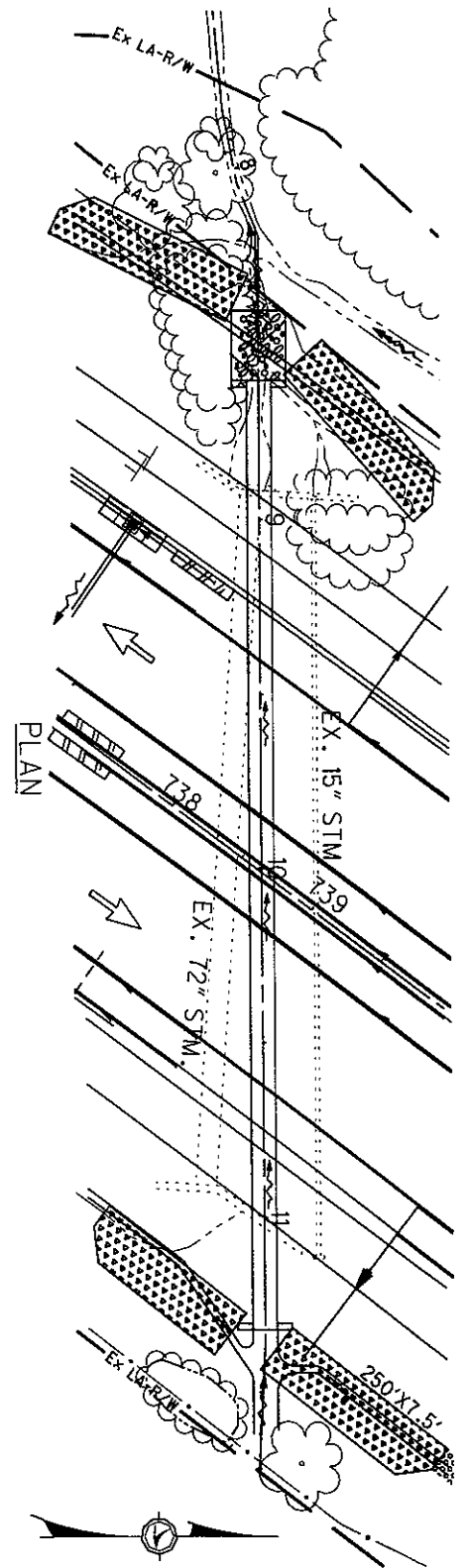


344	EX. MH STA. 344+57, 10' LT	345	CROSS SECTION	346	PROP. I-3, TYPE B1 STA. 346+00, 2.75' RT. PROP. I-3, TYPE D STA. 346+00, 59.25' LT.
	EX. CB STA. 344+57, 0.2' LT				PROP. I-3, TYPE B1 STA. 346+00, 2.75' RT. PROP. I-3, TYPE D STA. 346+00, 59.25' LT.
344	PROP. 48" CONDUIT TYPE A	345	CROSS SECTION	346	PROP. 48" RCP STA. 345+16

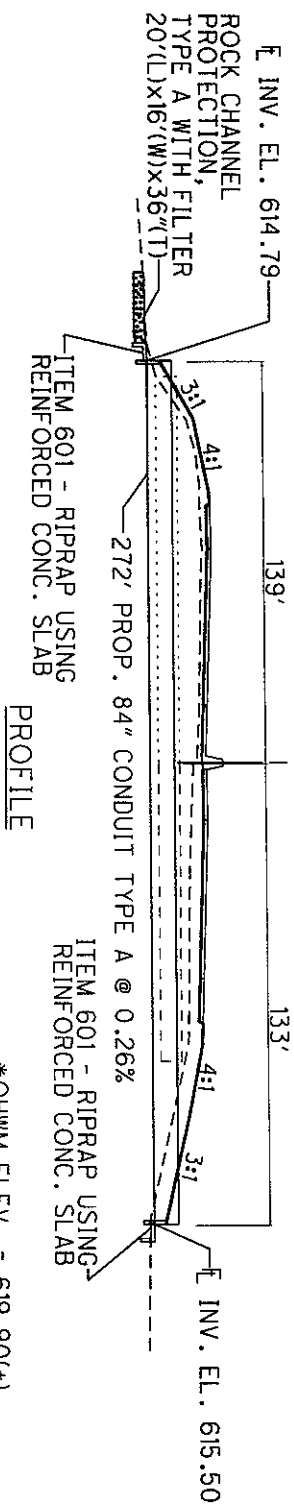
PLAN SCALE 1"=40'
 PROFILE SCALE 1"=40'
 CROSS SECTION HORIZ. SCALE 1"=40'



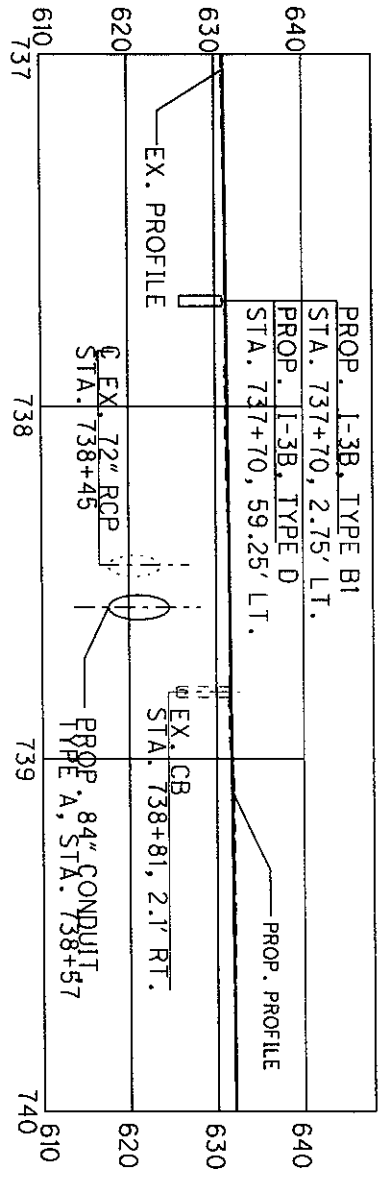
LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 13
 TRIBUTARY OF CHAGRIN RIVER
 STA. 345+16



640
630
620
610
600



*OHWM ELEV. = 619.90(+)

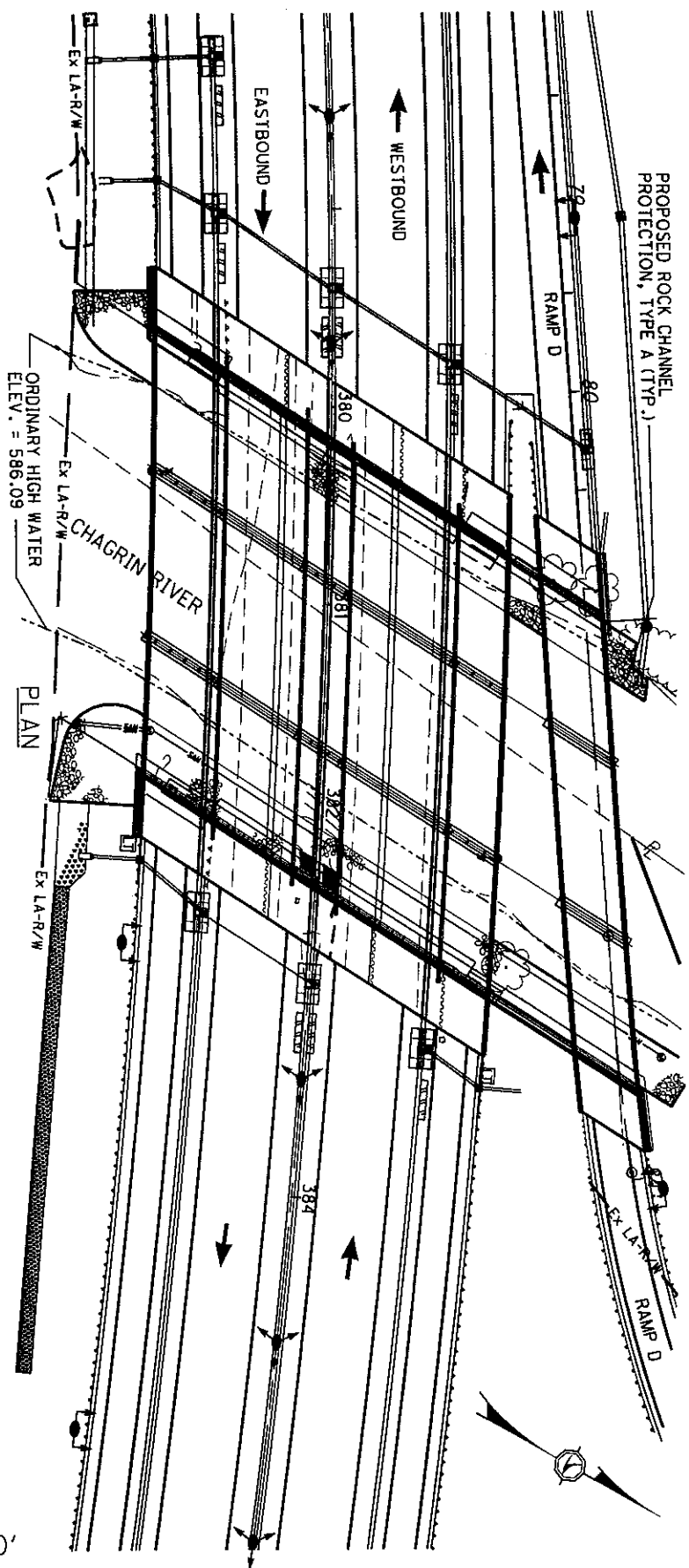
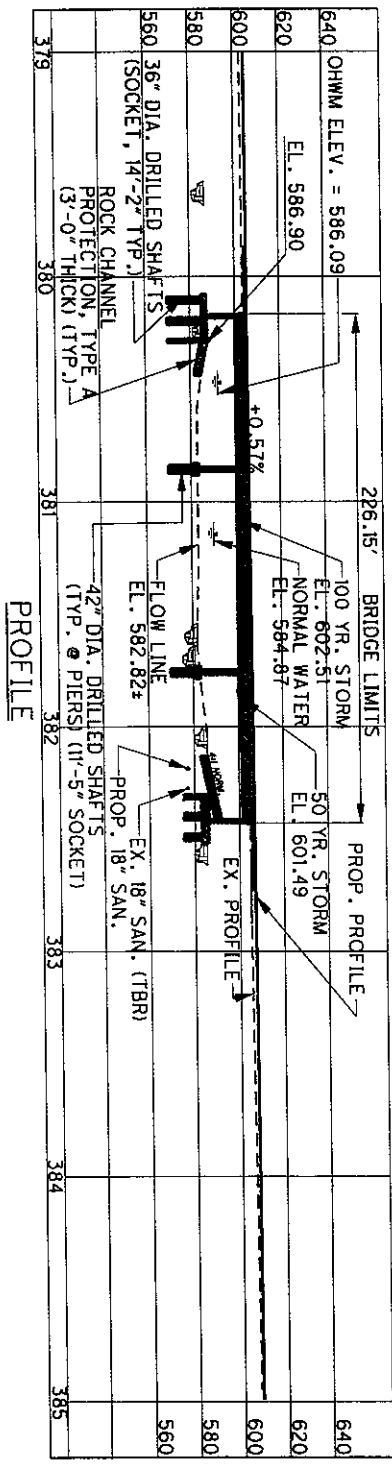


CROSS SECTION

PLAN SCALE 1"=50'
 PROFILE SCALE 1"=50'
 CROSS SECTION HORIZ. SCALE 1"=50'

LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 14
 WASSON DITCH
 STA. 738+57

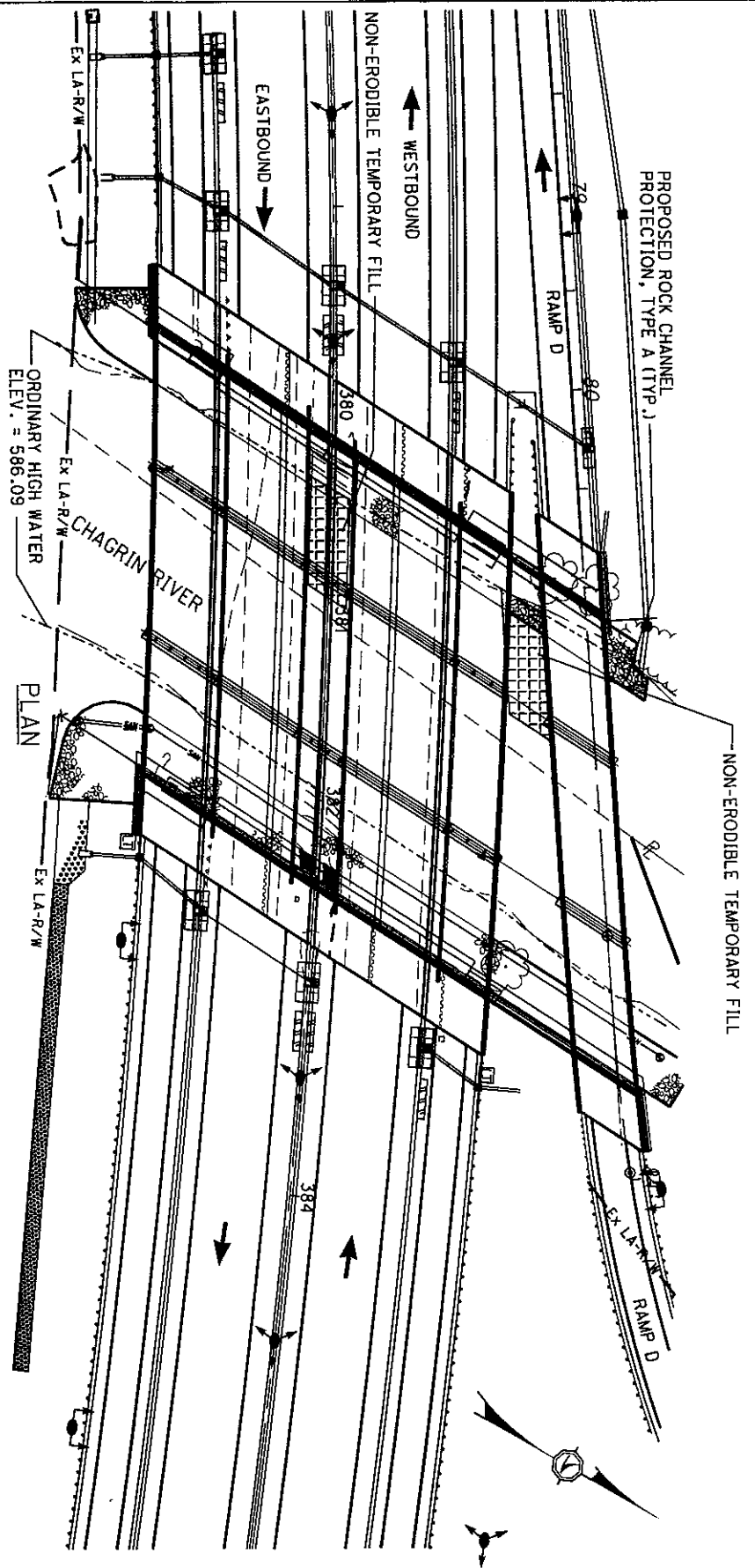




PLAN SCALE 1"=80'
 CROSS SECTION HORIZ. SCALE 1"=80'



LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 16
 CHAGRIN RIVER
 STA 381+16



TEMPORARY CROSSING LOCATION

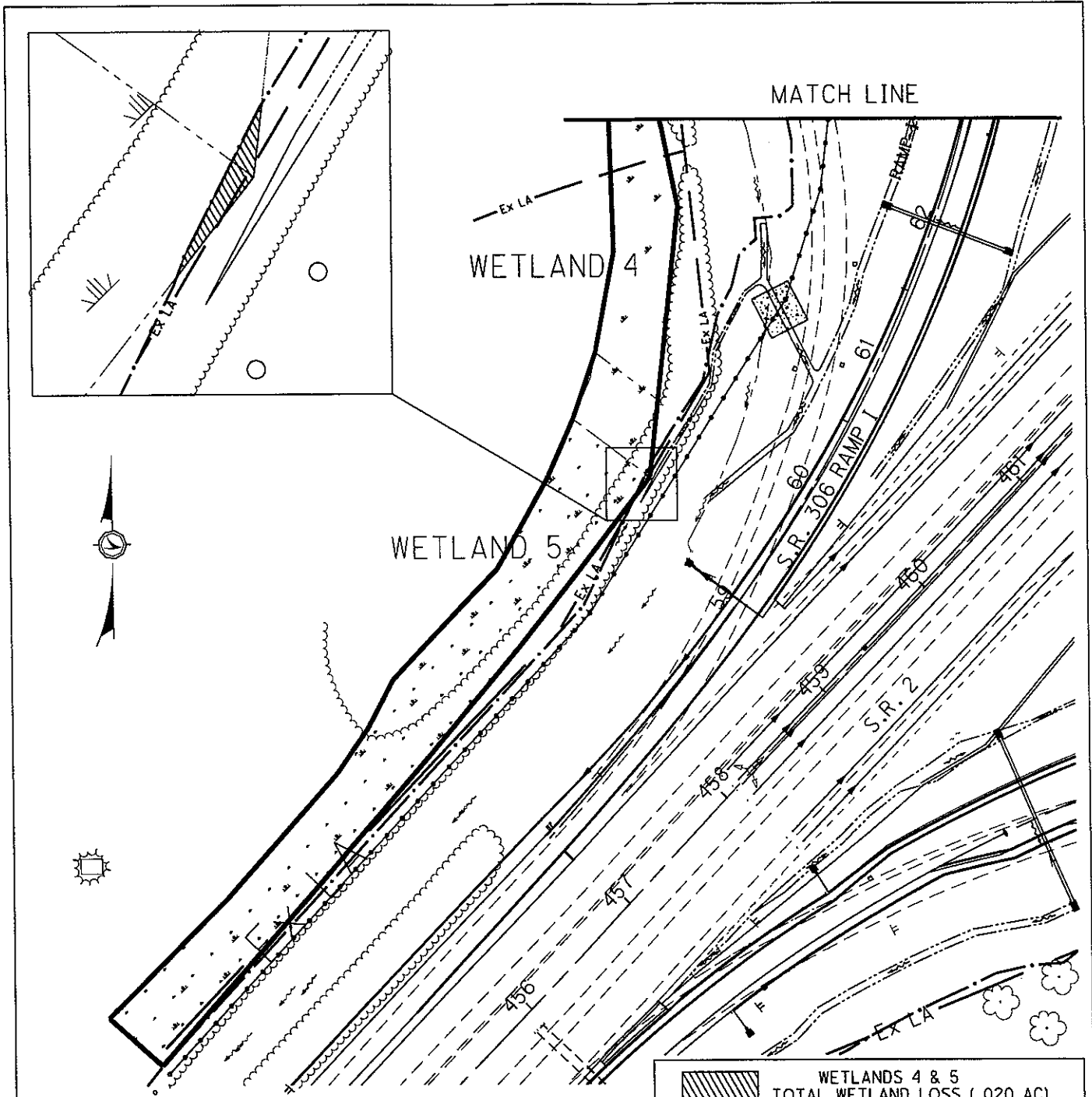
NOTE:

THE MAJORITY OF THE BRIDGE SPAN NO. 3 (EAST BANK) HAS AGGRADATED AND ALLOWS LITTLE OR NO FLOW TO BE CONVEYED. THEREFORE, THE CONTRACTOR WILL NOT NEED A TEMPORARY CONSTRUCTION STREAM CROSSING IN THIS AREA. LIKEWISE, THE BRIDGE SPAN NO 2 (CENTER BAY) WILL NOT BE IMPACTED WITH THE EXCEPTION OF THE PROPOSED SHEETING/ COFFERDAMS TO CONSTRUCT THE PROPOSED PIERS. LASTLY, THE RIVER'S FLOW WILL BE DIRECTED TOWARD THE CENTER SPAN NO. 2 AND A TEMPORARY STREAM CROSSING WILL BE CONSTRUCTED ONLY WITHIN SPAN NO. 1 WHEN CONSTRUCTING THE WEST ABUTMENT AND THE WEST PIERS. IN ANY CASE, NO TEMPORARY PIPES WILL BE NEEDED TO COMPLETE THE CONSTRUCTION.

PLAN SCALE 1"=80'




LAK-2-3.32 AND LAK-2-7.76 PID 13486 & 79545
 PROPOSED IMPACTS FOR STREAM NO. 16
 CHAGRIN RIVER
 STA 381+16



PLAN

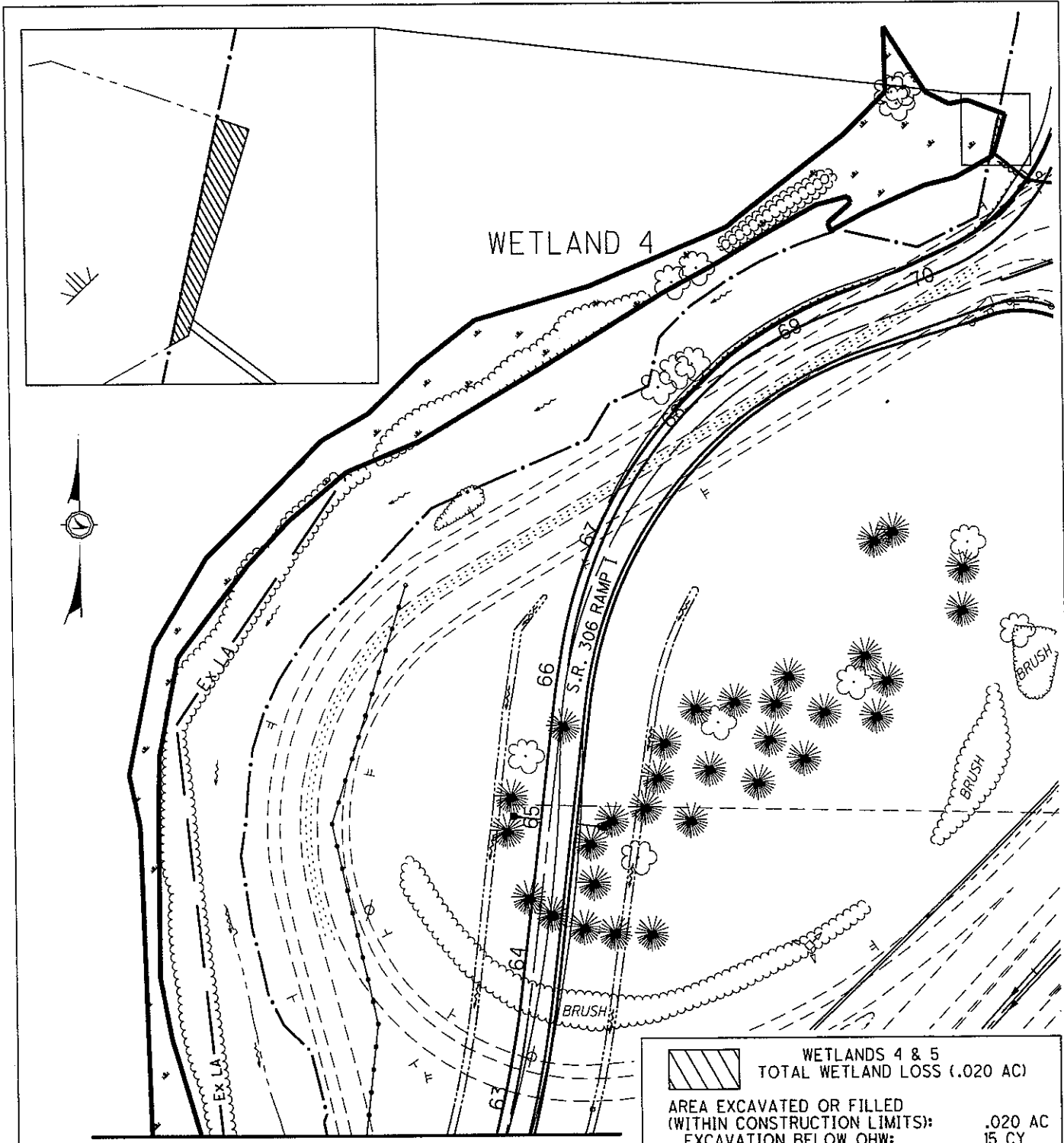
PLAN SCALE 1"=100'
 INSET PLAN SCALE 1"=20'

	WETLANDS 4 & 5 TOTAL WETLAND LOSS (.020 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	.020 AC
EXCAVATION BELOW OHW:	15 CY
FILL BELOW OHW:	0.0 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC




**IMPACTS TO WETLANDS
 W4 & W5**
 OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 2 IN LAKE COUNTY
 LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

SHEET 1 / 2



PLAN SCALE 1"=100'
 INSET PLAN SCALE 1"=20'

PLAN

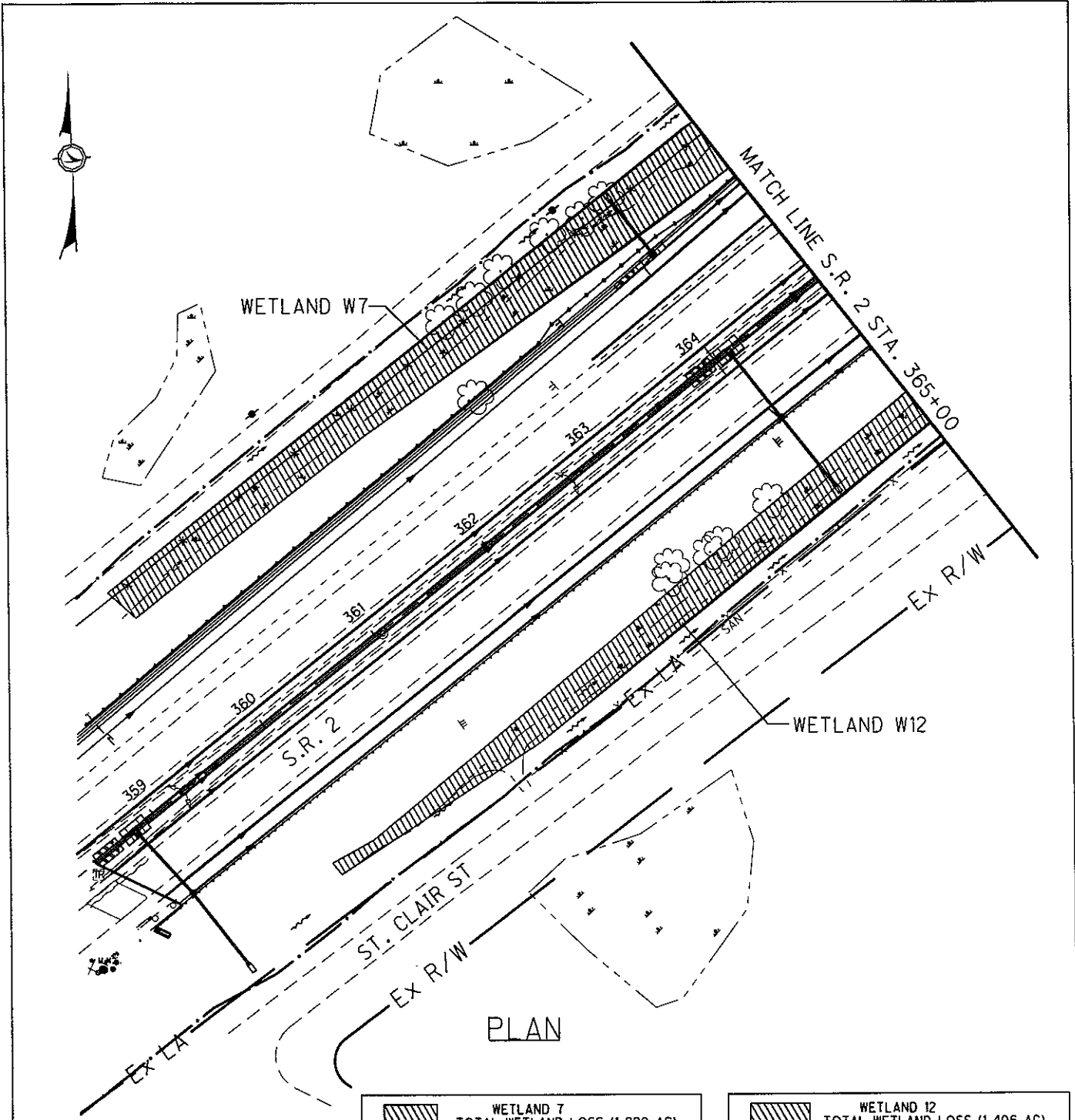
	WETLANDS 4 & 5 TOTAL WETLAND LOSS (.020 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	.020 AC
EXCAVATION BELOW OHW:	15 CY
FILL BELOW OHW:	0.0 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC




**IMPACTS TO WETLANDS
 W4 & W5**


OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 2 IN LAKE COUNTY
 LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

SHEET 2 / 2



PLAN SCALE 1"=100'

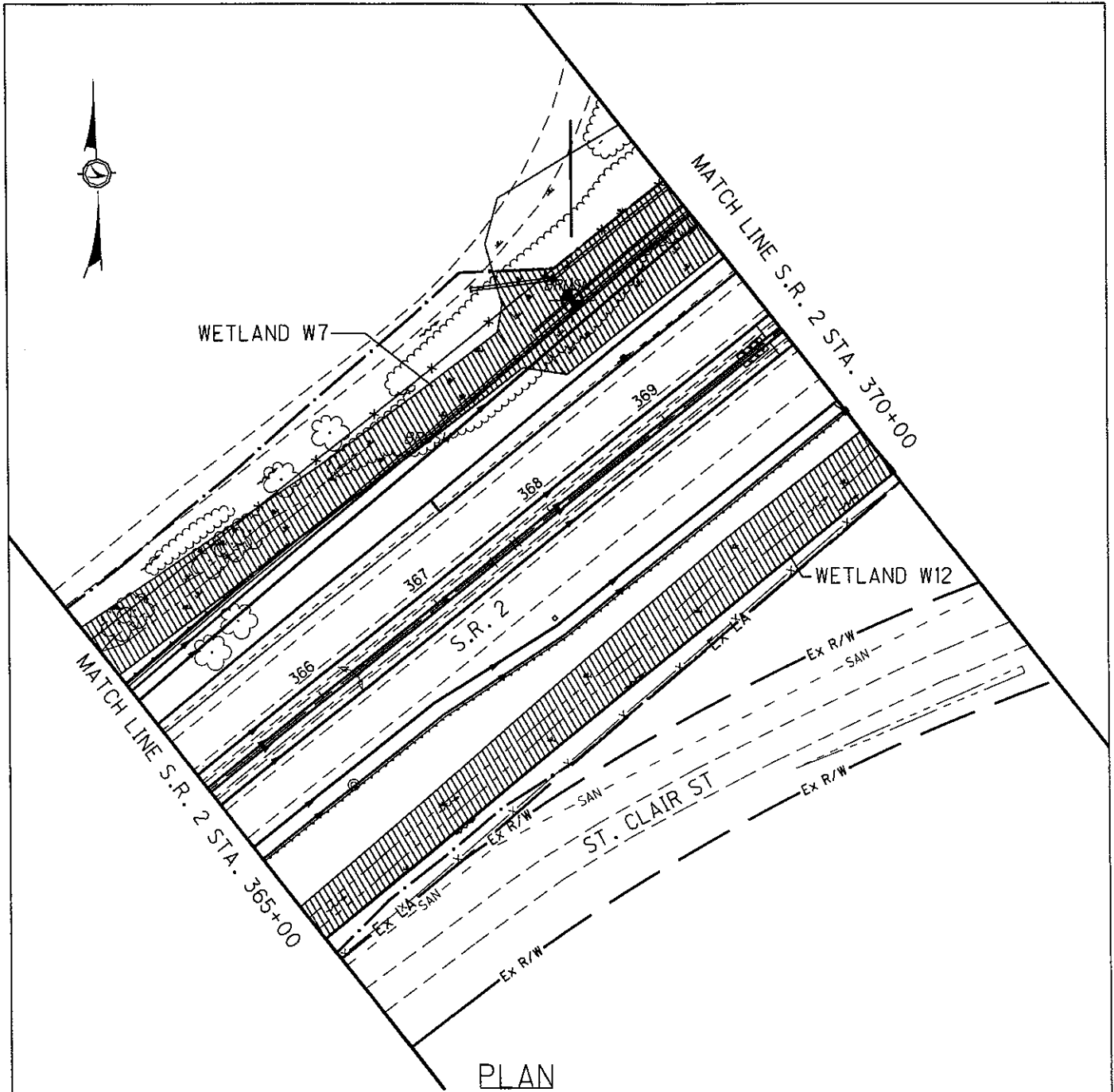
	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
EXCAVATION BELOW OHW:	400 CY
FILL BELOW OHW:	27023 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC



IMPACTS TO WETLANDS W7 & W12

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



	WETLAND 7	TOTAL WETLAND LOSS (1.920 AC)
	AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
	EXCAVATION BELOW OHW:	400 CY
	FILL BELOW OHW:	27023 CY
	INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

	WETLAND 12	TOTAL WETLAND LOSS (1.406 AC)
	AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
	EXCAVATION BELOW OHW:	1944 CY
	FILL BELOW OHW:	5222 CY
	INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

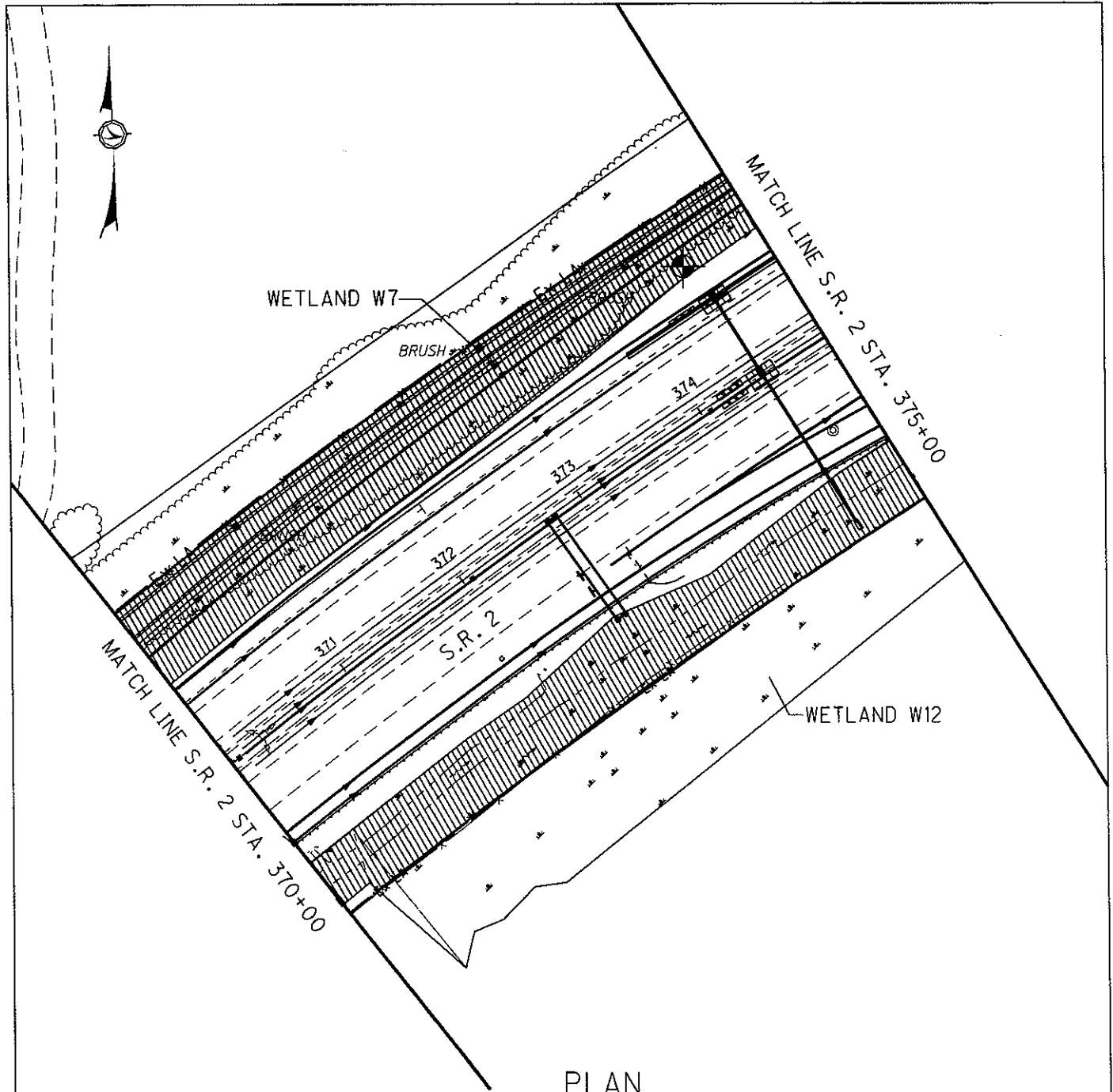
PLAN SCALE 1"=100'



IMPACTS TO WETLANDS W7 & W12


OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545


SHEET 2 / 4



PLAN

PLAN SCALE 1"=100'

	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
EXCAVATION BELOW OHW:	400 CY
FILL BELOW OHW:	27023 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

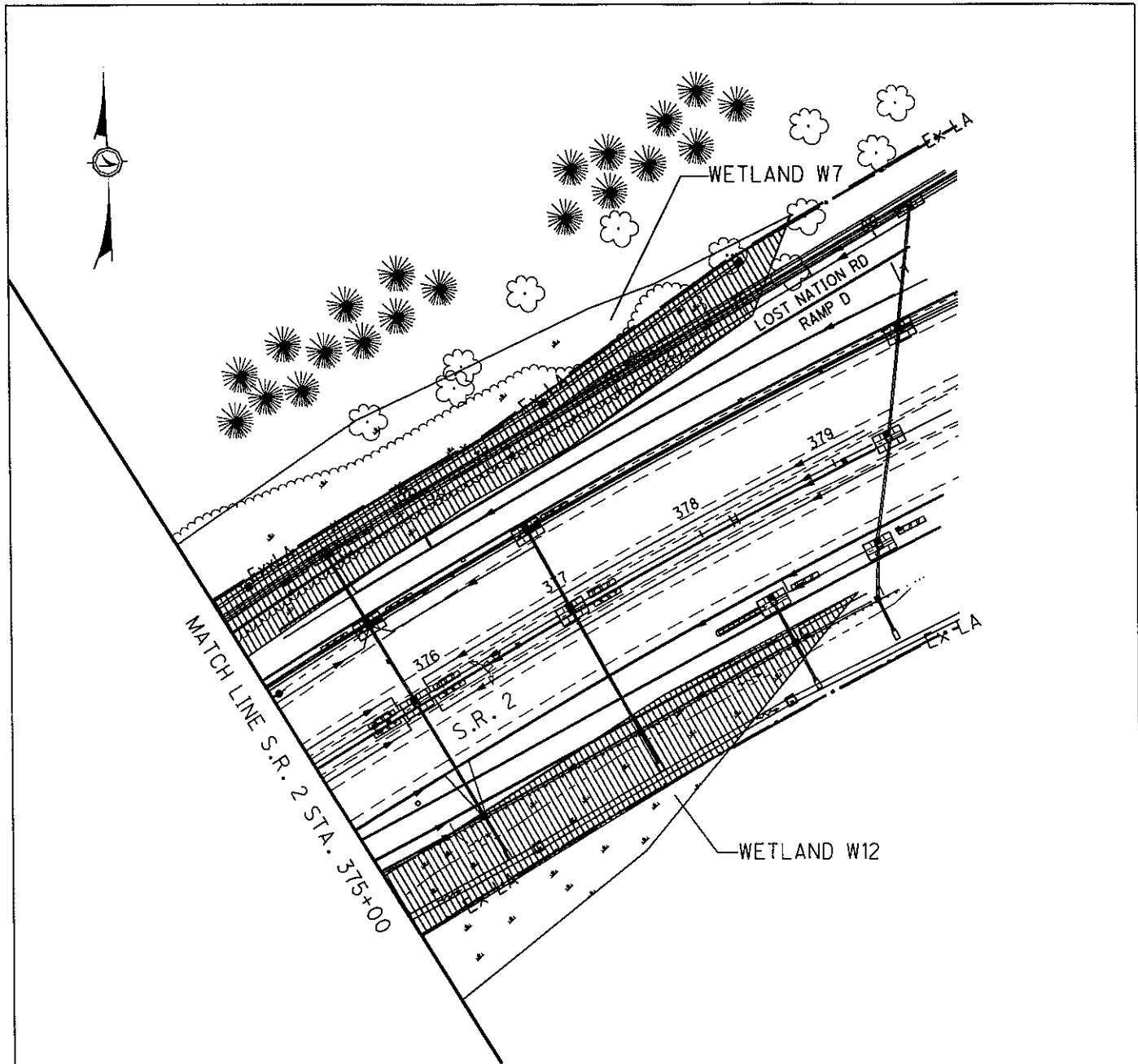
	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC



IMPACTS TO WETLANDS W7 & W12


OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545


SHEET 3 / 4



PLAN

PLAN SCALE 1"=100'

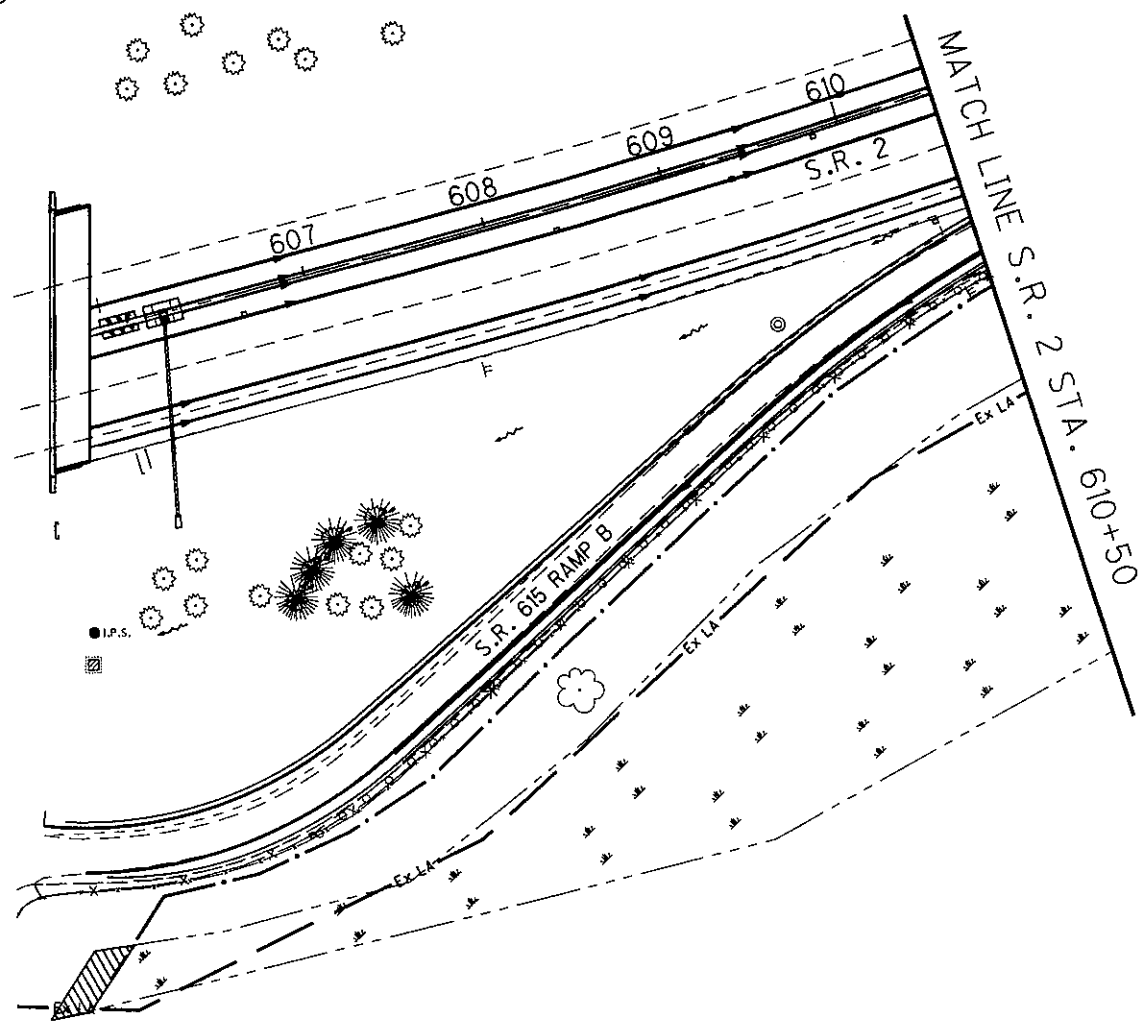
	WETLAND 7 TOTAL WETLAND LOSS (1.920 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.920 AC
EXCAVATION BELOW OHW:	400 CY
FILL BELOW OHW:	27023 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	1.406 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC




IMPACTS TO WETLANDS W7 & W12

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



PLAN

	WETLAND 11 TOTAL WETLAND LOSS (.010 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): .010 AC	
EXCAVATION BELOW OHW: 15 CY	
FILL BELOW OHW: 0 CY	
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC	

PLAN SCALE 1"=100'

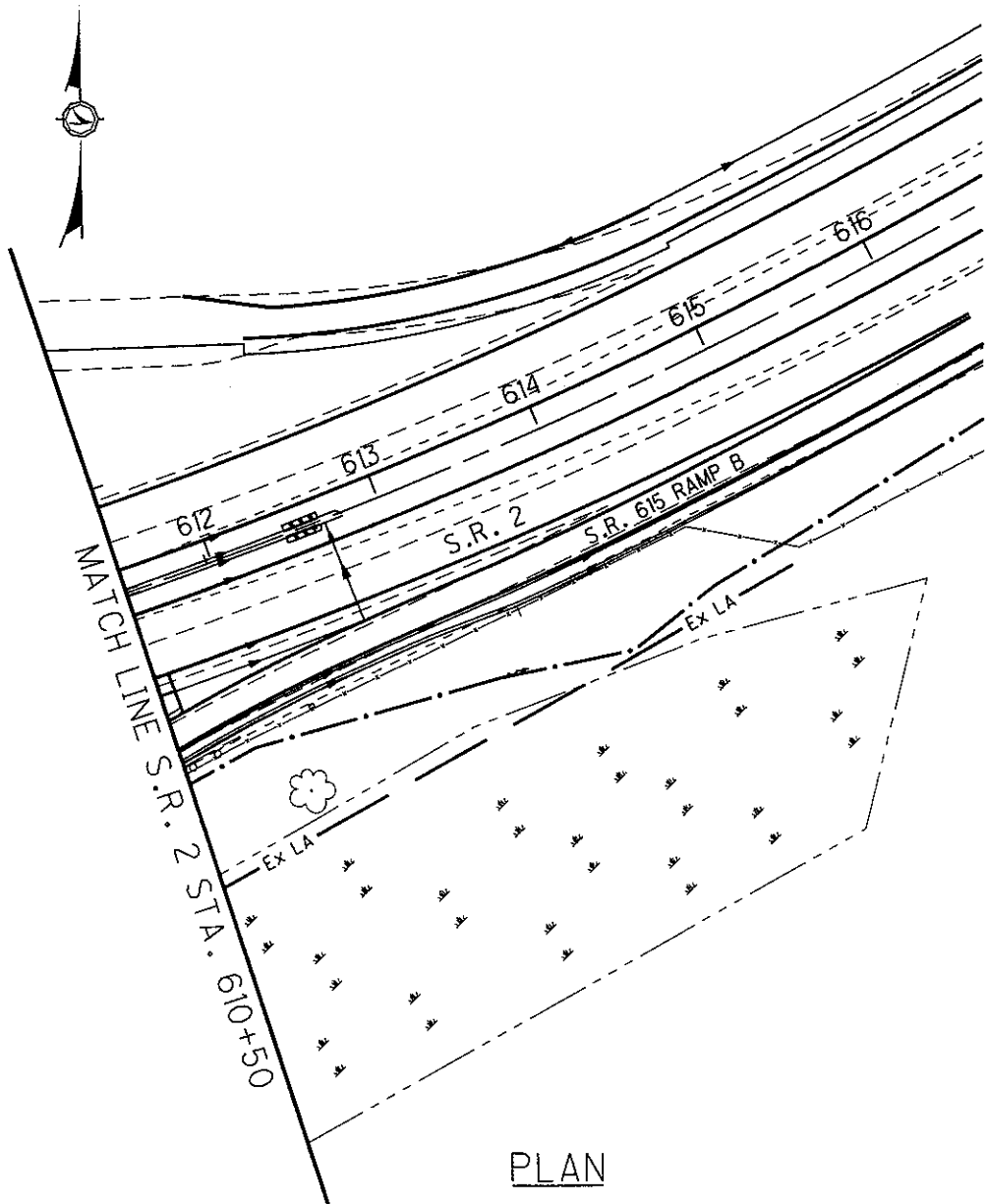


IMPACTS TO WETLANDS W11

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY


LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

SHEET 1 / 2



PLAN

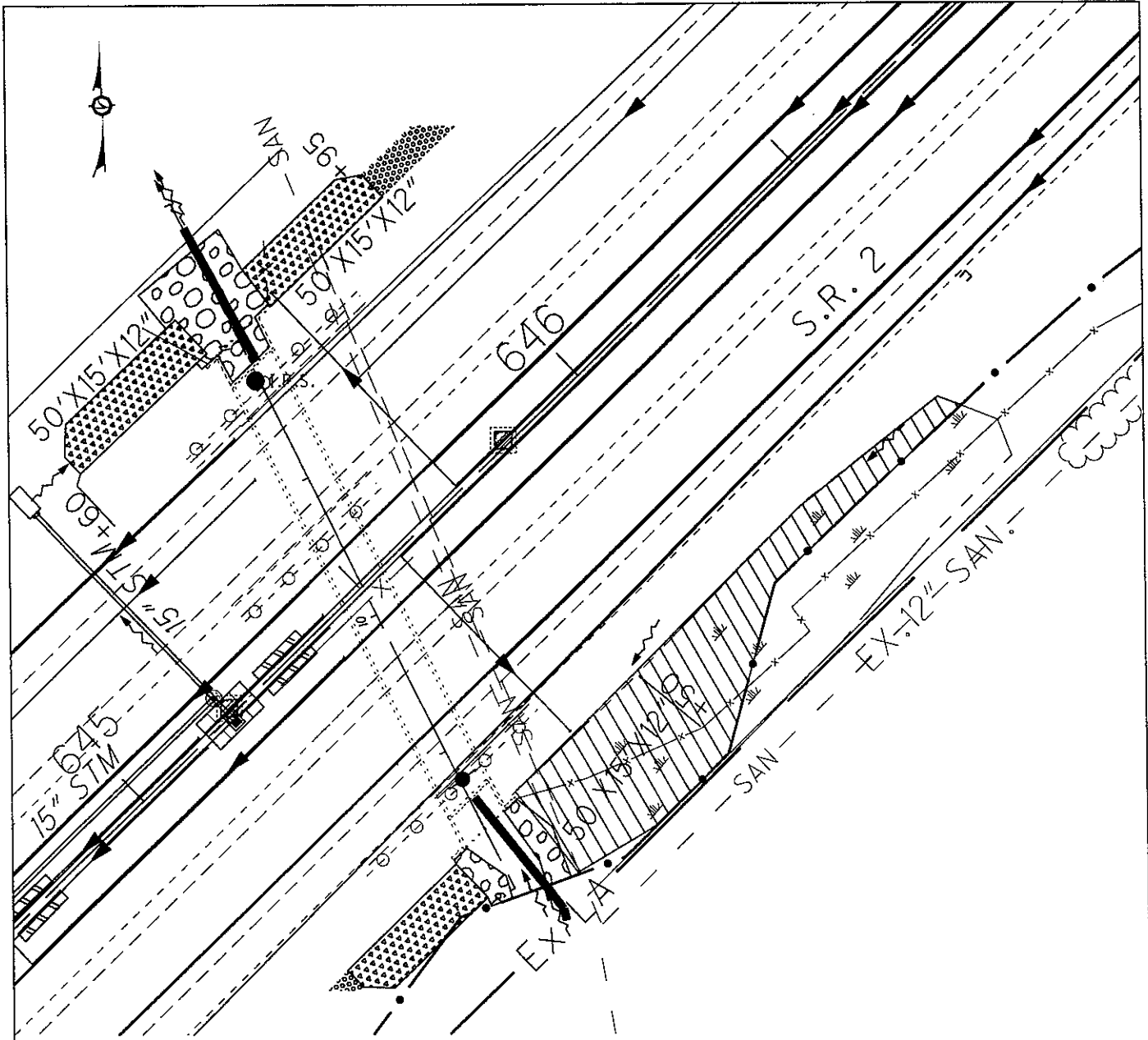
PLAN SCALE 1"=100'

	WETLAND 12 TOTAL WETLAND LOSS (1.406 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	.574 AC
EXCAVATION BELOW OHW:	1944 CY
FILL BELOW OHW:	5222 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC




IMPACTS TO WETLANDS W11

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



PLAN

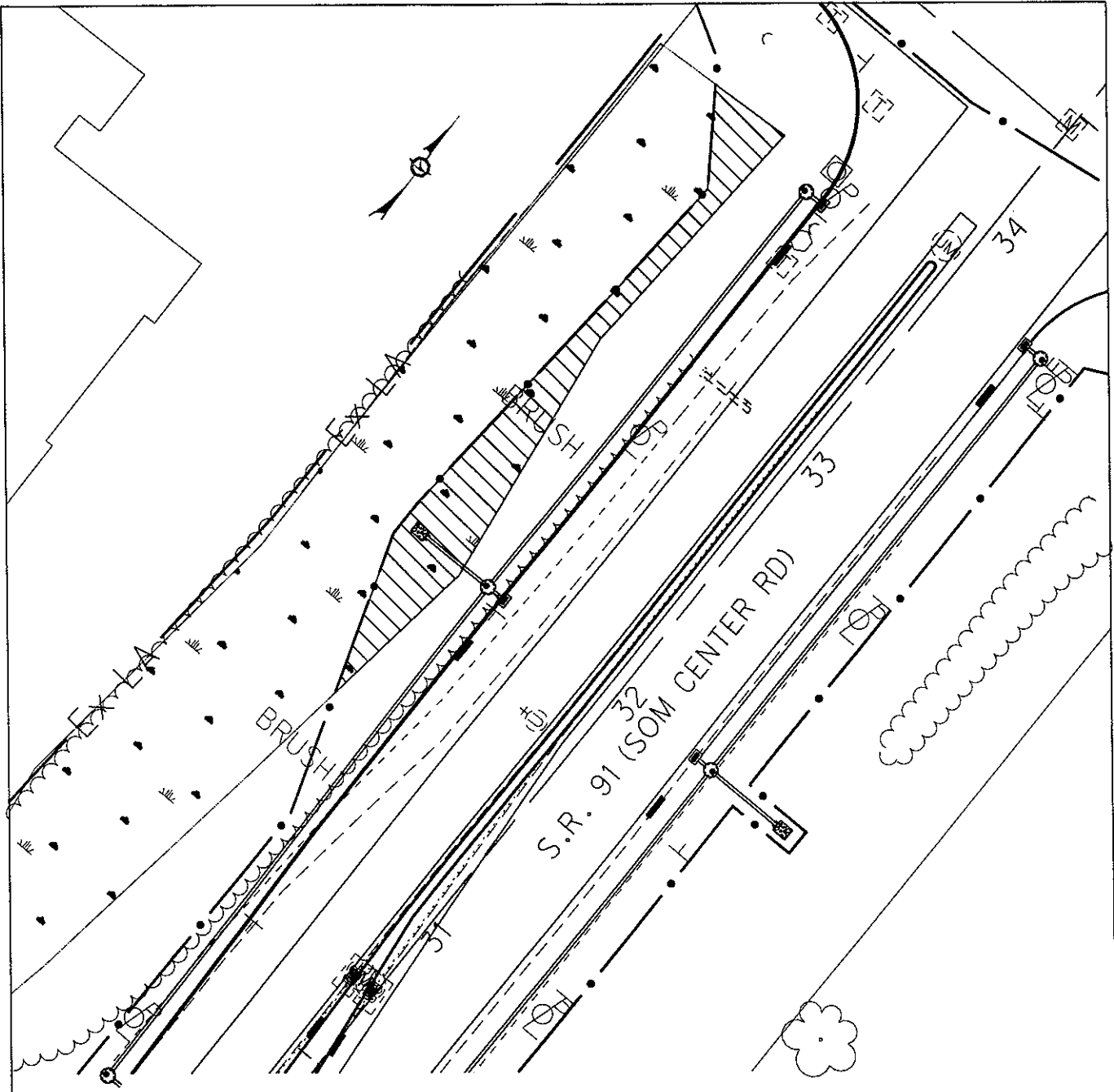
	WETLAND 21 TOTAL WETLAND LOSS (.120 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS): .120 AC	
EXCAVATION BELOW OHW: 208 CY	
FILL BELOW OHW: 0.0 CY	
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS): 0.0 AC	


PLAN SCALE 1"=50'



IMPACTS TO WETLANDS W21

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545



	WETLAND 30 TOTAL WETLAND LOSS (.050 AC)
AREA EXCAVATED OR FILLED (WITHIN CONSTRUCTION LIMITS):	.050 AC
EXCAVATION BELOW OHW:	50 CY
FILL BELOW OHW:	50 CY
INDIRECT WETLAND LOSS (OUTSIDE CONSTRUCTION LIMITS):	0.0 AC

PLAN

PLAN SCALE 1"=50'



IMPACTS TO WETLANDS W30

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 2 IN LAKE COUNTY
LAK-2-3.32 AND LAK-2-7.76 PID 13486 AND PID 79545

**Pre-Activity Notification Application for the General Isolated Wetland Permit Application
(Level One Review) for the LAK-2-3.32 (PID 13486) Project in Eastlake, Willoughby, and
Mentor, Lake County, Ohio**

By

Richard M. Paul, Ecologist/Environmental Specialist

Submitted By:

Andrew Campbell

Project Manager

ASC Group, Inc.

4620 Indianola Avenue

Columbus, Ohio 43214

614.268.2514

Submitted to:

Scott Graham, P.E.

ARCADIS U.S., Inc.

1100 Superior Avenue

Suite 1250

Cleveland, Ohio 44114

216.781 6177

Lead Agency: Ohio Department of Transportation

March 3, 2008

TABLE OF CONTENTS

General Isolated Wetland Permit Application (Level One Review)

Appendix A – General Maps And Design Drawings

Figure 1 – Portion of the ODOT Lake County highway map showing the project area.

Figure 2 – Portions of the 1963 (photo revised 1992) Eastlake and the 1963 (photo revised 1992) Mentor quadrangles (USGS 7.5' topographic map illustrating the project area and isolated wetland locations (2 Sheets).

Figure 3 – Plan view of wetlands.

Appendix B – ORAM V.5.0

Appendix C – Photographs

Appendix D – U.S.A.C.E Isolated Waters Determination

General Isolated Wetland Permit Application (Level One Review)



GENERAL ISOLATED WETLAND PERMIT APPLICATION (Level One Review)

State of Ohio Environmental Protection Agency

For impacts of 1/2 acre or less to Category 1 & 2 isolated wetlands

Please Print or Type (attach additional sheets if necessary)

	Applicant	Agent:
Company Name:	Ohio Department of Transportation	ODOT, Office of Environmental Services
Address:	1980 West Broad Street, 3rd Floor	1980 West Broad Street, 3rd Floor
City, State, Zip:	Columbus, Ohio 43223	Columbus, Ohio 43223
Contact Person:	James Beasley, Director, P.E., P.S.	Michael Pettegrew, Supervisor
Phone Number(s):	(614) 466-7102	(614) 466-7102
Fax Number:	(614) 728-7368	(614) 728-7368
E-Mail Address:	mike.pettegrew@dot.state.oh.us	mike.pettegrew@dot.state.oh.us

PROJECT INFORMATION

Project Name: Lak-2-3.32 Watershed (include USGS 8-Digit HUC): Chagrin R. 04110003
 Street: State Route 2 City/Township: Eastlake, Willoughby, and Mentor
 County: Lake Latitude: 41.41.11N; 41.41.04N Longitude: 81.20.31W; 81.20.51

Project Description:

The proposed improvement will consist of the construction of a fourth lane between SR 91 and Vine Street and a third lane between Heisley Road and SR 44. Full shoulders and a concrete median barrier will be provided. In addition, the proposed improvements will include the modification of seven freeway interchanges.

Project Type (Check all that apply):

- | | | |
|---|---|--|
| <input type="checkbox"/> Commercial | <input type="checkbox"/> Landfill | <input type="checkbox"/> Remediation |
| <input type="checkbox"/> Erosion Control | <input type="checkbox"/> Mining | <input type="checkbox"/> Residential |
| <input type="checkbox"/> Flood Control | <input type="checkbox"/> Mitigation Bank | <input checked="" type="checkbox"/> Transportation |
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Navigation/Boating | <input type="checkbox"/> Utility |
| <input type="checkbox"/> Lake/Pond Creation | <input type="checkbox"/> Public | <input type="checkbox"/> Other: _____ |

I have included the following in this submittal:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Maps showing project footprint/wetlands including USGS map | <input checked="" type="checkbox"/> Wetland categorization |
| <input type="checkbox"/> Wetland delineation | <input checked="" type="checkbox"/> Site photographs |
| <input checked="" type="checkbox"/> Corps isolated waters determination | <input type="checkbox"/> Mitigation proposal |
| | <input type="checkbox"/> Check for applicable fees |

Are there other aquatic resources on the project site (please check all that apply):

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Perennial Streams | <input checked="" type="checkbox"/> Intermittent Streams | <input type="checkbox"/> Ephemeral Streams |
| <input checked="" type="checkbox"/> Non-isolated wetlands | <input checked="" type="checkbox"/> Lakes/Ponds | |

List other water-related permits pending, issued, or required for this project (Nationwide permits, Coastal Zone Management, Mining, NPDES, etc.):

Department of Army, 404 Permit
 Ohio EPA, 401 Water Quality Certification

Individual Isolated Wetland Information Table*. Please list all isolated wetlands:

Wetland ID	ORAM Score	Category	Size (Acres)			Impacts (Acres)		
			Forest	Non-Forest	Total Acreage	Forest	Non-Forest	Total Impacts
W-3	22	1	0.47		0.47	0.01		0.01
W-13	17	1		0.71	0.71		0.01	0.01
					0.00			0.00
					0.00			0.00
					0.00			0.00
Totals			0.47	0.71	1.18	0.01	0.01	0.02
Totals - Category 1 Wetlands			0.47	0.71	1.18	0.01	0.01	0.02
Totals - Category 2 Wetlands					0.00			0.00
Totals - Category 3 Wetlands					0.00			0.00

*List more on separate sheets if needed.

List mitigation techniques utilized for the proposed filling:

Onsite (check)	Offsite (check)	Mitigation Acreage				Name of Bank (If Appl.)	Watershed (include USGS 8-Digit HUC)
		Restored	Created	Enhanced	Preserved		
	X		0.03			Trumbull Creek	04110004
Totals		0.00	0.03	0.00	0.00		

Fee Table:

a. Application Fee:	<u>\$0</u>	
b. Review Fee (\$500.00 X _____): (Acres of impacts to the nearest 1/100 of an acre)	_____	(Maximum \$5,000.00)
c. Subtotal (add lines a and b):	<u>\$0</u>	(Maximum \$5,200.00)
d. After the Fact Fee (equal to line c): (Only if impacts have occurred without authorization)	_____	(Maximum \$5,200.00)
e. Total Fee Amount (add lines c and d):	<u>\$0</u>	(Maximum \$10,400.00)

Please make fee check payable to: "Treasurer, State of Ohio"

I certify that the information provided on this form and as part of this submittal regarding the project is true and accurate to the best of my knowledge:

Applicant Name (Print): James G. Beasley Applicant Signature: James G. Beasley Date: 3/5/09

Send completed application, including fee check, to: Ohio EPA, Division of Surface Water
P.O. Box 1049, Columbus, Ohio 43216-1049
ATTN: Isolated Wetlands Permitting



State of Ohio Environmental Protection Agency

OHIO E.P.A.

AUG 12 2008 MAILING ADDRESS:

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

ENTERED DIRECT MAIL P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail

August 12, 2008

Mr. James G. Beasley, P.E., P.S., Director
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

I certify this to be a true and accurate copy of the
official documents as filed in the records of the Ohio
Environmental Protection Agency.

By: Tim Kasseker Date: 8-12-08

c/o Timothy M. Hill, Administrator, Office of Environmental Services

Re: Lake County
Grant of Section 401 Water Quality Certification
Project: (Minimal Degradation Alternative) to enhance safety and reduce
congestion, and add third lane on State Route (SR) 2 in Lake County, Ohio.
ACOE Public Notice No. 2006-2200-CHA
Ohio EPA ID No. 083387
ODOT ID Code:LAK-2-3.32, PID 13486

Ladies and Gentlemen:

The Director of Ohio Environmental Protection Agency hereby authorizes the above
referenced project under the following authority.

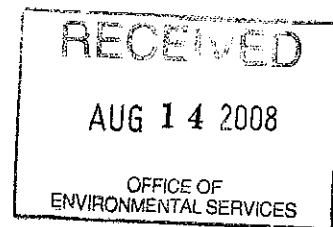
Section 401 Water Quality Certification

Pursuant to Section 401 of the Federal Water Pollution Control Act, Public Law 95-217,
the Director of Ohio Environmental Protection Agency hereby certifies that the above-
referenced project will comply with the applicable provisions of Sections 301, 302, 303,
306, and 307 of the Federal Water Pollution Control Act.

This authorization is specifically limited to a 401 water quality certification with respect
to water pollution and does not relieve the applicant of further certifications or Permits
as may be necessary under the law. I have determined that a lowering of water quality
in the Chagrin River Watershed (HUC 04100009) as authorized by this certification is
necessary. I have made this determination based upon the consideration of all public
comments, and including the technical, social, and economic considerations concerning
this application and its impact on waters of the state.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Ohio EPA is an Equal Opportunity Employer



I. On-Site Water Resources and Impacts

A. Jurisdictional Wetlands

TABLE - 1									
Wetland ID	Wetland Location		ORAM Score*	Cat	Wetland Type F ¹ , NF ² , PEM ³ , PSS ⁴ , PFO ⁵	Total Size (acres)	Total Size Impacted (acres)	Impact Type	% Avoided
	Lat	Long							
Wetland 4/5	41°39'48" N	81°22'52" W	36.0 29.0	Mod. 2 1	PEM	1.48	0.02	Fill	98.65
Wetland 7	41°39'15" N	81°24'28" W	27.0	1	PEM/ Scrub-Shrub	2.23	1.92	Fill	14.35
Wetland 11	41°41'10" N	81°20'16" W	22.0	1	PEM	2.40	0.01	Fill	99.58
Wetland 12	41°39'10" N	81°24'33" W	24	1	PEM	1.64	1.41	Fill	14.02
Wetland 21	41°41'34" N	81°19'37" W	6.0	1	PEM	0.20	0.12	Fill	40.0
Wetland 30	41°39'12" N	81°26'16" W	7.0	1	PEM	0.56	0.05	Fill	91.07
TOTAL						8.51	3.53		

* As provided by applicant, ⁴ Palustrine Scrub-Shrub
² Non-Forest, ³ Palustrine Emergent Marsh
¹ Forest, ⁵ Palustrine Forested

B. Jurisdictional Streams

*Stream ID	Stream Location USGS (Coordinate)		QHEI/HHEI Score	Use Designation	Impact Length (lf)	Impact Type
	Lat	Long				
Stream 1 (UT to Mentor Marsh)	41°43'13" N	81°17'23" W	56 HHEI	Class II, PHWH	70	Culvert replacement
Stream 2 (UT to Chagrin River)	41°38'38" N	81°25'34" W	64 HHEI	Class II, PHWH	40	Culvert
Stream 3 (UT to Stream 1 to Mentor Marsh)	41°43'03" N	81°17'53" W	45 HHEI	Class II, PHWH	907	Relocation
Stream 4 (UT to Wasson Ditch)	41°43'03" N	81°18'03" W	50 HHEI	Class II, PHWH	1,050	Relocation
Stream 5 (UT to Heisley Creek)	41°42'17" N	81°18'54" W	64 HHEI	Class III, PHWH	33	Culvert replacement
Stream 6 (Marsh Creek)	41°41'34" N	81°19'38" W	64.25 QHEI	WWH	65	Repair concrete slab
Stream 8 (UT to Stream 9)	41°41'34" N	81°19'38" W	14 HHEI	Class I, PHWH	70	Culvert replacement
Stream 9 (UT to UT to Chagrin River)	41°40'50" N	81°21'30" W	78 HHEI	Class III, PHWH	120	Repair concrete slab
Stream 10 (Newell Creek)	41°40'17" N	81°22'12" W	24 HHEI	Class I, PHWH	240	Bridge work
Stream 12 (UT to Chagrin River)	41°39'43" N	81°22'53" W	69 HHEI	Class III, PHWH	161	Culvert replacement
Stream 13 (UT to Chagrin River)	41°38'56" N	81°25'00" W	51 HHEI	Class II, PHWH	85	Culvert replacement
Stream 14 (Wasson Ditch)	41°43'03" N	81°18'03" W	56 HHEI	WWH, provisional	105	Culvert replacement
Stream 15 (Heisley Creek)	41°42'31" N	81°18'43" W	57.5 QHEI	WWH	320	Bridge work
Stream 16 (Chagrin River)	41°39'17" N	81°24'21" W	56 QHEI	WWH	281	Bridge work
TOTALS					3547	

* As provided by applicant

II. General Conditions

- A. All water resources and their buffers which are to be avoided shall be clearly indicated on site drawings and demarcated in the field with suitable materials, prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process. The water resources also shall be protected with suitable materials, including silt fencing if appropriate, prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process.
- B. Best Management Practices (BMPs) must be employed throughout the course of this project to avoid the creation of unnecessary turbidity which may degrade water quality or adversely affect aquatic life outside of the project area.
- C. Work shall only take place during low water conditions in order to minimize adverse impacts to water quality away from the project site.
- D. Temporary fill shall consist of suitable non-erodible material or shall be stabilized to prevent erosion.
- E. Materials used in this project for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as bank protection.
- F. BMPs shall be taken during construction to minimize erosion.
- G. BMPs shall be taken upon completion of this project, to ensure bank stability. This may include, but is not limited to, bank seeding.
- H. Procedures shall be developed and implemented to eliminate the possibility of spills and to control dust that may enter the waterway by runoff or point discharge.
- I. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project will be reported within 24 hours of occurrence to Ohio EPA for further evaluation.
- J. In temporary impact areas where trees have been removed to facilitate construction, they shall be replaced with appropriate native tree species.
- L. Permittee shall be in compliance with the NPDES General Construction Permit for all phases of this project.

- M. Other permits may be required by Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office at the following address:

Northeast District office
2110 East Aurora Road
Twinsburg, Ohio 44087

- N. Representatives from the Ohio EPA, Division of Surface Water will be allowed to inspect the authorized activity at any time deemed necessary to insure that it is being or has been accomplished in accordance with the terms and conditions of this water quality certification.
- O. In order to protect the Indiana bat from impacts from this development, the applicant shall not cut bat habitat trees between April 15th and September 15th.
- P. The bottom elevations shall be restored as nearly as possible to pre-project conditions.
- Q. Blasting will not be done within or near stream channels without prior consultation with the Ohio Department of Natural Resources, Division of Wildlife, to determine what protective measures should be taken to minimize damage to fish and other aquatic life.
- R. Cadmium chromium arsenate (CCA) and creosote treated lumber shall not be used in structures in contact with waters of the state.
- S. This project may affect the drinking water wells for the adjoining City/Village. Precautions must be taken to limit any affect on the water supply. Officials at the City/Village should be notified before beginning the project and activities shall be coordinated with them.
- T. If pesticide application(s) are proposed for the control of invasive plant species, a site specific application permit must be obtained by calling 614-644-2001 and speaking with the Toxicology Specialist.

III. MITIGATION

A. Description of Required Wetland Mitigation

The Permittee shall compensate for the 3.53 acres of impacts to jurisdictional wetlands by purchasing a minimum of 5.4 mitigation credits from the Trumbull Creek Wetlands Mitigation Bank, located on SR 166 along the Ashtabula-Geauga County line.

B. Timing of Required Wetland Mitigation

The Permittee shall provide Ohio EPA with an updated balance sheet showing it has purchased 5.4 mitigation credits from the Trumbull Creek Wetlands Mitigation Bank within six months from the date of issuance of this certificate.

C. Compensatory Stream Mitigation

The Permittee shall compensate for the estimated 3,547 linear feet of impacts to the designated streams in the project area by preserving 5,321 linear feet (3,547 lf X 1.5) of streams at Groves Woods, a Cleveland Museum of Natural History site in Trumbull, County, Ohio. The mitigation streams consists of Class II and Class III Primary Headwater Habitat (PHWH) streams.

B. Timing of Required Stream Mitigation

The Permittee shall obtain a minimum of 5,321 linear feet of streams that are protected with a conservation easement, in perpetuity. The Permittee shall further provide Ohio EPA with a copy of the conservation easement for the Groves Woods site within one year from the date of issuance of this certificate.

IV. Notifications To Ohio EPA

All notifications, correspondence, and reports regarding this certification shall reference the following information:

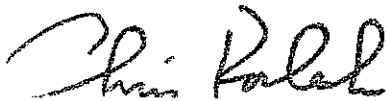
Permittee: Ohio Department of Transportation (ODOT)
Project: Enhancement of SR 2
LAK-2-3.32, PID 13486

Ohio EPA ID#: 083387

and shall be sent to: Ohio EPA, Division of Surface Water, 401 Unit
Lazarus Government Center
55 West Town Street, Suite 700
Columbus, Ohio 43216

You are hereby notified that this action of the Director is final and may be Appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address: Environmental Review Appeals Commission, 309 South Fourth Street, Room 222, Columbus, OH 43215

Sincerely,



Chris Korleski
Director

cc: Deborah L Wegmann, Team Leader, U.S. Army Corps of Engineers,
Huntington District, Ohio Regulatory Transportation Office
Wayne Gorski, U.S. EPA, Region 5,
William Cody, Asst. Administrator, OES/ODOT
Mike Pettegrew, Supervisor, Waterway Permits Unit, OES/ODOT
Don Rostofer, Supervisor, Ecological Unit, OES/ODOT
Karen L. Hallberg, USF&W (Reynoldsburg Office)
Brian Mitch, ODNR
Ed Wilk, NEDO/Ohio EPA
Joe Loucek, NEDO/Ohio EPA



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

THE DEPARTMENT USES THE BID EXPRESS WEBSITE, <http://www.bidx.com> AS AN OFFICIAL REPOSITORY FOR ELECTRONIC BID SUBMITTAL. BIDDERS MUST PREPARE THEIR BIDS ELECTRONICALLY USING EXPEDITE AND SUBMITTED VIA BID EXPRESS.

January 15, 2009

Re: Project 080597 **Addendum No. 20**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
150	302E46000	115117	CY	Asphalt Concrete Base, PG64-22
154	408E10000	168370	GAL	Prime Coat
650	840E23000	1460	CY	Select Granular Backfill
692	840E23000	1452	CY	Select Granular Backfill
1018	203E10000	399583	CY	Excavation
1019	203E20000	310494	CY	Embankment
1025	203E10000	392488	CY	Excavation
1026	203E20000	327642	CY	Embankment
1032	304E20000	69051	CY	Aggregate Base
1034	888E14060	392880	SY	Portland Cement Concrete Pavement, 11.5" Thick (Non-Reinforced Per 452)

Delete the following items:

Ref. No.	Item Number	Quantity	Unit	Description
489	203E35120	470	CY	Granular Material, Type C

Add the following items:

Ref. No.	Alt.	Item Number	Quantity	Unit	Description
1056		202E22900	134	SY	Approach Slab Removed
1057		202E22900	134	SY	Approach Slab Removed
1058	AA2	302E46000	1668	CY	Asphalt Concrete Base, PG64-22
1059	AA2	407E10000	1358	GAL	Tack Coat
1060	AA2	407E14000	679	GAL	Tack Coat for Intermediate Course
1061	AA2	408E10000	2401	GAL	Prime Coat

Add the following note:

In addition to the provisions of *SS888 Portland Cement Concrete Pavement Using QC/QA* and all *Item 452 Non-Reinforced Portland Cement Concrete Pavement*, the Contractor shall provide a concrete mix design that meets the following requirements:

Fine Aggregate

The Fineness Modulus must be 2.7 or greater.

Coarse Aggregate

The use ODOT No. 8 aggregates is not allowed in any concrete pavement mix design.

Well Graded Combined Aggregate Mix Design

The Contractor shall propose a combined aggregate gradation that provides a well-graded concrete mix for each proposed concrete mix to be used.

The Contractor shall submit, for review and acceptance, the proposed combined aggregate gradation with all supporting documentation that demonstrates a well-graded concrete mix design.

The Engineer will have 14 calendar days to review the submittal. If, in the opinion of the Engineer, there is not enough supporting documentation for the proposed mix design, the Engineer will request additional information and the 14 calendar day period begins when the additional information is received by the Engineer.

The review and acceptance of the proposed mix design does not negate the provisions of ODOT Specification Item 451.16.

The Contractor shall sample all aggregates for gradation testing prior to each day's paving and provide those results to the Engineer prior to beginning paving. No paving shall commence when the test results are not within the gradation limits established for the mix design.

One additional random sample shall be tested during each paving day to ensure conformity with the reviewed and accepted mix design. Additional testing and adjustments shall be conducted by the Contractor as needed to maintain the combined gradation within the reviewed and accepted mix design limits.

The provisions stated above do not eliminate or replace any of the provisions stated in SS888. These sampling and testing requirements shall be consistent with the QC/QA provisions.

Payment

These requirements are considered incidental to their respective bid items.

LINKED to this addendum is:

PAVEMENT-CALCS-REV20081120.XLS revised pavement calculations

ATTACHED to this addendum is:

DOC011309-003.pdf revised concrete alternative calculations

Answers to Prebid Questions:

Q: There are bid items for removal of approach slabs on all bridges except 0486 L/R Erie Rd bridges. Please provide bid items for the removal of the approach slabs in an addendum.

A: Quantities for the approach slab removal have been included in addendum #20.

Q: Revised earthwork quantities, shown on the files provided with addendum Q on the Department's FTP site <ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>, have once again omitted all excavation and embankment work for all side streets (AA1 & AA2). The quantities for side streets listed on Plan page 264/1679 are not shown in the revised earthwork summary (Addendum Q). The Department has added 44,720 CY of excavation for shoulders as answered in a pre-bid question (dated 12/16/2008). Our Detailed shoulder excavation takeoff cannot justify this magnitude of change in quantity. Please provide revised cross section and detailed summary sheets of how these quantities have been derived and include in an addendum.

A: The excavation and embankment quantities have been revised in addendum #20 to include the side streets.

Q: Bid item 489 is 203 Granular Material Type C (703.16C) 470 cy. Plan sheet 1565 / 1679 shows that 203 Granular Material Type C at the bottom of the MSE embankment. Bid item 494 is item 840 Foundation Preparation 1150 sy. Placement of Granular material 703.16C is incidental to item 840 Foundation Preparation. There appears to be duplication of the Granular Material Type C material. Should bid item 489 be deleted?

A: Bid item 489 has been deleted in addendum #20.

Q: Why is there a difference in surface area quantities being bid for the AA1 442 Asphalt Concrete Surface Course and the AA2 888 Non-reinforced Concrete Pavement? Item 442 - $16,370 \text{ CY} \times 36'' / 1.5'' = 392,880 \text{ SY}$ which does not = Item 888 – 386,215 SY. Please revise one quantity or the other in an addendum.

A: The 888 item and the concrete pavement calcs have been revised in addendum #20.

Q: The revised plan quantity calculation sheet for the Vine Street Ramps labeled as <ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/LAK-13486-AddendumQ-PavementQuantitiesRevised.xls> still include quantities that are grossly overstated. Please check the cell formulas for cells Q52, Q53, Q54, Q55, and all Totals listed in row 72 (duplications due to subtotals being included in the column summation) then revise the appropriate quantities in an addendum.

A: The spreadsheet and quantities have been revised in addendum #20.

Q: Again we will ask how is the pavement widening on side roads SR 306 and SR 91 to be handled if the concrete alternate is accepted? The oversight exists in that the Department has not provided any quantity for Item 302 in widening slots if concrete alternate AA2 is accepted.

A: The asphalt quantities have been added to AA2 in addendum #20.

Q: For Bridge No. LAK-2-0400 (SR 2 Over Vine St.) the abutment cross-section shown on plan page 1348 clearly defines the area for Item 840 – Select Granular Backfill and the area for Granular Material, Type C. Please verify that the 3,398 cy of Select Granular Backfill only includes the quantity specified as Item 840 and does not include the quantity for Granular Material, Type C.

Our takeoff quantity for Item 840 – Select Granular Backfill yielded a quantity approximately 400 cy less than the plan quantity of 3,398 cy. Also, our quantity for the Granular Material, Type C was approximately 400 cy. It was our presumption that the Granular Material, Type C quantity was included in the quantity for Item 840 – Select Granular Backfill. Please verify.

A: The Type C Granular Material was inadvertently included with the Select Granular Backfill. Therefore, the Total Select Granular Backfill quantity for both bridges should be adjusted to 3000 SY and the Type C Granular Material should be included with the Foundation Preparation for payment per supplemental Specification 840. The quantities have been adjusted in addendum #20.

Q: Maintaining traffic- plan sheet 133 of original maintenance of traffic design (for informational purposes only) stated that "Entrance Ramp (Ramp E, the westbound on-ramp at Lost Nation) To Be Closed During Phase B Per MT 101.60". Note that the ramp is not being reconstructed during this closure in this phase. Addendum 10 gives the contractor 45 days closure for this ramp with disincentives of \$5,000 per day beyond 45 days. It appears that the reasoning for this ramp closure could have been due to a combination of lack of: acceleration length, curvature, and/or safe distances from the Lost Nation overhead bridge and Chagrin River bridge. The ramp itself is set for reconstruction during the outside WB phase (original stage 2, phase C). If the ramp is to be closed for both phases, then the number of days closed will easily go beyond 45 days. Does this ramp need to be shut down while westbound traffic is on the existing outside shoulder? If so, will ODOT revise the

length of closure to extend beyond 45 days?

Also, to confirm addendum 10, under stage 1 work to be completed notes, ramps A,E,B,F can be closed for 45 days. Stage 2 work to be completed notes also state that ramps A,E,B,F can be closed 45 days. The disincentive table shows 45 days closure with disincentives after 45 days. Please confirm whether or not the contractor will be allowed two closures of up to 45 days at these respective ramps.

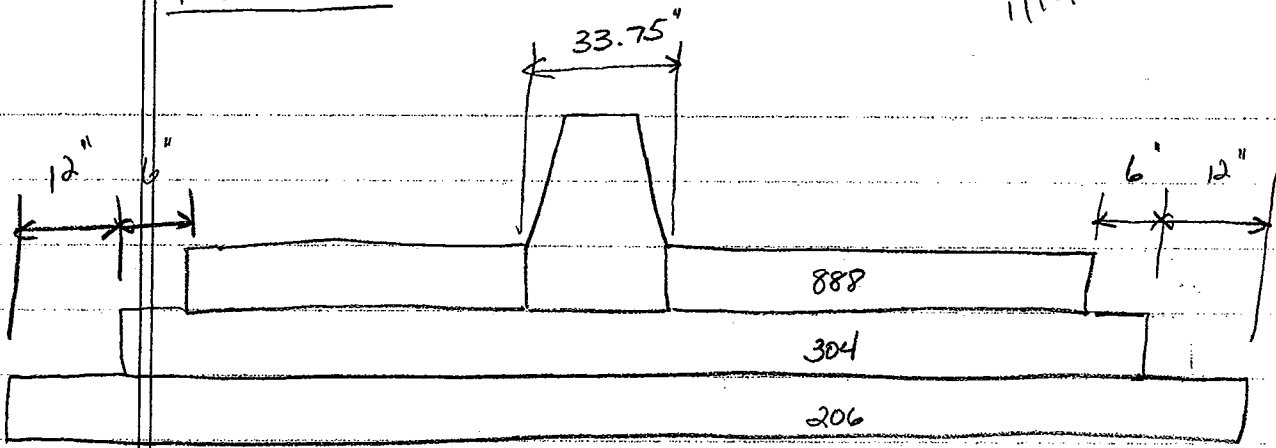
- A: As stated in Addendum 10, Ramps A, E, B and F can be closed for 45 days each during Stage 1, when the Lost Nation Rd bridge will be reconstructed and the approach pavement will be replaced. Also, as stated in Addendum 10, Ramps A, B and F can be closed for 45 days each during Stage 2, when the SR-2 pavement will be replaced. During Stage 2, the 45 day closure restriction for Ramp E shall be waived due to the lack of acceleration length that would be required when the SR-2 WB traffic is placed on the outside shoulder to construct the median pavement.
- Q: Does item # 404 - "11in Reinforced Concrete Pavement" - 6563 sy (set up in MOT plans page 53 of 1679) get removed or does it stay in place upon completion of the project? If it gets removed how is the pavement removal paid for?
- A: If the successful bidder elects to utilize crossovers in their MOT plans, the reinforced concrete may be used in areas of unsuitable soil. The pavement would require removal. Any removal should be accounted for in the Lump Sum MOT quantity.
- Q: Please clarify how the quantities were determined for Ref. 47 and 48. What is this material, and where is it located?
- A: There is a general note on sheet 46B/1679 which explains the quantities for reference numbers 47 and 48. The special provisions asbestos inspection report for parcel 9, dated 3/24/08 describes the materials found and where they are located.
- Q: The lump sum Asbestos Abatement item (Ref. 49) has notes on plan sheet 46/1679 that are confusing. Several of the structures listed there are not even within the scope of this project. For the structures that are in this project, why are the Square Foot and Linear Foot quantities shown not part of Ref. 47 and 48?
- A: Ref item 49 refers to the asbestos removal from the bridges which will be paid as a lump sum. The Item Special - Asbestos Abatement note has been revised in a previous addendum.
- Q: In the Special Provision "Ohio EPA Notification of Demolition Renovation", the reports seem to correspond to the items listed for the lump sum Ref. 49. However, the reports that quantify asbestos containing materials show the materials as being "Non Friable Asbestos Material NOT to be Removed, Category I". Do these materials need to be removed as part of this project?
- A: The Item Special - Asbestos Abatement note has been revised in a previous addendum.
- Q: Also in the asbestos Special Provision, several structure are reported as having asbestos, but no material or quantity is mentioned.
- A: The Item Special - Asbestos Abatement note has been revised in a previous addendum.
- Q: For the Building Demolition, the plan notes on Sheet 46A state that asbestos abatement will be performed by the contractor. Where is this work to be paid for? Are there asbestos reports indicating what needs to be removed?
- A: The asbestos removal for the building to be demolished at 36628 Vine St. will be paid under ref items 47 and 48. A detailed report indicating what needs to be removed can be found in Special Provisions - Asbestos Inspection Report for Parcel 9, dated 3/24/08.

- Q: Addendum 9, which came out on November 20, 2008, called for removal or non-removal of asbestos on structures that are not being worked on within the job (LAK-2-4.56, LAK-2-9.55, LAK-2-11.41, LAK-2-11.69, LAK-2-12.62, LAK-44-6.20, LAK-2-13.54, LAK-2-14.28, LAK-2-14.76, LAK-2-15.17). Please verify that no work is to be done on these structures since they are not within limits of the project.
- A: LAK-2-4.56 is included in this project, but not the others.

mainline

revised
1/13/09

1/3



From consultant's spreadsheet

WB \Rightarrow $L = 23,000'$ $w = \text{varies}$ area of concrete = $1,571,287$
 EB \Rightarrow $L = 23,012'$ $w = \text{varies}$ area of concrete = $1,508,215$ SF
 total = $\frac{3,079,502}{3,019,502}$ SF
 $\frac{342,167}{335,500}$ SY

for item 304 \Rightarrow add 6" step and 33.75" under barrier

WB = $(23000')(1.90625') = 43843.75$ SF

EB = $(23012')(1.90625') = 43866.625$ SF

total = 87710.375 SF

= 9745.6 SY

$\frac{342,167}{335,500} + 9746 = \frac{351,913}{345,246}$ SY

$(\frac{351,913}{345,246})(\frac{6''}{36}) = \frac{58652}{57541}$ CY

Item 304 = $\frac{58652}{57541}$ CY

for item 206 \Rightarrow add 12" step

WB = $(23000')(1') = 23000$ SF

EB = $(23012')(1') = 23012$ SF

total = $46,012$ SF

= 5112 SY

$\frac{351,913}{345,246} + 5112 =$

$\frac{357,025}{350,358}$ SY

Item 206 = $\frac{357,025}{350,358}$ SY

ramps

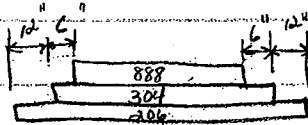
from consultant's spreadsheet:

Vine st ramps 11,459 sy

Lost Native ramps 18,642 sy

SR-91 + SR-306 ramps 20,614 sy

total = 50,715 sy



item 888 = 50,715 sy

item 304 \Rightarrow add 6" step

Vine st ramps:

107,906 SF L = 2304'

add 6" step = 2304 SF

SR-91:

39,109 SF L = 4190'

add 6" step = 4190 SF

Lost Native:

167,782 SF L = 4282'

add 6" step = 4282 SF

item 304 = 9249 cy

SR-306:

157,919 SF L = 15,939'

add 6" step = 15,939 SF

Vine \Rightarrow 110210 SF = 12246 sy

Lost Native \Rightarrow 172064 SF = 19118 sy

SR-306 \Rightarrow 173858 SF = 19318 sy

SR-91 \Rightarrow 43299 SF = 4811 sy

ramps (cm⁺)

Item 206 \Rightarrow add 12" step

Vine \Rightarrow add 4608 SF

Lost Natives \Rightarrow add 8564 SF

SR-306 \Rightarrow add 31878 SF

SR-91 \Rightarrow add 8380 SF

Item 206 = 61,430 SY

totals

Item 888 = 386,215 SY

Item 304 = 66,790 cy

Item 206 = 411,788 SY



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

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January 15, 2009

Re: Project 080597 **Addendum No. 21**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 21, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
167	609E26000	10125	FT	Curb, Type 6
168	609E54000	311	SY	6" Concrete Traffic Island
1008	448E47020	531	CY	Asphalt Concrete, Surface Course, Type 1, PG64-22
1048	448E46050	669	CY	Asphalt Concrete, Intermediate Course, Type 2, PG64-22
492	840E20001	4593	SF	Mechanically Stabilized Earth Wall, As Per Plan
936	606E10920	11040	SF	Special – Noise Barrier. Misc.: Structure Mounted TL-4 Noise Barrier
1026	203E20000	318742	CY	Embankment

Add the following items:

Section	Item Number	Quantity	Unit	Description
1062	511E34434	25.33	CY	Class S Concrete, Bridge Deck
1063	621E00100	1763	EAC H	RPM

Revise the following note on sheet 47:

Item 614 – Law Enforcement Officer (With Patrol Car) For Assistance During Construction

Delete the 5th paragraph which states: Routing patrolling through the work zone (with flashing lights off) as specified in the plans.

Revise the note on sheet 967:

VI. Method of Measurement

Delete the sentence which states: Where a noise barrier is constructed behind a concrete parapet, the bottom of the wall shall be defined as the top of the parapet for measurement purposes.

LINKED to this addendum are revised plan sheets 14, 35, 630, 632.

In-stream work restrictions table in .pdf format is attached to this addendum.

Answers to Prebid Questions:

Q: According to addendum #10, ODOT will only pay up to the plan quantities for the established MOT bid items. Under the LEO bid item, we are supposed to include “Routine patrolling through the work zone (with flashing lights off) as specified in the plans”. This is an “as directed” item that cannot be quantified prior to the bid. This project could be under construction for 1000 days. Just to patrol 10 hours a day would add 10,000 LEO hr to our bid, which, using average unit prices, would increase the Maintaining Traffic, LS cost by almost \$500,000. This project is located in three different

municipalities, who with their police departments, county sheriff forces, and state highway patrols routinely patrol these roads as is. Please remove this note from the LEO bid item so that all contractors can provide equivalent bids.

A: I have deleted that requirement in addendum #21.

Q: Addendum 18 provided plan sheets of the existing SR 91 bridges over Lakeland Blvd. and SR 2. Reference 7, Traffic Island Removed, has quantity to be removed on top of both structures. For the Lakeland Bridge, the replacement called for per plan sheet 35, detail AE is a curbed widening with full depth stone and asphalt pavement totalling 19" deep. The existing deck thickness is 8.25". On structure over SR 2, plan sections call for pavement removal and replacement to a similar depth (19") without new curb, and an existing deck thickness of 8.5". In both cases, the depth of reconstruction goes below the existing bridge decks. Please revisit what should be done with removal and replacement when these islands are on existing bridge decks in an addendum.

A: Details and quantities have been provided in addendum #21.

Q: Addendum No. 18 provided existing structure information for SR91 Bridge over Lakeland Blvd. and SR91 Bridge over SR-2. Please provide details and scope as to how ODOT wants the pavement and islands removed and the new proposed pavement section constructed. There will be significant structure work to these two bridges in order to remove the islands and pavement including bridge deck and reinforcing removals. Details on pg 35 AE, AG and H cannot be utilized. The proposed pavement thickness exceeds the existing deck thickness. This work should be considered structure work and not normal roadway and pavement work. Please review these existing structures and new proposed work and advise via Addenda with details.

A: Details and quantities have been provided in addendum #21.

Q: Sheet 956 calls out the noisewall on top of the moment slab as fiberglass, however the noisewall plans do not include any fiberglass noisewall. It appears that this portion of Wall B is included for payment with the rest of the ground mounted wall. Please clarify as to material type and where it is to be paid.

A: The noise wall material is transparent, not fiberglass and it is paid for as ref # 930.

Q: Reference No. 175 for the moment slab should be itemized by the linear foot or cubic yard and provide a breakdown of the rebar since this is a structural element similar to MSE wall sleeper slabs.

A: Ref #175 is inclusive of all required items. Bid as per plan.

Q: Ref. 7- removal of existing medians on SR 91 bridge over Lakeland and SR 2 will leave exposed bridge deck. There will be old vertical bars that tie the median to the deck. There will be an existing deck with dozens of old vertical bar holes and a surface that will be uncertain due to how well the raised median bonded to the deck surface. There are no bid items set up for repair of the holes as well as treatment of the existing deck surface prior to any restoration work being done. Also, given that this removal is over a bridge deck, are there any restrictions on what equipment and/or methods can or cannot be used? Please address this in an addendum.

A: Details and quantities have been provided in addendum #21.

Q: The noisewall Method of Measurement on sheet 967 states that the top of parapet shall be defined as the bottom of barrier when the wall is constructed behind a barrier. It appears that ODOT Reference No. 930 is for 3,928 sf of wall attached to the moment slab in Wall B. The plan quantity accounts for the entire wall panel as shown on sheet 1010-1011 per the note on sheet 968. Please verify that no deduct will be made for any wall below the top of barrier.

A: The entire SF of noise wall will be paid for; there will be no deduct for noisewall below the top of barrier. The language in the plans has been revised in addendum #21.

- Q: We can not find the exact start and end stations for the moment slab (Reference No. 175). Please provide or tell us what plan sheet to look on.
- A: Slab Limits = Sta. 352+22.53 to Sta. 356+10.47 = 387.94'
- Q: Typical details for sleeper slabs and parapets provide a construction joint between the two elements at the bottom of the parapet. Please clarify if such a joint will be allowed on the moment slab shown on sheet 977 of the plans. This would be extremely difficult to construct without said joint.
- A: A joint will be allowed.
- Q: Please provide Noise Barrier Moment Slab detail for the Concrete Pavement Alternate indicating how ODOT proposes to adjoin the new 11 ½ " concrete pavement to this concrete moment slab. Current details shown on page 956 and 977 are based on asphalt paving only.
- A: For the concrete pavement alternative, asphalt will be placed over the moment slab as it is detailed for the asphalt pavement alternative. The asphalt item added is Item 448 - Asphalt Concrete Surface Course, Type 1, PG64-22.

The slab has a minimum amount of asphalt at the toe of the barrier = 3" (0.25')

The slab has a maximum amount of asphalt at 8.42' from the face of the barrier = 0.25' + (8.42')(0.04 slope) = 0.59'

$$\text{Cross Section Area} = \frac{1}{2}(0.25' + 0.59')(8.42') = 3.54 \text{ sf}$$

$$\text{Volume of Asphalt} = (3.54 \text{ sf})(387.94') = 1373.31 \text{ cf} = 50.76 \text{ CY of asphalt}$$

In addition to the quantity added to ref #1008, I also added 5.4 CY that was inadvertently missed from a previous addendum concerning Stevens Blvd.

EXCLUSIONARY DATES FOR IN-STREAM CONSTRUCTION ACTIVITIES (ODNR Division of Wildlife Statewide In-Water Work Restrictions 8/12/05)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Stream Types	1	15	1	15	1	15	1	15	1	15	1	15
No Date Restrictions: Class I and Class II PHWH streams (watershed <1 mi ²), MWH, and LRW without T&E species. ***When project impacts meet ecological MOA/404 NWP's no date restrictions are required for Class III PHWH streams or WWH streams <20 mi ² drainage area.												
Other Streams: EWH, CWH, WWH >20 mi ² drainage area, or streams with T&E species. Includes Lake Erie & bays. ***If impacts require a Level 1 or Level 2 ESR/ Individual 404/401 permit (does not meet Ecological MOA), exclusionary dates for in-stream construction activities also apply to all Class III PHWH streams (watershed <1 mi ²) and all WWH streams regardless of drainage area. Special conditions (such as occurrence of T&E species) may mandate local variation of restrictions.												
Percid Streams: Cuyahoga River (to dam below the S.R. 82 bridge east of Brecksville (Chippewa Rd.)), Great Miami River (to dam south of New Baltimore), Hocking River (lower section), Little Miami River (lower section), Maumee River (to split dam at Mary Jane Thurston State Park and Providence Park in Grand Rapids), Maumee Bay, Muskingum River (to Devola Dam No. 2 off S.R. 60 north of Marietta), Ohio River (entire reach), Portage River (entire reach), Sandusky River (to Ballville Dam off River Road in Fremont), Sandusky Bay, Scioto River (lower section), Toussaint River (entire reach).												
Salmonid Streams: Arcola Creek (entire reach), Ashtabula River (to Hadlock Rd.), Ashtabula Harbor, Chagrin River (to I-90), Cold Creek (entire reach), Conneaut Creek (entire reach), Conneaut Harbor, Cowles Creek (entire reach), Euclid Creek (entire reach), Grand River (to dam at Harpersfield Covered Bridge Park just upstream of the S.R. 534 bridge)/Fairport Harbor, Indian Creek (entire reach), Rocky River (to dam off Park Dr. just south of the I-90 bridge south of Rock River), Turkey Creek (entire reach), Vermillion River (to dam at Wakeman upstream of the S.R. 20/60 bridge), Wheeler Creek (entire reach), Whitman Creek (entire reach).												
National or State Wild or Scenic River: Typical In-Stream work exclusionary dates requested by ODNR Division of Natural Areas and Preserves on scenic rivers												

ODNR will continue to provide project specific recommendations in our comments and, as in the past, project specific waivers or modifications of the period may be requested from ODNR by contacting DOW at 614.265.6631.

In-Stream Construction Activities Allowed



In-Stream Construction Activities Not Allowed





Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

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January 22, 2009

Re: Project 080597 **Addendum No. 22**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 28, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
150	302E46000	119093	CY	Asphalt Concrete Base, PG64-22
151	304E20000	74197	CY	Aggregate Base
152	407E10000	40278	Gal	Tack Coat
153	407E14000	20139	Gal	Tack Coat for Intermediate Course
154	408E10000	167490	Gal	Prime Coat
155	442E10001	16217	CY	Asphalt Concrete Surface Course, 12.5 MM, Type A (446), As Per Plan
156	442E10100	18910	CY	Asphalt Concrete Intermediate Course, 19 MM, Type A (446)
166	609E14000	9407	FT	Curb, Type 2A
167	609E26000	8073	FT	Curb, Type 6
172	622E10100	20348	FT	Concrete Barrier, Single Slope, Type B
173	622E10160	7713	FT	Concrete Barrier, Single Slope, Type D
346	632E64010	31	Each	Signal Support Foundation
359	632E80500	6	Each	Signal Support, Type TC-81.20, Design 11
936	606E10920	5520	SF	Special – Noise Barrier. Misc.: Structure Mounted TL-4 Noise Barrier
1014	622E25050	30	Each	Concrete Barrier End Anchor, Reinforced, Type D
1020	206E10500	12254	Ton	Cement
1021	206E11000	412597	SY	Curing Coat
1022	206E15000	412597	SY	Cement Stabilized Subgrade 12” Deep
1023	206E20000	206	Hour	Test Rolling
1027	206E10500	12265	Ton	Cement
1028	206E11000	412970	SY	Curing Coat
1029	206E15000	412970	SY	Cement Stabilized Subgrade 12” Deep
1030	206E20000	206	Hour	Test Rolling
1032	304E20000	72918	CY	Aggregate Base
1034	888E14060	389208	SY	Portland Cement Concrete Pavement, 11.5” Thick (Non-Reinforced Per 452)
246	621E00100	AA1	1763	Each RPM

Revise Sheet 1546:

The AS1001 bars in the Rear and Forward Approach Slab Reinforcing Schedules should be revised to read:

Bar Length=31’-0”

Bar Type=25

Dimension A=29’-7”

Weight=7870 LBS.

Rear Total Weight=12988 LBS.

Forward Total Weight=13060 LBS.

Answers to Prebid Questions:

- Q: Ref.892 approach slab for 0530EN reinforcing listed on sheet 1546 shows mark AS1001 as being a straight bar. The standard drawing indicates a 180 degree hook @ the abutment end of the bar. Can you please verify that you want this bar straight with no hook?
- A: AS1001 bar type has been revised in addendum #22.
- Q: Please compare the number of signal supports to be installed per Plan Sheets 1167, 1170, 1173, 1177, 1180, 1183, 1186, 1189, 1194 and 1197 and compare it to the information contained on the signal support charts per Plan Sheets 1169, 1172, 1175, 1179, 1182, 1185, 1188, 1191, 1196 and 1199 there are numerous discrepancies where neither match the plan summary or the bid line items. Please clarify.
- Reference Number 346 has a total quantity of 32 each signal support foundations, however if you add the quantities contained in Reference Numbers 354 thru 372 there are a total of only 30 different types of signal supports. Please clarify.
- A: The quantities have been revised in addendum #22.
- Q: There appears to be conflicts with Reference No. 173, Concrete Barrier Single Slope Type D. Summary sheets 250, 251, Ref B-2 and B-3 plan pages 284 and 285 approximate Stations 352+00 to 356+00 show this barrier in the same location as the Noise Barrier Moment Slab. Moment slab details, page 977 indicate this barrier wall to be inclusive to the moment slab item with reinforcement. Please advise if this barrier should be included with the Noise Barrier Moment Slab line item or Single Slope Type D Barrier line item.
- A: The barrier has been subtracted in addendum #22.
- Q: Also, page 286 and 287, Code B-4, Station 373+80 to 380+23 LT shows Single Slope Type D. Cross sections appear to show this as a Type B Barrier. Please review and advise as to which barrier type should be constructed.
- A: Sheet 287/252 – Item B-4 bubble doesn't show up on the plan sheet. It shows up as Type B Barrier APP in the subsummary like it should, but the number should be 946. (Already picked up with previous addendum)
Sheet 288/252 – Item B-2 is quantified as Type B APP as it should be, but the end station is wrong. It should end at station 392+75, for a total of 25' on that sheet. (Already picked up with previous addendum)
- Q: Regarding Ref. 166 Curb, Type 2A. There appears to be curb that is counted twice. Sheet 247 refers to 5717 LF of curb quantified in the "office calcs." This quantity appears to be the same area as depicted on sheet 259. Please verify the actual quantity for Curb, Type 2A.
- A: The quantity for curb, type 2A has been revised in addendum #22. Also see the most current quantity spreadsheets.
- Q: The question on the Type 6 Curb quantities asked on January 14 and answered on January 15th. It appears that the proposal quantity still reflects the 2052 LF from 358+77 to 379+29 RT on Lost Nation Ramp D. Please revise the quantity in the proposal.
- A: The quantity has been revised in addendum #22.
- Q: There is extensive roadway work required under the CSX structure that is located in Stage 3, however, there has been no Railroad Protective insurance bid item set up on this project. Is CSX going to

require this policy? If so, a bid item needs to be added along with the information needed for contractors to receive a premium quote for this policy.

A: No railroad construction agreement is necessary.



Ohio Department of Transportation

1980 West Broad Street, Columbus, OHIO 43223

THE DEPARTMENT USES THE BID EXPRESS WEBSITE, <http://www.bidx.com> AS AN OFFICIAL REPOSITORY FOR ELECTRONIC BID SUBMITTAL. BIDDERS MUST PREPARE THEIR BIDS ELECTRONICALLY USING EXPEDITE AND SUBMITTED VIA BID EXPRESS.

January 23, 2009

Re: Project 080597 **Addendum No. 23**
PID No. 13486
LAK-2-3.32
Major Widening
Letting: January 28, 2009

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

The quantity sheets that show revised items will no longer be attached to the addenda. All Reference Item revisions are reflected in the EBS files (Expedite) for this project.

For internet access to information referenced in this addendum, please see the ODOT web-site at:

<ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-13486/>

ADDENDA AND/OR AMENDMENTS MUST BE ACKNOWLEDGED IN THE MISCELLANEOUS SECTION OF THE EXPEDITE (EBS) FILE IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. BID EXPRESS WILL NOT ACCEPT BIDS THAT DO NOT HAVE AMENDMENTS INCORPORATED. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR EXPEDITE (EBS) SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.

Respectfully,

A handwritten signature in black ink, appearing to read "James G. Beasley".

James G. Beasley
Director
Department of Transportation

TP:jwt

**Proposal Addendum
For
LAK-2-3.32; PID 13486
Project 080597**

Revise the following Items:

Ref. No.	Item Number	Quantity	Unit	Description
41	608E4900	22	Each	Curb Ramp
425	614E13000	225	CY	Asphalt Concrete for Maintaining Traffic
448	616E10000	3155	MGA L	Water

Delete the following items:

Ref. No.	Item Number	Quantity	Unit	Description
401	410E12000	480	CY	Traffic Compacted Surface, Type A

Added Items:

Ref. No.	Item Number	Quantity	Unit	Description
1064	608E52000	75	SF	Curb Ramp
1065	613E41300	66	CY	Low Strength Mortar Backfill, Type 2

Delete the following note:

Sheet 48/1679 and Sheet 56B/1679 Item 614, Maintaining Traffic (Estimated Quantities).

Revise the following notes:

Sheet 53/1679 and Sheet 56G/1679 Unsuitable Soils at Crossover Locations should read:

Unsuitable soils may be encountered at crossover locations. The following quantities are provided for use by the contractor, if crossovers are utilized.

395	204E13000	1530	CY	Excavation of Subgrade
396	204E30010	1530	CY	Granular Material, Type B
399	304E20000	815	CY	Aggregate Base
404	451E15500	6563	SY	11" Reinforced Concrete Pavement

Sheet 52/1679 and Sheet 56F/1679 Drainage Items During Construction:

Delete the wording "as directed by the engineer".

Sheets 17B and 17C have been revised and linked to this addendum in order to include changes to the concrete median barrier details.