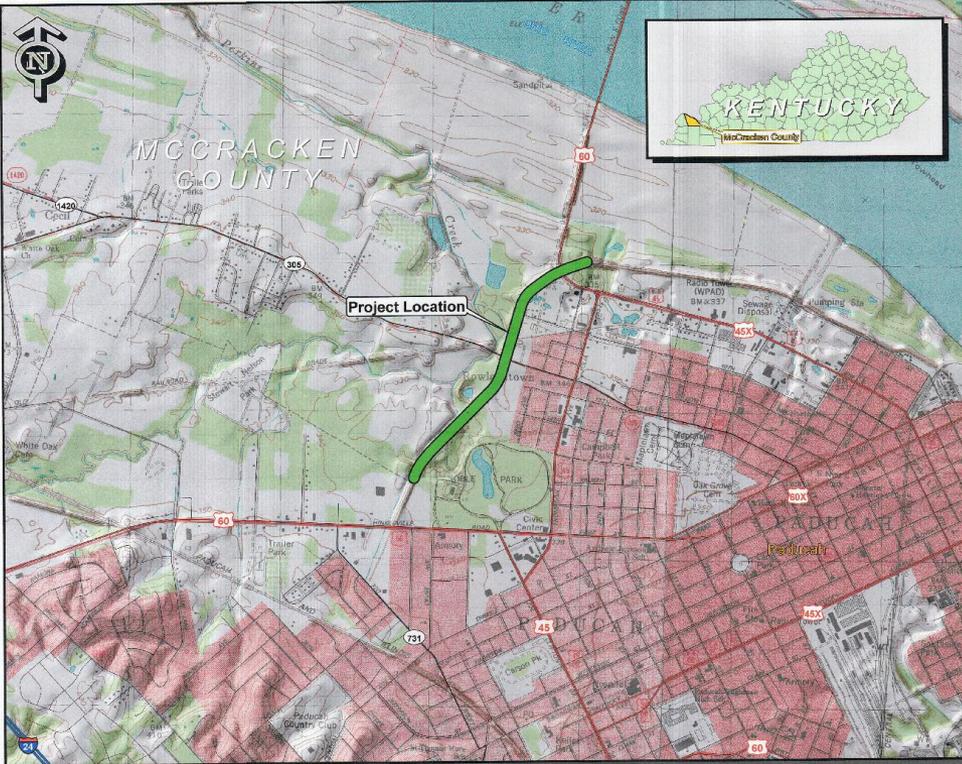


**Paducah City Commission
Workshop
February 19, 2013**

**Greenway Trail Phase II
Crossing at North 8th Street (a.k.a. US 45X)
Intersecting the City's Levee**

Greenway Trail Phase II Project History:

- February 2008 – MO #1365 Authorized the Grant Application
- October 2008 – KYTC Awarded a FHWA \$500,000 Transportation Enhancement Grant to the City of Paducah
- January 2010 Ordinance #2010-1-7648 Authorized the Execution of the \$500,000 Grant Agreement with KYTC with a \$200,000 Approved Local Match



GREENWAY TRAIL PHASE II

For The

CITY OF PADUCAH

KYTC ITEM NO. P02-628-0800021821
 FEDERAL PROJECT NO. STPE 3000 (751)
 20.205 (CFDA)



PADUCAH CITY OFFICIALS:

Gayle Kaler

Richard Abraham
 Carol Gault
 Sandra Wilson
 Allan Rhodes

Jeff Pederson

Rick Murphy, P.E.

Mark Thompson

Mayor

City Commissioner
 City Commissioner
 City Commissioner
 City Commissioner

City Manager

City Engineer & Public Works Director

Paducah Parks Services Director

100% FOR PERMITS REVIEW

RECEIVED
 NOV 13 2012
 ENGINEERING
 DEPARTMENT

 **Florence & Hutcheson**
 An ICA Company



BRIDGE CLOSED
TO VEHICLES
OVER 13-0
WEIGHT LIMIT
BY STATE

13-0

PTL
PUSHKILL TRUCK LINES INC.









Design Standards & Applicable Regulations

More often than not, the source of funding will determine the extent of the “Applicable Regulations”.

- ▶ FHWA: Federal Highway Administration regulations
- ▶ Americans with Disabilities Act (ADA) of 1990
- ▶ USACE: United States Army Corps of Engineers regulations
- ▶ AASHTO: American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, current edition.
- ▶ MUTCD: Manual on Uniform Traffic Control Devices, current edition.
- ▶ Commonwealth of Kentucky Transportation Cabinet Design Manual

Design Alternatives:

- ▶ Alternative A: Pedestrian Overpass
 - ▶ Alternative B: At Grade Crossing
 - ▶ Alternative C: Pedestrian Underpass
 - ▶ Alternative D: No Build
- 

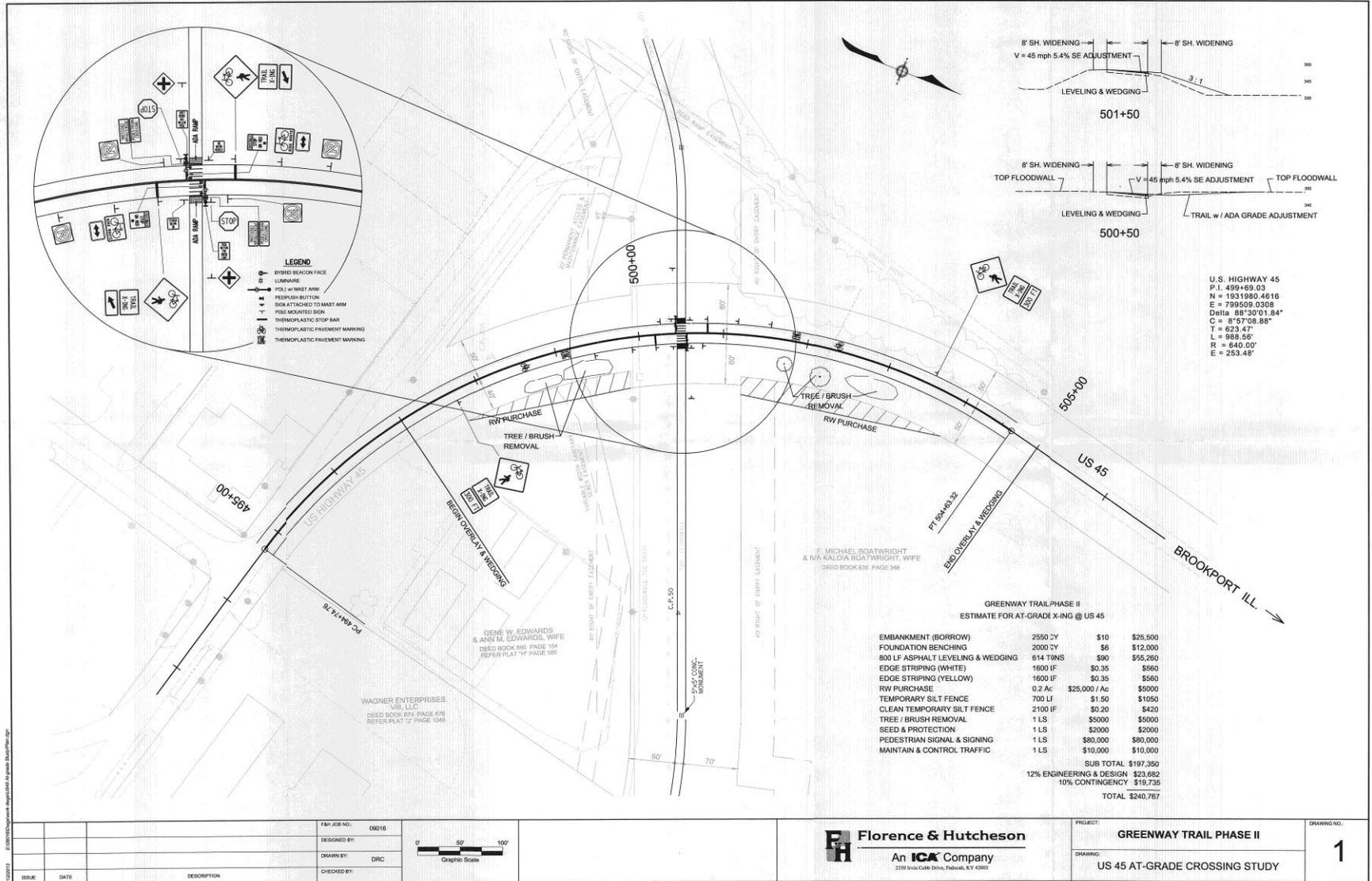


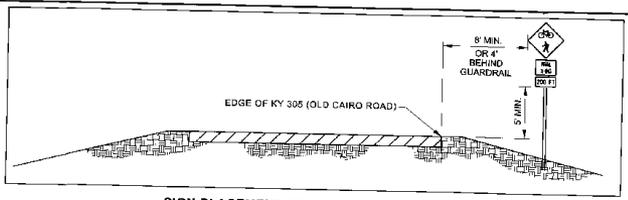
**Alternate A: Pedestrian Overpass Structure
\$700,000 (estimate)**

Alternate B: At Grade Crossing

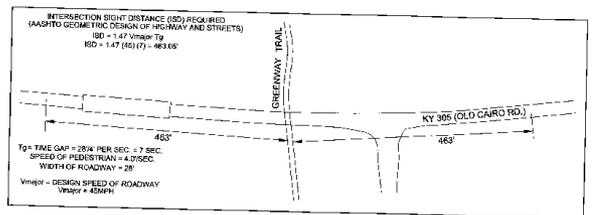
- ▶ Reduce existing cross slope (banking) of road from 10% to ADA acceptable percentage (5%).
- ▶ Changing cross slope impacts 800 linear feet of existing pavement, shoulder, and fill slope.
- ▶ Modification of this nature may require US45 to be upgraded to current highway standards.
- ▶ Right-of-way acquisition would be needed.
- ▶ AASHTO requires minimum site distance.
- ▶ Given restricted site distance based on current geometry, a pedestrian signal would be required for this location.
- ▶ KY Transportation Cabinet, Department of Highways, Office of Highway District 1 has provided the City an adamant verbal response that a pedestrian signal would NOT be permitted.
- ▶ Average Daily Traffic (ADT) is 4359 vehicles (2011 traffic count).

Alternate B: US45 At Grade Crossing, \$239,000 (estimate)

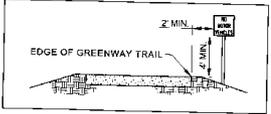
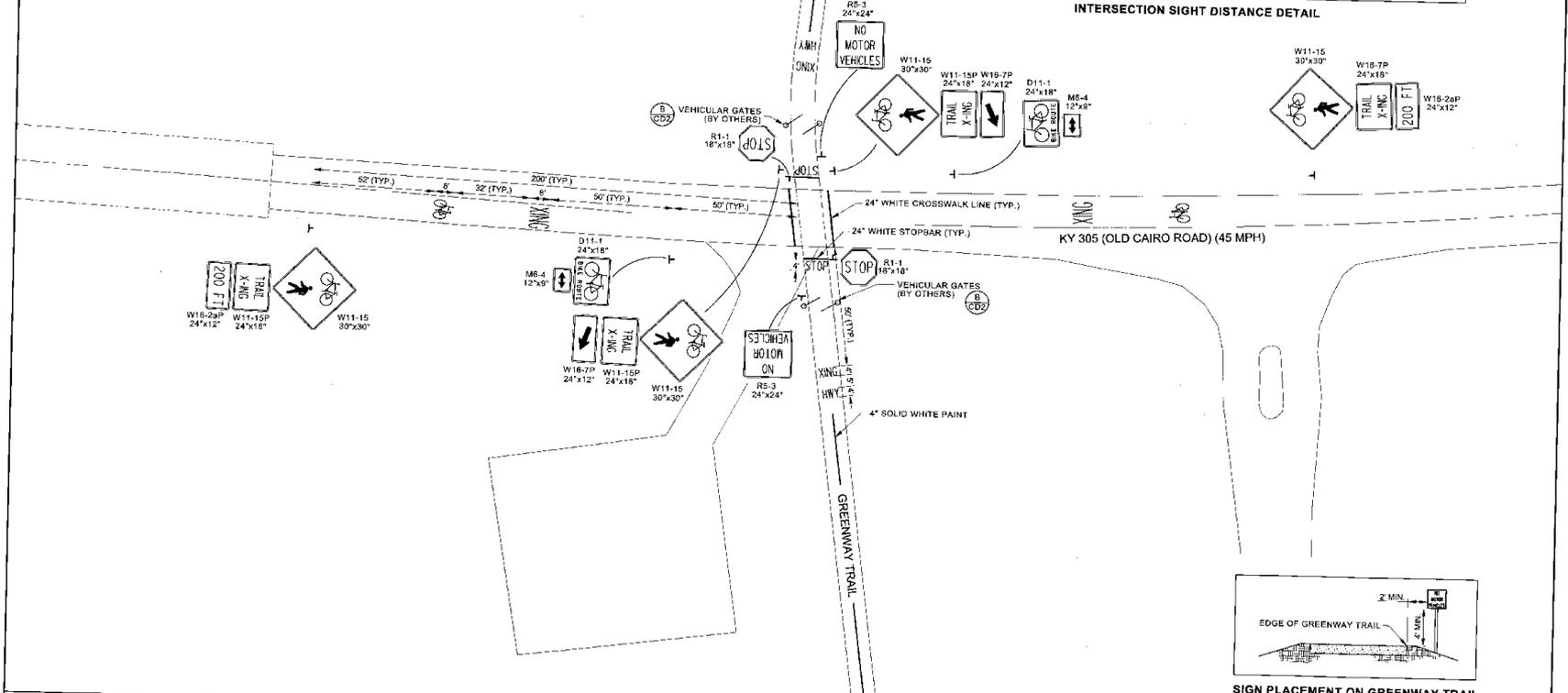




SIGN PLACEMENT ON KY 305 (OLD CAIRO ROAD)

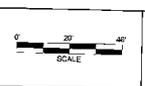


INTERSECTION SIGHT DISTANCE DETAIL



SIGN PLACEMENT ON GREENWAY TRAIL

2	10/12	100% FOR PERMITS	FMI/19 NO:	02019
1	0/11	90% SUBMITTAL	DESIGNED BY:	WBW
0	11/2/10	30% SUBMITTAL	DRAWN BY:	WBW
ISSUE	DATE	DESCRIPTION	CHECKED BY:	JEP



300 SOUTH FIFTH STREET
P.O. BOX 2267
MADISON, KY 40002

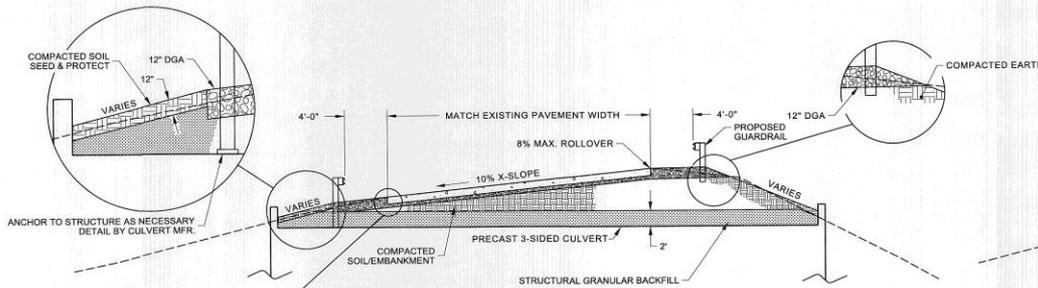
Florence & Hutcheson
An **ICA** Company
2330 Hwy. 100, Frankfort, KY 40601

PROJECT: **GREENWAY TRAIL PHASE II**
DRAWING: **SIGNING & STRIPING PLAN (KY 305)**
DRAWING NO.: **C11**

Cairo Road At Grade Crossing

Cairo Road At Grade Crossing

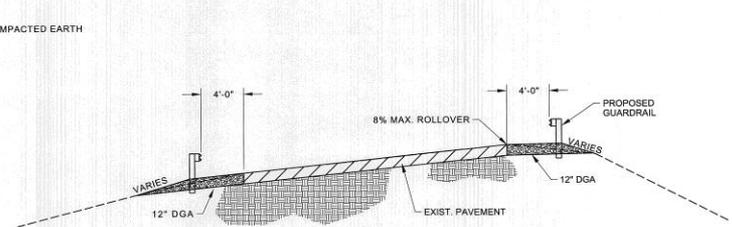
- ▶ An underpass is not a viable option due to current topography including the existing utilities and the inability to drain the structure.
- ▶ No existing cross slope issues. Road geometry does not need to be changed.
- ▶ No right-of-way acquisition necessary.
- ▶ AASHTO minimum site distances ARE satisfied which means a pedestrian signal is not required.
- ▶ Given the current geometry at Cairo Road, applicable regulatory and warning signs are more conducive to an at grade crossing.
- ▶ Average Daily Traffic (ADT) is 4086 vehicles (2010 traffic count).



A TYPICAL SECTION - US 45 PAVEMENT REPLACEMENT

NOTE:
ASPHALT SEAL REQUIRED FROM SHOULDER BREAK TO
A POINT WHERE THE DGA DAYLIGHTS ON THE EXISTING
SLOPE.

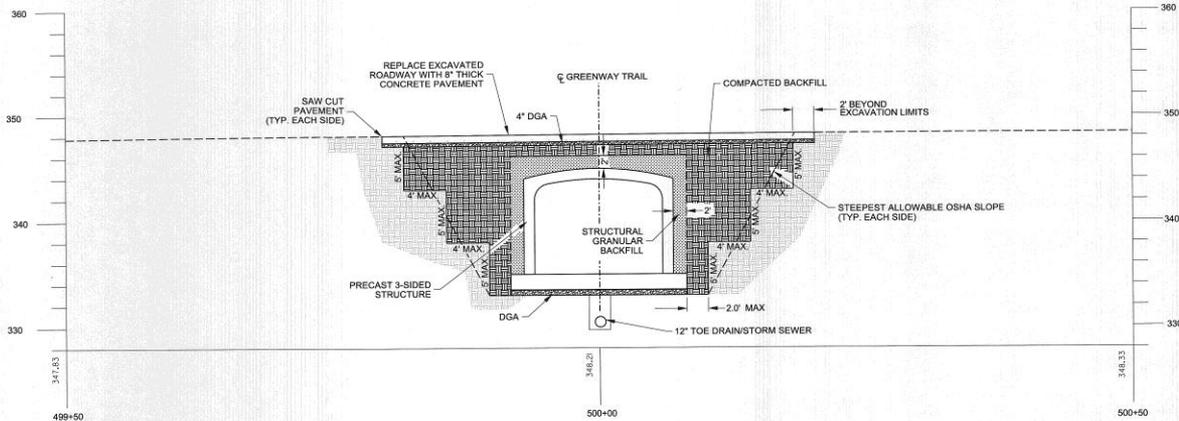
TWO APPLICATIONS OF THE FOLLOWING: RS-2 @ 2.40 LBS/SQ. YD.
& ASPHALT SEAL AGGREGATE @ 20 LBS./SQ. YD. (SIZE NO. 8 OR 9mm)



B TYPICAL SECTION - US 45 GUARDRAIL PLACEMENT & SHOULDER IMPROVEMENT

NOTE:
ASPHALT SEAL REQUIRED FROM SHOULDER BREAK TO
A POINT WHERE THE DGA DAYLIGHTS ON THE EXISTING
SLOPE.

TWO APPLICATIONS OF THE FOLLOWING: RS-2 @ 2.40 LBS/SQ. YD.
& ASPHALT SEAL AGGREGATE @ 20 LBS./SQ. YD. (SIZE NO. 8 OR 9mm)



US 45 PROFILE @ CULVERT CENTERLINE

2	10/12	100% FOR PERMITS
1	3/11	90% SUBMITTAL
0	11/3/10	30% SUBMITTAL
REVR	DATE	DESCRIPTION

PRJ. JOB NO.	08016
DESIGNED BY:	MWB
DRAWN BY:	WBR
CHECKED BY:	JEP



300 SOUTH FIFTH STREET
P.O. BOX 2287
PADUCAH, KY 42002

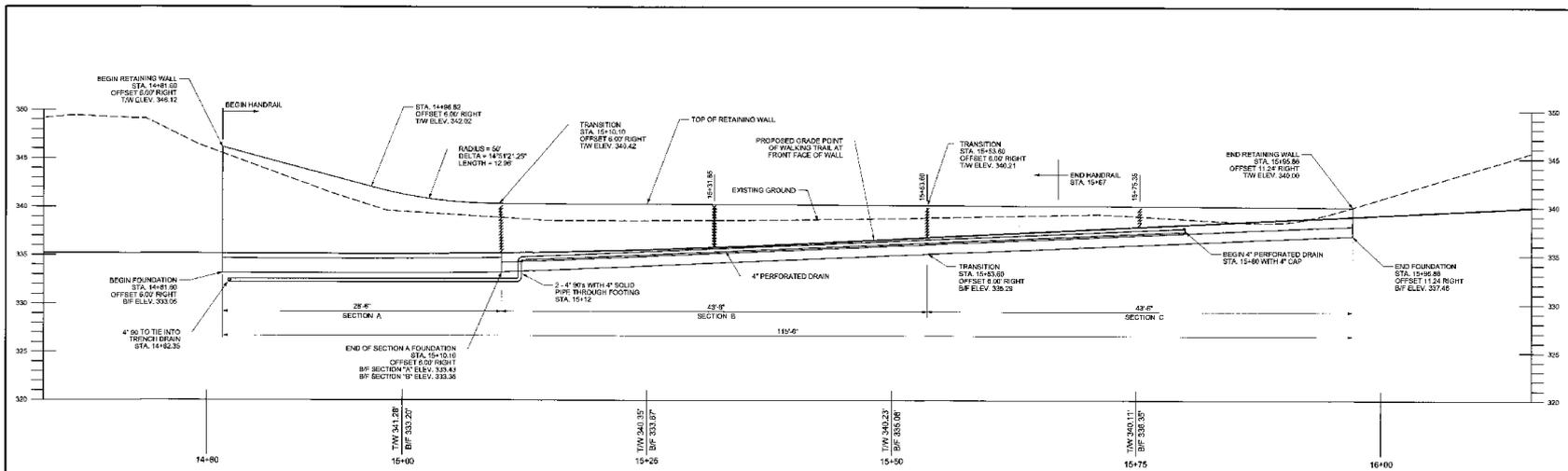


Florence & Hutcheson
An **ICA** Company
2550 Invs Cobb Drive, Paducah, KY 42003

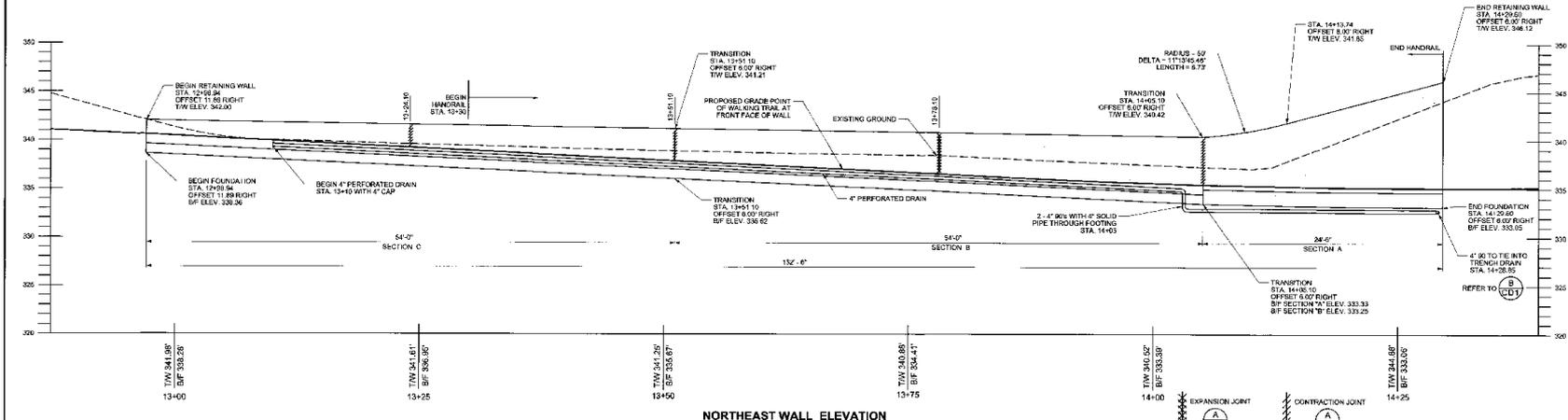
PROJECT:	GREENWAY TRAIL PHASE II
DRAWING:	PROFILE AND TYPICALS - U.S. 45

DRAWING NO.

C7



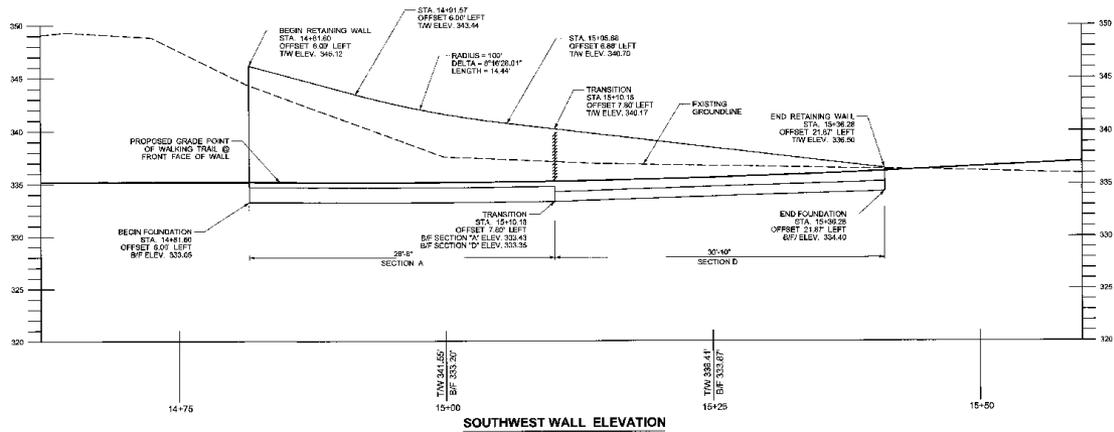
NORTHWEST WALL ELEVATION



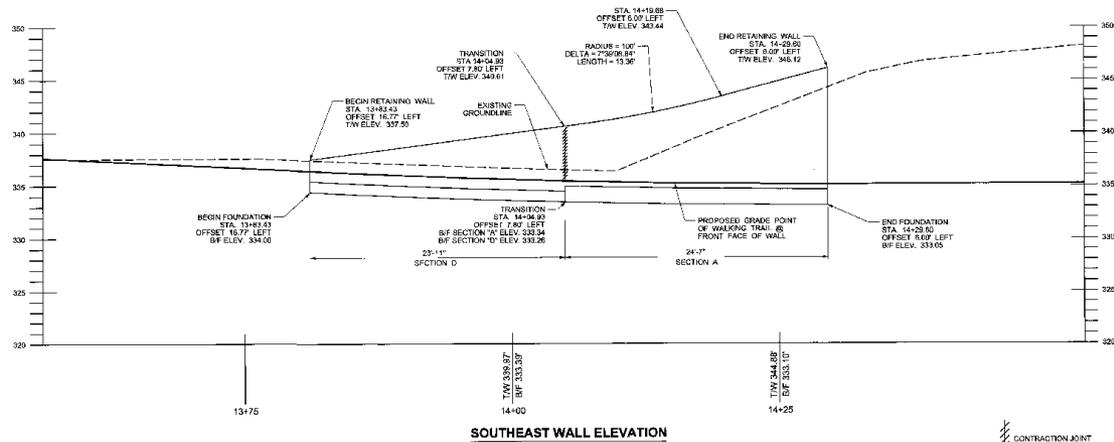
NORTHEAST WALL ELEVATION

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;">2</td><td style="width:10%;">10/12</td><td style="width:85%;">100% FOR PERMITS</td></tr> <tr><td>1</td><td>0/11</td><td>90% SUBMITTAL</td></tr> <tr><td>0/06</td><td>0/06</td><td></td></tr> </table>	2	10/12	100% FOR PERMITS	1	0/11	90% SUBMITTAL	0/06	0/06		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;">REV</td><td style="width:10%;">DATE</td><td style="width:85%;">DESCRIPTION</td></tr> </table>	REV	DATE	DESCRIPTION	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;">REV</td><td style="width:10%;">DATE</td><td style="width:85%;">DESCRIPTION</td></tr> </table>	REV	DATE	DESCRIPTION	<p>SCALE</p>	<p>300 SOUTH FIFTH STREET P.O. BOX 2287 PADUCAH, KY 42002</p>	<p>Florence & Hutcheson An ICA Company 2500 E. 4th Circle Drive, Paducah, KY 42003</p>	<p>PROJECT: GREENWAY TRAIL PHASE II</p> <p>DRAWING: NORTHEAST & NORTHWEST WALL ELEVATIONS</p>	<p>DRAWING NO.: S2</p>
2	10/12	100% FOR PERMITS																				
1	0/11	90% SUBMITTAL																				
0/06	0/06																					
REV	DATE	DESCRIPTION																				
REV	DATE	DESCRIPTION																				

1500012 C:\007\2011\GREENWAY TRAIL WALLS\PROFILES\RAW



SOUTHWEST WALL ELEVATION

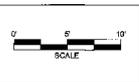


SOUTHEAST WALL ELEVATION



2	10/12	100% FOR PERMITS
1	3/11	90% SUBMITTAL
ISSUE	DATE	DESCRIPTION

F&H JOB NO.:	00016
DESIGNED BY:	LMS
DRAWN BY:	JAP
CHECKED BY:	JEP



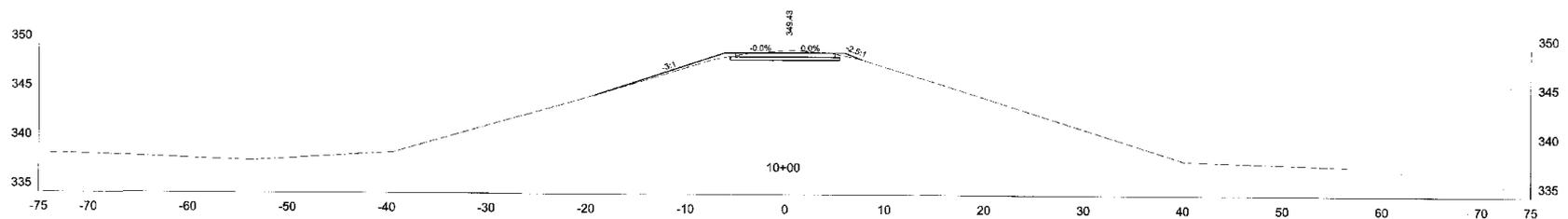
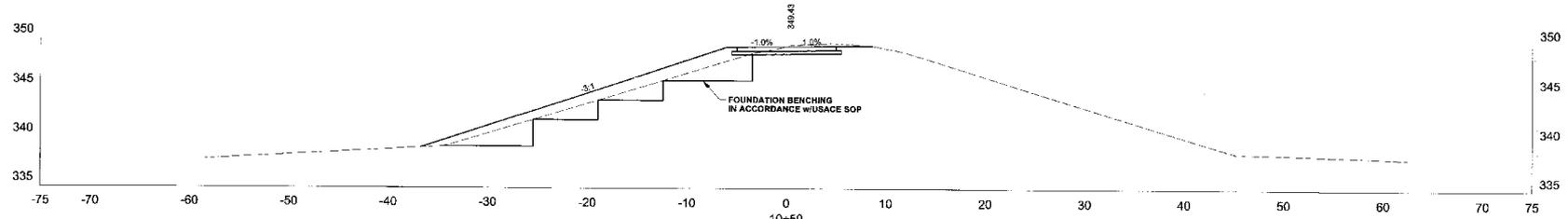
300 SOUTH FIFTH STREET
P.O. BOX 2387
PADUCAH, KY 42002

Florence & Hutcheson
An ICA Company
335 West Cabell Drive, Paducah, KY 40361

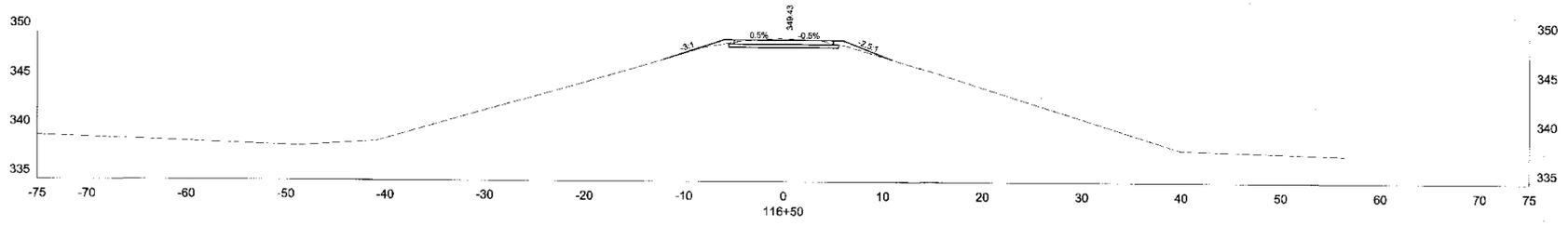
PROJECT: **GREENWAY TRAIL PHASE II**
DRAWING: **SOUTHEAST & SOUTHWEST WALL ELEVATIONS**

DRAWING NO. **S3**

11/02/12 E:\00718\DWG\RY WALLS\PROJ\CON



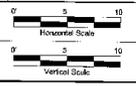
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STA. 10+00.00 AHEAD



17390212 E:\17390212\17390212.dwg

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1	3/11	30% SUBMITTAL	
ISSUE	DATE	DESCRIPTION	

PAK JOB NO:	09016
DESIGNED BY:	MWS
DRAWN BY:	WBY
CHECKED BY:	JBP

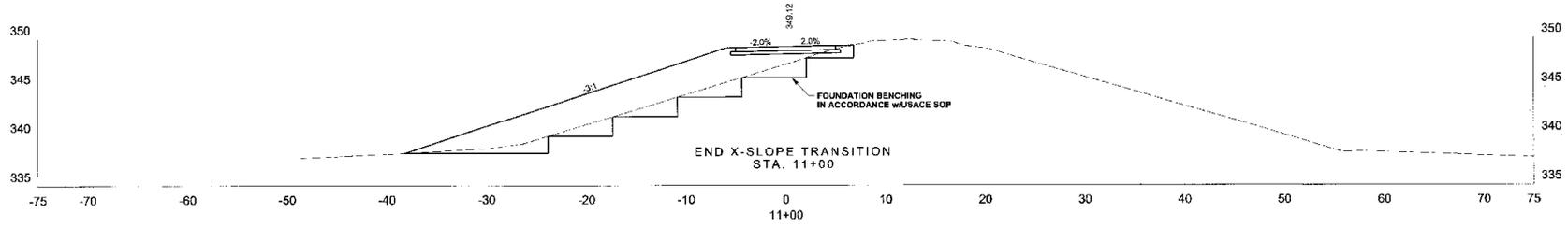
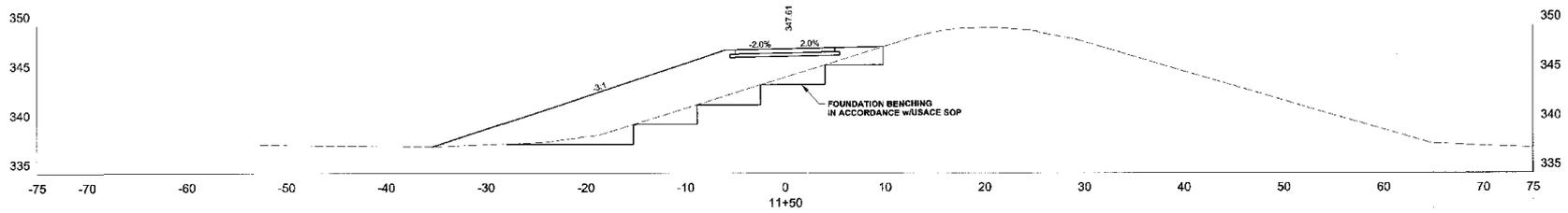
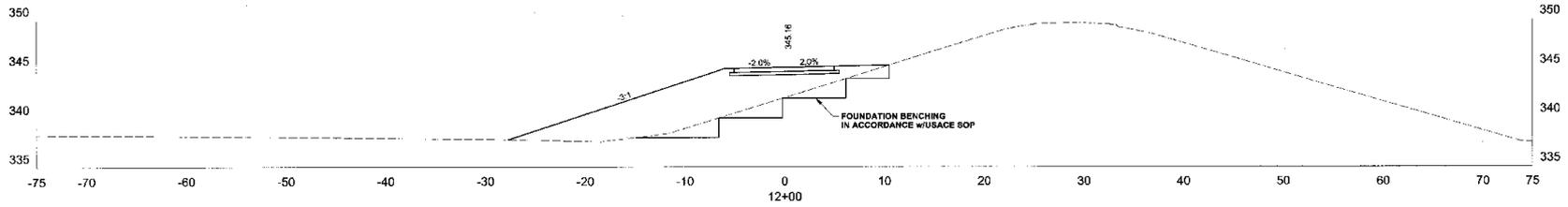


300 SOUTH FIFTH STREET
P.O. BOX 2087
PADUCAH, KY 40302

Florence & Hutcheson
An ICA Company
2350 Inver Creek Drive, Paducah, KY 40303

PROJECT	GREENWAY TRAIL PHASE 2
DRAWING	CROSS-SECTIONS

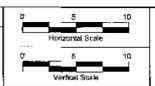
DRAWING NO:
X2



11/20/12 E:\10747\Drawings\10747.dwg

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1	3/11	90% SUBMITTAL
05/08	DATE	DESCRIPTION

PROJECT NO.:	06016
DESIGNED BY:	MWB
DRAWN BY:	WBW
CHECKED BY:	JEP

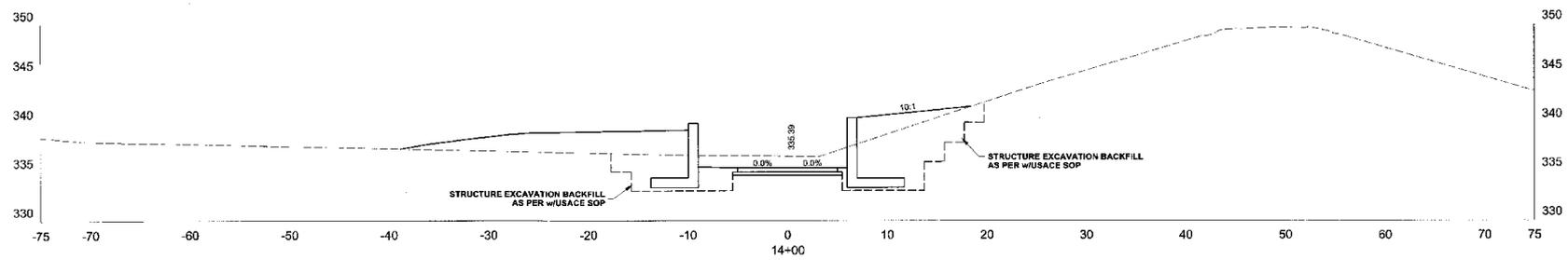
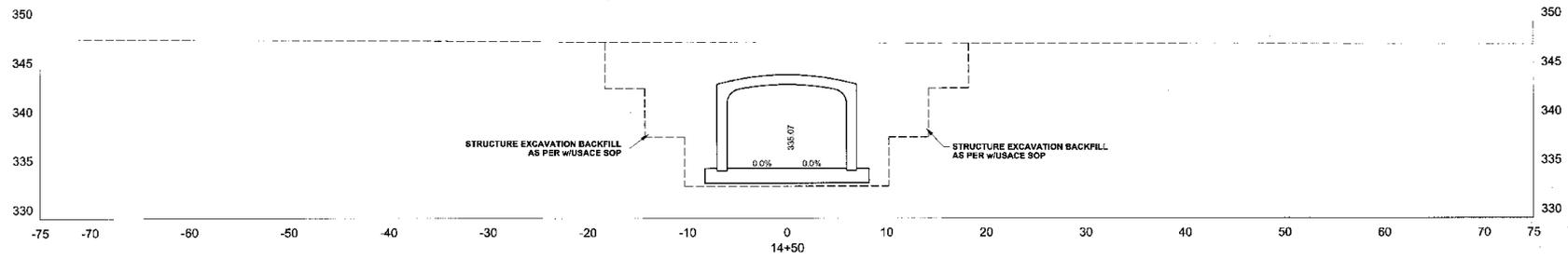
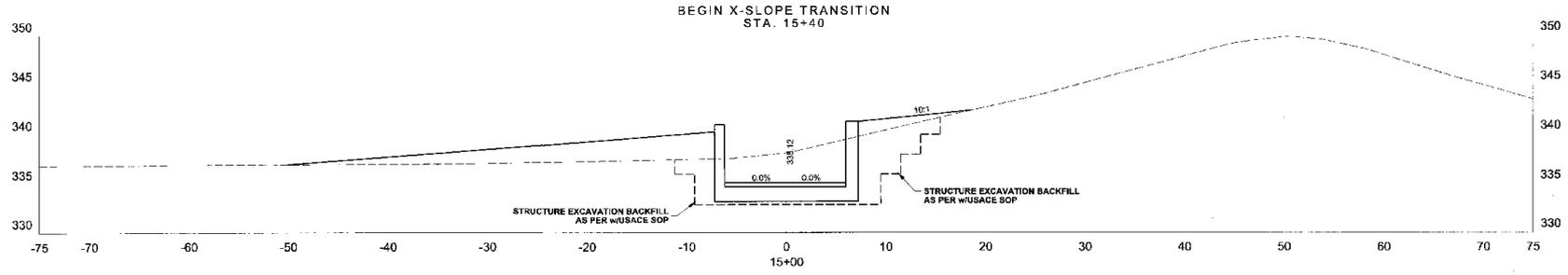


300 SOUTH FIFTH STREET
P.O. BOX 2207
PALM BEACH, FL 33402

Florence & Hutcheson
An **ICA** Company
3534 Truss Creek Drive, Dublin, KY 43017

PROJECT:	GREENWAY TRAIL PHASE 2
DRAWING:	CROSS-SECTIONS

DRAWING NO. **X3**



2	10/12	100% FOR PERMITS
1	2/11	90% SUBMITTAL
ISSUE	DATE	DESCRIPTION

FIG. JOB NO.	09016
DESIGNED BY	MWB
DRAWN BY	WGW
CHECKED BY	JEP

0' 5' 10'

Horizontal Scale

0' 5' 10'

Vertical Scale

300 SOUTH FIFTH STREET
P.O. BOX 2067
PADUCAH, KY 42002

Florence & Hutcheson

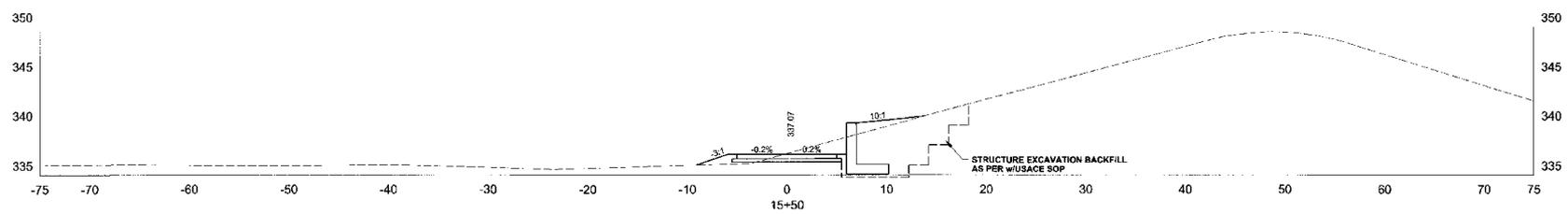
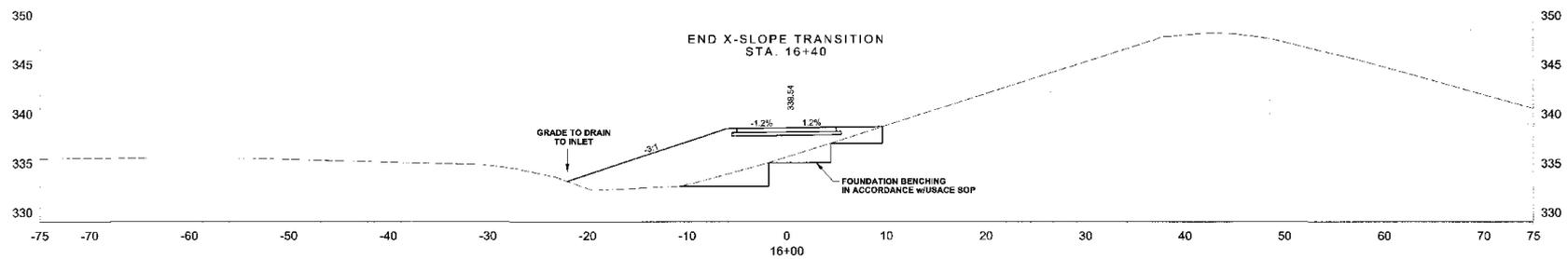
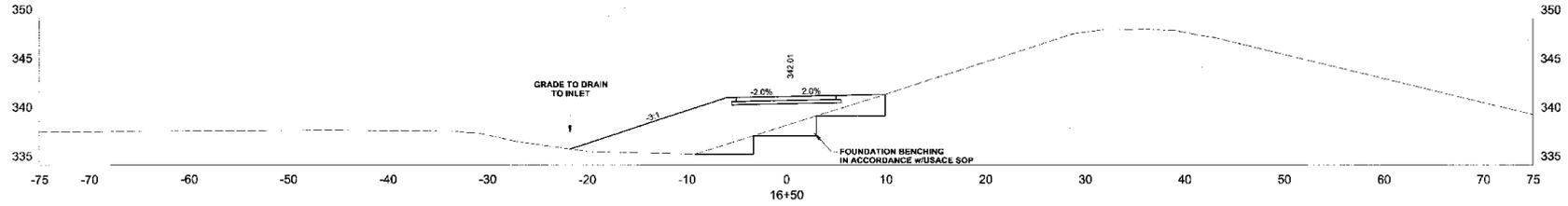
An **ICA** Company

2550 Inks Creek Drive, Paducah, KY 42002

PROJECT:	GREENWAY TRAIL PHASE 2
DRAWING:	CROSS-SECTIONS

X5

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ISSUE	DATE	DESCRIPTION

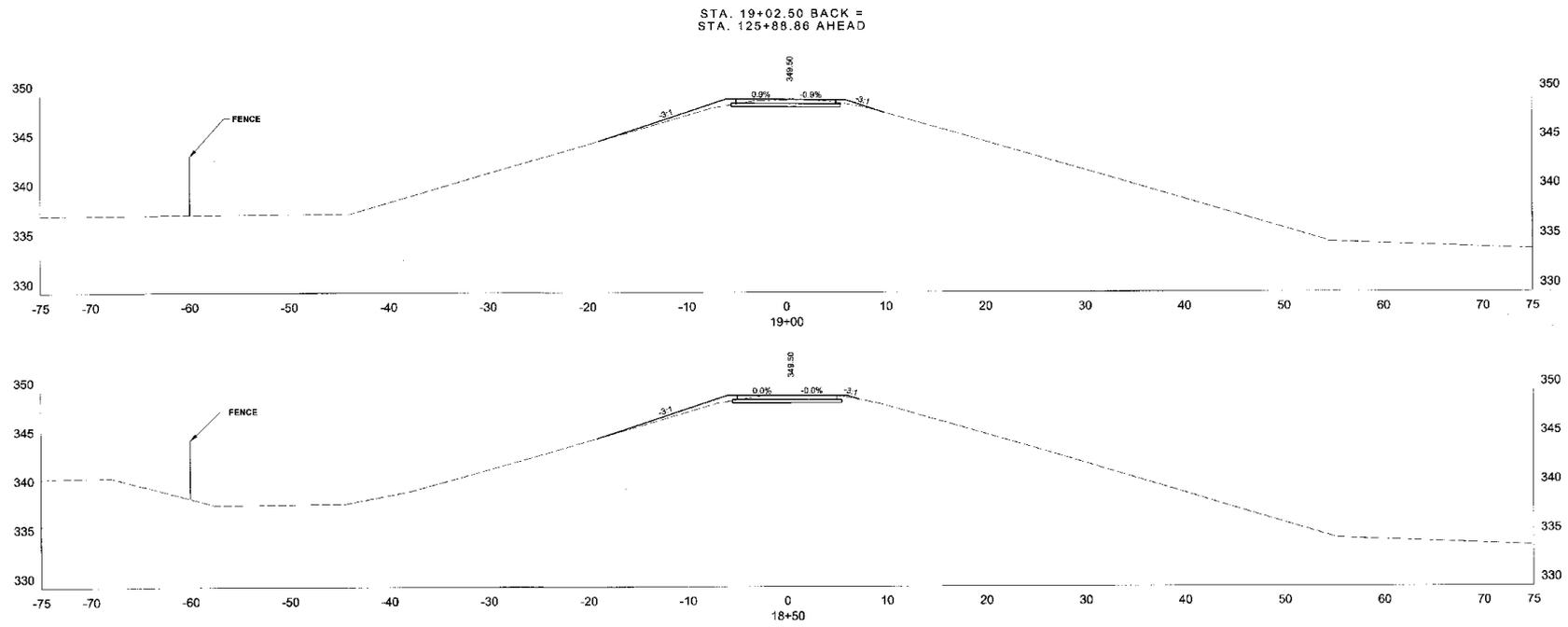
PROJECT NO.:	08016
DESIGNED BY:	MMB
DRAWN BY:	VIEW
CHECKED BY:	JEP

300 SOUTH FIFTH STREET
P.O. BOX 2267
PADUCAH, KY 42002

Florence & Hutcheson
An **ICA** Company
230 KAYLOR LANE, Paducah, KY 42002

PROJECT:	GREENWAY TRAIL PHASE 2	DRAWING NO.:	X6
DRAWING:	CROSS-SECTIONS		

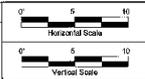
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11/20/2012 11:59:20 AM

2	10/12	100% FOR PERMITS
1	3/11	90% SUBMITTAL
ISSUE	DATE	DESCRIPTION

FILE JOB NO.:	09016
DESIGNED BY:	MWB
DRAWN BY:	WSW
CHECKED BY:	JEP



300 SOUTH FIFTH STREET
P.O. BOX 2287
PADUCAH, KY 40302

Florence & Hutcheson
An **ICA** Company
2501 Inev. Circle Drive Paducah, KY 40303

PROJECT: **GREENWAY TRAIL PHASE 2**
DRAWING: **CROSS-SECTIONS**

DRAWING NO. **X8**

GREENWAY TRAIL PHASE II - EXPENSE OPTIONS

TOTAL PROJECT COST

2008 KY - FHWA Transportation Enhancement Grant
 \$500,000 Grant with \$200,000 Approved Local Match
 MO #1365 - Grant Application
 Ordinance #2010-1-7648 - Agreement with KYTC

	UNDERPASS	AT GRADE	DIFFERENCE
<u>SOURCES:</u>			
FHWA Grant	\$500,000	\$500,000	
Local Match - Boyles Earnings (Estimate)	\$100,000	\$100,000	
Carryover from Phase I	\$147,000	\$147,000	
Local Funds (Bonding \$'s For Design and R/W Acq.)	<u>\$200,000</u>	<u>\$200,000</u>	
TOTAL SOURCES	\$947,000	\$947,000	\$0
<u>EXPENSES:</u>			
Design & Property Acquisition	\$183,761	\$205,761	
Construction Estimate	<u>\$970,000</u>	<u>\$751,000</u>	
TOTAL EXPENSES	\$1,153,761	\$956,761	\$197,000
DIFFERENCE	(\$206,761)	(\$9,761)	(\$197,000)

Commission Decision Needed

- ▶ City of Paducah total trail investment, excluding grant funding, (all existing trails) is greater than **\$750,000** to date.
- ▶ Design decision needs to be made to keep \$500,000 TE grant as it will expire March 26, 2013. An extension request is necessary.
- ▶ Current design (Alternate C-pedestrian underpass) is ready for State consideration and approval.
- ▶ Other design considerations will delay the project indefinitely which may jeopardize grant funding.
- ▶ EPW Department needs your decision in order to proceed.