

# DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Florida Department of Transportation, District 5  
Attn: Patrick Muench  
719 S. Woodland Blvd.  
Deland, Florida 32720

**Permit No:** SAJ-2008-15 (IP-AWP)

**Issuing Office: U.S. Army Engineer District, Jacksonville**

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:** The placement of clean fill material in 1.55 acres of waters of the United States (wetlands) for the construction of a stormwater management system associated with intersection improvements at Barnes Blvd. and US Highway 1 intersection. The work described above is to be completed in accordance with the 4 attachments affixed at the end of this permit instrument.

**Project Location:** The project is the widening of Barnes Blvd. just west of the intersection of US Highway 1. The project is located in Section 23, Township 25 South, Range 36 East, City of Rockledge, Brevard County, Florida.

**Directions to site:** From the intersection of Interstate 95 and Barnes Blvd. proceed east until the intersection of US 1. The project extends approximately 1000 feet west from the intersection to the F.E.C. railroad.

**Latitude & Longitude:** Latitude 28.294 North  
Longitude 80.697 West

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**Permit Conditions**

**General Conditions:**

1. The time limit for completing the work authorized ends on **August 4, 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 and the mailing address 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

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ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. **Reporting Address:** All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232. The Permittee shall reference this permit number, SAJ-2008-15(IP-AWP), on all submittals.

2. **Commencement Notification:** Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.

3. **Erosion Control:** Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas adjacent to wetlands shall be stabilized using sod, degradable mats, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

4. The Permittee agrees to follow the Eastern Indigo Snake Protection Measures, Attachment 3.

5. **As-Builts:** Within 60 days of completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, the Permittee shall submit as-built drawings of the authorized work and a completed As-Built Certification Form (Attachment 4) to the Corps. The drawings shall be signed and sealed by a registered professional engineer and include the following:

a. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the

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attached permit drawings (8½-inch by 11-inch). The drawing should show all "earth disturbance," including wetland impacts, water management structures, and any on-site mitigation areas.

b. List any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates in any manner from the authorized work, describe on the As-Built Certification Form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or As-Built Certification Form does not constitute approval of any deviations by the U.S. Army Corps of Engineers.

c. The Department of the Army Permit number.

d. Include pre- and post-construction aerial photographs of the project site, if available.

6. **Fill Material:** The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

7. **Compensatory Mitigation:** Wetland impacts will be mitigated pursuant to the Senate Bill 1986 Rule - Section 373.4137 Florida Statutes (F.S.). Within 6 months from the date of initiating the authorized work or 12 months from the effective date of this permit, whichever first occurs, the Permittee shall complete compensatory mitigation in accordance with the 2008 St. Johns River Water Management District (SJRWMD) FDOT MITIGATION PLAN, Mitigation Project Group SJ46. Compensatory mitigation plan # 237576 mitigation will include acquisition of parcels which abut Turnbull Hammock. A minimum of 0.57 functional units of wetland loss shall be replaced by the mitigation plan.

SJRWMD shall submit an annual status report and five year update of the mitigation described above in accordance with the

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Memorandum of Understanding between the SJRWMD and the United States Army Corps of Engineers, Jacksonville District signed October 16, 2007 and October 9, 2007 respectively.

**Further Information:**

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) 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 projects.

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.

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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.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170)

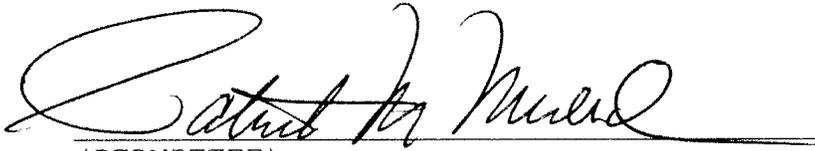
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accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

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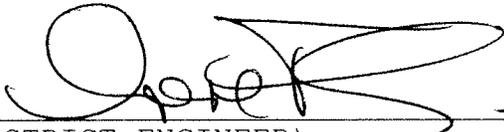
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

  
\_\_\_\_\_  
(PERMITTEE)

8/11/08  
\_\_\_\_\_  
(DATE)

Patrick M. Muench  
\_\_\_\_\_  
(PERMITTEE NAME-PRINTED)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_  
(DISTRICT ENGINEER)  
Fu Paul L. Grosskruger  
Colonel, U.S. Army  
District Commander

AUG 14 2008  
\_\_\_\_\_  
(DATE)

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When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

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(TRANSFEEE-SIGNATURE)

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(DATE)

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(NAME-PRINTED)

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(ADDRESS)

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(CITY, STATE, AND ZIP CODE)

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***Attachments to Department of the Army  
Permit Number SAJ-2008-15(IP-AWP)***

1. PERMIT DRAWINGS: 54 pages
  
2. WATER QUALITY CERTIFICATION: Specific Conditions of the water quality permit/certification in accordance with General Condition number 5 on page 2 of this DA permit. Five (5) pages.
  
3. Eastern Indigo Snake Protection Measures: 1 page
  
4. As-Built Certification: one (1) page

**COMPONENTS OF CONTRACT PLANS SET**  
 ROADWAY PLANS  
 STORMWATER PREVENTION PLANS  
 SIGNALIZATION PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

**INDEX OF ROADWAY PLANS**

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2 - 3	SUMMARY OF PAVEMENT
4	TRAFFIC SIGNAL
5 - 7	SUMMARY OF QUANTITIES
8	SUMMARY OF DRAINAGE STRUCTURES
9	OPTIONAL MATERIALS TABULATION
10	GENERAL NOTES
11	ROADWAY PLAN - PROFILES
12 - 16	DRAINAGE STRUCTURES
17	ROAD 1 DETAILS
18	ROAD 2 DETAILS
19	ROAD 3 DETAILS
20 - 40	CROSS SECTIONS
41 - 46	POD CROSS SECTIONS
47 - 48	STORMWATER POLLUTION PREVENTION PLAN QUANTITIES
49	STORMWATER POLLUTION PREVENTION PLAN QUANTITIES
50 - 64	TRAFFIC CONTROL PLAN
65 - 70	UTILITY ADJUSTMENTS

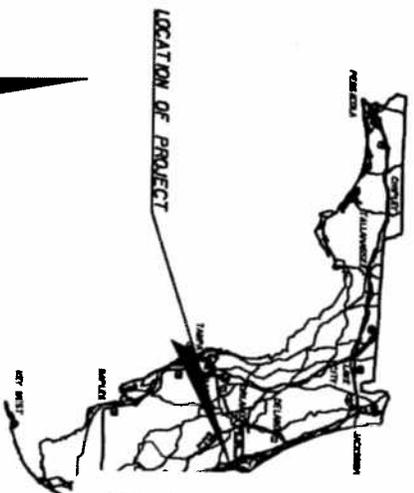
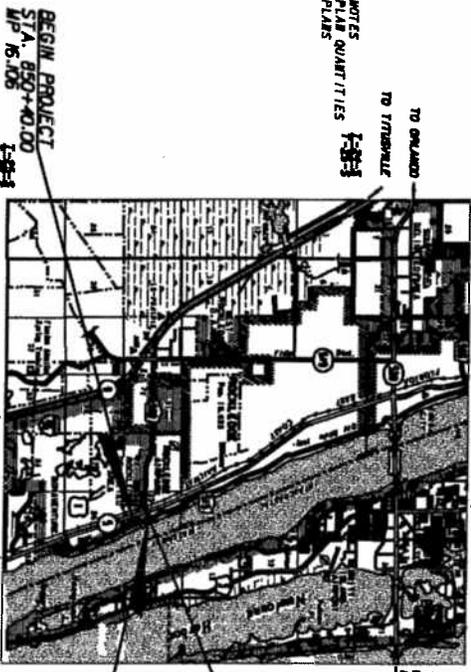
FOR DESIGN STANDARDS AND SPECIFICATIONS, REFER TO THE DESIGN STANDARDS DIVISION WEBSITE AT <http://www.floridadot.com/designstandards>

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 7-4-07

REVISIONS

**STATE OF FLORIDA**  
**DEPARTMENT OF TRANSPORTATION**  
**CONTRACT PLANS**

FINANCIAL PROJECT ID 237576-3-52-01  
 FEDERAL FUNDS  
 BREVARD COUNTY (70020)  
 STATE ROAD NO. 5



DOT/FLM NO. 800001  
 ROADWAY PLAN  
 P.E.C. NUMBER STA. 7+32.35  
 END PROJECT  
 STA. 860+00.00

PROJECT LENGTH IS BASED ON % OF CONSTRUCTION

LENGTH OF PROJECT	
LINEAR FEET	MILES
ROADWAY	0.181
BRIDGES	0.000
NET LENGTH OF PROJECT	0.181
EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	0.181

FOOT PROJECT MANAGER: SAM LETCHER

REV.	DATE	DESCRIPTION

DESIGNER: STEVEN M. KRELOT, P.E.  
 PROJECT MANAGER: SAM LETCHER  
 FISCAL YEAR: 10  
 SHEET NO.: 1

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6006-23.005, F.A.C.

**RECEIVED**

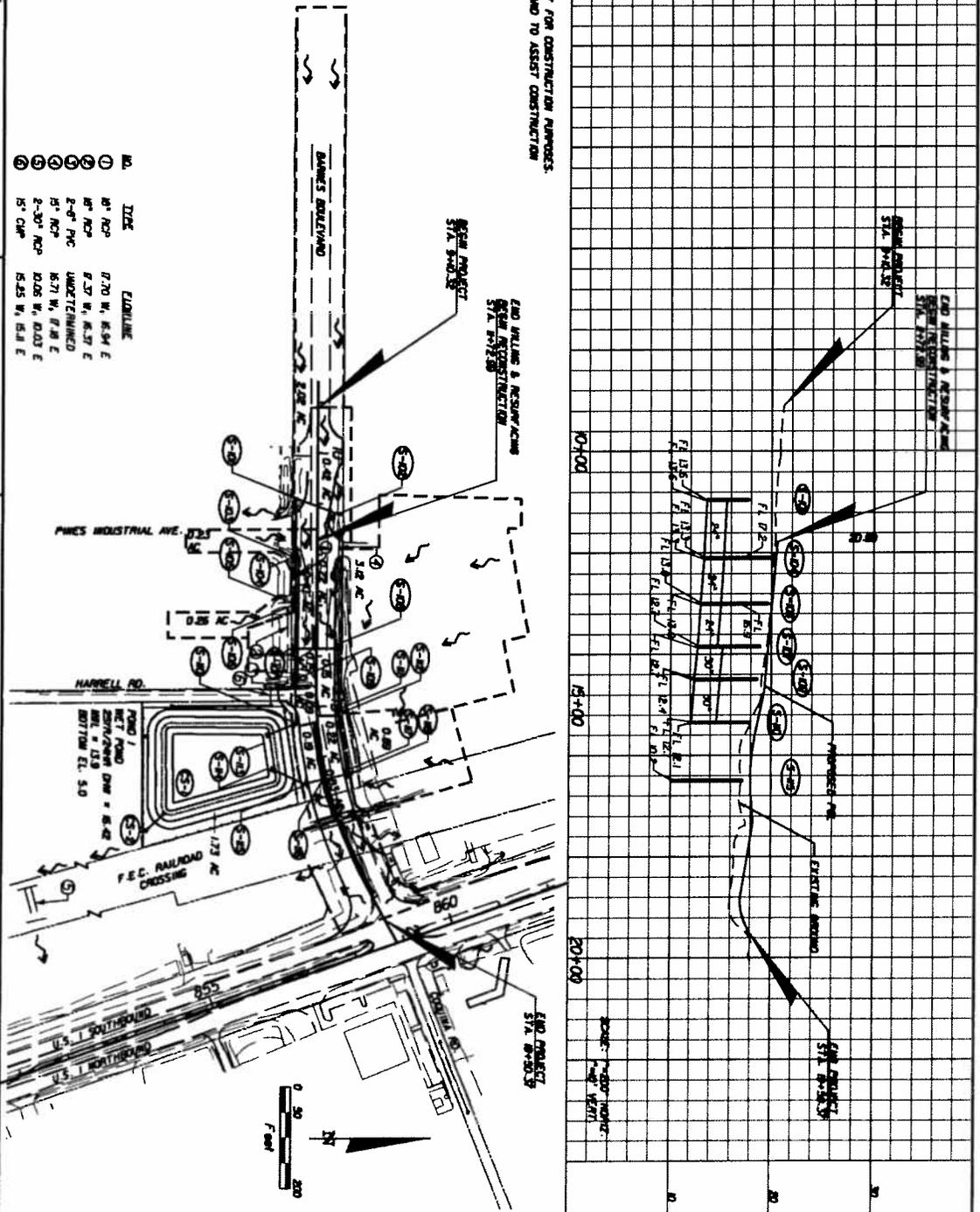
JAN 31 2008

JACKSONVILLE DISTRICT

U.S. Army Corps of Engineers  
 Permit # SAT-2008-15  
 Date: 8/1/08  
 Attachment: 1



NOTE: DO NOT USE THE INFORMATION ON THIS SHEET FOR CONSTRUCTION PURPOSES. THIS SHEET IS IN THE PLANS FOR DOCUMENTATION AND TO ASSIST CONSTRUCTION PERSONNEL WITH DAMAGE CONCERNS.



NO.	TYPE	ELEVATION
1	18" MCP	8.70 W, 8.54 E
2	18" MCP	8.37 W, 8.37 E
3	24" PVC	UNDETERMINED
4	18" MCP	8.71 W, 7.81 E
5	24" MCP	8.06 W, 8.03 E
6	18" CMP	8.25 W, 8.1 E

NO.	DATE	REVISIONS	DATE	DESCRIPTION

 KELLY, GOLLING & GENTRY, INC. 4141 N. STATE ST., SUITE 200 DENVER, CO 80202	ROAD NO. SR 5	COUNTY BREVARD	PROJECT NO. 237576-3-52-01
	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FEDERAL PROJECT NO.		

SHEET NO. 4	DATE 7/12
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NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-83.005, F.A.C.



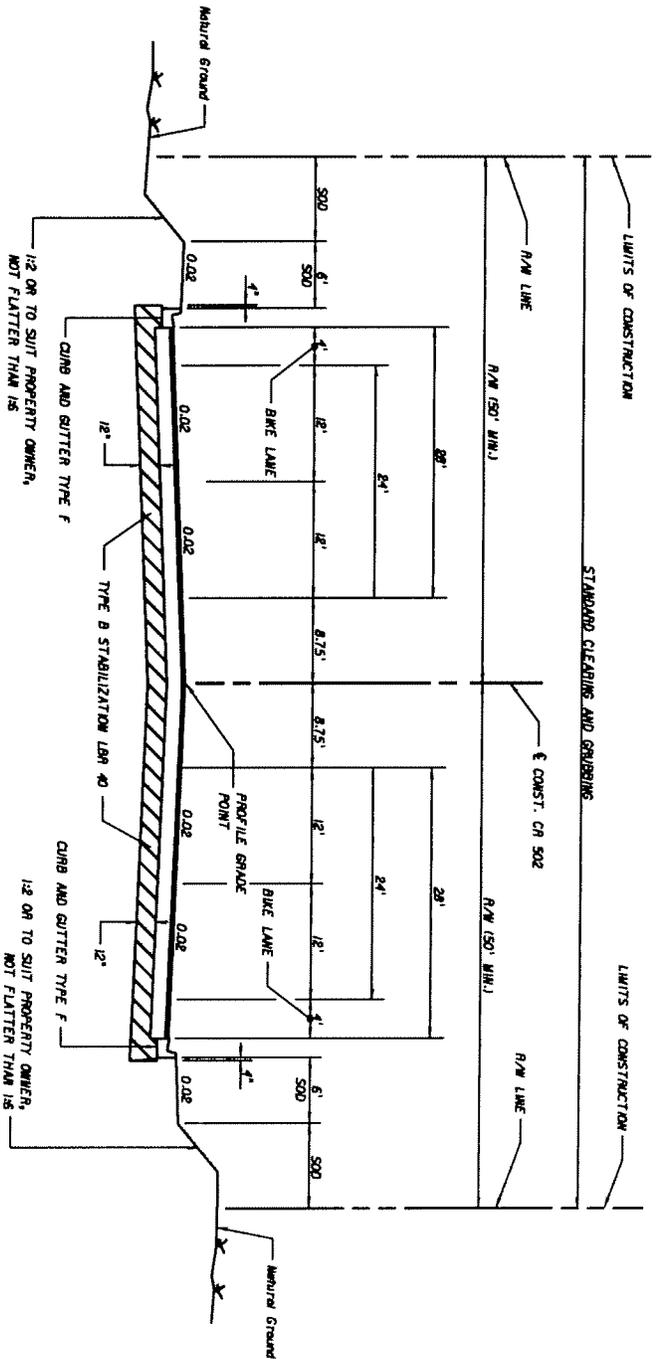
1 DATE: 10/10/06 PROJECT SUMMARY OF PAY ITEMS  
 PROJECT: 237563201 COUNTY/SECTION: 70010000 COUNTY: BREVARD HARDWARE: 03 PAGE: 3

P	PART	ITEM	DESCRIPTION	PAY ITEMS		COMB. TOTAL
				IT	AMOUNT	
0500 SUMMARY OF ELECTRICAL						
		10700-40-1	1 STRIP STRIKE POST- 1/2" DIA	EA	0.000	10.000
		10700-40-2	2 STRIP STRIKE POST- 1/2" DIA	EA	0.000	2.000
		10700-46-11	1/2" DIA EXISTING- NARROW, STRIKE POST	EA	0.000	9.000
		10700-46-21	1/2" DIA EXISTING- BROADWAY, STRIKE POST	EA	0.000	2.000
		10700-71-	1/2" DIA EXISTING- TERMINAL, STRIKE POST	EA	0.000	2.000
		10710-90-	1/2" DIA EXISTING- TERMINAL, STRIKE POST	EA	0.000	1.000
FLORIDA DEPARTMENT OF TRANSPORTATION						
				Non-Participating	Participating	
						COMB. TOTAL

1 DATE: 10/10/06 PROJECT SUMMARY OF PAY ITEMS  
 PROJECT: 237563201 COUNTY/SECTION: 70010000 COUNTY: BREVARD HARDWARE: 03 PAGE: 4

P	PART	ITEM	DESCRIPTION	PAY ITEMS		COMB. TOTAL
				IT	AMOUNT	
0500 SUMMARY OF ELECTRICAL						
		10630-1-13	CONDUIT - SIGNALS, FIBERGLASS & METAL, UNDERGROUND	LF	0.000	1398.000
		10630-1-14	CONDUIT - SIGNALS, FIBERGLASS & METAL, UNDERGROUND	LF	0.000	234.000
		10630-7-1	CONDUIT, SIGNALS, F & I, UNDERGROUND -CHECKED	LF	0.000	234.000
		10630-7-11	CONDUIT, SIGNALS, FIBERGLASS & METAL	LF	0.000	1.000
		10630-1-11	CONDUIT, SIGNALS, FIBERGLASS & METAL	LF	0.000	20.000
		10630-1-22	CONDUIT, SIGNALS, FIBERGLASS & METAL	LF	0.000	1.000
		10630-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF	0.000	100.000
		10640-41-001	1/4" DIA, 1/2" DIA, 3/4" DIA, 1" DIA, 1 1/2" DIA, 2" DIA, 3" DIA, 4" DIA, 6" DIA, 8" DIA, 10" DIA, 12" DIA, 14" DIA, 16" DIA, 18" DIA, 20" DIA, 24" DIA, 30" DIA, 36" DIA, 42" DIA, 48" DIA, 54" DIA, 60" DIA, 72" DIA, 84" DIA, 96" DIA, 108" DIA, 120" DIA, 144" DIA, 168" DIA, 192" DIA, 216" DIA, 240" DIA, 270" DIA, 300" DIA, 324" DIA, 360" DIA, 408" DIA, 456" DIA, 504" DIA, 540" DIA, 576" DIA, 612" DIA, 648" DIA, 684" DIA, 720" DIA, 756" DIA, 792" DIA, 828" DIA, 864" DIA, 900" DIA, 936" DIA, 972" DIA, 1008" DIA, 1044" DIA, 1080" DIA, 1116" DIA, 1152" DIA, 1188" DIA, 1224" DIA, 1260" DIA, 1296" DIA, 1332" DIA, 1368" DIA, 1404" DIA, 1440" DIA, 1476" DIA, 1512" DIA, 1548" DIA, 1584" DIA, 1620" DIA, 1656" DIA, 1692" DIA, 1728" DIA, 1764" DIA, 1800" DIA, 1836" DIA, 1872" DIA, 1908" DIA, 1944" DIA, 1980" DIA, 2016" DIA, 2052" DIA, 2088" DIA, 2124" DIA, 2160" DIA, 2196" DIA, 2232" DIA, 2268" DIA, 2304" DIA, 2340" DIA, 2376" DIA, 2412" DIA, 2448" DIA, 2484" DIA, 2520" DIA, 2556" 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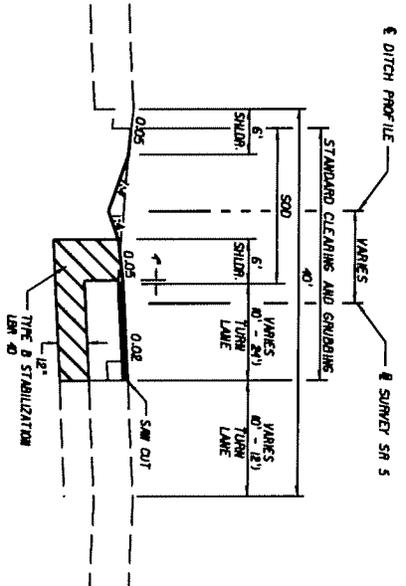


TYPICAL SECTION  
 CR 502 (BARNES BLVD.)  
 STA. 11+72.99 TO STA. 19+50.37

NEW CONSTRUCTION  
 OPTIONAL BASE GROUP 9 WITH  
 TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2")  
 AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER) (PG 76-22)

REVISIONS		DESCRIPTION	
DATE	BY	DESCRIPTION	DATE
		KELLINS & GENTRY, INC. ENGINEERS AND ARCHITECTS 1101 N. BARNES BLVD., SUITE 100 BARNESVILLE, MD 21015	
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION FEDERAL ROAD DISTRICT SR 5 BREVARD		PROJECT NUMBER 237516-3-52-01	
TYPICAL SECTION		SHEET NO. 6	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-23.003, F.A.C.



TYPICAL SECTION  
 SR 5 (US 1)  
 STA. 850+40.00 TO STA. 860+00.00

WIDENING

OPTIONAL BASE GROUP 9 WITH  
 TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2")  
 AND FRICTION COURSE FC-12.5 (1 1/2") (RUBBER) (PG 76-22)

MILLING & RESURFACING

MILL EXISTING PAVEMENT (1 1/2") AND  
 CONSTRUCT FRICTION COURSE FC-12.5 (1 1/2") (RUBBER) (PG 76-22)

DATE	REVISIONS	DESCRIPTION	BY	CHECKED	
KCG KELLYS & GENTRY, INC. 1100 S. W. 10th St., Suite 100 Ft. Lauderdale, FL 33304 TEL: (954) 576-1111 FAX: (954) 576-1112			ROAD NO. SR 5	COUNTY BREVARD	
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION TRAVELER SERVICE CENTER 237576-3-52-01			TYPICAL SECTION		
				SHEET NO.	7

SUMMARY OF EARTHWORK			
DESCRIPTION	QTY	UNIT	REMARKS
GRAVEL FILL			
STRAIGHT FILL			
CURB FILL			
EMBANKMENT			
EXCAVATION			
RETAINMENT			
WATERWAY			
TOTAL			

- EARTHWORK HAS BEEN CALCULATED USING THE LIME/ROCK BASE OPTION. IF ANOTHER OPTION IS CONSTRUCTED, THERE SHALL BE NO REVISION TO THE EARTHWORK QUANTITIES FOR WHICH PAYMENT IS MADE BY PLAN QUANTITY.
- UNCLASSIFIED MATERIAL TO BE DISPOSED BY THE STORM SEWER OR DRAINAGE STRUCTURED SYSTEM CONTAINS COARSE (BOULDER), GRAVEL SAND/SHELL, ETC.
- SUBSOIL EXCAVATION IN THE ROAD AREA WILL CONTAIN ORGANIC SOILS.
- LAYERS OF HARD MATERIALS SUCH AS CEMENTED SAND AND GRAVEL SHOULD BE SUBMITTED TO THE LABORER AND INSPECTOR OF THE PROJECT. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND EQUIPMENT AND/OR PROCEDURES AS NECESSARY TO FACILITATE EXCAVATION, PENETRATION OR DEWATERING.

SUMMARY OF FENCING TYPE B			
LOCATION	LENGTH (FT)	CONCRETE (CY)	REMARKS
STA. TO STA.			
TOTAL			

SUMMARY OF SIDE DRAIN & MITERED END SECTIONS			
LOCATION	SIZE	PER (LINES)	REMARKS
STA. TO STA.			
TOTAL			

SUMMARY OF DITCH PAVEMENT AND SODDING					
SECTION	SIZE	PAVEMENT	CONCRETE	SODDING	REMARKS
STA. TO STA.					
TOTAL					

SUMMARY OF SODDING					
SECTION	SIZE	PAVEMENT	CONCRETE	SODDING	REMARKS
STA. TO STA.					
TOTAL					

- PER ITEM NOTES
- 40-1 INCLUDES COST OF ENVIRONMENTAL MONITORING.
  - 40-2 INCLUDES COST OF TEMPORARY PAVEMENT, INCLUDING THE COST OF FURNISHING, PLACING, MAINTAINING AND REMOVING COMMERCIAL MATERIAL FOR DRAINAGE MAINTENANCE.
  - 40-3 INCLUDES ADDITIONAL 75 LF TO BE UTILIZED AS DIRECTED BY ENGINEER.
  - 40-4 BASED ON REPLACEMENT EVERY 12 MONTHS.
  - 40-5 INCLUDES THE REMOVAL OF CURB, CURB AND BUTTER, SIDEWALK AND CONCRETE DITCH PAVEMENT.
  - 40-6 INCLUDES 90 TO OF MISCELLANEOUS ASPHALT FOR PATCHING OF ALL EXISTING PATCHES OF PAVEMENT CROSS SECTION WITHIN 40 FEET OF EACH DISTURBANCE AT AN APPROXIMATE RATE OF 800 SQUARE FEET PER SQUARE YARD.
  - 50-1-5 INCLUDES 3 CY FOR MISCELLANEOUS CONSTRUCTION, AS DIRECTED BY THE ENGINEER.
  - 50-1-2 INCLUDES THE COST OF MOVING ALL EXISTING GRASS.

DATE	REVISIONS	DATE	DESCRIPTION

<b>KCCG</b> KELLY, COLLINS & GENTREY, INC. 4510-14th ST. N.E. SUITE 200 ALBUQUERQUE, NM 87110 PHONE: 505-261-7111 FAX: 505-261-7112	STATE OF NEW MEXICO DEPARTMENT OF TRANSPORTATION ROAD DISTRICT SR 5 BREAVARO 237516-3-52-01	SUMMARY OF QUANTITIES SHEET NO. 8
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**GENERAL NOTES**

1. The Contractor may use any of the optional pipe materials tabulated for a given structure. Only the material option tabulated for a given structure can be used.
2. Adjustment to the bid quantities, prices and payment will not be allowed for any change in structure size, shape, height, width or depth or location of structure. The quantity of material for optional pipe material other than the "tabulated" option. However, there will be no added or reduced compensation for structure alterations required to relieve utility conflicts which arise from the use of an optional material other than the "tabulated" option.
3. Adjustment to the bid quantities, prices and payment will not be allowed due to the use of different materials, pipe sizes, pipe materials, composition, special installation requirements or diameter of access manholes due to use of any of the pipe optional materials. However, adjustment in the quantities, prices and payment will not be allowed due to differences in end treatment size of types, pipe length, alternate joining or connecting methods, access, cracks, fiber roots, etc. arising from the "tabulated" option.
4. If adjustments are required due to plan errors or omissions of authorized field changes, the "tabulated" material and not the material selected by the Contractor would be used to establish new pay quantities.
5. The Contractor shall notify the Department in writing as to which optional pipe material he chooses to use at the time of construction. The material selected by the contractor may not change pipe material selected without the approval of the Engineer.
6. Pipe sizes other than round (elliptical/Arch) are summarized and paid for using equivalent round pipe diameter.

HRCP = NON REINFORCED CONCRETE PIPE

STRUCTURE	SIZE (Diameter)	MATERIAL	NOTED	AS BUILT	REMARKS
ALL	18	SNCP FRCP	X		DSL 100 YEARS
		HRCP			
		SNSP, 12 Ga.			
		SNAP, 14 Ga.			
		PNCP			
ALL	24	SNCP	X		DSL 100 YEARS
		FRCP			
		HRCP			
		SNSP, 12 Ga.			
		SNAP, 16 Ga.			
		PNCP			
ALL	30	SNCP	X		DSL 100 YEARS
		FRCP			
		HRCP			
		SNSP, 12 Ga.			
		SNAP, 16 Ga.			
		PNCP			
ALL	36	SNCP	X		DSL 100 YEARS
		FRCP			
		HRCP			
		SNSP, 12 Ga.			
		SNAP, 16 Ga.			
		PNCP			

DATE	BY	REVISIONS	DATE	BY	REVISIONS
<b>KELLY COLLINS &amp; GENTRY, INC.</b> REGISTERED PROFESSIONAL ENGINEERS 4144-2144 CREEK OF APPROXIMATION RD 3100 FLORENCE SC 29502-7411 LICENSE NO. 34124					
STATE OF SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION ROAD NO. 5 COUNTY BREWARD PROJECT NO. 237576-3-52-01			OPTIONAL MATERIALS TABULATION		
SHEET NO. 10					OF 125



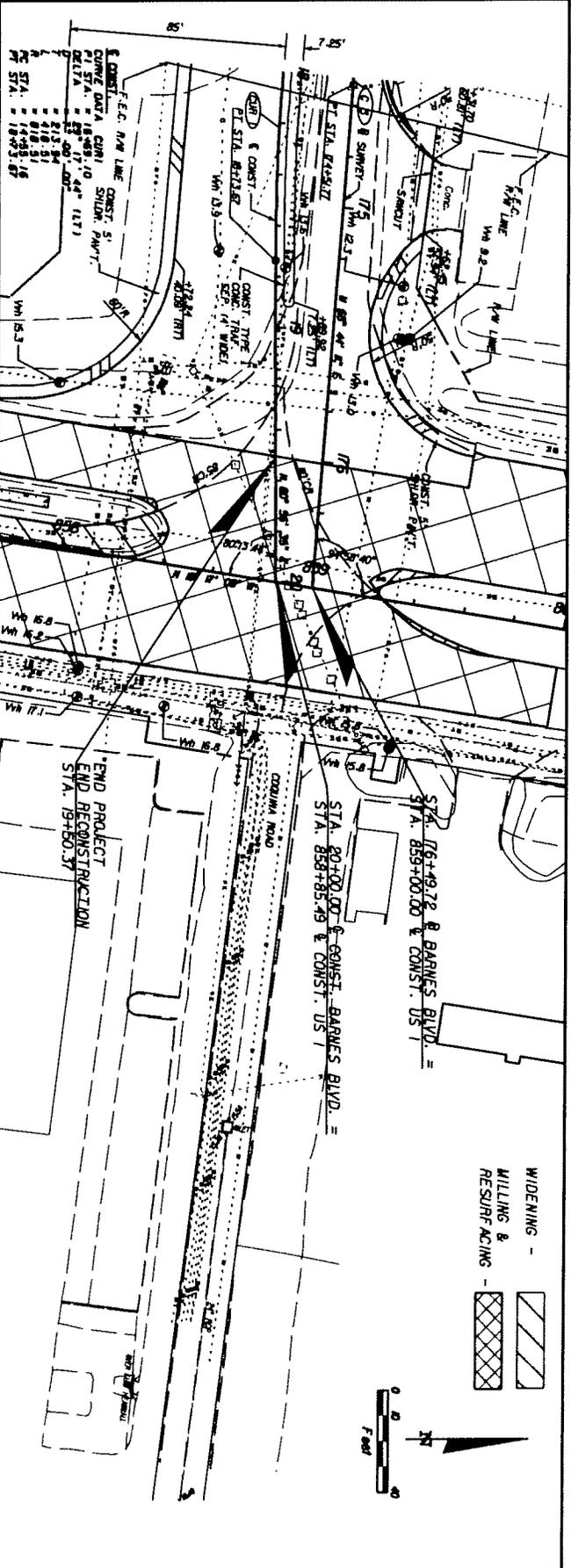




DATE	REVISIONS	DESCRIPTION
18-10-00		
19-10-00		
20-10-00		

STATION	DESCRIPTION	REVISIONS
18+00	END PROJECT END RECONSTRUCTION STA. 18+50.37	
16	END SPECIAL MATCH AREA STA. 16+00.00 EL. 16.00	
12	END SPECIAL MATCH AREA STA. 12+00.00 EL. 12.00	



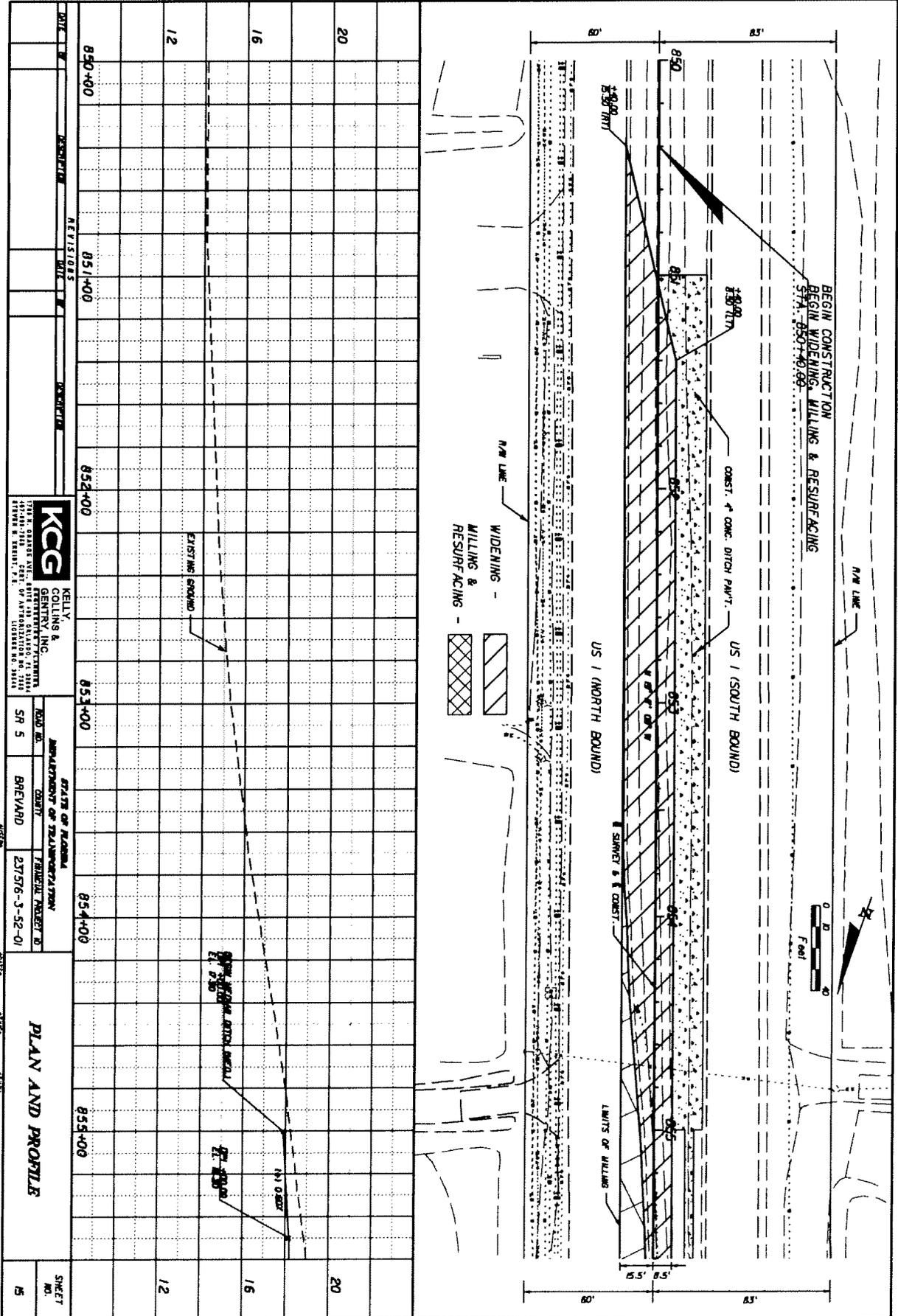
**KCCG**  
KELLY, COLLINS & GENTRY, INC.  
1450 N. GARDEN AVENUE, SUITE 100  
DENVER, COLORADO 80202  
TEL: 303.733.1111 FAX: 303.733.1112  
WWW.KCCG.COM

STATE OF COLORADO  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. 5  
COUNTY OF BREVARD  
PROJECT NO. 217576-3-52-01

**PLAN AND PROFILE**

SHEET NO. 14

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-23.003, F.A.C.



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

**KCCG**  
 KELLY, COLLING & GENTRY, INC.  
 7015 CHASE AVE., SUITE 200  
 GREEN BROOK, N.J. 07033

STATE OF MICHIGAN  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. 5  
 BREVARD  
 21756-3-52-01

**PLAN AND PROFILE**

SHEET NO.	15
-----------	----

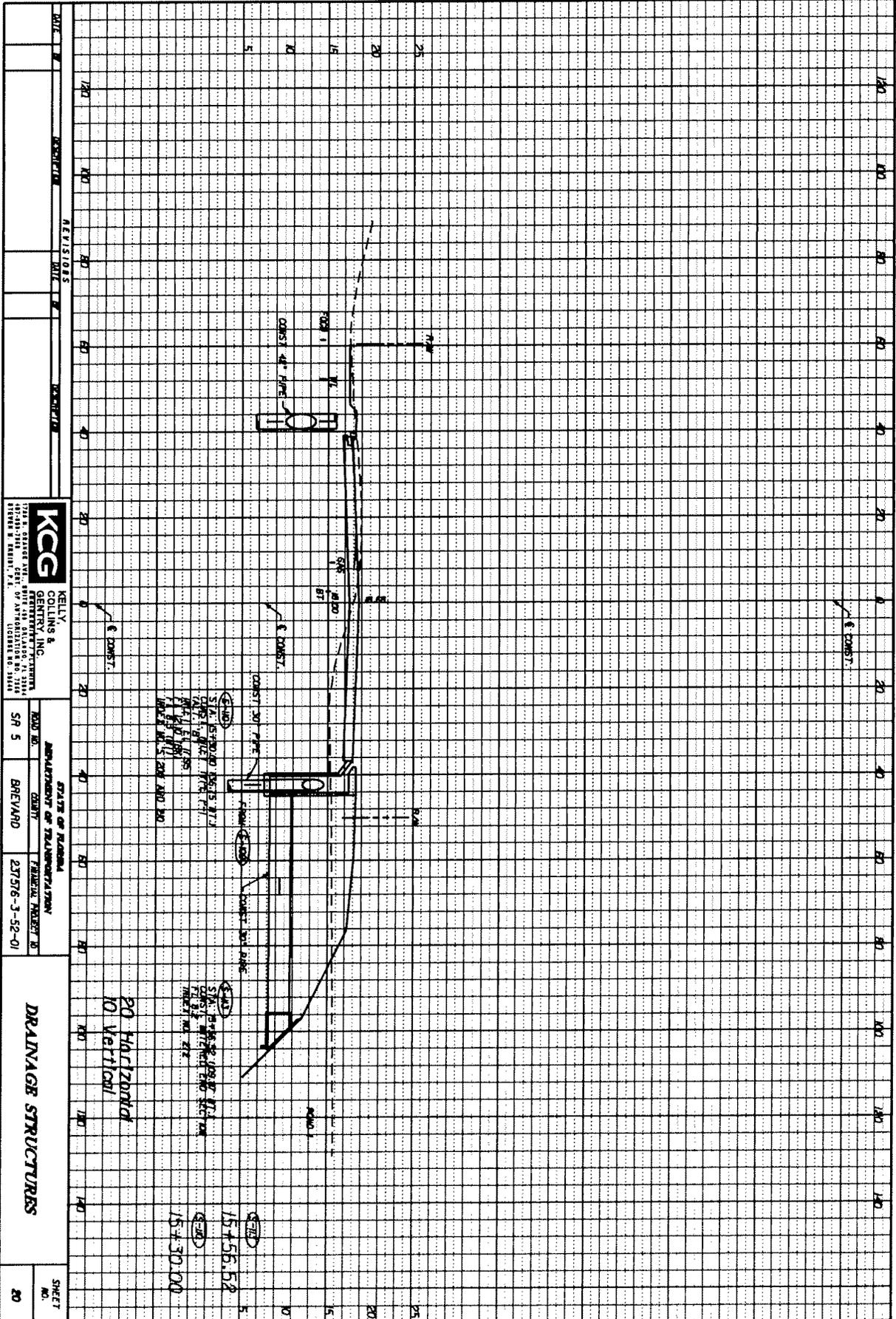
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 695-63.003, F.A.C.











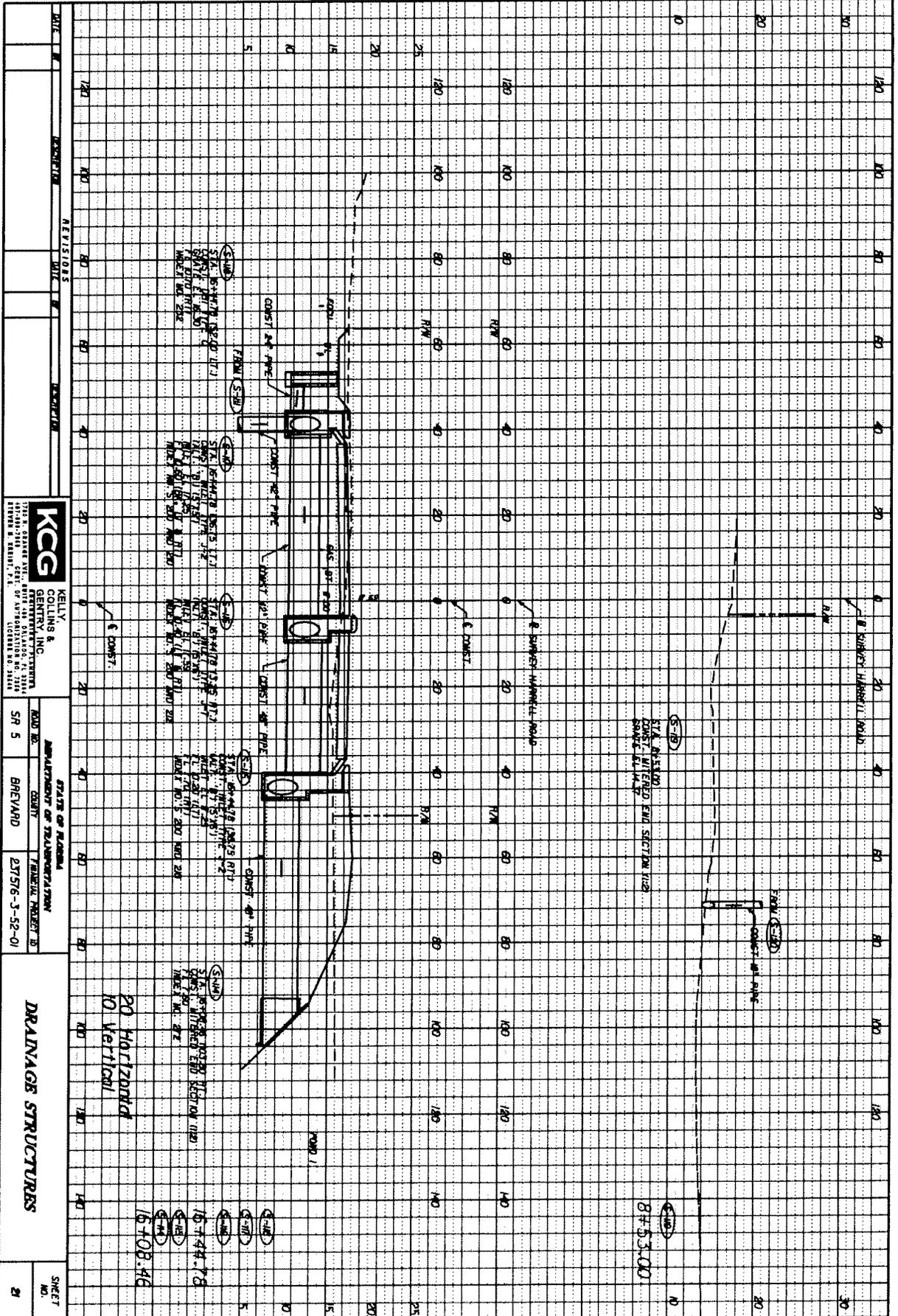
DATE	REVISIONS	DESCRIPTION

**KCCG**  
**KELLY, COLLINS & GENTRY, INC.**  
 REGISTERED PROFESSIONAL ENGINEERS  
 1715 S. GARDNER AVE., SUITE 100  
 DENVER, COLORADO 80202  
 LICENSE NO. 10000

STATE OF COLORADO  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. 5  
 COUNTY OF BREVARD  
 PROJECT NO. 27576-3-52-01

**DRAINAGE STRUCTURES**  
 SHEET NO. 20

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6008-23.003, F.A.C.



DATE	NO.	DESCRIPTION	REVISIONS	DATE	NO.	DESCRIPTION

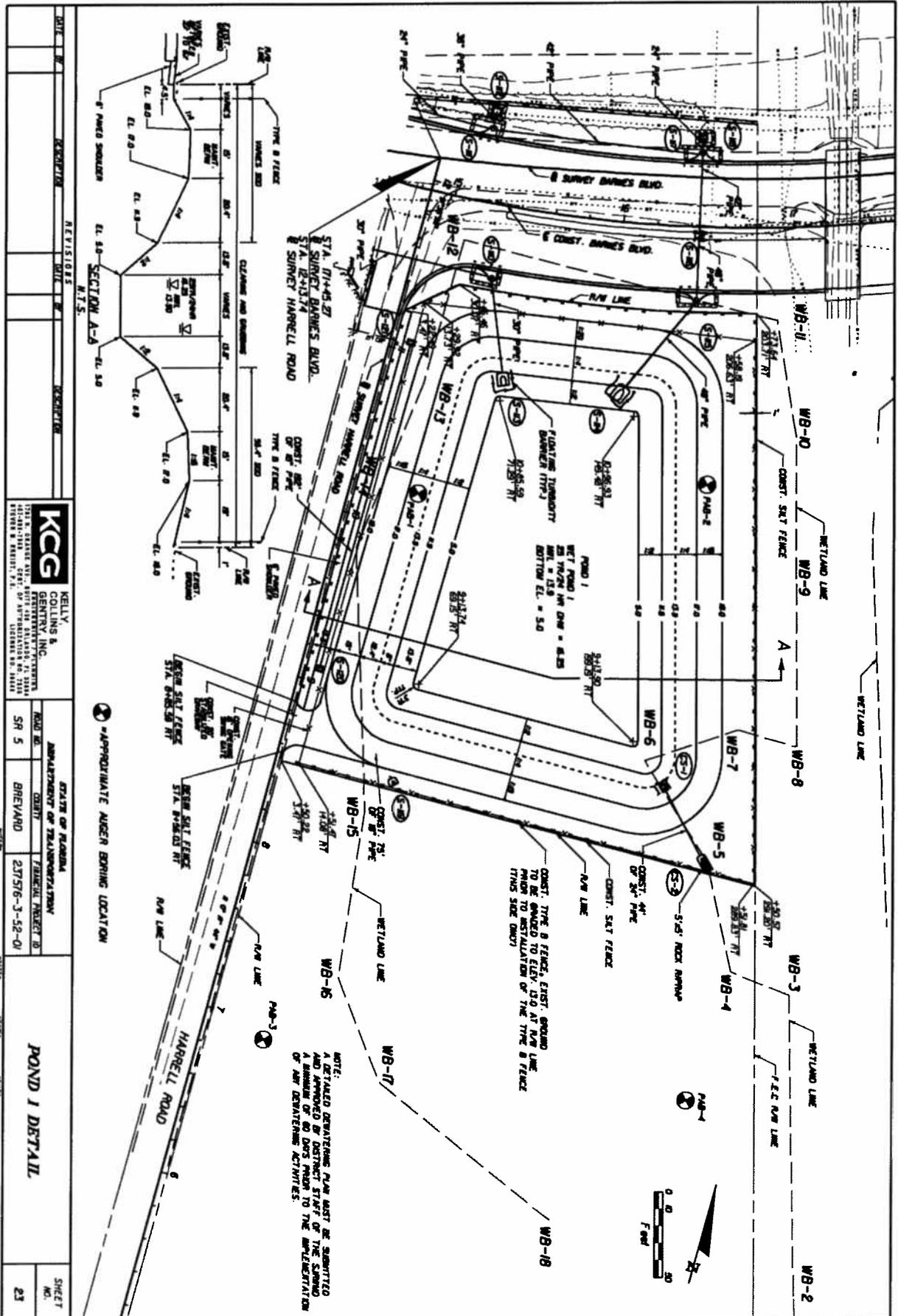
**KCCG**  
 KELLY, GENTRY & GENTRY, INC.  
 7115 N. GARDNER AVE., SUITE 400, OMAHA, NE 68114  
 (402) 426-1100  
 FAX (402) 426-1101  
 WWW.KCCG.COM

STATE OF IOWA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. COUNTY TOWNSHIP PROJECT NO.  
 SR 5 BREVARO 237576-3-52-01

DRAINAGE STRUCTURES  
 SHEET NO. 21

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 606-23.003, F.A.C.





DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
SECTION A-A				
N.T.S.				
APPROXIMATE USER BORING LOCATION				
POND 1 DETAIL				
SHEET NO. 23				

**KCG** KELLY, GENTRY & GENTRY, INC.  
 1415-15th ST. SE  
 SUITE 200  
 ALBUQUERQUE, NM 87102  
 PHONE 505-263-1111  
 FAX 505-263-1112  
 WWW.KCGGENTRY.COM

STATE OF NEW MEXICO  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. 5 SR 5  
 COUNTY BREVARD  
 PROJECT 237516-3-52-01

NOTE:  
 A DETAILED DRAINAGE PLAN MUST BE SUBMITTED AND APPROVED BY DISTRICT STAFF OF THE SANJUAN A BASIN OF 60 DAYS PRIOR TO THE IMPLEMENTATION OF ANY DRAINAGE ACTIVITIES.

CONST. TYPE B FENCE, FIRST GROUND TO BE GRADED TO ELEV. 132.0 AT R/W LINE PRIOR TO INSTALLATION OF THE TYPE B FENCE (THIS SIDE ONLY)



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 600-23-003, F.A.C.



STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
MATERIALS AND RESEARCH

DATE OF SURVEY : 9/06  
SURVEY MADE BY : PSI  
SUBMITTED BY : MUSTAPHA A. ABDOU, P.E.

SECTION : 23  
TOWNSHIP : 28 SOUTH  
RANGE : 36 EAST

FINANCIAL PROJECT ID : 237576-3  
CROSS SECTION SOIL SURVEY FOR THE DESIGN OF ROADS  
BARNES BOULEVARD (S.R. 502)  
SURVEY BEGINS STA. : 64489.5 SURVEY ENDS STA. : 75173.05  
U.S. 1 (S.R. 51)  
SURVEY BEGINS STA. : 851400 SURVEY ENDS STA. : 859400

DISTRICT : 5  
ROAD NO. : S.R. 502  
COUNTY : BREVARD

STATION NO.	LAB TEST	ORGANIC CONTENT		MOISTURE CONTENT		SEGE ANALYSIS RESULTS				ATTENDING LIMITS			DESCRIPTION	COMPRESSION TEST RESULTS					SUBSTRUCTURE ENVIRONMENTAL CLASSIFICATION			
		NO. OF TESTS	%	NO. OF TESTS	%	NO. OF TESTS	% PASSING 40 MESH	% PASSING 60 MESH	% PASSING 100 MESH	% PASSING 200 MESH	NO. OF TESTS	LIQUID LIMIT		PLASTIC INDEX	ASPHIT GROUP	NO. OF TESTS	RESISTIVITY (KSI)	CHANGES (KSI)		SHALTY (KSI)	PI	CONCRETE
1	-	2	1-2	2	6-9	47 (U)	96-100	73-87	30-57	8-26	1-7	NP	NP	A-3	ORANGE-GROWN TO DARK BROWN FINE SAND TO FINE SAND WITH SILT	-	-	-	-	-	-	-
2	-	2	20-35	2	0.5-2.2	-	-	-	-	-	-	-	-	A-4	DARK BROWN ORGANIC SILTY FINE SAND TO FLAT	-	-	-	-	-	-	-

- NOTES:
- (1) STRATA BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL STRATA AT EACH TEST HOLE LOCATION ONLY. ALL STATION CONNECTING LINES SHOWN ARE FOR ESTIMATING ELEVATIONS ONLY AND DO NOT INDICATE BOUNDARIES. THE STRATA BOUNDARIES SHOWN ARE FOR ESTIMATING ELEVATIONS ONLY AND DO NOT INDICATE BOUNDARIES. THE STRATA BOUNDARIES SHOWN ARE FOR ESTIMATING ELEVATIONS ONLY AND DO NOT INDICATE BOUNDARIES. THE STRATA BOUNDARIES SHOWN ARE FOR ESTIMATING ELEVATIONS ONLY AND DO NOT INDICATE BOUNDARIES.
  - (2) IF THE SYMBOL "X" IS PRESENT, IT REPRESENTS UNMEASURED SOIL PARAMETERS.
  - (3) SOIL ANALYSIS INCLUDES DATA FROM ROADWAY AND ROAD PAVED DOMAINS.
  - (4)  INDICATES ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL.  INDICATES ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL.  INDICATES ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL.  INDICATES ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL.

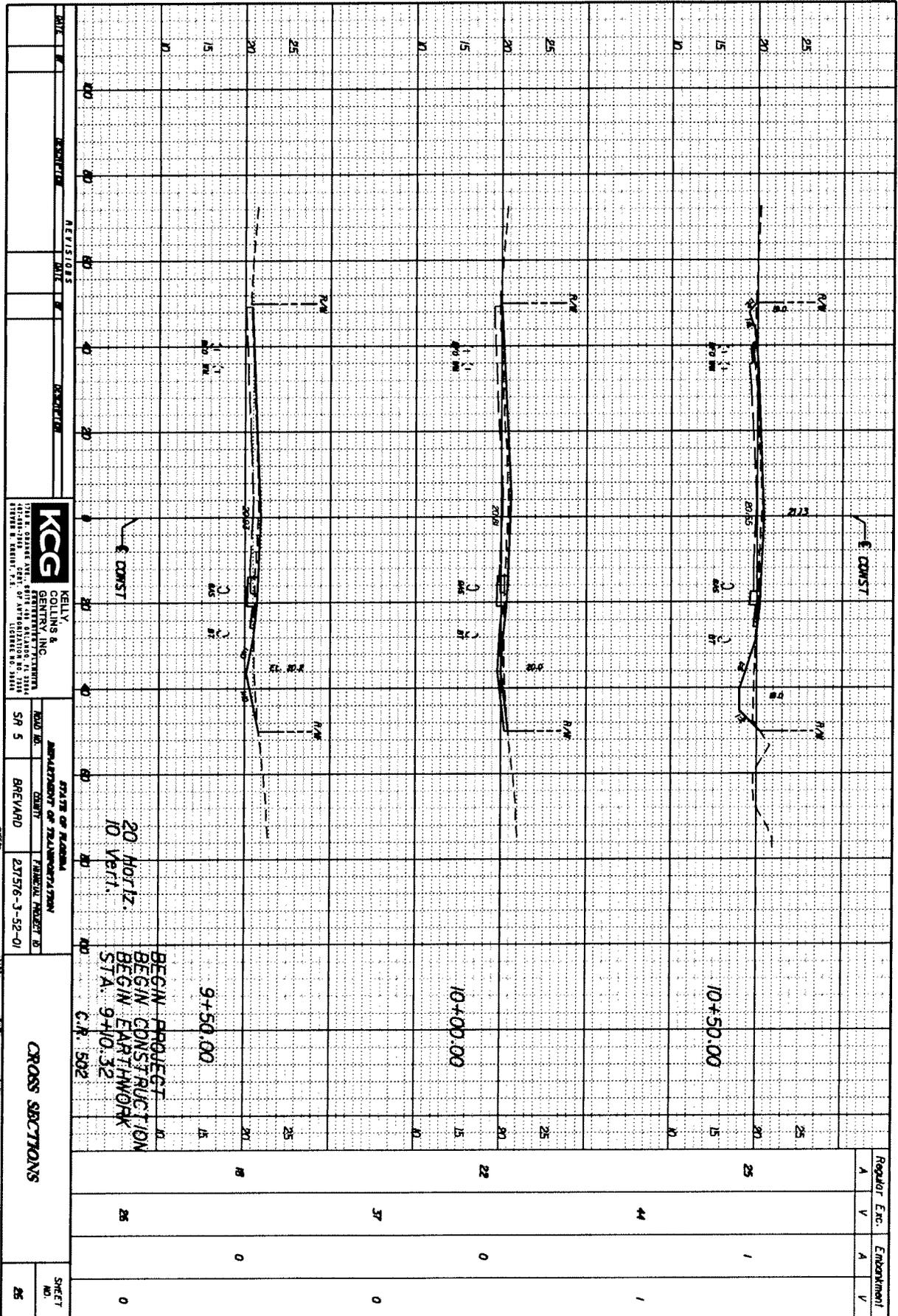
- (5) THE MATERIAL FROM STATION NO. 1 IS SELECTED MATERIAL AND SHALL BE UTILIZED IN ACCORDANCE WITH MEET NO. 502.
- (6) THE MATERIAL FROM STATION NO. 2 SHALL BE CONSIDERED AS UNDESIRABLE SOIL, ROCK OR SAND AND SHALL BE REMOVED IN ACCORDANCE WITH MEET NO. 502.
- (7) THE CONTRACTOR SHALL BE FURNISHED TO HANDLE ARTESIAN WATER LEVELS UP TO AN ESTIMATED HEAD ELEVATION OF +30 FT. MVD.

REVISED

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
MATERIALS AND RESEARCH  
BREVARD COUNTY  
237576-3

ROADWAY SOIL SURVEY

SHEET NO. 25



DATE	REVISIONS	DATE	REVISIONS

**KCG**  
 KELLY COLLINS &  
 GENTRY, INC.  
 STATE ENGINEER'S EXAMINATION  
 10-14-2018 2:00 PM  
 LICENSE NO. 3188

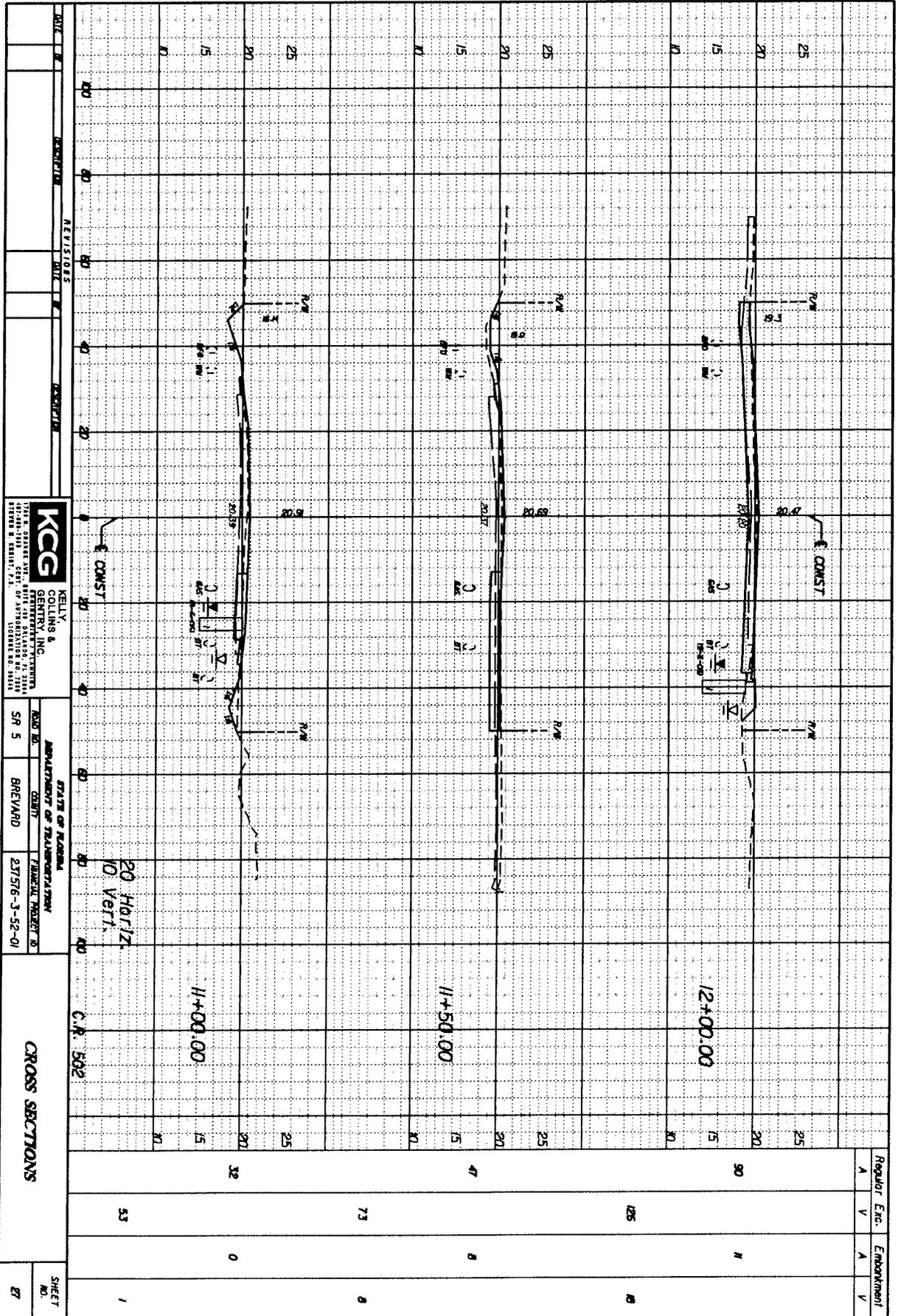
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. SR 5  
 COUNTY BREVARD  
 PROJECT NO. 237576-3-52-01

20 Horiz.  
 10 Vert.  
 BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 BEGIN EARLYWORK  
 STA. 9+10.32  
 C.R. 502

**CROSS SECTIONS**

SHEET NO. 25

NOTE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6095-23.005, F.A.C.

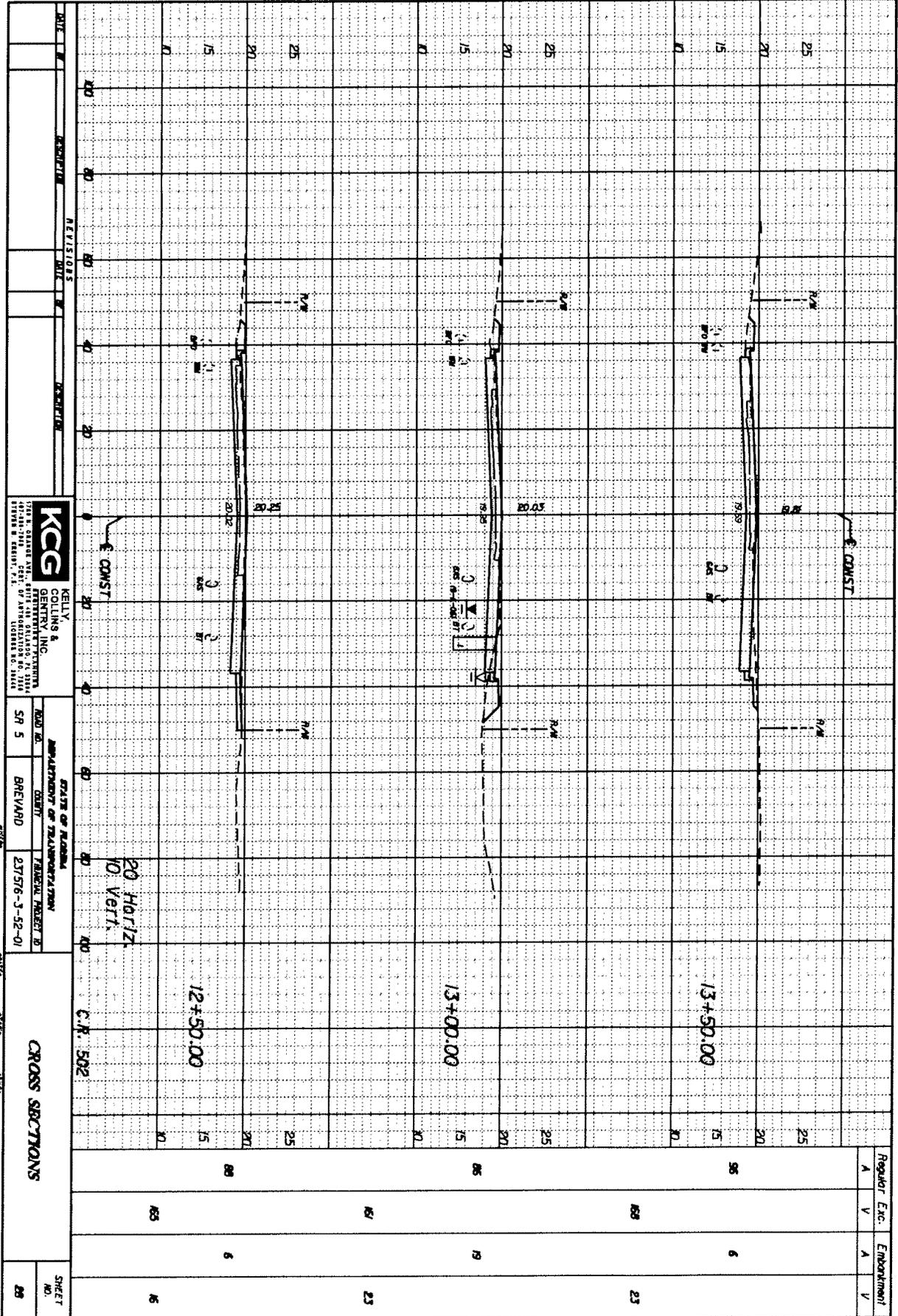


**KCCG**  
 KELLY, COLLINS &  
 GENTRY, INC.  
 ENGINEERS  
 1101 N. GARDNER AVE., SUITE 400, OKLAHOMA CITY, OKLAHOMA 73104  
 PHONE: (405) 761-1100 FAX: (405) 761-1101

STATE OF OKLAHOMA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. COUNTY FINANCIAL PROJECT NO.  
 SR 5 BREVARD 237576-3-52-01

CROSS SECTIONS  
 SHEET NO. 27

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6095-23.003, F.A.C.



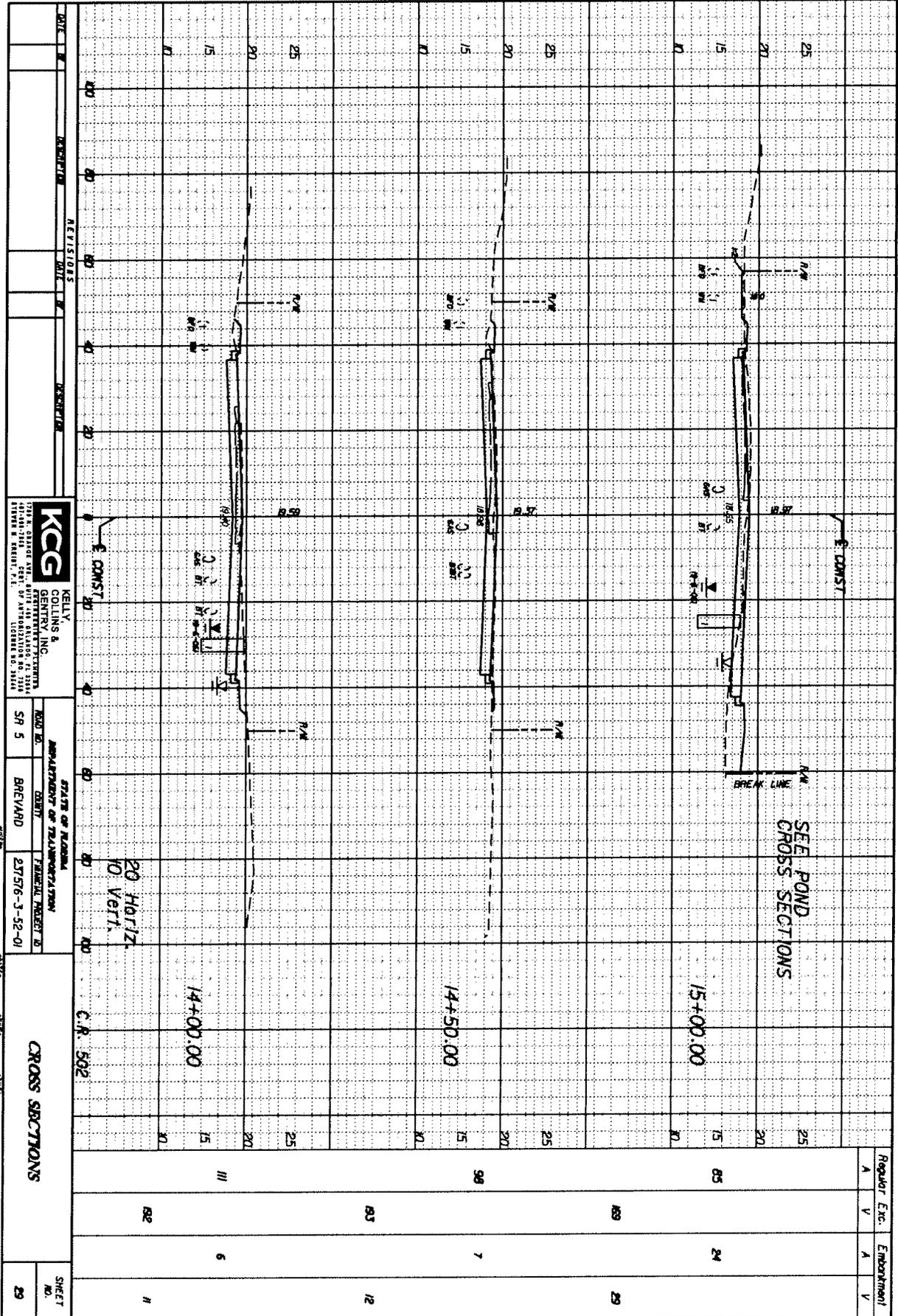
DATE	BY	REVISION	DATE	BY

**KCCG** KELLY, COLLINS & GENTRY INC.  
 1715 N. CHICAGO AVE., SUITE 100  
 CHICAGO, ILL. 60642  
 (773) 442-7100  
 FAX (773) 442-7101  
 WWW.KCCG.COM

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 ROAD DISTRICT NO. 5  
 COUNTY BREKID  
 PROJECT NO. 217576-3-52-01

CROSS SECTIONS  
 SHEET NO. 23

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SHOWN AND SEALED UNDER RULE 006-23.005, F.A.C.



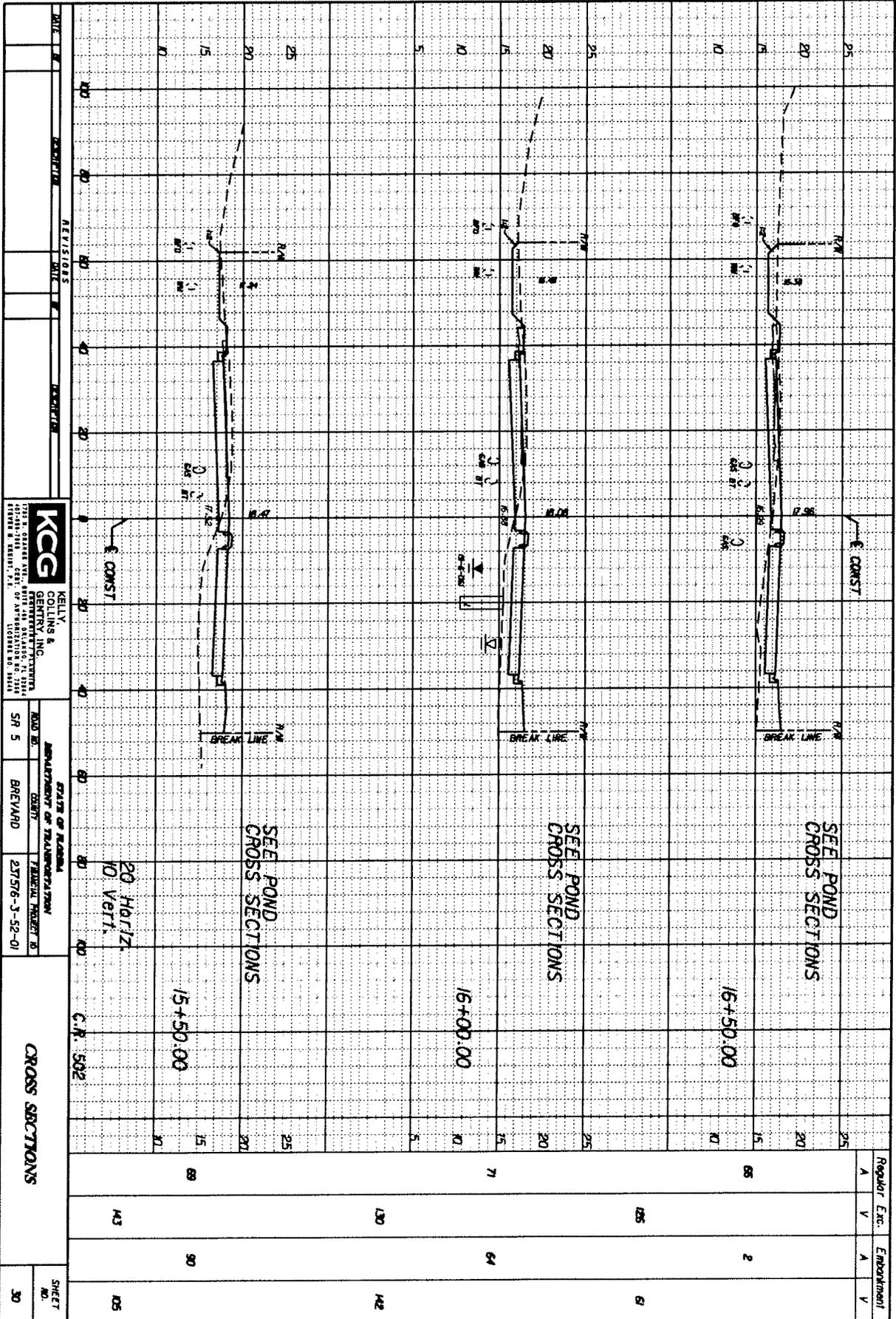
DATE	REVISIONS	DATE	REVISIONS

**KCG** KELLY, COLLINS & GENTRY, INC.  
 1725 N. GARDNER AVENUE, SUITE 100  
 CHICAGO, ILLINOIS 60642  
 PHONE: 312.346.1000  
 FAX: 312.346.1001  
 WWW.KCG.COM

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. SR 5  
 COUNTY BREVARD  
 THERMAL PROJECT ID 21576-3-52-01

CROSS SECTIONS  
 SHEET NO. 29

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 8005-13.003, P.A.C.



DATE	REVISIONS	REVISIONS

**KCG**  
 KELLY, COLLINS & GENTRY, INC.  
 PROFESSIONAL ENGINEERS  
 401-144-7100  
 1000 N. W. 10th St., Suite 100  
 Ft. Lauderdale, FL 33304

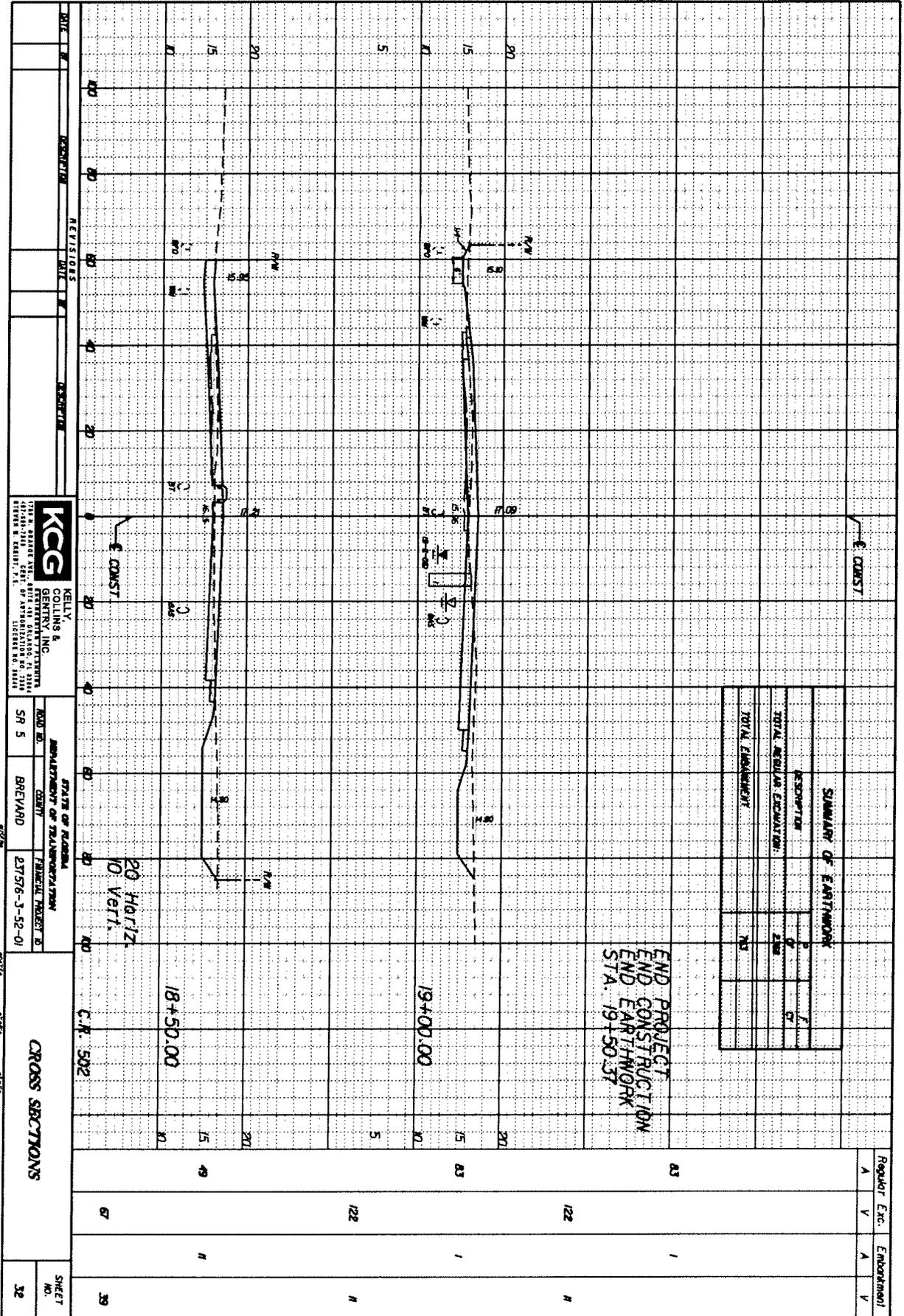
STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 COUNTY: BREVARD  
 ROAD NO: SR 5  
 PROJECT NO: 237576-3-52-01

CROSS SECTIONS  
 SHEET NO. 30

Stationing	SEE POND CROSS SECTIONS		SEE POND CROSS SECTIONS		SEE POND CROSS SECTIONS	
	Regular	Exc.	Regular	Exc.	Regular	Exc.
15+50.00	68	143	68	2	68	125
16+00.00	71	130	71	64	71	125
16+50.00	68	143	68	2	68	125

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-23.003, F.A.C.





SUMMARY OF EARTHWORK			
DESCRIPTION	P	C	F
TOTAL AMOUNT OF EXCAVATION:	258		
TOTAL FILLWATER:	ND		

END PROJECT  
END CONSTRUCTION  
END EARTHWORK  
STA. 19+50.37

DATE	BY	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

**KCCG**  
KELLY, COLLINS & GENTRY INC.  
14150-138th AVE., SUITE 100, BELLINGHAM, WA 98226  
PHONE: 360-835-7111 FAX: 360-835-7112  
WWW.KCCG.COM

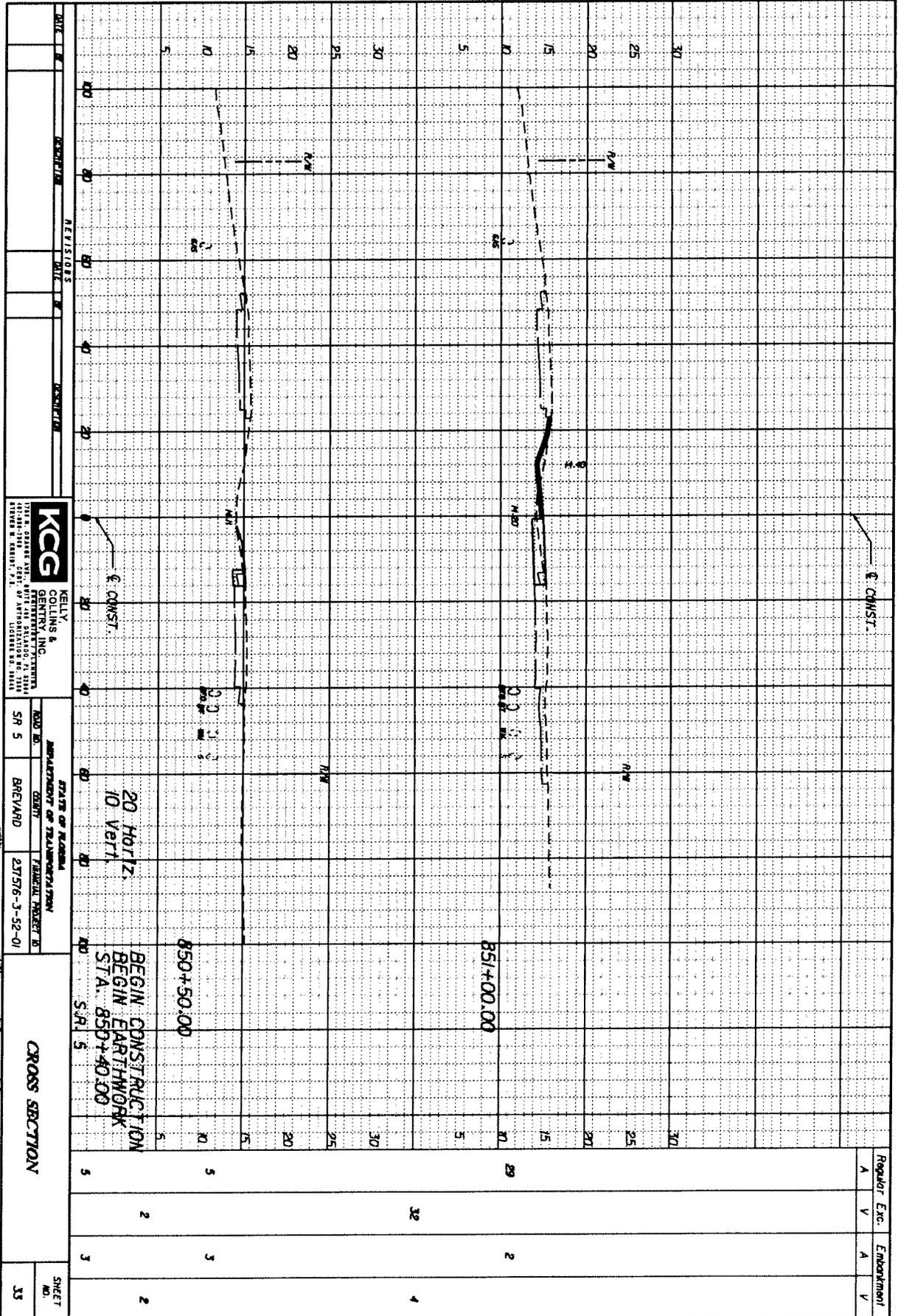
STATE OF WASHINGTON  
DEPARTMENT OF TRANSPORTATION  
COUNTY: FRANKLIN COUNTY  
PROJECT: SR 5 BREYARD 217576-3-52-01

CROSS SECTIONS

SHEET NO. 32

Revised	Exc.	Environment
A	V	A
		V

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-23.003, F.A.C.



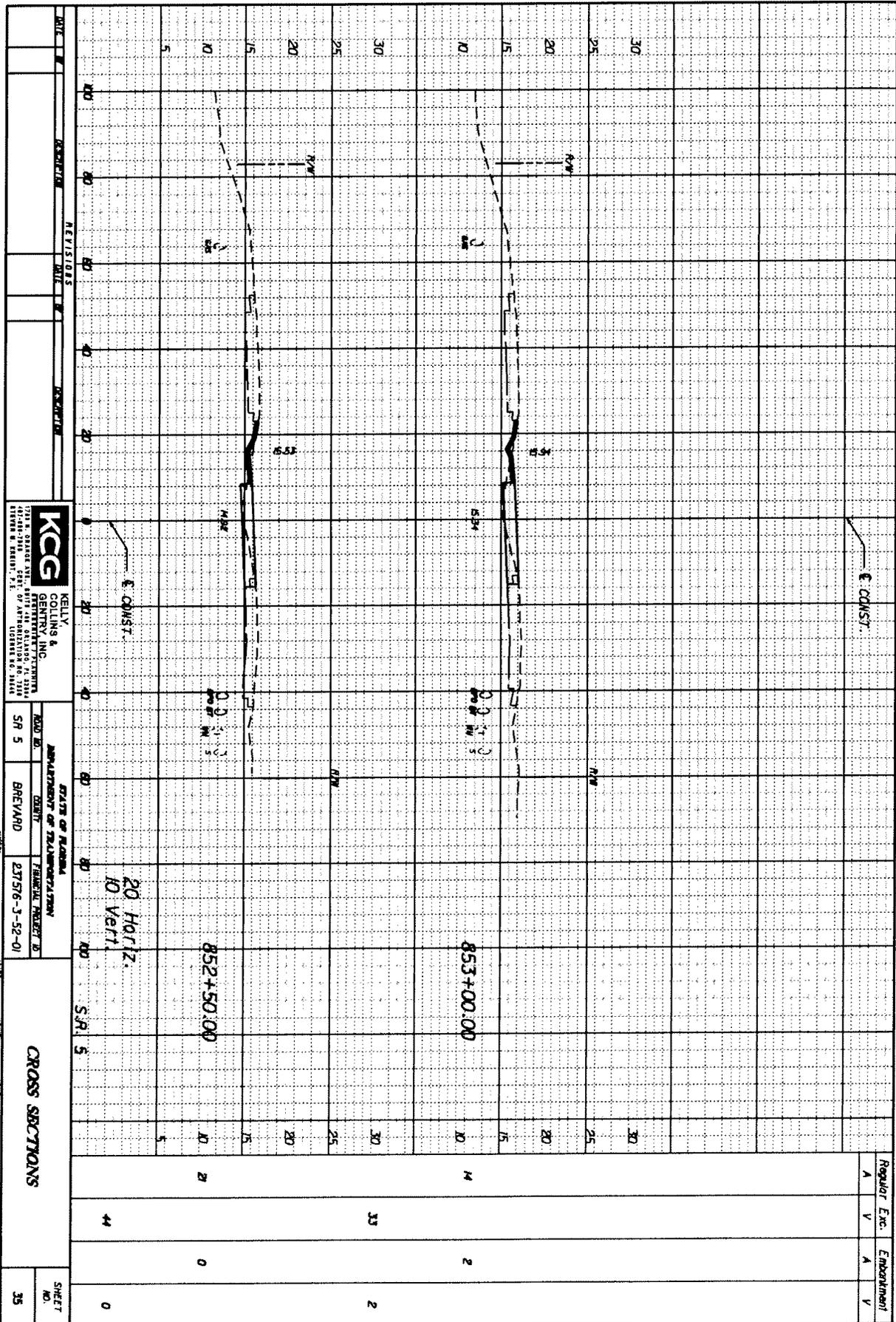
**KCCG**  
 KELLY COLLINS & GENTRY, INC.  
 REGISTERED PROFESSIONAL ENGINEERS  
 141-440-7900 CERT. OF AUTHORIZATION NO. 2100  
 LICENSE NO. 18448  
 BREWER & BERRY, P.C.  
 LICENSE NO. 18448

STATE OF TEXAS  
 DEPARTMENT OF TRANSPORTATION  
 COUNTY: TARRANT  
 PROJECT NO. 217576-3-52-01  
 ROAD NO. SR 5  
 BREVARD

CROSS SECTION  
 SHEET NO. 33

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 8005-23.003, F.A.C.





**KCCG**  
 KELLY, COLLINS &  
 GENTRY INC.  
 7711 W. GARAGE STREET, SUITE 400, OMAHA, NE 68124  
 402.426.1111 FAX 402.426.1112  
 1000 N. GARDNER STREET, SUITE 200, OMAHA, NE 68102  
 402.426.1111 FAX 402.426.1112

STATE OF NEBRASKA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. 5  
 COUNTY OF BREVARD  
 PROJECT NO. 237576-3-52-01

CROSS SECTIONS

SHEET NO. 35

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6095-23.003, F.A.C.



DATE	REVISIONS	REVISIONS	REVISIONS

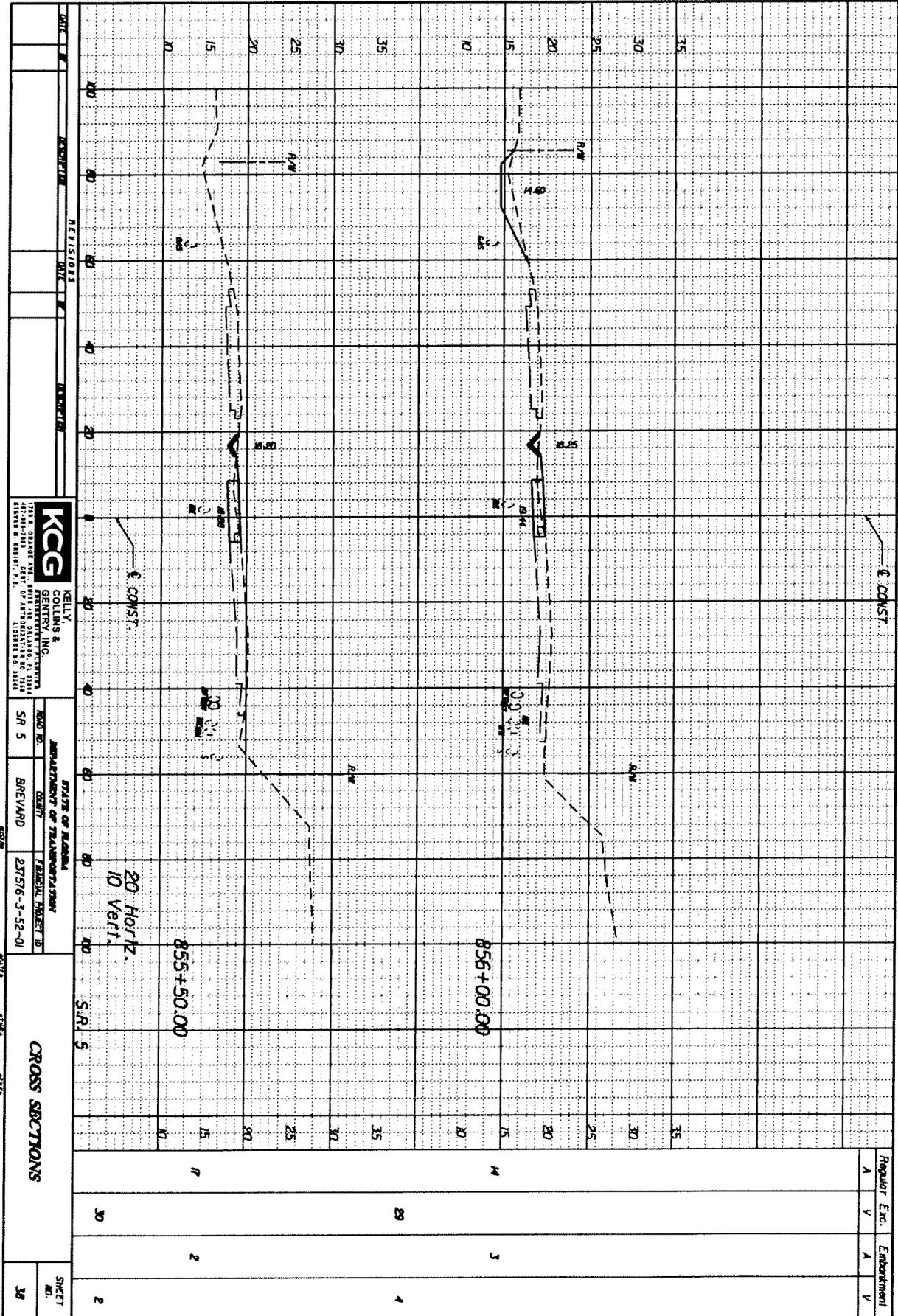
**KCG**  
 KELLY, COLLINS & GENTRY, INC.  
 ENGINEERS AND ARCHITECTS  
 1415-1421 20th St., Suite 100  
 Brea, CA 92621  
 (714) 991-1100  
 LICENSE NO. 31418

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. SR 5  
 COUNTY BREWARD  
 PROJECT NO. 217576-3-52-01

CROSS SECTIONS  
 SHEET NO. 36

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 8005-23.005, F.A.C.





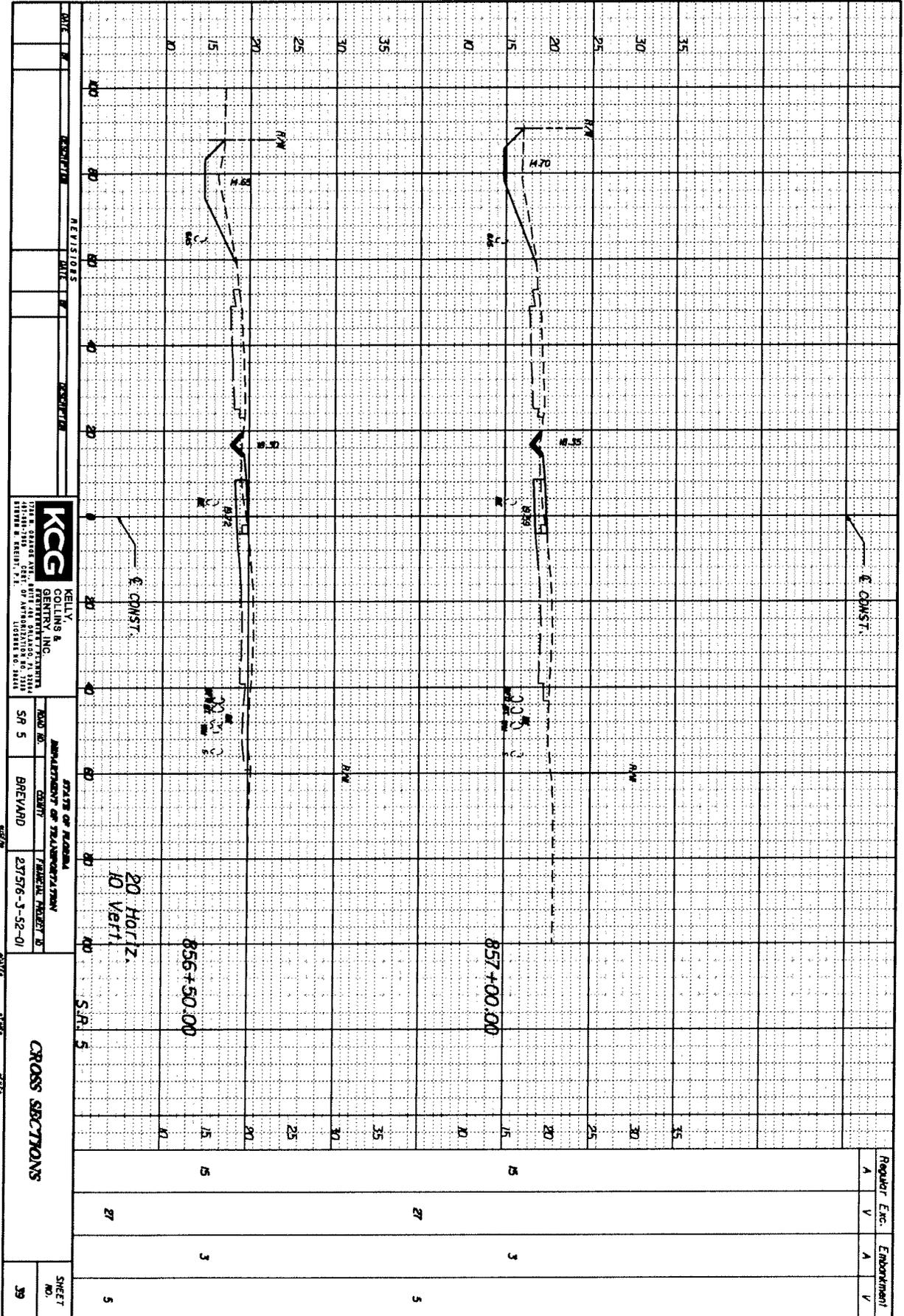
**KCCG**  
 KELLY, COLLINS & GENTRY, INC.  
 1735 N. GARDNER AVE., SUITE 400, OKLAHOMA CITY, OKLAHOMA 73104  
 ENGINEERS AND ARCHITECTS

STATE OF OKLAHOMA  
 DEPARTMENT OF TRANSPORTATION  
 COUNTY: TULSA  
 ROAD NO.: SR 5  
 COUNTY: BREVARD  
 PROJECT NO.: 21516-3-52-01

CROSS SECTIONS

SHEET NO. 36

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SHOWN AND SEALED UNDER RULE 6065-83.005, F.A.C.



DATE	BY	REVISION	DATE	REVISION

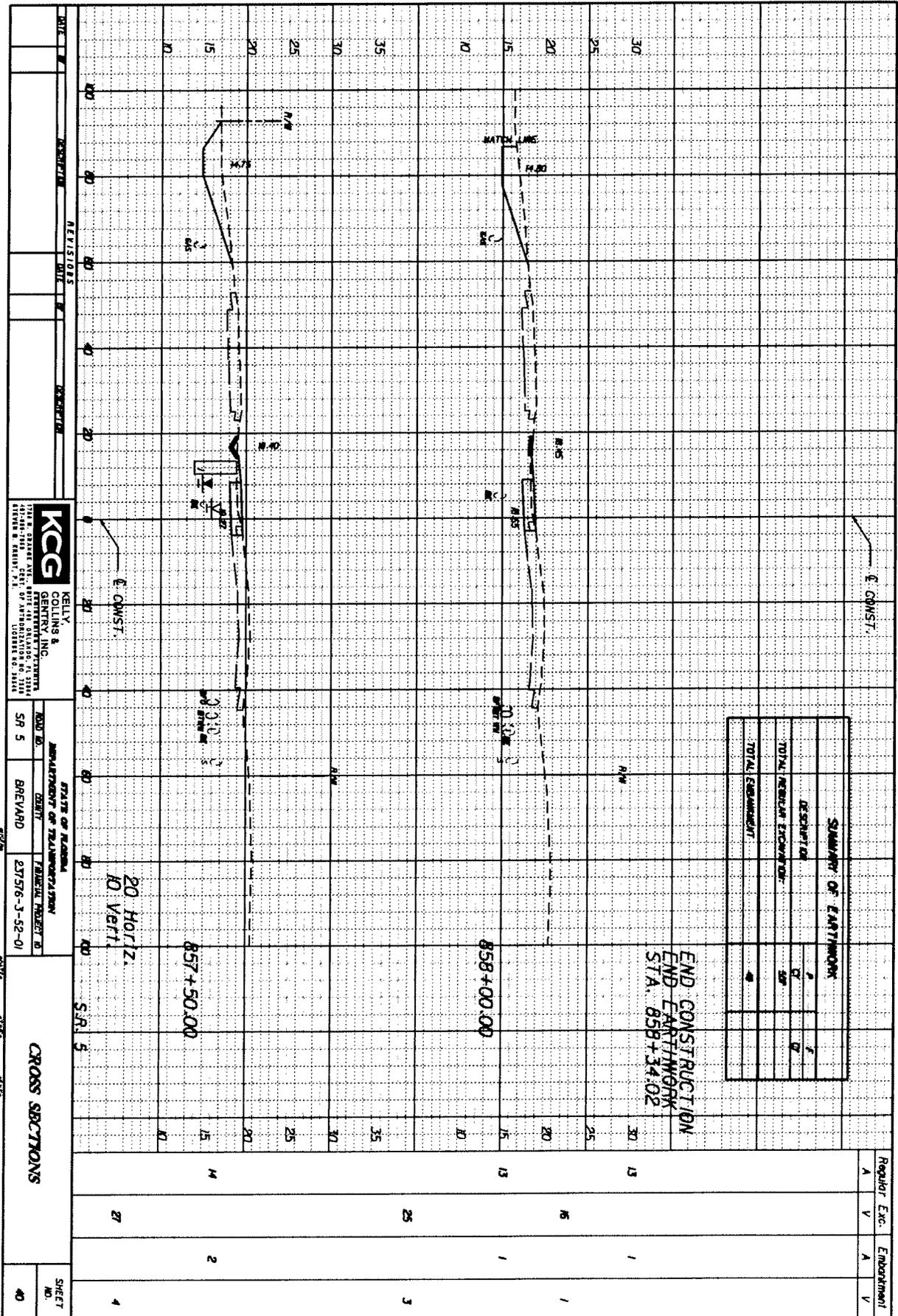
**KCCG**  
 KELLY, COLLINS & GENTRY, INC.  
 7718 N. GARAGE AVENUE, SUITE 100, CHICAGO, IL 60631  
 773 N. GARAGE AVENUE, SUITE 100, CHICAGO, IL 60631  
 1100 N. WABASH AVENUE, SUITE 100, CHICAGO, IL 60642

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 COUNTY OF BREKID  
 ROAD NO. SR 5  
 PROJECT NO. 237576-3-52-01

DATE: 07/20/17  
 SHEET NO. 39  
 CROSS SECTIONS

Station	Profile	Right of Way	Existing Construction	Sheet No.
857+00.00	3	27	5	5
856+50.00	3	27	5	5

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 606-23.003, F.A.C.



SUMMARY OF EARTHWORK			
EXCAVATION	1	2	3
TOTAL REGULAR EXCAVATION	1	2	3
TOTAL EARTHWORK	1	2	3

END CONSTRUCTION  
END EARTHWORK  
STA. 858+34.02

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

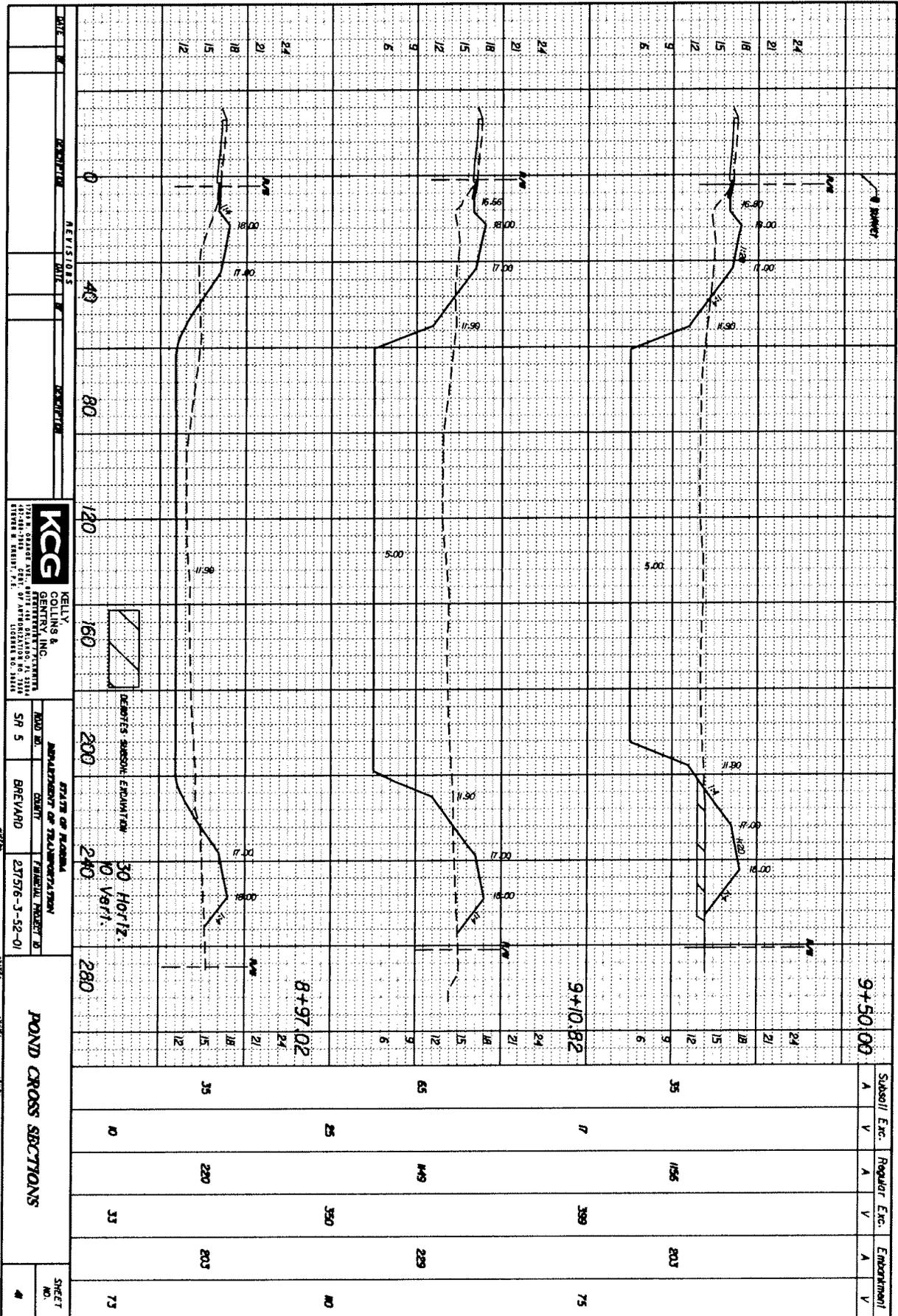
**KCG** KELLY, COLLINS & GENTRY, INC.  
 41-146-194  
 1111 S. WASHINGTON ST., SUITE 100  
 CHICAGO, ILLINOIS 60607  
 PHONE: 312.467.1111

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 BUREAU OF HIGHWAYS  
 PROJECT NO. 23756-3-52-01

ROAD NO. SR 5  
 COUNTY BREVARD  
 SHEET NO. 40

**CROSS SECTIONS**

NOTE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 606-23.005, F.A.C.



SCALE	DESCRIPTION	REVISIONS	DATE

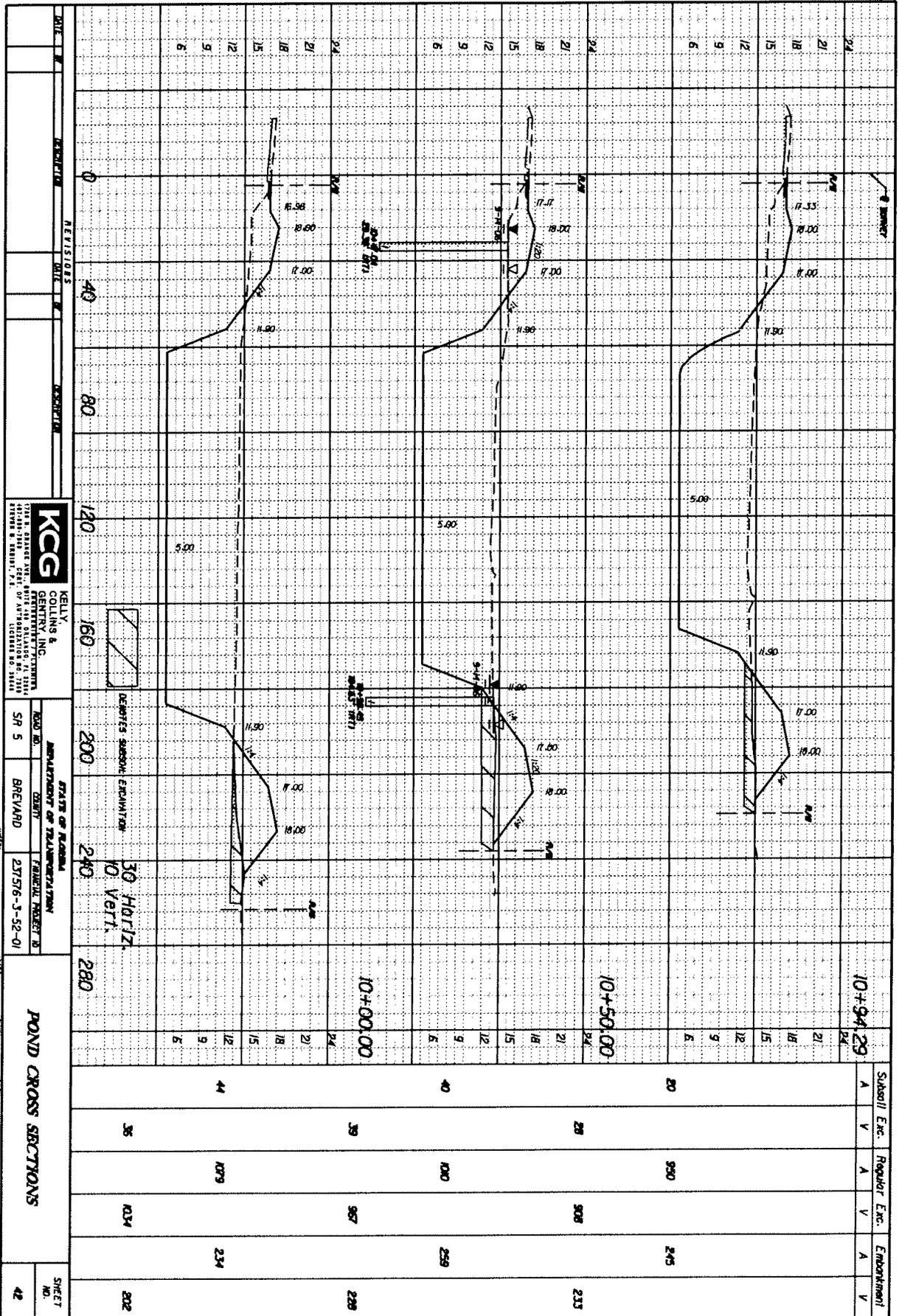
**KCG**  
 KELLY GENTLY & GENTLY, INC.  
 ENGINEERS & ARCHITECTS  
 1417-240-3000  
 1417-240-3000  
 1417-240-3000  
 1417-240-3000

STATE OF MICHIGAN  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. SR 5  
 COUNTY BREVARD  
 PROJECT NO. 237576-3-52-01

**POND CROSS SECTIONS**

Station	Subsoil Exc.		Regular Exc.		Embankment	
	A	V	A	V	A	V
9+50.00			196	35	803	
8+97.02			220	65	803	
9+10.82			399	7	229	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 699B-23.003, F.A.C.



DATE	REVISIONS	DESCRIPTION	DATE	DESCRIPTION

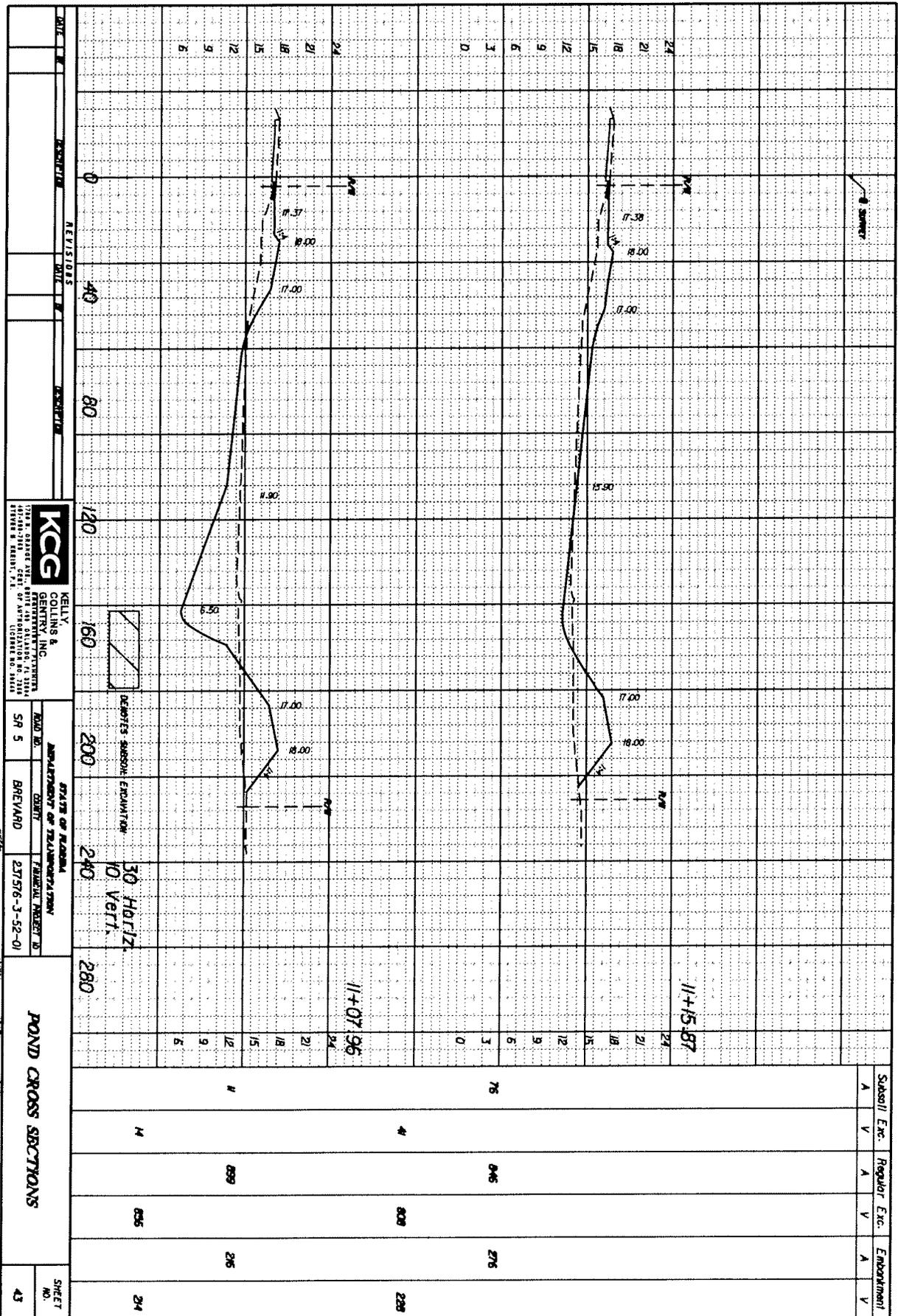
**KCG** KELLY, GENTRY & COLLINS, INC.  
 1575 N. GARDNER AVENUE, SUITE 400, OKLAHOMA CITY, OKLAHOMA 73104  
 405.948.1100 FAX 405.948.1101

STATE OF OKLAHOMA  
 DEPARTMENT OF TRANSPORTATION  
 FEDERAL PROJECT NO. 237576-J-52-01  
 ROAD NO. COUNTY BREVARD SR 5

**POUND CROSS SECTIONS**

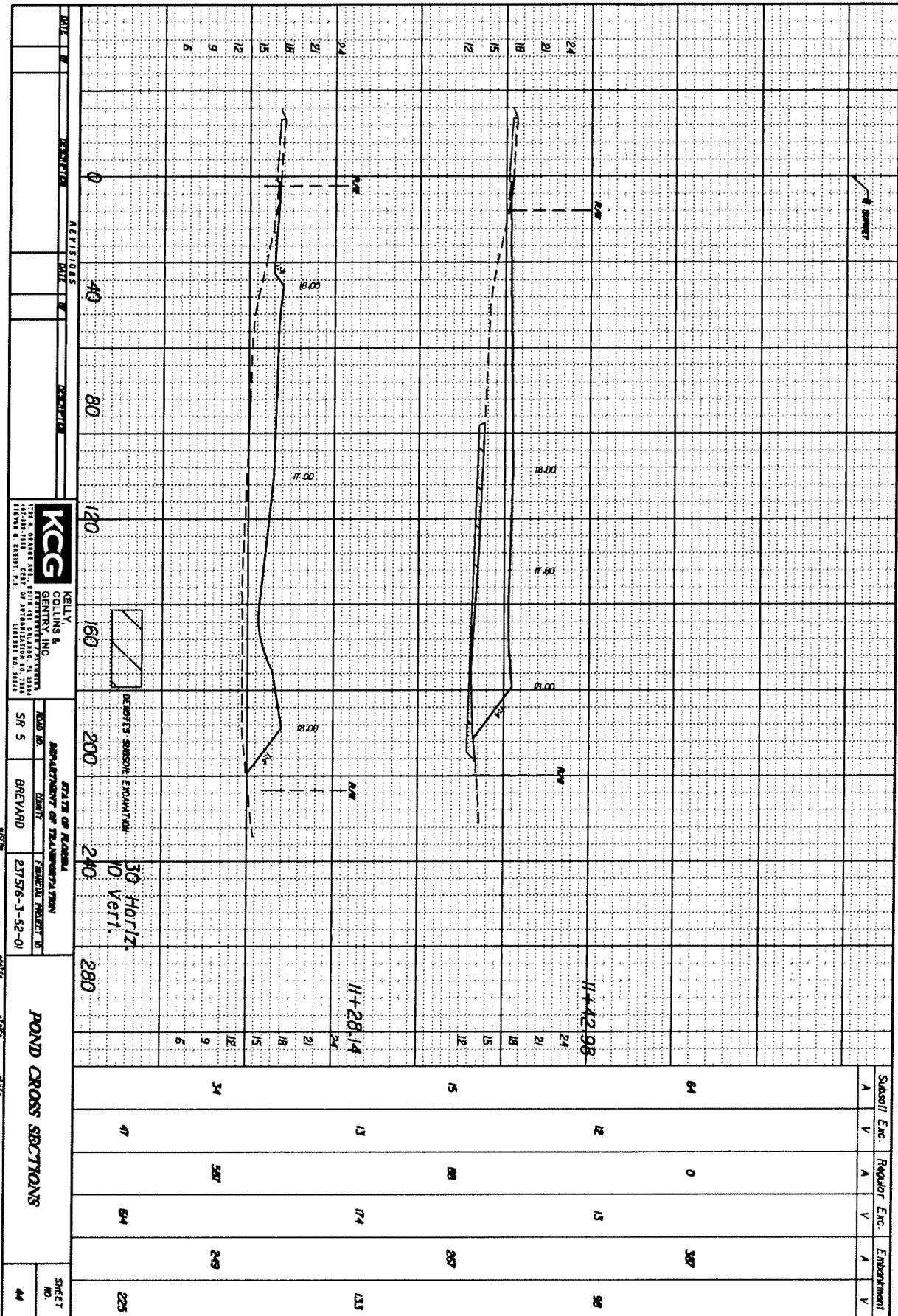
SHEET NO. 42

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 606-23.003, F.A.C.



DATE	DESCRIPTION	DATE	DESCRIPTION
<b>KCCG</b> KELLY, COLLINS & GENTRY, INC. PROFESSIONAL ENGINEERS 401-140-2100    OFFICE OF APPROPRIATION NO. 2344 1000 W. 10TH ST.    DENVER, CO 80202    LICENSE NO. 38844			
ROAD NO.	SECTION	DATE OF RECORD	SCALE OF RECORD
SR 5	BREVIARD	23756-3-52-01	
ANALYST/PROJECT OF RECORD BREVIARD    PROJECT NUMBER 10			50 HORIZ. 10 VERT.
<b>POND CROSS SECTIONS</b>			SHEET NO. 43

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 609-23.003, F.A.C.



**KCG**  
 KELLY, COLLINS & GENTRY, INC.  
 15120 N. 29TH AVENUE, SUITE 400, DENVER, CO 80242  
 (303) 751-1000

STATE OF COLORADO  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. COUNTY PROJECT NO.  
 SR 5 BREYARD 23756-3-52-01

**POND CROSS SECTIONS**

SHEET NO. 44

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6095-23.003, F.A.C.

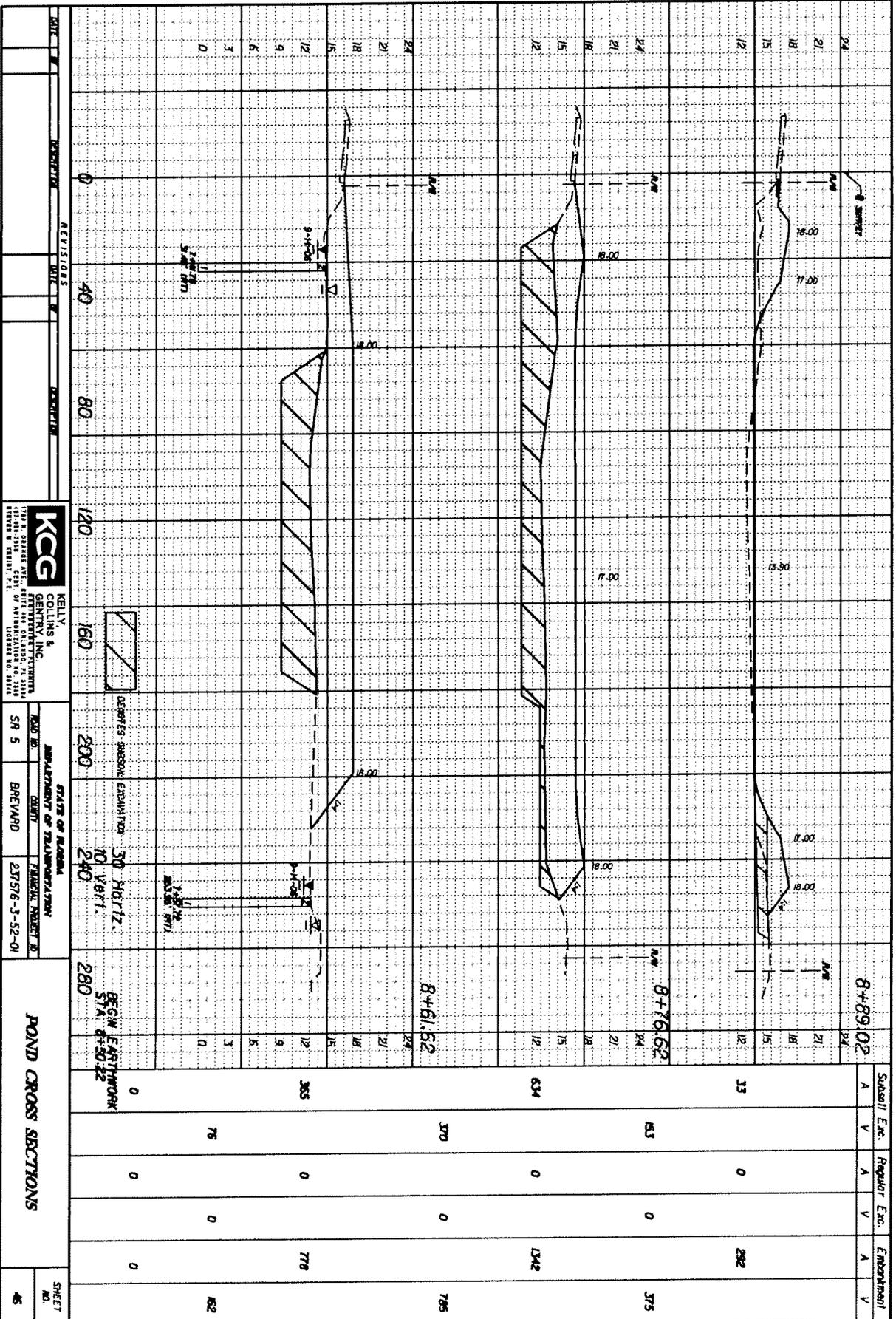
Station	Excavation		Embankment		SHEET NO.
	A	V	A	V	
0					SUMMARY OF EARTHWORK REPORTED TOTAL ACTUAL EXCAVATION: 0 TOTAL ACTUAL EMBANKMENT: 0 TOTAL SPECIAL EXCAVATION: 0 TOTAL EMBANKMENT: 0
40					
80					
120					
160					
200					
240					
280					
320					
360					
400					
440					
480					
520					
560					
600					
640					
680					
720					
760					
800					
840					
880					
920					
960					
1000					
1040					
1080					
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2600					
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STATE OF KANSAS  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. SR 5  
 COUNTY BREVARD  
 PROJECT NO. 23756-3-52-01

POND CROSS SECTIONS  
 SHEET NO. 45

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6005-23.003, F.A.C.



**KCCG** KELLLY COLLINS & GENTRY, INC. REGISTERED PROFESSIONAL ENGINEERS

STATE OF ILLINOIS

ROAD NO. SR 5 COUNTY BREYVARD

237576-3-52-01

**POND CROSS SECTIONS**

SHEET NO. 45

**1.0 SITE DESCRIPTION**

**1.1 CONSTRUCTION ACTIVITIES**

Activities include:  
 Construction of new pavement including asphalt, base and subbase.  
 Construction of curb and gutter and drainage.  
 Construction of a stormwater sewer system including inlets and stormwater pipes, and pond.

**1.2 PROJECT LIMITS**

Barnes Boulevard, Bradford County, Section 23, T25S, R36E. The project limits are from Sta. 9+0.32 to Sta. 8+50.37 along Barnes Blvd. and from Sta. 850+40.00 to 860+00.00 along US 1.

**1.3 PROJECT DESCRIPTION**

This project is the milling, resurfacing and widening of a section of Barnes Boulevard, included is the conversion of the roadway from a rural section with flush shoulders and ditches to an urban section with curb and gutter and an underground storm sewer system. A stormwater treatment pond will also be constructed.

**1.4 MAJOR SOIL DISTURBING ACTIVITIES**

Include all phases of the perimeter of the proposed project limits. Demolition of existing roadway. Clearing and grubbing of proposed construction limits. Excavation and fill to construct pond and drainage system. Earthwork to construct roadway. Sidewalk tie-in.

**1.5 TOTAL PROJECT AREA**

7.50 Acres

**1.6 TOTAL AREA TO BE DISTURBED**

7.50 Acres

**1.7 RUNOFF DATA**

PRE CONSTRUCTION C-VALUES = 0.6  
 POST CONSTRUCTION C-VALUES = 0.7  
 DURING CONSTRUCTION C-VALUES = 0.6 - 0.7

**1.8 SITE MAP**

For site map: See Drainage Maps located in the roadway plans.

**1.9 RECEIVING WATERS / WETLAND AREAS**

Project outfalls to Indian River 28° 17' 31.77" N, 80° 41' 46.35" W

**2.1 NARRATIVE**

During the construction operations, the following control measures will be used to prevent erosion and sedimentation.  
 Clearing and grubbing operations shall be controlled as to minimize unprotected erodible areas exposed to weather. Areas outside the limits of construction shall not be disturbed.  
 New and existing structures will be protected from siltation during construction. The contractor must develop a detailed Erosion and Sediment Control Plan and submit for review. The plan will include:  
 • The construction project schedule with erosion and sediment control installation and maintenance tied to specific dates or construction activities.  
 • Modifications to the Department's SWPPP and Erosion Control Plans due to Contractor's proposed construction means, methods and phasing. The Contractor's Erosion Control Plan will be utilized as the first formal update to the SWPPP.  
 • Contractor's representative should be a SWPPP certified inspector and capable to conduct site inspections. This person could also be responsible for coordination of maintenance, not the actual work itself. Person should be available for contact on a 24-hour basis.

The Contractor is advised that the contract drawings only indicate erosion, sediment, and turbidity controls at locations determined in the design process. However, the Contractor is required to update the SWPPP to reflect any additional controls necessary to prevent the possibility of siltation on adjacent landward parcel, reaching waters, or otherwise violating State and Federal permit requirements. The Contractor will also be required to modify the plan or materials to adapt to seasonal variations and supply contract time schedules for the implementation of each activity.  
 The Contractor shall be responsible for:  
 a) Erosion and sediment control measures are to be placed prior to, or as the first step in construction. Sediment control devices will be employed as a perimeter defense against any transportation of silt beyond the construction limits.  
 b) Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable, but in no case after more than 7 days. In portions of the site where construction activities have temporarily or permanently ceased.  
 c) Permanent soil erosion control measures for all slopes, channels, ditches or any disturbed land areas shall be completed immediately after final grading. When it is not possible to permanently protect a disturbed area immediately after grading operations, temporary erosion control measures shall be installed. All temporary protection shall be maintained until permanent measures are in place and established.

**2.2 EROSION AND SEDIMENT CONTROLS**

- 2.2.1 STABILIZATION PRACTICES**
- Temporary seeding
  - Temporary grading
  - Temporary mulching
  - Artificial covering
  - Permanent seeding, sodding or covering
  - Buffer zones
  - Preservation of natural resources
- 2.2.2 STRUCTURAL PRACTICES**
- Seed logging
  - Silt fences
  - Synthetic Bales
  - Barges
  - Diversion, Interceptor or perimeter ditches
  - Pipe slope drains
  - Flumes
  - Rock bedding at construction exit
  - Timber bedding at construction exit
  - Ditch liner
  - Sediment traps
  - Sediment basins
  - Storm inlet sediment traps
  - Stone outlet structures
  - Curb and gutters
  - Storm sewers
  - Velocity control devices
  - Turbidity barriers
  - Rip rap

d) The Contractor shall furnish, install, maintain and adequately remove, all necessary erosion control, including but not limited to silt fences, synthetic bales, turbidity barriers and any other miscellaneous items as indicated within the contract documents.

**2.3 DESCRIPTION OF STORMWATER MANAGEMENT**

The roadway is being converted to an urban section. Curb and gutter will make the runoff to inlets to be applied to the stormwater treatment pond. Ditch bottom inlets along with swales will be used to catch runoff coming from off-site areas and route the runoff to the stormwater treatment pond. Water quality treatment will be provided by a wet detention pond. Recovery of the water quality treatment volume will be accomplished by a bleed down device in the drainage control structure of the pond.

DATE	REVISIONS	REVISIONS	REVISIONS
			
STATE OF FLORIDA	ADAPTATION OF TECHNOLOGIES	FINANCIAL PROJECT ID	
ROAD NO.	COUNTY	PROJECT NO.	
SR 5	BREVARD	27576-3-52-01	
<b>STORMWATER POLLUTION PREVENTION NOTES</b>			SHEET NO. 47



<b>DATE</b>	<b>DESCRIPTION</b>	<b>REVISIONS</b>	<b>DATE</b>	<b>DESCRIPTION</b>	<b>STATE OF MICHIGAN</b>	<b>DEPARTMENT OF TRANSPORTATION</b>	<b>STORMWATER POLLUTION PREVENTION PLAN</b>	<b>SHEET NO.</b>
					 <b>KELLY, GENTRY &amp; GENTRY, INC.</b> 10000 WYOMING 407-340-2100    OFFICE OF ADMINISTRATION 20 7TH LANSING, MICHIGAN 48202-1000 100000 NO. 30000	ROAD NO. <b>SR 5</b> COUNTY <b>BREVARD</b> PROJECT NO. <b>237576-3-52-01</b>	<b>QUANTITIES</b> 0122	<b>49</b>

### SUMMARY OF STAKED SILT FENCE

LOCATION	NO. OF BAGS	STRUCTURE	TYPE	NO. OF BAGS
STA. TO STA.				
P 9+00 TO 9+52	LT			62
P 9+00 TO 9+87	RT			87
P 9+33 TO 9+54	LT			21
P 9+05 TO 9+21	RT			16
P 9+84 TO 9+93	RT			47
P 9+09 TO 9+18	LT			43
P 9+64 TO 9+09	RT			44
P 9+28 TO 9+65	RT			38
P 9+00 TO 9+02	RT			82
P 9+71 TO 9+90	RT			30
P 9+17 TO 9+32	LT			14
P 9+62 TO 9+87	LT			24
P POND	RT			821
P 9+87 TO 9+18	LT			51
P 9+0+40	LT			20
P 9+0+40	RT			12
P 9+5+00 TO 9+7+64	LT			864
P 9+9+50 TO 9+9+20	LT			70
P TOTAL				2759

### SUMMARY OF ROCK BAGS

LOCATION	NO. OF BAGS	STRUCTURE	TYPE	NO. OF BAGS
STA. TO STA.				
P S-101	12			
P S-102	12			
P S-102	9			
P S-108	9			
P S-101	9			
P S-101	9			
P S-111	9			
P S-112	12			
P S-116	10			
P S-118	12			
P S-119	12			
P S-120	10			
P S-122	12			
P TOTAL	128			

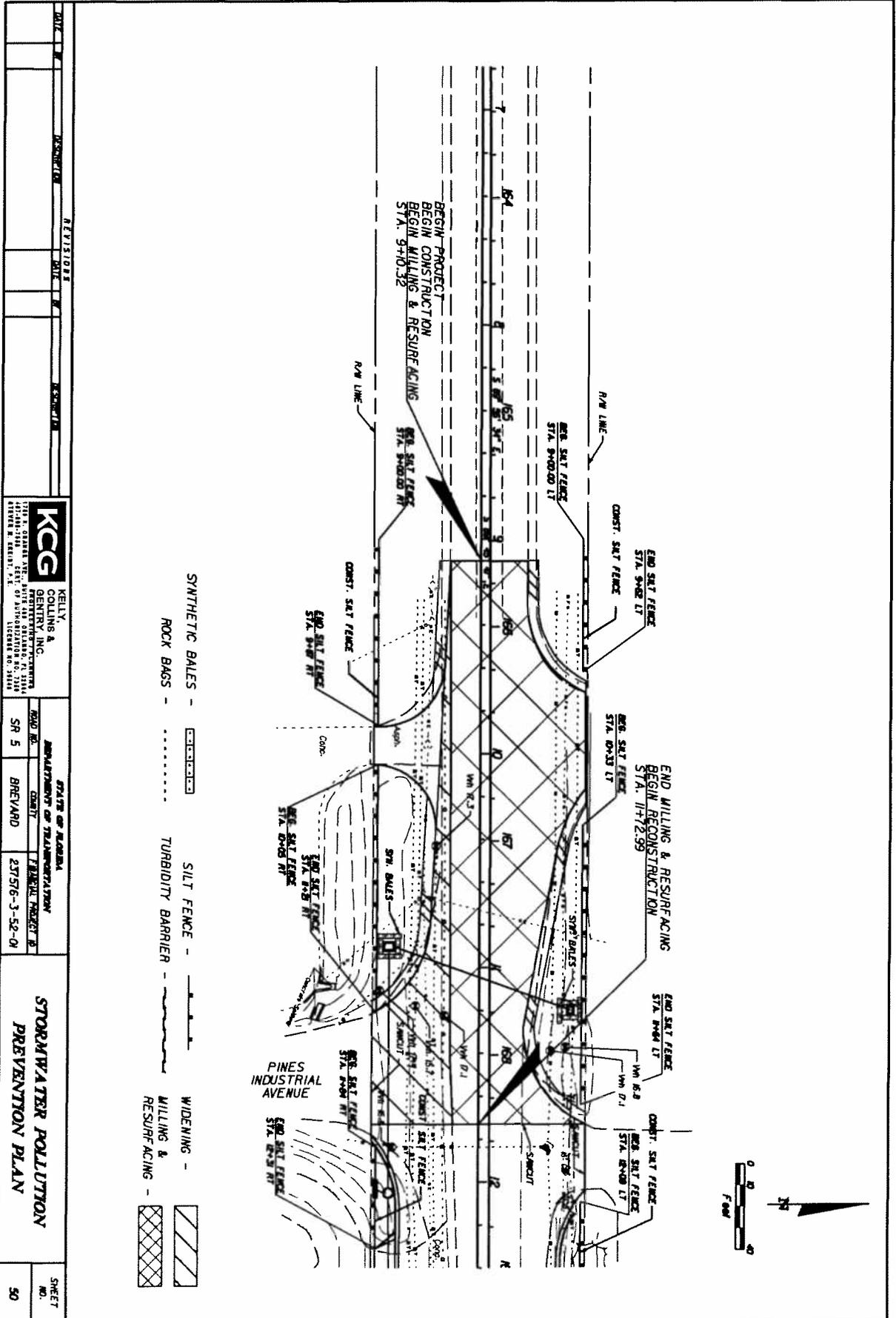
### SUMMARY OF SYNTHETIC BALES

LOCATION	OFFSET	SIDE	QUANTITY (EA)	REMARKS
STA. TO STA.				
9+84 TO 9+95	33'	RT	10	
9+15 TO 9+25	34'	LT	10	
9+67 TO 9+86	39'	RT	9	
9+69 TO 9+89	38'	LT	9	
9+00 TO 9+21	39'	LT	9	
9+05 TO 9+22	47'	LT	17	
9+18 TO 9+35	39'	RT	9	
9+32 TO 9+57	38'	RT	8	
9+32 TO 9+57	39'	LT	8	
9+17 TO 9+53	51'	LT	12	
9+17 TO 9+42	46'	LT	12	
9+53 TO 9+77	41'	RT	10	
9+00 TO 9+02	77'	RT	8	
9+00 TO 9+02	0	N/A	8	
9+5+05 TO 9+5+94	12'	LT	8	
9+7+84 TO 9+7+94	13'	LT	8	
TOTAL			87	

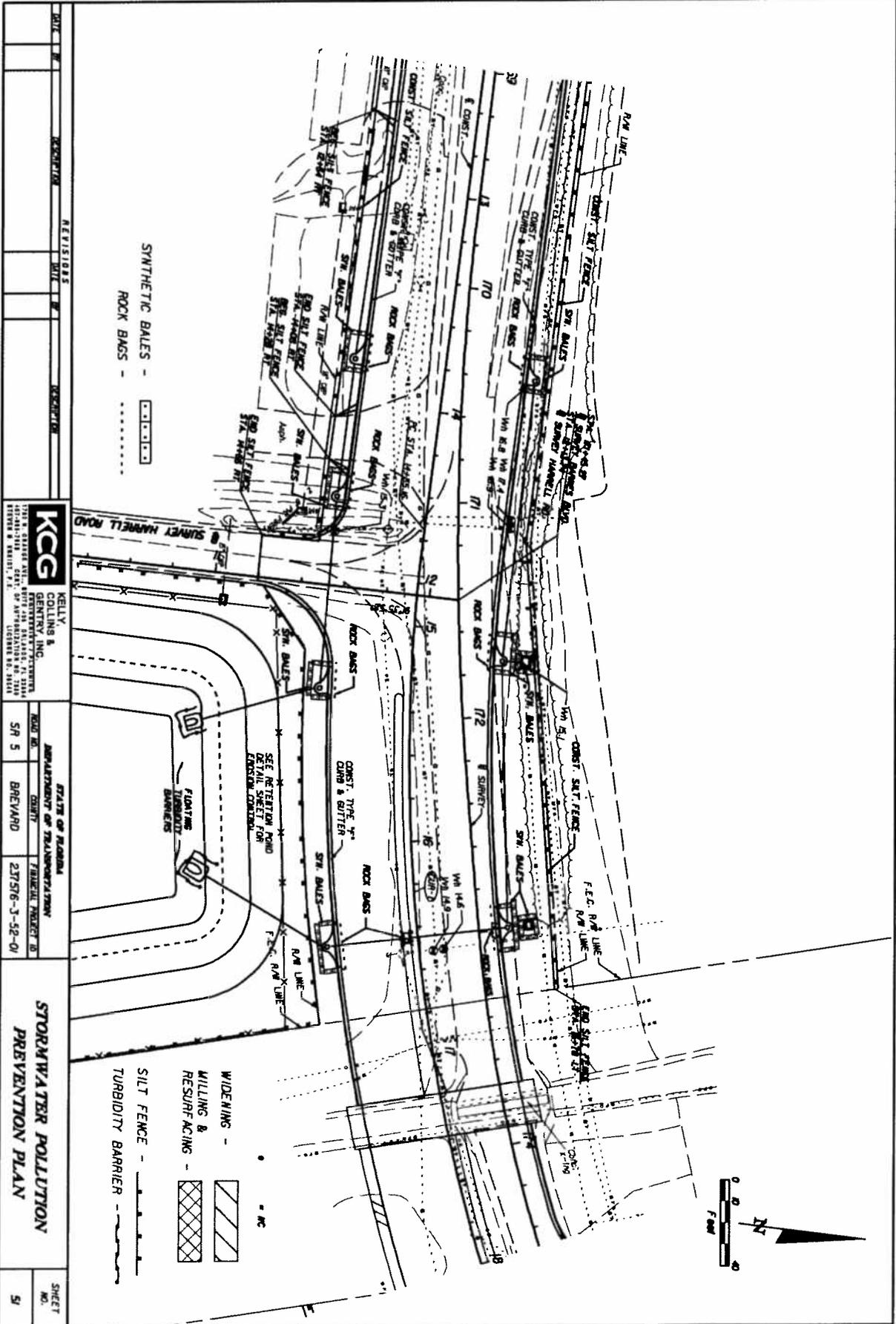
### SUMMARY OF FLOATING TURBIDITY BARRIER

LOCATION	SIDE	LF
STA. TO STA.		
P 9+45 TO 9+55	RT	27
P 9+15 TO 9+25	RT	27
P 9+00 TO 9+08	RT	27
P TOTAL		81

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE STORED AND SEALED UNDER RULE 8005-23.003, F.A.C.



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 605-23.003, F.A.C.



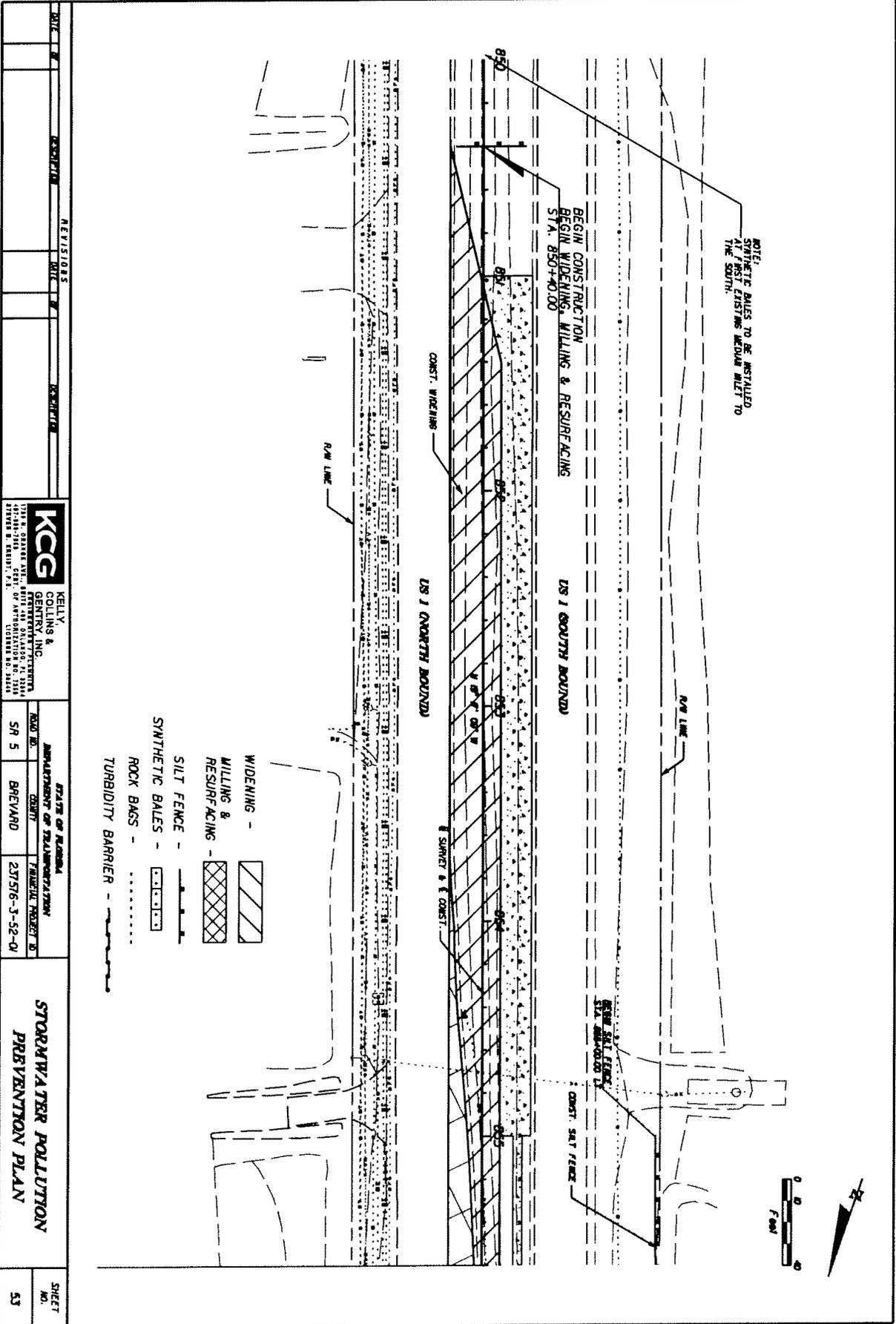
SYNTHETIC BALES - - - - -  
 ROCK BAGS - ······

WIDENINGS - [diagonal hatching symbol]  
 MILLING & RESURFACING - [cross-hatching symbol]  
 SILT FENCE - [wavy line symbol]  
 TURBIDITY BARRIER - [wavy line symbol]

DATE	REVISION	DATE	REVISION
NEVISIONS			
KELLY COLLINS & GENTRY, INC. CIVIL ENGINEERS 1410 W. 10TH STREET, SUITE 100 DENVER, COLORADO 80202 PHONE: 303.733.1111 FAX: 303.733.1112			
PROJECT NO.	DATE	PROJECT NO.	DATE
SR 5	BREYARD	23756-3-52-01	
STORMWATER POLLUTION PREVENTION PLAN			
SHEET NO.	51		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 606-23.003, F.A.C.





REV. NO.	DESCRIPTION	DATE

**KCG** KELLY  
COLLINS &  
GENTRY, INC.  
10000 W. 10TH AVENUE  
DENVER, CO 80202  
TEL: (303) 751-1000  
FAX: (303) 751-1001  
WWW.KCG.COM

PROJECT NO.	23756-3-52-01
CLIENT	
DATE	
SCALE	

**STORMWATER POLLUTION  
PREVENTION PLAN**

SHEET NO. 53

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 606-23.003, P.A.C.



ST. JOHNS RIVER WATER MANAGEMENT DISTRICT  
Post Office Box 1429  
Palatka, Florida 32178-1429

PERMIT NO. 4-009-102771-3

DATE ISSUED: July 8, 2008

PROJECT NAME: US 1 (SR 5) / CR 502 (Barnes Blvd) Intersection, FPID 237576-3-52-01

**A PERMIT AUTHORIZING:**

Construction of a surface water management system with stormwater treatment by wet detention for US 1 (SR 5) / CR 502 (Barnes Blvd) Intersection, FPID 237576-3-52-01, a 7.50-acre project with work in, on, or over 1.55 acres of wetlands or other surface waters.

**LOCATION:**

Section(s): 23                      Township(s): 25S                      Range(s): 36E

Brevard County

**ISSUED TO:**

FDOT - District 5  
719 S Woodland Blvd  
Deland, FL 32720

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights of privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

**PERMIT IS CONDITIONED UPON:**

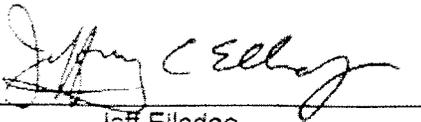
See conditions on attached "Exhibit A", dated July 8, 2008

**AUTHORIZED BY:** St. Johns River Water Management District

Department of Water Resources

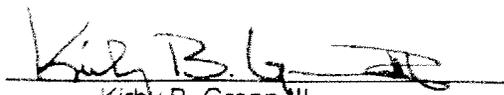
Governing Board

By:



Jeff Eilledge  
(Director)

By:



Kirby B. Green III  
(Assistant Secretary)

U.S. Army Corps of Engineers

Permit # SAS-2008-15

Date: 8/1/08

Attachment: 2



**"EXHIBIT A"**  
**CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 4-009-102771-3**  
**FDOT - DISTRICT 5**  
**DATED JULY 8, 2008**

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner which do not cause violations of state water quality standards.
4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
6. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District a Construction Commencement Notice Form No. 40C-4.900(3), indicating the actual start date and the expected completion date.
7. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an Annual Status Report Form No. 40C-4.900(4). These forms shall be submitted during June of each year.
8. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook (Management and Storage of Surface Waters) must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior

to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.

9. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.
10. Within 30 days after completion of construction of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing As Built Certification Form 40C-1, 181(13) or 40C-1, 181(14) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the District. Submittal of the completed form shall serve to notify the District that the system is ready for inspection. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor. The following information, at a minimum, shall be verified on the as-built drawings:
  1. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;
  2. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;
  3. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine state-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;
  4. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;
  5. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;
  6. Existing water elevation(s) and the date determined; and Elevation and location of benchmark(s) for the survey;

11. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of general condition 9 above, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request transfer of the permit to the responsible approved operation and maintenance entity if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicant's Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.
12. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.
13. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.
14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under rule 40C-1.1006, F.A.C. provides otherwise.
16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of rule 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.
19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.
20. This permit for construction will expire five years from the date of issuance.
21. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and stabilization.

22. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.
23. Prior to construction, the permittee must clearly designate the limits of construction on-site. The permittee must advise the contractor that any work outside the limits of construction, including clearing, may be a violation of this permit.
24. The proposed surface water management system shall be constructed as per the plans and calculations received by the District on April 23, 2008.
25. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection including the date of the inspection, the name, address, and telephone number of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours.
- If at any time the system is not functioning as designed and permitted, then within 14 days the entity shall submit an Exceptions Report to the District, on form number 40C-42-90018, Exceptions Report for Stormwater Management Systems Out of Compliance.
26. Prior to initiation of construction, the permittee shall submit a detailed erosion and sediment control plan to the District for written approval. The plan shall detail all erosion and sediment control measures to be implemented both during and after construction. At a minimum the plan shall include:
- a. Identification of any areas where any dewatering will be performed during construction;
  - b. Details of specific erosion and sediment control measures to be implemented to control the discharge of turbid water due to any dewatering activities; and
  - c. Construction sequencing and details of all erosion and sediment control measures to be implemented during each sequence.
- Construction shall not commence until the permittee receives written approval of the plan from the District.
27. Mitigation to offset 2.10 acres of impacts to wetlands and other surface waters authorized by this permit will be provided through Section 373.4137, Florida Statutes.

## STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

1. An eastern indigo snake protection/education plan shall be developed by the applicant or requestor for all construction personnel to follow. The plan shall be provided to the Service for review and approval at least 30 days prior to any clearing activities. The educational materials for the plan may consist of a combination of posters, videos, pamphlets, and lectures (*e.g.*, an observer trained to identify eastern indigo snakes could use the protection/education plan to instruct construction personnel before any clearing activities occur). Informational signs should be posted throughout the construction site and along any proposed access road to contain the following information:
  - a. a description of the eastern indigo snake, its habits, and protection under Federal Law;
  - b. instructions not to injure, harm, harass or kill this species;
  - c. directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing; and,
  - d. telephone numbers of pertinent agencies to be contacted if a dead eastern indigo snake is encountered. The dead specimen should be thoroughly soaked in water and then frozen.
  
2. If not currently authorized through an Incidental Take Statement in association with a Biological Opinion, only individuals who have been either authorized by a section 10(a)(1)(A) permit issued by the Service, or by the State of Florida through the Florida Fish Wildlife Conservation Commission (FWC) for such activities, are permitted to come in contact with an eastern indigo snake.
  
3. An eastern indigo snake monitoring report must be submitted to the appropriate Florida Field Office within 60 days of the conclusion of clearing phases. The report should be submitted whether or not eastern indigo snakes are observed. The report should contain the following information:
  - a. any sightings of eastern indigo snakes and
  - b. other obligations required by the Florida Fish and Wildlife Conservation Commission, as stipulated in the permit.

Revised February 12, 2004

U.S. Army Corps of Engineers  
Permit # SAT-2008-15  
Date: 8/1/08  
Attachment: 3



AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineered drawings to the U.S. Army Corps of Engineers, Enforcement Branch, Post Office Box 4970, Jacksonville, Florida 32232-0019. If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-2907.

1. Department of the Army Permit Number: \_\_\_\_\_

2. Permittee Information:

Name \_\_\_\_\_

Address \_\_\_\_\_

3. Project Site Identification:

Physical location/address \_\_\_\_\_

4. As-Built Certification:

I hereby certify that the authorized work has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

\_\_\_\_\_  
Signature of Engineer

\_\_\_\_\_  
Name (Please type)

\_\_\_\_\_  
Florida Reg. Number

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

(Affix Seal)

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
ZIP

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone Number

Deviations from the approved plans and specifications: (attach additional pages if necessary)

U.S. Army Corps of Engineers

Permit # SAT-2008-15

Date: 8/1/08

Attachment: 4



# Statement of Findings



Number: \_\_\_\_\_

Conversion services provided by:

**MICROGRAPHICS**

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1 August 2008

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and  
Statement of Findings for the Above-numbered Permit Application

1. Applicant: Florida Department of Transportation - District 5  
Attn: Patrick Muench  
719 S. Woodland Blvd.  
Deland, Florida 32720

2. Location, Project Description, and Existing Conditions: The project is the widening of Barnes Blvd. just west of the intersection of US Highway 1. The project is located in Section 23, Township 25 South, Range 36 East, City of Rockledge, Brevard County, Florida. The project as proposed will impact jurisdictional waters of the United States (wetlands) hydrologically connected to the Indian River, traditional navigable water.

The applicant proposes to impact 1.55 acres of wetlands for the construction of a storm water management system associated with intersection improvements at Barnes Blvd. and US Highway 1 intersection. Barnes Blvd. will be widened from a 2-lane rural roadway to a 4-lane roadway. The proposed typical section consists of two 12-foot lanes with 5-foot paved shoulder on both sides including bike paths in a small segment of the project.

The wetland system consists of a freshwater forested system hydrologically connected to a drainage swale located along the F.E.C. Railroad tracks. This swale carries runoff south and then turns east discharging into the Indian River. The onsite vegetation within the wetland consists of Carolina willow, black gum, red maple, dahoon holly. The area surrounding the wetland consists of FEC Railroad on the east, Barnes Blvd. on the north, commercial development on the west, and additional wetlands to the south. The wetland is isolated from wildlife corridors and surrounded by development. The wetland is of moderate functional value.

3. Project Purpose: Basic: Roadway improvements.

Overall: Improvements to the intersection of Barnes Blvd. and US Highway 1 including stormwater management improvements.

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SUBJECT: Department of the Army Environmental Assessment and Statement of Findings on the Above-Numbered Permit Application.

4. Scope of Analysis: The scope of analysis was limited to the project site and included endangered species, essential fisheries habitat concerns, and cultural resources.

5. Statutory Authority: Section 404 of the Clean Water Act (33 U.S.C. 1344).

6. Other Federal, State, and Local Authorizations Obtained or Required and Pending:

a. State Permit/Certification: The St. Johns River Water Management District (SJRWMD) permit number 4-009-102771-3 was issued on 8 July 2008.

b. Coastal Zone Management (CZM) consistency/permit: There is no evidence or indication from the State of Florida that the project is inconsistent with the Florida Coastal Zone Management Plan. Issuance of a SJRWMD permit certifies that the project is consistent with the CZM plan.

c. Other Authorizations: No information has been received regarding any other authorizations that may be required.

7. Date of Public Notice and Summary of Comments

a. The application was received on 28 December 2008. The application was considered complete on 31 January 2008. A public notice was issued on 5 February 2008, and sent to all interested parties including appropriate State and Federal agencies. All comments received on this application have been reviewed and are summarized below:

(1) Environmental Protection Agency (EPA): Did not respond to the public notice.

(2) U.S. Fish and Wildlife Service (FWS): Did not respond to the public notice.

(3) National Marine Fisheries Service (NMFS): By letter dated 27 February 2008, the NMFS had no objection to the proposed project.

(4) State Historic Preservation Officer (SHPO): Responded by letter dated 25 April 2008, stating the Sterling

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Garage (8BR1885) could possibly be affected by the proposed project and requested assurances that this site will not be affected by the project.

(5) No comments were received from State or Local agencies, organizations, individuals or any other interested party.

b. Applicant's response to the comments: The SHPO comments were coordinated with the applicant via letter dated 7 May 2008. The applicant responded via letter dated 3 June 2008, stating the project is located outside of the area of potential effect and no plans are proposed to impact the structure.

#### 8. Alternatives:

a. Avoidance (No action, uplands, availability of other sites): The no action alternative would not allow for project completion. The applicant evaluated two alternative pond sites prior to application submittal. The applicant limited its analysis to publicly owned property due to project funding limitation thereby eliminating the analysis of privately owned parcels. The applicant determined the pond site was chosen over the alternative site due to low roadway grade, shallow water table, and the Brevard County's plan to construct a regional storm water/flood control pond at the proposed site.

b. Minimization (modified project designs, etc.): The project has been minimized to the maximum extent possible that would allow the applicant to achieve the project purpose. The applicant was not asked to further explore minimization alternatives beyond those already achieved, given the quality of the existing resource.

c. Compensatory Mitigation (Wetland enhancement, creations, etc.): The project as proposed will directly impact 1.55 acres of forested wetlands and cause secondary impact to 0.55 acres of the remaining on-site wetland. The applicant has completed a functional assessment and determined the project as proposed would cause the total (direct and secondary) loss of 0.57 functional units. The applicant has proposed compensatory mitigation to offset all unavoidable impacts to Corps jurisdictional wetlands. Wetland impacts will be mitigated pursuant to the Senate Bill 1986 Rule - Section 373.4137 Florida Statutes (F.S.). The compensatory mitigation plan # 237576 is

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defined in the 2008 SJRWMD FDOT MITIGATION PLAN, Mitigation Project Group SJ46. Previously approved mitigation planned for this mitigation group consists of preservation, restoration and long-term management of regionally important uplands and wetlands in Basin 21, preferably as an expansion to the Turnbull Hammock Conservation Area. SJRWMD was previously in negotiations for a specific parcel, but could not reach a formal agreement so a mitigation acquisition has not been completed to date. SJRWMD is actively perusing acquisitions within the basin but could not produce a specific parcel. The Corps will condition the DA permit to include a specific timeframe for when mitigation must be completed. If satisfactory mitigation is not secured the DA permit will be suspended until mitigation is completed.

9. Evaluation of the 404(b)(1) Guidelines: The proposed project has been reviewed in accordance with the 404 (b)(1) Guidelines. The review shows that all the alternatives have been reviewed and it has been adequately demonstrated that the proposed alternative is the least environmentally damaging and only practicable alternative considering cost, existing technology and logistics. It would not cause or contribute to violations of State Water quality standards, jeopardize the existence of any endangered species or impact a marine sanctuary. No significant degradation would be expected and all appropriate and practicable steps have been taken to minimize impacts.

10. Public Interest Review:

a. Corps analysis of comments and responses: All comments received in response to the public notice have been considered in the following public interest review.

b. All public interest factors have been reviewed, including but not limited to the effects the work might have on conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, land use, navigation, shore erosion and accretion, recreation, water quality, safety, and consideration of property ownership. It has been determined that the proposed work will not adversely impact any of the public interest factors.

c. Describe the relative extent of the public and private need for the proposed structure or work: Public benefits include employment opportunities and a potential increase in the local tax base. Additional public need may include an increase in

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public safety, increased carrying capacity of the roadway and the more effective movement of vehicular traffic. The increased carrying capacity may also facilitate intrastate/interstate commerce. Private benefits include land use and economic return on the property.

d. Describe the practicability of using reasonable alternative locations and methods to accomplish the objective of the purposed work where there are unresolved conflicts as to resource use: There are no unresolved conflicts regarding resource use.

e. Describe the extent and permanence of the beneficial and/or detrimental effects which the proposed work is likely to have on the public and private uses to which the area is suited: Detrimental impacts are expected to be minimal although they would be permanent in the construction area. The beneficial effects associated with utilization of the property would be permanent. The beneficial effects for public transportation may include an increase in public safety, increased carrying capacity of the roadway and the more effective movement of vehicular traffic. The increased carrying capacity may also facilitate intrastate/interstate commerce.

f. Threatened or Endangered Species: The applicant has conducted endangered species surveys and did not observe the presence of any federally listed species within the project corridor. The Corps has information indicating the potential for the threatened eastern indigo snake and the endangered wood stork to be present in the project area. Additionally, the project is located within the Core Foraging Area of a known wood stork colony residing in Brevard County. The Corps has made a determination that the proposed work "may affect, but is not likely to adversely affect" the wood stork with the inclusion of wetland compensation for the loss of wetland habitat and "may affect, but is not likely to adversely affect" the eastern indigo snake with the inclusion of the Standard Protection Measures for the Eastern Indigo Snake in any permit issued. This determination was coordinated with USFWS via letter dated 21 February 2008. USFWS concurred with this determination via letter dated 14 March 2008.

g. Essential Fisheries' Habitat (EFH): The public notice included an initial determination that the project would not have

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an adverse impact on EFH or Federally managed fisheries. The NMFS did not provide any EFH conservation recommendations in response to the public notice. Therefore, the Corps is satisfied that the consultation procedures outlined in 50 CFR Section 600.920 of the regulation to implement the EFH provisions of the Magnuson-Stevens Act have been met.

h. Corps Wetland Policy: The proposed wetland alteration is necessary to realize the project purpose and should result in minimal adverse environmental impacts. The benefits of the project would outweigh the minimal detrimental impacts. The project would result in a no-net loss of wetland functions and values. Therefore the project is in accordance with the Corps wetland policy.

i. Cumulative and Secondary Impacts: Cumulative and secondary impacts would not be unacceptable. Filling of wetlands at this project site would not set precedent for additional filling activities in waters of the United States to occur.

j. Corps Comments and Responses: No adverse comments were received in response to the public notice. The Corps has coordinated SHPO concerns with applicant. The Corps does not anticipate impacts to historic properties.

11. Determinations:

a. Finding of No Significant Impact (FONSI). Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of human environment. Therefore, an Environmental Impact Statement will not be required.

b. Compliance with 404(b)(1) guidelines. Having completed the evaluation in paragraph 7 above, I have determined that the proposed discharge complies with the 404(b)(1) guidelines.

c. Public interest determination: I find that issuance of a Department of the Army permit is not contrary to the public interest.

d. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for

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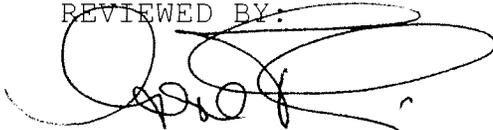
conformity applicability pursuant to regulations implementing  
Section 176(c) of the Clean Air Act. It has been determined that  
the activities proposed under this permit will not exceed  
*deminimis* levels of direct emissions of a criteria pollutant or  
its precursors and are exempted by 40 CFR Part 93.153. Any later  
indirect emissions are generally not within the Corps' continuing  
program responsibility and generally cannot be practicably  
controlled by the Corps. For these reasons a conformity  
determination is not required for this permit action.

PREPARED BY:



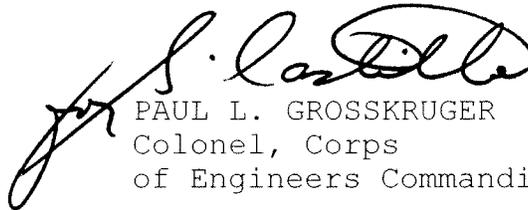
ANDREW W. PHILLIPS  
Project Manager

REVIEWED BY:



IRENE F. SADOWSKI  
Chief, Cocoa Permits  
Section

APPROVED BY:



PAUL L. GROSSKRUGER  
Colonel, Corps  
of Engineers Commanding

CF:  
CESAJ-RD-PE