

**APPENDIX C  
COST ESTIMATE**

Scope:	
Route/Termini:	Bob Anthony Parkway
Status:	Environmental Study Completion (30%)
Confidence:	50% Chance the project cost will not exceed the provided Estimate
County:	Rankin
Date:	12/11/2023
Letting Date:	12/11/2030

FMS	
PE:	108635-8000000
ROW:	0
Construction:	0

Ext	
FBLH-6945-00(013)LPA	

One can manually change the Qty and then press refresh icon button below

Run Cost Estimate (click button)



Item Number	Pay Items	Unit	Qty	Unit Cost		Total Cost per Item	
				2023 Cost	2030 Cost	2023 Cost	2030 Cost
				@ 50 % Level	@ 50 % Level	@ 50 % Level	@ 50 % Level
202-B005	Removal of Asphalt Pavement, All Depths	SY	6,500	\$7.02	\$8.63	\$45,630.00	\$56,119.14
203-A003	Unclassified Excavation, FM	CY	257,500	\$2.55	\$3.14	\$656,625.00	\$807,565.93
203-EX017	Borrow Excavation, FME	CY	667,500	\$9.69	\$11.92	\$6,468,075.00	\$7,954,916.40
203-G003	Excess Excavation, FM	CY	97,500	\$6.37	\$7.83	\$621,075.00	\$763,843.91
213-C001	Superphosphate	TN	75	\$628.00	\$772.36	\$47,100.00	\$57,927.06
215-A001	Vegetative Materials for Mulch	TN	250	\$182.04	\$223.89	\$45,510.00	\$55,971.56
225-A001	Grassing	AC	188	\$909.08	\$1,118.05	\$170,452.50	\$209,635.08
234-A001	Temporary Silt Fence	LF	25,000	\$2.64	\$3.25	\$66,000.00	\$81,171.68
304-C005	Subbase Granular Material (Class 9)	CY	26,395	\$12.95	\$15.93	\$341,808.78	\$420,381.68
304-C023	Shoulder GM Thickness Below HMA (Class 5)	CY	6,953	\$65.15	\$80.13	\$452,955.38	\$557,077.98
307-A002	Soil Lime Water Mixing	SY	105,600	\$1.62	\$1.99	\$171,072.00	\$210,396.98
307-D001	Hydrated Lime	TN	1,425	\$340.48	\$418.75	\$485,184.00	\$596,715.12
308-A001	Portland Cement	TN	1,093	\$293.48	\$360.94	\$320,626.90	\$394,330.64
308-B001	Soil-Cement-Water Mixing	SY	93,868	\$1.51	\$1.86	\$141,739.93	\$174,322.23
403-A006	HMA (12.5mm) MT	TN	9,035	\$144.64	\$196.84	\$1,306,822.40	\$1,778,404.72
403-A007	HMA (19mm) MT	TN	20,328	\$109.62	\$149.18	\$2,228,300.55	\$3,032,409.17
403-A010	HMA (9.5mm) MT	TN	6,775	\$133.54	\$181.73	\$904,733.50	\$1,231,217.29
403-A011	HMA (12.5mm) ST	TN	2,128	\$145.44	\$197.92	\$309,496.32	\$421,181.73
403-A012	HMA (19mm) ST	TN	2,394	\$180.51	\$245.65	\$432,140.94	\$588,084.11
403-A015	HMA (9.5mm) ST	TN	798	\$211.90	\$288.37	\$169,096.20	\$230,116.56
601-A003	Class "B" Structural Concrete	CY	1,608	\$1,078.03	\$1,467.05	\$1,733,472.24	\$2,359,016.21
601-B004	Class "C" Structural Concrete, Minor Structures	CY	100	\$2,480.72	\$3,375.92	\$248,072.00	\$337,591.72
602-A001	Reinforcing Steel	LB	242,116	\$1.72	\$2.12	\$416,439.52	\$512,168.08
603-CA002	18" Reinforced Concrete Pipe, Class III	LF	5,750	\$73.13	\$89.94	\$420,497.50	\$517,158.89
603-CA104	60" Reinforced Concrete Pipe, Class III	LF	275	\$230.59	\$283.60	\$63,412.25	\$77,989.07
604-A001	Castings	LB	10,296	\$2.73	\$3.36	\$28,108.08	\$34,569.39
609-D004	Type 3A Curb & Gutter	LF	51,600	\$33.11	\$40.72	\$1,708,476.00	\$2,101,209.98
616-A001	Concrete Median and/or Island Pavement, 4-inch	SY	6,840	\$65.58	\$89.25	\$448,567.20	\$610,437.98
616-A003	Concrete Median and/or Island Pavement, 10-inch	SY	760	\$96.62	\$131.49	\$73,431.20	\$99,929.72

Listed Pay Item Total **\$20,524,920.38** **\$26,271,860.00**

Typical Section Markup: **\$2,440,000.00** **\$3,123,195.47**

Bridge Cost: **\$67,747,680.00** **\$86,716,904.70**

Interchange Markup: **\$0.00** **\$0.00**

Extra Items: **\$0.00** **\$0.00**

Subtotal: **\$90,712,600.38** **\$116,111,960.18**

Lump Sum (Staking, Mobilization, MOT) @ **12%** **\$10,885,512.05** **\$13,933,435.22**

Letting Cost **\$101,598,112.42** **\$130,045,395.40**

Engineering & Contingencies @20%: **\$20,319,622.48** **\$26,009,079.08**

Total **\$121,900,000.00** **\$156,100,000.00**

**APPENDIX D**  
**CORRESPONDENCE WITH RESOURCE AGENCIES**



United States Department of Agriculture

March 2, 2020

Lauren McWhorter, Environmental Scientist  
Pickering Firm, Inc.  
2001 Airport Rd., Suite 201  
Flowood, MS 39232

Re: Bob Anthony Parkway Relocation project  
Pearl River Valley Water Supply District  
Madison, Hinds, and Rankin Counties, MS

Dear Ms. McWhorter,

This is in response to your February 27th, 2020, email concerning the Bob Anthony Parkway Relocation project. This project is not likely to impact prime, unique, statewide, or local important farmland as defined by the Farmland Protection Policy Act (FPPA); therefore, no further FPPA documentation will be required. If you need any further assistance, please feel free to contact Delaney Johnson, State Soil Scientist at (601) 863-3947.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kurt Readus".

Kurt Readus  
State Conservationist

enclosure: Form AD-1006

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I</b> <i>(To be completed by Federal Agency)</i>		Date Of Land Evaluation Request			
Name of Project		Federal Agency Involved			
Proposed Land Use		County and State			
<b>PART II</b> <i>(To be completed by NRCS)</i>		Date Request Received By NRCS		Person Completing Form:	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres:            %	Amount of Farmland As Defined in FPPA Acres:            %			
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS			
<b>PART III</b> <i>(To be completed by Federal Agency)</i>		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV</b> <i>(To be completed by NRCS)</i> Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V</b> <i>(To be completed by NRCS)</i> Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI</b> <i>(To be completed by Federal Agency)</i> Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		<b>Maximum Points</b>	Site A	Site B	Site C
1. Area In Non-urban Use		(15)			
2. Perimeter In Non-urban Use		(10)			
3. Percent Of Site Being Farmed		(20)			
4. Protection Provided By State and Local Government		(20)			
5. Distance From Urban Built-up Area		(15)			
6. Distance To Urban Support Services		(15)			
7. Size Of Present Farm Unit Compared To Average		(10)			
8. Creation Of Non-farmable Farmland		(10)			
9. Availability Of Farm Support Services		(5)			
10. On-Farm Investments		(20)			
11. Effects Of Conversion On Farm Support Services		(10)			
12. Compatibility With Existing Agricultural Use		(10)			
TOTAL SITE ASSESSMENT POINTS		160			
<b>PART VII</b> <i>(To be completed by Federal Agency)</i>					
Relative Value Of Farmland <i>(From Part V)</i>		100			
Total Site Assessment <i>(From Part VI above or local site assessment)</i>		160			
<b>TOTAL POINTS</b> <i>(Total of above 2 lines)</i>		260			
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:					
Name of Federal agency representative completing this form:					Date:

*(See Instructions on reverse side)*

## STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

- Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, <http://fppa.nrcs.usda.gov/lesa/>.
- Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s) of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at [http://offices.usda.gov/scripts/ndISAPI.dll/oip\\_public/USA\\_map](http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map), or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)
- Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.
- Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.
- Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.
- Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.
- Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

## INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

*(For Federal Agency)*

**Part I:** When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

**Part III:** When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

**Part VI:** Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.
2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

**Part VII:** In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.

Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.



STATE OF MISSISSIPPI  
TATE REEVES  
GOVERNOR  
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY  
CHRIS WELLS, INTERIM EXECUTIVE DIRECTOR

February 28, 2020

Ms. Lauren McWhorter, Planner  
Pickering  
2001 Airport Rd., Suite 201  
Flowood, MS 39232

RE: Bob Anthony Parkway Relocation Project  
Madison, Hinds, and Rankin Counties, MS

Dear Ms. McWhorter:

We have reviewed the information submitted to us and wish to acknowledge that we do not expect the referenced project to adversely affect ambient air quality. Our determination is contingent upon the fact that the project manager will ensure that the owner or operator secures any required air emissions permits from the Mississippi Department of Environmental Quality Permit Board prior to commencing construction of a covered activity and that all applicable asbestos and lead-based paint control regulations are being complied with. Guidance concerning when and what type of permit may be required and the activities that are regulated under the asbestos and lead-based paint regulations can be found by visiting the MDEQ's website at <http://www.mdeq.ms.gov>. The guidance document titled "*Air Quality Impact Review Guidance*" can be accessed by selecting "*Air*" from the upper menu and then "*Other Air Issues*" from the menu on the right.

If you wish to submit another project for comment regarding impacts to ambient air quality, please address correspondence as indicated below so that incoming mail is properly directed.

Air Quality Impact Review  
c/o Air Toxics Branch  
P.O. Box 2261  
Jackson, MS 39225

If you have any questions or additional concerns regarding this project, you may contact me by calling (601) 961-5799.

Sincerely,

A handwritten signature in blue ink that reads "Bryan Williams".

Bryan Williams  
Air Toxics Branch



**STATE OF MISSISSIPPI**  
TATE REEVES  
GOVERNOR

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**  
CHRIS WELLS, INTERIM EXECUTIVE DIRECTOR

March 02, 2020

Lauren McWhorter  
Pickering Firm, INC.  
2001 Airport Rd., Suite 201  
Flowood, MS 39232

**Re: Bob Anthony Parkway Relocation Project  
Pearl River Valley Water Supply District  
Madison, Hinds, and Rankin Counties, MS**

Dear Lauren McWhorter:

The Mississippi Department of Environmental Quality (MDEQ) has received your request for our comment on the environmental assessment for the above referenced project in Madison, Hinds, and Rankin Counties. Enclosed is a copy of MDEQ's CERCLA/Uncontrolled Sites File List that identifies sites within these counties in Mississippi that have potential contamination issues related to them. There are, however, many abandoned sites around the State that we are not aware of. An environmental site assessment may be necessary to evaluate potential recognized environmental conditions within the proposed project. If recognized environmental conditions are encountered, please contact me at 601-961-4249.

You can obtain additional information by accessing the following web addresses:

<http://www.epa.gov/enviro> (RCRA report and others)

<http://opc.deq.state.ms.us/default.aspx>

<http://muster.deq.state.ms.us/webreportapplication/ustsearchwf.aspx>

Sincerely,

Justin Palmer, E.I.T.  
GARD II

Enclosure: CERCLA/Uncontrolled Sites File List for Madison, Hinds, and Rankin Counties, MS



**STATE OF MISSISSIPPI  
CERCLA/UNCONTROLLED SITES FILE LIST  
SORTED BY SITE NAME**

	Site Name	Agency Interest No.	City	County	Latitude			Longitude		
18	Air National Guard Thompson Field	38093	Jackson	Rankin	32	19	42	90	4	59
20	Akzo Nobel Administration Building	68964	Clinton	Hinds	32	21	5	90	21	45
21	Akzo Nobel Coatings	1144	Clinton	Hinds	32	21	41	90	21	44
36	American Can Co. / Gulf States Cannery		Clinton	Hinds	32	21	10	90	21	43
39	American Discount Cleaners	1844	Ridgeland	Madison	32	24	13	90	7	28
53	Annondale Pit	39231	Madison	Madison	32	30	52	90	11	32
69	ARAMARK/ARATEX Laundry Site	38867	Jackson	Hinds	32	19	35	90	11	51
73	Armstrong World Industries	4598	Jackson	Hinds	32	17	8	90	12	11
79	Associated Natural Gas, Inc., Clinton Office	38859	Clinton	Hinds						
80	Associated Natural Gas, Inc., Rex Brown Power Plant	2286	Jackson	Hinds	32	21	22	90	12	49
81	Atlantic Industrial Services Inc		Jackson	Hinds	32	17	10	90	10	53
88	Avery W.G. & Body Co.		Flowood	Rankin						
91	Aztec Industries, Inc.	9622	Richland	Rankin	32	13	26	90	9	51
129	BFI Little Dixie Landfill	4702	Ridgeland	Madison	32	24	38	90	14	36
130	Big Black River Battlefield	38865	Edwards	Hinds						
143	Blackwell Chevrolet I-55 North	2762	Jackson	Hinds						
144	Blackwell Ford Mercury Site	10028	Canton	Madison	32	36	22	90	4	9
149	Bobby Barefield Office Furniture: see W. Pascagoula St. 209		Jackson	Hinds	32	17	54	90	11	23
150	Bobby G. Jones Property	39240		Madison						
161	Boyce Ford	24465	Brandon	Rankin						
166	Bridgestone/Firestone: see W. Pascagoula St. 125		Jackson	Hinds	32	17	53	90	11	22
178	Browning Ferris Industries BFI (Little Dixie Landfill)		Canton	Madison	32	24	20	90	14	20
182	Bunge Corporation		Jackson	Hinds	32	18	42	90	11	20
189	C & C Auto Service Center	38868	Jackson	Hinds						
194	Calhoun Pitch Company	9666	Puckett	Rankin						
201	Can Man Metal Recycling Facility		Jackson	Hinds						
202	Canal Insurance Co. (HWY 13 Spill)	64492	Puckett	Rankin	32	7	19	89	43	23
205	Canton Plating & Bumper Works	19504	Canton	Madison						
206	Canton Wood Preserving (See Southeastern Wood)		Canton	Madison						
219	Central Mississippi Crosstie	2939	Edwards	Hinds	32	19	56	90	35	2
226	Challenger Electric Equip Corp	11378	Jackson	Hinds	32	20	18	90	14	19
229	Champion Hill Battlefield	38866	Edwards	Hinds	32	20	42	90	31	14
238	Chemrex (See Rexcel Coating)	15504	Jackson	Hinds						
239	Chevron (Cameron & Trolio)	39226	Canton	Madison	32	36	27	90	2	21
248	Chloride Metals/ GNB / Exide	2020	Florence	Rankin	32	9	44	90	7	0
251	Choctaw Maid Farms, Inc. Asbestos Demolition - Pelahatchie	3995	Pelahatchie	Rankin						
262	City Center Site (Former Madison Materials)	57182	Ridgeland	Madison	32	25	24	90	8	2
265	City of Jackson Fire Station #10		Jackson	Hinds	32	32	87	90	19	69
269	Clarion Ledger Hederman Brothers Site	38956	Jackson	Hinds	32	17	52	90	11	0
277	Coca Cola Bottling		Jackson	Hinds	32	17	9	90	12	33
281	Cochran Flying Service	10159	Canton	Madison	32	40	10	90	3	56
303	Comcast Cable TW0097 - 415 Cedars of Lebanon Road		Jackson	Hinds	32	22	24	90	9	7
304	Comcast Cable TW0108 - 201 Trace Drive		Ridgeland	Madison	32	25	24	90	8	31
305	Comet Street Inc. - Bulk Plant & Service Station	22251	Richland	Rankin	32	16	20	90	10	14
311	ConSteelCo	57312	Flowood	Rankin	32	18	38	90	8	40
313	Contractors Material Company, Inc.		Jackson	Hinds	32	18	14	90	10	23
343	Crescent Industries, Inc.	32657	Jackson	Hinds	32	18	27	90	11	19
358	Daniel's Motor	39655	Pearl	Rankin						
384	Desoto Inc.		Jackson	Hinds	32	20	19	90	12	7
385	DeSoto Inc. Dump Site	39348	Florence	Rankin						
386	Desoto Inc./Desoto Furniture	11405	Jackson	Hinds	32	20	19	90	12	7
388	Dickson Wood Treating(See Southeastern Wood)		Canton	Madison						
390	Dillard's Department Store		Jackson	Hinds	32	18	3	90	15	9
391	Discount Office Furniture: see S State St., 861		Jackson	Hinds	32	17	21	90	10	57
416	East South Street, 100		Jackson	Hinds	32	17	42	90	11	17
417	ECOL #9048 (Minute Stop #503)	39356	Pearl	Rankin						
418	ECOL Inc. (Medical Clinic & ASC Facility) Note: XNF-A - State/Federal No Further Action	65943	Jackson	Hinds	32	18	47	90	10	40

BFA - Brownfield Agreement  
 Archived - from CERCLIS  
 EPD - Enviro. Permits Div.  
 UST - UST Branch  
 SWB - Solid Waste Branch

STATE OF MISSISSIPPI  
 CERCLA/UNCONTROLLED SITES FILE LIST  
 SORTED BY SITE NAME

Site No.	Site Name	Agency Interest No.	City	County	Latitude			Longitude		
419	ED Mansell Property			Madison						
422	Ellis Ave., 1260		Jackson	Hinds	32	17	45	90	13	38
428	Energy Conversion Systems	18289	Pelahatchie	Rankin						
432	Environmental Protection Agency EPIC Study - Jackson	38957	Jackson	Hinds						
437	Ergon Trucking, Inc.	2694	Richland	Rankin	32	15	49	90	10	4
441	Erwin Industries	39338	Brandon	Rankin						
444	Etheridge Petroleum	39357	Pearl	Rankin	32	16	48	90	9	57
446	Everett and Sons	31666	Pelahatchie	Rankin	32	19	1	89	47	15
452	Fabra Care Master Dry Cleaners		Jackson	Hinds	32	18	24	90	13	50
457	Fairway Exterminating (See H&H Termite)		Jackson	Hinds						
460	Farish Street Historic District - EPA Brownfields Pilot	38971	Jackson	Hinds						
461	Farish Street, 229-233		Jackson	Hinds						
472	Federal Courthouse Project - President & Court St.	38972	Jackson	Hinds	32	17	41	90	11	2
480	Filtrol Corp./Harshaw-Filtrol	38973	Jackson	Hinds	32	16	6	90	12	25
481	Fire Station # 10		Jackson	Hinds	32	19	43	90	11	51
494	Flowood Industrial Park Site		Flowood	Rankin	32	18	30	90	8	34
495	Flowood NPL Site	39349	Flowood	Rankin	32	18	9	90	8	37
496	Floyd Cecil Co.	38974	Jackson	Hinds	32	21	21	90	13	33
498	FMHA James Tucker Site		Jackson	Hinds	32	3	33	90	39	10
502	Follen Wood Preserving	1838	Jackson	Hinds	32	17	10	90	11	40
505	Forestry Injection Fic, Inc.	39236	Ridgeland	Madison						
507	Francher Oil: see East South St., 100	28120	Jackson	Hinds	32	17	42	90	11	17
516	G & S Auto Sales and Repair		Jackson	Hinds	32	17	16	90	12	17
526	General Electric, Jackson Glass		Jackson	Hinds	32	17	5	90	11	55
527	General Electric, Jackson Lamp		Jackson	Hinds	32	17	5	90	11	55
530	General Motors Packard Electric		Clinton	Hinds	32	21	3	90	21	49
565	GNB Inc. (See Chloride Metals)	2020	Florence	Rankin	32	9	44	90	7	0
571	Goodie Mart		Canton	Madison						
572	Goodyear Automotive Service Center #2753		Hidgeland	Madison	32	24	5	90	7	54
580	Greater Mount Bethel Church of Christ		Jackson	Hinds	32	18	14	90	13	32
587	Gregory Salisbury	9916	Pearl	Rankin						
591	Greyhound Lines Garage Facility #3115	3974	Jackson	Hinds	32	17	12	90	12	53
605	GSPC- Canton Town & Border (00782)	39242		Madison	32	35	44	90	2	18
607	GSPC- City Gate #1 (00766)			Hinds	32	18	11	90	10	10
608	GSPC- City Gate #5 (00767)			Hinds	32	15	54	90	13	13
609	GSPC- City Gate #6 (00768)			Hinds	32	16	5	90	16	28
647	GSPC- Jackson Meter Shop S. Door (A1435)			Rankin	32	18	7	90	5	41
648	GSPC- Jackson Station 1 E. Door (A1430)	39365		Rankin	32	18	4	90	5	37
649	GSPC- Jackson station 1 W. Door (A1431)	39366		Rankin	32	18	4	90	5	37
650	GSPC- Jackson Station 2 N. Door (A1432)	39367		Rankin						
651	GSPC- Jackson Station 3 W. Door (A1436)	39368		Rankin	32	18	9	90	5	33
669	GSPC- Newman Field (00769)			Hinds	32	16	34	90	40	2
678	GSPC- Rex Brown Power Plant (00786)			Hinds	32	21	25	90	12	44
691	GSPC- Storage 00680 S. Side (A1338)	39369		Rankin	32	18	2	90	8	34
692	GSPC- Storage well (00675)	39370		Rankin	32	17	55	90	8	38
693	GSPC- Storage well (00676)	39371		Rankin	32	18	45	90	8	28
694	GSPC- Storage well (00677)	39372		Rankin	32	18	48	90	8	28
695	GSPC- Storage well (00678)	39373		Rankin	32	18	31	90	8	26
696	GSPC- Storage well (00679)	39374		Rankin	32	18	5	90	8	34
697	GSPC- Storage well (00680)	39375		Rankin	32	18	2	90	8	34
701	GSPC- Town&Border (00784)			Hinds	32	22	8	90	8	46
702	GSPC- Town&Border (00785)			Hinds	32	21	18	90	12	5
705	GSPC- TX. East Canton Sta. (00783)	39243		Madison	32	30	49	90	5	7
711	GSPC- Well #11 (00765)	39376		Rankin	32	18	43	90	8	42
712	GTE Products Corp (See Challenger Electric)		Jackson	Hinds						
727	Gulf States Creosote / W.G. Avery	39377	Flowood	Rankin	32	18	37	90	8	35
737	H&H Termite/Fairway Exterminating Not an NPL Site - No Further Action	38970	Jackson	Hinds	32	16	56	90	11	34

BFA - Brownfield Agreement  
 Archived - from CERCLIS  
 EPD - Enviro. Permits Div.  
 UST - UST Branch  
 SWB - Solid Waste Branch



**STATE OF MISSISSIPPI  
CERCLA/UNCONTROLLED SITES FILE LIST  
SORTED BY SITE NAME**

	Site Name	Agency Interest No.	City	County	Latitude			Longitude		
738	Habitat for Humanity, see Ellis Ave., 1260		Jackson	Hinds	32	17	45	90	13	38
793	Highway 80 West, 1421		Jackson	Hinds	32	17	9	90	12	33
794	Hinds Wood Preserving	3099	Learned	Hinds	32	12	1	90	32	30
801	Holman (Spell) Cattle Dip '92		Richland	Rankin						
806	Hood Manufacturing, Co. (See Straits Manufacturing)	38999	Jackson	Hinds	32	20	11	90	11	50
808	Hooker St. Site	38977	Jackson	Hinds	32	17	41	90	12	4
812	Howard Wilson Chrysler Plymouth Site	33159	Jackson	Hinds	32	17	15	90	12	60
813	Hoy Road Improvement Project		Madison	Madison	32	27	55	90	6	34
814	Huff-n-Stuff		Puckett	Rankin	32	5	19	89	47	3
818	Hunt Process Farm Property	39239	Way	Madison						
824	Hwy 80 W. 2645, See Southern Speed and Rod		Jackson	Hinds	32	17	38	90	14	2
828	Illinois Central Railroad Abandonment	38597	Canton	Madison	32	37	1	90	2	22
845	Illinois Central RR Refueling Station - Jackson	3396	Jackson	Hinds	32	19	38	90	11	12
852	Industrial Pollution Control (IPC)	3283	Jackson	Hinds	32	17	44	90	12	0
872	IP Brandon Woodyard	12742	Brandon	Rankin	32	17	24	89	57	5
883	J.P. Wade Scrap Metal Co.	39350	Flowood	Rankin						
888	Jackson Industrial Uniform Service	4206	Jackson	Hinds	32	20	13	90	11	14
889	Jackson Mall Site	25369	Jackson	Hinds	32	19	39	90	11	39
890	Jackson Oil Products Co.	39358	Pearl	Rankin	32	17	45	90	7	35
891	Jackson Plating Company	1141	Jackson	Hinds	32	20	2	90	10	42
893	Jackson Ready Mix Concrete Plant		Ridgeland	Madison	32	25	24	90	8	2
894	Jackson, City of # 10 Fire Station		Jackson	Hinds	32	19	43	90	11	51
907	Jimbo's Truck Stop	34653	Canton	Madison	32	36	27	90	4	0
916	JohnsonDiversey, Inc.	38978	Jackson	Hinds	32	18	42	90	16	16
934	Kerry Rudder Property	39227	Canton	Madison	32	36	22	90	4	8
941	Klean Steel - Offsite Disposal Area	39351	Flowood	Rankin	32	19	12	90	7	32
942	Knox Glass Company	39352	Flowood	Rankin						
944	Kolb's Grand Cleaners #1753	38979	Jackson	Hinds	32	20	6	90	10	37
974	LeFleur's Landing-Under the Hill	18788	Jackson	Hinds	32	17	25	90	10	35
984	Lewis Tire Shop		Florence	Rankin						
985	Liberty Grill:see President Street, 200		Jackson	Hinds	32	17	51	90	10	52
986	Lightfoot - 5117 McRaven Road	38980	Jackson	Hinds	32	17	51	90	16	51
1009	Madison Materials Concrete Beam Site (See City Center Site)		Ridgeland	Madison	32	25	24	90	8	2
1010	Madison, City of Former Lagoon	39232	Madison	Madison						
1012	Magna America Hinds Community College	5393	Raymond	Hinds	32	14	58	90	26	39
1013	Magna Corp. (Mississippi Steel)	2343	Flowood	Rankin	32	18	51	90	8	6
1020	Mark Escude Toyota	5172	Jackson	Hinds	32	16	29	90	11	48
1024	Marquette Acid Pits	39339	Brandon	Rankin	32	16	0	90	1	33
1059	McPherson Oil Company, 2280 Mattox Road	38981	Jackson	Hinds	32	17	37	90	17	2
1062	MDOT - 19th Wheel Truck Stop	38861	Clinton	Hinds	32	19	57	90	20	23
1064	MDOT - 401 Northwest Street Generator Room Diesel Spill		Jackson	Hinds	32	18	11	90	11	2
1078	MDOT - Baker Lane Store - SR471	39340	Brandon	Rankin	32	21	23	89	58	18
1093	MDOT - Central Shop Complex		Jackson	Hinds	32	19	54	90	11	3
1113	MDOT - Flowood (Hwy 468)	39353	Flowood	Rankin						
1141	MDOT - Jackson Test Lab	38982	Jackson	Hinds	32	19	37	90	10	37
1153	MDOT - Lakeland Drive (Proposed)	38983	Jackson	Hinds						
1191	MDOT - SR 471		Brandon	Rankin	32	17	11	89	59	34
1192	MDOT - Stitches & Stuff	39341	Brandon	Rankin	32	18	38	89	59	30
1217	Methamphetamine Drug Laboratory	39237	Ridgeland	Madison	32	24	1	90	7	26
1219	MFC Office Building Complex	39233	Madison	Madison						
1220	MFC Services	39228	Canton	Madison	32	33	52	90	3	41
1221	MG Industries - Pisgah Carbon Dioxide Plant	9870	Brandon	Rankin	32	27	59	89	54	15
1229	Mid Continent Truck Stop	30799	Jackson	Hinds	32	16	45	90	12	35
1243	Millard Refrigerated Services		Richland	Rankin	32	15	13	90	9	19
1244	Miller Center Shopping Center		Jackson	Hinds	32	17	48	90	13	43
1247	MIMS Enterprises Tanker Truck Wreck Interstate 20		Brandon	Rankin	31	16	44	89	58	59
1252	Mississippi Army National Guard, 112th Military Police Battalion Note: XMA - State Federal No Further Action	39229	Canton	Madison						

BFA - Brownfield Agreement  
 Archived - from CERCLIS  
 EPD - Enviro. Permits Div.  
 UST - UST Branch  
 SWB - Solid Waste Branch

**STATE OF MISSISSIPPI  
CERCLA/UNCONTROLLED SITES FILE LIST  
SORTED BY SITE NAME**

ID	Site Name	Agency Interest No.	City	County	Latitude			Longitude		
1255	Mississippi Cotton Oil Company (see N Gallatin St. 197)	38976	Jackson	Hinds	32	17	40	90	12	55
1256	Mississippi Department of Agriculture - Steel Building		Jackson	Hinds						
1257	Mississippi Electric Signs Inc.	38989	Jackson	Hinds	32	16	57	90	11	34
1260	Mississippi Nature Conservancy	38990	Jackson	Hinds						
1261	Mississippi Ordance Plant ( (FUDS # A04ms0185)			Madison	32	36	4	90	18	20
1267	Mississippi Power & Light Company - MGP	38991	Jackson	Hinds	32	17	54	90	10	58
1269	Mississippi Power & Light Mayes St	3416	Jackson	Hinds						
1272	Mississippi Power & Light Rex Brown Steam		Jackson	Hinds						
1278	Mississippi School of the Blind	63645	Jackson	Hinds	32	20	32	90	9	20
1287	Mississippi Steel (see Magna Corp.)		Flowood	Rankin						
1320	NAPA (Proposed)	38992	Jackson	Hinds	32	22	43	90	9	43
1332	Neal's Super Discount	39342	Brandon	Rankin	32	16	21	89	57	58
1334	New Horizon Ministries, Inc. - Bell Street	38993	Jackson	Hinds	32	18	46	90	11	31
1340	Noel's Automotive Warehouse: see S. Gallatin St., 605		Jackson	Hinds	32	17	42	90	11	35
1342	North Farish Street, 235-243		Jackson	Hinds						
1343	North Farrish Street, 235-243 Addresses		Jackson	Hinds	32	18	10	90	11	19
1344	North Gallatin St,182		Jackson	Hinds	32	18	13	90	11	34
1345	North Gallatin Street, 197		Jackson	Hinds	32	18	12	90	11	31
1352	O.K. Batte Cleaners	5435	Jackson	Hinds	32	18	5	90	11	37
1353	Oakley Training School		Raymond	Hinds	32	13	6	90	30	13
1364	Office of Capitol Facilities Site	38994	Jackson	Hinds	32	18	0	90	10	39
1366	Old Capitol Green	55871	Jackson	Hinds	32	17	47	90	10	44
1389	Paragon Cotton Gin		Canton	Madison	32	37	4	80	11	
1395	Pearl Fire Department	39359	Pearl	Rankin						
1403	Pelahatchie Wood Yard	12321	Pelahatchie	Rankin	32	18	41	89	48	1
1409	Penske Truck Leasing Facility (Former) - Pelahatchie		Pelahatchie	Rankin						
1413	Peoples Property		Terry	Hinds	32	5	46	90	17	41
1414	Peoples Shell Station		Terry	Hinds	32	5	47	90	17	41
1426	Pickens Saw Mill	2181	Flora	Madison	32	35	21	90	18	51
1429	Pilot Travel Center	39008	Richland	Hinds	32	15	30	90	9	44
1435	Placid Oil Co.	38995	Jackson	Hinds						
1465	President Street, 200		Jackson	Hinds	32	17	51	90	10	52
1466	Presto Manugacturing		Jackson	Hinds	32	22	42	90	9	47
1469	Process Engineering	1134	Jackson	Hinds						
1470	Proliance	1940	Jackson	Hinds	32	20	27	90	22	54
1472	Proposed Hinds County Youth Facility/Southwest Paving	38996	Jackson	Hinds	32	16	8	90	11	54
1485	RAJ Properties (Kroger)	12702	Richland	Rankin						
1488	Rankin County Landfill	18804	Brandon	Rankin						
1490	Raymond Rd. and Robinson Rd. Corner of		Jackson	Hinds	32	16	45	90	15	35
1491	Raymond Landfill	39007	Raymond	Hinds	32	14	41	90	24	15
1492	Raymond Rd and I 20, Corner of		Jackson	Hinds	32	16	55	90	12	46
1493	Raymond Road and McDowell, Corner of		Jackson	Hinds	32	16	21	90	16	9
1498	Red River Specialties, Inc.	69431	Flowood	Rankin	32	19	23	90	6	47
1508	Reliance Universal Inc.		Clinton	Hinds						
1510	Rexcel Coatings/Chemrex		Jackson	Hinds	32	16	50	90	12	19
1520	Robinson Road, 4125		Jackson	Hinds	32	18	13	90	13	32
1530	Ross Furniture Facility		Jackson	Hinds	32	18	10	90	11	19
1531	Ross Furniture:see Farish Street, 229-233		Jackson	Hinds						
1532	Royster Co. (See Southeastern Chemical)	11388	Jackson	Hinds						
1534	Ryder Truck Rental Inc Jackson West	5331	Jackson	Hinds	32	20	15	90	14	31
1535	Saab Park Ballfields		Canton	Madison	32	37	4	90	2	15
1536	Saab Park Former City Works		Canton	Madison	32	36	60	90	2	17
1537	Saab Park Warehouse Property		Canton	Madison	32	37	3	90	2	20
1538	Saab Park Wooded Property		Canton	Madison	32	37	8	90	2	19
1539	Safety Kleen Corp	44	Jackson	Hinds	32	17	12	90	10	52
1572	Shell Station (Former)		Terry	Hinds	32	5	47	90	17	41
1573	Shell, Thomasville Plant		Thomasville	Rankin	32	9	38	89	58	28

Note: ~~XNPA~~ - State/Federal No Further Action  
 BFA - Brownfield Agreement  
 Archived - from CERCLIS  
 EPD - Enviro. Permits Div.  
 UST - UST Branch  
 SWB - Solid Waste Branch

**STATE OF MISSISSIPPI  
CERCLA/UNCONTROLLED SITES FILE LIST  
SORTED BY SITE NAME**

Site No.	Site Name	Agency Interest No.	City	County	Latitude			Longitude		
1577	Siemens Allis, Inc.	38997	Jackson	Hinds	32	14	56	90	9	37
1578	Siemens Allis, Inc.		Richland	Rankin						
1581	Sims Dry Cleaner	38998	Jackson	Hinds	32	18	12	90	11	18
1590	Soldier Colony Road Airstrip	39230	Canton	Madison	32	36	20	90	4	8
1592	Sonford Products	23426	Flowood	Rankin	32	17	33	90	8	32
1595	South Gallatin Street, 605		Jackson	Hinds	32	17	42	90	11	35
1596	South Gallatin Street, 710		Jackson	Hinds	32	17	37	90	11	33
1598	South State Street , 861		Jackson	Hinds	32	17	21	90	10	57
1599	South State Street, 220-235 Addresses		Jackson	Hinds	32	17	50	90	10	49
1600	South State Street,1008 (Gulf Station)		Jackson	Hinds	32	17	10	90	10	57
1604	Southeastern Chemical Co. / Royster Co.		Jackson	Hinds	32	20	15	90	11	49
1605	Southeastern Wood Preserving\Canton Wood Treat\ Dickson Wood Treat	10248	Canton	Madison	32	37	7	90	1	5
1611	Southern Maid Products	38863	Clinton	Hinds	32	21	14	90	15	13
1670	Southern Natural Gas John McGowan M/S	39265	Pickens	Madison	32	48	49	89	57	58
1717	Southern Natural Gas Rankin Compressor Station		Brandon	Rankin	32	17	22	89	54	49
1718	Southern Natural Gas Rankin Fuel Gas M/S	39343	Brandon	Rankin	32	17	22	89	54	49
1719	Southern Natural Gas Rankin Station	39345	Brandon	Rankin	32	17	20	89	54	46
1750	Southern Natural Gas Thomasville R/S		Johns	Rankin	32	8	38	89	54	13
1770	Southern Speed and Rod. See Why 80, 2645		Jackson	Hinds	32	17	38	90	14	2
1772	Southland Container Facility	16471	Flora	Madison	32	35	19	90	18	59
1781	Southport Center property		Jackson	Hinds	32	17	37	90	13	34
1794	Steel Service Corp	12456	Flowood	Rankin	32	19	19	90	6	49
1799	Stoller Chemical Co. - Brandon	39346	Brandon	Rankin	32	22	33	90	0	23
1805	Straits Corporation (Formerly Hood Mfg. Co.)		Jackson	Hinds	32	20	11	90	11	50
1821	Superior Manufacturing, Co. Inc.		Pearl	Rankin						
1829	Taco Bell Restaurant #10-1889	39360	Pearl	Rankin						
1854	Terminix	3900	Jackson	Hinds	32	15	46	90	12	36
1855	Terry Road, 1619		Jackson	Hinds	32	17	15	90	12	17
1856	Terry Road, 3542 Address		Jackson	Hinds	32	15	5	90	13	32
1860	Texas Eastern Gas Pipeline - Clinton	38864	Clinton	Hinds	32	24	25	90	15	33
1906	Thomasville Grocery & Deli	1451	Thomasville	Rankin						
1908	Thompson Field - Hydrant Refueling System	35766	Jackson	Rankin	32	19	31	90	4	48
1909	Thompson Field - Oil/Water Separator		Jackson	Rankin	32	19	37	90	4	55
1910	Thompson Field JP-8 Release		Jackson	Rankin	32	19	25	90	4	3
1912	Thonet Industries - Furniture Manufacturing Facility		Canton	Madison	32	37	4	90	0	11
1915	Tom Wimberly Auto World, Inc.	32665	Jackson	Hinds	32	23	31	90	8	39
1922	Train Derailment	39006	Pocohontas	Hinds	32	28	25	90	17	15
1939	Truck Trailer & Equipment		Pearl	Rankin						
1967	Union Station Parking Lot - Amite and Mill St.	39001	Jackson	Hinds	32	18	6	90	11	26
1968	United Gas Pipe Line - Jackson	39002	Jackson	Hinds						
1974	United States Postal Service - Vehicle Maintenance Fac. (oil-water separator area)	2764	Jackson	Hinds	32	17	25	90	11	5
1980	USA Pawn		Pearl	Rankin						
1994	Van Leer Containers Site		Canton	Madison	32	37	14	90	1	16
1998	Vickers Jackson, Inc.	38827	Jackson	Hinds	32	72	21	90	10	13
2005	Video Electronics: see S. Gallatin St., 710		Jackson	Hinds	32	17	37	90	11	33
2009	W & W Techs Jackson Dome Reef	39003	Jackson	Hinds						
2039	Water Well Jackson	39004	Jackson	Hinds						
2040	Water Well Leesburg	39347	Brandon	Rankin						
2046	Water Well Pelahatchie	39362	Pelahatchie	Rankin						
2048	Water Well Sharon	39234	Madison	Madison						
2066	West Pascagoula St. 125		Jackson	Hinds	32	17	53	90	11	22
2067	West Pascagoula St. 209		Jackson	Hinds	32	17	54	90	11	23
2075	Weyerhaeuser Company - Dump/Burial Site #2		Thomastown	Madison	32	51	26	89	44	15
2083	Weyerhaeuser Company Jackson Shpg.	1366	Richland	Rankin						
2087	Whitten Middle School	39005	Jackson	Hinds	32	15	6	90	13	16

Note: XNPA - State/Federal No Further Action  
 BFA - Brownfield Agreement  
 Archived - from CERCLIS  
 EPD - Enviro. Permits Div.  
 UST - UST Branch  
 SWB - Solid Waste Branch

STATE OF MISSISSIPPI  
 CERCLA/UNCONTROLLED SITES FILE LIST  
 SORTED BY SITE NAME

	Site Name	Agency Interest No.	City	County	Latitude	Longitude
2100	Woodlands Parkway Offices	39238	Ridgeland	Madison	32   24   6	90   6   48

Note: XNFA - State/Federal No Further Action  
 BFA - Brownfield Agreement  
 Archived - from CERCLIS  
 EPD - Enviro. Permits Div.  
 UST - UST Branch  
 SWB - Solid Waste Branch





# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Mississippi Ecological Services Field Office  
6578 Dogwood View Parkway, Suite A  
Jackson, Mississippi 39213  
Phone: (601)965-4900 Fax: (601)965-4340

March 23, 2020

IN REPLY REFER TO:  
2020-I-460

Ms. Lauren McWhorter  
Pickering Firm, Inc.  
2001 Airport Rd., Suite 201  
Flowood, Mississippi 39232

Dear Ms. McWhorter:

The Fish and Wildlife Service (Service) has reviewed the information in your correspondence dated February 27, 2020, regarding Bob Anthony Parkway Relocation Project, in Hinds, Madison, and Rankin Counties, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

According to the letter you submitted, the proposed project would construct a four-lane raised roadway across the Pearl River parallel to the existing road and downstream of the Ross Barnett Reservoir. The proposed project is within the range of the species identified by IPAC; the threatened northern long-eared bat (*Myotis septentrionalis*), the threatened Gulf sturgeon (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*) and its designated critical habitat, the threatened ringed map turtle (*Graptemys oculifera*), and the threatened wood stork (*Mycteria americana*). Take of northern long-eared bats is exempt from ESA prohibitions under certain conditions; see additional species information below for instructions to complete consultation for this species. The Service will be making a 12-month finding on a petition to list the Pearl River map turtle (*Graptemys pearlensis*) under the ESA in early 2021; a species whose range is within the proposed project area. If listing is warranted, we intend to proceed with a concurrent proposed listing rule and proposed critical habitat designation. If construction of the proposed project is not completed by then, additional coordination with our office will be needed. Due to the scope and location of the proposed project, we recommend the applicant or their federally designated representative prepare a biological assessment to determine if the proposed project will affect the wood stork, ringed map turtle, and Gulf sturgeon and its critical habitat. You can refer to this online template (<https://www.fws.gov/endangered/esa-library/pdf/Attachment-4.pdf>) for preparing the biological assessment. Please note there is a great deal of flexibility for biological assessments, and the template is not a requirement. This website contains some additional

helpful information [https://www.fws.gov/midwest/endangered/section7/ba\\_guide.html](https://www.fws.gov/midwest/endangered/section7/ba_guide.html). Please reach out if you have any questions.

The area where the proposed roadway will be constructed may impact an area that provides an excellent opportunity for recreational fisheries. The Service identifies recreational fishing as an essential mechanism for connecting people with nature, which ultimately helps our agency's conservation mission. We request to be a participating agency (as defined in 23 U.S.C. 139(d)) throughout the planning process as it pertains to maintaining and developing future recreational opportunities on the Pearl River.

#### Northern Long-eared Bat

The northern long-eared bat (*Myotis septentrionalis*) (NLEB) was listed as threatened on May 4th, 2015. A final 4(d) rule was published in 2016 exempting incidental take of otherwise legal actions related to tree clearing, except when tree removal occurs within a hibernacula site or when tree removal activities: 1) occur within a quarter-mile of a known hibernacula; or 2) cut or destroy known occupied maternity roost trees, or any other trees within 150 feet of that maternity roost tree during the pup-rearing season (June 1–July 31). Currently, there are no known maternity roost trees in the state of Mississippi and one known hibernaculum located in Tishomingo County near Pickwick Lake.

Any project requiring tree clearing “may affect” the NLEB. We encourage the lead federal agency or its designated non-federal representative to rely upon the findings of the 2016 programmatic biological opinion for the final 4(d) rule to fulfill their project-specific Section 7 responsibilities. To evaluate the impacts of the proposed project on NLEB you may submit this project online using the Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>). Here you will be able to navigate the NLEB determination key and receive an automated verification letter for your records. If this is a non-federal activity, then incidental take from tree removal is not prohibited and no permits or further coordination is required with the Service.

#### Gulf Sturgeon

The threatened Atlantic sturgeon, Gulf subspecies (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*) is found in the coastal rivers of the northeastern Gulf of Mexico generally from Lake Pontchartrain in Louisiana to the Suwanee River in Florida. Critical habitat has been designated for the species in Mississippi to include portions of the Bogue Chitto, Bouie, Chickasawhay, Leaf, Pascagoula and Pearl Rivers and the Gulf of Mexico. Gulf sturgeons are primitive, anadromous fish that annually migrate from the Gulf of Mexico into freshwater streams to spawn. Subadults and adults spend eight to nine months each year in rivers. Adult and subadult holding areas have been identified in the Pascagoula River. The decline of the Gulf sturgeon is primarily due to limited access to riverine migration routes and historic spawning areas, habitat modification, and water quality degradation.



### Ringed Map Turtle


The threatened ringed map turtle (*Graptemys oculifera*) is found in the Pearl River. It prefers river stretches with moderate currents, abundant basking sites, and sand bars for nesting. Stream modification in the Pearl River for flood control and urban development has significantly contributed to the decline of the species. Threats to this species include removing forested habitat along the river banks (source of the deadwood used for basking) and/or removing instream deadwood used for basking and foraging (commonly referred to as desnagging). Water quality degradation has also posed a serious problem for the turtle.

### Wood Stork

Wood storks (*Mycteria americana*) are large, long-legged wading birds, about 50 inches tall, with a wingspan of 60-65 inches. The plumage is white except for black primaries and secondaries and a short black tail. The head and neck are largely unfeathered and dark gray in color. Two distinct populations of wood storks occur in the United States. One population breeds in Florida, Georgia, and South Carolina, and is federally protected (threatened). The other population breeds from Mexico to northern Argentina and is not federally protected. Wood storks from each of these populations occur seasonally in Mississippi during the non-breeding season (May-October) and are not distinguishable from one another. The major threat to this species is a reduction in food base (primarily small fish) due to habitat loss, modification, and fragmentation. Typical foraging sites include freshwater marshes, swales, ponds, hardwood and cypress swamps, narrow tidal creeks or shallow tidal pools, and artificial wetlands (such as stock ponds; shallow, seasonally flooded roadside or agricultural ditches; and impoundments).

If you have any questions, please contact Amy Carson in our office, telephone: (601) 321-1130, or visit our website at <http://www.fws.gov/mississippiES/>.

Sincerely,

  
Stephen M. Ricks  
Field Supervisor  
Mississippi Field Office



HISTORIC PRESERVATION DIVISION  
P. O. BOX 571  
Jackson, MS 39205-0571  
Phone 601-576-6940 Fax 601-576-6955  
Website: mdah.ms.gov

March 20, 2020

Ms. Laura McWhorter  
Pickering  
2001 Airport Road, Suite 201  
Flowood, Mississippi 39232

RE: Proposed realignment of the Bob Anthony Parkway at Ross Barnett reservoir, (FHWA)  
MDAH Project Log #02-115-20, Hinds, Madison and Rankin Counties

Dear Ms. McWhorter:

We have reviewed your February 27, 2020, request for a cultural resources assessment, for the above referenced project in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, it is our determination due to the presence of recorded sites within the APE, topography of the area and the fact that the area was surveyed prior to 1994, that a cultural resources survey should be performed by a qualified archaeologist. The resulting report should reference the project log number above on the title page. Additionally, further research is needed to better understand the roadway's context and its relationship to the Ross Barnett Reservoir [121-BRN-4026].

A list of individuals who have represented themselves as being willing and qualified to do archaeological survey work in Mississippi will be furnished upon request. A copy of this letter should be made available to the contracting archaeologist(s).

If you have any questions, please contact us at 601-576-6940.

Sincerely,

A handwritten signature in black ink that reads "Hal Bell". The signature is written in a cursive, flowing style.

Hal Bell  
Review and Compliance Officer

FOR: Katie Blount  
State Historic Preservation Officer



# Mississippi Department of Wildlife, Fisheries, and Parks

Sam Polles, Ph.D.  
Executive Director

March 24, 2020

Pickering Firm, Inc  
2001 Airport Road  
Suite 201  
Flowood, AL 39232

Re: PRVWSD Bob  
Anthony Parkway  
Hinds  
County, Madison  
County, Rankin  
County, MS

Project #  
Internal Id 1336

To Wilson Harper:

In response to your request for information dated **February 24, 2020**, we have searched our database for occurrences of state or federally listed species and species of special concern that occur within 2 miles of the site of the proposed project. Please find our concerns and recommendations below.

**The following species of concern may occur within 2 miles of the proposed project area:**

Scientific Name	Common Name	Federal Status	State Status	State Rank
Acipenser oxyrinchus desotoi	Gulf Sturgeon	LT	LE	S1
Alosa alabamae	Alabama Shad	SC		S1
Cycleptus meridionalis	Southeastern Blue Sucker			S3
Cyclonaias refulgens	Purple Pimpleback			S3S4
Desmognathus valentinei	Valentine's Southern Dusky Salamander			S2S3

Scientific Name	Common Name	Federal Status	State Status	State Rank
Fundulus dispar	Northern Starhead Topminnow			S3
Graptemys oculifera	Ringed Map Turtle	LT	LE	S2
Hexalectris spicata	Crested Coralroot			S2
Lasmigona complanata	White Heelsplitter			S3
Limnothlypis swainsonii	Swainson's Warbler			S2S3B
Nyctanassa violacea	Yellow-crowned Night-Heron			S2B,S1N
Obovaria arkansasensis	Southern Hickorynut			S1
Obovaria unicolor	Alabama Hickorynut			S1S2
Polyodon spathula	Paddlefish			S3
Truncilla truncata	Deertoe			S3
Utterbackiana hartfieldorum	Cypress Floater			S3S4

**State Rank**

**S1** - Critically imperiled in Mississippi because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.

**S2** - Imperiled in Mississippi because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.

**S3** - Rare or uncommon in Mississippi (on the order of 21 to 100 occurrences).

**State and Federal Status**

**LE Endangered** - A species which is in danger of extinction throughout all or a significant portion of its range.

**LT Threatened** - A species likely to become endangered in foreseeable future throughout all or a significant portion of its range.

**Based on the information provided, we conclude that if best management practices are properly implemented, monitored, and maintained (particularly measures to prevent, or at least, minimize negative impacts to water quality), the proposed project likely poses no threat to listed species or their habitats.**

**Recommendations:**

As listed above, there are 16 species of concern in our database within a 2-mile radius of the proposed Bob Anthony Parkway next to the Ross Barnett Reservoir in Hinds, Madison, and Rankin county, MS (32.39304400, -90.06786700). Of the 16 species listed, two species (Gulf Sturgeon and Ringed Map Turtle) are listed as federally threaten and state endangered. Concerns for this project are the potential for sediment and pollutants to escape the projects boundaries into neighboring properties and waterbodies such the Pearl River. Activities that modify the landscape can be detrimental because they can adversely affect water quality by increasing herbicide and pesticide load, silt load, exhaust runoff from roads, and other unintentional pollutants. These factors may negatively impact habitat conditions by detrimentally affecting respiration, feeding, and reproduction of amphibians, bats, birds, crayfishes, fishes, insects, turtles, and vegetation. This project will also sprawl into and on top of the wetlands immediately south of the proposed parkway, where several species listed above have been documented to occur in. Habitat requirements for the Ringed Map Turtle include instream woody debris (logs, snags, downed treetops) for basking and abundant sandbar areas for nesting. Nesting occurs mid-May to early July, with peak nesting in mid-June. Habitat modifications, including channelization, de-

snagging, and reservoir construction, are of concern as these activities remove basking sites, destroy nesting beaches, and alter suitable habitat. Siltation and water pollution may adversely affect both the Ringed Map Turtle and its invertebrate food source. Stream alteration projects that result in the removal of snags or sandbars should be discouraged within the range of this species. The Gulf Sturgeon has declined throughout its range from the results of overfishing in the early 1900s and the loss of spawning habitat. Gulf Sturgeon forage and overwinter in marine waters and migrate back to their freshwater natal streams to spawn. Juveniles will remain in the river for the first 2-3 years of life, before heading to marine waters. Dam construction, dredging, and channelization have prevented sturgeon from gaining access to spawning grounds and/or destroyed the substrates on which the eggs are deposited on. Widespread industrial and domestic pollution has also reduced both feeding and spawning habitat for sturgeons. Precautions should be taken to ensure that the proposed actions do not result in increased stream flow or further stream channel, bed, or bank degradation upstream or downstream, as well as potential head-cutting, downstream of the proposed project site. We recommend that best management practices be properly implemented, maintained, and monitored regularly for compliance, both upstream and downstream of any crossings. Specific emphasis should be placed on measures that help look for signs of increased erosion, and minimize the occurrence of excess sedimentation, suspended particulate matter, and contaminants at all project sites and surrounding areas from leaving in stormwater run-off or from direct entry into nearby streams and waterbodies. If such signs are discovered, then appropriate actions to address the issue should be taken. Please check MS Department of Environmental Quality for BMP.

Please feel free to contact us if we can provide any additional information, resources, or assistance that will help minimize negative impacts to the species and/or ecological communities identified in this review. We are happy to work with you to ensure that our state's precious natural heritage is conserved and preserved for future Mississippians.

Completed by Quentin Fairchild

*The Mississippi Natural Heritage Program (MNHP) has compiled a database that is the most complete source of information about Mississippi's rare, threatened, and endangered plants, animals, and ecological communities. The quantity and quality of data collected by MNHP are dependent on the research and observations of many individuals and organizations. In many cases, this information is not the result of comprehensive or site-specific field surveys; most natural areas in Mississippi have not been thoroughly surveyed and new occurrences of plant and animal species are often discovered. Heritage reports summarize the existing information known to the MNHP at the time of the request and cannot always be considered a definitive statement on the presence, absence or condition of biological elements on a particular site.*

## Lauren McWhorter

---

**From:** Dean, Kenneth <Dean.William-Kenneth@epa.gov>  
**Sent:** Friday, March 27, 2020 9:24 AM  
**To:** Lauren McWhorter  
**Cc:** Kim Thurman (kthurman@mdot.ms.gov); Kajumba, Ntale; Buskey, Traci P.  
**Subject:** EPA Comments on the Bob Anthony Parkway Relocation Project

Ms. McWhorter:

The U.S. Environmental Protection Agency (EPA) Region 4 has reviewed your letter, dated February 27, 2020, regarding the proposed Bob Anthony Parkway Relocation Project led by the Pearl River Valley Water Supply District in Mississippi. According to the letter, Pickering has begun a preliminary National Environmental Policy Act evaluation for the project and is seeking initial comments regarding possible impacts within the proposed study area. The proposed project involves the construction of a four-lane raised roadway located just west and running parallel to the current eastbound roadway. The proposed project begins east of the intersection of Bob Anthony Parkway and Harbor Drive in Madison County and ends east of Reservoir Park Road in Rankin County. The purpose of this relocation is to relieve vehicular traffic along the crest and toe of the dam in order to enhance the safety and security of the dam structure.

Based on the EPA's review of available information, the following comments are provided for your consideration.

- (1) Environmental Justice. The EPA's online EJSCREEN tool (<http://www2.epa.gov/ejscreen>) reported no significant minority or low-income populations present in the project area.
- (2) Priority Watershed Designation. The project area is located within the Middle Pearl River-Strong River Watershed (Hydrologic Unit Code (HUC) 03180002), which is identified by the EPA's online NEPAassist mapping tool (<https://www.epa.gov/nepa/nepassist>) as a priority watershed. The Mississippi Nonpoint Source Management Plan includes as priority watersheds of the Mississippi Department of Environmental Quality (MDEQ), two 12-digit HUCs within the Middle Pearl-Strong River Watershed that intersect the Ross Barnett Reservoir watershed. These two 12-digit HUC12s are the Cane-Creek Pearl River watershed (HUC 031800020403) and the Mill Creek-Pearl River watershed (HUC 0318800029404). Prioritization of these watersheds is done by multi-agency teams in the Basin Management Approach. Within priority watersheds, collaborative watershed protection and restoration efforts are implemented to address parameters of concern that appear on the Mississippi Section 303(d) list of impaired waterbodies. Segment MSUMPLR1E, from the Ross Barnett Reservoir Spillway to the confluence with the Strong River, is an impaired waterbody with established total maximum daily loads (TMDLs). According to the MDEQ's TMDL Program website (<https://www.mdeq.ms.gov/water/surface-water/tmdl/>), TMDLs for segment MSUMPLR1E have been completed for sediment, total nitrogen, total phosphorus, dichlorodiphenyltrichloroethane, and toxaphene. The EPA recommends that Pickering Firm, Inc. contact the MDEQ regarding the proposed project to ensure the project is constructed consistent with the applicable TMDLs and watershed plans.
- (3) Source Water Protection. Based on information available on the MDEQ, Office of Land and Water website (<https://landandwater.deq.ms.gov/swap/onlinemaps/viewer.asp>), the west side of this proposed project could be within the source water protection areas of some public water supply wells. The MDEQ, Office of Land and Water is responsible for ground water wellhead and source water protection areas in Mississippi. The EPA recommends that Pickering Firm, Inc. consult with the MDEQ, Office of Land and Water as soon as possible concerning the potential water well impacts.
- (4) Stormwater Management. The EPA encourages implementing best management practices during and after construction to minimize stormwater impacts on the reservoir and streams. Coverage under a statewide National Pollutant Discharge Elimination System (NPDES) construction stormwater general permit will be needed if the project

disturbs one acre or more of contiguous land. The EPA recommends that erosion control and sediment control measures be implemented in accordance with the State's NPDES construction general permit requirements, and that the measures be addressed during the design and construction phases of the project.

(5) Waters of the United States. Pursuant to Section 404 of the Clean Water Act, the project should avoid and minimize, to the maximum extent practicable, placement of dredged or fill material in jurisdictional waters. If the project has impacts to jurisdictional waters that cannot be avoided, the project may require a permit from the U.S. Army Corps of Engineers (Corps). The EPA recommends that impacts to jurisdictional waters be avoided if possible, and that mitigation measures to minimize impacts be implemented if avoidance is not possible.

The EPA appreciates the opportunity to provide initial comments on the proposed project. If you have any questions regarding the EPA's comments, please contact me by phone at 404-562-9378 or via email at [dean.william-kenneth@epa.gov](mailto:dean.william-kenneth@epa.gov).

Kenneth Dean

*William Kenneth Dean*  
EPA-MDOT Liaison  
U.S. Environmental Protection Agency, Region 4  
Office of the Regional Administrator  
National Environmental Policy Act Section  
601-321-1135 (Jackson, MS Office)  
404-562-9378 (Atlanta, GA Office)  
678-628-2079 (iPhone)  
[dean.william-kenneth@epa.gov](mailto:dean.william-kenneth@epa.gov)

---

**From:** Lauren McWhorter <lmcwhorter@pickeringfirm.com>  
**Sent:** Thursday, February 27, 2020 12:04 PM  
**To:** Dean, Kenneth <Dean.William-Kenneth@epa.gov>  
**Subject:** Seeking Comments for proposed Bob Anthony Parkway Relocation project

Hello Mr. Dean,

Please see the attached letter about the proposed Bob Anthony Parkway Relocation project located along the Ross Barnett Reservoir northeast of Jackson, Mississippi. The project area is within Madison, Hinds, and Rankin Counties. This letter is a part of an preliminary research phase of the NEPA evaluation process. Please contact me via this email or by calling 601-956-3663 for more information.

Thank you,

**Lauren McWhorter**  
**Environmental Scientist**

**Pickering Firm, Inc.**  
*Service and Good Work, Our Foundation, Our Future.*  
2001 Airport Road, Suite 201  
Flowood, MS 39232  
Phone: 601.956.3663 Fax: 601.956.7817

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Lauren McWhorter		File Number: MVK-2020-161	Date: 4/16/2020
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx> or Corps regulations at 33 CFR Part 331.

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

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

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

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

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

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

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

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



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

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

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

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

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

Will Pigott  
Environmental Specialist, Regulatory  
USACE, Vicksburg District  
William.l.pigott@usace.army.mil  
6016317239

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

Administrative Appeals Review Officer  
Mississippi Valley Division  
U.S. Army Corps of Engineers  
1400 Walnut Street  
Vicksburg, MS 39181-0080  
601-634-5820

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

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORP OF ENGINEERS, VICKSBURG DISTRICT  
4155 CLAY STREET  
VICKSBURG, MISSISSIPPI 39183-3435

April 20, 2020

Operations Division

**SUBJECT:** Department of the Army Regulatory Requirements – Proposed Relocation of the Bob Anthony Parkway along Ross Barnett Reservoir, Hinds, Madison and Rankin Counties, Mississippi

Ms. Lauren McWhorter  
Pickering Firm, Incorporated  
2001 Airport Road, Suite 201  
Flowood, Mississippi 39232

Dear Ms. McWhorter:

This letter is regarding your request for comments, on behalf of the Pearl River Valley Water Supply District, regarding the proposed relocation of the Bob Anthony Parkway in Hinds, Madison and Rankin Counties, Mississippi (enclosure 1).

Based upon the information provided, we have determined that it appears there are jurisdictional waters of the United States located on the property subject to regulation pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Any work involving the discharge of dredged or fill material (land clearing, ditching, filling, leveeing, etc.) into jurisdictional wetlands and/or other waters of the United States at the site will require a Department of the Army Section 404 permit prior to beginning work. In addition, any work within the ordinary high water elevation of the Pearl River, a navigable water of the United States, will require a Department of the Army Section 10 permit prior to beginning work. For your information, I have enclosed a copy of an appeals form for this preliminary jurisdictional determination (enclosure 2). A final determination of Department of the Army permit requirements will be made upon the submission of a completed permit application with detailed project plans.

For your convenience, an application may be obtained at our official Regulatory Program webpage: <http://www.mvk.usace.army.mil/Missions/Regulatory.aspx>. An application for work in wetlands or other waters of the United States should be submitted at least 90 to 120 days in advance of the proposed starting date. To expedite the jurisdictional determination process, we encourage applicants (commercial or private) to use a consultant to conduct wetland delineations whenever possible. Please refer to Identification No. MVK-2020-161 when submitting the information and application.

If you have any questions, please contact Mr. William Pigott of this office, telephone (601) 631-7239, or e-mail address: [William.L.Pigott@usace.army.mil](mailto:William.L.Pigott@usace.army.mil).

Sincerely,

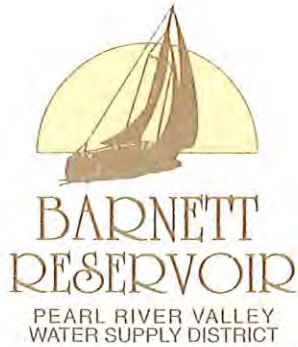
ALLRED.CHARL  
ES.R.JR.123077  
1690

Digitally signed by  
ALLRED.CHARLES.R.JR.12  
30771690  
Date: 2020.04.20 15:38:50  
-05'00'

Charles R. Allred, Jr.  
Chief, Enforcement Section  
Regulatory Branch

Enclosures

**APPENDIX E**  
**SECTION 4(f) LETTER OF SUPPORT**



13 November, 2023

Ms. Kim Thurman  
Project Development Team Leader  
Federal Highway Administration, Mississippi Division  
100 West Capitol Street, Suite 1062  
Jackson, MS 39269

RE: Bob Anthony Parkway Relocation Project Section 4(f) – FBLD-6945-00(013)LPA/108635

Dear Ms. Thurman,

The Pearl River Valley Water Supply District (PRVWSD) received a \$2.8 million BUILD Grant in 2020 for environmental studies and preliminary engineering needed to relocate an existing 3.1-mile segment of Bob Anthony Parkway from the Ross Barnett Reservoir Dam (Dam). The PRVWSD, in cooperation with the Mississippi Department of Transportation (MDOT) and the Federal Highway Administration (FHWA), is conducting environmental and engineering studies to assess the environmental impacts of Bob Anthony Parkway Relocation Project (project).

The purpose of the project is to address safety concerns associated with the current roadway's impacts to, and maintenance of, the Ross Barnett Reservoir Dam. Proposed improvements include relocating the current roadway to reduce vibration impacts to soils on the Dam slope, regrading the slope on the downstream side of the Dam to improve stability and simplify maintenance, improving access and safety for routine and emergency maintenance work to the Dam, improving pedestrian and bicycle safety, and enhancing the resiliency and quality of life of the surrounding area.

Section 4(f) refers to the original section within the U.S. Department of Transportation (USDOT) Act of 1966 which provided for consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. The law, now codified in 49 U.S.C. §303 and 23 U.S.C. §138, applies only to the USDOT and is implemented by the FHWA and the Federal Transit Administration through the regulation 23 Code of Federal Regulations (CFR) 774. Section 4(f) properties include significant publicly owned public parks, recreation areas, and wildlife or waterfowl refuges, or any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places.

In addition to the 33,000-acre reservoir and 17,000 acres of associated land that PRVWSD manages, there are 48 recreational facilities. Use of these facilities increases each year, boosting the local economies. The recreational amenities include 16 parks, 22 boat launches, three handicapped-accessible piers, 23 miles of multi-purpose trails, and a mountain bike trail. In conjunction with private and public sectors, the PRVWSD has also developed five marinas, four baseball/soccer complexes, a tennis center, two disc-golf courses, and one traditional golf course.

**AN AGENCY OF THE STATE OF MISSISSIPPI**

P.O. Box 2180 · Ridgeland MS 39158 · Phone: 601-856-6574 · Fax: 601-856-2585

John G. Sigman, Executive Director



The project area contains several of these recreational areas and PRVWSD owned parks/trails. One of these resources, Mule Jail Trail, would be significantly impacted by the construction of the project. The trail is located just south of the Dam on the western side of Bob Anthony Parkway. Totalling approximately 4.33 miles, the trail predominately serves as a mountain biking trail. Approximately 1.87 miles of the trail would be permanently destroyed, and the remaining trail would likely be cut-off from the existing trailhead. However, this trail is underutilized, not well maintained, and overall insignificant relative to the multitude of recreational opportunities available on PRVWSD lands. The recreational opportunities associated specifically with the Pearl River downstream of the Dam include two boat ramps into the Pearl River, extensive fishing areas, wildlife viewing, and hiking trails. A 2011 Usage Study of PRVWSD recreational users identified these facilities as the fourth highest usage area for PRVWSD parks. Rankin Landing is located near the eastern termini of the project. This facility includes a boat launch and fishing pier, as well as a commercial restaurant development. In addition, the Northwest Rankin Athletic Association soccer fields are located just south of the project area, and are only accessible by Reservoir Park Road. The intersection of this road and the Bob Anthony Parkway will be reconfigured to add a channelized northbound right turn with an acceleration lane to aid in merging onto Spillway Road going eastbound. These recreational areas will be unaffected other than brief alterations to access during construction that will be returned to normal operation at the conclusion of the project. A commitment will be made to ensure that at least one side of the Pearl River fishing area remains open throughout the construction phase of the project.

The area around the Dam has abundant multi-use paths on both sides of the Reservoir including the U.S. National Park Service's Natchez Trace Chisha Foka Multi-Use Trail. However, there is currently no multi-use path crossing the Dam. An unprotected bike lane on the right shoulder of the existing Bob Anthony Parkway is the only pedestrian connection from one side of the Dam to the other. Currently, the Chisha Foka Multi-Use Trail in Madison County includes approximately 10.6 miles of trails and Rankin County has approximately 19.4 miles of trails located between the City of Flowood and the Dam. The project has been designed to provide new recreational opportunities along the crest of the Dam, including a multi-use pedestrian and bike path and shoreline fishing, as well as enhance the existing recreational areas. The roadway on the crest of the Dam will be converted to a multi-use pedestrian and bicycle path that would create a connected trail network totaling approximately 30 miles. In addition, it is anticipated that the access roads to existing recreational facilities will remain open throughout construction in order to maintain access to those facilities.

For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). Because the impacts to publicly owned recreational areas and parks within the project area will overall be positive and the project will result in a net gain of recreational areas, the impacts to the Mule Jail Trail are considered to be *de minimis*.

The PRVWSD has reviewed the information regarding the Section 4(f) impacts to significant publicly owned public parks, recreation areas, and wildlife or waterfowl refuges, or any publicly or privately owned historic sites within the proposed project area. I am aware that FHWA is requesting a *de minimis* finding for the proposed roadway relocation. I concur that the implementation of the Bob Anthony Parkway Relocation Project will not adversely impact the activities, features, and attributes of the PRVWSD's recreational areas.

If any further information is needed regarding this matter, please contact Mark Beyea, Chief Engineer with PRVWSD, at 769-300-2026.

Sincerely,

A handwritten signature in blue ink, appearing to read 'mjb', with a long horizontal flourish extending to the right.

Mark J. Beyea, P.E.  
Chief Engineer, PRVWSD

**APPENDIX F  
NOISE STUDY**



# TRAFFIC NOISE STUDY

Bob Anthony Parkway Relocation Project  
Madison, Rankin, and Hinds Counties, Mississippi



**PREPARED FOR:**

Pearl River Valley Water Supply District  
115 Madison Landing Circle  
Ridgeland, MS 39157

**PREPARED BY:**

Pickering Firm, Inc  
2001 Airport Road  
Suite 201  
Flowood, Mississippi 39232



OCTOBER 2023  
PICKERING PROJECT NO.: 26036.00.001



## TABLE OF CONTENTS

1.0 INTRODUCTION .....	1
1.1 No Build (Alternative A) .....	2
1.2 Alternative B .....	2
1.3 Alternative E2.....	3
2.0 PURPOSE AND SCOPE .....	4
3.0 FUNDAMENTALS OF SOUND AND NOISE .....	4
4.0 NOISE IMPACT CRITERIA .....	6
5.0 DESCRIPTION OF LAND USE.....	7
5.1 Current Use .....	7
5.2 Future Use.....	7
6.0 TRAFFIC NOISE MODEL.....	8
6.1 Model Validation .....	8
6.2 Modeling Procedures.....	10
6.3 Existing Noise Environment.....	14
6.4 Future No Build Noise Environment.....	14
6.5 Future Build Alternative B Noise Environment .....	14
6.6 Future Build Alternative E2 Noise Environment .....	14
7.0 FHWA POLICY REGARDING LAND USE DEVELOPMENT AND FUTURE NOISE ABATEMENT .....	15
8.0 CONCLUSIONS AND RECOMMENDATIONS.....	15
9.0 CONSTRUCTION NOISE ABATEMENT .....	16

## TABLES

TABLE 1: Noise Level Increase.....	6
TABLE 2: FHWA Noise Abatement Criteria in 23 CFR 772 .....	7
TABLE 3: TNM Validation.....	8
TABLE 4: TNM Summarized Results.....	15

## **FIGURES**

<b>FIGURE 1: Site and Vicinity Map .....</b>	<b>2</b>
<b>FIGURE 2: Alternative B Alignment .....</b>	<b>3</b>
<b>FIGURE 3: Alternative E2 Alignment.....</b>	<b>4</b>
<b>FIGURE 4: Common Outdoor and Indoor Sound Levels.....</b>	<b>5</b>
<b>FIGURE 5: Field Measurement Map .....</b>	<b>9</b>
<b>FIGURE 6: Noise Receiver Reference Map - West .....</b>	<b>11</b>
<b>FIGURE 7: Noise Receiver Reference Map - Central .....</b>	<b>12</b>
<b>FIGURE 8: Noise Receiver Reference Map - East .....</b>	<b>13</b>

## **APPENDICES**

- Appendix A – Noise Measurement Data Sheets and Photographs**
- Appendix B – Results of All Receivers for Existing and Future Conditions**
- Appendix C – TNM Results for Existing Noise Environment**
- Appendix D – TNM Results for Future No Build Noise Environment**
- Appendix E – TNM Results for Future Build Alternative B Noise Environment**
- Appendix F – TNM Results for Future Build Alternative E2 Noise Environment**

## 1.0 INTRODUCTION

The Pearl River Valley Water Supply District (PRVWSD) has proposed the Bob Anthony Parkway Relocation Project (project), an east/west multimodal raised corridor to be located south of the dam of the Ross Barnett Reservoir dam (Dam) in Madison, Rankin, and Hinds Counties, Mississippi. The original construction within this area included one two-lane paved road on the crest of the Dam. Due to increasing traffic volumes, two additional lanes were built at the toe of the Dam in 2003. The two original lanes now provide one-way travel westward and the new lower lanes provide one-way travel eastward, as well as access to the public recreational areas located on both sides of the Pearl River downstream of the Dam. Together, these four lanes are collectively called the Bob Anthony Parkway, also known as Spillway Road.

The proposed project is being planned to address safety concerns associated with the current roadway's impacts to, and maintenance of, the Ross Barnett Reservoir Dam. Proposed improvements include relocating the current roadway to reduce vibration impacts to soils on the Dam slope, regrading the slope on the downstream side of the Dam, improving access and safety for routine and emergency maintenance work to the Dam, improving pedestrian and bicycle safety, and enhancing the resiliency and quality of life of the surrounding area. The Beginning of Project (BOP) is located just east of the intersection with Harbor Drive in Ridgeland and extends approximately 3.1 miles to the End of Project (EOP) just east of Reservoir Park Road in Rankin County.

Seven roadway designs (alternatives) were considered during the preliminary design phase of the proposed project. A No Build alternative (Alternative A) and six Build Alternatives (Alternatives B, C, D, E, E2, and F) were developed as solutions to the project's purpose. After further evaluations of these alternatives, it was determined that Alternatives B and E2 would best accomplish the proposed project's purpose. Therefore, this traffic noise study focuses on the impact of the projected noise environment with the implementation of Alternatives A, B, and E2, separately.

Initially, the proposed alternatives were identified on aerial photographs to determine possible noise receptors within the project corridor. These receptors were field verified by in-situ investigation and classified according to their functional use (residence, commercial, light industrial, manufacturing, office, etc.). At this time, the receptors were also classified by "Activity Category" as established by the Federal Highway Administration (FHWA) Noise Abatement Criteria chart shown in Table 1. Google Earth software was used to obtain the coordinates along each alignment and nearby receivers. Because noise level calculations are based on the distance from the proposed project to occupied facilities, noise level estimates at each occupied facility are considered approximate.

**FIGURE 1:  
Site and Vicinity Map**



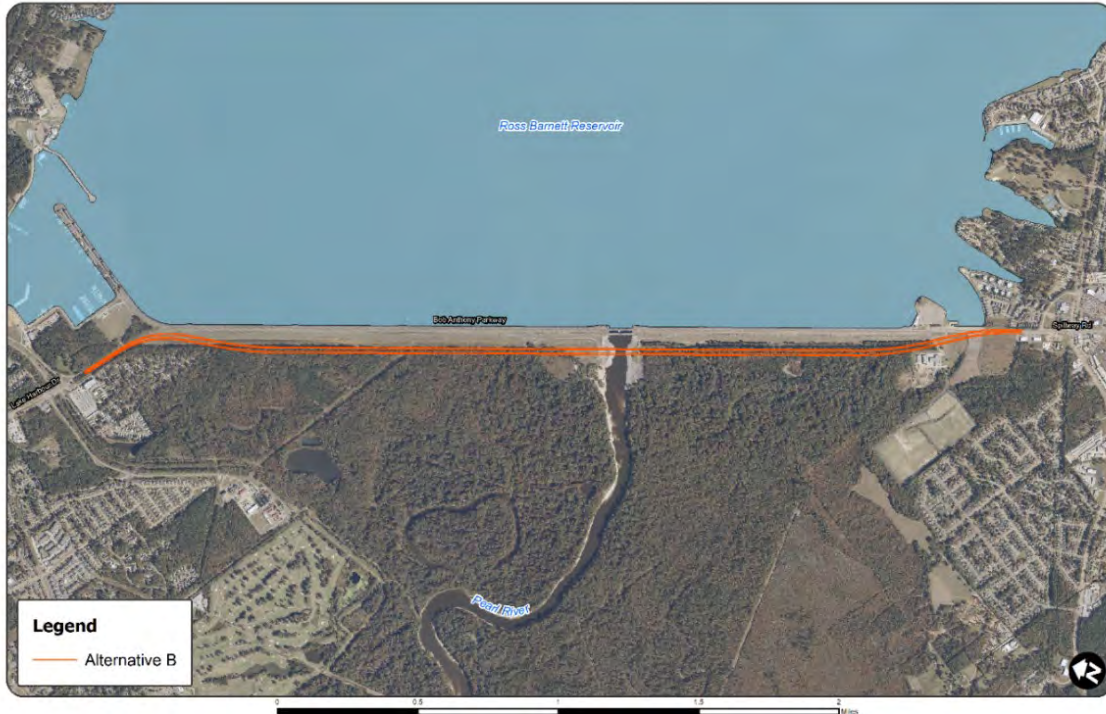
### **1.1 No Build (Alternative A)**

The No Action or No Build alternative would involve taking no action to address the concerns with the Dam. In this scenario, the facility would remain in its current configuration. Selection of the No Action alternative would not meet the stated purpose and need, but would avoid both impacts to natural and social environments and major state and federal expenditure.

### **1.2 Alternative B**

Alternative B would construct four 12-foot-wide lanes with 6-foot inside shoulders and 10-foot outside shoulders. This alignment begins on Lake Harbour Drive just to the east of Harbor Drive. Both the east bound and west bound lanes veer north at the start of the existing toe ditch before turning south and crossing back over the toe ditch. This four-lane bridge would be a steel plate girder bridge with no bridge bents in the river channel. The main span of the bridge would be approximately 400 feet. The total length of the four-lane bridge would be approximately 4,000 feet, which includes the additional spans over other aquatic channels and wetlands. Alternative B continues east parallel to the dam (approximately 4,500 feet) before tying back into the existing roadway east of the emergency spillway. The total length of this alternative is approximately 3.54 miles. An aerial map of this alternative is included as Figure 2, Alternative B Alignment.

**FIGURE 2:  
Alternative B Alignment**



### 1.3 Alternative E2

Alternative E2 would construct four new 12-foot-wide lanes with 6-foot inside shoulders and 10-foot outside shoulders. The eastbound alignment would veer downstream of the toe ditch and parallel the existing lower road, while the westbound alignment veers south of the existing lower road on the upstream side of the toe ditch, allowing for the regrading of the backside of the dam. The eastbound and westbound alignments straddle the toe ditch until just west of the intake structure where the westbound alignment crosses the toe ditch. The total length of the four-lane bridge would be approximately 4,000 feet, including the additional spans over other aquatic channels and wetlands. On the east side of the bridge, both the eastbound and westbound alignments run parallel to the existing roadway for approximately 2,700 feet, where they both turn northeast to tie into the existing roadway east of the emergency spillway. The total length of this alternative is approximately 3.35 miles. An aerial map of this alternative is included as Figure 3, Alternative E2 Alignment.



**FIGURE 3:  
Alternative E2 Alignment**



## **2.0 PURPOSE AND SCOPE**

The purpose of this noise study is to analyze the potential impacts that the proposed project will have on the current and future noise environments, and determine sites where noise impacts are likely to occur. If noise impacts are found, the feasibility and reasonableness of noise abatement measures will be assessed for this project. This noise study is prepared to satisfy the requirements of Title 23 of the United States Code of Federal Regulations, Part 772 (23 CFR 772), as 'REVISED', effective July 13, 2011.

## **3.0 FUNDAMENTALS OF SOUND AND NOISE**

Sound is defined as the vibration of air molecules, which travels in waves to the human ear. These sound waves are produced by objects moving back and forth rapidly. The frequency of the moving objects determines pitch of the sound. Human ears can only hear sound waves with a frequency or pitch between approximately 20 cycles per second and 15,000 cycles per second. Noise is defined as unwanted or excessive sound. It can interfere with daily life and, in extremes, may cause physical and psychological damage. While noise emanates from many different sources, transportation noise is persistent and difficult to avoid. Highway traffic noise is a major contributor to overall transportation noise.

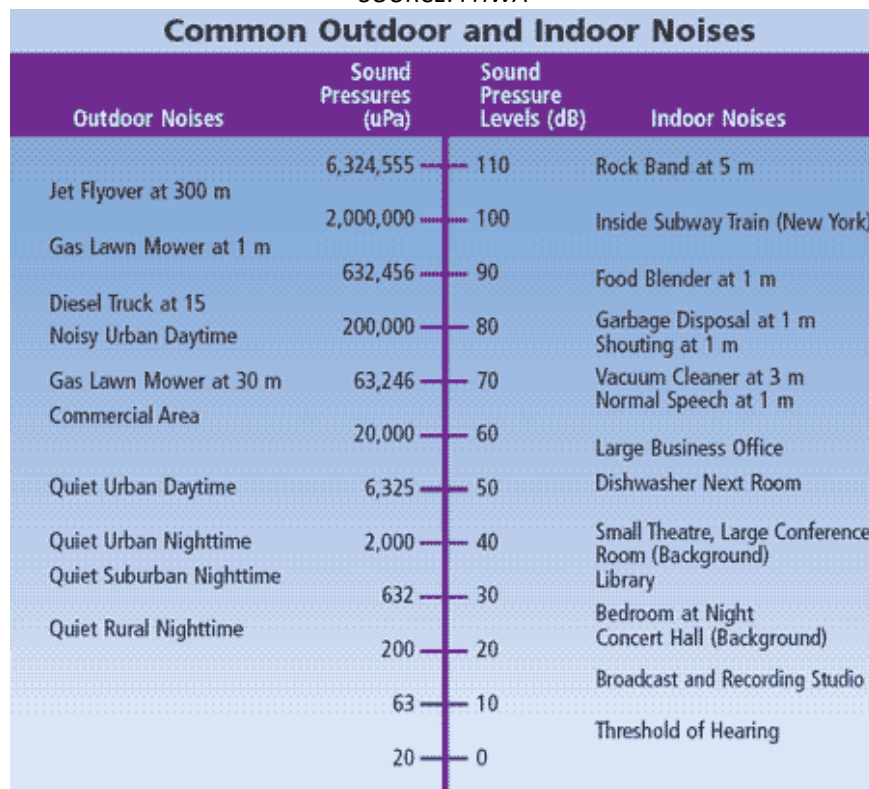
The unit of measure used to describe the sound pressure or intensity of sound is the decibel (dB), while the pitch of a particular sound is determined by its frequency. The threshold of

hearing for humans begins at 0 dB, which represents faint sounds. Each 10dB increase causes the sound level to rise exponentially. For example, a sound level of 50 dB (quiet urban daytime) is twice as loud as a sound level of 40 dB (quiet urban nighttime), while a sound level of 60 dB (commercial area) is twice as loud as the 50 dB quiet urban daytime and four times louder than the quiet urban night.

An adjustment or weighting of the high-pitched and low-pitched sounds is often made to approximate how an average person hears sounds. For highway traffic noise studies, this compensation is called A-weighting, with A-weighted decibel measurements indicated by dBA. Figure 4 provides an illustration of some common indoor and outdoor noise levels shown in dB. The decibel scale for measuring the intensity of sound is based on the logarithm of the sound level pressure relative to a reference sound level pressure. Due to the logarithmic nature of the decibel scale for sound levels, changes in sound levels are difficult to define. For example, if a sound of 60 dBA is added to another sound of 60 dBA, the resulting sound is 63 dBA instead of 120 dBA.

**FIGURE 4:**  
**Common Outdoor and Indoor Sound Levels**

SOURCE: FHWA



Sounds associated with the use of roadways and highways are usually considered a nuisance or noise. Because the noise level associated with a particular road is never constant, a statistical descriptor is used to describe the varying noise levels. The equivalent continuous sound level

(Leq) is the statistical descriptor used for this noise study. The Leq sound level is the steady A-weighted sound level that will produce the same A-weighted sound energy over a set period as a specified time-varying sound.

#### 4.0 NOISE IMPACT CRITERIA

Traffic noise impacts are defined in 23 CFR 772 and occur when predicted traffic noise levels approach or exceed the Noise Abatement Criteria (NAC) (Table 1) for a specific Activity Category or when noise levels are predicted to substantially increase following a project’s completion. The definition of “approach” as used above is determined to be 1 dB less than the established NAC shown in Table 2 below. These guidelines will provide the basis for any conclusions made in this report. Effective July 13, 2011, the FHWA revised 23 CFR 772 regulations, and modified the NAC to represent the upper limit of acceptable highway traffic noise more realistically for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded.

**TABLE 1:  
Noise Level Increase**

<i>Increase in Existing Noise Levels (dB(A))</i>	<i>Subjective Descriptor</i>
0.1 – 5.9	Minor Increase
6.0 – 9.9	Moderate Increase
10.0 or greater	Substantial Increase (NAC)



**TABLE 2:  
FHWA Noise Abatement Criteria in 23 CFR 772**

<b>Activity Category</b>	<b>Description of Activity Category</b>	<b>Evaluation Location</b>	<b>Criteria <math>L_{eq}(h)</math><sup>(1)</sup></b>
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where preservation of those qualities is essential if the area is to continue to serve its intended purpose.	Exterior	56 dBA
B	Residential	Exterior	66 dBA
C	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.	Exterior	66 dBA
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.	Interior	51 dBA
E <sup>(2)</sup>	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A–D or F.	Exterior	71 dBA
F	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.	--	--
G	Undeveloped lands that are not permitted.	--	--

(1) In Mississippi, impact occurs when noise level is equal to or greater than these values.

(2) Includes undeveloped lands permitted for this activity category.

## **5.0 DESCRIPTION OF LAND USE**

### **5.1 Current Use**

The project area studied in this traffic noise study includes the earthen dam of the Ross Barnett Reservoir and the existing Bob Anthony Parkway which runs along the crest and toe of the dam. The area south of the dam is predominately wooded undeveloped land, with the Pearl River flowing away from the dam. The developed areas at the northwest termini of the project area includes a mobile home park and a storage facility. The developed areas at the southeastern termini of the project area includes several restaurants and a neighborhood of townhouses. The other land uses adjacent to the project area include a utility right of way, and vacant fields. The project area is shown in Figure 1, Site and Vicinity Map.

### **5.2 Future Use**

Due to the proximate location to the Pearl River and the Ross Barnett Reservoir, the land use is not expected to differ greatly in the future. Future developments in this area will likely be restricted to the near the termini of the project area.

## 6.0 TRAFFIC NOISE MODEL

Estimates of the exterior noise levels in the vicinity of the proposed project were made using the FHWA Traffic Noise Model (TNM), Version 2.5 program developed by the United States Department of Transportation John A. Volpe National Transportation Systems Center, Acoustics Facility.

### 6.1 Model Validation

Noise measurements were taken during the morning hours on October 5, 2023, using an Integrating Sound Level Meter (407780A/Datalogger by EXTECH Instruments). The meter was calibrated before and after each measurement. Fifteen-minute measurements were conducted at one-minute intervals. Significant background noise (i.e. dog barking, sirens, etc) during these intervals was noted, and the corresponding one-minute interval was eliminated. Noise levels can vary with environmental changes. As a result, the short-term measurement data provides only a snapshot of the existing environment.

Four field measurements were taken along the project area. NM01 was taken within the Harbor Pines Mobile Home Park. NM02 was taken on the west side of the Dam. At the time of this measurement, the water flow from the Dam was unseasonably low due to this area being subject to an extreme drought for the past several months. While taking the measurement, an earthen berm partially shielded the meter from noise pollution caused from flow from dam. NM03 was taken within the Rankin Landing parking lot. NM04 was taken adjacent to the Reservoir Place shopping center.

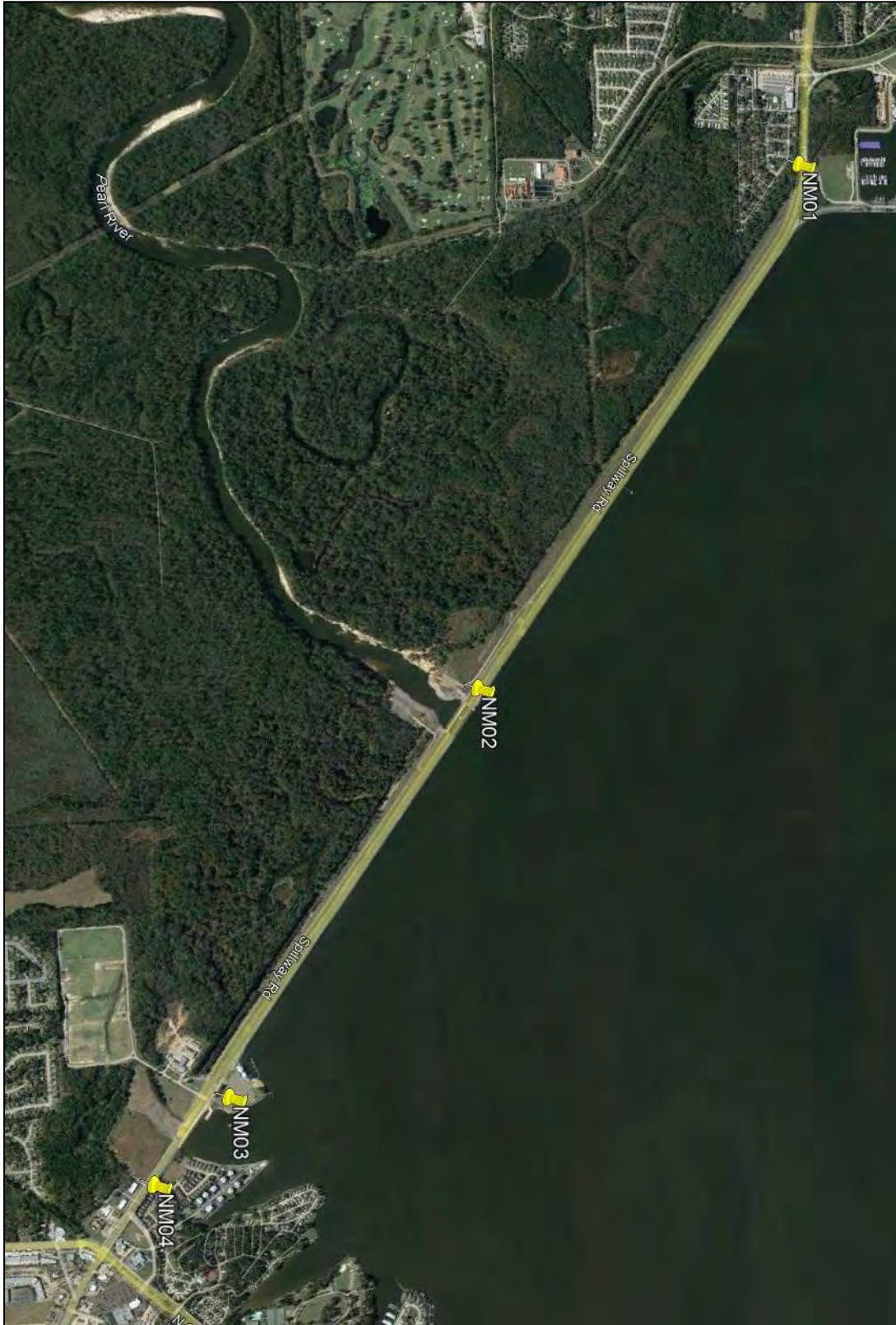
All four measurement levels fell within three decibels of the estimated TNM sound level and successfully validated the model. The results of the noise validation are summarized in Table 3 with the field data sheets and photographs included in Appendix A. A visual representation of the field measurement locations is shown in Figure 5, Field Measurement Map.

**TABLE 3:  
TNM Validation**

Site	Time	Measured Leq (dBA)	Estimated Leq (dBA)	Difference*
NM01	7:44 am	56.7	56.5	0.2
NM02	8:16 am	59.3	59.0	0.3
NM03	8:44 am	70.1	68.6	1.5
NM04	9:10 am	61.4	62.2	0.8

*\* A measurement is considered validated when there is a 3 or less dBA difference between the measured and estimated Leq values.*

**FIGURE 5:  
Field Measurement Map**



## **6.2 Modeling Procedures**

For this noise study, traffic data for the project was obtained from the Bob Anthony Parkway, Final Traffic Report, dated August 2023, prepared by Garver. Existing turning movement volumes were field measured by Garver on April 7 and 11 of 2022 for this study. From the existing count data collected, AM peak hour/DHV was determined to occur between 7:15 and 8:15 AM, with PM peak hour/DHV determined to occur between 4:45 and 5:45 PM. With design year of project estimated to be in 2045, existing Annual Average Daily Traffic (AADT) was based on the growth rates calculated using historical counts from MDOT's website along with travel demand model data provided by the Central Mississippi Planning and Development District (CMPDD). The traffic speed on the proposed alternatives was modeled as 55 miles per hour (mph), mimicking the speed from existing roads in the surrounding area. Four scenarios including Existing Conditions, Future No Build, Future Build Alternative B, and Future Build Alternative E2 were modeled for this noise study.

In order for TNM to properly predict noise impacts to the surrounding area, receivers must be placed in various locations that are exposed to the potential noise. Receivers were modeled up to 500 feet from the proposed roadway. Overall, 27 receivers, representing 285 properties, were modeled. Visual representations of the receivers are shown in Figures 6, 7, and 8, Noise Receiver Reference Maps, and the addresses are listed in Appendix B.



**FIGURE 6:  
Noise Receiver Reference Map - West**





**FIGURE 7:  
Noise Receiver Reference Map – Central**





**FIGURE 8:  
Noise Receiver Reference Map – East**



### **6.3 Existing Conditions Environment**

TNM was used to simulate existing noise levels or Existing Conditions for the project area. The year 2023 was defined as the existing year for this noise study. The simulated noise levels ranged from 35.3 to 62.8 dBA at the modeled receivers. Based on the result from TNM, none of the modeled receivers were impacted under the modeled Existing Conditions. These results are summarized in Table 4 and displayed in Appendix B.

### **6.4 Future 2045 No Build Noise Environment**

TNM simulated Alternative A, the scenario where the proposed roadway is not built, and the project area remains in its current state with increased traffic volumes. The noise level varied from 40.2 to 64.4 dBA at the modeled receivers. All receivers resulted in a minor impact with an increase of 1.3 to 5.0 dBA when compared to the Existing Conditions scenarios. This impact is due to the predicted increase in traffic volume. Like the Existing Conditions, no receivers were impacted by increasing noise levels. These results are summarized in Table 4 and displayed in Appendix B.

### **6.5 Future 2045 Build Alternative B Noise Environment**

TNM simulated the noise levels of the future build scenario if the proposed addition roadway was constructed with the Alternative B alignment. The noise levels ranged from 40.6 to 71.1 dBA at the modeled receivers. When compared to the existing conditions, one receiver (Shaggy's Restaurant) resulted in a decrease in noise levels. One receiver (PRV Shop) resulted in a moderate increase in noise levels, and two receivers (west and east recreational areas south of the Dam) resulted in a substantial increase in noise levels. However, these receivers represent non-residential properties. The remaining 23 receivers resulted in a minor increase of 1.5 to 5.6 dBA in noise levels. The future Build Alternative B are summarized in Table 4 and displayed in Appendix B.

### **6.6 Future 2045 Build Alternative E2 Noise Environment**

TNM simulated the noise levels of the future build scenario if the proposed addition roadway was constructed with the Alternative E2 alignment. The noise levels ranged from 40.3 to 71.1 dBA at the modeled receivers. When compared to the existing conditions, one receiver (Shaggy's Restaurant) resulted in a decrease in noise levels. One receiver (PRV Shop) resulted in a moderate increase in noise levels, and two receivers (west and east recreational areas south of the Dam) resulted in a substantial increase in noise levels. However, these receivers represent non-residential properties. The remaining 23 receivers resulted in a minor increase of 1.2 to 5.8 dBA in noise levels. The future Build Alternative E2 results are summarized in Table 4 and displayed in Appendix B.

**TABLE 4:  
TNM Summarized Results**

Scenario	Year	Estimated Leq Range (dBA)	Difference between Existing Leq Range (dBA)	Properties Impacted*
Existing Conditions	2023	62.8 - 35.3	N/A	0
Future No Build	2045	64.4 – 40.2	1.3 – 5.0	0
Future Build – Alt B	2045	71.1 – 40.6	-3.6 – 17.4	3
Future Build – Alt E2	2045	71.1 – 40.3	-3.1 – 17.4	3

\* Only moderate or substantial impacts are included in this count.

**7.0 FHWA POLICY REGARDING LAND USE DEVELOPMENT AND FUTURE NOISE ABATEMENT**

The United States has undertaken a program which utilizes a three-part approach to the abatement of highway traffic noise. Noise-compatible development through effective land use planning and control is traditionally an area of local responsibility. Source control or control of noise emissions from the vehicles themselves is a joint responsibility of private industry and of federal, state, and local governments. The FHWA has established noise standards for different types of land use activities adjacent to highways. These standards, identified in the United States Code of Federal Regulations Part 772 (23 CFR 772), require that for certain types of federally-aided highway projects, states must conduct noise analyses to identify potential highway traffic noise impacts.

Local officials and developers are encouraged to consider highway traffic noise in the planning, zoning, and development of property near existing and proposed highways. In order to help local officials and developers consider highway traffic noise in the vicinity of proposed Type I projects, Pickering will include a copy of this noise study report in the EA for the proposed Project.

**8.0 CONCLUSIONS AND RECOMMENDATIONS**

When comparing the noise model results between the Existing Conditions and the Future No Build (Alternative A) scenario, all 27 receivers experienced a minor noise impact due to increased future traffic counts. When comparing the two Future Build scenarios (Alternatives B and E2) to the Future No Build scenario results, the noise levels are similar for 23 of the 27 receivers, resulting in a minor noise increase. These 23 receivers, representing 279 residential and two commercial properties, resulted in minor increases when comparing the Existing Conditions to Future No Build and both Future Build scenarios. This result suggests the cause of increased noise within this environment is predominately due to the projected increase in future traffic counts, regardless of the implementation of the proposed project within this area.

When analyzing the two future Build scenarios, the noise data for four receivers resulted in different noise levels than those in the Existing Conditions and Future No Build scenarios. Receiver 19, Shaggy’s, is a restaurant adjacent to the Rankin Landing, a PRVWSD owned boat

launch and recreational facility. When compared to the existing noise level, this receiver showed a decrease of 3.6 and 3.1 dBA in the Build scenarios Alternative B and Alternative E2, respectively. This decrease is due to the proposed alternatives moving traffic further away from this receiver. Receiver 20, the PRV shop, is the PRVWSD maintenance shop and office for Reservoir Police Department. When compared to the existing noise level, this maintenance facility resulted in a moderate noise level increase of 9.2 and 8.8 dBA in the Build scenarios Alternative B and Alternative E2, respectively. This increase is due to the proposed alternatives projected intersection with this facility, which could cause modification or relocation of this facility. However, because the sponsor of this proposed project owns this facility, the necessary decisions to determine the potential modification or relocation of this shop are planned along with the implementation of the proposed project. Receivers 21 and 22, West Spillway and East Spillway, are the parking lot, boat launches, and fishing areas on either side of the Pearl River. When compared to the existing noise level, Receiver 21 resulted in a substantial noise level increase of 17.4 dBA in both Build scenarios, and Receiver 22 resulted in a substantial noise level increase of 13.1 dBA in both Build scenarios. In addition, Receiver 21 also resulted in a noise level of 71.1 dBA, which exceeded the NAC of 67 dBA for recreational facilities. These substantial increases are due to the proposed roadways being built on structure directly over this area.

Although these increases are substantial, noise abatement measures are not reasonable within the area surrounding the Dam. This area is subject to the ongoing and significant noise pollution from the flow of released water from the Dam. Due to the location of the proposed project directly overhead this area, it would not be feasible to decrease the noise pollution level using barriers without negatively affecting the operation of the Dam and hindering the proper functioning of the Ross Barrett Reservoir. In addition, noise reduction barriers within this area would restrict the recreational fishing and boating and negatively impact the recreational viewshed. Therefore, it is not feasible to consider traffic noise abatement measures at this location.

## **9.0 CONSTRUCTION NOISE ABATEMENT**

A slight noise increase would initially be caused by construction activities and volumetric increases in traffic flow along the build alternatives. Although no noise abatement barriers or other noise abatement measures are recommended for this project, noise should be minimized when feasible during the construction of the road. Where possible, construction noise controls and abatement measures should be incorporated into the project plans and specifications to minimize adverse construction noise in the project area. Each internal combustion engine shall be equipped with the muffler recommended by the equipment manufacturer. The contractor shall comply with all other state and local regulations, which are related to noise control, and apply to projects of this type.

## **APPENDICES**



## **APPENDIX A**

### **Noise Measurement Data Sheets and Photographs**

Noise Measurement Data Sheet				
Measurement ID:	NM01			
Project Name:	Bob Anthony Relocation Project (26036.00.001)			
Date:	10/5/2023			
Address/GPS:	Near 328 Lakeview Road			
Land Use:	Mobile Home Park			
Pre-Calibration Time/Level:	7:13 / 94.0			
Post-Calibration Time/Level:	8:05 / 94.2			
Weather:	Overcast. 69°, No wind			
Period #	Time Start	Average dB	Delete?	Notes
1	7:44	56.1		
2	7:45	57.3		Two autos traveling within the mobile home park (mhp).
3	7:46	56.4		
4	7:47	<del>57.8</del>	X	An auto traveling within the mhp. Low airplane overhead.
5	7:48	57.3		Three autos traveling within the mhp.
6	7:49	56.0		Two autos traveling within the mhp.
7	7:50	55.5		An auto traveling within the mhp.
8	7:51	56.3		Two autos traveling within the mhp.
9	7:52	54.9		
10	7:53	53.9		
11	7:54	55.1		An auto traveling within the mhp.
12	7:55	54.1		
13	7:56	<del>56.2</del>	X	An auto traveling within the mhp. Low airplane overhead.
14	7:57	<del>56.6</del>	X	An auto traveling within the mhp. Low airplane overhead.
15	7:58	55.3		
<b>Overall Leq</b>		<b>56.7</b>		

Traffic Count During Noise Measurement					
Period #	Autos	Medium Trucks	Heavy Trucks	Bus/RV	Motorcycles
1	40				
2	47				1
3	73	1			
4	39				
5	46	2			
6	60				
7	38	1			
8	67				
9	49	2			
10	44				
11	77				
12	37	1			
13	35	4			
14	56	3			
15	36	1			
<b>Total</b>	<b>744</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>1</b>





Within Harbour Pines mobile home park, aiming east (NM01).

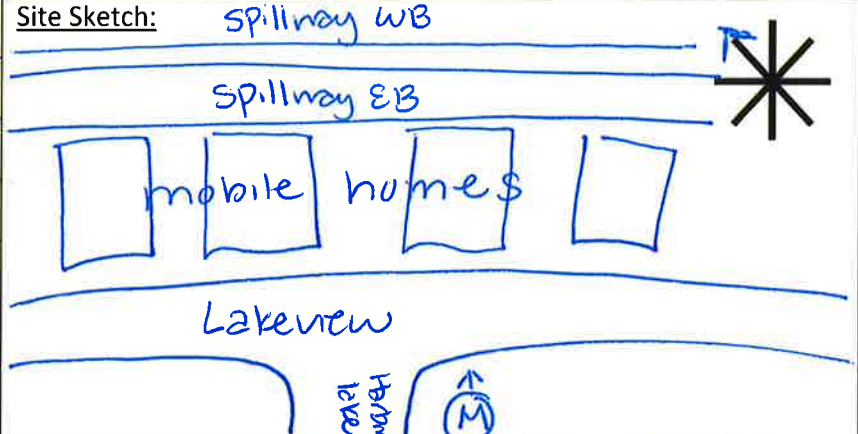


Within Harbour Pines mobile home park, aiming northeast (NM01).



## NOISE MEASUREMENT DATA SHEET

Project: Bob Anthony Parkway Relocation Project Project Number: 26036.00.001

NM ID: 01	Date: 10/5/23	Site Sketch: 
GPS: 32.41100, -90.08918		
Address: 328 Lakeview Rd		
Land Use: mobile home park (MHP)		
Pre-Calibration Time/Level: 713 / 94.0		
Post-Calibration Time/Level: 805 / 94.2		
Weather: overcast, 69°, no wind		

Period	Start Time	Event Description(s)	A	MT	HT	Bus	MC	
1	7:44	traffic on spillway WB	40					
2	7:45	2 cars within MHP	47				1	
3	7:46		73	1				
4	7:47	1 car w/in MHP, airplane	39					
5	7:48	3 cars w/in MHP	46	2				
6	7:49	2 cars w/in MHP	60					
7	7:50	1 car w/in MHP	38	1				
8	7:51	2 cars w/in MHP	67					
9	7:52		49	2				
10	7:53		44					
11	7:54	1 car w/in MHP	77					
12	7:55		37	1				
13	7:56	1 car w/in MHP airplane	35	4				
14	7:57	1 car w/in MHP	56	3				
15	7:58		36	1				
16	end recording							
17			Totals :	744	15		1	
18	#13							
19								
20								
21								
22								
23								
24								
25								

Noise Measurement Data Sheet				
Measurement ID:	NM02			
Project Name:	Bob Anthony Relocation Project (26036.00.001)			
Date:	10/5/2023			
Address/GPS:	Near boat launch off Pearl River			
Land Use:	Parking lot and green space			
Pre-Calibration Time/Level:	8:11 / 94.0			
Post-Calibration Time/Level:	8:33 / 94.1			
Weather:	Overcast. 70°			
Period #	Time Start	Average dB	Delete?	Notes
1	8:16	55.7		
2	8:17	59.9		
3	8:18	58.6		
4	8:19	<del>57.2</del>	X	Truck on exit ramp to boat launch
5	8:20	<del>61.1</del>	X	Truck on exit ramp to boat launch
6	8:21	56.3		
7	8:22	58.2		
8	8:23	60.5		
9	8:24	56.6		
10	8:25	60.3		
11	8:26	57.9		
12	8:27	59.1		
13	8:28	60.3		
14	8:29	56.2		
15	8:30	58.9		
<b>Overall Leq</b>		<b>59.3</b>		

Traffic Count During Noise Measurement					
Period #	Autos	Medium Trucks	Heavy Trucks	Bus/RV	Motorcycles
1	21	1			
2	48	3			
3	46	1			
4	26	2			
5	55	1			
6	33				
7	37				
8	44	2			
9	21				
10	50	1			
11	32	2			
12	33	3			
13	34	1			1
14	26				
15	39				
<b>Total</b>	<b>545</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>1</b>





Near boat launch parking lot, aiming northeast (NM02). An earthen berm pictured above shielded the measurement from noise pollution caused by water flow from dam.

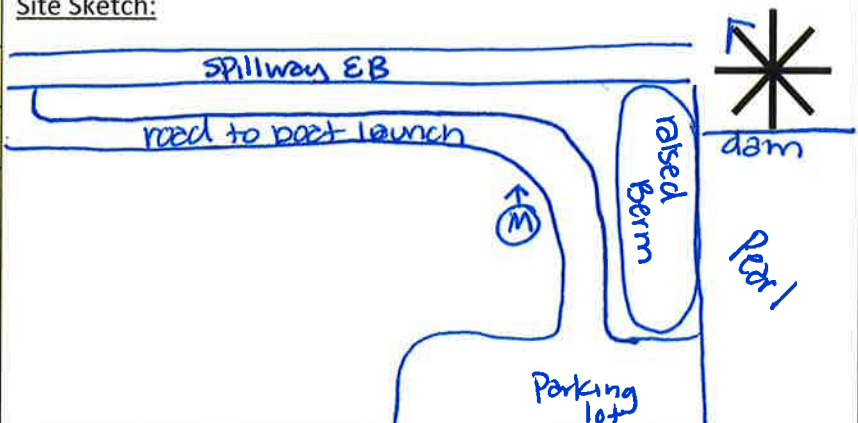


Near boat launch parking lot, aiming east (NM02).



NOISE MEASUREMENT DATA SHEET

Project: Bob Anthony Parkway Relocation Project Project Number: 26036.00.001

NM ID: 02	Date: 10/5/23	Site Sketch:
GPS: 32.39724, -90.06564		
Address: near boat launch off Pearl river		
Land Use: parking lot & green space		
Pre-Calibration Time/Level: 811 / 94.0		
Post-Calibration Time/Level: 833 / 94.1		
Weather: overcast, 70°		

Period	Start Time	Event Description(s)	A	MT	HT	Bus	MC
1	816	water flowing/birds from dam/chirp	21	1			
2	817		48	3			
3	818		46	1			
4	819		truck on exit ramp to launch	26	2		
5	820		55	1			
6	821		33				
7	822		37				
8	823		44	2			
9	824		21				
10	825		50	1			
11	826		32	11			
12	827		33	3			
13	828		34	1			1
14	829		26				
15	830		39				
16	end of recording						
17		Totals:	545	17			1
18	(#14)						
19							
20							
21							
22							
23							
24							
25							

Noise Measurement Data Sheet				
Measurement ID:	NM03			
Project Name:	Bob Anthony Relocation Project (26036.00.001)			
Date:	10/5/2023			
Address/GPS:	Rankin Landing Boat Launch			
Land Use:	Parking lot			
Pre-Calibration Time/Level:	8:39 / 94.0			
Post-Calibration Time/Level:	9:00 / 94.1			
Weather:	Overcast, 71°, Slightly windy			
Period #	Time Start	Average dB	Delete?	Notes
1	8:44	69.1		
2	8:45	66.8		
3	8:46	<del>69.3</del>	X	Loud banging from PRV shop
4	8:47	67		
5	8:48	70.1		
6	8:49	70.7		
7	8:50	67.6		
8	8:51	69.2		
9	8:52	<del>66.6</del>	X	Loud banging from PRV Shop
10	8:53	66.8		
11	8:54	69.4		
12	8:55	67.7		
13	8:56	<del>67.2</del>	X	Noisy trailer entering shop
14	8:57	68.9		
15	8:58	67.1		
<b>Overall Leq</b>		<b>70.1</b>		

Traffic Count During Noise Measurement					
Period #	Autos	Medium Trucks	Heavy Trucks	Bus/RV	Motorcycles
1	30	1			
2	35	1			
3	39	1			
4	28				
5	39	3			
6	42	2			
7	28	1			1
8	46				
9	29				
10	25	2			
11	30				
12	40	1			1
13	24	2			
14	37	2			
15	27	1			
<b>Total</b>	<b>499</b>	<b>17</b>			<b>2</b>





Near the Rankin Landing boat launch parking lot, aiming south-southwest (NM03).

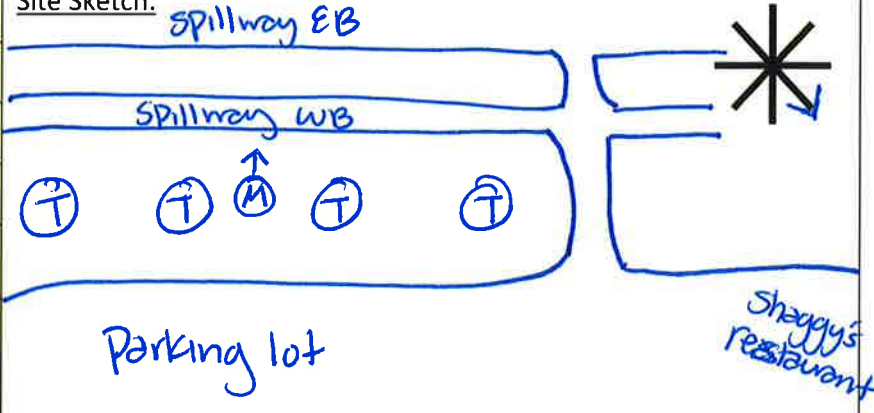


Near the Rankin Landing boat launch parking lot, aiming southwest (NM03). The PRV maintenance shop is pictured in beyond Spillway Road.



**NOISE MEASUREMENT DATA SHEET**

Project: Bob Anthony Parkway Relocation Project Project Number: 26036.00.001

NM ID: 03	Date: 10/5/23	Site Sketch: spillway EB
GPS: 32.38725, -90.04844		
Address: Rankin landing boat launch - 1733 spillway road		
Land Use: Parking lot		
Pre-Calibration Time/Level: 839 / 94.0		
Post-Calibration Time/Level: 900 / 94.1		
Weather: overcast, 71°, slightly windy		

Period	Start Time	Event Description(s)	A	MT	HT	Bis	MC
1	844		30	1			
2	845		35	1			
3	846	distant banging from PRV shop	39	1			
4	847		28				
5	848		39	3			
6	849		42	2			
7	850		28	1			1
8	851		46				
9	852	distant banging from PRV shop	29				
10	853	⊥	25	2			
11	854		30				
12	855		40	1			1
13	856	loud trailer entering shop	24	2			
14	857		37	2			
15	858		27	1			
16	end of recording						
17	#15	Totals	499	17			2
18							
19							
20							
21							
22							
23							
24							
25							



Noise Measurement Data Sheet				
Measurement ID:	NM04			
Project Name:	Bob Anthony Relocation Project (26036.00.001)			
Date:	10/5/2023			
Address/GPS:	Near 115 Village Square Drive			
Land Use:	Paved area			
Pre-Calibration Time/Level:	9:06 / 94.1			
Post-Calibration Time/Level:	9:27 / 93.9			
Weather:	Overcast, 72°, Slightly windy			
Period #	Time Start	Average dB	Delete?	Notes
1	9:10	59.2		
2	9:11	59.1		
3	9:12	59.2		
4	9:13	57.4		Auto traveling within parking lot
5	9:14	58.1		
6	9:15	58.8		
7	9:16	57.3		Auto traveling within parking lot
8	9:17	56.1		
9	9:18	62.1		
10	9:19	61.1		
11	9:20	61.7		
12	9:21	55.2		
13	9:22	58.8		
14	9:23	59.2		
15	9:24	58.5		
<b>Overall Leq</b>		<b>61.4</b>		

Traffic Count During Noise Measurement					
Period #	Autos	Medium Trucks	Heavy Trucks	Bus/RV	Motorcycles
1	18	2			
2	25	1			
3	44				
4	23				
5	27	2			
6	25				
7	36	2			
8	19	2			
9	38	1			
10	26	4			
11	50	1			
12	22	1			
13	25	1			
14	27	1			
15	26				
<b>Total</b>	<b>431</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>



Near the Reservoir Place outlets, aiming east (NM04).

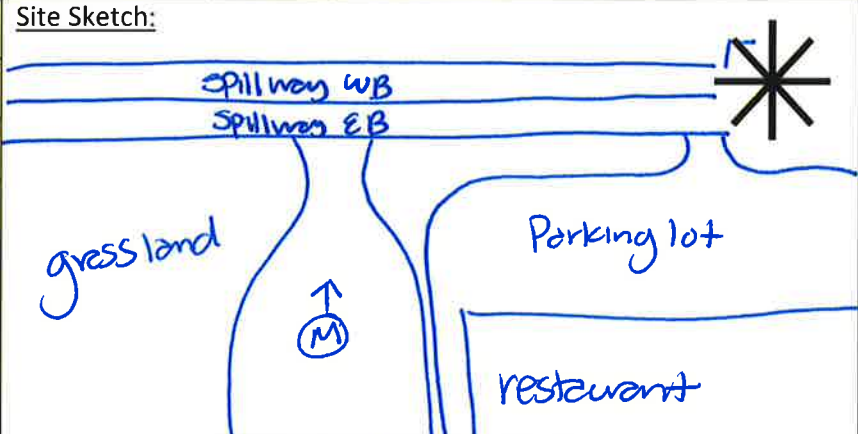


Near the Reservoir Place outlets, aiming northeast (NM04).



## NOISE MEASUREMENT DATA SHEET

Project: Bob Anthony Parkway Relocation Project Project Number: 26036.00.001

NM ID: 04	Date: 10/5/23	Site Sketch:
GPS: 32.38441, -90.04499		
Address: near 115 village square drive		
Land Use: paved area		
Pre-Calibration Time/Level: 906 / 94.1		
Post-Calibration Time/Level: 927 / 93.9		
Weather: overcast, 72°, slightly windy		

Period	Start Time	Event Description(s)	A	MT	HT	Bus	MC
1	910		18	2			
2	911		25	1			
3	912		44				
4	913	car in adjacent parking lot	23				
5	914		27	2			
6	915		25				
7	916	car in parking lot	36	2			
8	917		19	2			
9	918		38	1			
10	919		26	4			
11	920		50	1			
12	921		22	1			
13	922		25	1			
14	923		27	1			
15	924	car in parking lot	26				
16		end of recording					
17			Total: 431	18			0
18		#16					
19							
20							
21							
22							
23							
24							
25							

## **APPENDIX B**

### **Results of All Receivers for Existing and Future Conditions**

**Results of All Receivers for Existing and Future Conditions**  
**Bob Anthony Parkway Relocation Project – Traffic Noise Study**  
**October 2023**

Receiver Number	Receiver Name	Criteria Leq(h) <sup>(1)</sup>	Dwelling Unit	Existing Levels	Future No Build (dBA)	Noise Impact	Future Build: Alt B (dBA)	Increase of Alt B from Existing (dBA) <sup>(2)</sup>	Noise Impact	Future Build: Alt E2 (dBA)	Increase of Alt E2 from Existing (dBA) <sup>(2)</sup>	Noise Impact
1	314 Lakeview Road	67	13	62.8	64.1	Minor	64.4	+1.6	Minor	64.0	+1.2	Minor
2	330 Lakeview Road	67	13	59.3	61.4	Minor	61.5	+2.2	Minor	61.8	+2.5	Minor
3	350 Lakeview Road	67	13	54.2	56.2	Minor	55.9	+1.7	Minor	57.4	+3.2	Minor
4	364 Lakeview Road	67	13	52.5	54.6	Minor	55.5	+3.0	Minor	57.5	+5.0	Minor
5	378 Lakeview Road	67	13	52.7	54.3	Minor	56.8	+4.1	Minor	58.4	+5.7	Minor
6	647 Forest Grove Drive	67	13	46.7	51.6	Minor	52.3	+5.6	Minor	52.5	+5.8	Minor
7	619 Forest Grove Drive	67	13	42.4	47.3	Minor	46.9	+4.5	Minor	46.5	+4.1	Minor
8	603 Forest Grove Drive	67	13	37.6	42.5	Minor	43.1	+5.5	Minor	42.8	+5.2	Minor
9	402 Shady Brook Road	67	13	48.2	53.1	Minor	52.7	+4.5	Minor	53.4	+5.2	Minor
10	503 Lakeview Cove	67	13	49.9	54.8	Minor	53.7	+3.8	Minor	53.9	+4.0	Minor
11	520 Lakeview Cove	67	13	41.1	46.0	Minor	45.6	+4.5	Minor	45.3	+4.2	Minor
12	108 Harbor Lake Road	67	13	48.8	53.7	Minor	52.9	+4.1	Minor	52.7	+3.9	Minor
13	202 Shady Glenn Road	67	13	54.6	59.5	Minor	58.5	+3.9	Minor	58.0	+3.4	Minor
14	213 Shady Glenn Road	67	13	44.8	49.7	Minor	48.0	+3.2	Minor	47.6	+2.8	Minor
15	709 Harbor Pines Drive	67	13	48.7	53.7	Minor	51.3	+2.6	Minor	50.6	+1.9	Minor
16	812 Pine Trail Drive	67	13	39.8	44.7	Minor	43.8	+4.0	Minor	43.1	+3.3	Minor
17	847 Pine Trail Drive	67	13	35.3	40.2	Minor	40.6	+5.3	Minor	40.3	+5.0	Minor
18	835 Pine Trail Drive	67	13	39.6	44.5	Minor	43.2	+3.6	Minor	42.6	+3.0	Minor
19	Shaggy's	72	1	59.5	64.4	Minor	55.9	-3.6	None	56.4	-3.1	None
20	PRV Shop	72	1	51.5	56.4	Minor	60.7	+9.2	Moder.	60.3	+8.8	Moder.
21	West Spillway	67	1	53.7	58.7	Minor	<b>71.1</b>	+17.4	Subst.	<b>71.1</b>	+17.4	Subst.
22	East Spillway	67	1	48.7	53.6	Minor	61.8	+13.1	Subst.	61.8	+13.1	Subst.
23	Reservoir Place	72	1	58.4	63.3	Minor	59.9	+1.5	Minor	61.2	+2.8	Minor
24	StowAway	72	1	56.5	61.4	Minor	60.9	+4.4	Minor	59.2	+2.7	Minor
25	36 Charleston Circle	67	15	57.0	62.0	Minor	59.7	+2.7	Minor	60.0	+3.0	Minor
26	6 West Bluff	67	15	58.5	63.4	Minor	62.1	+3.6	Minor	62.8	+4.3	Minor
27	42 East Bay	67	15	39.4	44.3	Minor	42.0	+2.6	Minor	43.0	+3.6	Minor

(1) In Mississippi, impact occurs when noise level is equal to or greater than these values (67 for residential and recreational areas and 72 for commercial/industrial properties).

(2) Noise impacts occur if the predicted design year noise level exceeds the existing noise levels by 10 dBA or greater.

(3) Bolded values indicate values which exceed the Noise Abatement Criteria.



## **APPENDIX C**

### **TNM Results for Existing Noise Environment**

**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

Pickering Firm, Inc  
L. McWhorter

16 October 2023  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

**PROJECT/CONTRACT:** Bob Anthony Relocation Project

**RUN:** 2023 Existing Conditions

**BARRIER DESIGN:** INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

**ATMOSPHERICS:** 68 deg F, 50% RH

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier				Type Impact	With Barrier			
				LAeq1h		Increase over existing			Calculated LAeq1h	Noise Reduction		Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
314 Lakeview Road	4	13	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
330 Lakeview Road	5	13	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
350 Lakeview Road	6	13	0.0	54.2	66	54.2	10	----	54.2	0.0	8	-8.0
364 Lakeview Road	7	13	0.0	52.5	66	52.5	10	----	52.5	0.0	8	-8.0
378 Lakeview Road	8	13	0.0	52.7	66	52.7	10	----	52.7	0.0	8	-8.0
647 Forest Grove Drive	9	13	0.0	46.7	66	46.7	10	----	46.7	0.0	8	-8.0
619 Forest Grove Drive	10	13	0.0	42.4	66	42.4	10	----	42.4	0.0	8	-8.0
603 Forest Grove Drive	11	13	0.0	37.6	66	37.6	10	----	37.6	0.0	8	-8.0
402 Shady Brook Road	12	13	0.0	48.2	66	48.2	10	----	48.2	0.0	8	-8.0
503 Lakeview Cove	13	13	0.0	49.9	66	49.9	10	----	49.9	0.0	8	-8.0
520 Lakeview Cove	14	13	0.0	41.1	66	41.1	10	----	41.1	0.0	8	-8.0
108 Harbor Lake Road	15	13	0.0	48.8	66	48.8	10	----	48.8	0.0	8	-8.0
202 Shady Glenn Road	16	13	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
213 Shady Glenn Road	17	13	0.0	44.8	66	44.8	10	----	44.8	0.0	8	-8.0
709 Harbor Pines Drive	18	13	0.0	48.7	66	48.7	10	----	48.7	0.0	8	-8.0
812 Pine Trail Drive	19	13	0.0	39.8	66	39.8	10	----	39.8	0.0	8	-8.0
847 Pine Trail Drive	20	13	0.0	35.3	66	35.3	10	----	35.3	0.0	8	-8.0
835 Pine Trail Drive	22	13	0.0	39.6	66	39.6	10	----	39.6	0.0	8	-8.0
Shaggys	35	1	0.0	59.5	72	59.5	10	----	59.5	0.0	8	-8.0
PRV Shop	36	1	0.0	51.5	72	51.5	10	----	51.5	0.0	8	-8.0
West Spillway	37	1	0.0	53.7	72	53.7	10	----	53.7	0.0	8	-8.0
East Spillway	38	1	0.0	48.7	72	48.7	10	----	48.7	0.0	8	-8.0
Reservior Place	39	1	0.0	58.4	72	58.4	10	----	58.4	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

StowAway	40	1	0.0	56.5	72	56.5	10	----	56.5	0.0	8	-8.0
42 East Bay	42	15	0.0	57.0	66	57.0	10	----	57.0	0.0	8	-8.0
6 West Bluff	43	15	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
36 Charleston Circle	44	15	0.0	39.4	66	39.4	10	----	39.4	0.0	8	-8.0
<b>Dwelling Units</b>	<b># DUs</b>	<b>Noise Reduction</b>										
		<b>Min</b>	<b>Avg</b>	<b>Max</b>								
		<b>dB</b>	<b>dB</b>	<b>dB</b>								
All Selected	285	0.0	0.0	0.0								
All Impacted	0	0.0	0.0	0.0								
All that meet NR Goal	0	0.0	0.0	0.0								

## **APPENDIX D**

### **TNM Results for Future No Build Noise Environment**

**RESULTS: SOUND LEVELS**

Bob Anthony Relocation Project

Pickering Firm, Inc  
L.McWhorter

16 October 2023  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

**PROJECT/CONTRACT:** Bob Anthony Relocation Project  
**RUN:** 2045 No Build  
**BARRIER DESIGN:** INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

**ATMOSPHERICS:** 68 deg F, 50% RH

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier				With Barrier				
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
314 Lakeview Road	4	13	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
330 Lakeview Road	5	13	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
350 Lakeview Road	6	13	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
364 Lakeview Road	7	13	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
378 Lakeview Road	8	13	0.0	54.3	66	54.3	10	----	54.3	0.0	8	-8.0
647 Forest Grove Drive	9	13	0.0	51.6	66	51.6	10	----	51.6	0.0	8	-8.0
619 Forest Grove Drive	10	13	0.0	47.3	66	47.3	10	----	47.3	0.0	8	-8.0
603 Forest Grove Drive	11	13	0.0	42.5	66	42.5	10	----	42.5	0.0	8	-8.0
402 Shady Brook Road	12	13	0.0	53.1	66	53.1	10	----	53.1	0.0	8	-8.0
503 Lakeview Cove	13	13	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0
520 Lakeview Cove	14	13	0.0	46.0	66	46.0	10	----	46.0	0.0	8	-8.0
108 Harbor Lake Road	15	13	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
202 Shady Glenn Road	16	13	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
213 Shady Glenn Road	17	13	0.0	49.7	66	49.7	10	----	49.7	0.0	8	-8.0
709 Harbor Pines Drive	18	13	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
812 Pine Trail Drive	19	13	0.0	44.7	66	44.7	10	----	44.7	0.0	8	-8.0
847 Pine Trail Drive	20	13	0.0	40.2	66	40.2	10	----	40.2	0.0	8	-8.0
835 Pine Trail Drive	21	13	0.0	44.5	66	44.5	10	----	44.5	0.0	8	-8.0
Shaggys	32	1	0.0	64.4	72	64.4	10	----	64.4	0.0	8	-8.0
PRV Shop	33	1	0.0	56.4	72	56.4	10	----	56.4	0.0	8	-8.0
West Spillway	34	1	0.0	58.7	72	58.7	10	----	58.7	0.0	8	-8.0
East Spillway	35	1	0.0	53.6	72	53.6	10	----	53.6	0.0	8	-8.0
Reservior Place	36	1	0.0	63.3	72	63.3	10	----	63.3	0.0	8	-8.0



**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

StowAway	37	1	0.0	61.4	72	61.4	10	----	61.4	0.0	8	-8.0
42 East Bay	39	15	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
6 West Bluff	40	15	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
36 Charleston Circle	41	15	0.0	44.3	66	44.3	10	----	44.3	0.0	8	-8.0
<b>Dwelling Units</b>	<b># DUs</b>	<b>Noise Reduction</b>										
		<b>Min</b>	<b>Avg</b>	<b>Max</b>								
		<b>dB</b>	<b>dB</b>	<b>dB</b>								
All Selected	285	0.0	0.0	0.0								
All Impacted	0	0.0	0.0	0.0								
All that meet NR Goal	0	0.0	0.0	0.0								

## **APPENDIX E**

### **TNM Results for Future Build Alternative B Noise Environment**

**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

Pickering Firm, Inc  
L.McWhorter

16 October 2023  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

**PROJECT/CONTRACT:** Bob Anthony Relocation Project

**RUN:** 2045 Build Alt B

**BARRIER DESIGN:** INPUT HEIGHTS

**ATMOSPHERICS:** 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

**Receiver**

Name	No.	#DUs	Existing LAeq1h	No Barrier				Type Impact	With Barrier			
				LAeq1h		Increase over existing			Calculated LAeq1h	Noise Reduction		Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
314 Lakeview Road	7	13	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
330 Lakeview Road	8	13	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
350 Lakeview Road	9	13	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
364 Lakeview Road	10	13	0.0	55.5	66	55.5	10	----	55.5	0.0	8	-8.0
378 Lakeview Road	11	13	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
647 Forest Grove Drive	12	13	0.0	52.3	66	52.3	10	----	52.3	0.0	8	-8.0
619 Forest Grove Drive	13	13	0.0	46.9	66	46.9	10	----	46.9	0.0	8	-8.0
603 Forest Grove Drive	14	13	0.0	43.1	66	43.1	10	----	43.1	0.0	8	-8.0
402 Shady Brook Road	15	13	0.0	52.7	66	52.7	10	----	52.7	0.0	8	-8.0
503 Lakeview Cove	16	13	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
520 Lakeview Cove	17	13	0.0	45.6	66	45.6	10	----	45.6	0.0	8	-8.0
108 Harbor Lake Road	18	13	0.0	52.9	66	52.9	10	----	52.9	0.0	8	-8.0
202 Shady Glenn Road	19	13	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
213 Shady Glenn Road	20	13	0.0	48.0	66	48.0	10	----	48.0	0.0	8	-8.0
709 Harbor Pines Drive	21	13	0.0	51.3	66	51.3	10	----	51.3	0.0	8	-8.0
812 Pine Trail Drive	22	13	0.0	43.8	66	43.8	10	----	43.8	0.0	8	-8.0
847 Pine Trail Drive	23	13	0.0	40.6	66	40.6	10	----	40.6	0.0	8	-8.0
835 Pine Trail Drive	24	13	0.0	43.2	66	43.2	10	----	43.2	0.0	8	-8.0
Shaggys	34	1	0.0	55.9	72	55.9	10	----	55.9	0.0	8	-8.0
PRV Shop	35	1	0.0	60.7	72	60.7	10	----	60.7	0.0	8	-8.0
West Spillway	36	1	0.0	71.1	72	71.1	10	----	71.1	0.0	8	-8.0
East Spillway	37	1	0.0	61.8	72	61.8	10	----	61.8	0.0	8	-8.0
Reservior Place	38	1	0.0	59.9	72	59.9	10	----	59.9	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

StowAway	39	1	0.0	60.9	72	60.9	10	----	60.9	0.0	8	-8.0
42 East Bay	41	15	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
6 West Bluff	42	15	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
36 Charleston Circle	43	15	0.0	42.0	66	42.0	10	----	42.0	0.0	8	-8.0
<b>Dwelling Units</b>	<b># DUs</b>	<b>Noise Reduction</b>										
		<b>Min</b>	<b>Avg</b>	<b>Max</b>								
		<b>dB</b>	<b>dB</b>	<b>dB</b>								
All Selected	285	0.0	0.0	0.0								
All Impacted	0	0.0	0.0	0.0								
All that meet NR Goal	0	0.0	0.0	0.0								

## **APPENDIX F**

### **TNM Results for Future Build Alternative E2 Noise Environment**



**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

Pickering Firm, Inc  
L. McWhorter

16 October 2023  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

**PROJECT/CONTRACT:** Bob Anthony Relocation Project

**RUN:** 2045 Build Alt E2

**BARRIER DESIGN:** INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

**ATMOSPHERICS:** 68 deg F, 50% RH

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier				With Barrier				
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB		dB	dB	dB	dB	
314 Lakeview Road	4	13	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
330 Lakeview Road	5	13	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
350 Lakeview Road	6	13	0.0	57.4	66	57.4	10	----	57.4	0.0	8	-8.0
364 Lakeview Road	7	13	0.0	57.5	66	57.5	10	----	57.5	0.0	8	-8.0
378 Lakeview Road	8	13	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
647 Forest Grove Drive	9	13	0.0	52.5	66	52.5	10	----	52.5	0.0	8	-8.0
619 Forest Grove Drive	10	13	0.0	46.5	66	46.5	10	----	46.5	0.0	8	-8.0
603 Forest Grove Drive	11	13	0.0	42.8	66	42.8	10	----	42.8	0.0	8	-8.0
402 Shady Brook Road	12	13	0.0	53.4	66	53.4	10	----	53.4	0.0	8	-8.0
503 Lakeview Cove	13	13	0.0	53.9	66	53.9	10	----	53.9	0.0	8	-8.0
520 Lakeview Cove	14	13	0.0	45.3	66	45.3	10	----	45.3	0.0	8	-8.0
108 Harbor Lake Road	15	13	0.0	52.7	66	52.7	10	----	52.7	0.0	8	-8.0
202 Shady Glenn Road	16	13	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
213 Shady Glenn Road	17	13	0.0	47.6	66	47.6	10	----	47.6	0.0	8	-8.0
709 Harbor Pines Drive	18	13	0.0	50.6	66	50.6	10	----	50.6	0.0	8	-8.0
812 Pine Trail Drive	19	13	0.0	43.1	66	43.1	10	----	43.1	0.0	8	-8.0
847 Pine Trail Drive	20	13	0.0	40.3	66	40.3	10	----	40.3	0.0	8	-8.0
835 Pine Trail Drive	21	13	0.0	42.6	66	42.6	10	----	42.6	0.0	8	-8.0
Shaggys	31	1	0.0	56.4	72	56.4	10	----	56.4	0.0	8	-8.0
PRV Shop	32	1	0.0	60.3	72	60.3	10	----	60.3	0.0	8	-8.0
West Spillway	33	1	0.0	71.1	72	71.1	10	----	71.1	0.0	8	-8.0
East Spillway	34	1	0.0	61.8	72	61.8	10	----	61.8	0.0	8	-8.0
Reservior Place	35	1	0.0	61.2	72	61.2	10	----	61.2	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Bob Anthony Relocation Project**

42 East Bay	37	15	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
6 West Bluff	38	15	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
36 Charleston Circle	39	15	0.0	43.0	66	43.0	10	----	43.0	0.0	8	-8.0
StowAway	41	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
<b>Dwelling Units</b>	<b># DUs</b>	<b>Noise Reduction</b>										
		<b>Min</b>	<b>Avg</b>	<b>Max</b>								
		<b>dB</b>	<b>dB</b>	<b>dB</b>								
All Selected	285	0.0	0.0	0.0								
All Impacted	0	0.0	0.0	0.0								
All that meet NR Goal	0	0.0	0.0	0.0								