



August 20, 2012

Kenton C. Ward, CFM
Surveyor of Hamilton County

Phone (317) 776-8495

Fax (317) 776-9628

Suite 188
One Hamilton County Square
Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

Re: Miller Carson Drain Reconstruction – State Rd 19 Crossing @ Tishner Property

On May 14, 2012 the Hamilton County Drainage Board held a public meeting on the Miller-Carson Regulated Drain Reconstruction located within the Town of Atlanta (See Hamilton County Drainage Board Minutes Book 14, Pages 152 to 160).

The Hamilton County Surveyor's Office received one written objection to the project from Larry and Laura Tishner, 8301 E. 286th Street, Atlanta, Indiana, 46031, Parcel No. 03-02-12-00-00-004.001 dated May 7, 2012. Mr. Tishner appeared before the Hamilton County Drainage Board to object to the project. He stated that the increased pipe size (27" to 60" RCP) that outlets upstream of his home into the Miller-Carson open drain will probably flood his house. Mr. Tishner asked that we look closely at this project because the water backs up now waiting to go thru an existing culvert under S.R. 19. Mr. Tishner said he wasn't against the project but felt the S.R.19 box culvert should be bigger to allow more water to pass under S.R. 19.

The Hamilton County Drainage Board approved the project asking the County Surveyor to proceed with a flood analysis on both the existing condition and the proposed upsizing to the Miller-Carson Regulated Drain.

On June 11th, 2012, the Hamilton County Drainage Board approved a contract with Christopher Burke Engineering to prepare a flood study on the Tishner property (see Hamilton County Drainage Board Minutes Book 14, page 179). The County Surveyor's staff performed the field survey for Burke.

Mr. Siavash Beik presented his report to the Hamilton County Drainage Board on July 9, 2012. Mr. Tishner, Mr. Abe Evans and Walter Evans and Ron Buel from the Indiana Department of Transportation (INDOT) were present (see Hamilton County Drainage Board Minutes Book 14, pages 179).

Hydraulics

Existing Q = 24 cfs in a 100 year storm event. Proposed Q-60" flowing full = 119 cfs in a 100 year storm event.

The impact of the upsizing will raise the water elevation about three (3) feet. See attached Drainage analysis dated July 6, 2012 by Christopher B. Burke Engineering. Burke recommends two (2) options to increase the culvert at S.R. 19, downstream of the Tishner property.

Option 1 - Install an additional 66 inch diameter RCP next to the existing box culvert. The engineers estimate is given below and the total cost is \$234,500.00.

Preliminary Opinion of Probable Cost

Install Additional 66-Inch Diameter RCP Culvert

Line	Description	Estimated Quantities	Units	Unit Price	Estimated Cost (Rounded)
1	Professional Services				
2	Engineering Design and Project Management	1	LS	\$ 25,000	\$ 25,000
3	Topo Survey	1	LS	\$ 4,000	\$ 4,000
4	Geotechnical Engineering Investigation	1	LS	\$ 4,000	\$ 4,000
5	Estimated Professional Services Costs				\$ 33,000
6	66-Inch Culvert Installation				
7	Selective Demolition and Clearing	1	LS	\$ 5,000	\$ 5,000
8	Dewatering	1	LS	\$ 3,000	\$ 3,000
9	Prepare Jacking Pits	1	LS	\$ 10,000	\$ 10,000
10	Jack 66-Inch Diameter Class V Concrete Pipe	70	LF	\$ 1,000	\$ 70,000
11	Reinforced Concrete Headwalls	2	EA	\$ 15,000	\$ 30,000
12	Channel Excavation and Grading for culvert	1	LS	\$ 5,000	\$ 5,000
13	Site Restoration	1	LS	\$ 5,000	\$ 5,000
14	Construction Surveying	1	LS	\$ 2,000	\$ 2,000
15	Erosion and Sediment Control	1	LS	\$ 12,000	\$ 12,000
16	Maintenance of Traffic	1	LS	\$ 3,000	\$ 3,000
17	Mobilization/Demobilization & Administration	1	CY	\$ 10,000	\$ 10,000
18	Estimated 66-Inch Culvert Installation Cost				\$155,000
19	Construction Contingencies				
20	Construction Contingencies (30%)	1	LS	\$ 46,500	\$ 46,500
21	Estimated Construction Contingencies				\$ 46,500
22					
23	Estimated Construction Cost				\$203,500
24					
25	Estimated Total Cost				\$234,500

Notes and Assumptions

- Gen. This estimate assumes that a steel casting pipe is NOT required.
- Gen. Permitting from IDNR and IDEM is not anticipated due to the watershed size and area of disturbance. An site investigation is recommended to determine potential permitting considerations.
- Gen. All costs are estimates based on the engineer’s knowledge of common construction methods and Materials. Christopher B. Burke Engineering, LLC does not guarantee that the actual bid price will not vary form the costs used with this estimate.
- Gen. All costs are in 2012 dollars.
- Gen. Estimated costs have been rounded.
- Gen. This estimate does not include unforeseen cost increase that may result from shortages in fuel and Materials as a result of natural or man- made disasters.

Gen. This estimate does not include land acquisition, easements, or utility relocation/coordination.

Option 2 – Install an additional 5 x 5 reinforced concrete box next to the existing box culvert.

The Engineers estimate is given below and the total cost is \$233,000.00.

Preliminary Opinion of Probable Cost

Install Additional 5-ft by 5 ft RCP Box Culvert

Line	Description	Estimated Quantities	Units	Unit Price	Estimated Cost (Rounded)
1	Professional Services				
2	Engineering Design and Project Management	1	LS	\$ 30,000	\$ 30,000
3	Topo Survey	1	LS	\$ 5,000	\$ 5,000
4	Geotechnical Engineering Investigation	1	LS	\$ 4,000	\$ 4,000
5	Estimated Professional Services Costs				\$ 39,000
6	5-ft x 5-ft Culvert Installation				
7	Clearing & Grubbing	1	LS	\$ 5,000	\$ 5,000
8	Remove and Reinstall Guardrail	45	LF	\$ 30	\$ 1,400
9	Asphalt Pavement Removal	100	SY	\$ 12	\$ 1,200
10	Remove and Reinstall Riprap	1	LS	\$ 3,000	\$ 3,000
11	Excavation for Culvert installation	500	CY	\$ 10	\$ 5,000
12	Dewatering	1	LS	\$ 5,000	\$ 5,000
13	5ft x 5ft Reinforced Concrete Box Culvert	70	LF	\$ 400	\$ 28,000
14	Reinforced Concrete Headwalls	2	EA	\$ 15,000	\$ 30,000
15	Grading for New Culvert	1	LS	\$ 3,000	\$ 3,000
16	Stone Backfill and Bedding material – Place & Compact	250	CY	\$ 25	\$ 6,300
17	Regular Backfill – Place & Compact	150	CY	\$ 10	\$ 1,500
18	Haul Spoil Material from Site	350	CY	\$ 5	\$ 1,800
19	Asphalt Pavement	1	LS	\$ 4,000	\$ 4,000
20	Site Restoration	1	LS	\$ 5,000	\$ 5,000
21	Construction Surveying	1	LS	\$ 4,000	\$ 4,000
22	Erosion and Sediment Control	1	LS	\$15,000	\$ 15,000
23	Maintenance of Traffic	1	LS	\$20,000	\$ 20,000
24	Mobilization/Demobilization & Administration	1	CY	\$10,000	\$ 10,000
25	Estimated 5-ft x 5-ft Culvert Installation Cost				\$149,200
26	Construction Contingencies				
27	Construction Contingencies (30%)	1	LS	\$44,800	\$ 44,800
28	Estimated Construction Contingencies				\$ 44,800
29					
30	Estimated Construction Cost				\$194,000
31	Estimated Total Cost				\$ 233,000
32					

Notes and Assumptions

- Gen. This estimate assumes that a steel casting pipe is NOT required.
- Gen. Permitting from IDNR and IDEM is not anticipated due to the watershed size and area of disturbance. An site investigation is recommended to determine potential permitting considerations.
- Gen. All costs are estimates based on the engineer’s knowledge of common construction methods and Materials. Christopher B. Burke Engineering, LLC does not guarantee that the actual bid price will not vary from the costs used with this estimate.

- Gen. All costs are in 2012 dollars.
- Gen. Estimated costs have been rounded.
- Gen. This estimate does not include unforeseen cost increase that may result from shortages in fuel and Materials as a result of natural or man-made disasters.
- Gen. This estimate does not include land acquisition, easements, or utility relocation/coordination.

Mr. Evans spoke on behalf of INDOT. He asked to have their hydrologist Crystal Weaver look at the project from a hydraulics standpoint. Mr. Evans said INDOT will have to determine if this project is funded out of their maintenance budget or out of their capitol improvements budget.

On August 13, 2012 Mr. Tishner and Mr. Watkins addressed the Drainage Board. They had concerns that the new 60 inch RCP was being installed and INDOT had not addressed their flooding concerns and the existing crossing at S.R. 19 was undersized to take the flow. At that time the Board set the hearing date for a new structure under S.R.19 for September 26, 2012.

The Hamilton County Surveyor's Office recommends going forward with the additional 66" steel directional bore for a total cost of \$234,500.00. This work will begin at the west right of way line of S.R. 19, Sta 48+00 of the Miller- Carson Drain, and extend across the S.R.19 right of way to the east line of said right of way. All of the work will be performed within INDOT right of way and existing regulated drainage easement for the Miller- Carson Drain.

In addition to the new structure under S.R. 19 will be bank armoring and ditch clean out of obstructions for a distance of six hundred seven (607) feet downstream from the S.R. 19 right of way. This work will be done on parcel 03-02-12-00-00-005.00 owned by Waltz Ena Farms LLC. This is the same length of regulated open ditch cleared and cleaned with the 1981 reconstruction of the Miller-Carson Drain.

Although mapped as regulated drain at the time, during the 2005 mapping project the map was changed to show the drain stopping at the west right of way of S.R. 19. I believe that even if the map was incorrect prior 1981, the fact the Board at the time included this portion as part of the reconstruction in 1981 that this section is indeed part of the regulated drain.

The cost for the additional 66" steel directional bore under S.R. 19 will be a special assessment of \$234,500.00 to the Indiana Department of Transportation per IC 36-9-27-71.

No additional easements are required for the project. I believe no damages will result to the landowners. Damages are set at zero (0).

A hearing for this item has been set by the Board for September 26, 2012.

Sincerely,



Christie Kallio, P.E.
Hamilton County Surveyor's Office

CK/pll

**Gasb 34 Asset Price &
Drain Length Log**

Drain-Improvement: MILLER-CARSON & WHISLER-BRENNER DRAIN: TISHNER EXTENSION

Drain Type:	Size:	Length	Length (DB Query)	Length Reconcile	If Applicable	
					Price:	Cost:
OPEN	N/A	638	638	0	\$19.55 LF	\$12,472.90

Sum: 638 \$12,472.90

Final Report: N/A

Comments:

Footage is based upon 31 feet of additional drain from the center of SR 19 to the eastern right of way line.

and then 607 feet downstream of the existing eastern right of way across parcel 03-02-12-0000-005.000.

STATE OF INDIANA)
) ss:
COUNTY OF HAMILTON)

BEFORE THE HAMILTON COUNTY
DRAINAGE BOARD
NOBLESVILLE, INDIANA

IN THE MATTER OF THE
RECONSTRUCTION OF THE
**Miller-Carson Drain Reconstruction - S.R. 19 Crossing @ Tishner
Property**

FINDINGS AND ORDER FOR RECONSTRUCTION

The matter of the proposed Reconstruction of the **Miller-Carson Drain Reconstruction - S.R. 19 Crossing @ Tishner Property** came before the Hamilton County Drainage Board for hearing on **September 26, 2012**, on the Reconstruction Report consisting of the report and the Schedule of Damages and Assessments. The Board also received and considered the written objection of an owner of certain lands affected by the proposed Reconstruction, said owner being:

Evidence was heard on the Reconstruction Report and on the aforementioned objections.

The Board, having considered the evidence and objections, and, upon motion duly made, seconded and unanimously carried, did find and determine that the costs, damages and expenses of the proposed Reconstruction will be less than the benefits accruing to the owners of all land benefited by the Reconstruction.

The Board having considered the evidence and objections, upon motion duly made, seconded and unanimously carried, did adopt the Schedule of Assessments as proposed, subject to amendment after inspection of the subject drain as it relates to the lands of any owners which may have been erroneously included or omitted from the Schedule of Assessments.

The Board further finds that it has jurisdiction of these proceedings and that all required notices have been duly given or published as required by law.

Wherefore, it is ORDERED, that the proposed Reconstruction of the **Miller-Carson Drain Reconstruction - S.R. 19 Crossing @ Tishner Property** be and is hereby declared established.

Thereafter, the Board made inspection for the purpose of determining whether or not the lands of any owners had been erroneously included or excluded from the Schedule of Assessments. The Board finds on the basis of the reports and findings at this hearing as follows:

HAMILTON COUNTY DRAINAGE BOARD



PRESIDENT



Member



Member

ATTEST:


Executive Secretary



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Greenfield District
32 South Broadway
Greenfield, IN 46140

PHONE: (317) 462-7751
FAX: (317) 467-3955

Mitchell E. Daniels, Jr., Governor
Michael B. Cline, Commissioner

Hamilton County Drainage Board
1 Hamilton County Sq. Suite 188
Noblesville, IN 46060

September 20, 2012



To Whom it May Concern:

The Indiana Department of Transportation(INDOT) is objecting to their assessment of \$233,000 of the Miller-Carson Drain Reconstruction-State Road 19 crossing at Tishner property.

The basis of objection is that the current INDOT 5'X6'(vertical X span) culvert is adequate in most stormwater events. At this time, INDOT's hydraulic staff is requesting more time to study CBBEL's report to determine whether this hydraulic information warrants the construction of an any additional pipe or culvert. If our hydraulic staff determines that an additional pipe and/or culvert is needed, INDOT can either plan this project with the possibility of receiving federal funds or at least look at doing the project more swiftly with discretionary funds. With the latter option, INDOT would look at either getting quotes for the work or to use a Quality Purchase Agreement(QPA).

At this time, we request that this assessment be tabled until more information can be gathered and to provide Hamilton County with the best solution to a potential drainage problem.

Sincerely,

Walter Evans, P.E.
Maintenance Field Engineer, HE2
Indiana Department of Transportation
32 S. Broadway
Greenfield, IN 46140
wevans@indot.in.gov
(317) 467-3943 office
(317) 439-7254 cell



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5228
FAX: (317) 233-4929

Mitchell E. Daniels, Jr., Governor
Michael B. Cline, Commissioner

September 25, 2012

MEMORANDUM

TO: Walter Evans, PE
Greenfield District Field Engineer
32 South Broadway Street
Greenfield, IN 46140

FROM: John Bartolo, P.E.
Senior Hydraulics Engineer

SUBJECT: Miller-Carson Drain Reconstruction
DES #: n. a.
Location: Hamilton County

This office has not been able to fully execute an analysis of the hydraulics for the Miller-Carson Drain Reconstruction Project as provided by CBBEL on September 18, 2012. A surprising element of the review so far presents a serious problem for Hamilton County residents immediately south and west of Atlanta and SR 19. The proposed culvert increase seems to imply that the flood elevation would increase by approximately 3 feet, which would initially appear to be in direct conflict with State and Federal regulations regarding increasing backwater and/or flood elevations.

Secondly, with the inability to complete a hydraulic review, the estimation of peak discharge and resultant flow elevations has not been determined to be compatible to the expected watershed discharge. At this time we cannot concur with the discharge estimation for this location.

Finally, with the statement of such a substantial flood level increase with one structure size increase, and an additional structure size increase at the southerly culvert crossing of SR 19, the State may be placed in a precarious situation of contributing to further flood increases and damages progressing downstream of SR 19. There does not seem to have been any breaches or road overtopping of SR 19 at either location in recent history, which further questions the discharge estimation at either SR 19 culvert crossing location.

Therefore, until further review and documentation is presented, we cannot concur with the proposed reconstruction at this time.

If you have any questions or comments, please contact me at (317) 232-5228.

JJB

cc: file

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF

Miller-Carson Drain, S. R. 19 Crossing @ Tishner Property

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board concerning the reconstruction of the **Miller-Carson Drain, S.R. 19 Crossing @ Tishner Property** on **September 26, 2012** at **9:15 A.M.** in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana. Construction and maintenance reports of the Surveyor and the Schedule of Assessments proposed by the Drainage Board have been filed and are available for public inspection in the office of the Hamilton County Surveyor.

Hamilton County Drainage Board

Attest: Lynette Mosbaugh

ONE TIME ONLY

STATE OF INDIANA)
) SS BEFORE THE HAMILTON
)
COUNTY OF HAMILTON) DRAINAGE BOARD

IN THE MATTER OF **Miller-Carson Drain Reconstruction, S.R.
19 Crossing @ Tishner Property**

NOTICE

Notice is hereby given that the Hamilton County Drainage Board at its regular meeting **September 26, 2012** adopted the reconstruction report of the Surveyor and the Amended Schedule of damages and assessments including annual assessment for periodic maintenance, finding that the costs, damages and expense of the proposed improvement would be less than the benefits which will result to the owner of lands benefited thereby.

The Board issued an order declaring the proposed improvement established. Such findings and order were marked filed and are available for inspection in the Office of the Hamilton County Surveyor.

If judicial review of the findings and order of the Board is not requested pursuant to Article VIII of the 1965 Indiana Drainage Code as amended within twenty (20) days from the date of publication of this notice, the findings and order shall become conclusive.

HAMILTON COUNTY DRAINAGE BOARD

BY: Steven C. Dillinger
PRESIDENT

ATTEST: Lynette Mosbaugh
SECRETARY