

Kenton C. Ward, CFM
Surveyor of Hamilton County
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Fax (317) 776-9628

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

May 5, 2017

TO: Hamilton County Drainage Board

RE: William Krause Drain, Sheridan Stormwater Improvements

Attached are the petition, plans and drainage shed map, for the reconstruction of the William Krause Drain by the Town of Sheridan. This petition was filed by the Town of Sheridan on December 15, 2016. The petition was referred to the Surveyor for report by the Drainage Board December 21, 2016. (See Hamilton County Drainage Board Minutes Book 17, page 237). I have reviewed the petition and found it to be in proper form.

I have made a personal inspection of the land described in the petition. Upon doing so, I believe that the drain is practicable, will improve the public health, benefit a public highway and be of public utility; and that the costs, damages and expenses of the proposed drain will probably be less than the benefits accruing to the owners of land likely to be benefited.

The attached plans were prepared by Banning Engineering dated April 27 2017, Project Number 11194SH. The plans were prepared and funded by the Town of Sheridan. The county portion of the proposed project is shown on sheet C300 of the plans.

The proposed project will improve the drainage in the southeastern portion of Sheridan. The drainage facilities will be placed in either existing street right of way or the existing drainage easement of the William Krause Drain.

A 2013 hydraulic study for the George Symonds and William Krause watershed by Banning Engineering identified that the hydraulic capacity of the 24" tile portion of the William Krause Drain is 10 cubic feet per second and is only adequate to convey the runoff from a 1% frequency storm event. The study identified that without significant upsizing or diversion, flooding in the area served by the main arm of the William Krause Drain generally between Fanning Street and Hudson Street and north of 8th Street to SR 38 would be expected to continue. This area experienced significant flooding on June 20, 2011 with water overtopping SR 38 near the Apostolic Faith Church.

This project will reconstruct the portion of the main arm of the Krause Drain downstream of the intersection of 8th and Bailey Streets. The existing main arm will be intercepted at approximately Station 23+38 of the 1920 Krause Drain description at the intersection of 8th and Bailey Streets (Structure 115 on the Banning Plans). 47-LF of the existing 24" tile will be removed. This will be replaced with 14 feet of 36" tile, 22 feet of 12" tile and 11 feet of 24" tile connecting at the intersection of 8th and Bailey Streets to allow flow in the tile to utilize both the existing 24" Krause Drain and the proposed 36" tile arm. These are the lengths of storm drain between Structures 114 and 115, 114 and 117, and 117 and 121.

The 36" tile arm will then run north within Bailey Street a distance of 345-LF to a new manhole at 7th Street (Structure 113 of the plans). The 36" tile then turns east within 7th Street a distance of 111-LF to a new manhole (Structure 112) and then continues 53-LF to a new manhole at Structure. A new structure will be set on the existing tile at Structure 120 and 19-LF of 24" tile will be installed and connected to Structure 111. This is to maintain the drainage in the existing tile between this location and the intersection of 8th and Bailey Streets. The proposed tile then runs north out of Structure 111 as a 42" tile a distance of 97-LF to a new structure (Structure 110) then turns northeast a distance of 78-LF to a new structure on the west side of SR 38. The structure is identified as EX1 which is Sta. 30+50 of the 1920 Krause Drain description. This 42" segment of the proposed tile is being installed west of the existing tile, but within the existing regulated drain easement, to provide more separation between the tile and an existing Midwest Grill building. The existing 163-LF of 24" tile parallel to this segment of the proposed 42" tile will be grouted full and capped and abandoned in place.

The downstream terminus of this project at Sta. 30+50 (Structure EX1 on the Banning plan) is the beginning of the proposed William Krause Drain, Krause Drain Reconstruction Phase I as shown on the Banning Plans for that project (Project No. 1194KRUS, dated May 1, 2017) as Structure 106.

Along the run of the new 36" tile, three lateral stubs to area inlets will be installed off of the 36" tile. These lateral stubs consist of a total of 43-LF of 12" tile and 18-LF of 15" tile. These are those lengths between Structures 115 & 116, 117 and 118, and 119 and 112.

This project will vacate 163 feet of the existing drain between Stations 28+87 and 30+50 of the 1920 Krause Drain description (Structure 120 to EX1 on Banning plans). This is the 163-LF of the existing 24" tile installed in 1920 west of the current Midwest Grill building which is to be grouted full and abandoned in place per the plans.

The length of the existing 1920 Krause Drain between Sta. 23+38 and Sta. 28+87 (Structures 115 and 120 on the Banning plans) shall remain as regulated drain.

The new arm will consist of the following:

22-LF of 12" Plastic pipe
21-LF of 12" Plastic pipe
18-LF of 15" Plastic pipe
345-LF of 36" Plastic pipe
111-LF of 36" Plastic pipe
53-LF of 36" Plastic pipe
19-LF of 24" RCP
97-LF of 42" RCP
78-LF of 42" RCP

Also, 47-LF of the existing drain will be replaced with new drain between Structures 115-114, 114-117 and 117-121 as outlined below.

1. 14-LF of the existing 24" tile installed in 1920 between Stations 23+38 and 23+52 will be replaced with 14-LF of 36" RCP.
2. 11-LF of the existing 24" tile installed in 1920 between Stations 23+52 and 23+63 will be replaced with 11-LF of 24" RCP.
3. 22-LF of the existing 24" tile installed in 1920 between Stations 23+63 and 23+85 will be replaced with 20-LF of 24" RCP.

The total length of the new tile shall be 811 feet.

This project is consistent with the February 2013 study completed for the William Krause and George Symonds Drains by Banning Engineering.

A regulated drain easement will be established over the new tile within South Bailey Street and East 7th Street. The easement shall be the platted rights of way for both streets as shown on the plat for the J.H. Cox Addition dated April 6, 1891 and the Smith's 3rd Addition dated January 15, 1923 as recorded in the office of the Hamilton County Recorder in Books 54, pages 30 and 31 and 114 pages 334 respectively.

Over the new tile, the easement will be 49.5 feet in width as shown on the right of way for the above referenced plats.

The existing 75 foot regulated drain easement across parcels 02-01-32-03-08-18.001 owned by Matt Cutler, 02-01-32-03-08-016.000 owned by Daniel W & Wanda K. Lyons, and 02-01-32-03-08-015.000 owed by KCF Enterprises LLC, will remain 75-feet where the proposed 42" tile is installed parallel to the existing 24" tile west of the current Midwest Grill building.

The cost estimate for the proposed project is as follows:

Item No.	Description	Quantity	Unit	Unit Price	Total Amount
1	Mobilization / Demobilization	1	LS	\$10,000.00	\$ 10,000.00
2	Construction Engineering	1	LS	\$10,000.00	\$ 10,000.00
3	Traffic Control	1	LS	\$5,000.00	\$5,000.00
4	Sewer Service Lateral Conflicts	4	EA	\$2,000.00	\$8,000.00
5	110 lb/sy, QC/QA-HMA, 2, 64, Surface, 9.5mm	52	TON	\$100.00	\$5,200.00
6	440 lb/sy, QC/QA-HMA, 2, 64, Base, 25mm	201	TON	\$80.00	\$ 16,080.00
7	12" Compacted #53 Stone	563	TON	\$20.00	\$ 11,260.00
8	24" RCP with Granular Backfill	50	LFT	\$60.00	\$3,000.00
9	36" RCP with Granular Backfill	14	LFT	\$80.00	\$1,120.00
10	42" RCP with Granular Backfill	175	LFT	\$120.00	\$ 21,000.00
11	12" PP with Granular Backfill	43	LFT	\$35.00	\$1,505.00
12	15" PP with Granular Backfill	18	LFT	\$45.00	\$ 810.00
13	36" PP with Granular Backfill	509	LFT	\$90.00	\$ 45,810.00
14	48" Manhole with Casting	4	EA	\$3,000.00	\$ 12,000.00
15	60" Manhole with Casting	3	EA	\$4,500.00	\$ 13,500.00
16	72" Manhole with Casting	5	EA	\$6,000.00	\$ 30,000.00
17	96" Manhole with Casting	2	EA	\$7,500.00	\$ 15,000.00
18	24" X 24" Inlet with Casting	3	EA	\$2,000.00	\$6,000.00
19	Pipe Connections	4	EA	\$2,875.00	\$ 11,500.00
				SUB TOTAL	\$ 226,785.00
				15% Contingency	\$34,018.00
				TOTAL	\$260,803.00

Banning Engineering provided professional engineering and surveying services for this project. The Town of Sheridan contracted directly with Banning for these services. The construction cost for this project will be paid for directly by the Town of Sheridan by a Grant from the Office of Community and Rural Affairs (OCRA). The Town of Sheridan will bid this project and administer the construction contract. The County contracted with Mendenhall & Associates for assistance in preparing the application for the OCRA Grant and the environmental review for the project. The cost of this contract was \$8,000.00. This cost will be reimbursed to the county from the OCRA Grant.

As part of this project the Drainage Board loaned the Town of Sheridan \$120,000.00 for the local match for the OCRA Grant. These funds are to be repaid over a seven (7) year period with 2% interest. The Letter of Commitment and Memorandum of Understanding was approved by the Board at its October 10, 2016 meeting. (See Hamilton County Drainage Board Minutes Book 17, page 145 and 146).

Parcels benefitted by this drain are currently assessed for the William Krause Drain. No changes in the current assessment shall be required.

I believe no damages will result to the landowners by the reconstruction of this drain. Damages are set at zero (\$0).

There are no permits required for this project from the US Army Corps of Engineers (COE), Indiana Department of Natural Resources (IDNR) or the Indiana Department of Environmental Management (IDEM).

I believe this proposed drain meets the requirements for Urban Drain Classification as set out in IC 36-9-27-67 to 69. Therefore this drain shall be designated as an Urban Drain.

I recommend that the Board set a hearing for this proposal for June 26, 2017.

Sincerely,

Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/pll

Wm. Krause, Sheridan Stormwater Improvements (west of SR38)

*Construction cost to be paid for directly by the Town of Sheridan by a grant from OCRA. No change in current maintenance assessment. The Town will bid & administer the construction contract. The County contracted with Mendenhall \$8000 for grant assistance & will be reimbursed from the OCRA grant. The Drainage Board loaned the Town of Sheridan \$120,000 for the local match for the OCRA grant. This will be repaid over 7 years with 2% interest. The new tile is 811' (replacing 47' of existing & adding 764' for new arm). The 163' between Sta. 28+87 & 30+50 to be vacated. 601' to be added to drains total footage. New drain easement shall be the platted right-of-ways shown on J.H. Cox & Smith's 3rd Addition. Cost estimate: \$260,803. Damages are set a zero. Hearing: 06/26/17

Parcel	Owner	Description	Benefit	MntAsmt	Reconst	Percent
02-01-32-03-10-014.000	Birden, Wanda L	S32 T20 R3 J.H. Cox 5th Lot 2	*	*	*	*
02-01-32-03-10-013.000	Campbell, Terry	S32 T20 R3 J.H. Cox 5th Lot 3	*	*	*	*
02-01-32-03-09-027.000	Corlett, Michael T & Donella J	S32 T20 R3 J.H. Cox 3rd Lot Pt 10	*	*	*	*
02-01-32-03-08-018.001	Cutler, Matt	S32 T20 R3 Smiths 3rd Lot Pt8&Pt9	*	*	*	*
02-01-32-03-09-011.000	Edwards, Sheree L	S32 T20 R3 J.H. Cox 2nd Lot 5	*	*	*	*
02-01-32-03-08-021.001	Gaard, Charlene L, Rev. Trust	S32 T20 R3 Smiths 3rd Lot Pt5&Pt6	*	*	*	*
02-01-32-03-09-010.001	Hanna, Mark & Judy	S32 T20 R3 J.H. Cox 3rd Lot Pt 1	*	*	*	*
02-01-32-03-09-015.000	Hernandez, Jose D	S32 T20 R3 J.H. Cox 2nd Lot 2	*	*	*	*
99-99-99-99-999.002	Indiana Department Of Transportation	S32 T20 R3 SR38	*	*	*	*
02-01-32-03-08-015.000	KCF Enterprises LLC	S32 T20 R3 0.48 Ac	*	*	*	*
02-01-32-03-08-016.000	Lyons, Daniel W & Wanda K	S32 T20 R3 Smiths 3rd Lot 7, Pt6, Pt8&Pt9	*	*	*	*
02-01-32-03-09-012.000	Payne, Connie S	S32 T20 R3 J.H. Cox 2nd Lot 4	*	*	*	*
02-01-32-03-09-026.000	Pettigrew, Marlene L	S32 T20 R3 J.H. Cox 3rd Lot Pt 10	*	*	*	*
02-01-32-03-09-020.000	Pickett, Richard A & Arnola J Trust	S32 T20 R3 J.H. Cox 2nd Lot 10	*	*	*	*
02-01-32-03-09-021.000	Pickett, Richard A & Arnola J Trust	S32 T20 R3 J.H. Cox 2nd Lot 9	*	*	*	*
02-01-32-03-09-022.000	Pickett, Richard A & Arnola J Trust	S32 T20 R3 J.H. Cox 2nd Lot 8	*	*	*	*
02-01-32-03-09-023.000	Pickett, Richard A & Arnola J Trust	S32 T20 R3 J.H. Cox 2nd Lot Pt 7	*	*	*	*
02-01-32-03-09-014.000	Pictor, James A & Amy J	S32 T20 R3 J.H. Cox 2nd Lot 3	*	*	*	*
02-01-32-03-09-016.000	Pitz, B Russell & Marilyn A	S32 T20 R3 J.H. Cox 2nd Lot 1	*	*	*	*
02-01-32-03-10-011.000	Sander, Jo Ellen	S32 T20 R3 J.H. Cox 5th Lot 5	*	*	*	*
02-01-32-03-10-012.000	Schweigel, Terry E & Elizabeth K	S32 T20 R3 J.H. Cox 5th Lot 4	*	*	*	*
02-01-32-03-09-010.000	Soltermann, Henry C	S32 T20 R3 J.H. Cox 3rd Lot Pt 1	*	*	*	*
02-01-32-03-09-025.000	Stapleton, Charles L & Margaret Sue Tr	S32 T20 R3 J.H. Cox 2nd Lot 6 & Pt 7	*	*	*	*
99-99-99-99-999.009	Town Of Sheridan	South Bailey St & East 7th St, East 8th St.	*	*	*	*
02-01-32-03-09-009.000	Turner, Sue Ann	S32 T20 R3 J.H. Cox 3rd Lot Pt 1	*	*	*	*
02-01-32-03-10-015.000	Voorhies, Hayden	S32 T20 R3 J.H. Cox 5th Lot 1	*	*	*	*
02-01-32-03-10-010.000	Walters, Vivian & Richard	S32 T20 R3 J.H. Cox 4th Lot 1	*	*	*	*

~~WILLIAM KRAUSE~~
^{DWK}
IN THE MATTER OF THE THORPE CREEK DRAIN
HAMILTON COUNTY DRAINAGE BOARD

FILED
DEC 15 2016
OFFICE OF HAMILTON COUNTY SURVEYOR

Come now the Town Council of the Town of Sheridan, Indiana who petition the Hamilton County

Drainage Board as follows:

1. They are the duly elected Town Council of the Town of Sheridan, Indiana.
2. That in that capacity they are responsible for the drainage of public streets.
3. That they now desire that the William Krause regulated drain be reconstructed in Adams Township which involves 4th, 5th, 6th and 7th Streets and various other streets within the Town and various areas surrounding these streets in the drainage shed.
4. The names and address of each owner affected by the proposed public drainage are attached hereto, made a part hereof, and marked Exhibit "A", which area of land involved in the proposed drainage area is located in Section 32, Township 20 north, Range 3 east, Hamilton County, Indiana.
5. No other public lands or owners are located in the area which would affect improvement.
6. That the general route of the proposed drain is the construction of a regional detention facility between Stations 35+00 and 53+15 of the original William Krause Drain.
7. That in the opinion of the Petitioner, the costs, damages, and expenses of the proposed improvement will be less than the benefits which will result to the owners of the land to be benefited thereby.
8. That in the opinion of the Petitioner, the proposed improvement will benefit a public highway in the Town of Sheridan, Hamilton County, Indiana.
9. That the name of the attorney representing Petitioner in the drainage petition is Chou-il Lee, One Indiana Square, Suite 3500, Indianapolis, Indiana.
10. That Petitioners shall pay the cost of notice and all legal costs if the Petition is dismissed.
11. Petitioner shall post a bond, if required, to pay the cost of notice and all legal costs in the case the improvement is not established.

Town Council, Sheridan,
Hamilton County, Indiana

BY: [Signature]
David Kinkead, President

BY: [Signature]
Member

BY: [Signature]
Member

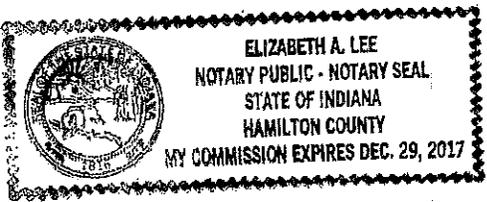
BY: [Signature]
Member

BY: [Signature]
Member

Attest:

[Signature]
Elizabeth A. Walden/Clerk - Treasurer of Sheridan, Indiana

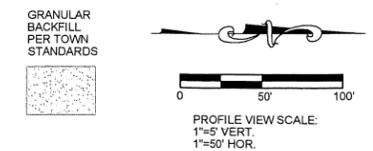
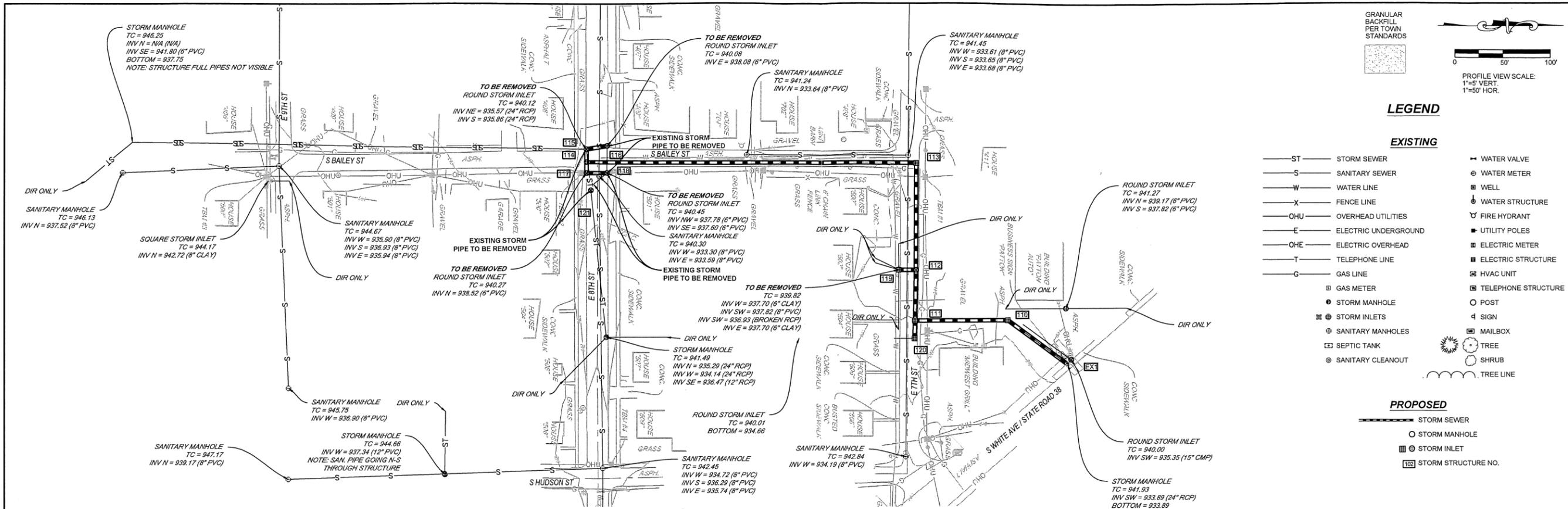
STATE OF INDIANA)
) SS:
COUNTY OF HAMILTON)



Subscribed and sworn to before me, A Notary Public this 8 day of December 2016.

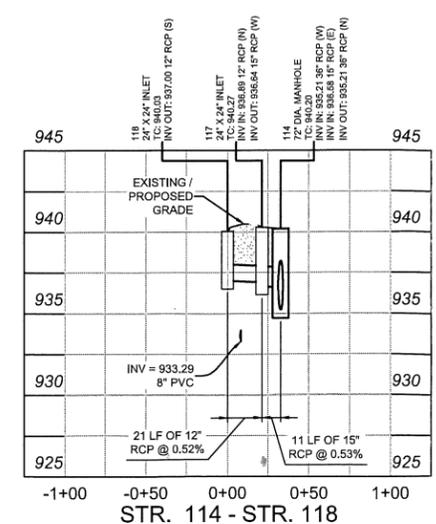
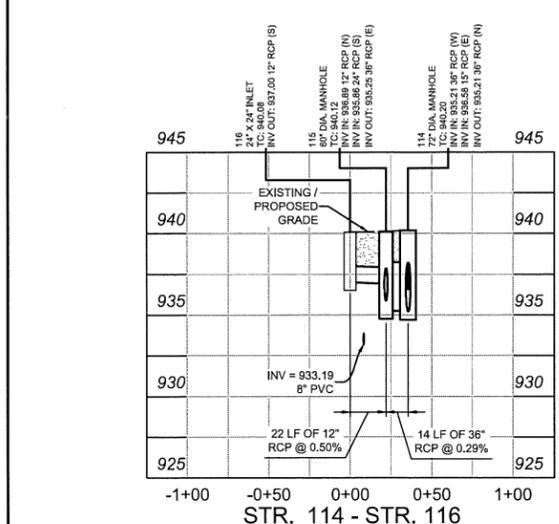
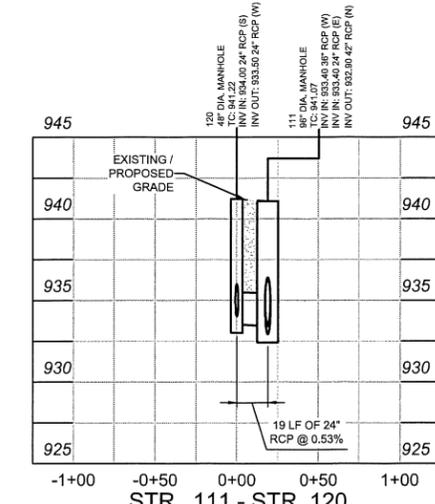
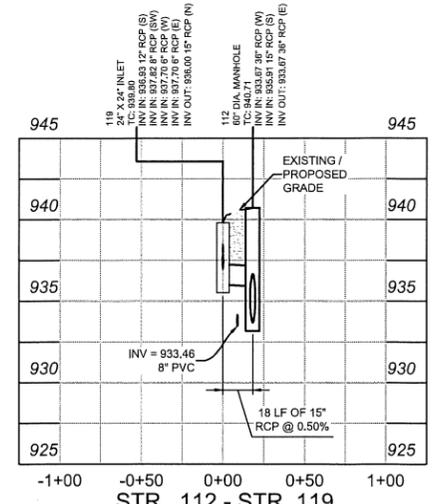
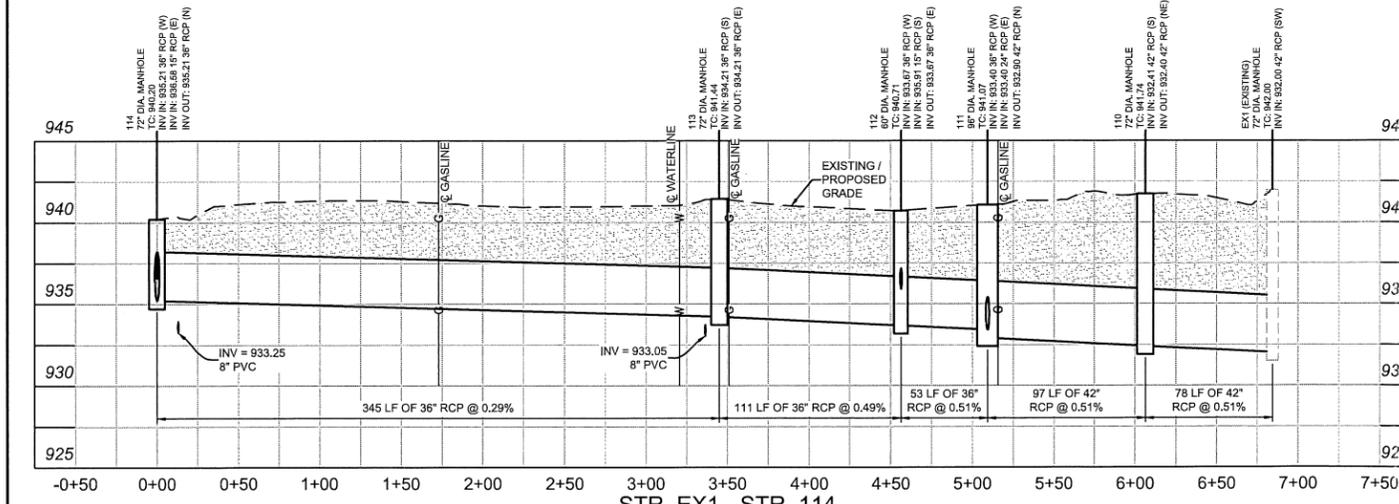
[Signature]
Notary Public of Hamilton County

My Commission Expires:
12-29-2017



LEGEND

- EXISTING**
- ST — STORM SEWER
 - S — SANITARY SEWER
 - W — WATER LINE
 - X — FENCE LINE
 - OHU — OVERHEAD UTILITIES
 - E — ELECTRIC UNDERGROUND
 - OHE — ELECTRIC OVERHEAD
 - T — TELEPHONE LINE
 - G — GAS LINE
 - ⊙ GAS METER
 - ⊙ STORM MANHOLE
 - ⊙ STORM INLETS
 - ⊙ SANITARY MANHOLES
 - ⊙ SEPTIC TANK
 - ⊙ SANITARY CLEANOUT
 - ⊙ WATER VALVE
 - ⊙ WATER METER
 - ⊙ WELL
 - ⊙ WATER STRUCTURE
 - ⊙ FIRE HYDRANT
 - ⊙ UTILITY POLES
 - ⊙ ELECTRIC METER
 - ⊙ ELECTRIC STRUCTURE
 - ⊙ HVAC UNIT
 - ⊙ TELEPHONE STRUCTURE
 - ⊙ POST
 - ⊙ SIGN
 - ⊙ MAILBOX
 - ⊙ TREE
 - ⊙ SHRUB
 - ⊙ TREE LINE
- PROPOSED**
- STORM SEWER
 - STORM MANHOLE
 - ⊙ STORM INLET
 - ⊙ STORM STRUCTURE NO.



STORM SEWER PLAN AND PROFILE
SHERIDAN STORMWATER IMPROVEMENTS SOUTH
ADAMS TOWNSHIP
SHERIDAN, INDIANA

DESIGNED: JLM
 DRAWN: TME
 CHECKED: []
 SCALE: []
 DATE: 02-XX-17

BANNING ENGINEERING
 853 COLUMBIA ROAD, SUITE #101
 PLAINFIELD, IN 46168
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 WEB: www.BanningEngineering.com

Project No: 11194SH
 Sheet No: C101