



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

October 11, 2011

To: Hamilton County Drainage Board

Re: Spring Mill Run Drain, 106th and Ditch Road RAB Reconstruction

Attached is a petition and plans for the proposed reconstruction of the Springmill Run Drain. The reconstruction is being proposed by the Hamilton County Highway Department. The proposal is to reconstruct the drain to provide drainage for the 106th Street and Ditch Road Round-a-bout. The reconstruction is as shown per plans by First Group Engineering, Inc., having Job No. PR-99-0001, and last revised date of September 24, 2009.

The reconstruction will remove Structure 151 of the Laurel Ridge Arm of the Springmill Run Drain and replace it with Structure 16 on the road plans. The project will also place Structure 15, a B.M.P. unit, approximately 36 feet downstream of Structure 16 on the Laurel Ridge Arm. The BMP at Structure 15 (Aqua-swirl) shall be maintained as part of the regulated drain.

The project will also add the following new drain lengths to provide drainage for the new round-a-bout intersection:

12" RCP 395 ft. 24" RCP 192 ft. 15" RCP 208 ft. 6" SSD 137 ft. 18" RCP (twin) 147 ft.

The total length of new drain shall be 1,079 feet. None of the original drain shall be vacated. This proposal will add 1,079 feet to the drain's total length.

The cost of the reconstruction was paid by the Hamilton County Highway Department.

The Hamilton County Highway Department was not required to provide surety.

This reconstruction will remove 1.26 acres of road assessment for Ditch Road from the Thomas Hussey Regulated Drain and add 5.64 acres of road assessment for Ditch Road and 106th Street to the Spring Mill Run Regulated Drain. This will result in a remove of \$12.60 from the Thomas Hussey Annual Maintenance Fund and an increase of \$56.40 to the Spring Mill Run Annual Maintenance Fund. These changes apply to the current owner of the Right of Way, which is the City of Carmel.

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.

The easement for this drain will be the existing right of way for $106^{\rm th}$ Street and Ditch Road.

I recommend the Board set a hearing for this proposed drain for November 28,

2011.

Kenton C. Ward, CFM Hamilton County Surveyor

KCW/pll

Gasb 34 Asset Price & Drain Length Log

Drain-Improvement: Springmill Run: 106th & Ditch Rd RAB Reconstruction

					If App	licable
Drain Type:	Size:	Length	Length (DB Query)	Length Reconcile	Price:	Cost:
RCP	12	395	398	0	\$7.25 If	2863.75
RCP	15	208	208	0	\$9.50 If	1976.00
RCP	18	294*	294	0	\$10.50 If	3087.00
RCP	24	192	192	0	\$18.00 lf	3456.00
SSD	6	137	137	0	\$2.00 If	274.00
			6			
	Sum:	1079				\$11,656.75
Final Report: 1079						
Comments: *Twin Pipes						
					1	

FINDINGS AND ORDER

CONCERNING THE MAINTENANCE OF THE

Springmill Run Drain, 106th and Ditch Road RAB Reconstruction

On this 28^{th} day of November, 2011, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the Springmill Run Drain, 106^{th} and Ditch Road RAB Reconstruction.

Evidence has been heard. Objections were presented and considered. The Board then adopted the original/amended Schedule of Assessments. The Board now finds that the annual maintenance assessment will be less than the benefits to the landowners and issues this order declaring that this Maintenance Fund be established.

HAMILTON COUNTY DRAINAGE BOARD

President

Member

Member

Attest Signette Maskauf

STATE OF INDIANA)

COUNTY OF HAMILTON)

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD NOBLESVILLE, INDIANA

IN THE MATTER OF THE RECONSTRUCTION OF THE

Springmill Run Drain, 106th and Ditch Road RAB Reconstruction

FINDINGS AND ORDER FOR RECONSTRUCTION

The matter of the proposed Reconstruction of the *Springmill Run Drain*, 106th and *Ditch Road RAB Reconstruction* came before the Hamilton County Drainage Board for hearing on *November 28*, 2011, 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 $Springmill\ Run\ Drain$, 106^{th} and $Ditch\ Road\ RAB\ Reconstruction$ 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

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD IN THE MATTER OF

Springmill Run Drain, $106^{\rm th}$ and Ditch Road RAB Reconstruction

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 Springmill Run Drain, 106th and Ditch Road RAB Reconstruction on November 28, 2011 ,
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 Springmill Run Drain, 106th and Ditch Road RAB Reconstruction

NOTICE

Notice is hereby given that the Hamilton County Drainage Board at its regular meeting November 28, 2011 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.

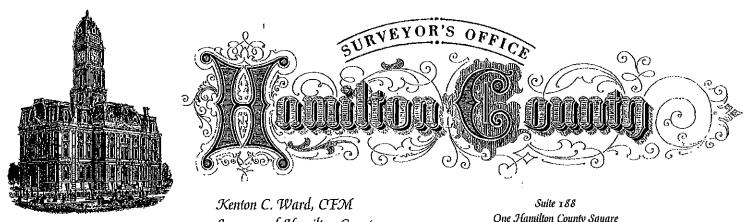
The Board issued an order declaring the proposed improvement established. Such findings and order were marked filed and are available for inspection in the Office of the Hamilton County Surveyor.

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 A. Holt
PRESIDENT

ATTEST: Lynette Mosbaugh
SECRETARY



Surveyor of Hamilton County Thone (317) 776-8495 Tax (317) 776-9628

One Hamilton County Square Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

December 4, 2015

Re: Springmill Run Drain: 106th & Ditch Roundabout

Attached are plans, and other information for the 106th & Ditch Roundabout. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

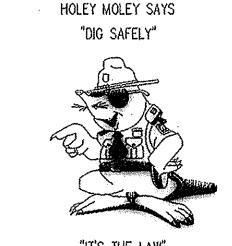
During construction, changes there were no significant changes made to the drainage plans submitted with my report for this drain dated October 11, 2011. (See Drainage Board Minutes Book 14, Pages 32-34) Therefore, the length of the drain remains at 1079 feet.

A non-enforcement was not required as the easement, as outlined in my original report to the Board, will be the existing right of way for 106th Street and Ditch Road. The project was paid for by the Hamilton County Highway Department, therefore sureties were not required.

I recommend the Board approve the drain's construction as complete and acceptable.

Sincerely,

Kenton C. Ward, CFM Hamilton County Surveyor



"IT'S THE LAW"

CALL TWO WORKING DAYS BEFORE YOU DIG

1-800-382-5544

CALL TOLL FREE

1-800-428-5200

FOR CALLS OUTSIDE OF INDIANA

CONSTRUCTION PLANS FOR HCHD PROJECT No. PR-99-0001 106TH ST. & DITCH RD. ROUNDABOUT CLAY TOWNSHIP

Board Of Commissioners Hamilton County, Indiana

TRAFFIC DATA	DITCH ROAD	106th STREET
A.A.D.T. (1998)	4300 V.P.D.	6000 V.P.D.
A.A.D.T. (2020 PROJECTED)	6700 V.P.D.	9400 V.P.D.
D.H.V. (1998)	426 V.P.H.	595 V.P.H.
DIRECTIONAL DISTRIBUTION	50 %	50 %
TRUCKS	2% D.H.V.	
	2% A.A.D.T.	
DESIG	N DATA	
DESIGN SPEED (URBAN SINGLE LANE)	35 km/l	1. (15 M.P.H.)
PROJECT DESIGN CRITERIA	RECONSTRUCTION	(NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	COLL	ECTOR
RURAL/URBAN	RU	RAL
TERRAIN	LE'	VEL
ACCESS CONTROL	NC NC	NE

UTILITIES

TELEPHONE
AT&T
5858 N. COLLEGE AVE.
INDIANAPOLIS, IN 46220

GREG CAMMACK

(317) 713-8900

(317) 252-5134

TIME WARNER TELECOM
4625 WEST 86TH STREET
INDIANAPOLIS, IN 46268
LARRY BENSON

GAS INDIANA GAS CO. INC./VECTREN 16000 N. ALLISONVILLE RD.

16000 N. ALLISONVILLE RD. NOBLESVILLE, IN 46061-1700 DON PERDUE (317) 776-5534

ELECTRIC
INDPLS. POWER & LIGHT CO.
3600 N. ARLINGTON AVENUE
INDIANPOLIS, IN. 46218-1807
RHONDA WILLIAMS
(317) 261-5203

INDPLS. WATER CO. INC.
P.O. BOX 1220
1220 WATERWAY BLVD.
INDIANPOLIS, IN. 46206
DALE KOCH
(317) 263-6446

CITY OF CARMEL WATER 3450 W 131ST AVE WESTFIELD, IN 46074 STEVE COOK (317) 733-2849

CABLE
COMCAST CABLE
5330 EAST 65TH STREET
INDIANAPOLIS, IN 46220
JIM PAYTON
(317) 841-3687

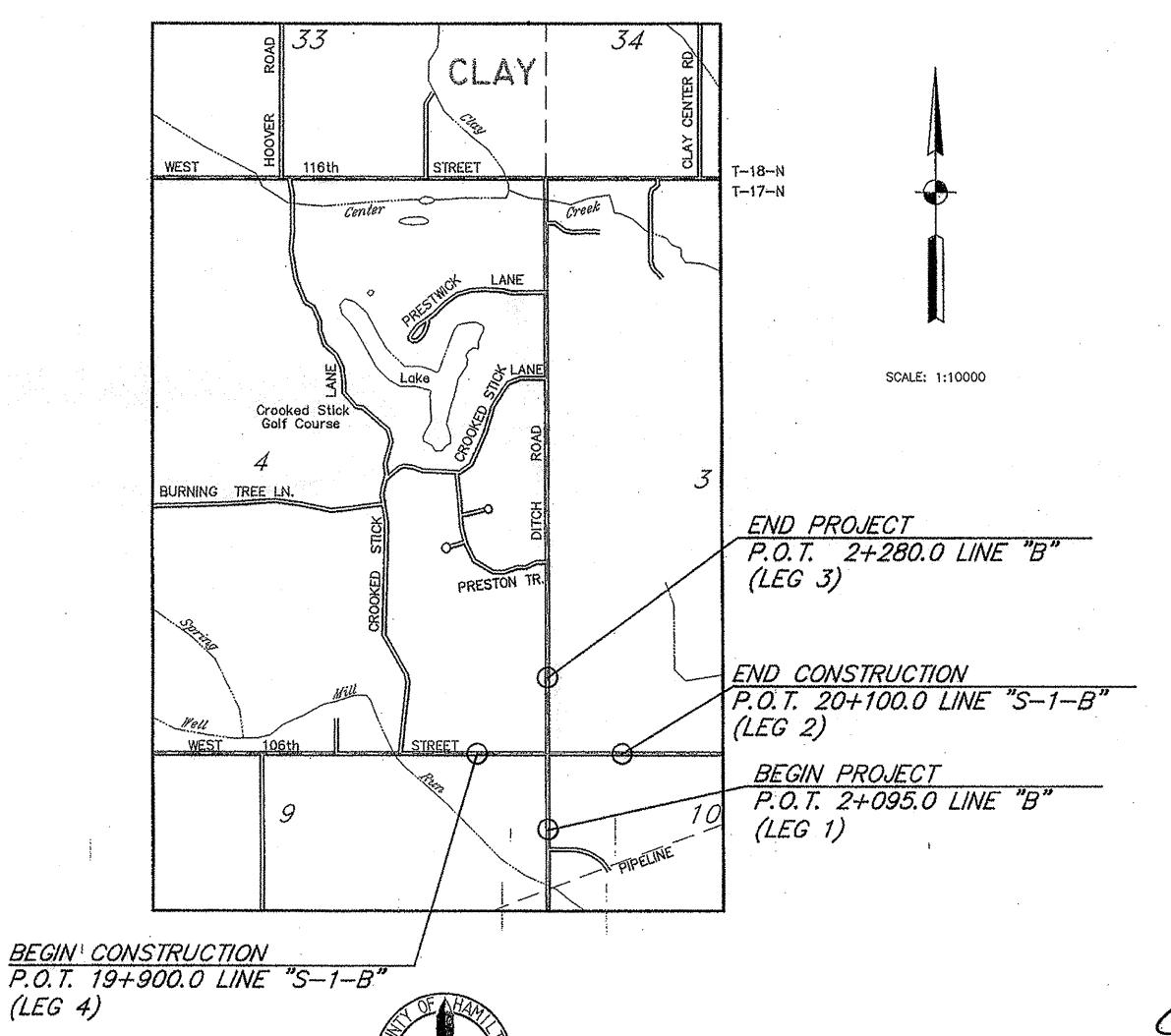
BRIGHTHOUSE NETWORKS 3030 ROOSEVELT AVENUE INDIANAPOLIS, IN 46218 JOE EVANS (317) 339-9075

	INDEX
SHT. NO.	DESCRIPTION
1	TITLE AND INDEX SHEET
2-3	TYPICAL CROSS SECTIONS
. 4	MAINTENANCE OF TRAFFIC
5-8	PLAN AND PROFILE
9-10	GEOMETRIC DETAILS
11	POND DETAIL
12	TEMPORARY EROSION & SEDIMENT CONTROL
13	PAVEMENT MARKINGS
14-16	SIGNING & LIGHTING PLANS
17	APPROACH TABLE AND STRUCTURE DATA
18	UNDERDRAIN TABLE
19-31	CROSS SECTIONS

HAMILTON COUNTY HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS DATED 1998 AND

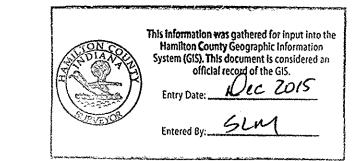
INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2010 TO BE USED WITH THESE PLANS.

This copy printed from Digital Archive of the Hamilton County Surveyor's Office; One Hamilton Co. Square, Ste., Noblesville, In 46060



ALL IN R-3-E, CLAY TOWNSHIP,

HAMILTON COUNTY



Board Of Commissioners

Steven A. Holt, President Date

8-24-2009

Christine Altman, Member Date

8-24-2009

Steven C. Dillinger, Member Date

Attest

Dawn Coverdale, County Auditor

B-24-2009

Do

County Highway Engineer

James W. Neal, PE

8/24/09 Date

THESE PLANS PREPARED BY:

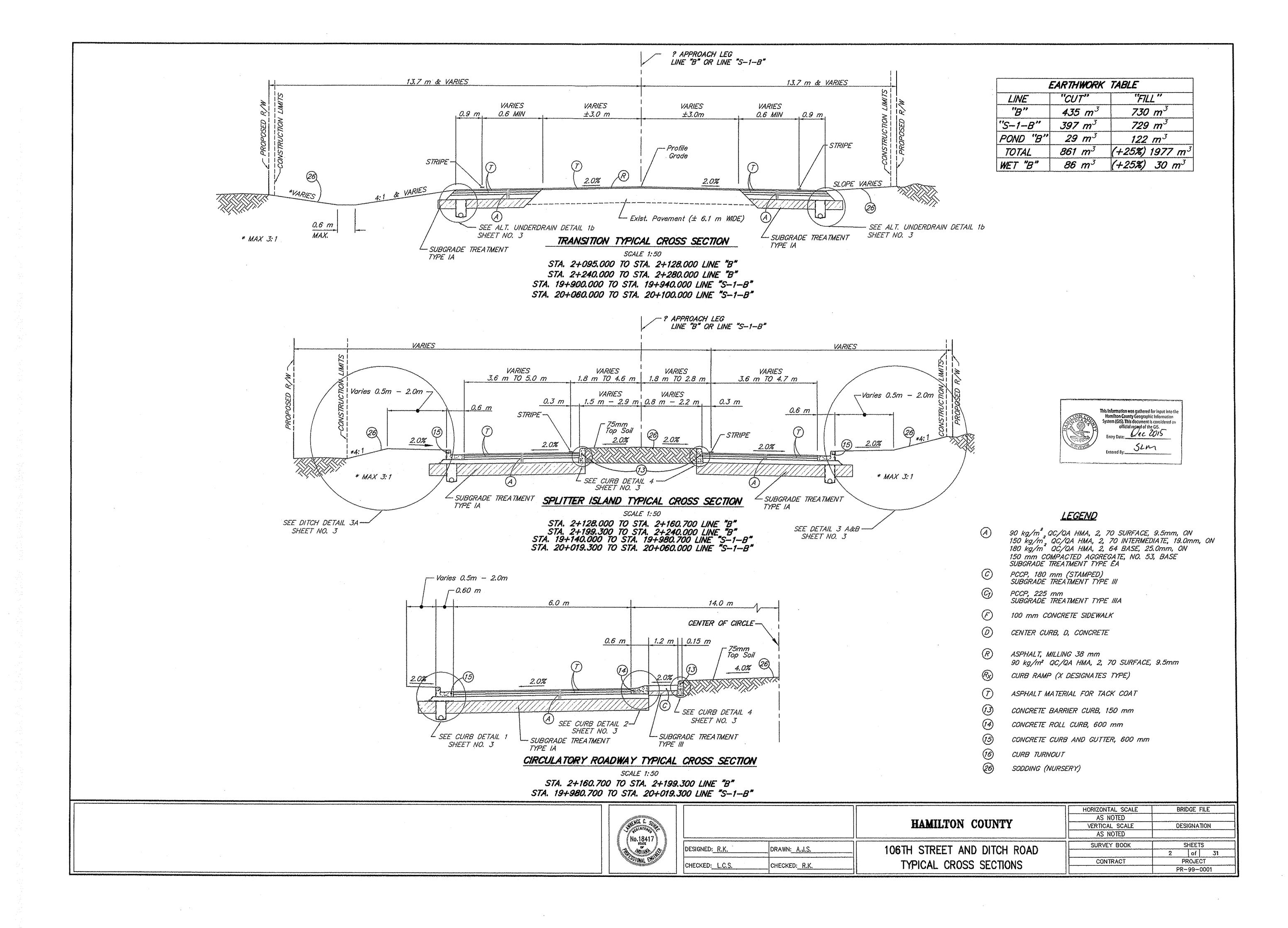
FIRST GROUP ENGINEERING INC.

CONSULTING ENGINEERS

5925 LAKESIDE BLVD, INDIANAPOLIS, IN 46278
PH. (317) 290-9549 FAX. (317) 290-9560

CERTIFIED Lammer C. Suchen DATE & P25-109





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LINE "B" DELETED 2+140.0 2+140.0	X X X X X X X X X X X X X X X X X X X	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III "A-3"	#ENGTH #39KS	0.48 257 84 1.3 256	258.17 202 257.17 202 257.17 258.2. 828 256.75 2.6/ 842.5 258.16	YR. YR. 75 75 847.2 3 4 75 6 6 9 77.0 6	DESIGNATION N. 6.	5 8.0	REVEI RIPH	£	1	SAFETY METAL END SECTION	REMARKS	LINE "S-1-8" 26 19+970.0 27 19+970.0		375 300	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "U-10" PIPE RCP CLASS III MOD, MANHOLE "D-4"	21.7 0.65 21.4 1.10 6.0 0.42	ELEV. 2.59 257.338 2.6 4 4.12 8.6 256.965 2.0 256.965 2.0 256.965 2.0 256.965 2.0 256.965 2.0 256.965 2.0 256.965 2.0 256.00 2.0 256.00 2.0 256.00 2.0	NAMOO SHLEY. YR. 58.352 SHT 57.201 75 843.81 58.297 SHT 57.261 75 142.99	. (a) N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 5 3.9 1	Mg E		BOX END SECTION	D N	SECTION BLOPE EA.	CONNECT	70 STR. 70 STR. 70 STR.
LINE "B" DELETED 2+140.0 2+140.0	LEFT X X RIGHT CROSS	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE MOD. MANH PIPE RCP C	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III "A-3"	#ENGTH #39KS	0.48 257 84 1.3 256 84 0.50 257	258.17 202 257.17 3.84 843. 258.2. 828 256.78	78. YR. SEKNCE 75 847.2 3 4 75 6 6 75 847.0 6 8 75 6	DESIGNATION N. 6.	5 8.0	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11	LINE *S-1B* 26 19+970.0 27 19+970.0 28 20+035.5		375 300 300	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "J-10" PIPE RCP CLASS III PIPE RCP CLASS III	21.7 0.6: 21.4 1.10 6.0 0.4.	# 257.338 2: \$\frac{4}{2}\frac{4}{1}\frac{1}{2}1	ELEV. YR. 58.352 847 57.201 75 843.84 58.297 847 57.261 75 44.03 56.943 75 42.99	. G	5 23.7 1 5 65.9 1 6 3.9 1	Mg E		BOX END SECTION	D N	SECTION BLOPE EA.	CONNECT	70 STR. 70 STR.
LINE "B" DELETED 2+140.0 2+140.0	N X X RIGHT CROSS	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE MOD. MANH PIPE RCP C	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III "A-3"	#ENGTH #39KS	0.48 257 84 1.3 256 84 0.50 257	258.17 202 257.17 202 257.17 203 258.2 828 256.75 2,6 847.5 258.18 258.18	78. YR. SEKNCE 75 847.2 3 4 75 6 6 75 847.0 6 8 75 6	DESIGNATION N. 6.	5 8.0	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11	LINE "S-1-8" 26 19+970.0 27 19+970.0 28 20+035.5		375 300 300	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "J-10" PIPE RCP CLASS III MOD. MANHOLE "D-4" PIPE RCP CLASS III PIPE RCP CLASS III PIPE RCP CLASS III	21.7 0.69 21.4 1.10 6.0 0.42 27.7 1.20 27.7 1.20	ELEV.	SELEV. YR. 58.352 847 57.201 75 68.297 847 57.261 75 44.03 56.943 75 42.99 58.140 844 56.883 75 56.883 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 6 3.9 1 7 5 50.3 1	Mg E		BOX END SECTION	D N	SECTION SLOPE EA.	CONNECT CONNECT CONNECT	70 STR. 70 STR.
LINE "B" DELETED 2+140.0 2+140.0 DELETED	X X X X X X X X X X X X X X X X X X X	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C INLET TYPE PIPE RCP C INLET TYPE PIPE RCP C MANHOLE T	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III LASS III YA-3" LASS III	#LENGTH AGNS 10.7 1.0 1.0 1.0	0.48 257 84 0.50 257 84	258.17 202 257.17 202 257.17 3.84 843.2 258.2 258.18 193 257.14 3.81 843.4	YR. YR. 25 847.23 847.23 847.23 847.06 8 75.	N. 6. N. 6.	5 8.0 5 0.6	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11	LINE *S-1B* 26 19+970.0 27 19+970.0 28 20+035.5	X RIGHT CROSS	375 300 300 450 450	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "J-10" PIPE RCP CLASS III MOD, MANHOLE "D-4" PIPE RCP CLASS III	21.7 0.69 21.4 1.10 6.0 0.42 27.7 1.20 27.7 1.20	ELEV.	SELEV. YR. 58.352 847 57.201 75 68.297 847 57.261 75 44.03 56.943 75 42.99 58.140 844 56.883 75 56.883 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 6 3.9 1 7 5 50.3 1	Mg E		BOX END SECTION	D N	SECTION SLOPE EA.	CONNECT	70 STR. 70 STR.
LINE "B" DELETED 2+140.0 2+140.0 DELETED	X X RIGHT CROSS	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C INLET TYPE PIPE RCP C INLET TYPE PIPE RCP C	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III LASS III YA-3" LASS III	10.7 10.7	0.48 257 84 0.50 257 84 0.76 257	258.12 202 257.12 3.84 843.2 258.2 828 256.75 2.61 843.6 258.5 258.5 258.5	78. YR. PR. PR. PR. PR. PR. PR. PR. PR. PR. P	N. 6. N. 6.	5 8.0 5 0.6	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11 CONNECT TO STR. NO. 16 CONNECT TO STR. NO. 11	LINE "S-1-B" 26 19+970.0 27 19+970.0 28 20+035.5 29 20+035.5 30 20+035.0	X RIGHT CROSS	375 300 300 450 450	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "J-10" PIPE RCP CLASS III MOD. MANHOLE "D-4" PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III	21.7 0.69 21.4 1.10 6.0 0.42 27.7 1.20 27.7 1.20	ELEV. 2.57.338 2.59 257.3325 2.59 256.965 2.59 256.943 2.59 256.943 2.59 256.943 2.59 256.814 2.	ELEV. YR. 58.352 847 57.201 75 843.84 58.297 847 57.261 75 44.03 56.943 75 42.19 58.140 844 56.883 75 12.19 58.287 84 56.794 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 6 3.9 1	Mg E		BOX END SECTION	D N	SECTION BLOPE EA.	CONNECT CONNECT CONNECT	10 STR. 10 STR. 10 STR.
LINE "B" DELETED 2+140.0 2+140.0 DELETED 2+160.0 2+160.0	X X RIGHT CROSS	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C INLET TYPE PIPE RCP C INLET TYPE PIPE RCP C MANHOLE T	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III VPE "C-4" LASS III	#LENGTH AGNS 10.7 1.0 1.0 1.0	0.48 257 84 0.50 257 84 0.76 257	258.17 202 257.17 202 257.17 258.2 258.2 258.2 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18 258.18	8 847.0 9 75 14 75 0 5 847.2 3 4 75 0 5 847.0 6 8 75.	N. 6. N. 6. N. 6. N. 6.	5 8.0 5 0.6	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11 CONNECT TO STR. NO. 16 CONNECT TO STR. NO. 11	LINE "S-1-8" 26 19+970.0 27 19+970.0 28 20+035.5	X RIGHT CROSS	375 300 300 450 450	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III MOD. MANHOLE "D-4" PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III MOD. MAHNHOLE "C-4 INLET TYPE "M-10"	21.7 0.65 21.4 1.10 6.0 0.4. 27.7 1.20 27.7 1.20	ELEV. 259 257.338 259 257.325 259 256.965 259 256.943 259 256.943 259 256.943 259 256.814 256.814 259 256.814 259 256.814 259 256.814 259 256.814 259 256.814 259 256.814 259 256.814 259 256.814	SELEV. YR. 58.352 847 57.201 75 843.84 58.297 847 57.261 75 44.03 56.943 75 66.883 75 66.883 75 66.883 75 66.883 75 66.883 75 66.883 75 66.883 75 66.883 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 5 3.9 1 5 50.3 1 5 50.3 1	Mg E		BOX END SECTION	D N	SECTION BLOPE EA.	CONNECT CONNECT CONNECT	70 ST. 70 ST.
LINE "B" DELETED 2+140.0 2+140.0 DELETED 2+160.0	X X RIGHT CROSS	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C MOD. MANH PIPE RCP C INLET TYPE PIPE RCP C MANHOLE T PIPE RCP C	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III "A-3" LASS III YPE "C-4" LASS III	10.7 10.7 1.0	0.48 257 84 0.50 257 84 0.76 257	258.12 202 257.12 3.84 843.2 258.2 828 256.75 2.61 843.6 258.5 261 257.12 103 843.6 258.5 261 257.12	78. YR. PR. PR. PR. PR. PR. PR. PR. PR. PR. P	0 * O * O * O * O * O * O * O * O * O *	5 8.0 5 0.6	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11 CONNECT TO STR. NO. 16 CONNECT TO STR. NO. 11	LINE "S-1-B" 26 19+970.0 27 19+970.0 28 20+035.5 29 20+035.5 30 20+035.0	X RIGHT CROSS	375 300 300 450 450	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "J-10" PIPE RCP CLASS III MOD. MANHOLE "D-4" PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III	21.7 0.65 21.4 1.10 6.0 0.4. 27.7 1.20 27.7 1.20 12.0 0.46	ELEV. 2.57.338 2.59 257.338 2.59 257.325 2.59 256.965 2.59 2.59 2.56.943 2.59 256.943 2.59 256.814 2.59 256.8	ELEV. YR. 58.352 847 57.201 75 843.81 58.297 847 57.261 75 44.03 56.943 75 56.883 75 56.883 75 12.19 56.794 75 17.50 57.844 841 56.943 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 5 3.9 1 5 50.3 1 5 50.3 1	Mg E		BOX END SECTION	D N	SECTION BLOPE EA.	CONNECT CONNECT CONNECT	70 ST. 70 ST.
DELETED 2+140.0 2+140.0 DELETED 2+140.0	X X RIGHT	375 .	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C MOD. MANH PIPE RCP C INLET TYPE PIPE RCP C MANHOLE I PIPE RCP C B.M.P. (min.	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III "A-3" LASS III YPE "C-4" LASS III	10.7 10.7 1.0	0.48 257 84 0.50 257 84 0.76 257	258.12 202 257.12 3.84 843.2 258.2 828 256.75 2.61 843.6 258.5 261 257.12 103 843.6 258.5 261 257.12	78. YR. PR. PR. PR. PR. PR. PR. PR. PR. PR. P	0 * O * O * O * O * O * O * O * O * O *	5 8.0 5 0.6 5 18.9	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11 CONNECT TO STR. NO. 16 CONNECT TO STR. NO. 11	LINE "S-1-B" 26 19+970.0 27 19+970.0 28 20+035.5 29 20+035.5 30 20+035.0	X RIGHT CROSS	375 300 300 450 450	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III INLET TYPE "J-10" PIPE RCP CLASS III MOD. MANHOLE "D-4" PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III INLET TYPE "M-10" INLET TYPE "M-10" INLET TYPE "M-10"	21.7 0.69 21.7 0.69 21.4 1.10 6.0 0.4. 27.7 1.20 27.7 1.20 12.0 0.4	ELEV.	ELEV. YR. 58.352 847 57.201 75 68.297 847 57.261 75 44.03 75 44.03 75 66.883 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 6 3.9 1 5 50.3 1 6 50.3 1	Mg		BOX END SECTION	D N	SECTION SLOPE EA.	CONNECT CONNECT CONNECT	70 ST
DELETED 2+140.0 2+140.0 DELETED 2+140.0	X	375	MANHOLE CATCH BY SPECIALTY INLET TYPE PIPE RCP C MOD. MANH PIPE RCP C INLET TYPE PIPE RCP C MANHOLE I PIPE RCP C B.M.P. (min.	, INLET SIN, OR STRUCTURE "M-10" LASS III OLE "C-4" LASS III YPE "C-4" LASS III 6 c.f.s.) LASS III	10.7 28.7 1.0	0.48 257 84 0.50 257 84 0.76 257 84 1.20 0.17	258.17 202 257.17 202 257.17 203 258.25 21 347.5 258.18 258.18 258.18 258.55 261 257.17 103 843.6 258.75 201 257.17	75 847.0 6 8 847.0 6 9 75 16 75 8 75 7 847.2 3 4 75 6 847.0 6 8 75 7 847.0 6 8 75 7 847.0 6	**************************************	5 8.0 5 0.6 5 18.9	REVEI RIPH	£	1	SAFETY METAL END SECTION	CONNECT TO STR. NO. 11 CONNECT TO STR. NO. 16 CONNECT TO STR. NO. 11	LINE "S-1-B" 26 19+970.0 27 19+970.0 28 20+035.5 30 20+035.0	X RIGHT CROSS	375 300 300 450 450	MANHOLE, INLET CATCH BASIN, OR SPECIALTY STRUCTUR INLET TYPE "M-10" PIPE RCP CLASS III MOD. MANHOLE "D-4" PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III INLET TYPE "M-10" PIPE RCP CLASS III MOD. MAHNHOLE "C-4 PIPE RCP CLASS III INLET TYPE "M-10" PIPE RCP CLASS III	21.7 0.65 21.7 0.65 21.4 1.10 6.0 0.4. 27.7 1.20 27.7 1.20 12.0 0.46 12.3 0.76	ELEV.	SELEV. YR. 58.352 847 57.201 75 843.81 58.297 847 57.261 75 442.99 58.140 844 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75 56.883 75	N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5 N. 6.5	5 23.7 1 5 65.9 1 5 3.9 1 5 50.3 1 5 50.3 1	Mg		BOX END SECTION	D N	SECTION SLOPE EA.	CONNECT CONNECT CONNECT CONNECT	10 STA

33 20+026 X

	PAY ITEM	QTY
***	PIPE CIRCULAR, TYPE 2, 300mm	85.6
***	PIPE CIRCULAR, TYPE 2, 375mm	66,5
***	PIPE CIRCULAR, TYPE 2, 450mm	89.6
***	PIPE CIRCULAR, TYPE 2, 600mm	29.4
	INLET TYPE "A-3"	1 EAC
	INLET TYPE "E-7"	2 EAG
	INLET TYPE "J-10"	1 EAC
	INLET TYPE "M-10"	5 EA
	MANHOLE TYPE "C-4"	2 EA
	MOD. MANHOLE TYPE "C-4"	3 EA
	MANHOLE TYPE "D-4"	2 EA
	MOD. MANHOLE TYPE "D-4"	3 EA
	REMOVE STRUCTURE	3 EA
	PIPE END SECTION	1 EA
	RECONSTRUCT STRUCTURE, MANHOLE	0.9 /
	STRUCTURE BACKFILL TYPE 1	555.6

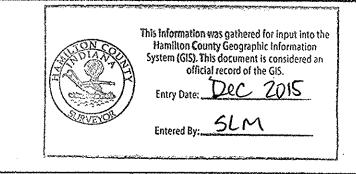
RECONSTRUCT STR.

258.500

LEGEND FOR A	BBREV	TATION
A.C.S.2. — ALUMINUM COATED STEEL TYPE 2 C.S. — CORRUGATED STEEL C.A. — CORRUGATED ALUMINUM S.P.S. — STRUCTURAL PLATE STEEL G.B.E.S. — GRATED BOX END SECTION S.M.E.S. — SAFETY METAL CULVERT END SECTION * — INDICATES RIM ELEVATION ** — FROM PROPOSED PROJECT STP—068- C.M.P.A. — CORRUGATED METAL PIPE ARCH	A. N. SRST	——————————————————————————————————————
C.M.P. — CORRUGATED METAL PIPE D.I.F. — DETERMINE IN FIELD C.P.P. — CORRUGATED PLASTIC PIPE R.C.P. — REINFORCED CONCRETE PIPE P.G.C.S. — PRECOATED GALVANIZED CORRUGATE S.P.P.A. — STRUCTURAL PLATE PIPE ARCH R.C.H.E.P. — REINFORCED CONCRETE HORIZONTAL ELLI		

RECONSTRUCT 0.9 m OF

STRUCTURE, ADJUST TO GRADE



375 2 PIPE RCP CLASS III 1.2 0.84 256.819 D.I.F. 75 N. 6.5 83.8 1

300 2 PIPE RCP CLASS III 2.0 1.20 256.883 256.819 75 N. 6.5 2.9 1

300 2 PIPE RCP CLASS III 2.0 | 1.10 256.931 256.883 75 N. 6.5 2.6 1

300 2 PIPE RCP CLASS III 1.0 1.10 256.968 256.931 75 N. 6.5 1.3 1

 450
 2
 PIPE RCP CLASS III
 17.1
 1.0
 256.961
 256.931
 75
 N.
 6.5
 31.1
 1

 450
 2
 PIPE RCP CLASS III
 17.1
 1.0
 256.961
 256.931
 75
 N.
 6.5
 31.1
 1

375 2 PIPE RCP CLASS III 7.0 0.70 257.067 257.051 75 N. 6.5 8.0 1

300 2 PIPE RCP CLASS III 7.0 0.65 256.985 256.978 75 N. 6.5 1.8 1

375 2 PIPE RCP CLASS III 23.9 0.69 257.090 257.064 75 N. 6.5 26.1 1

300 2 PIPE RCP CLASS III 1.2

MANHOLE TYPE "D-4"

MOD. MANHOLE "D-4"

MOD. MANHOLE "C-4"

MOD. MANHOLE "D-4"

INLET TYPE "E-7"

INLET TYPE "E-7"

INLET TYPE "M-10"

17 2+183.5

18 DELETED

19 2+194.0

20 DELETED

21 2+194.28

23 2+212.0

22 2+200.0 X

24 2+215.0 X

25 2+218.94 X

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| X | |

1.30 256.819 D.I.F. 75 N. 6.5 1.6 1

* 259.056 849.92

* 258.556 848, 28

* 258.555 848.28

* 257.907 846. 15

* 258.427 847.86

842.95 842,79

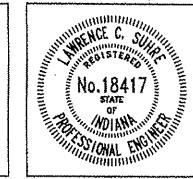
843.40 843.34

843.05 842.95

843,47 843,39

* 257.435 844 60

* 258.095 846.77



OUT TO STR. NO. 15

CONNECT TO EXIST. STORM

CONNECT TO EXIST. STORM

CONNECT TO EXIST. STORM

CONNECT TO STR. NO. 21

CONNECT TO STR. NO. 19

CONNECT TO STR. NO. 23

CONNECT TO STR. NO. 21

REMOVE EXIST. INLET

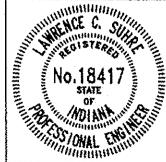
REMOVE EXIST. INLET

	REET AND ROAD
DESIGNED: N/A	DRAWN: A.J.S.
CHECKED: N/A	CHECKED: R.K.

			·		
	HORIZONTAL SCALE	BF	RIDGE F	LE	
TTANETI MONT COTTATION	N/A				
HAMILTON COUNTY	VERTICAL SCALE	DE	SIGNATI	ON	
	N/A				
JMMARY OF QUANTITIES AND	SURVEY BOOK	**************************************	SHEETS	,	
MINIARY OF QUANTITIES AND		. 17	of	31	
APPROACH TABLE	CONTRACT		PROJEC	T	
ALL NOAGH TABLE		PR-	99-000)1	

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	UNDERDRAIN TABLE UNDERDRAIN PIPE OUTLET PIPE													UNDERDRAIN TABLE											
MAYSTATIS - Novin	######################################	*** *********************************	UND	ERDR	AINF	MPE		ndang stanga damahdahan kalingtan ayun andahan ak unas unas		OUTLE	ET PIPE	,				UNDE	ERDR	AIN P	IPE				OUTLE	TPIPE	
nderdrain Pípe Limits	Type 4	150 mm	Geotextile for Underdrains	Aggregate for Underdrains	Special Grade	ow Line Elevation @	Outlet Pipe Required	onnect Underdrain Pipe Structure No.	fructure Invert Elevation	5 Degree Elbows equired (1 or 2)	150 mm Outlet Pipe		nderdrain Pipe Limits	100 mm	4 Pipe mm 051	Geotextile for Underdrains	Aggregate for Underdrains	Special Grade	ow Line Elevation @ Iderdrain Pipe Limit	Outlet Pipe Required	onnect Underdrain Pipe Structure No.	ructure Invert Elevation	Degree Elbows equired (1 or 2)	150 mm Outlet Pipe	
	(m)	(m) LEG 1	(m2) RT.	(m3)	<u> %</u>	<u> </u>	(Y/N)	<u>८</u>	N N	45 Re	(m)	Remarks		(m)	(m) LEG 3	(m2)	(m3)	%	유희	(Y/N)	ු රි දු	<u>*</u>	45 Re	(m)	Remarks
2+095 2+139.5		44.5	155.8	9.4	0.20%	257.080 256.991	N N	11.	256.986	1		HIGH POINT	2+191.2 2+210.6		22.4	78.4	4.7	1.10%	257.524 257.276	N N	23	257.273			HIGH POINT
2+140.5 2+163.5		24.9	87.2	5.3	1.03%	257.268 257.524	. N	11	257.265	1	-	LOW POINT HIGH POINT	2+213.5 2+280		66.5	232.8	14.0	0.96%	257.276 257.892	N	23	257.273			LOW POINT HIGH POINT
													2.200						201.032	L IV		1		<u></u>	THORFONT
		LEC 4			**************************************										LEG 3	LT.	and the second s								
2+095 2+139.5		LEG 1 44.5	155.8	9.4	0.20%	257.080 256.991	N	44	256.960	2	0.0	HIGH POINT	2+197.2		6.0	21.0	1.3	0.20%	257.612 257.600	N ·					HIGH POINT INSTALLED OVER PIF
2+168.7						257.525	Ň		250.960		9.0	CROSSES ROADWAY HIGH POINT	2+202.8 2+218.3		15.5	54.3	3.3	2.32%	257.600 257.240	N	25	257.235			INSTALLED OVER PIF
2+140		30.9	108.2	6.5	0.54%	257.357	N	10	257.352	1		LOW POINT	2+219.7 2+280		60.3	211.1	12.7	1.46%	257.240 258.120	N	25	257.235			LOW POINT HIGH POINT
		LEG 2	RT.																1 200.120						
20+016.9	1	21.3	74.6	4.7	1.76%	257.525	N					HIGH POINT			LEG 4	RT.	1			*					
20+035						257.150	N	29	257.145	2.			.19+900 19+970		70	245.0	2.7	1.31%	258.400 257.480	N N	27	257.475	2		HIGH POINT LOW POINT
20+036.5		11.3	39.6	2.5	0.20%	257.150 257.120	<u>N</u> N .	31	257.115	2		LOW POINT	19+970 19+983.1		15.0	52.5	3.2	0.30%	257.480 257.525	N	27	257.475	2		LOW POINT HIGH POINT
20+048.5		51.5	180.3	10.9	0.20%	257.120	N	31	257.115			LOW POINT	[13,303.1						1201.020	L. IX					<u> </u>
20+100						257.223	N					HIGH POINT		7	LEG 4	LT.									
		LEG 2	LT.										19+900 19+970		70.0	245	14.7	1.46%	258.500 257.490		26	257.488			HIGH POINT LOW POINT
20+011.1 20+024.1 20+024.1		44.2	154.7	9.3	0.20%	257.640 257.550 257.550	N					INSTALLED OVER PIPE	19+970		20.4	71.4	4.3	0.20%	257.490	N	26	257.488	2		LOW POINT
20+048		23.9	83.7	5.3	1.91%	257.060	N	32	257.055	2		INSTALLED OVER PIPE LOW POINT	19+988.4	FRENCH	I DRAIN	ONLEG	2 RT		257.531						HIGH POINT
20+048 20+100		52.0	55.5	11.0	0.20%	257.060 257.164	N N	32	257.055	2		LOW POINT HIGH POINT	20+035.5 20+090	I LIVOT	54.5	190.8	24.6	0.20%	256.964 257.073	}	30	256.964			LOW POINT
O 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		WWW.M. W. College Coll																							1 12 Nove 1 1 1 Nov 1 1 N 7
OLUMN 1 UB TOTALS		349.0	1095.4	74.3	X	X	X	X	· X	13	9.0		COLUMN 2 SUB TOTALS		400.6	1402.3	60.9	X					2	0.0	*
					Pip Pip	Summa e, Type 4, Circ e, Underdrain	cular, 150 mr Outlet, 150 r	n nm	in Quan	tities 750 m		This information was gathered for input into the Hamilton County Geographic Information System (GIS). This document is considered an official record of the GIS.	OUD TOTALS		400.0	1402.3	00.8	<u> </u>	<u>X</u>	<u> </u>	X	<u> </u>		0.0	
					The state of the s	iditional 6 m a gregate for Un	•		nectors)	136 m		Entry Date: Pec 2015	COLUMN 1		349.0	1095.4	74.3	X	Х	X	X	· X	13	9.0	X
					I				**************************************			Entered By: SLM	COLUMN 2		400.6	1402.3	60.9	X	X	X	X	↓ X	6	0.0	X
					Stri	ucture Backfill	**************			4 m	S was an	to the second se	TOTAL		750	2498	136	1 X	1 X	l X	X	X	10	Q	i X



Video Inspection for Underdrains.....

	STRE	ET AND			HAMI	LTON C	OUNTY	8		ORIZONTAL SCALE NONE VERTICAL SCALE	BRIDGE FILE DESIGNATION
OTAL	750	2498	136	X	X	X	X	X	19	9	X
OLUMN 2	400.6	1402.3	60.9	X	X	X	<u> X</u>	X	6	0.0	X

A STATE OF THE STA	106TH ST	TREET AND DAD
William William	DESIGNED: A.J.S.	DRAWN: A.J.S.
	CHECKED: L.C.S.	CHECKED: R.A.K.

	HORIZONTAL SCALE NONE	BRIDGE FILE
HAMILTON COUNTY	VERTICAL SCALE NONE	DESIGNATION
UNDERDRAIN TABLES	SURVEY BOOK	SHEETS 18 of 31
106TH AND DITCH	CONTRACT	PROJECT PR-99-0001