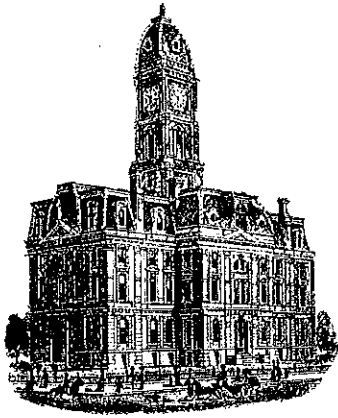


KLW



SURVEYOR'S OFFICE Hamilton County

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 18, 2018

To: Hamilton County Drainage Board

Re: Vermillion Drain, The Woods at Vermillion, Sec. 3 Arm

Attached is a petition filed by North Connecticut Development Corporation (Republic Development), along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Vermillion Drain, The Woods at Vermillion, Sec. 3 Arm to be located in Fall Creek Township. I have reviewed the submittals and petition and have found each 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. As per the plans by Weihe Engineers, Project No. W150253-3, the drain will consist of the following:

12" RCP	677 ft.	21" RCP	20 ft.
15" RCP	359 ft.	24" RCP	486 ft.
18" RCP	20 ft.	6" SSD	1,918 ft.
		Open (pond)	70 ft.

The total length of the drain will be 3,550 feet.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs and those main lines in rear yards. Only the main SSD lines which are located within the easement or right of way are to be maintained as regulated drain. Laterals for individual lots will not be considered part of the regulated drain.

I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I also believe that no damages will result to landowners by the construction of this drain. I recommend a maintenance assessment of \$65.00 per platted lot, \$10.00 per acre for common areas, with a \$65.00 minimum, and \$10.00 per acre for roadways. With this assessment the total annual assessment for this drain for Section 3 will be \$1,267.40.

The detention pond (wet pond #15 located in Common Area "A") is to be considered part of the regulated drain. This is consistent with the ponds in other Vermillion sections. The maintenance of the pond shall include the inlet and outlet as part of the regulated drain. The maintenance of the pond such as sediment removal, and erosion control along the banks, mowing and aquatic vegetation control will be the responsibility of the Homeowners Association. The Board will also retain jurisdiction for ensuring the storage volume for which the pond was designed will be retained, thereby, allowing no fill or easement encroachments. The open drain length of 70 for the pond is the distance measured between str.

The petitioner has submitted surety for the proposed drain at this time. The sureties which are in the form of Letters of Credit from the developer are as follows:

Agent: Standard Financial Corporation
Date: February 23, 2018
Number: 1313WVRM3
For: Storm Sewers
Amount: \$174,894.90
HCDB-2018-0008

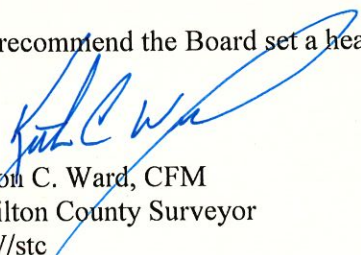
Agent: Standard Financial Corporation
Date: February 23, 2018
Number: 1314WVRM3
For: Erosion Control
Amount: \$40,980.48
HCDB-2018-00007

Agent: Standard Financial Corporation
Date: February 23, 2018
Number: 1315WVRM3
For: Monumentation
Amount: \$5,536.80
HCDB-2018-00006

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 upon approval of the above proposed drain that the Board also approve the attached non-enforcement request. The request will be for the reduction of the regulated drain easement to those easement widths as shown on the secondary plats for The Woods at Vermillion, Sec. 3 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for November 26, 2018.


Kenton C. Ward, CFM
Hamilton County Surveyor
KCW/stc

STATE OF INDIANA)
)
COUNTY OF HAMILTON)

FILED
MAY 02 2017
OFFICE OF HAMILTON COUNTY SURVEYOR
OFFICE OF HAMILTON COUNTY SURVEYOR

TO: HAMILTON COUNTY DRAINAGE BOARD
% Hamilton County Surveyor
One Hamilton County Square, Suite 188
Noblesville, IN. 46060-2230

In the matter of The Woods @ Vermillion Subdivision, Section
Three Drain Petition.

Petitioner is the owner of all lots in the land affected by the proposed new regulated drain. The drainage will affect various lots in The Woods @ Vermillion-Section Three, a subdivision in Hamilton County, Indiana. The general route of such drainage shall be in existing easements and along public roads as shown in the plans on file in the Surveyor's Office.

Petitioner believes that the cost, damages and expenses of the proposed improvement will be less than the benefits which will result to the owners of the land likely to be benefited thereby. Petitioner believes the proposed improvements will:

- (a) improve public health
- (b) benefit a public street
- (c) be of public utility

Petitioner agrees to pay the cost of construction of the drainage system and requests periodic maintenance assessments by the Board thereafter.

The Petitioner also agrees to the following:

1. To provide the Drainage Board a Performance Bond or Non-Revocable Letter of Credit for the portion of the drainage system which will be made a regulated drain. The bond will be in the amount of 120% of the Engineer's estimate. The bond will be in effect until construction of 100% of the system is completed and so certified by the Engineer.
2. The Petitioner shall retain an Engineer throughout the construction phase. At completion of the project the Petitioner's Engineer shall certify that the drainage system which is to be maintained as a regulated drain has been constructed as per construction plans.
3. The Petitioner agrees to request in writing to the County Surveyor any changes from the approved plan and must receive written authorization from the County Surveyor prior to implementation of the change. All changes shall be documented and given to the Surveyor to be placed in the Drain file.
4. The Petitioner shall instruct his Engineer to provide a reproducible print on a 24" x 36" Mylar of the final design of the Drainage System. This shall be submitted to the County Surveyor prior to the release of the Performance Bond.
5. The Petitioner shall comply with the Erosion Control Plan as specified on the construction plans. Failure to comply with the Erosion Control Plan shall be determined by the Board as being an obstruction to the drainage system. The County Surveyor shall immediately install or repair the needed measures at Petitioners cost as per IC 36-9-27-46.

The Petitioner further requests that the Drain be classified as an Urban Drain as per IC 36-9-27-69(d).

RECORDED OWNER(S) OF LAND INVOLVED

NORTH CONNECTICUT DEV. CORP.

Douglas B. Wagner

Signed

DOUGLAS B. WAGNER, SR. VP

Printed Name

May 1, 2017

Date

Signed

Printed Name

Date

Signed

Printed Name

Date

Signed

Printed Name

Date

FINDINGS AND ORDER

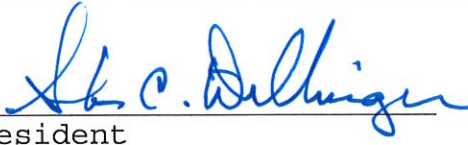
CONCERNING THE MAINTENANCE OF THE

Vermillion Drain, The Woods at Vermillion Section 3 Arm

On this 26th day of November, 2018, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the *Vermillion Drain, The Woods at Vermillion Section 3 Arm*.

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: 
Executive Secretary

FILED

OCT 17 2018



ENGINEER'S ESTIMATE OF PROBABLE COST

Project: The Woods at Vermillion - Section 3
W150253-3

Date: 2/12/2018

OFFICE OF HAMILTON COUNTY SURVEYOR

STORM SEWERS

	Quantity	Unit Price	Gross Price
Structures			
Standard manholes	4	\$ 2,660.00	\$ 10,640.00
Standard Inlet	5	\$ 2,110.00	\$ 10,550.00
Double Inlet	2	\$ 3,400.00	\$ 6,800.00
Beehive	3	\$ 1,866.67	\$ 5,600.00
Outlet Control Structure	2	\$ 3,425.00	\$ 6,850.00
Rock Check Dam	1	\$ 1,500.00	\$ 1,500.00
12" End Section	1	\$ 1,450.00	\$ 1,450.00
18" End Section	1	\$ 1,850.00	\$ 1,850.00
21" End Section	1	\$ 2,000.00	\$ 2,000.00
24" End Section	1	\$ 2,100.00	\$ 2,100.00
Tons of stone backfill (#8)	340	\$ 20.50	\$ 6,970.00
Tons of granular backfill (sand)	180	\$ 14.00	\$ 2,520.00
Tons of Rip Rap	35	\$ 45.00	\$ 1,575.00
SSD Core/Stub Tie	5	\$ 250.00	\$ 1,250.00
Lot connections (4" underdrain)	18	\$ 130.00	\$ 2,340.00
SSD Risers	8	\$ 350.00	\$ 2,800.00
Linear feet of underdrain (6")	3,377	\$ 9.35	\$ 31,574.95

Qty	Measurement	Size	Material	Unit Price	Gross Price
Pipe	890	Linear feet of	12"	RCP	\$ 23.00 \$ 20,470.00
	146	Linear feet of	15"	RCP	\$ 27.30 \$ 3,985.80
	24	Linear feet of	18"	RCP	\$ 29.00 \$ 696.00
	24	Linear feet of	21"	RCP	\$ 35.00 \$ 840.00
	486	Linear feet of	24"	RCP	\$ 44.00 \$ 21,384.00
	0	Linear feet of	27"	RCP	\$ 58.00 \$ -
STORM SEWER TOTAL:					\$ 145,745.75

EROSION CONTROL

	Quantity	Unit Price	Gross Price
Seeding			
Acres of temp. seed	3.7	\$ 325.00	\$ 1,186.25
Acres of Straw mulch	3.8	\$ 775.00	\$ 2,906.25
Square yards of permanent seed and straw mulch	9,360	\$ 0.42	\$ 3,931.20
Square yards of erosion control blanket w/ permanent seed)	12,534	\$ 1.05	\$ 13,160.70
Roadside Seeding	6,100	\$ 0.34	\$ 2,074.00
Other			
Construction Entrance	1	\$ 3,300.00	\$ 3,300.00
Linear feet of silt fencing	4,050	\$ 1.00	\$ 4,050.00
Concrete Washout	1	\$ 500.00	\$ 500.00
Curb Inlet Protection	9	\$ 168.00	\$ 1,512.00
Drop Inlet	17	\$ 90.00	\$ 1,530.00
EROSION CONTROL TOTAL			\$ 34,150.40

MONUMENTATION

	Quantity	Unit Price	Gross Price
Misc.			
Rebar Street Control	11	\$ 159.00	\$ 1,749.00
Property Corners	30	\$ 95.50	\$ 2,865.00
MONUMENTATION TOTAL			\$ 4,614.00

SUMMARY

	Total	Performance Guarantee	Maintenance Guarantee
	A	B = A X 120%	C = B X 20%
Storm Sewers	\$ 145,745.75	\$ 174,894.90	\$ 34,978.98
Erosion Control	\$ 34,150.40	\$ 40,980.48	\$ 8,196.10
Monumentation	\$ 4,614.00	\$ 5,536.80	\$ 1,107.36
TOTAL	\$ 184,510.15	\$ 221,412.18	\$ 44,282.44

COMMENTS:

Bond Estimate Prepared by:

Signature: *Alvin E. Skoog, Jr.*

Printed Name: Alvin E. (Rusty) Skoog, Jr.

Title: Sr. Project Manager

Date: 19-Feb-18



OFFICE OF HAMILTON COUNTY SURVEYOR

February 23, 2018

HCDB-2018-0008
Irrevocable Letter of Credit No.: 1313WVRM3

TO: Hamilton County Commissioners
1 Hamilton County Square, Suite 157
Noblesville, IN 46060

To Whom It May Concern:

We hereby authorize you to value on us for the account of:

Developer Name: North Connecticut Development Corporation
Developer Address: 3150 Republic Blvd. N, #3
Toledo, OH 43615

For a sum or sums in United States of America Dollars not to exceed the aggregate total of **One Hundred Seventy-Four Thousand Eight Hundred Ninety-Four and 90/100 Dollars (\$174,894.90)** by your draft(s) at sight.

The purpose of this Letter of Credit is for the performance of the installation of storm sewers the Woods at Vermillion, Section 3.

The condition for payment of any drafts drawn against the Letter of Credit requires that the draft be accompanied by beneficiary's signed statement on Hamilton County letterhead stating that North Connecticut Development Corporation has not performed or complied with the terms of the construction plan requirements of said project. The statement must also outline the specific deficiencies in construction.

All drafts must be marked, "Drawn under Standard Financial Corporation Letter of Credit No. 1313WVRM3".

This credit is subject, so far as applicable, to "The Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600."

This Letter of Credit is effective as of February 23, 2018 and shall expire on February 23, 2019, but such expiration date shall be automatically extended for a period of one year on February 23, 2019, and on each successive expiration date, unless a release is received from the Hamilton County Commissioners or we notify both the Hamilton County Commissioners and North Connecticut Development Corporation by certified mail, at least ninety (90) days before the current expiration date, that we have decided not to extend this Letter of Credit beyond the

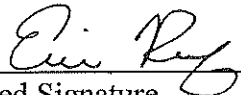


current expiration date. In the event of such notification by us, the credit established by this Letter shall be available to the Hamilton County Commissioners upon its sight draft or demand for payment for ninety (90) days after receipt of such notice by the Hamilton County Commissioners as shown on the signed return receipt.

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the main office of Standard Financial Corporation, 13578 E. 131st Street, Suite 200, Fishers, IN 46037.

Sincerely,

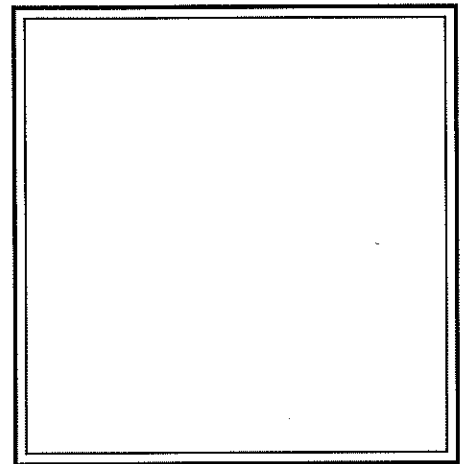
STANDARD FINANCIAL CORPORATION



Authorized Signature

Eric Roof, Treasurer

Name and Title



This Letter of Credit is not valid unless the seal of Standard Financial Corporation is affixed hereto.

FEB 22 2018

E OF HAMILTON COUNTY February 23, 2018

ITCD B-2018-00007
Irrevocable Letter of Credit No.: 1314WVRM3

TO: Hamilton County Commissioners
1 Hamilton County Square, Suite 157
Noblesville, IN 46060

To Whom It May Concern:

We hereby authorize you to value on us for the account of:

Developer Name: North Connecticut Development Corporation
Developer Address: 3150 Republic Blvd. N, #3
Toledo, OH 43615

For a sum or sums in United States of America Dollars not to exceed the aggregate total of **Forty Thousand Nine Hundred Eighty and 48/100 Dollars (\$40,980.48)** by your draft(s) at sight.

The purpose of this Letter of Credit is for the performance of the installation of erosion control in the Woods at Vermillion, Section 3.

The condition for payment of any drafts drawn against the Letter of Credit requires that the draft be accompanied by beneficiary's signed statement on Hamilton County letterhead stating that North Connecticut Development Corporation has not performed or complied with the terms of the construction plan requirements of said project. The statement must also outline the specific deficiencies in construction.

All drafts must be marked, "Drawn under Standard Financial Corporation Letter of Credit No. 1314WVRM3".

This credit is subject, so far as applicable, to "The Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600."

This Letter of Credit is effective as of February 23, 2018 and shall expire on February 23, 2019, but such expiration date shall be automatically extended for a period of one year on February 23, 2019, and on each successive expiration date, unless a release is received from the Hamilton County Commissioners or we notify both the Hamilton County Commissioners and North Connecticut Development Corporation by certified mail, at least ninety (90) days before the current expiration date, that we have decided not to extend this Letter of Credit beyond the

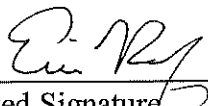


current expiration date. In the event of such notification by us, the credit established by this Letter shall be available to the Hamilton County Commissioners upon its sight draft or demand for payment for ninety (90) days after receipt of such notice by the Hamilton County Commissioners as shown on the signed return receipt.

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the main office of Standard Financial Corporation, 13578 E. 131st Street, Suite 200, Fishers, IN 46037.

Sincerely,

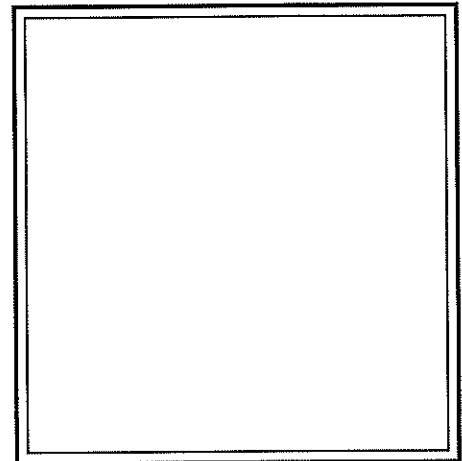
STANDARD FINANCIAL CORPORATION



Authorized Signature

Eric Roof, Treasurer

Name and Title



This Letter of Credit is not valid unless the seal of Standard Financial Corporation is affixed hereto.

 **Standard Financial**
CORPORATION

FEB 22 2018

OFFICE OF HAMILTON COUNTY SURVEYOR
February 23, 2018

HCDB-2018-00006

Irrevocable Letter of Credit No.: 1315WVRM3

TO: Hamilton County Commissioners
1 Hamilton County Square, Suite 157
Noblesville, IN 46060

To Whom It May Concern:

We hereby authorize you to value on us for the account of:

Developer Name: North Connecticut Development Corporation
Developer Address: 3150 Republic Blvd. N, #3
Toledo, OH 43615

For a sum or sums in United States of America Dollars not to exceed the aggregate total of **Five Thousand Five Hundred Thirty-Six and 80/100 Dollars (\$5,536.80)** by your draft(s) at sight.

The purpose of this Letter of Credit is for the performance of the installation of monumentation in the Woods at Vermillion, Section 3.

The condition for payment of any drafts drawn against the Letter of Credit requires that the draft be accompanied by beneficiary's signed statement on Hamilton County letterhead stating that North Connecticut Development Corporation has not performed or complied with the terms of the construction plan requirements of said project. The statement must also outline the specific deficiencies in construction.

All drafts must be marked, "Drawn under Standard Financial Corporation Letter of Credit No. 1315WVRM3".

This credit is subject, so far as applicable, to "The Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600."

This Letter of Credit is effective as of February 23, 2018 and shall expire on February 23, 2019, but such expiration date shall be automatically extended for a period of one year on February 23, 2019, and on each successive expiration date, unless a release is received from the Hamilton County Commissioners or we notify both the Hamilton County Commissioners and North Connecticut Development Corporation by certified mail, at least ninety (90) days before the current expiration date, that we have decided not to extend this Letter of Credit beyond the



current expiration date. In the event of such notification by us, the credit established by this Letter shall be available to the Hamilton County Commissioners upon its sight draft or demand for payment for ninety (90) days after receipt of such notice by the Hamilton County Commissioners as shown on the signed return receipt.

We hereby agree with you that all drafts drawn under and in compliance with the terms of this credit shall be duly honored on due presentation to the main office of Standard Financial Corporation, 13578 E. 131st Street, Suite 200, Fishers, IN 46037.

Sincerely,

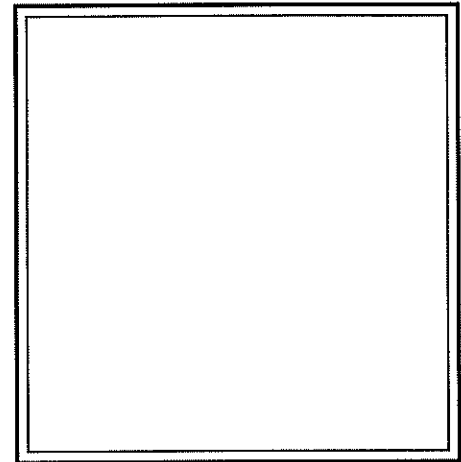
STANDARD FINANCIAL CORPORATION



Authorized Signature

Eric Roof, Treasurer

Name and Title



This Letter of Credit is not valid unless the seal of Standard Financial Corporation is affixed hereto.

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF

Vermillion Drain, The Woods at Vermillion Section 3 Arm

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the **Vermillion Drain, The Woods at Vermillion Section 3 Arm** on **November 26, 2018** at **9:00 A.M.** in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana, and which construction and maintenance reports of the Surveyor and the Schedule of Assessments made 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

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF THE

Vermillion Drain, The Woods at Vermillion Section 3 Arm

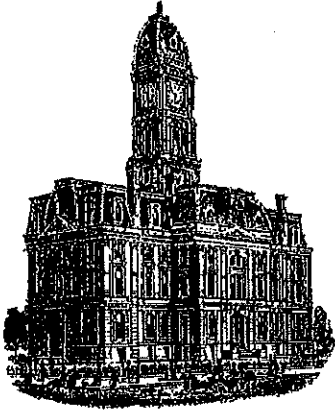
NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **November 26, 2018** has issued an order adopting the Schedule of Assessments, filed the same and made public announcement thereof at the hearing and ordered publication. If judicial review of the findings and order of the Board is not requested pursuant to Article Eight of this code within twenty (20) days from the date of this publication, the order shall be conclusive.

Hamilton County Drainage Board

Attest: Lynette Mosbaugh

ONE TIME ONLY



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

January 18, 2019

Re: Vermillion Drain: The Woods at Vermillion, Sec. 3

Attached are as-built, certificate of completion & compliance, and other information for The Woods at Vermillion Section 3. 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 were made to the drain, which will alter the plans submitted with my report for this drain-dated October 18, 2018. The report was approved by the Board at the hearing held November 26, 2018. (See Drainage Board Minutes Book 18, Pages 296-297) The changes are as follows: the 12" RCP was lengthened from 677 to 686 feet. The 18" RCP was lengthened from 20 feet to 22 feet. The 21" RCP was lengthened from 20 feet to 21 feet. The 24" RCP was shortened from 486 to 480 feet. The 6" SSD was shortened from 1918 feet to 1898 feet. The length of the drain due to the changes described above is now **3540 feet**.

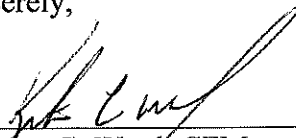
The non-enforcement was approved by the Board at its meeting on November 26, 2018 and recorded under instrument #2018055965.

The following sureties were guaranteed by Standard Financial and released by the Board on its January 14, 2019 meeting.

Bond-LC No: 1313WVRM3
Amount: \$174,894.90
For: Storm Sewers & SSD
Issue Date: February 23, 2018

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Kenton C. Ward', written over a horizontal line.

Kenton C. Ward, CFM
Hamilton County Surveyor

CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: *The Woods at Vermillion Section 3*

I hereby certify that:

1. I am a Registered Land Surveyor or Engineer in the State of Indiana.
2. I am familiar with the plans and specifications for the above referenced subdivision.
3. I have personally observed and supervised the completion of the drainage facilities for the above referenced subdivision.
4. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been installed and completed in conformity with all plans and specifications.
5. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been correctly represented on the Record Drawings, Digital Record Drawings and the Structure Data Spreadsheet.

Signature: *Brady Kuhn* Date: *7/12/18*

Type or Print Name: Brady Kuhn

Business Address: 10505 College Ave

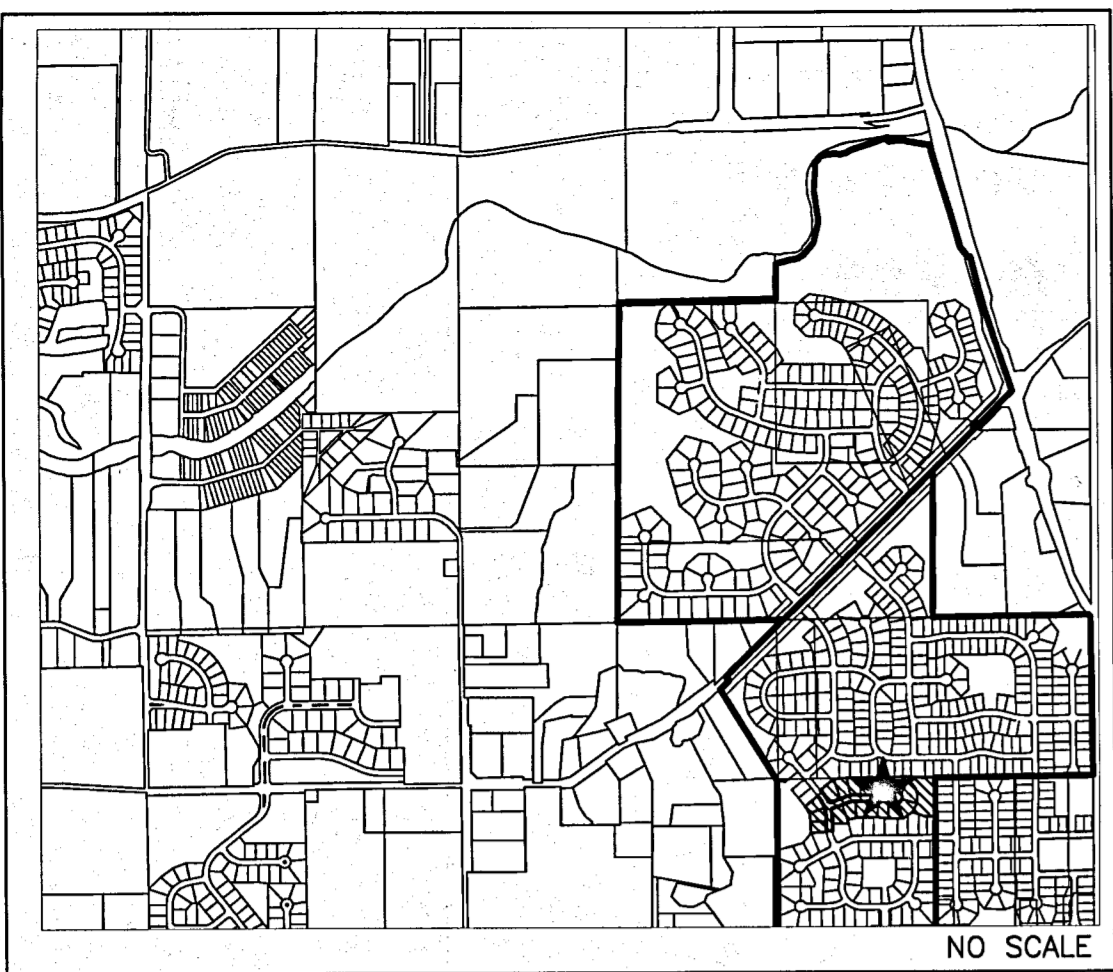
Indianapolis, IN 46280

Telephone Number: 317 846-6611



INDIANA REGISTRATION NUMBER

LS20500007



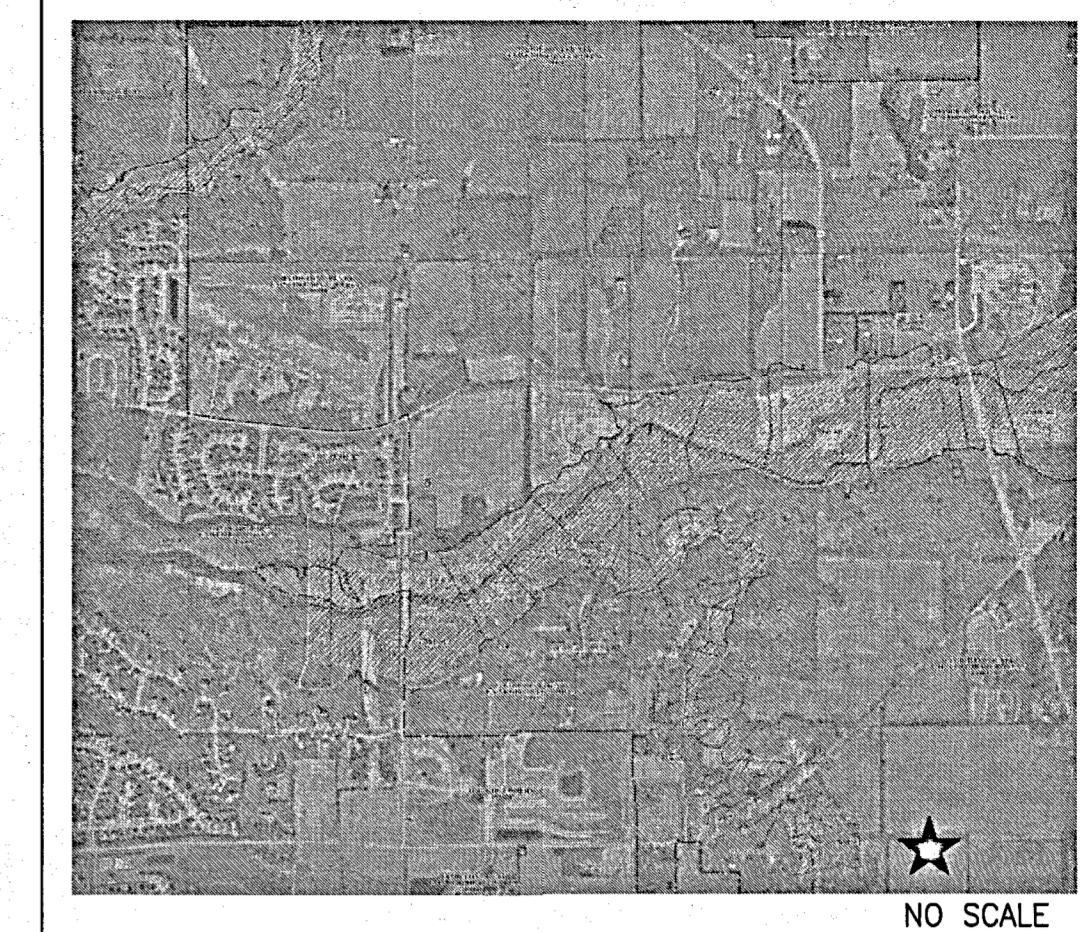
AREA LOCATION MAP
NO SCALE

RECORD CONSTRUCTION DRAWINGS

THE WOODS AT VERMILLION

SECTION THREE

FALL CREEK TOWNSHIP, FORTVILLE, IN 46040



F.E.M.A. F.I.R.I.M.
NO SCALE

GENERAL NOTES

- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- 2) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION.
- 3) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- 4) ALL QUANTITIES GIVEN ON THESE PRINTS ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- 5) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- 6) TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- 7) THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT.
- 8) ANY FIELD TILES ENCOUNTERED DURING EXCAVATION SHALL BE REPAIRED AND CONNECTED TO NEW STORM SEWERS AND POSITIVE DRAINAGE PRESERVED.
- 9) THE SITE DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY - NATIONAL FLOOD INSURANCE PROGRAM, WHEN PLOTTED BY SCALE ON FLOOD INSURANCE RATE MAP #18057C0259G AND 18057C0278G, NOVEMBER 19, 2014.
- 10) BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS & PLAT FOR EXACT INFORMATION.
- 11) THIS SITE DOES CONTAIN WETLANDS AS SHOWN ON THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE, FORTVILLE, INDIANA, NATIONAL WETLANDS INVENTORY MAP. NO WETLANDS ARE IMPACTED BY THIS DEVELOPMENT.
- 12) DESIGN PROFESSIONAL CERTIFYING PLANS FOR THE PROJECT ACKNOWLEDGES THEIR PROFESSIONAL RESPONSIBILITY FOR ENSURING THAT ALL WORK IS CORRECT, ACCURATE AND COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF AN ERROR OR OMISSION IS FOUND, THE DESIGN PROFESSIONAL ACCEPTS FULL RESPONSIBILITY AND SHALL DETERMINE A SOLUTION THAT COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR OR OMISSION IS FOUND, THE DEVELOPER IS NOT RELIEVED OF COMPLYING WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES.
- 13) ALL WATER MAIN, HYDRANTS, AND WATER VALVES SHALL BE INSPECTED AND SHALL COMPLY WITH BACKFILL, BEDDING, AND THRUST BLOCK REQUIREMENTS PER TOWN OF FORTVILLE UTILITY STREET STANDARDS.
- 14) THE DESIGN AND CONSTRUCTION SHALL COMPLY WITH ALL ADA REQUIREMENTS. SHALL BE PROWAG COMPLIANT AND MEET ALL CURRENT INDOT STANDARD SPECIFICATIONS.
- 15) A ROAD CUT WILL NOT BE PERMITTED FOR ANY UTILITY AFTER A PROOF ROLL HAS BEEN COMPLETED. PRIOR TO A PROOF ROLL, ANY UTILITY PLACED WITHIN THE LIMITS OF THE ROADWAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL AND COMPACTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

BENCHMARK INFORMATION

SOURCE BENCHMARK
HSE 38
A BRONZE DISK STAMPED "HAMILTON COUNTY GEODETIC CONTROL" SET IN THE NORTH END OF THE EAST CONCRETE HANDRAIL ON THE BRIDGE OVER FALL CREEK ON SOUTHEASTERN PARKWAY SOUTH OF 113TH STREET.
N=1714311.26
E=271886.09
EL=809.14 (NAVD 88)

TBM 2
RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 784' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-T17N-R6E.
N=1709400
E=273165
EL=864.60 (NAVD 88)

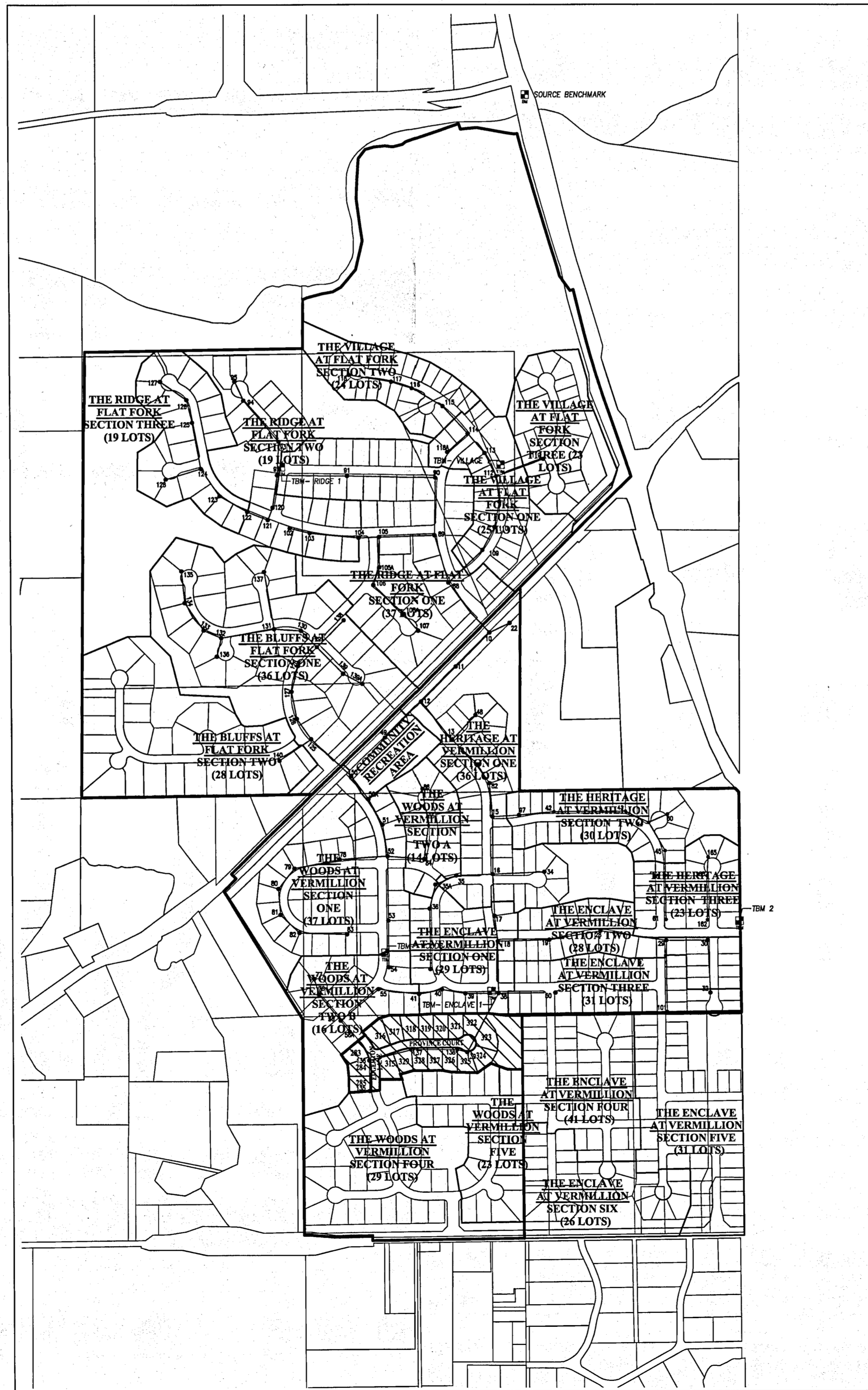
TBM - WOODS 1
MAG NAIL SET WITH WASHER IN THE CURB ON THE EAST SIDE OF VERMILLION DRIVE, APPROXIMATELY 12' +/- SOUTH OF THE STORM INLET AT THE SOUTHWEST CORNER OF LOT 252 IN THE WOODS AT VERMILLION - SECTION ONE
N=1709211.04
E=271032.89
EL=861.40 (NAVD 88)

TBM - RIDGE 1
MAG NAIL SET WITH WASHER IN THE WALK ON THE WEST SIDE OF PORTAGE WOODS DRIVE, APPROXIMATELY 9' +/- NORTH AND 19' +/- WEST OF THE CENTERLINE INTERSECTION OF PORTAGE WOODS DRIVE AND HUNTING MEADOW DRIVE IN THE RIDGE AT FLAT FORK - SECTION ONE
N=1712098.06
E=270413.43
EL=855.66 (NAVD 88)

TBM - ENCLAVE 1
MAG NAIL SET IN THE WALK AT THE SOUTH SIDE OF DOMINION DRIVE AND KENSINGTON LANE, APPROXIMATELY 23' +/- SOUTH OF THE CENTERLINE OF DOMINION DRIVE AND 6' +/- WEST OF THE CENTERLINE OF KENSINGTON LANE IN THE ENCLAVE AT VERMILLION - SECTION ONE
N=1708982.08
E=271671.65
EL=862.38 (NAVD 88)

TBM - VILLAGE 1
MAG NAIL SET IN THE WALK AT THE NORTHEAST CORNER OF CLIFFSIDE DRIVE AND BUCK RIDGE LANE, APPROXIMATELY 24' +/- NORTH OF THE CENTERLINE OF BUCK RIDGE LANE AND 21' +/- EAST OF THE CENTERLINE OF CLIFFSIDE DRIVE IN THE VILLAGE AT FLAT FORK - SECTION ONE
N=1712107.64
E=271734.52
EL=857.24 (NAVD 88)

NOTE:
THE ABOVE BENCHMARKS ARE LABELED AND MARKED ON THE SITE MAP (RIGHT).



SITE MAP

SHEET INDEX	
SHEET NO.	DESCRIPTION
C001	TITLE SHEET
C100	EXISTING CONDITIONS / DEMOLITION PLAN
C200	STORMWATER POLLUTION PREVENTION PLAN PHASE 1
C201	STORMWATER POLLUTION PREVENTION PLAN PHASE 2
C202-C203	STORMWATER POLLUTION PREVENTION DETAILS & SPECS.
C300	DEVELOPMENT PLAN
C301	PONDING LIMITS/FLOOD ROUTING PLAN
C400-C401	STREET PLAN & PROFILE/INTERSECTION DETAIL
C402-405	STREET DETAILS & SPECIFICATIONS
C406	TRAFFIC CONTROL/SIGNAGE/STREET LIGHT/SUMP PLAN
C500	SANITARY SEWER PLAN & PROFILE
C501-C503	SANITARY SEWER DETAILS & SPECIFICATIONS
C600-C601	STORM SEWER PLAN & PROFILE
C602-C603	STORM SEWER DETAILS
C700	WATER MAIN PLAN
C701-C703	WATER MAIN DETAILS/SPECIFICATIONS
L100	LANDSCAPE PLAN

STREET DATA

STREET LENGTHS:	
EDGERTON LANE	335.55 L.F.±
PROVINCE COURT	583.15 L.F.±
TOTAL	918.70 L.F.±

NOTE: DESIGN SPEED FOR ALL INTERIOR ROADS SHALL BE 25 MPH.

SITE AREA:

SITE LOTS	8.22 AC.±
18	

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Entry Date: Oct 2018
Entered by: SLM

RECORD DRAWING
07/12/2018

BRADY KUHN, L.S. 20500007



OPERATING AUTHORITIES:

FISHERS DEPARTMENT OF COMMUNITY DEVELOPMENT ONE MUNICIPAL DRIVE FISHERS, IN 46038 317-595-3126 ATTN: CALEB GUTSHALL	FORTVILLE WATER 714 E. BROADWAY ST. FORTVILLE, IN 46040 317-485-4044 ATTN: JOE RENNER	HAMILTON COUNTY HIGHWAY DEPARTMENT 1700 S. 10TH STREET NOBLESVILLE, IN 46060 317-773-7770 ATTN: DAVID LUCAS
SAMCO/HSE UTILITIES 11901 LAKESIDE DRIVE FISHERS, IN 46038 317-577-1150 ATTN: THOMAS KALLIO	NINESTAR CONNECT (TELEPHONE) P.O. BOX 108 MAXWELL, IN 46154 317-323-2078 ATTN: GEORGE PLUSINKI	TRIAD ASSOCIATES 5835 LAWTON LOOP EAST DRIVE INDIANAPOLIS, IN 46216 317-377-5230 ATTN: DICK MOSIER
NINESTAR CONNECT (POWER) 2243 EAST MAIN STREET GREENFIELD, IN 46140 317-323-2087 ATTN: JOHN SPLATTER	EMBARQ/CENTURY LINK 50 NORTH JACKSON STREET FRANKLIN, IN 46131 317-736-4863 ATTN: DAVID MEYERS	HAMILTON COUNTY SURVEYOR ONE HAMILTON COUNTY SQUARE, SUITE 208 NOBLESVILLE, INDIANA 46060 317-776-8495 ATTN: STEVE CASH
VECTREN 16000 ALLISONVILLE ROAD NOBLESVILLE, IN 46061 317-776-5532 ATTN: JOANIE CLARK	COMCAST 5330 E. 65TH STREET INDIANAPOLIS, IN 46220 317-774-3394 ATTN: MATT STRINGER	

PLANS PREPARED FOR



NORTH CONNECTICUT DEVELOPMENT CORP.
13578 EAST 131ST STREET, SUITE 200
FISHERS, IN 46037
TELEPHONE: 317-770-1618
CONTACT PERSON: DOUG WAGNER

NOTE:
THE HAMILTON COUNTY SURVEYOR'S OFFICE, HAMILTON COUNTY HIGHWAY DEPARTMENT, HSE UTILITIES, AND FORTVILLE WATER STANDARDS SHALL BE INCORPORATED BY REFERENCE INTO THESE PLANS.

PLANS PREPARED BY

WEIHE ENGINEERS, INC.
10505 N. COLLEGE AVE.
INDIANAPOLIS, IN 46280
(317) 846-6611

CONTACT PERSON: ALVIN (RUSTY) SKOOG



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Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO. W150253-3
DATE: 10-12-2018

DESIGNED BY: MEN
DRAWN BY: MEN
CHECKED BY: AES

DATE: 10-12-2018

FILED
OCT 08 2018

OFFICE OF HAMILTON COUNTY SURVEYOR

NOV 15 2018

ALVIN E. SKOOG JR., P.E.

NO. 20500007

STATE OF INDIANA
LAND SURVEYOR

BRADY KUHN, L.S. 20500007

THE WOODS AT VERMILLION
SECTION THREE

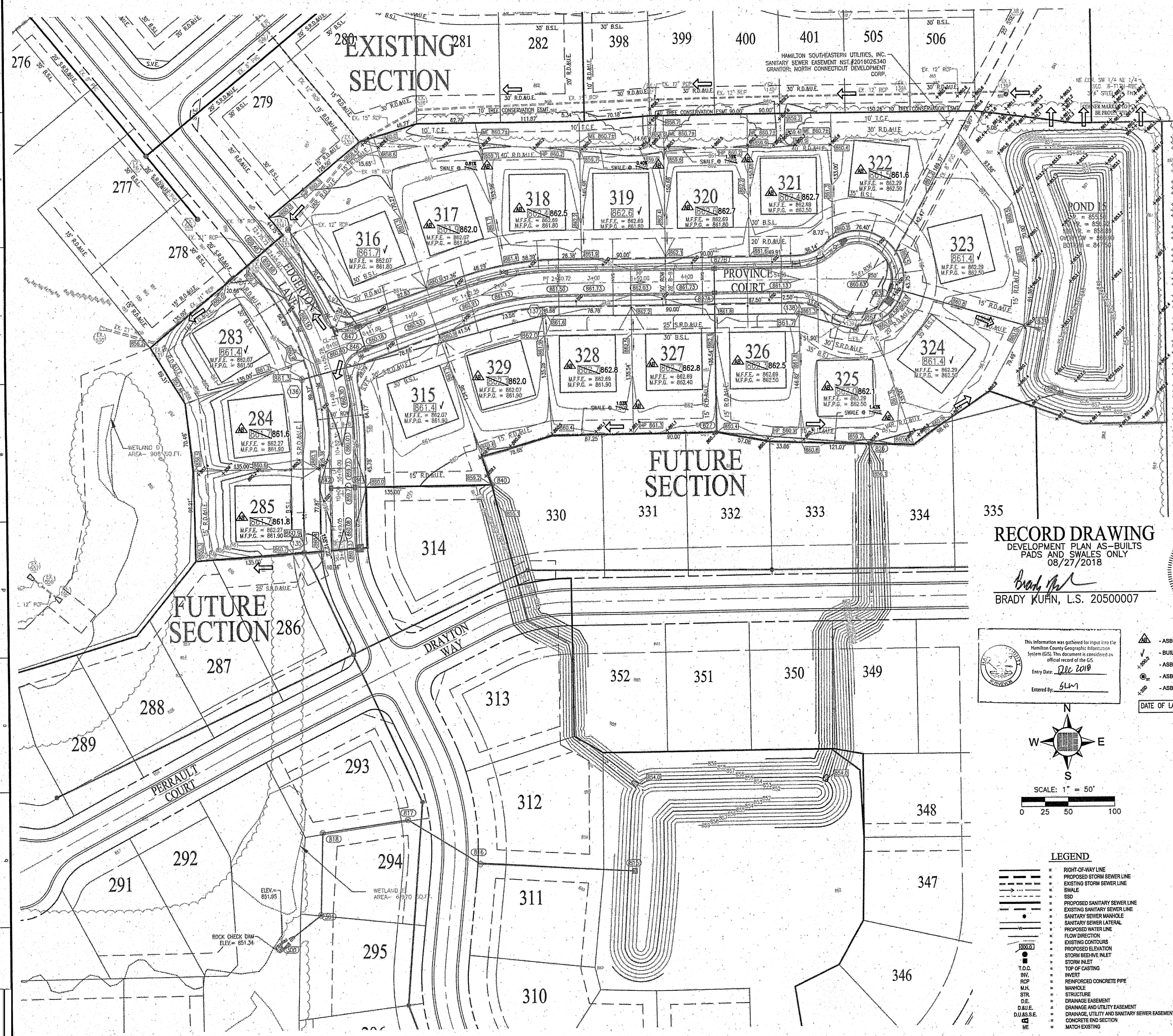
NORTH CONNECTICUT DEVELOPMENT CORP.

PREPARED FOR:

SHEET NO. C00

PROJECT NO. W150253

Location: W:\150253\Section 3\Engineering\Design\Verbillion\AB_Consect\AB_C001 Title Sheet.dwg
DATE/TIME: July 12, 2018 12:24pm
PLOT/DWG BR: poan



GENERAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- ALL QUANTITIES GIVEN ON THESE PRINTS, ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- BEARINGS, DIMENSIONS, AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
- ALL SIDEWALKS TO BE 5'-0" WIDE AND INSTALLED AS SHOWN ON THIS PLAN.
- 2" ROLLED CURB & GUTTER SHALL BE INSTALLED THROUGHOUT ENTIRE PROJECT AS SHOWN UNLESS NOTICED OTHERWISE.
- A HANDICAPPED RAMP IS TO BE INSTALLED AT ALL LOCATIONS WHERE A SIDEWALK IS SHOWN INTERSECTING A CURB - SEE DETAIL.
- ANY DRAINAGE TILE SYSTEM COMING ONTO PROPERTY SHALL BE CONNECTED INTO THE PROPOSED DRAINAGE SYSTEM IN ORDER TO MAINTAIN POSITIVE DRAINAGE FOR THE OFFSITE SYSTEM.
- REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, LATEST EDITION WITH SUPPLEMENTS, FOR BASIC MATERIALS AND CONSTRUCTION METHODS. FILL MATERIAL SHALL CONSIST OF EARTH OBTAINED FROM CUT AREAS, BORROW PITS OR OTHER APPROVED SOURCES. EARTH SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES AND LARGE ROCKS. THE FILL MATERIAL SHALL BE LAYED IN LAYERS NOT TO EXCEED SIX INCHES FOLLOWING COMPACTION. PROPER MOISTURE CONTENT OF FILL MATERIAL WILL BE SUCH TO ACHIEVE SPECIFIED COMPACTION DENSITY. ALL FILL BENEATH PAVED AREAS, FLOOR SLABS AND FUTURE BUILDINGS SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY PER ASTM D-1557. FIELD COMPACTION TEST SHALL BE RUN ON EACH LIFT, IN FILL SECTIONS, AND THE REQUIRED COMPACTION ON EACH LIFT SHALL BE IN ACCORDANCE WITH INDOT SECTION 211.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. IN THE AFFECTED CONSTRUCTION AREA. EXISTING UTILITY STRUCTURES ARE SHOWN HERE IN ACCORDANCE WITH AVAILABLE INFORMATION. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE UTILITY COMPANY IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
- ALL SPOT ELEVATIONS ARE TO FINISHED GRADE.
- ALL GRADES AT BOUNDARY SHALL MEET EXISTING.
- ANY PART OF SANITARY OR SEWER TRENCHES RUNNING UNDER OR WITHIN 6' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
- ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
- THE CONTRACTOR SHALL CONTROL ALL EARTHWORK QUANTITIES PRIOR TO THE START OF CONSTRUCTION. IF AN EXCESS OR SHORTAGE OF EARTH IS ENCOUNTERED, THE CONTRACTOR SHALL CONFIRM WITH THE OWNER AND ENGINEER THE REQUIREMENTS FOR STOCKPILING, REMOVAL OR IMPORTING OF EARTH.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS AFTER INSTALLATION. CONTRACTOR TO TEST FOR AND CORRECT ANY PONDING CONDITIONS.
- ALL 6" SSD SHALL BE DOUBLE WALL SMOOTH BORE PIPE. (SEE HAMILTON COUNTY M.F.P.G. OR M.F.F.E., WHICHEVER IS HIGHEST.)
- THE FINISHED FLOOR GRADE FOR EACH LOT MUST BE 6" ABOVE PAD, CENTER OF LOT, M.F.P.G. OR M.F.F.E., WHICHEVER IS HIGHEST.
- FINISHED FLOOR ELEVATION (FFE)

PRODUCT SLAB ON GRADE	FFE
BASEMENT	0.7" PAD ELEVATION
	1.6" PAD ELEVATION

*PAD ELEVATION PER LOT SHOWN ON DEVELOPMENT PLAN

UNLESS APPROVED OTHERWISE BY HSE, THE FINISHED FLOOR ELEVATION ON A PLOT PLAN FOR A LOT IN THIS DEVELOPMENT CANNOT EXCEED THE CORRESPONDING FFE ESTABLISHED HEREON BY MORE THAN FIVE TENTHS (0.50) FOOT.

BENCHMARK INFORMATION

SOURCE BENCHMARK
HSE 38
A BRONZE DISK STAMPED "HAMILTON COUNTY GEODETIC CONTROL" SET IN THE NORTH END OF THE EAST CONCRETE HANDRAIL ON THE BRIDGE OVER FALL CREEK ON SOUTHEASTERN PARKWAY SOUTH OF 113TH STREET.
N=1714311.26
E=271988.09
EL=809.14 (NAVD 88)

TBM 2
RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 70' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-117N-R5E.
N=1709400
E=273185
EL=864.80 (NAVD 88)

TBM - WOODS 1
MAG NAIL SET WITH WASHER IN THE CURB ON THE EAST SIDE OF VERMILLION DRIVE, APPROXIMATELY 12' +/- SOUTH OF THE STORM INLET AT THE SOUTHWEST CORNER OF LOT 282 IN THE WOODS AT VERMILLION - SECTION ONE
N=1709211.04
E=271032.09
EL=861.40 (NAVD 88)

TBM - RIDGE 1
MAG NAIL SET WITH WASHER IN THE WALK ON THE WEST SIDE OF PORTAGE WOODS DRIVE, APPROXIMATELY 12' +/- WEST OF THE CENTERLINE OF PORTAGE WOODS DRIVE AND HUNTING MEADOW DRIVE IN THE RIDGE AT FLAT FORK - SECTION ONE
N=1712098.06
E=270413.43
EL=855.66 (NAVD 88)

TBM - ENCLAVE 1
MAG NAIL SET IN THE WALK AT THE SOUTH SIDE OF DOMINION DRIVE AND KENSINGTON LANE, APPROXIMATELY 23' +/- SOUTH OF THE CENTERLINE OF DOMINION DRIVE AND 6' +/- WEST OF THE CENTERLINE OF KENSINGTON LANE IN THE ENCLAVE AT VERMILLION - SECTION ONE
N=1709862.08
E=271671.65
EL=862.36 (NAVD 88)

TBM - VILLAGE 1
MAG NAIL SET IN THE WALK AT THE NORTHEAST CORNER OF CLIFFSIDE DRIVE AND BUCK RIDGE LANE, APPROXIMATELY 24' +/- NORTH OF THE CENTERLINE OF BUCK RIDGE LANE AND 21' +/- EAST OF THE CENTERLINE OF CLIFFSIDE DRIVE IN THE VILLAGE AT FLAT FORK - SECTION ONE
N=1712107.84
E=271734.52
EL=857.24 (NAVD 88)

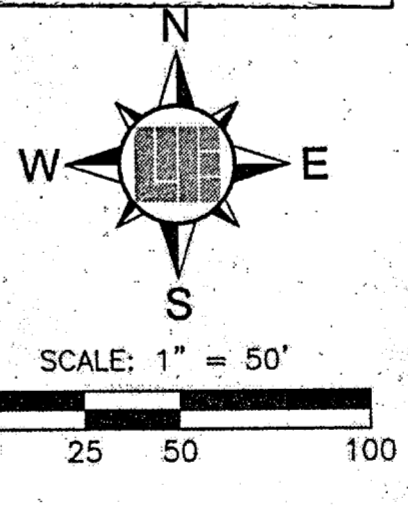
RECORD DRAWING
DEVELOPMENT PLAN AS-BUILTS
PADS AND SWALES ONLY
08/27/2018

Brady Kuhn
BRADY KUHN, L.S. 20500007



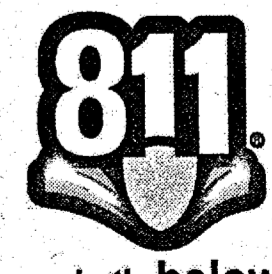
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- LEGEND**
- RIGHT-OF-WAY LINE
 - PROPOSED STORM SEWER LINE
 - EXISTING STORM SEWER LINE
 - SWALE
 - SSD
 - PROPOSED SANITARY SEWER LINE
 - EXISTING SANITARY SEWER LINE
 - SANITARY SEWER MANHOLE
 - SANITARY SEWER LATERAL
 - PROPOSED WATER LINE
 - FLOW DIRECTION
 - EXISTING CONTOURS
 - PROPOSED ELEVATION
 - STORM BEHIVE INLET
 - STORM INLET
 - TOP OF CASTING
 - INVERT
 - REINFORCED CONCRETE PIPE
 - MANHOLE
 - STRUCTURE
 - DRAINAGE EASEMENT
 - DRAINAGE AND UTILITY EASEMENT
 - D.U.S.S.E.
 - CONCRETE END SECTION
 - MATCH EXISTING

- TYP. = TYPICAL
- PROP. = PROPOSED
- EX. = EXISTING
- R. = RADII
- V.W. = VARIABLE WIDTH
- M.A.G. = MINIMUM LOWEST ADJACENT GRADE
- ROW = RIGHT-OF-WAY
- B-B = BACK OF CURB
- PAD ELEV. = PAD ELEVATION
- EMERGENCY FLOOD ROUTE
- B.S.L. = BUILDING SETBACK LINE
- HP = HIGH POINT
- ADA = ADA RAMP
- FIRE = FIRE HYDRANT
- PROPOSED ASPHALT PATH



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317 | 843 - 0546 fax

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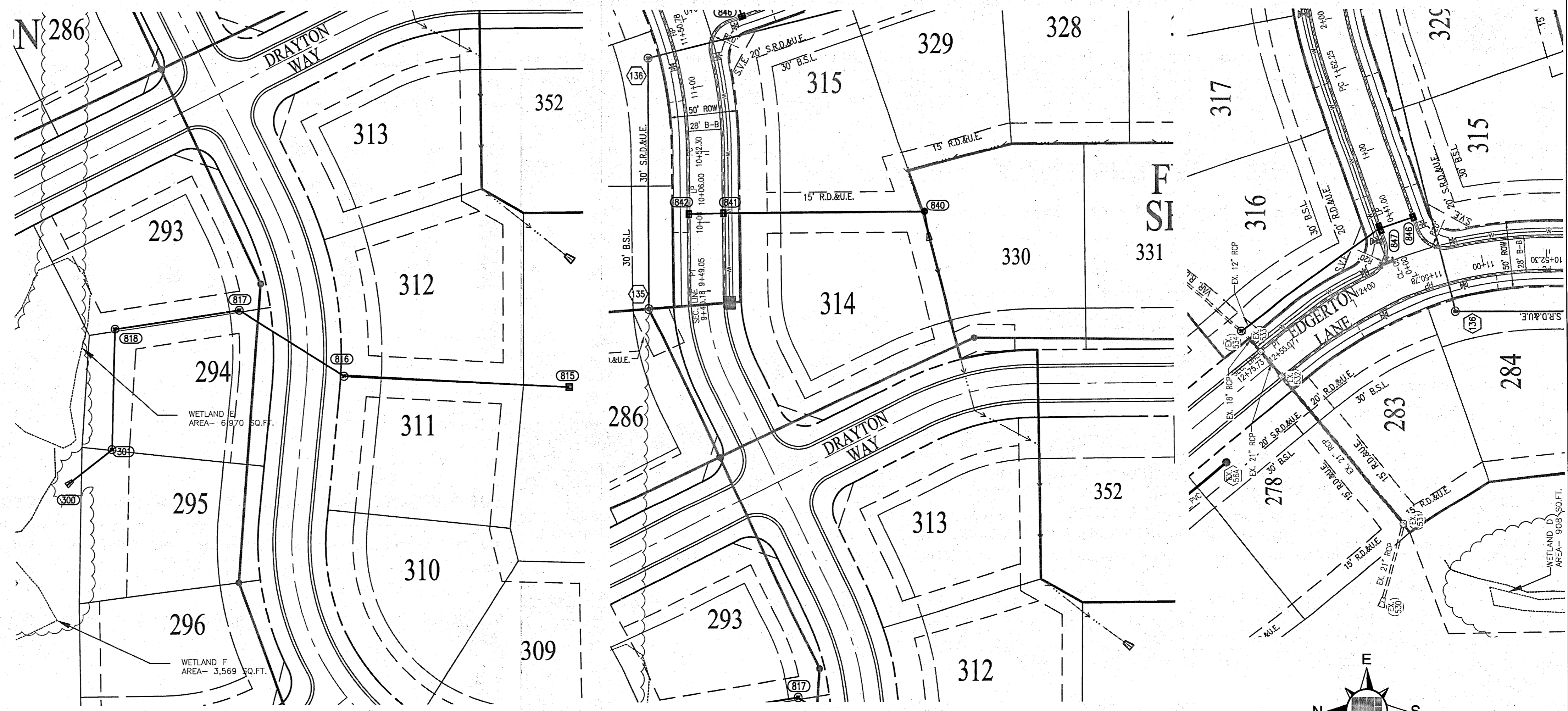
PROJECT NO. W150253
DATE: 08/27/2018
DRAWN BY: MEN
CHECKED BY: ALS
DATE: 08/27/2018

PREPARED FOR:
THE WOODS AT VERMILLION SECTION THREE
NORTH CONNECTICUT DEVELOPMENT CORP.

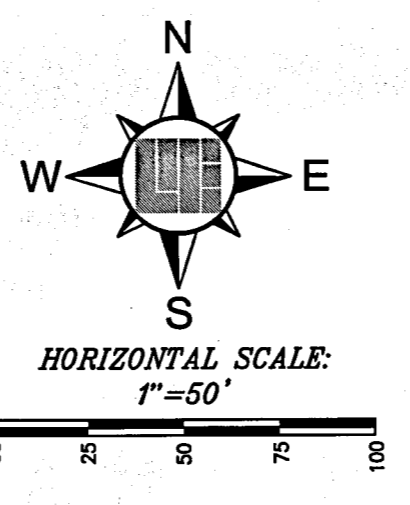
SHEET NO. **C30**
PROJECT NO. W150253

STORM SEWER NOTES

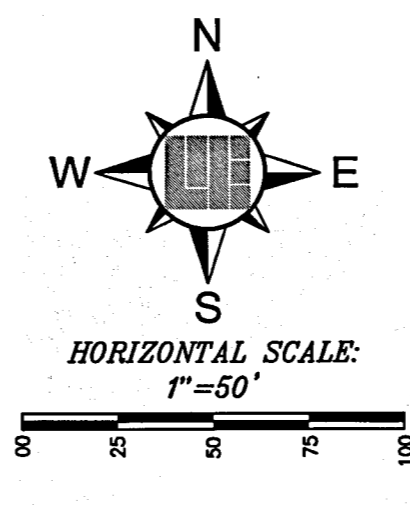
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE EPA OR APPLICABLE STATE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES AND STORMWATER POLLUTION PREVENTION PLAN.
- REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, LATEST EDITION, FOR BASIC MATERIALS AND CONSTRUCTION METHODS. THE SECTIONS BELOW FOR VARIOUS ITEMS ARE TO CLARIFY THE INTENT OF THE REQUIREMENTS FOR THIS PROJECT. PLEASE NOTE THAT OTHER SECTIONS OF THE INDOT STANDARD SPECIFICATIONS MAY ALSO BE APPLICABLE.
- THE CONTRACTOR SHALL CONTACT APPLICABLE STATE UNDERGROUND LOCATION SERVICE AT LEAST 72 HOURS PRIOR TO ANY WORK AND SHALL CONTACT THE OWNER AND/OR ENGINEER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- THE PLANS SHOW THE LOCATION OF ALL KNOWN UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION ACCORDING TO INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES, PREVIOUS CONSTRUCTION PLANS AND AS EVIDENCED BY OBSERVATION OF ABOVE GROUND CONDITIONS BY THE SURVEYOR. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. WITHIN THE CONSTRUCTION LIMITS. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION (IN COOPERATION WITH APPLICABLE UTILITY COMPANY) IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITIES AND VERIFY ANY AND ALL FEES ASSOCIATED WITH THE INSTALLATION OF ALL UTILITIES.
- ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
- ANY PART OF STORM SEWER TRENCHES RUNNING UNDER OR WITHIN 5' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATION, SIZE, AND ELEVATION OF EXISTING UTILITIES, STRUCTURES, PIPES, PAVEMENTS, ETC. AS RELATED TO THEIR WORK. NOTIFY ENGINEER OF ANY CONFLICT AND/OR DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS.
- CLEARANCE BETWEEN STORM / SANITARY SEWER SYSTEMS AND DASTIC/FIRE LINE SERVICE, SHALL MAINTAIN 10' HORIZONTAL AND 18" VERTICAL.
- CONTRACTOR TO INSTALL CONCRETE CRADLES AT PIPE CROSSING WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWERS, WATER MAINS AND STORM SEWERS IS 18" OR LESS.
- SANITARY SEWER LINE IN PROXIMITY OF WATER LINE SHALL BE C900 WATER MAIN GRADE PVC.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO ITS CONDITION PRIOR TO CONSTRUCTION.
- WHEN PERFORMING EXCAVATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE Dewatering, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.
- COMPACTED "B" BORROW BACK FILL REQUIRED OVER ALL UTILITIES IN PAVED AREAS.
- ALL UTILITY STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING AND COVERS.
- COORDINATE LOCATIONS AND CONNECTIONS OF BUILDING STORM LINES WITH PLUMBING DRAWINGS.
- FOLLOW ALL LOCAL AND STATE CODES IN REFERENCE TO STORM SEWER INSTALLATION.
- ALL EXISTING MANHOLE AND CATCH BASIN GRATES SHALL BE ADJUSTED TO NEW FINISH GRADE ELEVATIONS.
- EXISTING PIPES WITHIN CONSTRUCTION LIMITS ARE TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
- ALL STORM PIPE CONNECTIONS AT STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- ALL STORM SEWER STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING AND COVERS RATED FOR H2O LOADING.
- ALL STORM SEWER STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR CHANNEL FROM INVERT IN TO INVERT OUT.
- NEW PIPES AND STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS PRIOR TO FINAL TURNOVER TO THE OWNER.
- IF HDPE PIPE IS SPECIFIED USE DUAL WALLED, HANCOCK HQ, ADS N-12 PIPE OR APPROVED EQUAL.
- ALL FITTINGS AND ACCESSORIES INCLUDING BUT NOT LIMITED TO END CAPS, CLEANOUTS, REDUCERS, ETC., SHALL BE HDPE MATERIAL; IF SPECIFIED, COMPARABLE WITH STORAGE PIPES.
- PROVIDE BACKFILL WITH A MINIMUM OF 4" BEDDING MATERIAL OF #8 AGGREGATE COMPACTED IN 8" LIFTS TO 95% MAXIMUM DRY DENSITY.
- VERIFY EXISTING STORM INVERT ELEVATIONS PRIOR TO STARTING NEW STORM SEWER CONNECTION.



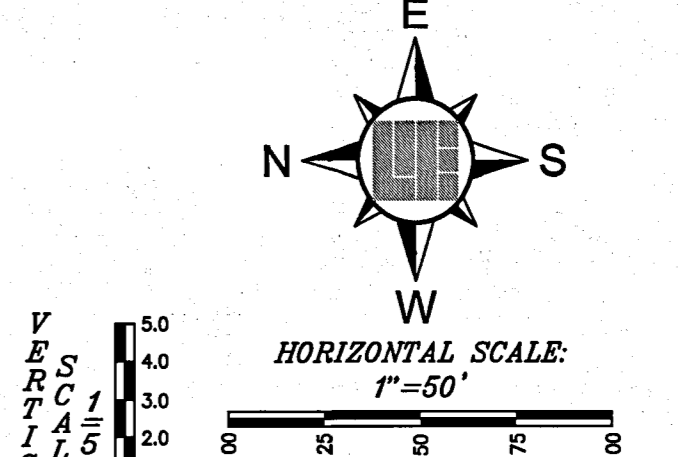
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NOTE:
 EXCEPT FOR FORCE MAINS, CONTRACTOR TO INSTALL CONCRETE CRADLES WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWER FACILITIES AND STORM SEWERS IS 18" OR LESS.



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 Entered By: SJM

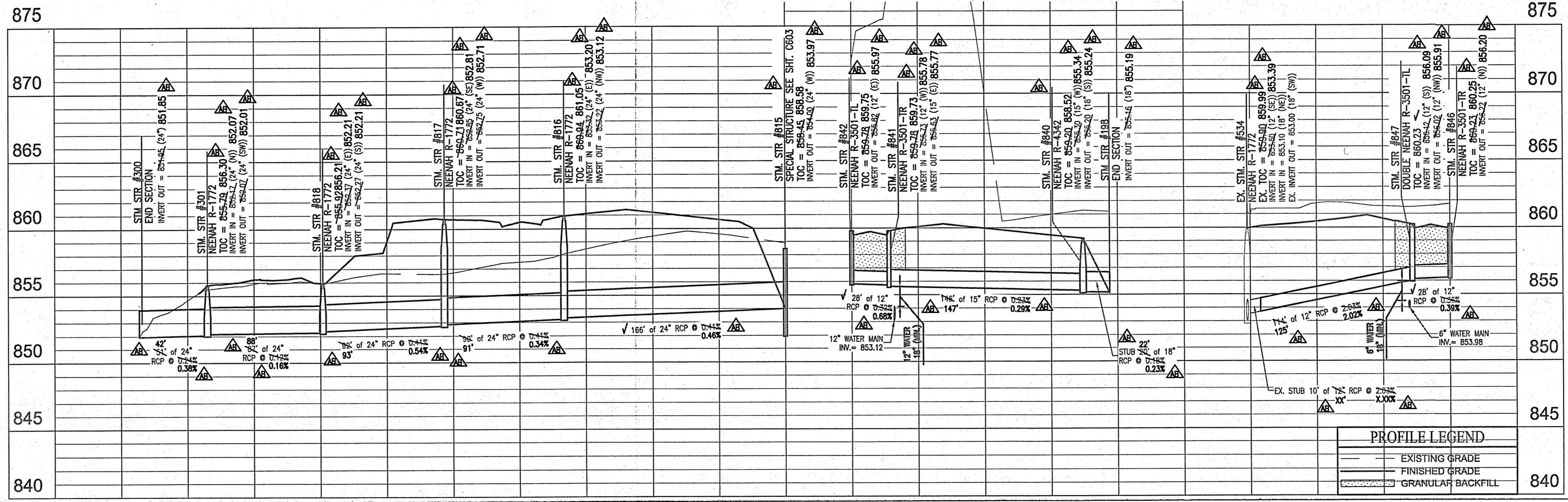


RECORD DRAWING
 STORM SEWER AS-BUILTS
 STORM SEWER STRUCTURES ONLY
 07/12/2018

BRADY KUHN
 REGISTERED
 No. 20500007
 STATE OF INDIANA
 LAND SURVEYOR

BENCHMARK INFORMATION

- SOURCE BENCHMARK
 HSE 38
 A BRONZE DISK STAMPED "HAMILTON COUNTY GEODETIC CONTROL" SET IN THE NORTH END OF THE EAST CONCRETE HANDRAIL ON THE BRIDGE OVER FALL CREEK ON SOUTHEASTERN PARKWAY SOUTH OF 113TH STREET.
 N=1714311.26
 E=271888.09
 EL=809.14 (NAVD 88)
- TBM 2
 RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 784' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-T17N-R6E.
 N=1709400
 E=273165
 EL=864.60 (NAVD 88)
- TBM - WOODS 1
 MAG NAIL SET WITH WASHER IN THE CURB ON THE EAST SIDE OF VERMILLION DRIVE, APPROXIMATELY 12' +/- SOUTH OF THE STORM INLET AT THE SOUTH-WEST CORNER OF LOT 252 IN THE WOODS AT VERMILLION - SECTION ONE
 N=1709211.04
 E=271032.69
 EL=861.40 (NAVD 88)
- TBM - RIDGE 1
 MAG NAIL SET WITH WASHER IN THE WALK ON THE WEST SIDE OF PORTAGE WOODS DRIVE, APPROXIMATELY 6' +/- NORTH AND 19' +/- WEST OF THE CENTERLINE INTERSECTION OF PORTAGE WOODS DRIVE AND HUNTING MEADOW DRIVE IN THE RIDGE AT FLAT FORK - SECTION ONE
 N=1712098.06
 E=270413.43
 EL=855.66 (NAVD 88)
- TBM - ENCLAVE 1
 MAG NAIL SET IN THE WALK AT THE SOUTH SIDE OF DOMINION DRIVE AND KENSINGTON LANE, APPROXIMATELY 23' +/- SOUTH OF THE CENTERLINE OF DOMINION DRIVE AND 6' +/- WEST OF THE CENTERLINE OF KENSINGTON LANE IN THE ENCLAVE AT VERMILLION - SECTION ONE
 N=1708982.08
 E=271671.65
 EL=862.36 (NAVD 88)
- TBM - VILLAGE 1
 MAG NAIL SET IN THE WALK AT THE NORTHEAST CORNER OF CLIFFSIDE DRIVE AND BUCK RIDGE LANE, APPROXIMATELY 24' +/- NORTH OF THE CENTERLINE OF BUCK RIDGE LANE AND 21' +/- EAST OF THE CENTERLINE OF CLIFFSIDE DRIVE IN THE VILLAGE AT FLAT FORK - SECTION ONE
 N=1712107.64
 E=271734.52
 EL=857.24 (NAVD 88)



PROFILE LEGEND

	EXISTING GRADE
	FINISHED GRADE
	GRANULAR BACKFILL

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 ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
 Land Surveying | Civil Engineering
 Landscape Architecture

PROJECT NO.: W150253-3
 DWG NAME: AS BUILT Storm P&I.dwg
 DESIGNED BY: JEM
 DRAWN BY: JEM
 CHECKED BY: AES
 DATE: 07-12-2018

REVISIONS AND ISSUES
 DATE BY

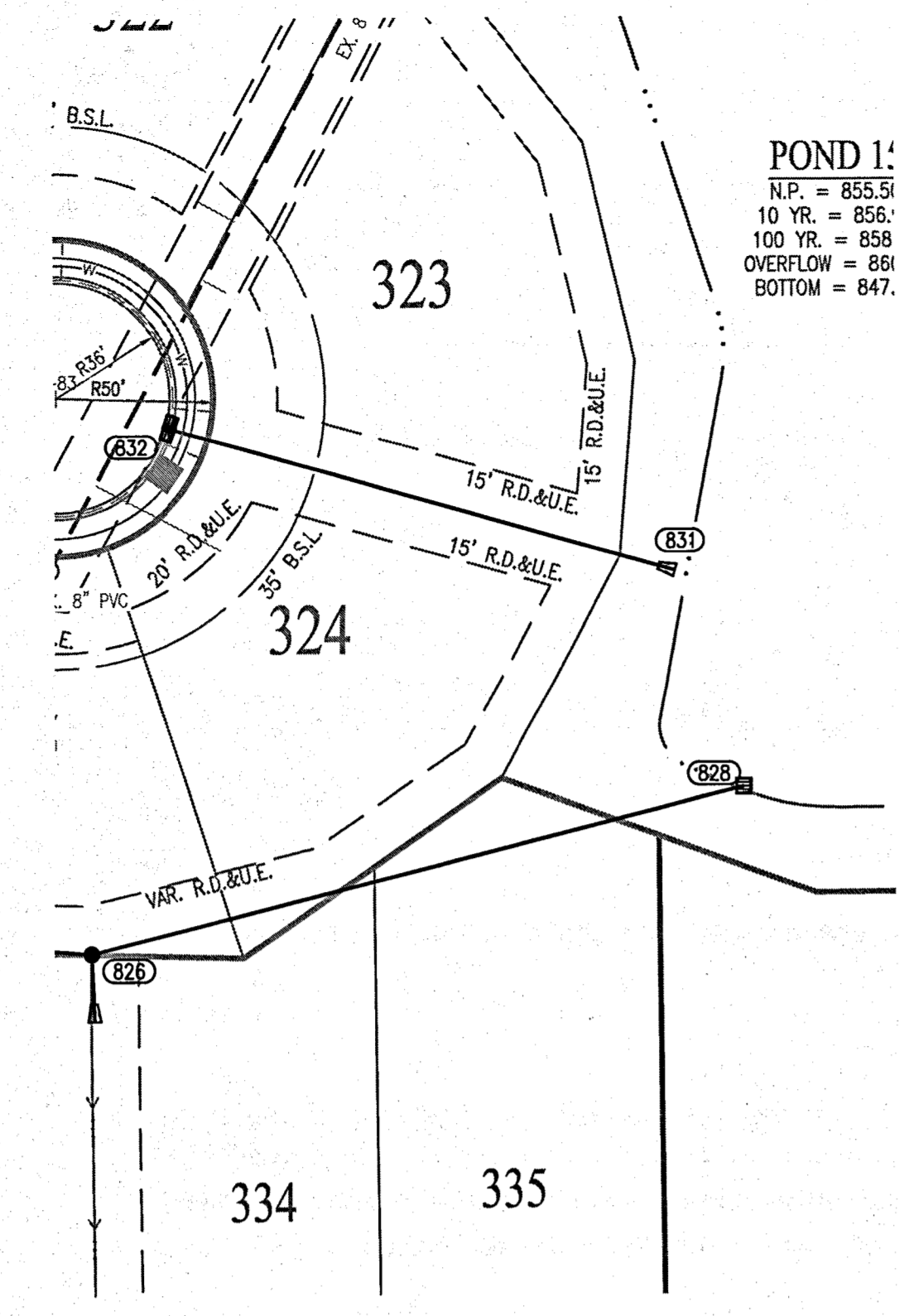
ALVIN E. SKOOG
 REGISTERED
 No. PE6088057
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

ALVIN E. SKOOG JR., P.E.

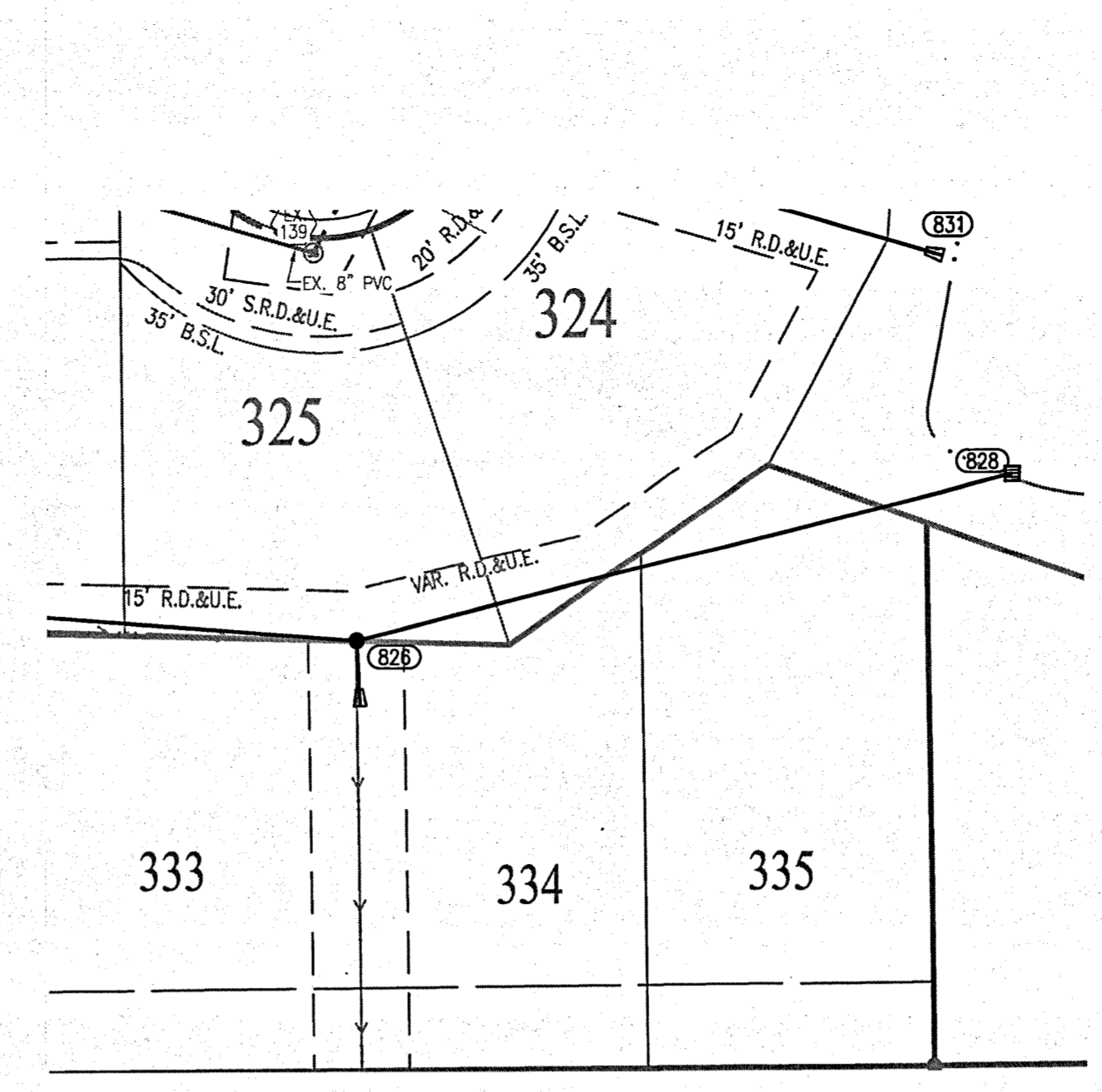
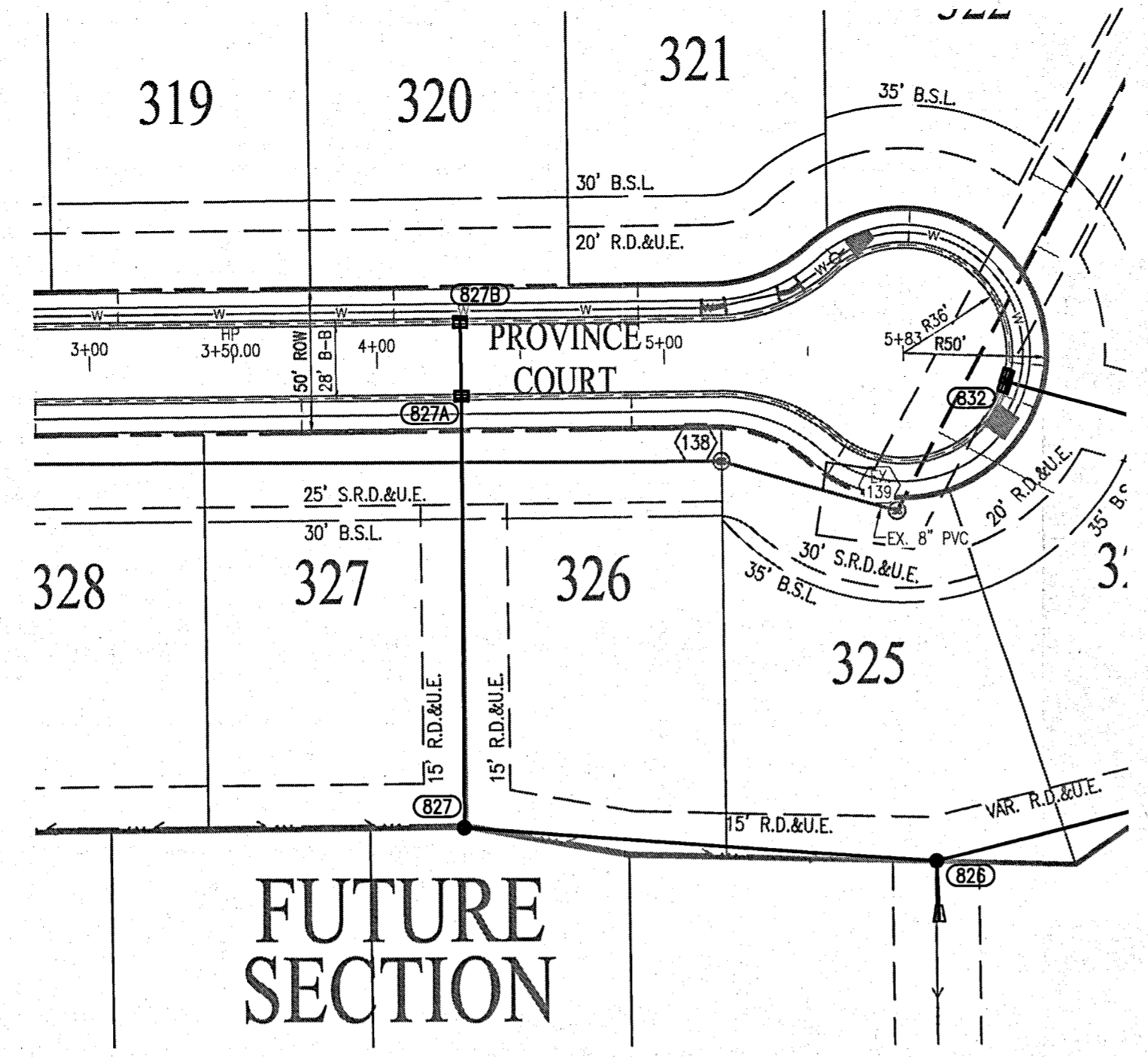
PREPARED FOR:
THE WOODS AT VERMILLION
SECTION THREE
 NORTH CONNECTICUT DEVELOPMENT CORP.
 SHEET NO. **C60**
 PROJECT NO. **W150253**

STORM SEWER NOTES

1. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE SPA OR APPLICABLE STATE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES AND STORMWATER POLLUTION PREVENTION PLAN.
2. REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, LATEST EDITION, FOR BASIC MATERIALS AND CONSTRUCTION METHODS. THE SECTIONS BELOW FOR VARIOUS ITEMS ARE TO CLARIFY THE INTENT OF THE REQUIREMENTS FOR THIS PROJECT. PLEASE NOTE THAT OTHER SECTIONS OF THE INDOT STANDARD SPECIFICATIONS MAY ALSO BE APPLICABLE.
3. THE CONTRACTOR SHALL CONTACT APPLICABLE STATE UNDERGROUND LOCATION SERVICE AT LEAST 72 HOURS PRIOR TO ANY WORK AND SHALL CONTACT THE OWNER AND THE ENGINEER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. THE PLANS SHOW THE LOCATION OF ALL KNOWN UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION ACCORDING TO INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES, PREVIOUS CONSTRUCTION PLANS AND AS EVIDENCED BY OBSERVATION OF ABOVE GROUND CONDITIONS BY THE SURVEYOR. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED.
5. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. WITHIN THE CONSTRUCTION LIMITS. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION (IN COOPERATION WITH APPLICABLE UTILITY COMPANY) IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITIES AND VERIFY ANY AND ALL FEES ASSOCIATED WITH THE INSTALLATION OF ALL UTILITIES.
7. ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
8. ANY PART OF STORM SEWER TRENCHES RUNNING UNDER OR WITHIN 5' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION, SIZE, AND ELEVATION OF EXISTING UTILITIES, STRUCTURES, PIPES, PAVEMENTS, ETC. AS RELATED TO THEIR WORK. NOTIFY ENGINEER OF ANY CONFLICT AND/OR DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS.
10. CLEARANCE BETWEEN STORM / SANITARY SEWER SYSTEMS AND DOMESTIC/FIRE LINE SERVICE, SHALL MAINTAIN 18" HORIZONTAL AND 18" VERTICAL.
11. CONTRACTOR TO INSTALL CONCRETE CRADLES AT PIPE CROSSING WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWERS, WATER MAINS AND STORM SEWERS IS 18" OR LESS.
12. SANITARY SEWER LINE IN PROXIMITY OF WATER LINE SHALL BE C900 WATER MAIN GRADE PVC.
13. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO ITS CONDITION PRIOR TO CONSTRUCTION.
14. WHEN PERFORMING EXCAVATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DRAINAGE, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.
15. COMPACTED "B" BORROW BACK FILL REQUIRED OVER ALL UTILITIES IN PAVED AREAS.
16. ALL UTILITY STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING AND COVERS.
17. COORDINATE LOCATIONS AND CONNECTIONS OF BUILDING STORM LINES WITH PLUMBING DRAWINGS.
18. FOLLOW ALL LOCAL AND STATE CODES IN REFERENCE TO STORM SEWER INSTALLATION.
19. ALL EXISTING MANHOLE AND CATCH BASIN GRATES SHALL BE ADJUSTED TO NEW FINISH GRADE ELEVATIONS.
20. EXISTING PIPES WITHIN CONSTRUCTION LIMITS ARE TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
21. ALL STORM PIPE CONNECTIONS AT STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
22. ALL STORM SEWER STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING AND COVERS RATED FOR H20 LOADING.
23. ALL STORM SEWER STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR CHANNEL FROM INVERT IN TO INVERT OUT.
24. NEW PIPES AND STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS PRIOR TO FINAL TURNOVER TO THE OWNER.
25. IF HDPE PIPE IS SPECIFIED USE DUAL WALLED, HANCOR HQ, ADS N-12 PIPE OR APPROVED EQUAL.
26. ALL FITTINGS AND ACCESSORIES INCLUDING BUT NOT LIMITED TO END CAPS, CLEANOUTS, REDUCERS, ETC., SHALL BE HDPE MATERIAL; IF SPECIFIED, COMPARABLE WITH STORAGE PIPES.
27. PROVIDE BACKFILL WITH A MINIMUM OF 4" BEDDING MATERIAL OF #8 AGGREGATE COMPACTED IN 8" LIFTS TO 95% MAXIMUM DRY DENSITY.
28. VERIFY EXISTING STORM INVERT ELEVATIONS PRIOR TO STARTING NEW STORM SEWER CONNECTION.



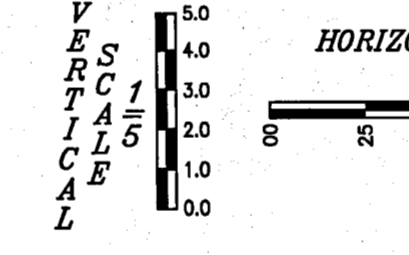
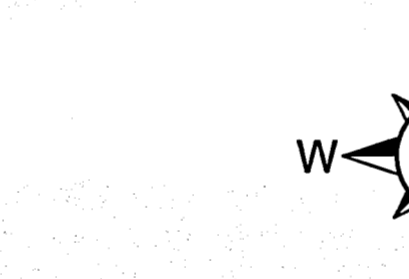
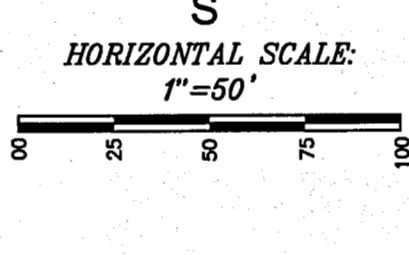
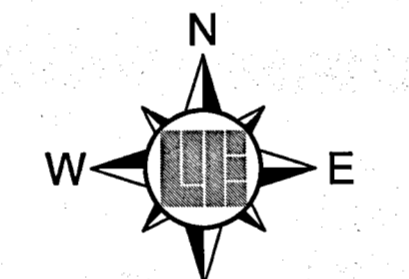
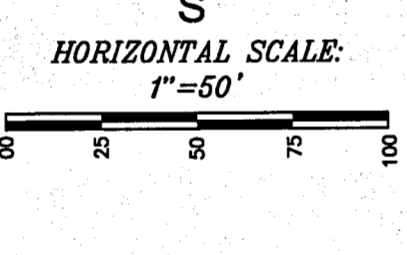
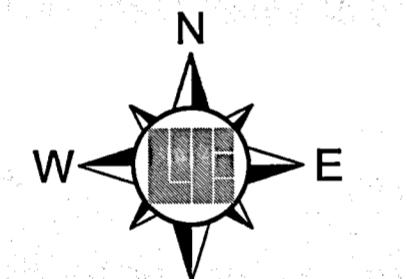
POND 1
 H.P. = 855.51
 10 YR. = 856.
 100 YR. = 861
 OVERFLOW = 861
 BOTTOM = 847.



FUTURE SECTION

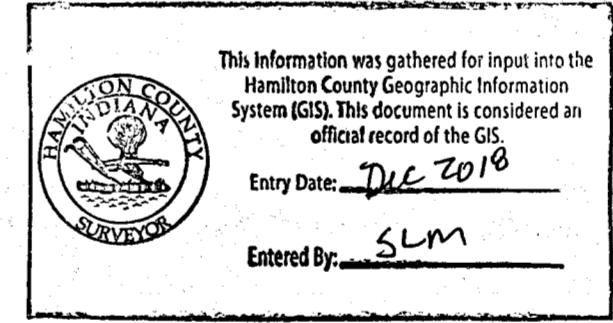
DOWNSTREAM STRUCTURE	UPSTREAM STRUCTURE	SIZE	MATERIAL	LENGTH	SLOPE
301	300	24"	RCP	51'	0.24%
815	816	24"	RCP	166'	0.41%
816	817	24"	RCP	90'	0.41%
817	818	24"	RCP	92'	0.41%
818	301	24"	RCP	87'	0.12%
826	285	21"	RCP	20'	0.20%
827	826	12"	RCP	163'	0.57%
827A	827	12"	RCP	147'	0.36%
827B	827A	12"	RCP	28'	0.36%
828	826	15"	RCP	213'	0.15%
832	831	12"	RCP	169'	0.53%
840	198	18"	RCP	20'	0.18%
841	840	15"	RCP	146'	0.23%
842	841	12"	RCP	28'	0.32%
846	847	12"	RCP	28'	0.36%
847	122	12"	RCP	114'	2.03%

NOTE:
 EXCEPT FOR FORCE MAINS, CONTRACTOR TO INSTALL CONCRETE CRADLES WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWER FACILITIES AND STORM SEWERS IS 18" OR LESS.



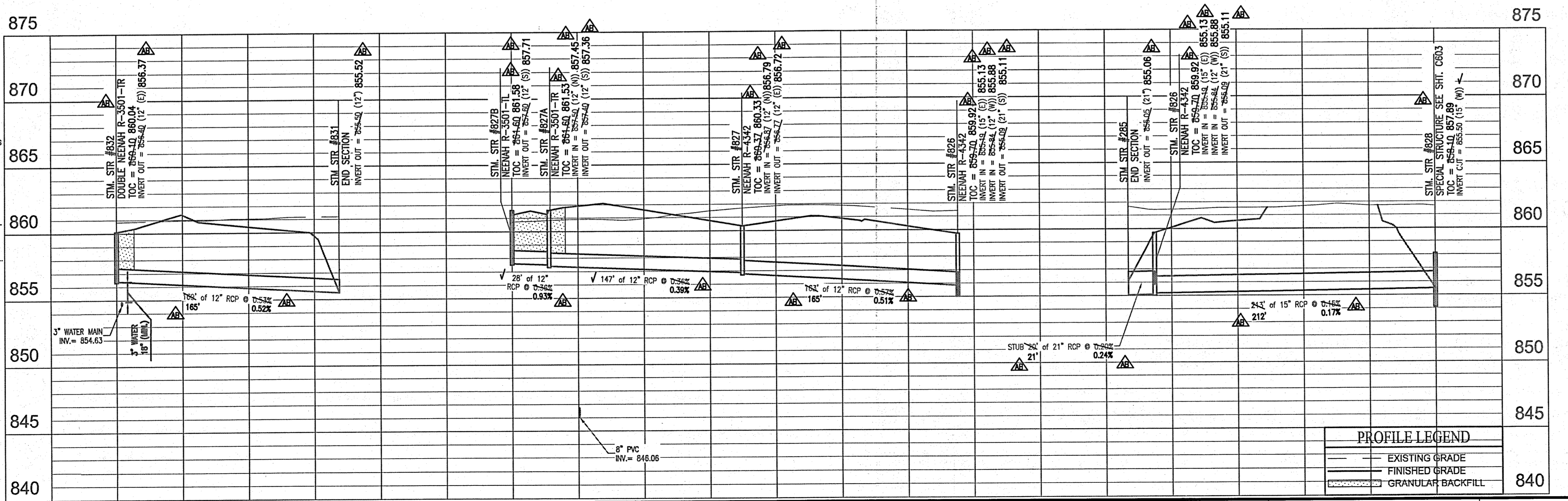
RECORD DRAWING
 STORM SEWER AS-BUILTS
 STORM SEWER STRUCTURES ONLY
 07/12/2018

BRADY KUHN, L.S. 20500007

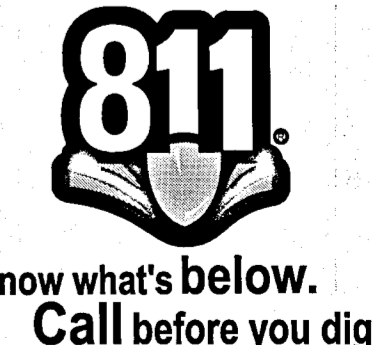


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 E=271886.09
 EL=809.14 (NAVD 88)
- TBM 2
 RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 784' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-T17N-R6E.
 N=1708400
 E=273165
 EL=864.60 (NAVD 88)
- TBM - WOODS 1
 MAG NAIL SET WITH WASHER IN THE CURB ON THE EAST SIDE OF VERMILLION DRIVE, APPROXIMATELY 12' +/- SOUTH OF THE STORM INLET AT THE SOUTHWEST CORNER OF LOT 282 IN THE WOODS AT VERMILLION - SECTION ONE
 N=1709211.04
 E=271032.69
 EL=861.40 (NAVD 88)
- TBM - RIDGE 1
 MAG NAIL SET WITH WASHER IN THE WALK ON THE WEST SIDE OF PORTAGE WOODS DRIVE, APPROXIMATELY 5' +/- NORTH AND 19' +/- WEST OF THE CENTERLINE INTERSECTION OF PORTAGE WOODS DRIVE AND HUNTING MEADOW DRIVE IN THE RIDGE AT FLAT FORK - SECTION ONE
 N=1712098.06
 E=270413.43
 EL=865.68 (NAVD 88)
- TBM - ENCLAVE 1
 MAG NAIL SET IN THE WALK AT THE SOUTH SIDE OF DOMINION DRIVE AND KENSINGTON LANE, APPROXIMATELY 23' +/- SOUTH OF THE CENTERLINE OF DOMINION DRIVE AND 6' +/- WEST OF THE CENTERLINE OF KENSINGTON LANE IN THE ENCLAVE AT VERMILLION - SECTION ONE
 N=170882.08
 E=271671.65
 EL=862.36 (NAVD 88)
- TBM - VILLAGE 1
 MAG NAIL SET IN THE WALK AT THE NORTHEAST CORNER OF CLIFFSIDE DRIVE AND BUCK RIDGE LANE, APPROXIMATELY 24' +/- NORTH OF THE CENTERLINE OF BUCK RIDGE LANE AND 21' +/- EAST OF THE CENTERLINE OF CLIFFSIDE DRIVE IN THE VILLAGE AT FLAT FORK - SECTION ONE
 N=171207.64
 E=271734.52
 EL=857.24 (NAVD 88)



---	EXISTING GRADE
---	FINISHED GRADE
---	GRANULAR BACKFILL



Within Indiana Call
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WEICHE ENGINEERS
 Land Surveying | Civil Engineering
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PROFESSIONAL ENGINEER
 LICENSE NO. 20500007
 STATE OF INDIANA
 BRADY KUHN, L.S.

PROJECT NO. W150253
 SHEET NO. C60

THE WOODS AT VERMILLION SECTION THREE
 NORTH CONNECTICUT DEVELOPMENT CORP.

PREPARED FOR: W150253
 DATE: 07-12-2018
 DRAWN BY: MEN
 CHECKED BY: AES

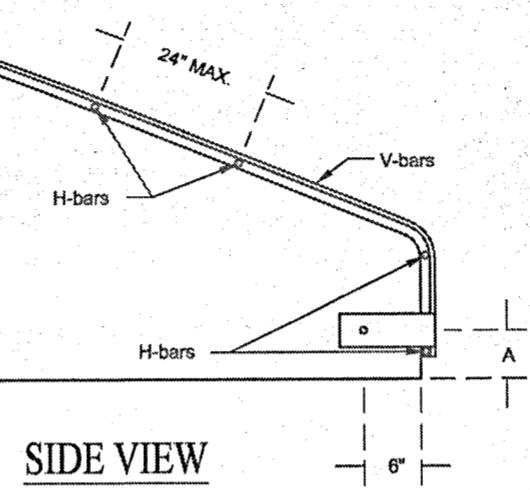
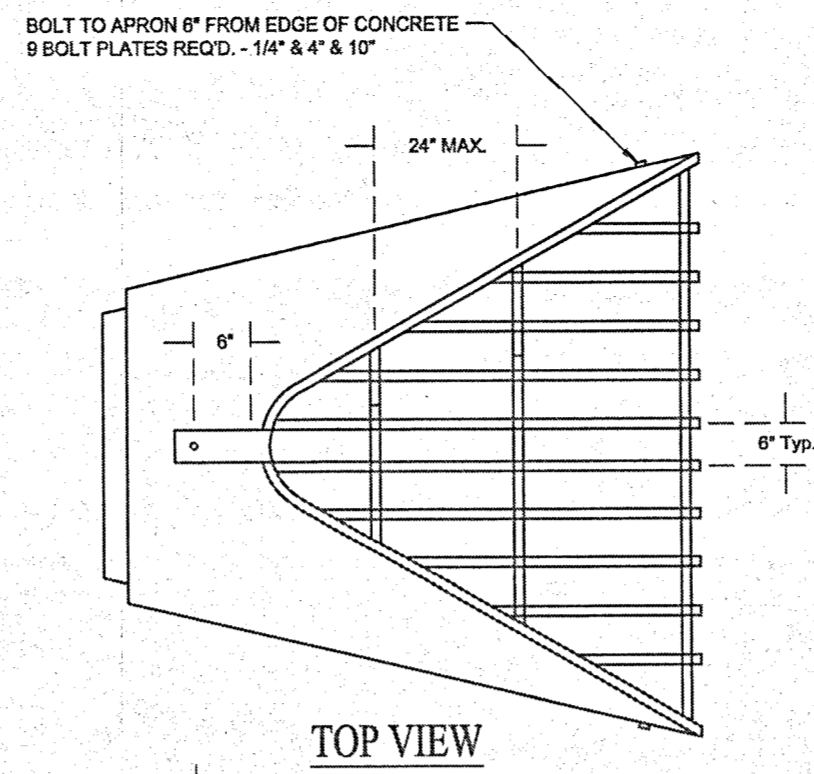
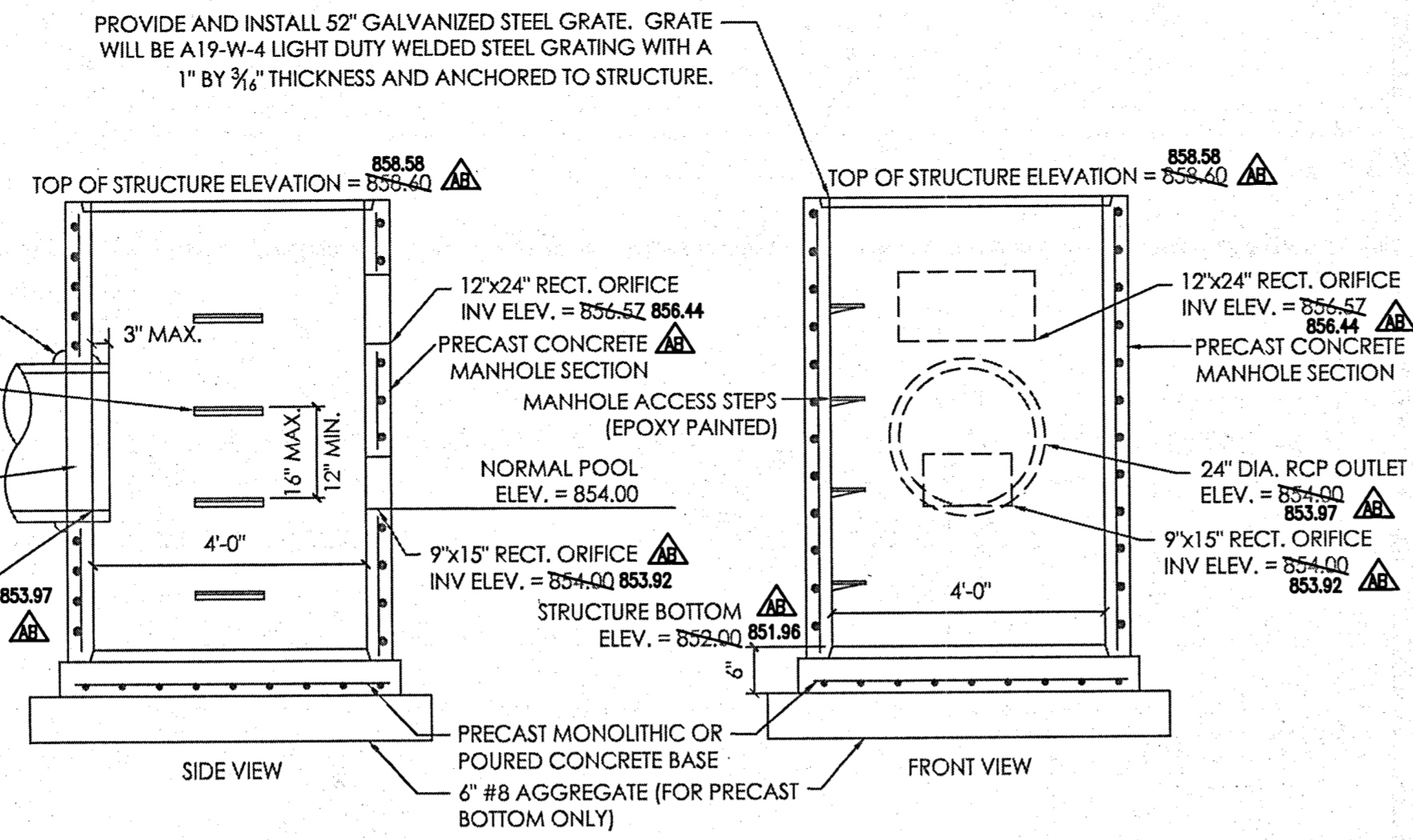
RECORD DRAWING
STORM SEWER AS-BUILTS
STORM SEWER STRUCTURES ONLY
07/12/2018

BRADY KUHN, L.S. 20500007



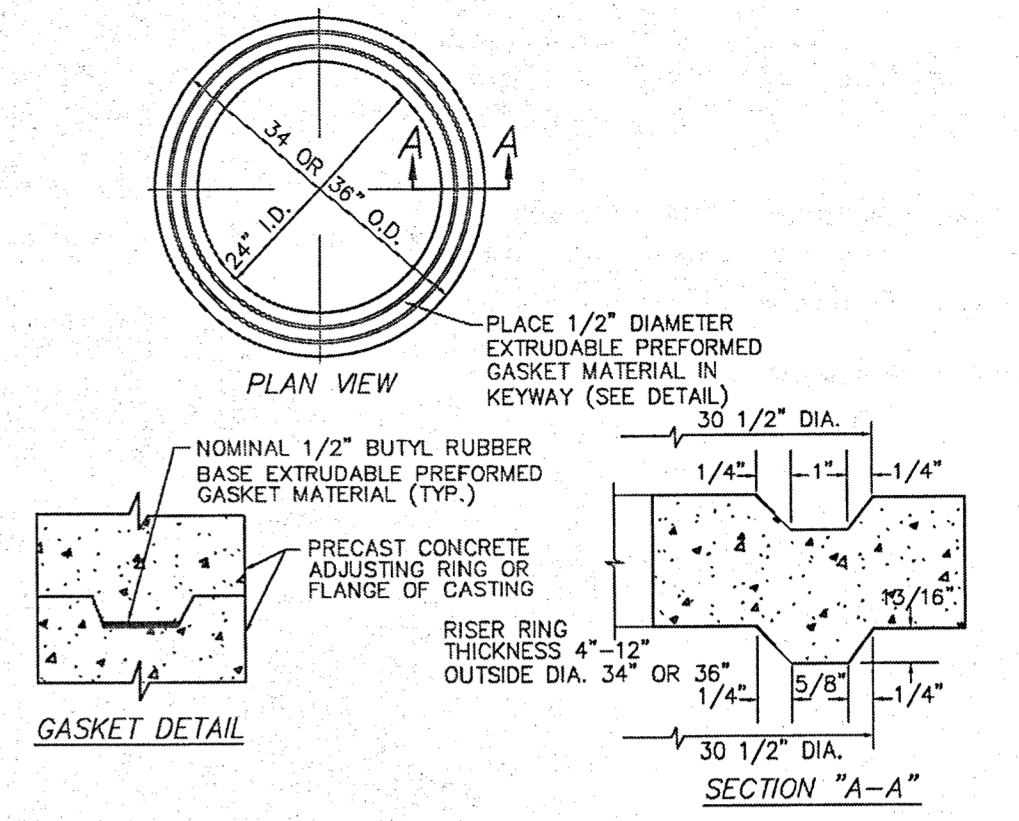
AS-BUILT INFORMATION
BUILT AS PLANNED

DATE OF LAST FIELDWORK: 07/07/2018

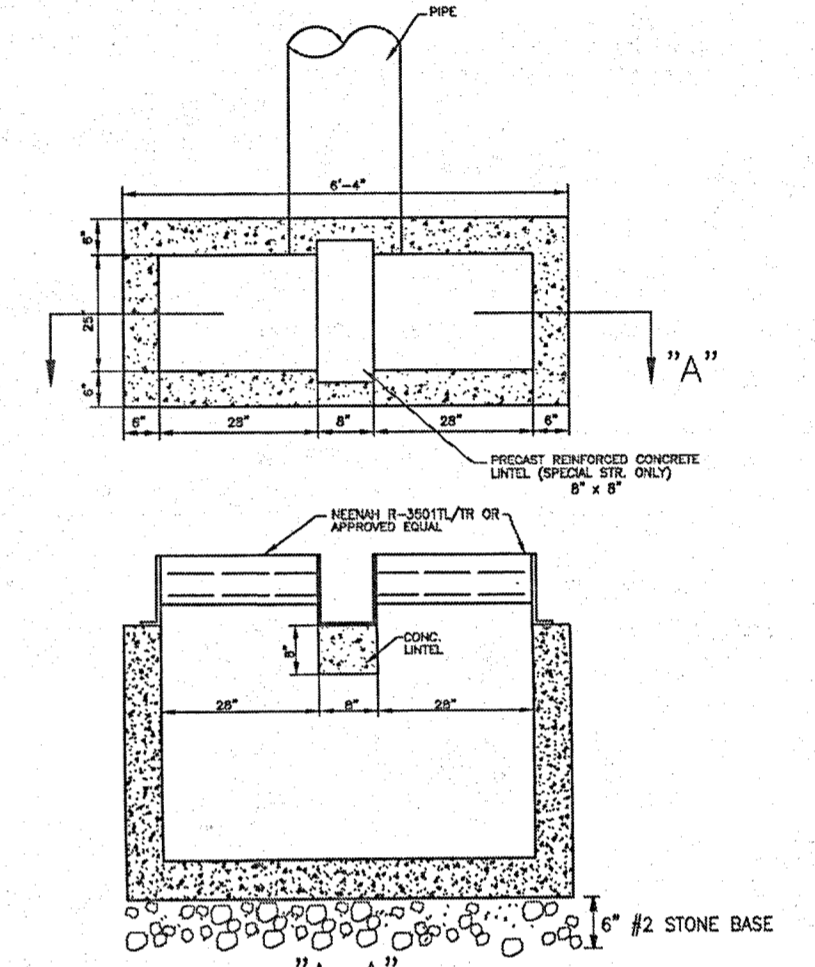


Apron Size	V-bar Size Inches	H-bar Size	No. of H-bars Req'd.	Bolt Dia. Inches	"A" Dim. Inches
18	1 1/2	5/8	3	1/2	5
24	5/8	3/4	4	1/2	7
30	5/8	3/4	4	1/2	7 1/2
36	3/4	1 0	4	1/2	10 1/2
42	3/4	1 0	4	3/4	11
48	3/4	1 1/2	4	3/4	12
54	3/4	1 1/2	4	3/4	12
60	3/4	1 1/2	5	3/4	14
72	3/4	1 1/2	5	3/4	14
84	3/4	1 1/2	6	3/4	15

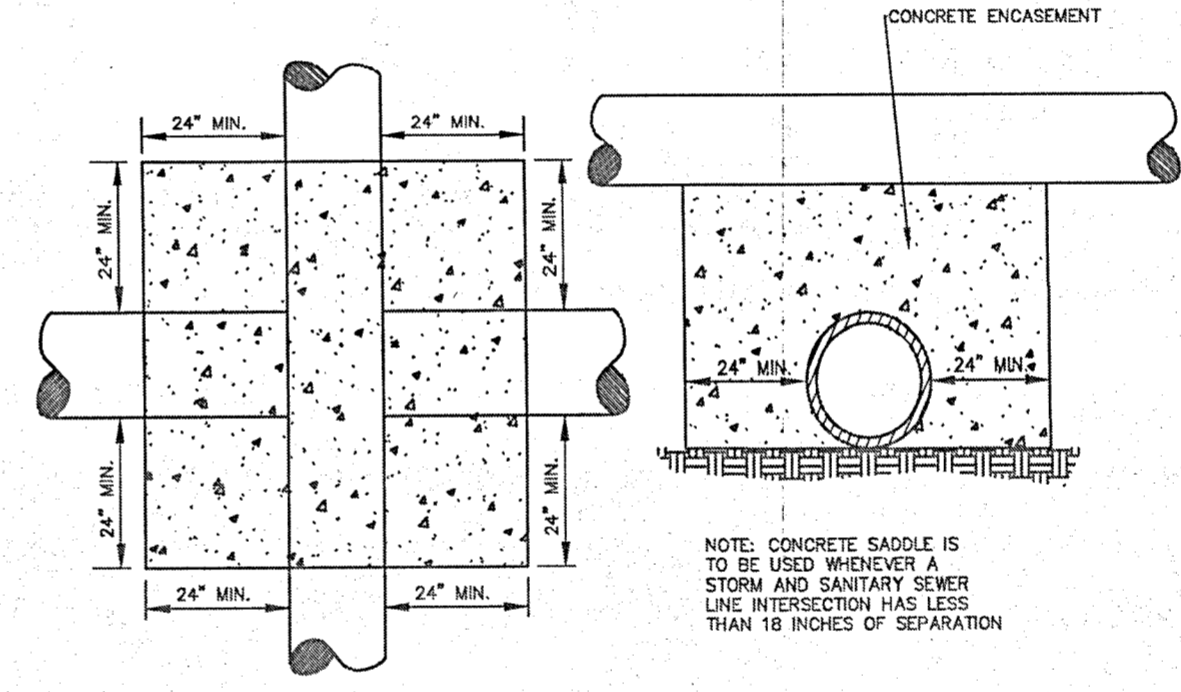
- NOTES:
1. BARS & PLATES ARE HOT-ROLLED STEEL.
2. BARS, PLATES, & PIPE ARE FINISHED WITH 2 COATS OF ALUMINUM PAINT.
3. BOLTS ARE GALVANIZED.
4. NO REBAR THROUGH PIPES WILL BE ALLOWED.
5. DEBRIS GUARD SHALL BE REMOVABLE.



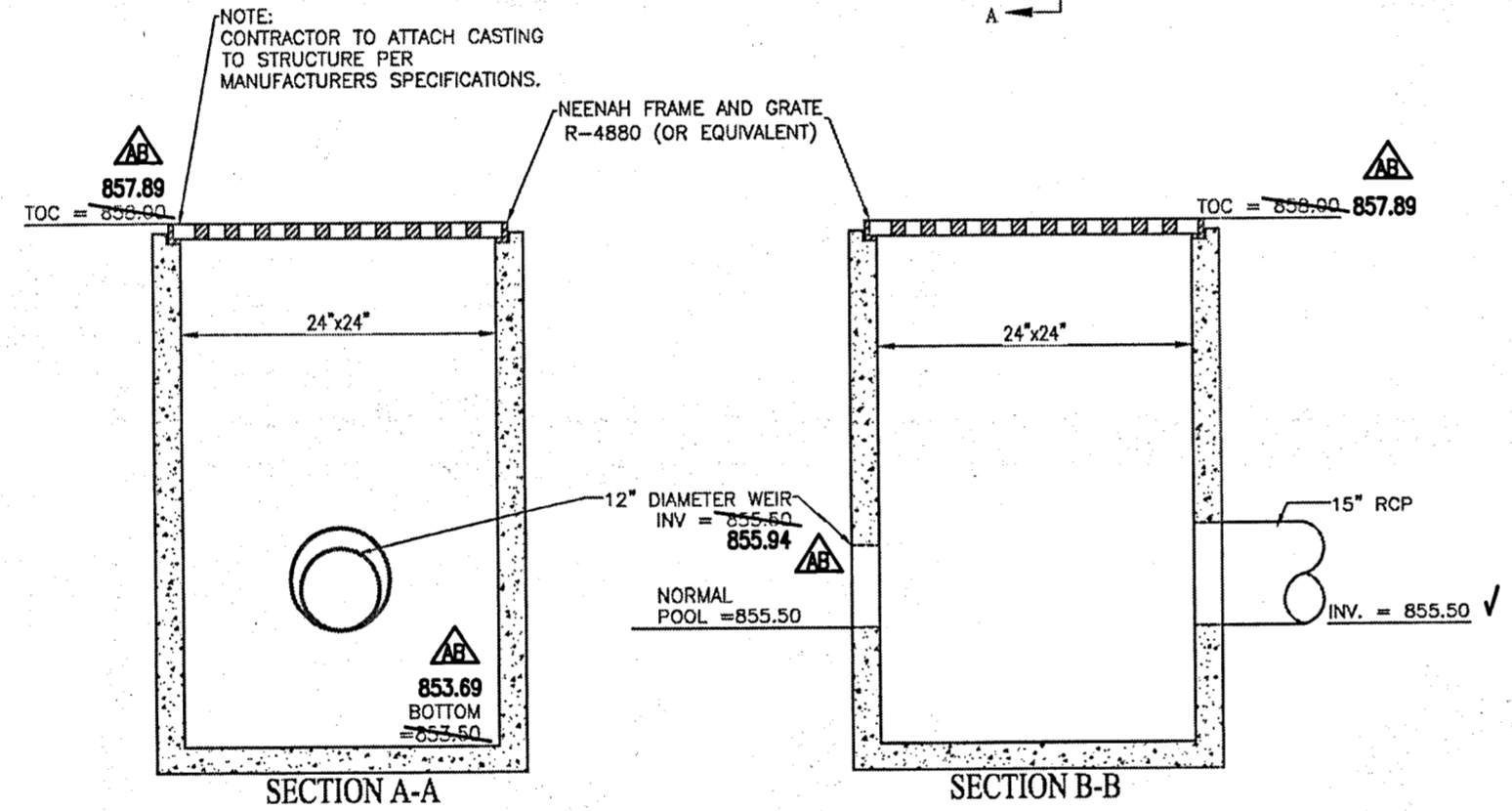
ADJUSTING RING DETAIL (NO SCALE)



DOUBLE CURB INLET STRUCTURE DETAIL (NO SCALE)



CONCRETE SADDLE BETWEEN STORM AND SEWER PIPES (NO SCALE)

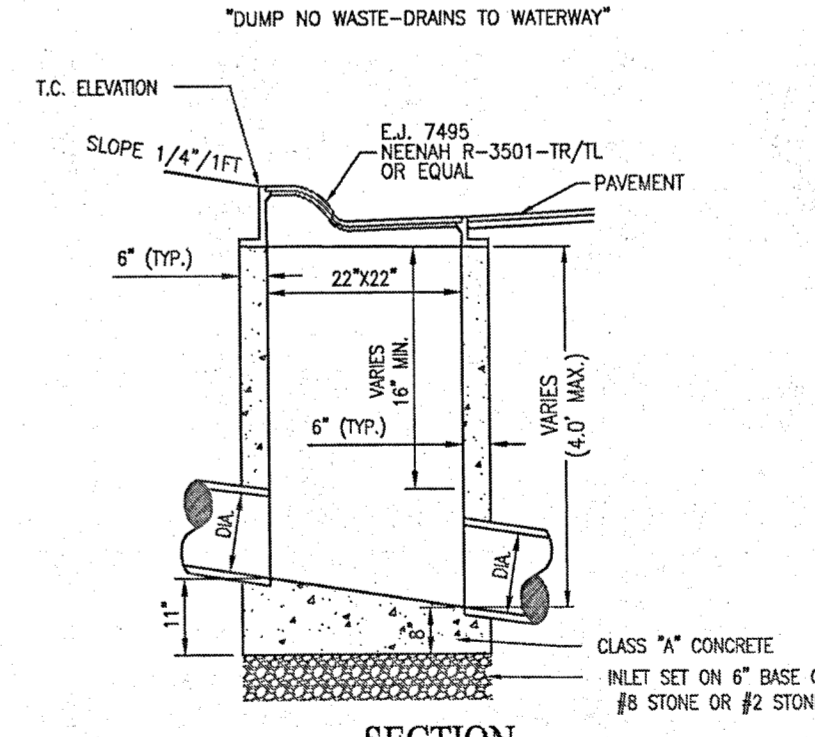


POND OUTLET STRUCTURE #828 NOT TO SCALE

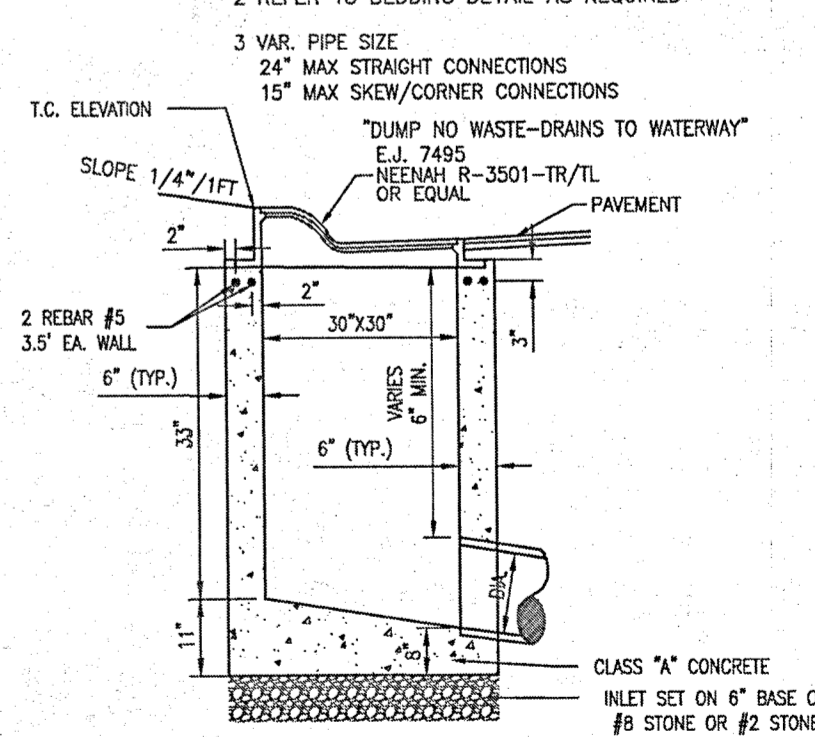
- 1. SCOPE OF WORK**
THE WORK UNDER THIS SECTION INCLUDES ALL STORM SEWERS, STORM WATER INLETS, AND RELATED ITEMS, INCLUDING EXCAVATING AND BACKFILLING, NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS.
- 2. MATERIALS**
- A. STORM SEWERS:**
1. REINFORCED CONCRETE SEWER PIPE SHALL CONFORM TO ASTM C-76 TYPE III, WITH A WALL THICKNESS "B", LATEST REVISION WITH JOINTS CONFORMING TO ASTM C-443 LATEST REVISION.
- B. MANHOLES:**
1. PRECAST REINFORCED CONCRETE MANHOLE SECTIONS AND STEPS SHALL CONFORM TO ASTM C-478 LATEST REVISION.
2. CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOW HOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL-CLEANED BY SHOTBLASTING OR BY SOME OTHER APPROVED METHOD. THEY SHALL BE COATED WITH ASPHALT PAINT WHICH SHALL RESULT IN A SMOOTH COATING. TOUGH AND TENACIOUS WHEN COLD, NOT TACKY OR BRITTLE. THEY SHALL BE GRAY IRON MEETING ASTM A-48 LATEST REVISION.
3. JOINTS - MANHOLE SECTIONS SHALL BE JOINTED WITH RUBBER TYPE GASKETS. THE RUBBER TYPE GASKETS SHALL MEET ASTM C-443 LATEST REVISION.
- C. SUBDRAINS:**
1. PERFORATED PLASTIC PIPE SUBDRAINS SHALL CONFORM TO ASTM D 3034 SDR 35, ASTM D 2729, OR ASTM F 405.
- 3. APPLICATION**
- A. PERMITS AND CODES:** THE INTENT OF THIS SECTION OF THE SPECIFICATIONS IS THAT THE CONTRACTOR'S BID ON THE WORK COVERED HEREIN SHALL BE BASED UPON THE DRAWINGS AND SPECIFICATIONS BUT THAT THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS AMENDED BY ANY WAIVERS. CONTRACTOR SHALL FURNISH ALL BONDS NECESSARY TO GET PERMITS FOR CUTS AND CONNECTIONS TO EXISTING SEWERS.
- B. LOCAL STANDARDS:** THE TERM "LOCAL STANDARDS" AS USED HEREIN MEANS THE STANDARDS OF DESIGN AND CONSTRUCTION OF THE HAMILTON COUNTY STORMWATER TECHNICAL STANDARDS.
- C. EXISTING IMPROVEMENTS:** MAINTAIN IN OPERATING CONDITION ALL ACTIVE UTILITIES, SEWERS AND OTHER DRAINS ENCOUNTERED IN THE SEWER INSTALLATION. REPAIR TO THE SATISFACTION OF THE OWNER ANY DAMAGE TO EXISTING ACTIVE IMPROVEMENTS.
- D. WORKMANSHIP:** TO CONFORM TO ALL LOCAL STATE AND NATIONAL CODES AND TO BE APPROVED BY ALL LOCAL AND STATE AGENCIES HAVING JURISDICTION.
- E. TRENCHING:** LAY ALL PIPE IN OPEN TRENCHES, EXCEPT WHEN THE LOCAL AUTHORITY GIVES WRITTEN PERMISSION FOR TUNNELING. OPEN THE TRENCH SUFFICIENTLY AHEAD OF PIPE-LAYING TO REVEAL ANY OBSTRUCTIONS. THE WIDTH OF THE TRENCH SHALL BE THE INSIDE PIPE DIAMETER PLUS 24 INCHES FOR 12 INCHES ABOVE THE PIPE. SHEET AND BRACE TRENCH AS NECESSARY TO PROTECT WORKMEN AND ADJACENT STRUCTURES. ALL TRENCHING TO COMPLY WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS. KEEP TRENCHES FREE FROM WATER WHILE CONSTRUCTION IS IN PROGRESS. UNDER NO CIRCUMSTANCES LAY PIPE OR APPURTENANCES IN STANDING WATER. CONDUCT THE DISCHARGE FROM TRENCH DEWATERING TO DRAINS OR NATURAL DRAINAGE CHANNELS.
- F. SPECIAL SUPPORTS:** WHENEVER, IN THE OPINION OF THE ENGINEER, THE SOIL AT OR BELOW THE PIPE GRADE IS UNSUITABLE FOR SUPPORTING SEWERS AND APPURTENANCES SPECIFIED IN THIS SECTION, SUCH SPECIAL SUPPORT, IN ADDITION TO THOSE SHOWN OR SPECIFIED, SHALL BE PROVIDED AS THE ENGINEER MAY DIRECT, AND THE CONTRACT WILL BE ADJUSTED.
- G. BACKFILLING:** FOR DEPTH OF AT LEAST 12 INCHES ABOVE THE TOP OF THE PIPE, BACKFILL WITH EARTH OR GRANULAR MATERIAL FREE FROM LARGE STONES, ROCK FRAGMENTS, FROOTS OR SOD. TAMP THIS BACKFILL THOROUGHLY TAKING CARE NOT TO DISTURB THE PIPE. FOR THE REMAINING TRENCH DEPTH, BACKFILL WITH EARTH OR GRANULAR MATERIAL CONTAINING STONES OR ROCKS NOT LARGER THAN 4 INCHES. BACKFILL UNDER WALKS, PARKING AREAS, DRIVEWAYS AND STREET SHALL BE GRANULAR MATERIAL ONLY - THOROUGHLY COMPACTED BY APPROVED METHODS. TRENCHES PARALLEL TO AND WITHIN 5 FEET OF PAVED ROADWAYS SHALL ALSO BE CONSTRUCTED WITH COMPACTED GRANULAR MATERIALS.
- H. MANHOLE INVERTS:** CONSTRUCT MANHOLE FLOW CHANNELS OF CONCRETE, SMOOTHLY FINISHED AND OF SEMI-CIRCULAR SECTION CONFORMING TO THE INSIDE DIAMETER OF THE CONNECTING SEWERS. MAKE CHANGES IN SIZE OR GRADE GRADUALLY AND CHANGES IN DIRECTION BY TRUE CURVES. PROVIDE SUCH CHANNELS FOR ALL CONNECTING SEWERS AT EACH MANHOLE.
- I. SUBDRAINS:** ALL SUBDRAINS ONSITE SHALL BE OF THE SIZE AS SHOWN AND SHALL BE PLACED AS SHOWN ON THE PLANS. THEY SHALL BE CONSTRUCTED TO THE GRADES AS SHOWN ON THE PLANS.
- J. UTILITIES:** IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO HIS PHASE OF THE WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNERS OR THE ENGINEER OF ANY CHANGES, ERRORS OR OMISSIONS FOUND ON THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.

- NOTES:**
1. 6" CONCRETE PRECAST OR POURED IN PLACE.
2. REFER TO BEDDING DETAIL AS REQUIRED.
3. VAR. PIPE SIZE
15" MAX STRAIGHT CONNECTIONS
12" MAX SKEW/CORNER CONNECTIONS

- NOTES:**
1. 6" CONCRETE PRECAST OR POURED IN PLACE.
2. REFER TO BEDDING DETAIL AS REQUIRED.
3. VAR. PIPE SIZE
15" MAX STRAIGHT CONNECTIONS
12" MAX SKEW/CORNER CONNECTIONS



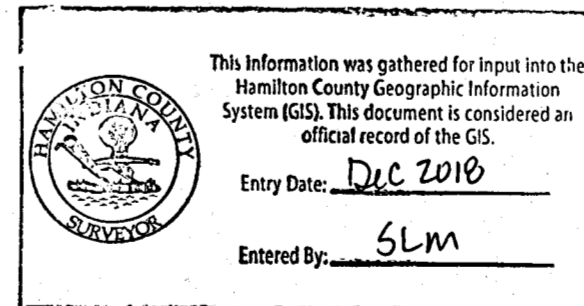
CURB INLET TYPE "A" (NO SCALE)



CURB INLET TYPE "E" (NO SCALE)

1. STRAIGHT-OUT CONNECTIONS SHOULD NOT BE MADE TO EITHER PRECAST BOX OR INLET WALL TOUCHED BY A SKEW/CORNER CONNECTION UNLESS SUFFICIENT BOX INLET WALL AREA REMAINS ON EACH SIDE OF THE CONNECTING PIPE TO ENSURE STRUCTURAL INTEGRITY OF THE PRECAST BOX.
2. A MAXIMUM OF TWO (2) SKEW/CORNER CONNECTIONS WILL BE ALLOWED FOR EACH PRECAST BOX INLET.
3. REFER TO PRECAST CONCRETE ADJUSTING RING DETAIL AS REQUIRED.

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Know what's below. Call before you dig.
Within Indiana Call 811 or 800-382-5544
24 Hours a Day, 7 Days a Week
PER INDIANA STATE LAW IC 8-1-26, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

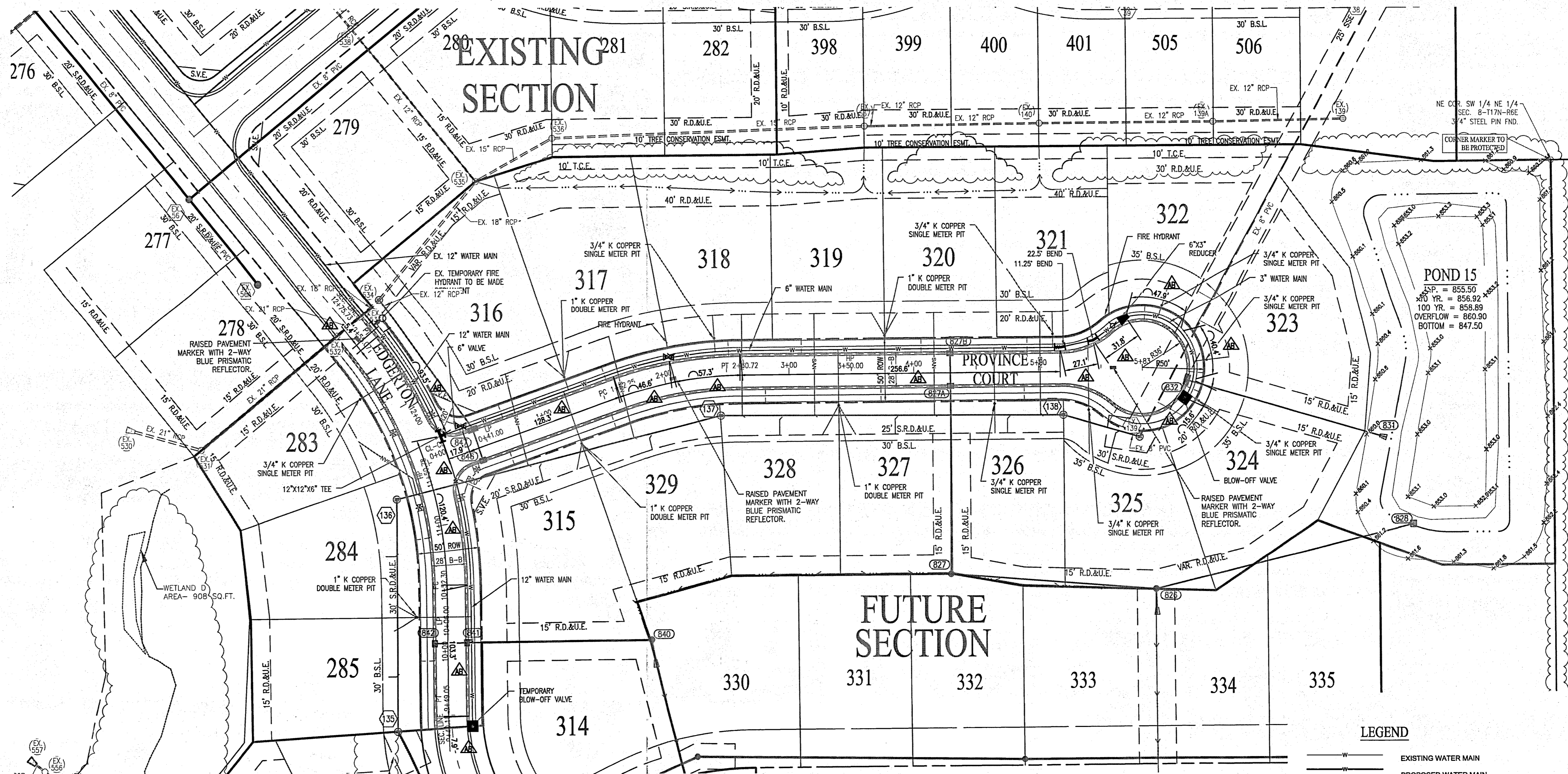
PROJECT NO. 3
DATE: 07-12-2018
DESIGNED BY: MEN
DRAWN BY: AES
CHECKED BY: AES

REVISIONS AND ISSUES

ALVIN E. SKOOG, P.E.
No. PE6088057
STATE OF INDIANA
PROFESSIONAL ENGINEER

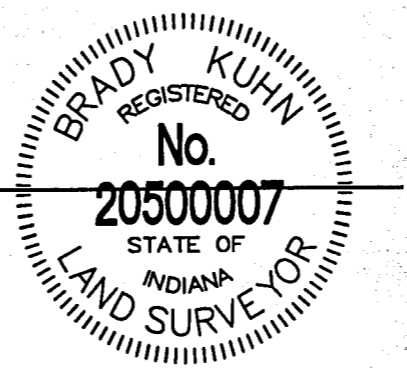
PREPARED FOR:
THE WOODS AT VERMILLION SECTION THREE
NORTH CONNECTICUT DEVELOPMENT CORP.

SHEET NO. **C60**
PROJECT NO. W150253



RECORD DRAWING
WATER AS-BUILTS
WATER STRUCTURES ONLY
07/12/2018

BRADY KUHN, L.S. 20500007



- AS-BUILT INFORMATION
- BUILT AS PLANNED
- AS-BUILT TEE
-
-
- AS-BUILT FIRE HYDRANT
- AS-BUILT WATER VALVE
- AS-BUILT BLOW OFF
- AS-BUILT REDUCER

DATE OF LAST FIELDWORK: 07/07/2018

BENCHMARK INFORMATION

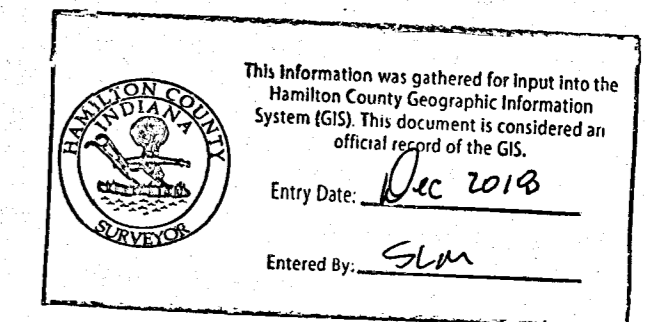
- SOURCE BENCHMARK**
HSE 38
A BRONZE DISK STAMPED "HAMILTON COUNTY GEODETIC CONTROL" SET IN THE NORTH END OF THE EAST CONCRETE HANDRAIL ON THE BRIDGE OVER FALL CREEK ON SOUTHEASTERN PARKWAY SOUTH OF 113TH STREET.
N=174311.28
E=271886.09
EL=809.14 (NAVD 88)
- TBM 2**
RAILROAD SPIKE SET IN THE WEST SIDE OF A UTILITY POLE LOCATED APPROXIMATELY 78' SOUTH OF THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 8-T17N-R6E.
N=1709400
E=273165
EL=884.60 (NAVD 88)
- TBM - WOODS 1**
MAG NAIL SET WITH WASHER IN THE CURB ON THE EAST SIDE OF VERMILLION DRIVE, APPROXIMATELY 12' +/- SOUTH OF THE STORM INLET AT THE SOUTHWEST CORNER OF LOT 252 IN THE WOODS AT VERMILLION - SECTION ONE
N=1709211.04
E=271032.69
EL=881.40 (NAVD 88)
- TBM - RIDGE 1**
MAG NAIL SET WITH WASHER IN THE WALK ON THE WEST SIDE OF PORTAGE WOODS DRIVE, APPROXIMATELY 5' +/- NORTH AND 19' +/- WEST OF THE CENTERLINE INTERSECTION OF PORTAGE WOODS DRIVE AND HUNTING MEADOW DRIVE IN THE RIDGE AT FLAT FORK - SECTION ONE
N=1712098.08
E=270413.43
EL=855.66 (NAVD 88)
- TBM - ENCLAVE 1**
MAG NAIL SET IN THE WALK AT THE SOUTH SIDE OF DOMINION DRIVE AND KENSINGTON LANE, APPROXIMATELY 23' +/- SOUTH OF THE CENTERLINE OF DOMINION DRIVE AND 6' +/- WEST OF THE CENTERLINE OF KENSINGTON LANE IN THE ENCLAVE AT VERMILLION - SECTION ONE
N=1708952.08
E=271671.65
EL=862.36 (NAVD 88)
- TBM - VILLAGE 1**
MAG NAIL SET IN THE WALK AT THE NORTHEAST CORNER OF CLIFFSIDE DRIVE AND BUCK RIDGE LANE, APPROXIMATELY 24' +/- NORTH OF THE CENTERLINE OF BUCK RIDGE LANE AND 21' +/- EAST OF THE CENTERLINE OF CLIFFSIDE DRIVE IN THE VILLAGE AT FLAT FORK - SECTION ONE
N=1712107.64
E=271734.52
EL=857.24 (NAVD 88)

WATER MAIN NOTES:

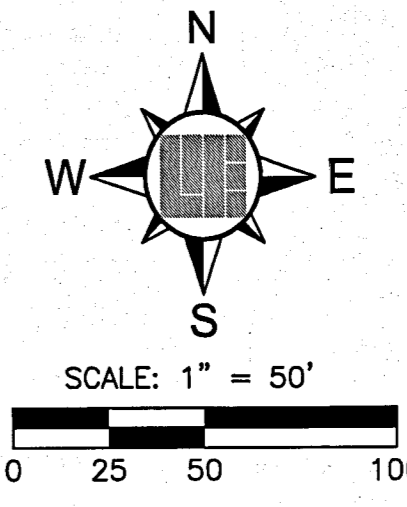
1. ALL FIRE HYDRANTS SHALL BE PAINTED PER FORTVILLE SPECIFICATIONS AND STANDARDS.
2. FIRE HYDRANTS SHALL HAVE 5 INCH STORZ'S CONNECTION (APPROVED BY FISHERS FIRE DEPARTMENT).
3. IF WATER MAIN IS 12 INCHES OR SMALLER, THEN C900 PIPE CAN BE USED.
4. MAIN SHALL BE BEDDED WITH SAND 6 INCHES UNDER AND 12 INCHES OVER THE PIPE WITH MARKING TAPE INSTALLED 2 FEET ABOVE THE WATER MAIN.
5. NUMBER TEN (#10) GALUGE LOCATING WIRE SHALL BE TAPED TO THE TOP OF THE MAIN AND PULLED THROUGH ALL VALVE BOXES (TO THE SURFACE) FOR LOCATING PURPOSES.
6. IF DUCTILE PIPE IS USED, THE MAIN MUST BE POLY WRAPPED.
7. CONTRACTOR MUST PROVIDE REDLINE "AS-BUILT" MARK-UPS TO ENGINEER OR ALL BENDS AND TEES MUST BE LOCATED WITH 2X4 BOARD PAINTED BLUE.
8. ALL PROPOSED ROAD CROSSINGS MUST BE FULLY BACKFILLED WITH A GRANULAR BACKFILL MATERIAL.
9. ALL TEMPORARY FIRE HYDRANTS TO BE INSTALLED WITH VALVES.
10. ALL VALVES MUST HAVE POSI-CAP INSTALLED AND HAVE STAINLESS STEEL STEMS.
11. WATER MAIN MUST MEET CURRENT FORTVILLE WATER DETAILS AND SPECIFICATIONS.
12. ALL WATER MAIN JOINTS TO BE RESTRAINED PER FORTVILLE WATER STANDARDS.
13. WATER SERVICE LATERALS AND WATER METER PITS ARE SHOWN FOR LOCATION ONLY. WATER SERVICE LATERALS AND WATER METER PITS WILL BE INSTALLED BY THE HOME BUILDERS AT THE TIME OF THE HOUSE CONSTRUCTION.
14. NO WATER VALVES ARE TO BE PLACED WITHIN THE LIMITS OF THE STREET.
15. CONTRACTOR TO SUPPLY SHOP DRAWINGS TO THE TOWN OF FORTVILLE PRIOR TO CONSTRUCTION.
16. INSTALLATION OF INDOT APPROVED SNOW/PLOWABLE RAISED PAVEMENT MARKERS SHALL COMPLY WITH SECTIONS 800 & 900 OF THE MOST RECENT REVISION OF THE INDOT SPECIFICATIONS AND STANDARD DRAWINGS. UNDER NO CIRCUMSTANCE SHALL A REFLECTOR BE ATTACHED TO THE PAVEMENT SURFACE USING ONLY ADHESIVE.
17. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 10'-0" OF SEPARATION BETWEEN THE MAIN AND SEWER STRUCTURES AND A MINIMUM OF 10'-0" OF SEPARATION BETWEEN WATER, SANITARY AND STORM PIPES.
18. WATER TAP FEES WILL BE PAID AT THE TIME OF ACQUIRING THE BUILDING PERMIT.

LEGEND

- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING HYDRANT WITH HYDRANT VALVE
- HYDRANT WITH HYDRANT VALVE
- VALVE
- TEE
- CROSS
- REDUCER
- D.I.P.
- DUCTILE IRON PIPE
-
-
- WATER LATERAL AS-BUILT LOCATION



This information was gathered for input into the Hamilton County Geographic Information System (GIS). This document is considered an official record of the GIS.
Entry Date: Dec 2018
Entered by: SM



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PROJECT NO. W150253-3
DATE: 07-12-2018
DESIGNED BY: MEN
DRAWN BY: MEN
CHECKED BY: AES

REVISIONS AND ISSUES
04-27-2017
ALVIN E. SKOOG REGISTERED PROFESSIONAL ENGINEER
No. PE6088057
STATE OF INDIANA
ALVIN E. SKOOG JR., P.E.

PREPARED FOR:
THE WOODS AT VERMILLION SECTION THREE
NORTH CONNECTICUT DEVELOPMENT CORP.
SHEET NO. **C70**
PROJECT NO. **W150253**

LOCATION: H:\2018\W150253\Section 3\Engineering\Design\Submittals\AB\Consent\AB C700 Water Main Plan.dwg
DATE/TIME: July 12, 2018 - 12:25pm
PLOTTER: HP DesignJet 5000PS
PLOTTED BY: jpooley