



Kenton C. Ward, Surveyor Phone (317) 776-8495 Fax (317) 776-9628

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

December 5, 2006

To: Hamilton County Drainage Board

Re: J.W. Brendle Drain, Saddlebrook at Shelborne Section 2 Arm

Attached is a petition filed by Leeds, LLC along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Saddlebrook at Shelborne Section 2 Arm, J.W. Brendel Drain to be located in Clay 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. The drain will consist of the following:

6" SSD	5,972 ft.	15" RCP	675 ft.	24" RCP	356 ft.
12" RCP	388 ft.	18" RCP	131 ft		

The total length of the drain will be 7,522 feet.

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

The SSD lines in the rear yard swales from Structure 751 to 752 across the north line of Lots 18 and 19, approximately 305 feet running north from Structure 750 across the east side of Lots 26, 27, and 28, approximately 330 feet running east from Structure 757 across the north side of Lots 22 and 23, and approximately 125 feet running east from Structure 739 across the north side of Lot 17.

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 \$10.00 per acre for common areas and roadway, \$65.00 per platted lot, with a \$65.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$2,814.00.

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

Agent: Madison Community Bank

Date: October 8, 2006

Number: 3256 For: Subsurface Drains Amount: \$36,396.00

Agent: Madison Community Bank

Date: October 8, 2006

Number: 3255 For: Erosion Control Amount: \$47,480.00 Agent: Madison Community Bank

Date: October 8, 2006

Number: 3254 For: Storm Sewers Amount: \$55,800.00

Parcels assessed for this drain may be assessed for the Long Branch Drain at sometime in the future.

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 is for the reduction of the regulated drain easement to those easement widths as shown on the secondary plat for Saddlebrook at Shelborne Section 2 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for February 26, 2007.

Kenton C. Ward, CFM Hamilton County Surveyor

KCW/pll

STATE OF INDIANA)	(Revised 06/08/04)
COUNTY OF HAMILTON)	
TO: HAMILTON COUNTY DRAINAGE BOARD % Hamilton County Surveyor One Hamilton County Square, Suite 188 Noblesville, IN. 46060-2230	
In the matter of Saddlebrook at Shelborne	Subdivision, Section

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 <u>Saddlebrook at Shelborne</u>, <u>Section 2</u>, 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

Two

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:

- 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.
- 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

Leeds, LLC By: Munther	
Signed Michael Stikeleather, Manager	Signed
Michael Stikeleather	
Printed Name	Printed Name
Date 2, 2005	Date
Signed	Signed
Printed Name	Printed Name
Date	Date

FINDINGS AND ORDER

CONCERNING THE MAINTENANCE OF THE

J. W. Brendel Drain, Saddlebrook at Shelborne Section 2 Arm

On this **26th** day of February 2007, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the J. W. Brendel Drain, Saddlebrook at Shelborne Section 2 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.

HAMILZON JOUNTY BRAINAGE BOARD

President

Member

Member

CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: Saddlebrook at Shelborne Section 1 and 2 Carmel, Indiana

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: http:	Mu Date:	10-12-07	· ·
Type or Print Name:	Christopher M. Wiseman		
Business Address:	7172 Graham Road		
· · · · · · · · · · · · · · · · · · ·	Indianapolis, IN 46250	·	
Telephone Number:	317-842-6777		



INDIANA REGISTRATION NUMBER
PE 1050 4920





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

September 3, 2008

Re: JW Brendle Drain: Saddlebrook at Shelborne Section 2

Attached are as-builts, certificate of completion & compliance, and other information for Saddlebrook at Shelborne Section 2. 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 December 5, 2006. The report was approved by the Board at the hearing held February 26, 2007. (See Drainage Board Minutes Book 10, Pages 82-84) The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn Invert	Grade:	Changes:
754-753	28	12	RCP	899.69	899.41	0.99	-2
753-752	162	15	RCP	899.41	898.14	0.78	2
752-751	197	24	RCP	897.64	897.09	0.28	-3
751-739	159	24	RCP	897.09	896.3	0.51	3
757-756	160	15	RCP	899	898.39	0.36	
756-755	29	15	RCP	898.39	898.16	0.81	-1
755-752	132	18	RCP	898.16	897.64	0.39	1
769-768	28	12	RCP	905.93	901.5	1.7	-2
768-767	21	12	RCP	900.97	900.91	0.28	
767-766	200	15	RCP	900.91	899.87	0.4	2
765-764	28	12	RCP	898.98	898.82	0.57	-2
764-741	129	15	RCP	898.82	898.13	0.53	2
763-762	28	12	RCP	899.6	899.35	0.88	-2
762-761	31	12	RCP	899.32	899.19	0.43	1
761-760	221	12	RCP	899.14	898.27	0.39	3

RCP Totals:

	·uio.	
	12	385
	15	680
	18	132
	_24	356
Total:		1553

6" SSD Streets:

Copperfield	1113
Lost Spring	273.5
Homestretch	1005
x2	
Total:	4783

U UUD L	013.
25-27	306
22-23	322
17,18,19	314

Total: 942 The length of the drain due to the changes described above is now 7278 feet.

The non-enforcement was approved by the Board at its meeting on February 26, 2007 and recorded under instrument #2007012845.

The following sureties were guaranteed by Madison Community Bank and released by the Board on its November 13, 2007 meeting.

Bond-LC No: 3254

Insured For: Storm Sewers

Amount: \$55, 800

Issue Date: October 8, 2006

Bond-LC No: 3255

Insured For: Erosion Control

Amount: \$47,480.00

Issue Date: October 8, 2006

Bond-LC No: 3256

Insured For: Sub-surface Drains

Amount: \$36,396.00

Issue Date: October 8, 2006

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

Sincerely,

Kenton C. Ward, CFM Hamilton County Surveyor

KCW/slm

ONE CIVIC SQUARE CARMEL, IN 46032

JAMES BRAINARD, MAYOR

Ph. (317) 571-2403 FAX 317) 844-3498

OWNER.

LEEDS, LLC. MICHAEL STIKELEATHER

5300 HESSLER ROAD MUNCIE, INDIANA 47304

Ph. (765) 282-1010

FAX (765) 282-2218

ENGINEER:



Architects + Engineers

Solutions by Design Since 1937

7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777 FAX (317) 841-4798

STORM RECORD DRAWING NOTES:

HORIZONTALY AND VERTICALY. THERE IS NO GUARANTEE THAT THE PIPE IS IN A STRAIGHT LINE BETWEEN THE STRUCTURES, HOWEVER FOR PURPOSES OF CALCULATION THIS IS ASSUMED. NOTE 2: ALL RECORD DRAWING ELEVATIONS SHOWN ARE WITHIN ±0.05 FEET ON HARD SURFACES AND

NOTE 3: ALL FIELD WORK FOR THE 'RECORD DRAWINGS' WAS COMPLETED ON THE 8TH DAY NOTE 4: DISTANCES BETWEEN STRUCTURES ARE TAKEN FROM THE FIELD LOCATION OF THE CASTING

DRAINS AS WELL AS ANY OTHER ITEMS SPECIFICALLY INCLUDED IN THE CONTRACT FOR SERVICES

TO THE FIELD LOCATION OF THE CASTING. NOTE 5: CALCULATED PERCENT GRADES ASSUME THAT ALL FIELD LOCATED INVERT SHOTS ARE PLUS OR MINUS 0.05 FOOT AND INVERTS MAY BE ADJUSTED WITHIN THESE LIMITS TO MEET MINIMUM PIPE GRADES. FURTHER, THE PIPE LENGTH IS TAKE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. IN CACULATING PERCENT GRADES THE PIPE LENGTH MAY BE SHORTENED BY 1 FOOT TO ASSIST IN MEETING MINIMUM PIPE GRADE. NOTE 6: ONLY STORM SEWER STRUCTURES, PIPES, LATERALS AND SUBSURFACE

ARE CONSIDERED A PART OF THESE 'RECORD DRAWINGS'. THIS FIRM EXCLUDES ANY OTHER ITEMS FROM BEING CONSIDERED 'A MATTER OF RECORD' PER THIS PLAN SET. LAST REVISION 1/20/05 CMQ

LEGAL DESCRIPTION

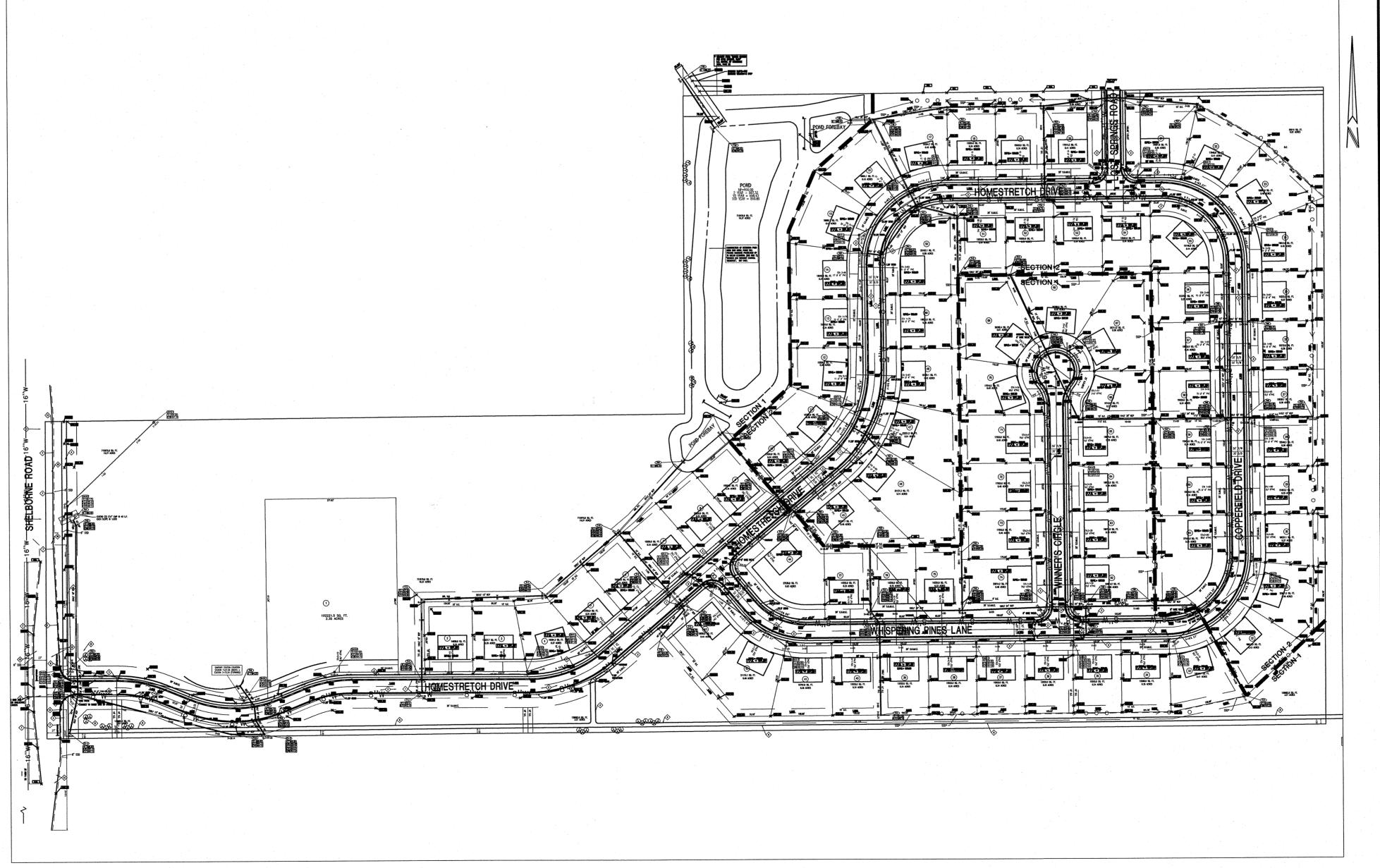
The following perimeter description was intended to lie entirely within land description of record per Instrument No. 9709729791 as recorded in the Office of the Recorder of Hamilton County, Indiana and more particularly described as

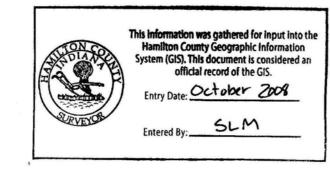
The North Half of the Southwest Quarter of Section 32, Township 18 North, Range 3 East, Excepting the North Half of the Northwest Quarter of the Southwest Quarter of Section 32, Township 18 North, Range 3 East, Clay Township, Hamilton County, Indiana, and being more particularly described as follows:

Commencing at the Northwest corner of the Southwest Quarter of said Section 32, thence North 89 degrees 27 minutes 59 seconds East (bearing based upon the State Plane Grid Bearings, Indiana East Zone, North American Datum[NAD] 83) 1327.22 feet along the North line of said Southwest Quarter section to the Point of Beginning; thence continuing, North 89 degrees 27 minutes 59 seconds East 1327.22 feet to the Northeast corner of said Southwest Quarter section; thence South 00 degrees 05 minutes 32 seconds West 1319.85 feet along the East line of said Southwest Quarter section to the Southeast corner of the North Half of said Southwest Quarter section; thence South 89 degrees 33 minutes 29 seconds West 2652.38 feet along the South line of the aforesaid North Half to the West line of said Southwest Quarter section; thence North 00 degrees 00 minutes 17 seconds East 657.79 feet along said West line to the Southwest corner of the North Holf of the Northwest Quarter of the Southwest Quarter section; thence North 89 degrees 30 minutes 44 seconds East 1326.70 feet along the South line of the aforesaid North Half Quarter-Quarter section to the Southeast corner thereof; thence North 00 degrees 02 minutes 55 seconds East 658.86 feet along the East line of the aforesaid North Half Quarter-Quarter section to the Northeast corner of the aforesaid North Half Quarter-Quarter section and the Point of Beginning, containing 60.210 acres, more or less.

Subject to all easements, rights of way and restrictions of record.

RECORD DOCUMENTS **FOR** SADDLEBROOK AT SHELBORNE CARMEL, INDIANA SECTION ONE & TWO





SHADED AREA INDICATES FUTURE SECTION 2 DEVELOPMENT. NOTE: ALL EARTHWORK FOR SECTION 1 & 2 SHALL BE COMPLETED DURING SECTION 1 PROJECT DATA

INDEX DESCRIPTION

STORM SEWER PLAN & PROFILES STORM SEWER DETAILS

BENCHMARKS

Origin Benchmark: station - Lee 2 AZI, is located approximately 2.5 miles northeast of Zionsville; at the intersection of Shelborne Road and West 131st Street, in the Southeast quarter of the intersection; set in top of a concrete post, level with the roadway; a Department of Natural Resources brass control station tablet, stamped "LEE 2 AZI 1989" Elev. = 917.887 (N.G.V.D. 1929)

Site Benchmarks: Set a large Hinge Nail in the west side of a 36" Hickory located 300 feet to east of Control Point No. 200. (from the intersection of the south property line of the parcel at 11901 Shelborne Road and the centerline of said road North 435 feet+/- along the centerline of Shelborne Road then East 1230 feet+/- to a 36"

CONTACT CO. / PERSON FOR

AGENCY/CONTACT CINERGY-DEAN GROVES 581-3052 581-3031 VECTREN-CHUCK SHUPPERD 776-5597 776-5553 TELEPHONE SBC-JEFF RICE 252-4274 252-5000 632-5311 CABLE TV TIME WARNER-JEFF FARMER 632-9077 571-2642 CARMEL UTILITIES - PAUL PAGE WATER 571-2442 CLAY TOWNSHIP REGIONAL WASTE 844-9203 571-2426 CITY OF CARMEL-MICHAEL McBRIDE 571-2441 DRAINAGE - CITY 776-9628 - COUNTY CO. SURVEYOR-KENT WARD CITY OF CARMEL-MICHAEL McBRIDE 571-2441 571-2426 CITY OF CARMEL 571-2417 EROSION CONTOL 773-2181 SWCD-JOHN SOUTH CITY OF CARMEL-SCOTT BREWER 571-2417

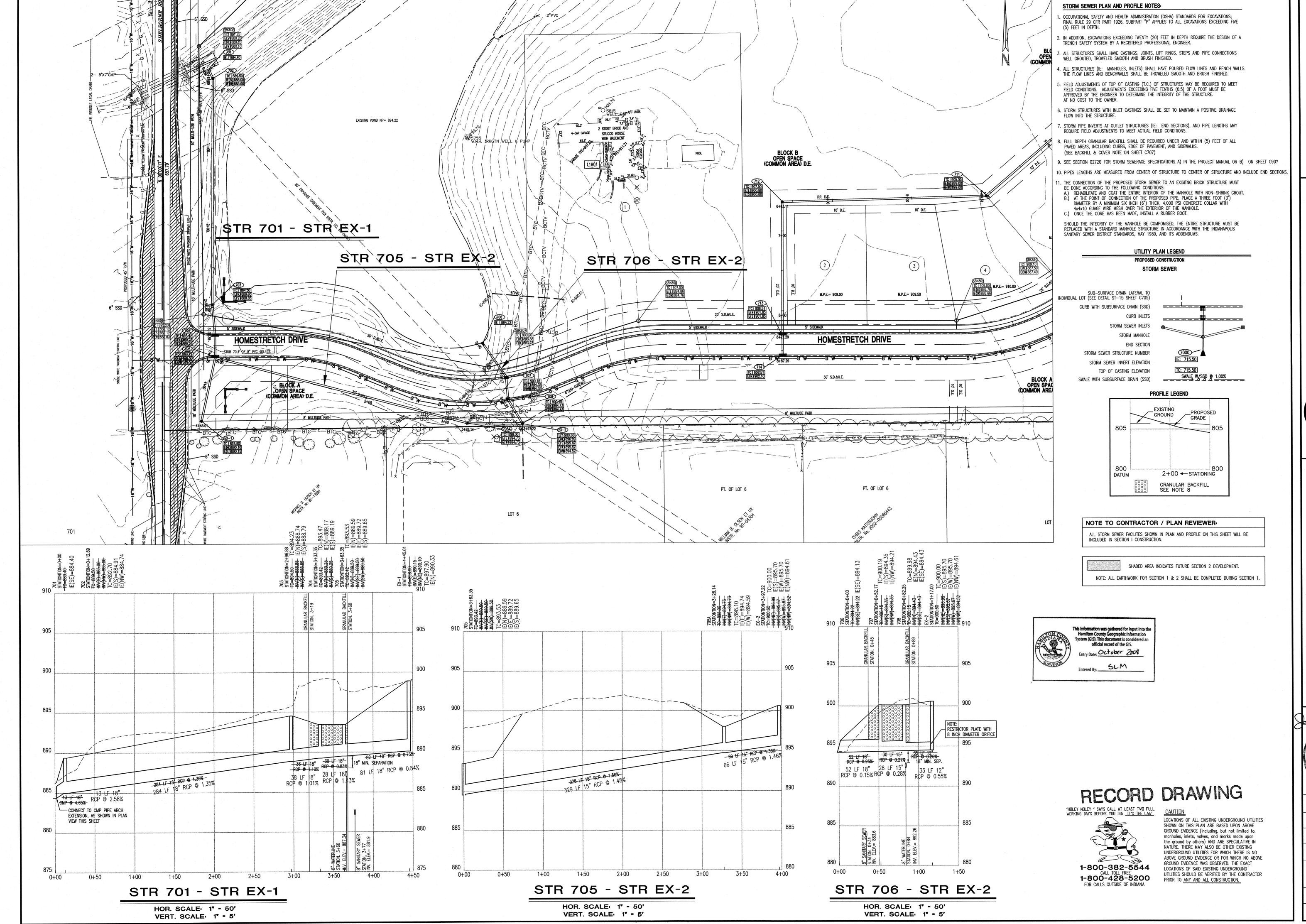
URBAN FORESTER AT LEAST TWO FULL
WORKING DAYS BEFORE AT LEAST TWO FULL

1-800-382-5544 1-800-428-5200 FOR CALLS OUTSIDE OF INDIANA

317-842-6777 FAX-841-4798 EXT. NO. PROJECT ENGR 626 PROJECT SURVEYOR CAD TECH.

DWG. TYPE FILE NUMBER

05-14-07



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SADDLEBROOK AT SHELBORNE

LEEDS, LLC

5300 HESSLER ROAD

MUNCIE, INDIANA 47304

Joseph O. Sharper

No. 15179 STATE OF

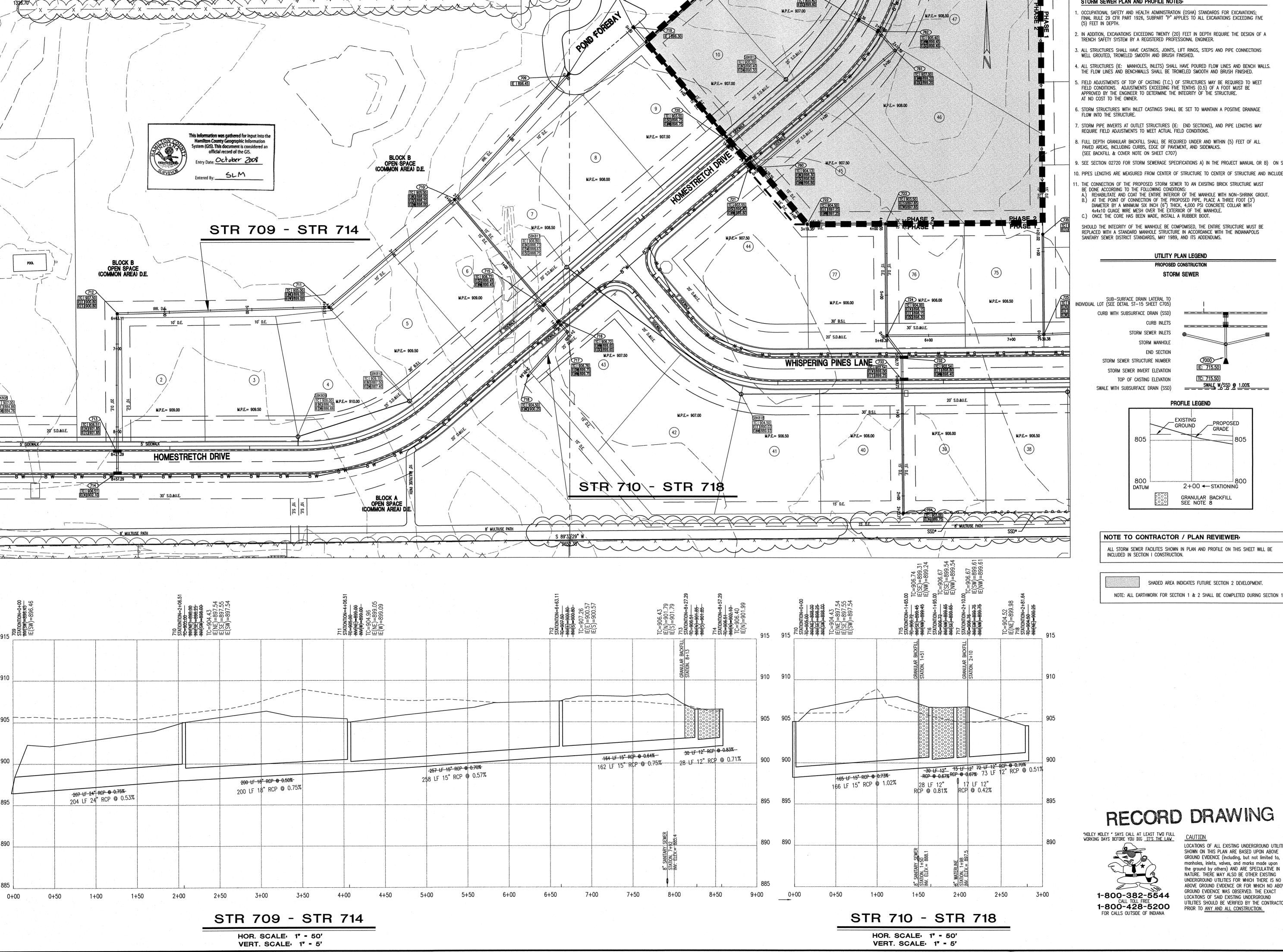
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MRIGGS Quality Assurance: **D LACH**

C701

02/28/05

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STORM SEWER PLAN AND PROFILE NOTES:

. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE

TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.

3. ALL STRUCTURES SHALL HAVE CASTINGS, JOINTS, LIFT RINGS, STEPS AND PIPE CONNECTIONS WELL GROUTED, TROWELED SMOOTH AND BRUSH FINISHED.

4. ALL STRUCTURES (IE: MANHOLES, INLETS) SHALL HAVE POURED FLOW LINES AND BENCH WALLS. THE FLOW LINES AND BENCHWALLS SHALL BE TROWELED SMOOTH AND BRUSH FINISHED. FIELD ADJUSTMENTS OF TOP OF CASTING (T.C.) OF STRUCTURES MAY BE REQUIRED TO MEET

6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE

Y. STORM PIPE INVERTS AT OUTLET STRUCTURES (IE: END SECTIONS), AND PIPE LENGTHS MAY REQUIRE FIELD ADJUSTMENTS TO MEET ACTUAL FIELD CONDITIONS.

8. FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS.

. SEE SECTION 02720 FOR STORM SEWERAGE SPECIFICATIONS A) IN THE PROJECT MANUAL OR B) ON SHEET C90?

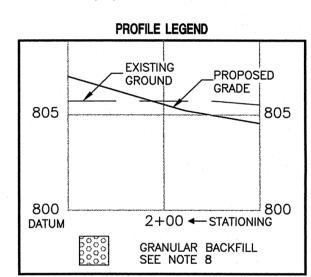
PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.

THE CONNECTION OF THE PROPOSED STORM SEWER TO AN EXISITNG BRICK STRUCTURE MUST BE DONE ACCORDING TO THE FOLLOWING CONDITIONS: REHABILITATE AND COAT THE ENTIRE INTERIOR OF THE MANHOLE WITH NON-SHRINK GROUT. B.) AT THE POINT OF CONNECTION OF THE PROPOSED PIPE, PLACE A THREE FOOT (3') DIAMETER BY A MINIMUM SIX INCH (6") THICK, 4,000 PSI CONCRETE COLLAR WITH

SHOULD THE INTEGRITY OF THE MANHOLE BE COMPOMISED, THE ENTIRE STRUCTURE MUST BE REPLACED WITH A STANDARD MANHOLE STRUCTURE IN ACCORDANCE WITH THE INDIANAPOLIS SANITARY SEWER DISTRICT STANDARDS, MAY 1989, AND ITS ADDENDUMS.

> UTILITY PLAN LEGEND PROPOSED CONSTRUCTION STORM SEWER

SUB-SURFACE DRAIN LATERAL TO INDIVIDUAL LOT (SEE DETAIL ST-15 SHEET C705) CURB WITH SUBSURFACE DRAIN (SSD) STORM SEWER INLETS STORM MANHOLE END SECTION STORM SEWER STRUCTURE NUMBER STORM SEWER INVERT ELEVATION TC: 715.50 TOP OF CASTING ELEVATION _____SWALE W/SSD @ 1.00% SWALE WITH SUBSURFACE DRAIN (SSD)



NOTE TO CONTRACTOR / PLAN REVIEWER

ALL STORM SEWER FACILITES SHOWN IN PLAN AND PROFILE ON THIS SHEET WILL BE INCLUDED IN SECTION I CONSTRUCTION.

SHADED AREA INDICATES FUTURE SECTION 2 DEVELOPMENT.

RECORD DRAWING



1-800-382-5544 1-800-428-5200

LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

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SADDLEBROOK AT SHELBORNE

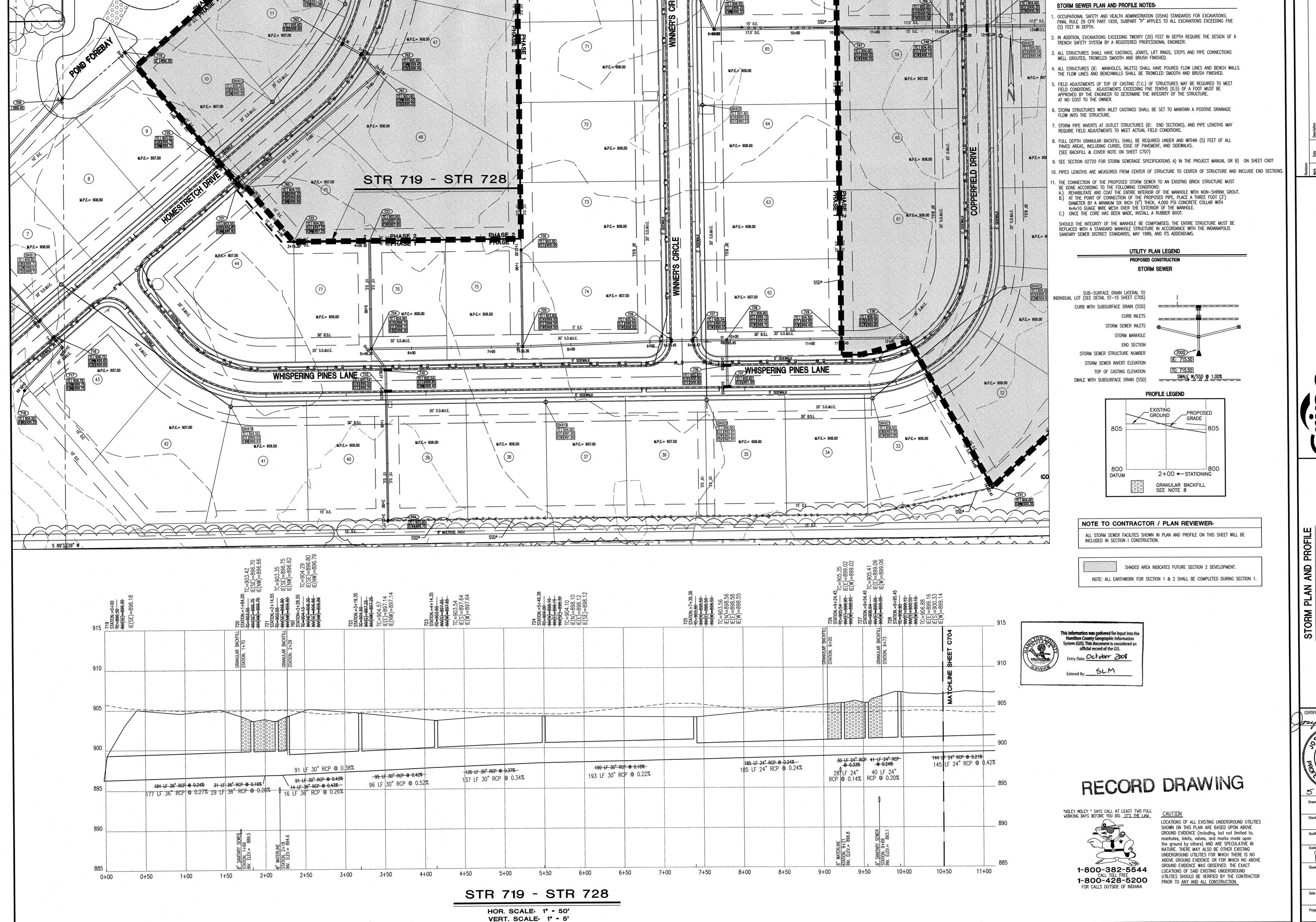
SADDLEBROOK AT SHELBORNE

LEEDS, LLC

5300 HESSLER ROAD

MUNCIE, INDIANA 47304

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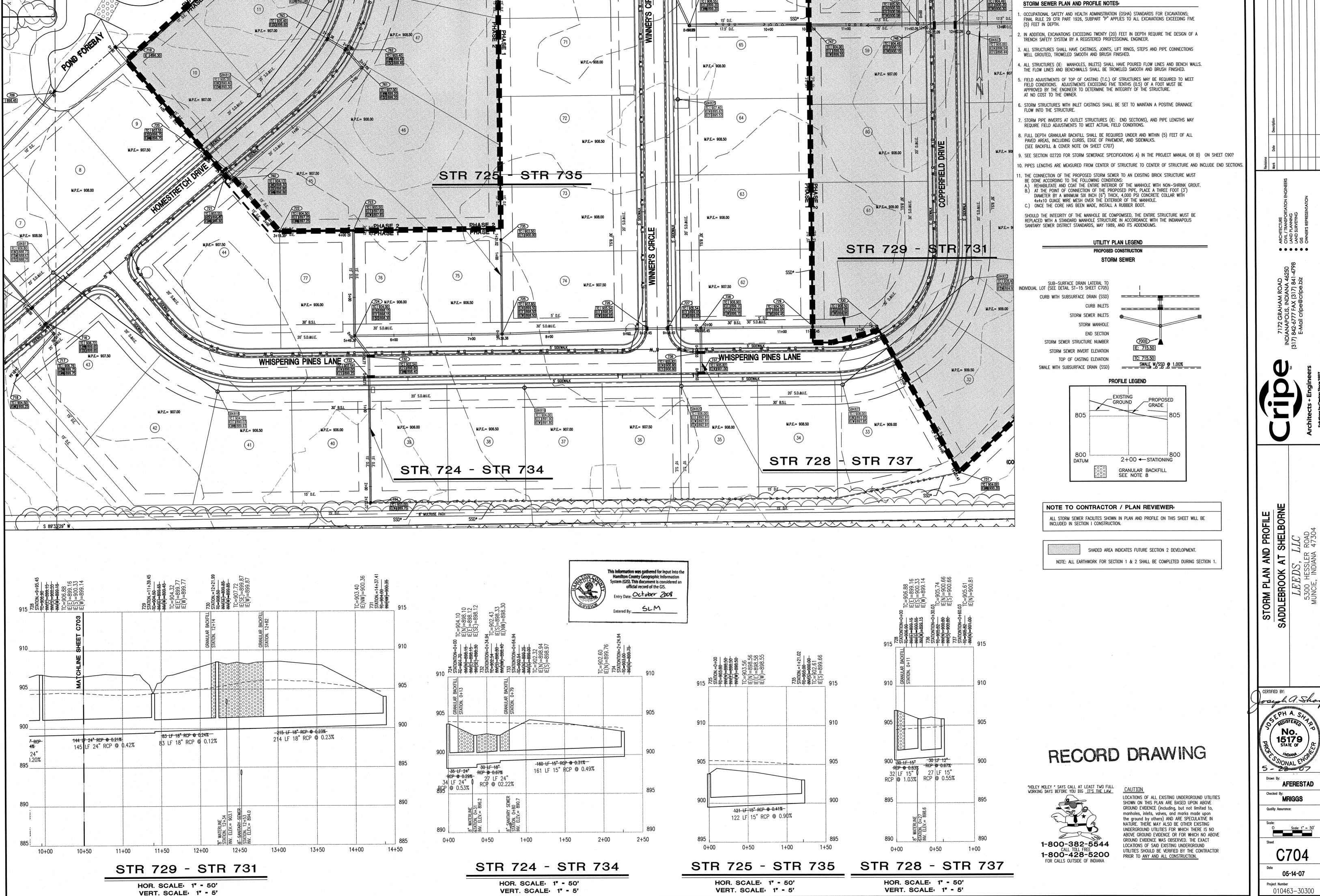


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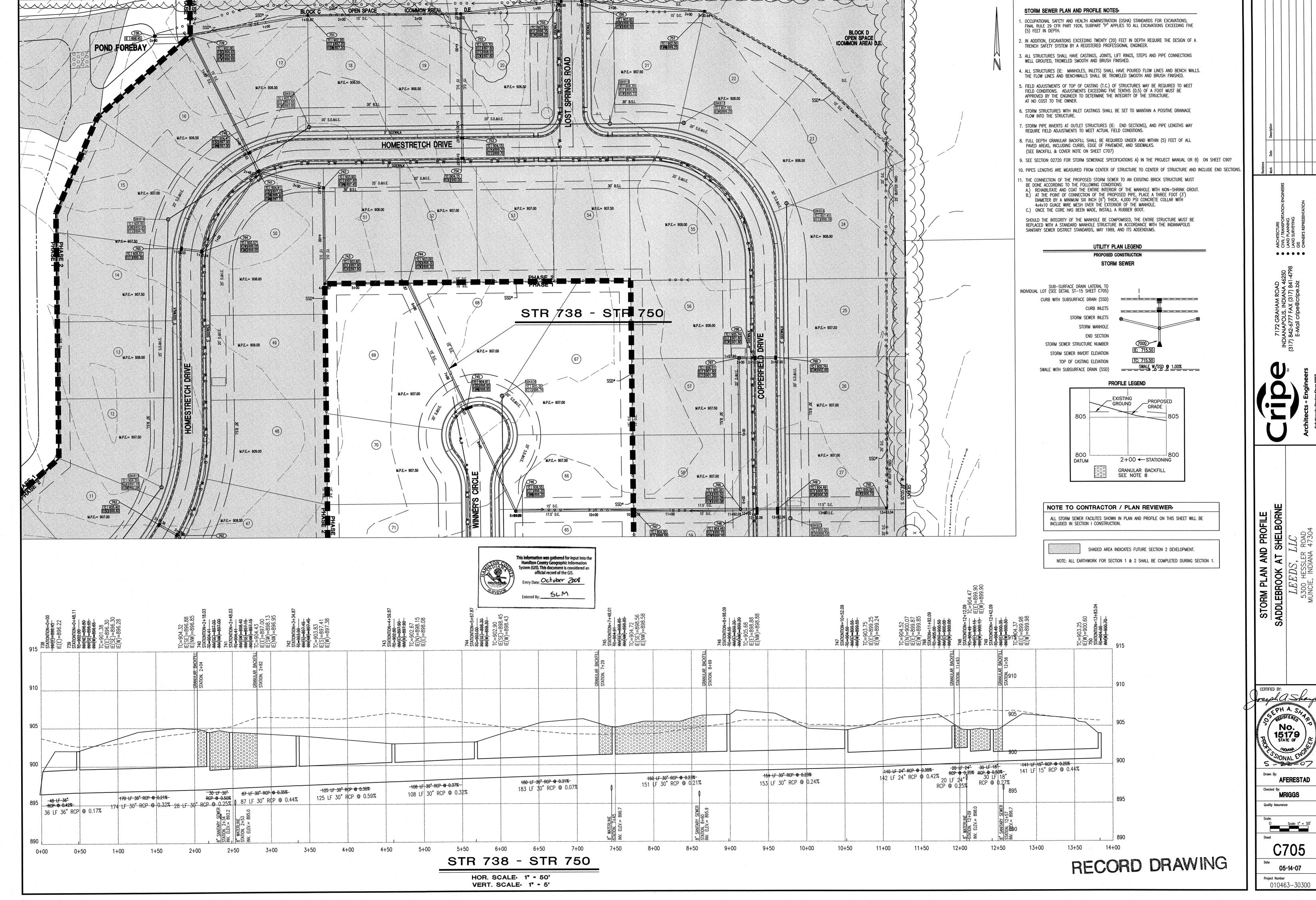
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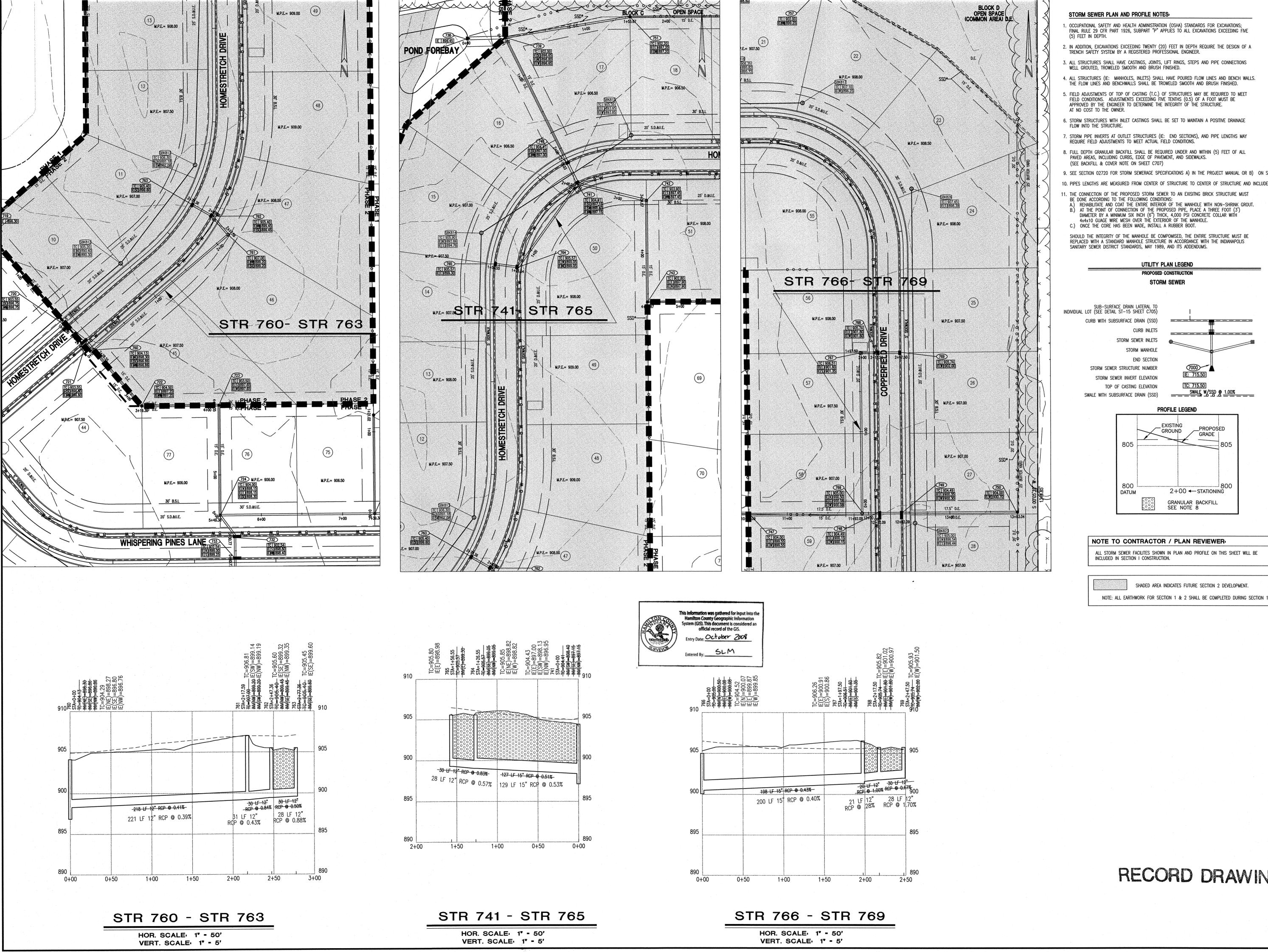
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O Scale: 1" = 50

C705

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STORM SEWER PLAN AND PROFILE NOTES:

- 1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE
- TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- 3. ALL STRUCTURES SHALL HAVE CASTINGS, JOINTS, LIFT RINGS, STEPS AND PIPE CONNECTIONS WELL GROUTED, TROWELED SMOOTH AND BRUSH FINISHED.
- 4. ALL STRUCTURES (IE: MANHOLES, INLETS) SHALL HAVE POURED FLOW LINES AND BENCH WALLS. THE FLOW LINES AND BENCHWALLS SHALL BE TROWELED SMOOTH AND BRUSH FINISHED.
- 5. FIELD ADJUSTMENTS OF TOP OF CASTING (T.C.) OF STRUCTURES MAY BE REQUIRED TO MEET FIELD CONDITIONS. ADJUSTMENTS EXCEEDING FIVE TENTHS (0.5) OF A FOOT MUST BE APPROVED BY THE ENGINEER TO DETERMINE THE INTEGRITY OF THE STRUCTURE.
- 6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE
- 7. STORM PIPE INVERTS AT OUTLET STRUCTURES (IE: END SECTIONS), AND PIPE LENGTHS MAY
- REQUIRE FIELD ADJUSTMENTS TO MEET ACTUAL FIELD CONDITIONS.
- 8. FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS. (SEE BACKFILL & COVER NOTE ON SHEET C707)
- 9. SEE SECTION 02720 FOR STORM SEWERAGE SPECIFICATIONS A) IN THE PROJECT MANUAL OR B) ON SHEET C90? 10. PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.
- 11. THE CONNECTION OF THE PROPOSED STORM SEWER TO AN EXISTING BRICK STRUCTURE MUST
- BE DONE ACCORDING TO THE FOLLOWING CONDITIONS: REHABILITATE AND COAT THE ENTIRE INTERIOR OF THE MANHOLE WITH NON-SHRINK GROUT.
- B.) AT THE POINT OF CONNECTION OF THE PROPOSED PIPE, PLACE A THREE FOOT (3') DIAMETER BY A MINIMUM SIX INCH (6") THICK, 4,000 PSI CONCRETE COLLAR WITH
- 4x4x10 GUAGE WIRE MESH OVER THE EXTERIIOR OF THE MANHOLE. C.) ONCE THE CORE HAS BEEN MADE, INSTALL A RUBBER BOOT.

SHOULD THE INTEGRITY OF THE MANHOLE BE COMPOMISED, THE ENTIRE STRUCTURE MUST BE REPLACED WITH A STANDARD MANHOLE STRUCTURE IN ACCORDANCE WITH THE INDIANAPOLIS SANITARY SEWER DISTRICT STANDARDS, MAY 1989, AND ITS ADDENDUMS.

> UTILITY PLAN LEGEND PROPOSED CONSTRUCTION STORM SEWER

CURB WITH SUBSURFACE DRAIN (SSD)

STORM SEWER INLETS STORM MANHOLE STORM SEWER STRUCTURE NUMBER STORM SEWER INVERT ELEVATION

END SECTION TOP OF CASTING ELEVATION SWALE WITH SUBSURFACE DRAIN (SSD)

SWALE W/SSD @ 1.00%

STATE OF THE PROPERTY OF THE P

PROFILE LEGEND GROUND GRADE 2+00 ← STATIONING DATUM

GRANULAR BACKFILL SEE NOTE 8

NOTE TO CONTRACTOR / PLAN REVIEWER.

ALL STORM SEWER FACILITES SHOWN IN PLAN AND PROFILE ON THIS SHEET WILL BE INCLUDED IN SECTION I CONSTRUCTION.

SHADED AREA INDICATES FUTURE SECTION 2 DEVELOPMENT.

RECORD DRAWING

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SADDLEBROOK AT SHELBORNE

LEEDS, LLC

5300 HESSLER ROAD

MUNCIE, INDIANA 47304

CERTIFIED BY:

Skarp

A. Skarp

Butter PH A. Skarp

Skarp

AFERESTAD

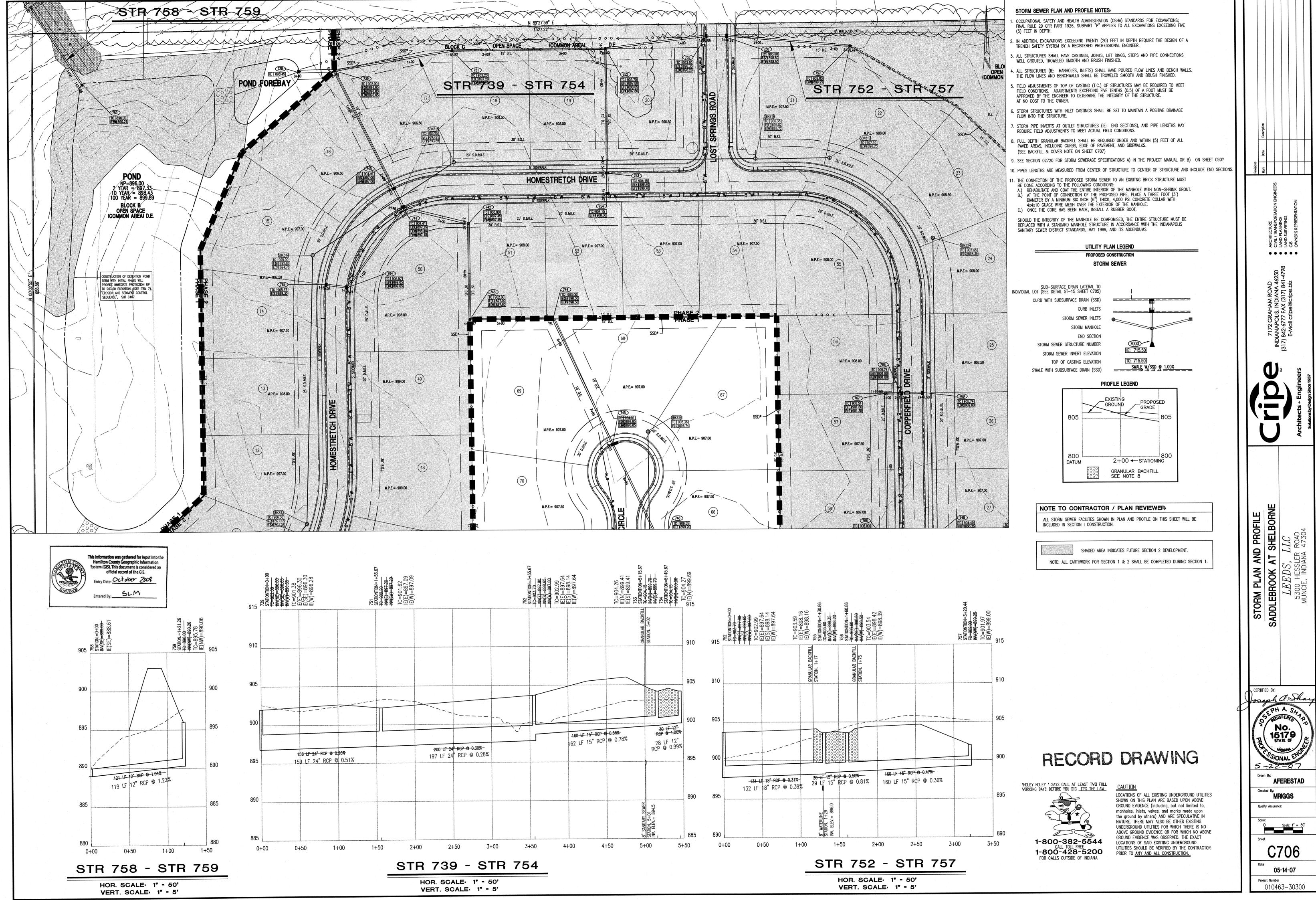
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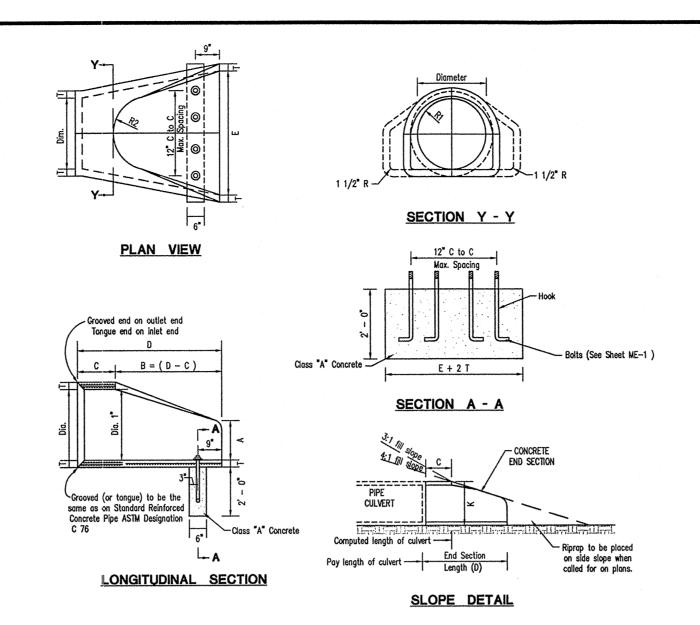
This copy is from the Digital Archive of the Hamilton County Surveyor's Office; Noblesville, In 46060

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 STORM PROFILES 02-22-05 [0:\2001\010463\20100\Cad\Engr\Profiles\Storm\S]



AFERESTAD

05-14-07



1. CONCRETE IN THESE: END SECTIONS SHALL BE THE SAME GRADE AND STRENGTH AS SPECIFIED FOR REINFORCED CONCRETE PIPE, ASTM DESIGNATION C 76 CLASS & (as set out in the Standard Specie.) 3. REINFORCEMENT IN THE "B" PORTION SHALL HAVE A CROSS-SECTIONA AREA EQUAL TO THAT OF ONE LAYER OF STEEL IN THE "C" SECTION. The END of PIPE CULVERT SHALL BE PLACED IN THE CONCRETE END SECTION SO THAT THE FLOW LINES ARE FLUSH. THE JOINT SHALL BE COMPLETELY FILLED WITH MORTAR. 5. In 3:1 or 4:1 fill slope, change to the slope of the end section in a smooth, pleasing transition approximately 10'-0" in length. 6. VARIATIONS IN DIMENSIONS — THE THICKNESS OF THE CONCRETE, THE POSITION OF STEEL, AND THE INTERNAL DIAMETER OF THE PIPE SHALL CONFORM WITH THE VARIATIONS IN DIMENSIONS AS PROVIDED IN THE SPECIFICATIONS FOR REDIFFORCED CONCRETE CULVERT, STORM DRAIN, AND SENER PIPE, ASTM DESIGNATION C 76.

DIMENSIONS OF PRECAST CONCRETE END SECTIONS

Concrete PIPE TO: Anchors shall be required on all congrete PIPE sections. The cost Thereof Shall be included in the Contract unit price per each for " PIPE END Sections."

PRECAST CONCRETE END SECTION NO SCALE

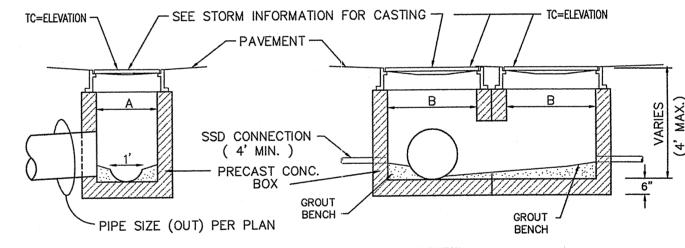
STORM SPECS CITY OF CARMEL BACKFILL AND COVER

BEDDING, HAUNCHING, AND INITIAL BACKFILL FOR ALL RCP INSTALLATIONS SHALL BE B-BORROW FOR STRUCTURE BACKFILL MEETING THE MATERIAL REQUIREMENTS OF THE INDOT. BEDDING SHALL BE PLACED IN THE TRENCH BOTTOM SUCH THAT AFTER THE PIPE IS INSTALLED TO GRADE AND LINE, THERE REMAINS A 4 INCH MINIMUM DEPTH OF MATERIAL BELOW THE PIPE BARRLE AND A MINIMUM OF 3 INCHS BELOW THE BELL. FOR OPIPE SIZED 66 INCES AND LARGER, THE MINIMUM DEPTH OF MATERILA BELOW THE PIPE BARREL SHALL BE 6 INCHES. BEDDING SHALL BE PLACED TO BE UNIFORM AS POSSIBLE, BUT SHALL BE LOOSELY PLACED UNCOMPACTED MATERIAL UNDER THE MIDDLE THIRD OF THE PIPE PRIOR TO PLACEMENT OF THE PIPE. HAUNCHING AND INITIAL BACKFILL SHALL BE COMPACTED IN 8 INCH MAXIMUM LIFTS TO NOT LESS THAN 90% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTH OF THE MATERILA PLACED. THE BACKFILL SHALL BE BROUGHT UP EVENLY O BOTH SIDES OF THE PIPE FOR THE FULL LENGHT OF THE PIPE. HAUNCHING SHALL EXTEND TO THE SPRINGLINE OF THE PIPE.THE LIMIT OF INITIAL BACKFILL SHALL BE 6 INCHES ABOVE THE SPRINLINE. MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 18 INCHES.

FINAL BACKFILL FOR ALL RCP INSTALLATIONS UNDER AND WITHIN 5 FEET OF PAVEMENT (INCLUDING SIDEWALKS) SHALL BE B-BORROW FOR STRUCTURE BACKFILL MEETING THE MATERIAL REQUIREMENTS OF THE INDOT AND SHALL BE COMPACTED IN 6 INCH MAXIMUM LIFTS TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTH OF THE MATERIAL PLACED. THE BACKFILL FOR THE TOP 6 INCHES OF EXCAVATION BELOW THE START OF THE AGGREGATE SUBBASE OF THE PAVEMENT SHALL BE No. 53 STONE MEETING THE MATERIAL REQUIREMENTS OF THE INDOT AND SHALL BE COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY.

FINAL BACKFILL FOR ALL RCP INSTALLATIONS GREATER THAN 5 FEET FROM ANY PAVEMENT SHALL BE CLEAN FILL MATERIAL FREE OF ROCKS LARGER THAN 6 INCHES IN DIAMETER, FROZEN LUMPS OF SOIL, WOOD OR OTHER EXTRANEOUS MATERIAL, COMPACTED IN 12 INCH MAXIMUM LIFTS TO NOT LESS THAT 90% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTH OF THE EXCAVATION.

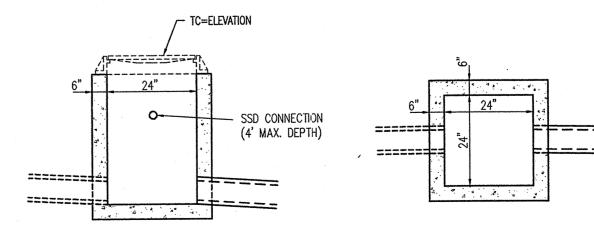
THESE INSTALLATIONS SHALL CONFORM WITH THE FOLLOWING MINIMUM COVER REQUIREMENTS: "FOR INSTALLATION OF STORM MAINS, WATER MAINS, SANITARY MAINS, WATER SERVICE LATERALS, SANITARY SERVICE LATERALS UNDER CITY STREETS, REGARDLESS OF JURISDICTION OF THE UTILITY, THE MINIMUM COVER FROM THE TOP OF THE INSTALLED PAVEMENT TO THE TOP OF THE INSTALLED PIPE SHALL BE THE PAVEMENT SECTION THICKNESS (ALL BITUMINOUS AND AGGREGATE MATERIAL ABOVE SUBGRADE) PLUS 1-0". IF THE STANDARD PRACTICE OF THE UTILITY THAT HAS JURISDICTION OVER THE INSTALLATION HAS A MORE STRINGENT COVER REQUIREMENT, THE MORE STRINGENT COVER REQUIRMENT SHALL GOVERN.



TC = TOP OF CASTING ELEVATION DOUBLE INLET DETAIL

ſ			Casting Schedule		
İ	EJIW	NEENAH	TYPE	USE	DIM
ŀ	7490-M1	R-3501-N	CURB INLET	LOW POINT	24" X 24
ŀ	7495-LH-RH	R-3501-TL-TR	CURB INLET	FLOW LEFT OR RIGHT	25" X 27
	_	R-3405	INLET	PARKING LOT	25" X 25
		R-2501	GRATE	PARKING LOT	24"ø
	6489	R-4342	DITCH GRATE	SWALES	24"ø
Ì					

* REQUIRES FLAT TOP WITH 24" OPENING



TC = TOP OF CASTING ELEVATION

PRECAST TYPE "A" INLET (ST-36) NO SCALE

RECORD DRAWING

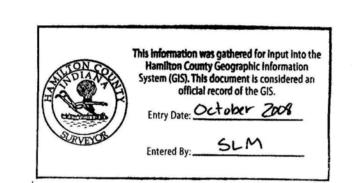
This information was gathered for input into the Hamilton County Geographic Information System (GIS). This document is considered an official record of the GIS. Entry Date: October 2008

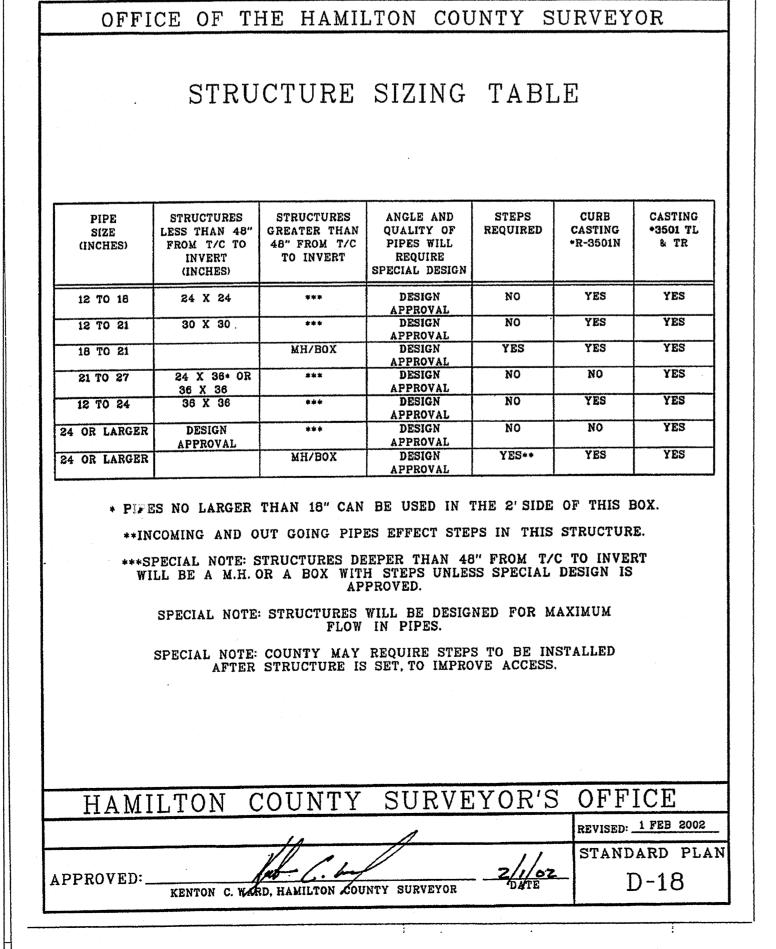
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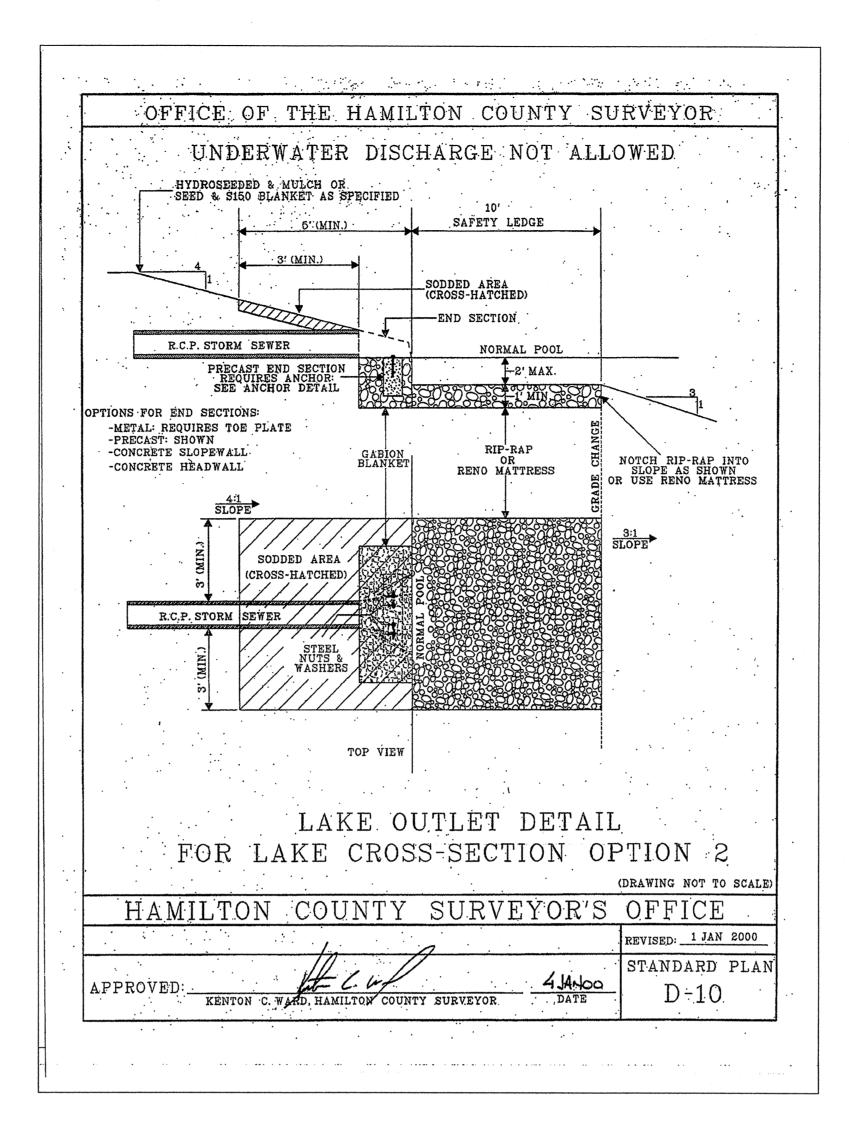
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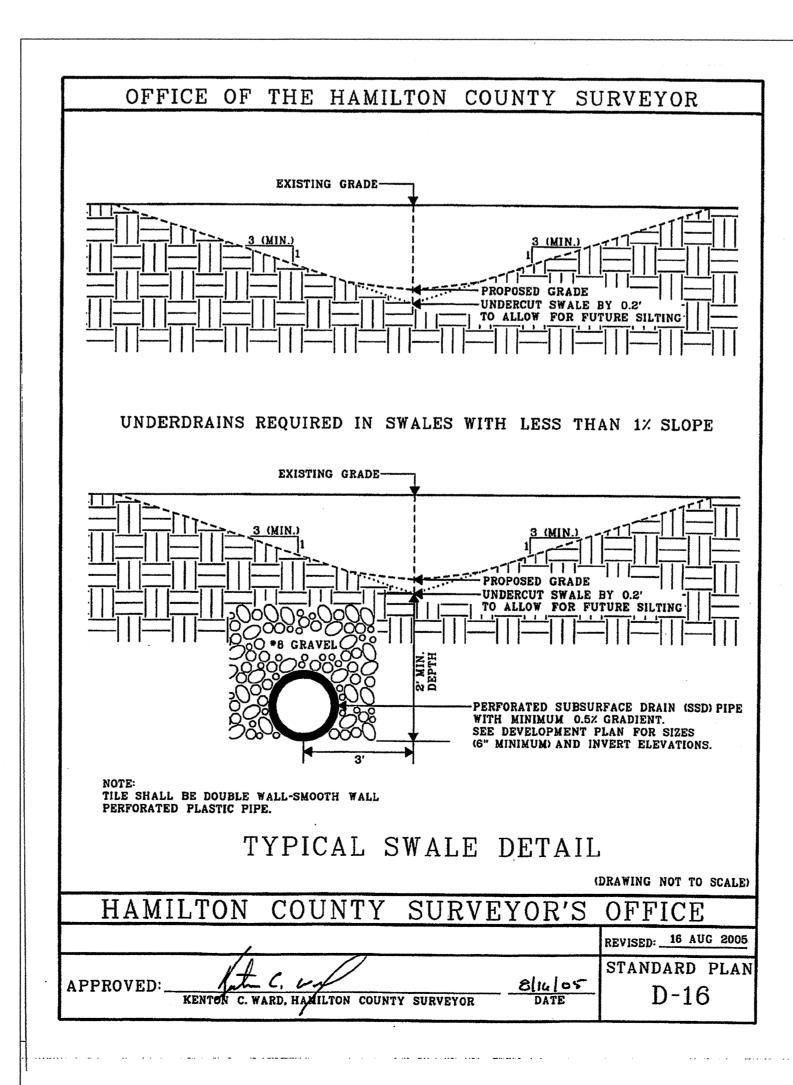
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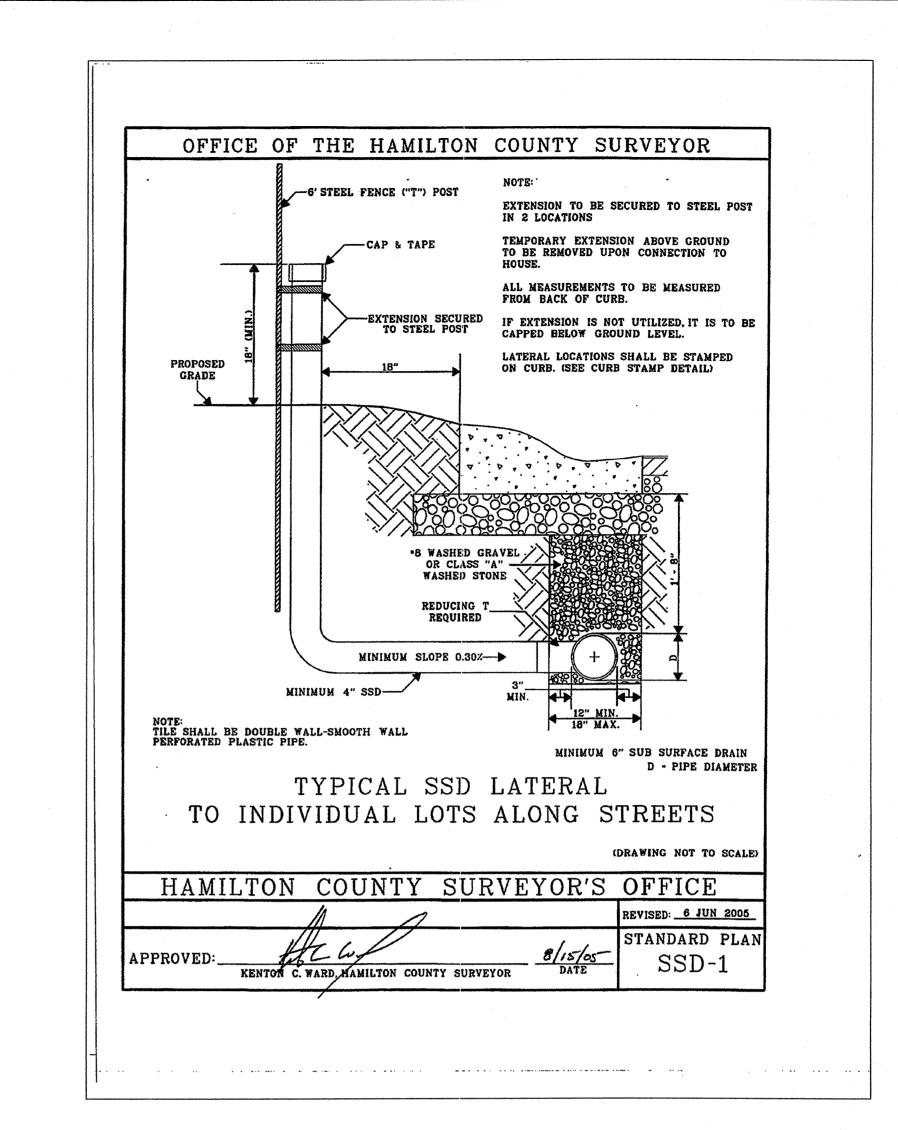
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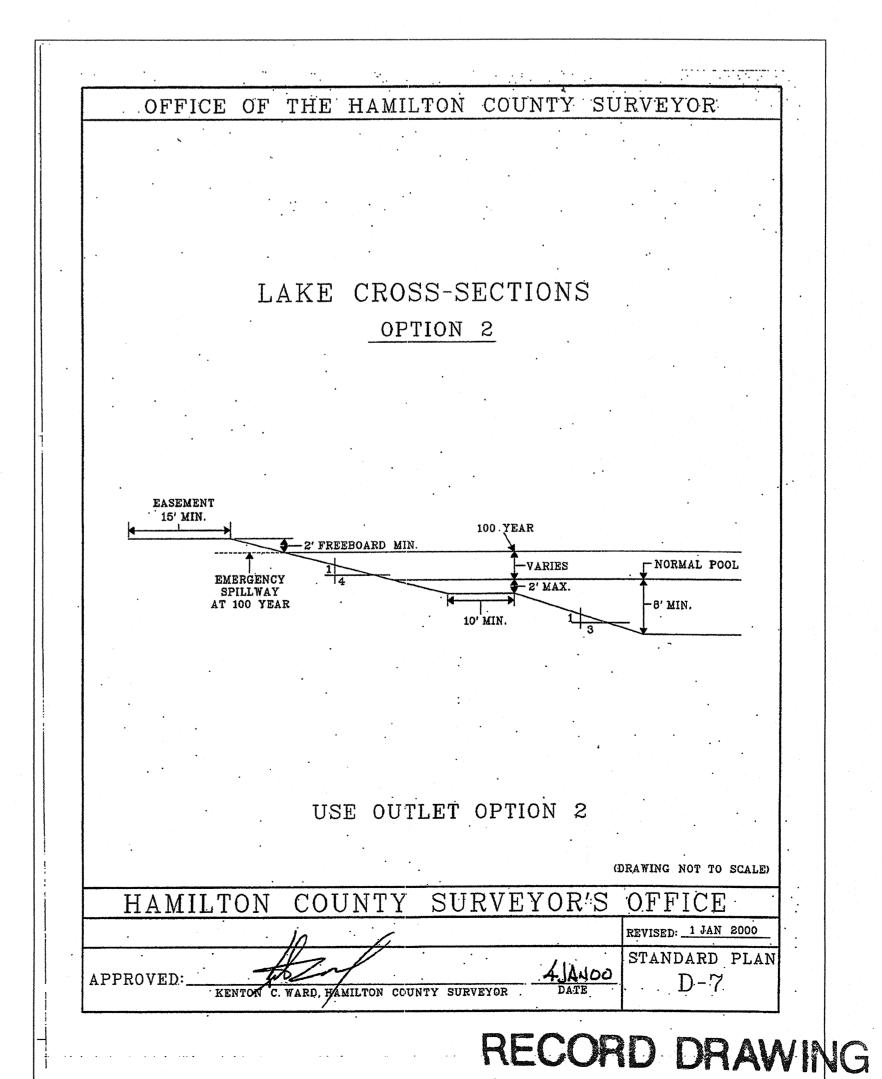












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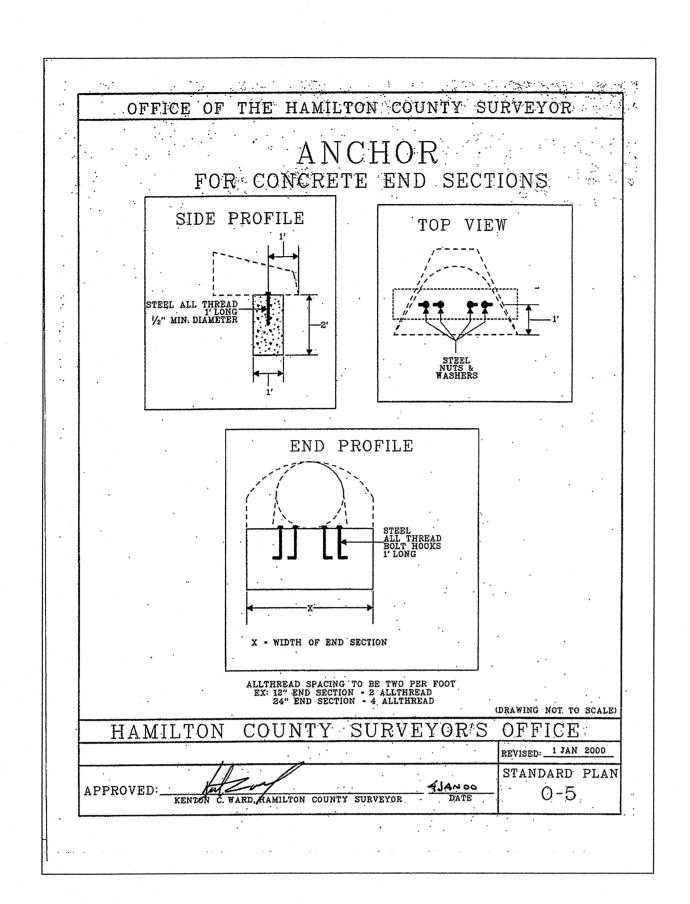
Joseph a. Shain

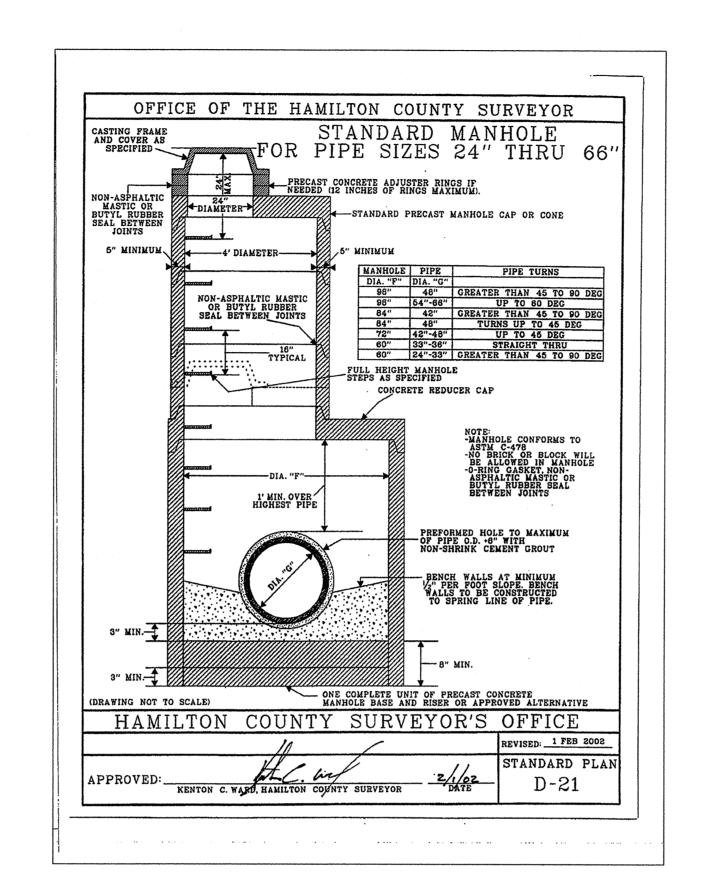
J SHARP

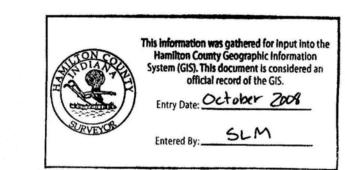
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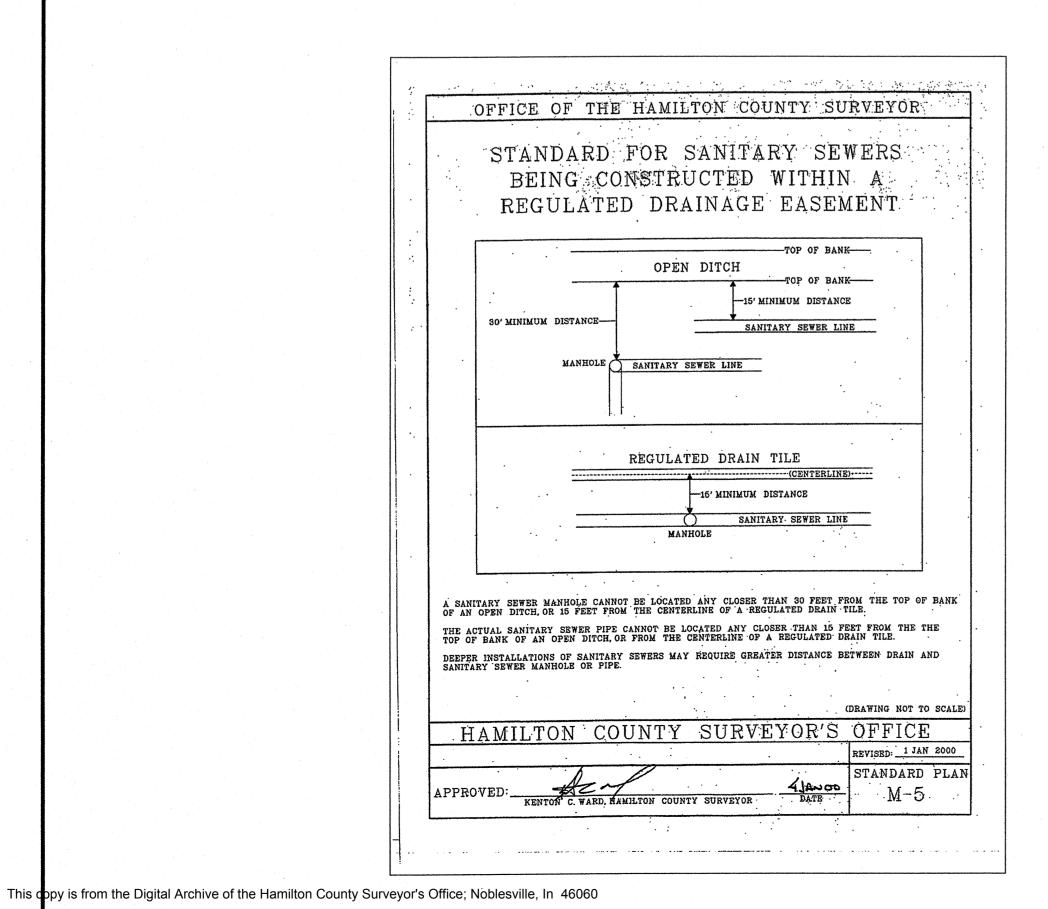
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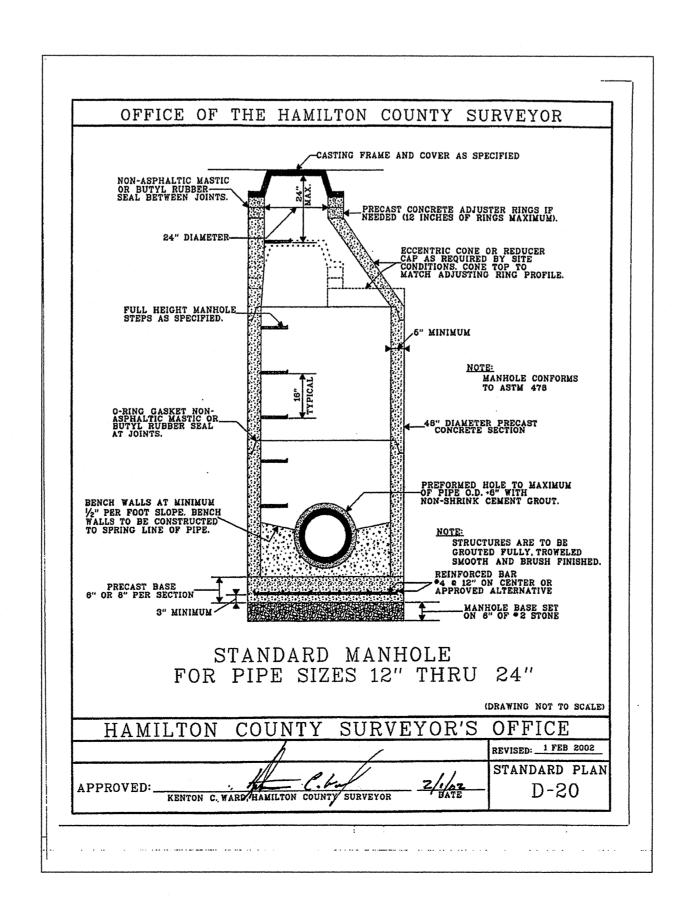
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·	TC /				Market di		UNTY SU		DIRECTION
	RIM	INV.	INV.	DEPTH	STR.	STR.	CASTING	PIPE	OF PIPE
STR. NO	1	IN	OUT	IN FEET	SIZE	TYPE	TYPE	SIZE	IN / OUT
EX-1	898.90	890.15	890.10	7.00	48"	D-20	R-4342	15", 18"	E / NE
EX-2	900.27	895.67	894.52	3.92	48"	D-20	R-4342	8", 15"	S/N
		896.99	895.67	3.10					NE / W
701			884.40		18"	ST-3A	END SECTION	18"	NW OUT
702	889.50	885.00	885.00	1.20	24"x36"	ST-36	R-4342	18"	S / NW
703	894.50	888.85	885.85	6.85	72"	D-20	R-4342	18"	S/N
704	893.41	889.25	889.25	2.36	72"	D-20	R-3501-N	18"	S/N
705	893.41	889.50	889.50	2.11	48"	D-20	R-3501-N	18"	S/N
705A	898.00	894.73	894.73	2.18	48"	D-20	R-4342	15"	E/W
706			894.22		18"	ST-3A	END SECTION	18"	NW OUT
707	900.15	894.35	894.35	3.99	24"x36"	ST-36	R-3501-TL	15",18"	S / NW
708	900.15	895.05	894.43	4.22	24"x36"	ST-36	R-3501-TR	8", 15"	SE / N
709	333113		896.45		24"	ST-3A	END SECTION	24"	SW OUT
710	905.00	898.00	898.00	4.69	48"	D-21	R-4342	18", 24"	
	300.00	898.25	000.00					15"	SE /NE
711	905.00	899.00	899.00	4.20	48"	D-20	R-4342	15", 18"	W / NE
712	907.50	900.80	900.80	5.20	48"	D-20	R-4342	15"	S/E
713	906.51	901.85	901.85	3.16	24"x36"	ST-31	R-3501-TL	12", 15"	, –
714	906.51	307.00	902.10	3.12	24"x36"	ST-31	R-3501-TR	12"	N OUT
715	906.72	899.45	899.45	5.77	24"x36"	ST-36	R-3501-TL	12", 15"	SE / NW
716	906.72	899.65	899.65	5.83	24"x36"	ST-36	R-3501-TR	12"	SE / NW
717	906.76	899.75	899.75	5.77	48"	D-20	R-4342	12"	SW / NW
718	904.50	033.73	900.25	3.01	48"	D-20	R-4342	12"	NE OUT
719	304.30		896.30	3.01	36"	ST-3A	END SECTION	36"	NW OUT
720	903.55	896.75	896.75	3.40	48"	D-21	R-3501-N	36"	SE / NW
721	903.55	896.80	896.80	3.35	48"	D-21	R-3501-N	36"	SE / NW
722	904.50	897.25	897.25	4.40	60"	D-21	R-4342	30"	E / NW
723	903.50	897.65	897.65	2.99	60"	D-21	R-4342	30"	S/W
724	904.00	898.15	898.15	1.64	60"	D-21	R-4342	30"	E/N
	30 1.00	898.30	000.10					24"	SE / N
725	903.80	898.50	898.50	2.44	48"	D-21	R-4342	24", 30"	
720	300.00	899.50	000.00					15"	N / W
726	905.54	898.95	898.95	4.28	48"	D-21	R-3501-N	24"	E/W
727	905.54	899.05	899.05	4.18	48"	D-21	R-3501-N	24"	E/W
728	906.90	899.15	899.15	5.44	48"	D-21	R-4342	24"	E/W
720	300.30	900.55	033.13	0.11	10	<u> </u>	N 1012	18"	S/W
729	904.50	899.65	899.45	2.74	48"	D-21	R-4342	18", 24"	E/W
				6.85	48"	D-20	R-4342	18"	SE / W
730	908.50	899.85	899.85		48"			18"	
731	904.00		900.35	1.35	40	D-20	R-4342	10	NW OUT
H	AMII	TON	CO	<u>UNT</u>	Y SU	IRVE	YOR'S	OFF	ICE
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	TC/RIM	INV.	INV.	DEPTH	STR.	STR.	CASTING	PIPE	DIRECTION OF PIPE	
STR. NO	,	IN.	OUT	IN FEET	SIZE	TYPE	TYPE	SIZE	IN / OUT	
732	902.54	898.80	898.40	0.80	48"	D-21	R-3501-N	18", 24	" S / NW	
733	902.54	899.25	899.00	0.71	24"x36"	ST-36		15", 18	" S / N	
734	903.00		899.75	1.75	48"	D-20	R-4342	15"	N OUT	
735	903.00		900.00	1.50	48"	D-20	R-4342	15"	S OUT	
736	905.82	900.80	900.80	3.52	24"x36"	ST-31	R-3501-TL	12", 15	" S / N	
737	905.82		901.00	3.58	24"x36"	ST-31	R-3501-TR	12"	N OUT	
738			896.45		36"	ST-3A	END SECTION	36"	W OUT	
739	902.00	896.65	896.65	0.95	60"	D-21	R-4342	36"	SE / W	
		896.80						24", 30		
740	904.41	897.00	897.00	4.01	60"	D-21	R-3501-N	30", 36	"SE / NW	
741	904.41	898.40	897.15	4.46	60"	D-21	R-3501-N	30"	SE / NW	
		897.15						15"	SW	
742	903.90	897.45	897.45	3.60	60"	D-21	R-4342	30"	S / NW	
743	902.80	897.90	897.90	2.05	60"	D-21	R-4342	30"	E/N	
744	903.00	898.30	898.30	1.85	60"	D-21	R-4342	30"	SE / W	
745	904.91	898.85	898.85	3.21	60"	D-21	R-3501-N	30"	SE / NW	
746	906.55	899.20	899.20	4.50	60"	D-21	R-4342	30"	E / NW	
747	903.50	899.55	899.55	1.10	60"	D-21	R-4342	24", 30	" E / W	
748	904.49	900.15	900.15	2.03	48"	D-20	R-3501-N	24"	E/W	
749	904.49	900.35	900.30	2.39	24"x36"	ST-36	R-3501-N	15", 18	" E /W	
750	904.00		900.70	1.30	48"	D-20	R-4342	15"	W OUT	
751	902.20	897.20	897.20	2.69	48"	D-21	R-4342	24"	E/W	
752	903.70	898.65	897.80	3.59	48"	D-21	R-4342	15", 24	" S / W	
		897.80						18"	E/W	
753	904.15	899.70	899.70	2.95	24"x36"	ST-36	R-3501-N	12", 15	" S / N	
754	904.15		900.00	2.91		ST-36	R-3501-N	12"	N OUT	
755	903.60	898.35	898.20	3.60	24"x36"	ST-36	R-3501-TR		" E / W	
756	903.60	898.50	898.50	3.60	24"x36"	ST-36	R-3501-TL	15"	E/W	
757	902.00		899.25	1.25	48"	D-20	R-4342	15"	W OUT	
758	889.00	889.00	898.00			ST-3A	END SECTION	12"	NW OUT	
759	896.00		890.26	5.74	48"	D-20	R-2560E	12"	NW OUT	
760	904.13	898.30	896.86	4.58	48"	D-21	R-1772	30"	NW /SE	
	,	896.86						12"	NE	
761	907.00	899.20	899.20	6.55	48"	D-21	R-1772	12"	NW / SW	
762	905.40	899.45	899.45	4.70	24"x36"	ST-36	R-3501-TL	12"	NW / SE	
763	905.40		899.60	4.55	24"x36"	ST-36	R-3501-TR	12"	SE	
764	905.57	899.05	899.05.	5.27	24"x36"	ST-36	R-3501-TR	12"	W / NE	
765	905.57		899.30	5.02	24"x36"	ST-36		12"	Ε	
766	905.00	900.50	900.08	3.25	48"	D-21	R-1772	24"	E/W	
		900.50						15"	N	
767	906.51	901.60	901.35	3.66	48"	D-21	R-1772	12"	E/S	
768	905.74	901.80	901.80	2.69	24"x36"	ST-36		12"	E/W	
769	905.74		902.00	2.49	24"x36"	ST-36	R-3501-TR	12"	W	
		TITO								
<u> </u>	AMI	LTO!	N C	<u>NUC</u>	1 I	SUR	<u>VEYOF</u>	·	OFFICE	
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APPRO	VED:_							<u>/02</u>	D-19	
		KENTON	C. HARD,	Hamiltoy	COUNTY	SURVEYO	R 'DA	IE .	n_19	1

ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE - DRAINS TO WATERWAY" CONTRACTOR SHALL CONSTRUCT ALL STRUCTURES BASED ON DATA SHOWN ON THE PLAN AND PROFILE SHEETS IN THIS PLAN SET.

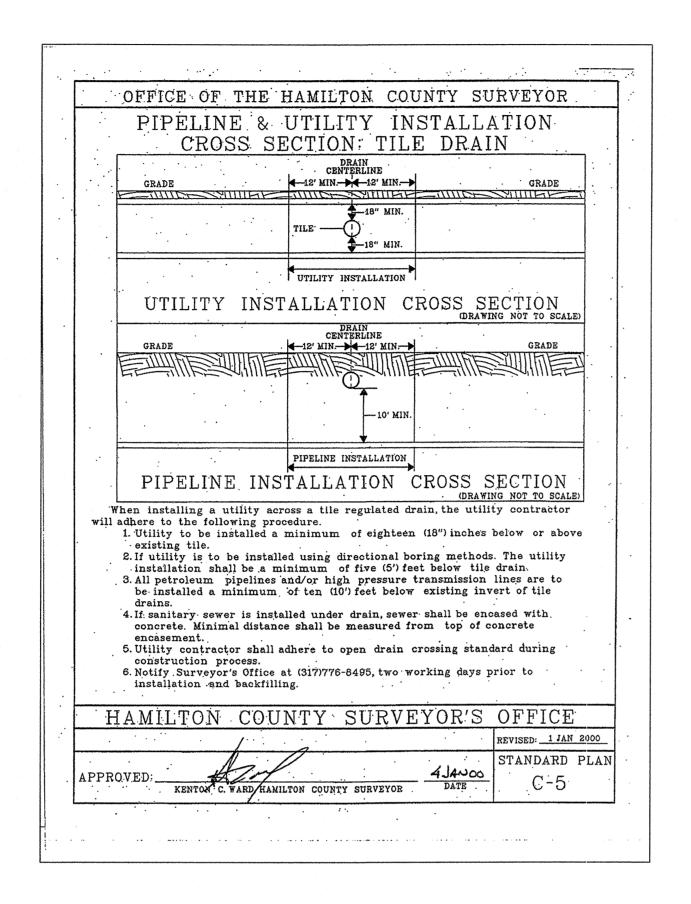
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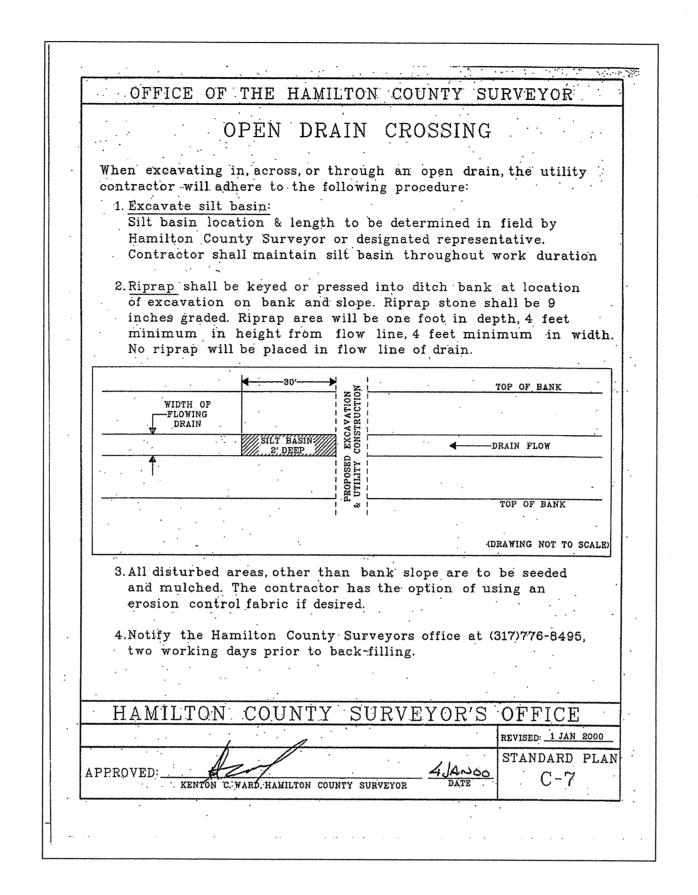
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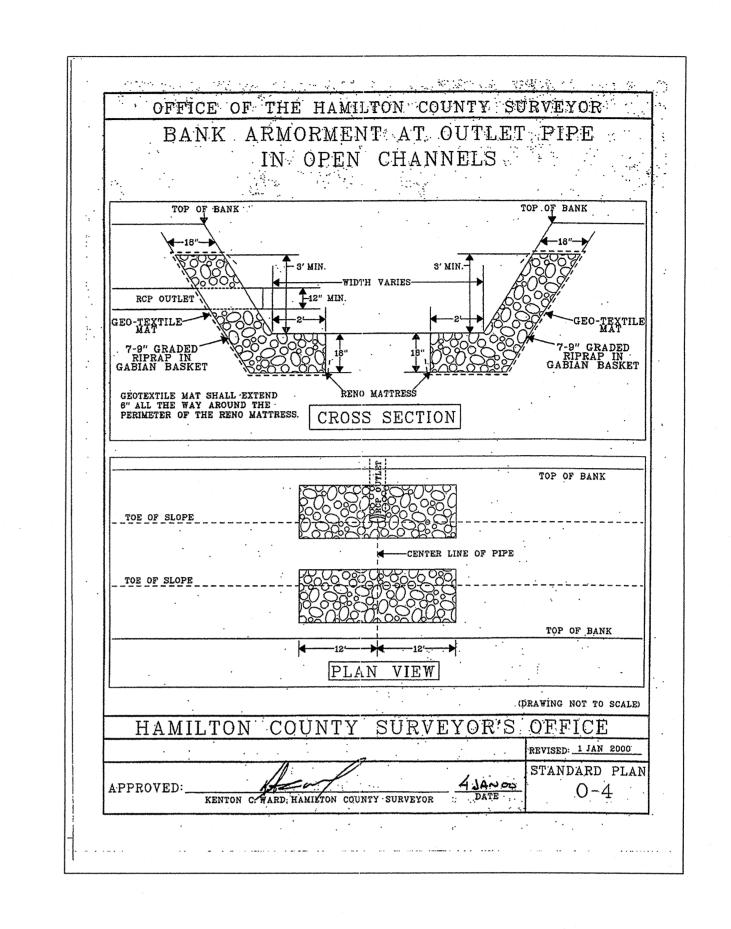
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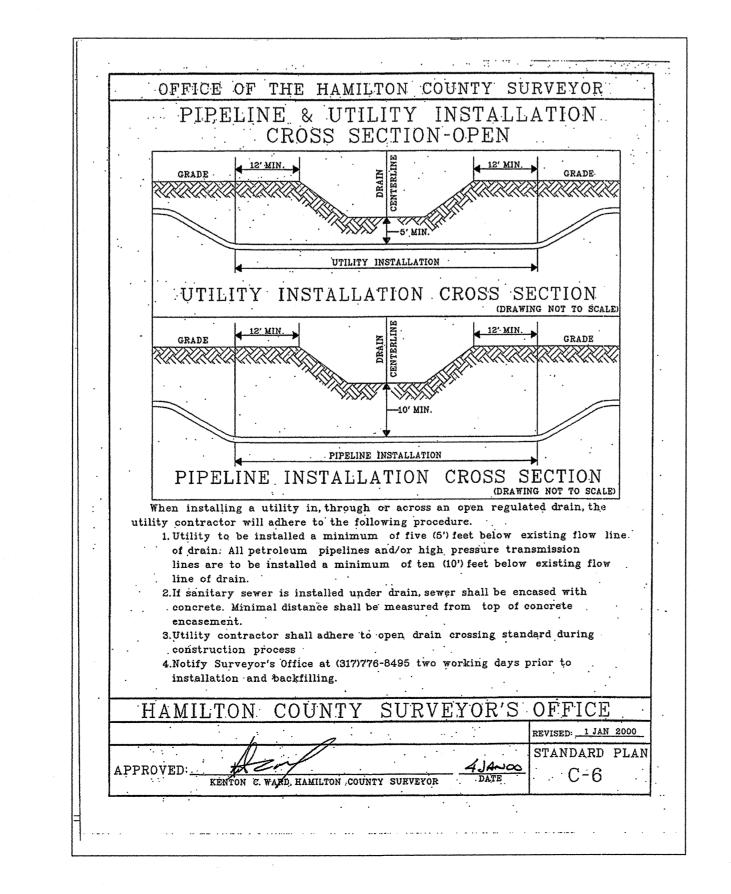
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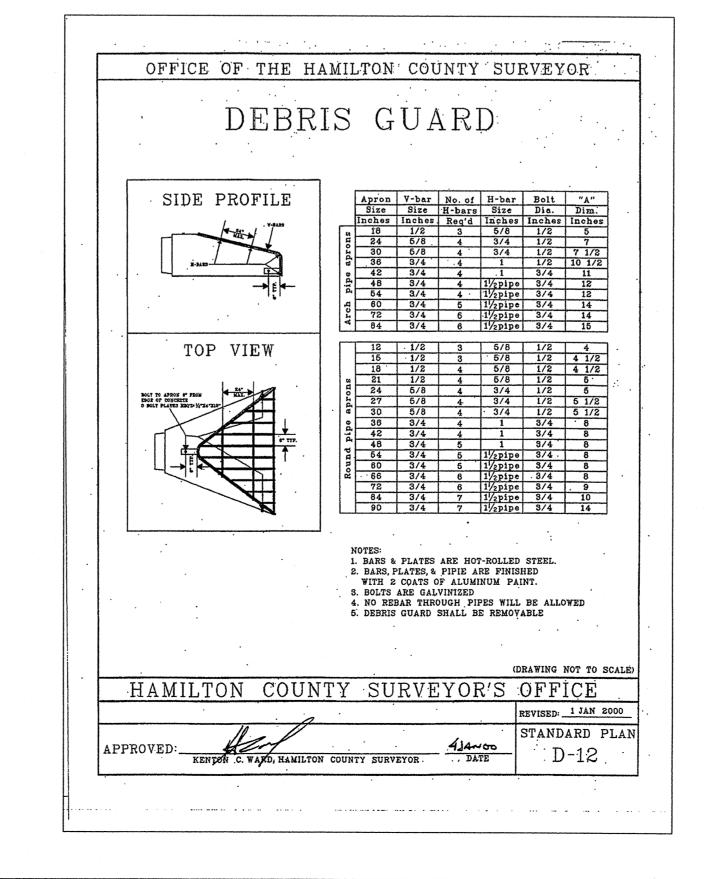
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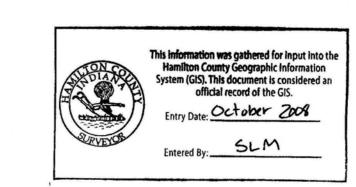












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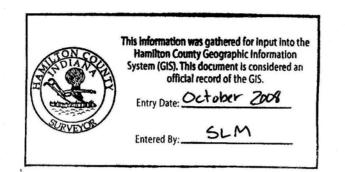
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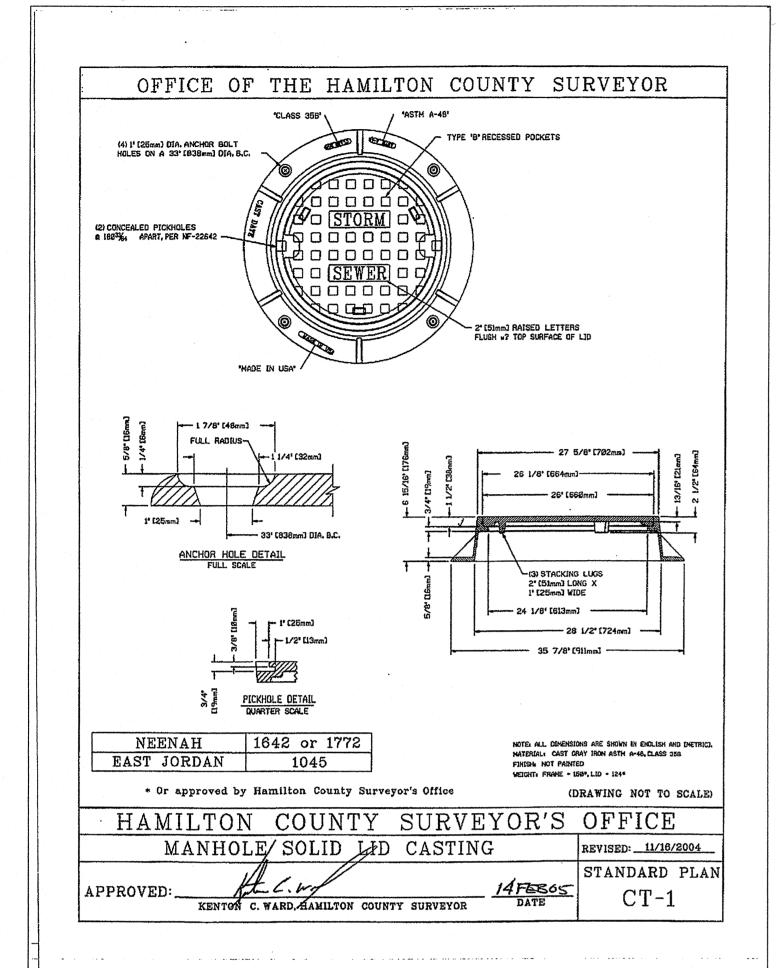
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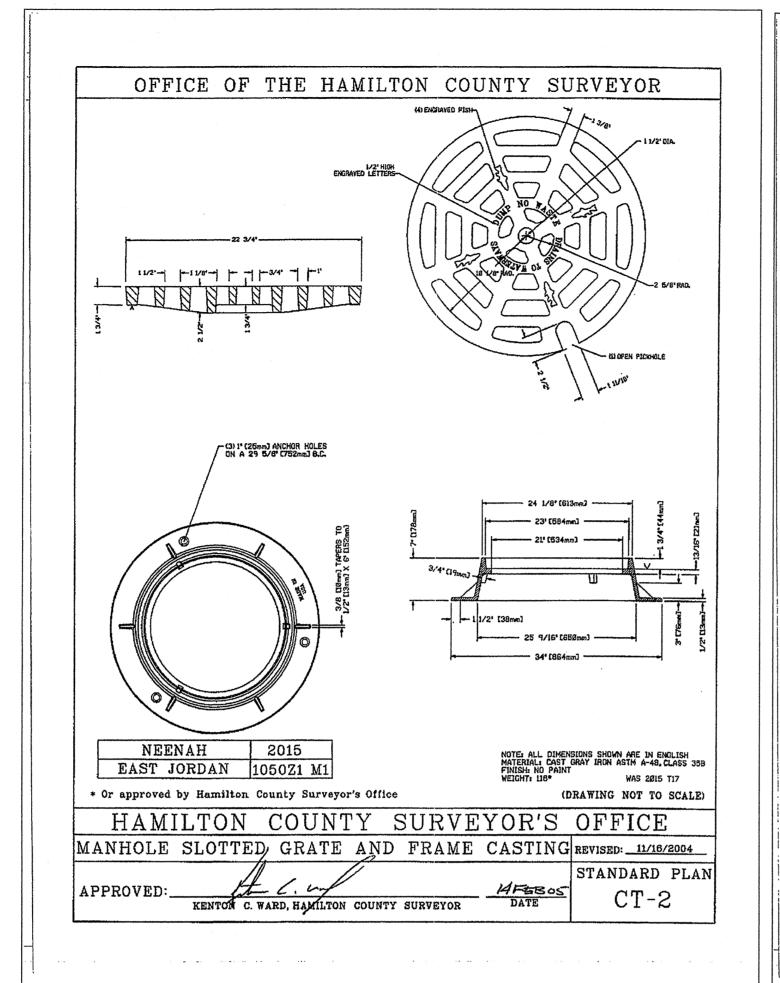
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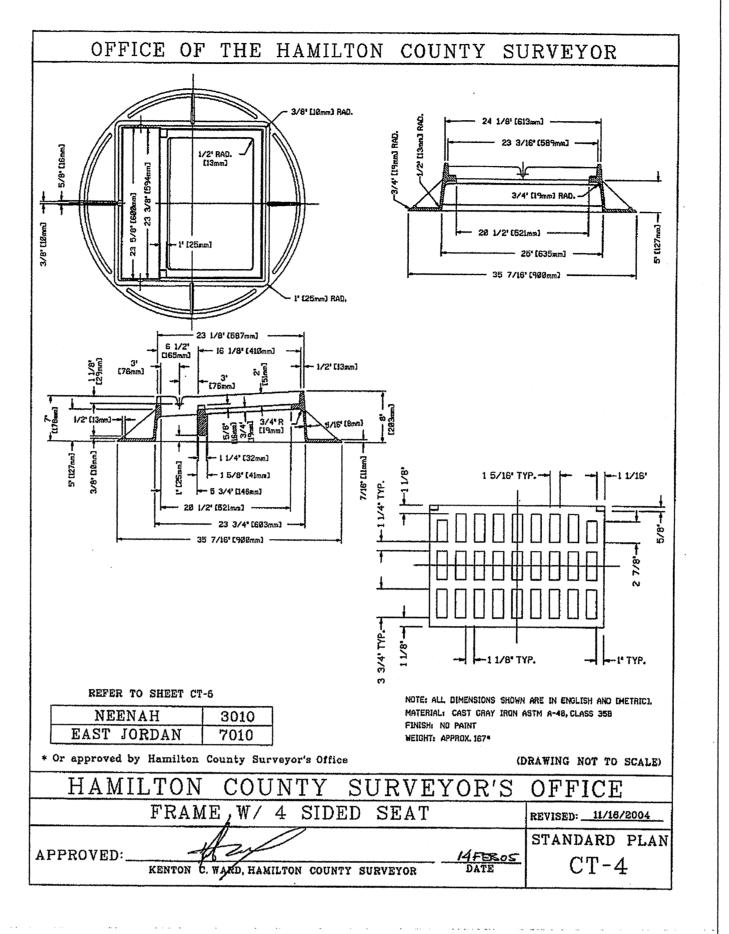
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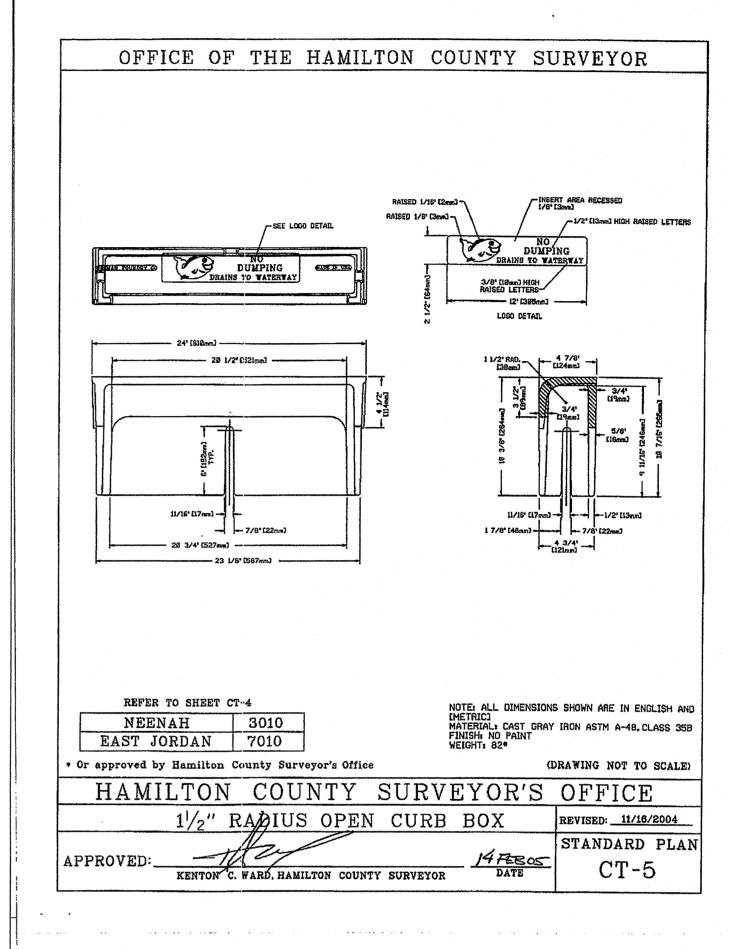
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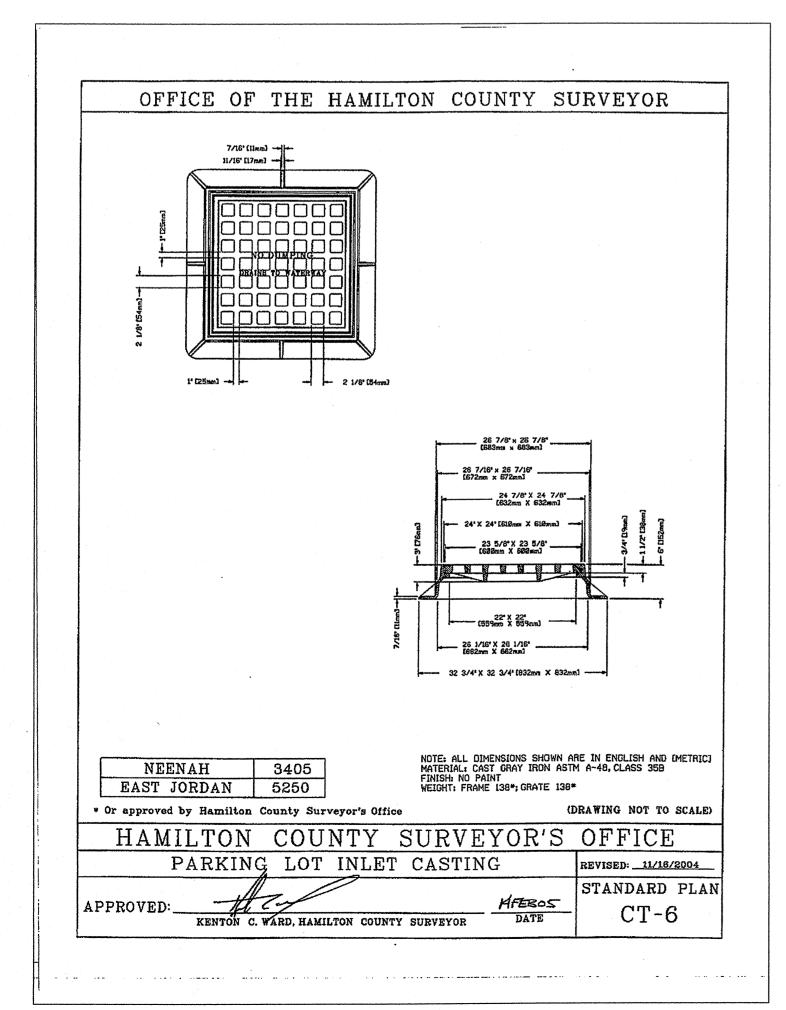


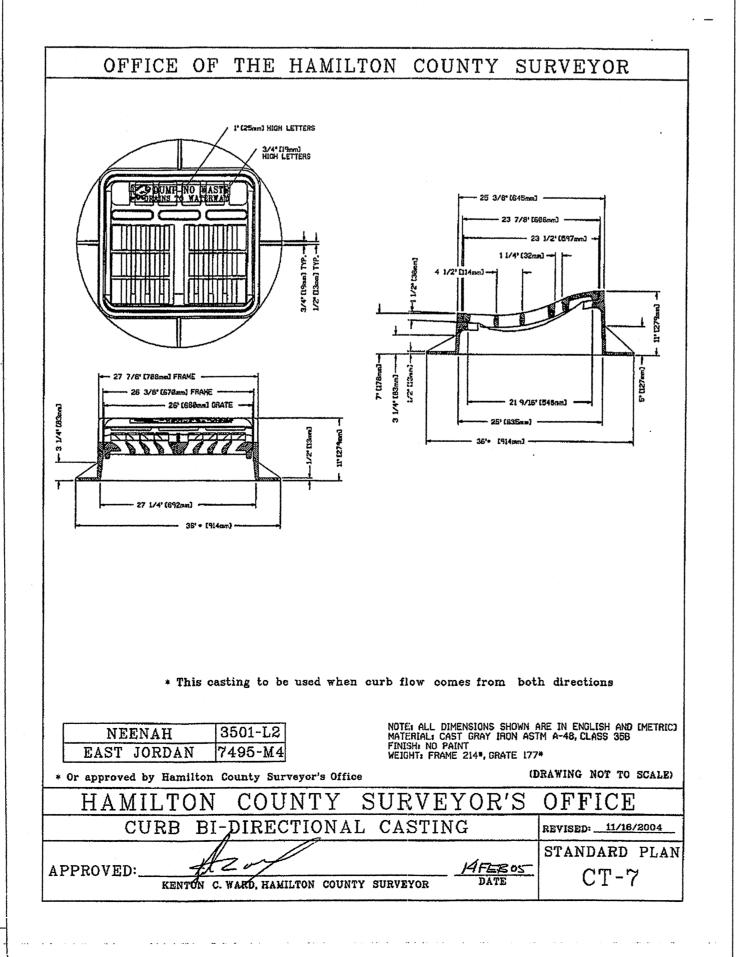


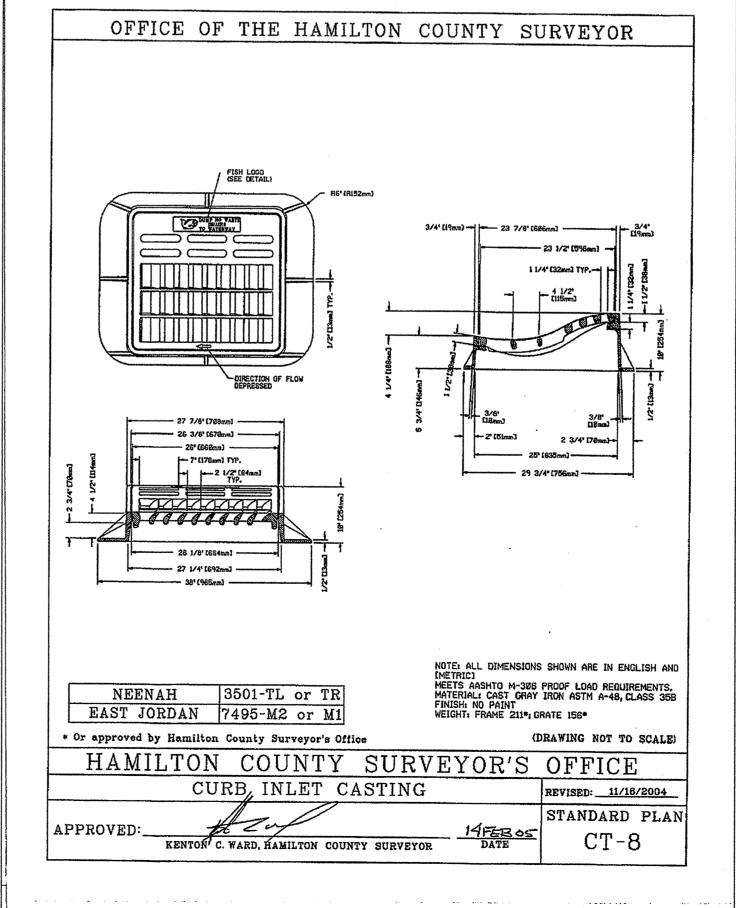


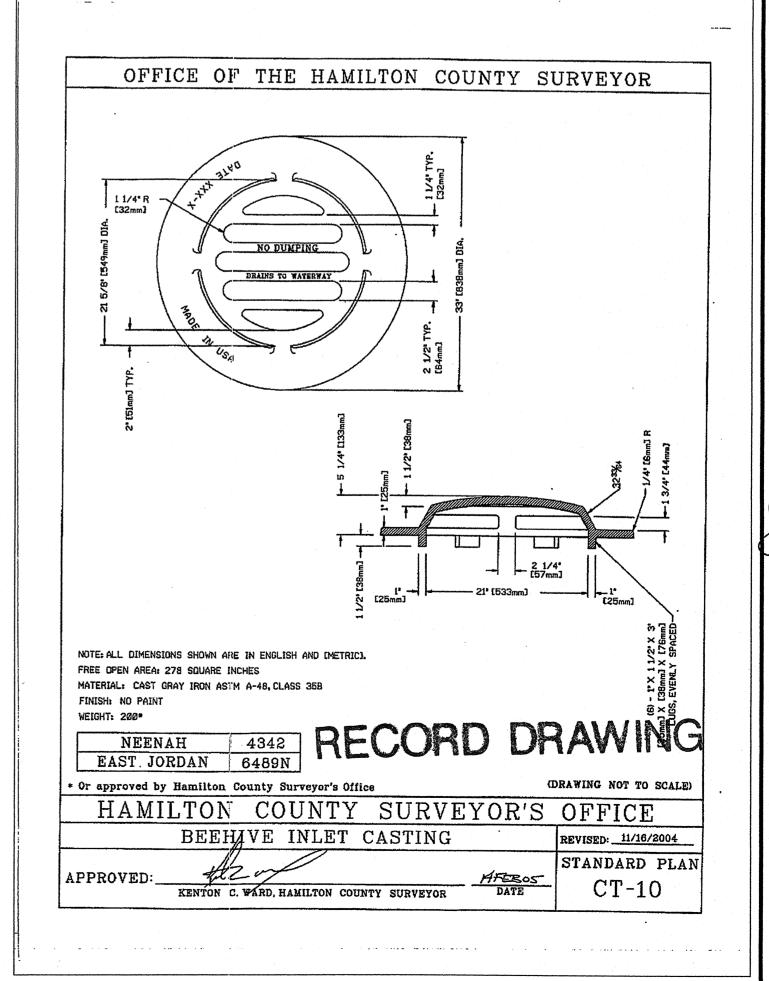


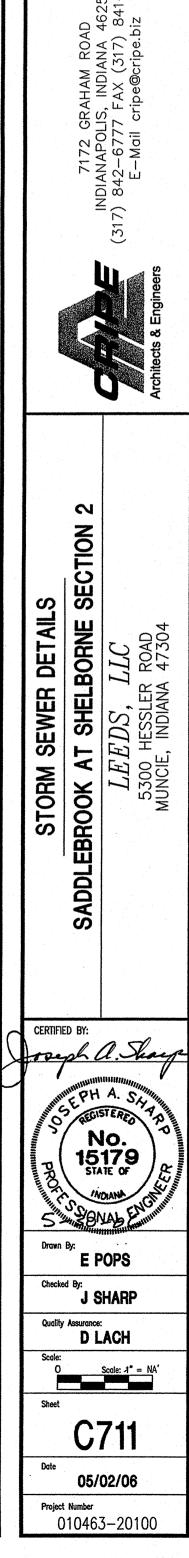












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