

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

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

October 25, 2004

TO: Hamilton County Drainage Board

RE: Bridgewater Drain, Marina Village Arm.

Attached is a petition filed by The Marina Limited Partnership along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Marina Village Arm, Bridgewater Drain 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. The drain will consist of the following:

6" SSD 2,292 feet 15" RCP 138 feet 12" RCP 339 feet 18" RCP 112 feet

The total length of the drain will be 2,881 feet.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs for the private street. Only the main SSD lines which are located within the easement right of way for Marina Village Drive 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 \$10.00 per acre for common areas (and platted lots), \$65.00 for platted lots, \$10.00 per acre for roadways, with a \$65.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$1,170.00

The petitioner has submitted surety for the proposed drain at this time. Surety shall be submitted prior to the approval of the Hamilton County Board of Commissioners/commencement of construction. The sureties which are in the form of a Letter of Credit are as follows:

Agent: Fifth Third Bank Date: February 10, 2004 Number: CIS402158 For: Erosion Control

Amount: \$35,000

Agent: Fifth Third Bank Date: February 10, 2004 Number: CIS402159

For: Storm Sewers & Subsurface Drains

Amount: \$58,015.00

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 conditional secondary plat for Marina Village as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for January 24, 2004.

Kenton C. Ward

Hamilton County Surveyor

KCW/pll

STATE OF I	NDIANA)		()	Revised12/2002)	
COUNTY O))				
TO: HAMIL % Hamil One H	TON COU	NTY DRAINA Surveyor unty Square,				
		Marina Vi	llage Orain Petition.	Su	bdivision, Section	ı
County, Indian roads as shown	na. The ger	er of all lots in Man as lots in Man aeral route of s as on file in th	n the land affecter ina Village such drainage sh e Surveyor's Of	all be in existing e fice.	, a subdivisior asements and alor	n in Hamilton ng public
than the benefit believes the pr	TO WITHOUT W	ui resuit to the	Owners of the L	nses of the proposi and likely to be be	ed improvement venefited thereby.	vill be less Petitioner
((b) benefit	ve public healt a public stree ublic utility	ch et			
Petitioner maintenance as	agrees to passessments	oay the cost of by the Board t	construction of hereafter.	the drainage syste	m and requests pe	riodic
The Petit	oner also a	grees to the fo	llowing:			
1.	of 100%	system which of the Enginee	will be made a r er's estimate. Th	mance Bond for the egulated drain. The bond will be in a certified by the E	he bond will be in effect until constr	the amount uction of
2.	At comple	etion of the praich is to be m	oject the Petition	hroughout the con ner's Engineer sha egulated drain has	Il certify that the	Irainage as per
3.	Surveyor	om the appro- prior to imple:	ved plan and mu	ng to the County S st receive written a change. All chan Drain file.	authorization from	n the County nented and
4.	on a 24" x	.36" Mylar of	the final design	r to provide a repro of the Drainage S to the release of th	vstem. This shall	be ond.
5.	the constru determined	iction plans. I I by the Board Thall immedian	Failure to compl I as being an obs	sion Control Plan y with the Erosion truction to the dra pair the needed me	Control Plan sha	e County
The Petition 69(d).	ner further	equests that t	he Drain be class	sified as an Urban	Drain as per IC 3	6-9-27-
, ale E P	Dans					
Signed				Signed		
Allen E. F	losenberg					
Printed Name			 Ī	Printed Name		
RECORDED O	WNER(S)	OF LAND II	NVOLVED D	Pate		



December 22, 2003

7172 Graham Road Indianapolis, IN 46250 317-842-6777 FAX: 317-841-4798 www.picripe.com

Steven Cash Plan Reviewer Hamilton County Surveyor's Office One Hamilton County Square, Suite 188 Noblesville, IN 46060-2230

Architecture

MARINA VILLAGE DEVELOPMENT 11691 FALL CREEK ROAD INDIANAPOLIS, IN 46246

Construction Administration Dear Mr. Cash:

Engineering

The estimated construction cost for the storm sewer on the above referenced project is as follows:

Geographic Information

Storm Sewers: \$35,000.00 Underdrain: 15,000.00

Services

TOTAL \$50,000.00

Landscape Architecture This estimate should be suitable for bonding purposes.

Sincerely,

Land Planning

PAUL I. CRIPE, INC.

Land Surveying

Joseph A. Sharp, P.E. Project Engineer

Real Estate Consulting

als

Transportation Engineering

DEC 23 2003

OFFICE OF HAMILTON COUNTY SURVEYOR

O:\2003\030366\20000\docs\ltr122203cash.doc

HCDB-2004-00013 LETTER OF CREDIT NO. CIS402159

PAGE 1

ISSUING BANK: FIFTH THIRD BANK, (CENTRAL INDIANA)

BENEFICIARY:
HAMILTON COUNTY BOARD OF
COMMISSIONERS
1717 PLEASANT STREET
NOBLESVILLE, IN 46038

APPLICANT: THE MARINA LIMITED PARTNERSHIP 11691 FALL CREEK ROAD INDIANAPOLIS, IN 46256

LETTER OF CREDIT NO:

CIS402159

ISSUE DATE:

FEBRUARY 10, 2004

EXPIRATION DATE:

FEBRUARY 10. 2005

EXPIRATION PLACE:

AT OUR COUNTERS

AMOUNT: 58 015 00 USD FIFTY EIGHT THOUSAND FIFTHEN 00/100

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. CIS402159 IN YOUR FAVOR, AT THE REQUEST AND FOR THE ACCOUNT OF MARINA LIMITED PARTNERSHIP, 11691 FALL CREEK ROAD, INDIANAPOLIS, IN 46256 FOR ANY SUM OR SUMS NOT EXCEEDING \$58,015.00, AVAILABLE UPON PRESENTATION BY THE DIRECTOR OF HAMILTON COUNTY BOARD OF COMMISSIONERS, OR ANY EMPLOYEE ACTING UNDER HIS AUTHORITY, OF A LETTER SIGNED BY THE DIRECTOR OF HAMILTON COUNTY BOARD OF COMMISSIONERS ENUMERATING ANY AND ALL IMPROVEMENTS NOT COMPLETED AS REQUIRED FOR STORM SEWER AND SUB-SURF DRAIN FOR MARINA VILLAGE DUPLEX. THE LETTER SHALL ALSO INDICATE THE ESTIMATED COST OF COMPLETING IMPROVEMENTS.

THE DRAFTS DRAWN UNDER THIS LETTER OF CREDIT MUST STATE, "DRAWN UNDER LETTER OF CREDIT NO. CIS402159 OF FIFTH THIRD BANK, (CENTRAL INDIANA), DATED FEBRUARY 10, 2004." THE AMOUNT OF THE DRAFTS MUST BE NOTED ON THE BACK OF THIS LETTER OF CREDIT BY THE NEGOTIATING BANK.

THIS LETTER OF CREDIT IS EFFECTIVE AS OF FEBRUARY 10, 2004, AND SHALL EXPIRE ON FEBRUARY 10, 2005, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF ONE YEAR, ON FEBRUARY



OF CREDIT NO. CIS402159

PAGE 2

LO, 2005, AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS A RELEASE IS RECEIVED FROM HAMILTON COUNTY BOARD OF COMMISSIONERS, OR WE NOTIFY BOTH HAMILTON COUNTY BOARD OF COMMISSIONERS AND THE MARINA LIMITED PARTNERSHIP BY CERTIFIED MAIL, AT LEAST SIXTY (60) 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 OF CREDIT SHALL BE AVAILABLE TO HAMILTON COUNTY BOARD OF COMMISSIONERS UPON ITS SIGHT DRAFT OR DEMAND FOR PAYMENT FOR SIXTY (60) DAYS AFTER RECEIPT OF SUCH NOTICE BY HAMILTON COUNTY BOARD OF COMMISSIONERS, AS SHOWN ON THE SIGNED RETURN RECEIPT.

THE CREDIT ESTABLISHED BY THIS LETTER AND OUR OBLIGATION TO PAY SAME SHALL NOT BE AFFECTED BY THE RECEIVERSHIP, BANKRUPTCY OR INSOLVENCY OF THE MARINA LIMITED PARTNERSHIP OR THE ATTACHMENT OF HIS/HER PROPERTY. NOR SHALL THIS CREDIT OR OUR OBLIGATION TO PAY SAME BE AFFECTED BY ANY SECURITY AGREEMENT BETWEEN THE MARINA LIMITED PARTNERSHIP AND OUR BANK.

WHENEVER THIS LETTER OF CREDIT IS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS LETTER OF CREDIT, WE SHALL PAY THE AMOUNT OF THE DRAFT DIRECTLY TO HAMILTON COUNTY BOARD OF COMMISSIONERS IN ACCORDANCE WITH ITS INSTRUCTIONS.

ALL BANK CHARGES OTHER THAN THOSE OF FIFTH THIRD BANK ARE FOR THE ACCOUNT OF THE BENEFICIARY.

WE ENGAGE WITH YOU THAT DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT WILL BE HONORED IF NEGOTIATED OR PRESENTED DURING BUSINESS HOURS ON OR BEFORE THE EXPIRATION DATE AT: FIFTH THIRD BANK, INTERNATIONAL TRADE SERVICES, 38 FOUNTAIN SQUARE PLAZA, MD10903C, CINCINNATI, OH 45263.

THIS LETTER OF CREDIT IS SUBJECT TO THE INTERNATIONAL STANDBY PRACTICES/ISP98, ICC PUBLICATION NO. 590.

AUTHORIZED SIGNATURE

UTHORIZED SIGNATUR



HCDB-2004-00014 LETTER OF CREDIT NO. CIS402158

PAGE 1

ISSUING BANK:

FIFTH THIRD BANK, (CENTRAL INDIANA)

BENEFICIARY: HAMILTON COUNTY BOARD OF COMMISSIONERS 1717 PLEASANT STREET NOBLESVILLE, IN 46038

APPLICANT: THE MARINA LIMITED PARTNERSHIP 11691 FALL CREEK ROAD INDIANAPOLIS, IN 46256

LETTER OF CREDIT NO:

CIS402158

ISSUE DATE:

FEBRUARY 10, 2004

EXPIRATION DATE:

FEBRUARY 10, 2005

EXPIRATION PLACE:

AT OUR COUNTERS

AMOUNT: 35,000.00 USD THIRTY FIVE THOUSAND

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. CIS402158 IN YOUR FAVOR, AT THE REQUEST AND FOR THE ACCOUNT OF MARINA LIMITED PARTNERSHIP, 11691 FALL CREEK ROAD, INDIANAPOLIS, IN 46256 FOR ANY SUM OR SUMS NOT EXCEEDING \$35,000.00, AVAILABLE UPON PRESENTATION BY THE DIRECTOR OF HAMILTON COUNTY BOARD OF COMMISSIONERS, OR ANY EMPLOYEE ACTING UNDER HIS AUTHORITY, OF A LETTER SIGNED BY THE DIRECTOR OF HAMILTON COUNTY BOARD OF COMMISSIONERS ENUMERATING ANY AND ALL IMPROVEMENTS NOT COMPLETED AS REQUIRED FOR EROSION CONTROL FOR MARINA VILLAGE DUPLEX. THE LETTER SHALL ALSO INDICATE THE ESTIMATED COST OF COMPLETING IMPROVEMENTS.

THE DRAFTS DRAWN UNDER THIS LETTER OF CREDIT MUST STATE, "DRAWN UNDER LETTER OF CREDIT NO. CIS402158 OF FIFTH THIRD BANK, (CENTRAL INDIANA), DATED FEBRUARY 10, 2004." THE AMOUNT OF THE DRAFTS MUST BE NOTED ON THE BACK OF THIS LETTER OF CREDIT BY THE NEGOTIATING BANK.

THIS LETTER OF CREDIT IS EFFECTIVE AS OF FEBRUARY 10, 2004, AND SHALL EXPIRE ON FEBRUARY 10, 2005, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF ONE YEAR, ON FEBRUARY

LETTER OF CREDIT NO. CIS402158

PAGE

10, 2005, AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS A RELEASE IS RECEIVED FROM HAMILTON COUNTY BOARD OF COMMISSIONERS, OR WE NOTIFY BOTH HAMILTON COUNTY BOARD OF COMMISSIONERS AND THE MARINA LIMITED PARTNERSHIP BY CERTIFIED MAIL, AT LEAST SIXTY (60) 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 OF CREDIT SHALL BE AVAILABLE TO HAMILTON COUNTY BOARD OF COMMISSIONERS UPON ITS SIGHT DRAFT OR DEMAND FOR PAYMENT FOR SIXTY (60) DAYS AFTER RECEIPT OF SUCH NOTICE BY HAMILTON COUNTY BOARD OF COMMISSIONERS, AS SHOWN ON THE SIGNED RETURN RECEIPT.

THE CREDIT ESTABLISHED BY THIS LETTER AND OUR OBLIGATION TO PAY SAME SHALL NOT BE AFFECTED BY THE RECEIVERSHIP, BANKRUPTCY OR INSOLVENCY OF THE MARINA LIMITED PARTNERSHIP OR THE ATTACHMENT OF HIS/HER PROPERTY. NOR SHALL THIS CREDIT OR OUR OBLIGATION TO PAY SAME BE AFFECTED BY ANY SECURITY AGREEMENT BETWEEN THE MARINA LIMITED PARTNERSHIP AND OUR BANK

WHENEVER THIS LETTER OF CREDIT IS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS LETTER OF CREDIT, WE SHALL PAY THE AMOUNT OF THE DRAFT DIRECTLY TO HAMILTON COUNTY BOARD OF COMMISSIONERS IN ACCORDANCE WITH ITS INSTRUCTIONS.

ALL BANK CHARGES OTHER THAN THOSE OF FIFTH THIRD BANK ARE FOR THE ACCOUNT OF THE BENEFICIARY.

WE ENGAGE WITH YOU THAT DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT WILL BE HONORED IF NEGOTIATED OR PRESENTED DURING BUSINESS HOURS ON OR BEFORE THE EXPIRATION DATE AT: FIFTH THIRD BANK, INTERNATIONAL TRADE SERVICES, 38 FOUNTAIN SQUARE PLAZA, MD10903C, CINCINNATI, OH 45263.

THIS LETTER OF CREDIT IS SUBJECT TO THE INTERNATIONAL STANDBY PRACTICES/ISP98, ICC PUBLICATION NO. 590.

UTHORIZED SIGNATURE

AUTHORYZED SIGNATURE

FINDINGS AND ORDER

CONCERNING THE MAINTENANCE OF THE

Bridgewater Drain, Marina Village Arm

On this **24th day of January 2005**, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the **Bridgewater Drain**, **Marina Village 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

Memher

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD IN THE MATTER OF Bridgewater Drain, Marina Village Arm

NOTICE

То	Whom	Ιt	Мау	Concern	and:_	-	
					=		

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the Bridgewater Drain, Marina Village Arm on January 24, 2005 at 9:10 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

Bridgewater Drain, Marina Village Arm

NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **January 24**, 2005 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



7172 Graham Road Indianapolis, IN 46250 317-842-6777 FAX: 317-841-4798 www.cripe.biz

- Architecture
- Construction Administration
- Engineering
- Geographic Information Services
- Landscape Architecture
- Land Planning
- Land Surveying
- Real Estate
 Consulting
- Transportation Engineering

CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: Marina Village

I hereby certify that:

1. I am a Registered Engineer in the State of Indiana.

in Ole

- 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.

Signature: _______ Date: 8-25 , 2004

Joseph A. Sharp, P.E. #15179









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

Suite 188 One Hamilton County Square Noblesville, Indiana 45060-2230

To: Hamilton County Drainage Board

June 2, 2006

Re: Bridgewater Drain: Marina Village Arm

Attached are as-builts, certificate of completion & compliance, and other information for Marina Village. 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 25, 2004. The report was approved by the Board at the hearing held January 24, 2005. (See Drainage Board Minutes Book 8, Pages 151-152) The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn_Invert	Grade:	Changes(ft):
703-702	22.9	12	RCP	786.39	785.92	2.05	-5.1
702-701	69.7	12	RCP	785.8	785.02	1.13	-7.3
706-705	23	12	RCP	785.86	785.56	1.3	-5
705-704	27.2	12	RCP	785.33	784.98	1.29	-0.8
709-708	22	12	RCP	785.53	785.17	1.57	-0.928
708-707	18	18	RCP	785.17	784.98	0.69	-0.812
711-710	113.4	12	RCP	785.53	785.17	1.57	1.4
714-713	13.2	12	RCP	786.95	786.72	1.74	3.2
713-712	23.5	12	RCP	786.73	786.51	0.94	4.5
712-710	137.6	15	RCP	786.45	785.65	0.49	-1.4
710-708	100.6	18	RCP	785.36	785.17	0.19	0.6

6" SSD Streets:

Marina Village Dr.	905
Marina View Dr.	245.5
T-4-1.	0004

Total:

2301

6" SSD Lots:

Blk A,B,C,D,F	363
Lots 9-10	62
Total:	425

RCP Pipe Totals:

12	314.9
15	137.6
18	118.6

Total:

571.1

The length of the drain due to the changes described above is now 3297.1 feet.

The non-enforcement was approved by the Board at its meeting on January 24, 2005 and recorded under instrument #200500013401.

The following sureties were guaranteed by Fifth Third Bank and released by the Board on its January 9, 2006 meeting.

Bond-LC No: CIS402159

Insured For: Storm Sewers, SSD

Amount: \$58,015.00

Issue Date: February 10, 2004

Bond-LC No: CIS402158

Insured For: Erosion Control

Amount: \$35, 000.00

Issue Date: February 10, 2004

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

Sincerely,

Kenton C. Ward,

Hamilton County Surveyor

KCW/slm

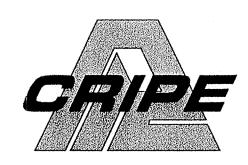
OWNER.

THE MARINA LIMITED **PARTNERSHIP**

11691 FALL CREEK ROAD INDIANAPOLIS, IN 46256

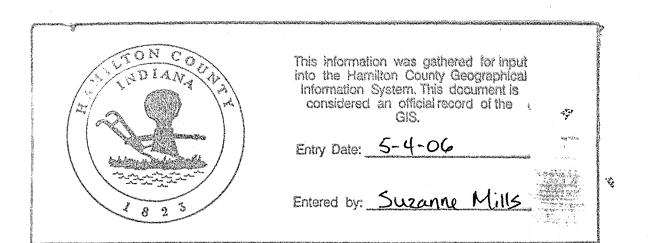
FAX (317) 845-0766 Ph. (317) 845-0270

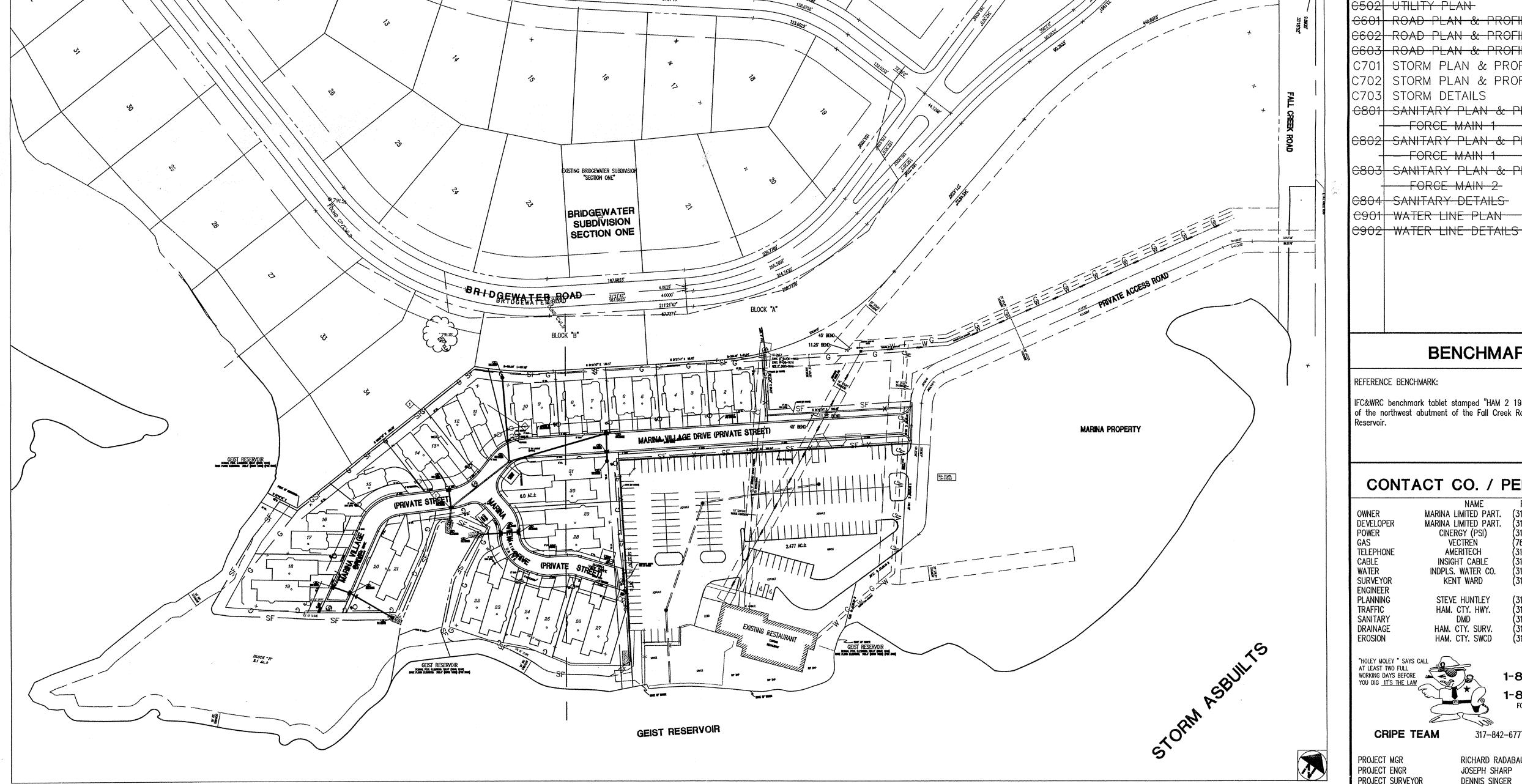
ENGINEER



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

CONSTRUCTION PLANS FOR MARINA VILLAGE





Parking Spaces Provided: Guest Spaces: Total Spaces Provided

ASBUILT INDEX

PROJECT DATA

Project Address:

SHT DESCRIPTION COVER SHEET SITE DEVELOPMENT PLAN

BENCHMARKS

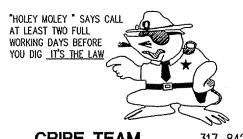
REFERENCE BENCHMARK:

IFC&WRC benchmark tablet stamped "HAM 2 1956" set in the northeast end of the northwest abutment of the Fall Creek Road bridge over Geist

Elev. 798.214 (NGVD 1929)

CONTACT CO. / PERSON FOR

PHONE NO.
(317) 845-0270
(317) 845-0270
(317) 776-5316
(765) 648-3244
(317) 252-4267
(317) 776-0660
(317) 327-5772
(317) 776-8495 NAME MARINA LIMITED PART. OWNER
DEVELOPER
POWER
GAS
TELEPHONE MARINA LIMITED PART. CINERGY (PSI) vectrèn AMERITECH CABLE WATER INSIGHT CABLE INDPLS. WATER CO. SURVEYOR KENT WARD **ENGINEER** (317) 773-4614 (317) 773-7770 (317) 327-8461 776-6363 776-9614 TRAFFIC SANITARY HAM. CTY. SURV. HAM. CTY. SWCD (317) 776–8495 (317) 773–1406 DRAINAGE EROSION



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

675

PROJECT ENGR PROJECT SURVEYOR PROJECT LAND PLANNER CAD TECH. QUALITY ASSURANCE

CATHERINE MESCALL TOM SCHELLENBERGER

DWG. TYPE

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

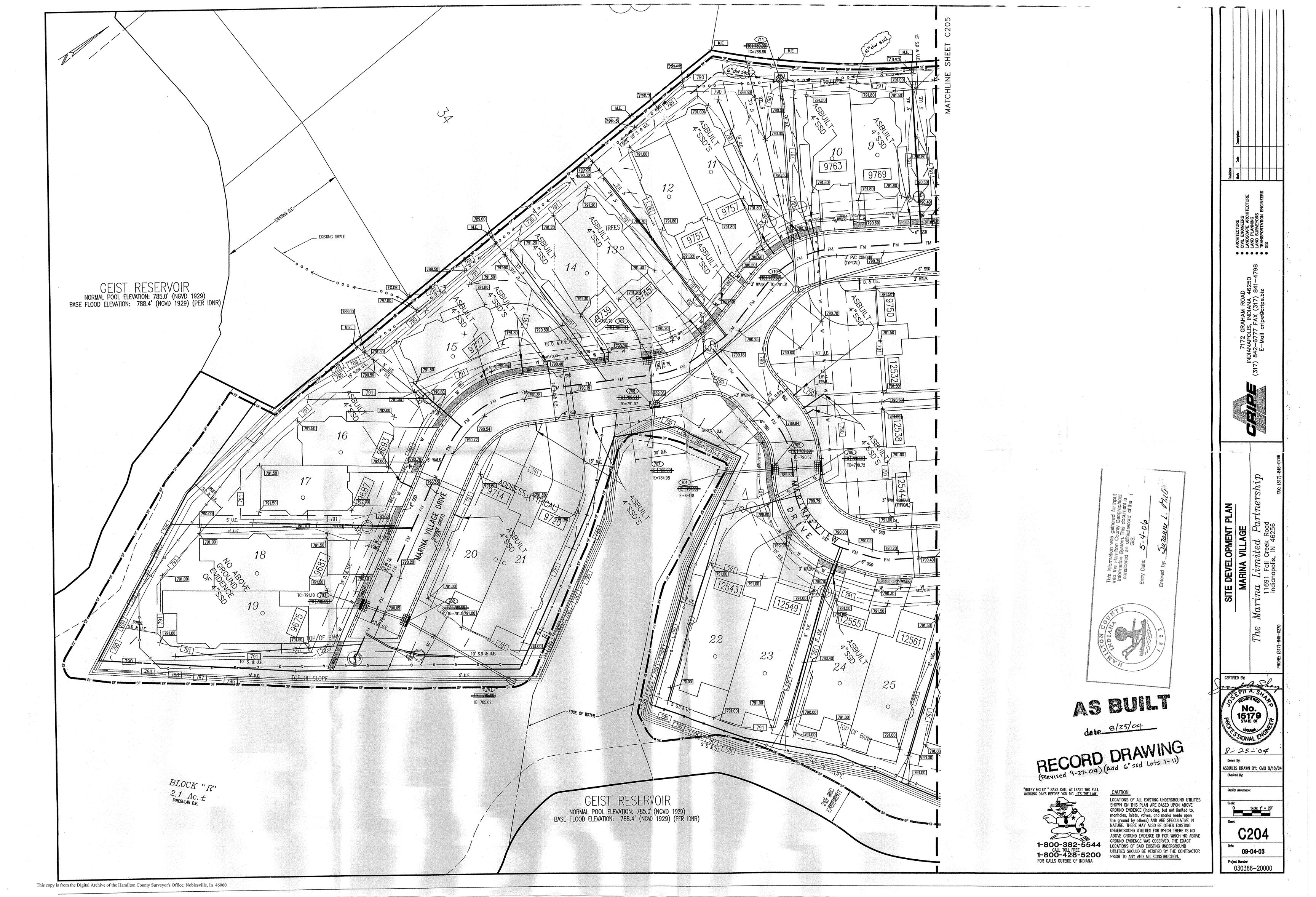
date 8/25/04

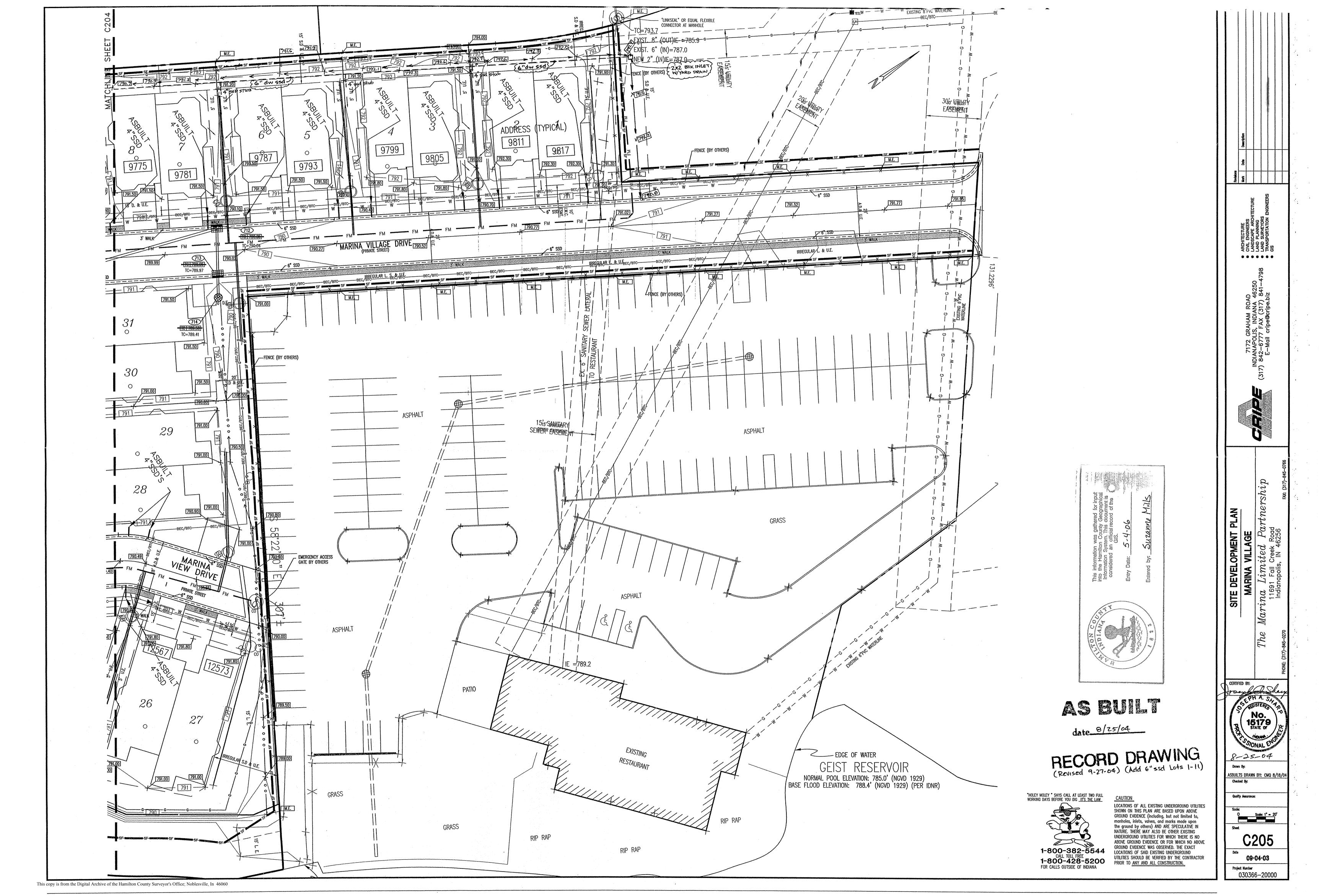
as Bulli

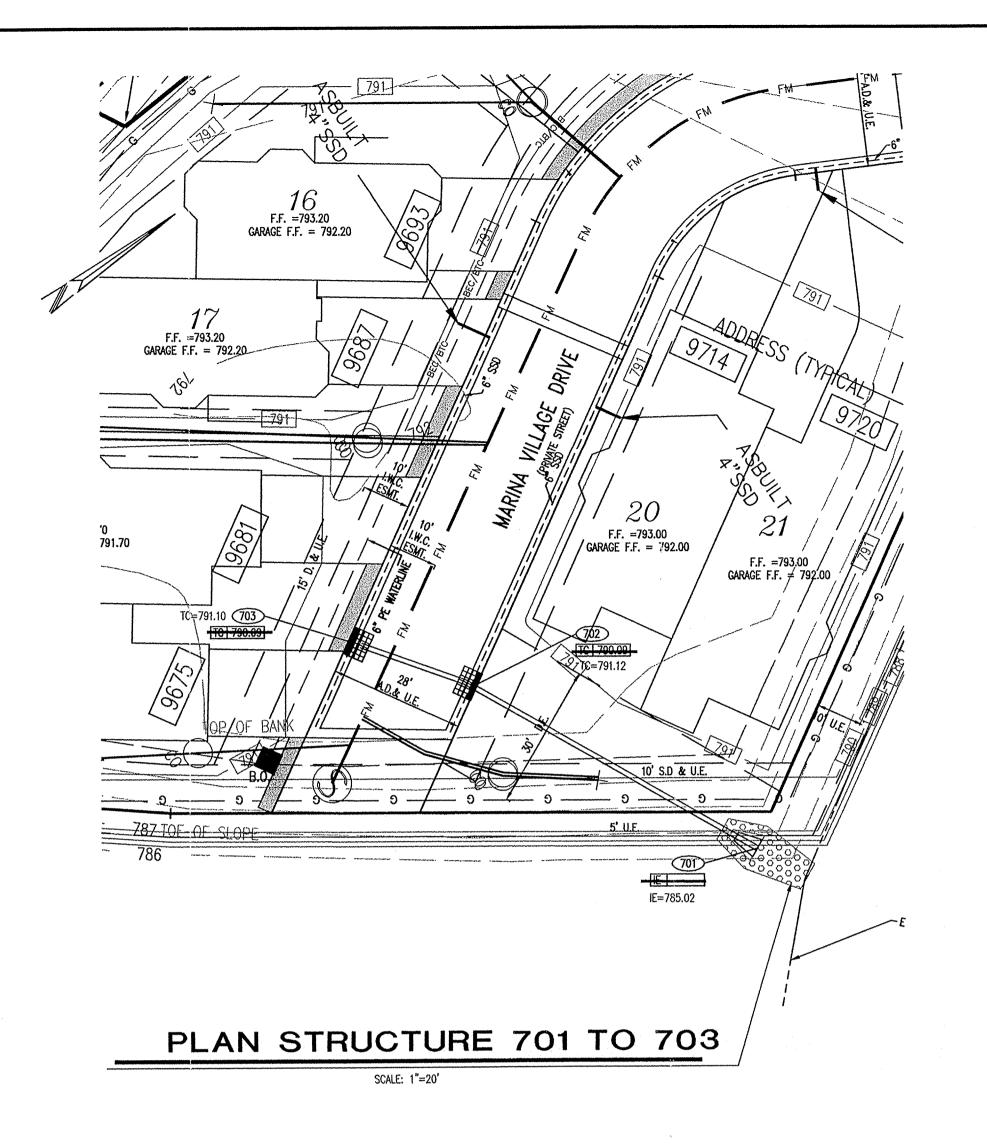
ASBUILTS DRAWN BY: CMQ 8/18/04

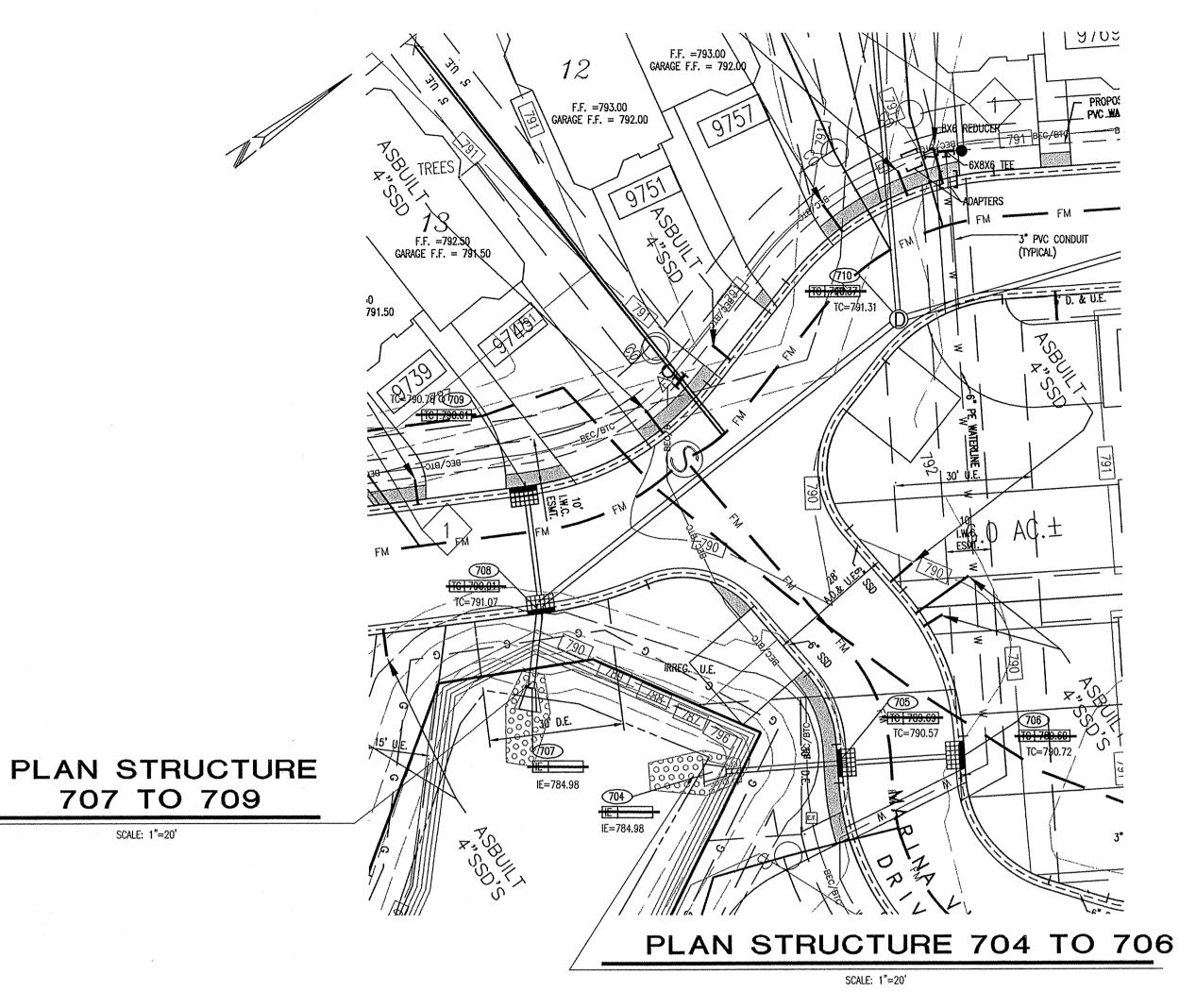
09-04-03

030366-20000



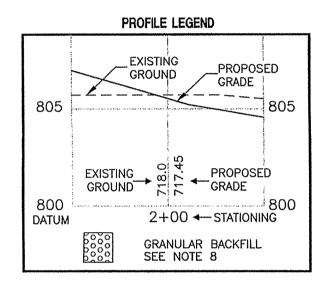


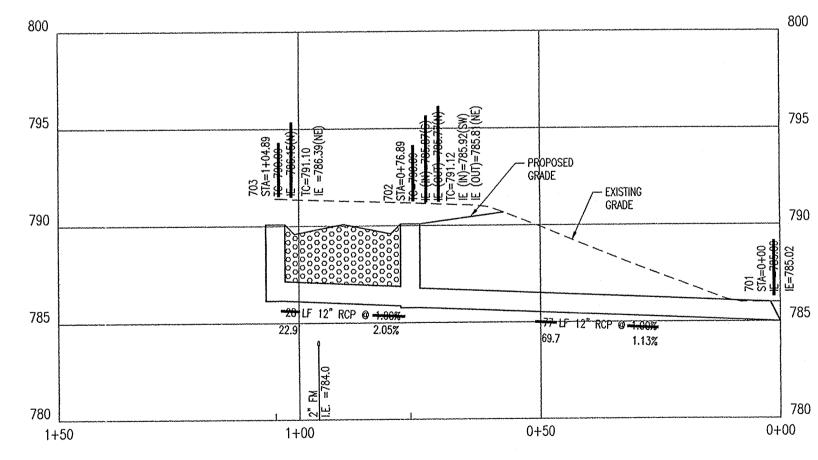




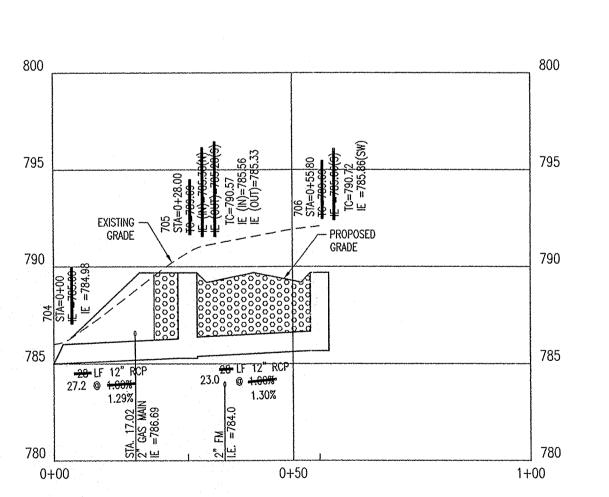
STORM SEWER PLAN AND PROFILE NOTES

- 1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- 2. IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A 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. AT NO COST TO THE OWNER.
- 6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE FLOW INTO THE STRUCTURE.
- 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.
- 9. SEE STORM DETAILS ON SHEET C703.
- 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 EXISITNG BRICK STRUCTURE MUST
- BE DONE ACCORDING TO THE FOLLOWING CONDITIONS: A.) 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.





PROFILE STRUCTURE 701 TO 703 HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'

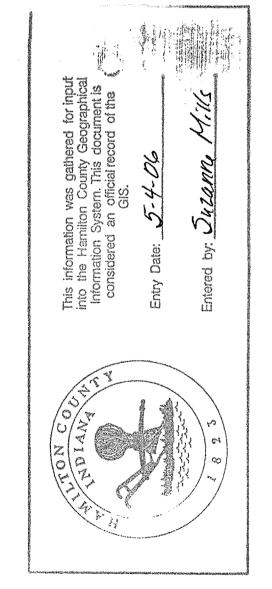


PROFILE STRUCTURE 704 TO 706

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'

PROFILE STRUCTURE 707 TO 709

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'



date 8/25/04

RECORD DRAWING



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 UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR

•••••



ASBUILTS DRAWN BY: CMQ 8/18/04

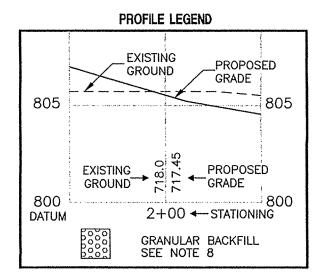
Checked By:

C701 09-04-03

030366-20000

STORM SEWER PLAN AND PROFILE NOTES.

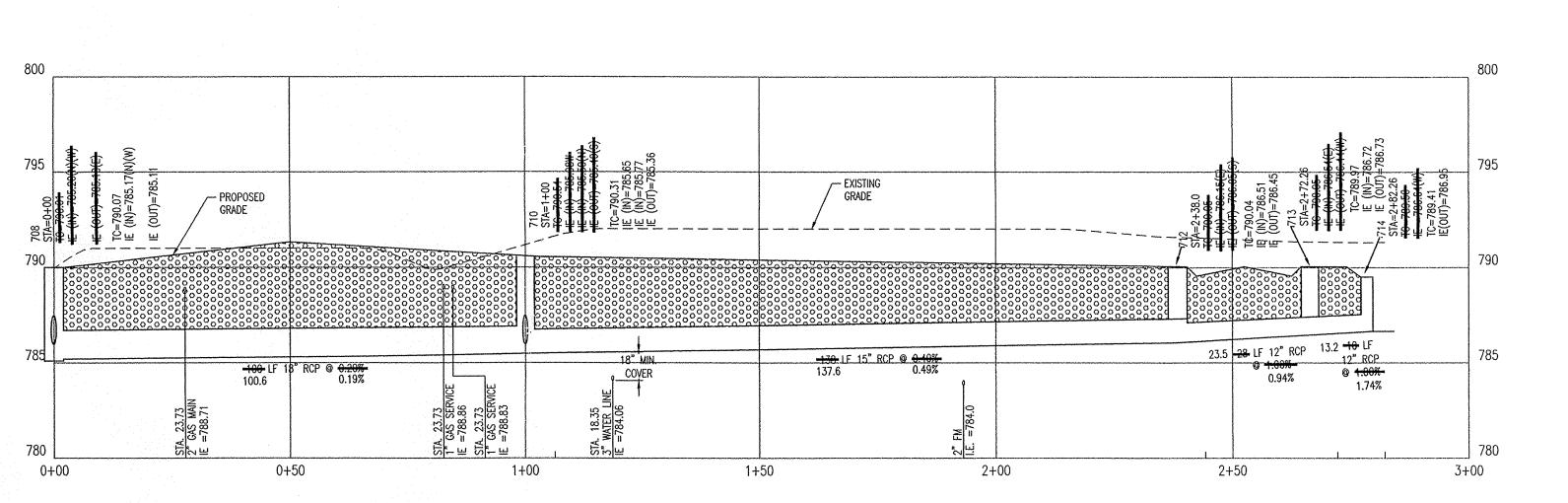
- 1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- 2. IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY 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. AT NO COST TO THE OWNER.
- 6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE FLOW INTO THE STRUCTURE.
- 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.
- 9. SEE STORM DETAILS ON SHEET C703.
- 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 EXISITNG BRICK STRUCTURE MUST
- BE DONE ACCORDING TO THE FOLLOWING CONDITIONS: A.) 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.



1+50 1+00 0+50

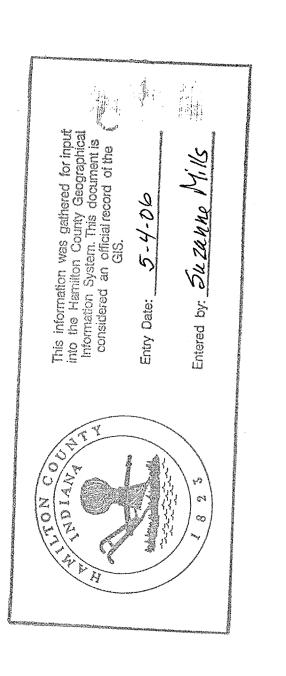
> PROFILE STRUCTURE 710 TO 711 HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'

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



PROFILE STRUCTURE 708 TO 714

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'



AS BULL

date 8/24/04

RECORD DRAWING

"HOLEY MOLEY" SAYS CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU DIG <u>IT'S THE LAW</u>



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 GROUND EVIDENCE WAS OBSERVED. THE EXACT UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

•••••



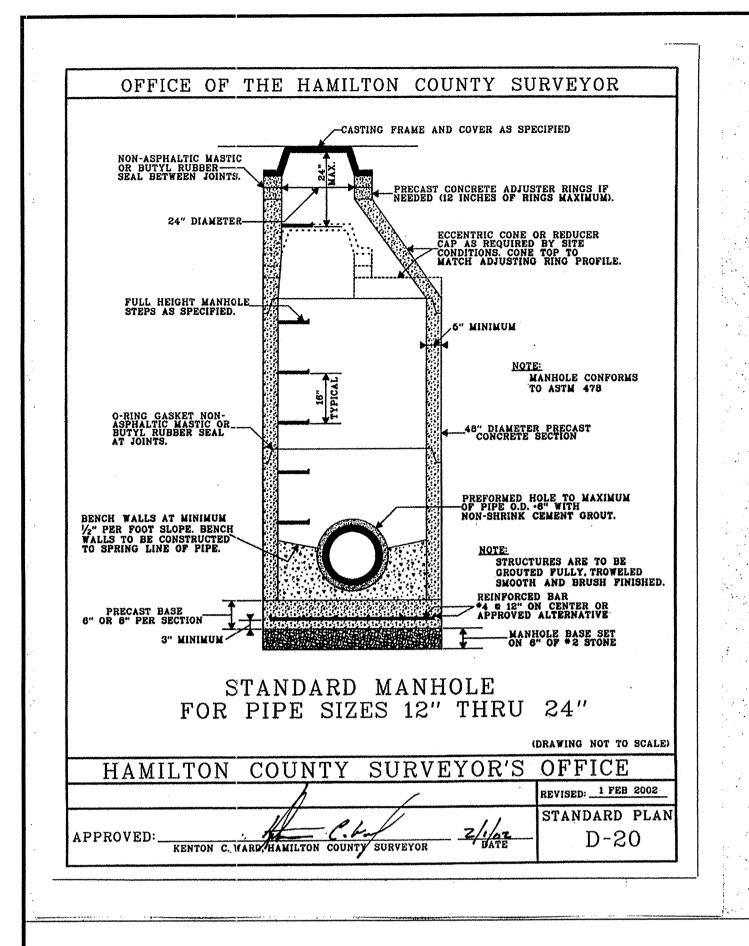
Marina 1165

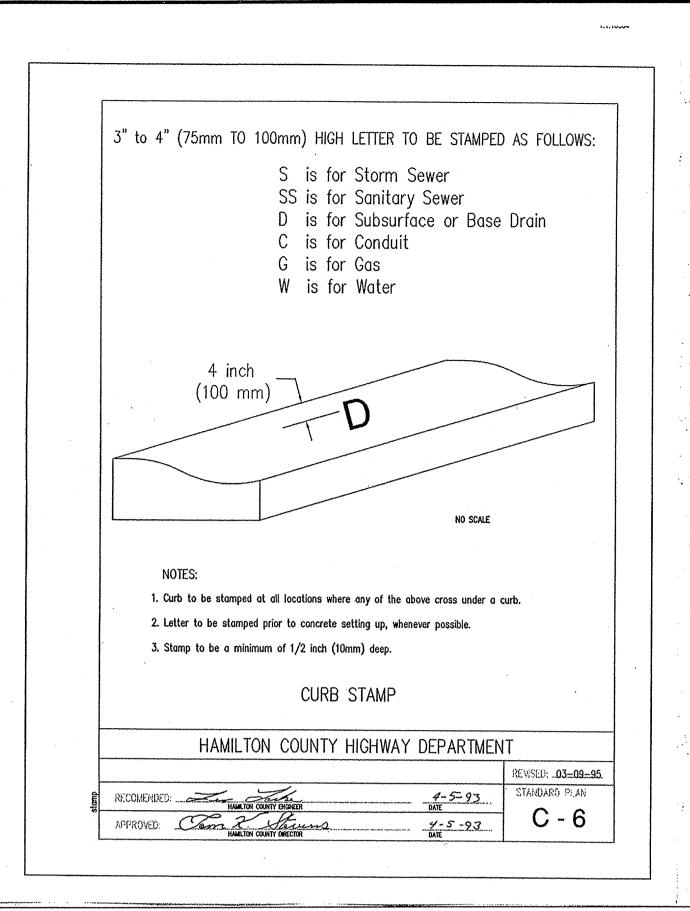
ASBUILTS DRAWN BY: CMQ 8/18/0

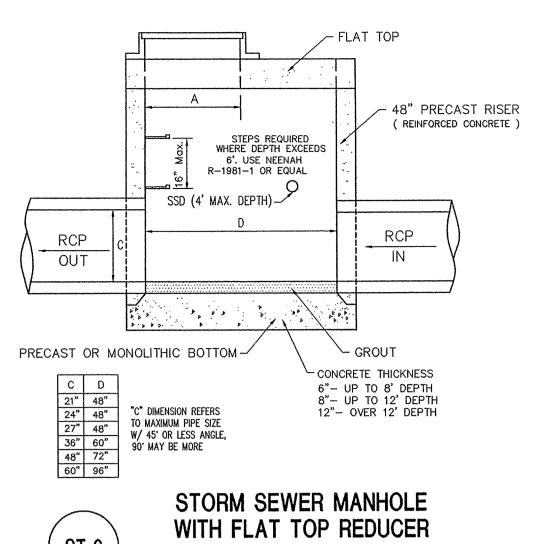
Quality Assurance:

C702 09-04-03

030366-20000

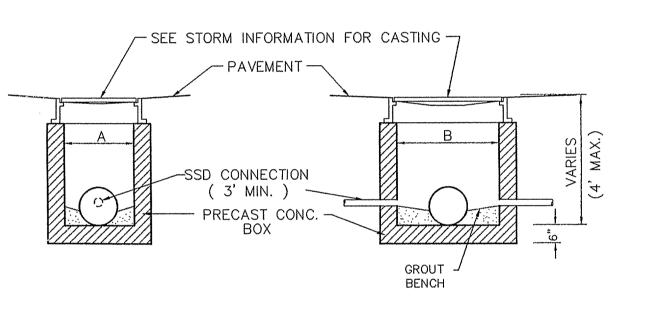


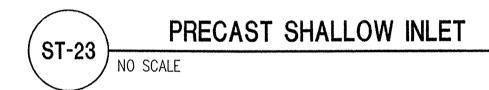


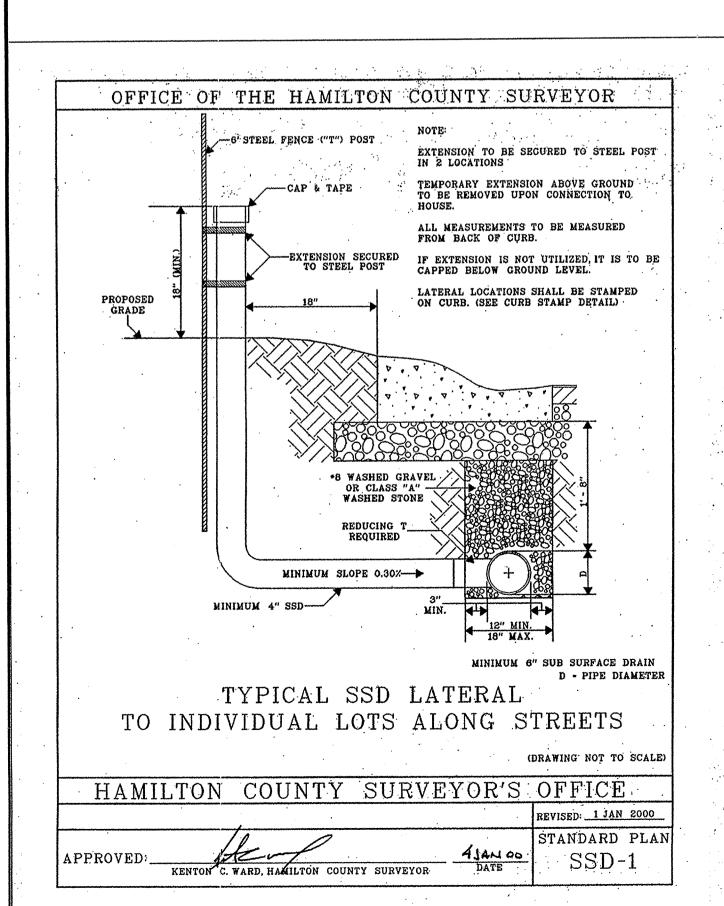




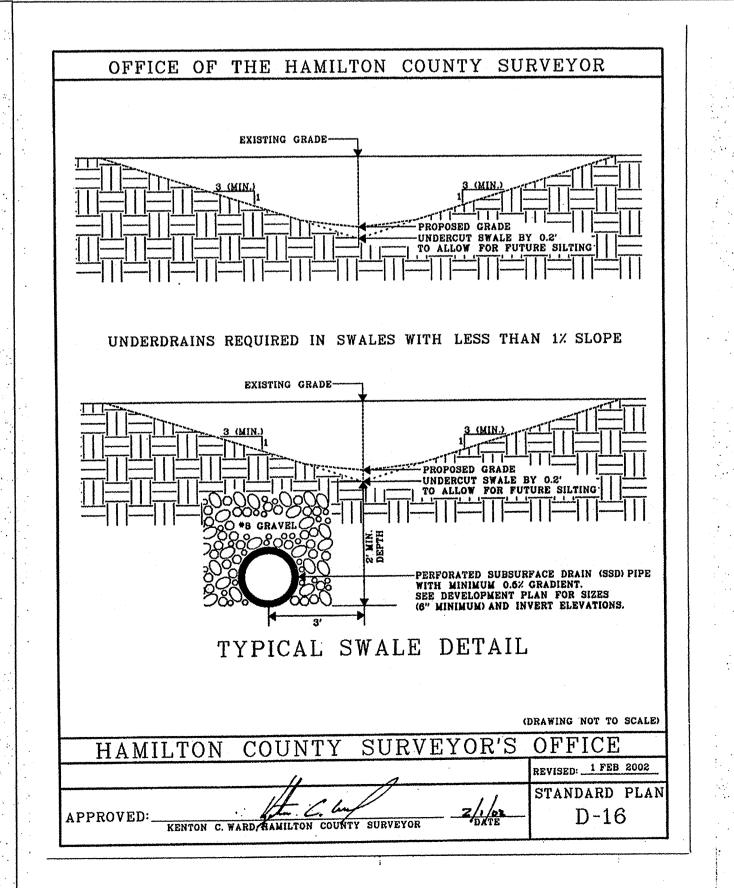
EJIW	NEENAH	TYPE	USE	Α.	В
1022-1 HD	R-1772-A	MANHOLE	GRADED AREAS	24"	24"
1022-3 HD	R-1772-C	MANHOLE	TRAFFIC AREAS	24"	24"
7490-M1	R-3501-N	ROLL CURB	LOW POINTS	24"	24"
7495-LH-RH	R-3501-TL-TR	ROLL CURB	FLOW LEFT OR RIGHT	25"	27"
6489	R-4342	DITCH GRATE	SWALES	23"	23"

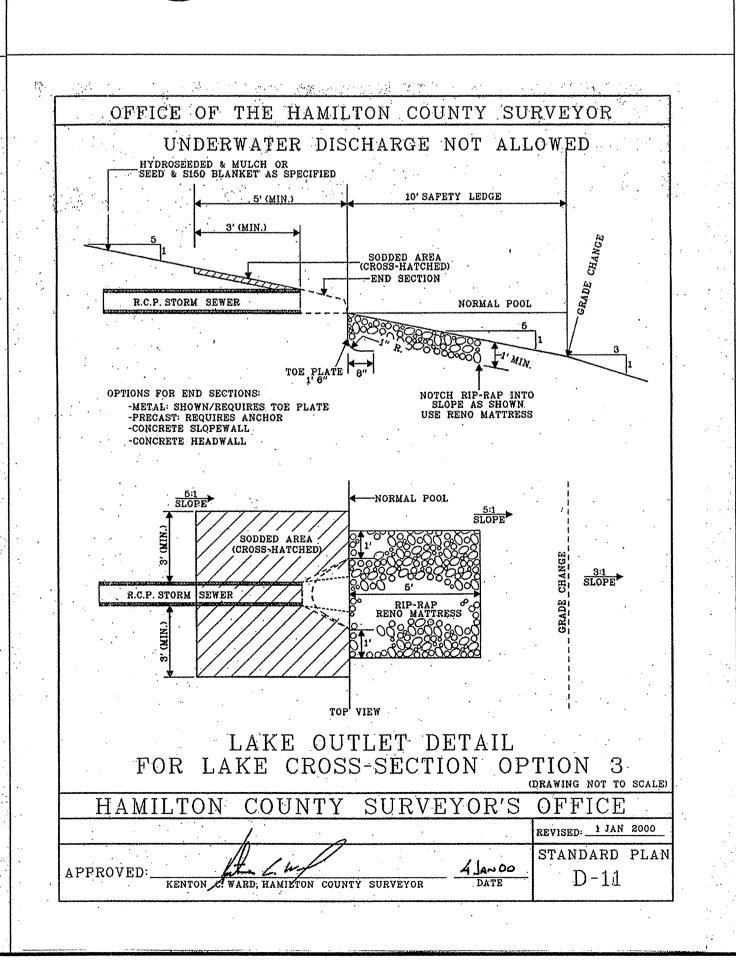






This copy is from the Digital Archive of the Hamilton County Surveyor's Office; Noblesville, In 46060

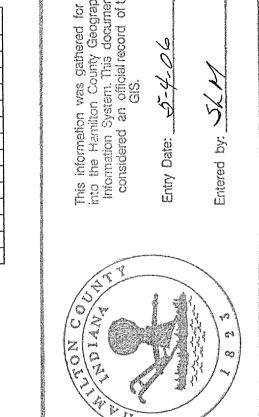




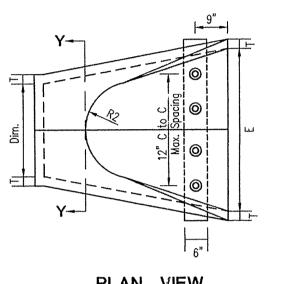
STORM STRUCTURE DATA TABLE

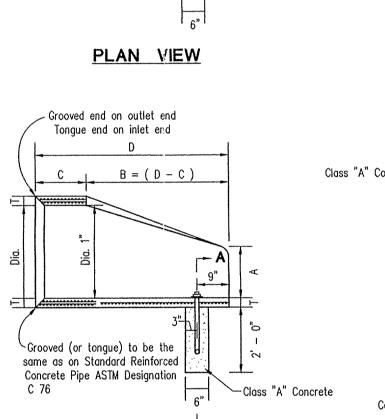
STR. NUMBER	CASTING*	DETAIL NO.	TOP OF CASTING
701	END SECTION	ST-3A	785.00
702	R-3501-N	ST-23	790.00
703	R-3501-N	ST-23	7 ₽ 0. ₫ 9
704	END SECTION	ST-3A	7 8 5. ∮ 0
705	R-3501-N	ST-23	789,69
706	R-3501-N	ST-23	78 69
707	END SECTION	ST-3A	785.00
708	R-3501-N	ST-6	79 0 ,01
709	R-3501-N	ST-23	790 01
710	R-1772-C	ST-6	790.54
711	R-4342	ST-23	7 8 9. 0 0
712	R-3501-N	ST-23	7/90.05
713	R-3501-N	ST-23	190.0\$
714	R-4342	ST-23	∤ 89.5 d
*		COLINI OCO 11	ALM TON COUNTY

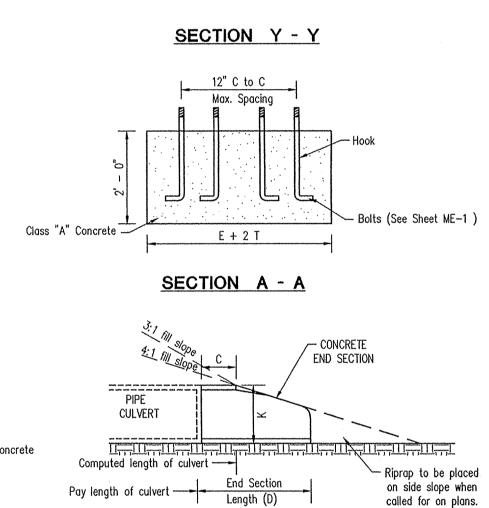
*CASTING TO BE NEENAH OR EQUAL PER HAMILTON COUNTY STANDARD DETAILS.



المراجعة المراجعة والمستوارية والمراجعة والمحاورة المراجعة والمراجعة والمراج







1. CONCRETE IN THESE END SECTIONS SHALL BE THE SAME GRADE AND STRENGTH AS SPECIFIED FOR REINFORCED CONCRETE PIPE, ASTM DESIGNATION C 76 CLASS II. (as set out in the Standard Spec's.)

LONGITUDINAL SECTION

2. REINFORCEMENT IN THE "C" PORTION SHALL BE THE SAME AS SPECIFIED FOR REINFORCED CONCRETE, ASTM DESIGNATION C 76, CLASS II FOR THE SIZE OF CONNECTING PIPE.

3. REINFORCEMENT IN THE "B" PORTION SHALL HAVE A CROSS—SECTIONAL AREA EQUAL TO THAT OF ONE LAYER OF STEEL IN THE "C" SECTION. 4. 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 REINFORCED CONCRETE CULVERT, STORM DRAIN,

AND SEWER PIPE, ASTM DESIGNATION C 76. 7. WHERE VITRIFIED CLAY CULVERT OR CAST IRON CULVERT PIPE IS USED, A " PIPE END SECTION " COMPARABLE TO THAT AS SHOWN FOR METAL OR CONCRETE SHALL BE FURNISHED AND SHALL BE AS APPROVED BY THE PROJECT ENGINEER.

8. END SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "PIPE END SECTION" COMPLETE IN PLACE AND ACCEPTED. 9. CONCRETE PIPE TOE ANCHORS SHALL BE REQUIRED ON ALL CONCRETE PIPE SECTIONS. THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR " PIPE END SECTIONS.

DIMENSIONS OF PRECAST CONCRETE END SECTIONS

SLOPE DETAIL

DIA.	T, (min.)	Αx	С×	Dх	Еx	К	R1	R2	Approx. Weight
12"	2"	5"	4'-3"	6'-2"	2'-0"	1.3	10 1/8"	9"	800
15"	2 1/4"	7"	4'-0"	6'-3"	2'-6"	1.5	12 1/2"	11"	1100
18"	2 1/2"	11"	4'-1"	6'-2"	3'-0"	1.8	15 1/2"	12"	1300
21"	2 3/4"	11"	3'-6"	6'-3"	3'-6"	2.1	16 1/8"	13"	1500
24"	3"	1'-0"	2'-8"	6'-3"	4'-0"	2.3	16 3/16"	14"	1800
27"	3 1/4"	1'-1"	2'-5"	6'-3"	4'-6"	2.6	18 9/16"	14 1/2"	2100
30"	3 1/2"	1'-2"	1'-10"	6'-3"	5'-0"	2.9	18 1/2"	15"	2400
33"	3 3/4"	1'-3"	3'-6"	8'-3"	5'-6"	3.1	23 3/4"	17 1/2"	4100
36"	4"	1'-5"	3'-1"	8'-3"	6'-0"	3.4	24 5/16"	20"	4200
	x Tol	erance	± 1"						

as built

date 8/24/04

PRECAST CONCRETE END SECTION

RECORD DRAWING

ARCHITECTURE
CIVIL ENGINEERS
LANDSCAPE ARCHI
LAND PLANNING
LAND SURVEYORS
TRANSPORTATION I
GIS • • • • • •

7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 4624 (317) 842-6777 FAX (317) 841 E-Mail cripe@cripe.biz



STORM

Drawn By: ASBUILTS DRAWN BY: CMQ 8/18/04 Checked By:

O Scole: 1" = N/A

09-04-03 Project Number 030366-20000