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

To: Hamilton County Drainage Board **September 26, 2007**

Re: JW Brendle Drain: Trails at Hayden Run

Attached are as-builts, certificate of completion & compliance, and other information for Trails at Hayden Run. 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 11, 2005. The report was approved by the Board at the hearing held January 23, 2006. (See Drainage Board Minutes Book 9, Pages 22-24) The changes are as follows:

Structure:	Length:	Size	Material:	Up Invert:	Dn_Invert	Grade:	Changes:
109-108	52	30	RCP	914.61	914.52	0.17	2
111-110	214	30	RCP	914.98	914.65	0.15	
109-106	30	12	RCP	915.61	915.43	0.6	
106-105	151	18	RCP	915.43	915.2	0.15	1
105-105a	78	18	RCP	915.2	914.14	0.33	-1
145-144	30	12	RCP	915.76	915.65	0.37	
144-143	216	15	RCP	915.65	914.99	0.31	
100A-EX	66	15	RCP	914.13	914.32	0.26	2
100-100A	40	15	RCP	914.32	914.48	0.4	
104-103	45	15	RCP	914.92	914.78	0.31	1
103-102	52	18	RCP	914.78	914.61	0.32	
102-101	58	18	RCP	914.61	914.47	0.24	-1
115-114	125	12	RCP	916.4	915.73	0.53	
113-112	221	21	RCP	915.65	915.07	0.28	
119-118	151	12	RCP	916.5	915.89	0.4	-1
117-116	256	18	RCP	915.76	914.96	0.31	1
120-118	37	12	RCP	916.1	915.89	0.56	
124-123	121	12	RCP	916.04	915.69	0.29	1
123-122	33	15	RCP	915.69	915.55	0.42	1
122-121	217	18	RCP	915.55	914.96	0.27	1
130-129	118	12	RCP	916.64	916.36	0.24	-2
129-128	58	15	RCP	916.36	916.28	0.14	

128-127	120	18	RCP	916.26	915.95	0.23	
127-126	172	18	RCP	915.95	915.45	0.29	2
126-125	97	18	RCP	915.45	914.81	0.66	4
131-128	30	12	RCP	916.35	916.28	0.23	
138-137	123	24	RCP	916.65	916.14	0.41	1
136-135	56	27	RCP	916.08	915.89	0.34	2
135-134	137	27	RCP	915.89	915.53	0.26	1
134-133	192	30	RCP	915.53	915.25	0.15	1
133-132	107	30	RCP	915.25	914.9	0.33	
139-140	30	12	RCP	916.81	916.49	1.07	
140-137	117	12	RCP	916.49	916.14	0.3	2
142B-142A	113	12	RCP	916.2	915.87	0.29	1
142A-142	33	12	RCP	915.77	915.73	0.3	1
142-141	149	18	RCP	915.73	915.25	0.32	-1
109-110	30	24" X 38"	ERCP	914.65	914.61	0.13	
114-113	32	14" X 23'	ERCP	915.73	915.68	0.16	
118-117	49	14" X 23"	ERCP	915.89	915.76	0.27	-1
137-136	30	19" X 30"	ERCP	916.14	916.08	0.2	
142-141	30	14" X 23"	ERCP	915.71	915.73	0.13	

6" SSD Streets:

Brandt Ln	1071
Traham Dr	158.5
Winings Ln	940.5
Langham Dr.	756.5
Ferrell Dr	928
Framingham Ln	186.5
Barlow Dr	240.5
x2	
Total:	8563

6" SSD Lots:

LOTS 4-5	200
Total:	200

Other Drain:

ERCP	171
Total:	171

RCP Pipe Totals:

12	935
15	458
18	1350
21	221
24	123
27	193
30	565
Total:	3845

The length of the drain due to the changes described above is now **12,779 feet.**

The non-enforcement was approved by the Board at its meeting on January 23, 2006 and recorded under instrument #200600004928.

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

Bond-LC No: SCL011175
Insured For: Storm Sewers
Amount: $211,168.00
Issue Date: June 10, 2005

Bond-LC No: SCL011172
Insured For: Subsurface Drains
Amount: $50,603.00
Issue Date: June 10, 2005

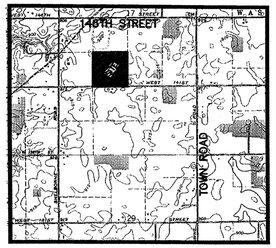
I recommend the Board approve the drain's construction as complete and acceptable.

Sincerely,

Kenton C. Ward, CFM
Hamilton County Surveyor

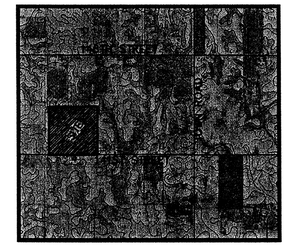
KCW/slm

THE TRAILS AT HAYDEN RUN



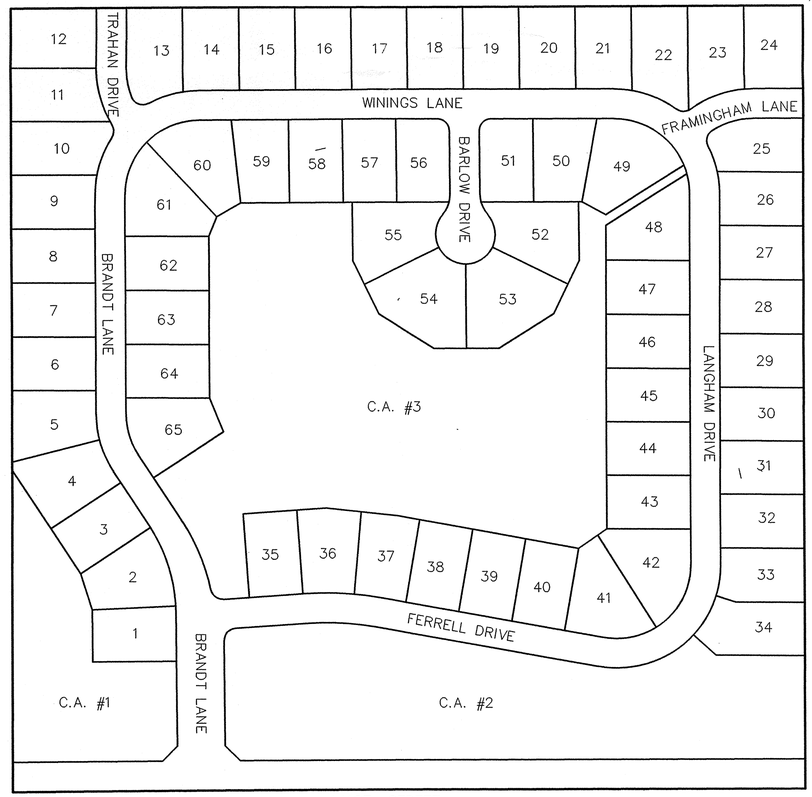
VICINITY MAP
NOT TO SCALE

Developed by:
EQUICOR COMPANIES
9011 NORTH MERIDIAN STREET
SUITE 202
INDIANAPOLIS, IN 46260
(317)573-8100
FAX (317)573-9100



SOILS MAP
NOT TO SCALE

INDEX



SCALE: 1"=120'

SOILS MAP

MmA Miami silt loam, 0-2 % slopes- This nearly level, deep, well drained soil is on slight rises on uplands. Permeability is moderate in the subsoil and the substratum. Available water capacity is high. The main soil features that adversely affect engineering uses of this soil are moderate potential for frost action, moderate permeability, and moderate shrink-swell potential. This soil has severe limitations for local roads and streets. The base material needs to be strengthened with suitable material.

CrA Crosby silt loam, 0-3 percent slopes- this soil is light colored, silty in texture and on sloping uplands. It is deep and somewhat poorly drained with slow permeability. It has high available water for plant growth and medium organic matter content. The soil has compact till starting at a depth between 20 -40 inches. The main soil features that affect urban development uses are seasonal high water table, moderate shrink-swell potential, high potential frost action and slow permeability.

Br Brookston silty clay loam- this soil is dark colored, silty in texture and on depressional uplands. It is deep and very poorly drained with moderate permeability. It has high available water for plant growth and high organic matter content. It has compact till starting at a depth of 40 to 60 inches. The main soil features that affect the urban development uses are seasonal high water table, high potential frost action, moderate shrink-swell potential, moderate permeability and ponded surface water.

MmB2 Miami silt loam, 2-6 percent slopes- this soil is light colored, silty in texture and on sloping uplands. It is deep and well drained with moderate permeability. It has moderate available water for plant growth and a medium organic matter content. It has compact till starting at a depth between 20- 40 inches. The main soil features that adversely affect urban development uses are moderate potential frost action, moderate shrink-swell potential, moderately slow permeability, low strength and erosion during construction.

MmC2 Miami clay loam, 6-12 % sloped severely eroded- this moderately sloping, deep well draining soil is on knobs and breaks along streams and drainage ways on uplands. Permeability is moderate in the subsoil and moderately slow in the substratum. This soil is suitable for urban development. The main soil features that adversely affect the engineering uses of this soil are moderate potential frost action, moderate shrink-swell potential, and moderately slow permeability. The hazard of erosion is high during construction.

FxC3 Fox loam, 8 to 18 % slopes, severely eroded- This moderate sloping, well-drained soil is on side slopes adjacent to drainageways on terraces and in domelike areas on uplands. It is moderately deep over sand and gravelly sand. Permeability is moderate in the subsoil and rapid in the underlying material. Available water capacity is low. This soil has moderate limitations for urban development (Slope). Features that adversely affect engineering uses of this soil are moderate frost action, moderate shrink-swell potential, moderate permeability in the subsoil and very rapid permeability in the under lying material. Topsoil should be stockpiled for use in exposed areas.

We Westland silty clay loam - This nearly level, deep, very poorly drained soil is in depressions, swales, and narrow drainageways on outwash plains. Runoff from higher adjacent soils is ponded on this soil. Permeability is slow. The water table is commonly at the surface or is at a depth of less than one foot in winter and early spring. Available water capacity is high. Surface runoff is ponded or is very slow. The main soil features that adversely affect engineering uses of this soil are a seasonal high water table, high potential frost action, moderate shrink-swell potential, and slow permeability. The base material for roads needs to be replaces or strengthened with suitable material.

OcA Ockley silt loam, 0-2 % slopes- This nearly level, deep well drained soil is mainly on broad terraces. Permeability and available water capacity is moderate. This soil is suitable for urban development. Features that adversely affect engineering uses of this soil are moderate frost action, moderate shrink-swell potential, moderate permeability in the subsoil and very rapid permeability in the under lying material.

OcB2 Ockley silt loam, 2-6 % slope, eroded- This gently sloping, deep well drained soil is mainly on brood terraces. Permeability and available water capacity is moderate. This soil is suitable for urban development. Features that adversely affect engineering uses of this soil are moderate frost action, moderate shrink-swell potential, moderate permeability in the subsoil and very rapid permeability in the under lying material. This soil has severe limitations for local roads because of low strength. The base material of roads needs to be strengthened with suitable material.

SECTION 1
DESIGN DATA

65 LOTS = 1.62 LOTS/ACRE
40.033 AC.

STREET A	1154.18 L.F.
STREET B	943.11 L.F.
STREET C	218.50 L.F.
STREET D	256.56 L.F.
STREET E	216.57 L.F.
STREET F	858.65 L.F.
STREET G	810.15 L.F.

RECORD DRAWING

Jeffory W Darling
9/23/05
JEFFORY W. DARLING DATE
Registered Land Surveyor
No. 900017

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR

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: 8-28-07
Entered By: SLM

REVISIONS

SHT.	DESCRIPTION
ALL	REV. PER AGENCY COMMENTS 2/17/05 ZJM
ALL	REV. PER TAC COMMENTS 3/14/05 TWF
ALL	REV. PER TAC COMMENTS 4/14/05 ZJM
ALL	REV. PER COMMENTS 5/17/05 TWF & WAB
ALL	ADD APPROVED STREET NAMES 6/22/05 TWF
ALL	AS-BUILTS 10/25/05 SEG

PLANS PREPARED BY:

STOEPPELWERTH & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
9940 ALLISONVILLE ROAD FISHERS, INDIANA 46038
PHONE: (317)-849-5935
FAX: (317)-849-5942

DAVID J. STOEPPELWERTH REGISTERED No. 19358 STATE OF INDIANA PROFESSIONAL ENGINEER

PLANS CERTIFIED BY:

David J. Stoeppelwerth 6/1/04
DAVID J. STOEPPELWERTH DATE
PROFESSIONAL ENGINEER
NO. 19358

LEGEND

- EXISTING EDGE OF WOODS
- EXISTING CONTOUR
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- 848.0 PROPOSED GRADE
- M.E. MATCH EXISTING
- 870 PROPOSED CONTOUR
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED SWALE
- PROPOSED 5' SIDEWALK (BY HOME BUILDER) (DEVELOPER SHALL INSTALL SIDEWALKS ALONG ALL COMMON AREAS)
- 100 / 874.1 LOT NUMBER / PAD ELEVATION — PAD SIZE: 60'X70' (UNLESS OTHERWISE NOTED)
- PROPOSED 6" UNDERDRAINS
- DENOTES 4" SUBSURFACE DRAIN TO LOT
- DENOTES 6" SUBSURFACE DRAIN
- ROLL CURB

SCALE: 1"= 60'

ALL PADS SHOULD BE TESTED TO ASSURE A COMPACTION OF AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY USING THE STANDARD PROCTOR TEST METHOD.

ALL EXISTING OFF-SITE DRAIN TILES THAT ARE ENCOUNTERED SHALL BE TIED INTO THE PROPOSED STORM SEWER SYSTEM WITH A POSITIVE OUTFLOW

D.U.&S.S.E.	DRAINAGE, UTILITY & SANITARY SEWER EASEMENT
D.U.&S.E.	DRAINAGE UTILITY & SEWER EASEMENT
D.&U.E.	DRAINAGE & UTILITY EASEMENT
L.M.A.E.	LANDSCAPE, MAINTENANCE ACCESS EASEMENT
S.L.E.	SIGN LANDSCAPE EASEMENT
D.E.	DRAINAGE EASEMENT
B.S.L.	BUILDING SETBACK LINE
N.R.	NON RADIAL
N.A.E.	NON ACCESS EASEMENT
P.A.E.	PUBLIC ACCESS EASEMENT
T.P.E.	TREE PRESERVATION EASEMENT
R/W	RIGHT OF WAY
C.A.	COMMON AREA

BENCHMARKS

S&A TBM #1

1.0'± UP FROM GROUND ON EAST SIDE ELECTRIC POLE. PWP #74-693 10TH POLE FROM TOWNE ROAD ON S. SIDE OF 146TH STREET.

ELEV.=919.28

NOTE TO CONTRACTOR:
CONTRACTOR SHALL VERIFY DEPTHS OF ALL EXISTING ONSITE UTILITIES PRIOR TO CONSTRUCTION TO CONFIRM THERE IS NOT ANY CONFLICTS WITH OTHER UTILITIES, STORM SEWERS OR STREETS. CONFLICTS AFTER CONSTRUCTION BEGINS ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.

RECORD DRAWING

10/21/05

JEFFORY W. DARLING — DATE
Registered Land Surveyor
No. 900017

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR

SEE RECORD DRAWING

STORM CHART				
STR. NO.	TYPE	T.C. / RIM	INVERT	DIRECTION
100	CONCRETE END SECTION*		914.40	SW
100A	MANHOLE	919.30	914.30	W&E
101	CONCRETE END SECTION		914.40	W
102	CURB INLET w/MH	919.38	914.51	W&E
103	CURB INLET w/MH	919.26	914.67	W&E
104	YARD INLET	918.00	915.45	E
105	YARD INLET	919.20	915.16	N
105A	CONCRETE END SECTION*		915.00	S.E.
106	DBL. CURB INLET	918.57	915.46	N&S
107	DBL. CURB INLET	918.57	915.52	S
108	CONCRETE END SECTION		914.40	N
109	CURB INLET w/MH	918.66	914.50	N&S
110	CURB INLET w/MH	918.66	914.56	N&S
111	CONCRETE END SECTION*		915.00	S
112	CONCRETE END SECTION		915.00	W
113	DBL. CURB INLET	919.10	915.56	E&NW
114	DBL. CURB INLET	919.10	915.66	SE&W
115	YARD INLET	918.20	916.03	E
116	CONCRETE END SECTION		915.00	NW
117	CURB INLET	919.70	915.81	SE&NW
118	CURB INLET w/MH	919.30	915.96	W&NE&SE
119	CONCRETE END SECTION		916.42	E
120	CURB INLET	919.30	916.09	SW
121	CONCRETE END SECTION		915.00	N
122	CURB INLET	919.50	915.68	NE&S
123	CURB INLET	919.50	915.78	SW&N
124	CONCRETE END SECTION		916.14	S
125	CONCRETE END SECTION		915.00	NE
126	MANHOLE	919.50	915.34	SW&E
127	MANHOLE	920.80	[illegible]	W&NE
128	CURB INLET w/MH	919.55	[illegible]	NE&SW&E
129	CURB INLET	919.95	[illegible]	N&SW
130	CONCRETE END SECTION		[illegible]	S
131	CURB INLET	919.55	916.31	[illegible]
132	CONCRETE END SECTION		915.00	[illegible]
133	YARD INLET	919.00	915.21	SW&NW&E
134	YARD INLET	919.00	915.59	SE&N
135	MANHOLE	920.80	915.89	S&NE
136	CURB INLET	919.95	916.05	SW&N
137	CURB INLET w/MH	919.95	916.19	S&N&E
138	CONCRETE END SECTION*		916.74	S
139	CURB INLET	920.35	916.80	NW
140	CURB INLET	920.35	916.71	SE&W
141	DBL. CURB INLET	919.11	915.63	E&W
142	DBL. CURB INLET	919.11	915.69	SE&W
143	CURB INLET w/MH	919.95	916.19	S&N&E
142A	MANHOLE	919.70	915.78	NW&E
142B	CONCRETE END SECTION*		916.12	W
143	CONCRETE END SECTION		915.00	E
144	CURB INLET	919.11	915.68	E&W
145	CURB INLET	919.11	915.77	E&W
200	MANHOLE	918.00	912.23	N&SE
200A	MANHOLE	921.50	912.52	N&S
201	MANHOLE	921.40	912.69	W&S
202	MANHOLE	917.20	913.12	E

*DENOTES END SECTIONS W/TRASH GAURDS

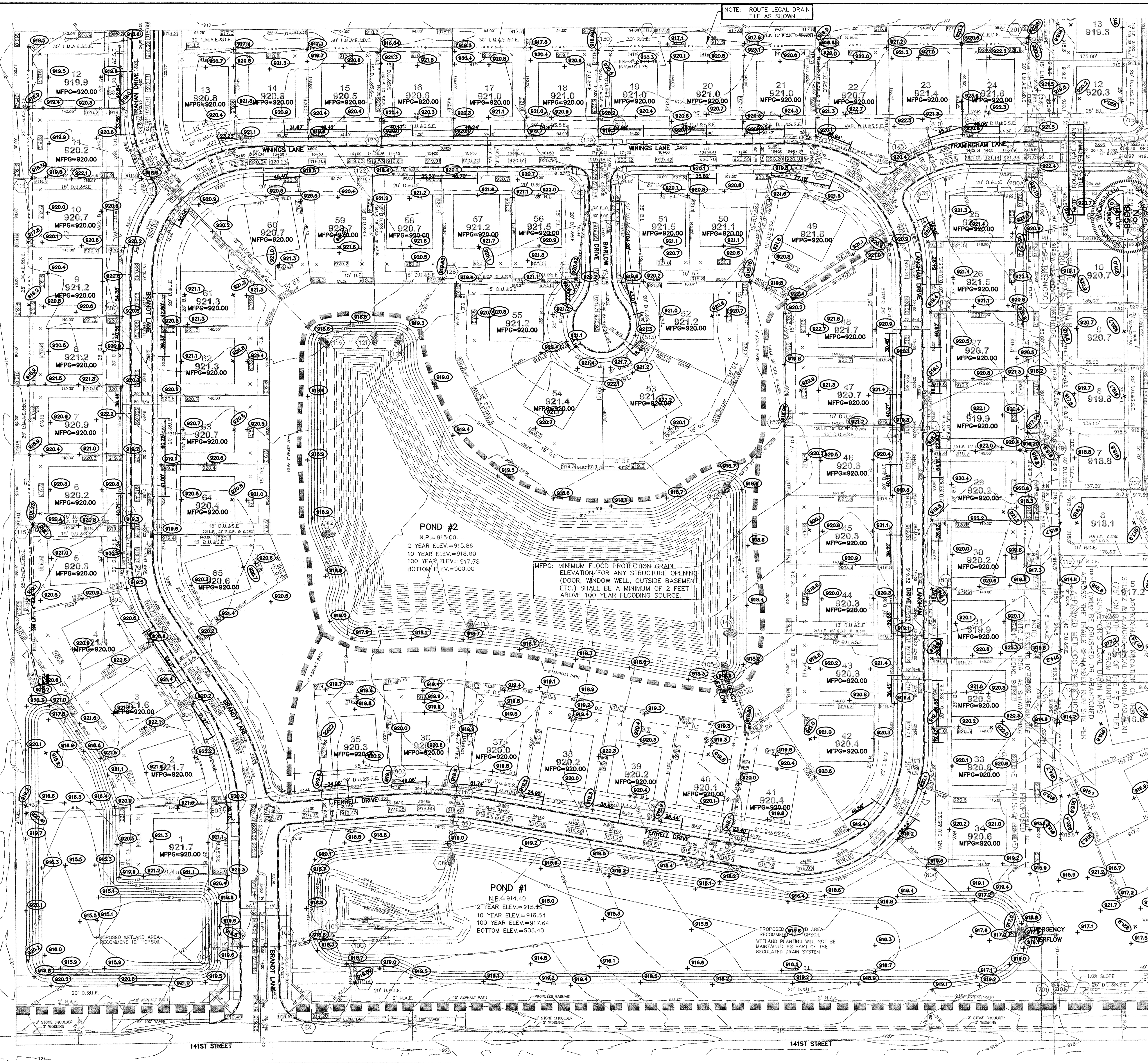
"HOLEY MOLEY" SAYS:

1-800-382-5544
CALL TOLL FREE

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

CAUTION

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



10/21/05	AS-BUILTS	SEG		
5/31/05	ADD MANHOLE STR#200A	TWF		
5/17/05	ADD NOTES TO WETLAND AREAS	WAB		
4/28/05	REV. WETLANDS PER AGENCY COMMENTS	ZJM		
3/14/05	ADD STORM & EX. TILE INFO & EDIT STRM CHART	TWF		
2/17/05	ADD DRY BASINS, REV. STORM LINES	ZJM		
DATE	MARK	REVISIONS	BY	

DWN. BY BAH
CK. BY EEF
SCALE 1"=60'
DATE 6/1/04

DAVID J. STOEPPELWERTH REGISTERED No. 19358 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED: 6/1/04

STOEPPELWERTH & Associates, Inc.

CONSULTING ENGINEERS - LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX:(317) 849-5942
FISHERS INDIANA

SITE DEVELOPMENT PLAN
THE TRAILS @ HAYDEN RUN
CARMEL INDIANA

SHEET NO. C200
JOB NO. 45370EQU

LEGEND

- EXISTING EDGE OF WOODS
- 848 — EXISTING CONTOUR
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- 848.0 — PROPOSED GRADE
- M.E. — MATCH EXISTING
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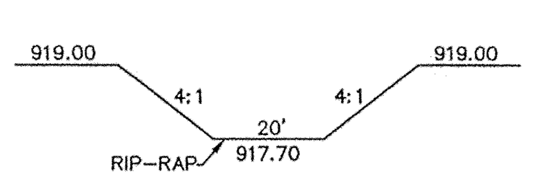
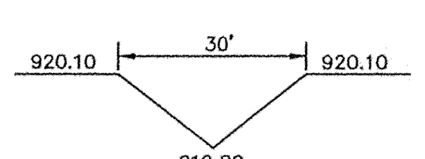


SECTION "B"-"B"
N.T.S.



SECTION "C"-"C"
N.T.S.

FLOOD 100 YR. ELEV.

"HOLEY MOLEY" SAYS:

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

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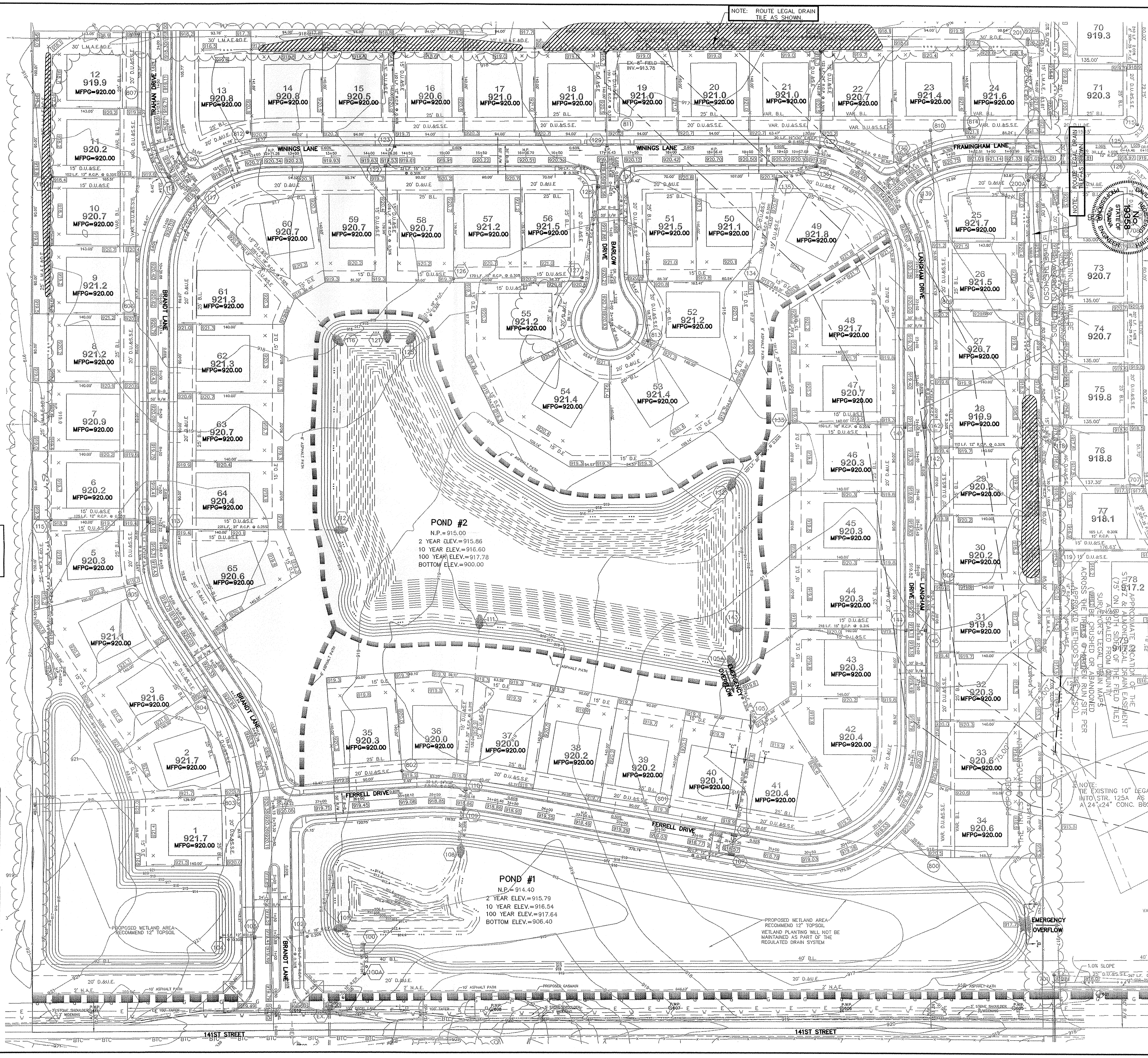


CERTIFIED: 6/1/04

David J. Stoeppelwerth

DWN. BY	CK. BY	SCALE	DATE
BAH	EEF	1"=60'	6/1/04

DATE	MARK	REVISIONS	BY

STOEPPELWERTH & ASSOCIATES, INC.

CONSULTING ENGINEERS – LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX:(317) 849-5942
FISHERS INDIANA

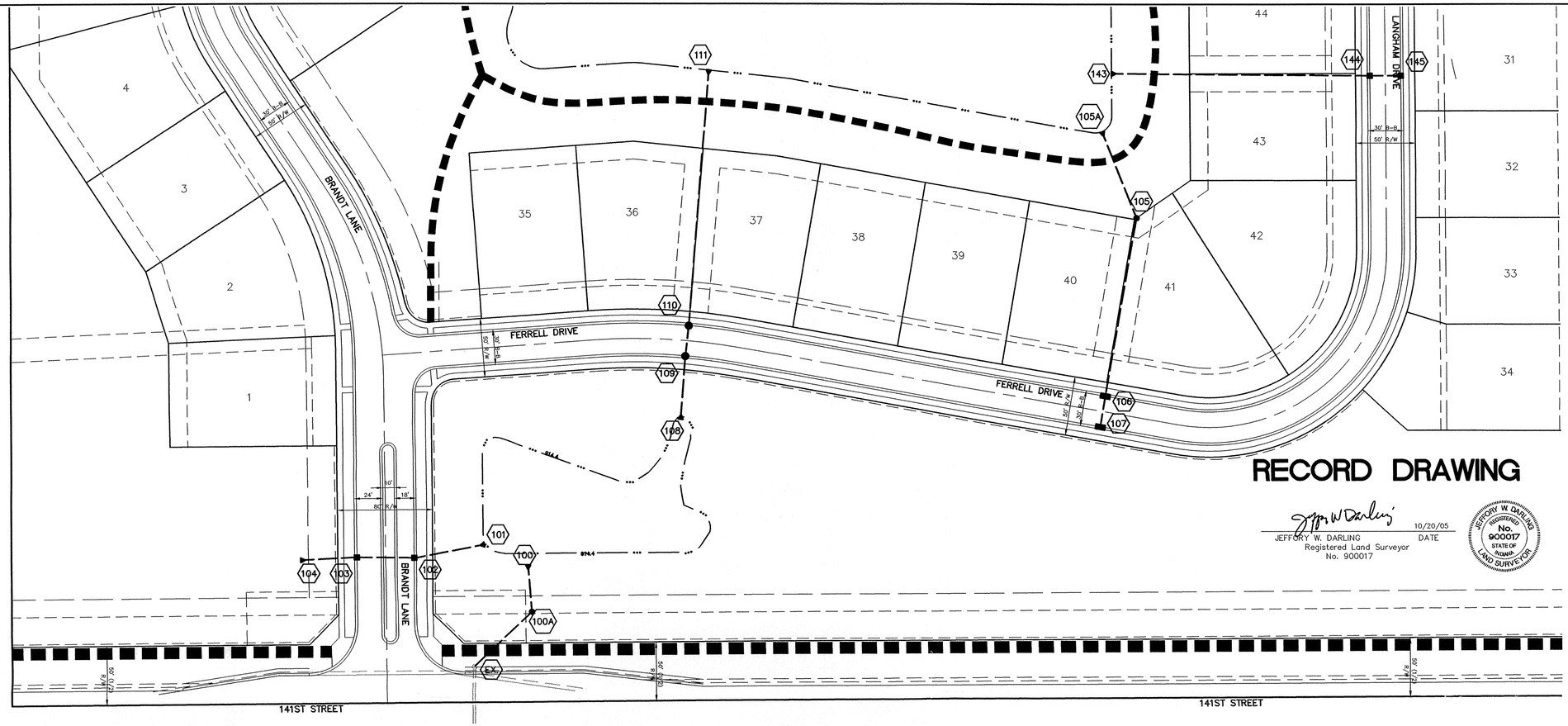
FLOOD ROUTING PLAN

THE TRAILS @ HAYDEN RUN

CARMEL INDIANA

SHEET NO. C201

JOB NO. 45370EQU



RECORD DRAWING

JEFFORY W. DARLING
Registered Land Surveyor
No. 900017

10/20/05
DATE

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR

SCALE: 1"= 50'

NOTE:
CONSTRUCTION TOLERANCE FOR YARD INLETS WILL BE +0.0' TO −0.20'

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."

ALL MANHOLES TO BE CONSTRUCTED WITH ONE 4" RISER RING TO ESTABLISH PLAN CASTING GRADE.

ALL CURB INLET CASTINGS TO BE NEENAH R−3501−L2

ALL EXISTING OFF−SITE DRAIN TILES THAT ARE ENCOUNTERED SHALL BE TIED INTO THE PROPOSED STORM SEWER SYSTEM WITH A POSITIVE OUTFLOW

NOTE: 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 BARREL AND A MINIMUM OF 3−INCHES BELOW THE BELL. FOR PIPE SIZES 66−INCHES AND LARGER, THE MINIMUM DEPTH OF MATERIAL BELOW THE PIPE BARREL SHALL BE 6−INCHES. BEDDING, HAUNCHING AND INITIAL BACKFILL SHALL BE COMPACTED IN 6−INCH MAXIMUM LIFTS TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTHOF THE MATERIAL PLACED. THE BACKFILL SHALL BE BROUGHT UP EVENLY ON BOTH SIDES OF THE PIPE FOR THE FULL LENGTH OF THE PIPE. HAUNCHING SHALL EXTEND TO THE SPRINGLINE OF THE PIPE. THE LIMIT OF INITIAL BACKFILL SHALL BE 6−INCHES ABOVE THE SPRINGLINE. MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 18−INCHES.

NOTE: FINAL BACKFILL FOR ALL RCP INSTALLATIONS UNDER AND WITHIN 5−FEET OF PAVEMENT 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 THE 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 OF 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 THAN 90% STANDARD PROCTOR DENSITY FOR THE ENTIRE DEPTH OF THE EXCAVATION.

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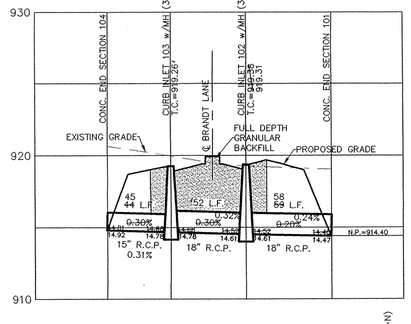

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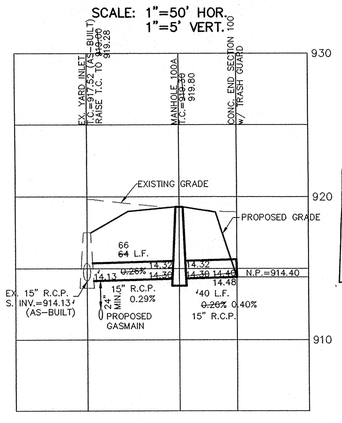

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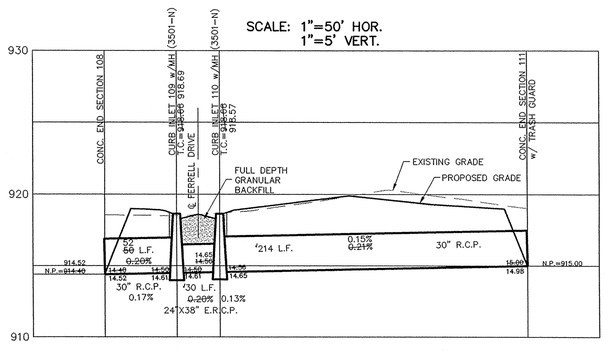

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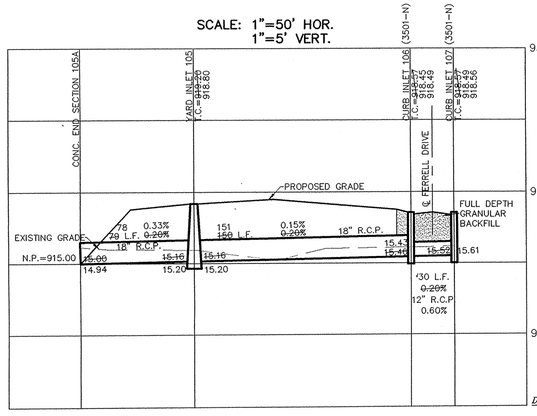

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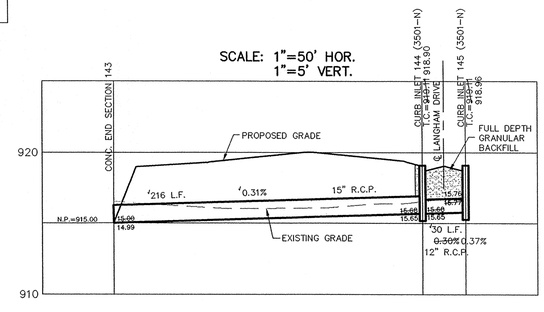


CURB INLET TABLE

PIPE SIZE	STRUCTURES LESS THAN 48" FROM T/C TO INVERT	STRUCTURES GREATER THAN 48" FROM T/C TO INVERT	ANGLE AND QUALITY OF PIPES WILL REQUIRE SPECIAL DESIGN	STEPS REQUIRED	CURB CASTING *R−3501 N	CASTING *3501 TL & TR
12" to 18"	24"x24"		DESIGN APPROVAL	No	Yes	Yes
12" to 21"	30"x30"		DESIGN APPROVAL	No	Yes	Yes
18" to 21"		MH/BOX	DESIGN APPROVAL	Yes	Yes	Yes
21" to 27"	24"x36"		DESIGN APPROVAL	No	No	Yes
12" to 24"	36"x36"		DESIGN APPROVAL	No	Yes	Yes
24" OR LARGER	DESIGN APPROVAL		DESIGN APPROVAL	No	No	Yes
24" or LARGER		MH/BOX	DESIGN APPROVAL	Yes**	Yes	Yes

* PIPES NO LARGER THAN 18" CAN BE USED IN THE 2' SIDE OF THIS BOX
** INCOMING AND OUT GOING PIPES EFFECT STEPS IN THIS STRUCTURE

SPECIAL NOTE:
STRUCTURES DEEPER THAN 48" FROM T/C TO INVERT WILL BE A MH. OR A BOX WITH STEPS UNLESS SPECIAL DESIGN IS APPROVED.

SPECIAL NOTE:
STRUCTURES WILL BE DESIGNED FOR MAXIMUM FLOW IN PIPES

SPECIAL NOTE:
COUNTY MAY REQUIRE STEPS TO BE INSTALLED AFTER STRUCTURE IS SET, TO IMPROVE ACCESS.

BY	REVISIONS	MARK	DATE
SSG	AS BUILTS		10/20/05
ZJM	ADD NOTES		4/14/05
ZJM	REV. STORM PROFILES		2/17/05

DWN. BY: BAH
CK. BY: EEF
SCALE: 1"=50'
DATE: 6/1/04

CERTIFIED: 6/1/04

DAVID J. STOPPELWERTH PROFESSIONAL ENGINEER REGISTERED No. 19358 STATE OF INDIANA

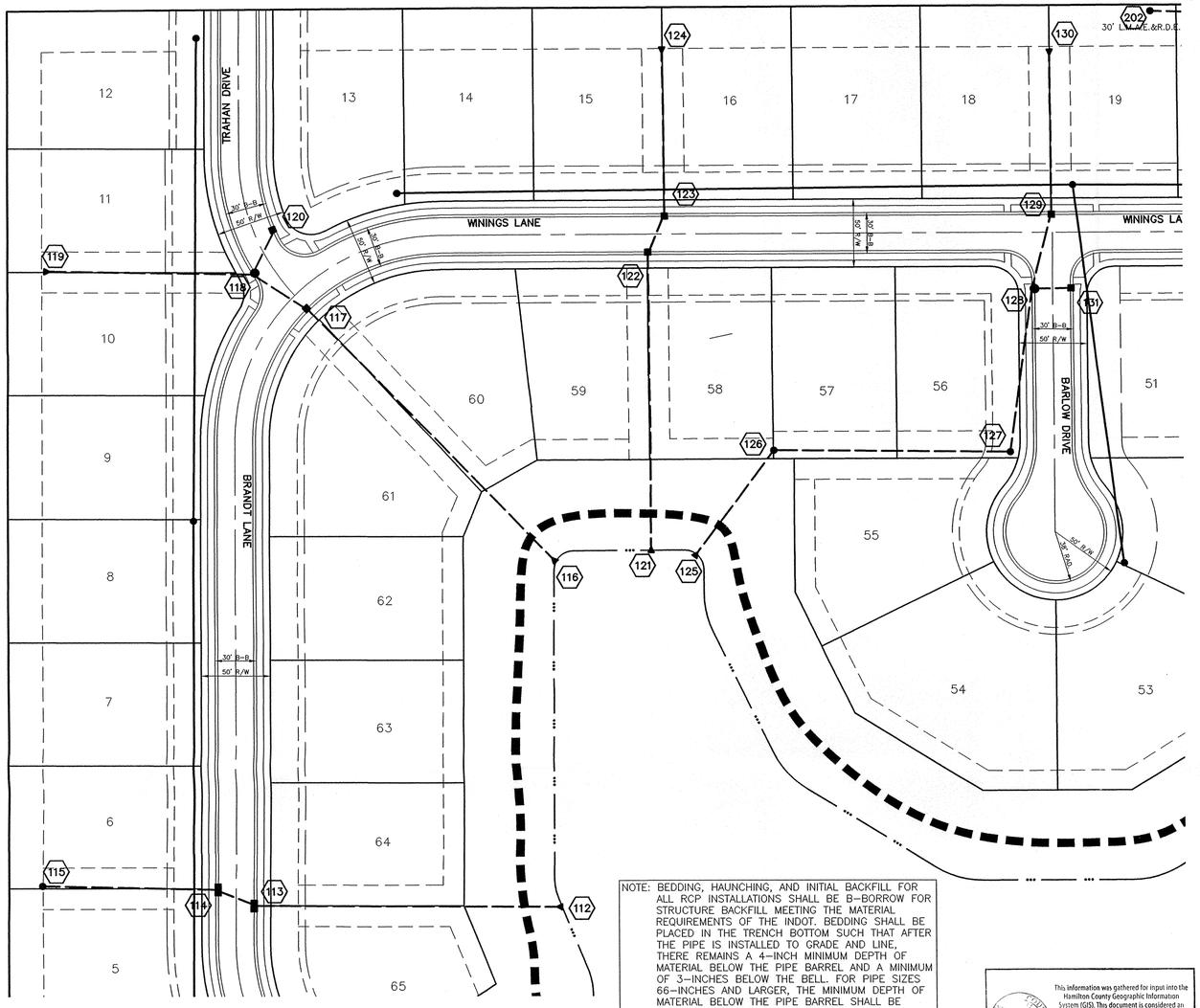
David J. Stoppelwerth

CONSULTING ENGINEERS – LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX:(317) 849-5942
FISHERS INDIANA

STORM SEWER PLAN & PROFILE
THE TRAILS @ HAYDEN RUN
CARMEL INDIANA

SHEET NO. C600

JOB NO. 45370EQU



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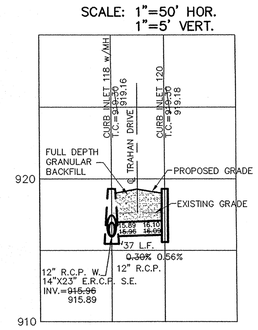

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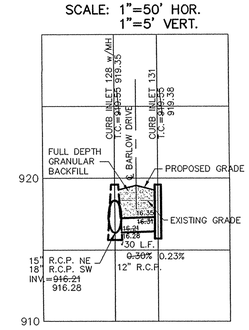

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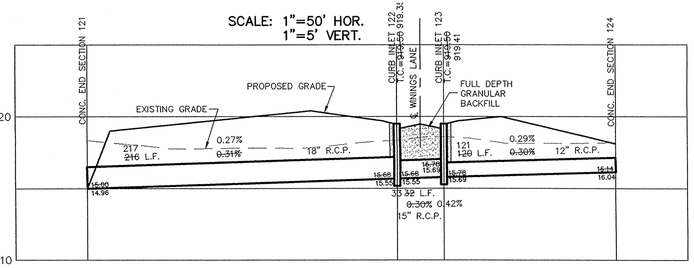

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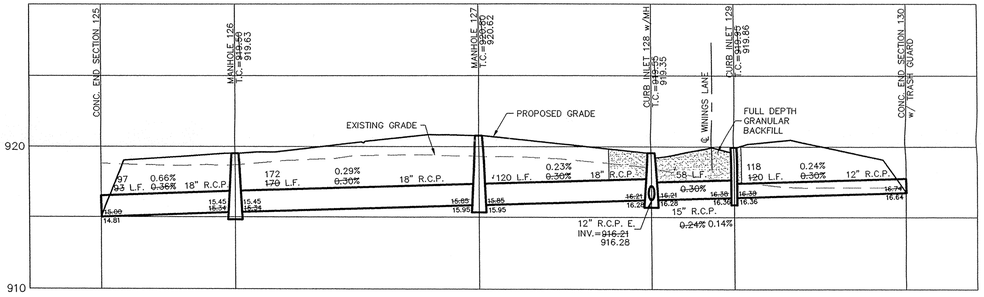

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Entry Date: 8-28-07

Entered By: SLM

RECORD DRAWING

JEFFORY W. DARLING — 10/20/05
JEFFORY W. DARLING — DATE
Registered Land Surveyor
No. 900017

JEFFORY W. DARLING REGISTERED No. 900017 STATE OF INDIANA LAND SURVEYOR

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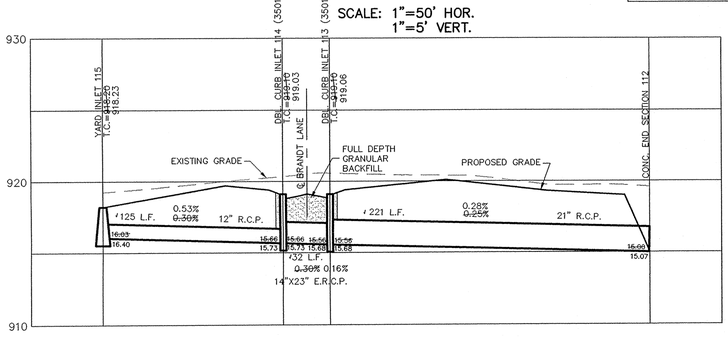

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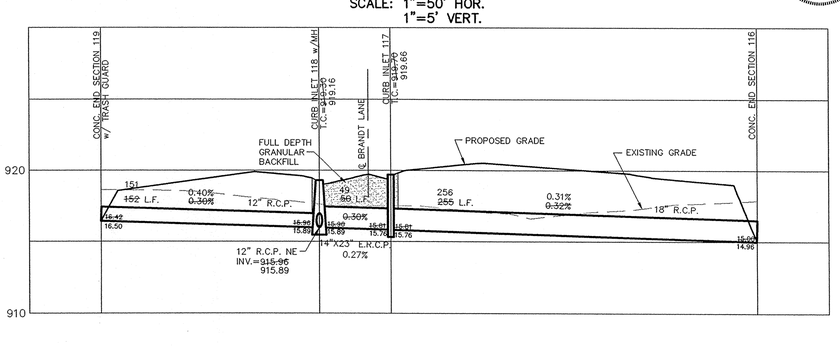

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24" OR LARGER	DESIGN APPROVAL		DESIGN APPROVAL	No	No	Yes
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DATE	MARK	REVISIONS	BY
10/20/05	AS BUILTS		SEG
5/17/05	REV PIPE SIZES STR. #117-116, #13-114		WAB
4/14/05	ADD NOTES		ZJW

DWN. BY: BAH
CK. BY: EEF
SCALE: 1"=50'
PLOT: 6/1/04

CERTIFIED: 6/1/04

David J. Stephenhagen

REGISTERED PROFESSIONAL ENGINEER DAVID J. STEPHENHAGEN No. 19938 STATE OF INDIANA

CONSULTING ENGINEERS - LAND SURVEYORS
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FISHERS INDIANA

STORM SEWER PLAN & PROFILE

THE TRAILS @ HAYDEN RUN

CARMEL INDIANA

SHEET NO. C601

JOB NO. 45370EQU

RECORD DRAWING

APPROXIMATE LOCATION OF THE STULTZ & ALMOND LEGAL DRAIN EASEMENT (75' ON BOTH SIDES OF THE FIELD TILE) AS SCALED FROM COUNTY SURVEYOR'S LEGAL DRAIN MAPS (WILL BE CRUSHED OR ABANDONED ACROSS THE TRAILS @ HAYDEN RUN SITE PER APPROVED METHODS BY THE CITY OF CARMEL ENGINEER)

JEFFORY W. DARLING — 10/20/05
JEFFORY W. DARLING
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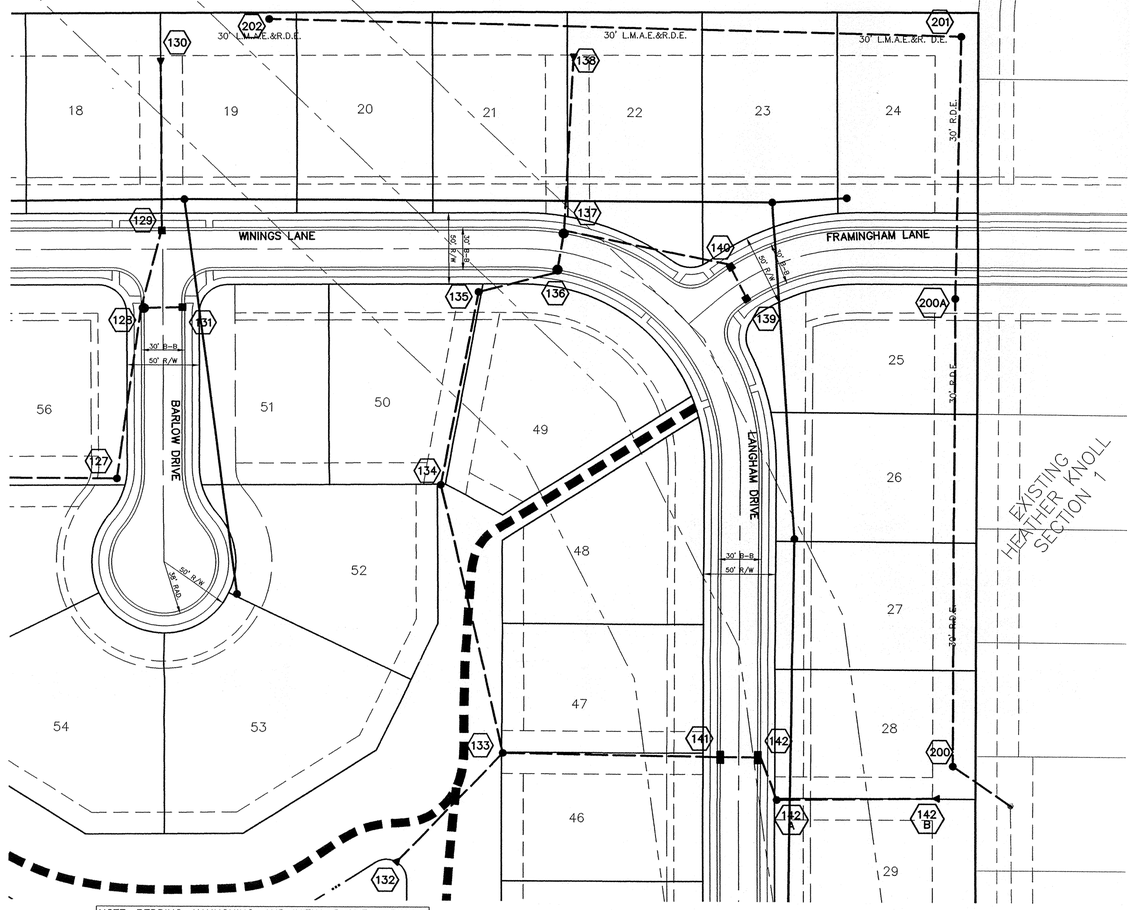

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21" to 27"	24"x36"		DESIGN APPROVAL	No	No	Yes
12" to 24"	36"x36"		DESIGN APPROVAL	No	Yes	Yes
24" OR LARGER	DESIGN APPROVAL		DESIGN APPROVAL	No	No	Yes
24" or LARGER		MH/BOX	DESIGN APPROVAL	Yes**	Yes	Yes

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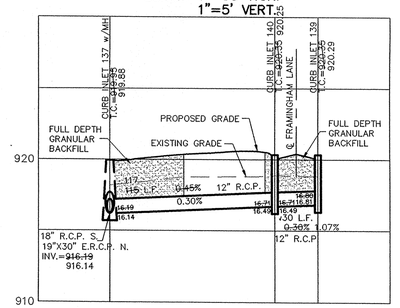

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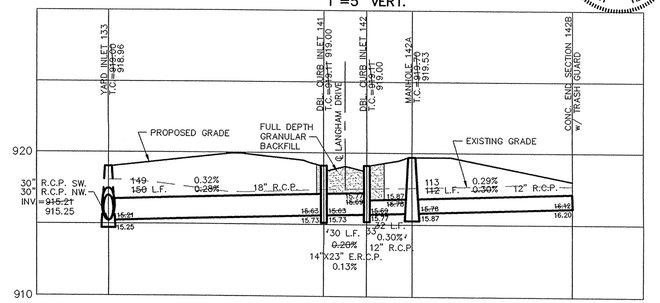

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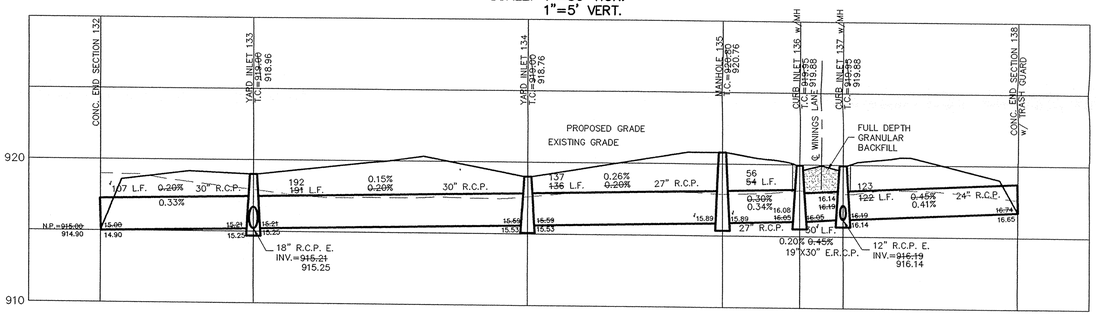

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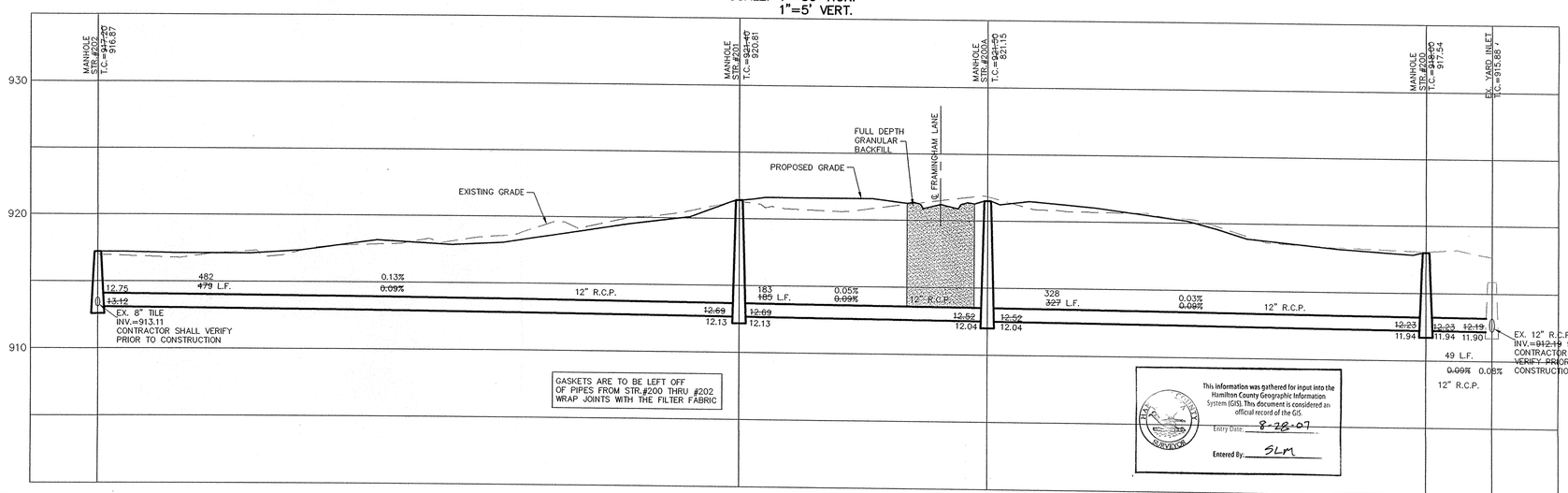

GASKETS ARE TO BE LEFT OFF OF PIPES FROM STR.#200 THRU #202 WRAP JOINTS WITH THE FILTER FABRIC

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Entry Date: 8-28-07
Entered By: SLM

DAVID J. STIPPELWERTH REGISTERED No. 19358 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED: 6/1/04
David J. Stippelwerth

DWN. BY	DATE	MARK	REVISIONS	BY
BAH	10/20/05	AS BUILTS		SEG
CK. BY	5/31/05	ADD STR.#200A		TWF
EEF	5/17/05	REV PIPE SIZES STR.#141-142, #136-137		WAB
SCALE 1"=50'	3/14/05	ADD STRM PROFILE		TWF
DATE 6/1/04				

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SHEET NO. C602

JOB NO. 45370EQU