

Agenda Item No. _____

**City of Wichita
City Council Meeting
March 19, 1996**

Agenda Report No. _____

TO: Mayor and City Council Members

SUBJECT: Agreement to Respread Special Assessments in Bradford North Addition
(West of Tyler, South of 29th Street North) (District V)

INITIATED BY: Department of Public Works



AGENDA: Consent

Recommendation: Approve the Agreement.

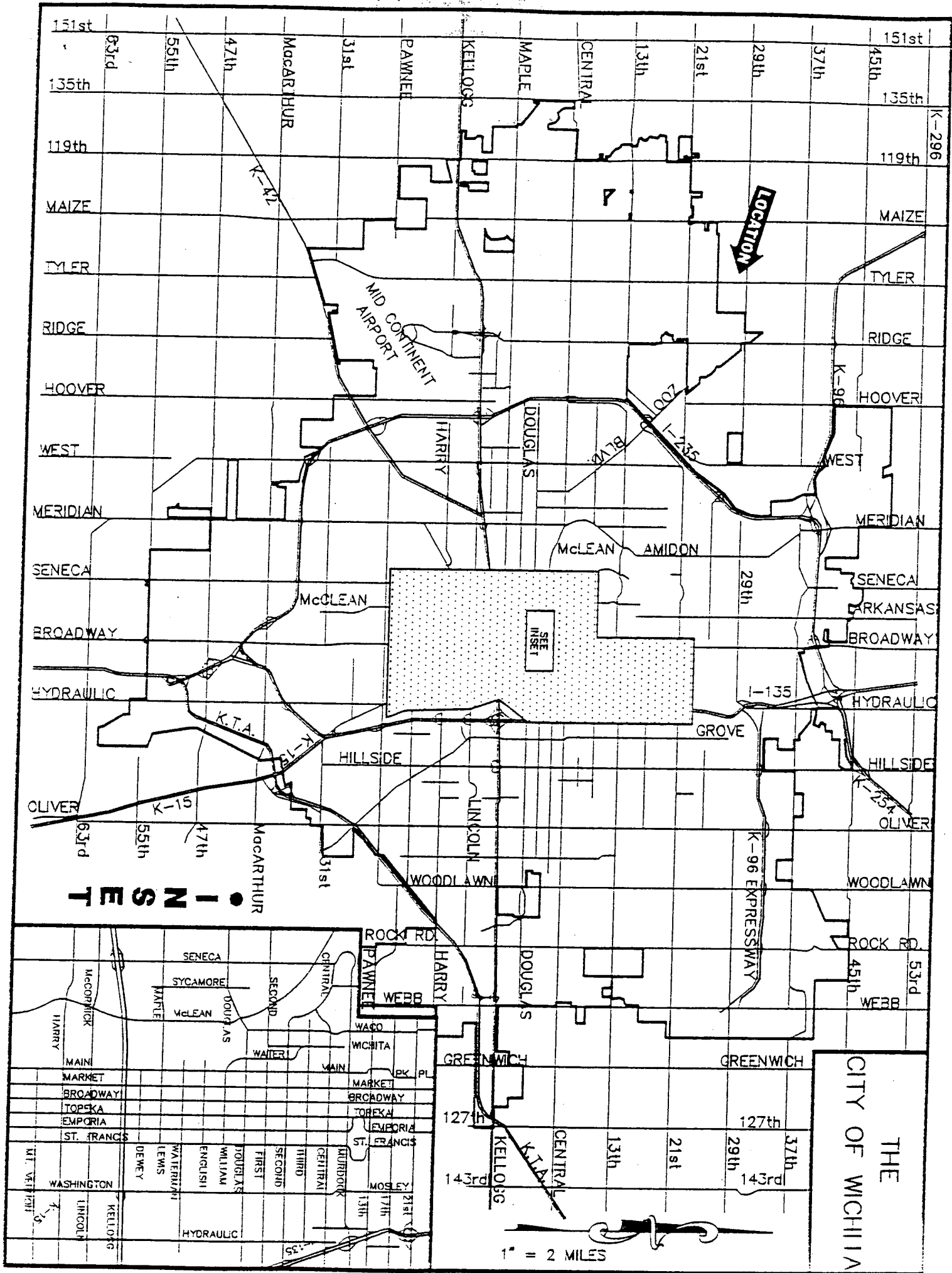
Background: The developer, 3AH, Inc. platted an addition called Bradford North Addition, and has submitted an Agreement to respread special assessments in the addition.

Analysis: The land was originally included in numerous improvement districts for a number of public improvement projects. The purpose of the Agreement is to respread Special Assessments on an equal share basis for each lot. Without the Agreement, the assessments will be spread on a square foot basis. The Agreement will save the City time in recalculating special assessments for each newly platted lot and will equalize the assessments for each lot, making it easier for the developer to market the lots.

Financial Considerations: There is no cost to the City.

Legal Considerations: The Agreement has been approved as to form by the Law Department.

Recommendation/Action: It is recommended that the City Council 1) Approve the Agreement and 2) Authorize the Mayor to execute.



THE CITY OF WICHITA
OFFICE OF LAW DEPARTMENT

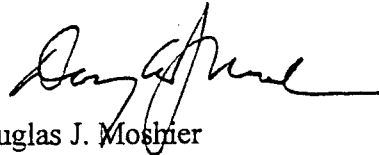
DATE: February 2, 1996

TO: Michael E. Lindebak, P.E., City Engineer

FROM: Douglas J. Moshier, Senior Assistant City Attorney

SUBJECT: Agreement for Respread Assessments

The attached Agreement for respreading assessments in Bradford North Addition is approved as to form.



Douglas J. Moshier
Senior Assistant City Attorney

DJM:cdh

Attachment

RECEIVED

FEB - 6 1996

CITY - ENGINEERING

AGREEMENT

BY AND BETWEEN

THE CITY OF WICHITA, KANSAS,
Party of the First Part

and

3AH-Inc.
Party of the Second Part

WHEREAS, Party of the First Part has constructed certain municipal improvements in the area of 21st Street North and Tyler Road, within the City Limits of the City of Wichita; and

WHEREAS, Party of the Second Part is the landowner of all or part of the improvement district; and

WHEREAS, portion of the improvement district of said improvements has been platted and/or replatted; and

WHEREAS, Party of the Second Part desires that a reassessment be made to reflect the changes in platting; and

WHEREAS, the Party of the First Part and Party of the Second Part are both desirous of accomplishing such a reassessment.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the parties agree as follows:

1. An unplatted tract described as beginning at the Northeast corner of Lot 1, Block 2, Bradford South Addition to Wichita, Kansas; thence North 100.0 feet parallel to the centerline of Tyler Road; thence West 1900.0 feet; thence South 100.0 feet to the Northwest corner of Lot 51, Block 2, Bradford South Addition; thence East 1900.0 feet to the point of beginning, being Tract No. 1.

and also;

An unplatted tract described as beginning at the Northwest corner of Lot 5, Block 3, Bradford South Addition to Wichita, Kansas; thence North 100.0 feet on the West line of the Northeast Quarter of Section 5, Township 27 South, Range 1 West of the 6th P.M., Sedgwick County, Kansas; thence East to a point 100.0 feet North of the Northeast corner of Lot 1, Block 3 of said addition; thence South 100.0 feet to the Northeast corner of said Lot 1, Block 3; thence Westerly along the North line of Lots 1 through 5, Block 3, to the point of beginning, being Tract No. 2

which were both part of the improvement district for the following City project(s):

Lateral 113, Westlink Sewer
Project Number: 468-82402
Index Code: 742023

Said property was replatted as Bradford North Addition.

2. The parties agree to make a reassessment for said project in the following manner:

The total assessment to the above described Tract No. 1 shall be assessed on an equal share basis to each of the following lots:

BRADFORD NORTH ADDITION

Lots 4, 5, 12, 13, 23, 41, 42, 44, 45, 48, 49, 50, Block 6

The total assessment to the above described Tract No. 2 shall be assessed on an equal share basis to each of the following lots:

BRADFORD NORTH ADDITION

Lots 39, 40, 41, 42, Block 1

3. The party of the Second Part is the owner of the property described in section one above and said party of the Second Part hereby waives the notice and hearing requirements of K.S.A. 12-6a12(b) with respect to the reassessment herein described.

4. The party of the Second Part further waives his right to appeal the special assessment for the above mentioned projects (including this described reassessment) and agrees

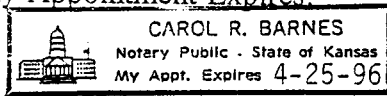
and as such person duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.



Notary Public
Carol R. Barnes

My Appointment Expires:



(4099A)



POE & ASSOCIATES OF KANSAS, INC.
CONSULTING ENGINEERS
5940 E. Central, Suite 200 ■ Wichita, KS 67208-4242
Phone 316/685-4114 ■ FAX 316/685-4444

December 16, 1996

Mr. John A. Henderson, P.E.
Kansas Department of Agriculture
Division of Water Resources
901 South Kansas Avenue, 2nd floor
Topeka, Kansas 66612-1283

RE: DIVISION OF WATER RESOURCES APPLICATIONS, MEADOW OAKS 2ND
ADDITION AND BRADFORD NORTH ADDITION TO WICHITA, KANSAS,
APPLICATION WSN: LSG-0117, NOTICE NO. 96469 & WSN: LSG-0116, NOTICE NO.
96468

Dear Mr. Henderson,

We have received your letters in reference to adverse comments regarding the above projects. We would like to update you on our progress with the respective parties.

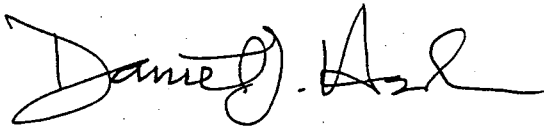
The Meadow Oaks 2nd Addition received a letter from Ms. Lisa Miller who represents a small contingent of homeowners within the first phase of Meadow Oaks Addition. In our conversation with her by phone, it is clear that hers and her parties concerns have been with their Home Builder and not that of the Land Developer Mr. Russell. We have responded to her by letter and ask that her letter to DWR be removed from the Meadow Oaks Application file. Other letters received in reference to this project from the Kansas Biological Survey and the Department of Wildlife and Parks appear to be standard form letters. We have appropriately responded by letter to each agency and hope they're concerns have been mitigated.

The Bradford North Addition also received letters from the Kansas Biological Survey and the Department of Wildlife and Parks and we have responded to each of them by letter. We previously received a letter from Mr. Pracht. We spoke with him and have cleared up his concerns and have sent you copies of our correspondence with him. In reference to Mr. Rinks letter, we have responded to him and believe we have answered his questions.

We have enclosed a copy of each response for your file. We believe we have mitigated the immediate concerns of all the parties and would hope that both projects could be moved forward to approval.

If you should have any questions or comments, please contact us.

Yours Truly,
POE & ASSOCIATES OF KANSAS, INC.

A handwritten signature in black ink, appearing to read "Daniel J. Haskins". The signature is fluid and cursive, with a large initial "D" and "H".

Daniel J. Haskins

cc: Mr. Jay Russell
Ms. Vicki Huang, City of Wichita

EXECUTIVE SUMMARY

3-AH Inc. plans to develop a quarter section tract of land located at 29th Street North and Tyler Street, Wichita, Sedgwick County, Kansas (T27S, R1W, ne ¼ Sec 5), as a housing development. A small portion of this quarter section has been identified by the U.S. Army Corps of Engineers as in need of a wetland determination for potential Section 404 dredge and fill permit regulation. The determination is necessary to ascertain the presence or absence of jurisdictional wetlands. The portion in question is located in the northwest ¼ of the project site, immediately south of 29th Street North, and approximately one-half mile east of Maize Road. A jurisdictional wetland delineation of this area was performed on March 11, 1996 by George Butler Associates, Inc. (GBA), Lenexa, Kansas. Based upon the onsite wetland delineation and a review of existing information, no jurisdictional wetlands or other waters of the U.S. occur onsite.

BRADFORD NORTH

7-2-97

Peak Discharge = 230 cfs

$$(1) \quad \frac{5.94 (0.03828) (640)}{12} = 26.3331 \text{ Acre-ft of Run-off}$$

$$(2) \quad \frac{26.3331}{1196.50} = 0.022050233 \text{ Acre-ft} = \text{Value of 1 sq. unit}$$

$$(3) \quad \frac{230}{60} = 3.8333 \text{ cfs} = \text{Value of 1 unit of flow}$$

$$(4) \quad \frac{0.022050233 \times 12}{3.8333} = 0.069026517 \text{ hrs} = \text{value of 1 unit of time}$$

Elev	Avea Ac	Ave Vol Ac-ft	Cum. Vol Ac-ft
42	1.106	0	0
43	1.182	1.144	1.144
44	1.261	1.222	2.366
45	1.342	1.302	3.668
46	1.424	1.383	5.051
47	1.508	1.466	6.517
48	1.593	1.551	8.068
49	1.679	1.636	9.704
50	1.767	1.723	11.427
51	1.856	1.812	13.239
52	1.947	1.902	15.141
53	2.039	1.993	17.134
54	2.132	2.086	19.220
55	2.227	2.180	21.400
56	2.324	2.276	23.676
57	2.421	2.373	26.049
58	2.520	2.471	28.520
59	2.621	2.571	31.091
60	2.723	2.672	33.763
61	2.841	2.782	36.545
62	2.970	2.906	39.451
63	3.105	3.038	42.489
64	3.272	3.189	45.678
65	3.439	3.356	49.034
66	3.949	3.694	52.728
67	4.127	4.038	56.766

$$Q = 3.08 L H^{3/2}$$

$$L = 8$$

<u>H</u>	<u>Q</u>	<u>Q Ave (CFS)</u>		<u>Area-ft</u>
0	0			
.5	8.71	4.36	2.5423	1.49
1.0	24.64	16.68	"	5.71
1.5	45.27	34.95	"	11.96
2.0	69.69	57.48	"	19.07
2.5	97.40	83.55	"	28.37
3.0	128.03	112.72	2.8423	38.68

BRADFORD NORTH

7-2-97

Peak Flow = 230 cfs

10 x 3' RCB

$$Q = 3.08 L H^{3/2}$$

$$Q = 3.08 (10) H^{3/2} = 30.80 H^{3/2}$$

H	Q	Avg Q	4.1416 TIME	Accum- ft
0	0			
		5.45	0.3423	1.87
0.5	10.89			
		20.85	0.3423	7.14
1.0	30.8			
		43.69	0.3423	14.96
1.5	56.58			
		71.85	0.3423	24.89
2.0	87.12			
		104.44	0.3423	35.75
2.5	121.75			
		140.90	0.3423	48.23
3.0	160.04			


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*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* MAY 1991
* VERSION 4.0.1E
*
* RUN DATE 07/02/97 TIME 11:22:10
*
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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 551-1748
*
*****

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X X XXXXXXX XXXX X
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X X X X X
X X X X X
X X XXXXXXX XXXX XXX

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

GAM
7-2-97

GOOD

USE

FOR

10' x 3' RCB

POND

IT = 162.00

2

Top = 165.83 (outside)

Top
165.83
10" Thick

LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1	ID BRADFORD NORTH REVISED
2	ID PEAK FLOW FUTURE CONDITION
3	ID Q100 - 6HR STORM
4	ID FILE: BRADREV
5	IT 2 0 181
6	IO 5 0
7	KK SB1
8	KM COMPUTE HYDROGRAPH
9	BA 0.083
10	PH 100 0 .87 1.86 3.8 4.6 5.1 6.0
11	LS 0 84.3
12	UD .284
13	KK POND 1
14	KM ROUTE FLOW THROUGH 8X3 RCBC
15	KO 21
16	RS 1 STOR -1
17	SV 0 3.04 6.23 9.59 13.28 17.32
18	SE 162 163 164 165 166 167
19	SQ 0 8.71 24.64 45.27 69.69 97.40 128.03 248.13 359.85
20	SE 162 162.5 163 163.5 164 164.5 165 166 167
21	ZZ

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*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*     MAY 1991
*     VERSION 4.0.1E
*
* RUN DATE 07/02/97 TIME 11:22:10
*
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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
*     609 SECOND STREET
*     DAVIS, CALIFORNIA 95616
*     (916) 551-1748
*
*****

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BRADFORD NORTH REVISED
PEAK FLOW FUTURE CONDITION
Q100 - 6HR STORM
FILE: BRADREV

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6 IO      OUTPUT CONTROL VARIABLES
          IPRNT      5 PRINT CONTROL
          IPLOT      0 PLOT CONTROL
          QSCAL      0. HYDROGRAPH PLOT SCALE

```

```

IT        HYDROGRAPH TIME DATA
          NMIN      2 MINUTES IN COMPUTATION INTERVAL
          IDATE     1 0 STARTING DATE
          ITIME     0000 STARTING TIME
          NQ        181 NUMBER OF HYDROGRAPH ORDINATES
          NDDATE    1 0 ENDING DATE
          NDDATE    1 0 ENDING DATE
          NDTIME    0600 ENDING TIME
          ICENT     19 CENTURY MARK

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COMPUTATION INTERVAL 0.03 HOURS
TOTAL TIME BASE      6.00 HOURS

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ENGLISH UNITS
DRAINAGE AREA      SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION  FEET
FLOW               CUBIC FEET PER SECOND
STORAGE VOLUME     ACRE-FEET
SURFACE AREA       ACRES
TEMPERATURE        DEGREES FAHRENHEIT

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*** **

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*****
*
13 KK * POND 1 *
*
*****

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15 KO      OUTPUT CONTROL VARIABLES
          IPRNT      5 PRINT CONTROL
          IPLOT      0 PLOT CONTROL

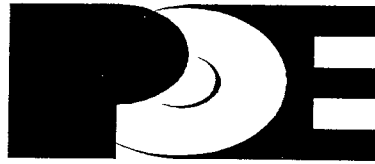
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QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	181	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.033	TIME INTERVAL IN HOURS

RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	SB1	244.	3.33	37.	37.	37.	0.08		
ROUTED TO	POND 1	109.	3.77	31.	31.	31.	0.08	164.69	3.77

*** NORMAL END OF HEC-1 ***



POE & ASSOCIATES, INC.

CONSULTING ENGINEERS

WICHITA - TOPEKA - KANSAS CITY - OKLAHOMA CITY - TULSA

FACSIMILE TRANSMITTAL SHEET

CONFIDENTIALITY STATEMENT: THE INFORMATION CONTAINED IN THIS FAX MESSAGE IS INTENDED ONLY FOR THE USE OF THE ADDRESSEE LISTED ON THIS COVER SHEET. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR IF YOU HAVE RECEIVED THIS FAX IN ERROR, PLEASE DISREGARD. THANK YOU.

TO:	FROM:
VICKY HUANG	KENNY E. HILL, P.E.
FAX NUMBER:	DATE:
268-4114	7-21-04
COMPANY:	TOTAL NO. OF PAGES INCLUDING COVER:
	5
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE:	YOUR REFERENCE NUMBER:
BRADFORD NORTH	

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES / COMMENTS:

The attached info. was all that I could find that looked like it might help you.

Memo

Date: 2/18/03

To: Jerry Dyck

Cc:

From: Kenny E. Hill, P.E.

RE: Bradford Drainage

The information that I provided for Chris Carrier regarding drainage from the Bradford Ponds is as follows:

Q100 = 230 cfs into North Pond in Bradford North

Routed through an 8'x3' RCBC to 129 cfs - Pond DWS = 166.3

Q100 = 318 cfs into South Pond in Bradford North

Q100 = 230 cfs out routed through double 6'x3' RCBC into Cadillac Lake - Pond DWS = 165.3

Poe and Associates of Kansas, Inc.

Consulting Engineers

434 N. Oliver, Suite 110
Wichita, Kansas 67208
316/685-4114 FAX 316/685-4444

August 8, 1996

Brent Wooten, P.E.

Baughman Company, P.A.

315 Ellis

Wichita, Kansas 67211


Re: Bradford North - Pearson Property

Dear Brent:

We have revised the plans to drain onto the Pearson property as shown on the enclosed drawing. This change was made to avoid the need for a wetland permit.

Please advise us if this is satisfactory with Pearson. The plans will probably be submitted to the city for review next week so we will need to know as soon as we can if Pearson wants any changes.

Thank You,
Poe & Associates of Kansas, Inc.


Kenny E. Hill, P.E.
Vice President

BRADFORD NO.

TEMPORARY DRAINAGE EASEMENT

THIS EASEMENT made this 23RD day of AUGUST, 1996 by and between Bruce A. and Esther L. Pearson as Joint Tenants of the first party and the City of Wichita, of the second part.

WITNESSETH: That the said first party, in consideration of the sum of one dollar (\$1.00) and other valuable consideration, the receipt whereof is hereby acknowledged, does hereby grant and convey unto said second party a temporary right-of-way and easement for the purpose of constructing a drainage ditch, over, along and under the following described real estate situated in Sedgwick County, Kansas, to wit:

The Northerly 70 feet of the Easterly 760 feet of the Southeast Quarter of the Northwest Quarter of Section 5, Township 27 South, Range 1 West of the 6th P.M., Sedgwick County, Kansas.

And said second party is hereby granted the right to enter said premises for the purpose of constructing the drainage improvements.

At the completion of the construction of the drainage ditch this easement will become null and void.

IN WITNESS WHEREOF: The said first party has signed these presents the day and year first written.

Bruce A. Pearson
Bruce A. Pearson

Esther L. Pearson
Esther L. Pearson

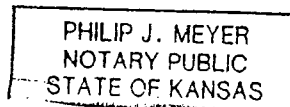
STATE OF KANSAS)
SEDGWICK COUNTY) ss.

Be is remembered that on this 23RD day of AUGUST, 1996, before me, a notary public in and for said County and State, came Bruce A. Pearson and Ester L. Pearson to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.

Seal

Philip J. Meyer
Notary Public

My appointment expires: 5/5/97



POE & ASSOCIATES OF KANSAS INC.
CONSULTING ENGINEERS

434 N. Oliver, Suite 110 - Wichita, KS 67208
316/685-4114 - FAX 316/685-4444

June 3, 1994

Brent Wooten, P.E.
Baughman Co., PA
315 Ellis
Wichita, Kansas 67211

FILE COPY

Dear Brent:

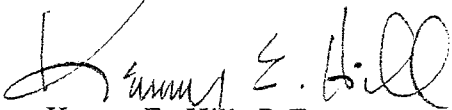
We are completing the final plat of Bradford South Addition. Jay Russell ask that we send you a copy of the drainage plan for your review. He said that you could talk to Bruce Pearson and see if he had any problems with this drainage plan.

The conservation district had no problems with the drainage from the south pond but ask that we direct the drainage from the north pond to the common line between the Pearson and Pracht property. If you have questions about this meeting you might want to talk to Wilmer Freund.

Please call me if I can answer any questions about this project.

Yours truly,

POE & ASSOCIATES OF KANSAS, INC.



Kenny E. Hill, P.E.
Vice President

KEH:cb

Encl. Drainage Plan
Weir detail

Poe and Associates of Kansas, Inc.
Consulting Engineers

434 N. Oliver, Suite 110
Wichita, Kansas 67208
316/685-4114 FAX 316/685-4444

August 8, 1996

Brent Wooten, P.E.

Baughman Company, P.A.
315 Ellis
Wichita, Kansas 67211

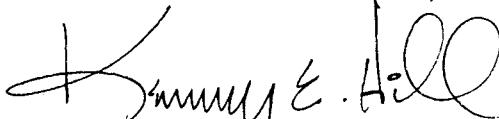
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Please advise us if this is satisfactory with Pearson. The plans will probably be submitted to the city for review next week so we will need to know as soon as we can if Pearson wants any changes.

Thank You,
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Kenny E. Hill, P.E.
Vice President

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The Northerly 70 feet of the Easterly 760 feet of the Southeast Quarter of the Northwest Quarter of Section 5, Township 27 South, Range 1 West of the 6th P.M., Sedgwick County, Kansas.

And said second party is hereby granted the right to enter said premises for the purpose of constructing the drainage improvements.

At the completion of the construction of the drainage ditch this easement will become null and void.

IN WITNESS WHEREOF: The said first party has signed these presents the day and year first written.

Bruce A. Pearson
Bruce A. Pearson

Esther L. Pearson
Esther L. Pearson

STATE OF KANSAS)
SEDGWICK COUNTY) ss.

Be is remembered that on this 23RD day of AUGUST, 1996, before me, a notary public in and for said County and State, came Bruce A. Pearson and Ester L. Pearson to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.

Seal

Philip J. Meyer
Notary Public

My appointment expires: 5/5/97

PHILIP J. MEYER
NOTARY PUBLIC
STATE OF KANSAS

Memo

Date: 2/18/03

To: Jerry Dyck

Cc:

From: Kenny E. Hill, P.E.

RE: Bradford Drainage

The information that I provided for Chris Carrier regarding drainage from the Bradford Ponds is as follows:

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2/18/03



POE & ASSOCIATES, INC.

5940 E. Central, Suite 200
Wichita, Kansas 67208

CONSULTING ENGINEERS

Office: (316) 685-4114
Fax: (316) 685-4444

September 15, 2004

Mr. Shawn Bryan

Storm Water Engineering
City Hall - 8th Floor
455 N. Main
Wichita, KS 67202

RECEIVED SEP 17 2004

Re: Drainage Calculations for Bradford Addn.

Dear Shawn:

We have enclosed copies of the calculations that we found in the files for Bradford North. It appears that these files include preliminary data which was prepared during the platting process, trial calculations and calculations for the preparation of final plans. I can not tell what was used for the final design.

I hope this is of some help, but would suggest that you use this information with caution and check any information that may be critical to your design of 29th Street.

Sincerely,
Poe and Associates, Inc.

Kenny E. Hill, P.E.
Vice President

LINE NO. 1

PROJECT BEARDERS DITCH

TABLE 8
MINOR LOSSES AND HYDRAULIC GRADE LINE

FINAL DESIGN

SHEET 1 OF 2
BY R. H. H. H.
DATE 9-15-91

① STRUCTURE NO.	② TYPE (MH OR C.B.)	③ MAX ELEVATION H.G.L.	④ D ₂ /D ₁	⑤ K ₁	⑥ V	⑦ H _f	⑧ H _l	⑨ H _{mh}	⑩ E.G.L.	⑪ H _v	⑫ H.G.L.	⑬ INVERT ELEVATION	⑭ DEPTH	
01008	5' x 5' 2" 1/2				6.70				162.71	0.71	162.40	162.40	159.07	3.53'
115.76	64.5	42'	12"		6.70	0.40	0.18	0.02	162.71	0.71	162.40	162.40	159.07	3.53'
115.76									162.71	0.71	162.40	162.40	159.07	3.53'
119.51	64.5	42'	12"		6.13	0.45	0.56		164.76	0.71	165.05	163.09	160.09	3.52'
244.0									164.76	0.71	165.05	163.09	160.09	3.52'
109.00	43.7	42'	12"		5.42	0.40	0.37		164.60	0.59	164.01	161.52	160.52	3.05'
247.19									164.60	0.59	164.01	161.52	160.52	3.05'
128.82	39	42'	12"		5.14	0.53	0.76		165.57	0.46	164.91	161.29	161.29	3.04'
544.02									165.57	0.46	164.91	161.29	161.29	3.04'
121.21	36	42'	12"		3.18	0.26	0.43		165.44	0.41	165.43	162.69	162.69	3.07'
244.0									165.44	0.41	165.43	162.69	162.69	3.07'
201.97	10.0	42'	12"		4.13	0.34	0.04		166.26	0.16	166.42	165.50	165.50	2.96'
247.25									166.26	0.16	166.42	165.50	165.50	2.96'
131.21	10.0	42'	12"		4.07	0.23	0.12		166.85	0.16	166.69	164.40	164.40	1.99'
247.25									166.85	0.16	166.69	164.40	164.40	1.99'

* GIVEN

- ③ NOT LESS THAN 1 FT. BELOW BOTTOM OF SLAB.
- ④ RATIO OF LARGER TO SMALLER PIPE DIAMETER.
- ⑤ FROM CHART 7.
- ⑥ VELOCITY FROM TABLE 6
- ⑦ HEAD LOSS DUE TO FRICTION FROM TABLE 7
- ⑧ H_l = HEAD LOSS AT JUNCTION = COL. 5 X COL. 11
- ⑨ H_{mh} = HEAD LOSS AT MH = 0.02 ALWAYS.
- ⑩ E.G.L. = ENERGY GRADE LINE.
- ⑪ H_v = VELOCITY HEAD = V² / 64.4
- ⑫ H.G.L. = HYDRAULIC GRADE LINE = E.G.L. - H_v

BRADFORD NORTH

3/22/97

(4A)

CL = 106.59
TC = 106.63

Top 15" RCP = 154.63 H = 163.19

2yr	$1.51 (.5) (3.80) = 2.87$ cfs	15" S > 0.16%	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">42.35</div> 1.00 162.7 162.5
10yr	$1.51 (.5) (5.19) = 3.92$ cfs	15" S > 0.51%	
25yr	$1.51 (.5) (6.04) = 4.56$ cfs	15" S > 0.42%	

(4B)

2yr	$1.21 (.5) (3.80) = 2.30 + 2.87 = 5.17$ cfs	15" S > 0.54%	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">40.7</div> 6.19% 160.0
10yr	$1.21 (.5) (5.19) = 3.14 + 3.92 = 7.06$ cfs	18" S > 0.38%	
25yr	$1.21 (.5) (6.04) = 3.65 + 4.56 = 8.21$ cfs	18" S > 0.32%	

(3D)

CL = 107.56 Top Inlet = 64.25 H = 64.00
TC = 107.60

2yr	$1.16 (.5) (3.80) = 2.20$ cfs	15" RCP
10yr	$1.16 (.5) (5.19) = 3.01$ cfs	15" RCP
25yr	$1.16 (.5) (6.04) = 3.50$ cfs	15" RCP S > 0.25%

TC = 107.60 H = 108.60

(3C)

2yr	$0.6 (.5) (3.80) = 1.14 + 2.20 = 3.34$ cfs	15" RCP S > 0.22%
10yr	$0.6 (.5) (5.19) = 1.56 + 3.01 = 4.57$ cfs	15" RCP S > 0.42%
25yr	$0.6 (.5) (6.04) = 1.81 + 3.50 = 5.31$ cfs	15" RCP S > 0.56%

TC = 107.28

(3E)

2yr	$0.98 (.5) (3.80) = 1.86 + 3.34 = 5.20$ cfs	18" RCP
10yr	$0.98 (.5) (5.19) = 2.54 + 4.57 = 7.11$ cfs	18" RCP S > 0.35%
25yr	$0.98 (.5) (6.04) = 2.96 + 5.31 = 8.27$ cfs	18" RCP S > 0.52%

TC = 107.28

(3A)

2yr	$0.54 (.5) (3.80) = 1.03 + 5.20 = 6.23$ cfs	18" RCP S > 0.29%
10yr	$0.54 (.5) (5.19) = 1.40 + 7.11 = 8.51$ cfs	18" RCP S > 0.56%
25yr	$0.54 (.5) (6.04) = 1.63 + 8.27 = 9.90$ cfs	18" RCP S > 0.75%

(5A)

(6A)

2 yr. $1.24 (.5) (5.80) = 2.36$ cfs 18" RCP
 10 yr. $1.24 (.5) (5.19) = 5.22$ cfs 18" RCP S > 0.21%
 25 yr. $1.24 (.5) (6.04) = 3.74$ cfs 18" RCP S > 0.23%

Top MH = 142.50

(5A)

2 yr. = $25 (.5) (2.30) = 24.45$ cfs 36" RCP S > 0.14%
 10 yr. = $25 (.5) (3.31) = 38.07$ cfs 36" RCP S > 0.26%
 25 yr. $25 (.5) (3.91) = 44.97$ cfs 36" RCP S > 0.40%
 100 yr. $25 (.5) (4.84) = 58.66$ cfs
 $18 + 58.66$

TL = 40 T2 = 165.99

(5B)

2 yr. $1.63 (.5) (2.23) = 1.82 + 26.45 = 28.27$ cfs 36" RCP S > .16%
 10 yr. $1.63 (.5) (3.22) = 2.42 + 38.07 = 40.49$ cfs 36" RCP S > 0.23%
 25 yr. $1.63 (.5) (3.80) = 3.10 + 44.47 = 48.07$ cfs 36" RCP S > 0.43%
 100 yr. $1.63 (.5) (4.73) = 4.04 + 55.46 = 59.50$ cfs
 $18 + 59.50$
 TL = 165.56

(5C)

2 yr. $1.71 (.5) (2.23) = 1.91 + 28.27 = 30.18$ cfs 36" RCP S > 0.18%
 10 yr. $1.71 (.5) (3.22) = 2.75 + 40.49 = 43.44$ cfs 36" RCP S > 0.27%
 25 yr. $1.71 (.5) (3.80) = 3.25 + 48.07 = 51.32$ cfs 36" RCP S > 0.51%
 100 yr. $1.71 (.5) (4.71) = 4.03 + 59.50 = 63.53$ cfs
 $18 + 63.53$
 TL = 165.56

(5D)

2 yr. $1.41 (.5) (2.23) = 1.57 + 30.18 = 31.75$ cfs 36" RCP S > 0.19%
 10 yr. $1.41 (.5) (3.22) = 2.27 + 43.44 = 45.71$ cfs 36" RCP S > 0.40%
 25 yr. $1.41 (.5) (3.80) = 2.68 + 51.32 = 54.00$ cfs 36" RCP S > 0.56%
 100 yr. $1.41 (.5) (4.71) = 3.32 + 63.53 = 66.85$ cfs

OUTFALL

155 ??

BRADFORD NORTH

9/24/97

STA.	SIDE	DRAINAGE	STRUC.	TYPE	Q	Q	SIZE	AREA	R	K	SF	L	HT	V	H	h _{inh}	E.G.L.	H _v	H.G.L.	CROWN	CLEARANCE
		AREA	ID		INLET	PIPE						(ft)	(ft)			BEGINNING	HGL =			ELEV.	
0	0.00		5	OUTLET		31.75	36	7.068	0.75	723	0.001931	189	0.365	4.49	0.16	0.02	162.31	0.31	162		
1	89.00		5d	INLET	1.57												162.68	0.31	162.3649	165.56	-3.20
																	162.85	0.28	162.57	165.56	-2.99
2	31.42		5c	INLET	1.91	30.18	36	7.068	0.75	723	0.001744	42.42	0.07	4.27	0.14	0.02	162.93	0.28	162.65	165.56	-2.91
																	163.09	0.25	162.84	165.56	-2.72
3	41.04		5b	INLET	1.82	28.27	36	7.068	0.75	723	0.001531	109.62	0.17	4.00	0.12	0.02	163.26	0.25	163.01	165.99	-2.98
																	163.40	0.22	163.18	165.99	-2.81
5	80.04		5a	INLET	26.45	26.45	36	7.068	0.75	723	0.001340	239	0.320	3.74	0.11	0.02	163.72	0.22	163.51	162.50	1.01
																	163.85	0.00	163.85	162.50	1.35

2 yrs.
36" RCP

BRADPOD NORTH

9/24/97

STA.	SIDE	DRAINAG AREA	STRUC. ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	Sf	L (ft)	Hf (ft)	V	Hl	Hmh	E.G.L.	Hv	H.G.L.	CROWN ELEV.	CLEARANCE
0			5	OUTLET		45.71	36	7.068	0.75	723	0.004001	189	0.756	6.47	0.32	0.02	162.65	0.65	162		
1			5d	INLET	2.27												163.41	0.65	162.7563	165.56	-2.80
2			5c	INLET	2.75	43.44	36	7.068	0.75	723	0.003614	42.42	0.15	6.15	0.29	0.02	163.90	0.59	163.32	165.56	-2.40
3			5b	INLET	2.62	40.69	36	7.068	0.75	723	0.003171	109.62	0.35	5.76	0.26	0.02	164.56	0.51	164.05	165.99	-1.94
5			5a	INLET	38.07	38.07	36	7.068	0.75	723	0.002776	239	0.663	5.39	0.23	0.02	165.51	0.45	165.05	162.50	2.55
																	165.75	0.00	165.75	162.50	3.25

1045

36" RCP

BRADFORD NORTH

9/24/97

STA.	SIDE	DRAINAGE AREA	STRUC. ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	SF	L (ft)	H (ft)	V	H	Hmb	E.G.L.	Hv	H.G.L.	CROWN ELEV.	CLEARANCE
0	0.00		5	OUTLET		66.85	36	7.068	0.75	7.23	0.008559	189	1.618	9.46	0.69	0.02	BEGINNING HGL = 163.39	1.39	162		
1	89.00		5d	INLET	3.32												165.01	1.39	163.6176	165.56	-1.94
2	31.42		5c	INLET	4.03	63.53	36	7.068	0.75	7.23	0.007730	42.42	0.33	8.99	0.63	0.02	166.05	1.25	164.79	165.56	-1.09
3	41.04		5b	INLET	3.84	59.5	36	7.068	0.75	7.23	0.006780	109.62	0.74	8.42	0.55	0.02	167.44	1.10	166.34	165.99	0.35
5	80.04		5a	INLET	55.66	55.66	36	7.068	0.75	7.23	0.005933	239	1.418	7.87	0.48	0.02	169.43	0.96	168.46	162.50	5.96
																	169.93	0.00	169.93	162.50	7.43

100 yr
36" Pipe

BRAADFORD WORK 714

9/24/97

STA.	SIDE DRAINAGE AREA	STRUC ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	SF	L (ft)	H (ft)	V	HI	HMB	EG.L	H _v	H _{G.L.}	GROWN ELEV.	CLEARANCE
0		5	OUTLET		31.75	42	9.621	0.87	1090	0.000848	189	0.160	3.30	0.08	0.02	162.17	0.17	162		
1		5d	INLET	1.57												162.33	0.17	162.1604	165.56	-3.40
2		5c	INLET	1.91	30.18	42	9.621	0.87	1090	0.000767	42.42	0.03	3.14	0.08	0.02	162.47	0.15	162.28	165.56	-3.28
3		5b	INLET	1.82	28.27	42	9.621	0.87	1090	0.000673	109.62	0.07	2.94	0.07	0.02	162.56	0.13	162.31	165.56	-3.25
5		5a	INLET	26.45	26.45	42	9.621	0.87	1090	0.000589	239	0.141	2.75	0.06	0.02	162.72	0.12	162.43	165.56	-3.13
																162.86	0.12	162.75	165.99	-3.49
																162.94	0.00	162.94	165.99	-3.38
																162.94	0.00	162.94	165.50	-3.25
																162.94	0.00	162.94	162.50	0.44

2 yr.
48" RCP

Build out work

9/24/97

STA.	SIDE	DRAINAG AREA	STRUC ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	SF	LI (ft)	HF (ft)	V	Hf	Hhm	EGL	Hv	H.G.L.	CROWN ELEV.	CLEARANCE
0			5	OUTLET		45.71	42	9.621	0.87	1090	0.001759	189	0.332	4.75	0.18	0.02	162.35	0.35	162		
1			5d	INLET	2.27												162.68	0.35	162.324	165.56	-3.23
2			5c	INLET	2.75	43.44	42	9.621	0.87	1090	0.001588	42.42	0.07	4.52	0.16	0.02	162.88	0.32	162.56	165.56	-3.00
3			5b	INLET	2.62	40.69	42	9.621	0.87	1090	0.001394	109.62	0.15	4.23	0.14	0.02	163.28	0.28	163.00	165.99	-2.99
5			5a	INLET	38.07	38.07	42	9.621	0.87	1090	0.001220	239	0.292	3.96	0.12	0.02	163.73	0.24	163.48	162.50	0.98
																	163.87	0.00	163.87	162.50	1.37

10 yr

42" RCP

BROWNWOOD NORTH
9/24/97

STA.	SIDE	DRAINAG AREA	STRUC. ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	SF	L (ft)	Hf (ft)	V	HI	Hmb	EG.L. BEGINNING HGL =	Hv	H.G.L.	CROWN ELEV.	CLEARANCE
0	0.00		5	OUTLET		66.85	42	9.621	0.87	1090	0.003761	189	0.711	6.95	0.37	0.02	162.75	0.75	162		
1	89.00		5d	INLET	3.32												163.46	0.75	162.7109	165.56	-2.85
2	31.42		5c	INLET	4.03	63.53	42	9.621	0.87	1090	0.003397	42.42	0.14	6.60	0.34	0.02	164.00	0.68	163.32	165.56	-2.24
3	41.04		5b	INLET	3.84	59.5	42	9.621	0.87	1090	0.002980	109.62	0.33	6.18	0.30	0.02	164.36	0.59	163.76	165.56	-1.80
5	80.04		5a	INLET	55.66	55.66	42	9.621	0.87	1090	0.002607	239	0.623	5.79	0.26	0.02	165.00	0.52	164.48	165.99	-1.51
																	165.62	0.00	165.11	162.50	2.61
																	165.90	0.00	165.90	162.50	3.40

100 yr
42" RCP

BRANDON MORTON

4/23/97

STA.	SIDE	DRAINAGE	STRUC.	TYPE	Q	Q	SIZE	AREA	R	K	SF	L	H	V	H	Hmb	EG.L.	Hv	H.G.L.	GROWN	CLEARANCE
		AREA	ID		INLET	PIPE						(ft)	(ft)			(ft)	BEGINNING HGL =			ELEV.	
0			8	OUTLET		20.89	24	3.142	0.50	245	0.007256	180	1.306	6.65	0.34	0.02	162.69	0.69	162		
1			8a	INLET	9												163.99	0.69	163.306	167.39	-4.08
2			8b	INLET	3.87	11.89	24	3.142	0.50	245	0.007256	61.29	0.14	3.78	0.11	0.02	164.36	0.22	164.13	167.39	-3.26
4			8b	INLET	8.02	8.02	18	1.767	0.37	114	0.004962	184.12	0.91	4.54	0.16	0.02	164.63	0.32	164.31	167.55	-3.22
																	165.54	0.32	165.22	167.71	-2.49
																	165.72	0.00	165.72	167.71	-1.99

10 yr

BRIDFORD NORTH

9/23/97

STA.	SIDE	DRAINAG AREA	STRUC. ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	SF	L (ft)	H (ft)	V	H	Hmb	E.G.L.	Hv	H.G.L.	CROWN ELEV.	CLEARANCE
0	0.00		8	OUTLET		24.3	24	3.142	0.50	245	0.009818	180	1.767	7.73	0.46	0.02	162.93	0.93	162		
1	80.00		8a	INLET	14.4												164.70	0.93	163.7672	167.39	-3.62
																	165.18	0.15	165.03	167.39	-2.36
2	24.62		8b	INLET	1.63	9.9	24	3.142	0.50	245	0.001630	44.62	0.07	3.15	0.08	0.02	165.25	0.15	165.10	167.28	-2.18
																	165.35	0.34	165.01	167.28	-2.27
2	66.93		8c	INLET	2.96	8.27	18	1.767	0.37	114	0.005276	42.31	0.22	4.68	0.17	0.02	165.57	0.34	165.23	167.28	-2.05
																	165.76	0.14	165.62	167.28	-1.66
3	86.08		8c	INLET	1.81	5.31	18	1.767	0.37	114	0.002175	119.15	0.259	3.01	0.07	0.02	166.02	0.14	165.88	167.60	-1.72
																	166.11	0.13	165.99	167.60	-1.61
4	26.08		8d	DROP	3.5	3.5	15	1.227	0.31	70	0.002499	40	0.100	2.85	0.06	0.02	166.21	0.13	166.09	166.25	-0.16
																	166.30	0.00	166.30	166.25	0.05

25 yr

BRADFORD NORTH

9/23/97

STA.	SIDE	DRAINAG AREA	STRUC. ID	TYPE	Q INLET	Q PIPE	SIZE	AREA	R	K	SF	L (ft)	H (ft)	V	H	Hmb	E.G.L. BEGINNING HGL =	Hv	H.G.L.	CROWN ELEV.	CLEARANCE
0			8	OUTLET		24.3	24	3.142	0.50	245	0.009818	180	1.767	7.73	0.46	0.02	162.93	0.93	162		
1			8a	INLET	10.47												164.70	0.93	163.7672	167.39	-3.62
																	165.18	0.30	164.88	167.39	-2.51
2			8b	INLET	4.5		24	3.142	0.50	245	0.003180	61.29	0.19	4.40	0.15	0.02	165.38	0.30	165.07	167.53	-2.46
																	165.55	0.43	165.11	167.53	-2.42
4			8b	INLET	9.33		18	1.767	0.37	114	0.006715	184.12	1.24	5.28	0.22	0.02	166.78	0.43	166.35	167.71	-1.36
																	167.02	0.00	167.02	167.71	-0.69

25 yr

Bannon. 4-18-05
Kenny Hill - Poe - GS. CC. VH, JA
Says 31-A-ft design - Only need 22 A-ft
Pond!
Overexp. Wetlands 1' use 1' of wetlands.
Move wetlands.

crest weir @ 46.2
43.2 normal water new pond.
same as downstream.
or

File adj. CUP and final plat.

Can S. outlets be lowered? to
gravity to Stawson's pond.

COWSKIN

4-11-05

Tim Meyer

drainage -

OSHNER & Neville ground

Needles

\$ 316,500

\$ 656,783

City \$ 8,000/ac

\$/ac

impact to front area 75%

Project Agr. w/ CORPS -

Path for Constr. -

\$ 3.4 M

Des. & RW already done

Who will bid? Who insp.?

Sec 205 CORPS 65% - 35% RW incl.

Carrier, Christopher

From: Carrier, Christopher
Sent: Tuesday, April 12, 2005 4:16 PM
To: Glassman, Kelli
Subject: RE: College Hill Park Drainage

Sensitivity: Private

I am in the process of trying to find the plan and cost estimate we did for Park two or three years ago. I found a memo to Kupper that said the project would cost between \$25,000 and \$55,000 depending on how much work Park could do with their own forces. Bottom line is that I will do it with storm water hot spot project money, but I will have to get a design done and get it bid. As far as a completion date, I'd say late summer or early winter. I plan to pursue this as I think she will want us to proceed.

-----Original Message-----

From: Glassman, Kelli
Sent: Tuesday, April 12, 2005 2:50 PM
To: Kupper, Doug; Carrier, Christopher
Subject: FW: College Hill Park Drainage
Sensitivity: Private

Good afternoon, gentleman -

I understand that you had a meeting on this issue last week. Can you provide me an update for Council Member Schlapp?

Thanks so much and have a great rest of the day :)

*Kelli Glassman
Neighborhood Assistant District 2
City Manager's Office, 13th Floor
455 North Main
Wichita, KS 67202
Telephone: (316) 268-4351
Fax: (316) 268-4519
KGlassman@wichita.gov*

-----Original Message-----

From: Kupper, Doug
Sent: Monday, March 28, 2005 8:11 AM
To: Glassman, Kelli
Cc: Carrier, Christopher
Subject: RE: College Hill Park Drainage
Sensitivity: Private

Park and DPW will be working on this, I believe Chris plans to have storm water use "hot spot" funding for this. Chris do you have a time line for it?

-----Original Message-----

From: Glassman, Kelli
Sent: Monday, March 28, 2005 8:06 AM
To: Kupper, Doug
Subject: College Hill Park Drainage
Sensitivity: Private

Good morning,

Council Member Schlapp received an e-mail from a citizen inquiring about the status of the College Hill Park drainage issue, particularly as it relates to the West Nile Virus, as this area is a prime breeding habitat for mosquitoes. Have we allocated the appropriate funds to take care of this prior to the summer season at College Hill Park?

Would be able to assist me with a response to this issue?

Thanks so much. I hope that you had a nice vacation last week and a HAPPY EASTER!

*Kelli Glassman
Neighborhood Assistant District 2
City Manager's Office - 13th Floor
455 North Main
Wichita, KS 67202
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KGlassman@wichita.gov*

APR - 2 1996

POE & ASSOCIATES OF KANSAS, INC.
CONSULTING ENGINEERS
434 N. Oliver, Suite 110 - Wichita, KS 67208
316/685-4114 - FAX 316/685-4444

Please Reply
 Comments
 File

Terry B
S/Lacey
M/Lund
M. Kraut

March 30, 1996

Mr. William Cather
2935 South Seneca
Wichita, KS 67217-2863

Re: Bradford North Addition

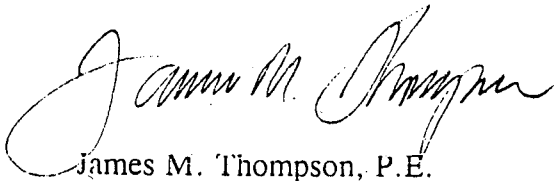
Dear Mr. Cather:

The Consultants have submitted their Wetland Delineation Draft Report, which concludes that no wetlands occur onsite. Enclosed is a copy of their Executive Summary. I understand that the next step is to ask for the Natural Resource Conservation Service concurrence.

I will let you know if there are any changes in the determination. Please call me if you have any questions.

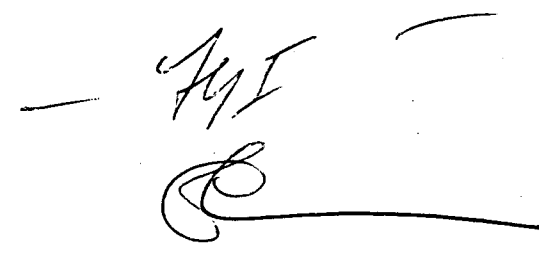
Yours truly,

POE & ASSOCIATES OF KANSAS, INC.



James M. Thompson, P.E.
President

cc: ✓ Mr. Chris Cherches
Mr. Jay Russell



EXECUTIVE SUMMARY

3-AH Inc. plans to develop a quarter section tract of land located at 29th Street North and Tyler Street, Wichita, Sedgwick County, Kansas (T27S, R1W, ne ¼ Sec 5), as a housing development. A small portion of this quarter section has been identified by the U.S. Army Corps of Engineers as in need of a wetland determination for potential Section 404 dredge and fill permit regulation. The determination is necessary to ascertain the presence or absence of jurisdictional wetlands. The portion in question is located in the northwest ¼ of the project site, immediately south of 29th Street North, and approximately one-half mile east of Maize Road. A jurisdictional wetland delineation of this area was performed on March 11, 1996 by George Butler Associates, Inc. (GBA), Lenexa, Kansas. Based upon the onsite wetland delineation and a review of existing information, no jurisdictional wetlands or other waters of the U.S. occur onsite.