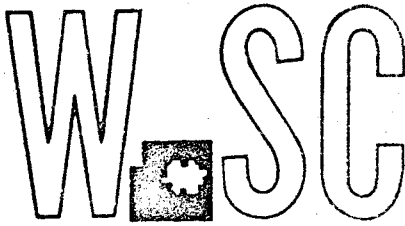


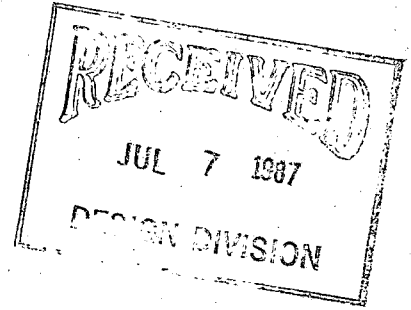
WICHITA - SEDGWICK COUNTY



METROPOLITAN AREA PLANNING  
COMMISSION

CITY HALL - TENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202  
(316) 268-4561

July 2, 1987



Poe And Associates of Kansas  
434 N. Oliver - Suite 110  
Wichita, Kansas 67208

Re: S/D No. 87-54 The Moorings 4th Addition

Dear Gentlemen:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission on Thursday, July 2, 1987, the above-captioned plat was considered. The action of the Committee was to approve the preliminary and authorize preparation of the final plat, subject to the following:

- A. The applicant shall guarantee the extension of sanitary sewer to serve the lots being platted.
- B. The applicant shall guarantee the extension of City water to serve the lots being platted.
- C. The applicant shall guarantee any drainage improvements required by the platting of this property.
- D. The applicant shall guarantee the paving of Keywest between Keywest Court of the Moorings 3rd Addition to Siesta Key (Circle) of this addition. This guarantee shall provide for the construction of sidewalk on both sides of this collector street.
- E. The applicant shall guarantee the paving of the proposed interior streets.
- F. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.

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- G. The final plat shall state in the plattor's text the purposes of the proposed reserves as well as who is to own and maintain the reserves.
- H. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over those responsibilities.
- I. The platting of the minimum building pad elevation shall be noted on the face of the plat as well as in the plattor's text.
- J. Approval of this plat will require waiving of the minimum 60-foot wide lot frontage and 6,000 square foot lot size requirements of the Subdivision Regulations (Section 7-204(D)(1)).
- K. On the final plat, both of the proposed street names for the two culs-de-sac shall be designated as "Circles" (i.e., Siesta Key Circle and Siesta Cove Circle).
- L. In order to avoid confusion in the future about the reserves being platted, the final plat shall avoid labeling all three reserves as "Reserve A". Separate letters shall be designated for each reserve.
- M. Prior to, or at the time of submitting the final plat, the applicant shall submit a drainage plan to City Engineering for review and approval.
- N. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- O. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (phone 316-946-4527) prior to development of the plat so that the type of delivery, and the tentative mail box locations can be determined.
- P. The Subdivision Committee recommends that the City Council waive the sidewalk required by City Ordinance on both sides of the collector street (Key West). This waiver is recommended because very little sidewalk exists on Key West Street to the east of this plat.
- Q. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- R. Requirements for a final plat (see pages 20-25, Part 4, Article 5 of the MAPC Subdivision Regulations).

WICHITA - SEDGWICK COUNTY

The enclosed "marked" copy of the plat is for your information and files. If you should have any questions, please call.

Sincerely,

*Forrest L. Nagley*

Forrest L. Nagley  
Senior Planner

FLN:dik

Enclosure

cc: Mibac Inc., 1901 West 13th, Wichita, Kansas 67203  
Mike Lindebak, City Engineer

THE CITY OF WICHITA

OFFICE OF

LAW DEPARTMENT

APR 17 1981

DATE

April 10, 1981

METROPOLITAN PLANNING

ROUTE  \_\_\_\_\_

TO

Paul B. Graves, Chief Engineer

FROM

Thomas R. Powell, Senior Assistant City Attorney

SUBJECT Sewage Pumping Station  
and Force Main Serving  
the Moorings

RECEIVED  
APR 15 1981  
Dept. Of Engineering

It is my understanding that sometime in 1977 the City acquired public easements for purposes of constructing, operating, maintaining and repairing sewer pipes and a sewer system. The easement was acquired for purposes of serving a development called the Moorings, that is located in the City of Wichita. The owner of the Moorings development, Mibac, Inc., entered into a private contract with a contractor to construct the force main and pump station in the public easement. Apparently, there was very little written communication between City officials and Mibac, Inc. company representatives as to the construction of the force main and pump station in public right-of-way. In any event, there was no official action taken by the governing body in relation to the construction of the force main and pumping station by a private entity. However, there is a letter signed by Dean Sellers, Assistant City Engineer, dated August 29, 1977, and addressed to Mibac, Inc., wherein it is mentioned that the force main and pumping station are to be built in public right-of-way, that it will be privately owned, and publicly maintained.

It is my further understanding that the force main and pumping station are not being operated at full capacity at present, but will be operated at full capacity when the area owned by Mibac, Inc., which the force main and pumping station were designed to serve, is fully developed. It is also my understanding that requests to hook up to the line have been received from developers who are attempting to develop land that abuts or is near the force main line that was constructed by Mibac, Inc.

The question presented is whether or not the force main and pumping station, which are located on public property, were privately constructed, and are being publicly maintained is a public or private sewer and, if it is a public sewer, does the City have a right to allow hook-ups to the line to occur that are outside the area the force main and pumping station were designed to serve.

In relation to the first question posed, in spite of the Assistant City Engineer's letter to Mibac, Inc., the force main and pumping station is a public facility. In acquiring a right to an easement, the City does not acquire all rights to the land lying within the easement. When the City acquires an easement such

Paul B. Graves  
April 10, 1981  
Page 2

as was acquired in the case at hand, the City's right to use the easement is limited to a public use and the City has no right to grant a private individual a right to use the easement for private purposes. In the case at hand, the force main and pumping station that were constructed are located in a public easement and is being publicly maintained. Therefore, the sewer facility, once it was constructed and installed, became a public facility.

The next question is whether or not the City can allow hook-ups of the sewer to land that is outside the area the force main line and pumping station were designed to serve. In this regard, the force main line and pumping station that is in place was paid for 100% by the owners of land that the system was designed to serve. Therefore, in essence, the land owned by Mibac, Inc. has paid a full assessment to the City for sewer service. Thus, unless the City is in a position to provide sewer service to Mibac, Inc. from another source, at no cost, the City cannot allow the force main line and pumping station to be used by others if it would result in a situation where all of the land owned by Mibac, Inc., once it is developed, could not use the sewer system. The use of the force main and pumping station by hooking up additional land would be permissible as long as the ability of Mibac, Inc. to use the sewer system is not affected.

*Thomas R. Powell*

Thomas R. Powell  
Senior Assistant City Attorney

TRP:cdh

cc: John Dekker, Director of Law

PRELIMINARY ENGINEERS REPORT  
SANITARY SEWER EXTENSIONS  
TO  
THE MOORINGS  
AN  
ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

JANUARY 31, 1977

Reiss & Goodness Engineers  
2160 W. 21st. Street  
Wichita,, Kansas 67203

Preliminary layouts of sewer lines indicate that it is possible to serve all of the Moorings and the SW¼ of Section 19 and the NW¼ of Section 30 directly east of this addition. Proposed sewer layouts and estimates of sewage flows from these two quarter sections were made from Development Plan Drawings which have been submitted to the City. It appears that all but 36 homes in this area could be served by Gravity Lines returning to the proposed pumping station.

Estimates of sewage flows from the Moorings are based on maximum densities listed on the community unit plan for this area, assuming 3.7 persons per dwelling unit.

The following list shows estimated sewage flows from this area:

FIRST PHASE DEVELOPMENT

<u>From C.U.P.</u>	<u>D.U.'s</u>	<u>P.E.</u>	<u>Sewage gpd</u>
Parcel 3	85	315	
Parcel 4	48	178	
Parcel 5	46	170	
Parcel 6	--	30	
Parcel 7	--	10	
Parcel 8	--	30	
Total		733	73,300

SECOND PHASE DEVELOPMENT

Parcel 1	349	1291	129,100
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THIRD PHASE DEVELOPMENT

Parcel 2	538	1990	199,000
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FOURTH PHASE DEVELOPMENT

Parcel 9	--	20	
Parcel 10	--	10	
Parcel 11	74	274	
Parcel 12	48	178	
Parcel 13	73	270	
Parcel 14	42	156	
<hr/>			
Total		908	90,800

SW $\frac{1}{4}$  Section 19

Redevelopment Plan = 96 D.U.'s  
Est. Total Max. @ 96 x 1.5 = 144 D.U.'s  
3 Commercial 30 P.E.

	<u>D.U.'s</u>	<u>P.E.</u>	<u>Sewage gpd</u>
Residential	144	533	
Commercial		30	
Total		563	56,300

NW $\frac{1}{4}$  Section 30

Residential	146	540	
Commercial		30	
Total		570	57,000

Total 605,500 gpd

$$\frac{605,500}{24 \times 60} = 420 \text{ gpm } 24 \text{ hour average}$$

$$420 \times 2 = 840 \text{ gpm peak}$$

It is proposed to install a force main from a pump station located at the SE corner of Lot 1, Block 6 as shown on the Moorings Preliminary Plat to the Interceptor Sewer at 37th and Arkansas Avenue. The following are calculations showing head losses and require H.P. to pump at maximum rates (840gpm) and minimum rates giving 2 fps velocitys.

8" Force Main H.L. and Pump Motor H.P. (Maximum Flow)

8" @ 840 gpm                    H.L. = 11'/1000'  
Total Length of Force Main = 12,800 feet

12.8 x 11 = 141 feet  
Elev. 6' below sew. @ pump = 1300  
Elev. at discharge = 1320 <sup>+</sup><sub>-</sub>  
1300 - 1320 = 20 feet <sup>+</sup>  
Loss through station = Z feet <sup>+</sup><sub>-</sub>

Total H.L. = 163 feet

Approx. H.P. =  $\frac{840 \times 163}{3960 \times 6} = 58 \text{ H.P./pump}$

8" Force Main H.L. and Pump Motor H.P. (Minimum Flow)

$V = \frac{Q}{A}$                     8" - A = .35" S.F.     $Z = \frac{Q}{.35} = .698 \text{ cts} = 313 \text{ gpm}$

8" @ 320 gpm                    H.L. = 2.0 ft./1000'  
12.8 x 2 = 26 feet  
Elev. Diff 20 feet  
Loss through station 2 feet

Total H.L. = 48 feet

Approx. H.P. =  $\frac{320 \times 48}{3960 \times .5} = 8 \text{ H.P./pump}$

10" Force Main H.L. and Pump Motor H.P. (Maximum Flow)

10" @ 840 gpm                    H.L. = 3.8'/1000'  
12.8 x 3.8 = 49 feet  
Elev. Diff. 20 feet  
Loss through station 190' 10" Pipe                    3.8 x .19 = 0.7 feet

TDH = 70 feet

H.P. =  $\frac{840 \times 70}{3960 \times .6} = 25 \text{ H.P.}$

10" Force Main H.L. and Pump Motor H.P. (Minimum Flow)

Flow @ 2 fps       $U = \frac{Q}{A}$        $Z = \frac{Q}{.54}$       =      1.09 cts      =      490 gpm

10" @ 490 gpm H.L. = 1.4/1000'

12.8 x 1.4 = 18 feet

Elev. Diff.      20 feet

Loss Through Station 190' 10" Pipe      1.4 x .19 = 0.3 Feet

TDH = 39 Feet

H.P. =  $\frac{490 \times 39}{3960 \times .5}$  = 10 H.P.

The costs of a four pump sewage pumping station pumping through an 8" PVC plastic force main was investigated with the following results:

First Phase Construction

Install only 2 - 10 H.P. Pumps - Station capacity for four pumps - Max Flow 320 gpm

Cost      \$100,000.00

Second Phase Construction

Replace 10 H.P. motors with 25 H.P.

Max Flow 560 gpm

Cost      \$5,000.00

Motor sizes can be increased and pumps added in series to pump sewage for the third and fourth phases of construction.

Costs are estimated at \$20,000.00 for each conversion.

Total estimated costs of the pumping station when maximum pumping capacity reached is \$145,000.00

8" Force Main

12,800	Lin. Ft.	8" PVC Plastic Pipe	7.25	92,800.00
250	Lin. Ft.	Bore w/stl encasement	40.00	10,000.00
1	Unit	Bridge Crossing w/enc.	---	8,000.00
200	Sq. Yds.	Remove and Replace conc.	10.00	2,000.00
1	Unit	Cut Flood Dikes	---	2,000.00
1	Unit	Connect to Existing manhole	---	<u>300.00</u>
				\$115,100.00
		10% Contingencies		<u>11,510.00</u>
				\$126,610.00

Cost of 10" Force Main

Estimate \$8.50/ft for 10" Pipe and \$50.00/ft. for boring highway and streets and all other costs to remain the same as in the estimate for an 8" force main. Add 10% for contingencies making the total cost \$146,960.00.

Total initial costs assuming \$100,000.00 costs for both pumping stations.

8" Force Main w/pump station	\$227,000.00
10" Force Main w/pump station	\$250,000.00