
EXHIBIT F10

AGREEMENT, DATED APRIL 11, 1974, BY AND BETWEEN
MIDDLETOWN TOWNSHIP BUCKS COUNTY MUNICIPAL
AUTHORITY, MIDDLETOWN TOWNSHIP BOARD OF
SUPERVISORS, THE MUNICIPAL SEWER AUTHORITY OF THE
TOWNSHIP OF LOWER MAKEFIELD, LOWER MAKEFIELD
TOWNSHIP BOARD OF SUPERVISORS, AND BUCKS COUNTY
WATER AND SEWER AUTHORITY

A G R E E M E N T

THIS AGREEMENT made this *11th* day of *April*, 1974, by and between MIDDLETOWN TOWNSHIP, BUCKS COUNTY MUNICIPAL AUTHORITY, a municipal authority organized under the Pennsylvania Municipal Authorities Act of 1945, approved May 2, 1945, P. L. 382, as amended and supplemented (hereinafter called MIDDLETOWN AUTHORITY), MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS and the MUNICIPAL SEWER AUTHORITY OF THE TOWNSHIP OF LOWER MAKEFIELD, a municipal authority organized under the Pennsylvania Municipal Authorities Act of 1945, approved May 2, 1945, P. L. 382, as amended and supplemented (hereinafter called LOWER MAKEFIELD AUTHORITY), the LOWER MAKEFIELD TOWNSHIP BOARD OF SUPERVISORS, and the BUCKS COUNTY WATER AND SEWER AUTHORITY, a municipal authority organized under the Pennsylvania Municipal Authorities Act of 1945, approved May 2, 1945, P. L. 382, as amended and supplemented (hereinafter called COUNTY AUTHORITY),

W I T N E S S E T H:

WHEREAS, MIDDLETOWN AUTHORITY has constructed a sanitary sewer interceptor line terminating at the intersection of Big Oak Road and Township Line Road in the Township of Middletown which facility has been leased to the Middletown Township Board of Supervisors; and

WHEREAS, the aforesaid interceptor line transmits sewage from an area in Middletown Township to the Neshaminy Interceptor line; and

WHEREAS, the Neshaminy Interceptor Line is owned by the COUNTY AUTHORITY and has been constructed for the purpose of transmitting sewage from municipalities in the lower end of Bucks County to the City of Philadelphia for treatment; and

WHEREAS, Lower Makefield Township in the area abutting Middletown's aforesaid interceptor line presently has no sanitary sewer facilities; and

WHEREAS, Lower Makefield Township is desirous of supplying

sanitary sewer facilities to service an area located in Lower Makefield Township which area is shown on drawing Number 53551-01 as prepared by Pennoni Associates, Inc., attached hereto, made part hereof, and marked Exhibit "A" and which area is hereinafter referred to as the service area; and

WHEREAS, LOWER MAKEFIELD AUTHORITY and Lower Makefield Township Board of Supervisors intend to cause to be constructed by interested developers a sanitary sewage collection facility in and for the service area to collect but not to treat or dispose of sanitary sewage from properties located in the service area which facilities when constructed will be dedicated to the LOWER MAKEFIELD AUTHORITY and subject to a lease from the Authority to the Lower Makefield Township Board of Supervisors; and

WHEREAS, LOWER MAKEFIELD AUTHORITY and Lower Makefield Township Board of Supervisors have requested Middletown to enter into a transmission agreement in accordance with the terms hereof whereby sanitary sewage collected from properties located in the service area will be transmitted into the Neshaminy Interceptor Line,

NOW, THEREFORE, intending to be legally bound hereby, the parties hereto covenant and agree as follows:

SECTION 1. The following terms for and only for the purposes of this Agreement, shall have the following meanings, unless the context clearly otherwise requires:

A. "The Lower Makefield Sewage Collection System" means the sanitary sewage collection facilities to be constructed by interested developers and to be acquired by Lower Makefield for the purpose of collection of sanitary sewage from properties located in the service area.

B. "Industrial Establishment" means any room, group of rooms, building or other enclosure used for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article.

C. "Industrial Wastes" means any liquid substance, whether or not solids are contained therein, discharged from any Industrial Establishment during the course of any industrial, manufacturing, trade or business process or in the course of the development, recovery or processing of natural resources, as distinct from normal water-carried household and toilet wastes.

D. "Residence" means any room, group of rooms, house trailer or other enclosure occupied or intended for occupancy as separate living quarters by a single family or other group of persons living together or by persons living alone.

E. "Sanitary Sewage" means the normal water-carried household and toilet wastes discharged from Residences, Commercial Establishments and Industrial Establishments.

F. "Service Area" means the area set forth in the drawings of Pennoni Associates attached hereto and located within the shaded area.

SECTION 2. This Agreement is entered into by MIDDLETOWN AUTHORITY pursuant to a resolution adopted by its Board on the 11th day of February, 1974; and by LOWER MAKEFIELD AUTHORITY pursuant to a Resolution adopted by its Board on the 19th day of February, 1974.

SECTION 3. This Agreement shall be in full force and effect for a period of forty (40) years commencing with the date of the issuance by the LOWER MAKEFIELD AUTHORITY of the first sewage connection permit to the LOWER MAKEFIELD AUTHORITY'S collection system located within the aforesaid service area. MIDDLETOWN AUTHORITY acknowledges that LOWER MAKEFIELD AUTHORITY'S proposed collection system in the aforesaid service area shall be constructed by private developers and when completed dedicated to LOWER MAKEFIELD AUTHORITY and because of such fact, MIDDLETOWN AUTHORITY agrees that this Agreement shall be in full force and effect for a period not less than two (2) years from the date of its execution. In the

event that the aforesaid proposed collection system is constructed and at least partially in operation within said two (2) year period then this Agreement shall remain in full force and effect for the forty (40) year period as stated above. If within five (5) years from the date of the first connection MAKEFIELD has not used the entire allocation of 250 MGD then such unused capacity shall revert to MIDDLETOWN unless LOWER MAKEFIELD agrees to pay to MIDDLETOWN a sum calculated by multiplying the amount of the unused capacity times the annual rate then in effect.

SECTION 4. Middletown Township agrees to provide public sanitary sewer transmission service pursuant to the terms of this Agreement for those properties located in the aforesaid service area.

SECTION 5. Lower Makefield Authority agrees:

A. To acquire from developers within the aforesaid service area a sanitary sewage collection system which system shall be constructed in conformity with the rules and regulations of the department of environmental resources or with the rules and regulations of the MIDDLETOWN AUTHORITY whichever rules and regulations are the more stringent. Engineering plans and drawings for the aforesaid sanitary sewage collection system shall be approved by the Consulting Engineer for LOWER MAKEFIELD AUTHORITY and shall be submitted prior to construction to the Consulting Engineer of MIDDLETOWN AUTHORITY for review and approval.

B. That the connection of the Lower Makefield Sanitary Sewage Collection System to MIDDLETOWN AUTHORITY'S aforesaid interceptor line shall be at points as indicated on the attached plan or plans prepared by the Consulting Engineer for MIDDLETOWN AUTHORITY, which plan is incorporated herein by reference and marked Exhibit "B".

C. To cause to be constructed metering chambers, in accordance with plans prepared by the Consulting Engineer for LOWER MAKEFIELD AUTHORITY and which plans shall be submitted prior to construction to the Consulting Engineer of MIDDLETOWN AUTHORITY for review and approval, at all connection points for the purpose of metering the flow of sanitary sewage from the aforesaid collection system to MIDDLETOWN AUTHORITY'S aforesaid interceptor line.

D. To supplement its existing lease with the Lower Makefield Board of Supervisors to include the sanitary sewage collection system proposed herein, said system to be operated pursuant to an existing lease between the LOWER MAKEFIELD AUTHORITY and the Lower Makefield Township Board of Supervisors.

SECTION 6. LOWER MAKEFIELD TOWNSHIP agrees:

A. To enact, keep in effect and use its best efforts to enforce during the term of this Agreement an Ordinance requiring that all sanitary sewage collected from properties located in the aforesaid service area shall be discharged into the Lower Makefield Sanitary Sewage Collection System, and prohibiting the discharge into said system of any waste other than sanitary sewage as defined herein.

B. During the term of this Agreement, to discharge all sanitary sewage from the aforesaid service area collected by the Lower Makefield Sanitary Sewage Collection System into the MIDDLETOWN AUTHORITY'S aforesaid interceptor line to the extent that said sanitary sewage is permitted to be so discharged into the MIDDLETOWN AUTHORITY'S aforesaid interceptor line under the provisions of this Agreement. Said Sanitary Sewage discharge is to be made at the point or points of connection shown on the aforesaid drawings. In the event Middletown's capacity is not sufficient Lower Makefield shall have the right to discharge any sanitary sewage in excess of 250 MGD to any other available source.

C. To enter into an Agreement with LOWER MAKEFIELD AUTHORITY amending the existing lease so that the aforesaid sanitary sewage collection system to be constructed herein shall be included under the terms of the existing lease between the Lower Makefield Township Board of Supervisors and the LOWER MAKEFIELD AUTHORITY.

SECTION 7. MIDDLETOWN AUTHORITY agrees:

A. During the term of this Agreement, to receive and transport to the Neshaminy Interceptor Line sanitary sewage from the aforesaid service area collected by LOWER MAKEFIELD AUTHORITY. The quantity of sanitary sewage required to be received and transported by MIDDLETOWN AUTHORITY pursuant to this Agreement shall be limited to 250,000 gallons per day.

B. MIDDLETOWN AUTHORITY shall not contract with any other municipality or with any other individual or corporation which contract would result in MIDDLETOWN AUTHORITY being unable to comply with the covenant in paragraph 7(A).

SECTION 8. MIDDLETOWN TOWNSHIP and/or MIDDLETOWN AUTHORITY reserve the right to impose upon LOWER MAKEFIELD TOWNSHIP and/or LOWER MAKEFIELD AUTHORITY a surcharge equal to .90 Dollars per thousand gallons in addition to all other charges specified in this Agreement for the introduction of sanitary sewage by Lower Makefield into MIDDLETOWN AUTHORITY'S aforesaid interceptor line or lines in any and all amounts in excess of the said 250,000 gallons per day limitation set forth in Section 7(A) of this Agreement.

SECTION 9. MIDDLETOWN TOWNSHIP and MIDDLETOWN AUTHORITY agree that Lower Makefield Authority shall have the right to connect its said sanitary sewage collection system to MIDDLETOWN AUTHORITY'S aforesaid interceptor line upon 72 hours notice to MIDDLETOWN AUTHORITY'S Consulting Engineer. MIDDLETOWN TOWNSHIP and MIDDLETOWN AUTHORITY reserve the right to inspect any and all service connections leading from the LOWER MAKEFIELD AUTHORITY'S sanitary sewage collection system to

MIDDLETOWN AUTHORITY'S aforesaid interceptor line prior to connection. Sais inspection shall be made by MIDDLETOWN AUTHORITY'S Consulting Engineer, or in lieu thereof, the Engineer of Middletown Authority may accept the inspection certificate of the Consulting Engineer of LOWER MAKEFIELD AUTHORITY and/or LOWER MAKEFIELD TOWNSHIP. The cost of this inspection shall be borne exclusively by the LOWER MAKEFIELD AUTHORITY.

SECTION 10. The operation of MIDDLETOWN AUTHORITY'S aforesaid interceptor line or lines shall be and remain under the exclusive direction and control of MIDDLETOWN TOWNSHIP and MIDDLETOWN AUTHORITY and they shall not be liable to LOWER MAKEFIELD TOWNSHIP and/or LOWER MAKEFIELD AUTHORITY for any failure or inadequacies of said interceptor line or lines by virtue of any emergency breakdown or other emergency conditions causing said interceptor line or lines to be inoperative.

SECTION 11. All reasonable engineering and legal costs and fees incurred by MIDDLETOWN TOWNSHIP and MIDDLETOWN AUTHORITY with respect to the preparation of this Agreement and any inspections, meetings and other services required in connection with the approval, implementation and effectuation of said Agreement shall be borne exclusively by LOWER MAKEFIELD AUTHORITY. Vouchers per this paragraph 11 are to be submitted to LOWER MAKEFIELD AUTHORITY for inspection and approval, said approval not to be unreasonably withheld. When approved, said vouchers are to be paid within three (3) months of the date of presentment of any such voucher or vouchers.

SECTION 12. One month after the end of each quarter-annual period during the term of this Agreement, LOWER MAKEFIELD AUTHORITY shall pay to MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS as a service charge for receiving and transporting from the point of connection or connections to the Neshaminy Interceptor line a sum which shall be calculated by multiplying the number of gallons transported in the proceeding quarter times 0.4604 dollars per thousand gallons and in addition thereto, LOWER MAKE-

FIELD AUTHORITY shall pay to MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS a sum equivalent to the same rate as BUCKS COUNTY WATER AND SEWER AUTHORITY charges to MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS for transmission and treatment of sanitary sewage from the Neshaminy Interceptor Line to the City of Philadelphia treatment facility. MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS agrees that it will pay this sum to the COUNTY AUTHORITY.

SECTION 13. In addition thereto, if the BUCKS COUNTY WATER AND SEWER AUTHORITY requires MIDDLETOWN AUTHORITY and/or MIDDLETOWN TOWNSHIP to install meters in Middletown Township, LOWER MAKEFIELD AUTHORITY and/or LOWER MAKEFIELD TOWNSHIP agree to pay a pro rata share, based upon metered flows from the aforesaid service area through MIDDLETOWN AUTHORITY'S aforesaid interceptor line pursuant to the terms of this Agreement, of any and all costs incurred by MIDDLETOWN AUTHORITY and/or MIDDLETOWN TOWNSHIP in compliance therewith.

SECTION 14. Furthermore, LOWER MAKEFIELD AUTHORITY agrees to reimburse MIDDLETOWN AUTHORITY and/or MIDDLETOWN TOWNSHIP for any other sums of money, if any, paid to the BUCKS COUNTY WATER AND SEWER AUTHORITY as a result of the effectuation of this Agreement upon proof of payment and presentment to LOWER MAKEFIELD AUTHORITY; payments pursuant to this paragraph shall be made within three (3) months of the date of presentment of any such claim.

SECTION 15. MIDDLETOWN TOWNSHIP and/or MIDDLETOWN AUTHORITY reserve the right to impose upon LOWER MAKEFIELD TOWNSHIP and/or LOWER MAKEFIELD AUTHORITY, in addition to all other payments required pursuant to the terms of this Agreement, a surcharge equal in amount to any surcharge imposed upon MIDDLETOWN TOWNSHIP and/or MIDDLETOWN AUTHORITY by the COUNTY AUTHORITY or by any other legal entity as a result of the introduction of industrial sewage by Lower Makefield from the aforesaid service area into MIDDLETOWN AUTHORITY'S aforesaid Interceptor line or lines.

SECTION 16. The rendering of any and all sewer rental bills and collections thereof from the property owners located within the aforesaid service area shall be performed by LOWER MAKEFIELD AUTHORITY and/or LOWER MAKEFIELD TOWNSHIP.

SECTION 17. The aforesaid rate established by MIDDLETOWN AUTHORITY for receipt and transmission of sanitary sewage to the Neshaminy Interceptor line is based on the factors contained in Exhibit "C" which is incorporated herein and made a part hereof by reference. MIDDLETOWN AUTHORITY and LOWER MAKEFIELD AUTHORITY agree annually within one hundred twenty (120) days from the close of MIDDLETOWN AUTHORITY'S fiscal year to review the factors contained in said Exhibit "C" and determine whether or not an increase or decrease in the said rate should be made for the ensuing year. LOWER MAKEFIELD AUTHORITY shall have the right upon request to audit such books and records of the MIDDLETOWN AUTHORITY as may be necessary to determine the accuracy of the factors set forth in Exhibit "C".

SECTION 18. LOWER MAKEFIELD AUTHORITY covenants and agrees to maintain the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM in good repair and operating condition, to operate the same continuously in an economical and efficient manner, to pay all costs of operation and make all repairs, renewals, replacements and improvements, and to generally maintain the system in order to insure adequate sanitary sewage service.

SECTION 19. LOWER MAKEFIELD AUTHORITY agrees to indemnify and save harmless MIDDLETOWN AUTHORITY and MIDDLETOWN TOWNSHIP against all losses, costs, damages, demands, suits, judgments, or claims of any nature or kind whatsoever arising or growing out of the operation of the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM.

SECTION 20. MIDDLETOWN AUTHORITY and MIDDLETOWN TOWNSHIP agree to indemnify and save harmless LOWER MAKEFIELD AUTHORITY and LOWER MAKEFIELD TOWNSHIP against all losses, costs or damages, on account of any injury to persons or property occurring in the performance of this Agreement due solely to the negligence of MIDDLETOWN AUTHORITY or MIDDLETOWN TOWNSHIP, its servants, agents, or employees.

SECTION 21. LOWER MAKEFIELD AUTHORITY agrees:

A. That the specifications for, and the rules and regulations of LOWER MAKEFIELD AUTHORITY governing the installation of laterals connecting properties in the aforesaid service area to the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM shall be at least as stringent as the requirements set forth for like installations or work by the MIDDLETOWN AUTHORITY.

B. That the MIDDLETOWN AUTHORITY'S Consulting Engineer may inspect the Lower Makefield Sanitary Sewage Collection System as well as the installation of any and all laterals connecting said presently-erected properties to said LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM to assure compliance with all the requirements to this Agreement.

C. That no property whatever in the aforesaid service area shall be connected to the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM unless:

1. A permit therefor has been issued by LOWER MAKEFIELD AUTHORITY AND countersigned by MIDDLETOWN AUTHORITY and
2. LOWER MAKEFIELD AUTHORITY has given MIDDLETOWN AUTHORITY written notice of such connection, after such connection is completed and at least three (3) days prior to the covering of said lateral with earth.

D. That upon completion of the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM, LOWER MAKEFIELD AUTHORITY shall provide MIDDLETOWN AUTHORITY with a complete set of as-built drawings of said system, showing complete information as to location, grade and depth of line, location of manholes and "Y" branches, easements and other similar relevant information.

E. E. LOWER MAKEFIELD AUTHORITY shall provide authorized representatives of MIDDLETOWN AUTHORITY with access at all times to the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM and the laterals connected thereto, and permit such representatives to inspect the same and to permit such representatives to make tests of the flowage passing through same.

F. LOWER MAKEFIELD AUTHORITY shall keep an accurate record of the number and location of properties connected to the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM and will make such records available, at any and all reasonable times, during normal business hours, for examination by authorized representatives of the MIDDLETOWN AUTHORITY. Within ten (10) days after the end of each quarter-annual period, LOWER MAKEFIELD AUTHORITY shall advise MIDDLETOWN AUTHORITY, in writing, of the number of properties having a sewer connection to the LOWER MAKEFIELD SANITARY SEWAGE COLLECTION SYSTEM in such quarter.

SECTION 22. MIDDLETOWN AUTHORITY covenants and agrees to keep its aforesaid interceptor line in a good and useable condition during the term of this Agreement and it further covenants and agrees that at all times during the period of this Agreement that it will maintain sufficient capacity in said interceptor line to properly receive and transport sanitary sewage for the aforesaid service area to the Neshaminy interceptor to the extent that the same may be discharged thereto under the terms of this agreement.

SECTION 23. MIDDLETOWN AUTHORITY agrees, at the sole cost and expense of LOWER MAKEFIELD AUTHORITY, to take all other actions and perform all other acts at any time necessary during the term of this Agreement to permit it to perform its obligation hereunder.

SECTION 24. The parties hereto agree that this Agreement and its effectuation shall be subject to Agreement of the BUCKS COUNTY WATER AND SEWER AUTHORITY, the DEPARTMENT OF ENVIRONMENTAL RESOURCES and such other state and federal agencies whose approval and consent may be required. MIDDLETOWN AUTHORITY agrees to comply at all times with any requirements of the Department of Environmental Resources and the Commonwealth of Pennsylvania or any other governmental agency having jurisdiction over it.

SECTION 25. The parties hereto agree that if, at any time disputes shall arise between them concerning the terms of this Agreement, the matter of difference shall be referred to three (3) Consulting Engineers one to be appointed by each party hereto and the third to be agreed upon by the two said appointees and the decision or award of the majority of said arbitrators shall be final and binding upon the parties hereto, their respective successors and assigns.

SECTION 26. Parties hereto agree that at the expiration of the term of this Agreement as stated above, the same shall be renewed and extended for a further period of one (1) years, subject to all of the terms and conditions herein contained, and so on, from year to year, unless and until either party hereto shall give to the other three (3) months written notice of an intention to terminate this Agreement prior to the expiration of the then current term.

SECTION 27. LOWER MAKEFIELD AUTHORITY and MIDDLETOWN AUTHORITY agree that this Agreement is conditioned upon approval by the BUCKS COUNTY WATER AND SEWER AUTHORITY and further conditioned

upon the BUCKS COUNTY WATER AND SEWER AUTHORITY extending its existing transportation and treatment agreement with MIDDLETOWN AUTHORITY to allow for the treatment and transportation of the sanitary sewage from the aforesaid service area or in the alternative, BUCKS COUNTY WATER AND SEWER AUTHORITY contracting directly with LOWER MAKEFIELD AUTHORITY for the transportation and treatment of sanitary sewage generated from the aforesaid service area through the Neshaminy Interceptor to the Philadelphia Treatment Facility. *

SECTION 28. MIDDLETOWN AUTHORITY agrees to assign this Agreement to the MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS and the MIDDLETOWN TOWNSHIP BOARD OF SUPERVISORS agrees to accept and be bound by all the terms and conditions of this Agreement.

IN WITNESS WHEREOF, the parties have caused these presents to be executed by their duly authorized Chairman or Vice-Chairman and their corporate seal to be affixed hereunto and attested by its Secretary or Assistant Secretary all as of the day and year first above written.

MIDDLETOWN TOWNSHIP, BUCKS COUNTY
MUNICIPAL AUTHORITY

ATTEST:

John B. Lemon
Secretary

By Robert J. Bran
Chairman

MIDDLETOWN TOWNSHIP BOARD OF
SUPERVISORS

ATTEST:

Howard J. Holby
Secretary

By Joseph J. DeW
Chairman

MUNICIPAL SEWER AUTHORITY OF THE
TOWNSHIP OF LOWER MAKEFIELD

ATTEST:

John M. Zetek
Secretary

By Charles H. ...
Chairman

TOWNSHIP OF LOWER MAKEFIELD, BO-
ARD OF SUPERVISORS

ATTEST:

John W. ...
Secretary

By John W. ...
Chairman

BUCKS COUNTY WATER AND SEWER AU-
THORITY

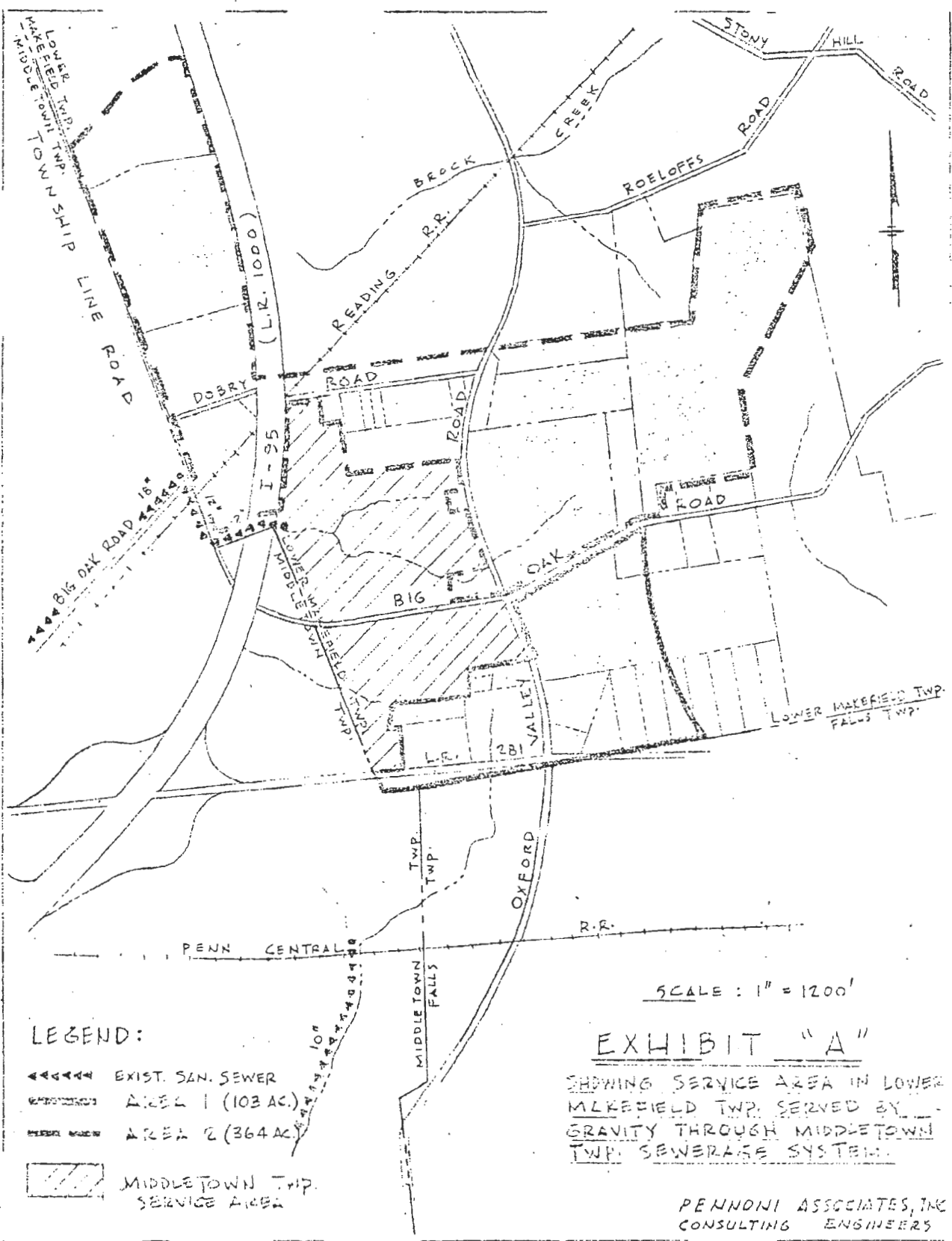
ATTEST:

John A. ...
Secretary

By Charles H. ...
Chairman

SUBJECT
TO THE
CONDITION

THAT: This Agreement shall not be interpreted as any assurance or guarantee by the Bucks County Water and Sewer Authority of any specific present or future capacity in any of its interceptors or facilities.



LEGEND:

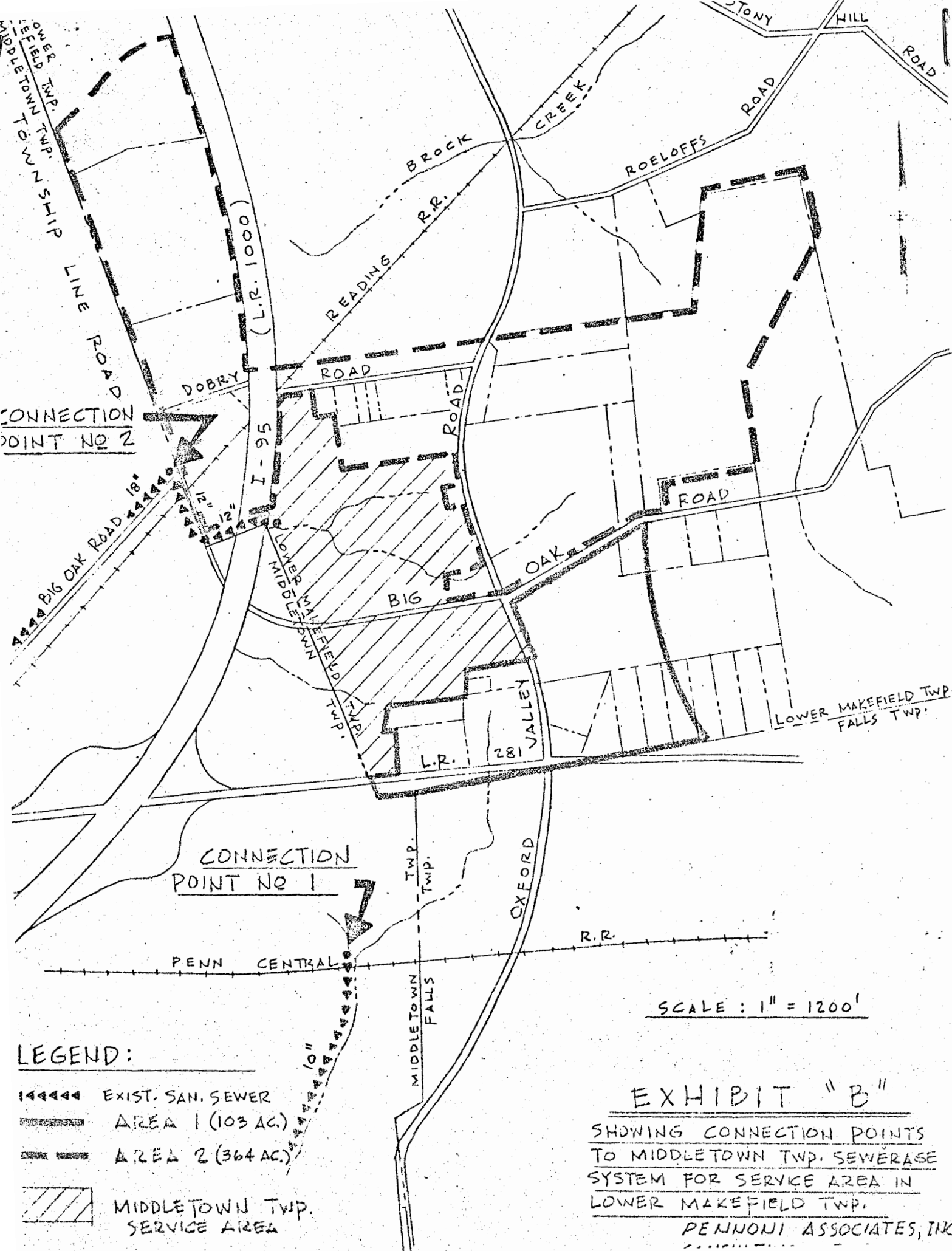
- EXIST. SAN. SEWER
- AREA 1 (103 AC)
- AREA 2 (364 AC)
- ////// MIDDLETOWN TWP. SERVICE AREA

SCALE: 1" = 1200'

EXHIBIT "A"

SHOWING SERVICE AREA IN LOWER MLKFIELD TWP. SERVED BY GRAVITY THROUGH MIDDLETOWN TWP. SEWERAGE SYSTEM.

PENNONI ASSOCIATES, INC.
 CONSULTING ENGINEERS



LEGEND:

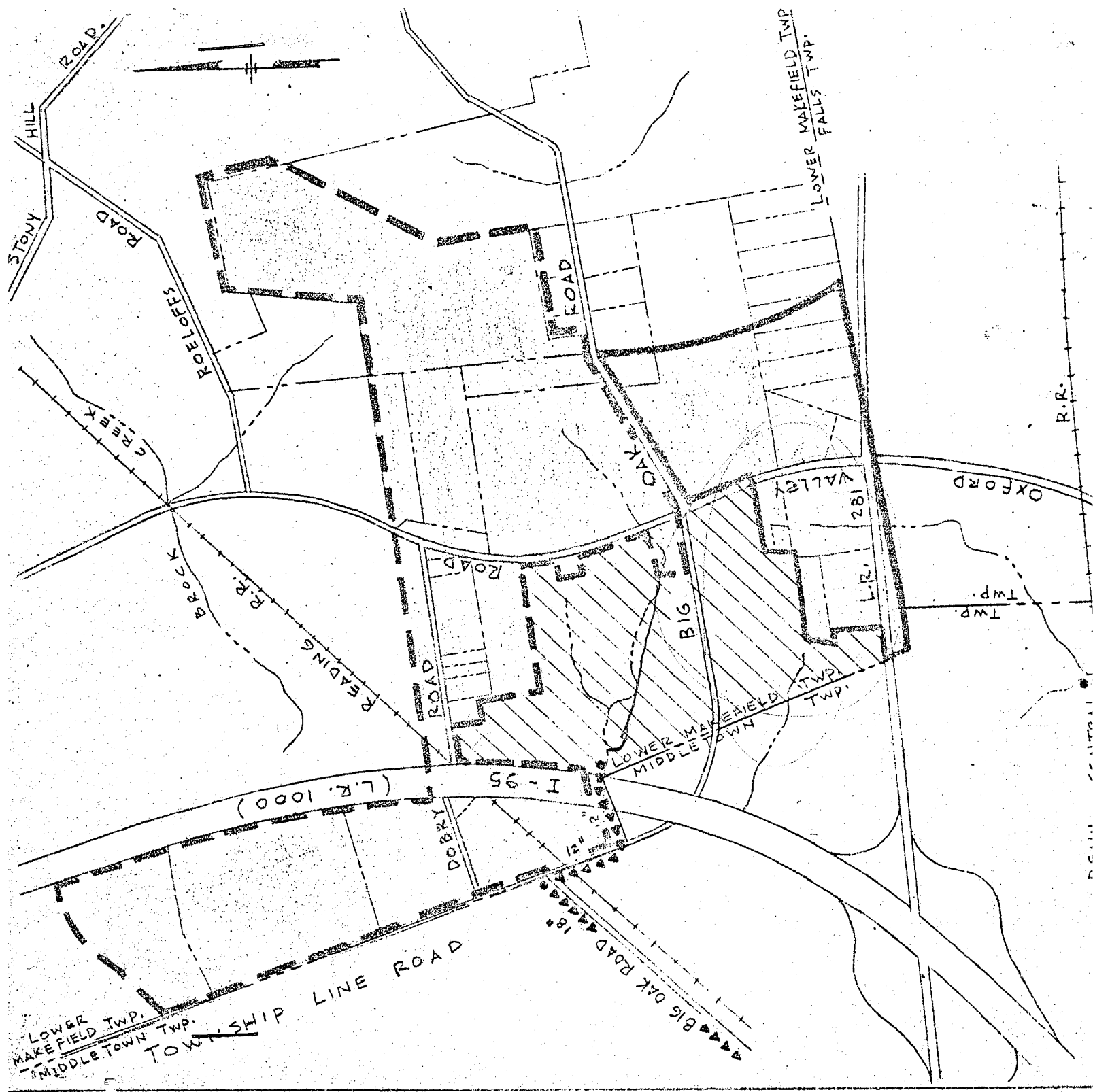
- EXIST. SAN. SEWER
- AREA 1 (103 AC.)
- AREA 2 (364 AC.)
- ////// MIDDLETOWN TWP. SERVICE AREA

SCALE : 1" = 1200'

EXHIBIT "B"

SHOWING CONNECTION POINTS TO MIDDLETOWN TWP. SEWERAGE SYSTEM FOR SERVICE AREA IN LOWER MAKEFIELD TWP.

PENNONI ASSOCIATES, INC.



LOWER MAKEFIELD TWP.
MIDDLE TOWN TWP.

TOWNSHIP LINE ROAD

I-95 (L.R. 1000)

DOBRY ROAD

ROAD

LOWER MAKEFIELD TWP.
MIDDLE TOWN TWP.

BIG ROAD

VALLEY ROAD

L.R. 281

L.R. 282

OXFORD R.R.

READING R.R.

ROCK CREEK

CREEK

ROLETTS ROAD

ROAD

HILL ROAD

ROAD

OAK ROAD

LOWER MAKEFIELD TWP.
LOWER FALLS TWP.

R.R.

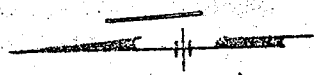


EXHIBIT "C"

POINT "A" - NORTH OF OXFORD VALLEY MALL

TREATMENT

Annual treatment charge by Bucks County Water & Sewer Authority

TRANSMISSION

$$24" \text{ Gravity Sewer} = \frac{C \times \text{CRF} \times 1000}{\text{S.C.} \times \text{E.A.F.} \times 365} = \frac{\$246,850.00 \times 0.0797 \times 1000}{1,600,000 \times 1/4 \times 365} = \$0.135$$

$$10" \text{ Gravity Sewer, P.S. \& F.M.} = \frac{C \times \text{CRF} \times 1000}{\text{S.C.} \times \text{E.A.F.} \times 365} = \frac{507,630.00 \times 0.0797 \times 1000}{1,200,000 \times 1/4 \times 365} = 0.369$$

TOTAL = \$0.504

ESTIMATED ANNUAL COST OF OPERATION & MAINTENANCE = 0.056

\$0.560

POINT "B" - BIG OAK ROAD & TWP. LINE ROAD

TREATMENT

Annual treatment charge by Bucks County Water & Sewer Authority

TRANSMISSION

$$24" \text{ Gravity Sewer} = \frac{C \times \text{CRF} \times 1000}{\text{S.C.} \times \text{E.A.F.} \times 365} = \frac{\$246,850.00 \times 0.0797 \times 1000}{1,600,000 \times 1/4 \times 365} = \$0.135$$

$$18" \text{ Gravity Sewer} = \frac{C \times \text{CRF} \times 1000}{\text{S.C.} \times \text{E.A.F.} \times 365} = \frac{\$178,550.00 \times 0.0797 \times 1000}{920,000 \times 1/4 \times 365} = 0.169$$

TOTAL = \$0.304

ESTIMATED ANNUAL COST OF OPERATION & MAINTENANCE = 0.056

\$0.360

AVG. RATE PTS. A & B = \$0.460/1000 GALLONS

- C = Cost of facilities (less grants in AID)
- C.R.F. = Capital recovery factor = 6% - 40 yrs. + coverage
- A.D.S. = Annual debt service = c x crf
- S.C. = Sewer capacity
- E.A.F. = Economic adjustment factor
- 365 = days/year



Pennoni Associates Inc.
 Consulting Engineers