

Appendix I Sewer Report

Map, Plan & Engineer's Report

**Town of Brunswick
Proposed Sewer District No. 8**

***Brunswick Meadows
Residential Condominium Community***

**Town of Brunswick
County of Rensselaer
State of New York**

March 20, 2007

Prepared By:

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Brunswick Meadows Residential Condominium Community

March 20, 2007

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Town of Brunswick Proposed Sewer District No. 8

Brunswick Meadows Residential Condominium Community

March 20, 2007

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Map No. 1 Proposed Sewer District No. 8 - District Boundary Map

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Introduction

The purpose of this Map, Plan and Engineer's Report is to present the infrastructure design data for Brunswick Meadows, a 124-unit residential condominium community to be developed in the Town of Brunswick, Rensselaer County, New York. The proposed site of this residential condominium community is on the south side of New York State Route 142, also known as Grange Road and approximately 500 feet east of the City of Troy and Town of Brunswick municipal boundary line. The proposed site is bordered generally on the north by NYS Route 142 and bordered on the west by lands of Niagara Mohawk Power Corporation. Located to the west of the site is Hialeah Estates, a 25 lot residential single-family home subdivision located in the City of Troy constructed in the early 1970's. A project location map is included as Exhibit A.

Approximately 18.3 acres of land is to be developed for the proposed Brunswick Meadows project. See attached Exhibit B for a proposed site plan of the project. The southern part of the site is presently vacant brush / wooded land with a running stream traversing through the site leading to the old Lansingburgh Water Works Storage Reservoir located to the west of the project site. The middle portion of the site is presently vacant brush / grass land which is approximately 11 acres of the site. The northerly portion of the site is a mowed grass lawn.

The northerly portion of the site (400 feet south from NYS Route 142) is currently zoned as a "R-15 Residential" and the remaining part of the site is zoned as "A-40 Agricultural". The predominate land use in the surrounding area is residential in nature with mostly single-family homes. It is proposed that the Brunswick Meadows residential condominium community be established as a Planned Development District (PDD) in accordance with the Town of Brunswick Zoning Ordinance regulations outlined in Article IV Section 10. The PDD zoning designation will allow for a development design to maximize choices in the types of environment, housing, densities, occupancy tenure, lot sizes, community facilities, usable open space and recreational areas within a large parcel of land in which residential uses are proposed. The intent of this PDD zoning district is to foster a creative and efficient use of land resulting in small networks of utilities and streets, the preservation of existing natural resources and a development pattern consistent with community needs and standards.

The infrastructure design presented in this report is expected to provide the required measures necessary to mitigate any unanticipated impacts generated by this project.

Project Description

The Brunswick Meadows residential condominium community that is proposed will consist of 124 units of condominium residences constructed in 31 buildings with four (4) dwelling units in each building. The overall density of the proposed project will

be approximately 6.78 unit per acre. Approximately 60 % of the site will be open green space and walking trails.

These condominium units will be constructed and marketed towards the retirement-aged homeowners and young single couples. Each condominium unit will contain a minimum of two (2) bedrooms, a single car garage, separate entrances and individual driveway. Estimated sale price for the condominium units will be in the \$150,000 to \$180,000 range depending upon the unit's type, size and location. Living areas of the condominiums will be approximately 1,350 square feet for the first floor units and approximately 1,600 square feet for the second floor units. A proposed sample floor plan and front exterior elevation for the condominium unit is included in Exhibit C.

The infrastructure included as part of this project are sanitary collection sewers, storm water collection sewers, water distribution main, fire hydrants and a private street, all which are to be built to Town of Brunswick specifications. The water system and sanitary sewer system is expected to be conveyed by deed to the Town of Brunswick for future operation and maintenance. The Brunswick Meadows Homeowners Association will maintain the roadways, parking areas and the storm water management systems. Electric, natural gas, cable TV and telephone facilities necessary to service the residential units will be installed underground by the various private utility companies. All costs associated with the development of this project and infrastructure will be borne by the developer.

Sewer District Formation Procedure

Along with the submission of this Map, Plan & Engineer's Report, the property owners of the proposed Brunswick Meadows development, in accordance with New York State Town Law - Article 12, will petition the Brunswick Town Board to create a new sewer district, to be known as Sewer District No. 8 to service the Brunswick Meadows residential condominium community. Signing of official petitions in accordance with Town Law (Article 12) by property owners representing at least 50% of the total assessed value of the taxable property within the proposed district boundaries and by resident property owners representing 50% of the total assessed value owned by resident property owners will initiate the review and action by the Brunswick Town Board. See Exhibit D for a copy of the petition for establishment of sewer district.

The following requirements must be met in order for the district to be formed:

- The petition must be signed and acknowledged or proved as required by law, that it complies with the requirements of the Town Law Article 12 as to sufficiency of signers and is otherwise sufficient;
- All the property and property owners within the proposed district are benefited thereby;

- **All the property and property owners benefited are included within the limits of the proposed district;**
- **The cost of the proposed improvements is to be assessed against the benefited area and all real property to be so assessed will be benefited by the proposed improvements and no benefited property has been excluded;**
- **It is in the public interest to grant the relief sought in the petition and such will not constitute an undue burden on the property that will bear the cost thereof;**

Sewer District Justification

One primary objective of this report is to provide the New York State Department of Environmental Conservation with adequate information related to project justification. The following statutory requirements must be met to allow establishment of this sewer district:

- ***The plans proposed by the applicant are justified by public necessity* – The project sponsors have determined that this portion of Rensselaer County and the Town of Brunswick is in need for this type of residential housing due to the aging population of the “baby boomer / empty nesters” generation and also due to the economic development of the high tech industries that are expanding in this area, specifically at the RPI campus. The future residents of the proposed sewer district will require municipal sewerage service. The proposed project would require 24,800 GPD of sewage to be disposed of in order to service the population of this residential community. The use of individual private in-ground sewage disposal systems would not be feasible due to the site being too small to accommodate the required leach field area to treat this volume. A community sewerage disposal system is also not feasible due to the unavailability of adequate soil conditions.**
- ***The plans take proper consideration of other sources of sewage disposal facilities that are or may become available* - There are no other sewage disposal facilities available near the site. The existing City of Troy sanitary sewer system is the only developed system in this part of Rensselaer County. The extension of sewer facilities into the Town of Brunswick at this location will allow for future expansion opportunities for the Town.**
- ***The plans provide for proper and safe construction of all work connected to this proposed sewer district* - The plans for the proposed work have been designed by a New York State licensed professional engineer familiar with New York State and local codes regulating construction of a sanitary sewer district improvement. It is the intention of the design engineer that all codes and safety standards will be adhered to during construction. The work will be**

inspected by the engineer of record as well as by the designated Town Engineer.

- ***The plans provide for the proper sanitary control of the watershed and protection of the supply*** - The proposed sanitary sewer district is not within the same watershed as the water source of the supply, the Tomahannock Reservoir. The sanitary sewers to be installed within this proposed sewer district would prevent pollution of the Brunswick Meadows watershed resulting from this project.
- ***The plans provide for an adequate sewage disposal capacity*** - The plans provide for an adequate sanitary sewage disposal opportunity from the City of Troy sewer system through an existing 8-inch main located in Hialeah Drive. The City of Troy can easily accommodate the additional 24,800 GPD resulting from this proposed sewer district. The Rensselaer County Sewer District No. 1 facilities have enough capacity to transport and treat this 24,800 GPD.
- ***The plans are just and equitable to other municipal corporations and civil divisions of the state affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of sanitary sewage disposal*** - These plans will not affect the sewer needs of other municipal corporations or other civil divisions nor do these plans affect their water sources of supply.
- ***The plans make fair and equitable provisions for determination and payment of any and all damages to person and property, both direct and indirect, which will result from the acquisition of said lands or execution of said plans*** – There are no land acquisition proposed for this sewer district project and any damages resulting from the construction shall be covered by the individual insurances for the contractors performing the sanitary sewer improvement construction.

Proposed Legal Boundaries

The property owner of the Tax Map Parcel No. 80.00 – 2 – 3.1, TOPATOMA LLC, will petition the Town of Brunswick Town Board to establish proposed Sewer District No. 8 to service the Brunswick Meadows project, located in the vicinity of NYS Route 142 (Grange Road) in the northwestern part of the Town.

The boundary of the proposed Sewer District No. 8 is shown on Map Number 1 - "Proposed Sewer District No. 8 - District Boundary Map".

The written legal description of the proposed Sewer District No. 8 is as follows:

**Town of Brunswick
Sewer District No. 8
Brunswick Meadows**

Legal Description

October 17, 2006

All that certain piece or parcel of land, lying and being in the Town of Brunswick, County of Rensselaer, State of New York, more particularly bounded and describe as follows:

Beginning at a point on the west right-of-way line of NYS Route 142 (aka Grange Road),

Said point being located approximately 126.85 feet southerly from an existing New York State highway concrete monument located at a point on the City of Troy / Town of Brunswick municipal boundary line as it intersects with the west right-of-way line of NYS Route 142,

Said New York State highway concrete monument also being approximately 175 feet southerly from the southerly right-of-way line of Hialeah Drive,

Said point of beginning also being the southeasterly corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) and the northeasterly corner of Tax Map Parcel 80.00 – 2 – 3.1 (n/f TOPATOMA LLC),

Thence, South 13 degrees 53 minutes 12 seconds East along said west right-of-way line of NYS Route 142 for a distance of 350.23 feet to a point; said point being the northeasterly corner of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier);

Thence, South 76 degrees 6 minutes 48 seconds West along the north property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 150.00 feet to a point;

Thence, South 13 degrees 53 minutes 12 seconds East along the west property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 99.21 feet to a point;

Thence, South 76 degrees 24 minutes 48 seconds West along the north property line of Tax Map Parcel 80.00 – 2 – 7 (n/f Vallee) for a distance of 39.81 feet to a point;

Thence, South 13 degrees 35 minutes 12 seconds East along the west property line of Tax Map Parcel 80.00 – 2 – (n/f Vallee) for a distance of 208.89 feet to a point;

Thence, South 74 degrees 39 minutes 36 seconds West along the south property line of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) for a distance of 1,091.86 feet to a point;

Thence, North 5 degrees 45 minutes 48 seconds East through Tax Map Parcel 80.00 – 2 – 3.1 (n/f TOPATOMA LLC) for a distance of 726.55 feet to a point;

Thence, North 71 degrees 27 minutes 0 seconds East for a distance of 27.13 feet to a point;

Thence, North 18 degrees 33 minutes 0 seconds West for a distance of 155.00 feet to a point;

Thence, North 77 degrees 45 minutes 0 seconds East for a distance of 683.41 feet to a point; said point being the northwest corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran);

Thence, along the property line of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) the following courses and distances:

***South 15 degrees 36 minutes 20 seconds East for a distance of 247.30 feet to a point;
North 74 degrees 3 minutes 40 seconds East for a distance of 154.94 feet to a point;
North 25 degrees 15 minutes 30 seconds East for a distance of 132.00 feet to a point;
North 73 degrees 54 minutes 10 seconds East for a distance of 95.00 feet to the point and place of beginning.***

All as shown on a map entitled “Proposed Sewer District No. 8 – District Boundary Map”, dated January 13, 2005 and prepared by Thomas M. Murley, P.E. and;

Said proposed Sewer District No. 8 area being approximately 18.3+/- acres in size; and

Being a portion of Tax Map Parcel 80.00 – 2 – 3.1 (n/f TOPATOMA LLC) as shown on a map entitled “Survey & Map of Lands Now or Formerly of Stephen J. Lansing, in the Town of Brunswick, Rensselaer County, NY”, dated November 11, 1965 and prepared by Richard Danskin, Land Surveyor #33,686.

Projected Sewage Flows

The sanitary sewer improvements to be constructed, as part of this project, will have sufficient capacity to meet the projected demands of the Brunswick Meadows project and the future needs of the surrounding community. The projected sewage flow for proposed Sewer District No. 8 is estimated as follows:

Total Average Daily Flow Rate: Total average daily flow rate for this development is estimated as follows:

$124 \text{ units} \times 2 \text{ persons / unit} \times 100 \text{ gallons per day / person} = 24,800 \text{ gallons per day (GPD)}$
--

Maximum Daily Flow Rate: The maximum daily flow rate for this development is estimated as follows:

$24,800 \text{ GPD (average daily flow rate)} \times 2 = 49,600 \text{ gallons per day (GPD)}$
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Proposed Sewer System Improvements

The proposed Sewer District No. 8 sewer improvements to be installed are shown on Map Number 2 entitled "*Proposed Sewer District No. 8 – General Plan*".

New 8-inch SDR-35 PVC gravity sewer mains will be installed throughout the Brunswick Meadows site to service the proposed buildings. Individual buildings will be connected to the 8-inch sewer main with a 6-inch SDR PVC service lateral installed in accordance with the Town of Brunswick Sewer Code.

The new sewer mains will flow by gravity to the western part of the site where a sanitary sewerage pump station will be constructed in a pre-cast concrete chamber. See Exhibit E for the details of this pump station. This pump station will then pump the sewage through a 4-inch ductile iron pipe force main to a new manhole located at the entrance to the site near NYS Route 142.

A new 8-inch SDR-35 PVC gravity sewer main will be installed from this manhole westerly along NYS Route 142 (Livingston Street and Grange Road) to the existing City of Troy 8-inch VCP sewer main in Hialeah Drive. Sufficient capacity exists in the existing City of Troy sanitary sewer system to accommodate the increase sewage flow as a result of this new sewer district. See Exhibit F.

This existing sewer main was installed in Hialeah Drive in 1968 and has an invert elevation of 315.5 feet (USGS). This existing sanitary sewer main is an 8-inch diameter VCP pipe laid at a 5% slope as per plans dated October 9, 1967 and prepared by Gilbert and Selee Land Surveyors.

This sewer main flows through the Miami Beach Estates Subdivision where it connects to an 8-inch main in Biscayne Boulevard. This 8-inch main then connects to an 8-inch main on Oakwood Avenue that then flows to Northern Drive. The Northern Drive sewer flows westerly to Second Avenue, where it discharges into the Rensselaer County Sewer District No. 1 interceptor line.

The Rensselaer County Sewer District No. 1 and the City of Troy have a sewer rental agreement (see Exhibit J) for the use of certain City sewers to transport

sewage from the Town of Brunswick to the Rensselaer County interceptor sewer in Troy. A map of the City of Troy sewer system in the vicinity of the proposed Sewer District No. 8 is included in Exhibit G.

The proposed Sewer District No. 8 system will be constructed in accordance with the “*GLUMRB (Ten States Standards Latest Revision) Recommended Standards for Wastewater Facilities*” specifications along with the Rensselaer County Health Department, Town of Brunswick and City of Troy regulations.

All sanitary sewer main construction shall take place in Brunswick Meadows Way, NYS Route 142 right-of-way and/or dedicated sanitary sewer easements. These easements will be deeded to the Town of Brunswick for future operation and maintenance. The Town of Brunswick Utilities Department will be in charge of maintenance of this sanitary sewer district after the construction is completed and accepted by the Town Engineer.

The operation and maintenance of the 6-inch service laterals serving each building will remain the responsibility of the Brunswick Meadows Homeowner Association.

Sanitary Sewer Costs

The residents of Brunswick Meadows will have the following estimated annual costs associated with proposed Sewer District No. 8:

Debt Service Cost - this is the cost to pay off the various bonding charges that relate to each sewer district. Generally, these costs are for the initial engineering design and construction of the sanitary sewers and appurtenances together with the associated legal/finance charges for the bonds used to finance the project. The New York State Comptroller's Office has to approve all debt service costs when improvements are made to each sewer district. Debt service charges are billed to the customers annually with their property tax bills that are mailed out in January of each year. There will be no debt service costs for this sewer district. The developer of Brunswick Meadows will pay for all of the costs related to these sanitary sewer system improvements. No public financing will be required by the Town of Brunswick for this proposed Sewer District No. 8.

Operation and Maintenance Cost - the Town Board establishes this cost when the Annual Budget is adopted each year. This cost is based upon the Town of Brunswick Sewer Department's operational budget and covers all costs associated with the operation, maintenance and repairs to the sewer system for each district. Generally, the sewer district operation and maintenance cost is billed to customers with their water usage bills twice per year. This bill is sent out after their individual building water meter is read. The water usage quantity is measured in increments of 1,000 gallons. The Town of Brunswick will bill the Brunswick Meadows Homeowners Association their annual operation and maintenance sewer fee with their water usage bill. The current sewer operation and maintenance cost is calculated as 10%

of the water usage cost. Based upon a water rate of \$4.18 per 1,000 gallons of water used, the sewer operation and maintenance rate would be \$0.418 per 1,000 gallons of water used.

Hook-up Cost – There will be no hook-up costs associated with this project for the property owners. The developer will pay all hook-up costs.

Rensselaer County Sewer District No. 1 Cost – This is the cost to transport and treat the sewerage at the Rensselaer County Sewage Treatment Plant located along the Hudson River just south of the Troy – Menands Bridge. The county charges \$1.50 per 1000 gallons of water usage effective April 1, 2007. This cost is billed twice per year by Rensselaer County.

Total Annual Cost - The estimated total annual Sewer District No. 8 cost for a residential unit in the Brunswick Meadows project using approximately 100,000 gallons of water per year is estimated as follows:

Debt Service Cost	\$ 0.00
Operation & Maintenance (100,000 gals x \$0.418/1000 gals)	\$ 41.80
Rensselaer Co Sewer District (100,000 gals x \$1.50/1000gals)	\$ 150.00
Total Annual Cost	\$ 191.80

Project Financing

The developer of the Brunswick Meadows project will pay all costs associated with the sanitary sewer facilities improvements for proposed Sewer District No. 8.

There will be no public funding involved in the project.

This proposed sewer district would not require approval of the New York State Comptroller. The approval of the State Comptroller would be required if the project costs were to be financed by the issuance of public bonds or notes and the estimated total annual cost exceeds the thresholds established by the New York State Comptroller.

For the year 2005, this threshold cost is \$573. See Exhibit H for an explanation of this cost.

Estimated Project Construction Costs

The estimated project construction cost for proposed Sewer District No. 8 is broken-down as follows:

1. Engineering Design - \$30,000

- Base Mapping, Easements and Surveying
- Soil Borings
- Permitting Process
- Environmental Reviews
- Design Drawings / Plans and Specifications
- Bidding Process

2. Construction Contract - \$306,000

8" SDR 35 PVC Pipe (3,250 LF @ \$40 / LF)	\$130,000
Concrete Manholes (14 @ \$2,500 ea)	\$ 35,000
Sewerage Pump Station & Generator	\$ 75,000
4" Ductile Iron Pipe (800 LF @ \$20 / LF)	\$ 16,000
Maintenance & Protection of Traffic	\$ 10,000
Connection To City 8" Main	\$ 10,000
Contingencies	\$ 30,000

3. Construction Inspection - \$30,000

4. Legal/Financing Interest Expenses - \$5,000

Total Project Construction Cost \$371,000

The total cost of construction for proposed Sewer District No. 8 is estimated at \$371,000 and will be paid entirely by developer of the Brunswick Meadows project. The cost to the Town of Brunswick shall be zero dollars.

Topography

Overall, 85% of the project site drains generally to the west towards the City of Troy boundary line and enters a culvert that leads under Hialeah Drive and into the old Lansingburgh Water Works Storage Reservoir. The remaining 15% of the site drains southerly towards the stream that leads to the old Lansingburgh Water Works Storage Reservoir near Biscayne Boulevard in the City of Troy.

The topography at the north end of the project is gently rolling land with patches of brush and small trees scattered through out the site. The topography at the south end of the project slopes moderately towards the stream located along the proposed

southerly property line. This moderate slope is heavily wooded and will remain intact in its present natural state.

It is proposed that this wooded area along the stream be used as public open space along with a nature-walking trail to be connected with Brunswick Meadows Way at several access points. A small picnic table pavilion with barbecue grills will also be constructed in this wooded area to allow residents to gather for community events and sight seeing of the wilderness. Selective thinning of some of the trees and brush along the stream and trails will take place under the direction of the project engineer. Extreme care will be taken to avoid any damage to this wooded overlook area during the clearing and construction operations. The vegetated buffer along the stream corridor protects the ecological values of the stream as well as provides recreational opportunities for walking and hiking. Protecting this stream corridor will be a very important part of the project. This buffer along the stream protects the water quality and hydrology of the area thus ensuring that the wetland will continue to provide its ecological services and provide for important wildlife habitat.

The existing wooded / brush areas along the west property line adjacent to the Niagara Mohawk Power Company right-of-way shall be preserved as much as possible to act as a buffer between the Hialeah Estates development and the proposed Brunswick Meadows site. The wooded / brush area located near the property lines with the existing homes along NYS Route 142 will be preserved and additional landscaping will be planted to act as a buffer for these single family homes.

Soils & Wetlands

The *Soil Survey of Rensselaer County, New York* published by the United States Department of Agricultural Soil Conservation Service provides the "Building Site Development" properties and engineering characteristics for the soils in the Brunswick Meadows site.

The Brunswick Meadows soils, as found from the north portion of the site to the south end of the site, are classified as follows:

- BnC – Bernardston – Nassau complex, rolling.
- SwA – Shaker very fine sandy loam, sandy substratum, 0 to 4 percent slopes.
- EIB – Elmridge very fine sandy loam, 3 to 8 percent slopes.
- HuE – Hudson silt loam, steep.
- FIA – Fluvaquents – Udifluvents complex, 0 to 3 percent slopes.

The site is generally will drained, however, some areas of perched groundwater maybe encountered during excavation, however, the quantities and flow rates are expected to be relatively small. It is expected, based upon the excavations in the adjacent Hialeah Estates development, that the installation of the various utilities will be accomplished with the use of a standard hydraulic excavator. Rock is not

expected to be encountered anywhere on the site. Acceptable spoil materials may be used as fill for any low-lying areas on the site.

The condominium building structures will be built on shallow spread footings on undisturbed, inorganic soil or on controlled fill that, in turn, rests on these undisturbed soils. No special foundation conditions are expected to be required for any of the structures. Select stone fill shall be used around footing drains where a high water table is encountered during excavation. A qualified licensed professional engineer shall design the building foundations after further soil investigations have been performed.

A wetland delineation survey indicates that there are two areas that are designated as United States Army Corps of Engineers (USACOE) wetlands. One of these USACOE wetlands is located at the south end of the project and consists of the stream and the buffer land adjacent to the stream as it traverses through the site in an east / west direction. The second USACOE wetland is located in the middle of the site adjacent to the City of Troy and Town of Brunswick boundary line. This area drains into the old Lansingburgh Water Works Storage Reservoir. There are no NYSDEC wetlands located within or adjacent to the site.

To protect the surrounding environment during construction, the project will have a Storm Water Pollution Prevention Plan (SWPPP) prepared and approved by the New York State Department of Environmental Conservation (NYSDEC). This SWPPP will incorporate erosion control methods as required by the "New York Guidelines for Urban Erosion and Sediment Control".

Maintenance Responsibility

The Town of Brunswick Sewer Department will be responsible for the future operation and maintenance of the proposed facilities within the proposed Sewer District No. 8.

Appropriate easements will be provided to the Town of Brunswick where the sewer mains and appurtenances are located in the private roadways within the project site.

The Brunswick Meadows Homeowners Association will maintain the individual sewer laterals to each building. The sewer laterals will be considered privately owned from the sewer main into each building.

The Brunswick Meadows Homeowners Association will make access available for the Town of Brunswick Water Department personnel to read the building water meters each billing period.

Detailed Plans

Detailed construction plans and specifications for this project will be submitted to the Town of Brunswick Sewer Department, the Rensselaer County Health Department and the New York State Environmental Conservation Department for approval after the establishment of Sewer District No. 8 by the Town of Brunswick Town Board.

A New York State Licensed Professional Engineer will design the sewer improvement facilities for proposed Sewer District No. 8 and prepare the detailed plans and specifications in accordance with the *“GLUMRB (Ten States Standards Latest Revision) Recommended Standards for Wastewater Facilities”*.

The details of the sewer connection at Hialeah Drive will be reviewed and approved by the City of Troy Department of Public Utilities and the Town of Brunswick Sewer Department.

The design engineer or his designee will review and approve the shop drawings and material submittals for the sewer improvement facilities. A copy of these approved submittals shall be filed with the Town of Brunswick Sewer Department, the Town Engineer and the City of Troy Department of Public Utilities.

The design engineer or his designee will perform the actual construction inspection of the sewer improvement facilities and shall prepare the as-built drawings as required by the approving agencies and file a copy with each agency. The design engineer shall certify to the Rensselaer County Health Department that the final construction is in accordance with the approved plans for Sewer District No. 8.

Construction Specifications

Sewer mains, pump station and appurtenances will be installed within the project area as shown on Map Number 2 -*“Proposed Sewer District No. 8 – General Plan”*.

Detailed specifications for the sewer system are included in Exhibit I. All construction work will be performed meeting the following specifications:

- The gravity sewer pipe will be constructed of SDR 35 PVC pipe conforming to current Town of Brunswick specifications.
- The force main sewer pipe will be constructed of ductile iron pipe conforming to current Town of Brunswick specifications.
- The manholes will be pre-cast concrete conforming to current Town of Brunswick specifications.

- **The manhole castings and covers will be heavy-duty cast iron designed for a vehicle with a H-20 vehicle loading.**
- **The sewer mains will, in general, be installed at a depth of not less than four (4) feet from surface to centerline of pipe, and will be air pressure tested in accordance with NYSDEC regulations.**
- **The sanitary sewage pump station will be built to Town of Brunswick specifications and be of the same brand and model presently used in the Town of Brunswick.**

Summary

The establishment and approval of proposed Sewer District No. 8 by the Town of Brunswick will allow for the extension of needed sanitary sewer service to the northwestern part of the Town and will allow for the development of the Brunswick Meadows project.

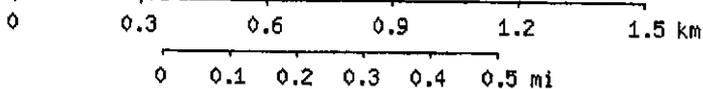
The Brunswick Meadows project has been carefully planned to create an attractive residential community, which would be in harmony and compatibility with the adjacent residential developments. Extensive site analysis has been performed to identify natural site amenities, soils characteristics and development limitations, nature and character of adjacent developments and site vegetation characteristics. These elements were then integrated into the layout and arrangement of buildings, roadway location and parking areas to create a high quality residential community and environment.

The large amount of open green space, a crystal clear flowing stream and attractively landscaped walking trails to be developed for Brunswick Meadows will allow the residents of this residential community to enjoy the peaceful and relaxing atmosphere of country living while still having the amenities of municipal utilities and easy accessibility to their work place and other urban facilities.

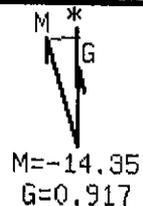
The establishment of Sewer District No. 8 and the development of the Brunswick Meadows project will generate significant tax revenues for the various taxing agencies. See attached Exhibit K for a projection of the tax revenues.

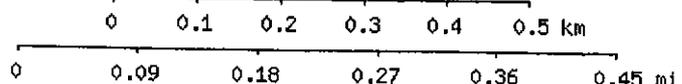
Exhibit A

**Brunswick Meadows
Project Location Map**



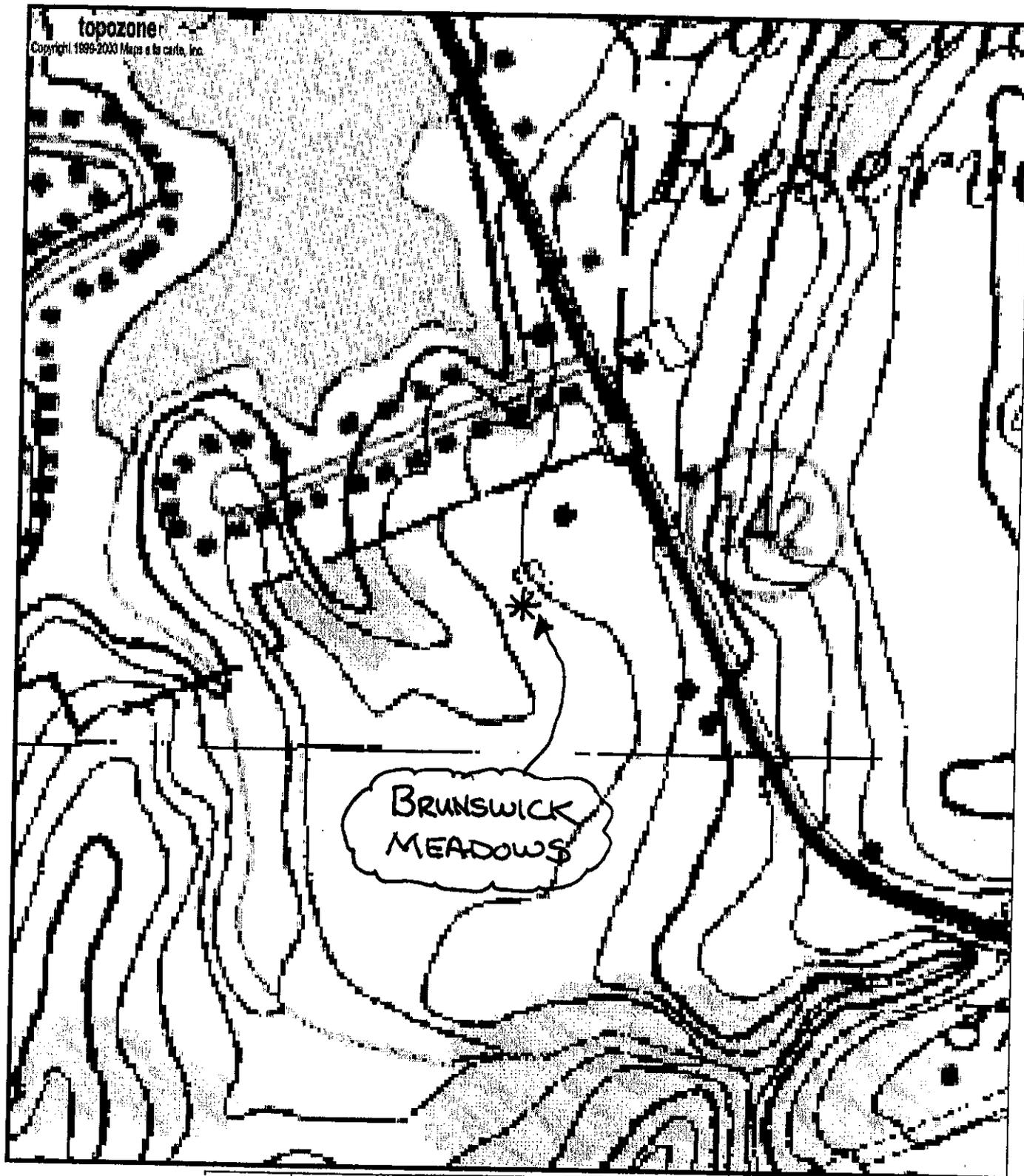
Map center is UTM 18 610429E 4737273N (WGS84/NAD83)
Troy North quadrangle
 Projection is UTM Zone 18 NAD83 Datum



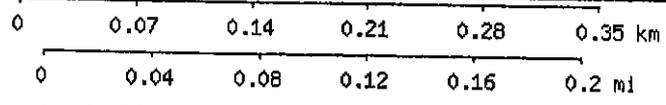


Map center is UTM 18 610420E 4737310N (WGS84/NAD83)
Troy North quadrangle
 Projection is UTM Zone 18 NAD83 Datum





topozone
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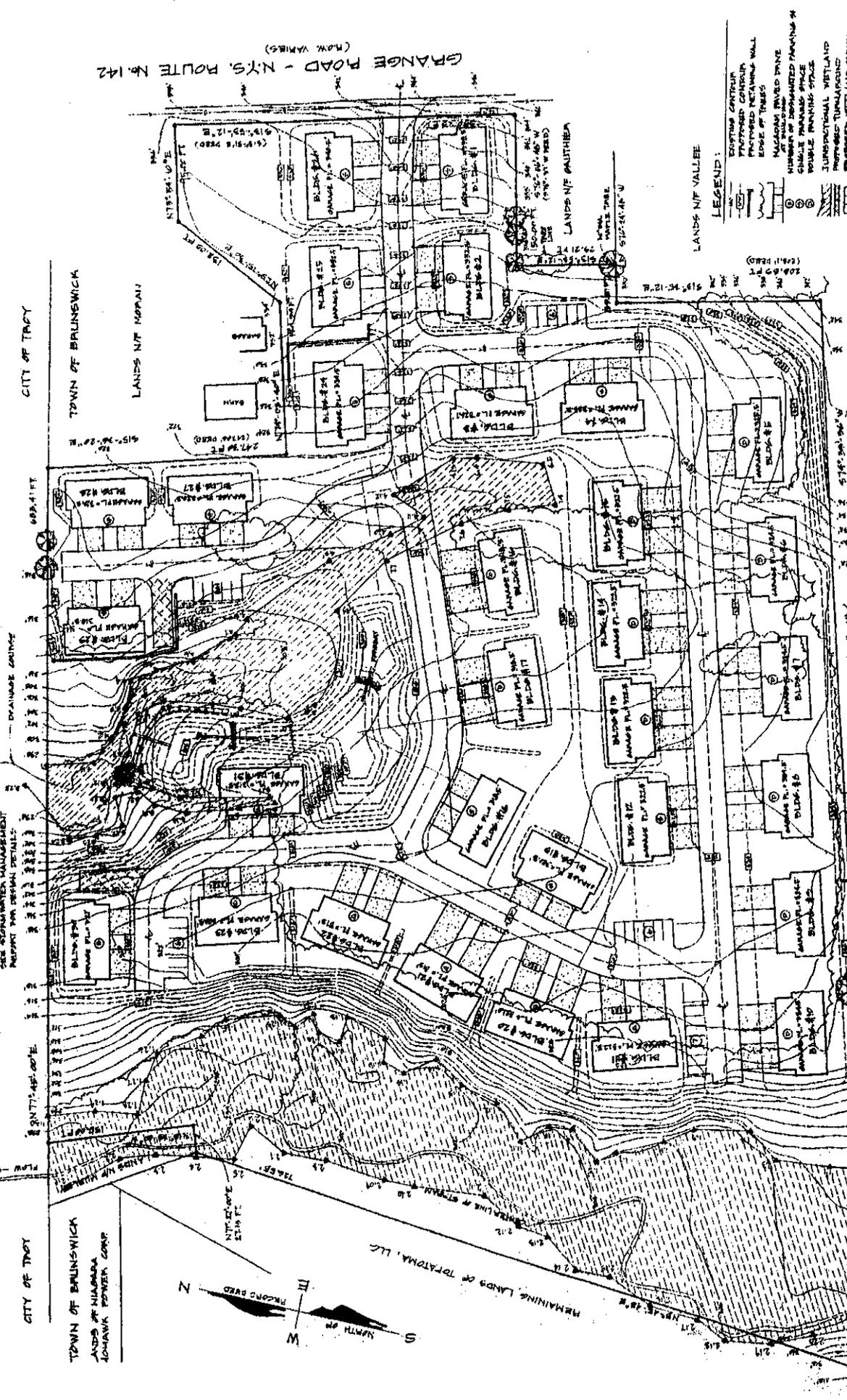
Map center is UTM 18 610420E 4737310N (WGS84/NAD83)
Troy North quadrangle
Projection is UTM Zone 18 NAD83 Datum



Exhibit B

**Brunswick Meadows
Site Plan Layout**

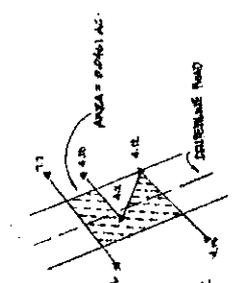
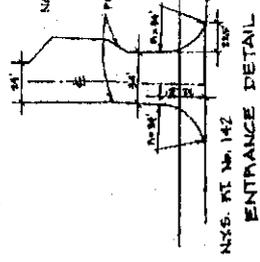
CITY OF TRACY
TOWN OF BRUNSWICK
LANDS OF NIAGARA
LOHAWA POWER CORP



<p>LEGEND:</p> <ul style="list-style-type: none"> EXISTING CONTOUR PROPOSED CONTOUR PROPOSED RETAINING WALL EDGE OF TREES NIAGARA RAISED DIKE NUMBER OF SEPARATED PARKING SPACES SINGLE PARKING SPACE DOUBLE PARKING SPACE JURISDICTIONAL WETLAND PROPOSED TUNNEL PROPOSED SETBACK ADJACENT TO TOWN OF BRUNSWICK PLANNING BOARD 	<p>SURVEY AND EXISTING PROPOSED SITE</p> <p>TOWN OF BRUNSWICK</p> <p>SCALE: 1" = 40'</p>
--	--



NOTE: ENTRANCE DETAILS PER N.Y.S. DOT POLICES AND STANDARDS FOR COMMERCIAL ENTRANCES



DETAIL OF PROPOSED DEVELOPMENT

**BRUNSWICK MEADOWS SUBDIVISION
PROPOSED CONDITIONS**



1:1,700

1 inch equals 141.7 feet

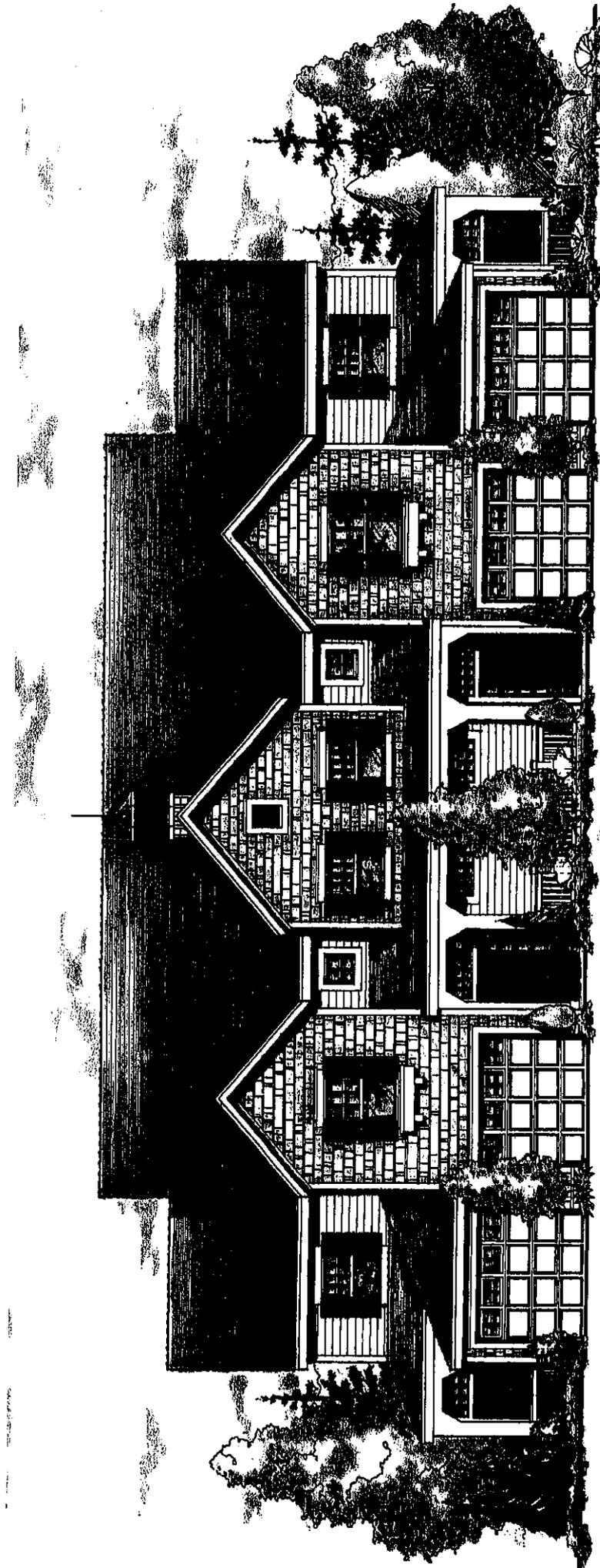


Legend

Exhibit C

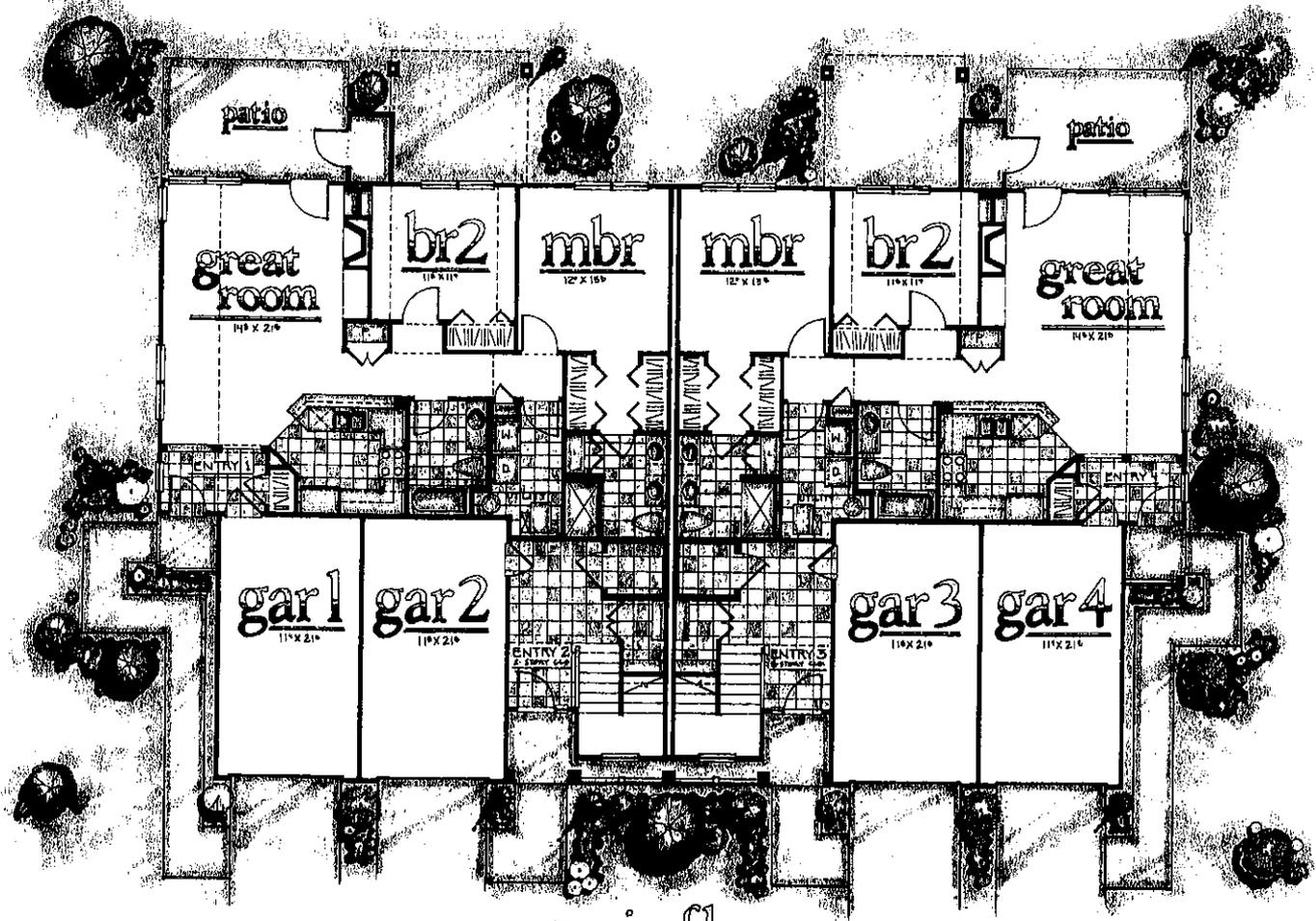
**Brunswick Meadows
Floor Plans & Front Elevation**

Brunswick Meadows

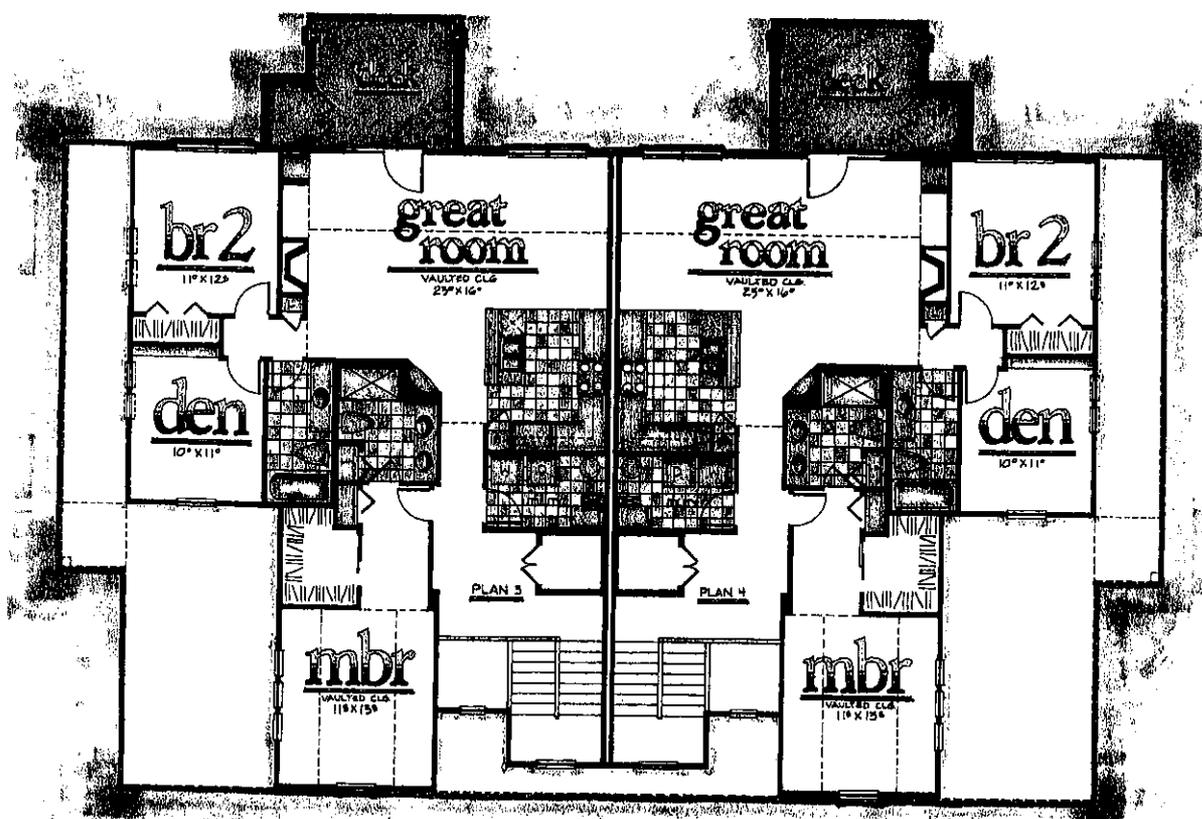


Front Elevation

Typical (4) Unit Condominium



main floor



upper floor

Exhibit D

Petition To Establish District

**PETITION FOR ESTABLISHMENT
TOWN OF BRUNSWICK SEWER DISTRICT NO. 7
IN THE TOWN OF BRUNSWICK
RENSSELAER COUNTY, NEW YORK**

TO THE TOWN BOARD OF THE TOWN OF BRUNSWICK:

We, the undersigned, being the **owners of all of the taxable real property** situate in the proposed Town of Brunswick Sewer District No. 7, hereinafter more fully described, according to the latest completed assessment roll, do hereby petition your Honorable Board, to establish Town of Brunswick Sewer District No. 7 in the territory hereinafter described, which is located in your Town of Brunswick, Rensselaer County, New York, outside of any incorporated village and wholly within the said Town of Brunswick, and to provide for the construction thereof a sanitary sewer system in accordance with the "*Map, Plan and Engineer's Report*" hereto annexed. Thomas M. Murley, a Licensed Professional Engineer in the State of New York, has prepared the said "*Map, Plan and Engineer's Report*".

Your petitioners request the establishment of such sanitary sewer district to include the area described in **Exhibit "A" – Legal Description** attached hereto and made a part thereof.

Attached hereto is **Map No. 1 – Boundary Map** showing the boundaries of the proposed sanitary sewer district and **Map No. 2 – General Plan** showing the improvements to be constructed for this proposed sanitary sewer district.

Thomas M. Murley, a Licensed Professional Engineer in the State of New York, has prepared the said **Map No. 1 – Boundary Map** and **Map No. 2 – General Plan**.

The cost of the construction for the proposed Town of Brunswick Sewer District No. 7 to the Town of Brunswick shall be zero dollars.

The cost of the construction of the said proposed Town of Brunswick Sewer District No. 7 will be paid entirely by the petitioners, TOPATOMA LLC or their assigns.

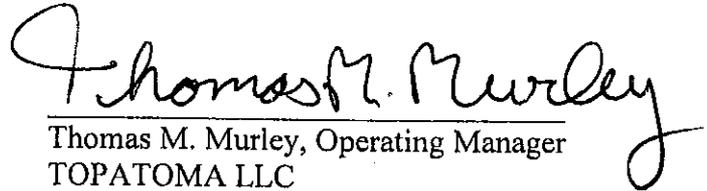
Said petitioners further agree to reimburse the Town of Brunswick for all expenses incurred by the Town of Brunswick in the proceedings to establish the Town of Brunswick Sewer District No. 7. Such expenses shall include, among other things, legal fees, engineering fees, and legal publication costs.

The said petitioners further agree to provide or obtain any easements if necessary, for the construction of the proposed Town of Brunswick Sewer District No. 7 and to dedicate such easements to the Town of Brunswick.

Upon completion, Town of Brunswick Sewer District No. 7 shall be dedicated to and deeded over to the Town of Brunswick for future operation and maintenance.

Said petitioners further agree to pay any future costs for this proposed sewer district which will include annual operation and maintenance charges paid to the Town of Brunswick along with the annual sewage treatment costs paid to the Rensselaer County Sewer District No. 1.

Dated: January 10, 2005


Thomas M. Murley, Operating Manager
TOPATOMA LLC

ACKNOWLEDGMENT

STATE OF NEW YORK }
 }ss.:
COUNTY OF RENSSELAER}

On this 10th day of January in the year Two Thousand and Five before me, the undersigned, a notary public in and for said state, personally appeared **Thomas M. Mulrey** personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledge to me that he executed the same in his capacity, and that by his signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.



CARYN PEDRICK
Notary Public, State of New York
No. 6099509
Qualified in Albany County
Commission Exp. September 29, 2007

Notary Public-State of New York
My Commission Expires:

Exhibit "A"

Town of Brunswick
Sewer District No. 7

Legal Description

January 10, 2005

All that certain piece or parcel of land, lying and being in the Town of Brunswick, County of Rensselaer, State of New York, more particularly bounded and describe as follows:

Beginning at a point on the west right-of-way line of NYS Route 142 (aka Grange Road),

Said point being located approximately 126.85 feet southerly from an existing New York State highway concrete monument located at a point on the City of Troy / Town of Brunswick municipal boundary line as it intersects with the west right-of-way line of NYS Route 142,

Said New York State highway concrete monument also being approximately 175 feet southerly from the southerly right-of-way line of Hialeah Drive,

Said point of beginning also being the southeasterly corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) and the northeasterly corner of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC),

Thence, southerly along said west right-of-way line of NYS Route 142 for a distance of 351.95+/- feet to a point; said point being the northeasterly corner of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier);

Thence, westerly along the north property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 150+/- feet to a point;

Thence, southerly along the west property line of Tax Map Parcel 80.00 – 2 – 6 (n/f Gauthier) for a distance of 99.22+/- feet to a point;

Thence, westerly along the north property line of Tax Map Parcel 80.00 – 2 – 7 (n/f Vallee) for a distance of 39.8+/- feet to a point;

Thence, southerly along the west property line of Tax Map Parcel 80.00 – 2 – (n/f Vallee) for a distance of 208.1+/- feet to a point;

Thence, westerly along the south property line of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) for a distance of 1,098.2+/- feet to a point;

Thence, northerly through Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) for a distance of approximately 780+/- feet to a point; said point being on the City of Troy / Town of Brunswick municipal boundary line;

Thence, along the City of Troy / Town of Brunswick municipal boundary line for the following distances: 27.3+/- feet, 155.0+/- feet, 272.0+/- feet, 100+/- feet, 150+/- feet, 100+/- feet and 263.20+/- feet to a point, said point being the northwest corner of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran);

Thence, along the property line of Tax Map Parcel 80.00 – 2 – 5 (n/f Moran) as shown on a map prepared by Charles E. Hartnett, LS entitled “Survey of a Portion of Lands of the Estate of Gerard A. Ripp (Reputed Owner)” dated November 9, 2000 and revised on November 17, 2000, the following distances 247.06 +/- feet, 154.94+/- feet, 132.0+/- feet and 95.0+/- feet to point and place of beginning of proposed Sewer District No. 7;

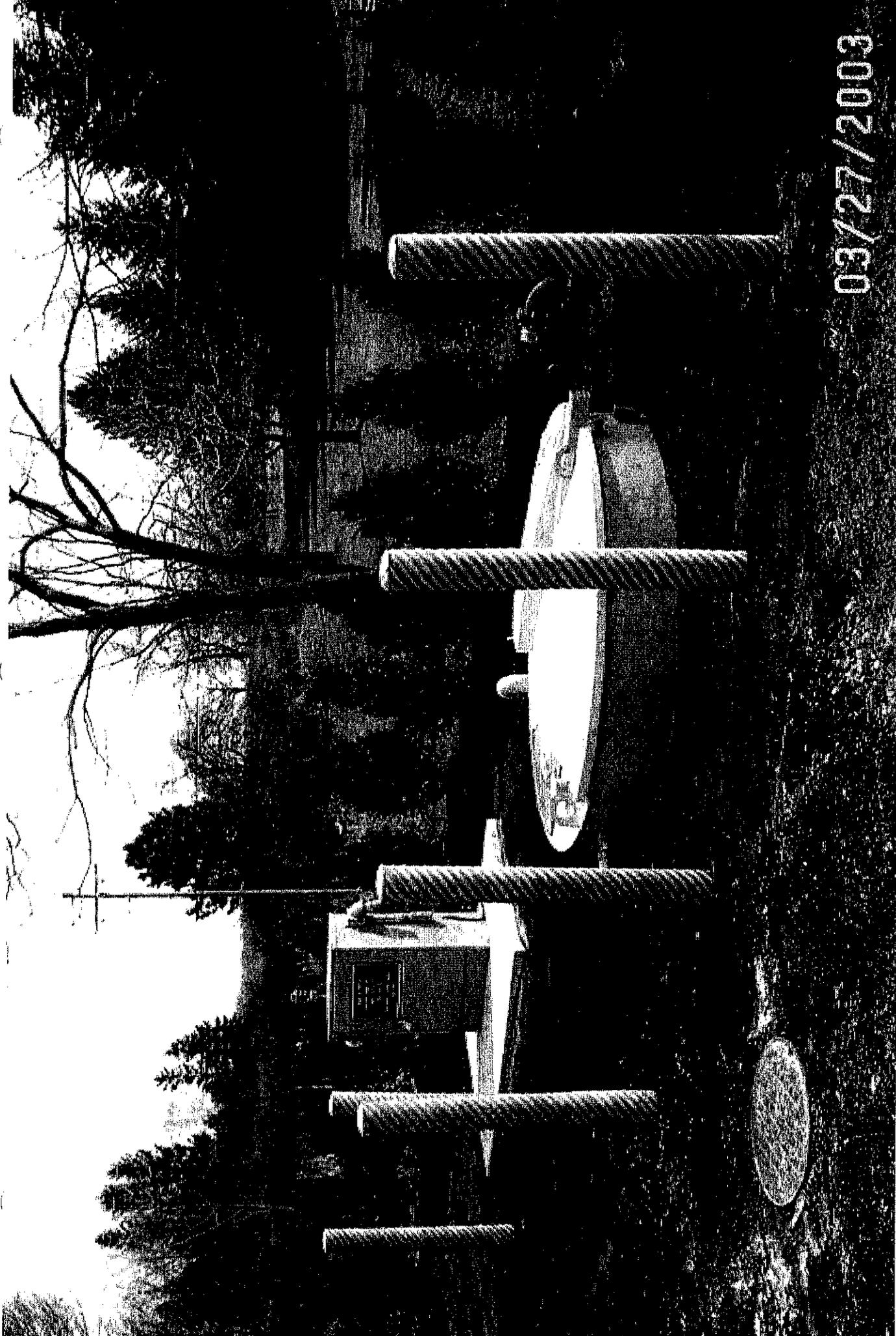
All as shown on a map entitled “Proposed Sewer District No. 7 – District Boundary Map”, dated January 13, 2005 and prepared by Thomas M. Murley, P.E. and;

Said proposed Sewer District No. 7 area being approximately 16.6+/- acres in size; and

Being a portion of Tax Map Parcel 80.00 – 2 – 3 (n/f TOPATOMA LLC) as shown on a map entitled “Survey & Map of Lands Now or Formerly of Stephen J. Lansing, in the Town of Brunswick, Rensselaer County, NY”, dated November 11, 1965 and prepared by Richard Danskin, Land Surveyor #33,686.

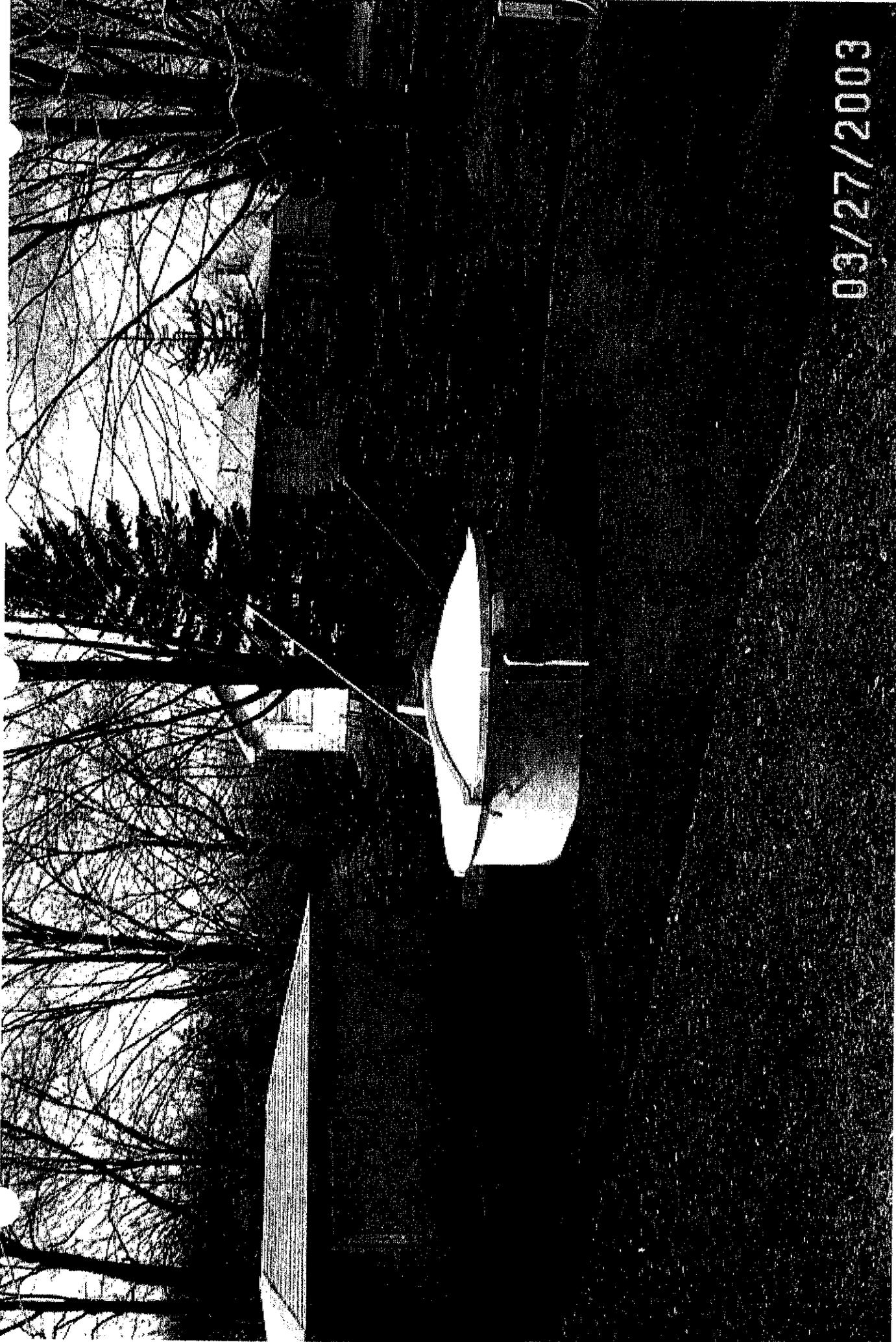
Exhibit E

**Sanitary Sewage Pump Station
Details**



03/27/2003

Typical Sanitary Sewerage Pump Station



03/27/2003

Typical Sanitary Sewerage Pump Station

Brunswick Meadows

Sanitary Sewage Pump Station Preliminary Equipment Specifications Recessed Wet Well Mounted Pump Station

PART 1 - GENERAL

1.1 WORK DEFINED

- A. Work of this section shall conform to all requirements of the Contract Documents.
- B. The contractor shall furnish and install one factory-built, automatic pumping station for placement on the precast wet well as shown on the plans. Each station shall be complete with all needed equipment, factory-installed in a welded steel chamber with fiberglass cover.

The principal items of equipment shall included two (2) vertical, close-coupled, motor driven, vacuum primed, non-clog pumps; valves; internal piping, central control panel with circuit breakers; motor starters and automatic pumping level controls; heater; ventilating blower; priming pumps and appurtenances; internal wiring.

1.2 SUBMITTALS

- A. In accordance with the procedures outlined in the specifications, submit the following:
 - 1. Manufacturer's catalog cuts, specifications, recommended methods of installation.
 - 2. Dimensional drawings.
 - 3. Station layout drawings.
 - 4. Catalog data on all accessories included with the pump station.
 - 5. Assembly and foundation drawings.
 - 6. Impeller opening drawing.
 - 7. Wiring diagrams.
 - 8. Operations and Maintenance Manual.
 - 9. Current parts and price list.
 - 10. List of installation of at least 100 stations of similar design and size that have been operating for over five (5) years.

1.3 QUALITY ASSURANCE

- A. Comply with applicable requirements of related sections.
- B. All pumps and pump stations of similar design supplied under this contract shall be the product of a single manufacturer.

- C. The Town of Brunswick is standardized on the Smith & Loveless Wet Well Mounted Pump Station. Therefore, the acceptable manufacturer of the recessed wet well-mounted pump station shall be Smith & Loveless, Inc. of Lenexa, Kansas.

1.4 DESIGN CONDITIONS

- A. Refer to attached "Pump Schedule" for sizes, capacities of pumps, and electrical characteristics. All openings and passages shall be large enough to permit the passage of a sphere 3" in diameter.
- B. All drive equipment shall be non-overloading at all points along the performance curve within the operating range of the system.

1.5 PUMP WARRANTY

- A. The manufacturer of the lift station shall have a minimum of 1,000 installations, and twenty-five (25) years of experience in the design and manufacture of vacuum priming type factory-built automatic pumping stations of this type and shall guarantee the structure and all equipment to be free from defects in materials and workmanship per period of up to one year from the date of start up not to exceed 18 months from date of shipment.
- B. Warranties and guarantees by the suppliers of various components in lieu of a single-source responsibility by the manufacturer will not be accepted. The manufacturer shall be solely responsible for the guarantee of the station and all components. Furnishing warranties and guarantees to the Owner shall be the Contractor's responsibility.
- C. In the event the component fails to perform as specified or is proven defective in service during the guaranteed period, the manufacturer shall provide a replacement part without cost to the owner. He shall further provide, without cost, such labor as may be required to replace, repair or modify major components such as pumps, pump motors, and sewage piping manifold. This provision shall be the responsibility of the Contractor.
- D. The manufacturer shall supply the services of a factory trained technician to inspect the installation, test the equipment for proper performance and instruct maintenance personnel on the operation and care of the stations. This provision shall be the responsibility of the Contractor.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The contractor shall furnish and install factory-built automatic pumping station. The station shall be complete with all equipment, factory installed as shown on the contract drawings or as specified in this section.

2.2 PRODUCT

A. Construction

1. Each station shall be constructed in one (1) complete factory-built assembly. It shall be sized to rest on the top of the wet well as detailed in the construction drawings. The supporting floor plate shall be minimum 3/8" thick steel.
2. The equipment chamber shall be of 1/4" plate, 8' inside diameter, and be completely isolated from the wet well in a gas tight configuration. Wet well access shall be completely separate from the equipment chamber and shall be provided with the access manway exposed only to the atmosphere.
3. The equipment chamber shall be provided with a split hinged, fiberglass cover. The cover shall be formed with a drip lip around the edge and a labyrinth at the top. A bracket shall be provided to support the cover in the open position and to restrain it under load. Only one segment of the cover need be opened to gain access to the machinery chamber.
4. Aluminum ladders shall be located both in the pump chamber and the manway to provide easy access.
5. A 3/16" hinged steel manway cover shall be an integral part of the station head plate and shall provide access into the wet well.
6. Both equipment chamber and wet well access cover shall be provided with hasp and staple arrangement for padlocking. Hardware shall be stainless steel.
7. A stanchion with lifting arm shall be provided to support a hoist to facilitate easy removal of the motors, impellers and pumps.

B. Welding

1. All steel and the station structure shall be jointed by electric arc welding with fillets of adequate section for the joint involved. Where required to exclude ground water, all welded joints on the exterior of the station shall be continuous throughout their length.

C. Protection Against Corrosion

1. After welding, all inside and outside surfaces of the structures, pumps and piping shall be steel shot blasted to a 2-mil minimum profile commercial blast. Immediately after cleaning, a single 10-mil minimum thickness insert coating shall be factory applied to all inside and outside surfaces. The coating shall be Versapox epoxy resin, formulated for abrasion and corrosion resistance. The dry coating shall contain a minimum of 85% epoxy resin with the balance being pigments and Thixotropic agents.

D. Sewage Pumps

1. The pumps shall be 4" vertical, non-clog sewage pumps of heavy cast iron construction, especially designed for the use of mechanical seals and vacuum priming. In order to minimize seal wear caused by lineal movement of the shaft, the shaft bearing nearest the pump impeller shall be locked in place so that endplay is limited to the clearance within the bearing. To minimize seal wear resulting from shaft deflection caused by the radial thrust of the pump, the shaft from the top of the impeller to the lower bearing supporting the impeller shall have a minimum diameter of 1-7/8". The dimensions from lowest bearing to top of impeller shall not exceed 6 inches.
2. The bearing nearest the impeller shall be designed for the combined thrust and radial load. The upper bearing shall be free to move lineally with a thermal expansion of the shaft and shall carry only radial loads.
3. The shaft shall be solid stainless steel through the pump and bottom bearing to eliminate corrosion with the pump or mechanical seal. Stainless steel shaft sleeves will not be acceptable.
4. The pump impeller shall be of the enclosed type made of close-grained cast iron and shall be balanced. The impeller shall be keyed with a stainless steel key and secured to the motor shaft by a stainless steel cap screw equipped with a Nylock or other suitable self-locking device. The impeller shall not be screwed or pinned to the motor pump shaft and shall be readily removable without the use of special tools. To prevent the buildup of stringy materials, grit and other foreign particles around the pump shaft, all impellers less than full diameter shall be trimmed inside the impeller shroud. The shroud shall remain full diameter so that close minimum clearances from shroud to the volute is maintained. Both the end of the shaft and bore of the impeller shall be tapered to permit easy removal of the impeller from the shaft.
5. The pump shall be constructed so as to permit priming from the low-pressure area behind the impeller. Priming from the high-pressure connections which allow solids to enter and to clog the priming system will not be acceptable. The priming bowl shall be transparent to enable the operator to monitor the priming level.
6. The pump shall be arranged so that the rotating element can easily be removed from the volute without disconnecting the electrical wiring or disassembling the motor, impeller, back head or seal, so that any foreign object may be removed from the pump or suction line.
7. The pump shaft shall be sealed against leakage by a single mechanical seal constructed so as to be automatically drained and primed each time the pump is drained and primed. Water which lubricates the mechanical seal shall be automatically drained from around the seal if the pump loses

prime, in order to allow both the pump and the seal to be drained, thereby preventing freezing and breakage of the seal during power outages in sub-freezing temperatures.

The seal shall be of carbon and ceramic materials with the mating surfaces lapped to a flatness tolerance of one light band. The rotating ceramic shall be held in mating position with the stationary carbon by a stainless steel spring.

E. Motors

1. The pump motors shall be vertical, solid shaft, NEMA P-Base, Squirrel-Cage Induction type suitable for electric current as indicated in the attached schedule. They shall have Class F insulation, suitable for temperatures up to 115 degrees C, but the motor shall have Class B temperature limits of 90 degrees C rise by resistance, at 115% of rated load. The motors shall have normal starting torque and low starting current, as specified for NEMA design B characteristics. They shall be open drip-proof design with forced air circulation by integral fan. Openings for ventilation shall be uniformly spaced around the motor frame. Leads shall be terminated in a cast connection box and shall be clearly identified.
2. The motors shall have 1.15-service factor. The service factor shall be reserved for the owner's protection. The motors shall not be overloaded beyond their nameplate rating, at the design condition, nor at any head in the operating range as specified under operating conditions.
3. The motor-pump shaft shall be centered in relation to the motor base, within .005 inches. The shaft run-out shall not exceed .003 inches.
4. The motor shaft shall equal or exceed the diameter as specified above at all points from immediately below the top bearing to the top of the impeller hub.
5. The bearing cap shall be provided to hold the bottom motor bearing in a fixed position. Bearing housings shall be provided with fittings for lubrication as well as purging old lubricant.
6. The motors shall be fitted with heavy lifting eyes, each capable of supporting entire weight of the pump and motor.

F. Controls

1. The control equipment shall be mounted in a NEMA Type I steel enclosure with a removable access cover. The circuit breakers, starter reset buttons, and control switches shall be operable without removing the access cover, for dead front operation. An elapsed time meter shall be provided for each pump.

2. A grounding type outlet shall be provided on the face of the cabinet for operation of 115V AC devices.
3. Thermal magnetic air circuit breakers shall be provided for branch disconnect service and short circuit protection of all motor control and auxiliary circuits.
4. Magnetic across-the-line starters with under-voltage release and overload coils for each phase shall be provided for each pump motor to give positive protection. Each single phase auxiliary motor shall be equipped with an over-current protection device in addition to the branch circuit breaker, or shall be impedance protected. All switches shall be labeled and a coated wiring diagram shall be provided.
5. To control the operation of the pumps with variations of sewage level in the wet well, an automatic pump and alarm controller, manufactured by Consolidated Electric Co., St. Paul, MN Model D152 with Model A1000 submersible level transducer shall be supplied and installed in the pump station control panel.
 - a. The D152 Pump and Alarm Controller shall provide full-range differential control of two pumps plus a High and Low level alarm in response to an electronic, level-proportional signal.
 - b. The controller shall operate on 120 VAC power. It shall incorporate a motor starter pilot circuit control contact for the operation of each of the two pumps. The abnormal level alarms (individually adjustable High and Low settings with a total of four set points) shall be outputted through a fail-safe load relay having a form C contact and an audible alarm driver circuit. The High and Low level alarms shall yield a common signal and cause the drop-out of a relay held in an energized state under normal level and AC power conditions.
 - c. The controller shall provide easy level indication on a 40-segment LED bar graph display. The adjustments of the control can be viewed or easily changed by means of the plug-in programming pins. Each of the eight adjustments shall have forty possible positions relating to the segments of the level display.
 - d. A manual override switch below the level display shall allow the actual output level signal to be overridden to confirm the performance of the controlled equipment. The switch shall be of the spring-return-to-center type with raise-auto-lower positions for use by operating personnel to simulate a false High or Low level and to observe the performance of the controlled pumps.
 - e. An automatic alternator shall be provided that transposes the

starting sequence of the two pumps on successive operations. The alternator shall have a front panel override switch allowing placement of the pumps in either fixed manual sequence or allows the automatic alternation.

- f. An alarm silence push-button on the face of the Controller shall cancel the audible alarm driver output circuit while the fail-safe alarm relay remains in the abnormal state until the condition has cleared.
- g. Provide four LED's across the top of the Controller to indicate the On/Off state of each of the pump and alarm control circuits.
- h. The submersible transducer shall be as manufactured by Consolidated Electric solid station Model A1000. The transducer shall sense the pressure caused by the height of liquid above its bottom face. The lower unit body shall be PVC. The bottom shall be a molded reinforced synthetic rubber diaphragm. The transducer pipe shall be mounted and have a sealed breather system. Transducer shall be mounted in the wet well with a stainless steel cable, connection hardware, and weight kit.
- i. A redundant float switch shall be supplied to supply a high wet well level closure to the alarm system should the D-152 controller fail.

- 6. The main disconnect and high water and low water alarm light shall be pedestal mounted next to the station by the contractor.
- 7. Provisions shall also be made for the pumps to operate in parallel should the level in the wet well continue to rise above the starting level of the low level pump. Should the level continue to rise to the standby pump level, the standby pump shall start and the high water alarm shall be activated. It shall also activate a remote 110V AC red alarm light. This alarm light shall be provided by the station manufacturer, for mounting as shown on the Contract Drawings.

G. Vacuum Priming Systems

- 1. A separate and independent priming system shall be furnished for each sewage pump, providing complete standby operation. Each priming system shall include a separate vacuum pump. Vacuum pump shall have corrosion resistant internal components. They shall each be capable of priming the sewage pump and suction piping in not greater than 60 seconds, under rated static suction lift conditions of 20 feet at mean sea level.

2. Each priming system shall be complete with vacuum pump, vacuum controls, solenoid valve, prime level sensing probe, and a float operated check valve installed in the system ahead of the vacuum pump to prevent liquid from entering the vacuum pump. The float operated check valve shall have a transparent body for visual inspection of the liquid level and shall be automatically drained when the vacuum pump shuts off.
3. The priming system shall automatically provide positive lubrication of the mechanical seal each time the sewage pump is primed. To prevent excessive stoppage due to grease accumulation, no passageway in the priming system through which sewage must pass, shall be smaller than the equivalent of 2-1/2" opening.

H. Ventilating Blower

1. A ventilating blower shall be provided capable of delivering 250 CFM in the equipment chamber. The blower shall be rigidly mounted and shall discharge to atmosphere as shown on the plans. It shall be controlled by a percentage timer.

I. Heater

1. This station shall be provided with a dual wattage forced air heater with built-in thermostat to control operation. The heater wattage shall be 1300/1500, 110V.

J. Sewage Piping And Valves

1. The discharge line from each pump shall be fitted with a clapper type check valve and plug valve. Size, location, and quantity of check valves and plug valves shall be as shown on the construction drawings. The check valves shall be of the spring-loaded type with external lever arm and an easily replaced resilient seat for added assurance against vacuum leaks. Check valves shall have stainless steel shaft with replaceable bronze shaft bushings and shall be sealed through the bearing with O-Rings, an operating wrench shall be provided for the plug valves. A pressure gauge shall be installed on the common pump discharge. The gauge shall be rated from 30" Hg to 30 psi and have bronze hardware with 1/4" NPT connections.
2. All protrusions through the floor plate shall be welded gas-tight to effect sealing between the equipment chamber and the wet well. In order to prevent corrosive, noxious fumes from entering the station, the lift station manufacturer shall extend the suction connection below the floor plate at the factory, so that field connections can be made without disturbing the gas-tight seals.
3. The discharge pipe shall exit the station as shown on the drawings.

2.3 FACTORY TESTS

- A. All components of the pump station shall be given an operational test of all equipment at the factory to check for excessive vibration, for leaks in all piping or seals, for correct operation of vacuum priming and control systems and all auxiliary equipment. Pumps shall take suction from a deep well, simulating actual service conditions. The control panel shall undergo a dry logic test and a full operational test with all systems operating.

2.4 SPARE PARTS

- A. A complete replacement pump shaft seal assembly. The spare seal shall be packed in a suitable container and shall include complete installation instructions. A spare volute gasket shall be provided.

2.5 EXTENDED SERVICE

The manufacturer of the pump station shall offer an optional one-year service for pump station parts and labor. Service contract details and costs shall be included in the equipment submittals. The Owner shall reserve the right to accept, modify or decline this service contract. The pump station manufacturer shall have complete service capabilities within 150 miles of the project location.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Installation of the pump chamber shall be done in accordance with the written instructions provided by the manufacturer.
- B. Five (5) copies of Operation and Maintenance manuals shall be furnished which will include parts list of components and complete service procedures and trouble shooting guide.

3.2 ELECTRICAL INSTALLATION

- A. All field wiring and electrical installation shall be performed by licensed electricians and shall be in full accordance with the standards of the national electric code and the national board of fire underwriters.
- B. All conduits shall have a minimum of 2' cover. All wiring shall be suitably grounded. All fittings and electrical boxes shall be made watertight.

PUMP SCHEDULE

General

Manufacturer's Model No.	Smith & Loveless _____ (to be determined based on hydraulics)
	Vacuum Prime Suction Lift
Quantity	2

Physical Characteristics

Pump Speed (RPM)	TBD
Suction Size	4"
Discharge Size	4"
Solids Size	3"
Seal Type	Mechanical
Seal Material	Carbon/Ceramic
Impeller Size	TBD
Stainless Steel Shaft (min.)	1-7/8" diameter

Pumping Characteristics

Condition #1	___ GPM @ ___' TDH
--------------	--------------------

Electrical Characteristics

Max. Motor Horsepower	TBD
Voltage	208 (to be confirmed)
Phase	3
Station Aux. and control KW load	3

Exhibit F

**City of Troy
Letter Approving Sewer Connection**



Daniel P. Crawley
Deputy Mayor

Office of the Deputy Mayor

Harry Tutunjian
Mayor

January 13, 2005

Mr. Thomas M. Murley, P.E.
Operating Manager
TOPATOMA LLC
32 Hialeah Drive
Troy, New York 12182

Re: Water and Sanitary Sewer Service for Property in the Town of Brunswick
- Brunswick Meadows PDD

Dear Mr. Murley,

Please accept this letter as conceptual confirmation of the City of Troy's willingness to provide water and sanitary sewage service for the above referenced project as discussed in your letter of December 22, 2005 to Mayor Harry J. Tutunjian.

The City of Troy has the estimated 40,800 gallons per day of water available for this project. The expected delivery would be at the 12-inch water main connection point near Hialeah Drive and Livingston Avenue (NYS Route 142), however some issues will need to be resolved within the Gurley Avenue Service zone for this delivery. The current water sales agreement with the Town of Brunswick will pertain as to price.

The City of Troy has an 8-inch sanitary sewer main that exists in Hialeah Drive that would be expected to handle the estimated 27,200 gallons per day of sanitary sewage to be generated from the Brunswick Meadows PDD project. Some flow monitoring and engineering analyses will need to be performed to verify capacity. The current agreement between the City of Troy and the Rensselaer County Sewer District No.1 for the rental of the City's sewers for transporting the sewage from the Town of Brunswick to the Rensselaer County Sewer District No.1 interceptor lines will pertain as to price. Schedule A of the agreement will need to be amended to allow acceptance of this sanitary flow.

Should you need any additional information, please contact me at (518) 270-4644.

Sincerely,

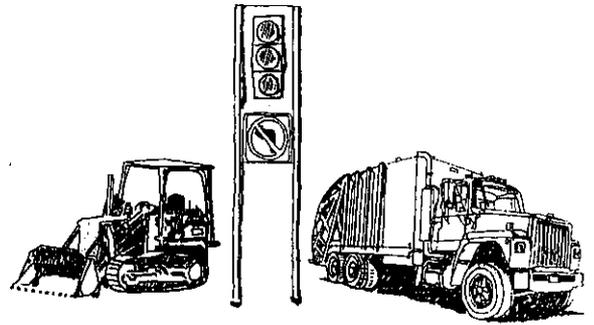
A handwritten signature in black ink, appearing to read "Daniel P. Crawley".

Daniel P. Crawley
Deputy Mayor

cc: Hon. Harry J. Tutunjian, Mayor
Neil Bonesteel, Dept of Public Utilities

THOMAS M. MURLEY, P.E.

32 HIALEAH DRIVE
TROY, NEW YORK 12182
(518) 235-8920



MUNICIPAL • CIVIL • TRAFFIC ENGINEERING

December 22, 2004

**Honorable Harry J. Tutunjian, Mayor
City of Troy
City Hall
Monument Square
Troy, NY 12180**

**Re: Water and sanitary sewer service for
property in the Town of Brunswick**

Dear Mayor Tutunjian:

The TOPATOMA LLC is in the initial planning stages of developing a new residential project for property that they own in the Town of Brunswick adjacent to the Troy City Line in the vicinity of Hialeah Drive and NYS Route 142.

This proposed 16.6 acres residential project would need to utilize City of Troy facilities as the source of water and for sanitary sewer service for the site. Presently, the City of Troy has an existing 12-inch water line and an 8-inch sanitary sewer line located at the intersection of Hialeah Drive and NYS Route 142 near the City of Troy and Town of Brunswick Boundary Line and approximately 600 feet from the proposed project site.

The TOPATOMA LLC would need to petition the Town of Brunswick's Town Board to establish a new water district and sanitary sewer district to service this proposed project. However, prior to petitioning the Town of Brunswick we would like to request approval from the City of Troy to provide the necessary water and sanitary sewer service for the proposed water district and the proposed sanitary sewer district.

Initial analysis, based upon my detailed knowledge, of the City of Troy water and sanitary sewer systems indicate that there is more than sufficient capacity to service this proposed project.

THOMAS M. MURLEY, P.E.

December 22, 2004
Honorable Harry J. Tutunjian, Mayor

Page 2 of 3

The total average daily water usage expected for this development is estimated as follows:

$$136 \text{ units} \times 2 \text{ persons / unit} \times 150 \text{ gallons per day / person} = 40,800 \text{ gallons per day (GPD)}$$

The average daily flow rate (average daily water usage /1440) = 28 GPM. The peak daily water usage would be estimated at two times the average daily water usage for a total of 81,600 GPD. The peak hourly flow rate can be estimated at four times the average daily usage or approximately 163,200 GPD or 6,800 GPH or approximately 113 GPM.

The anticipated water pressure at ground level throughout the project site is expected to range from 70 psi to 90 psi. This was calculated as follows:

Water pressure within the City of Troy system was checked previously on August 10, 2001 at 7:50 AM at the existing fire hydrant in Viewpointe Drive in the "Highpointe at Oakwood" residential development. This existing fire hydrant (approximate USGS elevation is 416 feet) is located approximately 120 feet southeast from the base of the existing 800,000-gallon Gurley Avenue water storage tank that services the area. The approximate USGS elevation at the base of the tank is 422 feet.

Mr. James Rivers, Superintendent of the City of Troy Department of Public Utilities conducted the pressure test and reported the following information:

- Water tank height - 100 feet
- Normal water tank operating levels - 80 feet to 95 feet (502 feet to 517 feet USGS elevation)
- Water level in tank at time of test (August 10, 2001 at 7:50 AM) - 92.8 feet (514.8 feet USGS elevation)
- Pumping system to fill tank - not being used at time of pressure test
- Water pressure at the existing fire hydrant located on Viewpointe Drive (416 feet USGS) was measured at 44 psi.

The USGS elevation of the site ranges from a high elevation of 340 feet near NYS Route 142 to a low elevation of 310 feet at the southerly end of the site. For every 2.31 feet in elevation the water pressure equals one (1) pound per square inch (psi). With the normal water tank operating level in the Gurley Avenue tank, the water pressure is calculated to range from 77 psi to 70 psi near the NYS Route 142 end of the site. The water pressure is estimated to range from 90 psi to 83 psi at the southerly end of the site.

THOMAS M. MURLEY, P.E.

December 22, 2004
Honorable Harry J. Tutunjian, Mayor

Page 3 of 3

A master water meter chamber would be constructed near the Troy City Line to register water usage. The water usage readings would then be used to develop water-billing charges for the proposed water district. Upon completion of construction and acceptance by the project engineer, the water system would be conveyed to the Town of Brunswick for future operation and maintenance.

A proposed new 8-inch diameter gravity sanitary sewer main, located along the south side of NYS Route 142, would transport the sanitary sewage from the site, approximately 600 feet westerly, to Hialeah Drive where it will discharge into the existing City of Troy 8-inch sanitary sewer. This existing City of Troy municipal sanitary sewerage system then continues, via gravity, westerly and northerly down Northern Drive. Eventually this City of Troy municipal sanitary sewerage system discharges into the Rensselaer County Sewer District No. 1 interceptor line near the Hudson River. This interceptor line then flows southerly through the City of Troy to the Rensselaer County Sewage Treatment Plant located near the Hudson River in North Greenbush for final treatment.

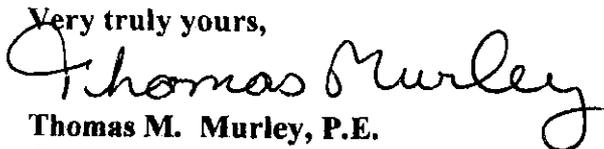
Anticipated average daily sanitary sewage flow from the proposed site is estimated as follows:

$136 \text{ units} \times 2 \text{ persons} / \text{unit} \times 100 \text{ gallons per day} / \text{person} = 27,200 \text{ gallons per day (GPD)}$
--

The existing contractual agreements between the City of Troy and the Town of Brunswick for water and sanitary sewerage service would be the mechanism to allow for this project to be developed utilizing the City of Troy facilities.

Your cooperation in this matter is greatly appreciated and should you have any questions or concerns, please call me at (518) 235-8920 Office / Fax or (518) 469-8589 Cell.

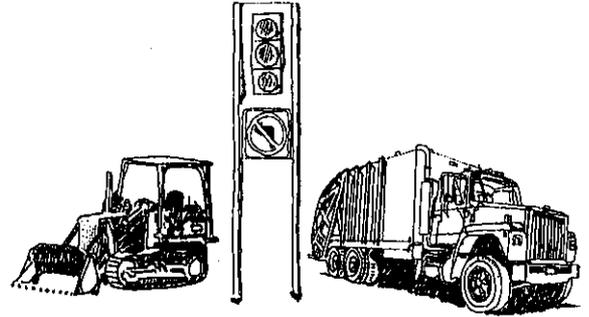
Very truly yours,



Thomas M. Murley, P.E.
Operating Manager
TOPATOMA LLC
32 Hialeah Drive
Troy, New York 12182

THOMAS M. MURLEY, P.E.

32 HIALEAH DRIVE
TROY, NEW YORK 12182
(518) 235-8920



MUNICIPAL • CIVIL • TRAFFIC ENGINEERING

January 7, 2005

Rensselaer County Sewer District No. 1
Mr. Gerald Moscinski, Director
Ned Pattison Rensselaer County Government Center
1600 Seventh Avenue
Troy, NY 12180

Re: Town of Brunswick
Brunswick Meadows PDD
Rensselaer County, State of New York

Dear Mr. Moscinski;

The TOPATOMA LLC is in the initial planning stages of developing a new residential condominium project to be named **Brunswick Meadows**, for property that they own in the Town of Brunswick adjacent to the Troy City Line in the vicinity of Hialeah Drive and NYS Route 142.

We would like to request approval from Rensselaer County Sewer District No. 1 to provide the necessary sanitary sewerage transportation and treatment service for this proposed residential project. This proposed 16.6-acre residential project would utilize City of Troy facilities as the source of water and for sanitary sewer service for the site. Presently, the City of Troy has an existing 12-inch water line and an 8-inch sanitary sewer line located at the intersection of Hialeah Drive and NYS Route 142 near the City of Troy and Town of Brunswick Boundary Line and approximately 600 feet from the proposed project site.

The TOPATOMA LLC will be petitioning the Town of Brunswick's Town Board to establish a new water district and sanitary sewer district to service this proposed project. Initial analysis of the City of Troy water and sanitary sewer systems indicate that there is more than sufficient capacity to service this proposed project.

The total average daily water usage for this development is estimated as follows:

$$136 \text{ units} \times 2 \text{ persons / unit} \times 150 \text{ gallons per day / person} = 40,800 \text{ gallons per day (GPD)}$$

The average daily flow rate (average daily water usage / 1440) = 28 GPM. The peak daily water usage would be estimated at two times the average daily water usage for a total of 81,600 GPD. The peak hourly flow rate can be estimated at four times the average daily usage or approximately 163,200 GPD or 6,800 GPH or approximately 113 GPM.

THOMAS M. MURLEY, P.E.

January 7, 2005
Mr. Gerald Moscinski, Director

Page 2

A master water meter chamber would be constructed near the Troy City Line to register total water usage. The water usage readings would then be used to develop water-billing charges for the proposed water district. Upon completion of construction and acceptance by the project engineer, the water system would be conveyed to the Town of Brunswick for future operation and maintenance. Individual water meters would be installed in each building to allow for the Town of Brunswick Water & Sewer Department to bill the customers of this development.

A proposed new 8-inch diameter gravity sanitary sewer main, located along the south side of NYS Route 142, would transport the sanitary sewage from the site, approximately 600 feet westerly, to Hialeah Drive where it will discharge into the existing City of Troy 8-inch sanitary sewer. This existing City of Troy municipal sanitary sewerage system then continues, via gravity, westerly and northerly down Northern Drive. Eventually this City of Troy municipal sanitary sewerage system discharges into the Rensselaer County Sewer District No. 1 interceptor line near the Hudson River. This interceptor line then flows southerly through the City of Troy to the Rensselaer County Sewage Treatment Plant located near the Hudson River in North Greenbush for final treatment.

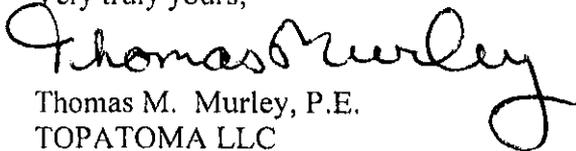
Anticipated average daily sanitary sewage flow from the proposed site is estimated as follows:

$136 \text{ units} \times 2 \text{ persons / unit} \times 100 \text{ gallons per day / person} = 27,200 \text{ gallons per day (GPD)}$
--

The existing contractual agreement between the City of Troy and the Town of Brunswick for water service would be the mechanism to allow for this project to be developed utilizing the City of Troy water facilities. The existing contractual agreement between the City of Troy and the Rensselaer County Sewer District No. 1 for sanitary sewerage transportation service would be the mechanism to allow for this project to be developed utilizing the City of Troy and Rensselaer County Sewer District No. 1 facilities.

Your cooperation in this matter is greatly appreciated and should you have any questions, please call me at (518) 235-8920 Office / Fax or (518) 469-8589 Cell.

Very truly yours,



Thomas M. Murley, P.E.
TOPATOMA LLC
32 Hialeah Drive
Troy, New York 12182

Exhibit G

**City of Troy
Sewer System Maps**

Exhibit H

**New York State
Office of State Comptroller
Special Improvement District Costs
For the Year 2005**

**AVERAGE ESTIMATED COSTS FOR COUNTY AND TOWN SPECIAL
IMPROVEMENT DISTRICTS**
(EFFECTIVE FOR PROCEEDINGS FOR WHICH A NOTICE OF HEARING IS PUBLISHED
FROM JANUARY 1, 2005 THROUGH DECEMBER 31, 2005)

The Comptroller's approval is not required if the "cost of the district or extension" to the "typical property" or, if different, the "typical one or two family home" as stated in the notice of hearing, is not above the average estimated cost thresholds listed below.

Costs include debt service, operation and maintenance and other charges related to the improvement in the first year following formation of the district or extension, or the increase and improvement of facilities (or, if greater, the first year in which both principal and interest and operation and maintenance will be paid). To ensure accurate calculations of estimated costs, towns and counties should not assume the receipt of federal or State aid in the absence of firm commitments from the appropriate agency. In addition, estimated borrowing costs should be based on the proposed maturity of the obligations and interest rate assumptions derived from market surveys or a letter of commitment. Charges imposed by other governmental entities, such as public authorities or other municipalities, should be included in the computation.

TOWN DISTRICTS

The following average estimated costs apply to town special district establishments, extensions, or increases in the maximum amount to be expended¹. Towns must use the total cost to the typical property or, if different, the typical one or two family home, exclusive of hook-up fees.

Sewer	\$ 573
Water	\$ 575

COUNTY DISTRICTS

The following average estimated cost applies to county special district establishments, extensions or increases in the maximum amount to be expended. Counties must use the total cost to the typical property or, if different, the typical one or two family home, exclusive of hook-up fees.

Sewer	\$280
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The following average estimated cost applies to county special district increases and improvements of facilities. Please note that this figure represents only the increased cost to the typical property as a result of the increase and improvement.

Sewer	\$ 9
-------	------

For all other types of district proceedings, there was insufficient data to calculate meaningful average estimated costs. Therefore, any proceedings not listed above will be subject to applicable requirements for obtaining the Comptroller's approval, irrespective of the cost to the typical property or home.

¹ Note that chapter 456 of the Laws of 2004 amended Town Law §§202-d and 209-h, with respect to proceedings pursuant to articles 12 and 12-A of the Town Law that authorize an increase in the maximum amount to be expended for the improvement in a district. Under the amendment, the Comptroller's approval, if required, may be given only after public hearing and, in case of article 12-A districts, permissive referendum requirements are met. Prior to the amendment, the public hearing and permissive procedures were undertaken after the Comptroller's approval.

This listing of the average estimated cost thresholds for Towns and Counties to use in determining whether approval of the State Comptroller is necessary for certain special district actions in the year 2005.

Certain "low cost" special districts, i.e., those which are at or below average estimated cost thresholds contained in the enclosure, do NOT require approval of the State Comptroller. However, unless no debt is being issued, a certified copy of the notice of hearing for the "low cost" district must be sent to our office. This copy must be sent, on or about the date of publication to the NYS Office of the State Comptroller, Division of Legal Services, 110 State Street, 14th Floor, Albany, NY 12236. It should be sent no later than 14 calendar days after publication. This notice enables us to accurately calculate future average estimated cost thresholds.

In addition, certified copies of resolutions or orders which finally establish or extend a district, and in the case of counties, which authorize an increase and improvement of facilities, are required to be filed with this Office regardless of whether the Comptroller's approval is required. Resolutions or orders that are subject to permissive referendum should not be filed until the period for filing a petition has passed, or if a petition is filed, a referendum has been held.

Our office stands ready to provide advisory services and assist you in identifying and resolving issues in connection with special district actions, even if the proceedings are not subject to our approval. You can obtain additional information and guidelines on submitting applications by contacting our office.

If you have questions or need more information, contact our Legal Division at (518) 474-3517 or our Division of Local Government Services at (518) 486-3149.

Exhibit I

Proposed Sewer District No. 7 Detailed Sewer System Specifications

Sanitary Sewer System Specifications

1. All installation, minimum distances, materials, construction and inspection requirements shall comply with all requirements as set forth by the RCHD and the Town of Brunswick.
2. All sanitary sewer mains and fittings shall be made of 8-inch diameter SDR 35 PVC material and shall be installed in accordance with the manufacturer recommendations to the line and grade as shown on the plans. Prior to final acceptance the alignment and grade shall be field verified in a manner acceptable to the design engineer or his representative. Results shall be certified by the design engineer or his representative and submitted to the RCHD and the Town of Brunswick.
3. In general, all sanitary sewer main depths are designed to receive sewage from basements via gravity flow from all fixtures and / or piping which discharge at or above an elevation approximately four (4) feet below grade at the building setback line.
4. All sanitary sewer mains and manholes shall be tested in accordance with the NYSDEC, RCHD and Town of Brunswick regulations under the supervision of the design engineer or his representative and shall be observed by representatives of the Town of Brunswick. The contractor shall furnish all necessary labor, equipment, water and materials, including watertight / airtight bulkheads for making the low pressure air tests as required. The contractor shall, at his own expense, make the necessary repairs or replacements required to reduce the leakage to within the specified limits, and the tests shall be repeated until the leakage requirements is met. Results shall be certified by the design engineer or his representative and submitted to the RCHD and the Town of Brunswick.
5. All sanitary sewer laterals and fittings shall be made of 6-inch diameter SDR 35 PVC material and shall be installed at a minimum slope of two (2) percent. Lateral connection to the sewer main shall be done with a SDR 35 PVC wye fitting (6-inch by 8-inch).
6. All sewer piping and fittings shall conform to the Standard Specifications for PVC pipe, ASTM designation D - 3034 latest revision and to the dimensions and tolerances of classification SDR - 35 (gravity pipe) with single gasket push-on joints.
7. Manholes shall be precast reinforced concrete (4,000 psi at 28 days) as manufactured by Fort Miller Company or equal in accordance with ASTM C-478-78 unless otherwise noted. All structures are to be approved by the Town of Brunswick prior to installation. Manhole inverts are to be installed with smooth poured concrete (2,500 psi) in the shape of a half pipe, sloping 1 inch per foot from wall to channel. Manholes are to be set upon 12 inches of crushed stone bedding. All manholes are to be watertight with entry and exit connections to be made with a resilient "rubber boot". Joints of the manhole sections shall be formed entirely of concrete employing a round, rubber gasket of butyl rope gasket material. When assembled the entire manhole joint shall form a self-centering and uniform watertight joint. The gasket shall be the sole element utilized in sealing the joint from either internal or external hydrostatic pressures.
8. Manhole frames and covers shall be Campbell No. 1009 or equal as approved by the Town of Brunswick.
9. Information and shop drawings for all materials used shall be submitted to and approved by the design engineer or his representative and the Town of Brunswick prior to the placement of any orders for said material.
10. All sanitary sewer pipes shall be bedded in a minimum of six (6) inches of crushed stone or pea stone and shall be backfilled and compacted with approximately twelve (12) inches of select sand material over the top of the pipe. The remainder of the trench shall be backfilled and compacted with acceptable material as ordered by the design engineer or his representative.
11. Trench backfill shall be placed in lifts not exceeding 12 inches in thickness prior to compaction and than compacted to 95% maximum dry density as determined by the Proctor method. Backfill shall be placed in such a manner as not to disturb the alignment of the pipe.
12. All sources of inflow and / or infiltration water such as ground water, surface runoff, sump pumps, footing drains, roof downspouts, etc. shall not be connected to the sanitary sewer system. There shall be no interconnection between the storm sewer and the sanitary sewer systems.
13. The sanitary sewage pump station and force main design, construction, installation, material standards, minimum separation distances and inspection requirements shall comply with the latest editions of:

- **New York State Department of Environmental Conservation (NYSDEC) publication - Design Standards for Waste Treatment Works**
 - **G.L.U.M.R.B. publication - Recommended Standards for Sewage Works**
 - **Rensselaer County Health Department Standards**
 - **Town of Brunswick - Rules and Regulations**
 - **Manufacturer's recommended standards and instructions for installation**
- 14. The sanitary sewer force main shall be 4-inch in diameter and shall be PVC SDR 21 pipe.**
- 15. The sanitary sewage pump station shall be Smith and Loveless or approved equal.**

Utility Notes

1. The contractor shall notify UFPO (1-800-962-7962) at least 48 hours prior to the start of construction for location and verification of all existing utilities shown or not shown on the plans. All existing utilities shown are approximate in size and location. The contractor shall be aware that other utilities may exist and may not be shown on the plans. Existing utility information shown on the plans has been compiled from various record sources and is subject to verification by the contractor before construction begins.
2. Potable water and sanitary sewer utilities shown hereon shall not be placed in operation until a "Permit To Operate" has been issued by the Rensselaer County Health Department (RCHD).
3. There shall be no changes on these plans in advance of, or during construction, without prior approval of the design engineer or his representative, the Rensselaer County Health Department and the Town of Brunswick.
4. Design, construction, installation, material standards, minimum separation distances and inspection requirements shall comply with the latest editions of:
 - New York State Department of Health (NYSDOH) publication - Recommended Standards of Water Works
 - New York State Department of Environmental Conservation (NYSDEC) publication - Design Standards for Waste Treatment Works
 - G.L.U.M.R.B. publication - Recommended Standards for Sewage Works
 - Rensselaer County Health Department Standards
 - Town of Brunswick - Rules and Regulations
 - Manufacturer's recommended standards and instructions for installation
5. Also see approved engineering reports, material specifications, construction details and special notes.
6. A New York State licensed professional engineer shall supervise and inspect the construction in accordance with the approved plans and supplemental data. He shall then certify in writing that the construction is in conformance with the approved plans. He shall prepare as-built plans / sketches with tie distances for all valves, bends, curb boxes, manhole structures and sanitary sewer lateral wyes. A copy shall be provided to the RCHD, the Town of Brunswick and the City of Troy. The contractor shall apply to the RCHD for a "Permit to Operate".
7. No water developed from roof downspouts, footing drains, sump pumps, cooling water, backwash drains, and etc. shall be connected to the sanitary sewer system. All such water shall be discharged to a positive drainage path or to a storm sewer.
8. The contractor shall take all necessary precautions to protect and preserve existing utilities. All utilities damaged or disturbed shall be replaced in kind by the contractor.
9. All new manholes constructed within paved areas shall have the top castings set flush with the existing pavement grade. In landscaped areas, the top of all valve boxes shall be set approximately 2 inches above grade.
10. The contractor shall install a temporary plug and mark the location of all sanitary sewer laterals and water line curb boxes, with a 2" x 4" pressure treated wood stake, for future connection. Sanitary sewer laterals wood stakes shall be marked with green paint and the water line curb boxes wood stakes with blue paint.
11. The contractor shall backfill all excavations to existing grade at the end of each workday unless authorized differently by the design engineer or his representative, in which case a security barrier shall be installed to protect the excavation from being entered.
12. The contractor shall coordinate with all utility owners to provide temporary support to utility poles as required.
13. Service lateral locations for the various utilities that are shown on the plans are approximate and are to be used for estimating purposes only. Contractor shall coordinate the exact locations with the design engineer or his representative prior to installation.
14. Existing roadways are not to be open cut for the installation of utilities unless prior authorization from the agency having jurisdiction has been given.

General Construction Notes

1. The Engineer's Report for the Brunswick Meadows project dated January 13, 2005 and prepared by Thomas M. Murley, P.E. shall be incorporated as part of these specifications and shall be referenced to during the construction of this project.
2. All permits required for the work on-site shall be obtained prior to commencing construction.
3. All elevations and contours shown are on the USGS elevation base. First floor elevations shown for the residential units are suggested finished floor elevations. The design engineer or his representative must approve of all alterations to these elevations.
4. The contractor shall comply with all construction inspection requirements of all agencies. The contractor shall notify the appropriate agency, at least 48 hours prior to all required inspections.
5. The contractor shall verify all dimensions, utility inverts and contours and report any discrepancies to the design engineer or his representative prior to start of construction. The contractor's work shall not vary from the plans without the expressed approval of the design engineer or his representative.
6. The contractor shall be responsible for providing all field layouts. The contractor shall take ties to all utility connections and provide marked-up as-built plans for all utilities. Contractor shall provide the invert elevations and horizontal ties of all capped laterals at their termination point.
7. The contractor shall cooperate with any and all contractors / agencies performing work on the project site during the performance of this work.
8. All proposed areas of construction within the clearing limits shall be stripped of all organic soils and vegetation. All topsoil in grading areas shall be stripped and stockpiled for future use on the site. The contractor shall exercise extreme care during clearing and construction operations to avoid performing any work outside of the property lines and / or easement areas. The pruning and trimming of existing trees outside of the clearing limits shall only take place at the direction of the design engineer or his representative. The intent is to remove dead and / or broken branches and to clear limbs to a proper height where necessary. The contractor shall install appropriate barriers to prevent damage to any trees within the clearing limits that are marked to remain intact by the design engineer or his representative.
9. All subgrade areas shall be compacted with a minimum 10 static weight vibratory roller or equal. All soft areas shall be removed and replaced with controlled fill as approved by the design engineer or his representative. The design engineer or his representative shall evaluate its effectiveness and make recommendations for stabilization. The design engineer or his representative shall witness all compaction of fill.
10. Prior to the placing of the subbase material the design engineer or his representative shall inspect the compacted subgrade for approval. Contractor shall then place and compact the gravel subbase, in 6-inch lifts, to the grades as shown on the plans. All depressions and low areas shall be filled with gravel and re-compacted as needed.
11. Asphalt concrete base course shall not be placed until all utilities are installed, and proof of proper installation is forwarded to the design engineer or his representative.
12. Asphalt concrete base and wearing courses shall be placed and rolled in accordance with NYSDOT Standard Specifications.
13. Construction entrance roadbed shall be cleared of all vegetation, roots and other objectionable material. Contractor shall place 12" of course crushed stone or asphalt pavement evenly over the full width of the construction entrance for approximately 50 feet deep into the property. Seed all adjoining disturbed areas.
14. The contractor shall be responsible for keeping existing public highways / streets and adjacent lands free of dust, debris, soil and other material which may accumulate due to construction related to the site. The contractor shall be responsible for dust control as required or as directed by the design engineer or his representative. The contractor shall restore lawns, driveways, culverts, signs and other public or private property damaged or removed to at least as good a condition as before being disturbed, as determined by the design engineer or his representative. Any damaged trees, shrubs and / or hedges shall be replaced at the contractor's expense.
15. The contractor shall comply with the New York State Manual of Uniform Traffic Control Devices, latest edition, for all work performed in existing right-of-ways. When traffic is to be

- maintained on an unpaved surface, a minimum of 6 inches of subbase material shall first be placed and compacted, prior to traffic. Excavation within the existing travel lanes shall be covered with steel plates, at the end of the workday, if work operation is not completed.
16. The contractor shall not store any material, equipment or vehicles on existing right-of-ways during hours that the contractor is not working. The contractor shall not create any hazardous conditions for the existing right-of-ways.
 17. The contractor shall protect existing property line and right-of-way monumentation. Any monumentation disturbed or destroyed, as determined by the design engineer or his representative, shall be replaced at the contractor's expense under the supervision of a New York State licensed land surveyor.
 18. The contractor shall be responsible to conduct exploratory test pits as may be required to determine underground conditions and / or utilities.
 19. All trench excavation and any required sheeting and shoring shall be done in accordance with the latest revisions of New York State Industrial Code Rules 23 and OSHA regulations for construction. Sheet piling plans / procedures shall be designed and sealed by a New York State licensed professional engineer.
 20. Contractor shall be responsible for dewatering and maintenance of surface drainage during the course of the work. Flow shall be maintained for all existing utilities, culverts and ditches.
 21. The contractor shall exercise caution when operating construction equipment over new utility trenches. The contractor shall be responsible for maintaining a minimum of 2 feet of cover or more, if required, over any utility line subject to construction traffic.
 22. New York State Education Law: Section 7209, Subdivision 2 states "To all specifications, plans, plats and reports to which the seal of a professional engineer or land surveyor has been applied, there shall be applied a stamp with appropriate warning that it is a violation of this law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor, to alter any item in any way." Unauthorized alterations or additions to these plans is a violation of section 7209, subdivision 2, of the New York State Education Law. Copies of these plans not bearing an original ink or embossed seal, registration number 53,341, shall not be considered a true and valid copy.

Exhibit J

**Rensselaer County Sewer District No.1
&
City of Troy**

Sewer Rental Agreement



Rensselaer County Sewer District No. 1

Gerard S Moscinski, P.E. - Administrative Director

The primary function of the Rensselaer County Sewer District is to protect the Hudson River by providing secondary treatment to the wastewater before it is discharged. Secondary treatment involves removal of 85% of both the Carbonaceous Biochemical Oxygen 5-Day Demand and Total Suspended Solids from the influent wastewater. Our secondary function is to generate revenue by individually billing all users (residential, commercial and industrial) of the District's services. The revenue is used to pay for annual operation and maintenance costs of outstanding debt service. The Sewer District's facilities were constructed in the mid 70's and began operation in 1976.

A major source of wastewater comes from individual homes. All water used in a home that enters the drain becomes wastewater and requires secondary treatment. The wastewater enters each individual community's sewer system before entering RCSD's system of interceptor sewers, pumping stations and force mains that transport the wastewater to the Treatment Plant.

The wastewater treatment plant operates 24 hours a day, 7 days a week, 365 days a year. Our facility provides an important environmental function. The treatment plant operations and laboratory testing make sure that adequate treatment of the wastewater is provided and that the discharge into the Hudson River meets the conditions of the State Pollution Discharge Elimination System (SPDES) permit. All District Operations are regulated by the Environmental Protection Agency and the New York State Department of Environmental Conservation.

The second function is performed in the Administration Building. Our office staff is available Monday through Friday from 7:30 a.m. to 4:00 p.m. to assist customers. You can reach them at 283-2235. The main function consists of billing the residents through sewer rents for use of the services. Residences connected to the sewers in the Towns of Brunswick, North Greenbush and Schaghticoke are billed once in January and once in July. The Town of Sand Lake customers are also billed in January and July, but they are billed for the County and Towns sewer rents all on one bill. Customers who live in the City of Rensselaer are also billed twice a year, but at various times other than January and July due to the large number of accounts. City of Troy customers pay the County Sewer Rent charges with their Troy water bill.

General Information:

Phone: (518) 283-2235

Location: 85 Bloomingrove Drive, Troy, NY

CITY OF TROY and
RENSSELAER COUTNY SEWER DISTRICT # 1
SEWER RENTAL AGREEMENT

THIS AGREEMENT, dated the 3rd day of March 2006, by and between:

THE CITY OF TROY, a municipal corporation duly organized and existing under the laws of the State of New York, with its principal office located at City Hall, 1 Monument Square, Troy, New York 12180, hereinafter sometimes referred to as CITY; and

RENSSELAER COUNTY SEWER DISTRICT NO. 1, a county sewer district organized and existing under the laws of the State of New York as an agency of Rensselaer County, with its principal office located at the Foot of Water Street in the Town of North Greenbush and its post office address at the Ned Pattison Rensselaer County Government Center Troy, New York 12180, hereinafter sometimes called SEWER DISTRICT.

WITNESSETH:

WHEREAS, pursuant to Article 5-A of the County Law of the State of New York there has been established Rensselaer County Sewer District No. 1 responsible for the construction, operation and maintenance of a sewage interceptor system, pumping stations, waste water treatment plant and its appurtenances, and has issued general obligation bonds for the purpose of paying the construction cost thereof; and

WHEREAS, certain city sewers are utilized by the Sewer District to convey sewage from portions of the Towns of Brunswick, Schaghticoke and North Greenbush as well as sewage of the City of Troy to the Sewer District's interceptor system and to discharge into the same; and

WHEREAS, the use of said sewers by said towns and the City of Troy will require expenditures for the supervision, maintenance and repair thereof, and

WHEREAS, formerly there existed a contract dated November 1995 between the Sewer District and the City of Troy which expired in 2005,

NOW, THEREFORE, in consideration of the premises and the covenants hereinafter set forth and other good and valuable considerations given by each party to the other, it is hereby covenanted and agreed by the parties as follows:

1. The City shall at all times during the term of this agreement allow the use of all sewers set forth in Schedule A, hereunto annexed by the Sewer District to collect and convey all present and future sewage by all users from the Towns within said District into the City sewer system for reconveyance into the interceptor system and treatment facilities of the Sewer District provided the existing City system is capable of accepting such sewage in accordance with generally accepted engineering standards. If the City system shall become incapable of accepting the volume of sewage of the contributing towns so as to require new construction to accommodate such flow, then and in that event the respective Towns and/or the developer shall bear the cost of new construction necessary to accommodate and convey the sewage of the contributing towns. The City of Troy shall not be responsible for any costs associated with increasing capacity of the City system required for use by the Towns. Plans for such new construction, if within City limits, shall be submitted first to the City for approval and the base rental hereinafter provided shall abate proportionately. If the parties are unable

to agree, all questions and disputes shall be submitted to arbitration as provided in paragraph 9.

2. The City shall keep its sewer system in proper working order for all such purposes.

3. The term of this agreement shall be for a period of three (3) years, commencing as of the date of this agreement.

4. In consideration of the use by all present and future town users of the Sewer District, the District shall pay to the City an annual rental and maintenance charge in annual installments, beginning on the first day of April 2006 and thereafter each proceeding March 1 as follows:

2006 - \$104,000.00

2007 - \$114,000.00

2008 - \$121,000.00

5. In the event payments are received more than thirty (30) days after the due date, the Sewer District shall pay to the City a late charge. Said late charge shall be computed at the current prime rate plus one percent (1%) for the first forty-five (45) days after the due date and two percent (2%) over prime for any payments due and owing after forty-five (45) days from the due date. The prime rate shall further be described as the prime rate in effect as of the date of the billings and as it is established or changed from time to time by Citibank (N.Y.S.) N.A. In no event however shall the interest rate charged be less than 5.5%.

6. Upon payment of the rent and maintenance fees by the Sewer District as herein provided, no charge or fee shall be imposed, assessed or collected by the City from the member towns, except for the maintenance and repair of member town's sewers within Troy or of the maintenance and repair of force mains within Troy.

7. If any term or provision of this agreement or the application thereof to any person, municipality or circumstance shall to any extent be invalid or unenforceable, the remainder of this agreement shall not be affected thereby except that this agreement shall at the option of the Sewer District terminate upon the happening of:

(a) enactment of any statute, law, rule, mandate or other regulation, promulgated through any state or federal agency, whereby the use by the Sewer District of the City sewer system shall be prohibited, prescribed or otherwise restricted; or

(b) the construction, lease or use by the Sewer District of a sewage conveying system separate and apart from the system of the City.

8. Any notices necessary or convenient to be served by either of the parties hereto upon the other shall be in writing, signed by the party serving the same, deposited in registered or certified United States mail, return receipt requested, postage prepaid, and (a) if intended for the City shall be addressed to:

Mayor, City of Troy
City Hall
1 Monument Square
Troy, NY 12180

City of Troy Corporation Counsel
City Hall
1 Monument Square
Troy, NY 12180

CWPO, Department of Public Utilities
25 Water Plant Road
Troy, NY 12182

and (b) if intended for the Sewer District shall be addressed to:

The Administrative Director
Rensselaer County Sewer District No. 1
Ned Pattison Rensselaer County Government Center
Troy, NY 12180

Clerk of the Rensselaer County Legislature
Ned Pattison Rensselaer County Government Center
Troy, NY 12180

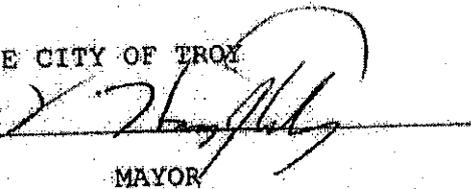
Rensselaer County Attorney
Ned Pattison Rensselaer County Government Center
Troy, NY 12180

or to such other address as either party may have furnished to the other in writing for the services of notice.

9. Any disagreement between the parties with respect to interpretation or application of this agreement or the obligations of the parties hereunder shall be determined by arbitration. Arbitration shall be conducted upon request of either party before three (3) arbitrators (unless both parties shall agree to one (1) arbitrator) designated by the American Arbitration Association in proceedings heard and conducted in accordance with the rules of such Association. The arbitrators so designated and acting pursuant hereto shall make an award in strict conformity with the rules of the American Arbitration Association and shall have no power to depart from or change any of the provisions thereof. Expenses of such proceedings conducted hereunder shall be borne equally by the parties and conducted in the Albany Capital District area. The decision of the American Arbitration Association shall be final and binding upon the parties in all respects. Judgment upon the award rendered in any such arbitration proceeding may be entered in New York State Supreme Court for the Third Judicial District and subject to confirmation, vacation or modification only in accordance with Article 75 CPLR.

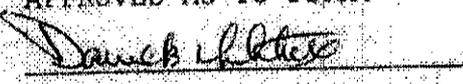
IN WITNESS WHEREOF, this agreement has been executed by each party by its duly authorized officer as of the day and year first above written.

THE CITY OF TROY

BY 

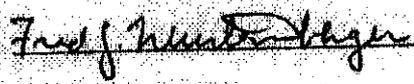
MAYOR

APPROVED AS TO FORM:



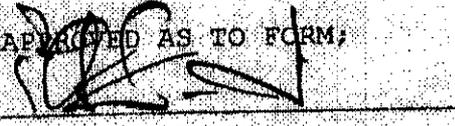
CORPORATION COUNSEL

RENSSELAER COUNTY SEWER DISTRICT NO. 1

BY 

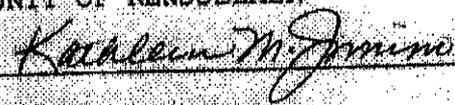
CHAIRMAN

APPROVED AS TO FORM:

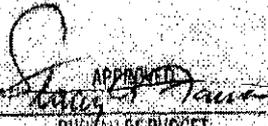


COUNTY ATTORNEY

COUNTY OF RENSSÉLAER

BY 

COUNTY EXECUTIVE


APPROVED
BUREAU OF BUDGET

SCHEDULE A

CITY OF TROY SEWERS

RENTAL AGREEMENT

- 1) River Rd. (320'-30'), Roosevelt Ave. (1550'-24" & 21"). New Turnpike Rd. (500'-18").
- 2) Hoosick St. from Hudson River to 10th St. (2000'-60" & 48")
Hoosick St. from 10th to beyond No. Lake Ave (6000'-48" & 12")
Oakwood Ave. from Hoosick St. to Frear Park Ent. (3300'-2'x4'±)
Frear Park from Oakwood Ave. to No. Lake Ave. (3800'-60')
- 3) Campbell Ave. Outfall sewer from Hudson River to S.E. city line at Pawling Ave. (14,700'-63" to 8")
Mountainview Ave. from Pawling Ave. to city line (600'-8").
- 4) *River Rd. from Roosevelt Ave. to city line (550'-24")
- 5) *124th St. from 2nd Ave. To 6th Ave. (1350'-2'x3' to 20")
6th Ave. from 124th to Northern Dr. (700'-18")
Northern Drive from 6th Ave. to Oil Mill Hill Rd. (2000'-12" & 10")
Oil Mill Hill Rd. to water plant entrance (2500'-10" & 8"), Oil Mill Road - water plant entrance to City line (Approx. 500' to be installed by developer).
Northern Drive from Oil Mill Hill Rd. to Leverage Rd. (4600'-10" & 8")
Leverage Rd. (500'-8") privately owned, future city ownership expected,
Oakwood Ave - from Northern Drive to Biscayne Blvd (Approx. 500' 8"), Biscayne Blvd - from Oakwood Ave to Hialeah Drive (Approx. 1000' 8"), Hialeah Drive - from Biscayne Blvd to Livingston Ave (Approx. 1000' 8").
- 6) *Liberty St., Ferry St. & Congress St. to Brunswick Rd. & Pawling (6830' 72" to 4' X 2-1/2')
Brunswick Rd. From Pawling Ave. to Orchard Ave. (2100'-15")
- 7) *Madison St., Canal Ave., Spring Ave & Linden Ave. (7900'-2 1/2'x4'±)
Pawling Ave. from Linden Ave. to Pinewoods Ave. (1400'-2'x3-1/2')
Pinewoods Ave. from Pawling to Elmgrove Ave. (2600'-2'x3-1/2'),
force main to be installed on Pinewoods Ave. from City Line to Maple Ave. to be owned by developer or Town of Brunswick.

* Sewers which may be used by future outlying town users are included in this rental agreement.

NOTE: Length and size of sewers are approximate.
Sewers added to the Agreement in 2006 are bolded.

Exhibit K

Annual Tax Revenue Projections

Brunswick Meadows

Annual Tax Revenue Projections

Full Market Value: 136 units x \$150,000 / unit = \$20,400,000

2005 Equalization Rate: 34.60% (Year 2005)

Total Assessed Valuation: \$20,400,000 x 34.60% = \$7,058,400

Projected Tax Revenues

Using Tax Rates For Year 2005 and 2004-05 School

Town of Brunswick:

General Fund \$ 3.018489 / \$1000 x \$7,058,400= \$ 21,305.70

Highway Fund \$ 4.541630 / \$1000 x \$7,058,400= \$ 32,056.64

Speigletown Fire Dept: \$ 5.682177 / \$1000 x \$7,058,400= \$ 40,107.08

Rensselaer County: \$19.171418 / \$1000 x \$7,058,400= \$ 135,319.54

Lansingburgh School: \$66.604310 / \$1000 x \$7,058,400= \$ 470,119.86

Total Tax Rate = \$ 99.018024 / \$1000

Total Annual Tax Revenue: \$698,908.82

Map No. 1

**Proposed Sewer District No. 7
District Boundary Map**

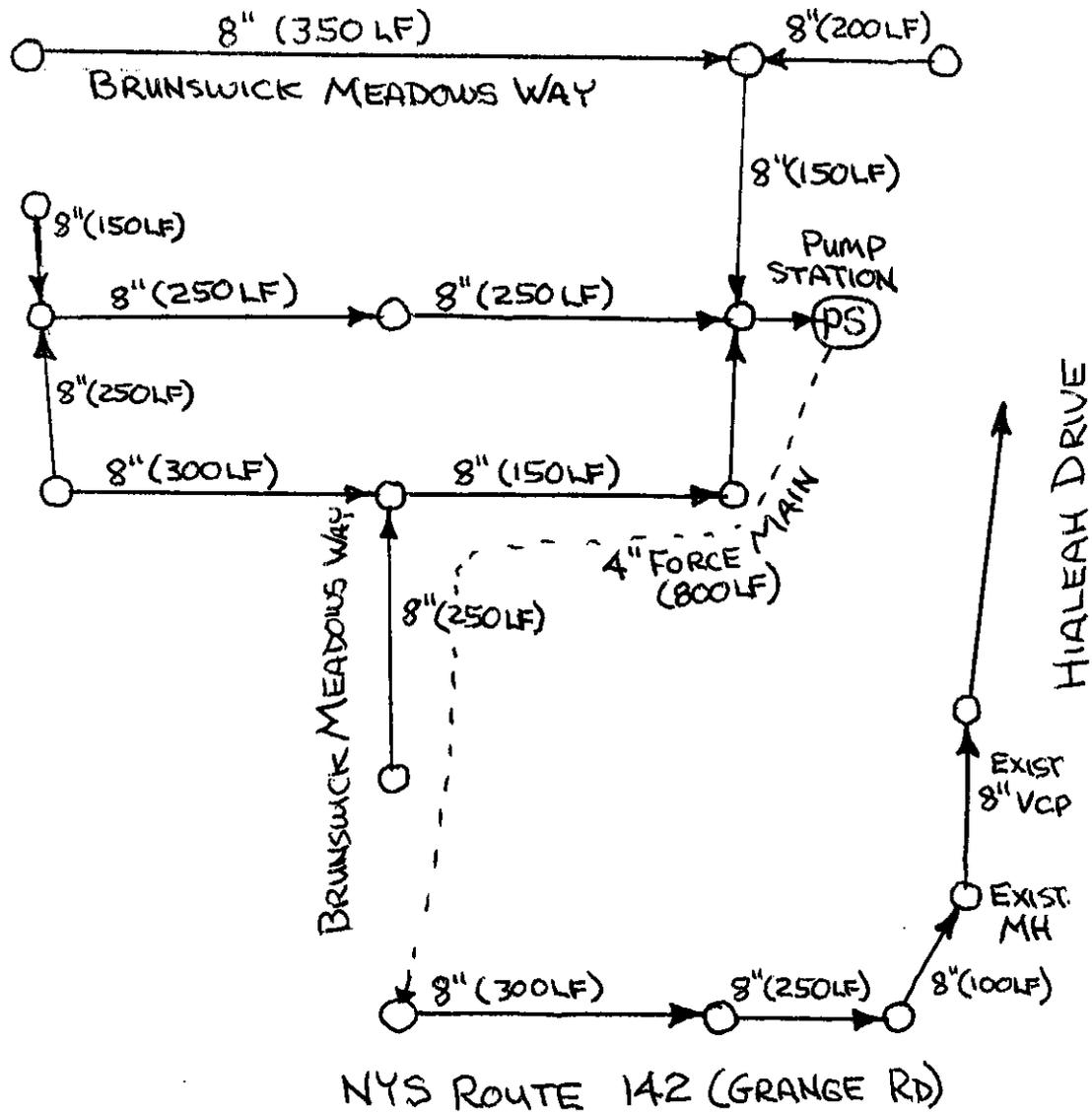
Map No. 2

**Proposed Sewer District No. 7
General Plan**

Town of Brunswick
Rensselaer County, New York

Proposed Sewer District No. 7

General Plan



"Proposed Sewer District No. 7 - General Plan Map"
Dated January 13, 2005
Prepared by Thomas M. Murley, P.E.