Appendix A
Engineer's Report

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Brunswick Meadows

Residential Condominium Community

Town of Brunswick
County of Rensselaer
State of New York

March 22, 2007

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Introduction

The purpose of this engineering 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 grass / brush land over 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. See Exhibit C for a partial copy of the Town of Brunswick Zoning Map for this site.

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, see attached Exhibit D.

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 roads, the preservation of existing natural resources and a development pattern consistent with community needs and standards.

The infrastructure designs presented in this report are 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 two-story building. The overall density of the proposed project will be approximately 6.78 units 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 E.

The Brunswick Meadows Homeowners Association will be formed in accordance with the rules and regulations of New York State. This homeowners association will consist of all of the residents and property owners of the Brunswick Meadows community. The homeowners association will be responsible for the operation and maintenance of the entire site with the exception of the water and sanitary sewer systems that will be maintained by the Town of Brunswick.

The infrastructure included as part of this project are sanitary collection sewers, sanitary sewerage pump station, sanitary sewerage force main, stormwater collection sewers, stormwater management detention facility, water distribution main, master water meter chamber, fire hydrants, water valves, service connections to each building, open space walking trails, parking areas and private roadways, 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 after completion and acceptance by the Town Engineer. The Brunswick Meadows Homeowners Association will maintain the roadways, parking areas, walking trails 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 its infrastructure will be paid for by the developer.

Traffic and Parking

A new private street, known as Brunswick Meadows Way, will be constructed with its entrance located off of NYS Route 142, approximately 600 feet east of Hialeah Drive. Brunswick Meadows Way is proposed to be a private street, approximately 2,000 feet in length, which will provide vehicular access to the site. The Brunswick Meadows Homeowners Association will be responsible for the maintenance and operation of Brunswick Meadows Way. The most recent NYSDOT traffic counts for this section of NYS Route 142 were collected in 2003 and indicate that the average annual daily traffic (AADT) was 5,444 vehicle trips. Part of the *NYSDOT 2003 Traffic Volume Report* is included in Exhibit F.

The Brunswick Meadows community will be accessed from NYS Route 142 via a New York State Department of Transportation (NYSDOT) approved entranceway. This entranceway, to be known as Brunswick Meadows Way, will be constructed after a NYSDOT permit has been issued to the developer. The entrance way will be constructed of asphalt concrete pavement. Significant low level landscaping will be planted on both sides of the entranceway along with a project identification sign to make for an attractive appearance to this residential condominium community. Appropriate private ornamental street lighting will be installed to allow for a safe access for vehicular traffic entering the site.

Traffic control for this entranceway will be regulated in accordance with the *NYSDOT Manual of Uniform Traffic Control Devices (MUTCD).* A 30-inch stop sign, made with high intensity reflective sheeting on an aluminum blank, will be installed for traffic exiting from the site on to NYS Route 142. A 12-inch white pavement marking stop line will be painted at the stop sign location at the entranceway. A double yellow pavement marking lines and a raised landscape median will separate the entering and exiting lanes to the site, directly south of NYS Route 142.

The driver of a vehicle approaching or departing from an intersection should have an unobstructed view of the intersection, including any traffic control devices, and sufficient lengths along the intersecting highway to permit the driver to anticipate and avoid potential collisions. These unobstructed views form triangular areas known as sight triangles.

A sight distant study was performed in accordance with the American Association of State Highway and Transportation Officials (AASHTO) publication *"A Policy on Geometric Design of Highways and Streets (Green Book), 4th Edition (2001)".* Sight distance is the length of roadway ahead that is visible to the driver. The minimum sight distance available on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed of the roadway to stop before reaching a stationary object in its path. Although greater length is desirable, sight distance at every point along the highway should be at least that required for a below-average operator or vehicle to stop in this distance. Stopping sight distance is the sum of two

distances: the distance traversed by the vehicle from the instant the driver sights an object necessitating a stop to the instant the brakes are applied and the distance required to stop the vehicle from the instant brake application begins. These are referred to as brake reaction distance and braking distance, respectively.

The required stopping sight distant for vehicles traveling between 48 and 55 mph (55 mph design speed) along NYS Route 142 is 495 feet. The actual sight distant from the intersection of NYS Route 142 and Brunswick Meadows Way measured to the left (west) was 850 feet and 657 feet measured to the right (east). *"A Policy on Geometric Design of Highways and Streets"* Table 4.4 lists minimum recommended stopping sight distances based on vehicle design speed and the sum of reaction distance and braking distance.

***Table 4.4.* Minimum Required Stopping Sight Distances**

Vehicle Design Speed (mph)	Reaction Distance (feet)	Braking Distance (feet)	Summed Distance (feet)	Stopping Sight Distance (feet)
15	55.1	21.6	76.7	80
20	73.5	38.4	111.9	115
25	91.9	60.0	151.9	155
30	110.3	86.0	196.7	200
35	128.6	117.6	246.2	250
40	147.0	153.6	300.6	305
45	165.4	194.4	359.8	360
50	183.8	240.0	423.8	425
55	202.1	290.3	492.4	495

Note: Distances are from the 2001 AASHTO *Green Book* and are for dry conditions.

Turning left from Brunswick Meadows Way - The left-turn maneuver requires first clearing the traffic on the left and then entering the traffic stream on the right. The required sight distance for this maneuver is affected by the amount of time it takes the stopped vehicle to turn left clearing traffic and reach average running speed without affecting the speed of the approaching vehicle. Table 4.3 lists the recommended sight distances for this maneuver, based on design speeds, at 610 feet.

Turning right from Brunswick Meadows Way - The right turn maneuver must have sufficient sight distance to permit entrance onto the intersecting roadway and then accelerate to the posted speed limit without being overtaken by approaching vehicles. *"A Policy on Geometric Design of Highways and Streets"* Table 4.3 lists the

minimum recommended sight distances for this maneuver based on vehicle design speeds at 530 feet.

Table 4.3. **Minimum Recommended Sight Distances Based on Vehicle Maneuver**

Vehicle Design Speed (mph)	Stopping Sight Distance for Left-Turn Maneuver (feet)	Stopping Sight Distance for Crossover and Right-Turn Maneuvers (feet)
15	170	145
20	225	195
25	280	240
30	335	290
35	390	335
40	445	385
45	500	430
50	555	480
55	610	530

Note: Distances are from the 2001 AASTHO *Green Book* and are for two-lane roadways.

Based upon this study, sight distance, in both directions, for traffic exiting and entering the site is more than adequate for safe turning movements to be made at this new intersection. Traffic entering Brunswick Meadows Way by making a left turn should not experience any delay problems due to the significant gaps in traffic flow for vehicles traveling eastbound on NYS Route 142. Sufficient braking sight distance is also available for vehicles traveling westbound to stop for this traffic turning left into Brunswick Meadows Way.

The amount of traffic to be generated by the Brunswick Meadows project is estimated by using the *Institute of Transportation Engineers (ITE)* factor for traffic volume generated for various land uses. The term used to describe this factor is "trip generation" and it is based upon vehicle trips per dwelling unit. A trip is defined as "a single or one direction vehicle movement with either the origin or destination inside the project site".

Based upon the Institute of Transportation Engineers *ITE Trip Generation, 7th Edition* for Condominium / Townhouses (Land Use Code 230) Housing, the Brunswick Meadows project with 124 units would generate approximately 10 trips (17%) entering and 46 trips (83%) exiting during the morning peak hour (0.44 trips/unit factor). During the afternoon peak hour (0.52 trips/unit factor) there would be approximately 44 (67%) entering trips and 22 (33%) exiting trips for Brunswick Meadows Way. The peak hour volumes are expressed in vehicle trips per

hour. The average weekday vehicle trip ends (5.86 trips/unit factor) for this 124-unit project are 727 vehicle trips per day. This works out to a modest 13.3 % increase in traffic over the 5,444 vehicle trips per day on NYS Route 142. The weekday vehicle trip ends are expressed in vehicle trips per day, i.e.: the 24-hour two-way driveway volume. The ITE Trip Generation Rates are included in Exhibit F.

Traffic volumes from the site are of a very low volume and are not sufficient to warrant a traffic signal for this new intersection as per NYSDOT regulations.

Two off-street parking spaces will be provided for each residential unit. One space will be in the attached garage and the second space will be in the paved driveway for a total of 248 spaces. In addition, 90 unassigned off-street parking spaces will be provided through out the site (in parking lots and driveways) for visitors and guests for a total 338 parking spaces.

These parking spaces will be landscaped and screened to provide an attractive setting for the project. A proposed covered, lighted mail pick-up area will be constructed on Brunswick Meadows Way. Residents will be able to pick up their mail at this location as they enter the site.

Topography

Overall, approximately 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 Renselaer 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. A portion of this report is included in Exhibit G. The project site exists of some active and inactive farm fields with some brushy overgrowth, wooded areas, a running stream and grass lawns.

The Brunswick Meadows soils, as found from the north portion of the site (NYS Route 142) to the south end of the site (along the stream), are classified as follows:

- **BnC – Bernardston – Nassau complex, rolling.**
- **SwA – Shaker very fine sandy loam, sandy substratum, 0 to 4 percent slopes.**
- **ElB – Elmridge very fine sandy loam, 3 to 8 percent slopes.**
- **HuE – Hudson silt loam, steep.**
- **FlA – 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 along with several test pits (10 feet deep) dug on December 30, 2004 with a rubber tired backhoe, 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 test pits dug on December 30, 2004 through out the site indicated that the predominate soil type is a sandy loam and gravelly material. A very granular sandy material was observed in the test pits dug along the southern portion of 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 if 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 during final design of the building structures.

A wetland delineation research 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 wetland vegetation buffer land adjacent to the stream as it traverses through the site in an east / west direction. This existing wetland will be preserved "as-is" for runoff impoundment. 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.

See attached Exhibit H. 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".

See Exhibit I for the detailed specifications for these erosion control methods.

Storm Water Management

The Brunswick Meadows proposed storm water management system will be designed in accordance with NYSDEC guidelines and will not adversely impact storm water runoff to any downstream areas. The development of on-site storm water management will include inlet collection, transport, water quality treatment and peak runoff detention prior to discharge.

A *State Pollutant Discharge Elimination (SPDES) General Permit for Storm Water Discharges from Construction Activities Permit No. GP-02-01* will be obtained from NYSDEC because the project will have land disturbance greater than one acre. A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented to prevent any impacts to water quality of surrounding water bodies during construction. The General Permit will identify the components that must be included in the SWPPP and the requirements and practices that must be implemented to prevent any impacts to water quality. See Exhibit I.

The project site consists of approximately 18.3 acres. The drainage flow patterns for the site are shown on the Watershed Map. See attached Exhibit J.

The proposed storm water management systems for this project will consist of pre-cast concrete drop inlets with heavy duty H-20 traffic loading cast iron frames and covers located throughout the paved areas to collect storm water drainage. These drop inlets will be connected by 12-inch through 24-inch HDPE pipes along Brunswick Meadows Way. These storm water sewers will than discharge into a 36-inch HDPE storm water sewer that will flow into a storm water detention pond located on the west portion of the site, east of the boundary line between the City of Troy and the Town of Brunswick.

This stormwater detention area will include provisions for attenuation of the peak runoff flow rate, provide for sediment collection and water quality treatment. The proposed peak runoff rate for the project site will be designed to not exceed the pre-development peak runoff flow rate for the 10 and 100-year design storm events. The rainfall totals for the site used in analyzing the storm water flow were derived from the New York State Storm Water Design Manual, Chapter 4 for the design storm frequencies.

Design Storm	Total Precipitation (24 Hours)
1-year rainfall	2.4 inches
10-year rainfall	4.1 inches
100-year rainfall	5.8 inches

The storm water flow from this detention pond will be discharged through a structure with specific diameter orifices and an emergency overflow. This flow will than be transported overland at the pre-development flow rate, to a small stream

that flows to the existing City of Troy storm sewer system located east of Hialeah Drive. This City of Troy storm sewer system, consisting of a 24-inch CMP pipe, flows westerly under Hialeah Drive where it discharges into the old Lansingburgh Water Works Storage Reservoir. The 24" culvert has the capacity to carry the predevelopment flow rate without flooding the residents along Hialeah Drive. The old Lansingburgh Water Works Storage Reservoir flows via a stream through a concrete box culvert under Northern Drive near the City of Troy water treatment plant. This stream than flows westerly down a steep grade along the north side of Northern Drive where it discharges into the old Lansingburgh Water Works Distributing Reservoir. This former reservoir contributes flow via the Oil Mill Creek into the Hudson River approximately 2 miles further to the west at a point north of the Waterford Bridge. The City of Troy Department of Public Utilities has indicated there is sufficient capacity in their existing storm water sewer system and Oil Mill Creek to serve the Brunswick Meadows project as proposed.

The proposed cross-section for the pavement, for Brunswick Meadows Way, will provide "wing type" gutters on both sides of the street to collect and transport storm water runoff to the drop inlets located along the edge of the pavement and in the parking areas. The drop inlets will all have a 12-inch sump for collection of dirt, sand, litter, leaves and grass from the storm runoff. Footing drains and sump pumps discharges for each building as needed will be directed to the storm water sewer system or discharged into the existing swales that lead to the storm water management system. No direct storm water discharges from Brunswick Meadows Way will be directed towards the stream running along the southerly property line. Detailed specifications for the storm water sewer system are included in Exhibit K.

Water System

The property owners of the proposed Brunswick Meadows project, in accordance with New York State Town Law, will petition the Brunswick Town Board to create a new water district, to be known as the Town of Brunswick Water District No. 14 (Brunswick Meadows), to service this residential condominium community.

A new 12-inch ductile iron pipe water main, fire hydrants and appurtenances will be installed along NYS Route 142 from the existing City of Troy 12-inch water main at Hialeah Drive to the entranceway for Brunswick Meadows. This new 12-inch water main will than continue along Brunswick Meadows Way to the south and loop around the project site with an 8-inch main. Water for domestic use and fire protection will be provided to each condominium building utilizing this municipal water system. The water system will be constructed in accordance with the AWWA specifications along with the Rensselaer County Health Department, Town of Brunswick and City of Troy regulations.

The existing City of Troy 12-inch water main is connected to a 16-inch water line that is part of the transmission line that feeds the 800,000-gallon Gurley Avenue water storage tank located in the "Highpointe at Oakwood" residential

development. This Gurley Avenue water storage standpipe tank is fed from the pump station located at the City of Troy's John P. Buckley Water Treatment Plant on the northwest corner of Northern Drive and Leversee Road, approximately 1/2 mile west of the Brunswick Meadows site. The Gurley Avenue pump station and storage tank were first placed in service by the City of Troy on April 1, 1976. A map of the City of Troy water system is included in Exhibit L.

The City of Troy Department of Public Utilities indicates there is sufficient water supply and water pressure to serve the Brunswick Meadows project from their existing water system. See attached Exhibit L.

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

124units x 2 persons / unit x 150 gallons per day / person = 37,200 gallons per day (GPD)

The average daily flow rate (average daily water usage /1440) = 26 GPM. The peak daily water usage would be estimated at two times the average daily water usage for a total of 74,400 GPD. The peak hourly flow rate can be estimated at four times the average daily usage or approximately 148,800 GPD or 6,200 GPH or approximately 103 GPM.

The anticipated water pressure at ground level throughout the Brunswick Meadow 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 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 Brunswick Meadows 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.

A master water meter chamber will be constructed near the Troy City Line to register water usage for the Town of Brunswick. The water usage readings will be used to develop water-billing charges for the newly created Town of Brunswick Water District No. 14.

The Town of Brunswick and the City of Troy water purchase agreement stipulates that the Town of Brunswick will purchase water from the City of Troy at the same rate as the City of Troy residents pay. The new City of Troy residents' rate as of January 1, 2007 is $ 3.43 per 1,000 gallons of usage. Upon completion of construction and acceptance by the project engineer, the water system will be deeded to the Town of Brunswick for future operation and maintenance.

Each condominium building will be provided with an individual 2-inch Type K copper water service and curb box shutoff. A separate 2-inch sprinkler line will be installed for each building for added fire protection. Each residential unit will have a sprinkler system installed in accordance with the NYS Building Code. Water usage to each building will be metered in accordance with Town of Brunswick regulations.

Water usage charges will be billed by the Town of Brunswick directly to the Brunswick Meadows Homeowner Association at the Town's Residential Rate per 1,000 gallons of usage. The annual operation and maintenance charge for the water district is included in the actual water rate charged for water usage. These rates are identical to the recently completed Town of Brunswick Water District No. 11 for the Speigletown section of town. The Town of Brunswick customers are billed once in January and once in July.

Detailed specifications for the water system are included in Exhibit M.

Sanitary Sewer System

The property owners of the proposed Brunswick Meadows project, in accordance with New York State Town Law, will petition the Brunswick Town Board to create a new sanitary sewer district, to be known as the Brunswick Meadows Sewer District, to service this residential condominium community. Upon completion of construction and acceptance by the project engineer, the sanitary sewerage system will be conveyed to the Town of Brunswick for future operation and maintenance.

Sanitary sewage from each residential building will discharge via a 6-inch lateral to the front of each building where it will be collected in an 8-inch diameter gravity sanitary sewer pipe installed in Brunswick Meadows Way. The 8-inch gravity sewer

will discharge into a small sanitary sewage pump station located on the west side of the site. This pump station will than lift and discharge the sanitary sewage, via a 4-inch diameter force main, into a new pre-cast concrete manhole to be located near the entranceway of the development at NYS Route 142. At this point a new 8-inch diameter gravity sanitary sewer main, located along the south side of NYS Route 142, will transport the sanitary sewage, approximately 600 feet westerly, to Hialeah Drive where it will discharge into the existing City of Troy municipal sanitary sewerage system. This existing City of Troy municipal sanitary sewerage system than continues, via gravity, westerly and northerly through the Miami Beach Subdivision and than 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 than 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. See Exhibit N for a map of the City of Troy's sanitary sewerage system.

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

124 units x 2 persons / unit x 100 gallons per day / person = 24,800 gallons per day (GPD)

The City of Troy Department of Public Utilities indicates there is sufficient capacity in the existing sanitary sewerage system to serve the proposed Brunswick Meadows residential condominium community. Detailed specifications for the sanitary sewer system are included in Exhibit O. Sanitary sewerage service annual operation and maintenance costs will be billed by the Town of Brunswick directly to the Brunswick Meadows Homeowner Association in accordance with the current rates charged in the Town, which is 10% of the water usage. The Town of Brunswick customers are billed once in January and once in July.

The Rensselaer County Sewer District No. 1 will bill the Brunswick Meadows Homeowner Association directly for sewerage transportation and treatment costs in accordance with the current rates charged to residents in the Town of Brunswick based upon the amount of water used by each building. The Rensselaer County sewer treatment rate effective April 1, 2007 is $1.50 per 1,000 gallons of water used.

All sanitary sewer mains and appurtenances, including service connections will be installed in accordance with the Rensselaer County Health Department, Town of Brunswick and City of Troy requirements.

The design of the sanitary sewerage system and pump station will be in accordance with the GLUMRB (Ten States) Standards for Sewer Design and Construction.

Street Pavement

The construction of the paved street, to be known as Brunswick Meadows Way, will consist of two paved travel lanes at the entrance to NYS Route 142, which complies with the NYS DOT Standards. The remaining portion of Brunswick Meadows Way will consist of two 12-foot wide travel lanes and a 2-foot wide "wing type" gutter on each side of the street to control drainage. This pavement cross section is sufficient for various emergency and service vehicles to travel upon. This new street will be retained by the Brunswick Meadows Homeowners Association under private ownership upon completion and acceptance.

The pavement cross-section will consist of 12 inches of gravel for the subbase, 3 inches of dense binder asphalt concrete base and a 1-inch type-6 asphalt concrete wearing course as per Town of Brunswick specifications and standards. The turning radii for the Brunswick Meadows Way and NYS Route 142 intersection will be approximately 34 feet in accordance with NYSDOT specifications. The radius of the interior corners for Brunswick Meadows Way will be 25 feet. This will be more than sufficient for the volume and type of traffic that will be generated by this development along with the various emergency and maintenance equipment that will be operating within the site.

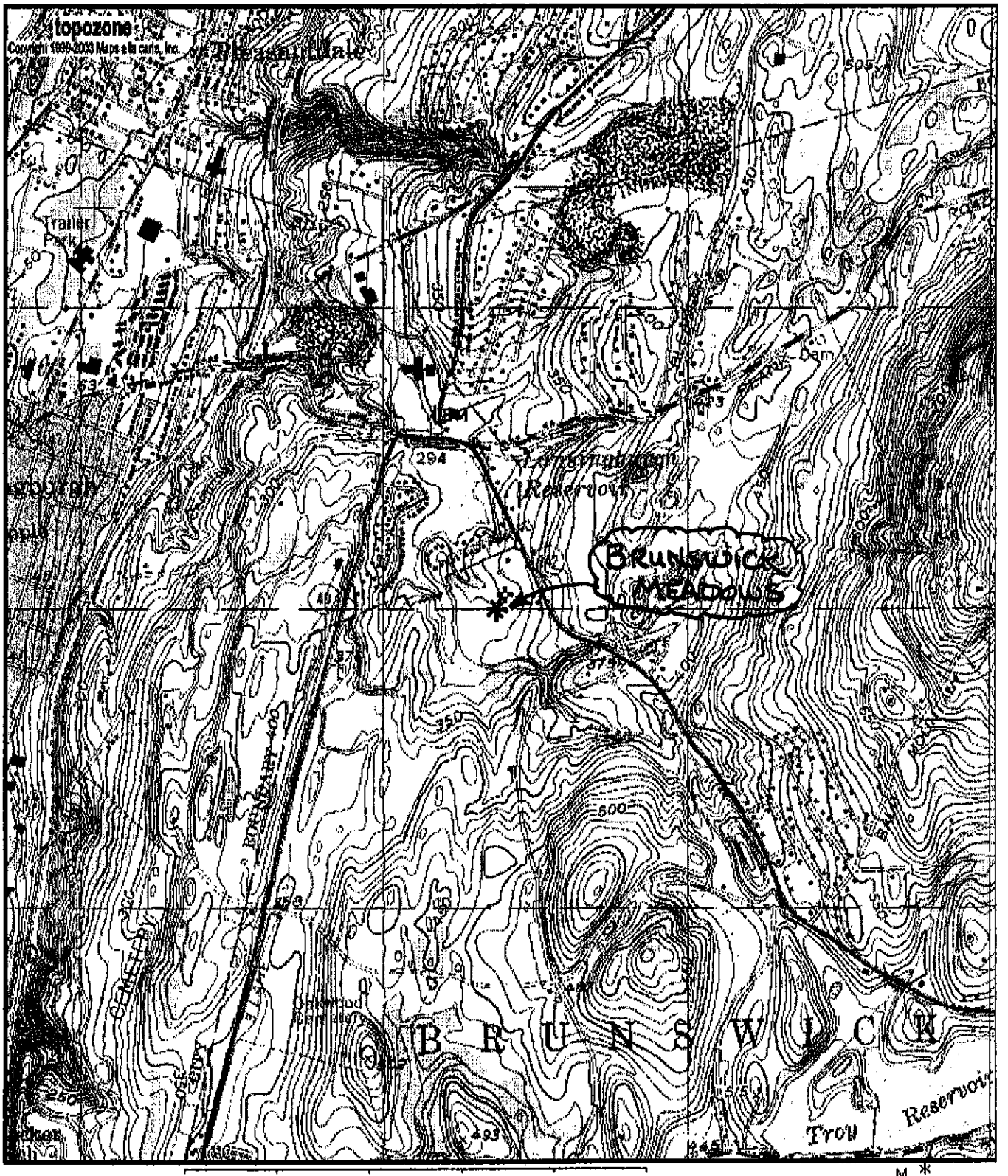
Summary

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 than integrated into the siting 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.

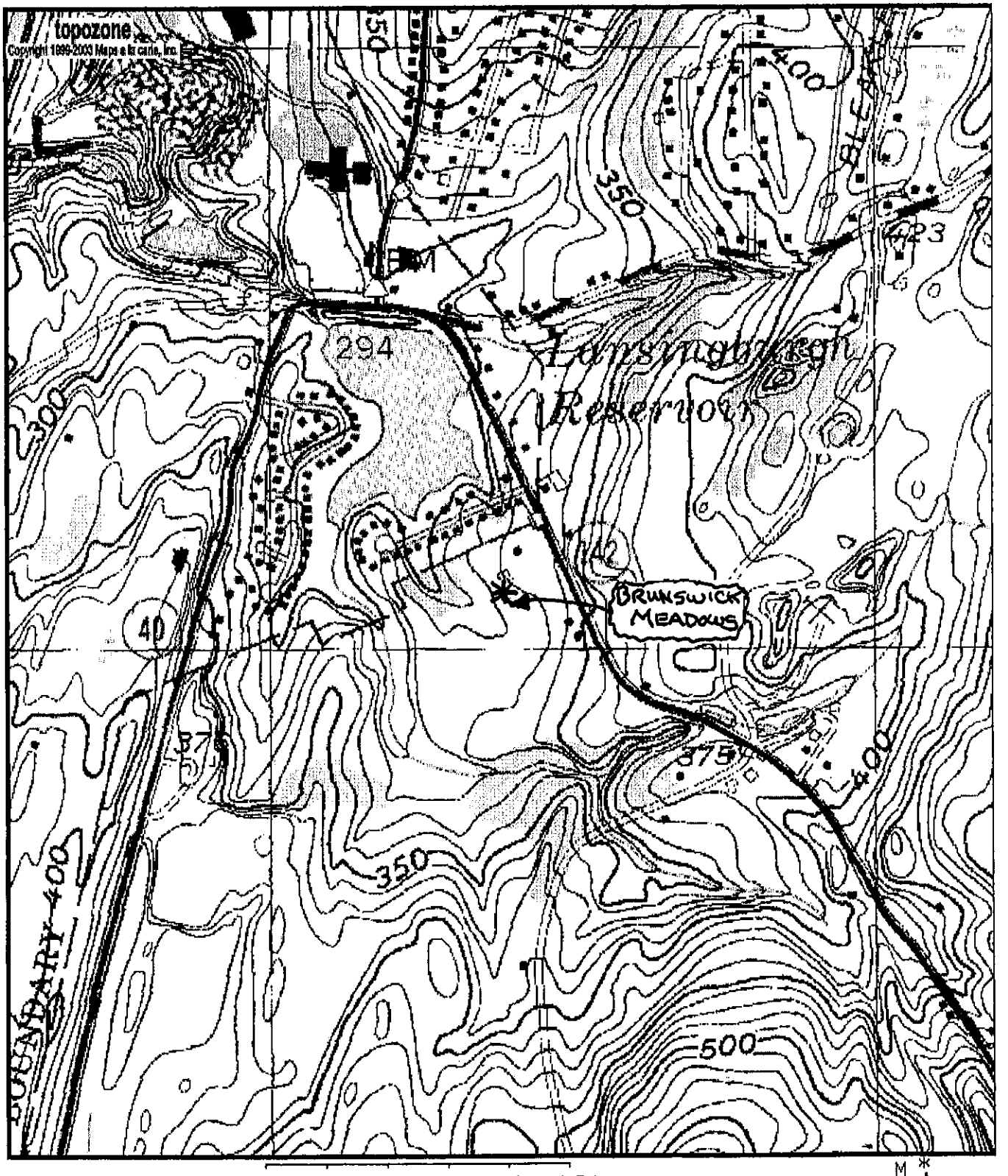
Significant tax revenues will be generated for the various taxing agencies by the development of the Brunswick Meadows project. See attached Exhibit P.

Exhibit A
Project Location Map



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

M=-14.35
G=0.917



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

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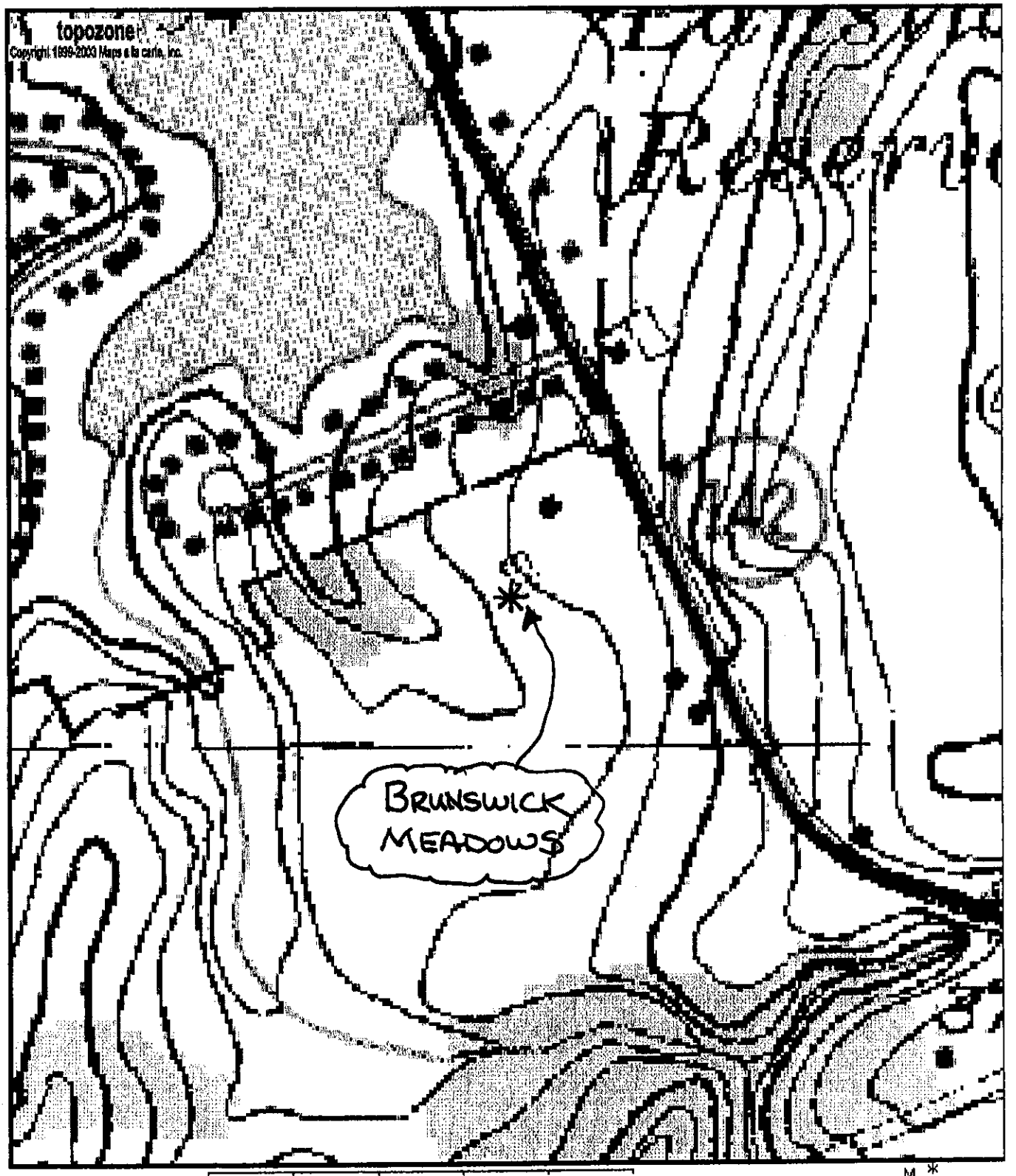
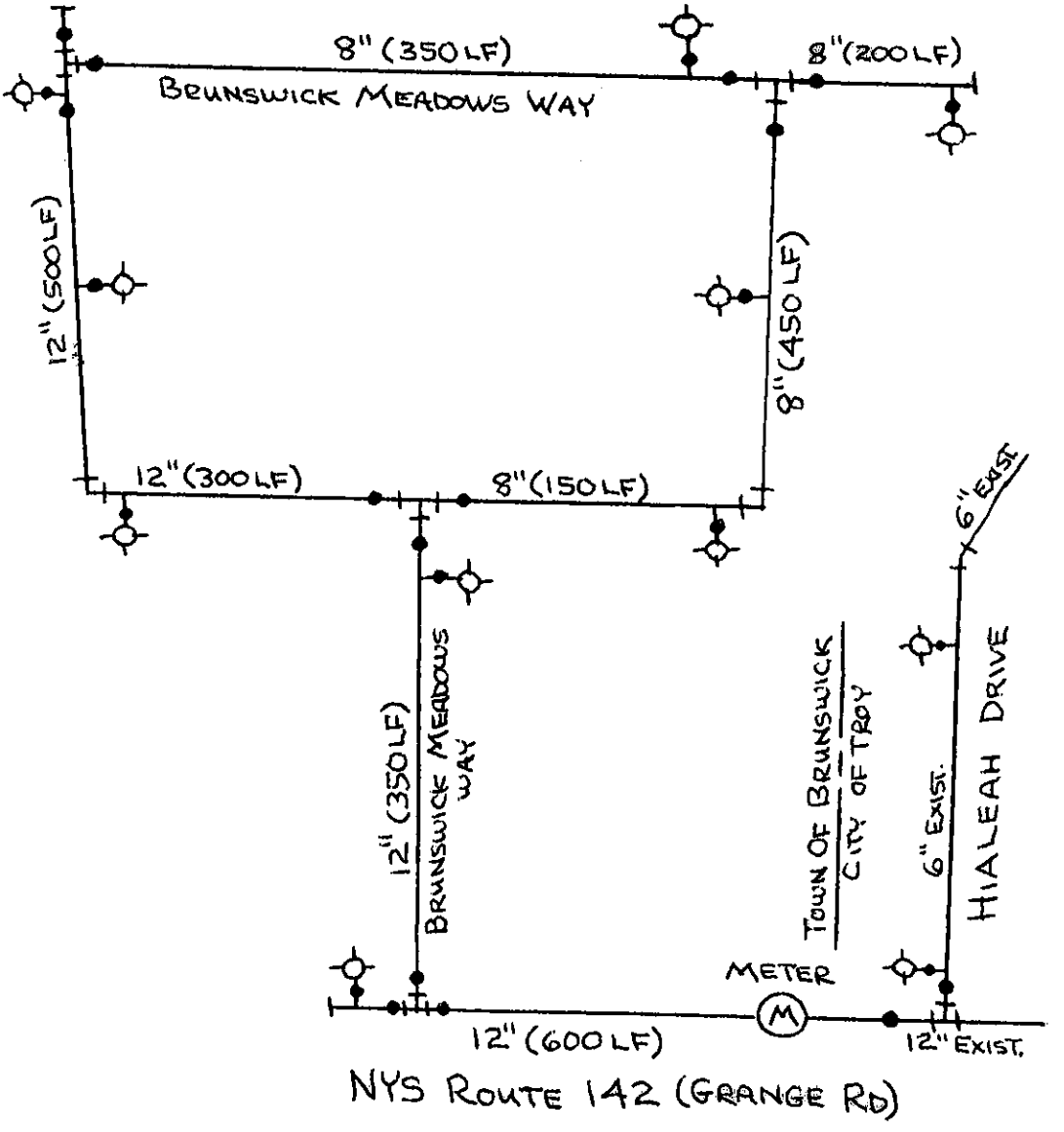


Map center is UTM 18 610420E 4737310N (WGS84/NAD83)
Troy North quadrangle
Projection is UTM Zone 18 NAD83 Datum

Town of Brunswick
Rensselaer County, New York

Proposed Water District No. 13

General Plan

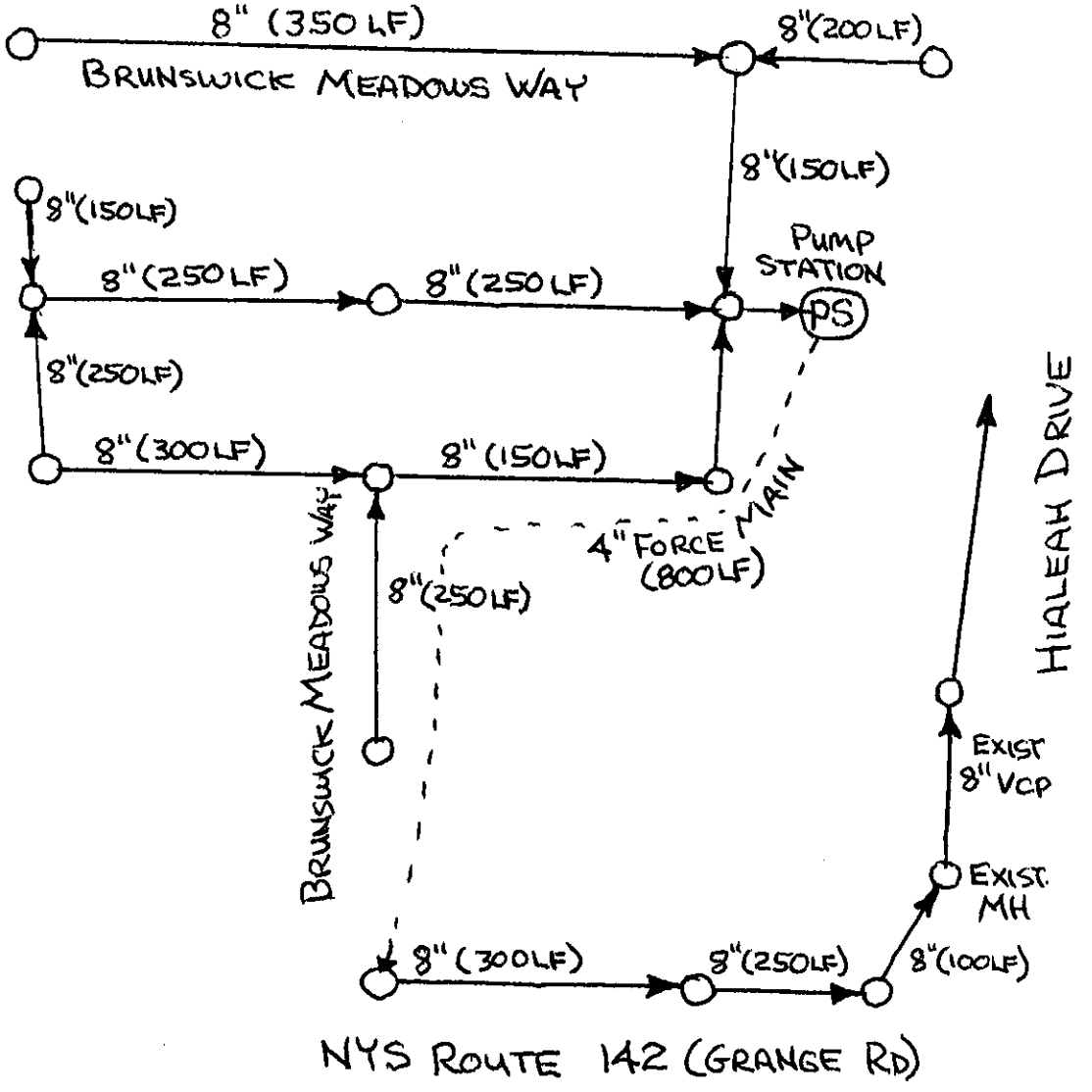


"Proposed Water District No. 13 – General Plan Map"
Dated January 13, 2005
Prepared by Thomas M. Murley, P.E.

Town of Brunswick
Rensselaer County, New York

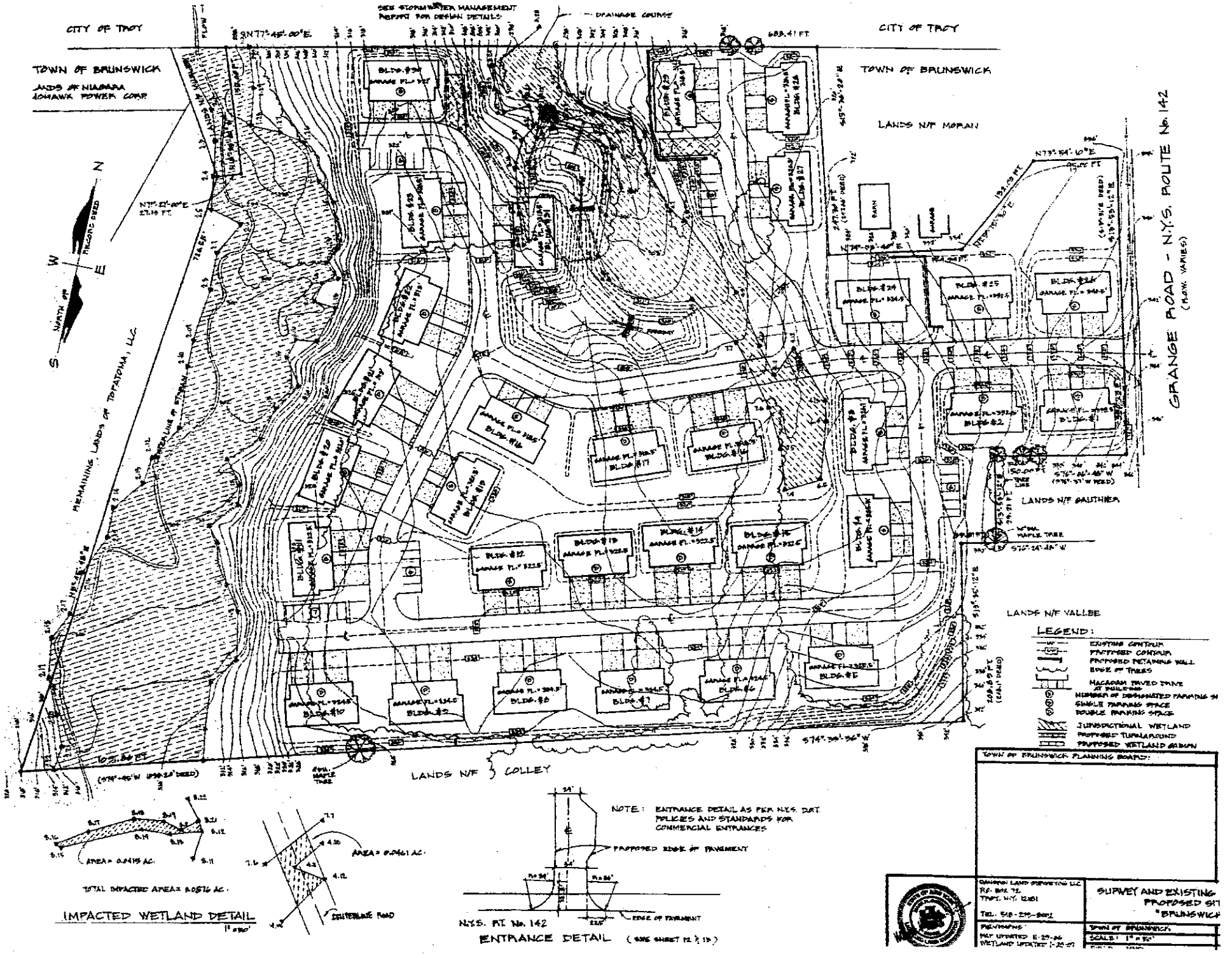
Proposed Sewer District No. 7

General Plan



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

Exhibit B
Site Plan Layout



DETAIL OF PROPOSED DEVELOPMENT

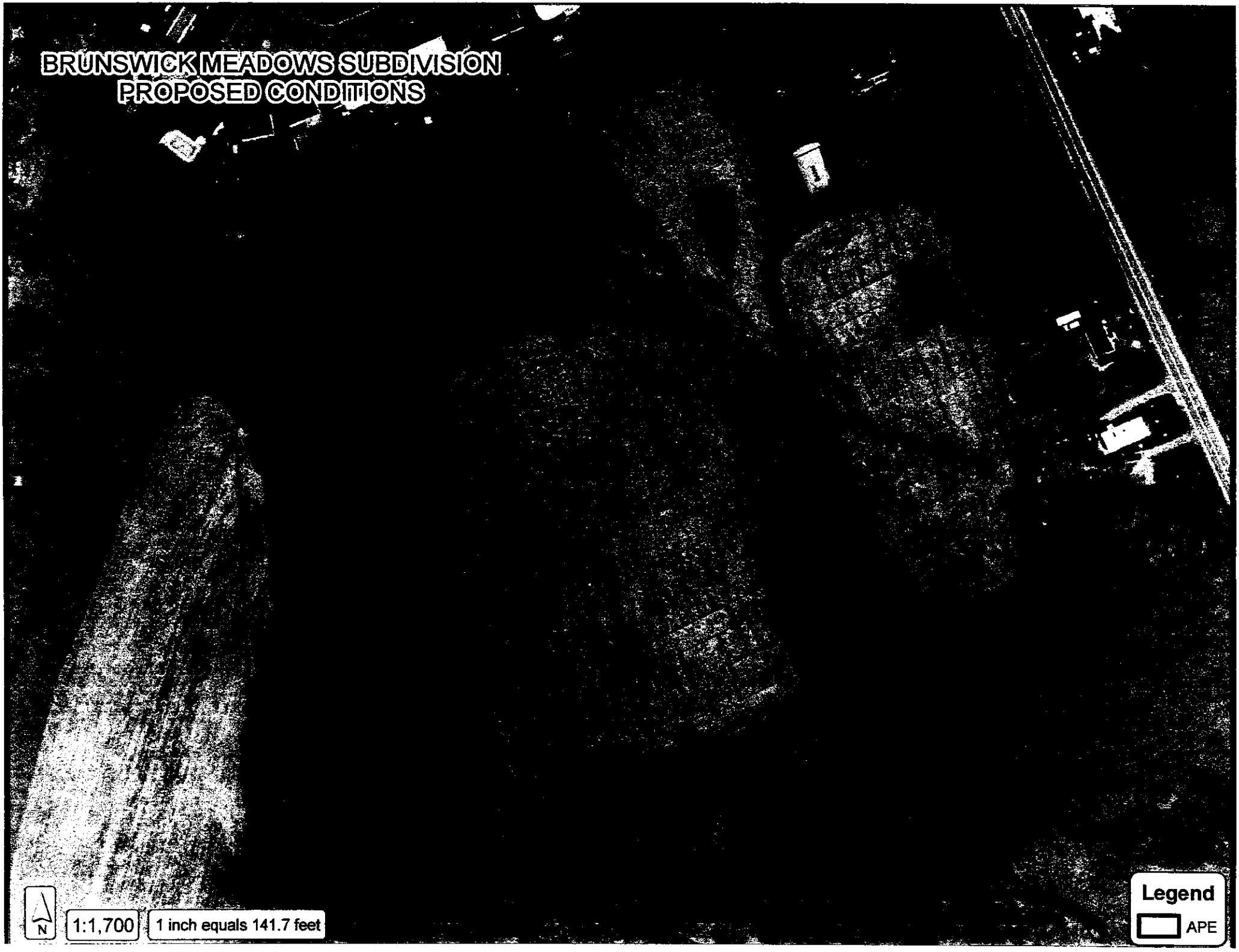

BRUNSWICK MEADOWS SUBDIVISION
PROPOSED CONDITIONS
N
1:1,700
1 inch equals 141.7 feet
Legend
APE

Exhibit C
Town of Brunswick Zoning Map

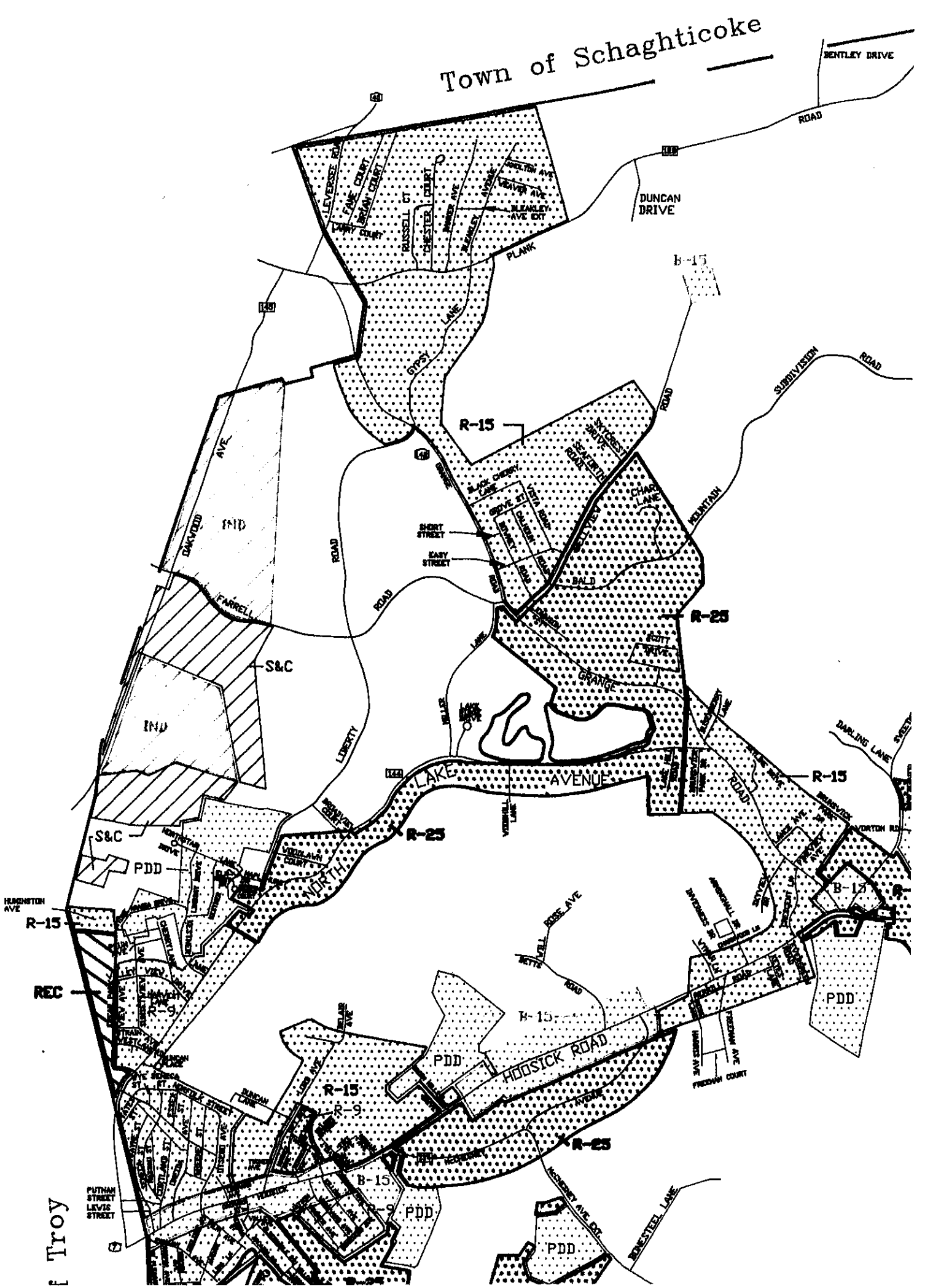

Town of Schaghticoke
BENTLEY DRIVE
ROAD
DUNCAN DRIVE
PLANK
B-15
R-15
SUBDIVISION ROAD
ROAD
MOUNTAIN
IND
DAKOTA AVE
FARRELL
ROAD
S&C
IND
LIBERTY
R-25
GRANGE
LAKE AVENUE
R-15
DARLING LANE
S&C
PDD
NORTH
R-25
HUDSON AVE
R-15
REC
R-9
B-15
PDD
HOOSICK ROAD
R-15
R-9
R-25
B-15
R-9
PDD
PDD
PDD
PUTNAM STREET
LEWIS STREET
Troy

Exhibit D
Planned Development District (PDD) Regulations

9. Cessation

Not withstanding any other provisions of this ordinance, any automobile wrecking yard or other junk yard in existance in any Residential or Agricultural District at the date of enactment of this ordinance shall at the expiration of three years from such date become a prohibited and unlawful use and shall be discontinued, dismantled and all wrecks and materials removed from the premises.

10. Creation of nonconforming uses due to changes in district boundaries

Whenever the boundaries of a district shall be changed so as to transfer an area from one district to another district of a different classification, the foregoing provisions shall also apply to any nonconforming uses existing therein.

Section 10: Planned Development Districts

In Planned Development Districts, land and buildings may be used for any lawful purpose as authorized by the Town Board, in accordance with the following procedure:

1. Planned Development Districts shall comprise at least ten (10) acres.

2. Application for establishment of a Planned Development District shall be made to the Town Board. The Town Board shall refer the application to the Board of Appeals.

3. The Board of Appeals may require the applicant to furnish such preliminary plans, drawings and specifications as may be required for an understanding of the proposed development. In reaching its decision on the proposed development, the Board of Appeals shall consider, among other things, the need for the proposed use in the proposed location, the existing character of the neighborhood in which the use would be located and the safeguards provided to minimize possible detrimental effects of the proposed use on adjacent property.

4. The Board of Appeals shall approve, approve with modification, or disapprove such application and shall report its decision to the Town Board.

5. The Town Board shall hold a public hearing on the proposal, with public notice as provided by law in the case of an amendment to the Zoning Ordinance.

ARTICLE V - ADMINISTRATION

Section 11: Enforcement

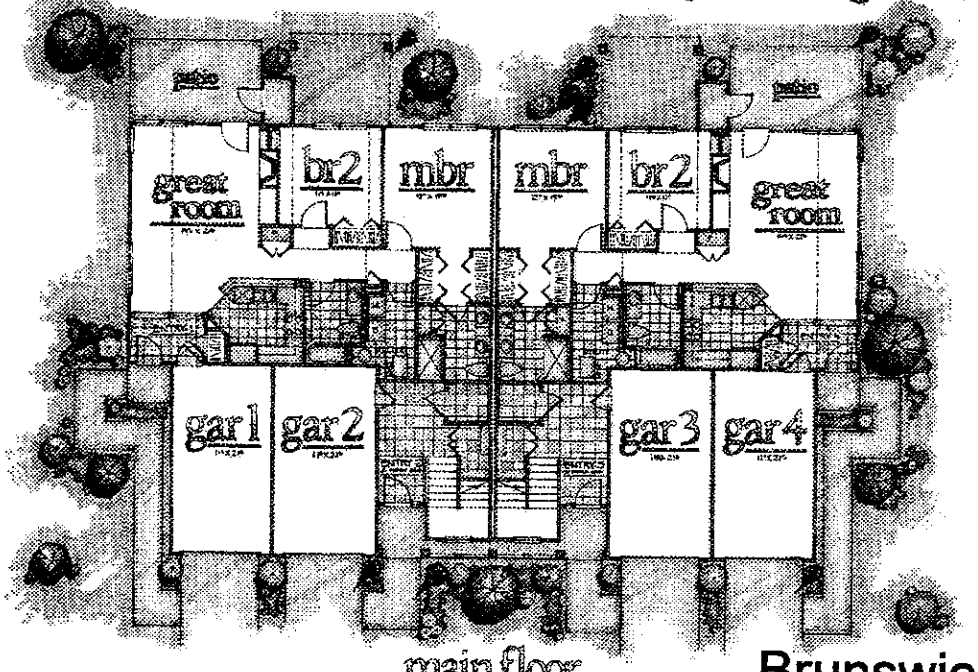
A. Zoning Administration Officer

The Superintendent of Buildings of the Town of Brunswick shall be charged with the general and executive administration of this ordinance. The Town Board shall fix the salary or remuneration of such officer and shall provide for the payment thereof.

B. Zoning Permits

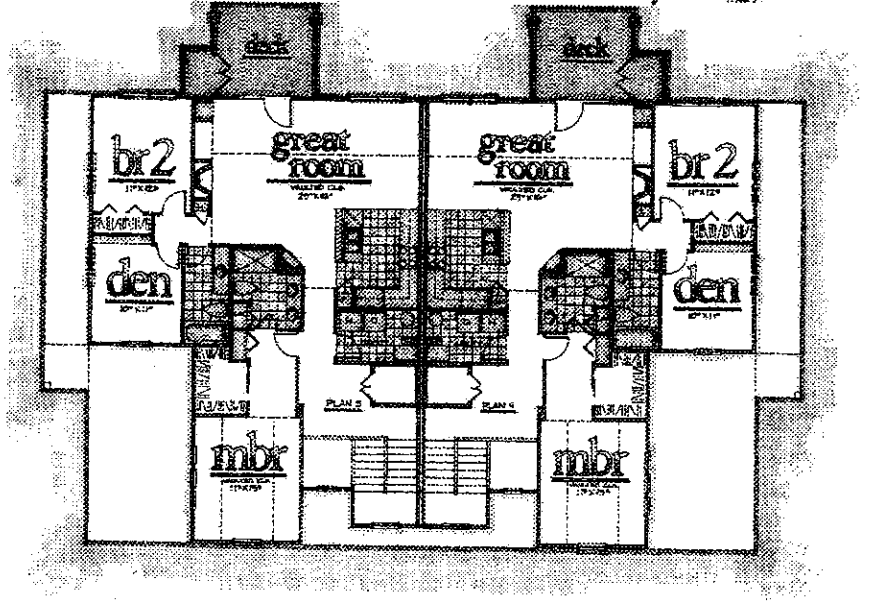
1. No work shall be started for new structures or for alterations or additions to existing structures until a permit therefor has been issued by the Zoning Administrative Officer. Except upon a written order of the Board of Appeals, no such zoning permit, nor a certificate of occupancy, shall be issued for any building where said construction, alteration or addition or use thereof would not conform with the provisions of this ordinance.

Exhibit E
Proposed Elevation and Floor Plans



main floor

Brunswick Meadows



upper floor

Exhibit F
ITE Trip Generation Rates

Land Use: 230
Residential Condominium/Townhouse

Description

Residential condominiums/townhouses are defined as ownership units that have at least one other owned unit within the same building structure. **Both condominiums and townhouses are included in this land use.** The studies in this land use did not identify whether the condominiums/townhouses were low-rise or high-rise. Low-rise residential condominium/townhouse (Land Use 231), high-rise residential condominium/townhouse (Land Use 232) and luxury condominium/townhouse (Land Use 233) are related land uses.

Additional Data

The number of vehicles and the number of residents had a high correlation with average weekday vehicle trip ends. The use of these variables was limited, however, because the number of vehicles and residents was often difficult to obtain or predict. The number of dwelling units was generally used as the independent variable of choice because it is usually readily available, easy to project and had a high correlation with average weekday vehicle trip ends.

The peak hour of the generator typically coincided with the peak hour of the adjacent street traffic.

The sites were surveyed from the mid-1970s to the 2000s throughout the United States and Canada.

Source Numbers

4, 92, 94, 95, 97, 100, 105, 106, 114, 168, 186, 204, 237, 253, 293, 319, 320, 321, 390, 412, 418, 561, 562, 583

Residential Condominium/Townhouse
(230)

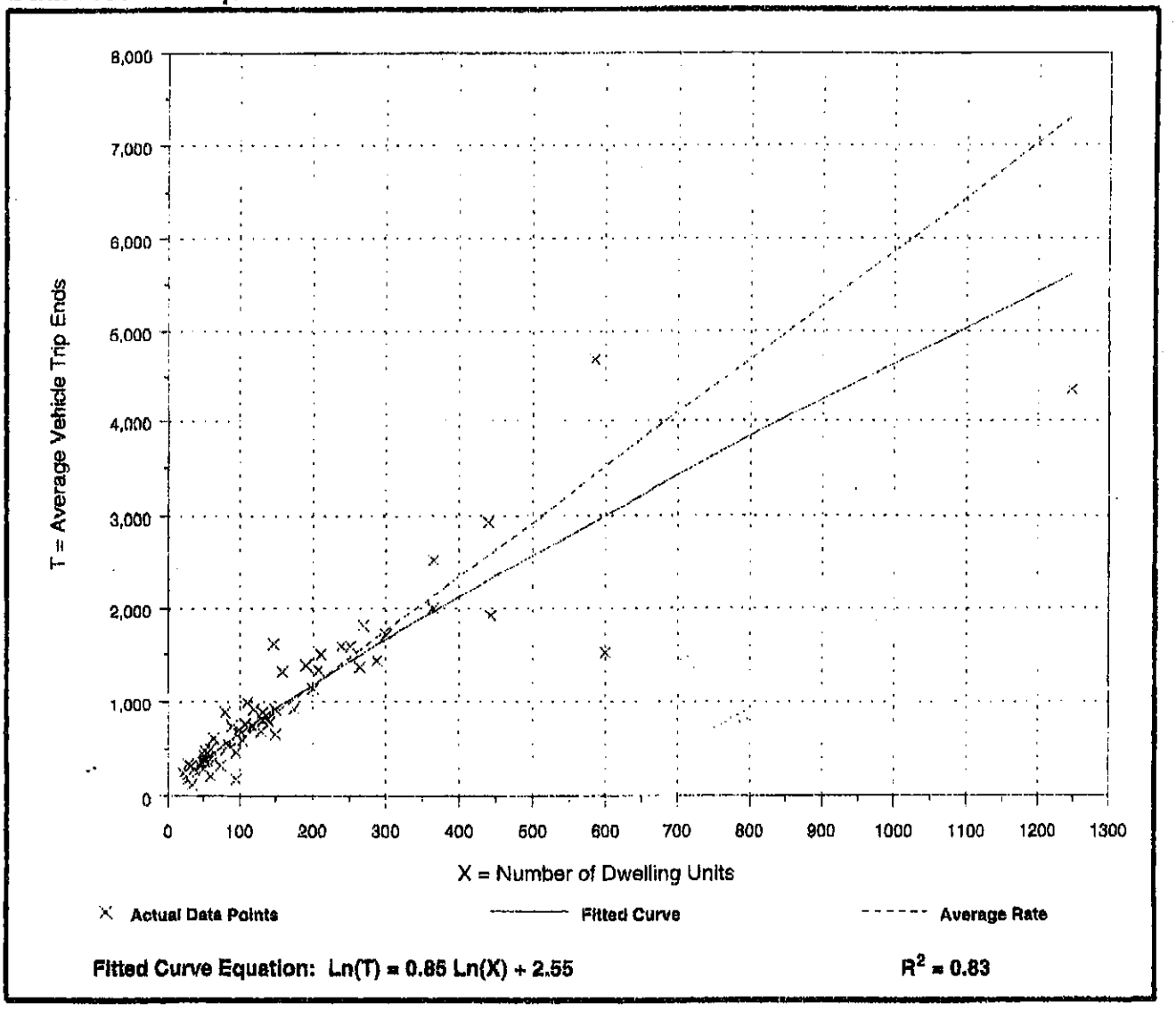
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 54
Avg. Number of Dwelling Units: 183
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
5.86	1.83 - 11.79	3.09

Data Plot and Equation



Residential Condominium/Townhouse
(230)

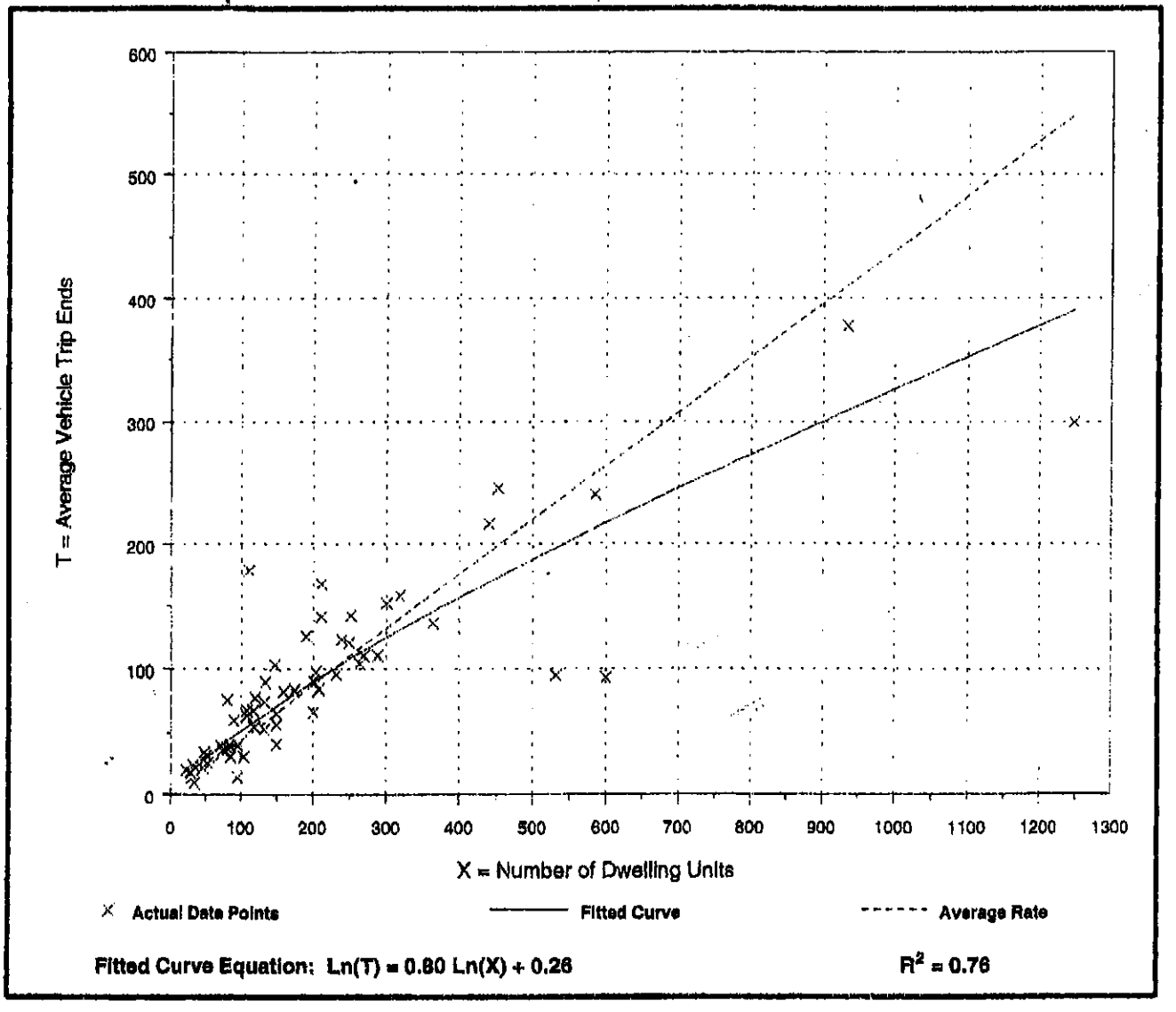
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 59
Avg. Number of Dwelling Units: 213
Directional Distribution: 17% entering, 83% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.15 - 1.61	0.69

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.80 Ln(X) + 0.26

R^2 = 0.76

Residential Condominium/Townhouse
(230)

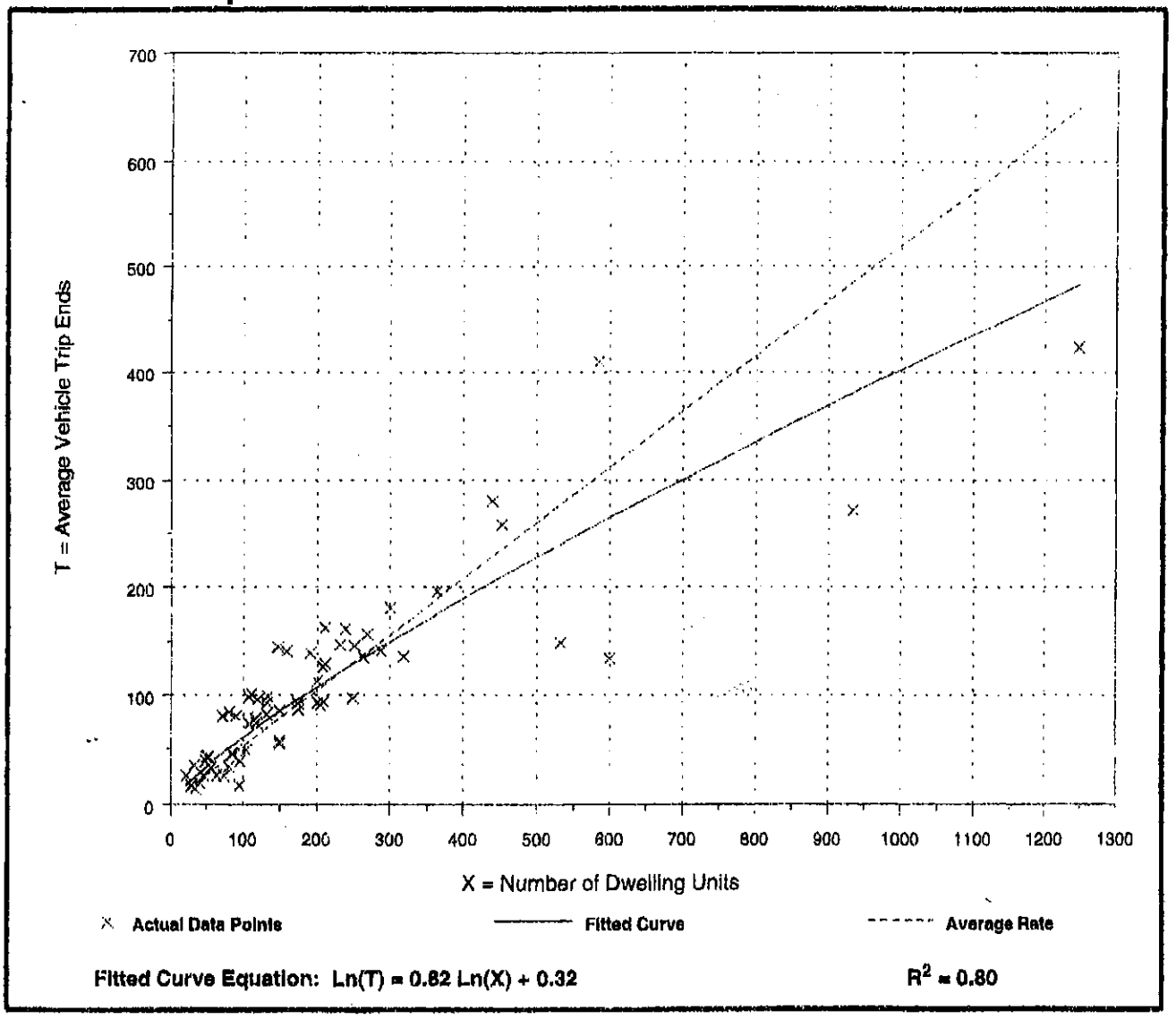
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 62
Avg. Number of Dwelling Units: 205
Directional Distribution: 67% entering, 33% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.18 - 1.24	0.75

Data Plot and Equation



Fitted Curve Equation: $Ln(T) = 0.82\ Ln(X) + 0.32$ $R^2 = 0.80$

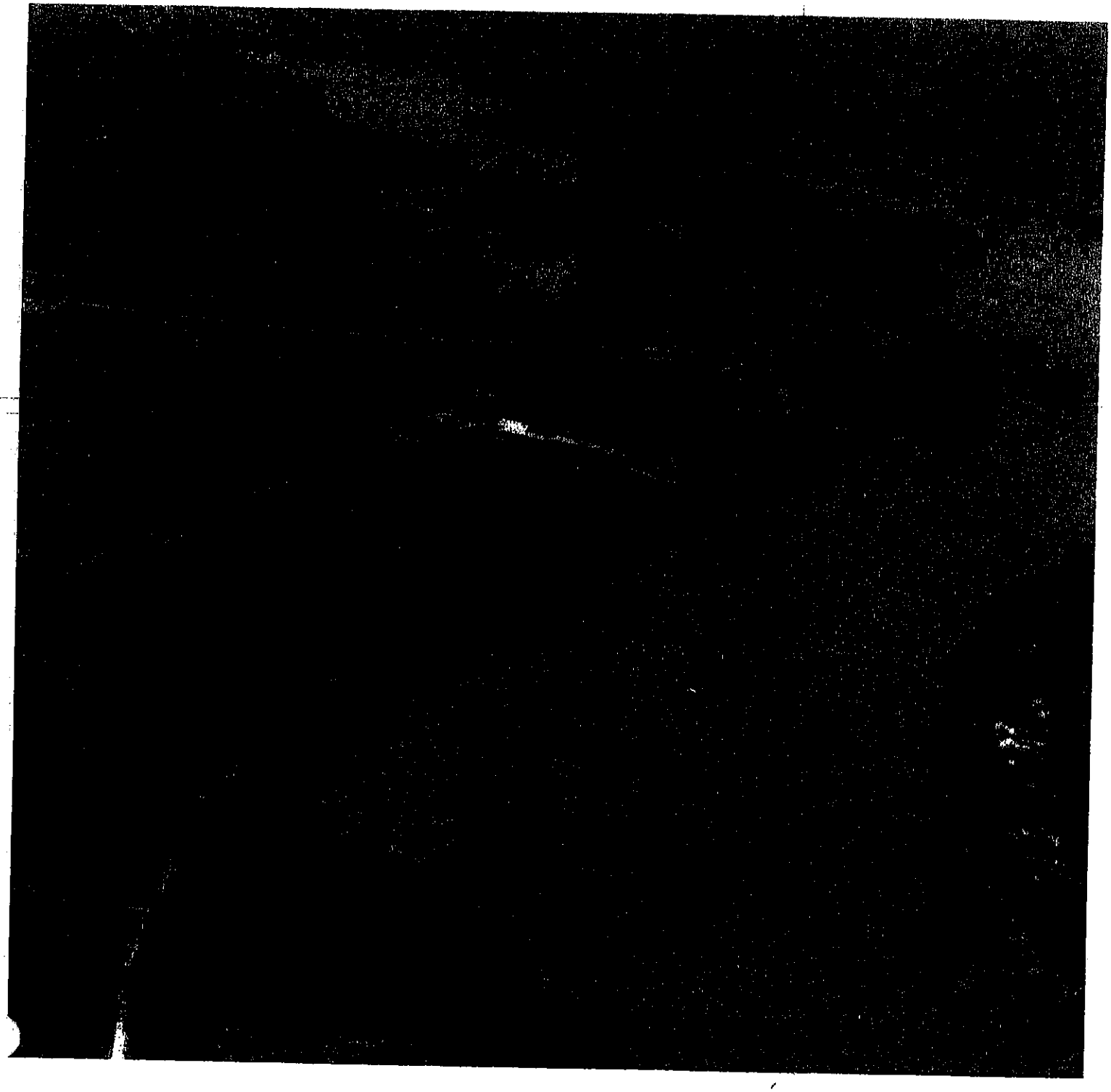
Exhibit G
Soils Report

United States Department of Agriculture

Soil Conservation Service

In cooperation with Cornell University Agricultural Experiment Station

Soil Survey of Rensselaer County, New York



UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SOIL LEGEND

The publication symbols consist of letters. The first letter, always a capital, is the initial letter of the soil name. The second letter is a lower case letter. The third letter always a capital, A, B, C, D, E or F shows the slope. Symbols without a slope letter are those for miscellaneous areas or soils named for higher categories.

SYMBOL	NAME
AlB	Albrights silt loam, 3 to 8 percent slopes
AlC	Albrights silt loam, 8 to 15 percent slopes
AlD	Albrights silt loam, 15 to 25 percent slopes
AmC	Albrights very stony silt loam, 3 to 15 percent slopes
AmD	Albrights very stony silt loam, 15 to 40 percent slopes
AnA	Alden silt loam, 0 to 3 percent slopes
AoA	Alden very stony silt loam, 0 to 3 percent slopes
BeB	Bernardston gravelly silt loam, 3 to 8 percent slopes
BeC	Bernardston gravelly silt loam, 8 to 15 percent slopes
BeD	Bernardston gravelly silt loam, 15 to 25 percent slopes
BeE	Bernardston gravelly silt loam, 25 to 35 percent slopes
BfC	Bernardston very stony silt loam, 3 to 15 percent slopes
BfD	Bernardston very stony silt loam, 15 to 40 percent slopes
BnB	Bernardston-Nassau complex, undulating
BnC	Bernardston-Nassau complex, rolling
BnD	Bernardston-Nassau complex, hilly
BoD	Bernardston-Pittstown association, very stony, moderately steep
BrA	Brayton very stony silt loam, nearly level
BuC	Buckland very stony loam, sloping
BuD	Buckland very stony loam, moderately steep
BuF	Buckland very stony loam, very steep
CaA	Carlisle muck, 0 to 1 percent slopes
CbA	Castile gravelly silt loam, 0 to 5 percent slopes
ChA	Chenango very gravelly loam, 0 to 3 percent slopes
ChB	Chenango very gravelly loam, 3 to 8 percent slopes
CkB	Chenango gravelly loam, fan, 3 to 8 percent slopes
Du	Dumps, landfill
ElB	Elmridge very fine sandy loam, 3 to 8 percent slopes
FlA	Fluvaquents-Udifluvents complex, 0 to 3 percent slopes
FrA	Fredon silt loam, 0 to 4 percent slopes
GlC	Glover very stony loam, very rocky, sloping
GlD	Glover very stony loam, very rocky, moderately steep
GmF	Glover-Rock outcrop complex, very steep
HaA	Hamlin silt loam, 0 to 3 percent slopes
HbA	Haven silt loam, 0 to 3 percent slopes
HbB	Haven silt loam, 3 to 8 percent slopes
HoA	Hoosic gravelly sandy loam, 0 to 3 percent slopes
HoB	Hoosic gravelly sandy loam, 3 to 8 percent slopes
HoC	Hoosic gravelly sandy loam, rolling
HoD	Hoosic gravelly sandy loam, hilly
HoE	Hoosic gravelly sandy loam, steep
HuB	Hudson silt loam, 3 to 8 percent slopes
HuC	Hudson silt loam, 8 to 15 percent slopes
HuD	Hudson silt loam, hilly
HuE	Hudson silt loam, steep
LmA	Limerick silt loam, 0 to 3 percent slopes
LoA	Loxley and Beseman mucks, 0 to 1 percent slopes
MaC	Macomber-Taconic slaty silt loams, very rocky, sloping
MaE	Macomber-Taconic slaty silt loams, very rocky, steep
MaF	Macomber-Taconic slaty silt loams, very rocky, very steep
MbA	Madalin silt loam, 0 to 3 percent slopes
NaB	Nassau-Manlius complex, undulating
NaC	Nassau-Manlius complex, rolling
NrC	Nassau-Rock outcrop, complex, rolling
NrD	Nassau-Rock outcrop complex, hilly
ObA	Occum Variant-Barbour Variant complex, 0 to 3 percent slopes
PaA	Palms muck, 0 to 1 percent slopes
Pg	Pits, gravel
PtB	Pittstown gravelly silt loam, 3 to 8 percent slopes
PtC	Pittstown gravelly silt loam, 8 to 15 percent slopes
PuC	Pittstown-Bernardston association, very stony, sloping
RaA	Raynham silt loam, 0 to 5 percent slopes
RhA	Rhinebeck silt loam, 0 to 3 percent slopes
RhB	Rhinebeck silt loam, 3 to 8 percent slopes
RkA	Riverhead fine sandy loam, 0 to 3 percent slopes
RkB	Riverhead fine sandy loam, 3 to 8 percent slopes
RkC	Riverhead fine sandy loam, rolling
Sa	Saprists and Aquents, ponded
ScA	Scio very fine sandy loam, 0 to 3 percent slopes
ScB	Scio very fine sandy loam, 3 to 8 percent slopes
SrA	Scriba silt loam, 0 to 3 percent slopes
SrB	Scriba silt loam, 3 to 8 percent slopes
StB	Scriba very stony silt loam, 3 to 8 percent slopes
SvB	Scriba-Pittstown association, very stony, gently sloping
SwA	Shaker very fine sandy loam, sandy substratum, 0 to 4 percent slopes
TeA	Teel silt loam, 0 to 3 percent slopes
Ud	Udorthents, loamy
Ue	Udorthents, sandy
UnA	Unadilla silt loam, 0 to 3 percent slopes
UnB	Unadilla silt loam, 3 to 8 percent slopes
UnC	Unadilla silt loam, 8 to 15 percent slopes
Ur	Urban land
WnA	Windsor loamy sand, 0 to 3 percent slopes
WnB	Windsor loamy sand, 3 to 8 percent slopes
WnC	Windsor loamy sand, 8 to 15 percent slopes
WnE	Windsor loamy sand, 25 to 35 percent slopes
W	Water

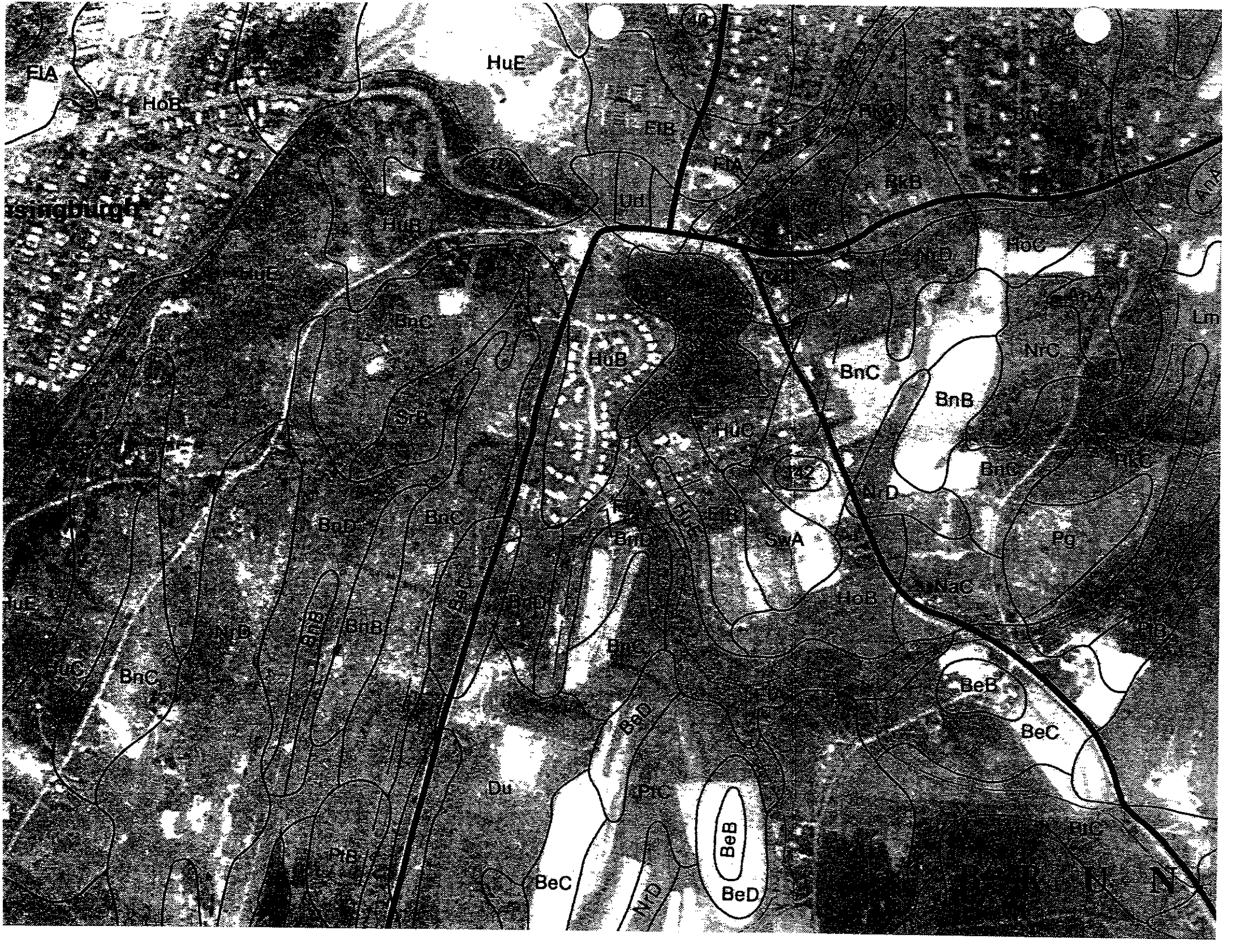

HuE
ElA
HoB
ElB
ElA
RkB
Ud
HuB
HuE
NrB
HoC
BnC
HuB
NrC
BnC
BnB
SrB
HuC
BnC
NrD
BnD
BnC
ElB
SwA
Pg
HoB
NaC
BnB
BnB
BnC
BeB
BeC
BsD
Du
PtC
BeB
BeD
BeC
NrD
PtB
PtC

Exhibit H
Wetland Maps

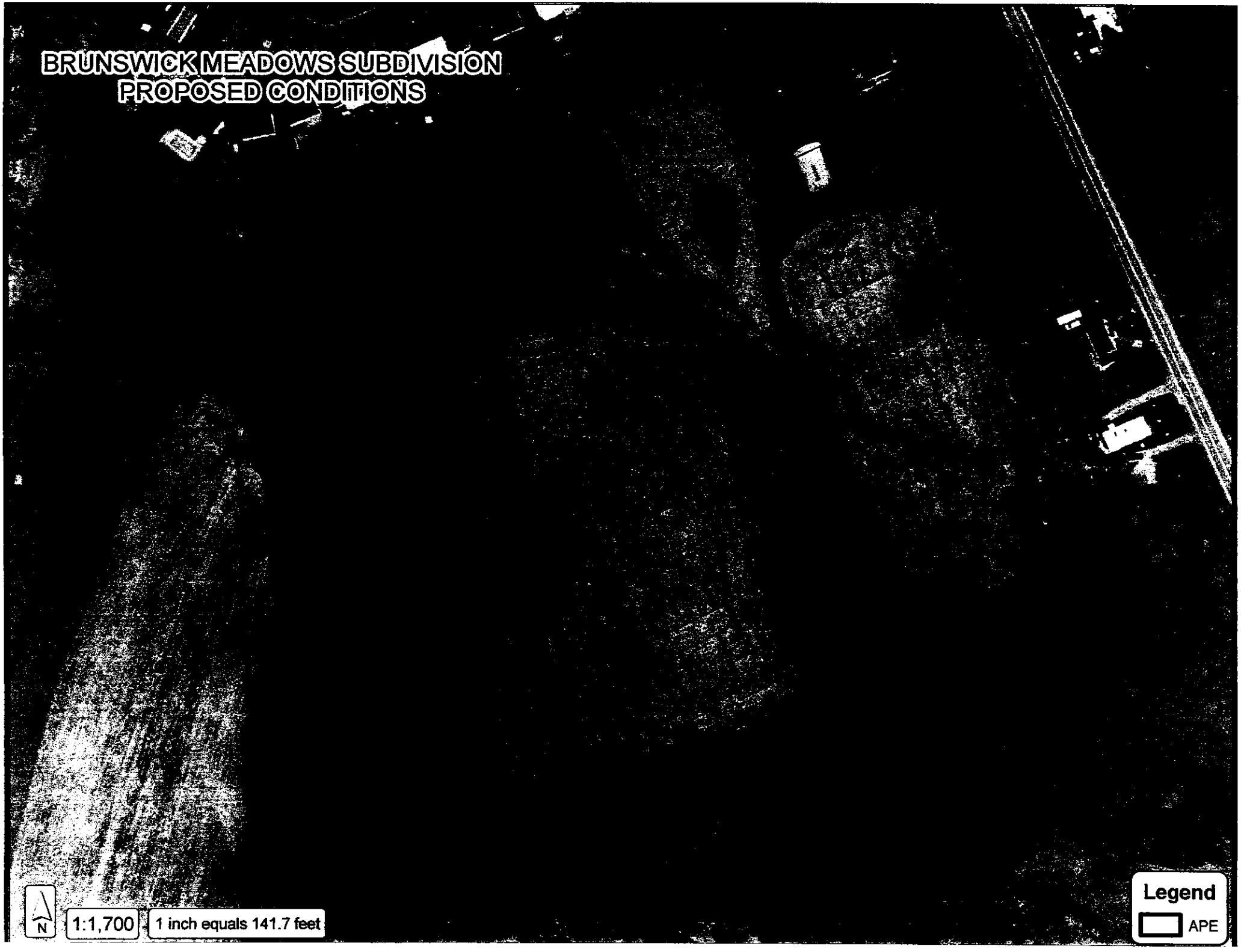
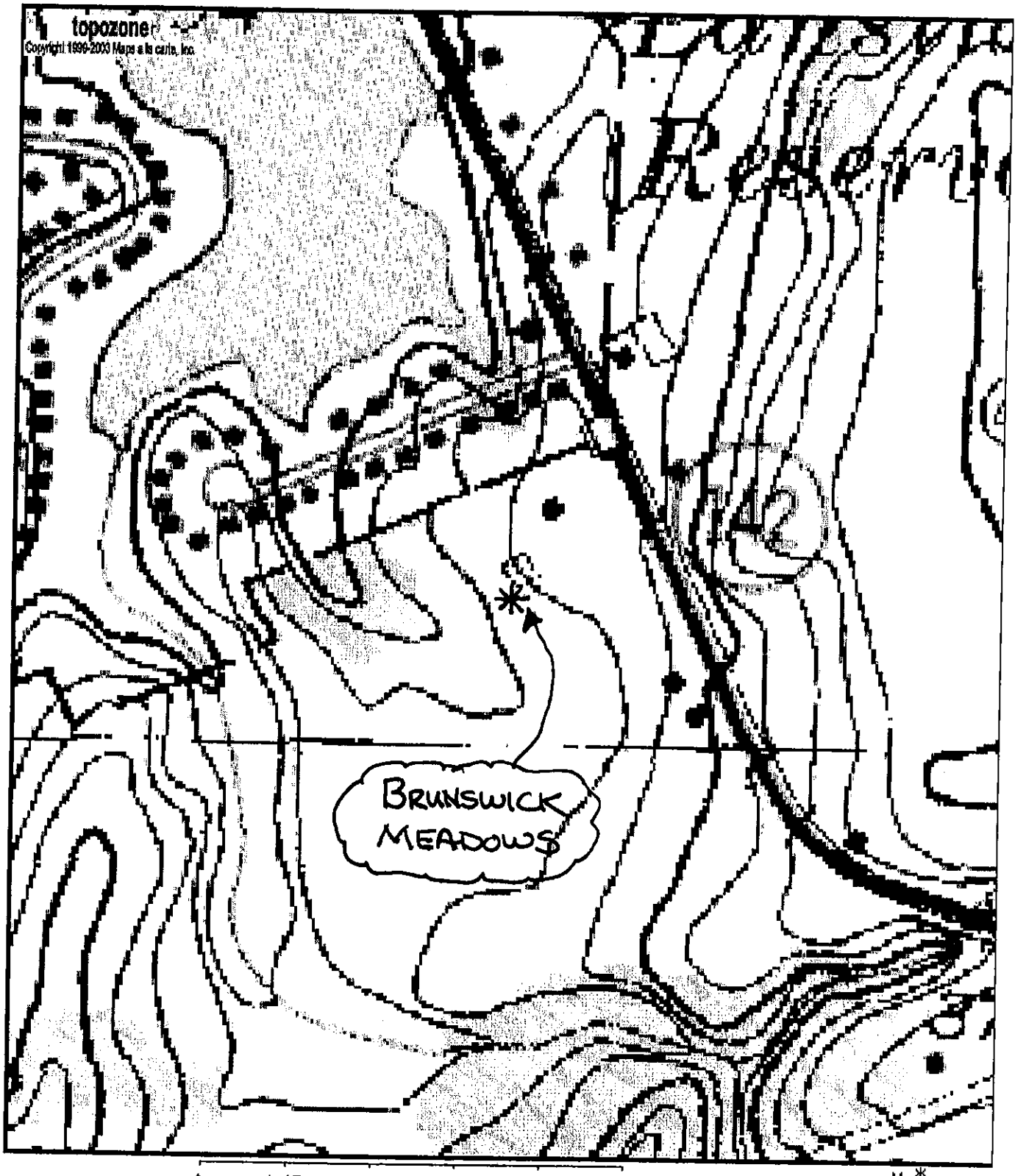

BRUNSWICK MEADOWS SUBDIVISION
PROPOSED CONDITIONS
N
1:1,700
1 inch equals 141.7 feet
Legend
APE

Exhibit I
Storm Water Pollution Prevention Plan

Refer to Appendix J (DEIS)

Exhibit J
Watershed Map



0 0.07 0.14 0.21 0.28 0.35 km

0 0.04 0.08 0.12 0.16 0.2 mi

M *
G

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

M=-14.35
G=0.917

Exhibit B

Brunswick Meadows
Site Plan Layout

Exhibit K
Storm Water Sewer System Specifications

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 than 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 replace 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 than 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.

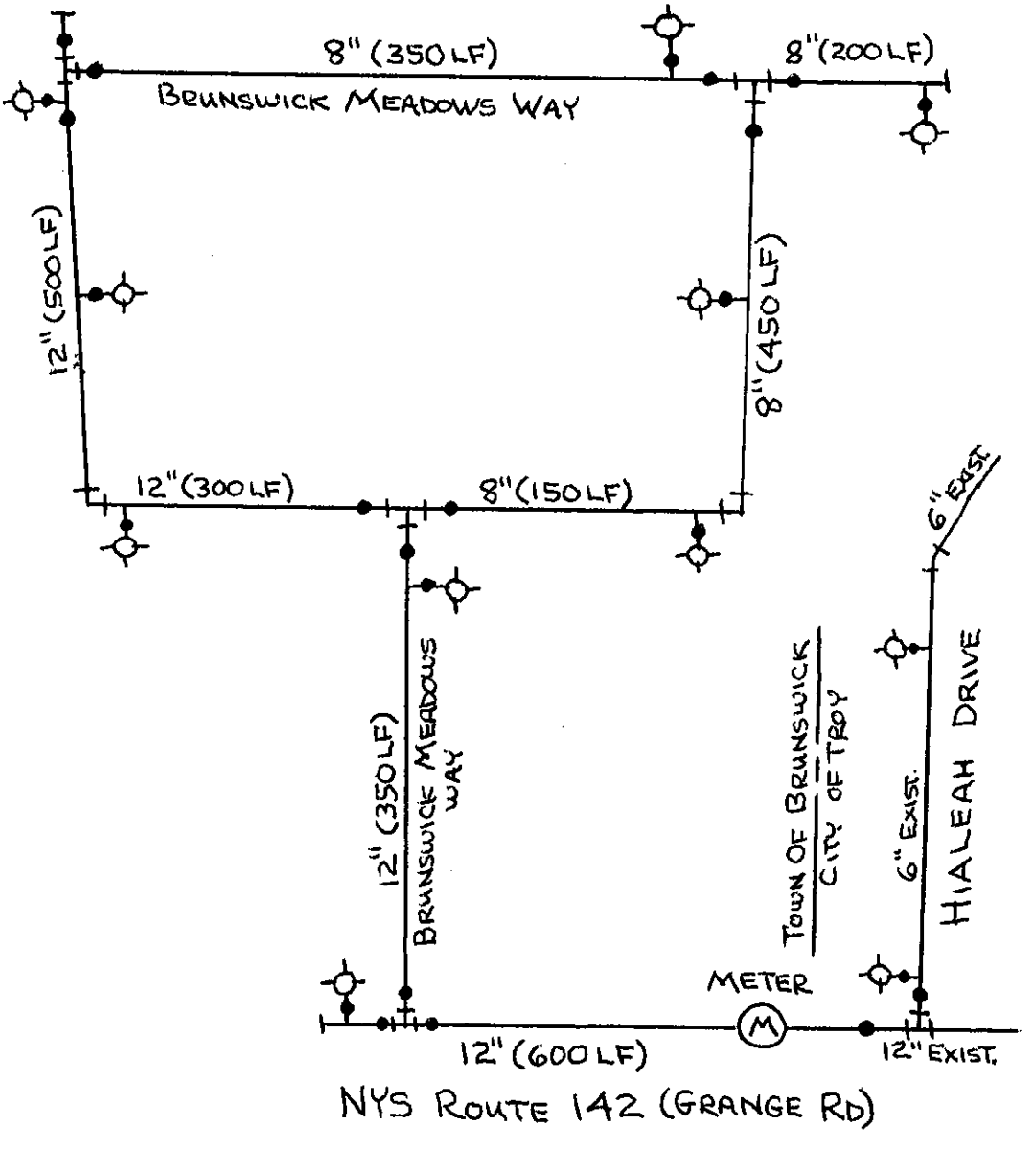
16. The contractor shall not store any material, equipment or vehicles on existing right-of-ways during hours that the contractor is not working. The contractor shall not create any hazardous conditions for the existing right-of-ways.
17. The contractor shall protect existing property line and right-of-way 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 L
City of Troy Water System

Town of Brunswick
Rensselaer County, New York

Proposed Water District No. 13

General Plan



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

Exhibit M
Water System Specifications

Water System Specifications

1. All water mains and fittings shall be Class 50 ductile iron pipe, cement lined, paint seal coated with o-ring rubber gasket push-on tyton joints, conforming to AWWA Specification C151-B with a rated working pressure of 350 psi, as manufactured by US Pipe Company or approved equal. All pipes shall be supplied and installed in accordance with the latest AWWA specifications.
2. All residential water services shall be 2-inch type K copper. No joints will be allowed between the corporation stop and the curb stop.
3. Water mains and building services under permanent and semi-permanent pavements shall be installed at a minimum depth of 5 feet below finished grade. When pipeline is installed with deflection, the design engineer or his representative shall approve the degree of deflection. Bends are to be used when deflection exceeds manufacturer's recommendations. In rock excavation, the trench excavation shall be to a depth of 12 inches below the bottom of the pipe. Pipe to be bedded in select sand material,
4. There shall be a minimum horizontal separation of ten (10) feet between any water main and any sanitary / storm sewer line. Any deviations are to be approved by the design engineer or his representative.
5. There shall be a minimum 18-inch vertical separation between any water line and any sanitary / storm sewer line. Where 18 inches of vertical separation cannot be met, the sanitary / storm sewer shall be pressure rated SDR 26 PVC pipe (meeting ASTM designation D - 3034 latest revision) with joints of a full length of pipe equidistant from the crossing point.
6. All ductile iron fittings shall be mechanical or restrained joints, cement lined, paint seal coated and Class 250 as approved by the Town of Brunswick.
7. Corporation stop shall be as approved by the Town of Brunswick.
8. Curb stop shall be as approved by the Town of Brunswick.
9. Curb box shall be as approved by the Town of Brunswick and shall be installed flush with final grade.
10. Fire hydrants shall be as currently used by the Town of Brunswick. Hydrants shall be of the break flange type with a valve opening not less than five inches. Hydrant shall be installed with retainer glands and shall open as per Town of Brunswick requirements. A six-inch valve shall be installed between the main and the fire hydrant.
11. Water valves shall be as currently used by the Town of Brunswick.
12. Retainer glands shall be as approved by the Town of Brunswick.
13. Thrust block concrete shall be 3000 psi (28-day strength) or an approved equal thrust mechanism.
14. The contractor shall ensure that the existing public water supply remains uncontaminated during the construction activities.
15. Chlorination procedure - upon completion of the work and before final acceptance, the waterlines constructed under this project shall be chlorinated and disinfected in accordance with AWWA Standard C601. Prior to chlorination, all dirt and foreign material shall be removed by a thorough flushing through the fire hydrants, or by other approved means. Each valved section of water main shall be flushed independently. The method of disinfection shall consist of introducing a solution of hypochlorite or chlorine gas and water in controlled quantities into the piping system in such proportion that the chlorine water mixture entering the piping shall contain sufficient chlorine solution so that after the solution has been in the pipeline for a period of 24 hours, there shall be a chlorine residual throughout the entire system of not less than 50 ppm. If the residual at any point in the system is less than 50 ppm after the 24-hour period, the disinfection procedure shall be repeated until such a residual is obtained at the extremities.
16. Following chlorination, all treated water shall be thoroughly flushed from the newly installed water mains at their extremities until the replacement water throughout its length shall, upon bacterial testing, be satisfactory to the design engineer or his representative.
17. Chlorination, pressure and leakage tests of water lines shall be in conformance AWWA Standards and Town of Brunswick regulations. All tests shall be performed under the supervision of the design engineer or his representative and shall be observed by representatives of the Town of Brunswick. After disinfection, water samples shall be taken and examined for

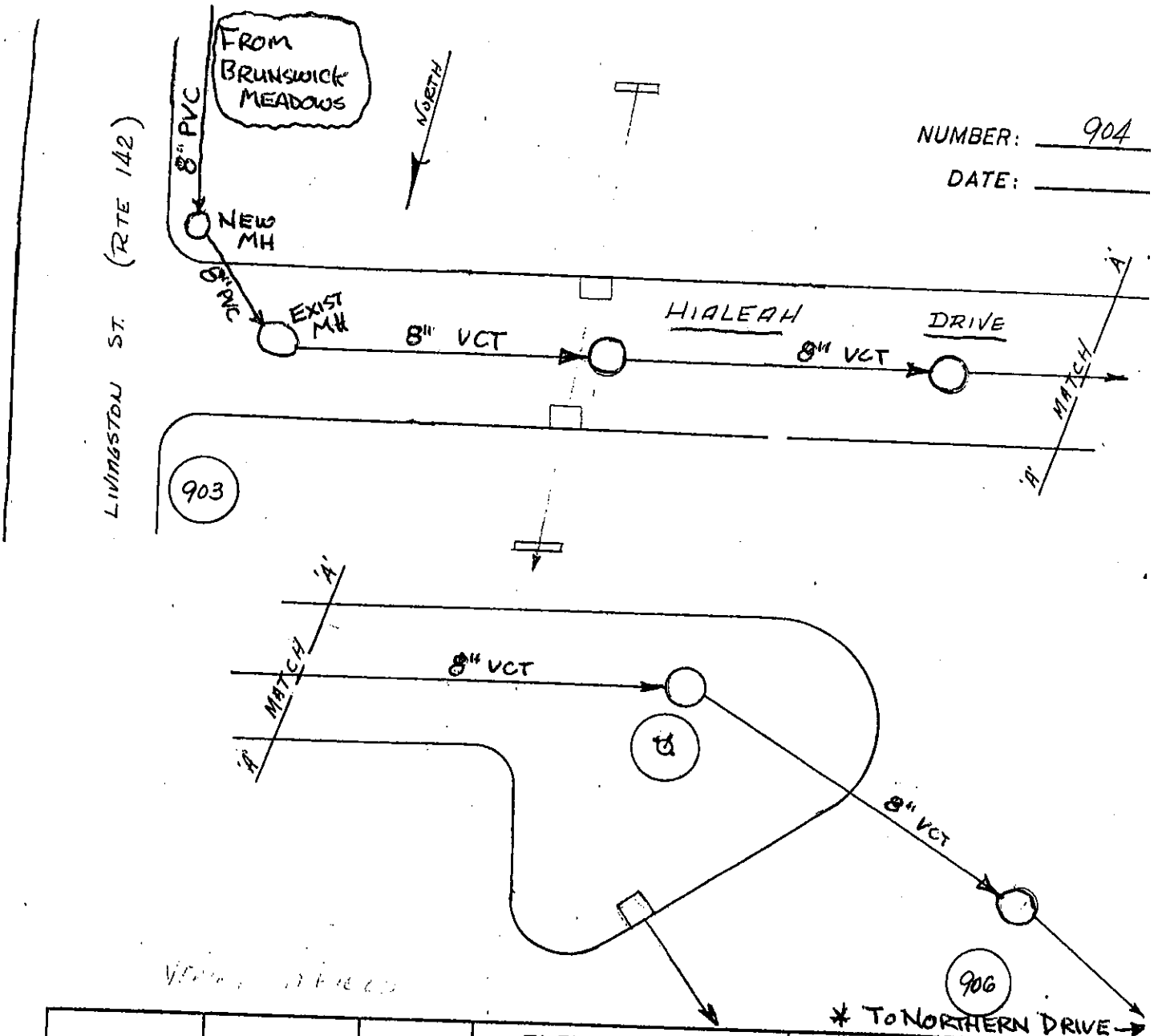
bacteria at a NYSDOH approved laboratory. Approved sample results, to verify sanitary quality, shall be obtained and submitted to the Rensselaer County Health Department and the Town of Brunswick prior to turning the water main over to the Town of Brunswick for use.

18. Water used for disinfecting the water mains, if discharged to any stream or body of water, must have a chlorine residual not exceeding 0.05 mg/l at the point of discharge.
19. The City of Troy Department of Public Utilities personnel shall make all necessary connections to the existing water system near Hialeah Drive after issuance of the required permits. The contractor shall provide an approved 12-inch valve for the City of Troy Department of Public Utilities crews to install on the 12-inch main at Hialeah Drive and NYS Route 142. The contractor shall reimburse the City of Troy Department of Public Utilities for the cost of performing the connection. Contractor shall not operate any existing water valves or fire hydrants without prior authorization from the City of Troy Department of Public Utilities.
20. Each residential building shall have an individual water meter and outside register as approved by the Town of Brunswick on the domestic water service. The 2-inch fire sprinkler service shall not be metered unless directed by the Town of Brunswick.

Exhibit N
City of Troy Sanitary Sewer System

NUMBER: 904

DATE:



M.H./C.B.#	TYPE	MAIN SIZE	ELEVATIONS		REMARKS
			N.S. RIM	INVERT(EF.)	
904					

REFERENCE: 5968 5968A

Exhibit O
Sanitary 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.

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

Exhibit P

Annual Tax Revenue Projections

Brunswick Meadows

Annual Tax Revenue Projections as of March 2007

Full Market Value: 124 units x $150,000 / unit = $18,600,000

2005 Equalization Rate: 28.75% (Year 2007)

Total Assessed Valuation: $18,600,000 x 28.75% = $5,347,500

Projected Tax Revenues

Using Tax Rates For Year 2007 and 2006-07 School

Town of Brunswick:

General Fund $ 3.004080 / $1000 x $5,347,500= $ 16,064.32

Highway Fund $ 4.520032 / $1000 x $5,347,500= $ 24,170.87

Speigletown Fire Dept: $ 6.038531 / $1000 x $5,347,500= $ 32,291.04

Rensselaer County: $22.429908 / $1000 x $5,347,500= $ 119,943.93

Lansingburgh School: $66.744400 / $1000 x $5,347,500= $ 356,915.68

Total Tax Rate = $ 102.736951 / $1000

Total Annual Tax Revenue: $549,385.84

Exhibit Q

Full Environmental Assessment Form