Supplemental Environmental Impact Statement
Lone Oak Subdivision
A 132-Unit Traditional Neighborhood Development (TND)
Town of Goshen, Orange County, New York

Volume 1 – Narrative and Exhibits

Location:	**Project Site consists of 103.42 acres situate within the Otter Kill tributary area of the Moodna Creek within the Hudson River Basin, southeast of NYS Route 17, adjacent to the Arcadia Hills Subdivision and northwest of Arcadia Road in the Town-outside-Village area of the Town of Goshen, Orange County, New York (Tax Map Parcel 11- 1 - 49.2); associated off-site central water and sanitary sewage improvements and related easement areas are proposed within 10.26 acres of adjacent 109.06-acre parcel (TMP 11-1-58).**
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Date of Submission:	**June 16, 2008 Revised January 15, 2009**
Date of Acceptance:	**February 19, 2009**
Date of Public Hearing:	**March 19, 2009**
Final Comment Date on SEIS:	**Ten (10) calendar days from Close of Public Hearing or as later established by Lead Agency**

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Supplemental Environmental Impact Statement (SEIS)
Lone Oak Subdivision
A 132-Unit Traditional Neighborhood Development (TND)
Town of Goshen, Orange County, New York

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Section 1

Introduction and Summary

This Supplemental Environmental Impact Statement (the "Supplemental EIS" or "SEIS") has been prepared for the Planning Board of the Town of Goshen (the "Town Planning Board" or "Planning Board") in accordance with the New York State Environmental Quality Review Act ("SEQRA"), Article 8 of the Environmental Conservation Law and related Implementing Regulations found at Title 6 Part 617 NYCRR.

The Supplemental EIS complements a Draft Environmental Impact Statement (the "Draft EIS" or "DEIS") prepared by PLANNERS EAST Incorporated and accepted by the Town Planning Board on November 20, 2003, in its role as SEQRA Lead Agency, in the matter of a proposal by Fini Bros. (the "Applicant" or "Project Sponsor") to develop Lone Oak Estates Subdivision, a conventional 162-lot residential subdivision (the "Project" or "Subdivision' subject of the DEIS) on a combined 226.7-acre parcel (the "Project Site" or "Site" subject of the DEIS) within the Otter Kill sub-basin on the Moodna Creek tributary area of the Hudson River basin, southeast of NYS Route 17 between the end of Harriman Drive and the Arcadia Hills Subdivision and extending to Arcadia Road in the Town of Goshen, Orange County, New York.

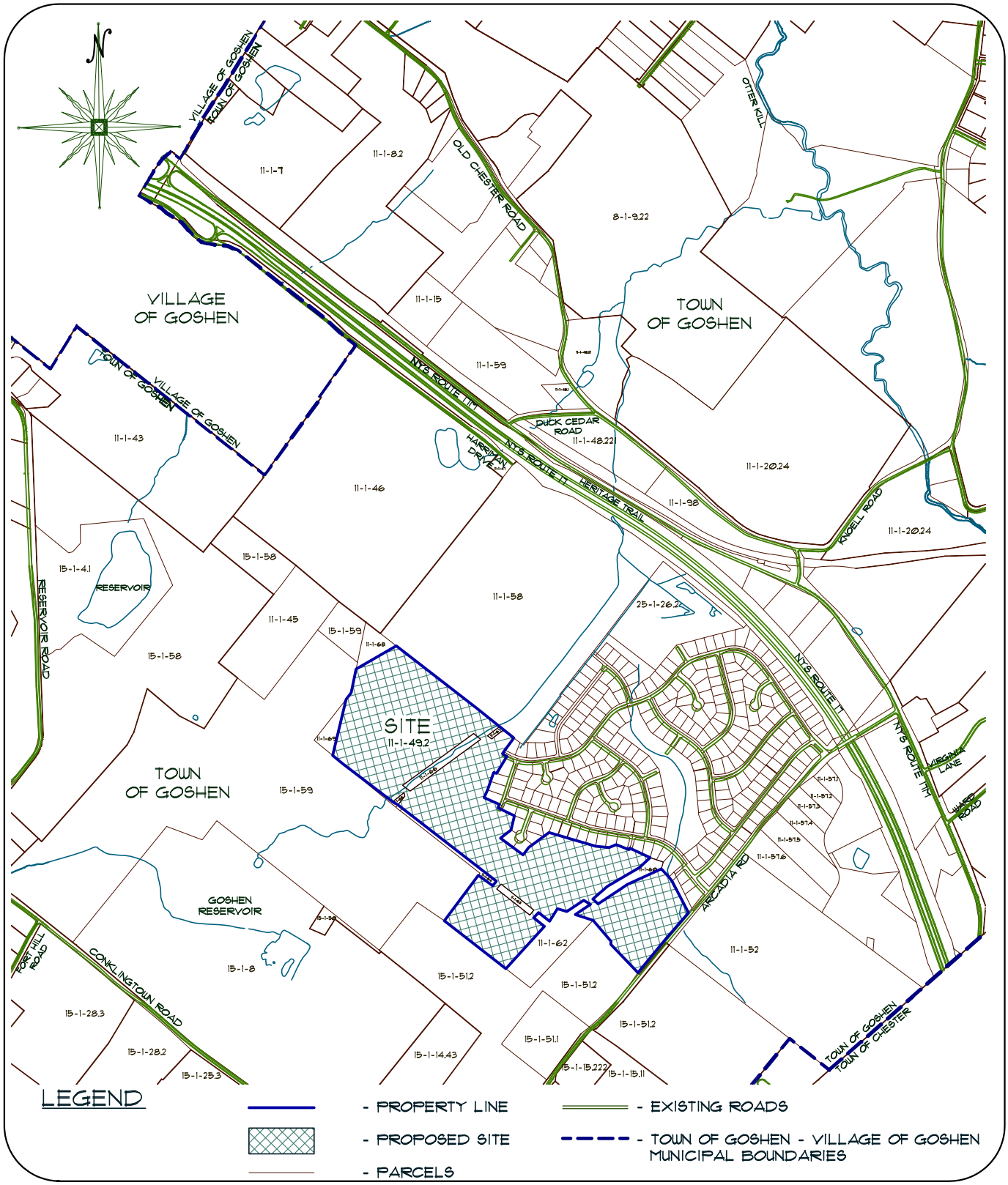
The Supplemental EIS has been prepared to address "changes in circumstance related to the Project" which have caused the Project Sponsor to now instead propose the Lone Oak Traditional Neighborhood Development, a 132-unit residential development with a range of housing types (the "Project" or "TND" subject of this SEIS) on a reduced 103.42-acre parcel (the "Project Site" or "Site" subject of this SEIS) located within the central to southeasterly portion of the combined 226.7-acre parcel subject of the DEIS.

See **Location Map.**

SEIS Subsection 1.1
Project History, SEQRA Process and Organization of the SEIS

1.1.1 Project History

Fini Bros. (the "Applicant" or "Project Sponsor") has had a long-standing interest in the proposed residential development of lands which have been within its ownership for more than 20 years within the Otter Kill sub-basin on the Moodna Creek tributary area of the Hudson River basin, southeast of NYS Route 17 between the end of Harriman Drive



SEIS FIGURE NO. 17C

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

LOCATION MAP

GRAPHIC SCALE: 1 in. = 1500 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES

262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

and the Arcadia Hills Subdivision and extending to Arcadia Road in the Town of Goshen, Orange County, New York.

The current effort to secure required permits, approvals and other compliance determinations to undertake such development began formally in September 1998. At that time an Application for Subdivision Plat Approval ("Subdivision Plat Approval" or "Subdivision Approval") for Lone Oak Estates was submitted to the Town Planning Board by the Project Sponsor and related appearances before the Planning Board occurred throughout the next several months. The Application was accompanied by a Subdivision Sketch Plan prepared by T.M. DePuy Engineering and Land Surveying, P.C., (the "Project Engineer") and a Full Environmental Assessment Form (Part 1) prepared by PLANNERS EAST Incorporated (the "Project Planner").

The intended 172-lot conventional residential subdivision was classified a "Major Subdivision" by the Town Planning Board and requirement was identified for various other permits, approvals and compliance determinations by the Planning Board, the Town Board and other local, County, State and Federal agencies, prominently including Realty Subdivision Plat Approval by the Orange County Health Department, Wetland Permits by the Army Corps of Engineers ("ACOE") and the New York State Department of Environmental Conservation ("NYSDEC"), and approvals with respect to central water and sanitary sewage by the County Health Department, NYSDEC and the New York State Health Department ("NYSDOH"), collectively being the "Proposed Action". In addition to all other requirements, demonstration of compliance with pertinent provisions of the Town of Goshen Zoning Law was identified as a prerequisite to Subdivision Approval.

1.1.2 SEQRA Process

In consideration of the above, the Town Planning Board further classified the Proposed Action as a "Type I Action" and declared its intent to serve as lead agency for coordinated environmental review thereof pursuant to the State Environmental Quality Review Act ("SEQRA"). The Planning Board was confirmed as lead agency by concurrence by the other involved agencies.

The Planning Board subsequently issued a Positive Declaration on November 5, 1998, having determined there may be potentially-significant environmental effects associated with the Proposed Action that should be addressed in a Draft EIS. The identified potentially-significant environmental effects included impacts on land, including soils and wildlife resources, impacts on NYSDEC federal jurisdictional wetlands, impacts on agricultural resources, impacts on surface water resources, impacts on groundwater resources, impacts on traffic, impacts on cultural resources, impacts on community facilities and services, and construction period impacts.

A public scoping process followed, sequentially including the Project Planner's submittal of a preliminary Scoping Document on behalf of the Project Sponsor on November 5, 1998, the Planning Board's conduct of a formal scoping session on December 3, 1998, and the Planning Board's issuance of the final Scoping Document on June 3, 1999.

For convenience of any reader who may wish to refer to the final **Scoping Document** (previously presented as DEIS Exhibit 3) in consideration of this Supplemental EIS a *verbatim* copy is provided now as **SEIS Exhibit No. 1**.

The Proposed Action ultimately examined in the ensuing Draft EIS included all permits, approvals and compliance determinations from the Town Planning Board, other Town agencies, County agencies, State agencies, and federal agencies to authorize the proposed platting of 162 lots (reduced from 172 lots during preparation of the Draft EIS) for single-family detached residential dwellings within a conventional residential subdivision layout, the construction of approximately 2.93 miles of new subdivision roadway, improvements to approximately 2,440 feet of Harriman Drive, installation of other supporting improvements including central water and sanitary sewage systems, storm management facilities, sidewalks, street trees and street lighting, reservation of roadway and utility parcels, conservation of some 70.7 acres of NYSDEC regulated freshwater wetland and/or either ACOE jurisdictional or isolated wetland, and the construction of single-family detached dwellings and typical appurtenances on each of the lots.

Discussed throughout the Draft EIS and then appended in their entirety were the following documents:

- A 36-sheet set of Preliminary Subdivision Plat drawings prepared by the Project Engineer and intended to either fully comprise or provide the basis for required agency submissions including, but not limited to:
    - Town of Goshen Subdivision Plans,
    - Orange County Realty Subdivision Plans,
    - Orange County Health Department Water Supply Plans,
    - NYSDEC and Orange County Health Department Sanitary Sewage Plans, and
    - NYSDEC Stormwater Management Plans.
- A 5-sheet set of drawings intended for submission as NYSDEC and U.S. Army Corps of Engineers Wetlands Permit and Mitigation Plans.
- Technical reports including, but not limited to:

- Engineer's Report: Storm Water Management Analysis,
- Engineer's Report: Lone Oak Subdivision Proposed Water District Formation and Infrastructure Feasibility Study,
- Engineer's Report: Lone Oak Subdivision Proposed Sewer District Formation and Infrastructure Feasibility Study,
- Report in Support of SPDES Permit Request for Lone Oak Wastewater Treatment Plant,
- Engineer's Report: Lone Oak Estates Stormwater Pollution Prevention Plan,
- Well Completion Report,
- Wetland Delineation Report (ACOE Application No. 1999-02880-YS),
- Traffic Impact Study, and
- Phase 1A Report for Archaeological Potential Sensitivity Assessment and Phase 1B Archaeological Field Investigation.

The Draft EIS was accepted by the Town Planning Board "as adequate with respect to scope and content for public review" on November 20, 2003. A Public Hearing was conducted on December 18, 2003 and written comments were accepted through December 29, 2003.

1.1.3 Organization of the Supplemental EIS

This Supplemental EIS addresses, in the words of Part 617.9(a)(7)(c) of the Implementing Regulations, "a change in circumstances related to the project" that has occurred since the close of the written comment period on the Draft EIS, this change being of fundamental significance. Specifically, on June 10, 2004, the Goshen Town Board rezoned the combined 226.7-acre Project Site as part of a comprehensive amendment of the Town's Zoning Law (c. 1973) from the AR-1.0 (Agricultural-Residential) and the SR-2.5 (Suburban-Residential) Districts to the HR (Hamlet Residential) District.

In addition to the matter of the adoption of the Amended Zoning Law by the Town Board, the Supplemental EIS addresses a second fundamental and significant circumstance, the Project Sponsor's modification of the extent of land area comprising the Project Site. The Project Sponsor initially withdrew from the Project Site the land area encompassed by some twenty-four (24) previously-platted lots and associated rights-of-way within substantially-developed Sections A and/or B of the adjacent Arcadia Hills Subdivision, including some nine (9) lots no longer owned or otherwise controlled by the Project Sponsor, reducing its overall combined area to 212.5 acres. Subsequently, during the

course of preparation of this Supplemental EIS the Project Sponsor has further reduced the Project Site by withdrawing the 109.06-acre parcel to the north and west, except to the extent installation and maintenance of off-site water and sanitary sewage improvements supporting the Lone Oak TND and associated utility and wellhead protection easements occupying 10.26 acres, or approximately 9.4 percent, of the parcel, are proposed. Development of the TND is otherwise proposed fully within the remaining 103.42-acre parcel to the south and east, this 103.42-acre being coincident with the land area originally set forth as Sections C and D of the Arcadia Hills Subdivision.

See **SEIS Figure No. 1, Lands of Fini Bros. subject of DEIS and SEIS**, which follows Page 22 of this Supplemental EIS.

Perhaps the principal effect of the reduction in the land area of the Project Site to its present 103.42 acres has been to cause the entire TND Project Site to be located within existing Town sewer and water districts, namely Arcadia Hills Town Sewer District as created by the Town Board on March 14, 1968, and the Arcadia Hills Town Water District as created by the Town Board several years earlier on November 12, 1973. This obviates the need to either create new Town sewer and water districts to accommodate the Lone Oak TND or otherwise extend the existing Town districts. Furthermore, this circumstance may affect the location at which sanitary sewage generated within the Lone Oak TND would be treated. A program for conveyance of TND-generated sewage to, and treatment at, the Village of Goshen wastewater treatment plant (STP) including undertaking of improvements to the existing sanitary sewage facilities serving the Arcadia Hills Subdivision is set forth as an alternate to the permitting and construction of a new, though down-sized version of the STP, as otherwise described in the Draft EIS, on the adjacent Lands of Fini

The Supplemental EIS also accounts for other changes by regulatory agencies during the past decade in permit requirements and design standards pertinent to the development of the Lone Oak Project Site, including the following:

- The establishment by NYSDEC of more stringent stormwater management standards, the new standards providing for an increase in prior requirements related to water quality volume and the introduction of new policies on channel protection.

- The adoption effective in 2007 of more stringent requirements by NYSDOH based upon the 2003 Edition of Ten State Standards for a multiple-well water supply source, the new requirements being that the community water system's well water supply must both produce the maximum (i.e. twice the average) daily demand and be capable of meeting this standard with the best (i.e. largest production) well out of service.

- The establishment under the 2003 Edition of Ten State Standards of more stringent water pressure requirements for a water system with fire flow capability, the new standard being maintenance of a minimum pressure of 35 PSI under

normal flow demand and 20 PSI under peak flow fire demand at ground level during a fire event of 1,500 gallons per minute.

- The re-issuance and associated modification effective March 2007 of Nationwide Permits administered by the ACOE in its regulation of federal jurisdictional wetlands , and the related heightened concern for threatened and/or endangered species, in particular in this region being the Bog turtle (*Clemmys muhlenbergii*) and the Indiana bat (*Myotis sodalist*).

- The pending issuance by the Federal Emergency Management Agency (FEMA) of a revised Flood Hazard Boundary Map (FHBM) for the Town of Goshen.

In addition, the Supplemental EIS employs in its analysis updated demographic multipliers set forth in Residential Demographic Multipliers, Estimates of Occupants of New Housing issued by the Rutgers University Center for Urban Policy Research in June 2006, these more current multipliers based upon 2000 Census data and substituting for the then accepted multipliers employed in the Draft EIS.

The Supplemental EIS is organized within the ten (10) Sections indicated below, including the current Section 1, Introduction and SEIS Summary, which Sections are complemented by various Exhibits and Appendices:

- Section 1 Introduction and SEIS Summary
- Section 2 Discussion of Changes in Circumstance
- Section 3 Description of the Proposed Action
- Section 4 Existing Environmental Setting, Anticipated Impacts and Related Mitigation Measures
- Section 5 Unavoidable Adverse Environmental Effects If the Project Is Implemented
- Section 6 Alternatives to the Proposed Action
- Section 7 Irreversible and Irretrievable Commitment of Resources
- Section 8 Growth-Inducing Aspects
- Section 9 Effects of the Use and Conservation of Energy Resources
- Section 10 Comparative Assessment of Proposed Actions and Modifications to the Draft EIS

SEIS Section 2 first sets forth the “change in circumstances related to the project” and SEIS Section 3 follows, among its other features, with the presentation of a modified layout plan based upon the requirements and guidelines established by the Town Board

for development within the HR (Hamlet Residential) District and the other components of the change in circumstances related to the project.

The Supplemental EIS then tracks in the aforementioned SEIS Section 3 and in ensuing SEIS Sections 4 through 9 the format and scope of the Draft EIS substituting discussion of the now-proposed Lone Oak Traditional Neighborhood Development (the "Lone Oak TND" or the "TND") for the discussion of the earlier-proposed Lone Oak Estates Subdivision.

Closing out the Supplemental EIS is SEIS Section 10 which includes both a tabular summary of the comparative environmental impacts of the 132-Unit Lone Oak TND and the previous 162-Lot Lone Oak Estates Subdivision and highlights the principal modifications of the Draft EIS caused by the change in circumstances and the related emergence of the Lone Oak TND as the "Project".

SEIS Subsection 1.2
Project Description

The modified subdivision layout plan presented in this Supplemental EIS depicts a Traditional Neighborhood Development (the "TND Site Plan" or "Lone Oak TND") for residential development of the central to southeasterly 103.42 acres of the combined remaining 212.5-acre tract with a total of 132 dwelling units within a mix of single-family detached homes, duplex dwellings and town homes dwelling types, served by a framework of supporting infrastructure, open space and other community amenities.

See **SEIS Figure No. 4, Lone Oak Traditional Neighborhood Development / Overall Plan**, prepared by Esposito & Associates, and dated March 31, 2008, which follows Page 35 of this Supplemental EIS.

The Lone Oak TND includes the construction of 88 single-family detached dwellings, 16 single-family semi-detached dwelling units and 28 town homes within intended for build-out within a period of three (3) to five (5) years from the start of residential construction. Ten percent (10%) of the dwelling units would be reserved as affordable housing in accordance with Town Code Section 97-24.

In addition to the individual single-family lots and other dwelling sites, the roadways and the community facilities located within the 45.20-acre "Developed Area", substantial open space lands totaling 58.22 acres, and referred to as the "Open Area", will be provided. The conserved open space lands comprise 56.3 percent of the TND Project Site's acreage. The conserved open space lands adjoin in part additional open space

lands acquired by the Town of Goshen at the time of development of Sections A and B of the Arcadia Hills Subdivision.

Complementing the residential and community facility uses will be the construction within the on-site "Developed Area" of approximately 3.4 miles of subdivision boulevard, neighborhood streets and service lanes, installation of other supporting improvements including central water and sanitary sewage systems, storm management facilities, sidewalks and other pedestrian ways, street trees and street lighting; and the reservation of roadway, utility and open space parcels. Related improvements associated with the proposed central water and sanitary sewage systems, as later highlighted in Section 3 of this Supplemental EIS, will occur within adjacent off-site lands also owned by the Project Sponsor but not otherwise proposed for development in the foreseeable future due to the water supply limitations cited in SEIS Subsection 2.2.

The constructed improvements will result in the creation of impervious surfaces on 19.84 acres, or approximately 43.9 percent of the "Developed Area" within the TND Project Site. The remaining 25.36 acres, or approximately 56.1 percent of the "Developed Area", will consist of lawns, preserved wooded areas and other landscaped areas.

The 58.22 acres of "Open Area" include 12.45 acres of delineated NYSDEC regulated freshwater wetland and/or ACOE jurisdictional or isolated wetland that will be conserved within the Project Site, representing 98.3 percent of the TND Project Site's existing 12.66 wetland acres, and 45.77 acres of upland area, a portion of which is regulated by NYSDEC as wetland buffer. In addition, 0.73-acre of either new or restored wetland will be created as part of a wetland mitigation program to compensate for the 0.395-acre of permanent wetland impact caused either within or adjacent to the Project Site by development of the TND. As depicted on the TND Site Plan, active and passive recreation facilities are proposed within portions of the upland "Open Area".

A range of legal mechanisms will be employed to provide for the long-term ownership and maintenance of the various components of the Traditional Neighborhood Development in accordance with the approved plans, including individual ownership in the case of the proposed dwelling units, dedication to the Town or existing special districts, establishment of public transportation corporations and/or other special districts, formation of one or more home owners associations (HOAs), and grant of conservation and other easements.

SEIS Subsection 1.3
Potential Impacts and Related Mitigation Measures

Discussion occurs throughout SEIS Section 4, "Existing Environmental Setting, Anticipated Impacts and Related Mitigation Measures", regarding the potential effects of the development of the Lone Oak TND Project Site and the installation of associated off-site improvements on environmental resources, both natural or man-made, including but not limited to the following citations in the Planning Board's November 1998 Positive Declaration:

- Impacts on land resources, including disturbance of soils, vegetation and wildlife caused by clearing, grading and other site development activities.

- Disturbances to federal jurisdictional wetlands or NYSDEC wetlands and associated buffer areas.

- Impacts on agricultural resources.

- Impacts on surface water resources.

- Impacts on groundwater resources.

- Impacts of traffic on the adjacent highway network.

- Impacts on cultural resources, including consideration of both historical and cultural resources and visual impact.

- Impacts on community facilities and services.

- Construction period impacts.

In summary, the discussion in Supplemental EIS Section 4 establishes the following:

- Impacts on land, including consideration of geology, soils, topography and landform, have been carefully taken into account by the Land Planner and Project Engineer in design and layout of the Lone Oak TND and will be further mitigated to the extent practicable as the TND Site Plan is refined prior to completion of the subdivision review and approval process in accordance with the requirements of the Town of Goshen, the Orange County Health Department, the NYSDEC and the U.S. Army Corps of Engineers.

- Impacts on vegetation and wildlife caused by the development of the Lone Oak TND have been determined by the Project Sponsor to be of no significant adverse environmental effect, with no rare, threatened or endangered species encountered, and special emphasis provided though not limited during the

evaluation to the potential presence of Bog turtle (*Clemmys muhlenbergii*) and/or Indiana bat (*Myotis sodalist*).

Related comments on vegetation and wildlife developed on behalf of the Lead Agency by Hickory Creek Consulting, LLC, in a memorandum dated December 19, 2007, have been addressed by the Project Ecologist with responses presented in a letter of January 22, 2008, from North Country Ecological Services to the Project Land Planner.

- Impacts on federal jurisdictional wetlands and NYSDEC wetlands and associated buffer areas have been carefully taken into account by the Land Planner and Project Engineer in the design and layout of the Lone Oak TND as the project has evolved from a conventional residential subdivision under previously applicable AR-1.0 and SR-2.5 District criteria to a traditional neighborhood development under the Town Zoning Law's current Hamlet Residential (HR) District designation.

  The total wetland disturbance on the TND Project Site (both permanent and temporary) has been reduced to 9,255 square feet, or 0.212 acre, representing 1.68 percent of the 12.66 acres of delineated wetland on the 103.42-acre Project Site. Of the impacted wetland, 495 square feet or 0.011 acre is classified as "isolated" and thus non-jurisdictional with the remaining 0.201 acre of impacted wetland subject to jurisdiction by ACOE pursuant to Nation-Wide Permits 7, 12, 14 and 29. 1,530 square feet, or 0.035 acre, of the impacted area of ACOE jurisdictional wetland, and an adjacent 30,190 square feet, or 0.693 acre, of regulated buffer, falls within NYSDEC Wetland GO-41 and is subject to jurisdiction by NYSDEC pursuant to the NYS Freshwater Wetlands Law.

  Additional wetland impact related to the proposed utility installations and related access requirements for construction and maintenance purposes occurs off-site within the adjacent 109.06 acres owned by the Project Sponsor. Permanent and temporary impacts to NYSDEC Wetland GO-41, including 14,090 square feet, or 0.323 acre, of "pre-existing disturbances" cited by ACOE and related to drilling of water supply wells, total 23,445 square feet, or 0.538 acre. Related encroachment of 11,580 square feet, or 0.266 acre, occurs on the adjacent 109.06 acres within the 100-foot regulated buffer area.

  The Project Sponsor is prepared to mitigate the permanent wetland loss of 0.395-acre and permanent regulated buffer encroachment of 0.11-acre that would be experienced in carrying out the TND Site Plan by restoring 0.13-acre of wetland within a portion of the area of "pre-existing disturbance", constructing 0.60-acre of new wetland within upland area of the TND adjacent to the existing wetlands and carrying out other improvements that may be recommended by the agencies to enhance the hydrology and/or habitat of the present on-site wetland areas.

  In addition, the Project Sponsor proposes consideration be given to title transfer of the principal conserved wetland areas within the Lone Oak TND to either the Town of Goshen or a qualified conservation organization and, as may be

deemed appropriate by the Planning Board, the imposition of a wetland conservation easement applying to both the transferred wetlands and any other smaller ACOE jurisdictional wetland and/or NYSDEC regulated wetland within the TND.

Related comments on wetlands developed on behalf of the Lead Agency by Hickory Creek Consulting, LLC, in the aforementioned memorandum dated December 19, 2007, have been addressed by the Project Ecologist with responses presented in the aforementioned letter of January 22, 2008, from North Country Ecological Services to the Project Land Planner. Subsequent comments by Hickory Creek Consulting, LLC, on July 31, 2008, have also been addressed by North Country Ecological Services and incorporated in the discussion at Section 4, Subsection 4.2, of this Supplemental EIS.

- Impacts on agricultural resources caused by the development of Lone Oak TND have been determined by the Project Sponsor to be of no significant adverse environmental effect in consideration of the absence of any Class I agricultural soils on the Project Site, the limited extent of Class II and Class III agricultural soils present there, and the fact that unlike the adjacent 109.06 acres that has been used in part by a local farm operation for either hayfield or cornfield in recent years, the lack of any agricultural activity within 40 or more years within the reduced Project Site. Moreover, the continuation of this type of local farm operation within the adjacent 109.06 acres would be minimally affected, particularly beyond the short-term construction period, by the presence of the proposed central water and sanitary sewage improvements and associated easement areas there.

- Impacts associated with the pollution of groundwater resources within the Project Site and its environs from sanitary sewage have been avoided through the intended construction of a central sanitary sewage collection system serving all 132 dwelling units and community facilities within the Lone Oak TND and the conveyance of the site-generated sanitary sewage for treatment to either a newly-constructed on-site STP or, in the alternate, the Village of Goshen wastewater facility (STP). In the former case of the project plan, surface water discharge of the treated effluent would occur to the Otter Kill in accordance with intermittent stream effluent limitations promulgated by NYSDEC and a newly-issued NYSDEC SPDES Permit. In the case of the latter alternate plan, the subsequent discharge of treated effluent would occur from the Village STP in accordance with the terms of its current NYSDEC SPDES Permit. There will be no installation of subsurface sewage disposal systems within the TND.

  In addition, potential impacts associated with the withdrawal of groundwater from water supply wells located on the Project Site in sufficient quantity to serve the Lone Oak TND (consisting of 132 dwelling units and related community facilities with a projected average water supply demand of 48,020 GPD and a maximum water supply demand of 96,040 GPD) through a central water system have been demonstrated through 72-hour pump testing of the known source Fini wells and water-level interference studies of nearby public and private water supply wells to be of no significant adverse environmental effect.

Related comments on groundwater resources developed on behalf of the Lead Agency by Riddick Associates, P.C., in a memorandum dated December 24, 2007, and by Hickory Creek Consulting five days earlier, have been addressed by the Project Hydrogeologist with responses presented in a letter of February 20, 2008, from Leggette, Brashears & Graham, Inc., to the Project Land Planner.

The Project Hydrogeologist has also explained in a letter of October 10, 2008, to the Project Land Planner why the runoff from the 19.84 acres of impervious surface that would be created by the Lone Oak TND, though collected through the proposed stormwater management system, is considered to remain available for groundwater recharge on-site and within the watershed.

In addition, the alternative of serving the water supply demand of the Lone Oak TND by integrating its proposed supply and storage facilities with the existing facilities of the Arcadia Hills Town Water District has been addressed by the Project Engineer. See Section 6, Alternatives to the Proposed Action, Subsection 6.10, of this Supplemental EIS.

- Impacts of the traffic generated by the Lone Oak TND have been determined through traffic capacity analysis to not significantly impact traffic operations on the roadway system in the vicinity of the Project Site.

  Similar “levels of service” and delays will be experienced in the 2011 Design Year employed in the Traffic Impact Study (“TIS”) by John Collins Engineers under the “No-Build” and the “Build” conditions for the existing intersections studied within the vicinity of the Project Site.

  In addition, the proposed subdivision roadway intersection on Arcadia Hill Road has been determined to operate at an acceptable “levels of service” under the “2011 Build Condition”.

  Furthermore, while the proposed connection from the Lone Oak TND to Maplewood Lane will result in some additional traffic utilizing Cherrywood Drive and/or Wedgewood Drive to access Arcadia Road, the TIS indicates that the additional potential for 15 to 20 peak hour vehicles utilizing this connection can be accommodated at acceptable Levels of Service.

  The traffic capacity analysis by John Collins Engineers further indicates the construction of a through road between the easterly end of Harriman Drive and Arcadia Road, as discussed in Section 4, Subsection 4.5, of this Supplemental EIS, is not required to accommodate the additional traffic that would be generated by the Lone Oak TND.

- Impacts on cultural resources, including historic and archaeological resources, have been determined to be of no significant adverse environmental effect, based upon archaeological sensitivity assessment, ensuing field investigation and review by NYSOPRHP.

- Consideration of the potential visual impact of the proposed TND, including both the residential dwellings and the supporting infrastructure, has been undertaken.

The potential significant visual impacts evaluated in the Draft EIS involved the presence of substantial residential development near the end of Harriman Drive that would be visible from NYS Route 17 and the visibility of proposed water storage facilities. The reduction of the Project Site to its present 103.42 acres has removed from residential development the Fini lands adjacent to NYS Route 17. The Project Sponsor has further substantially avoided potential visual impact associated with water storage facilities by incorporating within the Lone Oak TND a modified on-site low-profile tank installation complemented with required service flow and fire flow pumps to provide adequate combined normal and fire demand storage capacity (250,000 gallons in the case of the Lone Oak TND) and designed to conform to the earlier-cited minimum water system pressure requirements of 35 PSI under normal flow demand and 20 PSI under peak flow fire demand. An alternate off-site location that would provide for combined water storage facilities on Town-owned lands to the east of Arcadia Road is also discussed in this Supplemental EIS as is a second alternate off-site location on Town-owned lands (TMP 11-1-68) contiguous to the proposed TND.

- Impacts on community facilities and services have been determined to be of no significant adverse environmental effect.

  While development and related occupancy of 132 dwelling units within a range of housing types will upon application of the updated demographic multipliers result in a projected population of 431 persons, including 99 school-age children, 90 of whom will attend public schools, the commensurate demand for community facilities and services, including protective and emergency services and schools, will be “phased in” over a build-out period of a projected 3 to 5 years from the start of residential construction, with an average of some 26 to 44 dwelling units “brought on-line” annually, and is not anticipated to impose a unique burden on these community facilities and services.

  Further, as routinely occurs, through real property tax levies the owners of the residential properties within the Lone Oak TND will share as members of the community with other residents and taxpayers in the overall costs for providing these services and maintaining the related facilities in accordance with the community’s mandated responsibilities under State law and its local expectations and objectives.

  Based on recent assessment and tax rates, total estimated annual real property tax revenues generated by the development of the Lone Oak TND will be $1,802,376 at full build-out, consisting of the following payments:

  - $234,350 to Orange County.
  - $213,114 to the Town of Goshen.
  - $1,283,815 to the Chester Union Free School District.
  - A total of $71,097 to the Goshen No. 1 and Chester No. 3 Fire Districts.

The amount of additional real property tax generated is projected to exceed the additional costs borne by real property tax for delivery of services to the residents of the Lone Oak TND. In particular, the following annual fiscal impacts will be experienced:

- Net positive impact of $+82,947 by the Town of Goshen.
- Net positive impact of $+244,033 as related to local school tax burden by the Chester Union Free School District.

A "sensitivity analysis" has also been conducted to establish comparative fiscal impact to the Town of Goshen and the Chester Union Free School District under the following scenario:

- Upon application of the former accepted demographic multipliers which would indicate a greater projected overall resident population and number of school-age children.

In this instance, based upon a greater total resident population of 462 persons and 121 school-age children who would attend public schools, the following annual fiscal impacts would be experienced:

- Net positive impact of $+73,676 by the Town of Goshen.
- Net negative impact of $-111,506 as related to local school tax burden by the Chester Union Free School District.

- Impacts associated with construction activities have been determined to be of no significant adverse environmental effect.

  These effects will be of short duration and mitigated to the extent practicable through employ of such measures as phased site preparation, adherence to required blasting procedures, timely implementation of a erosion and sediment control plan and conformity with any other construction period permit or approval conditions that may be established by the Orange County Health Department, NYSDEC, the U.S. Army Corps of Engineers, or the Town Planning Board.

SEIS Subsection 1.4
Required Permits, Approvals and Compliance Determinations

The reviews, approvals and compliance determinations required for the Lone Oak Traditional Neighborhood Development are discussed in greater detail in SEIS Section 3, Subsection 3.6.

Listed below are the identified responsible agencies and their principal areas of jurisdiction:

Town of Goshen Planning Board

- Completion of SEQRA compliance in lead agency role
- Subdivision Plat Approval for platting of the TND
- Special Use Permit and Site Plan Approval for certain elements of the TND

Town Board of the Town of Goshen

- Acceptance of Offer of Dedication of Central Water System on behalf of Arcadia Hills Town Water District
- Acceptance of Offer of Dedication of Central Sanitary Sewage System on behalf of Arcadia Hills Town Sewer District
- Under the Sanitary Sewage Alternate 2 set forth by the Project Engineer, Approval of Improvements to Arcadia Hills Town Sewer District No. 2
- Under the Alternate Water System Plan set forth by the Project Engineer and described in Section 6, Subsection 6.10, of this Supplemental EIS, Approval of Improvements to Arcadia Hills Town Water District No. 2. _
- Acceptance of Offer of Dedication of Subdivision Roadways and Associated Improvements, Lands and Easements
- Acceptance of Offer of Dedication of Certain Open Space Lands including Community Recreational Area and Wetland Conservation Parcel(s)
- Under Sanitary Sewage Alternate 2, Review of Agreement with Village of Goshen, Re: Treatment of Sanitary Sewage Flow from Arcadia Hills Town Sewer District No. 2
- Formation of the Lone Oak Town Drainage District
- Formation of the Lone Oak Town Lighting District
- Execution of an Affordable Housing Agreement with the Project Sponsor

Town of Goshen Highway Superintendent

- Highway Access and Work Permits for the construction of the proposed intersection of the subdivision roadway with Arcadia Road, the extension of Maplewood Lane into the Lone Oak TND, and the construction of a service

driveway accessing the STP (or alternate sanitary sewage improvements) and the Fini well sites from Harriman Drive.

- Highway Work Permit(s) for any other work within Town highway right-of-way that may be required for installation or connection of TND infrastructure

- Recommendation as to whether the proposed dedication of subdivision improvements within the Highway Superintendent's jurisdictions, typically being roadways, associated pedestrian ways and drainage improvements, should be accepted by the Town Board

Village Board of the Village of Goshen

- Modification, if any is required, in existing agreement providing for treatment of sanitary sewage flow from Arcadia Hills Town Sewer District at Village of Goshen STP

Orange County Health Department

- Realty Subdivision Plat Approval

- Design Approval of Water System

Other Orange County Agencies

- Department of Planning Referral under Section 239 General Municipal Law

New York State Department of Environmental Conservation

- NYSDEC Water Taking Permit (Water Supply Application)

- NYSDEC Approval of Sanitary Sewage System Design Plans

- NYSDEC Protection of Waters (Stream) Permit

- NYSDEC Freshwater Wetlands Permit

- Compliance with NYS General Permit for Stormwater Discharges from Construction Activities or Individual Stormwater SPDES Permit

- Water Quality Certification

Other New York State Agencies

- NYS Health Department Design Approval of Plans for Water Supply Improvement

- NYSDOT issuance of a Highway Utility Work Permit to authorize routing of a portion (approximately 500 feet) of sanitary sewer trunk line within NYS Route 17 right-of-way to mitigate environmental impacts

- NYS Comptroller's Office approval of financing arrangements for central water supply and/or sanitary sewage systems

- NYS Public Service Commission (State Water Board) approval of financing arrangements for central water system if operated by a Public Transportation Corporation in accordance with the alternate presented in this SEIS

- NYS Department of State Authorization for Incorporation of Homeowners' Association(s)

- NYS Attorney General's Office Authorization of Filing of Offering Plan(s) or, as may be applicable, concurrence with CPS-7 Treatment

- NYS Office of Parks, Recreation and Historic Preservation "Sign Off" pertaining to cultural (historic, architectural and archaeological) resources pursuant to Inter-Agency Agreement

- NYS Department of Agriculture & Markets satisfaction of notice and disclosure requirements associated with non-agricultural development within and/or adjacent to a Certified Agricultural District

U.S. Department of the Army / New York District Corps of Engineers

- Documentation of compliance with Nationwide Permit standards and requirements or securing of Individual Permit for encroachment within Federal jurisdictional wetlands

SEIS Subsection 1.5
Alternatives

The Alternatives examined in Section 6 of this Supplemental EIS are the following:

- The "No Action" Alternative as required pursuant to Title 6 Part 617.b.5 NYCRRR.

- “Alternative Access Configuration”, as set forth in the final Scoping Document.

- “Modifications in TND Design, Scale and/or Configuration to Mitigate Adverse Environmental Effects”, as set forth in the final Scoping Document.

- “Alternative Ownership and Operation of TND Central Water and Sanitary Sewage Facilities”, “Alternative Ownership of TND Wetland Conservation Parcels”, “Alternative Ownership of TND Recreation Lands”, “Alternative Ownership and Maintenance Responsibility for Certain TND Roadways”, “Alternative Sites for Water Storage Facilities”, “Alternative Wastewater Treatment Facilities” and “Alternate Arcadia Hills Water System Connection”, all as identified as warranting discussion by the Project Planner in preparation of either the previous Draft EIS or this Supplemental EIS.

Three other Alternatives discussed in the Draft EIS, these being “Alternative to Address Newly-Discovered Information”, “Alternative for Disposition of Existing Lots of Record within Arcadia Hills Subdivision’ and “Reduced Lot Alternative to Address Comments on Preliminary Draft EIS”, are not applicable to the modified project subject of this Supplemental EIS.

SEIS Section 2
Discussion of Changes in Circumstance

As stated in Supplemental EIS Section 1, "changes in circumstance related to the project" have occurred since the time of preparation, acceptance and review in 2003 of the Draft EIS for the Lone Oak Estates Subdivision.

These changes are discussed in Subsections 2.1 through 2.6, respectively, in the order listed below:

- Amendment of Zoning Law. The Supplemental EIS responds to the Town Board's adoption in June 2004 of a comprehensively-amended Zoning Law providing for fundamental change in the permissible density and the preferred configuration of residential land use and mix of housing types within the Project Site and including requirement for the provision of affordable housing.

- Reduction in Land Area of Project Site. The Supplemental EIS accounts for the Project Sponsor's initial reduction in the area of the TND Project Site by 14.2 acres and ultimately by an additional 109.06 acres from the 226.7 acres subject of the Draft EIS to its present 103.42 acres, with the Lone Oak TND Project Site now consisting in its entirety of TMP 11-1-49.2.

  The initial 14.2 acres removed consisted of certain existing lots of record and associated rights-of-way within substantially-developed Sections A and B of the Arcadia Hills Subdivision. The additional 109.06 acres to the west of the TND Project Site (TMP 11-1-58) has been removed since the Lone Oak TND was last discussed with the Town Planning Board in that no development, except for installation and maintenance of off-site water and sanitary sewage improvements supporting the TND and grant of associated utility and wellhead protection easements occupying a combined 10.26 acres, is proposed within this parcel due to the Project Sponsor's inability to secure within the foreseeable future adequate water supply to accommodate the permissible Hamlet Residential District residential uses that might otherwise occur there.

- Project Site Inclusion within Existing Town Water and Sewer Districts. One of the effects of the reduction in the land area of the Project Site is to cause the entire TND Project Site to be located within existing Town water and sewer districts, namely Arcadia Hills Town Water District as created by the Town Board on November 12, 1973, and the Arcadia Hills Town Sewer District as created by the Town Board several years earlier on March 14, 1968.

- Alternates for Sanitary Sewage Treatment. Due to recent changes in circumstance involving principally the expanded capacity of the Village of Goshen wastewater treatment facility, the Supplemental EIS presents alternates for the treatment of sanitary sewage flow generated within the Lone Oak TND.

Alternate 1 provides for the construction of an off-site STP on the other lands of Fini adjacent to the TND Project Site while Alternate 2 provides for improvements to the existing Arcadia Hills sanitary sewage system and conveyance of the combined flows of the Arcadia Hills Subdivision and the Lone Oak TND to the Village of Goshen wastewater treatment facility.

- Other Regulatory Changes. The Supplemental EIS accounts for other changes by regulatory agencies during the past decade in permit requirements and design standards pertinent to the development of the Lone Park Project Site, including the following:

  - The establishment by NYSDEC of more stringent stormwater management standards in carrying out the EPA Phase 2 regulations, the new standards providing for an increase in prior requirements related to water quality volume and the introduction of new policies on channel protection. Related to these standards, new stormwater permits effective May 1, 2008, have been issued by NYSDEC. A new Notice of Intent (NOI) is now available for coverage under General Permit (GP) 0-08-001 instead of prior GP 02-01.

  - The adoption effective in 2007 of more stringent requirements by NYSDOH based upon the 2003 Edition of Ten State Standards for a multiple-well water supply source, the new requirements being that the community water system's well water supply must both produce the maximum (i.e. twice the average) daily demand and be capable of meeting this standard with the best (i.e. largest production) well out of service.

    This more stringent standard supersedes the prior 1997 Ten State Standards for Water Supply requiring that the average daily demand (and not twice the average daily demand) be met with the largest producing well out of service.

  - The establishment under the 2003 Edition of Ten State Standards of more stringent water pressure requirements for a water system with fire flow capability, the new standard being maintenance of a minimum pressure of 35 PSI under normal flow demand and 20 PSI under peak flow fire demand at ground level during a fire event of 1,500 gallons per minute.

  - The re-issuance and associated modification effective March 2007 of Nationwide Permits administered by the ACOE in its regulation of federal jurisdictional wetlands, and the related heightened concern for threatened and/or endangered species, in particular in this region being the Bog turtle (*Clemmys muhlenbergii*) and the Indiana bat (*Myotis sodalist*).

  - The pending issuance by FEMA of a revised Flood Hazard Boundary Map for the Town of Goshen.

- Update of Accepted Demographic Multipliers. The Supplemental EIS employs in its analysis updated demographic multipliers set forth in <u>Residential Demographic Multipliers, Estimates of Occupants of New Housing</u> issued by the Rutgers University Center for Urban Policy Research in June 2006, these more current multipliers based upon 2000 Census data and substituting for the

previously accepted multipliers presented within The New Practitioner's Guide to Fiscal Impact Analysis (1985) and, as such, employed in the Draft EIS.

SEIS Subsection 2.1
Town Zoning Law Amended

The principal change in circumstance has been the Town Board's adoption on June 10, 2004, of a comprehensive amendment of the Town of Goshen Zoning Law, Chapter 97 of the Town Code, to in part implement through the innovative land use techniques the policies set forth within the Town Comprehensive Plan as adopted on June 10, 2004.

Among its other features, the Amended Zoning Law:

- At Section 97-5, Design Guidelines, adopted by reference of certain illustrated guidelines prepared by The New York Planning Federation in 1994, these being "Hamlet Design Guidelines", "Building Form Guidelines", and "Rural Development Guidelines", which guidelines then became applicable to all intended development requiring review and approval by the Town Planning Board.

- At Section 97-8, Establishment of Districts, created Hamlet Mixed-Use and Hamlet Residential Districts and provided the below statement of purpose for these Districts.

  "The purpose of the Hamlet Mixed-Use District (HM) and Hamlet Residential (HR) Districts is to allow the creation of mixed-use hamlet centers and adjoining residential neighborhoods at the traditional scale and density typically found in rural hamlets and villages, provided that water and sewer service is available."

- At Section 97-9, Zoning Maps, set forth a "Zoning Map / Land Use Districts" which, among its other effects, provided for the reclassification of the Lone Oak Project Site in its entirety from its former AR-1.0 Agriculture-Residential District and SR-2.5 Suburban Residential District classifications to its current Hamlet Residential (HR) District classification.

- At Section 97-15, HM and HR Districts for Traditional Neighborhood Development, set forth among other matters within Subsections 97-15.C through 97-15.P overall land use, density and design standards for development within the HR District.

  In order to avoid undue repetition, the reader is asked to go to SEIS 4, Subsection 4.6, "Land Use, Zoning and Public Policy", for a *verbatim* recitation of

these standards and related discussion of the consistency of the proposed Lone Oak TND with those standards identified as pertinent to the Project.

- At Section 97-24 set forth criteria for affordable housing, which criteria were expanded upon by further Zoning Law amendment of July 28, 2005, pertinent to application of the standard stated by above-cited Subsection 97-15(M):

  In order to avoid repetition, the reader is again asked to go to SEIS Section 4, Subsection 4.6, "Land Use, Zoning and Public Policy" for a related discussion of how compliance will occur during development of the Lone Oak TND and, as incorporated there, a lengthy *verbatim* recitation of the entirety of Zoning Law Section 97-24.

- At Section 97-84 set forth the below definition pertinent to the application of the standard stated by above-cited Subsection 97-15(A), Requirement of Public Water and Public Sewer.

  > *"Public Sewer and Public Water – Central or communal sewage collection and/or treatment and central or community water supply systems approved and accepted by the Town Board or by any other appropriate County or State authority for operation and maintenance, including systems involving common septic tanks or leach fields or other forms of decentralized sewage treatment managed by an improvement district or sewage disposal management district."*

- At Zoning Law Section 97-9, Zoning Maps, further set forth a "Zoning Map / Overlay Districts" which, among its other effects, provided for the classification of portions of the Lone Oak Project Site within the Stream Corridor and Reservoir Watershed (SC) Overlay District and the Scenic Road Corridor (SR) Overlay District and depicts the entirety of the Project Site within the AQ-6 Overlay District.

- At Zoning Law Section 97-26, Stream Corridor and Reservoir Watershed Overlay District, set forth first a statement of purpose in Subsection A and then in Subsections B through F criteria with respect to the location of the Stream Corridor and Reservoir Watershed Overlay District (SC) and for the use and development of land therein, all as later recited *verbatim* in aforementioned SEIS Section 4, Subsection 4.6, "Land Use, Zoning and Public Policy".

- At Zoning Law Section 97-29, Scenic Road Corridor Overlay District, set forth first a statement of purpose in Subsection A and then in Subsections B through J criteria concerning the location of the Scenic Road Corridor Overlay District (SR) and the use and development of land therein, as later discussed in aforementioned SEIS Section 4, Subsection 4.6, "Land Use, Zoning and Public Policy".

SEIS Subsection 2.2
Project Site Reduced to 103.42 Acres

The Project Sponsor first reduced the Project Site by 13.2 acres, being the total acreage of some twenty-four (24) heretofore-platted lots, TMP 27-8-10 through -16, 27-9-1 through -14 and 27-10-1 through -3, and associated rights-of-way within the Arcadia Hills Subdivision, no longer owned by Fini Bros. The continuing portion of the Project Site, some 212.522 acres in land area as discussed with the Planning Board in October 2007, consisted in its entirety of two parcels, TMP 11-1-49.2 and TMP 11-1-58.

At the time of review of the Draft EIS none of the 162 lots depicted on the subdivision plan which had evolved throughout the SEQRA process to that time included in whole or in part any lot on any portion of the 13.2 acres. Alternatives were however discussed in the Draft EIS for disposition of the twenty-four (24) lots of record, including both their "liquidation", whether individually or in mass, and their employ in part as a wetland mitigation area under Wetland Alternate "B" which will no longer be implemented as part of the development of the Lone Oak Project Site and no longer remains necessary in consideration of the substantially reduced extent of wetland impact caused by the now proposed TND in comparison to the prior conventional subdivision layout.

As this Supplemental EIS has evolved since October 2007 the Project Sponsor has further reduced the Project Site by an additional 109.06 acres to its present 103.42 acres, with the Lone Oak TND Project Site now consisting in its entirety of TMP 11-1-49.2. The additional 109.06 acres to the west, TMP 11-1-58, has been removed, except to the extent installation and maintenance of off-site water and sanitary sewage improvements supporting the Lone Oak TND and grant of related utility and wellhead protection easements occupying 10.26 acres, or approximately 9.4 percent, of the parcel are proposed, in that no development is proposed within this parcel due to the Project Sponsor's inability to secure within the foreseeable future adequate water supply to accommodate the permissible Hamlet Residential District residential uses that might otherwise occur there.

The Project Sponsor has made this determination upon due consideration of the likelihood of success and/or the economic feasibility of pursuing either severally or in combination any of the following measures:

- Drilling of additional water supply wells on its lands.
- Drilling of water supply wells on adjacent or other nearby lands.
- Deepening one or more of the existing wells on its lands in the interest of finding additional water-bearing zones (with any such work occurring prior to the activation of such well as part of the central water system).

- Entering into a contract (or other legal arrangement) for the purchase of water supply from the Village of Goshen (or other entity).

See **SEIS Figure No. 1**, **Map of Lands of Fini Bros. subject of Draft EIS and SEIS**.

SEIS Subsection 2.3
Project Site within Arcadia Hills Water and Sewer Districts

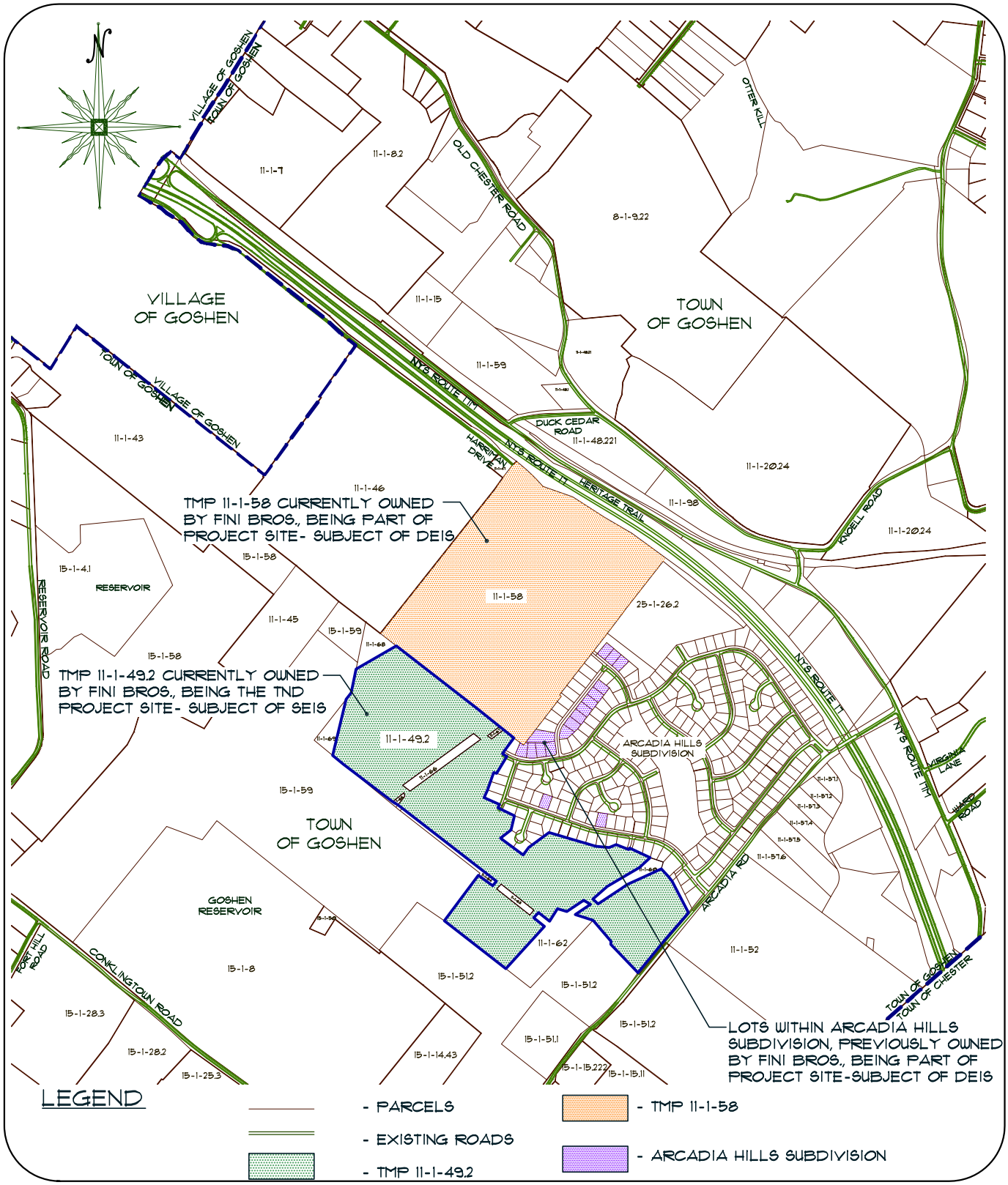
As earlier stated, one of the effects of the reduction in the land area of the Project Site is to cause the entire TND Project Site to be located within existing Town sewer and water districts, namely Arcadia Hills Town Sewer District as created by the Town Board on March 14, 1968, and the Arcadia Hills Town Water District as created by the Town Board several years later on November 12, 1973.

For a graphic depiction of the boundaries of these Town districts, see **SEIS Figure No. 2, Map of Existing Arcadia Hills Sewer District**, and **SEIS Figure No. 3, Map of Existing Arcadia Hills Water District**. Related documentation in terms of the **Orders** establishing these Districts are presented as **SEIS Exhibits No. 2** and **No. 3**, respectively.

SEIS Subsection 2.4
Alternates for Sanitary Sewage Treatment

The Draft EIS discussed the construction of on-site central sanitary sewage collection, conveyance and treatment facilities intended to accommodate a sanitary sewage design load of 76,950 gallons per day (GPD), with a peak diurnal flow of 323,190 GPD based upon a 4.2 peaking factor, attributable to the Lone Oak 162-Lot Subdivision per NYSDEC standards. An integral element in the system described in the Draft EIS was the construction of an on-site 100,000 GPD wastewater treatment plant (STP) providing tertiary treatment and year-round ammonia removal with ultimate outfall discharge of treated effluent in accordance with NYSDEC standards to the Otter Kill. The treatment plant would be constructed on a 2.82-acre parcel adjacent to NYS Route 17.

There appears today to be at least some likelihood that sanitary sewage flow generated within the Lone Oak TND will be conveyed to and treated at, the Village of Goshen wastewater treatment facility instead of treated at a STP that would be constructed by the Applicant on other Lands of Fini adjacent to the Project Site. This circumstance has evolved due to a combination of the following:



SEIS FIGURE NO. 1

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

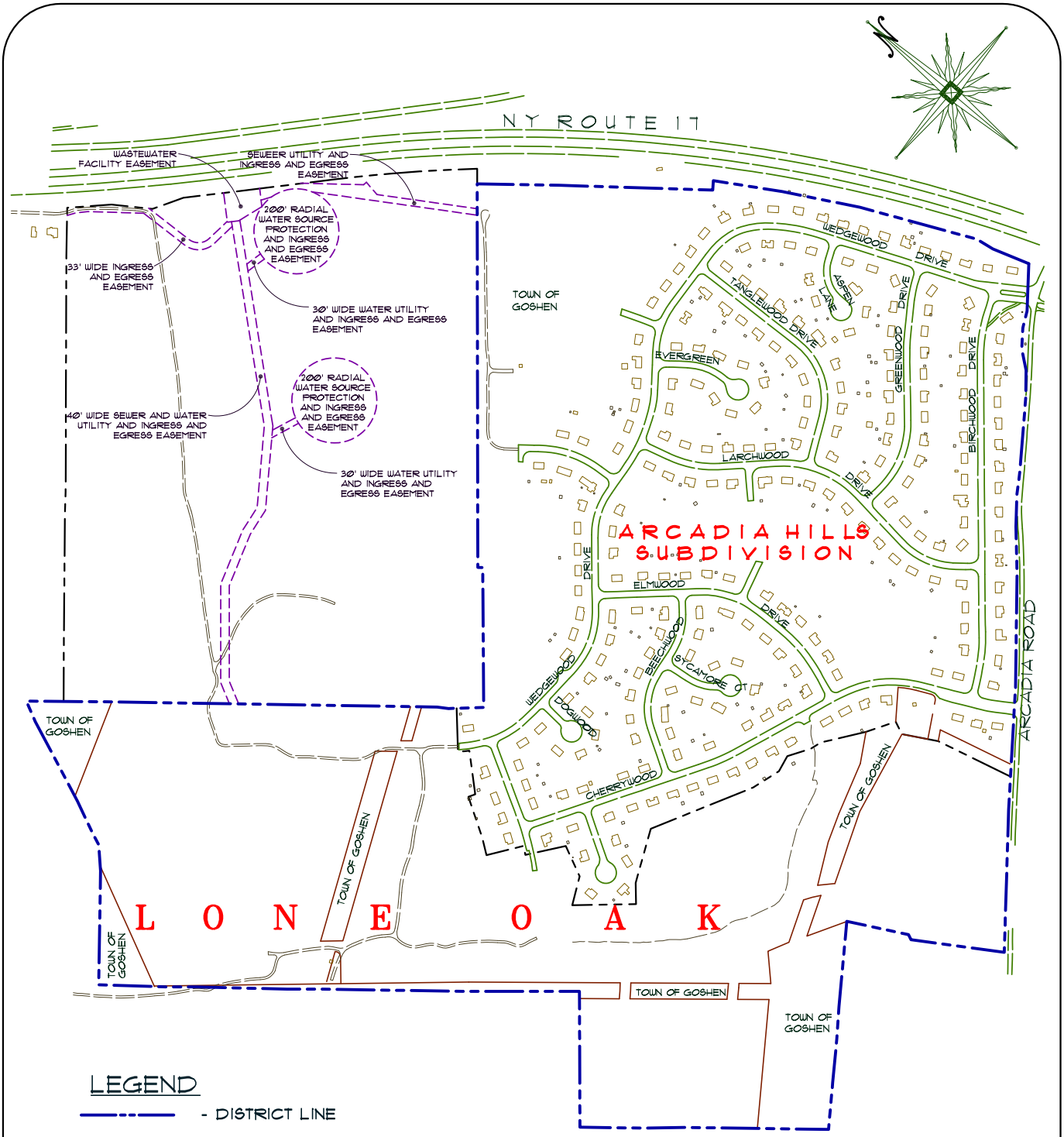
MAP OF LANDS OF FINI BROS.

GRAPHIC SCALE: 1 in. = 1500 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES

262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580



EXISTING ARCADIA HILLS SEWER DISTRICT

AS PER TOWN OF GOSHEN RESOLUTION
DATED MARCH 14, 1968
INCLUDING PROPOSED EASEMENTS

SEIS FIGURE NO. 2

LONE OAK

TOWN OF GOSHEN
TRADITIONAL NEIGHBORHOOD DEVELOPMENT

MAP OF EXISTING ARCADIA HILLS SEWER DISTRICT

GRAPHIC SCALE: 1 in. = 700 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE, SUITE B
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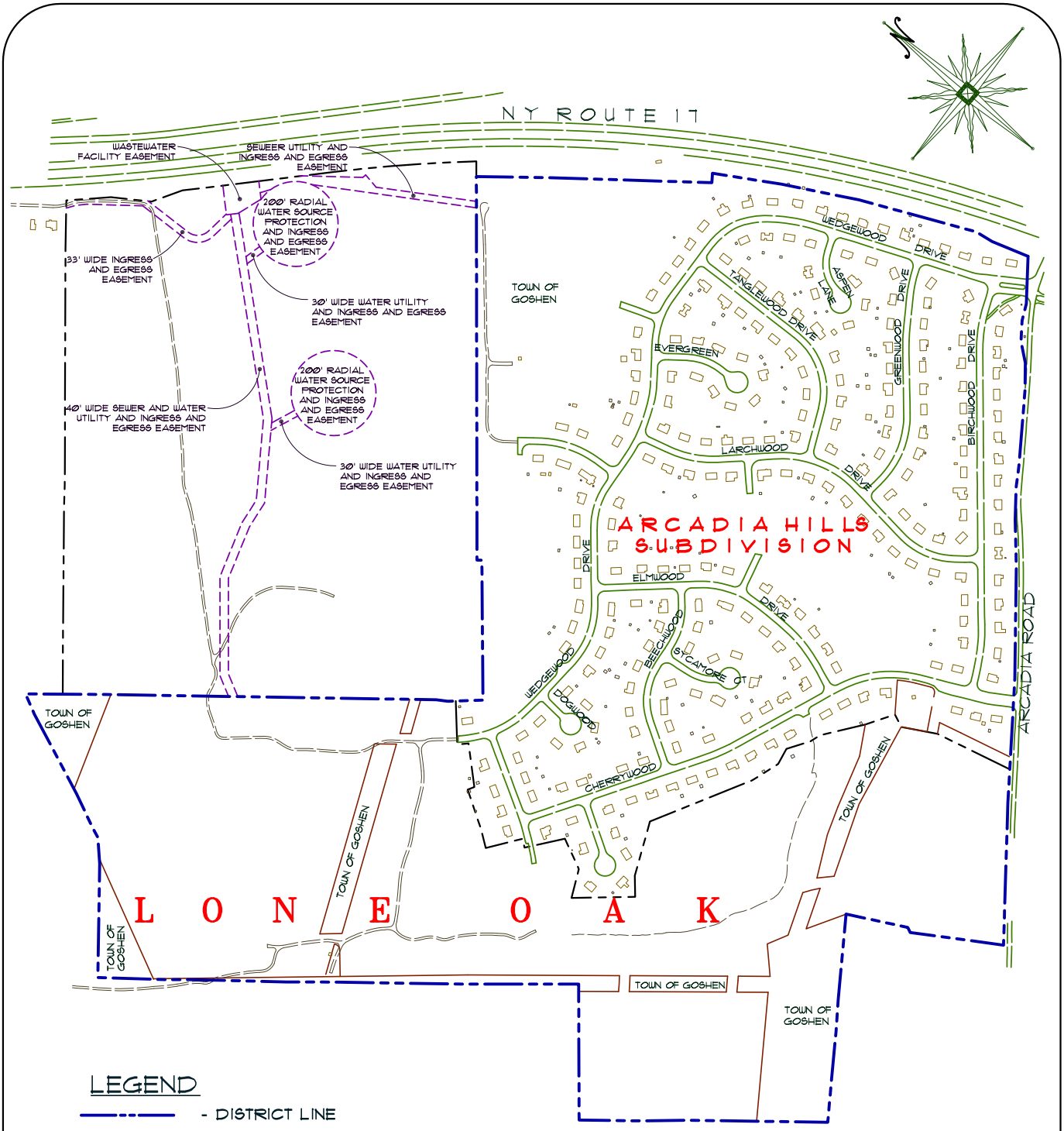
845.294.0558 Fax 845.294.0580



EXISTING ARCADIA HILL WATER DISTRICT

AS PER TOWN OF GOSHEN RESOLUTION
DATED NOVERMBER 12, 1973
INCLUDING PROPOSED OFF-SITE EASEMENTS

SEIS FIGURE NO. 3

LONE OAK

TOWN OF GOSHEN
TRADITIONAL NEIGHBORHOOD DEVELOPMENT

MAP OF EXISTING ARCADIA HILLS WATER DISTRICT

GRAPHIC SCALE: 1 in. = 700 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

- As documented in the Draft EIS first within Subsection 3.7, Community Facilities and Services, and again at Subsection 5.4, Alternatives for Ownership and Operation of Proposed Central Water and Sanitary Sewage Facilities, of the Draft EIS, the long-term interest of the Applicant in pursuing this alternative for treatment of site-generated sanitary sewage.

  See, for example, **SEIS Exhibit No. 4**, a December 6, 2004, letter from the Project Engineer, T. M DePuy Engineering and Land Surveying, P.C., to then Mayor Scott Wohl and the Trustees of the Village of Goshen setting forth a proposal by Fini Bros. for municipal sewer for Lone Oak Estates and also raising the subject of the complementary provision of municipal water.

- The recent completion of capital improvements to the Village STP which have increased its capacity from 1.0 million to 2.0 million GPD under the terms of its NYSDEC Stormwater Pollution Discharge Elimination System (SPDES Sanitary) Permit.

- Recent discussion, albeit heretofore unfruitful, between the Village and the Town concerning an Inter-Municipal Agreement setting forth a framework for cooperative efforts to achieve the goals of the County and local plans, particularly in the area of shared infrastructure.

- The above-cited inclusion of the Lone Oak TND Project Site within the existing Arcadia Hills Town Sewer District.

In order for this preferred alternative for treating sanitary sewage flow generated by the Lone Oak TND to be implemented the following will have to occur:

- Engineering design must be completed for improvements providing for the collection by gravity via 8-inch SDR-35 PVC piping and numerous pre-cast manholes of the sanitary sewage flows within the Lone Oak TND to a single point on the southwesterly side of NYS Route 17. At this point a new 100,000 GPD wet well mounted pump station would be installed with standby power. This new pump station would be sized and designed to both accommodate the proposed Lone Oak TND sanitary sewage flows of 58,250 GPD and permit abandonment of the existing Arcadia Hills pump station by accommodating its existing flow of 165,000 GPD. The existing Arcadia Hills trunk line would be replaced and extended to the new pump station location.

  The new pump station would be then connected to the existing 10-inch cast iron force main which travels between the NYS Route 17 corridor and the Harriman Drive roadway. This force main eventually discharges to an existing manhole located on the northwesterly portion of the Arden Hill campus of the Orange Regional Medical Center property at which point its flow enters the Village of Goshen gravity sewer system and ultimately discharges to the Village of Goshen sewage treatment plant.

- Whether under the terms of an existing contractual agreement, or by virtue of amendment of that agreement, the Village of Goshen would have to agree to accept sanitary sewage flow from the Lone Oak TND for treatment at the Village of Goshen STP, as collected and conveyed through the conduit of the Arcadia Hills Town Sewer District.

- Required permits and approvals pertaining to both the design and installation of the central sanitary sewage collection system, including facilities for conveying the sewage to the STP, would have to be secured from the Orange County Health Department and NYSDEC.

See **SEIS Appendix C, Engineer's Report: Lone Oak TND Proposed Sewer Infrastructure Feasibility Study** prepared by T.M. DePuy Engineering & Land Surveying, P.C., and dated April 2008 and copy here of Exhibit F therein, "Proposed Sewer System Infrastructure Layout".

Should this preferred arrangement for treatment of sanitary sewage generated within the Lone Oak TND not come to fruition, the design of on-site central sanitary sewage collection, conveyance and treatment facilities presented in the Draft EIS would be modified to serve the 132-Unit Lone Oak TND by accommodating a sanitary sewage design load of 58,250 gallons per day (GPD), with a peak diurnal flow of 244,650 GPD based upon a 4.2 peaking factor, per NYSDEC standards. While such modification would provide reduced collection, conveyance, storage, pumping and treatment capacity (i.e. being designed for 80,000 GPD), both the location of the proposed off-site STP adjacent to NYS Route 17 and the parcel of land set aside for the STP in the Draft EIS would be unchanged.

SEIS Subsection 2.5
Other Regulations Modified

2.5.1 Stormwater Regulations

Since the preparation and acceptance of the Draft EIS, NYSDEC promulgated revised Stormwater Regulations (40 CFR 122) to implement the EPA Phase 2 Regulations. Among their other features, these revised Regulations both increased previous volume requirements for water quality treatment and introduced new standards for channel protection. New NYSDEC stormwater permits have also been issued effective May 1, 2008.

In order to address the now proposed TND layout and comply with the aforementioned Regulations the Project Engineer and has re-visited the intended stormwater management plan for the Lone Oak Project Site in its developed state. The modified

stormwater management plan includes a total of six (6) stormwater management ponds instead of the prior seven (7). Each of these ponds is designed to meet the calculated water quality volume and channel protection volume within its tributary area.

See **SEIS Appendix D, Stormwater Management Analysis for Lone Oak TND** prepared by T.M. DePuy Engineering & Land Surveying, P.C., dated April 2008, and related discussion at Subsection 4.2 of this Supplemental EIS.

2.5.2 Water Supply Standards

Since the preparation and acceptance of the Draft EIS, the issuance of the 2003 Edition of Recommended Standards for Water Works (commonly referred to as "Ten State Standards") has as earlier noted resulted in the following change in circumstances pertaining to the intended Lone Oak development:

- The adoption effective January 2007 of more stringent requirements by NYSDOH based upon the 2003 Edition of Ten State Standards for a multiple-well water supply source, the new requirements being that the community water system's well water supply must both produce the maximum (i.e. twice the average) daily demand and be capable of meeting this standard with the best (i.e. largest production) well out of service.

  This more stringent standard supersedes the prior 1997 Ten State Standards for Water Supply requiring that the average daily demand (and not twice the average daily demand) be met with the largest producing well out of service.
- The employ of more stringent water pressure requirements for a water system with fire flow capability, with related discussion occurring in this Supplemental EIS of the proposed water system's capability in meeting the new standards for maintenance of a minimum pressure of 35 PSI under normal flow demand and 20 PSI under peak flow fire demand at ground level during a fire event of 1,500 gallons per minute.

See **SEIS Appendix B, Engineer's Report: Lone Oak TND Water Infrastructure Feasibility Study** prepared by T.M. DePuy Engineering & Land Surveying, P.C., dated April 2008, and related discussion at Subsection 4.2 of this Supplemental EIS.

2.5.3 ACOE Wetland Regulations

On March 12, 2007, the U.S. Army Corps of Engineers reissued Nationwide Permits (NWP's) effective March 19, 2007, to authorize certain wetland impacts for development of both private and commercial lands, while protecting waters of the United States that include wetlands, pursuant to Section 404 of the Clean Water Act.

The Project Engineer and Land Planner have identified as potentially pertinent to consideration of the proposed Lone Oak TND the following three Nationwide Permits now in effect:

- NWP 7 (Outfall Structures and Associated Intake Structures). NWP 7 authorizes the construction, maintenance or repair of outfall and intake structures.

- NWP 12 (Utility Line Activities). NWP 12 authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures and the associated excavation/backfill for the utility lines in all waters of the United States, provided that there is no change in pre-construction contours.

  NWP 12 provides that all side cast material within wetlands originating from the trench excavation must be removed and replaced within a period of three calendar months. This NWP further requires submission of Pre-Construction Notification (Permit Application) if any of several listed conditions apply including, but not limited to, mechanized clearing within forested woodlands, utility line construction resulting in more than 500 lineal feet of disturbance, impact on jurisdictional streambed, more than 0.10 acre of wetland impact, and/or construction of permanent access roads as may be required for construction/maintenance with impervious surfaces.

- NWP 14 (Linear Transportation Projects). NWP 14 authorizes the activities required for the construction, expansion, modification, or improvement of linear transportation projects (roads, highways, railways, trails, airport runways, and taxiways). Submission of pre-construction notification is required for all projects resulting in a discharge of material in a special aquatic site, including wetlands.

- NWP 29 (Residential Developments). NWP 29 is applicable to what previously was the residential component of NWP 39. NWP 39 now only authorizes impacts caused by Commercial and Industrial Projects.

  NWP 29 authorizes activities required for the construction or expansion of a single residence, a multiple unit residential development, or a full-scale residential subdivision. This NWP also authorizes the construction of building pads, foundations and attendant features necessary for the use of the residential development. Attendant features include parking lots, driveways, roadways, garages, yards, stormwater management facilities, septic fields, and recreational facilities such as playgrounds and/or athletic field provided they are an integral part of the development.

  Upon examination of NWP 29, the following two features are considered noteworthy:

  - A Pre-Construction Notification (Permit Application) must be submitted for all projects resulting in any impacts to wetlands or other waters of the United States, prior to the commencement of any construction related activities. The prior 0.10 acre threshold for requirement of notification has been eliminated.

- The construction of stormwater management facilities/structures are not authorized by NWP 29 within the New York District of the ACOE.

2.5.4 FEMA Flood Maps

The Federal Emergency Management Agency (FEMA) anticipated March 2008 issuance of a revised Flood Hazard Boundary Map (FHBM) for the Town of Goshen. In consideration of this circumstance the Project Engineer has, as noted at Subsection 4.2.2 of this Supplemental EIS, obtained an electronic version of the revised FHBM and superimposed the FHBM on the TND Site Plan. The Project Engineer has determined there to be little if any change in the delineation of the 100-year flood plain within the Lone Oak Project Site. The issuance is understood to have been indefinitely deferred by FEMA.

SEIS Subsection 2.6
Demographic Multipliers Updated

The Supplemental EIS employs in its analysis updated demographic multipliers set forth in Residential Demographic Multipliers, Estimates of Occupants of New Housing issued by the Rutgers University Center for Urban Policy Research in June 2006, these more current multipliers based upon 2000 Census data and substituting for the then accepted multipliers employed in the Draft EIS, as set forth in The New Practitioner's Guide to Fiscal Impact Analysis, 1985.

Employ of the updated demographic multipliers results in a projected total resident population of 431 persons, including 99 school-age children, within the 132-Unit Lone Oak TND. Had the prior multipliers been employed in considering the 132-Unit TND, the projected total resident population would have been 468 persons, including 118 school-age children.

SEIS Section 3
Description of the Proposed Action

As stated in SEIS Section 1, “Introduction and Project Summary”, this Supplemental EIS examines the proposed development by Fini Bros. of a 103.42-acre Project Site, being the central to southeasterly portion of a contiguous combined 212.5-acre tract owned by the Project Sponsor and located within the Otter Kill sub-basin of the Moodna Creek tributary area of the Hudson River basin, southeast of NYS Route 17 between the end of Harriman Drive and the Arcadia Hills Subdivision and extending to Arcadia Road in the Town of Goshen, Orange County, New York.

The modified subdivision layout plan presented in the Supplemental EIS depicts a Traditional Neighborhood Development (the “TND Site Plan” or “Lone Oak TND”) for the residential development of a total of 132 dwelling units within a mix of single-family detached homes, duplex dwellings and town homes dwelling types, served by a framework of supporting infrastructure, open space and other community amenities. The Lone Oak TND will be undertaken during a projected build-out period of three to five years from the start of residential construction depending upon market conditions.

The Lone Oak TND includes the construction of 88 single-family detached dwellings, 16 single-family semi-detached dwelling units and 28 town homes. Ten percent (10%) of the dwelling units would be reserved as affordable housing.

In addition to the individual single-family lots, other dwelling sites and community recreation areas, substantial open space lands totaling 58.22 acres, or some 56.3 percent of the TND’s acreage, would be conserved. As shown on **SEIS Figure No. 4, Traditional Neighborhood Development / Overall Plan**, the TND’s open space lands adjoin in part a number of additional parcels owned by the Town of Goshen and acquired at the time of development of Sections A and B of the Arcadia Hills Subdivision.

Complementing the residential and open space uses will be the construction of approximately 18,020 lineal feet (3.4 miles) of subdivision boulevard, neighborhood streets and service lanes; and the installation of other supporting improvements including central water and sanitary sewage systems, storm management facilities, sidewalks and other pedestrian ways, street trees and street lighting; reservation of roadway, utility and open space parcels; conservation of approximately 12.45 acres of NYSDEC regulated freshwater wetland and/or ACOE jurisdictional wetland within the Project Site and mitigation, as proposed and subject to approval by these agencies, of the 0.395 acre of permanent impact to regulated wetland and 0.11 acre of permanent encroachment within regulated buffer experienced in carrying out the TND Site Plan, the cited acreages representing the combined on-site and off-site permanent impact to regulated wetland and encroachment within regulated buffer; and the development of a community recreation area and picnic grove.

A range of legal mechanisms will be employed to provide for the long-term ownership and ensure maintenance of the various components of the Traditional Neighborhood Development in accordance with the approved plans, including dedication to the Town or existing special districts, establishment of public transportation corporations and/or special districts, formation of one or more home owners associations (HOAs), imposition of private deed restrictions, and the grant of conservation and other easements.

SEIS Subsection 3.1
The Project Site

SEIS Subsection 3.1 provides an overall description of the local and regional context of the Project Site, its geography and environmental characteristics, its ownership, land use and development limitations, its supporting infrastructure, and its relationship to adjoining and other neighboring properties, all serving as a foundation for the fuller elaboration upon the environmental setting found throughout later Section 4 of this Supplemental EIS.

3.1.1 Regional and Local Context

The proposed Lone Oak TND lies immediately south of NYS Route 17 within the Town-outside-Village portion of the Town of Goshen, generally between the Villages of Goshen and Chester within 2.5 to 3.5 miles of the center of the Village of Goshen via Arcadia Road, Route 17M westward and South Street, and within 2.25 and 3.25 miles of the center of the Village of Chester via Arcadia Road, Route 17M eastward and High Street. Considered in a broader regional context, the Project Site is located within the Hudson River basin, approximately 17 miles west via NYS Route 17 of NYS Thruway Exit 16 (Woodbury-Harriman), some 110 miles southeast of Albany via the Thruway and Route 17, and 60 to 65 miles northwest of New York City.

The Project Site is located in its entirety within the Chester Union Free School District, the Arcadia Hills Town Sewer District and the Arcadia Hills Town Water District and is divided between the Goshen No. 1 and Chester No. 3 Fire Districts. The Project Site further lies within the real property taxing jurisdiction of Orange County and the Town of Goshen.

See DEIS Figure 3 *et al* set forth for reference in **SEIS Appendix A**.

3.1.2 Geography

The 103.42-acre Project Site consists exclusively and in its entirety of below-described Tax Map Parcel 11-1-49.2, as set forth on the Orange County Real Property Tax Maps:

- TMP 11-1-49.2, a parcel of 103.42 acres classified as "322 rural vacant land", being the southeasterly portion of the former 226.7-acre Project Site with access from Arcadia Road and situate within the Chester Union Free School District and the Arcadia Hills Town Water and Sewer Districts.

  TMP 11-1-49.2 is the area previously set forth as Sections C and D of the original Arcadia Hills Subdivision which was in part (i.e. Sections A and B) constructed in the late 1960's and subsequently abandoned in the early-to-mid 1970's by prior owner(s), with physical evidence of this construction remaining today amidst brush land and pockets of wet area that has taken over much of the disturbed area within the parcel.

The Project Site adjoins other Lands of Fini Bros., being the below-described Tax Map Parcel 11-1-58, as set forth on the Orange County Real Property Tax Maps:

- TMP 11-1-58, a parcel of 109.06 acres classified as "105 vacant farmland", being the northwesterly portion of the former Project Site with access from Harriman Drive and situate within the Goshen Central School District.

  TMP 11-1-58 is an area originally known as the Arden Estates Subdivision which was never approved by the Town of Goshen due to the presence of soils with severe percolation and permeability limitations and related inability to meet the minimum standards administered by the Orange County Health Department for installation of individual on-site sewage disposal systems. In the absence of development, some of the upland portion of the former 226.7-acre Project Site has been used agriculturally by local farmers as either hayfield or cornfield throughout many of the intervening years.

In consideration of the inability of the Project Sponsor to secure within the foreseeable future adequate water supply to serve development that otherwise could occur on Tax Map Parcel 11-1-58 under the Town of Goshen Zoning Law, Fini Bros. has no plan for residential or other development of this adjoining 109.06 acres except as set forth within this Supplemental EIS in the matter of proposed off-site central water and sanitary sewage systems improvements associated with the Lone Oak TND .

3.1.3 Environmental Characteristics

The Project Site's principal and readily-observable environmental characteristics include the following:

- The Project Site is characterized by undulating topography, with elevations ranging from approximately 400 throughout its low-lying wetland areas to 534 feet in its southeasterly corner adjacent to Arcadia Road, across fallow farm fields, scarred and abandoned landscape, wooded areas and wetlands.

- The Project Site exhibits evidence of prior agriculture use for either crops or pasture, particularly the presence of a number of stonewalls created as the stony fields were cleared by manual labor and horse drawn equipment to support earlier agricultural use, presumably including both crops and pasture, of portions of the Project Site.

- The Project Site and its environs consists of open fields, though principally within the adjacent Lands of Fini in the vicinity of Harriman Drive, extensive wetlands throughout its central easterly to northeasterly areas generally bisecting the proposed development area, thick brush and undergrowth, and secondary forest.

- The Project Site exhibits extensive surface soil disturbance as a result of the clearing and grading, shallow soil mining and the now severely deteriorated roadway construction and installation of utility lines that occurred during the late 1960's and very early 1970's in those areas to the south and west of the wholly-developed portions of the Arcadia Hills Subdivision.

- The Project Site and adjacent Lands of Fini are bounded on the north by NYS Route 17 and by substantially undeveloped lands from the southwest to northwest. The combined parcels "wrap around" the southerly and westerly perimeter of the Arcadia Hills Subdivision, an older, moderate-density suburban single-family residential development.

- The Project Site is generally bounded on its south, and bisected in small part, by a visually prominent Orange & Rockland Utilities, Inc. electrical transmission corridor developed with three overhead lines.

- The Project Site has 815 feet of frontage along its southeasterly boundary on Arcadia Road and lies at the stub end of existing streets and associated Town rights-of-way within the Arcadia Hills Subdivision.

3.1.4 Ownership

The overall combined 212.5-acre landholding, as described collectively in Liber 2378 of Deeds, Pages 322 and 323, and Liber 2521 of Deeds, Page 350 through 353, is owned in fee by the Project Sponsor, Fini Bros. TMP 11-1-58, the TND Project Site, and 11-1-49.2, the adjacent parcel for which there are no development plans, were acquired through private party transactions in June 1985 and April 1986, respectively.

As referenced in the deeds or as otherwise set forth on the Survey Map, the following are the only known easements affecting these parcels:

- Orange & Rockland Utilities, Inc. holds an easement across the southerly edge of TMP 11-1-49.2 which easement bisects the southerly portion of the Project Site.

- Any rights that may be held by the Town of Goshen with regard to access to public water supply Wells 51, 51A and 52.

- Any right of franchise utilities to install and maintain facilities within or adjacent to any Town roadway, including extant Arcadia Road.

3.1.5 Land Use

The 103.42-acre Project Site is underutilized land that can be aptly characterized by the earlier-cited real property use classification of “rural vacant land”. The adjoining 109.06 acres is also aptly characterized as “vacant farmland”.

3.1.6 Development Limitations

Except as discussed in this Supplemental EIS, there are no known limitations to development of the Project Site for the intended purpose. Matters discussed herein include the presence of the aforementioned easements, the requirement for consistency with the Town of Goshen’s Zoning Law and Land Subdivision Regulations, the need for compliance with other codes, laws, rules and regulations administered by Town, County, State or Federal agencies, including but not limited to standards affecting lot layout, roadway development, wetlands development and associated mitigation, and provision of adequate water supply, sanitary sewage and storm water management facilities.

3.1.7 Supporting Infrastructure

The 103.42-acre Project Site has opportunity for direct access along its frontage from Arcadia Road in the southeast and further adjoins to the south of Cherrywood Drive the stub end of Maplewood Lane and other minor subdivision roadways and/or reserved rights-of-way within heretofore developed Sections A and B of the Arcadia Hills Subdivision.

The Project Site is not presently served by either municipal water supply or municipal sanitary sewage facilities albeit both adjacent to the heretofore-developed 250+ lots within the Arcadia Hills Subdivision and included throughout the entirety of its 103.42 acres within the boundaries of both the Arcadia Hills Town Sewer District and the Arcadia Hills Town Water District.

A full complement of franchise utilities, including natural gas and electricity from Orange and Rockland Utilities, Inc., communications systems owned, maintained and operated

by Frontier Communications, Inc., and the local cable service provider, are available in the vicinity of, and readily extendable to, the Project Site.

3.1.8 Relationship to Neighboring Properties

Land use within the vicinity of the Project Site and the adjacent lands owned by the Project Sponsor is generally single-family residential or rural, either vacant or agricultural. More specifically and as more fully elaborated upon earlier in Draft EIS Section 3.0:

- New York State Route 17 borders the Fini Bros. landholdings to the north.

- A small residential holding of approximately 0.75 acres by Sheldro Enterprises Inc. (TMP 11-1-47) occupied by two small framed residential structures with multiple additions dating to the first half of the 20th century lies adjacent to Harriman Drive, and undeveloped agricultural and other rural land totaling more than 500 acres dominates in the ownership of either Serdarevic (TMP 11-1-46 and 15-1-59) or Ellman (TMP 15-1-51.2) to the west and south.

- Undeveloped parkland owned by the Town of Goshen (TMP 11-1-62) and Arcadia Road lie to the east, while numerous suburban residential lots within the Arcadia Hills Subdivision developed during the 1960's on Wedgewood Drive, Maplewood Lane, Walnut Court and Cherrywood Drive lie to the north and east.

- Several additional small remnants of land owned by the Town of Goshen (another vestige of the former subdivision activity) are found along the landholding's periphery, including adjacent TMP 11-1-68 which has been suggested by the Town Engineer as an alternate location for the proposed water storage tank serving the TND.

- The Hills at Goshen residential development is on-going to the east, on the opposite side of Arcadia Road.

To the west along Harriman Drive lie first an abandoned two and one half-story house and barn dating from the late 19th to early 20th century and then the earlier-cited Glen Arden Retirement Community and Arden Hill Hospital properties, the latter being approximately 0.5 mile from the most northwesterly portion of the Fini Bros. landholdings and situate within the Village of Goshen.

SEIS Subsection 3.2
Project Design and Layout

SEIS Subsection 3.2 presents a comprehensive description of the design and layout of proposed Lone Oak Traditional Neighborhood Development, including its infrastructure --- vehicular and pedestrian ways, water supply and sanitary sewage arrangements, storm water management facilities, and other subdivision-wide amenities, such as street lighting, signage and landscaping, its recreation and open space areas, its mix of residential dwelling types, and related off-site improvements.

3.2.1 Overall TND Site Plan

The Traditional Neighborhood Development is depicted on **SEIS Figure No. 4, Lone Oak Traditional Neighborhood Development Overall Site Plan** (the "TND Site Plan"), prepared by Esposito & Associates (the "Land Planner") and dated March 31, 2008.

A reduced-scale version of the Overall Plan is presented here while a larger-scale version can be found in the pocket at the end of this SEIS Narrative for those readers who might like to spread out on the table a larger drawing.

The TND Site Plan illustrates an overall plan for the entirety of the 103.42-acre Project Site providing for the conservation of substantial open space and the development of 132 residential dwelling units within a mix of housing types and related community facilities supported by vehicular and pedestrian ways, central utilities and other infrastructure. The TND Site Plan also indicates a portion of the central water and sanitary sewage utilities serving the Lone Oak TND will be located within the adjacent 109.06 acres owned by the Project Sponsor.

The Land Planner believes the TND Site Plan reflects the basic principles set forth by the Town Board in its adoption of the "Hamlet Design Guidelines" and the establishment of the Hamlet Residential (HR) District, and the statement of purpose thereof and standards for development therein, in June 2004.

Furthermore, the number of residential dwelling units proposed is substantially fewer than the 241 dwelling units that might be authorized by the Planning Board on the 103.42-acre Project Site pursuant to the "Constraints Analysis" presented within Subsection 4.6, "Land Use, Zoning and Public Policy", of this Supplemental EIS.

PARCEL, OWNER, SUBDIVIDER DATA

1. RECORD OWNER: FINI BROTHERS
   33 FINI DRIVE
   MIDDLETOWN, NEW YORK 10940
2. SUBDIVIDER: FINI BROTHERS
   33 FINI DRIVE
   MIDDLETOWN, NEW YORK 10940
3. TAX MAP REFERENCE: SECTION 11, BLOCK 1, LOT 49.2
4. DEED REFERENCE: LIBER 2521 OF DEEDS, PAGE 105
5. PARENT PARCEL AREA: 103.42 ACRES (11-1-49.2)
6. EXISTING ZONING: HR - HAMLET RESIDENTIAL
7. HR - HAMLET RESIDENTIAL
8. ZONING REQUIREMENTS
   - PUBLIC SEWER AND WATER SERVICE
   - MINIMUM LOT SIZE - N/A - 20% OF THE REQUIRED OPEN SPACE WILL BE ACCESSIBLE TO THE GENERAL PUBLIC
   - 50% OF THE TOTAL AREA ZONED HR SHALL BE PROTECTED OPEN SPACE
   - TWO FAMILY DWELLING PERMITTED BY RIGHT ON CONFORMING LOTS
   - MAX. FOOTPRINT OF A NON-RESIDENTIAL STRUCTURE = 5000 SF - FOOTPRINT LIMITATION DOES NOT APPLY TO STRUCTURES DESIGNED FOR INDOOR RECREATION OR AS COMMUNITY CENTER.
   - MAX. AGGREGATE RESIDENTIAL DENSITY = 3 UNITS/ACRE
   - SHALL INCLUDE 10% AFFORDABLE HOUSING

LEGEND

SYMBOL	TYPE OF UNIT	NO. OF UNITS
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- SIDE LOADED	65
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- REAR LOADED	23
	DUPLEX RESIDENCE SINGLE FAMILY HOMES W/GARAGE	16
	ATTACHED RESIDENCE TOWNHOMES W/GARAGE	28
	TOTAL SITE UNITS	132

SEIS FIGURE NO. 4

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

OVERALL PLAN

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

3.2.2 TND Layout Plan.

SEIS Figure No. 5A, Lone Oak Traditional Neighborhood Development Layout Plan (the "TND Layout Plan"), likewise prepared by Esposito & Associates and dated March 31, 2008, "zooms in" both itself and through the presentation of various sub-area plans on the residentially-developed portion of the TND.

As in the case of the Overall Site Plan, a reduced-scale version of the TND Layout Plan is presented here while a larger-scale version can be found in the pocket at the end of this SEIS Narrative for those readers who might like to spread out on the table a larger drawing.

- **Land Use**

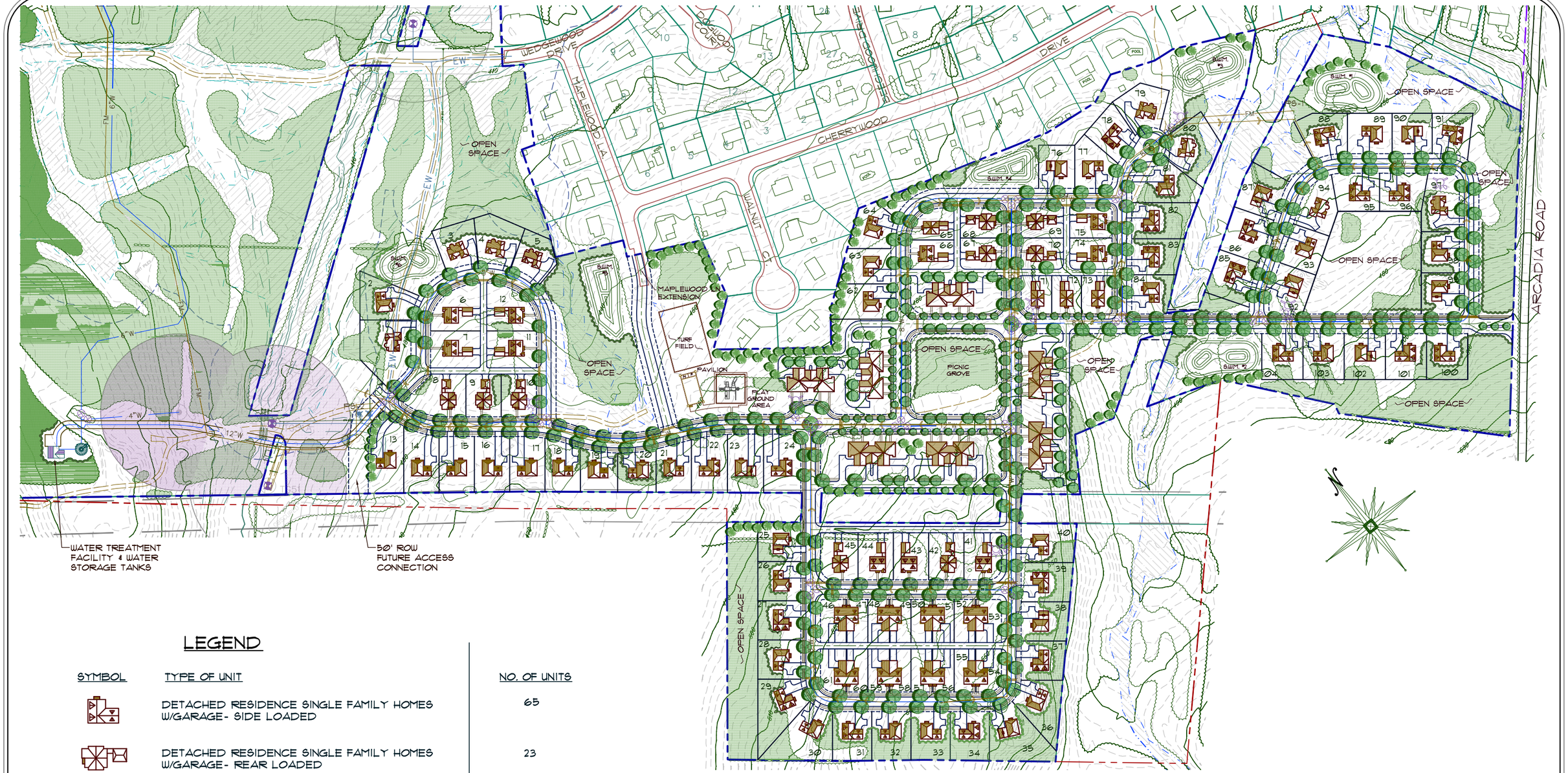
  The TND Layout Plan indicates the intended platting of the tract into roadway, utility and community facility parcels, individual lots for the construction of single-family detached homes and duplex dwellings, and sites for the construction of town homes, woven into a fabric of open space lands. Each of the residential lots or other dwelling sites will have exclusive frontage on one or more proposed internal subdivision roadways.

- **Roadway Design; Vehicular and Pedestrian Access**

  The TND Layout Plan presents a neighborhood-level community street network, proposed in its entirety for dedication to the Town of Goshen, which recognizes a hierarchy of function and related design requirements for the vehicular and pedestrian ways within a TND, and includes the following principal streetscape elements:

  - Boulevard. The proposed tree-lined access way from Arcadia Road extending for some 225 lineal feet into the TND is designed to provide paired 15 feet wide vehicular travel lanes for automobiles and bicyclists, separated by not less than a 10 feet wide planted median, with 4-foot wide sidewalks, planting strips and street trees within an overall platted right-of-way 58 feet in width. No direct driveway access from the boulevard is provided to dwellings within the TND. On-street parking shall be prohibited throughout the entire length of the boulevard roadway.

  - Major Subdivision Streets. The proposed tree-lined neighborhood streets, some 10,550 feet in total length throughout the TND, are designed to provide paired 12 feet wide travel lanes, 24 feet in overall curb-to-curb pavement width, with 4-foot wide sidewalk(s) and delineated crosswalks, planting strips and street trees within an overall platted right-of-way 50 feet in width. Direct driveway access to 65 single-family lots (i.e. the "edge homes") within the TND is provided from the neighborhood streets. Traffic calming features, including a round-about, are employed. As in the case of the boulevard roadway, on-street parking shall be prohibited on the neighborhood streets.



LEGEND

SYMBOL	TYPE OF UNIT	NO. OF UNITS
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- SIDE LOADED	65
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- REAR LOADED	23
	DUPLEX RESIDENCE SINGLE FAMILY HOMES W/GARAGE	16
	ATTACHED RESIDENCE TOWNHOMES W/GARAGE	28
	TOTAL SITE UNITS	132

SEIS FIGURE NO. 5A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

LAYOUT PLAN

GRAPHIC SCALE: 1 in. = 250 ft.

DATE: MARCH 31, 2008

01/09/09	REVISED FIGURE NUMBER
DATE	DESCRIPTION
REVISIONS	

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- Access Lanes. The proposed tree-lined access lanes, or service alleys, at the rear of some 23 “lane homes”, 16 “semi-detached town homes” (i.e. the duplex dwellings) and 28 “attached town homes” within the TND are designed to provide vehicular access to rear yards and garages on these lots. The access lanes, which total 3,870 feet in length throughout the TND, are planned with a cart way 16 feet wide within a platted right-of-way 18 feet in width with associated snow storage easement. Parking will occur off-street in driveways, garages and other parking areas depicted on the TND Layout Plan; authorization of on-street parking on or other parallel parking adjacent to the access lanes is not intended.

See **SEIS Figures No. 6A**, **No. 6B** and **No. 6C**, respectively, for schematic drawings prepared by Esposito & Associates of the design characteristics of the elements of this hierarchy of vehicular access ways. The network of sidewalks appurtenant to the above-cited vehicular ways will provide access within the Lone Oak TND to the community amenities and natural open space areas depicted on the TND Site Plan.

In addition, as depicted on prior **SEIS Figures No. 4** and **No. 5A**, opportunity for future roadway connections to the adjacent lands of Serderavic and/or Ellman to the south of the TND will also provided through reservation of a right-of-way 50 feet in width.

- **Open Space, Recreation and Other Community Amenities**

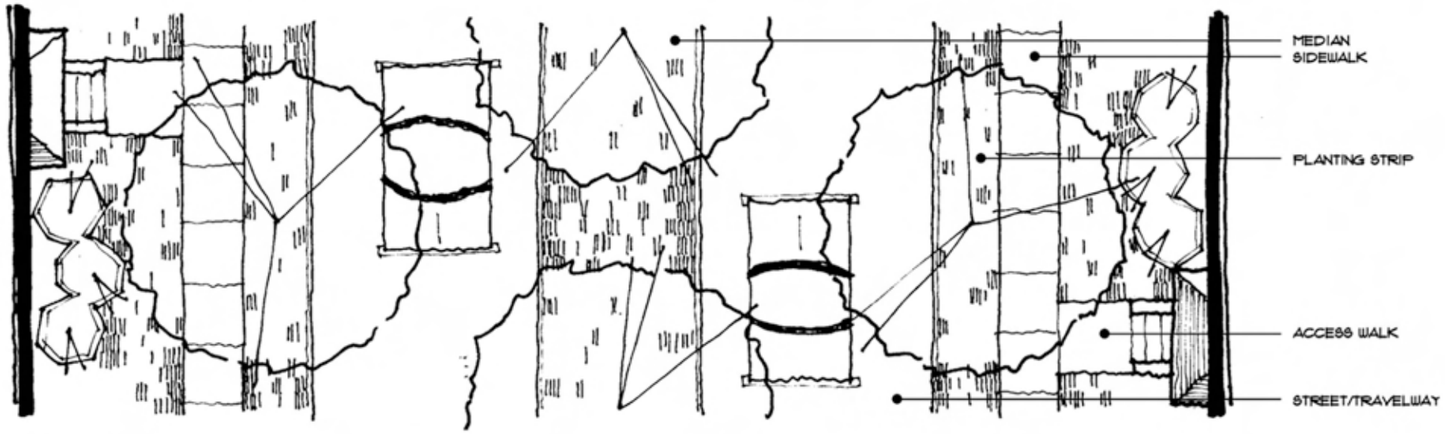
The TND Site Plan depicts the location of a variety of community amenities, recreation facilities and open spaces throughout the TND. The community amenities and recreation facilities include but are not limited to the following:

- Community Picnic Grove. This approximately 0.8-acre area is intended as an outdoor community gathering place central to the residentially-developed portion of the TND. The Picnic Grove Green lies within one-fourth mile (a very convenient walking distance for all age groups) of more than 90 percent of the dwelling units within the TND, with the easterly-most 12 single-family dwellings being slightly more distant.

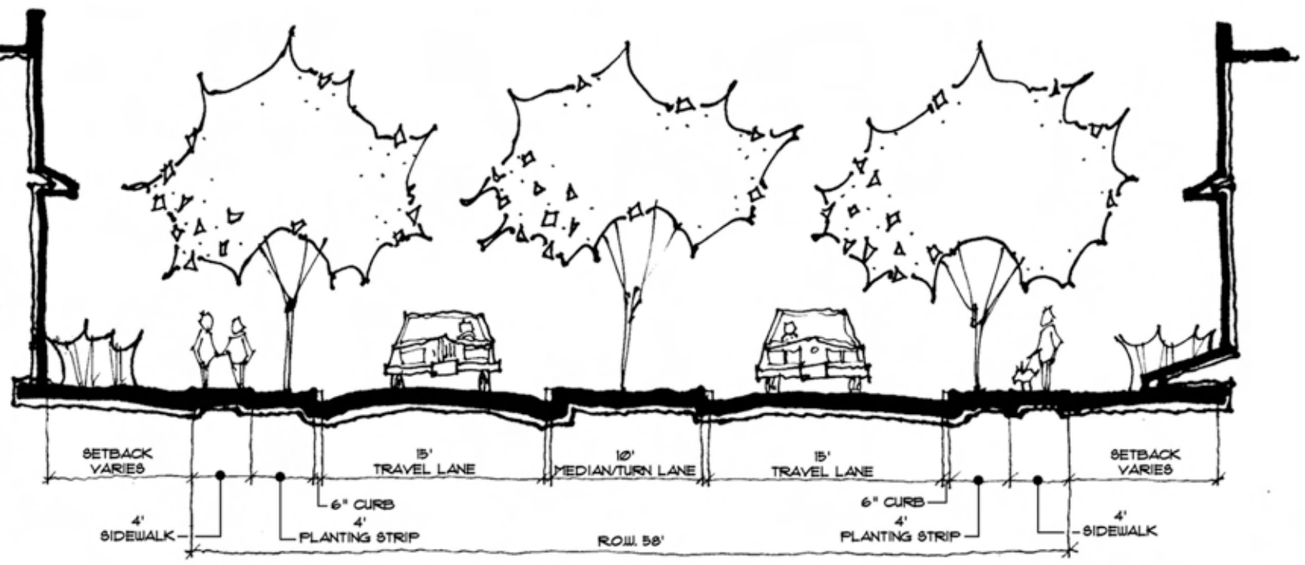
  See **SEIS Figure No. 7A**, **Picnic Grove Area**.

- Community Recreation Area. The Community Recreation Area occupies an approximately 2.2-acre site in the central-to-easterly area of the residentially-developed portion of the TND adjacent to extended Maplewood Lane. The Recreation Area includes facilities for active recreation and community activities, including a turf field, playground and pavilion. Substantial informal open space area lies on the opposite side of extended Maplewood Lane. The Recreation Area lies within one-fourth mile of approximately 85% of the dwelling units within the TND, with fewer than 20 of the single-family dwellings nearest Arcadia Road being slightly more distant.

  See **SEIS Figure No. 7B, Community Recreation Area**.



PLAN VIEW



CROSS SECTION

Characteristics:

1. Balance multimodal mobility with land access.
2. Emphasis on walking, bicycling, neighborhood livability, and land access over mobility.
3. More pedestrian oriented, giving higher priority to landscape medians, planting strips, sidewlaks, and bicycle lanes.

Higher Priority Elements:

1. Detached sidewalks
2. Street trees in planting strips
3. Bike lanes on designated bicycle routes
4. Multimodal intersection design

Lower Priority Elements

1. Width of travel lanes
2. Vehicel capacity
3. Access management
4. Medians
5. Design for large vehicles
6. Urban design features

Traffic Management Features:

1. Diverters
2. Slow points
3. Traffic circles and roundabouts
4. Raised crosswalks

SEIS FIGURE NO. 6A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

BOULEVARD STREET

GRAPHIC SCALE: 1 in. = 10 ft.

DATE: MARCH 31, 2006

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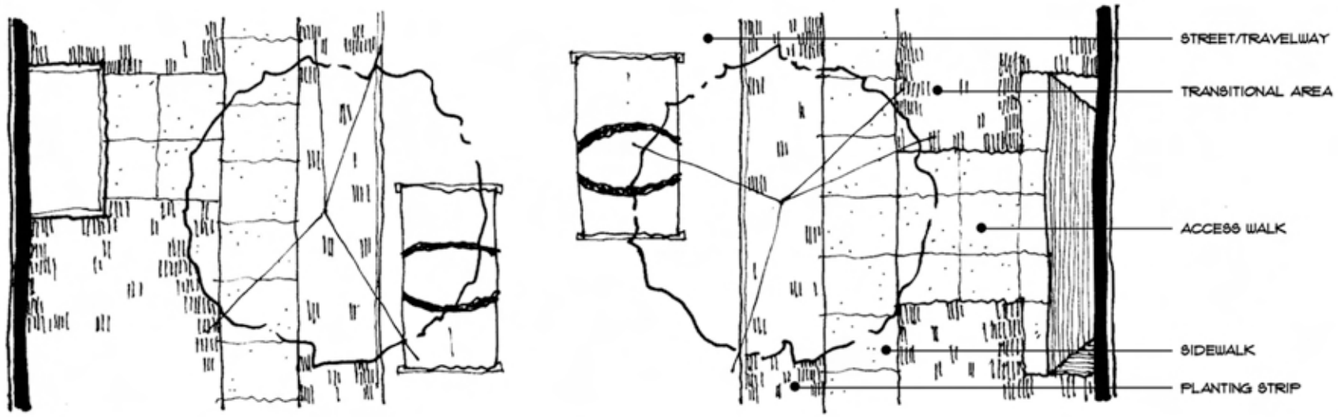
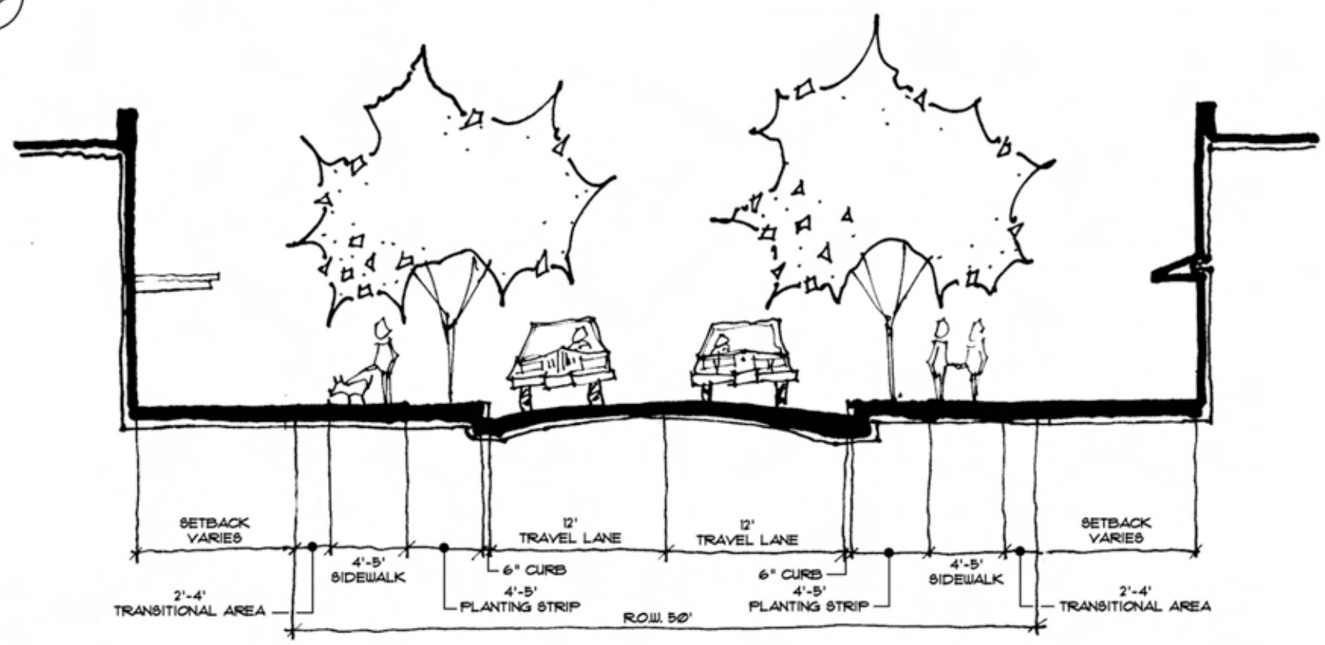


PLAN VIEW



CROSS SECTION

Characteristics:

1. Servicing high intensity land use, connecting to regional and neighborhood centers.
2. Emphasis on pedestrian activity and high traffic volumes at low speeds.
3. Building orientation is towards the street with parking lots situated behind.

Higher Priority Elements:

1. Wide sidewalks with public spaces
2. Street trees and planting strips
3. On-street parking
4. Multi-modal intersection design

Lower Priority Elements

1. Travel lane width and quantity
2. Bike lanes
3. Design for diverse vehicles

Traffic Management Features:

1. Narrow travel lanes
2. Pedestrian buffers
3. High visibility and/or alternative material crosswalks
4. Raised and/or small curb radii at intersections

* Sidewalk locations as shown on plan may be single or double walk

SEIS FIGURE NO. 6B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

MAJOR STREETS

GRAPHIC SCALE: 1 in. = 10 ft.

DATE: MARCH 31, 2008

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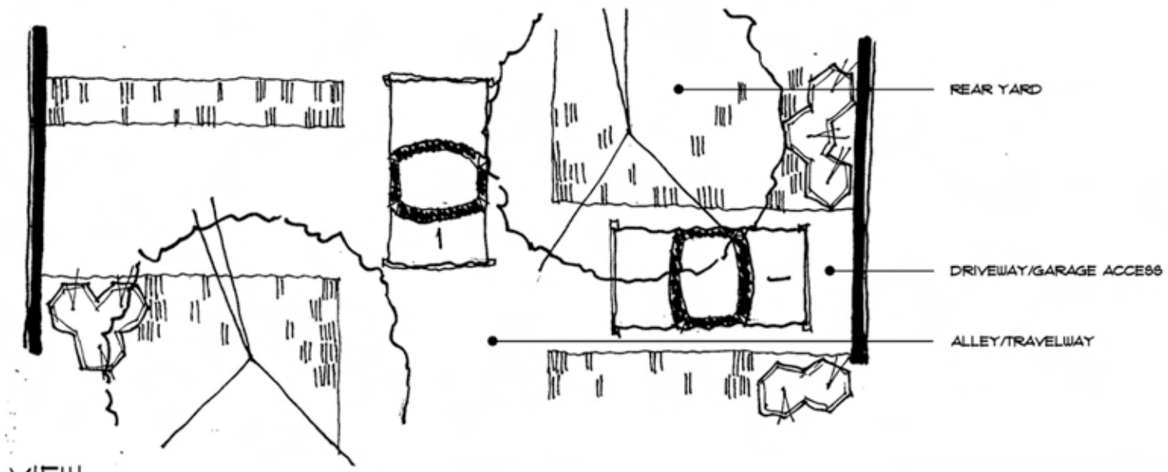
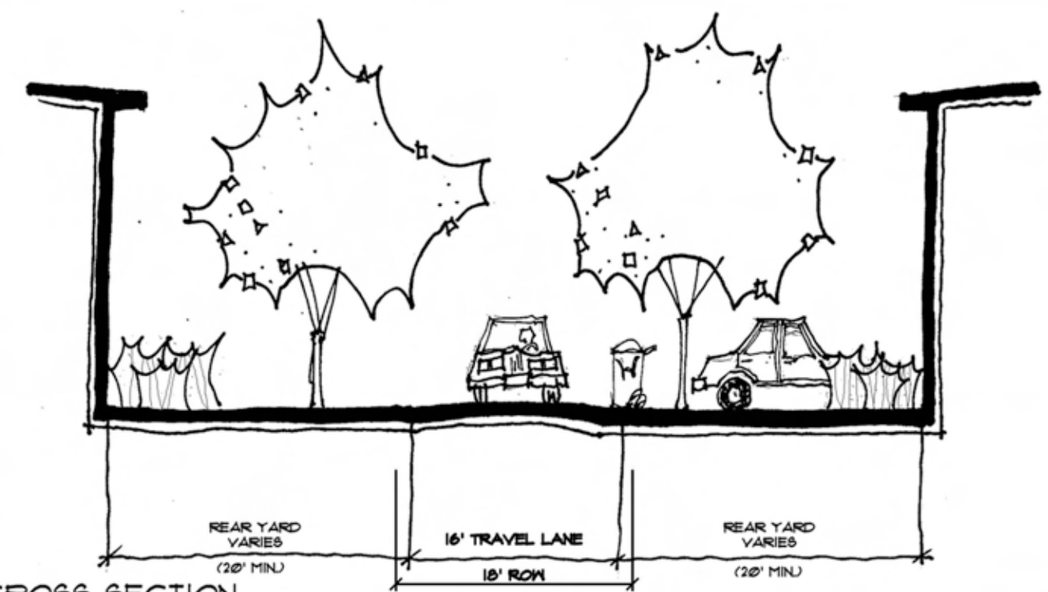


PLAN VIEW



CROSS SECTION

Characteristics:

1. Servicing the rear of residential lots
2. Emphasis on low traffic volumes at very slow speeds.

Higher Priority Elements:

1. Access to individual garages and yards.
2. Utility connections
3. Sanitation access

Lower Priority Elements

1. Gated to minimize access and/or safety

Traffic Management Features:

1. Narrow travel lanes
2. Minimal access

SEIS FIGURE NO. 6C

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

SERVICE ALLEYS

GRAPHIC SCALE: 1 in. = 10 ft.

DATE: MARCH 31, 2008

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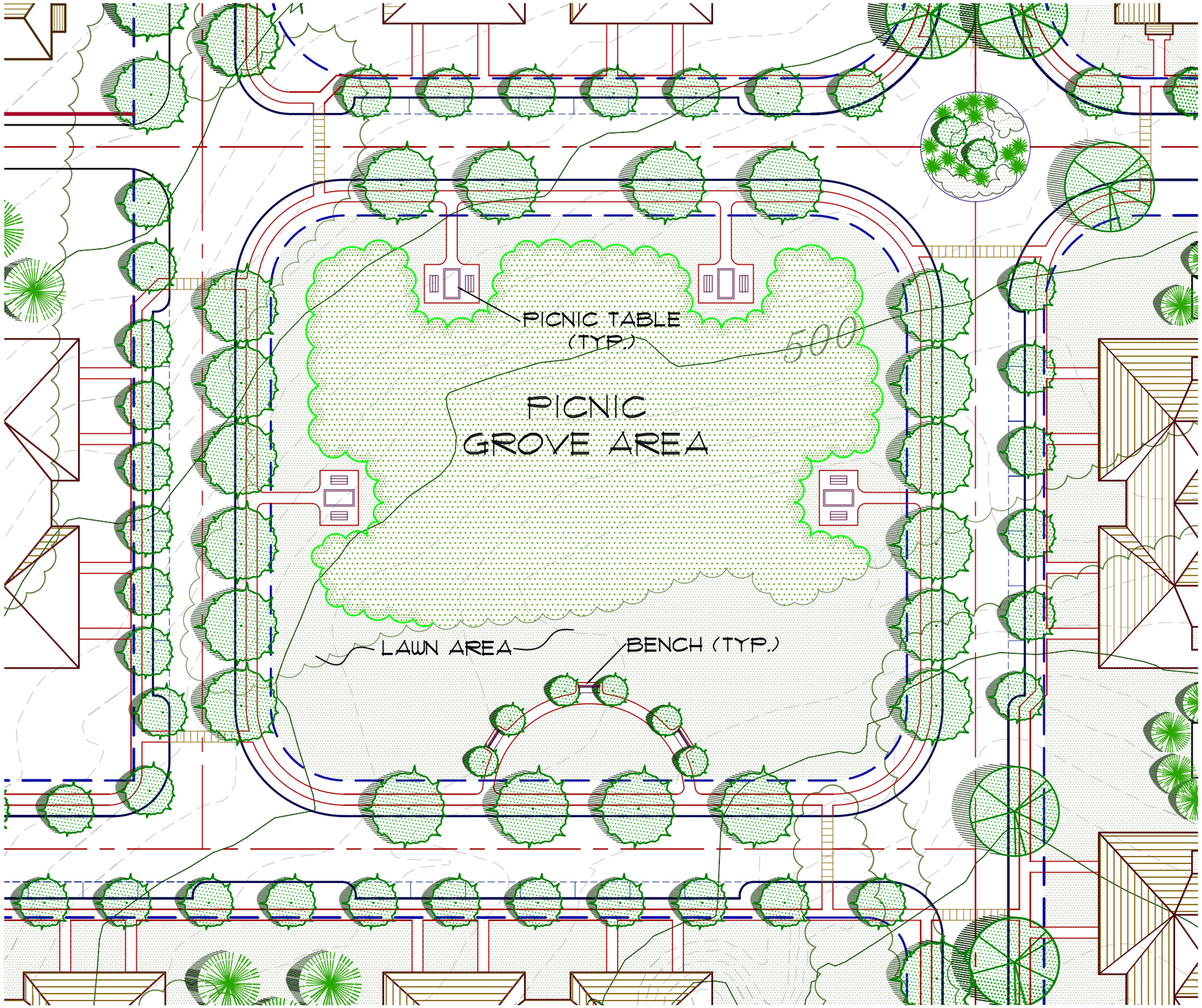

SEIS FIGURE NO. 7A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

PICNIC GROVE AREA

GRAPHIC SCALE: 1 in. = 40 ft.

DATE: MARCH 31, 2008

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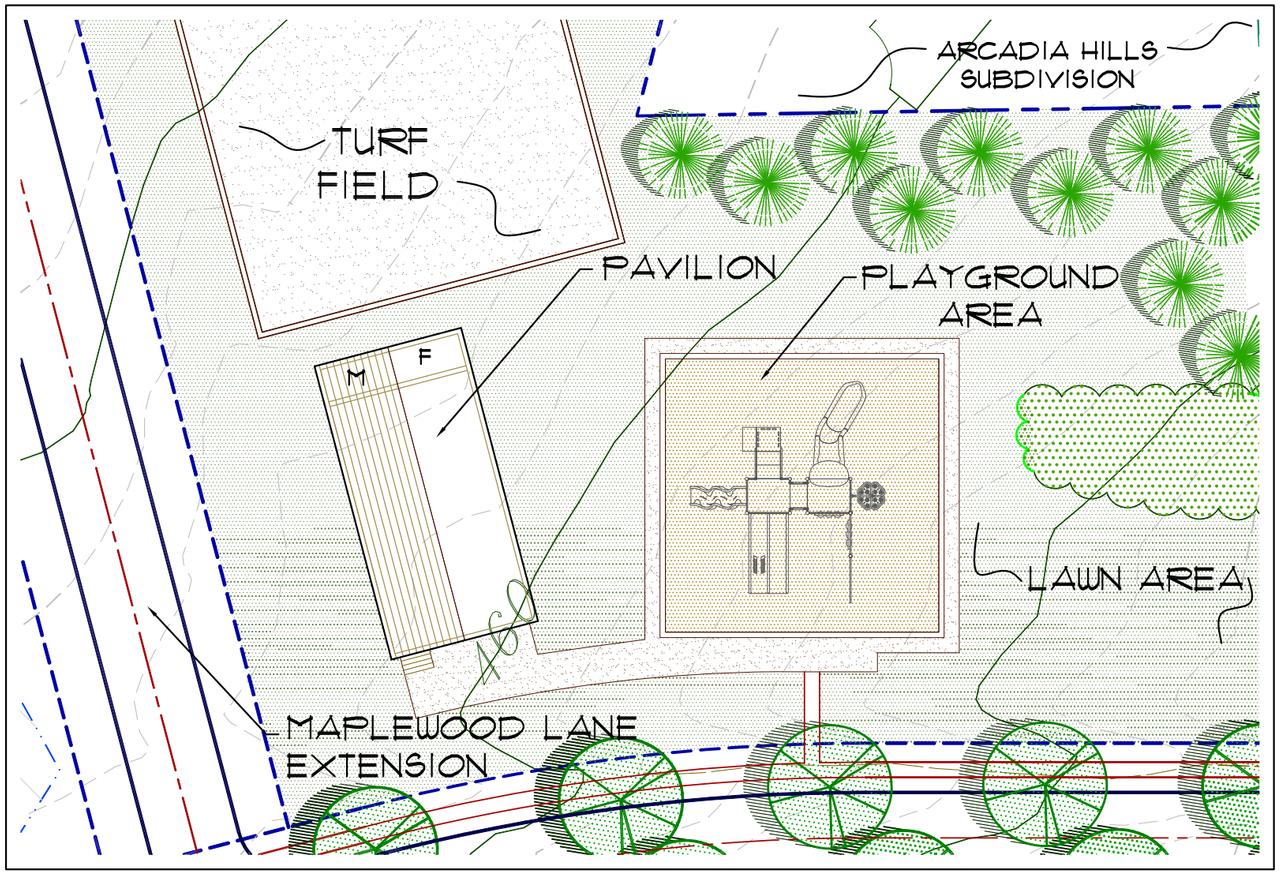

SEIS FIGURE NO. 7B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

COMMUNITY RECREATION AREA

GRAPHIC SCALE: 1 in. = 40 ft.

DATE: MARCH 31, 2008

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The Community Recreation Area will be offered for dedication to the Town of Goshen while the other Picnic Grove and other open areas described above are proposed to be owned, managed and maintained by the Lone Oak TND Homeowners Association (HOA). Should the Town Board not accept the offer of dedication of the Community Recreation Area, this 2.2-acre site would also be owned, managed and maintained by the HOA.

The "Developed Area" within the Lone Oak TND totals 45.20 acres, or approximately 43.3 percent, of its 103.42 acres. The remaining 58.22 acres, or 56.3 percent, of the Lone Oak TND acreage will be conserved under appropriate stewardship(s) and subject to legal mechanism(s) ensuring long-term protection as "Open Space Area". These remaining 58.22 acres include but are not limited to certain well protection areas, the conserved wetlands which occupy approximately 12.45 acres of the TND and in part overlie the well protection areas, any additional wetland area created upon requirement of the NYSDEC and/or the ACOE, and the community recreation area, picnic grove and other open space areas, all as depicted on the TND Site Plan.

- **Water Supply and Sanitary Sewage Facilities**

Water supply and sanitary sewage arrangements will be provided on a central basis within the Lone Oak TND. The physical design of these facilities and the legal arrangements for their long-term ownership, operation and maintenance are intended to satisfy the requirements set forth in **SEIS Table No. 1, Lone Oak 132-Unit TND / Water Supply Demand & Sanitary Sewage Load**, and will be reviewed and approved by the appropriate agencies of jurisdiction as an integral part of the subdivision review and approval process.

The water supply and sanitary sewage arrangements will further comply fully with the requirement that public sewer and public water, as defined in the below excerpt from Zoning Law Section 97-84, be provided:

> *Public Sewer and Public Water – Central or communal sewage collection and/or treatment and central or community water supply systems approved and accepted by the Town Board or by any other appropriate County or State authority for operation and maintenance, including systems involving common septic tanks or leach fields or other forms of decentralized sewage treatment managed by an improvement district or sewage disposal management district.*

<u>Water Supply</u>.

The average water domestic supply demand of the Lone Oak TND has been calculated to be 48,020 GPD pursuant to Orange County Health Department standards. A fire flow requirement of 180,000 gallons, i.e. two hours at 1,500 GPM, has also been determined per applicable ISO standards.

SEIS Table No. 1

Lone Oak 132-Unit TND
Water Supply Demand & Sanitary Sewage Load

Dwelling Unit Type	Water Supply Demand*	Sanitary Sewage Load**
4-bedroom single-family detached homes	400 GPD (66) 26,400 GPD	475 GPD (66) 31,350 GPD
3-bedroom single-family detached and semi-detached homes	320 GPD (38) 12,160 GPD	400 GPD (38) 15,200 GPD
3-bedroom townhomes	320 GPD (28) 8,960 GPD	400 GPD (28) 11,200 GPD
Community building and recreational facilities	500 GPD	500 GPD
Total TND Water Supply Demand	**48,020 GPD**	
Total TND Sanitary Sewage Load		**58,250 GPD**

Notes: * *Calculation based on design standards employed by the Orange County Health Department.*

** *Calculation based on design standards employed by the NYSDEC.*

In order to meet these needs a central water system sufficient as to source through employ of the three existing Fini bedrock water supply wells and including treatment, disinfection, storage and distribution facilities is proposed to serve the Lone Oak TND.

The proposed central water system is described in the **Engineer's Report: Lone Oak TND Water Infrastructure Feasibility Study** prepared by the Project Engineer, dated April 2008 and set forth in its entirety as **SEIS Appendix B.**

The **Engineer's Report** includes an Exhibit F, **"Water System Infrastructure Layout Plan"**, a copy of which is presented here as **SEIS Figure No. 8,** which indicates among other water system components the following:

- The aforementioned three existing drilled water supply wells.
- Installation of either 2" or 4" water transmission lines between the well sites and the water treatment and storage facilities.
- Construction of a water treatment facility, contained within a gambrel-roofed barn-like structure less than 800 square feet in floor area with steel siding, composite shingle roof and a ridgeline height of 24 feet, and including a 5,000-gallon capacity chlorine contact disinfecting tank. The water treatment facility is sited in the southwesterly corner of the TND, more than 700 feet from the nearest residences located on TND Lot 14.
- Construction of water storage facilities at one of two alternate locations within or in the vicinity of the Lone Oak TND, these being indicated on the basis of the Project Engineer's preliminary design as the following:
    - Alternate 1 providing for employ of the 5,000 gallon tank for disinfection contact time and the installation of 250,000 gallon total capacity low-profile grade tanks adjacent to the proposed water treatment facility. These tanks would be complemented by two 7.5 horsepower domestic demand pumps and two 5 horsepower compressors with a 2,000 gallon hydro-pneumatic pressure tank and a 1,500 GPM fire flow pump, all of which would be located within the proposed building.
    - Alternate 2 providing for a 5,000 gallon tank for disinfection contact time and "boostering" of the water to a 250,000 gallon elevated tank located at the top of the hill across Arcadia Road on Lands of the Town of Goshen (TMP 11-3-35) to the rear of the Hills at Goshen Subdivision and adjacent to the water tower which now services the Arcadia Hills Water District. This proposed tank would have a base elevation of 620 feet, a diameter of 34 feet and an overall height of 44 feet. The location and size of this tank would result in the proper normal flow pressure of 35 PSI and fire flow demand of 20 PSI.

LEGEND

- PROP. LOT LINES
- EXIST. LOT LINES
- WATER EDGE OR STREAM
- GUIDE RAIL
- FENCE LINE
- PROPOSED FORCE MAIN (DIRECTION OF FLOW)
- PROPOSED GRAVITY SEWER (DIRECTION OF FLOW)
- PROPOSED MANHOLE
- BOUNDARY ARMY CORPS OF ENGINEERS WETLAND
- BOUNDARY NYSDEC WETLAND
- 100 FOOT DEC WETLAND BUFFER LIMIT

EXHIBIT F

SUBDIVISION OF LANDS OF FINI
TOWN OF GOSHEN, ORANGE COUNTY
NEW YORK

PROPOSED SEWER SYSTEM
INFRASTRUCTURE LAYOUT

SEIS FIGURE NO. 8

LONE OAK
TND

APRIL 1, 2008

PREPARED BY
T.M. DEPUY ENGINEERING AND LAND SURVEYING, P.C.
2656 ROUTE 302, MIDDLETOWN, NEW YORK, 10941

- Installation of either 8” or 12” water main with valves and fire hydrants.

The **Engineer’s Report** also incorporates the Well Completion Report dated February 1998 and a related Letter Concerning Updated Well Testing during Drought Conditions, each by Leggette, Brashears & Graham, Inc. (LBG) and each as previously set forth in the Draft EIS.

As more fully discussed in Section 4, Subsection 4.2, “Water Resources”, of this Supplemental EIS, the effect of the incorporated LBG studies documents that adequate water supply is available under both the former 1997 and current 2003 Ten State Standards to meet the water supply demand of the Lone Oak TND.

The design plans and associated reports for the central water supply system will be refined in accordance with NYSDEC, NYSDOH, Orange County Health Department, “Ten State”, ISO and other applicable standards by the Project Engineer prior to completion of the subdivision review and approval process. Metes and bounds descriptions will also be provided for all easements associated with the installation and/or maintenance of the proposed central water facilities, both within the Project Site and as may be applicable on adjacent lands owned by the Town of Goshen.

Installation of all elements of this central water system, whether occurring within the Lone Oak TND or off-site, will be a required subdivision improvement. In addition, the continuation of the copper water service line to each of the individual lots and one or more water service lines to each of the other dwelling and community facility sites will subsequently be installed as each of the structures to be served by the central water system is constructed as will appropriately located water supply meters.

Sanitary Sewage.

The sanitary sewage design load of the Lone Oak TND has been calculated to be 58,250 GPD, with a peak diurnal flow of 244,650 GPD based upon a 4.2 peaking factor, per applicable NYSDEC standards (“Design Standards for Wastewater Treatment Works 1988”).

In order to accommodate this design load central sanitary sewage collection and conveyance facilities are intended within the Lone Oak TND and treatment of the sanitary sewage is proposed to occur at either a new wastewater treatment plant that would be constructed as a part of the Lone Oak TND (Alternate 1) or the Village of Goshen STP (Alternate 2).

The proposed central sanitary sewage system is further described in the **Engineer’s Report: Lone Oak TND Sewer Infrastructure Feasibility Study** prepared by the Project Engineer, dated April 2008, and set forth in its entirety as **SEIS Appendix C.**

The **Engineer's Report** includes therein an Exhibit H, **"Proposed Sewer System Infrastructure Layout Plan"**, which is presented here as **SEIS Figure No. 9** and indicates among other sanitary sewage system components the following under Alternate 1:

- Installation of a sewer collection line system consisting of approximately 9,069 lineal feet of 8" gravity sewer and associated sewer manholes.

- Installation of conveyance facilities consisting of two pump stations and approximately 3,214 lineal feet of 4" force main and 1,750 lineal feet of gravity sewer.

- The construction on an on-site wastewater treatment facility, as presented in the Draft EIS though modified in scale to serve the reduced sanitary sewage load of the 132-Unit Lone Oak TND, being a sanitary sewage design load of 58,250 gallons per day (GPD), with a peak diurnal flow of 244,650 GPD based upon a 4.2 peaking factor, per NYSDEC standards. The on-site wastewater treatment facility would provide through a sequencing batch reactor "SBR" process tertiary treatment and ammonia removal year-round.

  Refer to **Section 4.0, Sewer Collection and Conveyance and Wastewater Treatment Infrastructure Analysis and Feasibility**, of the **Engineer's Report** for a more detailed discussion of the design parameters, evaluation of treatment alternatives and components of the proposed 75,000 - 80,000 GPD on-site wastewater treatment facility that would be constructed in the vicinity of Harriman Drive on the adjacent Lands of Fini.

The above-cited Sewer System Infrastructure Layout Plan and Engineer's Report for the central sewage facilities will be refined in accordance with NYSDEC, NYSDOH, Orange County Health Department, "Ten States" and other applicable standards by the Project Engineer prior to completion of the subdivision review and approval process. Metes and bounds descriptions will also be provided for all required easements associated with the installation and/or maintenance of the proposed central sanitary sewage facilities, both within the Project Site and where required on adjacent lands owned by Fini Bros. and/or the Town of Goshen.

Installation of all elements of the central sewage facilities, whether occurring within the Lone Oak TND or off-site, will be a required subdivision improvement. In addition, a 6" PVC sewer lateral to each of the individual lots and one or more sewer laterals to each of the other dwelling and community recreation areas will subsequently be installed as each of the structures to be served by the central sewage facilities is developed.

Notwithstanding the January 24, 2008, position stated by the Village Attorney on behalf of the Village of Goshen in exchange of correspondence with the Land Planner, Esposito & Associates (see **SEIS Exhibits 5A** and **5B**) and with due

EXHIBIT F

SUBDIVISION OF LANDS OF FINI
TOWN OF GOSHEN, ORANGE COUNTY
NEW YORK

PROPOSED WATER SYSTEM
INFRASTRUCTURE LAYOUT

ON-SITE STORAGE TANK AND
WATER TREATMENT FACILITY

SEIS FIGURE NO. 9

LONE OAK
TND

APRIL 1, 2008

PREPARED BY
T.M. DEPUY ENGINEERING AND LAND SURVEYING, P.C.
2656 ROUTE 302, MIDDLETOWN, NEW YORK, 10941

consideration of the inclusion of the entirety of the TND Project Site within the Arcadia Hills Town Sewer District, the Project Engineer has also presented in the **Engineer's Report** the below-described Alternate 2 providing for the conveyance of the sanitary sewage flows from the Lone Oak TND to the Village of Goshen STP:

- Construction of the joint pump station with a capability of 300,000 GPD to meet the combined flow requirements of the Lone Oak TND (58,250 GPD) and the existing Arcadia Hills sewer system (165,000 GPD), Town Sewer District No. 2, thus permitting the abandonment of the existing Arcadia Hills pump station which is nearing the end of its useful life and in need of either replacement or other large capital improvement.

- Replacement of existing trunk line exhibiting a high infiltration rate which has affected both the Arcadia Hills pump station and the Village of Goshen treatment system due to the pumping of a large amount of clear water.

- Installation of a 100,000-gallon aerated wet well (holding tank) to serve to attenuate the high infiltration / inflow rate associated with other portions of the Arcadia Hills sewer collection system.

- Installation of a standby generator to provide emergency energy during a power outage.

- **Storm Water Management Facilities**

An overall design plan of a storm water management system to accommodate both existing runoff from the Lone Oak Project Site and its tributary drainage areas and additional post-development runoff generated by development of the Project Site was first described within the Draft EIS.

Refinement of the prior design plan has been undertaken by the Project Engineer to address both changing circumstances in stormwater regulation and the reduced scale of the Lone Oak TND. This work has resulted in the preparation by the Project Engineer of a report entitled **Stormwater Management Analysis for Lone Oak TND**, dated April 2008, and set forth in its entirety as **SEIS Appendix D**.

The Stormwater Management Analysis includes sequentially the delineation of an overall study area encompassing some 1062 acres, or 1.66 square miles within the Otterkill Main Subcatchment, division of the study area into some fourteen (14) drainage sub-catchments, and on the basis of TR-55 analysis the presentation of both Pre-development and Post-development Stormwater Runoff Plans for each of the sub-catchments and the presentation of Stormwater Management Plans "A" and "B" which address how both the quantity and quality of stormwater runoff generated by development of the Lone Oak TND will be managed in accordance with the following enhanced NYSDEC design criteria:

- Provision of adequate storage in terms of water quality volume to treat (i.e. remove pollutant loading in accordance with pertinent NYSDEC General SPDES Permit requirements) the 1.2" of rainfall occurring during the 90th percentile storm event.

- Provision of adequate storage in terms of channel protection volume to provide extended detention for the 2.8" of rainfall occurring during the 1-year, 24-hour storm event.

In consideration of the above, the following stormwater management improvements are proposed within the Lone Oak TND to collect the overall stormwater by gravity and treat the stormwater prior to discharge to the adjacent wetlands and stream corridor:

- Installation of six (6) stormwater management ponds, as indicated on Plans "A" and "B", located and sized to accommodate the storage requirements cited above, with the stormwater management ponds sized within the range of 0.78 acre-feet to 1.56 acre-feet to exceed required total pond volume ranging between 0.617 acre-feet and 1.252 acre-feet.

- Installation of a closed storm water system consisting of catch basins, storm sewers and outlet structures conveying stormwater runoff to these ponds and sized to accommodate a 25-year design storm throughout the Lone Oak TND.

Detailed engineering drawings and maintenance schedules for the storm water management system improvements will be presented as the TND design plan is refined prior to completion of the subdivision review and approval process. Metes and bounds descriptions will also be provided for all required easements associated with the installation and/or maintenance of the proposed storm water management facilities. Installation of all elements of the storm water management system will be a required subdivision improvement.

- **Erosion and Sedimentation Control**

As an integral part of the required Stormwater Pollution Prevention Plan (SWPPP) the Project Engineer will provide during the subdivision review and approval process specific "Erosion & Sedimentation Control Plans" to address the potential effects on wetlands and other water resources of storm water runoff during the construction period from both the Project Site and off-site areas where supporting improvements are proposed.

These Plans, as more particularly discussed in SEIS Section 4, Subsection 4.1, "Geology, Soils, Topography and Landform", will include data related to the design and location, installation schedule and maintenance procedures for use of the following erosion and sedimentation control measures on the Project Site: straw

bale dikes, sediment barrier fence, rock filters, open ditches, and rock stabilized construction entrance.

- **Other Infrastructure**

  Other TND-wide amenities will include but not be limited to the installation of franchise utilities (pole-less and with all wiring wholly underground), street lighting and street signs, pedestrian lighting, and the planting of street trees at approximate intervals on both sides of all subdivision roadways.

  Detailed plans and schedules for each will be presented as the TND design plan is refined and consultation occurs with both the Planning Board and other parties with jurisdiction prior to completion of the subdivision review and approval process.

3.2.2 Off-Site Utility Easement Plan.

SEIS Figure No. 5B, Off-Site Utility Easement Plan, prepared by Esposito & Associates and dated January 9, 2009, complements **SEIS Figure No. 4, Lone Oak TND Overall Layout Plan** and **SEIS Figure No. 5A, Layout Plan**, by depicting by location and acreage various easement areas that are proposed within the adjacent 109.06-acre parcel owned by the Project Sponsor so as to either provide access (Ingress and egress) and adequate land area for the construction and maintenance of off-site central water and sanitary sewage improvements supporting the Lone Oak TND or provide adequate wellhead water source protection in accordance with NYSDEC water supply standards.

As indicated on **SEIS Figure No. 5B** the construction- and maintenance-based easement areas total 4.49 acres and are as follows:

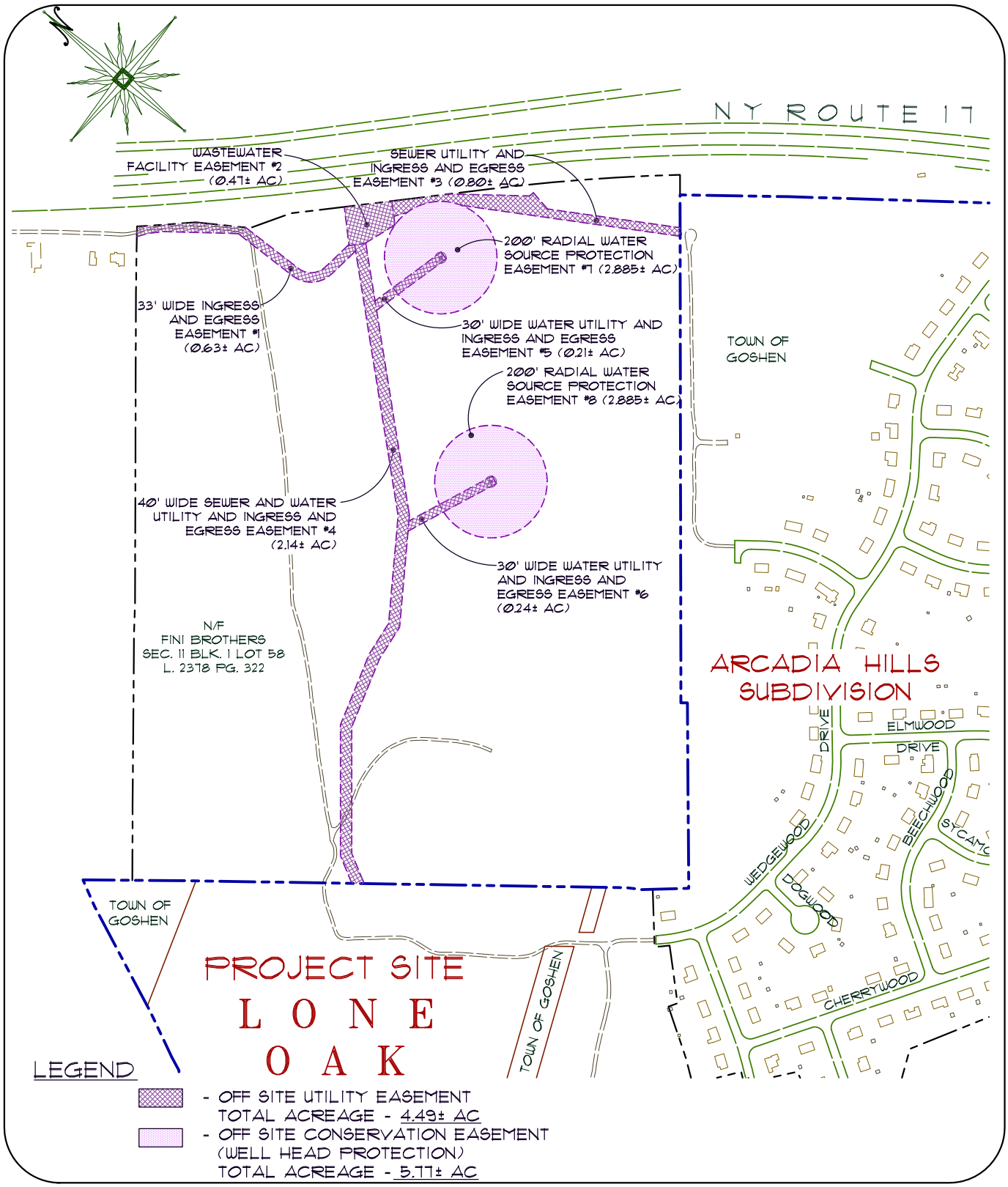
- .A sewer and water utility and access easement, #4, approximately 40 feet in width and 2300 feet in length, extending from the Lone Oak TND to the existing Fini water supply wells and the sanitary sewage treatment or conveyance site near NYS Route 17.

- An access easement, #1, 33 feet in width, extending for a distance of approximately 830 feet, from the end of Harriman Drive to the sanitary sewage treatment or conveyance site.

- A sewer utility and access easement, #5, providing for improvements to the existing facilities of the Arcadia Hills Town Sewer District described in this Supplemental EIS as Alternate 2.

- Water utility and access easements, #5 and #6, providing access to the existing Fini wells intended as the water supply source for the TND.

- Wastewater treatment facility easement #2.



SEIS FIGURE NO. 5B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

OFF SITE UTILITY EASEMENT AREA

GRAPHIC SCALE: 1 in. = 500 ft.

DATE: JANUARY 9, 2009

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As further indicated on **SEIS Figure No. 5B** there are also two wellhead water source protection areas depicted, #7 and #8. Each encompasses the land within a radius of 200 feet of the wellhead, thus individually occupying 2.885 acres, or a total of 5.77 acres.

In combination, the described off-site easement areas occupy 10.26 acres, or approximately 9.4 percent, of the 109-06-acre parcel owned by the Project Sponsor lying adjacent to the TND Project Site.

SEIS Subsection 3.3
Residential Dwellings and Site Development

SEIS Subsection 3.3 provides information regarding the overall character of the residential dwellings and related site development intended within the Lone Oak Traditional Neighborhood Development, including illustration of typical single-family lot or other dwelling site layouts as required by both the Draft EIS Scoping Document and to demonstrate conformance with Hamlet Residential District design principles.

As depicted on the TND Layout Plan, the 132 residential dwelling units within the TND would consist by number of units by housing type of the following, each of which has been designed in building character by the Project Architect and site layout by the Land Planner to carry out The Town of Goshen's stated objectives for residential development employing new development techniques within the HR District:

- **88 Single-Family Detached Residences** consisting of 65 "Edge Homes" and 23 "Lane Homes", as described below:

  "Edge Homes" on TND Lots 1-5, Lots 13-40, Lots 62-64 and Lots 76-104.

  Each of the 65 "edge homes" is a single-family detached residence with off-set garage accessed from a subdivision street via an individual driveway on a larger, individual 12,000 square foot hamlet-size lot. The "edge homes" will be two-story and 2800 to 3200 square feet in habitable floor area, with attached two-car garage.

  The "edge homes" will be traditional in their exterior architecture and distinguished by such features as open front porches with steps and railings, 6-over-1 and 6-over-6 windows, articulated entrance ways, carriage-type garage doors, dormers, clapboard and shingle siding, and moderately-pitched gable roofs. The "edge homes" will typically be set back 25 to 35 feet from the street right-of-way with their off-set garages more distant.

Each of the edge home lots will be suitably designed so as to accommodate vehicular and pedestrian access, including consideration of grade and sight distance, landscaping and maintenance appropriate to the residential setting. A walkout basement option will likely be exercised in some of the situations where topography permits.

The 49 proposed 4-bedroom homes have an average projected market price of $620,000.; the 16 proposed 3-bedroom homes have an average projected market price of $540,000.

See **SEIS Figures No. 10A** and **No. 11A**, respectively, for an exterior architectural elevation and illustrative site layout plan for this housing type.

"Lane Homes" on TND Lots 6-12, Lots 41-45 and Lots 65-75.

Each of the 23 "lane homes" is a single-family detached residence with rear-loaded two-car garages accessed from a service lane via an individual driveway on a smaller, individual 8,000 square foot hamlet-size lot. The "lane homes" will be two-story and 2500 to 2900 square feet in habitable floor area, with attached two-car garage.

The "lane homes" will likewise be traditional in their exterior architecture, with these homes distinguished by such features as 6-over-6 windows, articulated entrance ways, shutters, clapboard, and pitched gable roofs. The "lane homes" will typically have their front doors within 20 feet of the sidewalk and have a side yard of 20 to 30 feet if located on a corner lot. Separation of 30 to 50 feet is typically proposed between dwellings.

Each of the lane home lots will be suitably designed so as to accommodate vehicular and pedestrian access, including consideration of grade and sight distance, landscaping and maintenance appropriate to the residential setting.

The 17 proposed 4-bedroom homes have an average projected market price of $540,000.; the 6 3-bedroom homes have an average projected market sales price of $480,000.

See **SEIS Figures No. 10B** and **No. 11B,** respectively, for an exterior architectural elevation and illustrative site layout plan for this housing type. .

- **16 Single-Family Semi-Detached Residences**

"Town Homes (Two Dwellings) on TND Lots 46-61.

Each of the proposed 8 "town homes (two dwellings)" structures house two semi-detached single-family residences with front-loaded garages accessed from a subdivision street via individual driveways on a single 12,000 square foot hamlet-size lot. Each of the single-family residences within the duplex-type structure will be one and one-half story, 3-bedroom in layout and 2100 to 2400 square feet in habitable floor area.

The "town homes (two dwellings)" will be traditional in exterior architecture and distinguished by such features as clapboard and shingle siding, stone veneer,

articulated windows and doorways, intersecting pitched gable roofs, dormers, carriage-type garage doors, and prominent chimneys as a roofscape design element. The "town homes (two dwellings)" will typically be set back 20 to 25 feet from the front property line. A typical separation of 40 feet is proposed between dwellings.

Each of these paired town home lots will be suitably designed so as to accommodate vehicular and pedestrian access, including consideration of grade and sight distance, landscaping and maintenance appropriate to the residential setting.

The 16 semi-attached residences will have an average projected market price of $440,000.

See **SEIS Figures No. 10C** and **No. 11C**, respectively, for an exterior architectural elevation and illustrative site layout plan for this housing type. .

- **28 Single-Family Attached Residences,** consisting of 28 dwelling units within "Town Homes (Four Dwellings)".

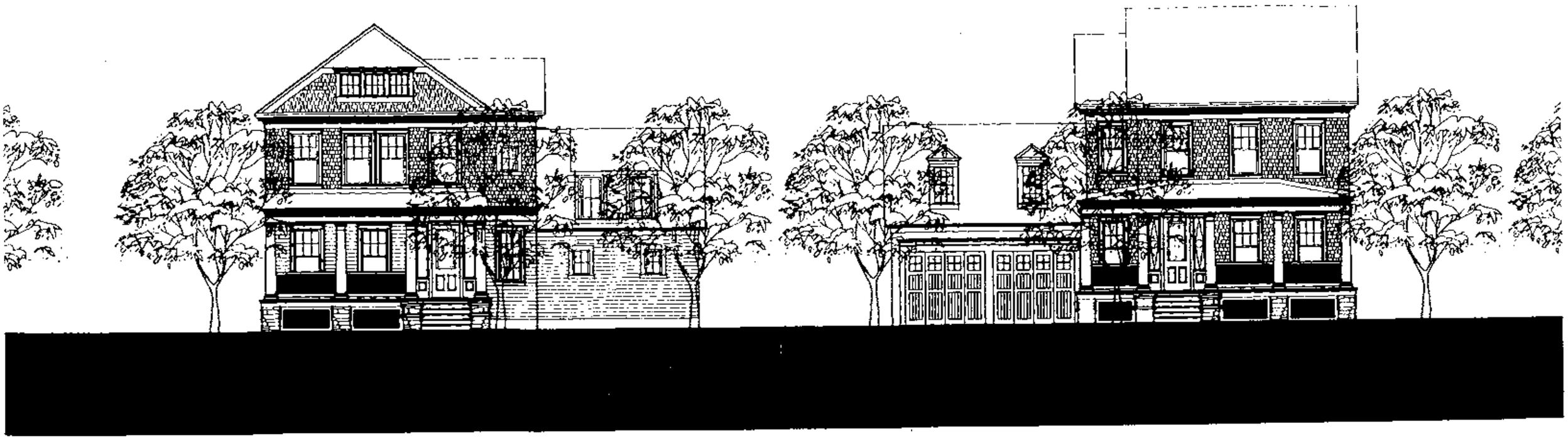
  "Town Homes (Four Dwellings)" in the vicinity of the Picnic Grove Area and the Recreation Area.

  Each of the 7 proposed "town homes (four dwellings)" structures is a multi-family dwelling sited within a common land area and housing four single-family residences, or dwelling units. Each of the dwelling units within the town home structure will be one and one-half story, 3-bedroom in layout and 1800 to 2200 square feet in habitable floor area. Either an individual driveway or common driveway is provided as more appropriate to the location of the multi-family dwelling with respect to adjacent structure(s).

  The "town homes (four dwellings)" will be similar in traditional design and appearance to the above semi-detached units. Each dwelling unit will include a front-loaded garage accessed from a subdivision street with sidewalk and have an average projected market price of $400,000. Front setback from the street right-of-way will range from approximately 20 to 45 feet.

  Each of these town home sites will be suitably designed so as to accommodate vehicular and pedestrian access, including consideration of grade and sight distance, landscaping and maintenance appropriate to the residential setting.

  See **SEIS Figures No. 10D** and **No. 11D**, respectively, for an exterior architectural elevation and illustrative site layout plan for this housing type. .



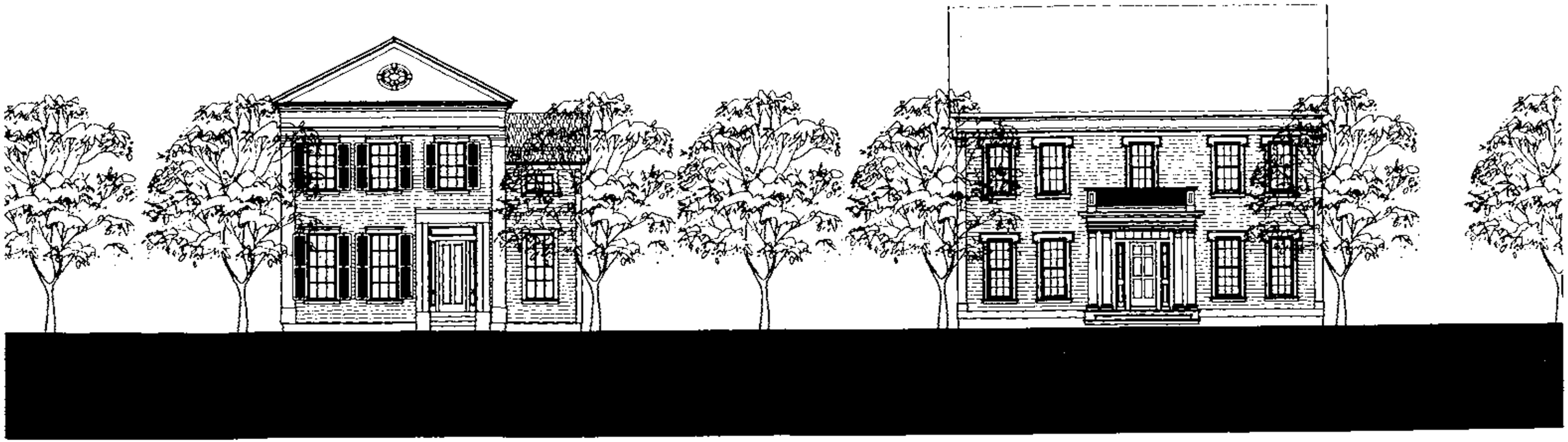
Edge Homes

Single Family

Lone Oak

SEIS FIGURE NO. 10A

DeGraw & DeHaan Architects



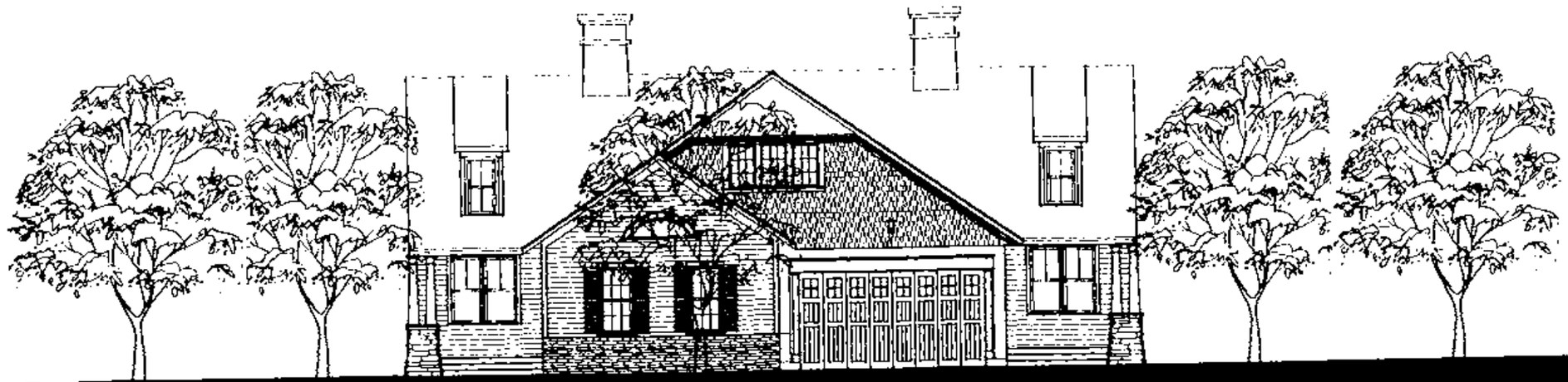
Lane Homes

Single Family

Lone Oak

SEIS FIGURE NO. 10B

DeGraw & DeHaan Architects



Town Home

Two Dwellings

L o n e O a k

SEIS FIGURE NO. 10C

DeGraw & DeHaan Architects

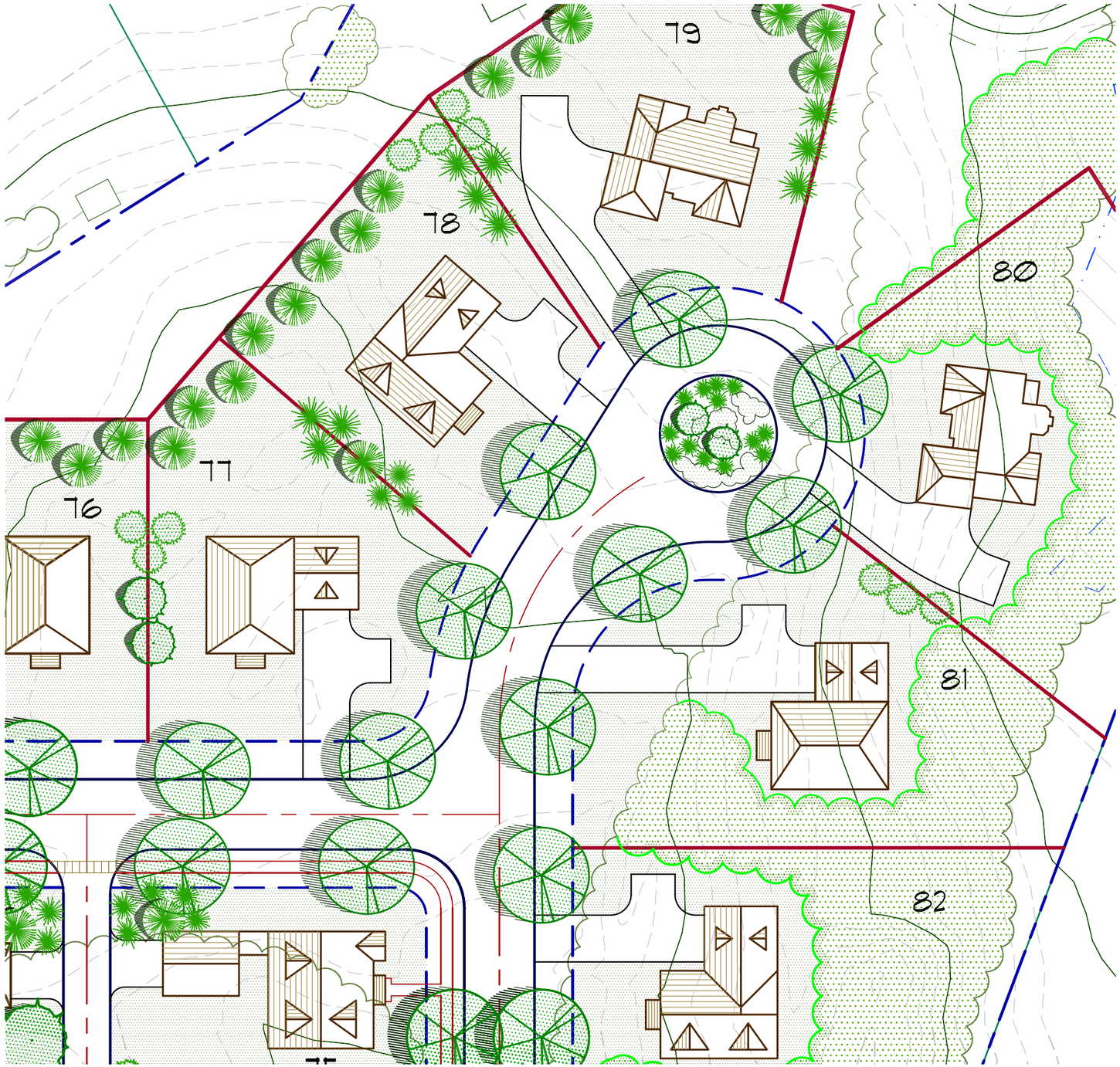
Town Home

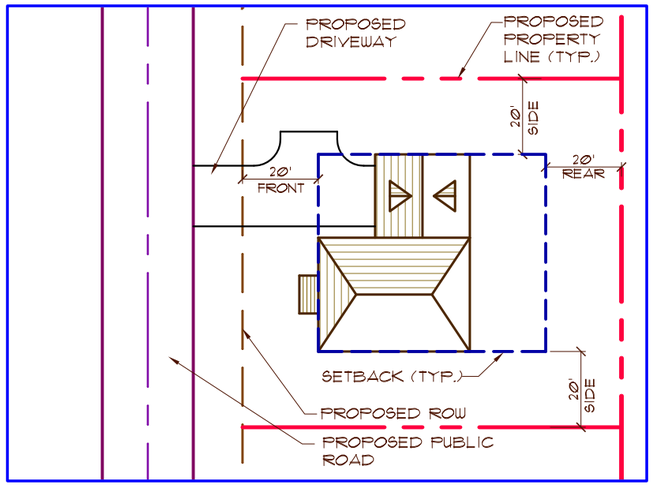
Four Dwellings

Lone Oak

SEIS FIGURE NO. 10D

DeGraw & DeHaan Architects





TYPICAL LOT WITH SETBACKS FOR DETACHED SINGLE FAMILY HOMES WITH SIDE LOADED GARAGE

SEIS FIGURE NO. 11A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE-SIDE LOADED

GRAPHIC SCALE: 1 in. = 40 ft.

DATE: MARCH 31, 2008

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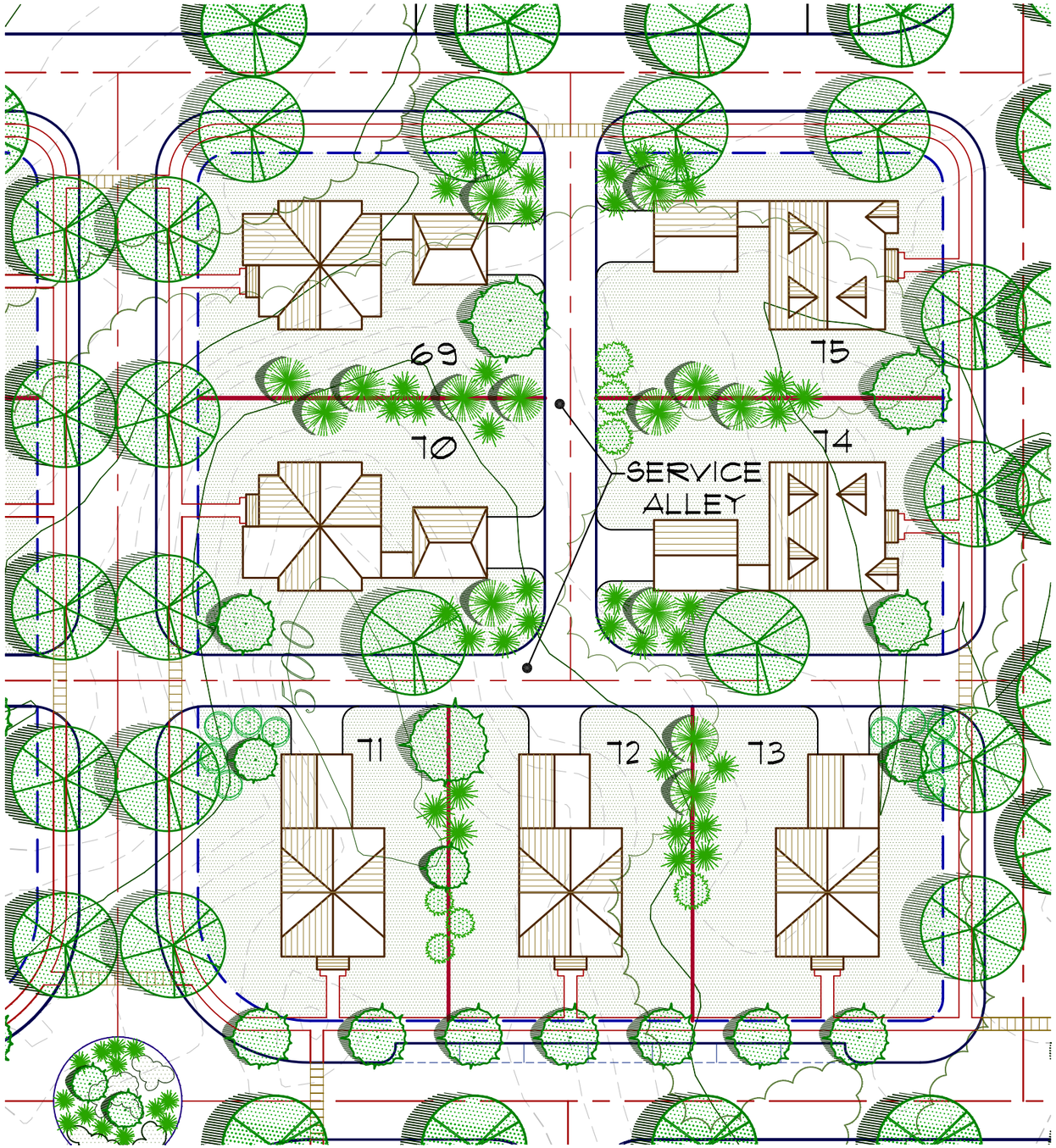

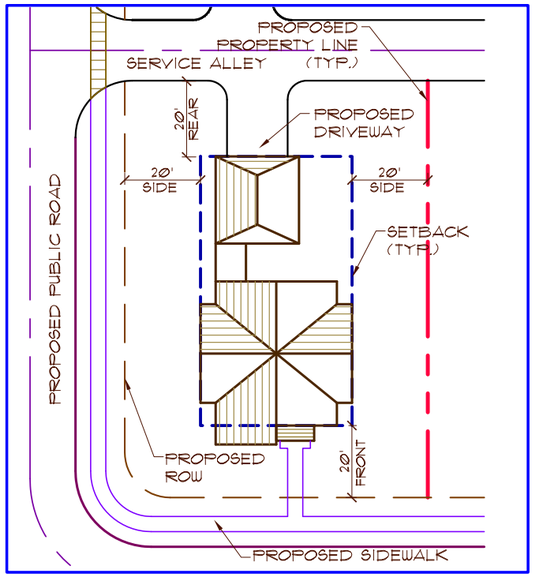

TYPICAL LOT WITH SETBACKS FOR DETACHED SINGLE FAMILY HOMES WITH REAR LOADED GARAGE

SEIS FIGURE NO. 11B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE-REAR LOADED

GRAPHIC SCALE: 1 in. = 40 ft.

DATE: MARCH 31, 2008

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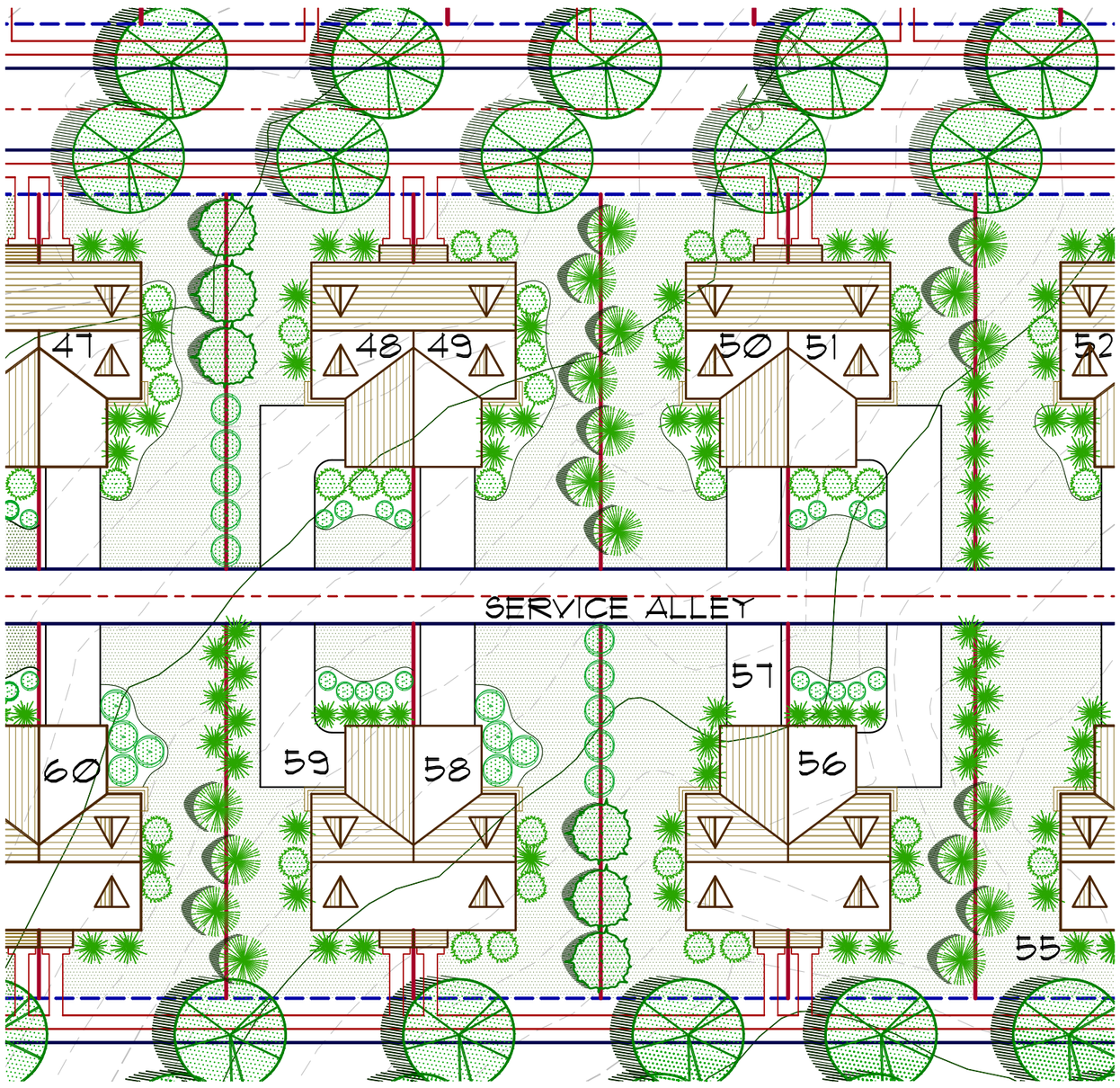

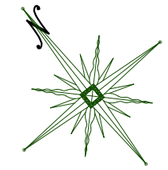

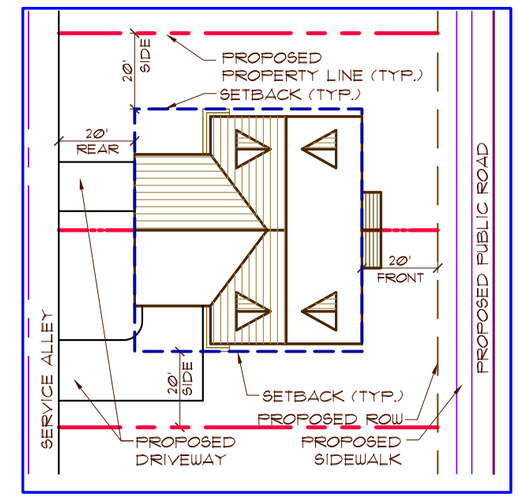

TYPICAL LOTS WITH SETBACKS FOR DUPLEX RESIDENCE SINGLE FAMILY HOMES WITH GARAGE

SEIS FIGURE NO. 11C

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

DUPLEX RESIDENCE SINGLE FAMILY HOMES W/GARAGE

GRAPHIC SCALE: 1 in. = 40 ft.

DATE: MARCH 31, 2008

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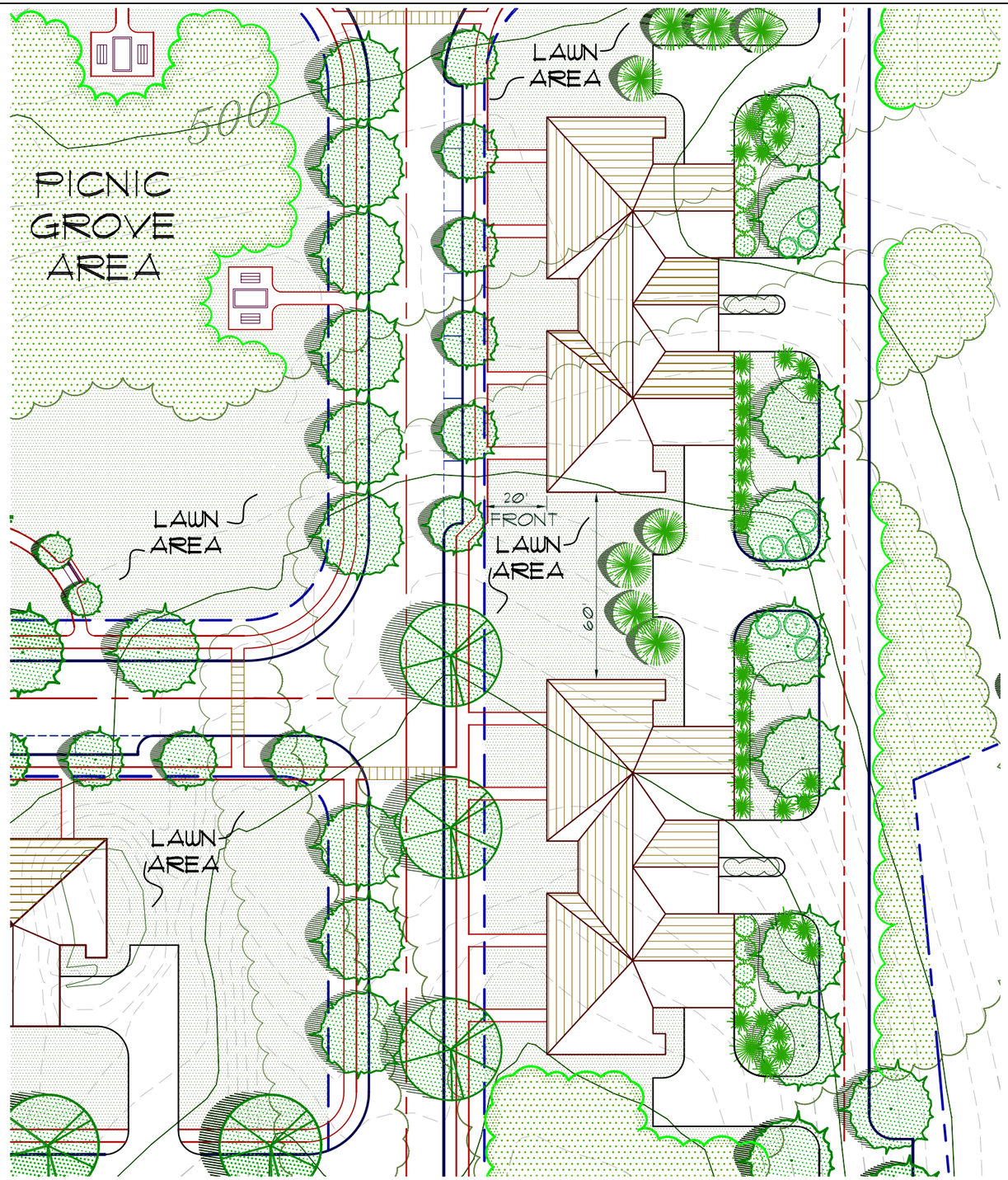

SEIS FIGURE NO. 11D

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

ATTACHED RESIDENCE TOWNHOMES W/GARAGE

GRAPHIC SCALE: 1 in. = 40 ft.

DATE: MARCH 31, 2008

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SEIS Subsection 3.4
Project Purpose, Needs and Benefits

SEIS Subsection 3.4 includes discussion of both the Project Sponsor's objectives in pursuing subdivision plat and related approvals, permits and compliance determinations for the Lone Oak Traditional Neighborhood Development and the Project's consistency with adopted Town and County land use policies as well as a summary of both the anticipated benefits and the adverse effects of the Proposed Action.

3.4.1 Background and Project Sponsor's Objectives

The Project Sponsor, Fini Bros., is comprised of a family of long-term local residents who among their other business pursuits are experienced site contractors and residential builders.

Fini Bros. seeks to create through the Lone Oak Traditional Neighborhood Development a well-designed subdivision sensitive to the land resource, consistent with Town and other governmental land use policies and in accordance with appropriate engineering and environmental design criteria so as to permit the development of a neighborhood comprised of the owners of a range of moderate price housing types on a highly-accessible 103.42-acre Project Site within a residentially-established area of the Town of Goshen.

In doing so, the objective of Fini Bros. is not altruistic. Fini Bros. has held the Project Site and adjacent lands for more than 20 years, explored various development options with respect to the property, made various offers to the Town and Village of Goshen related to sanitary sewage treatment and water supply arrangements, and hopes to recoup some part of its investment and perhaps make a reasonable profit from the latest installment in this continuing endeavor based upon build-out of the now proposed Lone Oak TND.

Anticipated disposition of the approved and improved individual lots or other dwelling sites will include some combination of sale of individual lots to private parties wishing to have constructed their own home, sale of individual lots or groups of lots or other dwelling sites to other quality homebuilders, or residential development of the individual lots or other dwelling sites directly by the Project Sponsor for sale to new homeowners. It is anticipated that the latter option will be the most prevalent.

3.4.2 Public Need and Consistency with Adopted Land Use Plans and Policies

The Project Sponsor has determined prior to pursuing the development initiative subject of this Supplement EIS there to be reasonable market potential, i.e. demonstration of public need, for the development and build-out of the Lone Oak TND within the three (3) to five (5) year timeframe from start of residential construction discussed in below SEIS Section 3.5.

Fini Bros. has specifically noted the continuing trend for additional residential development within the Town of Goshen and in its environs spurred by a number of factors including both the historic ambience and the accessibility of the Goshen community and the presence of other highly-visible projects such as the nearby Elant at Goshen complex, the substantial "build-out" that has occurred throughout communities further south in Rockland and Westchester Counties and throughout Northern New Jersey, and no doubt in part the rapidly-increasing opportunities available to business and professional persons to substitute electronic communications' capability for a daily commute to an office or other business location.

Fini Bros. has further noted that much of this construction is occurring in the upper price ranges on larger lots of 2 acres or more served by individual on-site water supply and sanitary sewage arrangements or involve exclusively town home or similar development. The Project Sponsor believes there to be a market for somewhat less expensive moderately-priced homes on smaller lots, including the mix of housing types and the set-aside of affordable housing proposed within the TND, within a quality traditional neighborhood setting with ample space, various community amenities and central water and sanitary sewage systems.

Furthermore, as highlighted in SEIS Section 1, "Introduction and Summary", and discussed more fully within SEIS Subsection 4.6, "Land Use, Zoning and Public Policy", the intended Lone Oak TND is consistent with pertinent adopted land use policies including the Orange County Master Plan, the Town of Goshen Master Plan, and both the Town of Goshen's Land Subdivision Regulations and Zoning Law, including but not limited to the Hamlet Residential (HR) District classification of the Project Site, most if not all of which have been comprehensively updated within the past 4 to 5 years.

3.4.3 Anticipated Benefits and Adverse Effects of the Proposed Action

Development of the Lone Oak Traditional Neighborhood Development is expected to provide the following benefits to the Town of Goshen and its environs:

- Short-term creation by the Project Sponsor of improved building sites within a traditional neighborhood setting for the construction of a range of housing types consisting of 88 single-family detached homes, 16 duplex dwelling units and 28 town home dwelling units, providing long-term opportunity for a quality residential environment for some 132 owner-occupant households.

- Short-term creation of local employment opportunities during the TND construction period, including site work, installation of subdivision improvements

and construction of residential dwelling units and community facilities with an estimated total market value in excess of $70,000,000, or approximately $525,000 per dwelling unit.

- Short-term purchase of construction materials and procurement of engineering, architectural and other services related to TND development, including consideration of sales tax, permit fees and other governmental revenues.

- Long-term financial benefits to the community, including the day-to-day purchase of local goods and services by an additional 132 households and the generation of additional real property tax, sales tax, mortgage tax and other governmental revenues commensurate with the value of their homes and day-to-day purchases.

- Long-term benefit to the Town and more particularly to the residents of the Arcadia Hills Subdivision and the Village of Goshen as STP operator, in the offered undertaking of extraordinary improvements, including installation of a new trunk line, an aerated holding tank and a larger sewage pumping station, to mitigate existing deficiencies in Town Sewer District No. 2.

- As an additional long-term benefit to the community, the Planning Board may also wish to consider during the continuing subdivision plat and approval process whether rights-of-way should be reserved from the internal roadway network within the Lone Oak Estates Subdivision to adjacent, undeveloped land, most particularly the Lands of Serdarevic (TMP 15-1-59) and/or Ellman (TMP 15-1-52.1) as shown on the TND Site Plan and the Lands of Fini (TMP 11-1-58) as not depicted, to provide for future roadway connection for either routine or emergency purposes and/or pedestrian connection should these lands be developed in the future for residential use.

As discussed later in this Supplemental EIS, there are also some “Unavoidable Adverse Effects” anticipated upon implementation of the Proposed Action. These adverse effects, none of which is deemed so significant by the Project Sponsor as to suggest that the Proposed Action should not go forward and for which mitigation to the extent practicable has already been incorporated in the TND Site Plan or otherwise proposed within SEIS Section 4, “Existing Environmental Setting, Anticipated Impacts and Related Mitigation Measures”, are listed in SEIS Section 5, “Unavoidable Adverse Environmental Effects If The Project Is Implemented” and include the following:

- Conversion of the 103.42-acre Project Site from “vacant, rural land” as classified by the Town Assessor, including approximately 38.3 acres of “Class II” or “Class III” farmland, considered “important” in the word of the Town Master Plan but not “prime” as defined by the USDA Soil Conservation Service, to the Lone Oak TND as described within this Supplemental EIS.

- Substantial removal of existing vegetation from some 45.20 acres, or approximately 43.7 percent of the Project Site, as site disturbance occurs to provide for the construction/installation of internal subdivision roadways, storm water management and other utility improvements including water supply and

sanitary sewage systems, service lanes and ways, sidewalks, driveways, sites for a range of housing types and related appurtenances, including recreation areas, lawns and other landscaped areas are developed. In addition, approximately 2.5 acres of existing vegetation are anticipated to be removed as installation of central water and sanitary sewage improvements and related pervious surface accessways occurs within the 4.49 acres of off-site utility easement areas depicted earlier on **SEIS Figure No. 5B**.

- Concurrent displacement of existing wildlife habitat to the extent such exists on a like portion of the Project Site in consideration of the prior subdivision activity, albeit replaced by natural landscaping including lawns, trees and shrubs on all but approximately 19.84 acres that will be converted to impervious surfaces.

- Disturbance and alteration of existing soils, including those portions of either "Class II" or "Class III" farmland that may still be intact despite the substantial and widespread 1970's grading activities that disturbed much of Project Site, within approximately 43.7 percent of the Project Site, some 45.20 acres, and an additional 2.5 acres of off-site land within adjacent TMP 11-1-58.

- Disturbance to bedrock in limited areas where water supply wells have been drilled or may be drilled and where deep excavation is needed to construct roadways at suitable grade, install utility lines at suitable depth, or provide structurally sound foundations for features such as the water tower, including limited blasting.

- Related to the above consideration of existing soils and/or bedrock, "cuts" and/or "fills" in excess of 5 feet on 0.30 acres of the overall Project Site.

- Disturbance to 5.50 acres of the 15.44 acres of the Project Site with existing slope in excess of 15 percent, with the above-cited "cuts" and/or "fills" in excess of 5 feet limited however to 0.24 acre of these 5.50 acres.

- New disturbance (whether temporary or permanent) to existing, delineated wetlands, including regulated buffer areas, within the Project Site and the adjacent Lands of Fini, consisting of the following:

    - 495 square feet, or 0.011 acre, of "isolated" or ACOE non-jurisdictional wetland within the Project Site.

    - 8,760 square feet, or 0.201 acre of ACOE jurisdictional wetland, including 1,530 square feet or 0.035 acre of NYSDEC Wetland GO-41, pursuant to Nationwide Permits 7, 12, 14 and 29, within the Project Site.

    - 9,355 square feet, or 0.215 acre, of NYSDEC Wetland GO-41 within the adjacent Lands of Fini.

    - The above-cited combined new disturbance (whether temporary or permanent) to 10,885 square feet, 0.250 acre of NYSDEC Wetland GO-41, and additional disturbance to a combined 41,770 square feet, or 0.959 acre of its regulated buffer, pursuant to NYSDEC Freshwater Wetlands Permit.

The above-cited new wetland disturbances complement certain pre-existing wetland disturbances within the adjacent Lands of Fini caused during the drilling of water supply wells several years ago. These pre-existing wetland disturbances, as cited by the ACOE in its July 5, 2000, JD letter, total 14,090 square feet, or 0.323 acre.

- Creation of approximately 19.84 acres of new impervious surface occupying approximately 19.0 percent of the Project Site consisting of 14.71 acres of subdivision roadways, service lanes and ways, sidewalks and other pedestrian pavements, driveways, above-grade infrastructure and franchise utility improvements, and 5.13 acres of roofs of dwellings and other structures appurtenant to the TND.

- Periodic short-term generation of noise in excess of existing ambient levels within and adjacent to the Project Site principally by trucks carrying heavy equipment and construction materials to the Project Site and by heavy equipment involved in site preparation and infrastructure installation.

- Incidence of heavy truck, light truck and automobile traffic bringing equipment, materials and workers to the Project Site during the construction period.

- Visibility of the residential subdivision, to the extent some might deem pure "visibility" to be an adverse environmental impact, from adjacent residentially developed lands, vacant rural non-farm and farm lands, and travel ways including Arcadia Road and/or NYS Route 17, with it to be understood that the visual impact discussed in the Draft EIS that would occur through on-site construction of a 114-foot high elevated water tower has been substantially mitigated through the now proposed installation of an on-site low-profile water storage facility.

In addition, the following factors, each more explicitly noted in SEIS Section 7, "Irreversible and Irretrievable Commitment of Resources" may concomitantly be considered "unavoidable adverse environmental effects":

- Consumption of petrochemical energy resources during both the period of construction activity and continuing through residential occupancy of the Lone Oak TND.

- Upon occupancy of all 132 dwelling units within the Lone Oak TND, an estimated 48,020 GPD in known source water taking from the Fini bedrock wells, being less than the maximum of 48,960 GPD (as limited by the 2007 Edition of Ten State Standards in its requirement for demonstration of maximum daily demand with largest producing well out of service).

- Upon occupancy of the Lone Oak TND, loss of residual capacity in existing highways and intersections within the vicinity of the Project Site.

- Upon occupancy of all 132 dwelling units within the Lone Oak TND, either discharge of 58,250 GPD of tertiary treated effluent to the Otter Kill from a new

on-site wastewater treatment plant or, as would occur if the alternate presented by the Project Engineer were implemented, loss of 58,250 GPD in the residual capacity of the Village of Goshen STP.

- Upon occupancy of all 132 dwelling units within the Lone Oak TND, loss of the residual capacity, or increase in burden upon, community facilities and services to the extent attributable to 431 persons resident within the Lone Oak TND, including 99 school-age children, 90 of whom are anticipated to attend public schools within the Chester Union Free School District.

SEIS Subsection 3.5
Timing of Development, Construction Period Activity, and Ownership of Lands and Improvements

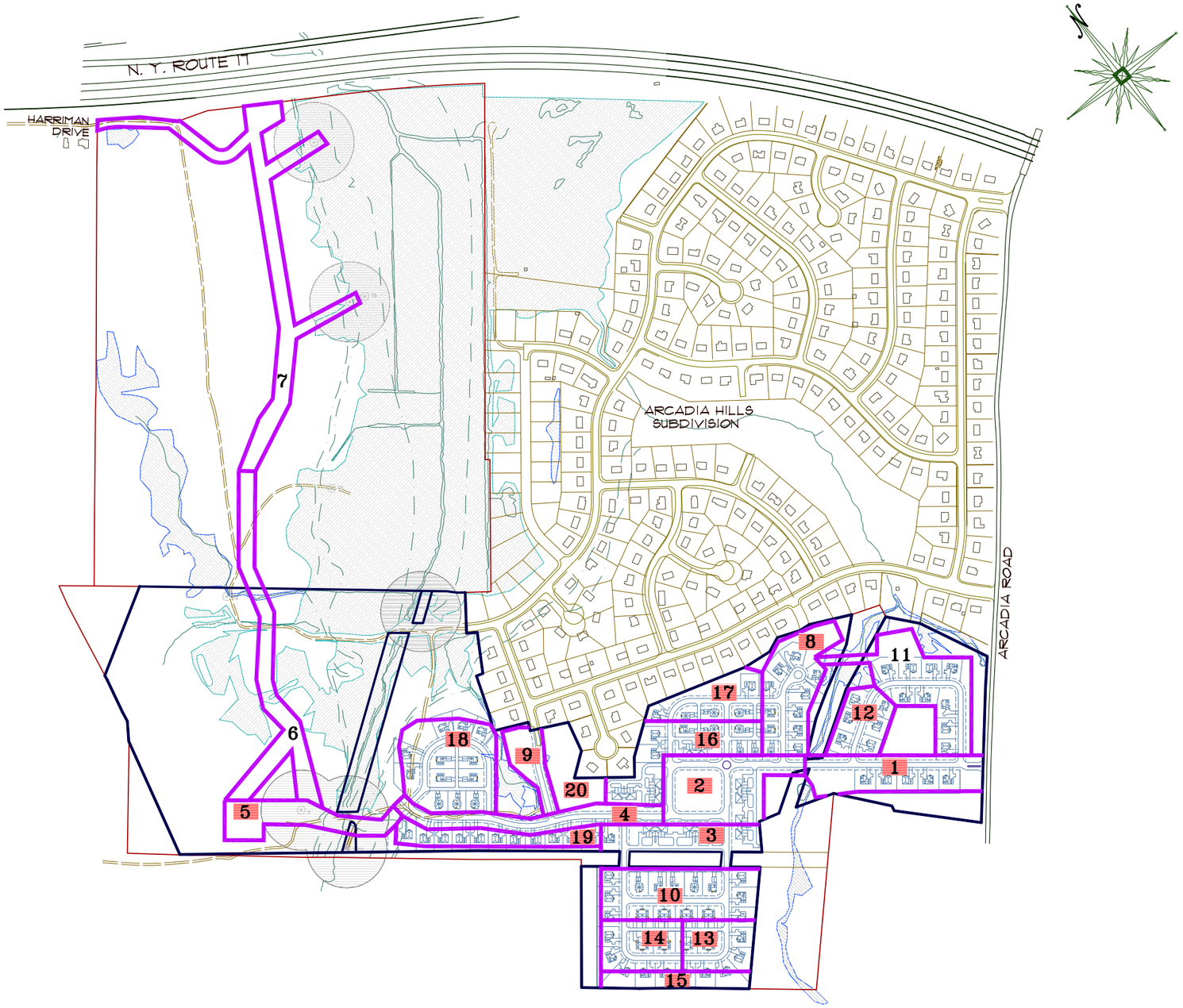
SEIS Subsection 3.5 provides description of the anticipated sequence, duration and timing of construction period activities and discussion of matters related to both the long-term ownership, operation and maintenance of subdivision improvements and related lands and the restrictions, or other limitations, that may be imposed on the use and development of both commonly-held and individually-owned parcels within the Lone Oak Traditional Neighborhood Development.

3.5.1 Overall Development Period / Construction Phasing Plan

Dependent upon market conditions, it is anticipated the Lone Oak Traditional Neighborhood Development could be built out in a period of some three (3) to five (5) years from the start of residential construction, i.e. completion between 2013 and 2015.

Site development and the related installation of subdivision improvements within the Lone Oak TND are projected to begin in late 2009 following the securing of all necessary permits and approvals. Residential construction would then begin in late 2010 or early 2011.

Following the installation of appropriate erosion and sediment control devices, site development within the TND would occur in the below overall sequence and would be staged as set forth on the Project Engineer's **Earthwork Phasing Plan** (April 2008) to limit coincident clearing and grading activities to less than 5 acres as required under NYSDEC General Permit 0-08-001 for Stormwater Discharges Associated with Construction Activities. The Earthwork Phasing Plan is presented here **SEIS Figure No. 12.**



EARTHWORK, EROSION & SEDIMENTATION PHASING

PHASE 1 - CLEARING AND GRUBBING OF INITIAL ENTRANCE POINT FROM ARCADIA ROAD TO ESTABLISH CONSTRUCTION ENTRANCE.

PHASES 2 THROUGH 19 - CLEARING AND GRUBBING AND ROUGH GRADING OF THESE AREAS WILL OCCUR WITHIN FIVE ACRE SEGMENTS. MASS CUT AND FILL WILL BRING THE ROADWAYS TO GRADE AND BUILDING PAD LOCATIONS WILL BE PREPARED. MAIN LINE INFRASTRUCTURE WILL BE INSTALLED INCLUDING STORMWATER MANAGEMENT FACILITIES, THE PUMP STATION TRUNK LINES, DEVELOPMENT OF WELLS #1, #2 AND #3, AND DEVELOPMENT OF THE WATER TREATMENT, PUMPING AND STORAGE FACILITY.

PHASE 20 - CONSTRUCTION OF THE RECREATIONAL FIELDS.

SEIS FIGURE NO. 12

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

EARTHWORK PHASING PLAN

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

01/09/09	REVISED PHASE 7 AREA
DATE	DESCRIPTION
REVISIONS	

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

- Phase 1A - Clearing and grubbing of initial entrance point from Arcadia Road to establish construction entrance.

- Phases 2 through 19 – Clearing and grubbing and rough grading of these areas will occur within five acre segments. Mass cut and fill will bring the roadways to grade and building pad locations will be prepared. Main line infrastructure will be installed including stormwater management facilities, the pump station trunk lines, development of Wells #1, 2 & 3, and development of the water treatment, pumping and storage facility.

- Phase 20 – Construction of the recreational fields.

- Phase 21– Undertaking of wetland mitigation program (as depicted on later **SEIS Figure No. 16**) at location(s) and with design subject to approval by NYSDEC and/or ACOE.

Based upon the above timetable, residential build-out of the 132 dwelling units within the Lone Oak TND and completion of all related improvements cited earlier in SEIS Subsection 3.2.2 would be completed between 2013 and 2015.

3.5.2 Long-Term Ownership, Operation and Maintenance of TND Lands and Improvements

The Project Sponsor intends the following arrangements for the ownership, operation and maintenance of lands and improvements within the Lone Oak Traditional Neighborhood Development:

- Both the 88 individual residential lots and the 16 duplex lots, and the improvements thereon, will be in individual ownership and will not be subject to governance in any way by a homeowners' association or similar entity. Deed restrictions will however be imposed throughout the Lone Oak TND in the manner discussed in below SEIS Subsection 3.5.3. Each of the owners of the individual residential lots and the duplex lots will however be required members of the Lone Oak TND Homeowners Association.

- Each of the 28 town homes and the related land area of its "dwelling unit footprint" will be in individual ownership. The balance of the town home dwelling site will be in the ownership and subject to governance by a homeowners' association or similar entity unique to the town homes or created in tandem with the manor homes. All participants in this entity will also be required members of the Lone Oak TND Homeowners Association.

- All subdivision roadways, whether described in this Supplemental EIS and on the cited plans as through road, boulevard, subdivision street or access (service) lane, will upon satisfactory installation be offered for dedication by the Project Sponsor to the Town of Goshen which will then as owner be responsible for long-term maintenance.

- All storm water management improvements will be offered for dedication by the Project Sponsor to the Town of Goshen, or a Stormwater Management (Drainage) District created by the Town Board upon petition of the Project Sponsor, which will then as owner become responsible for long-term maintenance. It is anticipated execution of the offer of dedication by the Town would not occur until the stormwater management system, including any flora enhancements that may be installed, has been demonstrated to operate satisfactorily for a period of perhaps three years.

- The central water system improvements, including but not limited to associated utility parcels and/or easement areas may be depicted on the final approved subdivision plat, the water supply well, well water treatment and water storage facilities located thereon, and the water mains within the rights-of-way of the proposed internal subdivision roadways and the other depicted water main easement areas within the Lone Oak TND will upon satisfactory installation be offered for dedication by the Project Sponsor to the Arcadia Hills Town Water District. The Town Water District will then as owner bear responsibility for long-term operation and maintenance with the cost thereof paid exclusively by the benefited property owners, with the anticipated formula for doing so being a combination of an individually-metered water usage charge and a lot-by-lot special district levy.

- The central sanitary sewage facilities, including but not limited to associated utility parcels and/or easement areas may be depicted on the final approved subdivision plat, the sewage pumping stations, the sanitary collection sewers and force main within the rights-of-way of the proposed internal subdivision roadways and the other depicted sanitary sewer easement areas within the Lone Oak TND will upon satisfactory installation, be offered for dedication by the Project Sponsor to the Arcadia Hills Town Sewer District. The Town Sewer District will then as owner bear responsibility for long-term operation and maintenance with the cost thereof paid exclusively by the benefited lot owners, with the anticipated formula for doing so being a combination of a sewer use charge and a lot-by-lot special district levy.

- The principal active recreation area within the Lone Oak TND, the Community Recreation Area, will be offered for dedication to the Town of Goshen or alternately owned, managed and maintained by the Lone Oak TND Homeowners Association.

- The Community Picnic Grove and the open space areas outside NYSDEC Wetland GO-41 will be owned, managed and maintained by the Lone Oak TND Homeowners Association.

- Either fee or lesser interest in the form of a conservation easement to a wetland conservation parcel that will be depicted on the final subdivision plat will be offered by the Project Sponsor to either the Town of Goshen or qualified conservation organization acceptable to the Town for purposes of long-term stewardship. The wetland conservation parcel will be comprised of both that

portion of NYSDEC Wetland GO-41 within the TND and, as practicable in platting, its 100-foot regulated buffer.

3.5.3 Restrictions and Covenants

The Project Sponsor intends to grant conservation easements, impose covenants through homeowners' association documents and include private restrictions, as may additionally be necessary, in the deeds to each of the individual lots within the Lone Oak TND to at a minimum ensure the following:

- The completion in a timely manner of any site work and/or building construction once initiated within the Lone Oak TND.

- To the extent any such site work and/or building construction may be undertaken by parties other than the Project Sponsor, the exercise of pre-construction design approval and inspection of completed construction by the Project Sponsor to ensure through the time of build-out of the TND all site work and construction is in accordance with the approved TND Site Plan, including Architectural Plans, and has been completed in a workmanlike manner.

- The maintenance of all properties within Lone Oak TND in an appropriate residential park-like manner.

- The conservation and protection of significant natural and man-made features within the Lone Oak TND to the extent practicable as building sites are developed and maintained, including specific advisories regarding delineated NYSDEC and ACOE wetlands and reference to any related wetland conservation easement.

- Prohibition of the establishment of any commercial, business or institutional use within any residential dwelling or on any residential lot within the Lone Oak TND for which a certificate of use or occupancy could not be issued by the Town of Goshen without prior issuance of a use variance by the Town's Zoning Board of Appeals.

- Prohibition of the further subdivision (i.e. re-subdivision to permit a greater number of dwelling units) of any lot or other dwelling site within the Lone Oak TND.

- As depicted on **SEIS Figure No. 5B, Off-Site Utility Easement Area**, wellhead protection in accordance with NYSDEC requirements for the water supply wells located on the Lands of Fini lying adjacent to the TND Project Site.

A draft of each of the intended conservation easement agreements, HOA covenants and/or deed restrictions will be submitted to the Planning Board for review and endorsement during the subdivision plat review and approval process.

As is anticipated to be required by the NYSDEC and/or the ACOE, among these drafts will be a wetlands conservation easement that will limit further use of the wetland conservation parcels within the Lone Oak TND to conservation and/or related educational purposes except as the easement is specifically structured to permit in perpetuity the continuing use, operation, maintenance and replacement of the infrastructure components located thereupon, including any water supply wells, well water treatment facility, sewage pumping station, and any lines, mains or trunks appurtenant to either the water or sanitary sewage systems, or trail networks that may be approved as an integral part of the TND or later developed by the fee owner with the concurrence of the easement holder.

SEIS Subsection 3.6
Reviews, Permits, Approvals and Compliance Determinations

SEIS Subsection 3.6 provides a brief description of the reviews that must be conducted and the permits, approvals and compliance determinations that must be secured by the Project Sponsor from several governmental agencies and other parties prior to construction and occupancy of the Lone Oak Traditional Neighborhood Development.

These review, permits, approvals and compliance determinations, as listed below by jurisdiction, collectively constitute the Proposed Action subject of this Supplemental EIS.

To the extent these permits, approvals and compliance determinations involve the consideration of application forms, fees and legal instruments submitted to the Planning Board and other agencies of pertinent jurisdiction, the Project Sponsor intends to submit all documents following Preliminary Plat Approval by the Planning Board. If submitted to another agency, a copy will be simultaneously provided to the Planning Board.

3.6.1 Town of Goshen

Town Planning Board
Town Hall
41 Webster Avenue
Goshen, New York 10924

The Town Planning Board has under the Town of Goshen's Land Subdivision Regulations broad authority with respect to review and approval of the Lone Oak Traditional Neighborhood Development and, therefore, has been appropriately afforded SEQRA lead agency status by the other involved permitting and/or approving agencies.

- **SEQRA.** In accordance with Article 8 of the Environmental Conservation Law and the Implementing Regulations set forth in Title 6 Part 617 NYCRR, the Town Planning Board, as duly designated lead agency, must complete the coordinated environmental review process prior to permitting or approval of any aspect of the Proposed Action by the Planning Board or any other involved agency.

- **Subdivision Plat Approval.** The overall subdivision layout for the Lone Oak TND, including the configuration and number of residential lots and other dwelling sites and the design of required subdivision improvements, is subject to review and approval by the Town Planning Board in accordance with the Town of Goshen Land Subdivision Regulations and pertinent provisions of the Town's Zoning Law.

  In particular, no lot may be sold, or offered for sale, within the Lone Oak TND until the Final Plat for either the entire TND or any Planning Board-authorized section thereof has been approved by resolution of the Planning Board, stamped and signed by the Planning Board Chairman, and filed by the Project Sponsor in the Orange County Clerk's Office.

  Related documents either heretofore submitted to the Planning Board, or which in the future must be submitted to the Board, include the following:

  - Applications for Preliminary and Final Subdivision Plat Approval.

  - Preliminary Subdivision Plat drawings.

  - Subdivision Improvements Waiver and/or Modification Request, e.g. in the matter of required curb-to-curb subdivision roadway widths under the Town Roadway Specifications if not revised in the interim to permit streets consistent with the design principles published by the New York Planning Federation in 1994 and by others since for TND, hamlet-type development.

- **Special Use Permit.** A Special Use Permit will be required from the Planning Board for any structure that may be located within the Town's Flood Plain (FP) Overlay District in accordance with the requirements of Section 97-25 of the Town's Zoning Law and the requirements of the National Flood Insurance program. Structures proposed within the Lone Oak TND and lying within the 100-year flood plain of the Otter Kill are limited to water and sanitary sewage infrastructure depicted on the plans subject of the SEIS and any boardwalk installations that may be provided within a pedestrian trail network subsequently designed in furtherance of the TND proposal.

- **Site Plan Approval.** In accordance with the terms of Town Zoning Law Section 97-29 concerning the Scenic Road Corridor (SR) Overlay District, Site Plan Approval will be severally required for the following intended work on and adjacent to TND Lots 91-94 and 96-106 occurring within five hundred (500) feet of Arcadia Road:

  - Construction of single-family dwellings.

- Construction of subdivision roadways and installation of water, sanitary sewer, stormwater and franchise utility improvements.

- Grading or other site alteration affecting more than 5,000 square feet of natural landscape.

In addition, to the extent Site Plan Approval may be required for grading or other alteration associated with the installation of water and/or sanitary sewage infrastructure within the Stream Corridor (SC) District, i.e. within 150 feet of the mean high water mark of the Otter Kill and involving either the filling or excavation of a total of more than 5,000 square feet of land area, or grading or other alteration of more than 10,000 square feet of natural landscape, this requirement can, in accordance with Zoning Law Section 97-26(E)(4) be integrated with the Planning Board's consideration of Subdivision Plat Approval.

Town Board
Town Hall
41 Webster Avenue
Goshen, New York 10924

The Town Board's role in the permitting and approval of the Lone Oak TND relates principally to consideration of the long-term ownership, operation and maintenance of the supporting infrastructure within the TND. These matters involve both exercise of the Town Board's authority to act on behalf of the entire municipality and its authority to act on behalf of certain Town special districts that either exist or that may be established.

- **Acceptance of Offer of Dedication of Central Water Supply System, including associated Dedication of Lands and Grant or Transfer of Easements.** The Town Board will be requested to act affirmatively to accept on behalf of the Arcadia Hills Town Water District the Project Sponsor's "Irrevocable Offer of Dedication" of all components of the TND's central water system including water supply wells, pipes connecting to the water supply wells, water treatment and water storage facilities, and water main once the improvements have been installed and inspected as to their conformity with plans approved and permits issued by the Town of Goshen, the U.S. Army Corps of Engineers, the NYS Departments of Health and Environmental Conservation, and/or the Orange County Health Department.

  The Project Attorney will prepare a draft of the "Irrevocable Offer of Dedication", or like instrument, for review by the Town Attorney immediately upon Preliminary Plat Approval or at such earlier date as may be required by the Town Board.

- **Acceptance of Offer of Dedication of Central Sanitary Sewage System, including associated Dedication of Lands and Grant or Transfer of Easements.** The Town Board will be requested to act affirmatively to accept on behalf of the Arcadia Hills Town Sewer District the Project Sponsor's "Irrevocable Offer of Dedication" of all components of the central sanitary sewage system including gravity sewers, pumping stations, force main and treatment facilities (or such other sanitary sewage improvements as may be constructed under the

alternate proposal set forth by the Project Engineer to both accommodate the requirements of the Lone Oak TND and address existing deficiencies in the sanitary sewage facilities serving the Arcadia Hills Subdivision) once the improvements have been installed and inspected as to their conformity with plans approved and permits issued by the Town of Goshen, the U.S. Army Corps of Engineers, the NYS Departments of Health and Environmental Conservation, and/or the Orange County Health Department.

The Project Attorney will prepare a draft of the "Irrevocable Offer of Dedication", or like instrument, for review by the Town Attorney immediately upon Preliminary Plat Approval or at such earlier date as may be required by the Town Board.

- **Acceptance of Offer of Dedication of Roadway and Related Improvements within the Subdivision, including associated Dedication of Lands and/or Grant of Easements**. Except as may be otherwise provided for above, pursuant to Section 277 of the Town Law and Section 177 of the Highway Law, the Town Board will be further requested to act affirmatively to accept the Applicant's "Irrevocable Offer of Dedication" of certain required subdivision improvements and associated lands (rights-of-way) and easement areas within the Lone Oak TND once the improvements have been installed by the Project Sponsor in accordance with Town-approved plans, inspected by the Town Engineer and/or Highway Superintendent and confirmed as to their installation through "as-built" drawing. These improvements will include some 3.4 miles of new subdivision roadway and related appurtenances including but not limited to street signs, primary street lighting and storm water conveyances as may be provided within the rights-of-way.

  As above, the Project Attorney will prepare a draft of the "Irrevocable Offer of Dedication" for review by the Town Attorney immediately upon Preliminary Subdivision Plat Approval.

- **Acceptance of Offer of Dedication of Recreation Lands and Facilities.** The Town Board will be further requested to act affirmatively to accept for recreation and open space purposes the Project Sponsor's Offer of Dedication to the Town of Goshen of the Community Recreation Area, some 2.2 acres including related improvements as set forth on the TND Layout Plan.

  As above, the Project Attorney will prepare a draft of the "Irrevocable Offer of Dedication" for review by the Town Attorney immediately upon Preliminary Subdivision Plat Approval.

- **Acceptance of Offer of Dedication of Wetland Conservation Parcels and Related Conservation Easement.** The Town Board will be further requested to accept ownership of Wetland Conservation Parcels depicted on the approved subdivision plat and to hold pursuant to Sections 49-0301 through 49-0311 of the Environmental Conservation Law a related conservation easement, as may be found to be required by a regulatory agency or otherwise determined warranted, affecting both the above parcels and all other ACOE and/or NYSDEC jurisdictional wetland area, not to include either federal "isolated" wetland or the NYSDEC regulatory wetland buffer, within the Lone Oak TND, as well as the NYSDEC jurisdictional wetland area on the adjacent Lands of Fini.

The Wetland Conservation Easement would apply to both the ACOE and NYSDEC jurisdictional wetland retained upon completion of the subdivision in accordance with Town Planning Board, ACOE and NYSDEC-approved plans and related permits and any additional ACOE and/or NYSDEC jurisdictional wetland area that has been created as a mitigation measure by the Project Sponsor following consultation with both the U.S. Army Corps of Engineers and the NYS Department of Environmental Conservation.

Should the Town Board not wish to accept either ownership of the Wetland Conservation Parcels so as to extend its present 17.4-acre ownership so as to encompass within its ownership almost the entirety of NYSDEC Wetland GO-41 or stewardship of the Wetland Conservation Easement, or both, the Project Sponsor will seek the recommendation and concurrence, though not required, of the Town Board and Planning Board as to a qualified conservation organization, perhaps the Orange County Audobon Society, Inc. with which there has been some local experience involving the Bach property at 6 ½ Station Road, to which title to the Wetland Conservation Parcels might be transferred and/or the Wetland Conservation Easement granted.

The "Offer of Dedication of Wetland Conservation Parcels" and the "Proposed Wetland Conservation Easement" as described herein will be similarly prepared and submitted for review by the Town Attorney immediately upon Preliminary Subdivision Plat Approval.

- **Authorization of Easements for the Installation or Construction of Subdivision Improvements on Town Lands.** Permission will be required from the Town Board through easement or lesser instrument to authorize the construction or installation of certain infrastructure improvements prior to their intended dedication on adjacent Town lands.

- **Formation of Town Stormwater Management (Drainage) District**. It is anticipated the Town Board will act upon petition of the Project Sponsor to form pursuant to Town Law a discrete Town drainage district encompassing the benefited portion of the Project Site for purposes of accepting ownership and long-term maintenance responsibility for the storm water management facilities, except for those storm collection sewers within roadway rights-of-way, within the Lone Oak TND.

- **Formation of Town Lighting District.** Similarly, it is anticipated that the Town Board will act upon petition of the Project Sponsor to form pursuant to Town Law a discrete Town lighting district encompassing the benefited portion of the Project Site, or alternatively authorize the ownership, operation and maintenance of street lighting within the TND by the Lone Oak HOA.

- **Review of Agreement with Village of Goshen, Re: Treatment of Sanitary Sewage from Arcadia Hills Town Sewer District.** The Town Board will have to review the terms of the agreement whereby sanitary sewage flow from the Arcadia Hills Town Sewer District is accepted at the Village of Goshen STP and execute in tandem with the Village of Goshen modifications in the agreement, if any are required, for the conveyance of sanitary sewage flow from the Lone Oak

TND to the Village of Goshen STP through the legal conduit of the existing Town sewer district.

- **Execution of an Affordable Housing Agreement with Project Sponsor.** As set forth at Zoning Law Section 97-24, an Affordable Housing Agreement will have to be executed by the Town of Goshen and the Project Sponsor.

- **Alternate Authorization of the Creation of Public Transportation Corporations.** Should the Town Board fail to accept the water and sanitary sewer infrastructure within the Lone Oak TND on behalf of either or both the Arcadia Hills Water and Sewer Districts, the Project Sponsor will alternately petition the Town Board for authorization of the creation of a Public Transportation Corporation for Water and/or a Public Transportation Corporation for Sanitary Sewage so as to provide for the long-term private ownership, operation and maintenance of the central water and sanitary sewage systems.

The Town Board may further wish to secure from the Project Sponsor a portion of the Lone Oak Project Site so that even if the Lone Oak TND's central water system were not accepted by the Town existing Town of Goshen public water supply Well TG51 and the Town's existing well water treatment building would be located on Town property instead of on the Project Sponsor's lands where, as indicated in the Draft EIS, these improvements have been found by survey to be located at this time.

Town Highway Superintendent .
Town Hall
41 Webster Avenue
Goshen, New York 10924

The role of the Town Highway Superintendent with respect to the Lone Oak TND involves consideration of proposed improvements to existing Town highways, the authorization of access to existing Town highways, and assessment as to whether proposed Town highways and related improvements, e.g. lighting, pedestrian ways and storm drainage facilities within roadway rights-of-way, once installed are suitable for dedication to the Town.

- **Highway Access and Work Permits.** Authorization is required from the Town Highway Superintendent for the intersection of the proposed internal subdivision roadway with Arcadia Road, the intended extension of Maplewood Drive into the Lone Oak TND, and the intended construction of a service driveway to the on-site wastewater treatment plant (or other sanitary sewage improvements that may alternately be carried out in the interest of the Arcadia Hills Town Sewer District) from Harriman Drive.

- **Acceptance of Land Dedication, Easements and Improvements within the Subdivision.** A recommendation is required from the Town Highway Superintendent as to whether the proposed dedication of subdivision improvements that would fall within his maintenance jurisdiction should be accepted by the Town Board.

Other Town of Goshen Agencies
Town Hall
41 Webster Avenue
Goshen, New York 10924

A number of other authorizations are required from other Town agencies. While each involves an important step in the overall project development process, all are clearly, in the words of SEQRA, "ministerial acts" and, therefore, do not afford the issuing party "involved agency" status.

- **Sign Permit.** Authorization as may be required from the Town Building Inspector and/or Zoning Enforcement Officer for temporary installation of any realty development or construction-related signage.

- **Flood Plain Permit.** In addition to the grant of Subdivision Plat Approval by the Town Planning Board, issuance of a Stream Protection and/or Wetlands Permit by NYSDEC, or any related determination made by the U.S. Army Corps of Engineers, no "development", including grading and associated site work, may occur within the 100-year flood plain depicted on the FEMA Flood Hazard Boundary Maps for the Town of Goshen without prior issuance of a Flood Plain Development Permit by the named administrator of the Town's Flood Damage Prevention Law, presumably the Town Building Inspector.

- **Building Permits.** Prior to the commencement of any building construction within the Lone Oak TND, an Application for Building Permit must be filed with and approved by the Building Inspector in accordance with Town requirements and the provisions of the ICBO Codes of the State of New York.

- **Certificates of Occupancy.** Prior to the occupancy of any new structure within the Lone Oak TND, a Certificate of Occupancy ("C.O.") confirming that the construction has been carried out in conformance with all approved plans and applicable requirements including but not limited to the ICBO Codes of the State of New York and the Town of Goshen Zoning Code must be issued.

3.6.2 Village of Goshen

Village Board, Village of Goshen
Village Hall
276 Main Street
Goshen, New York 10924

As cited above, upon review of the existing agreement providing for the treatment of sanitary sewage flow from the Arcadia Hills Town Sewer District at the Village of Goshen STP, modification in the agreement, if any is required, to accept the sanitary sewage flow from the Lone Oak TND as conveyed by the Town Sewer District.

3.6.3 Other Jurisdictions / County, State and Federal Agencies

Orange County Health Department
124 Main Street
Goshen, New York 10924

The County Health Department, as agent for the New York State Health Department, exercises Realty Subdivision Plat Approval for "realty subdivisions" and has additional "plan approval" authority with respect to the creation, extension or expansion of central water supply facilities and opportunity to review and advise NYSDEC as to its "concurrence" with respect to the creation, extension or expansion of central sanitary sewage facilities.

- **Realty Subdivision Plat Approval.** Realty Subdivision Plat Approval, most particularly including in the case of the Lone Oak TND approval for the design plans and specifications for the intended water supply system and concurrence as to the intended sanitary sewage arrangements which are principally within the jurisdiction of NYSDEC, must be secured from the Orange County Health Department in accordance with the requirements of the Orange County Sanitary Code and the underlying requirements of Title 2 of Article 11, Section 1115, of the Public Health Law and Title 15 of Article 17 of the Environmental Conservation Law.

  A formal Application will be submitted to the Department, as is customary, following grant of Preliminary Plat Approval by the Town Planning Board.

- **Approval of Proposed Lone Oak TND Central Water System.** Design plans and specifications for all components of the proposed central water system must be approved by the Orange County Health Department in accordance with 10 NYCRR Part 5.

  As above, Application will be submitted to the Department following grant of Preliminary Plat Approval by the Town Planning Board.

New York State Department of Environmental Conservation
Region 3T Office
200 White Plains Road
Tarrytown, New York 20591-5805

NYSDEC permits and compliance determinations are required for the following aspects of the proposed Lone Oak TND:

- **NYSDEC Water Taking Permit.** A Water Taking Permit is first required from NYSDEC under Article 17, Title 17 ECL to authorize from "an approved source" the intended taking of groundwater commensurate with the demonstrated combined safe yield of the Water Supply Wells "A", "B" and "C" which have been developed by the Project Sponsor and are intended to provide adequate volume

and quality of water supply to meet the domestic potable demand and the fire flow demands of the 132-Unit Lone Oak TND.

Related to this requirement it is acknowledged additional hydro-geologic consultation may have to occur in support of the **"Water Supply Application"** to address requirements promulgated by NYSDEC since the time of testing of the Fini wells. More specifically, NYSDEC may require the proposed water supply wells to be re-tested in that the available pumping test data is more than 5 years old, also require water-level monitoring to determine potential hydraulic interconnection between a well and a surface water feature within 200 feet, and further require the collection of micro-particulate analysis samples for any well within 200 feet of a surface water body for determination of potential groundwater under direct influence of surface water.

- **NYSDEC Approval of Sanitary Sewage System Plans.** Design Approval must be secured from the NYSDEC for all proposed central sanitary sewage improvements prior to their construction and operation.

  In addition, should the Village's stated position of January 24, 2008, be maintained and it be further ascertained that there is no contractual obligation on the part of the Village of Goshen to accept all sanitary sewage flows generated within the Arcadia Hills Town Sewer District for treatment at the Village of Goshen STP, the issuance of a State Pollutant Discharge Elimination System Permit **("SPDES Permit")** Permit under Article 17 ECL will also be required for the sewage effluent discharge pursuant to intermittent stream effluent limitations from an on-site STP to the Otter Kill.

- **Protection of Waters Permit.** Based upon the Planning Board's characterization of the Otter Kill within the Project Site as a "Class C" stream, it was initially believed the Applicant would need to secure separate from the Freshwater Wetlands Permit a Protection of Waters Permit (the "Stream Disturbance Permit") from NYSDEC pursuant to Title 5 of Article 15 of the Environmental Conservation Law and 6 NYCRR Part 608 for intended work within either the channel or stream banks involving a single proposed crossing of the Otter Kill by the then proposed through roadway and utility infrastructure.

  As detailed in Subsection 3.2 of the Draft EIS, this stream (Water Index #89-20-17) in its reach north of NYS Route 17 has, in fact, been determined to be classified as a "Class D" stream and upon recent reconnaissance been determined to still be so classified. A NYSDEC Protection of Waters Permit is, therefore, not required for what is now limited to a crossing for utility infrastructure.

- **NYSDEC Freshwater Wetland Permit.** A NYSDEC Freshwater Wetlands Permit is however required under Article 24 ECL for all proposed encroachments within the delineated boundary of Wetland GO-41 or any development within its 100 feet wide regulatory buffer including, in the case of the latter, implementation of any on-site wetland mitigation program that would be carried out within either Wetland GO-41 or its regulatory buffer.

- **Storm Water Management.** The Applicant must comply with NYSDEC storm water management regulations [40 CFR 122.26(b)(14(x)] pertinent to construction related land disturbance activities in excess of five (5) acres by one of the following means:

    - Demonstrating compliance with the **New York State General Permit for Stormwater Discharges from Construction Activities**, including securing NYSDEC approval of a Stormwater Pollution Prevention Plan and subsequently filing a Storm Water Notice of Intent with the federal clearinghouse.

    - Securing an Individual Storm Water SPDES Permit.

- **Water Quality Certification.** Both related to the above-cited NYSDEC Permits and the required federal ACOE wetlands permit, it will be necessary to secure a NYSDEC 401 Water Quality Certification.

New York State Department of Health
Bureau of Public Water Supply Protection
Flanigan Square
547 River Street
Troy, New York 12180-2216

Design approval of Plans for Water Supply Improvement and for Water Quality and Treatment must be secured from the NYSDOH Bureau of Public Water Supply Protection.

New York State Department of Transportation
Region 8 Office
Burnett Boulevard
Poughkeepsie, New York 12603

Should the preferred conveyance of Lone Oak's sanitary sewage to the Village of Goshen not ultimately come to fruition, construction of the on-site STP will require the issuance of a Highway Utility Work Permit from NYSDOT.

This Permit will be required to authorize routing the Lone Oak TND sanitary sewer trunk line within the NYS Route 17 right-of-way for a distance of approximately 500 feet as part of the overall routing plan to avoid wetlands to the extent practicable and at this location to avoid deep trenching that would be required if this section were relocated to within the Project Site. Authorization might also be sought from NYSDOT to stage some of the work associated with the installation of the outfall sewer extending from the proposed Wastewater Treatment Plant to the discharge point at the Otter Kill so as to minimize construction period impact on NYSDEC Wetland GO-41.

In consideration of these circumstances, the Project Sponsor recommended during preparation of the Draft EIS that the Planning Board act to designate NYSDOT as an additional "involved agency" under SEQRA and to extend to NYSDOT all of the privileges of such designation, including anticipated "sign-off" on the Planning Board's

serving as "lead agency". Both the Planning Board and NYSDOT did so act during the fall of 2003.

New York State Comptroller's Office.
6th Floor
Governor Alfred E. Smith State Office Building
Albany, New York 12236

The financing arrangements for the proposed central water supply and sanitary sewage systems, including projection of unit debt charges and associated operation and maintenance costs, may require approval from the Office of the State Comptroller under either the Town district or public transportation corporation scenarios.

Related approval in the case of a central water supply system operated by a public transportation corporation would also be required from the State Water Board which is under the auspices of the New York State Public Service Commission.

New York State Department of State
Secretary of State
41 State Street
Albany, New York 12231

Authorization for incorporation of the intended Lone Oak TND Homeowners Association (HOA) and creation of either other homeowners associations or the above-cited public transportation corporations, as may be pertinent, must be secured from the Office of the Secretary of State.

New York State Attorney General's Office / Department of Law.
Real Estate Financing Bureau
The Capitol
Albany, New York 12224-0341

The Lone Oak TND, if developed and subsequently owned and maintained in the manner proposed by the Project Sponsor in prior SEIS Subsection 3.5.2 and this Subsection 3.6, will involve common interests in real estate ranging from ownership and maintenance responsibility for the town home sites to ownership and maintenance responsibility for common areas and improvements throughout the TND.

Acting under the NYS General Business Law, Section 385-e et seq., and Part 22 of 13 NYCRR, the New York State Attorney General's Office must join with the Secretary of State in granting approval of incorporation of the HOA and then accept filing of related Offering Plan documents, if required, which explicitly define the rights and responsibilities, including the long-term financial obligations, of the members of the HOA with respect to their common interests in real estate. In limited instances, which may not be applicable to this undertaking, the Real Estate Financing Bureau may consider the matter to involve a *diminimus* filing eligible for CPS-7 Treatment.

New York State Office of Parks, Recreation and Historic Preservation.
Field Services Bureau
Peebles Island Complex

P.O. Box 199
Waterford, New York 12189

Review will be required under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law and/or pursuant to related interagency agreements between OPRHP and other agencies, such as NYSDEC.

In recognition of this requirement, the Project Sponsor has undertaken the work summarized at SEIS Section 4, Subsection 4.8, Cultural Resources.

New York State Department of Agriculture and Markets.
Capital Plaza
1 Winners Circle
Albany, New York 12205

Compliance with the provisions of the Agricultural and Markets Law may require satisfaction of certain notice requirements pertaining to residential or other non-farm development and/or the undertaking of public infrastructure improvements within or adjacent to a certified agricultural district such as Orange County Certified Agricultural District No. 2.

A full description of these requirements is found at Section 4, Subsection 4.4, "Agricultural Resources", of this Supplemental EIS.

United States Army Corps of Engineers
New York District
27 Federal Plaza
New York, New York 10278-0090

Compliance with federal wetlands regulations administered by the Army Corps of Engineers pursuant to Section 404 of the Clean Waters Act will be required for any fill activity within ACOE-regulated wetlands. In consideration of the Nationwide Permits modified and reissued by the ACOE effective March 19, 2007, it is understood that such compliance would involve Application for an Individual Permit unless the criteria of Nationwide Permits 7 (Outfall Structures and Associated Intake Structures), 12 (Utility Line Activities), 14 (Linear Transportation Projects) and 29 (Residential Developments) could be met. In order to meet the criteria, the overall permanent disturbance of ACOE jurisdictional wetland within the Lone Oak TND could neither exceed 0.5 acre nor cause the loss of greater than 200 linear feet of streambed and would have to be mitigated through implementation of a plan reviewed and approved by the ACOE.

In that the total combined extent of permanent disturbance of federal jurisdictional wetland depicted on the Wetland Encroachment and Mitigation Plan set forth in this Supplemental EIS is approximately 0.395 acre, all of which is also located within a NYSDEC wetland, and streambed disturbance is limited to less than 200 feet, the aforesaid criteria can be met. Accordingly, it is the opinion of the Project Sponsor an Individual Permit is not required for undertaking the now proposed Lone Oak TND, thus precluding requirement for revisiting the "Cost Effective Analysis" set forth in the Draft EIS in the case of the earlier proposed 162-Lot Lone Oak Estates Subdivision and its 226.7-acre Project Site.

3.6.4 Franchise Utilities

Orange & Rockland Utilities, Inc. and Others.
390 West Route 59
Spring Valley, New York 10977

A license will be required from Orange & Rockland Utilities to permit the crossing of its electric transmission right-of-way with the various subdivision improvements required for development of Lots 26 through 61 in the southerly portion of the Lone Oak TND. These required improvements include roadways, water main, sanitary collection sewer, stormwater collection sewer, and sidewalks within the proposed public right-of-way.

Approval of plans will also be required from Orange & Rockland Utilities for accessing natural gas, electric power and communications systems owned, maintained and operated on a franchise basis by the public utility. Similar approval will be required from Frontier Communications, Inc. and the local cable service provider.

Detailed project planning and review of required service installations with these franchise utilities typically occurs following Preliminary Plat Approval by the Town Planning Board. All such installations will be in accordance with the requirements of the local franchise agreements and the requirements of the NYS Public Service Commission. The Project Sponsor will seek no waiver of applicable standards, including requirement for the underground installation of facilities along subdivision roadways, and anticipates none will be requested by the franchise utilities.

SEIS Section 4
Environmental Setting, Anticipated Impacts and Related Mitigation Measures

Supplemental EIS Section 4 describes the existing environmental setting within which the Proposed Action would occur, sets forth the anticipated impacts of the Proposed Action on both the natural and man-made aspects of this environmental setting, evaluates the significance of these impacts and, in the case of any impacts deemed adverse, reviews the effect and feasibility of potential mitigation measures that would either reduce or wholly avoid the adverse impact.

The discussion of "Environmental Setting, Anticipated Impacts and Related Mitigation Measures" set forth in this Section is first organized under the two principal headings, "Natural Resources" and "Man-Made Resources", and further presented within the Subsections listed below:

Part A	**Natural Resources**
• Subsection 4.1	Geology, Soils, Topography and Landform
• Subsection 4.2	Water Resources
• Subsection 4.3	Terrestrial Ecology
• Subsection 4.4	Agricultural Resources

Part B	**Man-Made Resources**
• Subsection 4.5	Transportation
• Subsection 4.6	Land Use and Zoning
• Subsection 4.7	Community Facilities and Services
• Subsection 4.8	Cultural Resources
• Subsection 4.9	Visual Resources
• Subsection 4.10	Noise, Odors and Air Quality

Part A Natural Resources

Part A begins with an overview of the existing ecological conditions of the Project Site and the anticipated ecological conditions upon build-out of the Lone Oak TND.

Part A then goes on within SEIS Subsections 4.1 through 4.4 to more specifically address the existing environmental setting, anticipated impacts of the Proposed Action and mitigation measures with respect to each of the following components of the natural

environment: geology, soils, topography and landform; water resources, including groundwater, surface waters and wetlands; terrestrial ecology; and agricultural resources.

Overview / Existing Ecological Conditions

SEIS Figure No. 13A, Existing Ecological Conditions, is a variation prepared by Esposito & Associates of DEIS Figure 19, Vegetative Cover Type Map, prepared by North Country Ecological Services, which dealt with the former 226.7-acre Lone Oak Project Site. As such, SEIS Figure No. 13A depicts by location and calculated acreage the below existing site conditions within the present 103.42-acre Project Site:

- Emergent Wetland Area 5.3 acres
- Forested Wetland Area 7.3 acres
- Upland Forested Area 51.7 acres
- Upland Successional Field 39.1 acres

Overview / Anticipated Ecological Conditions upon Build-Out of TND

SEIS Figure No. 13B, Development and Open Space Areas, was next prepared to depict the proposed Development Area and the proposed Open Space Area within the Lone Oak Traditional Neighborhood Development and presents the following information:

- Development Area throughout the Lone Oak TND totals 45.20 acres and occupies 43.7 percent of the 103.42-acre Project Site.
- Open Space Area throughout the Lone Oak TND totals 58.22 acres and occupies 56.3% of the 103.42-acre Project Site.

SEIS Figure No. 13C, Final Ecological Conditions, was then created by superimposing on SEIS Figure No. 13A, Existing Ecological Conditions, by location the areas that would be permanently affected by development as the Lone Oak Traditional Neighborhood Development is carried out. Based upon this superimposition, the acreage of the resultant final ecological conditions that would occur within the Lone Oak TND was calculated to be as follows:

- Emergent Wetland Area 0.07 acre permanently affected by development; 5.23 acres remaining
- Forested Wetland Area 0.02 acre permanently affected by development; 7.28 acres remaining

AREA	ON-SITE			OFF-SITE
	EXISTING AREA	AFFECTED AREA	REMAINING AREA	AFFECTED AREA
EMERGENT WETLAND AREA	5.3± AC	0.07± AC	5.23± AC	-
FORESTED WETLAND AREA	7.3± AC	0.02± AC	7.28± AC	-
UPLAND FORESTED FIELD	51.7± AC	22.29± AC	29.41± AC	-
UPLAND SUCCESSIONAL FIELD	39.12± AC	22.82± AC	16.30± AC	0.40± AC
TOTAL SITE	103.42± AC	45.20± AC	58.22± AC	0.40± AC

LEGEND

- EMERGENT WETLAND AREA
- FORESTED WETLAND AREA
- UPLAND FORESTED FIELD
- UPLAND SUCCESSIONAL FIELD
- WELL PROTECTION AREA
- OUT PARCELS
- DEVELOPMENT

SEIS FIGURE NO. 13C

LONE OAK

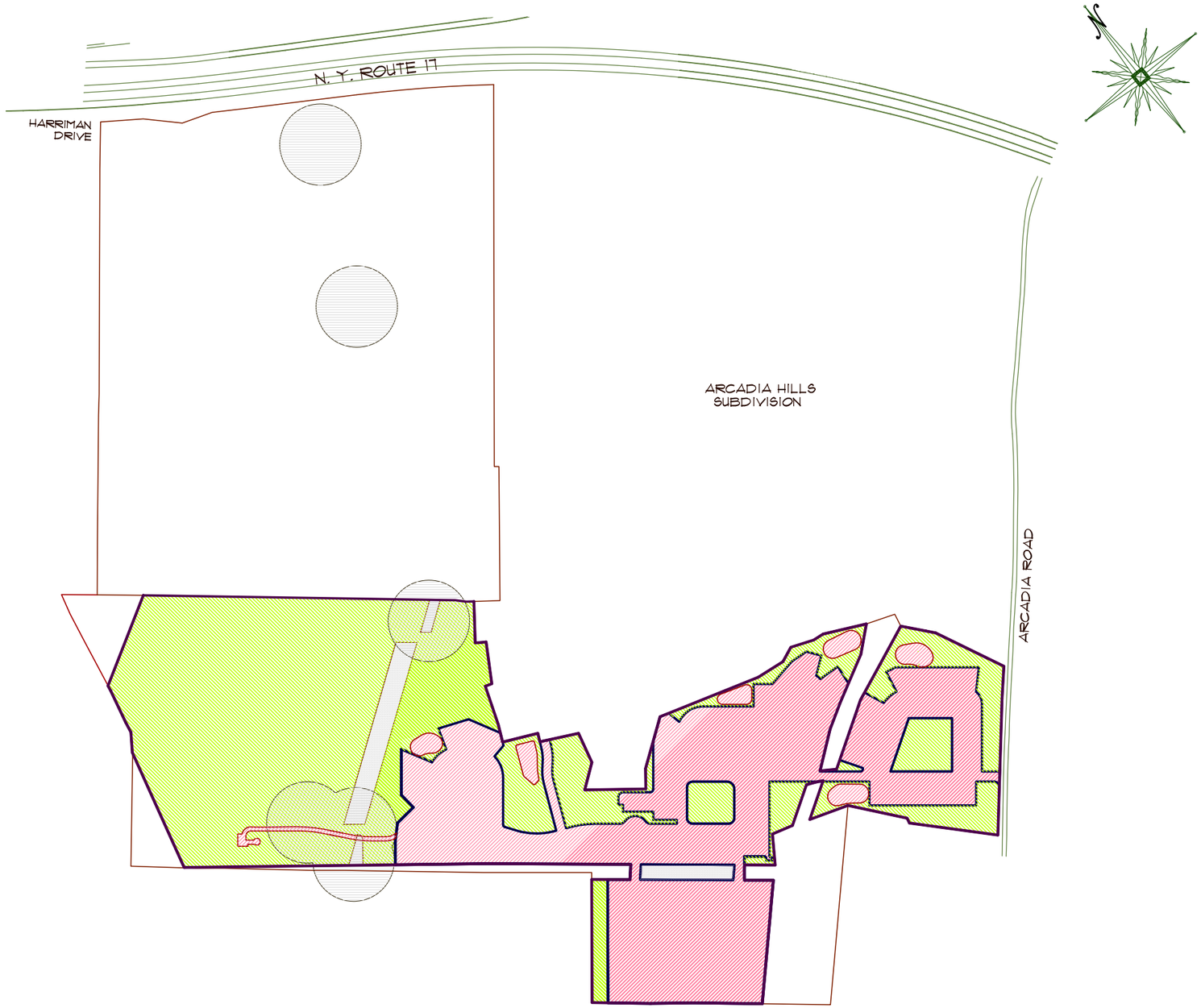
TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT
FINAL ECOLOGICAL CONDITIONS

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580



AREA	ACREAGE
DEVELOPMENT AREA	42.90± AC
DETENTION BASIN AREAS	2.30± AC
TOTAL DEVELOPMENT AREAS	45.20± AC
OPEN SPACE AREA	58.22± AC
TOTAL SITE	103.42± AC

NOTES: - TOTAL PROPOSED OPEN SPACE REPRESENTS ± 56.3% OF PROPOSED SITE AREA

LEGEND

- DEVELOPMENT
- OPEN SPACE
- WELL PROTECTION AREA
- OUT PARCELS

SEIS FIGURE NO. 13B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

DEVELOPMENT AND OPEN SPACE AREAS

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

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AREA	ON-SITE			OFF-SITE
	EXISTING AREA	AFFECTED AREA	REMAINING AREA	AFFECTED AREA
EMERGENT WETLAND AREA	5.3± AC	0.07± AC	5.23± AC	-
FORESTED WETLAND AREA	7.3± AC	0.02± AC	7.28± AC	-
UPLAND FORESTED FIELD	51.7± AC	22.29± AC	29.41± AC	-
UPLAND SUCCESSIONAL FIELD	39.12± AC	22.82± AC	16.30± AC	0.40± AC
TOTAL SITE	103.42± AC	45.20± AC	58.22± AC	0.40± AC

LEGEND

- EMERGENT WETLAND AREA
- FORESTED WETLAND AREA
- UPLAND FORESTED FIELD
- UPLAND SUCCESSIONAL FIELD
- WELL PROTECTION AREA
- OUT PARCELS
- DEVELOPMENT

SEIS FIGURE NO. 13C

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT
FINAL ECOLOGICAL CONDITIONS

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

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845.294.0558 Fax 845.294.0580

- Upland Forested Area — 22.29 acres permanently affected by development; 29.41 acres remaining
- Upland Successional Field — 22.82 acres permanently affected by development; 16.30 acres remaining

As depicted on SEIS Figure No. 13C none of the well protection area within the Project Site would be affected by development of the Lone Oak TND.

Based on the above data, one finds that 45.20 acres of the 103.42-acre Project Site would be affected by the development, with it further to be understood that a major portion of the developed area, some 25.36 acres, or some 56.1 percent of the 45.20 acres, would upon completion of infrastructure installation and residential construction be re-vegetated and privately maintained as lawn and other landscaped area by either individual lot owners or a homeowners association.

SEIS Subsection 4.1
Geology, Soils, Topography and Landform

SEIS Subsection 4.1 provides a discussion of the land resources within the Lone Oak Traditional Neighborhood Development Project Site, including consideration of geology, soils, topography and landform. This discussion closely tracks the Draft EIS but has been modified to account for variation in the anticipated impacts associated with the now-proposed Lone Oak TND and as necessary to address the reduced acreage of the present Project Site.

The above-cited figures and data indicate undertaking of the Lone Oak TND will affect the existing ecological conditions, including the geology, soils, topography, and landform, of a combined 45.20 acres of the Project Site during TND development.

When taking into account the additional 2.5 acres of disturbance projected in undertaking off-site improvements, the overall amount of land area disturbance for the entirety of the 132-Unit Lone Oak TND is some 69.3 acres, or nearly 60 percent, less than the 117 acres of disturbed area calculated in the Draft EIS for the Lone Oak Estates 162-Lot Subdivision.

The additional acreage of undisturbed area includes both increased natural buffers near wetlands and to adjacent residential properties, avoidance of steep slope areas subject of comment offered on the Draft EIS, and retention of a natural buffer along Arcadia

Road responsive to the Town Board's designation of adjacent area to the south within the Scenic Road Corridor Overlay (SR) District, within the 103.42-acre Project Site and avoidance of all disturbance, except for improvements associated with the proposed central water and sanitary sewage systems, within the adjacent 109.06 acres owned by the Project Sponsor and for which no development is proposed in the foreseeable future in consideration of the absence of a viable additional water supply source.

4.1.1 Existing Setting

- **Geology.**

  The Project Site and its regional environs are located geologically in the gently rolling Hudson Mohawk Lowland where relief of about 150 to 200 feet is the maximum that occurs over relatively short distances and large, nearly flat areas of glacial lake deposits are encountered. The bedrock geology of this area is not highly variable. The area is underlain by the Trenton Group of shales with the Snake Hill Shale of Ordovician age mapped as the principal member of this group, though it appears that Martinsburg Shale is present at the Project Site. The underlying bedrock is typically mantled with a layer of unconsolidated glacial till deposits, also called ground moraine, of varying thickness.

- **Soils, Topography and Landform.**

  The "General Soil Map of Orange County, New York", depicts the overall Lone Oak Estates Subdivision project site as within the Mardin-Erie mapping unit and broadly characterizes these soils as follows:

  "Dominantly gently sloping and sloping, deep, moderately well drained and somewhat poorly drained, medium textured soils; on uplands."

  Approximate location and more specific description of the various soil types found on the has been secured through examination of the Soil Survey Maps provided within the United States Department of Agriculture's (USDA) Orange County Soil Survey, the transposition of this data to a topographic survey plat of the property, and comparison of the reported data with field observations during the delineation of the on-site wetlands and other field reconnaissance.

  The Soil Survey includes description of the basic properties of these soils and an overall evaluation of the limitations these soil properties impose on a number of development-related factors, including hydrologic group as considered in the design of storm water management facilities and capability to support dwellings with basements and on-site sewage absorption fields which is, of course, not an issue here due to the Project Sponsor's intended provision of central sanitary sewage facilities.

The USDA carefully points out that the development limitation ratings of “slight”, “moderate” and “severe” are not, however, to be alone construed as indicators of the possibility of construction. Rather, these designations reflect the relative difficulty of construction, the relative costs of such construction, and whether corrective, preventive or remedial measures will be necessary to protect the natural environment and the man-made investment.

As the USDA is also quick to point out, the Soil Survey mapping is not explicitly site-specific and the ratings are generalized. Therefore, on-site surveys and testing, where pertinent to the intended construction, is essential to more precisely determine the specific soil type, characteristics and capacity at any location within the Project Site and will be conducted by the Project Engineer prior to the completion of the subdivision plat review and approval process, including within such process the production of actual construction drawings for the intended infrastructure improvements.

Elevation on the overall Project Site ranges from approximately 400 feet throughout the principal wetland areas to approximately 534 feet near the southeasterly property corner adjacent to Arcadia Road. Topography ranges from flat to gently sloping to steep, the latter condition quite limited and found predominantly in areas immediately adjacent to the on-site wetlands and associated stream corridors and in transition areas between the lowlands and upland plateaus.

- <u>Soils.</u>

  As was depicted on DEIS Figure 10, Soil Analysis Map, a copy of which is carried forward in **SEIS Appendix A**, the following nine (9) soil types in the approximate acreages cited were indicated to be located within the former 227.6-acre Project Site:

  - Alden extremely stony soils (AC), approximately 3.6 acres of hydrologic group B soil, with an extremely high perched water table some 8 months of the year and a “severe” limitation rating for both dwellings with basements and sewage absorption fields, these ratings based on wetness and slow percolation.

  - Bath-Nassau shaly silt loam, 3 to 8 percent slopes (BnB), approximately 5.1 acres of hydrologic group C soil, with a “moderate” limitation for dwellings with basements and a “severe” limitation for sewage absorption fields. BnB is designated a Class III farmland soil.

  - Bath-Nassau shaly silt loam, 8 to 15 percent slopes (BnC), approximately 14.7 acres, of hydrologic group C soil, with a “severe” rating for both dwellings with basements and sewage absorption fields.

  - Erie gravelly silt loam, 0 to 3 percent slopes (ErA), approximately 9.9 acres of hydrologic group C soil, with a “severe” rating for both dwellings

with basements and sewage absorption fields. ErA is designated a Class III farmland soil.

- Erie gravelly silt loam, 3 to 8 percent slopes (ErB), approximately 41.3 acres of hydrologic group C soil, with a high perched water table some 6 months of the year and a “severe” limitation rating for both dwellings with basements and sewage absorption fields, these ratings based on wetness, the presence of large stones and slow percolation. ErB is designated a Class III farmland soil.

- Madalin silt loam (Ma), approximately 51.4 acres of hydrologic group D soil, with a “severe” rating for both dwellings with basements and sewage absorption fields.

- Mardin gravelly silt loam, 3 to 8 percent slopes (MdB), approximately 6.8 acres of hydrologic group C soil, with a perched water table during the 3 months of Spring, a “moderate” limitation rating for dwellings with basements and a “severe” limitation rating for sewage absorption fields, these ratings based on wetness and slow percolation. MdB is designated a Class II farmland soil.

- Mardin gravelly silt loam, 8 to 15 percent slopes (MdC), approximately 65.8 acres of likewise classified hydrologic group C soil, with a perched seasonal water table throughout the Spring and “moderate” and “severe” limitation ratings for dwellings with basements and sewage absorption fields, respectively, these ratings based on wetness and slow percolation.

- Mardin gravelly silt loam, 15 to 25 percent slopes (MdD), approximately 12.2 acres of hydrological group C soil, with a “severe” rating for both dwellings with basements and sewage absorption fields.

- Mardin soils, steep (MNE), approximately 15.9 acres of hydrological group C soil, with a “severe” rating for both dwellings with basements and sewage absorption fields.

In consideration of the contraction of the Lone Oak Project Site to its present 103.42 acres, the Soils Map has been re-visited and the below inventory has been found to apply to the on-site soils (albeit with the understanding this data reflects the extent such soils were present prior to disturbance more than three decades ago when site work within Arcadia Hills Subdivision Sections C and D was commenced and abandoned) of the remaining Project Site:

- Alden extremely stony soils (AC), approximately 2.55 acres.

- Bath-Nassau shaly silt loam, 3 to 8 percent slopes (BnB), approximately 0.15 acre of designated a Class III farmland soil.

- Bath-Nassau shaly silt loam, 8 to 15 percent slopes (BnC), approximately 17.4 acres, including consideration of a correction in the above calculation for former Project Site.

- Erie gravelly silt loam, 0 to 3 percent slopes (ErA), approximately 13.05 acres of designated a Class III farmland soil.

- Erie gravelly silt loam, 3 to 8 percent slopes (ErB), approximately 18.9 acres of designated a Class III farmland soil.

- Madalin silt loam (Ma), approximately 2.5 acres.

- Mardin gravelly silt loam, 3 to 8 percent slopes (MdB), approximately 6.2 acres of designated a Class II farmland soil.

- Mardin gravelly silt loam, 8 to 15 percent slopes (MdC), approximately 31.5 acres.

- Mardin gravelly silt loam, 15 to 25 percent slopes (MdD), approximately 5.9 acres.

- Mardin soils, steep (MNE), approximately 5.72 acres.

See **SEIS Figure No. 14, Soils Map**.

- Topography and Landform.

As earlier described in SEIS Subsection 3.1.3, the Project Site exhibits an undulating topography, with elevations ranging from approximately 400 to 534 feet ASL, across fallow farm fields, scarred and abandoned landscape left behind by prior subdivision activity, wooded areas and wetlands.

DEIS Figure 11, Slope Analysis, a copy of which is likewise carried forward in **SEIS Appendix A**, examined the overall topography by percent of slope, with an approximate breakdown by slope category for the former 226.7-acre Project Site being as follows:

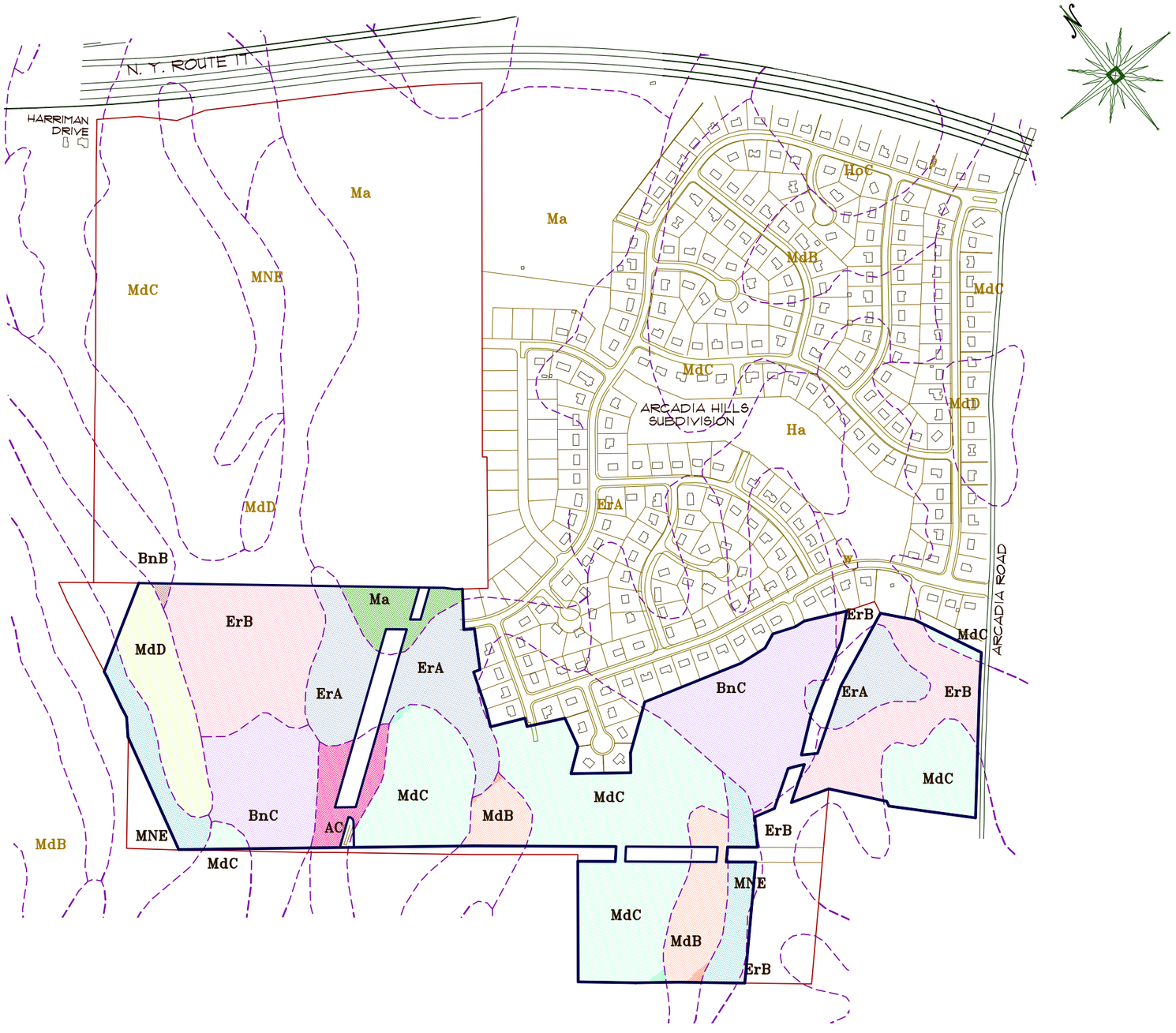
- 0 to 10 percent, flat to moderately sloping, approximately 159.9 acres.

- 10 to 15 percent, moderately sloping, approximately 44.7 acres.

- Greater than 15 percent slope, moderately-to-steeply sloping, approximately 22.1 acres.

In consideration of the contraction of the Lone Oak Project Site to its present 103.42 acres, the Slope Analysis has been re-visited and the below calculations provided by cited slope category:

- Land area with naturally-occurring slope of 15 percent or less is approximately 87.98 acres.



LEGEND

			ACREAGE	PERCENT
-	AC	- ALDEN EXTREMELY STONY SOILS 1/	2.55± AC	2.5%
-	BnB	- BATH-NASSAU SHALY SILT LOAMS, 3 TO 8 % SLOPE	0.15± AC	0.15%
-	BnC	- BATH-NASSAU SHALY SILT LOAMS, 8 TO 15 % SLOPES	17.4± AC	16.82%
-	ErA	- ERIA GRAVELLY SILT LOAM, 0 TO 3 % SLOPES	13.05± AC	12.6%
-	ErB	- ERIA GRAVELLY SILT LOAM, 3 TO 8 % SLOPES	18.9± AC	18.3%
-	Ma	- MADALIN SILT LOAM	2.5± AC	2.4%
-	MdB	- MARDIN GRAVELLY SILT LOAM, 3 TO 8 % SLOPES	6.2± AC	6.0%
-	MdC	- MARDIN GRAVELLY SILT LOAM, 8 TO 15 % SLOPES	31.05± AC	30.0%
-	MdD	- MARDIN GRAVELLY SILT LOAM, 15 TO 25 % SLOPES	5.9± AC	5.7%
-	MNE	- MARDIN SOILS, STEEP 1/	5.72± AC	5.53%
		TOTAL:	103.42± AC	100.0%

SEIS FIGURE NO. 14

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

SOILS MAP

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

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GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

- Land with naturally-occurring slope of 15 percent or greater is approximately 15.44 acres.

See later **SEIS Figure No. 15A, Development within Areas of Steep Slope (15% or Greater)**.

4.1.2 Anticipated Impacts

- **Geology and Soils.**

Development of the Lone Oak TND, including both the single-family dwelling lots and other dwelling sites, the several required utility parcels and associated improvements, including roadways, storm water management facilities, and both central water and sanitary sewer systems, will require ground disturbance involving general grading and substantially more limited deep "cuts" and "fills", as discussed below under "Topography", on a estimated total of some 43.7 percent, or approximately 45.20 acres, of the 103.42-acre Project Site.

While there will be no significant disturbance to subsurface geology, except for the heretofore completed drilling of water supply wells into the bedrock aquifer on the adjacent Lands of Fini, development of the Lone Oak TND will cause the removal of vegetation and topsoil. Grading and excavation of the surficial till deposits, as well as the re-deposition of these soils, will be required during the construction of roadways and associated drainage structures, the installation of the central water and sanitary sewage systems and franchise utilities, and the development of individual lots and other dwelling sites, including the construction of access driveways, installation of water and sewer laterals and excavation for building foundations.

The Project Engineer anticipates limited use of blasting during the construction period due to the nature of the underlying geologic formation, shale as opposed to gneiss or other similar hard, dense rock, and observation that in those isolated locations where exposed shale is observed on the Project Site "fill" rather than "cut" is far more typically called for by the subdivision development plan.

The Project Engineer further has evaluated the overall relationship of "cut" and "fill" activity on the Project Site and anticipates these to be substantially balanced. Where excavated material is used for fill, particularly in locations of roadway or building construction, it will be placed in lifts of 6" and compacted to not less than 95 percent proctor. Notwithstanding the internal balance of "cut" and "fill", other specialized material including but not limited to Item 4 gravel, crushed stone and quarry rock will be imported via heavy trucks to the Project Site.

These impacts are direct and unavoidable. With the exception of the introduction of certain impervious surfaces (roadways, driveways, buildings and pedestrian areas associated with dwelling sites) on the Project Site, these impacts are however limited in duration, being directly and substantially related to the peak periods of construction activity.

Site development will result in the potential for erosion and sediment transport away from the Project Site during construction, particularly due to the presence of potentially erodible soils and moderate-to-steep slopes on portions of the site. Concern for this potential impact is heightened due to the presence of NYSDEC and ACOE wetland and associated tributary stream courses within the Project Site.

Development of the Lone Oak TND will further involve the conversion of approximately 38.3 acres of land with Class II and Class III "agricultural soils" to residential, non-farm purposes, as discussed more fully in Subsection 4.4, "Agricultural Resources", of this Section.

- **Topography and Landform.**

Development of the Lone Oak TND will not at a macro-level substantially affect either the topography or landform of the Project Site. Development will however at a micro-level have some impact on the Project Site's topography in consideration of the fact that typically accepted criteria for identifying potentially significant impacts related to topography are proposed construction on or near slopes in excess of 15 percent and/or the presence of "cuts" or "fills" in excess of 5 feet in depth.

While the Land Planner and Project Engineer have taken particular care to provide an overall TND subdivision layout that avoids moderate to steeply-sloping areas to the extent practicable balanced with requirement that much of the flatter areas of the Project Site be avoided due to the presence of wetland, development of the Lone Oak TND will nonetheless require alteration of site topography, including both excavation and fill, to establish suitable roadway grades, install other subdivision improvements, and provide for the development of the individual building sites, including access driveways and dwelling foundations.

In that a cursory inspection of the TND Site Plan indicated that some work within the Lone Oak Project Site would in consideration of the above criteria be considered of potentially significant impact with respect to topography, the below mapping was prepared:

  - The aforementioned **SEIS Figure No. 15A, Development within Areas of Steep Slope (15% or Greater)**, identifying the areas where development within the Lone Oak TND is generally proposed on existing slopes in excess of 15 percent.

AREA	
AREA WITH SLOPE 15% OR GREATER	15.44± AC
AFFECTED AREA (SLOPE 15% OR GREATER)	5.50± AC
REMAINING AREA	97.92± AC
TOTAL SITE	103.42± AC

LEGEND

- AREAS WITH SLOPE 15% AND GREATER
- WELL PROTECTION AREA
- OUT PARCELS
- DEVELOPMENT

SEIS FIGURE NO. 15A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

DEVELOPMENT WITHIN AREAS OF STEEP SLOPE (15% OR GREATER)

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

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AREA	
AFFECTED AREA (DEEP CUTS/FILLS WITH SLOPE LESS THAN 15%)	0.06± AC
AFFECTED AREA (DEEP CUTS/FILLS WITH SLOPE 15% OR GREATER)	0.24± AC
TOTAL AFFECTED AREA (DEEP CUTS/FILLS 5' OR GREATER)	0.30± AC
REMAINING AREA	103.12± AC
TOTAL SITE	103.42± AC

LEGEND

- AREAS WITH DEEP CUTS AND FILLS (5' OR GREATER)
- AREAS WITH SLOPE 15% AND GREATER
- WELL PROTECTION AREA
- OUT PARCELS
- DEVELOPMENT

SEIS FIGURE NO. 15B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT
DEVELOPMENT WITH DEEP CUTS AND FILLS (5' OR GREATER)

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

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- Complementary **SEIS Figure No. 15B, Development with Deep Cuts and Fills (5' or Greater)**, identifying the areas within the Lone Oak TND where the construction and/or installation of roadway and related subdivision improvements require "cuts" or "fills" generally in excess of 5 feet in depth.

Examination of the above illustrations indicates that the following potentially significant impacts to topography will occur as site clearing and grading, construction of roadways, installation of water, sanitary sewage and storm management facilities, and preparation of dwelling, community facility and recreation sites occurs as the Lone Oak TND is developed:

- Construction activities will occur on some 5.50 acres of land with existing slope in excess of 15 percent as the Lone Oak TND is developed, with the affected acreage being approximately 12.2 percent of the overall 45.20 acres of disturbed ("developed") area within the TND and approximately 35.6 percent of the total 15.44 acres of steep slope areas within the overall 103.42-acre Project Site.

- "Cut" or "fill" work greater than 5 feet in depth will be limited to 0.30 acres of land as the Lone Oak TND is developed, with the affected acreage being less than 0.7 percent of the overall 45.20 acres of disturbed ("developed") area within the TND.

- The combination of "cut" or "fill" in excess of 5 feet and its occurrence within areas with existing slope in excess of 15 percent is however further limited to 0.24 acre, with the affected acreage being 0.5 percent of the overall 45.20 acres of disturbed ("developed") area within the Lone Oak TND.

4.1.3 Mitigation Measures

- **Geology and Soils.**

In order to mitigate the potential impact of soil erosion, including the effects of silt and other sediments on wetland areas and/or tributary stream courses, the Project Engineer prepared an Erosion and Sediment Control Plan and presented such as an integral part of the Preliminary Subdivision Plat for the Lone Oak Estates Subdivision subject of the Draft EIS.

The Erosion and Sediment Control Plan set forth detail regarding the design, location and maintenance procedures for the use of commonly accepted and generally effective erosion control measures including straw bale dikes, sediment barrier fence, rock filters, open ditches, temporary drainage swales and rock stabilized construction entrances within the Project Site.

The below-stated "Outline Specifications" and related "Maintenance Procedure" were included on the Plan and excerpted in the Draft EIS:

Outline Specifications.

"The intent of this Plan is to minimize the amount of sediment conveyed during construction by restricting the amount of natural cover disturbed at any one time and by stabilizing the work area prior to, and as, the construction proceeds. The developer, through the contractor, shall be responsible for implementing erosion and sediment pollution controls.

1. *Install filter fabric sediment pollution control fence around perimeter of the erosion control area as shown on the Plan.*

2. *Clear and grub areas for new roadway. Trees are to be salvaged for pulp or firewood. Branches and small trees less than 2 inches in diameter are to be chipped. Stumps shall be removed from the site.*

3. *Re-grade area in the vicinity of the new road. Install temporary diversion swales above the work area to divert clean water away.*

4. *Install drainage features shown on the Plan. Install sediment pollution control features associated with the drainage system as work progresses to minimize soil pollution of underground drainage structures.*

5. *Maintain all soil sediment pollution control measures shown on the Plans or as subsequently directed (see Maintenance Procedure). Fills are to be placed in lifts not to exceed 6" vertical, and compacted by approved compaction equipment. Sediment discharge from fills shall be controlled with filter fabric silt fence and temporary drainage swales as indicated.*

6. *It will be the contractor's responsibility to obtain the proper permits for off-site spoil area to receive unsuitable on-site material (if any).*

7. *Staging and stockpiling of material will occur on the site. Topsoil and sedimentation stockpiles shall be installed as per the detail shown on the Plan.*

8. *As soon as areas are brought to final grade topsoil, seed and mulch."*

Maintenance Procedure.

"The following Maintenance Procedure shall be followed on a daily basis for each of the components of the overall Erosion and Sedimentation Control Plan:

1. *Rock Construction Entrance.*

The structure's thickness will be constantly maintained to the specified dimension by adding rock. A stockpile of rock material shall be maintained on the site for this purpose. At the end of each construction day, all sediment deposited on public roadways will be removed and returned to the construction site. Washing of roadways with water is not permitted.

2. *Silt Fence.*

   The fence installation shall be inspected after every precipitation event. Any necessary repairs will be made immediately. Accumulated sediments will be removed as required to keep the fence functional. In all cases remove deposits where accumulations reach ½ the above ground height of the fence. All undercutting or erosion of the toe anchor will be repaired immediately with compacted backfill materials. Adhere to the manufacturer's recommendations for replacing filter fabric fence due to weathering.

3. *Rock Filters.*

   Rock filters will be removed when clogged with sediments. Materials must be washed completely free of all foreign materials or new rock used to rebuild the filter. Proper procedures must be followed when washing of stone material in order to prevent any silts or sedimentation from entering the waters of the State of New York or the United States.

4. *Dust Control.*

   During earth moving, grading and site work activities, necessary measures for dust control will be exercised to comply with NYSDEC air quality regulations. Procedures must be followed when site conditions warrant use of dust control measures in order to prevent soil fines from traveling through the air of the State of New York."

A similar Erosion and Sediment Control Plan, including the above-cited erosion and sediment control measures and incorporating the above-stated outline specifications and maintenance procedure, will be presented by the Project Engineer for the Lone Oak TND, including the associated off-site improvements, as the project continues within the subdivision review and approval process.

In addition, the following pre-mitigation measures which have guided the Land Planner and Project Engineer's development of the TND Site Plan will continue to guide these professionals in its refinement.

- Existing trees, plants and groundcovers should be retained and protected wherever possible, albeit recognized that the opportunities to do so are somewhat limited on the Lone Oak Project Site due to both the extent of prior disturbance and the requirement for widespread grading to accommodate roadway construction, installation of other infrastructure and the preparation

of suitable residential building, community facility and active recreation sites within the density fabric of a traditional neighborhood development.

- Balanced with other factors, proposed grades should be reduced to the extent possible to foster slope stability and ease of landscaping and permanent erosion control.

As earlier discussed, due to the nature of the underlying shale formation and the Project Engineer's observations regarding those shale outcrops on the Project Site, it is anticipated that extremely little blasting will be required. To the extent however that any blasting is necessary to install required subdivision improvements or excavate dwelling foundations on individual lots and other dwelling sites, all blasting operations will adhere to 12 NYCRR 39 which governs the use of explosives throughout New York State. These regulations provide for the licensing of operators, magazine (explosive storage) certification, and rules for conducting operations in a safe manner. Pertinent Town of Goshen regulations, if any, including notice requirements will also be followed.

- **Topography and Landform.**

In order to mitigate the earlier-described potentially significant impact related to topography the Project Engineer intends to both apply the second "pre-mitigation measure" cited above and then provide through preliminary subdivision plat drawings appropriate grading, storm water management and erosion and sedimentation control plans for each of the affected areas.

As in the case of the Preliminary Subdivision Plans for the 162-Lot Conventional Subdivision accompanying the Draft EIS, the Project Engineer intends to be guided by the following design considerations:

- The Project Engineer will continue to limit fill depths to the extent practicable while complying with the Town's roadway design and related requirements including but not limited to consideration regarding conveyance of storm water, routing of other utilities, etc.

  To the extent practicable, the Project Engineer will provide side slopes of not greater than 4:1 horizontal to vertical and employ benching within fill sections to ensure in combination with re-vegetation and/or rip-rap the stability of the fill section and to avoid the need for installation of guide rails that become imperative as side slopes approach 3:1 horizontal to vertical. The above notwithstanding, the Project Engineer will employ beyond the edge of subdivision roadway right-of-way a maximum slope of 2:1 horizontal to vertical where required to reasonably grade the Project Site for intended residential development.
- The Project Engineer will likewise continue to limit cut depths to the extent practicable while complying with the above standards and requirements. To the extent practicable, the Project Engineer will provide side slopes of not

less than 2.5:1 horizontal to vertical in cut sections to similarly ensure in combination with re-vegetation and/or rip-rap the stability of the cut section. The above notwithstanding, the Project Engineer will employ in those cut sections beyond the edge of subdivision right-of-way a maximum slope of 2:1 horizontal to vertical where required to reasonably grade the Project Site for intended residential development.

- The Project Engineer will through notation on the Final Subdivision Plat continue to require that all fill deposited within TND subdivision improvement areas be suitable as to composition, free of stumps and/or other debris, placed in shallow lifts not to exceed 6" in depth, and compacted to no less than 95 proctor.

SEIS Subsection 4.2
Water Resources

SEIS Subsection 4.2 provides a discussion of the water resources within and adjacent to the Lone Oak Traditional Neighborhood Development project site, including consideration of groundwater, surface waters, including associated flood plains, and wetlands. The discussion is based upon an effort that has included the on-site inventories and mapping, technical studies, drilling and testing of wells, and other analysis presented herein. While it closely tracks the Draft EIS the discussion has been modified in this Supplemental EIS to account for variation in the anticipated impacts associated with the now-proposed Lone Oak TND and as necessary to address the reduced acreage of the present Project Site.

4.2.1 Existing Setting

As observed earlier, the Project Site and its immediate environs is distinguished by the presence of existing water supply wells and substantial wetland area and associated small stream corridors and/or drainage ways. More specific discussion of the existing setting with respect to "Water Resources" follows below.

- **Groundwater.**

  Six (6) privately-owned water supply wells, identified on the Preliminary Subdivision Plans and throughout the Project Engineer's and Project Hydro-geologist's reports as "Well 1", "Well 2" and "Well 3", and "Test Well 4 (T4)", "Test Well 5 (T5)" and Test Well 6 (T6)", and otherwise referred to as "the Fini wells", have been drilled on the Lands of Fini (TMP 11-1-49.2) adjoining the Project Site by the Project Sponsor in anticipation of the residential development of its property.

In addition, the Town of Goshen owns and maintains three (3) water supply wells along the Otter Kill in the south-central area of the Project Site. As depicted on the Preliminary Subdivision Plans appended to the earlier Draft EIS, “TG51” and “TG52” are located on Town-owned lands while “TG 51A”, as earlier noted in DEIS Subsection 2.6.1, is actually located within the Project Sponsor’s land holding.

The Town of Goshen pumps the Town wells to provide potable water supply to the Arcadia Hills Subdivision. Water pumped from these wells and other sources is treated and conveyed to a water storage tank on higher ground (approximately 620 feet ASL) located on the east side of Arcadia Road prior to its distribution within the water system’s service area. The Arcadia Hills water system has experienced supply deficiencies on several occasions, most recently during the drought conditions that were present in 1998 when, as documented in the Draft EIS, the Town of Goshen continuously pumped Fini Well #2 for a period of several months without respite or recovery to augment its diminished public water supply.

The Project Sponsor proposes that the aforementioned privately owned Wells 1, 2 and 3, be utilized as the water supply source for the Lone Oak Estates TND. Wells 1, 2 and 3 are the subject of the Well Completion Report prepared by Leggette, Brashears and Graham, Inc. (“LBG”) which was presented in its entirety as DEIS Appendix F.

The LBG report presents data regarding both the physical characteristics of these bedrock wells (e.g. well diameter, well depth at which water-bearing zones were encountered, and overall well depth) and the following testing of these wells and monitoring of other nearby wells:

- Multiple-well simultaneous 72-hour pumping test conducted of these three wells during non-drought conditions in December 1997 including both an associated water-level interference study conducted between November 24 and December 8, 1997, and laboratory analysis of water samples taken near the conclusion of the 72-hour testing period.

- Simultaneous 72-hour pumping test of the demonstrated higher yielding wells, Wells 2 and 3, during drought conditions in August 1999 including an associated water-level interference study conducted between August 12 and August 28, 1999.

As discussed in detail in the February 1999 Well Completion Report, the work undertaken in 1997 by LBG with the cooperation of the Town of Goshen and some neighboring property owners demonstrated the following:

- The pumping test established that Wells 1, 2 and 3 could be pumped simultaneously at 15, 65 and 53 GPM, respectively, under the non-drought condition for a combined rate of 133 GPM or a “long-term yield” of about 191,500 GPD and a “safe yield” of 85% of this amount, or approximately 144,000 GPD.

- The associated water-level interference study involved the monitoring of sixteen (16) wells, 4 on-site and 12 off-site including 6 water supply wells for Arcadia Hills owned and operated by the Town of Goshen. An attempt by the Project Sponsor to include in the study the private wells on the adjacent Serdarevic property to the west of the Lone Oak Project Site was not successful.

  No loss was demonstrated in the yield capacity of any of the Arcadia Hills wells over the 72-hour pumping test. Substantial drawdown effect was experienced by two of the on-site monitoring wells and two off-site monitoring locations on the Corey property generally to the north of Lone Oak Project Site and on the opposite side of NYS Route 17, one the Corey's domestic supply well and the second a test well drilled by the Project Sponsor. LBG discerned that the observed drawdown on the wells on the Corey property was attributable at least in part to pumping of the lowest yielding and most proximate of the Project Sponsor's wells, Well 1. The drawdown did not, however, affect the normal performance of the Corey's domestic supply.

- The water quality analysis conducted by Orange County Laboratory for those parameters required under NYSDOH Sanitary Code, Part 5, Subpart 5-1, established conformity with all standards except for elevated levels of hydrogen sulfide and sodium. LBG has characterized the presence of hydrogen sulfide gas as commonly occurring within well water supplies in Orange County and speculates that the elevated concentration of sodium present is most likely from road salt application to NYS Route 17 as well as local roads in the surrounding area.

As further discussed in the October 6, 1999, letter addendum, also presented at DEIS Appendix F, the additional 72-hour pump testing and associated water-level interference monitoring conducted under August 1999 drought conditions and after a period of continuous pumping of Fini Well #2 by the Town of Goshen demonstrated the following:

- The pumping test established that Wells 2 and 3 could be pumped simultaneously at 46 and 37.5 GPM, respectively, under the sustained drought condition that had been experienced from July 1998 through July 1999 for a combined rate of 83.5 GPM or a "yield" of about 120,240 GPD.

- The associated water-level interference study was expanded to include two additional public water supply wells owned by the Village of Goshen in the vicinity of the Green Hill Reservoir. The Project Sponsor's attempt once again to include in the study the private wells on the Serdarevic property (adjacent and to the west of the former Project Site) was again unsuccessful, with permission to do so being specifically denied by Ms. Olivia Serdarevic.

  Results similar to the prior monitoring were reported. The Corey well once again experienced drawdown, though to a lesser degree in the absence of the pumping of Well 1, yet continued to be unimpaired in terms of normal performance as a domestic water supply. The Town wells again did not experience any loss of yield capacity over the 72-hour pumping test while no discernible drawdown effects were encountered by any of the other off-site wells monitored, namely the

Arden Hill wells, the Berger, Kolk and Kolk Spring private water supply wells, and the Green Hills public water supply wells.

Comments on groundwater resources with respect to both the above discussion of "existing setting" and the later discussion of "anticipated impacts", as developed on behalf of the Lead Agency by Riddick Associates, P.C., in a memorandum dated December 24, 2007, and Hickory Creek Consulting a few days earlier have been addressed by the Project Hydrogeologist. A point-by-point presentation of the comments offered and related response occurs in a letter of March 25, 2008, from Leggette, Brashears & Graham, Inc. to the Project Land Planner. A copy is provided here as **SEIS Exhibit No. 6A** and is incorporated by reference as part of this SEIS Subsection.

In consideration of an ensuing comment by Hickory Creek Consulting on July 31, 2008, concerning the Project Hydrogeologist's calculation of post-development precipitation remaining available for groundwater recharge a related letter of October 10, 2008, from LBG to the Project Land Planner appears as **SEIS Exhibit No. 6B**.

- **Surface Waters.**

As evident from an examination of the USGS Goshen NY Quadrangle Map, the primary drainage pattern throughout the Lone Oak Project Site consists of flow through the westerly portion of the Project Site and the easterly wetland area of the adjacent Lands of Fini via the Otter Kill.

The Otter Kill originates in a controlled outflow from Goshen Reservoir #2 due to its use as a public water supply at a location approximately 1,800 feet southwest of the Project Site, flows through the Project Site and NYSDEC Freshwater Wetland GO-41 and continues northerly for a distance of approximately 4,000 feet to its confluence with Black Meadow Creek. The Otter Kill then flows northeasterly and is joined by the Cromline Creek to form the Moodna Creek to the east of Washingtonville. The Moodna Creek ultimately discharges into the Hudson River south of the City of Newburgh.

As documented within DEIS Exhibit 17, Excerpt from Title 6 NYCRR Part 862.6, NYSDEC Water Index, including Map P-22NE, the Otter Kill, an intermittent stream, is designated within the Project Site by the NYSDEC as Item No. 192, Water Index Number H-89-20-17, classified as a "Class D" stream and described as subject to the water quality standards thereof.

As described in both the **Stormwater Management Analysis for the Lone Oak 162-Lot Subdivision** on the former 226.7-acre Project Site found at **DEIS Appendix B** and the **Stormwater Management Analysis for 132-Unit Lone Oak TND** on the present 103.42-acre Project Site found at **SEIS Appendix D**, drainage flow through the Project Site is not generated exclusively, or even principally, from the Project Site. Storm water runoff is included from upstream lands principally to the south,

occurring from within an overall 1390-acre, or 2.17 square mile, sub-basin consisting of two sub-catchments. These sub-catchments include the Village of Goshen #2 Reservoir and its watershed, other areas adjacent to upper Reservoir Road, Conklington Road and Hill Road, and a portion of the area known as Goshen Hills.

The main Otter Kill sub-catchment, indicated within the Draft EIS to be some 1226 acres in land area and including approximately 210.3 acres of the former 226.7-acre Lone Oak Estates Project Site, was demonstrated to generate the following total run off (in terms of first inflow to the wetland and then outflow from the wetland) in the Predevelopment Condition for the studied 2 year, 10 year, 25 year and 100 year storm events:

Wetland Inflow

- 2 year 307.07 CFS
- 10 year 640.07 CFS
- 50 year 884.87 CFS
- 100 year 1140.28 CFS

Wetland Outflow

- 2 year 121.82 CFS
- 10 year 200.77 CFS
- 50 year 250.80 CFS
- 100 year 315.05 CFS

The secondary 164.1-acre sub-catchment located to the northwest and being tributary to a culvert under NYS Route 17 at the end of present day Harriman Drive, including the remaining 17.3 acres of the former 226.7-acre Lone Oak Estates Project Site, was demonstrated to generate the following total runoff in the Predevelopment Condition for like storm events:

- 2 year 111.68 CFS
- 10 year 224.07 CFS
- 50 year 305.11 CFS
- 100 year 389.84 CFS

Furthermore, according to the Federal Emergency Management Agency (FEMA) Flood Hazard Boundary Map (FHBM) for the Town of Goshen (Community Panel 360614-0010B), set forth as DEIS Figure 15A, it is indicated that flooding would occur within a narrow band along these stream corridors and throughout adjacent wetland areas upon occasion of a 100-year storm event.

Affected upland area within the TND Project Site, i.e. area outside either a designated wetland or watercourse, has been calculated to be 4.34 acres. Further, based upon the “flood profile” for the Otter Kill prepared by FEMA, the Project

Engineer determined the elevation of the 100-year flood at the following critical locations on the Lone Oak Project Site:

- At the former proposed through roadway crossing depicted on the earlier Preliminary Plat and at the same location on the current TND Site Plan (though the through roadway no longer is proposed) – 410.5 feet ASL.
- At existing Fini Wells 1, 2 and 3 – 410.5 feet ASL.
- At the heretofore proposed, and still possible, on-site wastewater treatment plant's sewage outfall structure – 410.5 feet ASL.

In consideration of the recent revision of the aforementioned Flood Hazard Boundary Map and the pending anticipated issuance of such revised FHBM by FEMA (though delayed from March 2008), the Project Engineer electronically superimposed the revised FHBM on the former Preliminary Subdivision Plan and current TND Site Plan and upon doing so determined little or no change to be proposed by FEMA in the flood hazard boundary and associated flood elevations within the Project Site.

- **Wetlands.**

Mr. Steven George of North Country Ecological Services examined and delineated by "flagging" the wetland areas throughout the former 227.6-acre Project Site. These wetland areas were subsequently surveyed as to location and depicted by the Project Engineer on a Wetland Delineation Plan dated January 6, 1998, last revised September 16, 1999, and presented earlier as DEIS Figure 16.

As indicated within the Draft EIS the Wetland Delineation Plan has also been reviewed by the U.S. Army Corps of Engineers. A letter was issued by the ACOE on July 5, 2000, stating that the delineation presented "appears to be an accurate depiction of the extent of the waters of the United States on the subject site" with the caveat that the "delineation shall be considered valid for a period of five years from the date of this letter". The Wetland Delineation Plan was also reviewed by the NYSDEC, with both regulatory agencies affixing their signatures to record copies of the Plan.

The ACOE's July 5, 2000, letter identified some 0.323 acres of disturbance that had occurred within the Project Site during the conduct of well drilling activities.

In consideration of the aforementioned five-year "sunset provision", North Country Ecological Services staff visited the Project Site on October 4, 2007, to assess whether there had been any discernible modification in the wetland boundaries, as previously delineated, in consideration of "Post-Rapanos" jurisdictional determination method. Upon finding none NCES then re-submitted the prior Wetland Delineation

Plan to both the ACOE and the NYSDEC on October 16, 2007, for consideration of re-certification. See **SEIS Exhibit No. 7A, Correspondence, Re: ACOE and NYSDEC Wetland Boundary Re-Certification**.

North Country Ecological Services staff further reviewed the extent of prior disturbance on May 16, 2008, and, in tandem with the Project Land Surveyor, corroborated the 0.323 acre in disturbance cited by the ACOE. In addition, there having not yet been any response by the ACOE to its communication of October 16, 2007, NCES followed with another letter to the ACOE on November 10, 2008. See **SEIS Exhibit No. 7B, Re: ACOE Wetland Boundary Re-Certification**

The ten (10) principal wetland areas described below had been delineated within the former 227.6-acre Project Site and depicted on the Wetland Delineation Plan:

- The first wetland is identified on the above referenced map as NYSDEC Wetlands "N-1", "N-2" and "N-V. This wetland area is located in part in the northeastern corner of the Project Site, extending onto abutting property, and occupies approximately 53.522 acres of the former Project Site.

- The second wetland (ACE Wetlands "B") is located approximately 850 feet south of the first wetland, and is approximately 0.011 acres.

- The third wetland (ACE Wetlands "C" and NYSDEC Wetlands "S") is located approximately 200 feet west of Wetlands "B" and just south of the first wetland, situate within and beyond the former Project Site. This wetland occupies approximately 1.987 acres within the former Project Site.

- The fourth wetland (ACE Wetlands "D") is located just northwest of the first wetland, and is approximately 5.107 acres.

- The fifth wetland (ACE Wetlands "E") is located in the northernmost corner of the former Project Site, and is approximately 0.267 acres.

- The sixth wetland (NYSDEC Wetlands "X") is located just southwest of Wetland "D" within and beyond the former Project Site, and occupies approximately 0.305 acre within the former Project Site.

- The seventh wetland (NYSDEC Wetland "Y-YY") is located between Wetland "C" and Wetland "X" within and beyond the former Project Site, and occupies approximately 8.294 acres thereof.

- The eighth wetland (ACE Wetlands "F") is located within a parcel of land separated from the rest of the former Project Site, just east of the first wetland, and is approximately 0.344 acres.

- The ninth wetland (ACE Wetlands "H") is located within and beyond the easternmost corner of the former Project Site, and occupies approximately 0.714 acre within the former Project Site.

- The tenth wetland (ACE Wetlands “I”) is located approximately 500 feet south of Wetland “H”, situate both within and beyond the former Project Site, with approximately 0.010 acre located therein.

In total, 70.561 acres of the former 226.7-acre Project Site were delineated as wetland within the jurisdiction of the U.S. Army Corps of Engineers in accordance with the Clean Water Act (33 U.S.C. 1344) and subject to related 33 CFR Part 320 setting forth general policies, Part 323 establishing regulations and Part 325 defining procedures in connection with applications to authorize the discharge of any dredged or fill material into the “waters of the United States”. As stated in its letter of July 5, 2000, all of the wetland area is considered by the Army Corps of Engineers to be “above the headwaters”, i.e. the average annual flow throughout is less than 5 cubic feet per second.

Of the 70.561 acres indicated to be within federal jurisdiction, some 64.108 acres were also indicated to lie within the jurisdiction of NYSDEC under the Freshwater Wetlands Law in that these wetlands are portions of contiguous wetland area in excess of 12.4 acres and have been so designated as GO-41 and classified as a Class II freshwater wetland. While Army Corps of Engineers jurisdiction is limited to the delineated wetland area, NYSDEC jurisdiction extends beyond the delineated wetland to include a regulated 100-foot wide buffer area adjacent to the freshwater wetland.

The buffer area regulated by NYSDEC was calculated to occupy an additional 23.89 acres of the then 227.6-acre Project Site, bringing to 94.45 acres, or 41.66 percent of the total acreage within the 227.6-acre Project Site, the extent of the former Project Site subject to federal ACOE and/or NYSDEC wetlands-related regulation.

In consideration of the contraction of the Lone Oak Project Site to its present 103.42 acres the below-cited modifications apply to the above-stated inventory of on-site wetland areas:

- A reduction from 70.561 acres to 12.66 acres has occurred in the total acreage of wetland on the Project Site indicated to be “non-isolated” and, thus, within federal jurisdiction.

- A reduction from 64.108 acres to 10.90 acres has occurred in the acreage of wetland on the Project Site indicated to be within federal jurisdiction which also lies within the jurisdiction of NYSDEC under the Freshwater Wetland Law as a portion of Wetland GO-41.

- A substantial reduction has occurred in additional acreage within the Project Site occupied by the 100-foot regulated buffer of NYSDEC Wetland GO-41.

- A substantial combined commensurate reduction has occurred in the overall percentage extent of the Project Site subject to federal ACOE and/or NYSDEC wetlands-related regulation.

Comments on wetlands with respect to both the above "existing setting" and later discussed "anticipated impacts" and developed on behalf of the Lead Agency by Hickory Creek Consulting, LLC, in a memorandum dated December 19, 2007, have been addressed by the Project Ecologist to the extent pertinent to the EIS scoping document. A point-by-point presentation of the comments offered and related response occurs in a letter of January 22, 2008, from North Country Ecological Services to the Project Land Planner. A copy is provided as **SEIS Exhibit No. 8** and incorporated by reference within this SEIS Subsection.

Further, in response to an additional July 31, 2008, comment by Hickory Creek Consulting and cited later by Burke, Miele & Golden, Inc., the Project Hydrogeologist has examined this comment and determined it to be based on an error made within his Response Letter of March 25, 2008, presented earlier as **SEIS Exhibit No. 6A**. As explained by Leggette, Brashears & Graham, Inc, within an ensuing letter presented as **SEIS Exhibit No. 6C, Letter of December 23, 2008, to Project Land Planner, Re: Response to Comment of December 15, 2008, by Burke, Miele & Golden, LLP**, the third paragraph on Page 8 of the March 25, 2008, should have read and is hereby corrected to read:

> *"Ground water occurs in the bedrock in two states, unconfined or artesian/semi-artesian conditions. The bedrock aquifers in the study area are considered confined and semi-confined. A majority of the bedrock aquifers in the study watershed are overlain by confining layers of till or low permeability material, as reported during the drilling of test wells. In addition, the artesian conditions observed in a number of wells in the study watershed confirm the aquifer is confined or semi-confined. This setting would indicate no direct hydraulic connection between the surface water and bedrock aquifer."*

The final sentence of the above paragraph previously read in error as follows and as such caused a discrepancy to be pointed out by Hickory Creek Consulting while undertaking its review of the June 16, 2008, draft of this Supplemental EIS:

> *"The setting would indicate no direct hydraulic condition between the surface water and wetland features due to the confining layer."*

4.2.2 Anticipated Impacts

- **Groundwater.**

Development of the Lone Oak TND involves the installation of neither individual on-site water supply wells nor individual on-site sanitary sewage systems. Both water supply and sanitary sewage arrangements will be provided, as was discussed throughout the Draft EIS and again in this Supplemental EIS, through the

construction period installation and long-term operation of central systems serving each of the dwelling units and related community facilities within the TND.

The presence of the central sewage facilities will avoid any potential environmental effects that may have been associated with the subsurface discharge of sanitary wastes into the Project Site's underlying soils on a lot-by-lot basis. Sanitary sewage from each of the dwellings and community facilities will instead be conveyed to a wastewater treatment plant operated pursuant to the requirements set forth within a NYSDEC SPDES (Sanitary) Permit.

The presence of the central water facilities, including employ of three known source "on-site" water supply wells owned by the Project Sponsor, will provide for a more dependable water supply than would the drilling of individual wells and effectively cause like total withdrawal, or even less total withdrawal in the presence of individual water meters, of groundwater from the rock filter underlying the Project Site.

The various components of the proposed central water supply system were also earlier described in SEIS Section 3, Subsection 3.2.2. Parameters regarding its construction, ownership, operation and maintenance and required permits and approvals were also earlier discussed in SEIS Section 3, Subsections 3.5.2 and 3.6, respectively.

In terms of the impact of the development and operation of the Lone Oak TND central water supply system on the groundwater resources of the Project Site and its immediate environs, benchmark data for assessment of the ability of the heretofore installed Fini water supply wells to meet the projected water supply demand of the Lone Oak TND has been provided through the 72-hour pump testing, the associated water-level interference studies, and the water quality analysis summarized earlier in this Subsection 4.2.1.

For purpose of the below assessment, a calculation of the projected average daily water supply demand of the Lone Oak TND has been prepared in consideration of the below standards currently applied by the New York State Department of Health (NYSDOH) for metered connections:

- 4-bedroom single-family detached dwelling, assume 5 persons @ 75 GPD/person, or 375 GPD.
- 3-bedroom single-family detached dwelling, assume 4 persons @ 75 GPD/person, or 300 GPD.
- 3-bedroom attached or multiple dwelling, assume 4 persons @ 75 GPD/person, or 300 GPD.

In consideration of these standards, a projection of average daily water supply demand for the entirety of the Lone Oak TND is one of the matters addressed within earlier-presented **SEIS Table No. 1, Lone Oak 132-Unit TND, Water Supply Demand and Sanitary Sewage Load**.

As indicated on SEIS Table No. 1, the Lone Oak TND creates at full build-out an average daily water supply demand of 48,020 gallons per day (GPD) to accommodate the 132 dwelling units (with their varying bedroom configurations) and the community facilities proposed.

Accordingly, the analysis provided within the Draft EIS addressing the adequacy of the Fini wells to meet the water supply demand of the former Lone Oak Subdivision is first revisited below in consideration of the above-stated reduced water supply demand on the Lone Oak TND:

- Under the non-drought conditions reported on the basis of pumping tests conducted in December 1997, the maximum individual yield capacities of Wells 1, 2 and 3 were found to be 15, 65 and 53 GPM, respectively, for a combined yield capacity of 133 GPM (191,500 GPD).

  The yield of either Well 2 (65 GPM or 93,600 GPD) or Well 3 (53 GPM or 76,320 GPD) exceeds the average daily water supply requirement for the TND estimated to be 33.3 GPM and the combined yield of Wells 2 and 3 (118 GPM or 169,920 GPD) significantly exceeds double the average daily demand of the proposed Lone Oak TND estimated to be 96,040 GPD or 66.7 GPM, which is the NYSDOH guideline for ground water supplies derived from bedrock wells.

  Accordingly, under the circumstance of non-drought period testing, Wells 2 and 3 meet the requirement of the NYSDOH for two separate sources capable of meeting the estimated average daily water supply demand of 48,020 GPD for the Lone Oak TND without consideration of the use of Well 1.

  In addition, the projected average water demand of the Lone Oak TND is met with the best well (Well 2) out of service, as required by the regulatory agencies pursuant to the 1997 Edition of Ten State Standards. Under the circumstance of non-drought period testing, Wells 1 and 3 have a combined yield of 68 GPM (97,920 GPD) far in excess of the TND projected average daily water demand of 53,550 GPD.

- Under the extreme drought conditions reported on the basis of pumping tests conducted in August 1999, the maximum individual yield capacities of Wells 2 and 3 were found to be 46 and 37.5 GPM, respectively, for a combined yield capacity of 83.5 GPM, or 120,240 GPD. During extreme drought conditions, the yield of either Well 2 (46 GPM or 66,240 GPD) or Well 3 (37.5 GPM or 54,000 GPD) similarly exceeds the average daily water supply requirement for the Lone Oak TND estimated to be 48,020 GPD or 33.3 GPM and the combined yield of Wells 2 and 3 (83.5 GPM or 120,240 GPD) exceeds double the average daily demand of the proposed TND estimated to be 96,040 GPD or 66.7 GPM.

Accordingly, under the circumstance of extreme drought period testing, Wells 2 and 3 meet the requirement of the NYSDOH for two separate sources capable of meeting the projected average daily water supply demand for the proposed TND, without consideration of the use of Well 1. In addition, under the circumstance of extreme drought period testing, the projected average water demand of the Lone Oak TND is met with the best well (Well 2) out of service, as required by the regulatory agencies pursuant to the 1997 Edition of Ten State Standards. Well 3 exhibits alone a demonstrated yield of 37.5 GPM (54,000 GPD) exceeding the TND projected average daily demand of 48,020 GPD.

Moreover, in consideration of one of the recent "changes in circumstance" identified in Section 2, Subsection 2.5 of this Supplemental EIS, i.e. the New York State Department of Health's adoption effective January 2007 of the 2003 Edition of Ten State Standards, a further examination of this data has been undertaken.

While the former 1997 standard required demonstrated water supply capability to meet average daily demand with a system's largest producing well out of service, the new 2003 standard requires demonstration of capability of meeting maximum (i.e. twice the average) daily demand with the largest producing well out of service the new 2003.

Applying the new standard with its built-in safeguards to the data on non-drought conditions reported above, with Well 2 (65 GPM or 93,600 GPD) considered out of service the combined capability of Well 1 (15 GPM or 21,600 GPD) and Well 3 (53 GPM or 76,320 GPM) is 68 GPM or 97,920 GPD. In consideration of this maximum daily demand capability of 97,920 GPD, the average daily demand that can be accommodated is 48,960 GPD.

48,960 GPD is some 940 GPD greater than the average daily demand of 48,020 GPD projected for the 132-Unit Lone Oak TND. Accordingly, under this more stringent NYSDOH standard the existing Fini wells have been demonstrated to be capable of meeting the water supply demand for the entirety of the 132-Unit Lone Oak TND.

As stated in the earlier discussion of "Existing Setting", related comments made on behalf of the Lead Agency by Riddick Associates, P.C., on December 24, 2007, during the course of preparation of this Supplemental EIS have been addressed by the Project Hydrogeologist. A point-by-point recital of each of the Biddick Associates' comments and presentation of response by LBG may be found at **SEIS Exhibit No. 8**.

- **Surface Waters.**

The Lone Oak TND creates less developed land area and continues to afford the Project Engineer the opportunity to manage stormwater flows both from within and

upstream of the Project Site in the same general manner as discussed in the Draft EIS, subject to due consideration of the revised water quality standards discussed in Section 2.5.1 of this SEIS.

The TND Site Plan also echoes (and goes beyond) the earlier-proposed 162-Lot Lone Oak Estates Subdivision subject of the Draft EIS in providing, where no longer disrupted to provide for the through roadway linking Harriman Drive and Arcadia Road, for a continuous natural buffer throughout the Otter Kill stream corridor. In addition, the Lone Oak TND maintains the heretofore proposed water supply and sewage treatment plant installations, should the latter remain to be required, at locations where the design of these improvements would in the opinion of the Project Engineer be found by regulatory authorities to be in compliance with Federal Emergency Management Agency (FEMA) regulations --- under both as existing and proposed Town of Goshen Flood Hazard Boundary Maps --- governing development within the 100-year flood plain. The TND Site Plan further continues the inclusion of ample open land areas outside wetland boundaries where stormwater basins may be planned and installed as depicted on the Overall TND Site Plan and Layout Plan.

- Storm Water Management.

  As detailed in the Project Engineer's Storm Water Management Analysis report presented earlier at DEIS Appendix B, storm water and other drainage flow from within both the upstream areas of a 2.17 square mile sub-basin encompassing upstream lands principally to the south and the former 226.7-acre Lone Oak Project Site could be accommodated under post-development conditions of a 25-year design storm without an increase in peak runoff from the 1390-acre watershed provided appropriate storm water management improvements were installed as proposed in the Draft EIS.

  More specifically, examination of the Storm Water Management Analysis established the following in the case of the prior Lone Oak Estates Subdivision:

  - Due to subdivision design and redirection of certain drainage flows, an approximate 7.0-acre land transfer from the northwest sub-catchment to the main Otter Kill sub-catchment would occur in the post-development state.

  - The above notwithstanding, a slight reduction (2.6 percent) in peak runoff from 250.80 CFS in the pre-development condition to 244.24 CFS in the post-development condition would be experienced in the "wetland outflow" of the main Otter Kill sub-catchment under condition of a 25-year storm event.

  - A bit greater reduction (4.1 percent) from 305.11 CFS to 292.53 CFS would be experienced in the post-development condition under condition of a 25-year storm event at the discharge point from the secondary northwest sub-catchment.

  As demonstrated within the Storm Water Management Analysis, this circumstance was found to exist principally because installation of the proposed closed storm water system within the Lone Oak Subdivision would shorten the

times of concentration of runoff from within the residential subdivision and cause these releases to occur even more so than in the pre-development state prior to the upstream releases from within the overall drainage area.

Accordingly, the creation of additional detention was determined to not be required to reduce storm water runoff from the Lone Oak Estates Subdivision within either sub-catchment in accordance with the Town's policy of "no net increase" and, therefore, none was proposed for this purpose.

The above notwithstanding, the Project Engineer acknowledges changes have occurred in applicable stormwater regulations pursuant to EPA Phase II since the preparation of the Draft EIS.

These more stringent requirements, as related to the design, the permitting and the long-term ownership and maintenance arrangements for stormwater management facilities, were first addressed in consideration of the previously discussed 299-Unit TND in a working report entitled **Addendum "A" to Stormwater Management Analysis for Lone Oak Estates**, prepared by the Project Engineer, dated November 2005 and revised to July 2007, which appeared in a prior version of this SEIS dated October 22, 2007.

The text of the Engineer's Addendum reads as follows:

> *"This addendum to the Stormwater Management Analysis for Lone Oak project is being written in order to cover the new TND plan for the site. These plans have been produced due to the recent zoning change covering the project parcel which resulted in a modification of the project layout and characteristics. However, from the stormwater management standpoint, little has changed in the macro analysis.*
>
> *In our initial report, it was concluded only stormwater polishing would be undertaken in the project and that no direct detention would be met under the stormwater management policy due to the fact that detaining the stormwater actually added to the peak at the culvert that traverses NYS Route 17.*
>
> *This report will generically revise the overall stormwater layout and select areas adjacent to the proposed Hamlet Development to manage the stormwater, and result in the proper treatment and polishing of the stormwater prior to release to the adjacent wetlands and stream corridor. Since the original report was written, some new stormwater regulations from NYSDEC have been mandated and in fact they increased their requirements on water quality volume and introduced new policies on channel protection. Our overall pond sizing will take into account both the WQv and the Cpv.*
>
> *You are referred to Figures 1, 2, 3, 4 & 5 for the overall subdivision layout road alignment and the associated stormwater network and stormwater management ponds. You will note that we have located in the area twelve ponds, which are positioned to collect the overall stormwater by gravity, and treat the stormwater prior to discharge to the adjacent wetlands and stream corridor. You are referred to Exhibit A for the pond sizing with respect to the WQv and Cpv. These results are summarized in the following table:*

Lone Oak Hamlet Layout Stormwater Management Pond Sizes			
Pond #	Water Quality Volume (Acre Feet)	Channel Protection Volume (Acre Feet)	Total Pond Volume (Acre Feet)
1	0 446	0.839	1.285
2	0 197	0.400	0.597
3	0.403	0.764	1.167
4	0 167	0.367	0.534
5	0.253	0.548	0.801
6	0.655	1.488	2.143
7	0.250	0.436	0.686
8	0:386	0.704	1.090
9	0.154	0 378	0.532
10	0.204	0.464	0.668
11	0.402	0.699	1 101
12	0.258	0.494	0.752

Additionally, each of the ponds are proposed to be a micro-pool type pond and you are referred to Figure 6 which indicates a typical layout and cross section of a micro-pool as detailed by the NYSDEC.

Conclusions and Recommendations

1. *As indicated in the original study, there will be no overall detention of the stormwater from the proposed development, as it was indicated in the original report. The detention adds to the peak rather than reduces the peak; therefore this same policy is being proposed for the revised plan and layout.*

2. *The ponds have been sized to vertically handle the WQv and the Cpv, as recommended by the NYSDEC.*

3. *All detailing of the stormwater collection system and the pond configurations will be undertaken during the preliminary subdivision process covered by the new zoning rules and regulations.*

4. *Maintenance of the overall stormwater system including the proposed 12 ponds should be reviewed as to whether it would be covered by a Town Drainage District, by the Town of Goshen outright or a Homeowners*

Association (HOA). This should be determined early in the process in order that the proper legal documentation and requirements can be established for the overall project."

The Project Engineer's final words notwithstanding, the issue of long-term ownership of the stormwater management system was addressed earlier in Subsections 3.5.2 and 3.6 of this Supplemental EIS. As stated there, the Project Sponsor assumes the Town of Goshen will direct the Project Sponsor to petition for creation of a Town Drainage District which will assume responsibility for ownership and maintenance of the stormwater management system. Formation of the Drainage District will both ensure dependable maintenance of the stormwater management system and cause the financial burden thereof to be incurred exclusively by the benefited property owners within the Lone Oak TND.

These same more stringent requirements, as related to the design, the permitting and the long-term ownership and maintenance arrangements for stormwater management facilities, have been more recently addressed in consideration of the present 132-Unit TND in an Engineer's Report entitled **Stormwater Management Analysis for Lone Oak TND**, prepared by the Project Engineer and dated April 2008, which Report is presented in its entirety as **SEIS Appendix D**.

The latest Engineer's Report evaluates pre-development and post-development site conditions under the conditions of 1-year, 10-year and 100-year storm events. As indicated within the excerpted and attached "Table 1. Predevelopment and Postdevelopment Summary for Otterkill Main Subcatchment", this examination determined in the words of the Report:

"This review indicates a slight decrease of overflow stormwater flow. This can be attributed to shortened times of concentration of the runoff related to the subdivision (TND) development which precedes the upstream releases of the multiple ponds and reservoirs. The post development analysis included proposed stormwater management ponds that have been sized to capture the water quality volume (WQv) and channel protection volume (Cpv) but made no attempt to provide extended detention. This scenario was utilized due to previous studies conducted on the overall watershed which indicated that the detention actually exacerbated the flood condition in the area. This detention waiver is allowed by the NYSDEC under their 10% rule as discussed in Section 4.8, Downstream Analysis, of the Stormwater Management Design Manual."

In addition to the pre-development and post-development analysis, a review of potential urban pollution runoff was conducted for those portions of the watersheds occupied by the proposed Lone Oak TND. In order to meet NYSDEC regulations concerning water quality volume (WQv), the post-development impervious areas and their associated first flush volumes (initial 1.2" of rainfall) have been calculated. The stormwater management ponds that are proposed will include both a sedimentation forebay and a micro-pool to assist in pollutant uptake. Additionally, each of the ponds has been sized to accommodate a 1-

year storm event (2.8" of rainfall in 24 hours) so as to detain the channel protection volume (Cpv) in a manner which exceeds the 24-hour detention requirements set forth in the NYSDEC regulations.

As depicted on the earlier SEIS Figure No. 4, Overall TND Site Plan, and SEIS Figure No. 5, Layout Plan, a total of six (6) ponds have been located adjacent to the developed areas of the 132-Unit Lone Oak to collect the overall stormwater directed to the pond by gravity, and treat the stormwater prior to discharge to the adjacent wetlands and stream corridor.

The below table summarizes the results of the analysis in terms of the size requirements for each of the ponds:

Lone Oak TND Layout Stormwater Management Pond Sizes			
Pond #	Water Quality Volume (Acre Feet)	Channel Protection Volume (Acre Feet)	Total Pond Volume (Acre Feet)
1	0.209	0.596	0.805
2	0.158	0.459	0.617
3	0.432	0.820	1.252
4	0.371	0.666	1.037
5	0.309	0.826	1.135
6	0.244	0.603	0.847

In consideration of a request by the Town Engineer for a fuller explanation of the design which does not provide for the overall detention of stormwater from the proposed development, the Project Engineer stated as follows in an August 28, 2008, memorandum to the EIS Preparer:

> *"Pursuant to a question raised by Dennis Lindsay concerning the non-detention of the watersheds with respect to the Lone Oak TND project, it should be noted that Subareas R1, R2, R3, R4 and R5 are tributary to the Village of Goshen #2 Reservoir which then releases into the lower watershed of the Otterkill Creek.*
>
> *Village of Goshen #2 Reservoir acts as a large detention basin and captures the true headwaters of the overall watershed and detains the runoff for a delayed release. This makes it advantageous for the areas developed; in particular, Subareas E3.1, E3.2, E3.3, E4.1, E4.2, E4.3*

and E4.4 to directly release their stormwater without detention which results in these stormwater runoffs preceding the upstream release of the reservoir. Previous analysis did show the possibility of detaining these waters and actually resulted in a downstream postdevelopment peak higher than the predevelopment analysis.

Therefore, from a stormwater management viewpoint, the project will both treat the water quality and channel protection quantities, but will release the larger storms without detention due to this 'beat the peak' scenario."

Stream Crossing.

The Land Planner and Project Engineer's efforts to both reduce encroachment on NYSDEC and ACOE delineated wetland and associated NYSDEC wetland buffer areas and provide suitable protection through erosion and sedimentation control and similar measures where encroachments are unavoidable, all as described below under "Wetlands", have coincidentally provided for substantial avoidance and protection of both the Project Site's Otter Kill "Class D" steam corridor which bisects the Project Site as it flows through NYSDEC Wetland GO-41 and the wetland itself.

As earlier noted, construction of a single stream crossing pursuant to ACOE and NYSDEC Wetland Permits and consistent with FEMA requirements administered by the Town of Goshen for work within a 100-year flood plain is required to carry out the development of the Lone Oak TND in accordance with the proposed TND Site Plan.

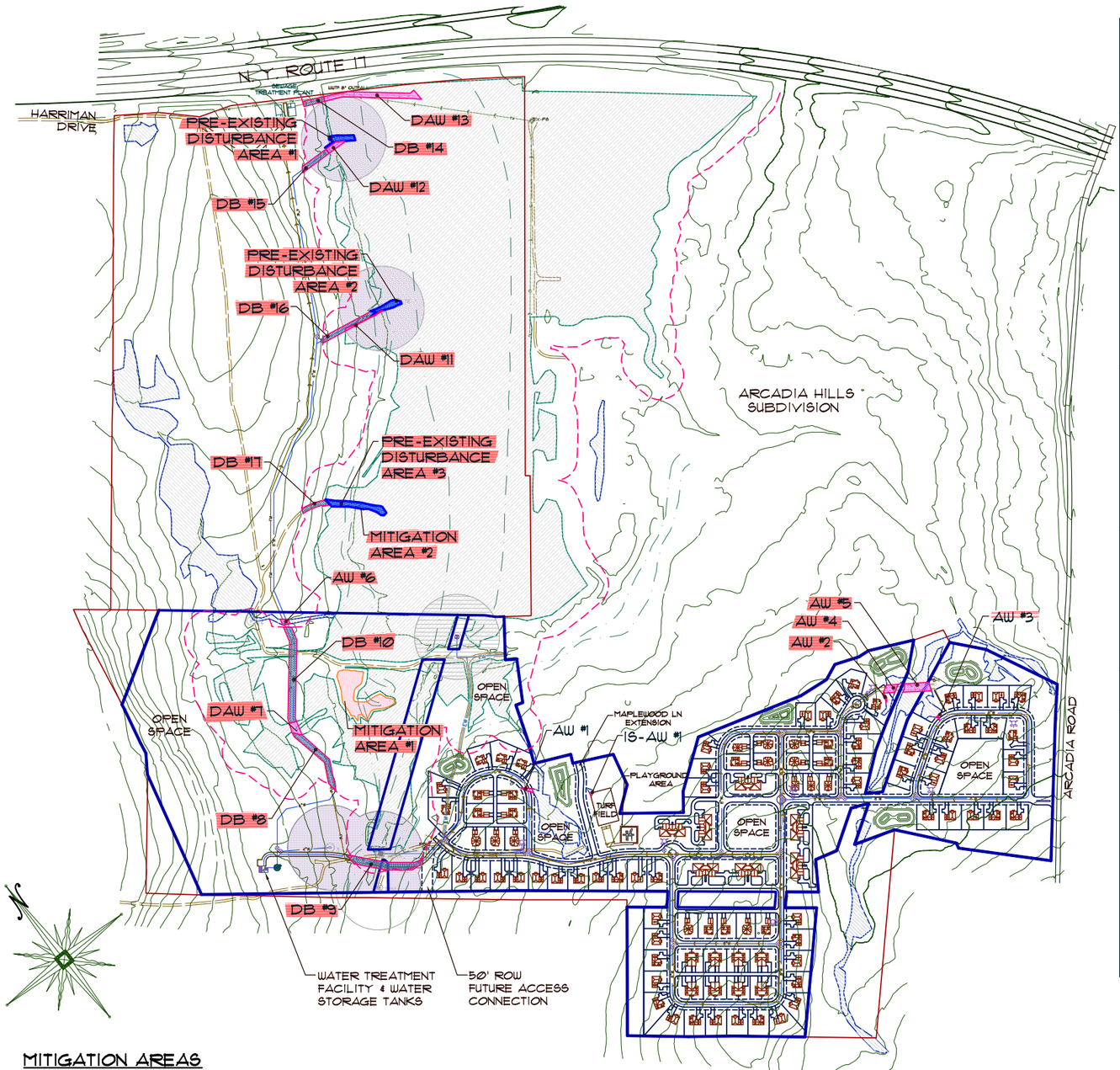
While a "through road" link between Harriman Drive and Arcadia Road will no longer be constructed and the heavy construction associated with the installation of winged headwalls and an open end box culvert approximately 60 feet in length avoided, this stream crossing will remain to permit the routing of water and sanitary sewage utilities within the Project Site and to the extent applicable the adjacent Lands of Fini. Examination of the TND Site Plan clearly demonstrates there to be no practicable alternative to development of this stream crossing.

Work at this location will not adversely affect the hydraulic capability of the Otter Kill to accommodate upstream storm water runoff under a 100-year storm event. Further the extent of total stream bed disturbance will fall substantially below the maximum of 200 lineal feet of disturbance authorized by the ACOE under its program of Nationwide Permits.

- Wetlands.

A substantial reduction in wetland impact has occurred through the substitution of the present Lone Oak 132-Unit TND Site Plan for the earlier Lone Oak Estates 162-Lot Subdivision Plan subject of the Draft EIS.

As depicted on **SEIS Figure No. 16, Wetland Encroachment and Mitigation Plan**, the following new wetland impacts would be caused by the development of the Lone Oak TND:



WETLAND IMPACT SUMMARY TABLE

TYPE OF WETLAND	DISTURBANCE LOCATION	ON-SITE IMPACT			OFF-SITE IMPACT		NWP APPLIED
		PERMANENT		TEMPORARY	PERMANENT	TEMPORARY	
		RESIDENCE	ROAD	UTILITY	UTILITY	UTILITY	
ISOLATED	IS-AW # 1	495±	-	-	-	-	-
ACOE	AW # 1	-	615±	-	-	-	14
	AW # 2	345±	-	-	-	-	29
	AW # 3	-	100±	-	-	-	14
	AW # 4	-	-	1,700±	-	-	12
	AW # 5	-	-	3,800±	-	-	12
	AW # 6	-	-	670±	-	-	12
	TOTAL	345±	715±	6,170±	-	-	-
DEC and ACOE	DAW # 7	-	-	1,530±	-	-	12
	DAW # 11	-	-	-	155±	200±	14 / 12
	DAW # 12	-	-	-	600±	400±	14 / 12
	DAW # 13	-	-	-	1,300±	6,700±	7
	TOTAL	-	-	1,530±	2,055±	7,300±	-
PRE-EXISTING DISTURBANCE	AREA # 1	-	-	-	3,235±	-	14
	AREA # 2	-	-	-	3,363±	-	14
	AREA # 3	-	-	-	7,492±	-	14
	TOTAL	-	-	-	14,090±	-	-
TOTAL ACOE and DEC		345±	715±	7,700±	16,145±	7,300±	-
DEC BUFFER	DB # 8	-	-	9,040±	-	-	12
	DB # 9	-	-	8,900±	-	-	12
	DB # 10	-	-	12,250±	-	-	12
	DB # 14	-	-	-	-	1,800±	12
	DB # 15	-	-	-	1,680±	840±	14 / 12
	DB # 16	-	-	-	3,240±	1,620±	14 / 12
	DB # 17	-	-	-	-	2,400±	14
	TOTAL DEC BUFFER	-	-	30,190±	4,920±	6,660±	-

MITIGATION AREAS

MITIGATION	AREA	
	SQ.FT.	ACRES.
AREA # 1	26,100	0.60±
AREA # 2 (RESTORE PRE-EXISTING DISTURBANCE AREA #3)	5,830	0.13±

DISTURBANCE LEGEND

AW - ACOE WETLANDS AREA

DAW - DEC and ACOE WETLANDS AREA

DB - DEC 100' BUFFER AREA

TOTAL PERMANENT WETLAND IMPACT - 0.395± ACRES

TOTAL PERMANENT WETLAND BUFFER IMPACT -0.11± ACRES

SEIS FIGURE NO. 16

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

WETLAND ENCROACHMENT AND MITIGATION PLAN

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

- "Isolated" Wetland. New wetland disturbance at a single location of 495 square feet (0.011 acre) of "isolated" wetland outside the permit jurisdiction of either the ACOE or NYSDEC.

  This disturbance occurs within the proposed Community Recreation Area near the northwest corner of the turf field.

- ACOE Jurisdictional Wetland. New wetland disturbance at six (6) locations to a total of 7,230 square feet (0.166 acre) of ACOE federal jurisdictional wetland lying outside NYSDEC Wetland GO-41.

  Three (3) are permanent disturbances totaling 1,060 square feet (0.024 acre), one related to residential development and subject to NWP 29, and two involving roadway construction and subject to NWP 14. The remaining three (3) are temporary disturbances totaling 6,170 square feet (0.142 acre) which involve utility installation subject to NWP 12.

- NYSDEC Freshwater Wetland. New permanent wetland disturbance at three (3) locations on the adjacent Lands of Fini to a total of 2,055 square feet (0.047 acre) of NYSDEC Wetland GO-41, which 0.047 acre is coincidentally ACOE jurisdictional wetland, and additional temporary disturbance totaling 8,830 square feet (0.203 acre) at four (4) locations within Wetland GO-41, one within the Project Site and three on the adjacent Lands of Fini.

  There are also seven (7) locations of new encroachment within G0-41's regulated buffer totaling 41,770 square feet (0.959 acre), all to accommodate utility installations.

- Combined ACOE and NYSDEC Freshwater Wetland Disturbance. Total combined new permanent and temporary wetland disturbance of 18,610 square feet (0.427 acre) consisting of 0.250 acre of NYSDEC Wetland, 0.166 acres of other ACOE jurisdictional wetland, and 0.011 acre of "isolated" or non-jurisdictional wetland.

- Breakdown of Permanent and Temporary Disturbance. Of the total combined new ACOE jurisdictional wetland and NYSDEC wetland disturbance of 18,115 square feet, 3,115 square feet (0.072 acre) is permanent disturbance with the remaining 15,000 square feet (0.344 acre) being temporary disturbance.

As further depicted on **SEIS Figure No. 16, Wetland Encroachment and Mitigation Plan**, pre-existing permanent wetland disturbance is present at three (3) locations within NYSDEC Wetland GO-41, all of which are also considered permanent disturbance within ACOE jurisdictional wetland. These pre-existing disturbances total 14,030 square feet, or 0.323 acre.

In consideration of both the new permanent wetland disturbance of 0.072 acre and the pre-existing wetland disturbance the total permanent wetland disturbance within the Project Site and the adjacent Lands of Fini attributable to the Lone Oak TND, including presently-installed (i.e. water supply wells and

associated access roads) and all other proposed infrastructure, is 17,145 square feet, or 0.395 acre. The total permanent ACOE jurisdictional wetland disturbance falls below the 0.5 acre disturbance authorized by the ACOE under its program of Nationwide Permits and is, thus, not subject to requirement for ACOE Individual Permit. A NYSDEC Freshwater Wetland Permit is required.

The combined ACOE jurisdictional and NYSDEC Freshwater Wetland disturbances to 0.395 acre caused by the Lone Oak TND is, thus, limited to 0.61 percent of the 65.22 acres of wetland area found within the Fini Bros.' overall 212.5-acre landholding. The 41,770 square feet (0.979 acre) of combined additional temporary and permanent encroachment caused within the regulated buffer of NYSDEC Wetland GO-41 occupies 4.97 percent of the 19.7 acres of regulated buffer within the combined landholding; permanent encroachment is however proposed on only 4,920 square feet (0.113 acre) or 0.57 percent of the total buffer area owned by the Project Sponsor.

By way of comparison development of the 162-Lot Lone Oak Estates Subdivision subject of the Draft EIS would have caused the following wetland impacts:

- ACOE Wetland, Isolated and Jurisdictional. Permanent disturbance at sixteen (16) locations totaling 71,127 square feet (1.633 acres), being 4.13 times the extent of disturbance to federal wetlands attributable to the Lone Oak TND.

- NYSDEC Freshwater Wetland. Permanent disturbance at seven (7) locations to 32,165 square feet (0.739 acre) of NYSDEC Wetland GO-41 and fifteen (15) locations of encroachment within GO-41's regulated buffer totaling 108,470 square feet (2.491 acres), being 1.99 times the disturbance to NYSDEC Wetland and 2.60 times the NYSDEC regulated buffer encroachment attributable to the Lone Oak TND.

- Combined ACOE and NYSDEC Freshwater Wetland Disturbance. A combined total permanent wetland disturbance of 103,292 square feet (2.371 acres), being 5.55 times the extent of combined disturbance to NYSDEC and federal wetland attributable to the Lone Oak TND.

4.2.3 Mitigation Measures

- **Groundwater.**

As discussed above, development of the Lone Oak TND involves the development of a central water system that will in part derive its water supply from existing bedrock wells drilled on its property by the Project Sponsor in anticipation of intended residential development of the property.

In order to satisfy the applicable design standards promulgated by the New York State Department of Health and the Orange County Health Department for both the sufficiency as to the quantity and the quality of the domestic water supply, the following mitigation measures will be employed:

- With respect to the matter of quality of the available water supply intended to accommodate the 48,020 GPD average daily demand of the Lone Oak TND per the parameters required under NYSDOH Sanitary Code, Part 5, Subpart 5, and for which the results of laboratory analysis were presented in the earlier-referenced Well Completion Report,

  - The trace odor of hydrogen sulfide gas reported in the water supply delivered from Wells 1 and 3 due to the presence of higher than permissible limits of hydrogen sulfide will be removed through chemical oxidation by chlorination, a treatment routinely required for all public water supplies in New York State;

  - The elevated presence of sodium reported in Wells 1, 2 and 3, ranging from 22.7 to 48.7 mg/l, is above the level of 20 mg/l at which notification must be made to NYSDOH but substantially below the maximum acceptable contaminant level for sodium of 270 mg/l.

  In consideration of the above, no further mitigation except as may be integral to routine compliance with the standards applied by the Orange County Health Department in review and approval of a Realty Subdivision Plat under the NYS Public Health Law and the Orange Sanitary Code is required.

- **Surface Waters.**

  As discussed above, development of the Lone Oak Project Site could have had substantial impact on surface waters, including the NYSDEC wetlands, the ACOE wetlands and the Otter Kill stream corridor within and downstream of the Project Site, were it not for the care practiced by the Project Engineer, and more recently the Land Planner and Project Engineer, in first laying out the conventional subdivision plan and now the far more environmentally-sensitive and reduced-scale TND Site Plan by proposing appropriate design and providing opportunity for incorporation of mitigation measures.

  In order to mitigate the remaining direct and unavoidable impact on surface waters that could still be experienced from storm water flow, on-site construction, potential erosion of soil into storm water discharges and resultant deposition of silt and sediment within drainage structures and water courses, and the limited pollutant loading associated with storm water which traverses vehicular ways, the Project Engineer will be detailing during the continuation of the subdivision review and approval process the following:

  - The Erosion and Sedimentation Control Plan discussed earlier in SEIS Subsection 4.1, “Geology, Soils, Topography and Landform”, setting forth the design, location, installation schedule and maintenance procedure for use during the construction period of various accepted erosion and sedimentation control measures, including straw bale dikes, sediment barrier fence, rock filters, open ditches, and rock stabilized construction entrance.

- The Stormwater Pollution Prevention Plan ("SWPPP") required for compliance with the NYSDEC General Permit for Stormwater Discharges from Construction Activities identified in SEIS Section 2.4.1 as one of the elements in the "change in circumstances" causing the Town Planning Board to require preparation of this Supplemental EIS.

  The SWPPP will describe and depict the employ of available Best Management Practices to remove pollutants and protect the adjacent wetland and stream habitats by treating not less than the first 1.2" of post-development storm water runoff from rooftops and paved roadway and driveway surfaces that may be laden with petroleum, heavy metals, sediment, chlorides from salting of roadways and other residue prior to discharge of this runoff to the surface waters, including the wetlands and stream corridors, within the Lone Oak TND.

  The methods which can be employed within the Lone Oak TND are limited both, in particular, to the requirements of the Town of Goshen's road cross section which requires the installation of curbs throughout the TND. This circumstance in turn requires that storm water be collected through a piping system ultimately resulting in a "point source" discharge. The requirement for curbs eliminates from consideration the widespread use of overland grass strips and ditch line rock filters.

  Accordingly, the main systems employed are those appropriate to a single point discharge source. In addition to the extent practicable the main outfalls of the storm sewer system will be discharged into controlled areas where leveling berms will be installed in order to disperse the storm water by sheet flow that will result in additional pollutant uptake due to absorption by the natural vegetation over which the sheet flow will pass.

  The Project Sponsor has further earlier acknowledged at SEIS Subsection 3.6, "Permits, Approvals and Other Compliance Determinations", requirement for each of the following permits, approvals or compliance determinations that will entail among other factors consideration by the agency of jurisdiction of matters related to protection of the Project Site's surface waters:

  - Orange County Health Department Realty Subdivision Plat Approval.

  - NYSDEC Freshwater Wetland Permit.

  - NYSDEC SPDES Permit for Sewage Discharge (in the event construction of an on-site STP remains required).

  - Compliance with NYSDEC SPDES General Permit Requirements for Storm Water Discharges from Construction Activities.

  - Compliance with ACOE Nationwide Permits 7, 12, 14 and 29 for Jurisdictional Wetland Disturbance.

- **Wetlands.**

As indicated by the above comparison of the wetland impacts of the previously proposed Lone Oak Estates Subdivision and the Lone Oak TND, the Project Engineer and Land Planner have made a substantial effort to avoid to the extent practicable impact on wetlands and balance other concerns related to public health and safety while employing the flexibility afforded by the Town's Hamlet Residential (HR) District standards in their overall layout of the Lone Oak TND.

The impacts which remain, as summarized below, are considered by the Project Sponsor to be direct and unavoidable if the Lone Oak TND is to be carried out:

- The total 16,145 square feet, or 0.395 acre, in permanent disturbance (combined pre-existing disturbance and new disturbance) to NYSDEC Wetland GO-41 is necessary to accommodate the location of and maintenance access to water supply wells and the routing of required water and sanitary sewer infrastructure. In addition, all 4,920 square feet, or 0.11 acre, of permanent encroachment within the regulated buffer of Wetland GO-41 is required for this purpose. Four (4) additional temporary disturbances to NYSDEC Wetland GO-41 total an additional 8,830 square feet, or 0.203 acre, and additional temporary regulated buffer encroachments total 36,850 square feet, or 0.846 acre.

- The total additional 1,060 square feet, or 0.024 acre of permanent disturbance to ACOE jurisdictional wetland involves three (3) individual disturbances ranging from 100 square feet to 615 square feet in wetland area for "residence" and "road" improvements, with an additional three (3) temporary disturbances totaling 6,170 square feet required for routing of water and sanitary sewer infrastructure.

While the Draft EIS set forth a three-area On-Site Wetland Mitigation Plan to mitigate in furtherance of "no net loss" policies the 2.371 acres of combined NYSDEC and ACOE wetland disturbance that would have been caused by undertaking the Lone Oak Estates Subdivision Plan, a far less extensive mitigation program would apply to the 0.739 acres of combined NYSDEC and ACOE wetland disturbance attributable to the Lone Oak TND, of which 0.395 acre (17,205 square feet) is "permanent" in duration and 0.344 acre (15,000 square feet) "temporary" in duration.

Accordingly, while the land area depicted on the On-Site Mitigation Plan and discussed in the Draft EIS as Wetland Mitigation Area 3 (0.560 acre) is neither any longer part of the Lone Oak Project Site or controlled by the Project Sponsor, the other Wetland Mitigation Areas, Area 1 (1.277 acres) and Area 2 (1.000 acre), remain under the control of the Project Sponsor and are available for consideration in discussion with the regulatory agencies as wetland mitigation area for the wetland impacts caused by the Lone Oak TND.

A portion of prior Area 2 is now depicted on earlier-cited **SEIS Figure No. 16, Wetland Encroachment and Mitigation Plan**, as 26,100 square feet, or 0.60 acre, Mitigation Area #1. Proposed mitigation at this location involves the creation of new

wetland area substantially surrounded by and within the regulated buffer of Wetland GO-41. While detailed plans have not yet been prepared for this new wetland area, the below description of the anticipated work at this location was presented in the Draft EIS:

> "… *creation of this wetland area at finished grade 409.5 ASL will require excavation ranging from approximately 2 to 5 feet in depth and include the removal of an existing dirt roadway remaining from prior subdivision activity … the work here would also include the deposition of a 6" layer of organic wetland substrate, the introduction of wetland plantings and the timely employ of appropriate erosion and sediment control measures."*

In addition to the above creation of 0.60 acre of new wetland, **SEIS Figure 16, Wetland Encroachment and Mitigation Plan**, depicts proposed Mitigation Area #2 which involves the restoration of 5,830 square feet, or 0.13 acre, of Wetland GO-41 where pre-existing disturbance occurred at the time of installation of potential water supply wells on the Fini lands. In this instance, the fill material deposited within the wetland would be removed, the area's hydrology restored, and appropriate wetland plantings introduced.

In order to limit additional future encroachments within any of the Project Site's jurisdictional wetland areas the Project Sponsor proposes each of the following additional mitigation measures be considered:

- As discussed in SEIS Subsections 3.5.2 and 3.6, the Town Board will be requested to accept ownership of Wetland Conservation Parcels, as platted during the continuing subdivision review and approval process, thereby complementing the Town of Goshen's ownership of adjacent TMP 25-6-26.1 and 25-6-26.2, the approximately 17.4-acre remainder of NYSDEC Wetland GO-41, which presumably was acquired during the Town's consideration of the Arcadia Hills Subdivision. Should the Town Board not be so inclined, the Project Sponsor will instead seek out and transfer the Wetland Conservation Parcels to a qualified conservation organization.

- As further discussed in SEIS Subsections 3.5.3 and 3.6, and in part as a complement to the transfer of the Wetland Conservation Parcels, the Project Sponsor will prior to the land transfer grant to either the Town of Goshen or a qualified conservation organization a Wetland Conservation Easement affecting both the above parcels and all other ACOE and/or NYSDEC jurisdictional wetland area, not to be interpreted to include either federal "isolated" wetland or the NYSDEC regulatory wetland buffer, within the Lone Oak TND.

  The Wetland Conservation Easement will, thus, apply to all ACOE jurisdictional and NYSDEC wetland within Lone Oak TND upon completion of the Project, consisting both of the ACOE wetland conserved upon completion of the TND in accordance with Town Planning Board and ACOE-approved plans and permit requirements, the NYSDEC wetland conserved upon completion of the TND in

accordance with Town Planning Board and NYSDEC-approved plans and permit requirements, and the additional NYSDEC wetland created under whatever On-Site Wetland Mitigation Plan is approved by the regulatory agencies.

The effect of such Wetland Conservation Easement would be to restrict any further encroachment upon either the ACOE jurisdictional or NYSDEC wetland within the Lone Oak TND except as may be specifically provided for under the terms of the wetland conservation easement.

As noted in SEIS Subsection 3.5.3, specific reference to the aforementioned wetland conservation easement will be both conspicuously noted on the Final Subdivision Plat(s) and, to the limited extent such may be applicable, within the deed to both any affected lots within Lone Oak TND and the Homeowners Association documents.

Implementation of the earlier described Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan, each of which is intended to protect and the quality of the Project Site's water resources, including its streams and wetland areas, will further mitigate any potential wetland impact caused by the development of the Lone Oak TND.

In summary and in consideration of July 31, 2008, comment by Hickory Creek Consulting, LLC, the Project Ecologist, North Country Ecological Services, has opined in an October 21, 2008, communication to the EIS Preparer the following concerning the direct or indirect impacts, either temporary or permanent, that might be caused by the development of the Lone Oak TND including the management and treatment of its stormwater runoff:

"The development of the site has been designed in a manner that meets Phase II stormwater management regulations and requirements regarding stormwater quantity and quality. All of the stormwater generated from impervious structures on the site will be collected and detained within catch basins and transported to detention basins for treatment, prior to being re-directed into wetlands. Additionally, the roof top runoff generated by the proposed development will be collected and discharged into detention basins to provide treatment of the runoff prior to discharge in natural water courses/wetlands. The outfalls of the detention basins are located will not result in any direct or indirect disturbances to the wetlands or stream channels. Due to the standards employed to treat runoff, no increased nutrient/sediment loading upon the existing wetlands and streams is anticipated to occur.

The wetlands that are found up-gradient of the development receives its hydrology primarily from the watershed that is found to the west, south and east. Development scenarios that alter large tracts of a watershed that leads to a particular aquatic resource can have a negative impact on the resources water quality and the established vegetative composition of a wetland. Because of the implementation of the 100' buffer area that surrounds the wetland, runoff into the adjacent wetlands will not be altered and will not have a negative adverse impact

on the water quality, the quantity that enters this portion of the wetland or the vegetative composition or structure within the wetland.

Any subsequent developments that are proposed upstream and/or upgradient of the project will also be subject to the requirements of SPDES GP#0-08-001 thereby requiring such projects to provide adequate stormwater quality and quantity mitigation, reports, and designs. The goal of the SPDES GP#0-08-001 is to reduce the impacts associated with stormwater runoff due to increased development in regards to stormwater quality and quantity in order to reduce the direct impacts of sediment and nutrient loading.

The on-site wetlands are primarily surface water influenced and receive much of their hydrology from precipitation and runoff from the surrounding uplands. The development of the property will not influence or impede upon the natural flow of the streams as they extends outside and beyond the area of development. Adequately sized arched culverts and several smaller sized arched culverts are proposed at the road crossing to allow the unimpeded flow of water through the site during normal and also high flow events. The culverts will facilitate the movement of aquatic mammals, reptiles and amphibians under rather than over the roads. Wildlife crossing tunnels have proven to be extremely effective in reducing vehicle/wildlife incidents. Natural surface water runoff from forested areas that are found on the property, but outside of the proposed development area, will continue to dispense water, at predevelopment levels into the adjacent wetlands.

Adequate buffers have been implemented between the proposed development and the wetlands to insure that the vegetative characteristics of the wetland are unaltered and provide the same functions and benefits to wildlife and water quality post-development. The buffer will provide water retention and detention functions, sediment filtration, water velocity dampening and wildlife habitat. These buffers are comprised of semi-mature deciduous forested uplands and scrub fields, thus providing natural habitat and providing a travel corridor for the species of wildlife that inhabit and utilize this site, and the adjacent properties.

Other than the proposed road crossings, which are required to gain access through the property, no wetlands are to be directly or indirectly impacted by the development or the management and treatment of the stormwater runoff."

SEIS Subsection 4.3
Terrestrial Ecology

SEIS Subsection 4.3 provides a general discussion of the various types of vegetation and wildlife either observed by Mr. Stephen George and other ecologists associated with his consulting firm, North Country Ecological Services (NCES), during its multiple field visits to the former 226.7-acre Lone Oak Project Site, as specifically cited at Page 113 of

the Draft EIS, or anticipated to be found on said Project Site based upon their experience both locally and in similar environmental settings.

The observations were first made concurrently by NCES as it transected the entire property to delineate all on-site wetlands, including in particular characterization of its vegetative communities as to the presence of hydrophytic wetland vegetation or upland vegetation, and then confirmed through additional field visits.

While the discussion here closely tracks the Draft EIS it has been modified in this Supplemental EIS to account for variation in the probable effects on this terrestrial ecology associated with the now-proposed Lone Oak TND and as necessary to address the reduced acreage of the present Project Site and increased emphasis by regulatory agencies on study of project sites for the presence of certain endangered and/or threatened wildlife species, including but not limited to the Bog turtle (*Clemmys muhlenbergii*) and the Indiana bat (*Myotis sodalist*).

The additional work undertaken as part of the Supplemental EIS included further field work by North Country Ecological Services personnel in October 2007 and resulted in the issuance of a complementary November 2007 report entitled **Endangered & Threatened Species Report, Lands of Fini Brothers, Inc. - Lone Oak TND**, a copy of which is presented in its entirety as **SEIS Appendix E**. Upon receipt of a copy of the said report by the Lead Agency related comments were offered by its environmental consultant, Hickory Creek Consulting, LLC; NCES has recited and responded to these comments in the earlier-cited January 22, 2008, letter found at **SEIS Exhibit 8**.

4.3.1 Existing Setting

- **Vegetation.**

  The former 227.6-acre Project Site was upon field survey by North Country Ecological Services determined to consist of the following general vegetative communities, or cover types, as depicted on DEIS Figure 18, Vegetative Cover Type Map, brought forward for reference within **SEIS Appendix A:**

  - Palustrine emergent, scrub/shrub and forested wetland communities within the overall wetland areas delineated by NCES, survey mapped by T.M. DePuy Engineering and Land Surveying, confirmed by ACOE and described in DEIS Subsection 3.2 as consisting of 69.3 acres.

  - Successional fields including areas transitioning to shrub thicket and brush land areas, consisting of 84.3 acres.

  - Forested upland areas of less than 100 year maturity, consisting of 73.0 acres.

North Country Ecological Services personnel observed on the Project Site the following principal plant species within these vegetative communities:

- Dominant vegetation or cover type observed within the Palustrine emergent wetlands included purple loosestrife (*Lythrum salicaria*), cattail (*Typha latifolia*), soft rush (*Juncus effuses*), redtop (*Agrostis alba*), swamp milkweed (*Asclepias incarnata*), New England aster (*Aster novae-angliae*), bidens (*Bidens tripartite*), marsh marigold (*Caltha palustris*), graceful sedge (*Carex gracillima*), lakebank sege (*Carex lacustris*), scoparia (*Carex scoparia*), tussock sedge (*Carex stricta*), foxtail sedge (*Carex vulpinoidea*), chufa (*Cyperus escuientus*), cotton grass (*Eriphorum virginicum*), northern willow herb (*Epilobium glandulosum*), boneset (*Eupatorium perfoliatum*), fowl meadow grass (*Glyceria striata*), blue flag (*Iris versicolor*), common reed (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*), arrow-leaved tearthumb (*Polygonum sagittatum*), late goldenrod (*Solidago gigantean*), rough-stemmed goldenrod (*Solidago rugosa*), slender goldenrod (*Solidago tenuifolia*), blue vervain (*Verbena hastata*), cinnamon fern (*Osmunda cinnamomea*), New York fern (*Thelypteris noveboracensis*), and sensitive fern (*Onoclea sensibilis*).

- Dominant vegetation in the Palustrine scrub/shrub wetlands included gray dogwood (*Cornus racemosa*), Silky dogwood (*Cornus amomum*), speckled alder (*Alnus rugosa*), red-osier dogwood (*Cornus stolonifera*), witch hazel (*Hamamelis virginiana*), wild red raspberry (*Rubus idaeus*), honeysuckle (*Lonicera spp.),* black willow (*Salix nigra*), winterberry (*Ilex verticulata*), shining willow (*Salix lucida*), arrow-wood (*Viburnum recognitum*), highbush cranberry (*Viburnum tribolum*), meadowsweet (*Spirea latifolia*), steeplebush (*Spirea tomentosa*), common elderberry (*Sambucus Canadensis*), and nannyberry (*Viburnum lentago*). Also included in the scrub/shrub wetland are sapling caliper pin oak (*Quercus palustris*), American elm (*Ulmus americana*), red maple (*Acer rubrum*), and a variety of herbaceous species.

- Dominant vegetation in the Palustrine forested wetlands included red maple, American elm, gray birch (*Betula populifolia*), green ash (*Fraxinus pennsylvanica*), American hornbeam (*Carpinus caroliniana*), pin oak, shadbush (*Amelanchier arborea*), swamp white oak (*Quercus bicolor*), and cottonwood (*Populus deltoides*). Vegetation in the understory included species such as witch hazel, jewelweed (*Impatiens capensus*), royal fern (*Osmundu cinnamonea*), moneywort (*Lysimachia nummularia*), enchanters Nightshade (*Circaea quadrisulcata*), tussock sedge, and winterberry.

- Dominant vegetation in the successional fields included spotted knapweed (*Centaurea maculosa*), Canada thistle (*Cirsium arvense*), wild carrot (*Daucus carota*), Canada goldenrod (*Solidago Canadensis*), early goldenrod (*Solidago juncea*), fox grape (*Vitis labrusca*), quack grass (*Agropyron repens*), common ragweed (*Ambrosia artemisiifolia*), common milkweed (*Asclepias incarnata*), common burdock (*Arctium minus*), wild mustard (*Brasica spp*.), orchard grass (*Dactylis glomerata*), chickory (*Chichorium intybus*), daisy (*Chrysanthemum leucanthemum*), grasses (*Graminae*), birdsfoot trefoil (*Lotus corniculatus*), evening primrose (*Oenothera biennis*), timothy grass (*Phleum pratense*), buttercup (*Ranunculus spp*.), black-eyed susan (*Rudbeckia hirta*), bristly foxtail

(*Setaria faberii*), rough-stemmed goldenrod, clovers (*Trifolium spp*.). muillein (*Verbascum thappsus*), common blue violet (Viola sororia), Virginia creeper (*Partenocissus quinquefolia*), poison ivy (*Rhus radicans*), Blackberry (*Rubus alleghiensis*), hawthorn (*Crataegus spp*.), and red cedar (*Juniperus virginiana*).

- Dominant species observed in the forested uplands included shagbark hickory (*Carya ovata*), white ash (*Fraxinus americana*), black cherry (*Prunus seritona*), quaking aspen (*Populus tremuloides*), common buckthorn *(Rhamnus carthartica*), sugar maple (*Acer saccharum*), white pine (*Pinus strobus*), apple (*Malus spp*.), box elder (*Acer negundo*), gray birch, northern red oak (*Quercus rubra*), Virginia creeper, Christmas fern (*polystichum agrostichoides*), staghorn sumac (*Rhus typhina*), black locust (*Robinia pseudoacacia*), and eastern hemlock (*Tsuga candensis*).

- **Wildlife.**

The vegetative communities provide habitat for a variety of wildlife either observed while transecting the Project Site and during other field visits by North Country Ecological Services personnel or other members of the Project Team or expected to reside there based upon the location and its environmental characteristics.

White-tailed deer (Odocoileus virginianus) grazing within successional fields and sheltered by either forested upland or wetland habitat are encountered as are smaller mammals typical of both rural and suburban environments such as meadow vole (Microtus pennsylvanicus), deer mouse (Peromyscus spp.), woodchuck (Marmota monax), Eastern cottontail rabbit (Sylvilagus floridanus), Eastern gray squirrel (Sciurus carolinensis), Eastern chipmunk (Tamias striata), skunk (Mephitis mephitis), raccoon (Procyon lotor), Eastern coyote (Canis latrans), red fox (Vulpes vulpes), gray fox (Urocyon cinereoargenteus) and opossum (Didelphis Virginia within these upland areas of the Project Site.

The successional field, wetland and forested upland areas also provide habitat for a variety of common bird species, both game and passerine, including but not limited to ring-necked pheasant, ruffed grouse, and a number of varieties of field sparrows, goldfinch, flycatchers, meadowlark, gray catbird, blue-winged and prairie warblers, and northern cardinal.

The substantial wetland areas support a variety of small amphibians such as Dusky salamander (*Desmognathus fuscus*), Spring salamander (*Gyrinophilus porphyriticus*), Eastern newt (*Notophthalmus viridencens*), Red-backed salamander (*Plethodon cinerus*), American toad (*Bufo americanus*), Wood frog (*Rana sylvatica*), Pickerel frog (*Rana palustris*), Northern leopard frog (*Rana pipiens*), Green frog (*Rana clamitans*), Gray tree frog (*Hyla versicolor*), and Spring peeper (*Hyla cricifer*). In addition, small reptiles including Garter snake (*Thamnophis sirtalis*), Milk snake (*Lampropeltis triangulum*), Painted turtle (*Chrysemys picta*), eastern box turtle (*Terrapene carolina*) and Snapping turtle (*Chlydra serpentina*) and mammals such as Muskrat (*Ondatra zibethicus*) were either observed or are expected to reside there.

None of the flora, fauna or wildlife species observed on the Project Site during these observations was identified to be a threatened or endangered species. Furthermore, examination of both the Significant Habitat Program and Natural Heritage Program files maintained by the NYSDEC Wildlife Resources Center and other files maintained by the NYSDEC Regional Office which were consulted during preparation of the Draft EIS identified no known presence of any such threatened or endangered species within the Project Site or in its immediate environs.

See earlier DEIS Exhibits 21A and 21B.

The above notwithstanding, the Project Sponsor is aware of the increased emphasis in recent years afforded the Bog turtle (*Clemmys muhlenbergii*) and the Indiana bat (*Myotis* sodalist) in project reviews by the NYSDEC, the ACOE and the U.S. Fish & Wildlife Service (USFWS) throughout the Hudson Valley Region The former is a federally-listed threatened species and State-listed endangered species with known occurrence within approximately 10 miles of the Project Site and the latter is a federally-listed and State-listed endangered species with known hibernacula within the Region.

In consideration of this circumstance, the Lone Oak Project Team has re-visited the field observations reported in the Draft EIS and taken note of the following during preparation of this Supplemental EIS:

- The presence of emergent wetland known to be a potential habitat for Bog turtle has been indicated by NCES on 16.1 acres of the former Lone Oak Project Site and by Esposito & Associates (in combination with scrub / shrub wetland which was separately categorized by NCES) on 5.3 acres of the present 103.42-acre Project Site. Although there are smaller pockets indicated elsewhere on the combined Lands of Fini, the vast majority of the emergent wetland lies within the northeasterly portion of the former Project Site (within the easterly portion of TMP 11-1-58) where no construction-related disturbance is proposed.

- While there are no caves or mines on the Lone Oak Project Site that could serve as additional hibernacula for the Indiana bat, there is present at least one tree species known to be a potential summer roosting habitat of the Indiana bat; Shagbark hickory *(Carya ovata)* has been identified among the dominant vegetation occurring within the forested uplands of the Project Site.

Comments on vegetation and wildlife with respect to both the above “existing setting” and later “anticipated impacts”, as developed on behalf of the Lead Agency by Hickory Creek Consulting, LLC, in a memorandum dated December 19, 2007, have been addressed by the Project Ecologist both to the extent pertinent to the EIS scoping document. A point-by-point presentation of the comments offered and related response occurs in a letter of January 22, 2008, from North Country Ecological Services to the Project Land Planner.

A copy is provided here as previously-cited **SEIS Exhibit No. 8** and addresses, among other matters and as set forth below, the recently-released Southern Wallkill Biodiversity

Plan, the New York State Comprehensive Wildlife Strategy, and the Lead Agency consultant's call for more detailed breeding bird, reptile and amphibian surveys.

- **Southern Wallkill Biodiversity Plan and New York State Comprehensive Wildlife Strategy Plan.**

  NCES has reviewed recently released information regarding species of conservation concern (i.e. rare/sensitive species) obtained from the Southern Wallkill Biodiversity Plan and the New York State Comprehensive Wildlife Strategy Plan

  Based upon review of the Southern Wallkill Biodiversity Plan, NCES has identified the Project Site to be located within a significant biodiversity area (Otter Creek). Additionally, two species identified by the Biodiversity Plan as "development sensitive" coincide with what was observed by NCES. These species include wood frog (*Rana sylvatica*) and field sparrow (*Spizella pusilla*). While these species are "sensitive" to development, populations are in stable conditions with which the proposed development will not have any significant effect. Based upon the review of the Comprehensive Wildlife Strategy Plan, it has been determined that only one species recognized by the NYSDEC as a species of greatest conservation need coincides with those observed by NCES on the Project Site. This species is the ruffed grouse (*Bonasa umbellus*). The wood frog, field sparrow and ruffed grouse are all very common species throughout New York State. Additionally, the ruffed grouse is categorized as an upland game bird and can be hunted during appropriate seasons.

  Due to the time of year when the latest field review was conducted, species of flora and fauna that may be abundant or readily observed during the spring or summer could not be observed and identified. During the autumn, most resident songbirds have already migrated and reptiles, amphibians and some mammals have become dormant and/or nocturnal. As a result, there may be other species that could be found on the site that may coincide with the pertinent species lists that are provided within the Biodiversity Plan and/or the Comprehensive Wildlife Strategy Plan.

- **Breeding Bird Survey.**

  Hickory Creek Consulting observed that several birds of concern including NYS listed Special Concern Species are known to be found in habitats similar to those found onsite, and have been documented in neighboring towns and that a breeding bird survey should be conducted.

  In response NCES has consulted the DEC *New York State Breeding Bird Atlas* for known information relative to populations of breeding birds on or within the immediate vicinity of the Project Site. The Breeding Bird Atlas segregates each individual County into designated blocks and provides information relative to the bird species found within the block. The bird species that have been identified as existing within the block are then separated into three categories to record breeding behavior. These categories are Possible (PO), Probable (PR) and Confirmed (CO).

The Project Site is located within Block 5558C, in the Town of Goshen, Orange County, New York. According to the Breeding Bird Atlas, there are a total of 75 bird species that exhibit breeding characteristics in Block 5558C. Of these species, 9 are categorized as "possible", 38 are categorized as "probable" and 28 species are "confirmed" breeding species. When cross-referenced with the NYS Natural Heritage *2007 Rare Animal Status List* (both active and watch lists), only 3 species are found on both lists. These species include Great Blue Heron (*Ardea herodias*), Coopers Hawk (*Accipiter cooperii*) and Cerulean Warbler (*Dendroica cerulea*). According to the Breeding Bird Atlas, these species were observed within breeding habitat though breeding itself was not documented.

No Great Blue Heron nests or rookeries were found on the Project Site during field review. Herons typically nest in tall trees and are communal nesters. Potential breeding and foraging habitat is present on the Project Site; however, it is limited to the central portions of the DEC wetland complex found in the northeast corner of the property since the majority of the wetland is emergent. This area will not be directly impacted by the development.

No Coopers Hawk or other bird-of-prey nests were identified during field review. Coopers Hawks typically nest in upland forests in upright crotches (near the trunk) of large, live trees. During the review, only songbird nests and leaf nests (squirrels) were observed at these locations.

The Cerulean Warbler nests in the canopy of large deciduous trees located in wooded swamps, stream bottoms and/or along lake/river shores. The majority of the forested areas found within and immediately adjacent to the wetland areas will be preserved and not directly impacted by the development. Therefore, potential breeding and nesting habitat will remain that could be used by potential populations of Cerulean Warblers.

As a result of this information, it has been concluded by NCES that a more comprehensive breeding bird survey is not warranted.

- **Reptile and Amphibian Surveys.**

Hickory Creek Consulting further observed the extensive wetlands on-site and recommended a reptile and amphibian survey be conducted during the appropriate seasons.

NCES responded by reviewing the information contained within the DEC *Amphibian and Reptile Atlas* regarding information on known occurrences of amphibian and reptile species within Orange County, New York. When cross-referenced with the NYS Natural Heritage *2007 Rare Animal Status List* (both active and watch lists), only 8 species of amphibians/reptiles are found on both lists. These species include, Northern Cricket Frog (*Acris crepitans*), Southern Leopard Frog (*Rana sphenocephala*), Longtail Salamander (*Eurycea longicauda*), Timber Rattlesnake (*Crotalus horridus*), Northern Copperhead (*Agkistrodon contortrix*), Spotted Turtle (*Clemmys guttata*), Wood Turtle (*Glyptemys insculpta*) and the Eastern Box Turtle (*Terrapene carolina*).

The only potential habitat suitable for the listed amphibian species would be within the central most portion of the DEC wetland complex and immediately adjacent to the Otter Kill. These areas possess an adequate water source that is required for amphibian breeding. In addition, this is the only area that would provide habitats that could be utilized by Spotted and/or Wood Turtles. All of the other wetlands found on the site do not possess any permanent water sources and are subject to drought-like conditions, pending amounts of precipitation received during summer months. None of the potential habitat is to be directly impacted by the project.

The property does not possess preferred habitat for Timber Rattlesnakes and/or Northern Copperheads. Timber Rattlesnakes are generally located in deciduous upland forests, in rugged terrain, and most are associated with rock outcrops, steep ledges and talus slopes. Typically, Northern Copperheads use rock outcrops or rocky areas with talus slopes for cover, feeding and for over-wintering. Over-wintering and basking areas are usually located where the snakes can receive maximum sunlight exposure. No talus slopes or rock outcrops were identified that could be utilized by Timber Rattlesnakes or Copperheads as basking sites. No caves or large fissures/crevasses were identified during field review that could be utilized as potential hibernacula.

Eastern Box Turtles occupy a range of habitats but are mainly terrestrial in nature. They are typically associated with semi-moist deciduous forested uplands that contain a dense understory. They can also be found in wooded swamps and grassy fields. As a result, it has been determined that the property does possess habitats that are conducive to the existence of Box Turtles. However, no box turtles were identified during the review.

In light of this information, NCES has determined that a detailed amphibian and reptile survey in not required.

4.3.2 Anticipated Impacts

Development of the Lone Oak TND will require ground disturbance, grading and the associated direct and unavoidable removal of most of the existing vegetation cover and wildlife habitat on approximately 45.20 acres, or 43.7 percent, of the 103.42-acre Project Site. This extent of disturbance is some 72 acres, or more than 60 percent, less than the 117 acres calculated in the Draft EIS for the Lone Oak Estates 162-Lot Subdivision.

For the reasons set forth below this loss of vegetative cover is in the opinion of the Lone Oak Project Team neither of significant adverse environmental effect inherently or in its role as wildlife habitat.

- Lands that will be substantially cleared and grubbed to permit the construction and/or installation of the principal subdivision improvements, including but not limited to the internal subdivision roadways, the stormwater management facilities, the central water and sanitary sewage systems, the individual house lots and other dwelling sites, and the recreation facilities and other community amenities are predominantly located within the moderately-sloping field, meadow and brush, and secondary

forested areas of the Project Site. Vegetation observed or otherwise known or anticipated to occur here is typical of abandoned or underutilized farm properties. The vegetation includes neither protected nor endangered species.

As stated above in Subsection 4.3.1, it is understood however that certain of the vegetation within the forested upland areas could potentially serve as summer roosting habitat for the Indiana bat. The Project Sponsor proposes appropriate mitigation, as discussed in below Subsection 4.3.3, to address this possibility during the construction period and anticipates requirement this mitigation measure be carried out will be a condition of the Planning Board's approval of the Final Subdivision Plat(s) for the Lone Oak TND and likely also a condition imposed by the NYSDEC and/or the ACOE.

- The substantial areas that are covered with wetland vegetation will not be subject to widespread loss of existing vegetation due to the substantial avoidance of these areas, as earlier discussed. These areas likewise host no observed or known protected or endangered species but are of significance in establishing the overall character and ecosystem of the Project Site.

  As stated above in Subsection 4.3.1, it is understood that the emergent wetland areas could be suitable habitat to support the Bog turtle. The Project Sponsor thus authorized additional study by the Project Ecologist to both assess the quality of the emergent wetland habitat that would be affected directly or indirectly by the development of the Lone Oak TND and observe whether any Bog turtles might be present there.

  As discussed in the aforementioned **Endangered & Threatened Species Report** set forth as **SEIS Appendix E** neither the presence of Bog turtles nor the presence of suitable habitat for Bog turtles were observed within the Lone Oak Project Site or the adjacent Lands of Fini. Likewise, none of the other endangered species considered in recognition of NYSDEC and USFWS concerns, including the Bald Eagle, Shortnose and Atlantic Sturgeon, and Dwarf Wedge Mussel, were observed.

- As in the case of vegetation, the small mammals, birds and other wildlife observed or otherwise known or anticipated present is typical of adjacent land area and the region in general. Due to the amount of vegetation that will be retained, including some of the secondary forest and hedgerows and the extensive wetland habitats, and in consideration of the complementary vegetation that will be planted as individual house lots, other dwelling sites and open areas within the TND are landscaped and mature, it is not anticipated that these species will be substantially displaced from the Project Site.

  Furthermore, it is not anticipated that the most visible species, the local white-tailed deer population, will be greatly affected by the development of the Lone Oak TND. The deer observed were principally within the low-lying wetland areas of the Project Site, more than 99 percent of which will be preserved, and on the Lands of Fini to the northwest and within the extensive brush lands (generally the Serderavic property) to the south and further to the west.

  To the extent that the White tail deer population remains in place, it is likely to be considered a nuisance by some of the avid gardeners and landscapers residing within the TND, as it currently is by some residents in the Arcadia Hills Subdivision,

and to the extent the deer population is displaced it will no doubt be considered a nuisance by farmers and other large tract owners within the vicinity who may find additional deer have migrated to their properties.

4.3.3 Mitigation Measures

No mitigation with respect to terrestrial ecology was proposed in the Draft EIS. In consideration of the above discussion of evolving concerns, the following mitigation measures are however proposed in this Supplemental EIS:

- While no Indiana bats have been observed on the Project Site, the proposed TND Site Plan depicts loss of some 22.29 acres, or 43.1 percent, of the 51.7 acres of upland forested area within the TND Project Site where Shagbark hickory and other potential summer roost trees are present.

  In order to address this circumstance and avoid impact on any Indiana bat that might be present in its summer roost, all clear cutting or other substantial tree removal on the TND Project Site will be conducted between October 1 of one calendar year and March 31 of the next, a period of time within which Indiana bats return to and reside within their winter hibernacula and are not in trees.

SEIS Subsection 4.4
Agricultural Resources

The DEIS Scoping Document specifically called for an examination of the effect of development the Lone Oak Estates Subdivision on the agricultural resources of the Project Site and its environs.

4.4.1 Existing Setting

Refer to **Soils Map, SEIS Figure No. 14**.

The northwesterly portion of the former Project Site, being TMP 11-1-58 and previously zoned Agricultural-Residential (AR-1.0), is understood to have been located within Orange County Agricultural District No. 2 as were adjacent parcels to the south and southeast including the Lands of Serdarevic and Ellman. This Certified Agricultural District was established by the Orange County Legislature in 1972 pursuant to the NYS Agricultural and Markets and believed to be last recertified in 1996 consistent with the 8-year review cycle set forth therein.

Approximately 25 to 30 acres within this portion of the former Project Site have been either tilled as cornfield or maintained and mowed as hayfield by local farmers on a lease basis, most recently by Gary Vanderweert for the growing of barley. As previously indicated within the Draft EIS, availability of the Fini Bros. land is, however, not considered to be essential to the sustenance of the farm operation.

None of the soils found within the former Project Site are rated "Class I prime agricultural soils" for agricultural production though approximately 63 acres of lesser "Class II" and "Class III" agricultural soils that are characterized as "important" by the former Town Master Plan are present. The remainder of the former Project Site is considered undesirable for agriculture for a variety of conditions, including wetness, stoniness and moderate to steep topography.

The below data regarding the agricultural productivity associated with these 63 acres is further presented based upon information provided by the USDA to define the magnitude of the loss of this agricultural land:

- The 6.8 acres of Class II MdB soil might yield 612 bushels of corn, 37.4 tons of alfalfa hay, 27.2 tons of grass-legume hay or 23.8 tons of grass hay annually.

- The 5.1 acres of Class III BnB soil might yield 510 bushels of corn, 30.6 tons of alfalfa hay, 20.4 tons of grass-legume hay or 10.2 tons of grass hay annually.

- The combined 51.2 acres of Class III ErA and ErB soil might yield 6,144 bushels of corn, 179.2 tons of grass-legume hay or 128 tons of grass hay annually.

Additionally, to the extent such may have been available, it is noted that the Project Sponsor since acquisition of the Project Site some 20 years ago has neither sought nor received a reduced agricultural land value assessment and is, therefore, not subject to the "rollback" provisions established under the Agriculture and Markets Law.

Moreover, the 103.42 acres within the present Project Site has neither been farmed in recent years nor has it ever been included within a Certified Agricultural District. In addition, while the USDA Soils Map indicates some 38.3 acres of its 103.42 acres are characterized by either "Class II" (MdB) or "Class III" (ErA or ErB) agricultural soils, the soils mapping pre-dates the substantial disturbance through excavation, fill and grading which occurred of these lands more than 30 years ago prior to a developer's abandonment of Sections C and D of the Arcadia Hills Subdivision.

By way of information, these 38.3 acres of Class II or Class III agricultural soils, were the soils actually still present as mapped, would however commensurately have the below agricultural productivity:

- The 6.2 acres of Class II MdB soil might yield 558 bushels of corn, 34.1 tons of alfalfa hay, 24.8 tons of grass-legume hay or 21.7 tons of grass hay annually.

- The combined 32.1 acres of Class III ErA and ErB soil might yield 3,852 bushels of corn, 112.4 tons of grass-legume hay or 80 tons of grass hay annually.

As noted later in Subsection 4.6, the Town of Goshen has further identified the Project Site through the community's Master Plan and Zoning Law as an appropriate location for "Hamlet Residential" development. The Master Plan does not indicate preference for "Agricultural Use" of the Project Site.

4.4.2 Anticipated Impacts

The Lone Oak TND affects a combined 38.3 acres of the combined 63.1 acres of "Class II" and "Class III" agricultural soil identified in the Draft EIS and would likewise convert these lands to residential use. These agricultural soils are not present in substantial concentration but are instead dispersed throughout the proposed TND and, as noted earlier in this SEIS, have been substantially disturbed by grading, fill and other excavation work undertaken nearly 40 years ago in the initiation of development of Arcadia Hills Subdivision Sections C and D.

In consideration of the above, neither significant impact on either agricultural production or the viability of existing farm operations nor the loss of "Class I" agricultural soils will occur as the vacant lands within the Project Site are converted to the Lone Oak TND.

Nonetheless, the provisions of Section 283 of the Town Law regarding certain notice requirements associated with the approval of non-agricultural uses within certified agricultural districts and various related provisions of the Agricultural and Markets Law may be pertinent to the consideration by the Planning Board and other involved agencies of the proposed residential development should it be determined that any adjacent lands were continued within Agricultural District No. 2 as part of a post-2004 re-certification.

More specifically, if such is the case the following actions must be taken:

- The Project Sponsor is required pursuant to Section 305-a (2) of the Agriculture and Markets Law and Section 283 of the Town Law to file an Agricultural Data Statement with the Planning Board as a complement to the Application for Subdivision Plat Approval and to provide a copy thereof to the owner of any farm operation located within a Certified Agricultural District and within 500 feet of any portion of the Project Site.

- Section 305(4) of the Agriculture and Markets Law requires any agency intending to acquire land or an interest in land or to construct or advance funds to construct water and/or sewer facilities to serve non-farm structures within a Certified

Agricultural District to file a Notice of Intent with the Department of Agriculture and Markets.

In addition, if public funds are used to extend water and sewer services to the proposed development or if such services are installed using private funding, but dedicated to the Town upon completion of the project, the Town may similarly be required to file a Notice of Intent with the Department.

- The Project Sponsor must provide under Section 310 of the Agriculture and Markets Law to any buyer of land within a Certified Agricultural District, adjacent thereto, or within 500 feet thereof, a disclosure statement advising of such circumstance and stating that farming activities should be routinely anticipated. It must be further stated that such farming activities may include, but not be limited to, activities that cause noise, dust and odors. Typically, such disclosure is provided both on the Final Subdivision Plat and within the deeds to each of the affected lots.

4.4.3 Mitigation Measures

Subject to compliance as might be required with the aforementioned notice and disclosure requirements, no mitigation with respect to "Agricultural Resources" required.

Part B Man-Made Resources

SEIS Subsections 4.5 through 4.10 first describes the existing environmental setting with respect to each of the following components of the man-made environment: transportation, land use and zoning, community facilities and services, and cultural resources. Anticipated impacts on these resources by the build-out of the Lone Oak Traditional Neighborhood Development are then discussed and mitigation measures considered as appropriate and to the extent practicable.

The level of demand on community facilities, services and infrastructure created by the TND has been forecast based upon accepted multipliers from a number of public and institutional sources that yield among others estimates of resident population, traffic generation, water demand, sanitary sewage load, and solid waste generation. These multipliers take into account such factors as the following:

- The intended owner or rental occupancy (i.e. tenure) of the dwelling units.
- The configuration of the dwelling units, i.e. single-family dwellings, town homes or dwellings within multi-unit structures.
- The projected market sales price or market rent of the dwelling units.

- The number of bedrooms within each of the dwelling units.

Based upon updated demographic multipliers released since the time of preparation of the Draft EIS by the Rutgers University Center for Urban Policy Research (June 2006), the 132 dwelling units within the Lone Oak TND would be resident to 431 persons.

See later **SEIS Table No. 3, 132-Unit Lone Oak TND, Resident Population / 2006 Multipliers**.

Alternately, in consideration of the former demographic multipliers set forth in The New Practitioners Guide to Fiscal Impact Analysis (1985) and employed in the Draft EIS, the total population of the 132-Unit Lone Oak TND would be 462 persons.

See later **SEIS Table No. 3A, Lone Oak 132-Unit TND, Residential Population / 1985 Multipliers**.

SEIS Subsection 4.5
Transportation

In order to assess the character of the existing local roadway network and evaluate the effect of the development of the Lone Oak Project Site on the network a Traffic Impact Study ("TIS") was first undertaken by John Collins Engineers (the "Traffic Engineer") in May 2000 in accordance with the criteria set forth in the DEIS Scoping Document (172 residential building lots under alternate "through road" and "non-through road" scenarios) and presented in its entirety as DEIS Appendix H.

In consideration of the changes in circumstance triggering requirement for this Supplemental EIS, a revised **Traffic Impact Study** (TIS) of the development of the Lone Oak Project Site for a total of 132 dwelling units was undertaken by John Collins Engineers on behalf of the Project Sponsor. The TIS as revised to April 8, 2008, is presented here in its entirety as **SEIS Appendix F**.

The overall content of the TIS consists of the following:

- A brief description of the existing roadway network and presentation of existing traffic volumes.

- Analysis of existing traffic conditions and future traffic conditions in the 2011 Design Year without development of the Lone Oak TND, including the addition of both a "background growth factor" on an annual percentage basis at a level established by NYSDOT (i.e. 1.5 percent) and projected traffic volumes generated by other proposed/potential development in the area including the

Hamlet at Goshen, Goshen Executive Center, Hills at Goshen, Maplewood, Hambletonian and Heritage Estates, so as to compositely account for other anticipated development and increase in traffic on the roadway network.

- Projection of the traffic that would be generated by the development of the Lone Oak TND, which in the case of the stated number of dwelling units (all of which for purposes of a "conservative analysis", have been considered to fall within ITE Land Use Code 210, Single-Family Housing) is indicated to be 101 vehicle trips during the Weekday AM Peak Hour and 138 vehicle trips during the Weekday PM Peak Hour.

- Analysis of future traffic conditions in the 2011 Design Year upon addition of the background growth factor and in consideration of the development of the Lone Oak TND.

- Traffic Engineer's conclusion.

- Recommendations by the Traffic Engineer.

It is noteworthy that the Project Site's development for a far greater number of dwelling units, some 299, has also been accounted for in the Goshen Town Wide Traffic Study completed in December 2006 by Stantec Consulting Services, Inc. for the Town of Goshen. The Town Wide Traffic Study further assumes all 299 dwelling units to be detached single-family dwellings, of which 125 dwelling units would be built out by 2011 and the remaining 174 by 2016. In consideration of this timing and the assumption made of all single-family detached dwellings, the Town Wide Traffic Study projects the Lone Oak TND's site-generated traffic to total 131 vehicle trips during the Weekday PM Peak Hour in 2011 and 287 vehicle trips during the weekday PM Peak Hour in 2016. The 2011 projection is quite close to the total overall traffic that would be generated by the now proposed Lone Oak TND at its full build-out while the 2016 projection included in the Town Wide Traffic Study is more than double the total overall traffic that would now be generated upon build-out of the Lone Oak TND.

See **SEIS Table 2A, Lone Oak 132-Unit TND / Traffic Generation**.

Unlike the Town Wide Traffic Study which took into account the through roadway link between Harriman Drive and Arcadia Road that was earlier proposed to be constructed through the Lands of Fini, the Lone Oak TIS as revised to April 8, 2008, does not consider the construction of a roadway link between Harriman Drive and Arcadia Road and is instead based on access to the Lone Oak TND either directly via a new subdivision roadway intersecting with Arcadia Road or via interconnection at Maplewood Lane with the existing subdivision roadway network within the Arcadia Hills Subdivision.

As opined by Philip J. Grealy, Ph.D, P.E., there is no requirement that the formerly proposed through roadway be constructed to adequately accommodate elsewhere on the adjacent roadway network the additional vehicle trips that would be generated by development of the reduced-scale 132-unit Lone Oak TND subject of this Supplemental EIS.

SEIS Table No. 2A

Lone Oak 132-Unit TND
Traffic Generation

Dwelling Unit Type	Vehicle Trips / D.U.*	AM Peak Hr	PM Peak Hr
Single-family detached housing			
(ITE Land Use Code 210)	0.73 (104)	76	
	0.98 (104)		102
Townhouses			
(ITE Land Use Code 230)	0.59 (28)	17	
	0.68 (28)		19
Lone Oak 132-Unit TND			
Total Weekday Peak Hour Vehicle Trips		**93**	**121**

* *Source: Institute for Transportation Engineers, "Trip Generation", 7th Edition, 2003*

More specifically, in an August 20, 2008, memorandum to the EIS Preparer, Dr. Grealy stated as follows:

> *"A question was raised regarding the need for a through road from Arcadia Road to Harriman Drive in association with the Lone Oak TND. Based on the traffic analysis contained in our report, dated April 8, 2008, the project traffic can be adequately accommodated at the intersections evaluated without the provision of such a roadway. For example, the intersection of Route 17M and Arcadia Road, the location where the traffic volumes would be affected the most by the provision of such a road, is projected to operate at a Level of Service 'C' or better during the peak periods. This is even without the pavement widening improvements on Arcadia Road approaching the intersection which we recommended in our report. Based on our report, there is no capacity basis for providing a connector road from the Lone Oak TND to Harriman Drive."*

4.5.1 Existing Setting

- **Locational Overview.**

  As cited in Section 1.0 of this Draft EIS, the former Project Site is "to the southeast of NYS Route 17 between the end of Harriman Drive and the Arcadia Hills Subdivision and extending to Arcadia Road in the Town of Goshen, Orange County, New York". The present Project Site is far smaller in land area and does not extend to Harriman Drive. Its access is exclusively from Arcadia Road to the southeast and from stub ends of streets within the Arcadia Hills Subdivision.

  There is no public transportation (except for public school buses) routinely available at the Project Site. In addition, there are no established pedestrian facilities, such as bikeways or sidewalks, along the principal roadways adjacent to the Project Site. The fundamental means of access to the Project Site is by private automobile, light truck or bicycling on the adjacent local roadway network.

  Mass transit in the form of bus and rail service is available to residents of the Goshen area by traveling northward to the Metro North stations in Middletown or Campbell Hall or eastward via NYS Route 17 to the Metro North station in Harriman, or by accessing a local Short Line bus in the Village of Goshen or express bus service to New York City at the Short Line Express "Park and Ride" bus stop located near Museum Village in the Town of Monroe, also located just off NYS Route 17. The Towns of Chester and Goshen are also active participants in the Orange County "Dial-a-Bus" program with busses frequently observed traveling between the Village centers.

- **Local Roadway Network.**

  As depicted on TIS Figure No. 1, Site Location Map, such vehicular access is readily available from the principal roadways in the vicinity of the Project Site, including NYS

Routes 17, 17M, 94 and 207, and local roadways such as Arcadia Road, Harriman Drive, South Street, Conklingtown Road and South Church Street.

A brief description of these roadways follows:

- NYS Route 17 (Future Interstate 86) is a major four lane limited access highway originating to the south in the State of New Jersey and generally traversing the State of New York in a northwest/southeast direction. NYS Route 17 generally has two travel lanes in each direction and carries a posted speed limit of 65 mph. NYS Route 17 has several interchanges in the vicinity of the Project Site.

  As discussed in the Town Wide Traffic Study modifications to NYS Route 17 to accommodate its transition to Interstate status are in the planning and design stages of development and upon implementation may affect some of the interchanges in the vicinity of the Project Site. The continuing ability of the local roadway network to satisfactorily handle both existing and prospective traffic, such as that which would be generated by the Lone Oak TND, and other development within the area, with any such modifications in place is being taken into account during the NYSDOT planning and design process and is a matter beyond the scope of this Supplemental EIS.

- NYS Route 17M similarly has a northwest/southeast alignment and parallels NYS Route 17 in the vicinity of the Project Site. NYS Route 17M has one travel lane in each direction and a posted speed limit of 55 mph outside the Villages of Chester and Goshen where it is posted 30 mph. NYS Route 17M intersects with NYS Route 94, Arcadia Road, South Street and Greenwich Avenue (NYS Route 207) in the vicinity of the Project Site.

- NYS Route 94 is a two lane roadway originating in northern Orange County. The roadway intersects with NYS Route 17M at a signalized intersection in Chester and continues in a southwesterly directly providing access to southern Orange County and northern New Jersey. NYS Route 94 has a posted 55 mph speed limit south of West Avenue and a 40 mph posted speed limit to the north.

- South Street is a local east/west roadway with one travel lane in each direction. South Street has a signalized intersection with NYS Route 17M. To the east of the Project Site this roadway provides access to the Village of Goshen while a short distance to the west it terminates at Reservoir Road. Its posted speed limit is 30 mph.

- Conklingtown Road is a north/south oriented two-lane local roadway that originates to the south at NYS Route 94. Conklingtown Road traverses in a northwesterly direction and intersects with Arcadia Road at a “stop” sign controlled intersection. The roadway then terminates a short distance to the north and west at Reservoir Road. Its posted speed limit is 40 mph.

- Greenwich Avenue (NYS Route 207) generally traverses in a northeast/southwesterly direction, providing access to NYS Route 17A to the southwest and the Village of Goshen to the northeast. Greenwich Avenue has a posted speed limit of 40 mph in the vicinity of NYS Route 17.

- Arcadia Road is a north/south oriented two-lane local roadway extending for a distance of 4.2 miles between its intersections with NYS Route 94 3.6 miles to the south in the Village of Chester and NYS Route 17M 0.6 mile to the north of the Lone Oak TND Project Site. The posted speed limit is 40 mph in the vicinity of Arcadia Hills and the proposed access to the Lone Oak TND. A signal has been recently (i.e. since the time of the first TIS by John Collins Engineers cited in this Subsection) installed at the intersection of Arcadia Road and NYS Route 17M.

- Harriman Drive is a two-lane road that originates at a "stop" sign controlled "T" intersection with South Street and runs eastward parallel to NYS Route 17. Harriman Drive provides access to the Arden Hill Hospital and the Glen Arden Retirement Community and has ramp connections to Route 17 eastbound. Harriman Drive presently terminates in a dead-end at other Lands of Fini, to the west of the Project Site.

- Cherrywood Drive and Maplewood Lane. Cherrywood Drive is a two-lane roadway which originates as a "stop" sign controlled "T" intersection with Arcadia Road. It provides access to existing residential homes within the Arcadia Hills Subdivision and has intersections within the Subdivision with Beechwood Drive, Walnut Court and Maplewood Lane. Maplewood Lane is proposed to be extended as a second access to the Lone Oak TND.

- **Existing Traffic Volumes and Related Levels of Service under "2005 Existing Condition".**

  The Traffic Engineer compiled existing traffic volume data for the Weekday Peak AM Highway Hour (7:45 – 8:45 AM) and the Weekday Peak PM Highway Hour (4:45 – 5:45 PM) at each of the following intersections, all as set forth on TIS Figure No. 2 / 2005 Existing Traffic Volumes – Weekday Peak AM Hour and TIS Figure No. 3 / 2005 Traffic Volumes – Weekday Peak PM Hour:

  - The three signalized intersections of NYS Route 17M with Greenwich Avenue (NYS Route 207), South Street and Arcadia Road and its unsignalized intersections with the NYS Route 17 WB Ramps.

  - The unsignalized intersection of South Street and Harriman Drive.

  - The unsignalized intersection of South Street and South Church Street.

  - The five unsignalized intersections of Harriman Drive with Medical Building West Drive, Medical Building East Drive, Arden Hill Hospital, NYS Route 17 EB Ramps and Glen Arden Retirement Community.

  - The four unsignalized intersections of Arcadia Road with Wedgewood Drive, Cherrywood Drive, Conklingtown Road and the Proposed Lone Oak TND Site Access.

- The unsignalized intersection of Arcadia Road with Hills of Goshen site access.

Traffic analysis procedures were then applied by the Traffic Engineer to the data regarding roadway intersection characteristics and existing traffic volumes to determine the existing 2005 operating "level of service" of each of the above intersections.

As indicated on **SEIS Table No. 2B, Level of Service Summary Table (TIS Table No. 2, April 2008)**, acceptable levels of service with no significant vehicle delays were experienced at all intersections and on all approaches to these intersections for the **"2005 Existing Condition"**. The only intersections at which Level of Service "D" was experienced were the following:

- At the signalized intersection of Greenwich Avenue (Route 207) and NYS Route 17M with Level of Service "D" occurring for the PM Peak Hour eastbound movement and the PM Peak Hour southbound movement, with the overall intersection operating however at Level of Service "C".

- At the signalized South Street and NYS Route 17M intersection with Level of Service "D" occurring for the westbound PM Peak Hour movement, with the overall intersection operating however at Level of Service "C" in the PM Peak Hour.

- At the unsignalized NYS Route 17M and NYS Route 17 westbound (WB) ramps in the case of the PM Peak Hour northbound minor movement, with Level of Service "D" occurring.

- At the intersection of Harriman Drive and South Street where with signalization Level of Service "E" would be experienced for the westbound movement in the PM Peak Hour.

4.5.2 Anticipated Impacts

- **"2011 No Build Condition".**

The 2005 Existing Traffic Volumes were then projected to the Design Year 2011 to take into account expected increases in traffic due to background growth at a rate of 1.5 percent per year. The same traffic analysis procedures were next applied by the Traffic Engineer to determine the operating "level of service" of each of the listed intersections in the 2011 Design Year under the 2011 No Build Traffic Volumes – Weekday Peak AM Highway Hour and Weekday Peak PM Highway Hour as indicated on the copies presented here of TIS Figures No. 8 and No. 9, respectively.

This analysis has occurred without consideration of the development of the Lone Oak TND. Under this **"2011 No Build Condition"** like levels of service with somewhat longer vehicle delays were experienced at all intersections and on all approaches except at the following times and locations where the Traffic Engineer projects a reduction in level of service from the **"2005 Existing Condition"**:

- At the signalized intersection of Greenwich Avenue (Route 207) and NYS Route 17M where a reduction in overall operation of the intersection from Level of Service "C" to Level of Service "D" occurs during both the AM and PM Peak Hours.

- At the signalized intersection of South Street and NYS Route 17M where a reduction in overall operation of the intersection from Level of Service "B" to "C" occurs during the AM Peak Hour and from Level of Service "C" to "F" during the PM Peak Hour. With recommended improvements to address the "2011 No Build Condition" the Traffic Engineer projects this intersection will operate at Level of Service "B" during the AM Peak Hour and Level of Service "C" during the PM Peak Hour.

- At the unsignalized intersection of South Street and South Church Street where a reduction in overall operation of the intersection from Level of Service "C" to Level of Service "E" occurs during the PM Peak Hour. With recommended signalization to address the "2011 No Build Condition" the Traffic Engineer projects this intersection will operate at Level of Service "B" during both the AM and PM Peak Hours.

- A reduction in Level of Service from Level of Service "C" to "E" during the AM Peak Hour and Level of Service "D" to "F" is projected for the minor movement, northbound left/right, at the unsignalized intersection of NYS Route 17M and the NYS Route 17 WB Ramps. With recommended signalization to address the "2011 No Build Condition" the Traffic Engineer projects this intersection will operate at Level of Service "B" during both the AM and PM Peak Hours.

- A reduction in Level of Service from "A" to "B" is projected during both the AM and PM Peak Hours at the unsignalized intersection of Harriman Drive and the NYS Route 17 EB Ramp.

- A reduction in Level of Service from "B" to "C" is projected during the AM and PM Peak Hours at the Harriman Drive access driveway to Arden Hill Hospital.

- A reduction in Level of Service from "B" to "C" is projected for either the AM Peak Hour or PM Peak Hour for the Harriman Drive Medical Building driveways.

See previously cited **SEIS Table No. 2B / Level of Service Summary Table**.

- **"2011 Build Condition".**

In order to further include the Lone Oak TND in the 2011 Design Year traffic analysis it was first necessary for the Traffic Engineer to establish how much traffic the proposed TND would generate during the AM and PM Peak Hours (under the assumption of full build-out by 2011), assign the Site-Generated Traffic to the roadway network in terms of Arrival and Departure Distributions and add this traffic to the "2011 No Build Traffic Volumes" to establish the "2011 Build Traffic Volumes".

TIS Table No. 1 / Hourly Trip Generation Rates and Anticipated Site Generated Traffic Volumes establishes a Weekday Peak AM Hour total volume of 101 vehicle

trips (25 entering and 76 exiting) and a Weekday Peak PM Hour total volume of 138 trips (88 entering and 50 exiting), with a trip being a one-way movement. In terms of Arrival Distribution and Departure Distribution, TIS Figures No. 10 and No. 11 depict the directional assignment of this "site generated traffic" to the local roadway network.

By once again applying the same traffic analysis procedures to the 2011 Build Traffic Volumes – Weekday Peak AM Highway Hour and Weekday Peak PM Highway Hour indicated on the copies presented here of TIS Figures No. 14 and No. 15, respectively, the Traffic Engineer was next able to determine the operating "level of service" under the **"2011 Build Condition"** with the Lone Oak TND in place and then compare the "levels of service" under the **"2011 Build Condition"** and **"2011 No Build Condition"**.

Under the **"2011 Build Condition"** like levels of service though with somewhat longer vehicle delays were experienced at all intersections and on all approaches except at the following times and locations where the Traffic Engineer projects a reduced level of service attributable to the addition of the fully built-out Lone Oak development:

- With recommended signalization in place at the South Street and South Church Street intersection, the Traffic Engineer projects a reduction in Level of Service from "B" to "C" during the PM Peak Hour.

- With recommended signalization in place at the NYS Route 17M & NYS Route 17 WB On/Off Ramp, the Traffic Engineer projects a reduction in the overall operation from Level of Service "B" to "C" in the PM Peak Hour.

- At the signalized intersection of Arcadia Road and NYS Route 17m, the Traffic Engineer projects a reduction in the overall operation from Level of Service "B" to "C" in the PM Peak Hour.

Please refer again to **SEIS Table 2A, Traffic Generation**, and the afore-cited **SEIS Table No. 2A / Level of Service Summary Table.**

In consideration of the above described traffic analysis, the Traffic Engineer concluded the Traffic Impact Study at Page 19 with the following words:

> *"As summarized in this Report, the additional traffic generated by the proposed Lone Oak Estates Residential Development will not significantly impact traffic operations on the roadway system in the vicinity of the site. Based on the analysis contained in this Report, similar Levels of Service and delays will be experienced under Future No-Build and Future Build Conditions. The proposed connection from the site to Maplewood Lane will result in some additional traffic utilizing Cherrywood Drive and/or Wedgewood Drive to access Arcadia Road. Based on the site layout, the potential for 15 to 20 peak hour vehicles using this connection was analyzed. The results indicate that these vehicles can be accommodated at acceptable Levels of Service. Appropriate "stop" signs and other traffic control measures should be added with this connection."*

4.5.3 Recommendations and Mitigation Measures

Based upon the results of the analyses, the following recommendations for roadway improvements (as cited above to address the "2011 No Build Condition") were made throughout the TIS by the Traffic Engineer in order to improve existing conditions:

- Separate right turn lanes on the southbound and westbound approaches together with corresponding traffic signal improvements should be provided at the NYS Route 17M and South Street intersection.

- The intersection of NYS Route 17M and the NYS Route 17 WB Ramps should be monitored by the agency of jurisdiction, NYSDOT, to determine if a traffic signal will be warranted in the future. With signalization, an overall Level of Service "C" or better would be experienced.

- The Arcadia Road approach to NYS Route 17M should be resurfaced and widened to a two lane approach.

- The intersection of South Street and Harriman Drive should be monitored to determine if a traffic signal will be warranted in the future. With signalization, an overall Level of Service "B" or better would be experienced.

- A traffic signal should be installed at some future time at the Church Street/Old Chester Road and South Street/Parkway intersection. With signalization, a Level of Service "C" or better would be obtained during peak periods.

With respect to the proposed intersection of the Lone Oak TND's subdivision roadway with Arcadia Road, the Traffic Engineer has advised the Project Engineer that the following matters should be taken into account as subdivision design plans are finalized:

- The subdivision roadway should contain one lane in each direction and intersect Arcadia Drive in an unsignalized "T" intersection. The exiting approach to this intersection should be "stop" sign controlled and clearing of vegetation should be undertaken on either side of the exiting roadway to provide adequate sight distance.

SEIS Subsection 4.6
Land Use, Zoning and Public Policy

SEIS Subsection 4.6 includes a discussion of land use and zoning, including consideration of adopted Town and County master plans and associated public land use policies, as pertain to the Lone Oak Project Site and its intended development as a TND.

The discussion here in the Supplemental EIS departs substantially from the presentation in the Draft EIS. While the physical setting has not substantially changed, the principal statements on local land use policy, i.e. the Orange County Comprehensive Plan (2003), the Town of Goshen Comprehensive Plan (2003) and the Town of Goshen Zoning Law (2004), pertinent to this setting have all been comprehensively-amended since the preparation and acceptance for review of the Draft EIS.

4.6.1 Existing Setting

- **Land Use**

  Visual observation of the Project Site establishes that surrounding land use generally consists of NYS Route 17 to the north, undeveloped agricultural and other rural land to the west, southwest and south, the Orange & Rockland Utilities, Inc.'s right-of-way to the south, and the heretofore-developed Arcadia Hills Subdivision to the east and southeast extending to Arcadia Road.

  More detailed record search and field survey has established that the following generalized ownership and existing use of properties occurs adjacent to the proposed Lone Oak TND:

  - Approximately 250 single-family dwellings have been constructed within the Arcadia Hills Subdivision to the northeast of the Project Site pursuant to a 1960's Subdivision Plat Approval involving approximately 294 lots under the terms of the Town's pre-1974 Zoning Ordinance. The pre-1974 Zoning Ordinance provided for a minimum lot area of 15,000 square feet.

    Arcadia Hills is an older suburban residential development with a wide range of ranch, split-level and two-story home designs. Access to Arcadia Hills is provided exclusively from Arcadia Road at the intersections of Wedgewood Drive East and Cherrywood Drive. The subdivision, as would be evident from observation of the minimal lot areas, is served by central utilities and, in fact, located, in common with the Lone Oak Project Site, within both Town Water District No. 2 and Town Sewer District No. 2.

    28 of the existing dwellings on the south side of Cherrywood Drive, on Walnut Court and on the west side of Maplewood Lane adjoin lands within the Project Site that will support like single-family residential use. Examination of the Town of Goshen's Assessment Roll established the average full-value assessment of these existing dwellings to be approximately $136,000. This would translate considering the Town's more recently-established equalization rate of 60 percent to an average market value of approximately $227,000.

  - Three overhead electric transmission lines traverse Orange & Rockland Utilities, Inc.'s adjacent right-of-way, these being as reported by O&R staff one 138 KVA line and two 69 KVA lines, all of which are supported by tower structures at an approximate interval of 1500 feet.

- The adjacent Serdarevic and Ellman parcels are undeveloped, in part agricultural but for the most part "vacant, rural land" not altogether dissimilar to the Project Site. The Serdarevic parcel has since the time of acceptance of the Lone Oak Draft EIS been the subject of both a Project Sponsor's large-scale proposal for mixed-use development as "Hamlet at Goshen" and in July 2007 of a proposed local law by the Town Board to rezone the northerly portion of the parcel adjoining Harriman Drive from its Hamlet Mixed-Use (HM) District classification to Commercial-Office (CO) District and its rear lands to Rural (RU) District.

  The proposal for development of "Hamlet at Goshen" has since been withdrawn and, as of late May 2008, it is understood the proposal for rezoning remains pending before the Town Board.

- The more detailed reconnaissance also establishes that there are several out-parcels within what might be assumed to be the boundaries of the Project Site. These out-parcels are owned by the Town of Goshen and were acquired during its late 1960's and early 1970's consideration of the Arcadia Hills Subdivision.

  More specifically, the Town-owned parcels include by Tax Map reference and their current observed use the following:

  - TMP 11-1-60, 11-1-61 and 11-1-62. Approximately 10.4 acres of vacant land presumably for conservation purposes bisected by an ACOE jurisdiction wetland principally in the southeasterly corner of the Project Site.

  - TMP 11-1-63 and 11-1-64. A vacant linear parcel approximately 2.1 acres in land area and generally parallel to the southerly boundary of the Project Site and apparently coincident with Orange & Rockland Utilities, Inc.'s right-of-way.

  - TMP 11-1-65, 11-1-66 and 11-1-67. Sites which combine as a linear corridor in the south-central area of the Project Site on which are located Town of Goshen public water supply wells TG51 and TG52 and reputedly public water supply well TG51A (which has been demonstrated by the Project Sponsor's survey to however lie instead within the Lands of Fini Bros.) and the Town's associated well water treatment facility, totaling approximately 2.6 acres.

  - TMP 11-1-68. A vacant landlocked parcel, approximately 2.0 acres in area and triangular in configuration, located along the western boundary of the Project Site adjacent to the intersection of TMP 11-1-49.2 and 11-1-58.

  - TMP 11-1-69. A vacant landlocked parcel, approximately 1.8 acres and also triangular in configuration, adjacent to the southwest corner of the Project Site.

- **Master Plans**

The Orange County Comprehensive Plan, Strategies for Quality Communities in the 21st Century (2003) recommends development occur around "existing built-up areas"

and among its key goals cites the use of "new development techniques", the conservation of natural land resources including open space, parks and farmlands, the promotion of a broad range of housing opportunities, and the provision of adequate utility systems. The County Plan cites the Town of Goshen as predominately agricultural and residential in its makeup and character and recommends low to mid residential densities as contrasted to urban areas such as the Cities of Newburgh, Middletown or Port Jervis.

The Town Comprehensive Plan (November 2003) builds upon the key goals established by the County Plan and has set the following seven (7) goals with related statement of objectives for local implementation:

- Control inefficiencies created by suburban sprawl.
- Provide a range of housing alternatives that will meet the housing needs of a range of socio-economic groups.
- Develop a strong and balanced economic base.
- Protect farmland, open space and environmental resources.
- Protect and enhance the agricultural activities and character of the Town.
- Ensure a pattern of development that will provide for sustainable water use.
- Encourage development that will create an efficient transportation network.

The Town Comprehensive Plan is complemented by both the Town's comprehensively amended Zoning Law and sub-plans such as the Open Space and Farmland Protection Plan (July 2003) which identifies its priorities the retention of farmland, the preservation of stream corridors and other water bodies, the protection of wetlands and the development of trails.

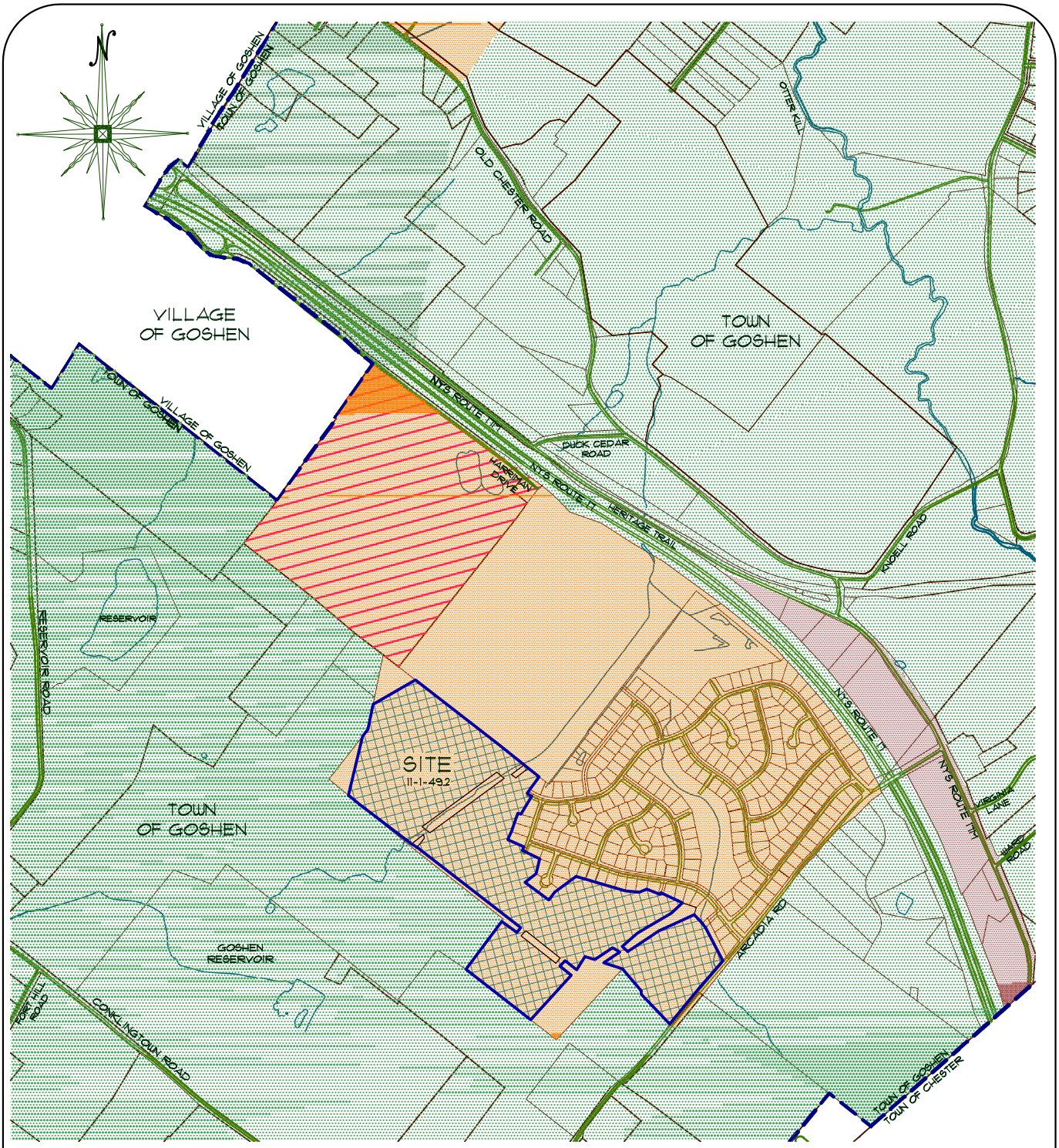
- **Zoning and Public Policy**

As also noted earlier in SEIS Section 2, Subsection 2.1, "Amendment of Town Zoning Law" the entirety of the 103.42-acre Lone Oak Project Site lies within the Hamlet Residential (HR) District as established under the Town of Goshen Zoning Law in June 2004 as does the entirety of the adjacent 109.06-acre parcel owned by the Project Sponsor.

See **SEIS Figure No. 17A, Town of Goshen Zoning Map, Land Use Districts**.

The below excerpt from Zoning Law Section 97-8, Establishment of Districts, presents the Town Board's statement of purpose in creating, in addition to the Hamlet Mixed-Use (HM) District, the Hamlet Residential District:

"The purpose of the Hamlet Mixed-Use District (HM) and Hamlet Residential (HR) Districts is to allow the creation of mixed-use hamlet centers and adjoining



LEGEND

- SITE
- RURAL (RU)
- HAMLET RESIDENTIAL (HR)
- HIGHWAY COMMERCIAL (HC)
- HAMLET MIXED-USE (HM)

SEIS FIGURE NO. 17A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

TOWN OF GOSHEN ZONING MAP
LAND USE DISTRICTS

GRAPHIC SCALE: 1 in. = 1500 ft.

DATE: MARCH 31, 2008

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residential neighborhoods at the traditional scale and density typically found in rural hamlets and villages, provided that water and sewer service is available."

Examination of the Zoning Map indicates a portion of the Project Site also lies within the Stream Corridor and Reservoir Watershed (SC) Overlay District as a complement to the underlying Land Use District:

- Stream Corridor and Reservoir Watershed (SC) Overlay District. The SC Overlay District encompasses all land within the Project Site lying within 150 feet of the mean high water line of the Otter Kill.

  The principal objective of this designation is to preserve scenic character, protect water quality and, in tandem with the FP Overlay District designation, reduce the risk of damage from flooding.

  Standards and procedures pertaining to development within the SC Overlay District are set forth within Zoning Law Section 97-26, including the following at paragraphs D through F therein:

  "D. Setbacks.

  No principal structure shall be located within 100 feet of a watercourse, and no accessory structure 200 square feet or larger other than a boathouse shall be located within 50 feet of a watercourse. No hazardous materials may be stored within 100 feet of a watercourse. These setbacks shall apply to all uses including agriculture. Setbacks shall be measured horizontally from the mean high water line of the watercourse.

  E. Site plan approval requirement.

  1. *Within the SC District, site plan approval shall be required for the following:*

     a. *Construction of any structure greater than 500 square feet in footprint area.*

     b. *Within any one-year period:*

        - *Filling or excavation of an area in excess of 5,000 square feet.*
        - *Clear-cutting of more than 5,000 square feet of vegetation on any parcel.*
        - *Grading or other alteration of more than 10,000 square feet of the natural landscape.*

  2. *Within the SC District, the site plan approval requirement shall not apply to:*

     a. *Agricultural uses.*

     b. *The repair and maintenance of existing structures.*

c. Activities carried out pursuant to a site plan or special use permit approved prior to the enactment of this Section 97-26.

3. Within the SC District, the Planning Board may grant site plan approval only if it finds that, with appropriate conditions attached, that the proposed activity:

a. Will not result in degradation of scenic character and will be aesthetically compatible with its surroundings.

b. Will not result in erosion or surface water pollution from surface or subsurface runoff. In making such determination, the Planning Board shall consider slopes, drainage patterns, water entry points, soil erosivity, depth to bedrock and high water table, and other relevant factors. The Planning Board may require vegetated riparian buffers in which no application of chemicals, vegetation removal, and/or mowing will be permitted.

c. Will comply with other applicable provisions of this chapter.

4. If a special permit, site plan, variance, or subdivision approval is required in connection with a project subject to this Section 97-26, the requirements of this section shall be considered in such proceeding and no separate site plan approval shall be required.

F. Erosion and stormwater control plan requirement. For any special permit, site plan, or subdivision application in which land to be disturbed lies partially within the SC District, an erosion and sediment control plan shall be required pursuant to Section 97-42 if the total disturbed area (including portions outside the SC District) exceeds 10,000 square feet."

- Scenic Road Corridor (SR) Overlay District.

Further examination of the Zoning Map indicates a portion of the Project Site adjacent to Arcadia Road lies within a second Overlay District, the Scenic Road Corridor (SR) Overlay District. With respect to the SR District, the Zoning Law presents at Section 97-29 first a statement of purposes in subsection A and then in subsections B through J criteria with respect to the location of the Scenic Road Corridor Overlay District (SR) and for the use and development of land therein.

Only subsection B is set forth below for, notwithstanding the graphic depiction of the portion of the Project Site adjacent to Arcadia Road provided on the Town of Goshen Zoning Map, Overlay Districts, subsection B appears upon reading by the EIS Preparer to exclude this land from the SR Overlay District by virtue of its underlying Hamlet Residential (HR) District rather than Rural (RU) District classification.

"B. Boundaries. The Scenic Road Corridor includes all land in the RU District shown on the Overlay District Map as part of the SR District, lying within 800

feet of the right-of-way on NY State Routes 17M and 17A or within 500 feet of any other roads shown on the Overlay District Map."

A memorandum has been directed to Town Code Enforcement Officer Neal Halloran by the EIS Preparer for interpretation as to the accuracy of the Zoning Map, Overlay Districts, and related determination as to the applicability of the SR Overlay District criteria to the use and development of those lands within the Lone Oak TND Project Site lying within 500 feet of Arcadia Road. See **SEIS Exhibit No. 9A**.

A response letter issued by Mr. Halloran on July 2, 2008, is set forth as **SEIS Exhibit No. 9B** and states in part,

> *"Section 97-29(b) does exclude that part of S.B.L. 11-1-49.2 that would be within 500 feet of Arcadia Road, as it is currently zoned and proposed to be used. So as this project as currently proposed in the SEIS, would not be impacted by this section of the code."*

- Aquifer (AQ-6) Overlay District. The principal effect of the Aquifer Overlay District designation, whether AQ-3 or AQ-6 as in the case of the Project Site, is to limit as appropriate to soil types present the density of residential development in circumstances where central water and sanitary sewer are not provided.

For depiction of the location and extent of each of the above overall districts, see **SEIS Figure No. 17B, Town of Goshen Zoning Map, Overlay Districts**.

It is further noted, circumstances to the contrary, the Overlay Districts Map depicts no portion of the Project Site within the Flood Plain and Ponding Area (FP) Overlay District. The FP Overlay District does encompass other low-lying areas along the Otter Kill downstream of the Project Site delineated on the National Flood Insurance Program Insurance Rate Maps (FIRM) as "A" ("Special Flood Hazard Areas") zones subject to periodic inundation under the conditions of a 100-year storm.

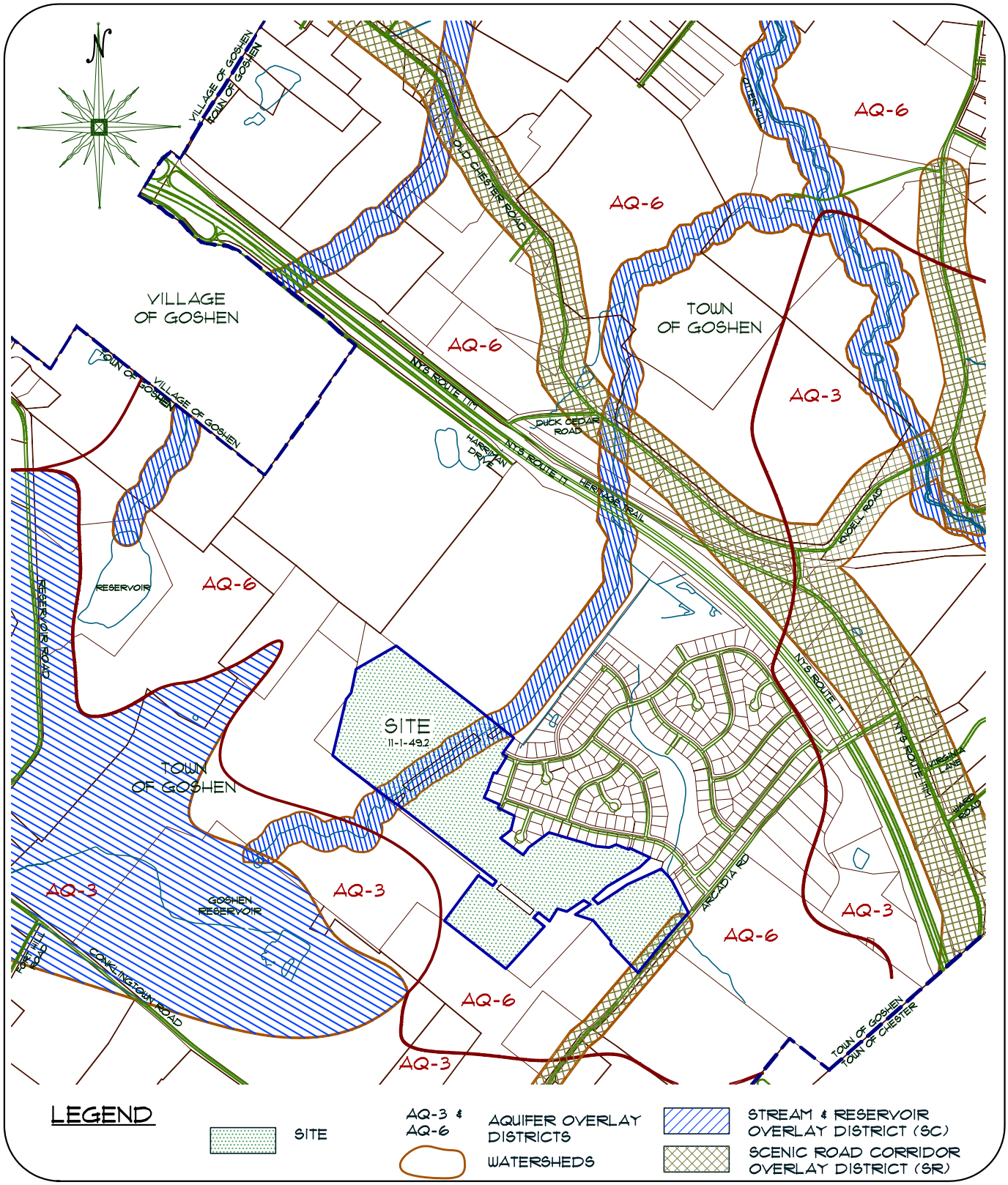
4.6.2 Anticipated Impacts

- **Land Use**

As discussed throughout this Supplemental EIS and highlighted below, the Lone Oak TND fosters in the opinion of the Project Sponsor achievement of the following:

- The underlying land use objectives of the Orange County Comprehensive Plan, i.e. the encouragement of development around existing built-up areas and with the employ of new development techniques.

- The conservation of substantial open space lands, including related physical improvements, i.e. trails and observation areas, and legal measures, i.e. conservation and public access easements.



SEIS FIGURE NO. 17B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

TOWN OF GOSHEN ZONING MAP
OVERLAY DISTRICTS

GRAPHIC SCALE: 1 in. = 1500 ft.

DATE: MARCH 31, 2008

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- The goals of the Town of Goshen's Comprehensive Plan, to the extent applicable to the residential development and being in contravention to none of the other stated goals as cited above.

The Lone Oak TND is in the opinion of the Project Sponsor further consistent with the Town Board's more specific classification of the Project Site as part of the residential component of the most land-extensive of the three hamlet TNDs, this hamlet center scaled by the Supplemental EIS preparer as having an overall area of approximately five hundred (500) acres as it extends for approximately two thousand (2,000) feet along Harriman Road on lands beyond the Elant of Goshen (former Glen Arden) properties and then into and through the Project Sponsor's lands and the Arcadia Hills Subdivision fully to Arcadia Road.

The intended residential use and the presence throughout the Lone Oak TND of for sale dwellings are further consistent with the established owner-occupied single-family residential uses found within the adjacent Arcadia Hills Subdivision. The lands within a hamlet TND to the west of the Project Site, scaled by the SEIS preparer to be approximately one hundred (100) acres, were proposed at the time of the Town's June 2004 adoption of its comprehensively-amended Zoning Law to be developed as the mixed use component of this hamlet center, including but not limited to commercial uses, mixed use buildings and rental dwelling units.

Refer to aforementioned **SEIS Figure No. 17A, Town of Goshen Zoning Map, Land Use Districts**.

As earlier noted, it is understood the Town Board is presently reevaluating the designation of the lands to the west within the Hamlet Residential and Hamlet Mixed-Use Districts under the protection of a moratorium and may consider within the next several months the re-classification of these lands within the Commercial-Office (CO) and Rural (RU) Districts. In addition, a private sector proposal submitted to the Town Planning Board for a large-scale development of these lands in accordance with their classification under the 2004 Zoning Law has been withdrawn.

- **Master Plans**

The Lone Oak TND is in the opinion of the Project Sponsor further consistent with the Town's master plan policy (c. November 2003) pursuant to which the undeveloped Project Site, the adjacent substantially developed Arcadia Hills Subdivision to the north and east, and a portion of the undeveloped Serdarevic property to the west of the Fini landholdings are collectively considered one of three "hamlet TNDs" within the Town.

The hamlet TNDs have been identified by the Town Board within the Comprehensive Plan and implementing Zoning Law as areas within which mixed housing types are encouraged and supporting retail and other uses might be developed at a moderate density ranging upward to three (3.0) dwelling units per gross acre, with additional

density authorized for affordable housing units, under a traditional neighborhood concept in the presence of, among other factors, adequate public sewer and water supply and substantial protected open space.

- **Zoning and Public Policy**

The Lone Oak TND has been presented after consideration of the use, density and design parameters for the HR District, as stated earlier within Section 2.0 of this Supplemental EIS. Moreover, as set forth below, the TND Site Plan is deemed to be consistent with each of the parameters to the extent pertinent to the Lone Oak TND:

First, the Lone Oak TND has been designed within the density parameter established by the required "Constraints Analysis", as summarized below and graphically depicted on **SEIS Figure No. 18, Project Site Constraints Analysis**, and to comply with the Town Zoning Law's design criteria for a Traditional Neighborhood Development within the Hamlet Residential (HR) District.

Land Use Constraints Analysis
Lone Oak TND Project Site

- *Total Acreage, Lone Oak Project Site* — *103.42 acres*
- *Zoning Classification, Lone Oak Project Site* — *HR* — *103.42 acres*
- *Constrained Acreage per Zoning Law Section ___*
  - *Wetlands* — *12.66 acres*
  - *25+ % slopes* — *6.02 acres*
  - *100-Year Floodplain* — *4.34 acres, excl. wetlands and watercourse*

  Total Constrained Acreage — *23.02 acres*
- *Unconstrained Acreage* — *80.40 acres*
- *Calculation of Maximum Permissible Dwelling Units*

District	*Unconstrained Acreage*	*Density Multiplier*	*Dwelling Units*
HR	*80.40 acres*	*3.00*	*241*

ZONING - HR (HAMLET RESIDENTIAL) OVERLAY DISTRICT - AQ-6

1. GROSS SITE ACREAGE = 103.42± ACRES
2. CONSTRAINTS

   SLOPES 25% OR GREATER = 6.02± ACRES

   WETLANDS AREA

   DEC WETLANDS AREA = 10.90± ACRES

   COE WETLANDS AREA = 1.76± ACRES

   TOTAL WETLANDS AREA = 12.66± ACRES

   FLOODPLAIN AREA = 4.34± ACRES (EXCLUSIVE WETLANDS AND WATERCOURSE)

   UPLAND AREA = 90.76± ACRES

   TOTAL CONSTRAINTS = 23.02± ACRES
3. UNCONSTRAINED AREA = 80.40± ACRES

LEGEND

- ACOE WETLANDS AREA
- DEC WETLANDS AREA
- FLOODPLAIN AREA
- SLOPE 25% AND GREATER
- WELL PROTECTION AREA
- OUT PARCELS

SEIS FIGURE NO. 18

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

CONSTRAINTS ANALYSIS

GRAPHIC SCALE: 1 in. = 600 ft.

DATE: MARCH 31, 2008

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Second, with respect to the requirements of the Overlay Districts affecting portions of the Project Site, examination of **SEIS Figure No. 4, Traditional Neighborhood Development / Overall Plan**, indicates as follows:

- Proposed development within the Stream Corridor and Reservoir Watershed (SC) Overlay District, i.e. within 150 feet of the mean high water line of the Otter Kill as applied to the Project Site, is limited to infrastructure connections for water and sanitary sewer and pedestrian trails linking between developed areas and open space areas within the TND should such be developed.

  None is an accessory structure two hundred (200) square feet or greater in area and, thus, none is setback to requirement for setback of a minimum of fifty (50) feet from the mean high water line.

- While the Scenic Road Corridor (SR) Overlay District is presumed by the Project Sponsor to not be applicable to the Lone Oak Project Site due to its Hamlet Residential (HR) District classification and as such is subject of the aforementioned request for determination by the Town Code Enforcement Officer, it is noted development proposed within 500 feet of Arcadia Road consists of 225 lineal feet of boulevard roadway and 275 feet of continuing local subdivision roadway providing access to the TND, a portion of other local subdivision roadway and related utilities in curvilinear configuration providing direct access and service to a cluster of single-family detached dwellings in the most easterly portion of TND, and construction of some 14 of these dwellings (TND Lots 91 through 94 and Lots 97 through 106) in whole or in part within 500 feet of Arcadia Road.

  Notwithstanding the presumed exclusion of the Project Site from the SR Overlay District, the Land Planner has designed, consistent with the Town's objective in creating the SR Overlay District and identifying Arcadia Road as among its protected roadways, the Lone Oak TND with a conserved, landscaped and commonly-held open space area approximately 100 feet in depth along the Arcadia Road frontage, this buffer area broken only by the boulevard roadway's intersection with Arcadia Road.

- The Traditional Neighborhood Development as proposed with central water and sanitary sewage facilities is a form of development within the Aquifer (AQ-3 and AQ-6) Overlay District which does not trigger the substantially reduced maximum density levels applicable to residential use which is not served by such central utilities.

Third, in consideration of the requirements set forth by the Zoning Law for a "traditional neighborhood development" in the Hamlet Residential (HR) District, the Project Sponsor observes as follows:

- At Section 97-8, Establishment of Districts, the Town Board has presented the below statement of purpose for the HR and HM Districts.

The purpose of the Hamlet Mixed-Use District (HM) and Hamlet Residential (HR) Districts is to allow the creation of mixed-use hamlet centers and adjoining residential neighborhoods at the traditional scale and density typically found in rural hamlets and villages, provided that water and sewer service is available.

- At Section 97-15, HM and HR Districts for Traditional Neighborhood Development, the Town Board has addressed, among other matters and as set forth below, overall land use, density and design standards for development within the HR District.

  A. *<u>Requirement of public sewer and public water.</u> The rules applicable to the HM and HR Districts in this Chapter shall only apply if there is public sewer and public water service available. In the absence of such infrastructure, all land zoned HM or HR shall be subject to the land use district regulations of the RU District (including but not limited to the Use Table and the provisions of Article IV). In addition, if the applicant will be withdrawing water from the site or from another location in the Town of Goshen, the applicant shall be required to comply with applicable portions of Section 97-27 and prove that such withdrawal will not adversely affect water quality or quantity.*

  The Project Sponsor notes the Lone Oak TND will be served by public sewer and public water, as defined in the below excerpt from Zoning Law Section 97-84:

  Public Sewer and Public Water – Central or communal sewage collection and/or treatment and central or community water supply systems approved and accepted by the Town Board or by any other appropriate County or State authority for operation and maintenance, including systems involving common septic tanks or leach fields or other forms of decentralized sewage treatment managed by an improvement district or sewage disposal management district.

  B. *<u>Minimum lot sizes and open space.</u>*

     1. *Minimum lot sizes in the HM and HR Districts shall be 8,000 square feet. However there shall be no minimum lot size requirement if 20% of the land zoned HM and/or HR is maintained as open space accessible to the general public, such as a green, park, or streamside trail.*

     2. *At least 50% of the TND area [including the 20% referred to in Subsection B(1) above] must be protected as undeveloped open space, which may include public greens, parks, or portions of large private residential or non-residential lots set aside as open space and preserved with a conservation easement as provided in Section 97-21. Land use for common buildings and recreational facilities, including parking areas for such facilities, shall also be counted toward the open space requirement. The preserved open space area may include wetlands and other constrained land.*

3. *To achieve this open space set-aside, the Planning Board may condition its approval of individual developments on the protection of open space in amounts appropriate to each parcel. These amounts may be in different percentages on different parcels, providing that an applicant proposing less than 50% open space must secure the balance of the required open space by a conservation easement on other land in the TND area or on land in the RU District located within one-half mile of the development parcel. The total amount of open space preserved on the applicant's parcel plus the other land shall be equal to 50% of the area of the applicant's development parcel. A maximum of half of the applicant's required open space land (i.e. 25% of the area of the development parcel) may be located in the RU District. Preservation of open space land must be secured either by a conservation easement or by dedication of the land as parkland.*

4. *Where portions of an HR or HM zone were developed prior to being zoned HR or HM, such previously developed areas shall be exempted from the 50% open space requirement.*

As depicted on the Lone Oak TND Overall Site Plan and Layout Plan, SEIS Figures No. 4 and No. 5, respectively, and highlighted on SEIS Figure No. 13C, Final Ecological Conditions, as presented at the beginning of SEIS Section 4, 58.22 acres, or some 56.3 percent, of the 103.42 acres within the Lone Oak TND consists of Open Space Area that will not be affected by development.

None of these 58.22 acres will be platted within individual lots for single-family detached or duplex homes or as a town home dwelling site. All of these 58.22 acres will either be held by a home owners association, dedicated to the Town of Goshen, dedicated to a special district established by the Town, or transferred to a not-for-profit conservation organization acceptable to the Town, with it anticipated ultimate ownership will involve a combination of two (2) or more of these entities. Regardless of the provision made for long-term ownership, Wetland Conservation Parcels will in their entirety be further subject to a conservation easement granted to either the Town or a not-for-profit conservation organization acceptable to the Town.

In addition, offers will be made and other legal measures acceptable to the Town undertaken to ensure not less than 20.68 acres of the 58.22 acres of Open Space Area, i.e. not less than 20 percent of the overall project site, is maintained as common or publicly accessible open space.

In consideration of the above, the TND Site Plan could when presented in final form for review and approval by the Planning Board include lots with a minimum area of 6,000 square feet. However, as a matter of practicality, no lots less than 8,000 square feet will be platted within the Lone Oak TND. Lot areas will, as discussed earlier in Section 3, Subsection 3.3, of the Supplemental EIS, typically range from 9,000 square feet to 15,000 square feet, with the average lot area near the mid-point of 12,000 square feet, in order to accommodate the single-family detached and semi-detached dwellings proposed.

Further, the lots provided for the 28 town homes within the Lone Oak TND exceeds 2.5 acres, thus being compliant with the standard of not less than one-

half acre (21,780 square feet) for a 4-unit dwelling or, in effect, a maximum of eight (8) town homes per net acre.

C. *Two-family dwellings. In the HM and HR Districts, two-family dwellings shall be permitted by right on all conforming lots.*

As is permissible under the Town's criteria for development within the HR and HM Districts, eight (8) two-family dwellings, consisting of a total of sixteen (16) semi-detached dwelling units, are proposed within the Lone Oak TND.

D. *Multi-family dwellings. New multifamily dwellings in the HR and HM Districts shall have their front entrances on an existing or new street, with parking behind the buildings. No more than 30% of the land area proposed for development in the HM and HR Districts shall contain multi-family dwellings. This percentage may be increased, at the discretion of the Planning Board, through the use of transferred development rights from elsewhere within the same TND area or from the RU District. Multifamily dwellings may take the form of rowhouses, townhouses, apartment buildings, mixed-use buildings containing apartments, or any other form, such as three-family and four-family houses, that fit into the traditional architectural character of Goshen, as determined by the Planning Board.*

The Lone Oak Traditional Neighborhood Site Plan depicts the proposed development of 28 townhomes within the TND. Each of the townhomes is located within a dwelling with 3 other dwelling units.

As stated above, the lots provided for the 28 town homes within the Lone Oak TND exceeds 2.5 acres, thus being compliant with the standard of not less than one-half acre (21,780 square feet) for a 4-unit dwelling or, in effect, a maximum of eight (8) town homes per acre in the presence of public water and sewer.

All of the town homes include garages, each of which has been oriented away from the principal neighborhood roadways. In addition, opportunity for parking in driveways is provided. There are neither parallel parking spaces proposed along their street frontages nor are any mass parking lots proposed within the TND.

As to the extent of acreage within the HR District used for multi-family dwellings, a minimum 3.5 acres within the Lone Oak TND would have to be considered developed with multi-family dwellings pursuant to the above-stated maximum density standard of 8 dwelling units per acre. 3.5 acres is approximately 3.4 percent of the overall 103.42 acres included within the Lone Oak TND and far less than 1 percent of the total land area within the hamlet TND, i.e. the combined HR and HM Districts, at this location. The extent of multi-family dwellings proposed within the Lone Oak TND is thus substantially under the maximum amount of the hamlet center's overall land area on which multi-family dwellings may be authorized.

E. *Apartments in mixed-use buildings. Apartments are encouraged to be located in the upper stories of buildings that have retail or service commercial on the ground floor, in the manner of traditional hamlet main streets.*

Neither apartments nor mixed use buildings with retail or service commercial on the ground floor and apartments above are proposed within the Lone Oak TND. It has been anticipated another project sponsor might at some time include this building type and these uses within a TND on the Serdarevic lands to the west, approximately one hundred (100) acres of which lands were zoned Hamlet Mixed-Use (HM) District simultaneously in June 2004 with the reclassification of the Lone Oak Project Site to Hamlet Residential (HR).

F. Setbacks and Build-to Lines. Setbacks and build-to lines shall be established at the time of site plan approval, in conformance with the practices found in traditional hamlets.

The Project Sponsor has, as highlighted in Supplemental EIS Section 3, Subsection 3.3, Residential Dwellings and Site Development, provided schematic drawings illustrating typical setbacks and build-to lines for the various proposed housing types, believed to be consistent with practices found in traditional hamlets. The project sponsor understands these aspects of the TND layout will be reviewed by the Planning Board as the Lone Oak TND progresses through the subdivision plat and/or site plan review and approval process.

See **SEIS Figures No. 11A** through **No. 11D** which were presented earlier in Section 3 of this Supplemental EIS**.**

G. Maximum Footprint. The maximum footprint of a non-residential structure in an HM District shall be 10,000 square feet, except that the Planning Board may permit a structure of up to 60,000 square feet if it is a supermarket or other anchor store use deemed essential to the hamlet's economic vitality. The maximum footprint for a non-residential structure in an HR District shall be 5,000 square feet. This footprint limitation shall not apply to structures designed for indoor recreation or as community centers.

The above provision is not applicable to the Proposed Action. There are no non-residential structures, excepting recreational improvements and utility structures, proposed within the Lone Oak TND.

H. Design Guidelines. Development within an HM or HR District shall comply with the "Hamlet Design Guidelines" referred to in Section 97-5. The Town Board may promulgate additional design standards or guidelines to assist in the administration of this Section 97-15.

The Project Sponsor asserts the Lone Oak TND complies in concept with the "Hamlet Design Guidelines" referenced in Section 97-5 of the Town's Zoning Law and understands a fuller detailing of the concept will be required, and review thereof undertaken by the Planning Board and its advisors, as the TND progresses through the subdivision plat and/or site plan review and approval process.

The Project Sponsor notes the Land Planner and other project team members held an initial work session with Mr. Joel Russell of Woodlea Associates on June 7, 2006. The informal recommendations suggested by Mr. Russell at the time

were considered and incorporated in revision of the TND Site Plan, first in terms of the October 2007 299-Unit TND Site Plan and now to the extent still pertinent in terms of the reduced-scale 132-Unit TND Site Plan presented in this Supplemental EIS.

In addition, the Land Planner and other project team members have met with the Town Board in pre-submission conference to discuss the appropriateness with the proposed TND of the subdivision roadway cross-sections presented earlier as **SEIS Figures No. 6A** through **6C**.

I. Streets. Streets in HM and HR Districts shall generally be interconnected and permanent cul-de-sacs shall only be permitted where wetlands, watercourses, or steep slopes make street interconnections impractical. In such cases, pedestrian paths and public stairways shall be provided where practical. All streets in an HM or HR District shall be offered for dedication to the Town and no street shall be gated. The requirements for streets in the Town's road specifications shall be waived if such waivers are necessary to permit street designs in traditional hamlet character. The average area of a block within a TND development shall not exceed two acres.

The overall layout of the Lone Oak TND has been proposed to interconnect streets to the extent practicable and provides for permanent cul-de-sacs only in the single instance of TND Lots 80 through 84, a total of five "edge homes" served by a subdivision roadway less than 200 feet in length.

The Project Sponsor proposes, consistent with the Town's requirement, dedication of all streets and service alleys within the Lone Oak TND to the Town of Goshen. The Project Sponsor has provided opportunity (i.e. a 50 feet right-of-way) for an interconnection via roadway and sidewalk approximately 1,500 feet west of Arcadia Road with any prospective development that may occur on the now or formerly HM District lands to the west and the RU District lands to the south of the TND.

J. Maximum Density. The maximum residential density (i.e. the total number of dwelling units divided by total land area including open space) in the HM and HR Districts shall be three dwelling units per acre. There shall be no entitlement to this density, which shall be achievable only upon satisfying all of the applicable requirements of the HM and HR Districts, other provisions of this chapter, and the State Environmental Quality Review Act (SEQRA). This residential density may be increased on an individual parcel by the transfer of development rights from another parcel within the same TND (i.e. a contiguous area zoned HM and HR). Such transfer shall be accomplished by executing a recorded conservation easement or restrictive covenant that reduces the allowable density on another parcel within the same TND. Development rights may also be transferred into a TND from land in the RU District as provided in Section 97-20K. In computing residential density for purposes of this Subsection J, dwelling units in existence on June 10, 2004, shall not be counted.

As discussed in this Supplemental EIS, the Lone Oak TND includes 132 dwelling units. Density within the 103.42-acre TND calculates to 1.28 dwelling units per acre, or some 43 percent of the maximum density of three (3.0) dwelling units per acre that may be authorized under the Town's Zoning Law.

In addition, the number of dwelling units proposed is some 55 percent of the total number of dwelling units (241) permissible on the Project Site's 80.40 unconstrained acres in consideration of the "constraints analysis" presented earlier in this discussion of "Zoning and Public Policy".

Therefore, there is no need related to the Lone Oak TND for any consideration of the transfer of development rights to this location from land within the Rural (RU) District. In fact, the limited (i.e. less than permissible) extent of development proposed within the Lone Oak TND would appear to provide under the Town's Zoning Code opportunity for the absorption of development elsewhere within this hamlet center at a density substantially in excess of what would be maximum authorized density of the other lands if considered severally.

K. <u>Dwelling Units in Multifamily Dwellings.</u> For purposes of this Section 97-15, the number of "dwelling units" for multi-family housing shall be calculated according to the following table, based upon the number of bedrooms in each dwelling unit:

Number of Bedrooms	*Fractional Units in relation to 3 bedroom unit*
1	0.38
2	*0.75*
3 or more	*1.00*

The above provision is not applicable to the Proposed Action. All proposed dwelling units within the Lone Oak TND are either three-bedroom or four-bedroom in configuration.

L. <u>Consultants.</u> For all development under the HM and HR District regulations in this Section 97-15, the Town shall retain design, planning and legal experts with specific expertise in TND development to review the TND application and ensure that it complies with the principles contained in the Charter of New Urbanism.

The Project Sponsor acknowledges the Town will retain "design, planning and legal experts with specific expertise in TND development" to review the TND as it proceeds through the subdivision plat and/or site plan approval process.

Related to this point, see discussion of above Subsection H which in part cites a work session that has already been conducted with Mr. Joel Russell of Woodlea Associates, albeit with respect to the former 299-Unit TND which has been down-scaled to the present 132-Unit TND.

M. <u>Affordable Housing.</u> In all TND developments, affordable housing units as described in Section 97-24 shall be provided in an amount equal to 10% of the allowable unit count in subsection J. Affordable housing units shall be

dispersed within the TND site. Such units shall not be counted toward the maximum allowable density allowed under subsection J. For example, if the maximum number of dwelling units allowable under subsection J is 60, a developer shall be entitled to build 66 units, of which at least 6 must be affordable.

Ten percent (10%) of the total number of dwelling units within the Lone Oak TND, a total of 13 dwelling units, will be set aside as affordable housing units pursuant to the criteria set forth by the Town of Goshen in its Zoning Law. As required under Zoning Law Section 97-24(A), these affordable dwelling units will be indistinguishable from the exterior from the market rate dwelling units.

Due to the economic reality of the maximum price level that can be supported by a household eligible for participation in an affordable housing program, it may not be possible to the affordable units to be set-aside proportionally by housing type and, as a consequence, the affordable units may not fully dispersed throughout the Lone Oak TND. The affordable units will more than likely not be either "edge homes" or "lane homes" but are instead anticipated to be either "town homes" or semi-attached "duplex" units, each a 3-bedroom dwelling unit.

The Project Sponsor acknowledges that matters related to the initial sale of these affordable housing units and the imposition of covenants warranting their long-term future as affordable housing units will be governed within an Affordable Housing Agreement executed by the Project Sponsor and the Town of Goshen. The Project Sponsor further understands the execution of such Agreement will be a condition precedent to Planning Board stamping and signing of the Final Subdivision Plat.

For further information, please consult Zoning Law Section 97-24, a copy of which is for convenience of the reader set forth as **SEIS Exhibit No. 10**.

No credit that would translate to an authorization for increased density is being sought by the Project Sponsor due to the inclusion of the 13 affordable dwelling units within the Lone Oak TND.

N. <u>Developments that Include RU District Land.</u> For lots or developments that include land in the RU District contiguous to the HM and HR Districts, an applicant may perform a separate density calculation for land in each district and then design the development plan without regard to the zoning district boundary line, provided that the total number of units (based upon the "bedroom count" methodology in subsection K above), is consistent with the combined density calculations. The density calculations for the RU District may include discretionary density bonuses granted by the Planning Board under Section 97-20(A)(3). Unless there is a clearly articulated planning or environmental justification for doing otherwise, the units shall generally be clustered more densely within the HM or HR portion of the site, with the RU portion kept in a more open and rural condition.

The above provision is not applicable to the Proposed Action. No land within the Lone Oak Project Site lies within a Rural (RU) District.

O. <u>Specific Plan Option.</u> An applicant or the Town may prepare a "specific plan" in the form of a conceptual site plan that covers all or a portion of a TND, including land in multiple ownerships. If prepared by an applicant, all landowners covered by such a plan must consent to this specific plan option. If prepared by the Town, landowners shall be given notice and an opportunity to object, but the Town shall have the authority to prepare such a plan without their consent, provided that the owners of at least 80% of the land area subject to the specific plan consent to its preparation. The Town shall conduct outreach to all landowners to be covered by a proposed plan and shall involve them in the process of plan preparation. The specific plan shall also be prepared with a substantial public involvement process. A specific plan shall be approved as an amendment to the Town's Comprehensive Plan following procedures required by law for such amendment. The Town Board may, in addition, make the specific plan part of this chapter, by adopting it as a zoning amendment binding upon all landowners as provided in Section 97-79. One a specific plan is adopted as a zoning amendment, any application for development which is in substantial compliance with it may be approved by the Planning Board through site plan review. If the Specific Plan is prepared by the Town, the cost of such preparation, including the cost of SEQRA compliance, may be allocated among the landowners through development fees charged at the time they receive development approvals, provided that there has been prior notice and opportunity for such landowners to be heard concerning the amount of such fees.

The above provision is not applicable to the Proposed Action.

P. <u>Setbacks on Existing Lots of Record.</u> Lots in existence as of June 10, 2004, with or without structures, shall be build-able and considered conforming if they can satisfy applicable Health Department regulations and the setback requirements below. There shall be no minimum required front setbacks for such lots. Minimum side and rear setbacks on such lots shall be as follows:

- *Principal Building:*	*20 feet side and rear*
- *Accessory structures more than 300 s.f.*	*20 feet side; 10 feet rear*
- *Accessory structures less than 300 s.f.*	*10 feet side and rear*

The above provision is not applicable to the Proposed Action.

4.6.3 Mitigation Measures

- **Land Use**

As discussed within this Section and elsewhere throughout this Supplemental EIS, the proposed Lone Oak TND has been demonstrated to be consistent with land use, both as present in the vicinity of the Project Site and as proposed within public policy documents.

No significant adverse effects with respect to "Land Use" have been identified by the Project Sponsor and no mitigation is either required or proposed.

- **Master Plans**

As discussed within this Section and elsewhere throughout this Supplemental EIS, the proposed Lone Oak TND has been demonstrated to be consistent with the Orange County Comprehensive Plan, Strategies for Quality Communities in the 21st Century (2003) which recommends development occur around "existing built-up areas" and among its key goals cites the use of "new development techniques", the conservation of natural land resources including open space, parks and farmlands, the promotion of a broad range of housing opportunities, and the provision of adequate utility systems, and the Town Comprehensive Plan (November 2003) which builds upon the key goals of the County Comprehensive Plan and includes the Project Site within one of three preferred hamlet development areas within the Town.

No significant adverse effects with respect to "Master Plans" have been identified by the Project Sponsor and no mitigation is either required or proposed.

- **Zoning and Public Policy**

As discussed within this Section and elsewhere throughout this Supplemental EIS, the proposed Lone Oak TND has been demonstrated to be consistent with the Town of Goshen Zoning Law (June 2004) and related requirements. As intended by the Town Board in its earlier-cited purpose statement for the HR District, the Lone Oak TND provides a *"… residential neighborhood(s) at the traditional scale and density found in rural hamlets and villages provided that water and sewer service is available*".

No significant adverse effects with respect to "Zoning and Public Policy" have been identified by the Project Sponsor and no mitigation is either required or proposed.

SEIS Subsection 4.7
Community Facilities and Services; Fiscal Impact

SEIS Subsection 4.7 addresses both the principal community facilities and services available to the Project Site and within its environs to the extent necessary to evaluate the probable effects thereon of intended residential development of the Lone Oak TND and the related effect of real property tax and other local governmental revenues directly attributable to the development of such Project.

4.7.1 Existing Setting

- **Overview of Principal Community Services and Facilities.**

The below discussion provides an overview of the principal community services and facilities available to the residents of the Town of Goshen.

Police Protection.

The Town of Goshen maintains a municipal police force and incurs pursuant to a 1998 referendum substantial direct cost in excess of $600,000 per year for police protective services. The Town of Goshen Police Department serves the Town-outside-Village area and operates from the Town DPW facilities on Police Drive approximately 4 miles west of the Project Site. The Department consists of a Police Chief, 6 full-time officers and 14 part-time officers.

Additional police protection at the Project Site is available from either the Orange County Sheriff's Department operating from the Town of Goshen or the New York State Police from its fully-staffed Troop F facility at NYS Route 17 Exit 122 on Crystal Run Road in the Town of Wallkill.

Fire Protection.

The Project Site is divided between Goshen Fire District No. 1 and the Chester Fire District No. 3.

The Goshen Fire District encompasses the Village of Goshen and most of the Town-outside-Village area within the Town of Goshen, including all land within the Project Site except for that lying within approximately 800 feet of Arcadia Road. The Goshen Fire Department is staffed by volunteer personnel and consists of three departments, the Cataract, Dikeman and Minisink companies, each of which is stationed within the Village of Goshen. Travel to the Lone Oak TND site is within the range of 3 miles to 4 miles via Greenwich Avenue, NYS Route 17M and Arcadia Road.

The Chester Fire District encompasses the Village of Chester, most of the Town-outside-Village area of the Town of Chester, and the heretofore- developed Arcadia and Arcadia Hills areas of the Town of Goshen. The Chester Fire Department is housed on High Street (NYS Route 94) in the Village of Chester and may reach the Arcadia Road area of the Lone Oak Project Site via either High Street to Academy Avenue to Brookside Avenue (NYS Route 17M) or Hambletonian Avenue to Ward Road to NYS Route 17M, traveling approximately 2.75 to 3.25 miles under either route.

Revenues to defray the cost of fire protection services are provided through the real property tax and the related levy is included annually on the Town/County tax bill. The 2008 real property tax rate for fire protection, as more fully described below under "General Government Services", is $1.3390/$1000 assessed value for those properties within the Town of Goshen within Chester Fire District No. 3 and $1.9578/$1000 for those properties within Goshen Fire District No. 1.

The ability to levy tax notwithstanding, the continuing availability of volunteer personnel is for these Fire Districts a concern shared with fire and EMS services throughout the region, if not nationally. Were the Districts ever to find themselves in the position of needing to hire either fire drivers or additional personnel due to a lack of dedicated volunteers the cost to the taxpayer would be substantially increased.

Municipal Utilities.

There are three water districts within the Town, these being No. 1 Hambletonian Park, No. 2 Arcadia Hills and No. 3 Stonehenge, with a combined service to approximately 450 dwellings. Each is a special assessment district funded exclusively by user fees. The Hambletonian Park and Arcadia Hills Districts are also sewer districts, being the only two such districts within the Town.

As documented within this Supplemental EIS the present 103.42-acre TND Project Site, being the land area originally set forth as Sections C and D of the Arcadia Hills Subdivision, is located in its entirety within existing Town sewer and water districts, namely Arcadia Hills Town Sewer District as created by the Town Board on March 14, 1968, and the Arcadia Hills Town Water District as created by the Town Board several years earlier on November 12, 1973.

Municipal water and sewer facilities also serve portions of the Village of Goshen. The Village has recently received SPDES Permit approval from NYSDEC to treat up to 2.0 million gallons per day (GPD) of sewage upon its completion of a significant capital project to upgrade several structural components of the existing sewage treatment plant and as such has a substantial residual capacity that could be allocated to new users either within or, subject to appropriate existing, amended or new legal arrangement, outside the Village.

The Project Sponsor has recognized the Village's potential in this regard throughout the years and both initiated various discussions with the Village concerning the terms under which an allocation of a portion of the residual sewer capacity might be secured and made other offers to the Town for development of its own facilities should either private/public or inter-municipal participation by the Village not occur.

With none of these efforts appearing productive, the Project Sponsor decided at the time of its preparation of the Draft EIS (and in consideration of the intent to develop its entire combined 226.7 acres, approximately 109 acres of which were outside existing Town water and sewer districts) to provide self-sufficient, on-site central water and sanitary sewage systems to accommodate the domestic water supply demand, the fire flow requirements, and the sanitary sewage load for then proposed 162-lot single-family conventional residential subdivision.

The Project Sponsor's decision to so proceed was made after being unsuccessful in prior efforts to initiate a cooperative program with the Town of Goshen to develop larger-scale water and sanitary sewer works to accommodate not only the water supply demand and sanitary sewage load of the Fini Bros. undertaking but also to alleviate the problems understood to exist within the older Arcadia Hills Subdivision.

This circumstance was explicitly summarized at Section 3, Subsection 3.7 of the Draft EIS, excerpting the below words from Page 3 of both the **Engineer's Reports** for Proposed Water District Formation and Sewer District Formation, presented as **DEIS Appendices C and D-1**, respectively:

"Fini Bros. acquired the 213.522 acres in the mid-1980's and has examined (throughout the intervening years) a number of options for development ranging upward to 362 lots and including cooperative arrangements with the Town of Goshen whereby expanded central water and/or sanitary sewage systems would be provided both to accommodate the requirements of Lone Oak and to address deficiencies present in Arcadia Hills.

In May 1999, for example, a specific offer was made to the Town Board to construct a 250,000 GPD wastewater treatment facility to service both the intended development and to intercept sewage flows from the 251 existing dwellings within Arcadia Hills, and to install a 200,000 gallon water storage tank and necessary additional water supply wells.

These offers by Fini Bros. have neither led to agreements for financing, construction, ownership and operation of the expanded facilities nor have there been proposals for development on lands adjacent to the Lone Oak Project Site that may have brought additional parties requiring water supply and/or sanitary sewage to the negotiating table."

Today, in consideration of the reduction of the Project Site so as to be wholly included with the existing Town water and sewer districts, it appears circumstances have changed appreciably and the formation of either new Town districts or expansion of the existing Arcadia Hills Town Water and Sewer District is no longer required to accommodate the requirements of the Lone Oak TND. The Project Site lies within the existing Arcadia Hills Town Sewer and Water Districts and the Project Sponsor proposes the design, permitting and installation of water system and sanitary sewage system infrastructure that would upon completion be dedicated to the Arcadia Hills Town Sewer and Water Districts for long-term ownership, operation and maintenance.

As cited earlier in this Supplemental EIS, the location at which sanitary sewage generated within the Lone Oak TND would be treated remains to be determined. A program for conveyance of TND-generated sewage to, and treatment at, the Village of Goshen wastewater treatment plant (STP) including undertaking of improvements to the existing sanitary sewage facilities serving the Arcadia Hills Subdivision has been set forth as an alternate to the permitting and construction of a new, though down-sized version of the STP, as otherwise described in the Draft EIS, on the adjacent Lands of Fini.

See **SEIS Appendix C, Sewer Infrastructure Feasibility Study / Lone Oak TND**, April 2008.

Consideration is also provided within Section 6, Alternatives to the Proposed Action, Subsection 6.10 of this Supplemental EIS to an alternative to the proposed self-sufficient, central water system exclusively serving the Lone Oak TND. The alternative would involve design and deployment of an inter-connected system of water supply, treatment and storage facilities to serve the water supply demand of the adjacent existing Arcadia Hills Subdivision and the proposed Lone Oak TND as well as being linked to the nearby Hills at Goshen.

Emergency Medical Services.

Emergency medical service to the Project Site is available from several sources by contacting in the first instance the Orange County 911 Emergency Services System. Service is then typically dispatched from either GOVAC or a private ambulance service to locations within the Goshen Fire District or from the Chester Fire Department's ambulance service housed on Main Street or a private ambulance service for locations within the Chester Fire District.

Accordingly, paramedic and EMT support is available and transport is provided to a number of hospitals in the vicinity, including the Orange Regional Medical Center's Arden Hill Campus in the Village of Goshen less than one mile west of the Project Site on Harriman Drive. The Arden Hill facility is however scheduled to close in 2011 upon the Orange County Regional Medical Center's completion of its 600,000 s.f. "start-of-the-art" medical center on a 61-acre tract on East Main Street near Route 17 and I-84 in the Town of Wallkill. The new facility, for which construction began in March 2008, is readily accessible approximately 6 miles northwest of the Lone Oak TND.

Schools and Libraries.

As cited in the Draft EIS in its discussion of the former Project Site, the northwesterly 109.06 acres (TMP 11-1-58) of the Lands of Fini Bros. lie within the Goshen Central School District while the southeasterly 103.42 acres (TMP 11-1-49.2) lie within the Chester Union Free School District. Accordingly, the 132-Unit Lone Oak TND Project Site now proposed is in its entirety within the Chester Union Free School District.

According to the Chester Union Free School District's web-site and Erin Brennan, Business Official:

- The Chester Union Free School District had an average 2007-2008 enrollment of 1,033 pupils, an increase of 101 pupils, or approximately 1.4% annually over an 8-year "look back" period to the 1999-2000 school year.

- With the recent opening of its new high school on Hambletonian Road and the expansion of its elementary school, the District is now positioned to operate three educational facilities, a K-5 elementary school, a 6-8 Middle School and a 9-12 High School, the Middle School and High School collectively known as "Chester Academy", or some variation thereof.

- The Chester Union Free School District's 2007-2008 annual budget of $20,845,595 translates to a per pupil expenditure of approximately $20,180. $11,847,834 of the budgeted amount, or 56.8%, was scheduled to be raised through real property tax with the largest component of the balance being "State aid". The local real property tax share equates to $11,469. per pupil.

  In order to do so, the 2007-2008 school tax rate within the Town of Goshen portion of the Chester School District was set at $33.431800 / $1000 assessed property value.

Residents throughout the Town of Goshen are also served by the Goshen Public Library and Historical Society which is a participant in the Ramapo-Catskill Library System. The library is located on Main Street in the Village of Goshen. Revenue for the Library (approximately $500,000. annually) is raised through real property tax with library tax levied on the vast majority of Town of Goshen property owners as part of the Goshen School Central District tax bill. According to the Orange County Real Property Tax Office, a similar library tax is not levied on those property owners within the Town of Goshen whose lands are located within the Chester Union Free School District. This circumstance notwithstanding, and as observed by the Town Planner, these property owners are entitled however to library service from either Chester or Goshen.

Parks and Recreation Facilities.

The recreational facilities of the Goshen and Chester School Districts, the Craigville Road Town/Village Park located some 4.5 miles north of the Project Site, and the Orange County Pathways Trail are identified within the Town Comprehensive Plan as the Town's principal local public recreation facilities.

More land-extensive public recreational settings, both with opportunities for passive and active pursuits and conveniently accessible to Town residents, are found within the Orange County Parks system, including Thomas Bull Memorial County Park on Route 416 in Hamptonburgh and the Warwick and Winding Hills County Parks, and at State facilities such as the substantially undeveloped Goose Pond Mountain State Park to the east of Chester and the Bear Mountain and Harriman State Parks.

The Craigville Road Park ("Goshen Recreation Center") occupies a 62-acre tract and includes a variety of facilities including but not limited to Little League baseball diamonds, soccer fields, a playground and a pavilion and associated picnic areas.

A Joint Town/Village Recreation Commission has recently developed a Town-wide Recreation Plan to reinforce and expand upon the general recommendations made in the Town Comprehensive Plan (2003) calling for an increase in Town parkland acreage by a minimum of 23 percent by 2020 and for fuller consideration of additional 20 to 40 acre parks at three locations within the Town, these locations being Phillipsburg Road, Maple Avenue and Reservoir Road.

Notwithstanding this call, the Town Open Space and Farmland Protection Plan points out the efficiency of concentrating the Town's principal recreation facilities at a single location, Craigville Road Park.

Solid Waste Management.

Within the Town of Goshen solid waste, including household garbage, collection occurs by private carter paid by the individual property owner. Disposal of collected solid waste typically occurs at the Dunmore Landfill in Dunmore, Pennsylvania.

General Government Services.

Residents, businesses and institutional uses throughout the community are provided a wide variety of general governmental services, including such matters as highway maintenance, recreational services, and licensing and permitting services, by Orange County and the Town of Goshen.

The Town Offices are located at the Goshen Town Hall at 41 Webster Avenue in the Village of Goshen, approximately 1.75 to 3.25 miles from the Project Site via either Harriman Drive and South Street or Arcadia Road, NYS Route 17M and South Street while most County services are also conveniently headquartered at the Orange County Governmental Center within the County Seat, the Village of Goshen.

The 2008 Town budget exclusive of special districts totaled approximately totals $7,290,994, with the appropriations divided between the Town-wide General Fund ($2,332,269.), the Town-wide Open Space Fund ($171,062.), the Town-wide Highway Fund ($952,086.), the Town-outside-Village General Fund ($2,421,425.) and the Town-outside-Village Highway Fund ($1,414,152.).

Of the appropriated amount, $3,861,740, or approximately 53.0 percent, is raised by the Town through real property taxes. Among other major sources of revenue are the mortgage tax and fine and forfeitures or, in the case of the cited budget, application of unexpended balances of $575,000 carried forward from prior year(s).

The appropriated amount raised through real property taxes calculates to $299.06 per resident (12,913 according to the 2000 census) under the "worst case" assumption that the appropriated amount is wholly attributable to the Town's resident population and the resident population has not increased since the 2000 census.

As noted above, both the General Fund and Highway Fund appropriations and levies are divided into Town-wide and Part-Town or Town-outside-Village (TOV) components. All Town of Goshen real property owners are responsible for raising $1,894,717 of the above-cited $3,861,740 tax levy. The remainder, $1,967,023, is the exclusive responsibility of TOV property owners to pay for services that do not benefit Village property owners.

Owners of Town-outside-Village property such as the Project Site were levied at a 2008 County tax rate of $6.1027/$1000 of assessed value and, in order to meet both their shared and exclusive local responsibilities, a combined 2008 Town tax rate of $5.5497/$1000. The combined rate is comprised of Town General and Highway ($1.86400/$1000), TOV Highway ($2.18820/$1000), Open Space ($0.185100/$1000), and Part-Town, or TOV General ($1.37890/$1000) components.

According to the Orange County Real Property Tax Service, the 2007 equalization rate for the Town of Goshen (as applied to the 2007-2008 School District and 2008 Town/County real property tax levies) was 55.00, representing a decline of 42 percent from 94.99 in 2001 and indicating that real properties are generally increasing in value, being considered by NYS Equalization & Assessment to be assessed at approximately 55 percent of market value.

Franchise Utilities.

As discussed in DEIS Subsection 2.64 and reaffirmed at Subsection 3.6.4 of this Supplemental EIS, franchise utilities are readily available at the Project Site. These

include electric and natural gas by Orange and Rockland Utilities, Inc., communication services by Frontier Communications, Inc., and CATV by the local cable provider.

Shopping, Banking, Post Office and Other Local Services.

The historic Village of Goshen is the economic and civic center of the Town, not to mention the County Seat, with local shops, restaurants, offices and other commercial establishments, the Senior Citizen Center, the Post Office, the Library, Town and Village Offices, and all four schools within the Goshen Central School District located there.

- **Existing Role of the Project Site, including Consideration of Fiscal Impact.**

The Lands of Fini now consist of a combined 213.52 acres of rural, vacant, non-agricultural land. Except for an occasional routine ministerial requirement, such as the transmittal of a tax bill, or the special circumstances of working with the Planning Board and other Town personnel and consultants in review of the instant development proposal, which are generally user fee based, the present landowner imposes negligible demand on community services and/or facilities.

For that matter, due to the presence of existing private water supply wells within their lands, which were generously made available for Town use during the 1998 drought, substantial economic benefit estimated by Supervisor Romano in March 1999 to be in excess of $75,000. was received upon that occasion by the Town in terms of the value of the water supply pumped from Fini Well No. 2 to make up for the deficient performance of water supply wells serving Arcadia Hills Town Water District No. 2. See earlier DEIS Exhibit 23, Newspaper Article.

Even without consideration of the extraordinary benefit provided the community during the above-cited drought period, the effect of this negligible demand for services causes the Lands of Fini to routinely have a net positive impact on the County, Town and School Districts substantially equal to the amount of real property tax presently generated by the 213.52 acres for other local revenues that are attributed to the number of community residents instead of the assessed value of the community's land and improvements are not pertinent to this undeveloped land.

Accordingly, based on the above stated real property tax rates and the Project Site's present aggregate market value of $735,100, the current real property tax liability and assumed net fiscal impact of the Project Sponsor's property has been calculated to be positive in the amount listed below for each of the taxing entities based upon the total assessed value or applicable portion thereof:

- Orange County $ 2,467, $404,300 AV.
- Town of Goshen $ 2,270, $404,300 AV.

- Goshen School District, including Goshen Library Tax $ 4,964, $177,800 AV.
- Chester School District $ 7,572, $226,500 AV.
- Goshen Fire District No. 1 $ 703, $359,000 AV.
- Chester Fire District No. 3 $ 61 , $ 45,300 AV.

Of these amounts, the below 2008 Town/County and 2007-2008 School District real property tax revenues were attributable to TMP 11-1-49.2, the 103.42-acre TND Project Site, subject of this SEIS:

- Orange County $ 1,382
- Town of Goshen $ 1,272
- Chester School District $ 7,572
- Goshen Fire District No. 1 $ 355
- Chester Fire District No. 3 $ 61

4.7.2 Anticipated Impacts

- **Probable Effects on Principal Community Services and Facilities.**

In order to assess the probable effects of the Lone Oak Traditional Neighborhood Development on the above-described community services and facilities, a projection of the population that would be resident there has been made upon strict application of the demographic multipliers set forth in Residential Demographic Multipliers, Estimates of Occupants of New Housing, Rutgers University Center for Urban Policy Research, June 2006.

The projection estimates a total resident population of 431 persons, including 99 school-age children. In the absence of similar information for the Chester Union Free School District, the projection of school-age children was then adjusted with respect to the number of school-age children who would be anticipated to attend public schools by employing the approximately 90.9 percent incidence rate cited within a report entitled Enrollment Projection / Demographic Study for the Goshen Central School District, January 2006. Thus, the number of school-age children who would attend the Chester Union Free School District is estimated to be 90.

See **SEIS Table No. 3, Lone Oak TND Resident Population**, and **SEIS Table No. 4, Lone Oak TND School-Age & Public School Children**.

SEIS Table No. 3

Lone Oak 132-Unit TND
Resident Population

Dwelling Unit Type	Persons/D.U.*	Number D.U.	Total Persons
4-bedroom single-family detached	3.67	66	242
3-bedroom single-family detached	2.95	22	65
3-bedroom single-family semi-detached	2.83	16	45
3-bedroom townhomes	2.83	28	79
Total TND Resident Population			**431**

* *Source: Residential Demographic Multipliers, Estimates of Occupants of New Housing, Rutgers University Center for Urban Policy Research, June 2006.*

SEIS Table No. 3A

Lone Oak 132-Unit TND
Resident Population

Dwelling Unit Type	Persons/D.U.*	Number D.U.	Total Persons
4-bedroom single-family detached	4.031	66	266
3-bedroom single-family detached	3.258	22	72
3-bedroom single-family semi-detached	2.808	16	45
3-bedroom townhomes	2.808	28	79
Total TND Resident Population			**462**

* *Source: The New Practitioner's Guide to Fiscal Impact Analysis, Rutgers University Center for Urban Policy Research, 1985.*

SEIS Table No. 4

Lone Oak 132-Unit TND
School-Age & Public School Children

Dwelling Unit Type	School-Age/DU *	Number DU	School-Age Children
4-bedroom single-family detached	1.05	66	69
3-bedroom single-family detached	0.58	22	13
3-bedroom single-family attached (2-4 units)	0.39	44	17
Total TND School-Age / Public School Children			**99 / 90 ****

* *Source: Residential Demographic Multipliers, Estimates of Occupants of New Housing, Rutgers University Center for Urban Policy Research, June 2006*

** *Based upon empirical data indicating 91% public school enrollment published by the Goshen Central School District in its Enrollment Project / Demographic Study, January 2006, and considered transferable to Chester Union Free School District.*

SEIS Table No. 4A

Lone Oak 132-Unit TND
School-Age & Public School Children

Dwelling Unit Type	School-Age/DU *	Number DU	School-Age Children
4-bedroom single-family detached	1.328	66	88
3-bedroom single-family detached	0.705	22	16
3-bedroom single-family attached (duplex)	0.854	16	14
3-bedroom townhome	0.532	28	15
Total TND School-Age / Public School Children			**133 / 121 ****

* *Source: The New Practitioner's Guide to Fiscal Impact Analysis, Rutgers University Center for Urban Policy Research, 1985*

** *Based upon empirical data indicating 91% public school enrollment published by the Goshen Central School District in its Enrollment Project / Demographic Study, January 2006, and considered transferable to Chester Union Free School District.*

The total of 431 persons represents an approximate 3.34 percent increase in the Town's 2000 population of 12,913 persons while the estimated number of children attending public schools would increase pupil enrollment of the Chester Union Free School Districts by 8.77 percent from 2007-2008 enrollment level of 1,033 pupils.

In acknowledgment the recently-issued demographic multipliers are held in question in some circles for they generally indicate reduced overall population and a lower incidence of school-age children in owner-occupied dwellings, **SEIS Table No. 3A** and **SEIS Table No. 4A** have also been presented to indicate the overall population and the number school-age children within the TND under the former demographic multipliers. These alternate multipliers yield a somewhat higher projection with a total resident population of 462 persons, including 133 school-age children, 121 of which would attend public schools in consideration of the local empirical data from the Goshen Central School District.

Police Protection.

It is not anticipated that the development of the Lone Oak Estates TND will have either a substantial impact on the demand for police services within the community based upon the demography, including economic status, of the anticipated resident population or affect the ability of the County and State police agencies to deliver services to the other on-going development.

Calculated on a per capita basis, an increase of 431 (or 462) persons in the resident population of the Town, as would occur upon build-out of the Lone Oak TND, would proportionately warrant approximately 0.2 full-time officers and 0.5 part-time officers based on current staffing levels. The actual number would however be less for the Police Department provides service to not only the resident population but also the Town's commercial, business and institutional establishments.

Fire Protection.

It is not anticipated that the development of the Lone Oak TND will have either a substantial impact on the demand for fire protection services within the community or affect the ability of the fire departments to deliver services to the other on-going development based upon the intended residential use and the following characteristics of the development:

- Direct public roadway access will be provided to each lot or other dwelling site within the TND.
- All public roadways and all private driveways within the TND will be constructed in accordance with Town specifications as to grade and other features.
- All dwellings and other structures within the TND will be new construction in conformity with the requirements of pertinent ICBO New York State Codes.

- The TND will be served by a localized central water system with fire flow capability in excess of recently upgraded ISO / NFPA standards, including initially three on-site wells and water storage facilities, 6", 8" and 10" water main, and fire service hydrants at intervals of approximately 400 feet.

- The community fiscal impact analysis presented later this Section indicates substantial additional revenues to defray the cost of providing fire protective service will accrue to both Goshen Fire District No. 1 and Chester Fire District No. 3 through real property tax revenues as build-out occurs of the Lone Oak TND.

The above notwithstanding, it is acknowledged, as stated earlier, that the continued availability of volunteer personnel is an issue (often far more critical than a shortfall in revenue) faced by both the Goshen and Chester Fire Departments. It would be hoped that a number of the residents within the Lone Oak TND would become active volunteer fire and/or EMS personnel.

Municipal Utilities.

From an engineering perspective, the Lone Oak TND, with its 48,020 GPD average daily water supply demand and sanitary sewage design load of 58,250 GPD of the proposed 132 dwelling units and related community facilities, can be served on a self-sufficient basis with the central water system, including water supply wells, treatment and storage facilities, and the sanitary sewage collection, conveyance and on-site treatment facilities presented in Section 3, Subsection 3.2.1 of this Supplemental EIS.

Should the preferred agreement not be reached with the Town for improvements to the existing Arcadia Hills sewage facilities and the Village of Goshen (to the extent such may be required) and for conveyance of sanitary sewage generated within the Lone Oak TND to its STP and alternative on-site construction of an STP be required, re-design of the 100,000 GPD sewage treatment plant (STP) presented in the Draft EIS would however be required to accommodate the reduced calculated maximum additional sanitary sewage design load (based on the total of 132 dwelling units within the TND) of 58,250 GPD that would be generated upon build-out of the Lone Oak TND.

Upon acceptance of the water and sanitary sewer infrastructure by the Town of Goshen on behalf of the Arcadia Hills Town Water District and the Arcadia Hills Town Sewer District legal mechanisms will be in place to ensure that dependable service is maintained and all costs associated with the long-term ownership, operation and maintenance of the develop-installed improvements is the exclusive responsibility of the benefited property owners and in no part an expense borne by other Town property owners.

Emergency Medical Services.

It is not anticipated that the development of the Lone Oak TND will create a substantial demand for emergency medical services, as would for instance the specialized population of a nursing home or like facility, or have a significant impact

on the delivery of emergency medical services throughout the community though continuing need for volunteer personnel is acknowledged. Moreover, should an incident arise, emergency medical care is currently located at Arden Hill Campus a short distance to the west on Harriman Drive and will in the future (post-2011) be provided at Orange Regional Medical Center's new medical facility in the Town of Wallkill.

Schools and Libraries.

As stated above, development of the Lone Oak TND is projected to cause a total resident population of 431 persons including 99 school-age children. This population will cause there to be additional demand for school, library and other educational support services.

To the extent that the school-age children residing in the Lone Oak TND attend public schools, a number estimated to be 90 in consideration of the reduction factor employed to account for private schools and "home schooling" this additional demand will be most substantially felt by the public school system.

In the instance of the 132-Unit Lone Oak TND, the demand will be borne by the exclusively by the Chester Union Free School District.

More specifically, the following anticipated effects on the Chester Union Free School District would occur:

These 90 pupils would be bussed by grade level to the following District facilities:

- Grades K-5, Chester Elementary School within a suburban residential area to the northwest of NYS Route 94 and the Village of Chester located approximately 4.5 to 5.0 miles from the existing Arcadia Hills Subdivision and the proposed Lone Oak TND.

- Grades 6-8, Chester Middle School (part of "Chester Academy") located on Maple Avenue in the Village of Chester approximately 3.0 to 3.5 miles from the existing Arcadia Hills Subdivision and the proposed Lone Oak TND.

- Grades 9-12, the recently-completed Chester High School (part of "Chester Academy"), located off Hambletonian Road.

Correlation with the discussion of potential build-out set forth at Subsection 3.5.1 of this Supplemental EIS indicates that the 90 pupils attending Chester Union Free District schools would enroll there during a three-to-five year period beginning with the school year 2011-2012. The additional pupils would not arrive at the school's portals *en masse* but instead gradually enroll throughout the period of residential build-out.

Addition of the above total of 90 pupils to the present enrollment (average count of 1,033 in 2007-2008) of the Chester School District would represent an increase of approximately 8.77 percent in total enrollment. In consideration of the recently-completed construction activity, this increase appears to be of a magnitude that can be accommodated in terms of facility but will require staffing modifications.

In consideration of the data presented above regarding the 2007-2008 Chester Union Free School District budget and the substantial recently-completed construction activity within the District to address current and projected needs, it is anticipated that the Chester School District would incur additional proportional annual cost of approximately $1,816,200 ($20,180 per pupil) for educating these 90 pupils and that of this amount $1,032,210 ($11,469 per pupil) would have to be raised through real property school tax revenues.

Were the greater number of 121 public school pupils projected on the basis of the alternate former demographic multiplier to occur, the additional proportional annual cost incurred by the Chester Union Free School District for educating these 121 pupils would be $1,387,749.

Parks and Recreation Facilities.

It is not anticipated that development of the Lone Oak TND, a middle-to-upper middle-level priced, owner-occupied residential development will create an extraordinary or specialized demand for public recreation facilities or services.

Further, the Lone Oak TND mitigates demand on community park and recreation facilities by conceptually incorporating within the TND Site Plan not only 56.3 percent Open Space Area but additionally providing a variety of publicly-accessible open space lands, including a community recreation area and picnic grove, and walkways / trails for bicyclists and pedestrians throughout TND.

As discussed earlier in Subsections 3.5.2 of this Supplemental EIS, arrangements for the long-term ownership, management and maintenance of these lands and facilities will be fully detailed as the Lone Oak TND progresses through the subdivision plat review and approval process.

Solid Waste Management.

At an assumed generation rate of 3.5 pounds per day per capita, the 431 persons residing within the Lone Oak TND will generate an estimated 22.6 tons of solid waste monthly. The amount generated will have no substantial impact on the ability of responsible parties to provide for management, collection and processing of this waste in accordance with the requirements of the Orange County Solid Waste Management Program.

The only extraordinary generation of solid waste caused by the development of the Lone Oak TND will be typical construction and demolition (C&D) waste during the construction period. This waste will be recycled to the extent practicable and otherwise appropriately disposed of in accordance with Orange County requirements and pertinent NYSDEC regulations. C&D waste will be routinely collected from throughout the construction site, housed in appropriate containers and periodically transported by a private carter from the construction site to a licensed C&D landfill for disposal.

General Government Services.

It is not anticipated that the development of the Lone Oak TND will create in the long-term any extraordinary demand for general governmental services that will be disproportionate to a resident population increase of 431 (or 462) persons within the 132 owner-occupied dwelling units. There will however be some concentration of user fee supported permitting, inspection and related activities during the construction period as subdivision improvements are installed and dwelling construction and related residential site development occurs.

In the long-term, and as noted at SEIS Section 3, Subsection 3.5.2, "Long-Term Ownership, Operation and Maintenance of Land and Improvements", the principal additional responsibility borne by the Town of Goshen on a Town-wide basis will be the ownership and maintenance of the 3.4 miles of new subdivision roadways within Lone Oak TND and, if the offer of dedication is accepted, the Community Recreation Area.

Other principal subdivision infrastructure, namely the central water and sanitary sewage systems and related storm water management facilities, will be administered through either special district arrangements, i.e. the Arcadia Hills Town Water and Town Sewer Districts and the anticipated Lone Oak Town Drainage District, or in the alternative be under ownership and operation of public transportation corporations, i.e. private companies, should intended dedication of the water and sewer infrastructure not be accepted by the Town Board on behalf of the Arcadia Hills Town Water and Sewer Districts. Either scenario will be structured to provide that associated expenses are borne only by benefited property owners in a manner not unlike the franchise utilities cited below.

Franchise Utilities.

As noted in the Draft EIS and reaffirmed in this Supplemental EIS, it is not anticipated by the service providers that development of the Lone Oak TND will have a significant effect on delivery or distribution of franchise services.

Detailed project planning and review of required service installations with these franchise utilities typically follows Preliminary Plat Approval by the Town Planning Board.

All such installations will be in accordance with the requirements of the local franchise agreements and the requirements of the NYS Public Service Commission. The Project Sponsor will seek no waiver of any applicable standard, including requirement for the underground installation of facilities along subdivision roadways, and anticipates none will be requested by the franchise utilities.

- **Fiscal Impact of Development of the Project Site.**

An assessment has been undertaken of the fiscal impact of the Lone Oak TND on the Town of Goshen and the School Districts, as cited above, with additional real

property tax revenues also calculated for Orange County and Goshen Fire District No. 1 and Chester Fire District No. 3.

See **SEIS Tables No. 5** and **5A, Lone Oak 132-Unit TND / Community Fiscal Impact.**

The former takes into account the total resident population and number of public school pupils projected upon application of the "updated multipliers (2006)" as earlier set forth within **SEIS Tables 3** and **4**. The latter takes into account the total resident population and number of public school pupils projected upon application of the "former (or alternate) multipliers (1985)" as earlier set forth within **SEIS Tables 3A** and **4A**.

Total Projected Real Property Tax Generation.

As set forth on the above Tables, the following data has been generated to establish the total equalized assessed value and serve as a basis for projecting the annual real property tax revenues of the Lone Oak TND that would have occurred had the TND been built out in 2007-2008:

- Based upon the unit breakdown and pricing data presented earlier in SEIS Section 3, Subsection 3.3, "Residential Structures; Related Site Development", total projected sales of the 132 dwelling units within the Lone Oak TND was calculated to be $69,320,000, an average of approximately $525,000 per dwelling unit.

- Additional taxable real property within the Lone Oak TND, including community facilities and various open spaces, was assigned a market value of $500,000.

- Upon application of the then current equalization rate of 0.55 as established by the NYS Board of Equalization and Assessment, the total assessed value of the Lone Oak TND was calculated to be $38,401,000, consisting of $38,126,000 attributable to the 132 residential dwelling units and $275,000 attributable to the other cited lands and improvements.

- The total $38,401,000 in assessable value would apply in its entirety to Orange County, the Town of Goshen and the Chester Union Free School District for the entirety of the assessable improvements within the Lone Oak TND is within these jurisdictions.

  Real property tax levied by Orange County at the 2008 tax rate of $6.1027/$1000 assessed value would have been $234,350.

  Real property tax levied by the Town of Goshen based on the combined 2008 Town-outside-Village tax rate of $5.5497/$1000 assessed value would have been $213,114. This levy consists of amounts in support of the Town General Fund and Highway Fund, the TOV Highway Fund and the TOV General Fund.

SEIS Table No. 5

Lone Oak 132-Unit TND
Community Fiscal Impact

Total Projected Assessable Property Value

Development Type	Sales Price	Assessed Value (AV)*	AV Subtotal
4-bedroom "edge homes" (49)	$ 620,000.	$ 341,000.	$16,709,000.
3-bedroom "edge homes" (16)	$ 540,000.	$ 297,000.	$ 4,752,000.
4-bedroom "lane homes" (17)	$ 540,000.	$ 297,000.	$ 5,049,000.
3-bedroom "lane homes" (6)	$ 480,000.	$ 264,000.	$ 1,584,000.
3-bedroom duplex "town homes" (16)	$ 440,000.	$ 242,000.	$ 3,872,000.
3-bedroom "town homes" (28)	$ 400,000.	$ 220,000.	$ 6,160,000.
Common lands, recreation facilities and utilities	NA	$ 275,000.	$ 275,000.

Orange County	**$38,401,000**.
Town of Goshen	**$38,401,000.**
Chester Union Free School District	**$38,401,000.**
Goshen Fire District # 1**	**$31,801,000.**
Chester Fire District # 3**	**$ 6,600,000.**

* *Source: Assessable Value established at 55% of Sales Price based upon current Equalization Rate of 0.55 set by NYS Board for Equalization and Assessment in July 2007*

** *15 4-bedroom "edge homes" and 5 3-bedroom "edge homes" lie within Chester Fire District #3; the remainder of the TND lies within Goshen Fire District #1.*

SEIS Table No. 5A

Lone Oak 132-Unit TND
Community Fiscal Impact

Total Projected Assessable Property Value

Development Type	Sales Price	Assessed Value (AV)*	AV Subtotal
4-bedroom "edge homes" (49)	$ 620,000.	$ 341,000.	$16,709,000.
3-bedroom "edge homes" (16)	$ 540,000.	$ 297,000.	$ 4,752,000.
4-bedroom "lane homes" (17)	$ 540,000.	$ 297,000.	$ 5,049,000.
3-bedroom "lane homes" (6)	$ 480,000.	$ 264,000.	$ 1,584,000.
3-bedroom duplex "town homes" (16)	$ 440,000.	$ 242,000.	$ 3,872,000.
3-bedroom "town homes" (28)	$ 400,000.	$ 220,000.	$ 6,160,000.
Common lands, recreation facilities and utilities	NA	$ 275,000.	$ 275,000.

Orange County	**$38,401,000**.
Town of Goshen	**$38,401,000.**
Chester Union Free School District	**$38,401,000.**
Goshen Fire District # 1**	**$31,801,000.**
Chester Fire District # 3**	**$ 6,600,000.**

* *Source: Assessable Value established at 55% of Sales Price based upon current Equalization Rate of 0.55 set by NYS Board for Equalization and Assessment in July 2007*

** *15 4-bedroom "edge homes" and 5 3-bedroom "edge homes" lie within Chester Fire District #3; the remainder of the TND lies within Goshen Fire District #1.*

Total Projected Real Property Tax Generation

Taxing Unit	Assessed Valuation	Tax Rate**	Total Property Tax
Orange County	$38,401,000.	$ 6.1027	$ 234,350.
Town of Goshen	$38,401,000.	$ 5.5497	$ 213,114.
Chester Union Free School District	$38,401,000.	$33.431800	$1,283,815.
Goshen Fire District # 1	$31,801,000.	$ 1.9578	$ 62,260.
Chester Fire District # 3	$ 6,600,000.	$ 1.3390	$ 8,837.

*Source: ** Orange County Real Property Tax Office, County of Orange Tax Rates, 2007-2008*

Present Project Site Real Property Tax Generation
(103.42-acre portion of Fini Lands / TMP 11-1-49.2)

Taxing Unit	AV ***	Tax Rate**	Total Property Tax
Orange County	$ 226,500.	$ 6.1027	$ 1,382.
Town of Goshen	$ 226,500.	$ 5.5497	$ 1,272.
Chester Union Free School District	$ 226,500.	$33.431800	$ 7,572.
Goshen Fire District # 1	$ 181,200.	$ 1.9578	$ 355.
Chester Fire District # 3	$ 45,300.	$ 1.3390	$ 61.

*Sources: ** Orange County Real Property Tax Office, County of Orange Tax Rates, 2007-2008*

**** Town of Goshen Real Property Assessment Roll*

Projected Increase in Real Property Tax Revenue

Orange County	**$ 232,968.**
Town of Goshen	**$ 211,842.**
Chester Union Free School District	**$1,276,243.**
Goshen Fire District #1	**$ 61,905.**
Chester Fire District #3	**$ 8,776.**

Calculation: *Total Projected Real Property Tax Generation less Present Real Property Tax Generation*

Total Estimated Increase in Community Service Expenditures

Benefit Unit	Number *	Expense/Unit	Expense Incurred
Resident	462	$ 299.06	$ 138,166.
Public School Pupil			
- Chester Union Free SD	121	$ 11,469.	$ 1,387,749.

* *Projections based on The New Practitioner's Guide to Fiscal Impact Analysis, Rutgers University Center for Urban Policy Research, 1985*

Net Fiscal Impact of Lone Oak 132-Unit TND

Town of Goshen	**$ + 73,676.**
Chester Union Free School District	**$ - 111,506.**

Calculation: *Projected Increase in Real Property Tax Revenue less Total Estimated Increase in Community Service Expenditures*

Total Projected Real Property Tax Generation

Taxing Unit	Assessed Valuation	Tax Rate**	Total Property Tax
Orange County	$38,401,000.	$ 6.1027	$ 234,350.
Town of Goshen	$38,401,000.	$ 5.5497	$ 213,114.
Chester Union Free School District	$38,401,000.	$33.431800	$1,283,815.
Goshen Fire District # 1	$31,801,000.	$ 1.9578	$ 62,260.
Chester Fire District # 3	$ 6,600,000.	$ 1.3390	$ 8,837.

Source: ** *Orange County Real Property Tax Office, County of Orange Tax Rates, 2007-2008*

Present Project Site Real Property Tax Generation (103.42-acre portion of Fini Lands / TMP 11-1-49.2)

Taxing Unit	AV ***	Tax Rate**	Total Property Tax
Orange County	$ 226,500.	$ 6.1027	$ 1,382.
Town of Goshen	$ 226,500.	$ 5.5497	$ 1,272.
Chester Union Free School District	$ 226,500.	$33.431800	$ 7,572.
Goshen Fire District # 1	$ 181,200.	$ 1.9578	$ 355.
Chester Fire District # 3	$ 45,300.	$ 1.3390	$ 61.

Sources: ** *Orange County Real Property Tax Office, County of Orange Tax Rates, 2007-2008*

*** *Town of Goshen Real Property Assessment Roll*

Projected Increase in Real Property Tax Revenue

Orange County	**$ 232,968.**
Town of Goshen	**$ 211,842.**
Chester Union Free School District	**$1,276,243.**
Goshen Fire District #1	**$ 61,905.**
Chester Fire District #3	**$ 8,776.**

Calculation: *Total Projected Real Property Tax Generation less Present Real Property Tax Generation*

Total Estimated Increase in Community Service Expenditures (Local Real Property Tax Share)

Benefit Unit	Number *	Expense/Unit	Expense Incurred
Resident	431	$ 299.06	$ 128,895.
Public School Pupil			
- Chester Union Free SD	90	$ 11,469.	$ 1,032,210.

* *Projections based on Residential Demographic Multipliers, Estimates of Occupants of New Housing, Rutgers University Center for Urban Policy Research, June 2006*

Net Fiscal Impact of Lone Oak 132-Unit TND

Town of Goshen	**$ + 82,947.**
Chester Union Free School District	**$ +244,033.**

Calculation: *Projected Increase in Real Property Tax Revenue less Total Estimated Increase in Community Service Expenditures*

Real property tax levied by the Chester Union Free School District at the 2007-2008 tax rate of $33.431800/$1000 assessed value would have been $1,283,815.

While of no effect to this analysis, it is acknowledged that some relief to the owner of a principal residence and compensating revenue to the School Districts (generally in the range of 8 to 10 percent of the school tax levy) would be provided under the NYS STAR program.

- The total assessed value would be divided between Goshen Fire District No. 1 ($31,801,000) and Chester Fire District No. 3 ($6,600,000) based the location and number of dwelling units and other assessable improvements depicted on the TND Site Plan within each District's borders and associated type / price data for these dwelling units.

  The additional Goshen Fire District No. 1 tax levy included on the Town of Goshen's tax bills would have generated $62,260 at the 2008 tax rate of $1.9578/$1000 assessed value.

  The additional Chester Fire District No. 3 tax levy included on the Town of Chester's tax bills would have generated $8,837 at the 2008 tax rate of $1.3390/$1000 assessed value.

Projected Increase in Real Property Tax Revenues and Other Per Capita Revenues.

After subtracting out the current real property tax revenues generated by the Project Site from the above computed projected real property tax generation, the below increases in annual real property tax revenues (or compensating NYS STAR revenue in the case of the School Districts) are indicated:

- $232,968 to Orange County.
- $211,842 to the Town of Goshen.
- $1,276,243 to the Chester Union Free School District.
- $61,905 to Goshen Fire District No. 1 and $8,776 to Chester Fire District No. 3.

Estimated Increase in Community Service Expenditures.

The below data has been developed to indicate on a proportional basis the additional annual service costs that would be incurred by the Town of Goshen and the Chester Union Free School Districts upon build-out of the Lone Oak TND:

- As indicated within the prior discussion of "Probable Effects on Principal Community Services and Facilities", the Chester Union Free School District would need to generate approximately $1,032,210 in additional real property tax

revenue to defray the proportional local share of educating the 90 school-age children residing within the Lone Oak TND who would attend public schools.

This amount would increase to $1,387,749 were the alternate demographic projection of 121 school-age children realized.

- The Town of Goshen would need to generate $128,895 in additional real property tax revenue to meet the proportional demand caused by the 431 residents within the Lone Oak TND on non-user fee services provided by the Town, generally being highway maintenance, recreation and general government services.

  This amount would increase to $138,166 were the alternate demographic projection of 462 persons realized.

Calculation of Net Fiscal Impact of Lone Oak TND.

Upon subtraction of the estimated increase in real property taxpayer-supported community service expenditures from the projected increase in real property tax revenues, the below net fiscal impact to the Town of Goshen and the Chester Union Free School Districts would occur upon build-out of the Lone Oak TND:

- Net annual surplus ranging from $73,676 (based on a total TND resident population of 462 persons) to $82,947 (based on a total TND resident population of 431 persons) in real property tax revenue to the Town of Goshen, this amount complemented by additional non-property tax revenue, such as mortgage tax.

- Impact ranging from a net annual deficit of $111,506 (based on additional 121 pupils) to an annual net surplus of $244,033 (based on 90 additional pupils) in real property tax revenue to the Chester Union Free School District.

The effect of any surplus or deficit in revenues would be to permit either a compensating adjustment in expenditures by the Town of Goshen and the Chester Union Free School District or a modification, albeit small, in the real property tax rate for all taxpayers within the jurisdiction.

4.7.3 Mitigation Measures

- **Community Facilities and Services.**

Upon considering the anticipated impacts of the Lone Oak Traditional Neighborhood Development, the Project Sponsor is of the opinion the scale of the TND, a total of 132 dwelling units with a projected resident population of 431 persons, is not of a magnitude that would warrant delivery of any of the above-cited community services,

except for the role the Project Site is intended to play in expanding recreational opportunities, from an on-site location within the Lone Oak TND.

The above notwithstanding, a further discussion of mitigation measures occurs below for each of the principal community services and facilities considered in this Subsection.

Police Protection.

As noted above, it is the opinion of the Project Sponsor there will be no significant impacts to the ability of the Town of Goshen Police Department, the Orange County Sheriff's Department or the New York State Police to provide police services due to the development of the Lone Oak TND. Therefore, no project-specific mitigation is either required or proposed.

Fire Protection.

As similarly noted above, it is the opinion of the Project Sponsor there will be no significant adverse impacts on the ability of either Goshen Fire District No. 1 or Chester Fire District No. 3 to provide fire protection within its service area due to the development of the Lone Oak TND.

As quantified in the earlier discussion of "Fiscal Impact", substantial additional revenues to defray the cost of providing fire protective service will accrue to each of the Fire Districts through real property tax revenues as build-out occurs of the Lone Oak TND. Therefore, no project-specific mitigation is either required or proposed.

As stated earlier, while beyond the control of the Project Sponsor and the purview of this Supplemental EIS, it is hoped however that some of the residents within the Lone Oak TND would either remain or become active volunteer fire and/or EMS personnel.

Municipal Utilities.

As discussed throughout this Supplemental EIS, the Project Sponsor proposes to complete design, permitting and development of on-site water and sanitary sewage infrastructure.

In the case of water, documentation set forth in this Supplemental EIS demonstrates the adequacy of the existing Fini wells to meet the Lone Oak TND's estimated average daily water demand of 48,020 GPD in accordance with the 2003 Ten States Standards.

In the case of sanitary sewage, the Project Sponsor intends to collect and convey the projected 58,250 GPD of sanitary sewage flow generated by the 132 dwelling units and related community facilities within the Lone Oak TND to either a newly-constructed on-site wastewater treatment plant or provide through the Arcadia Hills Town Sewer District for the conveyance of site-generated sanitary sewage to the Village of Goshen STP for treatment.

Authorization of either arrangement involves approvals and compliance determinations by a number of involved agencies including as may be pertinent to the alternate ultimately chosen but not limited to the Town of Goshen, the Village of Goshen, the NYSDEC and the Orange County Health Department, all as discussed in Section 3, Subsection 3.6, "Reviews, Permits, Approvals and Compliance Determinations". In the case of employ of the Village STP, there would be created a long-term user for approximately 6 percent of the expanded STP's residual treatment capacity of 1.0 million GPD under its updated SPDES Permit.

This scenario will result in the environmental advantages of utilizing an existing SPDES Permit and effluent discharge point, as well as both minimizing construction by eliminating need for an on-site wastewater treatment plant and allowing its reserved 2.82-acre site to remain as open space land.

In consideration of the willingness of the Project Sponsor to design and construct central water and sanitary sewage systems to accommodate the demands of the Lone Oak TND pursuant to NYSDEC, NYSDOH and Orange County Health Department standards and to provide for the long-term ownership, operation and maintenance of such systems through either dedication of the constructed infrastructure to the Arcadia Hills Town Water District and Arcadia Hills Town Sewer District or, in the alternative, authorization the creation of public transportation corporations for these purposes, no other mitigation measures with respect to municipal utilities are required or proposed.

Emergency Medical Services.

No project-specific mitigation with respect to emergency medical services is required or proposed.

Schools and Libraries.

The Chester Union Free School District has a State-mandated responsibility to educate each school-age child resident within the District to the extent the child's parents or other guardians desire to enroll these children in public school and to provide such education pursuant to both minimum State curricula and, when the minimum standards are exceeded by local expectations and not in contravention with State regulations, the desires of the School District's residents.

The School District has been actively responding to present enrollment and planning for future growing enrollment in recent years through expansion and enhancement of their capital facilities and educational programs. In the words of SEQRA, the Districts have been taking a "hard look" and to some extent providing for "appropriate mitigation".

Further, as quantified in the earlier discussion of "Fiscal Impact", substantial additional revenues are projected to accrue to the School District through levy of real property tax on dwelling units and land within the Lone Oak TND commensurate with their assessed value.

No project-specific mitigation with respect to schools is required or proposed.

Parks and Recreational Facilities.

Town Law and the Town of Goshen's Land Subdivision Regulations provide for mitigation of a residential subdivision's impact on recreational lands through requirement at the discretion of the Planning Board that either land within a subdivision be reserved for recreational and open space purposes or that a cash-in-lieu-of-land payment be made to the Town's Recreation Trust Fund.

In consideration of the incorporation of 56.3 percent Open Space Area within the Lone Oak TND, including publicly-accessible open space lands, recreation facilities and gathering spaces such as ball fields and a picnic grove, and conserved wetland areas with substantial visual and ecological benefit, no further mitigation with respect to parks and recreational facilities is required or proposed.

Solid Waste Management.

No project-specific mitigation, except as noted above in the matter of the management of waste generated during the construction period, is required or proposed with respect to solid waste management.

General Government Services.

Without resorting to detailed incremental analysis, it is reasonable to assume that the $211,842 in additional real property tax revenue that will be received by the Town of Goshen upon build-out of the Lone Oak TND will substantially exceed the proportional incremental costs, estimated to be about $299.06 per capita or a total of $128,895 (based on 431 residents) or $138,166 (based on 462 residents), of meeting demand for the non-user fee services provided by the Town and of interest and benefit to the expected residents, generally being highway maintenance, recreation, and general governmental services.

No project-specific mitigation with respect to general government services is required or proposed.

Franchise Utilities.

No project-specific mitigation with respect to franchise utilities is required or proposed.

SEIS Subsection 4.8
Cultural Resources

SEIS Subsection 4.8 addresses the cultural (i.e. historical, architectural and archaeological) resources of the Project Site and its environs. In doing so, it is important to note that undertaking of the Lone Oak TND will disturb no areas of the former 226.7-acre Project Site that would have remained undisturbed under the plans for the Lone Oak Estates 162-Lot Subdivision as subject of the below-described examination by Hartgen Archaeological Associates, Inc.

Therefore, the examination and the related conclusions reached upon review thereof by the New York State Office for Parks, Recreation and Historic Preservation are transferable to the present consideration of the TND Site Plan, with no supplementation required.

4.8.1 Existing Setting

The Project Planner contacted the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) in October 1998 regarding the potential impact/effect of the Lone Oak Estates Subdivision upon historic, architectural and/or prehistoric cultural resources.

NYSOPRHP assigned OPRHP Project Review number "98PR3162" to Lone Oak Estates and advised that photographs should be provided of buildings/structures 50 years or older located either within or immediately adjacent to the former 226-acre Project Site. NYSOPRHP further noted based on reported resources there to be an archaeological site in or adjacent to the Project Site. Accordingly, NYSORHP recommended that a Phase 1 archaeological survey be conducted "to determine the presence or absence of archaeological sites or other cultural resources in the project's area of potential effect".

The Project Sponsor engaged Hartgen Archaeological Associates, Inc. ("Hartgen") to conduct the Phase 1 survey, an effort in the words of NYSOPRHP "divided into two progressive units of study including a Phase 1A sensitivity assessment and initial project area field inspection, and a Phase 1B subsurface testing program for the project area".

Hartgen's initial reconnaissance work was detailed in an April 1999 report entitled **Phase 1A Literature Review and Archaeological Sensitivity Assessment** and included the following highlights:

- The identification of no properties listed in, or determined eligible for listing in, the State and National Register of Historic Places within or adjacent to the Project Site.

- While there were no reported archaeological sites within or immediately adjacent to the Project Site, the identification of five such sites within an approximate one mile radius, four of which were mill remains and the fifth an instance in which a "stone tool of unknown prehistoric cultural affiliation" was recovered.

- Identification of no historic building remains within the Project Site.

- Identification of four "historic buildings" (i.e. structures more than 50 years old) off-site along the south side of Harriman Drive and determination that none of the buildings would be National Register eligible.

- Documentation of extensive soil disturbances resulting from road installation, soil mining activities and vegetation clearing that has occurred within the non-wetland portion of the former Project Site adjacent to the Arcadia Hills Subdivision, this being the location of the present 103.42-acre Project Site, and, therefore, characterization of this area as having "a low archaeological sensitivity due to prior disturbance, excessive slope, and wetness" and recommendation that "no testing" (i.e. subsurface field investigation) occur there.

- Characterization of the more level portions of the open fields and the terraces that lie near the Otter Kill and the wetlands within the northern and western portions of the former 226-acre Project Site as "archaeologically sensitive" with recommendation that "subsurface testing" be conducted within the "more level, undisturbed sections of the small terraces overlooking the Otter Kill" and the "flat sections of the two fields that lie near the Otter Kill" due to the Project Site's "potential for containing prehistoric and perhaps some historic cultural materials".

Hartgen subsequently conducted subsurface testing within the aforementioned "archaeologically sensitive" areas.

The following summary of this effort is found within the combined and superseding February 2000 **Phase 1A Report for Archaeological Potential Sensitivity Assessment and Phase 1B Archaeological Field Investigation** earlier presented in its entirety as DEIS Appendix I:

> *"The archaeological investigations conducted at the Lone Oak/Arcadia Hills II Subdivision included the surface reconnaissance of approximately 26 acres of plowed field, the excavation of 104 screened shovel tests places at 15 meter (50 ft.) intervals, and the excavation of 42 reduced interval verification shovel tests. The investigations resulted in the identification of three small pre-contact lithic deposits, Locus 1-3. The entire pre-contact lithic artifact assemblage consisting of Two Poplar Island Late Archaic projectile point fragments (2500 to 1500 B.C.), 3 biface fragments, 3 chert flakes, 1 chert core, and 3 chert trim flakes. The artifacts were retrieved from the Stratum 1 plow zone, at three areas situated*

along the elevated flat portions of the property. The deposits are limited to the Stratum 1 plow zone. No significant concentrations were identified at the three loci and no further archaeological investigations are recommended for the project area."

4.8.2 Anticipated Impacts

Upon completion of its February 2000 Phase 1A Report for Archaeological Potential Sensitivity Assessment and Phase 1B Archaeological Field Investigation Hartgen submitted a copy to NYSOPRHP for review.

NYSOPRHP advised as follows with respect to "98PR3162" within its response letter of March 16, 2000:

> *"We have reviewed the project in accordance with the New York State Parks, Recreation and Historic Preservation Law, Section 14.09.*
>
> *Based upon this review, it is the OPRHP's opinion that your project will have No Impact upon cultural resources in or eligible for inclusion in the State and National Registers of Historic Places."*

See prior DEIS Exhibit 24, NYSOPRHP Letter.

4.8.3 Mitigation Measures

In consideration of the above-described work by Hartgen Archaeological Associates, Inc. and related review and concurrence by the New York State Office for Parks, Recreation and Historic Preservation, no mitigation with respect to historic, architectural and archaeological resources is required.

SEIS Subsection 4.9
Visual Resources

The Lone Oak TND will maintain more extensive natural buffers adjacent to portions of the Project Site's perimeter and exhibit a more compact development form than the formerly proposed conventional 162-lot subdivision subject of the Draft EIS. In contrast to either the conventional subdivision plan or the more extensive 299-Unit TND Site Plan informally presented to the Planning Board in 2007, the Lone Oak 132-Unit TND will not include any residential construction on the portion of the Fini lands which adjoin NYS Route 17.

The 132-Unit TND will be developed across only 45.2 acres of some 103.42 acres adjoining the Arcadia Hills Subdivision in contrast to the 117.0 acres of developed area earlier proposed within the far more geographically-extensive 226.7-acre 162-Lot Subdivision. This circumstance translates to both less than 40% of the previously proposed developed area and, despite its substantially diminished acreage, a greater percentage of open space area within the 103.42-acre TND Project Site than within the 226.7-acre Subdivision upon completion of its build-out.

In addition, in that there are no plans for development (except for utility installations detailed in this Supplemental EIS) of the adjacent 109 acres owned by Fini Bros. the overall appearance at this location in terms of the land within the Project Sponsor's control upon build-out of the TND will from many viewing locations be dominated by some 168 acres presently owned by Fini Bros. that will either be protected open space within the TND or either protected or otherwise uncommitted open space within the remaining adjacent Lands of Fini.

Moreover, the Line Oak 132-Unit TND Site Plan has substantially modified the design of the proposed on-site water storage facility serving the TND. Instead of the more widely visible installation of an elevated water storage tank to an overall height of 114 feet above grade as previously proposed, the TND Site Plan and related Water Infrastructure Feasibility Study propose the installation of a low-profile atmospheric tank boostered by a hydro-pneumatic system, meeting Ten State Standards for domestic flow and pressure and ISO flow for fire events. In addition, should the inclusion documented in this Supplemental EIS of the present Project Site within the existing Arcadia Hills Town Sewer District and related discussions between the District and the Village of Goshen permit, as earlier discussed in this under "Community Facilities and Services, Municipal Utilities", the on-site sewage treatment plant adjacent to the NYS Route 17 right-of-way will be eliminated from the Lone Oak TND project plans and the reserved site merged with adjacent open space lands, with the need to mitigate the visual effect of this facility through introduction of natural screening and other measures avoided.

4.9.1 Existing Setting

The Project Site itself exhibits, as described in SEIS Subsection 3.1.3 and similarly characterized in the above-cited Hartgen Report, an undulating topography across fallow farm fields, scarred and abandoned former subdivision landscape, wooded areas and wetlands. The Project Site is also bisected in part in its south central portion by an Orange and Rockland Utilities, Inc. electric transmission corridor.

The Project Site (and the adjacent Lands of Fini) borders rural vacant land to the south (principally Lands of Ellman and Serdarevic) and west (principally the Lands of Serdarevic), NYS Route 17 and the suburban residential Arcadia Hills Subdivision to the north, and the Arcadia Hills Subdivision and Arcadia Road to the east. Dominant visible features within this context are NYS Route 17, the 251 single-family homes within the

Arcadia Hills Subdivision substantial numbers of which are visible from Route 17 and/or Arcadia Road, and the presence of wetland and wooded areas.

The four older buildings cited in the Hartgen Report and located on the neighboring Sheldrac and Serdarevic properties to the west are also highly visible from NYS Route 17 as is the parallel roadway Harriman Drive which is understood to have been constructed by NYSDOT at the time of the construction of Route 17, and the Arden Hill (Elant at Goshen) development which lies approximately ½ mile to the west of the northwesterly corner of the adjacent Lands of Fini.

4.9.2 Anticipated Impacts

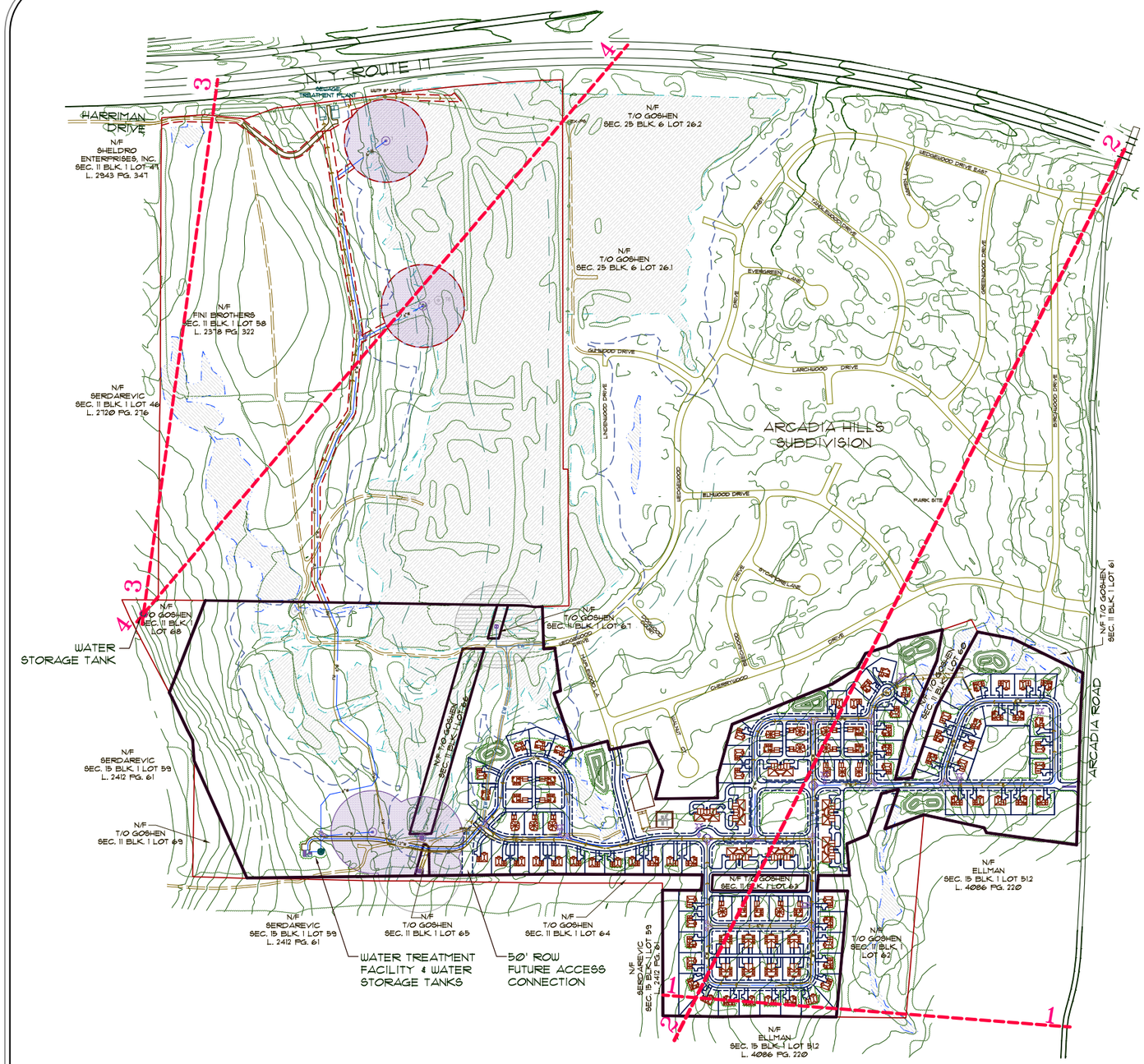
Within the above context, and upon examination of the TND Site Plan, it is anticipated that the development of the Lone Oak 132-Unit TND will have no significant impact on visual resources for the proposed residential development while "visible" is similar in use and scale to the adjacent 251-lot Arcadia Hills Subdivision and will conserve to the extent practicable through a combination of design, proposed ownership and conservation easement both natural buffers between the TND and the existing residential development and the visually-prominent wetland areas of the Project Site.

The above notwithstanding, the below graphics and related commentary are offered regarding the visibility of the proposed TND from within the vicinity of the Project Site:

- **SEIS Figure 19A, Viewshed Plan**, indicates viewing locations on Arcadia Road and NYS Route 17 from which visual profiles of the intervening landscape and proposed TND have been prepared by the Land Planner. The selected Arcadia Road location lies uphill, at elevation 610 ASL, and approximately 3,100 feet to the south of the proposed TND roadway's intersection with Arcadia Road while the selected NYS Route 17 locations are the center of the westbound lane of NYS Route 17, near intersection of Arcadia Road with NYS Route 17 and being approximately 3,000 feet north of the TND roadway intersection, and locations in the range of 2,500 to 4,500 feet to the west from which potential views of the water tower at an alternate location suggested by the Town Engineer might occur

- **SEIS Figure 19B, Cross Section 1-1**, presents the visual profile from the selected location on Arcadia Road. Figure 19B illustrates a view across more than 1200 feet of open meadow and wooded area (Lands of Ellman and the Town of Goshen) prior to reaching the location of the Lone Oak TND. Figure 19B further depicts the presence of wooded area which will be maintained within the periphery of the TND and provides clear indication of the significance of this intervening wooded area in screening views, even though distant, of the proposed dwellings within the TND that would be experienced by a motorist, bicyclist or pedestrian from this elevated Arcadia Road vantage point.

- **SEIS Figure 19C, Cross Section 2-2**, presents the visual profile from the selected westbound lane location on NYS Route 17. Figure 19C illustrates a view across first



SEIS FIGURE NO. 19A

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

VIEWSHED PLAN/ VISUAL CROSS-SECTIONS

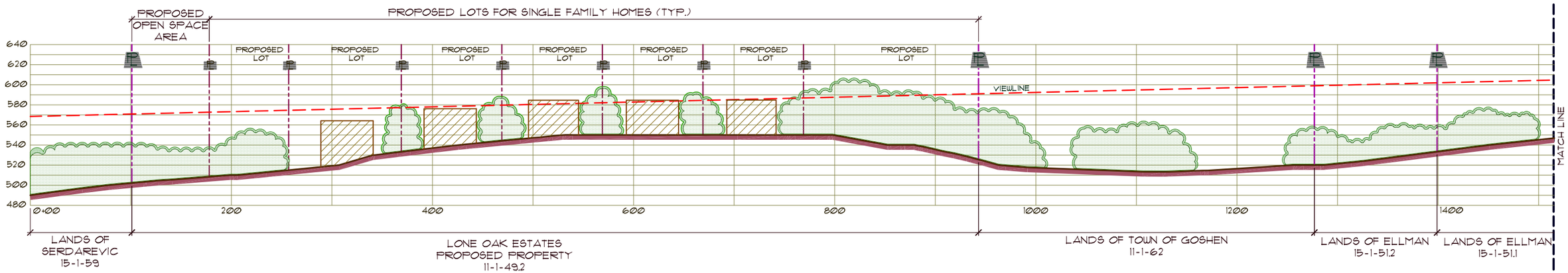
GRAPHIC SCALE: 1 in. = 600 ft.

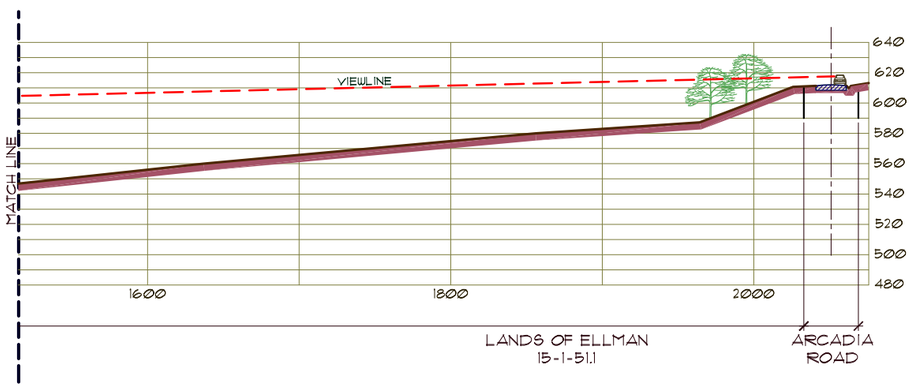
DATE: MARCH 31, 2008

10/13/08	REVISION PER COMMENTS
DATE	DESCRIPTION
REVISIONS	

ESPOSITO & ASSOCIATES

262 GREENWICH AVENUE, SUITE B
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580





VIEWSHED #1

SCALE: 1" = 100'

SEIS FIGURE NO. 19B

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

CROSS SECTION 1 - 1

GRAPHIC SCALE: 1 in. = 100 ft.

DATE: MARCH 31, 2008

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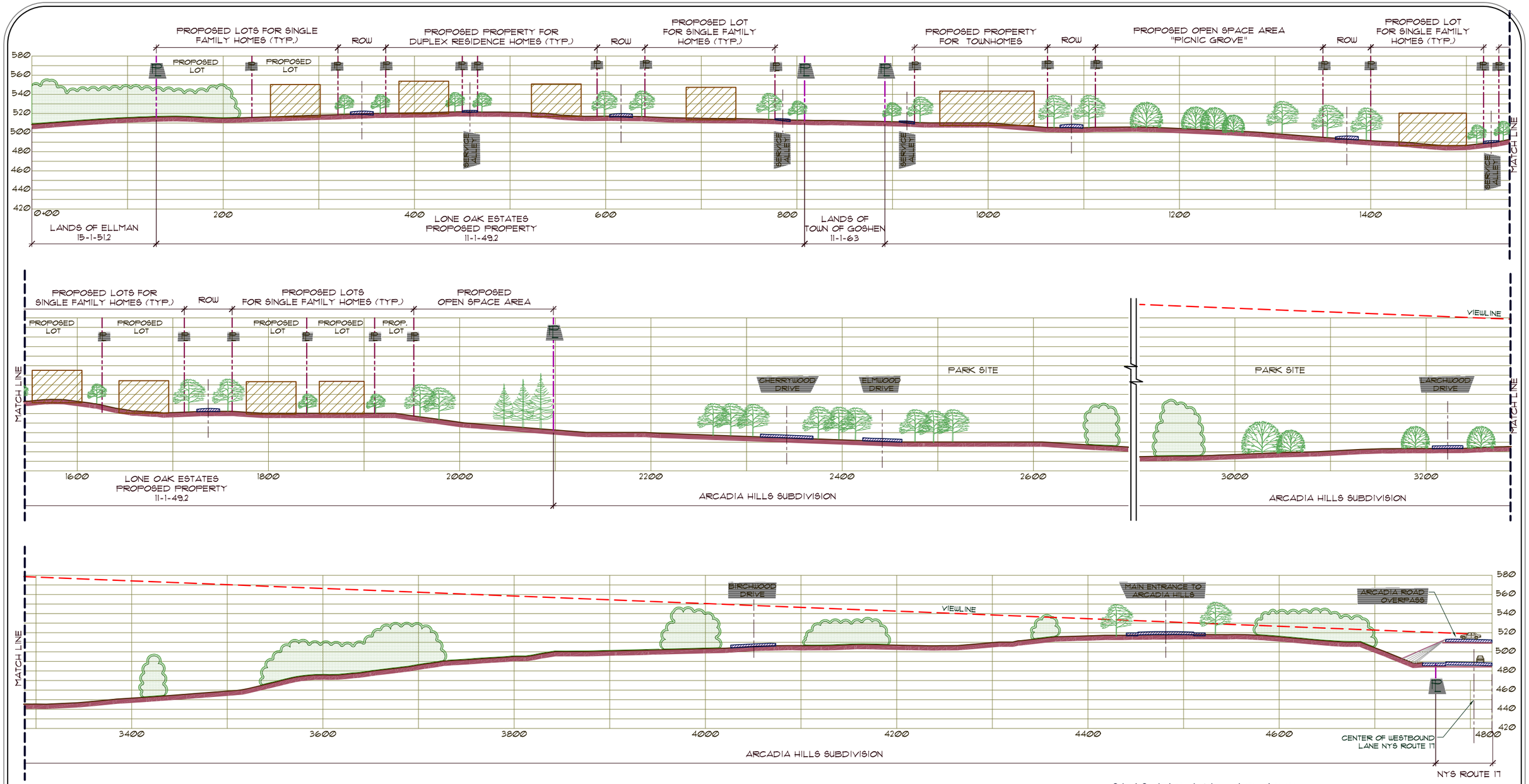

VIEWSHED #2

SCALE: 1" = 100'

SEIS FIGURE NO. 19C

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

CROSS SECTION 2 - 2

GRAPHIC SCALE: 1 in. = 100 ft.

DATE: MARCH 31, 2008

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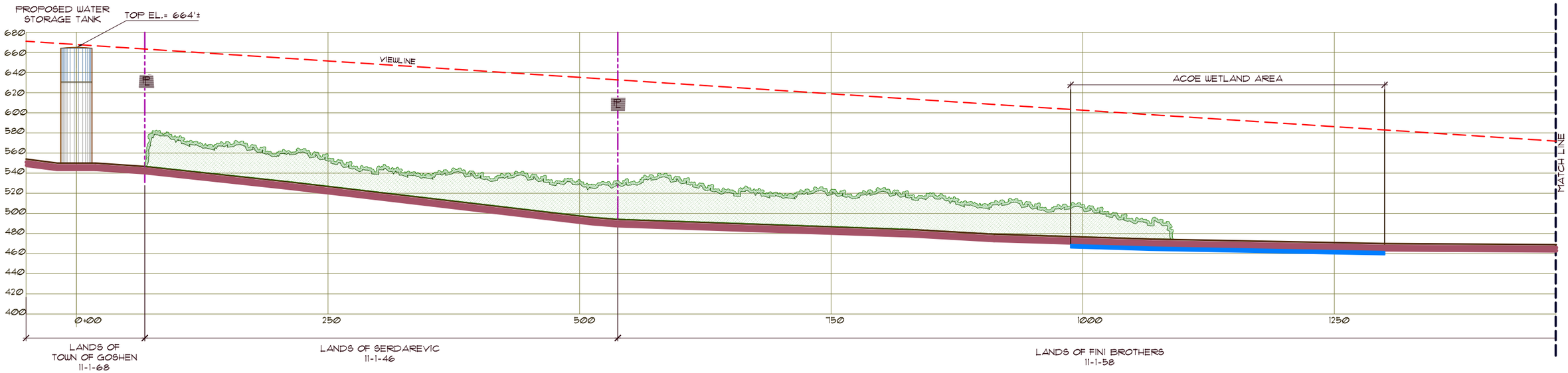

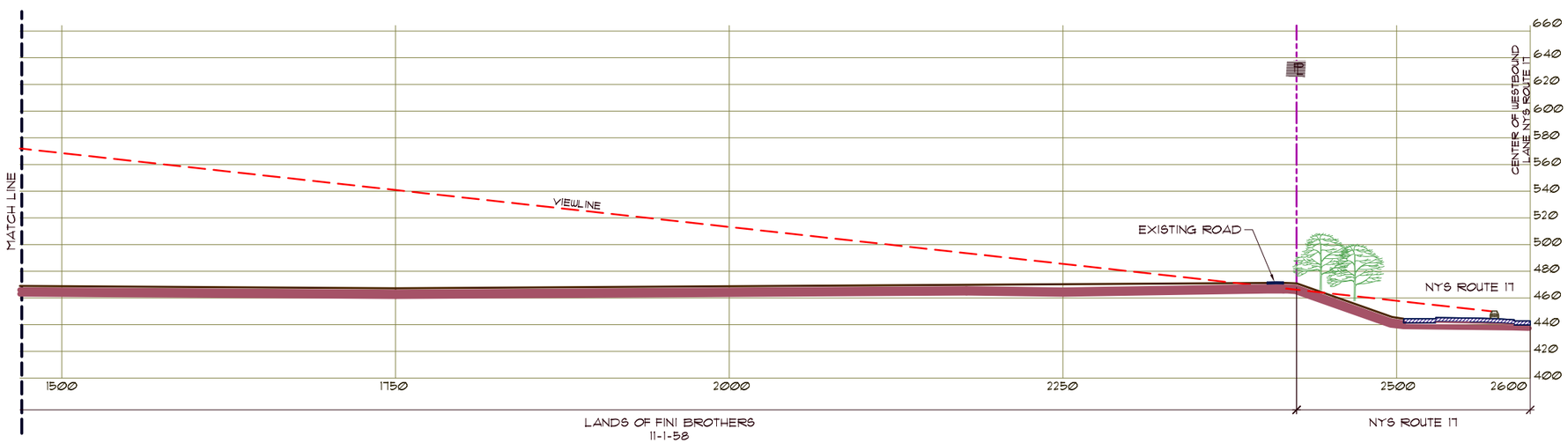

VIEWSHED #3

SCALE: 1" = 100'

SEIS FIGURE NO. 19D

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

CROSS SECTION 3 - 3

GRAPHIC SCALE: 1 in. = 100 ft.

DATE: MARCH 31, 2008

10/13/08	REVISION PER COMMENTS
DATE	DESCRIPTION
REVISIONS	

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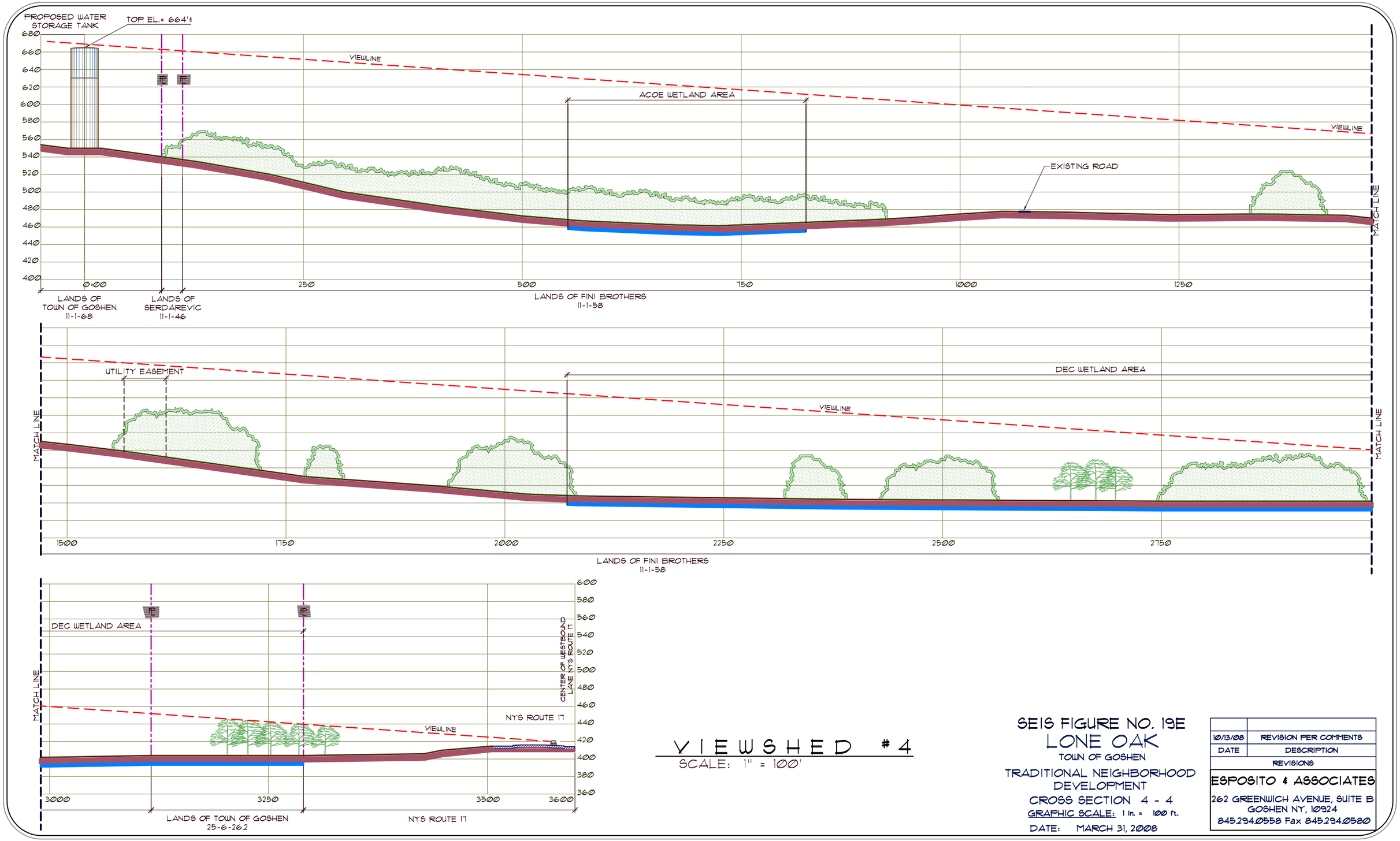

VIEWSHED #4

SCALE: 1" = 100'

SEIS FIGURE NO. 19E

LONE OAK

TOWN OF GOSHEN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

CROSS SECTION 4 - 4

GRAPHIC SCALE: 1 in. = 100 ft.

DATE: MARCH 31, 2008

DATE	DESCRIPTION
10/13/08	REVISION PER COMMENTS

REVISIONS

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some 100 feet of highway right-of-way and then 2,600 feet of the developed portions of the Arcadia Hills Subdivision prior to reaching the location of the Lone Oak TND. As depicted by the Land Planner on Figure 19C, the view line from this location is directed upward. This factor, in combination with intervening vegetation adjacent to NYS Route 17, the existing residential development, and distance separation, greatly diminish the visibility of the proposed TND from this NYS Route 17 vantage point (even without considering the fleeting nature of the view that would be experienced from within or seated upon a moving vehicle).

- **SEIS Figure 19D, Cross Section 3-3**, presents the visual profile from the selected westbound location on NYS Route 17 approximately 4,500 west of Arcadia Road. Figure 19D illustrates a view across the highway right-of-way and some 2,500 feet of the remaining Lands of Fini Brothers to an alternate water tower location on TMP 11-1-68, Lands of Goshen, adjacent to the Lone Oak TND. The visual profile illustrates the viewline from NYS Route 17 would extend above a proposed water storage tank with top elevation 664 ASL due to the presence of intervening landform (and vegetation) near Route 17.

- **SEIS Figure 19E, Cross Section 4-4**, presents the visual profile from the selected westbound location on NYS Route 17 approximately 2,500 feet west of Arcadia Road. Figure 19E illustrates a view across the highway right-of-way, some 170 feet of the Lands of Goshen, an additional 3,200 feet of the remaining Lands of Fini Brothers and a narrow slice of the Lands of Serdarevic to an alternate water tower location on TMP 11-1-68, Lands of Goshen, adjacent to the Lone Oak TND. The visual profile illustrates the viewline from NYS Route 17 would extend above a proposed water storage tank with top elevation 664 ASL due to the presence of intervening vegetation on the first-mentioned Lands of Goshen and located within the NYSDEC wetland area.

4.9.3 Mitigation Measures

Among the visible components cited in the Draft EIS, only the water tower installation appeared to cause significant adverse visual effect based on the incongruity of its proposed location within the Lone Oak Subdivision. As noted above, this circumstance has been addressed within the present TND Site Plan through the proposed on-site substitution of a low-profile atmospheric tank system or, as discussed earlier in this Supplemental EIS, installation of an elevated at an alternate location to the east of Arcadia Road adjacent to the Town's Arcadia Hills (Town Water District No. 2) existing water storage facility.

The above notwithstanding, other measures that should be further embraced to reduce visibility (or lessen visual impact) as the SEQRA compliance and/or subdivision plat review and approval processes continue include the following:

- Retention of vegetation providing natural screening at TND boundaries to the extent practicable.

- Introduction of new plantings such as the evergreen screening proposed along the NYS Route 17 right-of-way boundary should the on-site wastewater treatment plant be required and/or other sanitary sewage facilities be located there.

- Selection of "cut-off" light fixtures, shielded as appropriate, and mounted at the lowest practicable height for primary roadway lighting, secondary lighting of community areas, and lighting of individual lots and other dwelling sites throughout the TND.

- Employ of earth-tone colors and non-reflective materials where of assistance in reducing the visibility of man-made elements and causing these elements to blend with the natural setting.

Subsection 4.10
Noise, Odors and Air Quality

SEIS Subsection 4.10 tracks the DEIS response to the requirement of the DEIS Scoping Document that the environmental factors of noise, odors and air quality be addressed to the extent pertinent to the proposed development of the Lone Oak Project Site.

4.10.1 Existing Setting

- **Noise and Odors.**

  Except as may be considered objectionable noise associated with vehicular traffic on NYS Route 17, which is not less than 2,450 feet distant from any proposed residential dwellings within the TND, neither nuisance land uses nor associated noises and/or odors are present at any location within or adjacent to the Project Site.

- **Air Quality.**

  According to NYSDEC, the Project Site located in the central to westerly portion of Orange County lies within an attainment area for both carbon monoxide and ozone as classified by NYSDEC/EPA based upon air quality data collected for numerous pollutants at air monitoring stations operated by the Bureau of Air Quality Surveillance.

4.10.2 Anticipated Impacts

- **Noise and Odors.**

Development of the Project Site as a residential neighborhood subdivision with a total of 132 dwelling units within a range of housing types and related community facilities will not cause the occurrence of substantial levels of either noise or odors within or adjacent to the Lone Oak TND.

The Project Engineer has specifically noted that noise associated with pumps, generators or other mechanical appurtenances associated with the two sewage pumping stations, water supply well sites, the water treatment facility, the water storage tank or the wastewater treatment plant (if required to be constructed on site) will be suitably attenuated to both neither exceed ambient noise levels nor effect the quiet enjoyment of their properties by adjacent and/or nearby lot owners either within Lone Oak TND or, in the case of the easterly sewage pumping station, the Arcadia Hills Subdivision.

Operation of the on-site Wastewater Treatment Plant, should such remain to be required, as a tertiary treatment facility and in compliance with Permit Conditions established by NYSDEC will ensure that this facility will not produce odors deleterious to either the enjoyment of their properties by adjacent and/or nearby lot owners, those traveling on Harriman Drive to its terminus or NYS Route 17, or others "downwind" of the facility.

More specifically, repeating a substantial portion of the discussion presented earlier in Subsection 2.2.3 of the Draft EIS:

> *"…the wastewater treatment plant will employ an aerobic sequential batch reactor ('SBR') process where diffusers will initially introduce air into the raw sewage and odors, sometimes noxious, that would otherwise be present with an anaerobic process will not occur. Subsequently, sludge from the SBR units will be pumped directly to an aerobic digester where diffusers will once again introduce air this time into the sludge, thus avoiding what otherwise would be the production of odor-causing hydrogen sulfide gas. Additionally, while the intermittent stream standards set by NYSDEC do not require phosphorous removal, the SBR biological process, with the use of a low phosphate detergent, reduces effluent phosphorous to within the range of 1.0 to 2.0 milligrams per liter. Furthermore, the employ of ultraviolet ('UV') disinfection will eliminate potential impacts from chlorine."*

- **Air Quality.**

According to the NYSDOT Environmental Procedures Manual (EPM), any signalized intersection operating with an overall Level of Service "C" or better for the "No-Build" and "Build" Conditions in the Design Year does not require detailed air quality analysis. In addition, no un-signalized intersection requires analysis based upon the assumption that the major highway movement operates under free flow conditions.

Accordingly, in consideration of the Level of Service analysis set forth in the **Traffic Impact Study** discussed in earlier SEIS Subsection 4.5, the only signalized intersection which might merit detailed air quality analysis for it will operate below LOS "C" under the "Build" Condition is the intersection of NYS Route 17M and South Street where a reduction to LOS "D" would be experienced.

As a second step in the screening process, the below criteria set forth in the EPM have been considered with respect to the NYS Route 17M / South Street intersection:

- A 10 percent or more reduction in source-receptor distance.
- A 10 percent or more increase in traffic volume on affected roadways.
- A 10 percent or more increase in vehicle emissions.
- Any increase in the number of queued lanes.
- 20 percent reduction in speed when the estimated average speed is 30 mph or less.

To the extent related information is available from the TIS it appears none of the above thresholds are exceeded at the NYS Route 17M / South Street intersection and, therefore, detailed air quality analysis is in the opinion of the EIS Preparer not required and has not been undertaken. It is acknowledged however both that determination to this effect has not been made by the Town Planning Board as SEQRA Lead Agency and is within its purview.

4.10.3 Mitigation Measures

- **Noise and Odors.**

As indicated within the above discussion, with specific emphasis on the Project Engineer's selection of the SBR process for the proposed alternate wastewater treatment plant, no project-specific mitigation with respect to noise or odors is required or proposed. There remain only the unavoidable short-term effects of construction activity.

- **Air Quality.**

Likewise, as indicated by the above discussion, with specific emphasis on application of NYSDOT's established guidelines for determining whether detailed air quality analysis need to be conducted, it is the opinion of the EIS Preparer, though ultimately a matter subject of determination by the Planning Board as SEQRA Lead Agency, no further analysis or project-specific mitigation with respect to air quality is required.

SEIS Section 5
Unavoidable Adverse Environmental Effects
If Proposed Action Is Implemented

Supplemental EIS Section 5 identifies those adverse environmental effects that cannot be reasonably and practicably avoided, with or without mitigation measures, if the Lone Oak 132-Unit TND examined in this Supplemental EIS is carried out in fulfillment of the Project Sponsor's objectives and in accordance with both approved plans and policies and applicable permit, approval and compliance determination requirements.

These "Unavoidable Adverse Effects", none of which is deemed by the Project Sponsor so significant as to suggest that the Proposed Action should not go forward, include the following:

- Conversion of the heretofore 103.42-acre Project Site from vacant, rural land, including approximately 38.3 acres mapped prior to substantial site disturbance more than three decades ago as "Class II" or "Class III" farmland, considered "important" in the word of the Town Master Plan but not "prime" as defined by the USDA Soil Conservation Service, to the Lone Oak TND, a residential subdivision based upon a traditional neighborhood model, served by central utilities and other community facilities, conserving more than 58.22 acres of open space outside the Developed Area, and providing sites for a total of 132 dwelling units within a range of housing types.

- Substantial removal of existing vegetation from some 45.20 acres, or approximately 43.3 percent of the Project Site, as site disturbance occurs to provide for the construction/installation of internal subdivision roadways, storm water management and other utility improvements including water supply and sanitary sewage systems, service lanes and ways, sidewalks, driveways, sites for a range of housing types and related appurtenances, including community facilities, lawns and other landscaped areas are developed. In addition, approximately 2.5 acres of existing vegetation is anticipated to be removed as installation of central water and sanitary sewage improvements and related pervious surface accessways occurs within off-site utility easement areas proposed on adjacent TMP 11-1-58.

- Concurrent displacement of existing wildlife habitat to the extent such exists in consideration of the prior subdivision activity on those 45.20 acres of the Project Site.

- Disturbance and alteration of existing soils within some 45.20 acres, or approximately 43.3 percent, of the Project Site, and an additional 2.5 acres of off-site land within TMP 11-1-58.

- Disturbance to bedrock in limited areas where water supply wells have been drilled or deep excavation is needed to construct roadways at suitable grade, install utility lines at suitable depth, or provide structurally sound foundations for features such as the water storage facilities, including limited blasting.

- Related to the above consideration of existing soils and/or bedrock, “cuts” and/or “fills” in excess of 5 feet on a limited 0.30 acres of the Project Site.

- Disturbance to 5.50 acres of the 15.44 acres of the Project Site with existing slope in excess of 15 percent, with the above-cited “cuts” and/or “fills” in excess of 5 feet limited however to 0.24 acre of these 5.50 acres.

- Combined disturbance to existing, delineated wetlands, including regulated buffer areas, within the 103.42-acre Project Site and on the adjacent 109.06 acres owned by Fini Bros. consisting of the following:

  - 0.011 acre of new disturbance to “isolated” or ACOE non-jurisdictional wetland.

  - 0.166 acre of new disturbance to ACOE jurisdictional wetland lying outside NYSDEC Wetland GO-41, including 0.024 acre of permanent disturbance pursuant to Nation-Wide Permits 7, 12, 14 and 29.

  - 0.250 acre of new disturbance within NYSDEC Wetland GO-41, all of which is also new disturbance of ACOE jurisdictional wetland, including 0.047 acre of permanent disturbance pursuant to NYSDEC Freshwater Wetlands Permit.

  - 0.323 acre of pre-existing wetland disturbance as noted by the ACOE in July 2000 and caused during the time of drilling of potential water supply wells on the adjacent Fini lands, all of which is considered permanent disturbance.

  The combined new and pre-existing disturbance of 0.739 acre within either ACOE jurisdictional wetland or NYSDEC regulated wetland affects approximately 1.1% of the existing 65.22 acres of delineated wetlands within the present 212.5-acre Lands of Fini Bros., being the 103.42-acre Project Site and an adjoining 109.06 acres. The combined permanent wetland loss of 0.395 acre affects approximately 0.6% of the delineated wetlands.

  In addition, disturbance within the regulated buffer of NYSDEC Wetland GO-41 totals 0.959 acre, all as required for utility installations and being approximately 4.85% of the regulated buffer within these 212.5 acres.

  Mitigation in the form of new wetland creation (0.60 acre) and the restoration of a portion of an area of prior wetland disturbance (0.13 acre) is intended to compensate on nearly a 2:1 basis for the permanent wetland disturbance that either is pre-existing or will occur as the development of supporting infrastructure for the Lone Oak TND is completed.

- Creation of approximately 19.84 acres of new impervious surface occupying approximately 19.0 percent of the Lone Oak Project Site consisting of 14.71 acres of subdivision roadways, service lanes and ways, sidewalks and plazas,

above-grade infrastructure and franchise utility improvements, and 5.13 acres of roofs of dwellings and other structures appurtenant to the Lone Oak TND.

- Periodic short-term generation of noise in excess of existing ambient levels within and adjacent to the Project Site principally by trucks carrying heavy equipment and construction materials to the Project Site and by heavy equipment involved in site preparation and infrastructure installation.

- Incidence of heavy truck, light truck and automobile traffic bringing equipment, materials and workers to the Project Site during the construction period.

- Visibility to portions of the residential subdivision and its above-grade infrastructure, including residential subdivision lighting, to the extent some might deem pure "visibility" to be an adverse environmental impact, from adjacent residentially developed lands, vacant non-farm and farm lands, and travel ways including Arcadia Road and NYS Route 17.

In addition, the following factors, each more explicitly noted in SEIS Section 7, "Irreversible and Irretrievable Commitment of Resources" may concomitantly be considered "Unavoidable Adverse Environmental Effects":

- Consumption of petrochemical energy resources during both the period of construction activity and continuing through residential occupancy of the Lone Oak TND.

- Upon occupancy of all 132 dwelling units within the Lone Oak TND, an estimated 48,020 GPD in known source water taking from the Fini bedrock wells, this water taking below the maximum of 48,960 GPD established pursuant to the 2003 Edition of Ten State Standards based upon its requirement for demonstration of satisfaction of maximum daily demand with the largest producing well out of service.

- Upon occupancy of the Lone Oak TND, loss of residual capacity in existing highways and intersections within the vicinity of the Project Site.

- Upon occupancy of all 132 dwelling units within the Lone Oak TND, either discharge of tertiary-treated effluent from the on-site wastewater treatment plant to the Otter Kill or, should the alternate set forth in the Engineer's Report be implemented, loss of 58,250 GPD in the residual capacity of the Village of Goshen STP.

- Upon occupancy of all 132 dwelling units within the Lone Oak TND, loss of the residual capacity, or increase in burden upon, community facilities and services to the extent attributable to 431 persons resident within the Lone Oak TND, including 99 school-age children, 90 of whom are anticipated to attend public schools within the Chester Union Free School District.

SEIS Section 6
Alternatives to the Proposed Action

Supplemental EIS Section 6 first revisits the range of Alternatives to the Proposed Action presented in DEIS Section 5.0 and then presents additional Alternatives pertinent to the TND further evaluation of certain environmental issues in this Supplemental EIS.

Among the Alternatives presented in DEIS Section 5.0:

- The "No Action" Alternative as required within an EIS pursuant to Title 6 NYCRR Part 617.9.b.5.v is continued here in SEIS Subsection 6.1.

- "Alternative Access Configuration" as set forth in the final Scoping Document, is continued here as SEIS Subsection 6.2.

- "Modifications in Design, Scale and/or Configuration to Mitigate Adverse Environmental Effects", as set forth in the final Scoping Document, is continued here as SEIS Subsection 6.3.

- "Alternative Ownership and Operation of Proposed Central Water and Sanitary Sewage Facilities" is continued here as SEIS Subsection 6.4.

- "Alternative Design of Water Supply and Sanitary Sewage Facilities" has been found to not be applicable to the consideration of the Proposed Action, except as related to the above matter of alternative ownership and operation, and the later-cited matter of alternative sites for the required water storage facility and alternative facilities for the treatment of site-generated sanitary sewage.

- "Alternatives for Ownership of Wetland Conservation Parcels" is continued here as SEIS Subsection 6.5.

- "Alternatives for Disposition of Existing Lots of Record within Arcadia Hills Subdivision" has been found to be no longer applicable to the Proposed Action; the subject existing lots of record being the smaller 13.2-acre component in the total of approximately 122.3 acres removed from the Project Site.

- "Alternative to Address Newly-Discovered Information" has been found to be no longer applicable to the Proposed Action; the subject information concerning the extent of the Orange & Rockland right-of-way has been considered during preparation of the TND Site Plan.

- "Reduced Lot Alternative to Address Comments on Preliminary Draft EIS" has been found to be no longer applicable to the Proposed Action; the now proposed 132-unit Lone Oak TND supersedes in its entirety the prior 162-lot Lone Oak Estates Subdivision.

Additional Alternatives identified by the Project Planner during preparation of this Supplemental EIS are the following, presented here as SEIS Subsections 6.6 through 6.10, respectively:

- "Alternative Ownership of TND Recreation Lands",
- "Alternative Ownership and Maintenance Responsibility for Certain TND Roadways", and
- "Alternative Sites for Water Storage Facilities".
- "Alternative Sewage Wastewater Treatment Facilities".
- "Alternate Water System Plan / Connection to Arcadia Hills Water System"

Subsection 6.1
The "No Action" Alternative

Examination of the "No Action" Alternative was requested under the DEIS Scoping Document so as to comply with the requirements of Title 6 NYCRR Part 617.9.b.5.v.

The "No Action" Alternative examined in this instance would be effectuated by either the Project Sponsor's withdrawal of his Application for Subdivision Plat Approval or the Planning Board's failure to approve such Application in accordance with the Zoning Law and the Land Subdivision Regulations of the Town of Goshen.

Fini Bros. does not, of course, intend to withdraw the Application as first submitted to the Planning Board in September 1998 for development of some 212.5 acres it has owned for more than 20 years. Further, based upon the considerable engineering, land planning and environmental analysis and the related "down-sized" TND Site Plan, as discussed throughout this Supplemental EIS, the Project Sponsor has demonstrated that there are no significant adverse environmental impacts pertaining to the proposed development of the Lone Oak TND that would be uniquely avoided if either the lead agency, or any of the other involved agencies, were to pursue the "No Action" Alternative.

"No Action" is clearly not a viable alternative for a number of reasons, including but not limited to the following:

- The landowner's right to expect reasonable use of his property and reasonable financial return on investment.

- The underutilization of the parcel and absence of return on investment that occurs under present land use.

- The consistency of the intended development with both the County and Town Comprehensive Plans and the Town's Zoning Law.

- The potential of the Project Site and the Project Sponsor to satisfy anticipated continuing market demand for housing and provide the Town and region with a quality, well-serviced and moderately priced neighborhood with a total of 132 owner-occupied dwelling units within a range of housing types.

- The fact that the parcel is not planned for acquisition by any government agency, land trust, or other non-profit agency for open space, recreation or other purposes that might be deemed to be an "alternative land use".

With these factors in mind, it is the Project Sponsor's opinion there clearly does not exist a "No Action" Alternative in the matter of the proposed residential development of the present 103.42-acre Project Site, being slightly less than 50% of the contiguous lands it has held for more than two decades.

Subsection 6.2
Alternative Access Configuration

The Final Scoping Document required the examination of the below "Alternative Access Configuration":

- An alternative subdivision roadway configuration providing for a "through road" that would permit access to all lots within Lone Oak Estates from either Harriman Drive or Arcadia Road.

- An alternative subdivision roadway configuration providing for additional linkages to existing roadways within the Arcadia Hills Subdivision as recommended by the Town Highway Superintendent.

These matters were addressed at Subsection 5.2 of the Draft EIS in the context of the former 226.7-acre Project Site and the then proposed 162-Lot Lone Oak Conventional Subdivision and considered in the related traffic analysis undertaken by John Collins Engineers. While neither alternative access was found to be essential in providing vehicular circulation at acceptable levels of service within and in the vicinity of the proposed Lone Oak Subdivision both were deemed by the Traffic Engineer as "beneficial" and exercises in "good planning".

The reduction in the land area of the Project Site, being one of the "changes in circumstance" addressed in this Supplemental EIS, significantly affects the prior discussion of the "through road". The Project Site no longer includes the westerly 109.06 acres of the Fini lands which extend to Harriman Drive and no residential development is now proposed within approximately 3,300 feet of the terminus of Harriman Drive. The present Project Site for the 132-Unit Lone Oak TND consists of 103.42 acres with frontage on Arcadia Road and adjoining the stub end of street rights-of-way within the Arcadia Hills Subdivision.

As depicted on the present Lone Oak TND Site Plans, SEIS Figures No. 4 and No. 5, and examined in the Traffic Impact Study presented in Appendix F of this Supplemental EIS, adequate access will be provided the 132-Unit TND through the installation of a composite 3.4 mile residential subdivision roadway network with principal access from Arcadia Road and a secondary connection to the heretofore developed portion of the Arcadia Hills Subdivision at Maplewood Lane.

The design, permitting and installation of approximately 4,000 feet of connecting road between the Lone Oak TND Project Site and Harriman Drive through the adjoining Fini lands is neither warranted to provide for adequate vehicular access to the TND nor economically feasible. Relatedly, improvements previously offered within the Draft EIS to 2,400 feet of Harriman Drive are no longer applicable.

The above notwithstanding, it is noted that there would be no conditions created by the development of the 132-Unit Lone Oak TND that would preclude the Town or some other party at some future date to both acquire the necessary right-of-way and construct the through road connection and carry out related Harriman Drive improvements in fulfillment of the Town Master Plan objectives cited in the Draft EIS and subject to the consideration in doing so of the discussion in the Draft EIS of the routing of the through roadway vis-à-vis existing Town water supply wells, stream crossing permit requirements, and desirability of a "salt-free" maintenance zone in the vicinity of the wells.

Subsection 6.3
Modifications in TND Design, Scale and/or Configuration to Mitigate Adverse Effects on the Environment

Pursuant to the terms of the DEIS Scoping Document, "Other Modifications in Design, Scale and/or Configuration" of the Lone Oak Estates Subdivision needed to be examined "only to the extent such may be required to be considered as a mitigation

measure to address any adverse environmental effect(s) that may be identified during preparation of the Draft EIS".

It is the position of both the Project Engineer and the Project Planner that measures to mitigate to the extent practicable consistent with the Project Sponsor's objectives potential adverse effects of the development of the Lone Oak TND have been identified as detailed technical studies have been undertaken and incorporated within first the Preliminary Subdivision Plat and now the TND Site Plan as this Project has evolved since initiation of the SEQRA process.

Except as may otherwise be discussed in ensuing SEIS Section 6, Subsections 6.4 through 6.9, there are no modifications in TND design, scale and/or configuration that require consideration in the interest of mitigating adverse effects on the environment.

The above notwithstanding, it is recognized that further modification of the TND Site Plan may in the future be necessary to respond to the following:

- Development of an alternate water storage site if such were to be selected.
- Design of the proposed wetland mitigation areas in consultation with the NYSDEC and the ACOE.
- Comments within their area of jurisdiction made by involved agencies upon review of this Supplemental EIS, initial consideration of the subject TND Site Plan, and subsequent consideration of the various permits, approvals and compliance determinations enumerated in SEIS Section 3, Subsection 3.6.

Subsection 6.4
Alternative Ownership and Operation of TND Central Water and Sanitary Sewage Facilities

Consideration has been afforded to "Alternative Ownership and Operation of Central Water Supply and Sanitary Sewage Facilities" as the Project first described within the Draft EIS and as modified within this Supplemental EIS has evolved.

More specifically, and as discussed throughout this Draft EIS including Subsections 2.2.3, "Water Supply and Sanitary Sewage Arrangements", and Subsection 2.6, "Reviews, Permits, Approvals and Compliance Determinations", implementation of the below course of action has been determined a viable scenario for meeting the water supply demand and treating the sanitary sewage generated by the Lone Oak Estates Subdivision:

- The Project Sponsor will secure necessary permits, approvals and compliance determinations and then construct and install self-sufficient central water and sanitary sewage systems to accommodate the requirements for the TND as set forth in design standards promulgated by NYSDEC, NYSDOH and the Orange County Health Department.

- In consideration of the inclusion of the 103.42-acre Project Site in its entirety within the Arcadia Hills Town Water District and the Arcadia Hills Town Sewer District these central water and sanitary sewage systems will be offered for dedication to the respective existing Town districts for long-term ownership, operation and maintenance.

- Should the Town Board not accept the offered dedication of the TND's water and sanitary sewer infrastructure on behalf of the Arcadia Hills Town Water District and the Arcadia Hills Town Sewer District, the Project Sponsor will alternately request the Town Board's authorization for creation of "Public Transportation Corporations" whereby the central water and sanitary sewage systems would be privately-owned and operated in a manner acceptable to both the permitting agencies (NYSDEC, NYSDOH and the Orange County Health Department), the New York State Offices of the Comptroller and Attorney General, and the State Water Board which is under the auspices of the New York State Public Service Commission.

Subsection 6.5
Alternative Ownership of TND Wetland Conservation Parcels

Consideration has also been afforded to "Alternatives for Wetlands Conservation and Ownership" as the Project first described within the Draft EIS and as modified within this Supplemental EIS has evolved.

It has been determined that it would be appropriate to encompass to the extent practicable the on-site portion of NYSDEC Wetland GO-41 within the single ownership of either the Town of Goshen or other responsible party with strong conservation objectives rather than subdividing this wetland area between several adjacent residential lot owners, a homeowners association or any other entity and endeavoring to secure the conservation objective exclusively through covenant or deed restriction.

Accordingly, as in the case of the former Preliminary Lone Oak Estates Subdivision Plat annexed to the Draft EIS, the TND Subdivision Plat will depict Wetland Conservation Parcels the Project Sponsor intends to be subject of a to request that the Town Board either accept a transfer of ownership of these parcels subject to a conservation easement and utility exceptions or provide concurrence as to a qualified conservation

organization to which the lands might be transferred, suggesting that this might be the Orange County Audobon Society, Inc. If the latter course were taken, it is conceivable that the Town of Goshen might desire to convey its adjacent 17.4 acres of wetland to the Audobon Society or other willing conservation organization to provide for unified control of substantially the entirety of NYSDEC Wetland GO-41.

Should neither the Town nor a qualified conservation organization be identified, one of several other alternatives with respect to ownership might be pursued including but not necessarily limited to the following:

- The Wetland Conservation Parcels, which will be transferred subject to a conservation easement and certain utility exceptions, might be included within the overall dedication of lands and improvements to the Arcadia Hills Town Water District.

- The Wetland Conservation Parcels subject to the conservation easement (should there be a party willing to accept the conservation easement apart from ownership) and the utility exceptions might remain in the Project Sponsor's ownership or that of a homeowner's association or similar entity, though there would be no beneficial use of these lands for the owner and consequently an economic argument for abandonment of the acreage.

- The Wetland Conservation Parcels, as conditioned above, might be subdivided between adjacent residential lot owners, with such fragmentation certainly not being a recommended course of action.

- In the event of the Town's failure to accept the TND's proposed dedication of central water system and/or sanitary sewage system facilities on behalf of the existing Arcadia Hills Town Water and Town Sewer Districts, the Wetland Conservation Parcels might be held by the public transportation corporations created to own and operate the Lone Oak TND central water and/or sanitary sewage systems.

Subsection 6.6
Alternative Ownership of TND Recreation Lands

As stated at SEIS Section 3, Subsection 3.5.2, and reinforced in Subsection 3.6, the Project Sponsor intends to offer, in addition to the above-discussed Wetland Conservation Parcels, the Community Recreation Area to the Town of Goshen for the Town's ownership, management and maintenance.

Alternately the Community Recreation Area would be transferred to the Lone Oak TND Homeowners Association for long-term ownership, management and maintenance.

Subsection 6.7
Alternative Ownership and Maintenance Responsibility for Certain TND Roadways

As stated at SEIS Section 3, Subsection 3.5.2, and reinforced in Subsection 3.6, the Project Sponsor intends to offer all 3.4 miles of subdivision roadway within the Lone Oak TND to the Town of Goshen for its long-term ownership and maintenance by the Town Highway Department. This proposed dedication is consistent with the requirement set forth at Zoning Law Section 97-15 (I), Streets, which states, among its other features, each of the following:

- *"All streets in an HM or HR District shall be offered for dedication to the Town and no street shall be gated."*

- *"The requirements for streets in the Town's road specifications shall be waived if such waivers are necessary to permit street designs in traditional hamlet character."*

Should the Town Board not accept such offer of dedication for all or some of the subdivision roadways, the Project Sponsor would have to petition the Zoning Board of Appeals for a variance from the above requirement and arrange for alternative ownership and maintenance of the roadways by an association of homeowners (HOA).

To the extent such refusal were to result in individual building lots or other dwelling sites within the Lone Oak TND without required frontage on a public roadway the Project Sponsor would have to further petition the Town Board for creation of an "open development area" pursuant to Section 280-a of the NYS Town Law.

Subsection 6.8
Alternative Sites for Water Storage Facilities

As discussed within SEIS Section 3, Subsection 3.2, Project Design and Layout, the Project Engineer has re-visited the matter of preferred and alternate locations and designs for water storage facilities integral to the overall central water system that will be installed for the Lone Oak TND, as described in the **Engineer's Report: Lone Oak**

TND Water Infrastructure Feasibility Study prepared by the Project Engineer, dated April 2008 and set forth in its entirety as **SEIS Appendix B.**

The Engineer's Report indicates the required water storage facilities should be constructed at one of two alternate locations within or in the vicinity of the Lone Oak TND, these being indicated on the basis of the Project Engineer's preliminary design as the following:

- Alternate 1 (as depicted on SEIS Figure No. 4, TND Overall Plan) providing for employ of the 5,000 gallon tank for disinfection contact time and the installation on-site of 250,000 gallon total capacity low-profile grade tanks adjacent to the proposed water treatment facility. These tanks would be complemented by two 7.5 horsepower domestic demand pumps and two 5 horsepower compressors with a 2,000 gallon hydro-pneumatic pressure tank and a 1,500 GPM fire flow pump, all of which would be located within the proposed building.

- Alternate 2 providing for a 5,000 gallon tank for disinfection contact time and "boostering" of the water to an off-site 250,000 gallon elevated tank located at the top of the hill across Arcadia Road on Lands of the Town of Goshen (TMP 11-3-35) to the rear of the Hills at Goshen Subdivision and adjacent to the water tower which now services the Arcadia Hills Water District. This proposed tank would have a base elevation of 620 feet, a diameter of 34 feet and an overall height of 44 feet. The location and size of this tank would result in the proper normal flow pressure of 35 PSI and fire flow demand of 20 PSI.

In addition to the matter of present site ownership and control, the fundamental distinction between Alternate 1 and Alternate 2 relates to visual impact. Alternate 1 which would be far less visible does however require the installation and maintenance of the cited service flow and fire pumps and, as such, is oftentimes not considered a preferred installation.

The Alternate 2 location, as now proposed, is however in the opinion of the Project Engineer far preferable to prior proposals for installation of an elevated water storage tank within the Lone Oak Project Site. A water tower there would be less expensive to construct and likely less visible. Opportunity is presented there for installation of a 299,000 gallon water tower, 34 feet in diameter and with an overall height of 44 feet, at base elevation 620 feet ASL. Foundation cost would be minimized and a substantial concrete cylinder support, as required for the on-site water towers previously discussed in the Draft EIS, would not be required to elevate the water storage tank above naturally-occurring grade to achieve minimum required pressures within the water system.

<u>In response to a suggestion by the Town Engineer the Project Sponsor acknowledges a water storage tower to serve the requirements of the Lone Oak TND could be alternately sited on certain Lands of Goshen, TMP 11-1-68, adjacent to the proposed TND and has, as presented earlier in Section 4, Subsection 4.9, Visual Resources, of this SEIS illustrated the visual impact of a water storage tank that might be sited there. The depicted water storage tank is approximately 114 feet in height (including both tank and</u>

supporting structure) and extends to a top elevation of 664 feet ASL as deemed by the Project Engineer to be the minimum elevation required to meet water pressure requirements within the TND.

Subsection 6.9
Alternative Wastewater Treatment Facilities

As discussed within SEIS Section 3, Subsection 3.2, Project Design and Layout, the Project Engineer has re-visited the matter of preferred and alternate locations for the wastewater treatment facility component of the overall sanitary sewage system that will be installed for the Lone Oak TND, as described in the **Engineer's Report: Lone Oak TND Sewer Infrastructure Feasibility Study** prepared by the Project Engineer, dated April 2008 and set forth in its entirety as **SEIS Appendix C.**

The Engineer's Report indicates required wastewater treatment might occur at one of two alternate locations, these being either a new wastewater treatment plant that would be constructed as a part of the Lone Oak TND (Alternate 1) or the Village of Goshen STP (Alternate 2).

The Project Engineer has expressed preference for conveyance of TND-generated sanitary sewage to the Village of Goshen STP and has indicated the below components of a design package that would both provide for this circumstance and address existing deficiencies within the existing sanitary sewage facilities serving the Arcadia Hills Subdivision:

- Construction of the joint pump station with a capability of 300,000 GPD to meet the combined flow requirements of the Lone Oak TND (58,250 GPD) and the existing Arcadia Hills sewer system (165,000 GPD), Town Sewer District No. 2, thus permitting the abandonment of the existing Arcadia Hills pump station which is nearing the end of its useful life and in need of either replacement or other large capital improvement.

- Replacement of existing trunk line exhibiting a high infiltration rate which has affected both the Arcadia Hills pump station and the Village of Goshen treatment system due to the pumping of a large amount of clear water.

- Installation of a 100,000-gallon aerated wet well (holding tank) to serve to attenuate the high infiltration / inflow rate associated with other portions of the Arcadia Hills sewer collection system.

- Installation of a standby generator to provide emergency energy during a power outage.

Should this preferred alternate not come to fruition, the Project Engineer has further indicated the below design parameters for an on-site STP to serve exclusively the Lone Oak TND:

- The construction on an on-site wastewater treatment facility, as presented in the Draft EIS though modified in scale to within the range of 75,000 to 80,000 GPD to serve the reduced sanitary sewage load of the 132-Unit Lone Oak TND, being a sanitary sewage design load of 58,250 gallons per day (GPD), with a peak diurnal flow of 244,650 GPD based upon a 4.2 peaking factor, per NYSDEC standards. The on-site wastewater treatment facility would provide through a sequencing batch reactor "SBR" process tertiary treatment and ammonia removal year-round as more fully discussed in the Draft EIS.

Conveyance of TND site-generated sewage to the Village of Goshen STP for treatment would result in the environmental advantages of utilizing an existing SPDES Permit and effluent discharge point, as well as both minimizing construction by eliminating need for an on-site wastewater treatment plant and allowing its reserved 2.82-acre site to remain as open space land.

Subsection 6.10

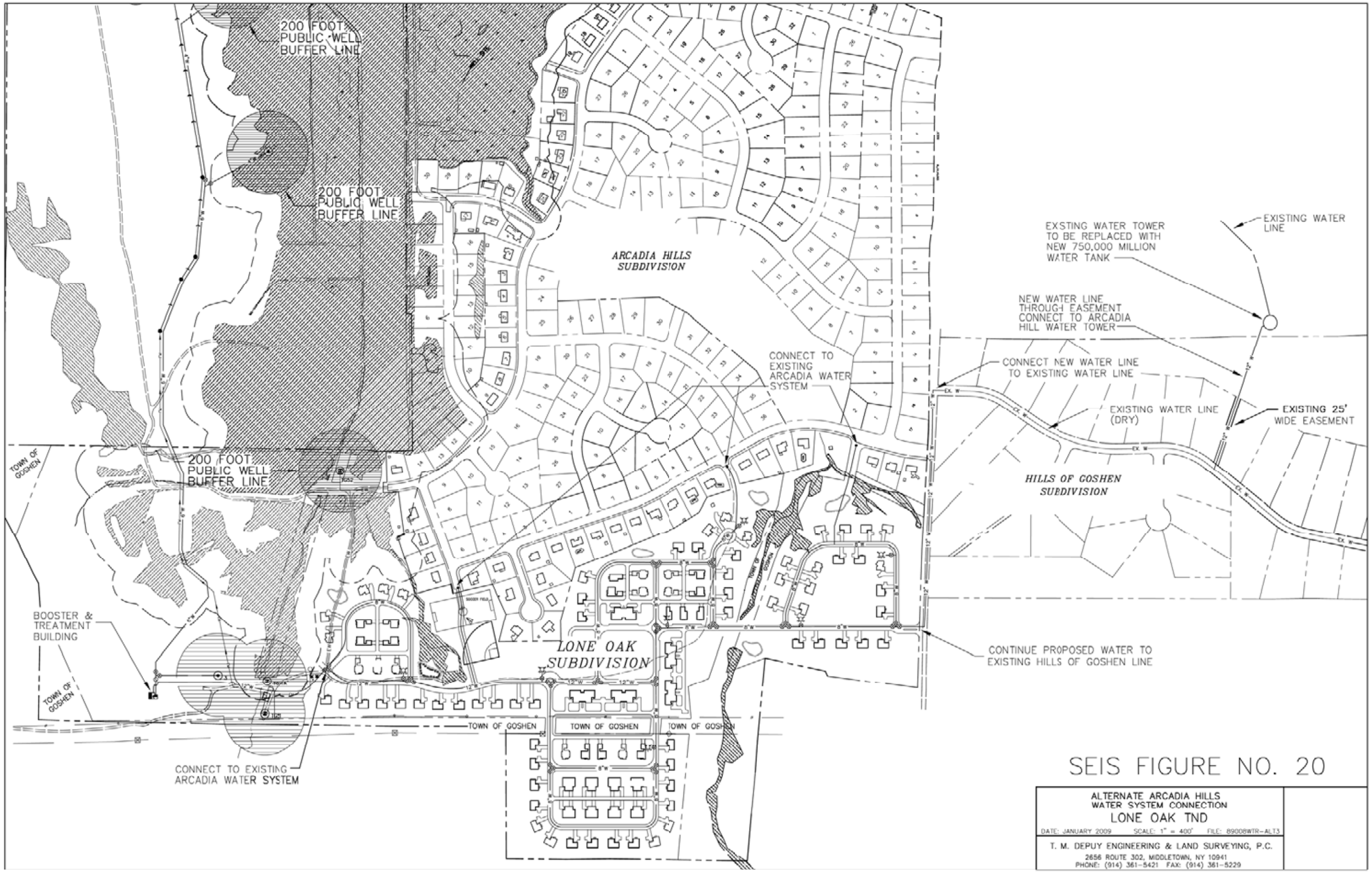
Alternate Water System Plan / Connection to Existing Arcadia Hills Water System

The Project Engineer has examined the concept of accommodating the water demand of the Lone Oak TND by developing a joint water system with the adjacent Arcadia Hills Water System which presently serves approximately 250 homes within the Arcadia Hills Subdivision.

This alternate water system plan would involve the development of the Lone Oak wells as otherwise proposed along with the proposed booster station and water treatment building. However, as depicted on **SEIS Figure No. 20, Alternate Arcadia Hills Water System Connection**, the overall water system would be connected to the existing Arcadia Hills system at numerous points to reinforce the distribution grid. Additionally the 12" water line would be extended along Arcadia Road and connected to the existing dry water line within the Hills of Goshen Subdivision to the east of Arcadia Road. The water line would also be extended through an existing 25' wide easement and connected to the location of the existing Arcadia Hills water tank.

This alternate water system plan would also include the below infrastructure improvements:

- The Arcadia Hills water tank would be replaced with a 750,000 gallon bolted steel glass-lined tank (the present tank is understood to be in disrepair and near the end of its useful life).


200 FOOT PUBLIC WELL BUFFER LINE
200 FOOT PUBLIC WELL BUFFER LINE
200 FOOT PUBLIC WELL BUFFER LINE
ARCADIA HILLS SUBDIVISION
EXSTING WATER TOWER TO BE REPLACED WITH NEW 750,000 MILLION WATER TANK
EXISTING WATER LINE
NEW WATER LINE THROUGH EASEMENT CONNECT TO ARCADIA HILL WATER TOWER
CONNECT NEW WATER LINE TO EXISTING WATER LINE
CONNECT TO EXISTING ARCADIA WATER SYSTEM
EXISTING WATER LINE (DRY)
EXISTING 25' WIDE EASEMENT
HILLS OF GOSHEN SUBDIVISION
TOWN OF GOSHEN
BOOSTER & TREATMENT BUILDING
LONE OAK SUBDIVISION
CONTINUE PROPOSED WATER TO EXISTING HILLS OF GOSHEN LINE
TOWN OF GOSHEN
TOWN OF GOSHEN
TOWN OF GOSHEN
TOWN OF GOSHEN
CONNECT TO EXISTING ARCADIA WATER SYSTEM
SEIS FIGURE NO. 20
ALTERNATE ARCADIA HILLS WATER SYSTEM CONNECTION
LONE OAK TND
DATE: JANUARY 2009 SCALE: 1" = 400' FILE: 89008WTR-ALT3
T. M. DEPUY ENGINEERING & LAND SURVEYING, P.C.
2656 ROUTE 302, MIDDLETOWN, NY 10941
PHONE: (914) 361-5421 FAX: (914) 361-5229

- The electrical services for the existing Arcadia Hills wells would be upgraded and a new telemetering system would be installed in order to have the new Lone Oak wells and the existing Arcadia Hills wells act in concert in supplying an overall inter-connected system.

- Those existing Arcadia Hills wells that have not been upgraded in recent years would be flushed, and new well screens and new well pumps would be installed.

In setting forth this alternate water system plan the Project Engineer notes the Town has recently undertaken some improvements of the Arcadia Hills wells. While the Arcadia Hills water system has had a history of not meeting required demand, this problem has ceased in recent years, this circumstance presumably due to the recent improvements and redevelopment of the existing wells.

SEIS Section 7
Irreversible and Irretrievable Commitment of Resources

Supplemental EIS Section 7 provides a brief summary of the environmental resources that will be lost, both in the immediate future and in the long term, if the Lone Oak Traditional Neighborhood Development is carried out. The below resources are considered to be irreversibly and irretrievably "committed" (i.e. consumed, converted or otherwise made unavailable for future use):

- The 103.42-acre Project Site, which includes no soil classified as "Class I" , or "prime agricultural soil", under 1 NYCRR 370, will be developed to satisfy perceived residential market demand and the owner's investment objectives within the framework of a "traditional neighborhood development" designed in accordance with the conservation-based land development parameters established by the Town of Goshen's Zoning Law.

- A projected net amount of approximately $70,000,000 in capital will be committed to project development and home purchases.

- Existing vegetation on some 45.20 acres, or approximately 43.3 percent of the Project Site, will be substantially removed for internal subdivision roadways, storm water management and other utility improvements including water supply and sanitary sewage systems, service lanes and ways, sidewalks, driveways, sites for a range of housing types and related appurtenances, including community facilities though replaced to the extent practicable within not less than some 25.36 acres, or approximately 56.1 percent, of the disturbed area with native, non-endangered species of grasses, groundcovers, trees and shrubs prior to the completion of the TND. In addition, natural cover will be restored in portions of the playground areas (0.51 acres) and the stormwater detention basin areas (2.30 acres) and a portion of prior wetland disturbance associated with well drilling activity eliminated and the wetland area appropriately restored.

- Existing wildlife habitat will be concurrently displaced from a like portion of the Project Site though restored to the extent practicable as the above landscaping occurs so as to be repopulated by small mammals and birds.

- Existing soils on some 45.20 acres, or approximately 43.3 percent of the Project Site, will likewise be altered. These soils will be replaced with residential dwellings and related appurtenances, including community facilities, subdivision roadways, utility improvements, service lanes and ways, sidewalks, driveways and other impervious surfaces, on a maximum of approximately 19.84 acres, or 19.0 percent, of the 103.42-acre parcel.

- Existing topography will be altered on 5.50 acres of the 15.44 acres of the Project Site with slope in excess of 15 percent.

- Existing wetlands within the Project Site and on the adjacent Lands of Fini consisting of the following will be lost due to either new or pre-existing permanent disturbance:

    - through new disturbance 0.011 acre of "isolated" or ACOE non-jurisdictional wetland,

    - through new disturbance 0.071 acre ACOE jurisdictional wetland, including 0.047 acre of NYSDEC Wetland, pursuant to Nation-Wide Permits 7, 12, 14 and 29 and NYSDEC Freshwater Wetlands Permit, respectively, and.

    - on the basis of pre-existing disturbance 0.323 acre of ACOE jurisdictional wetland, all of which is also NYSDEC Freshwater Wetland.

    The combined loss of 0.395 acre involving ACOE jurisdictional wetlands and/or NYSDEC regulated wetland represents the loss of 0.60 percent of the existing 65.22 acres of delineated wetlands within the 212.5 acres owned by Fini Bros., including the 103.42-acre Project Site and the adjoining 109.06-acre parcel on which certain utility infrastructure will be installed.

    Additional temporary disturbance will occur within 0.142 acre of ACOE jurisdictional wetland lying outside NYSDEC Wetland GO-41 and 0.203 acre of NYSDEC Wetland GO-41 and within 0.959 acre of the regulated buffer of the NYSDEC Wetland.

    Mitigation in the form of new wetland creation (0.60 acre) and the restoration of a portion of an area of prior wetland disturbance (0.13 acre) is intended to compensate on nearly a 2:1 basis for the permanent wetland disturbance that either is pre-existing or will occur as the development of supporting infrastructure for the Lone Oak TND is completed.

- Construction materials, labor and petrochemical energy resources will be committed to, and consumed by, the work during the construction period. Furthermore, construction materials and labor for maintenance-related efforts and petrochemical energy resources will continue to be committed to, and consumed in support of, the residential occupancy of the Lone Oak TND

As also discussed in SEIS Section 4, "Existing Environmental Setting, Anticipated Impacts and Related Mitigation Measures" and later summarized in SEIS Section 5, "Adverse Environmental Effects That Cannot Be Avoided If Proposed Action Is Undertaken", several impacts on public facilities and services will also occur, most particularly the following at full development:

- Some loss of residual capacity will occur with respect to existing highways and intersections within the vicinity of the Project Site due to the presence of site-generated traffic.

- Consumption of water will occur from the known source Fini bedrock wells, the amount of this average daily consumption estimated to be 48,020 GPD in accordance with NYSDOH standards.

- Discharge of treated effluent generated by sewage flow estimated to average 58,250 GPD in accordance with NYSDEC standards will occur, either to the Otter Kill from an on-site STP or, as preferred by the Project Sponsor, as an additional discharge from the Village of Goshen STP, with accommodation of the sewage generated within the Lone OAK TND by the Village STP causing a commensurate reduction of approximately 6 percent in the 1 million GPD residual capacity of the Village's wastewater facility.

- Demand for increased public services will be experienced, including education, recreation, fire protection, police protection and other emergency services, and other general governmental functions, due to a projected resident population of 431 persons within the Lone Oak TND including a projected 90 additional school-age children to be educated by the Chester Union Free School District and a commensurate loss of residual capacity in related facilities will occur.

- Additional maintenance responsibilities will be borne by the Town of Goshen with respect to roadways and related improvements, by the Arcadia Hills Town Water District and Arcadia Hills Town Sewer District or, alternately, by Public Transportation Corporations with respect to the central water and sanitary sewage systems, by a Town Drainage District in the matter of the stormwater management system, and by the Town Parks Department in the matter of dedicated recreation lands, all of which involves continuing commitments of labor, materials and related economic resources.

SEIS Section 8
Growth-Inducing Impacts

The Proposed Action will permit the Project Sponsor to undertake the development of the Lone Oak Traditional Neighborhood Development consistent with perceived market demand and the intended land use, density and site layout presented on the TND Site Plan examined in this Supplemental EIS.

The development of the Lone Oak TND will add a projected 431 residents to the Town of Goshen, assuming all residents of the Lone Oak TND either are new residents to the Town or are current residents who will be followed in their present accommodations by similarly sized households. These 431 residents will increase the last reported Town population of 12,913 persons by approximately 3.3 percent over a projected 3 to 5 year residential construction build-out period. This increase will indirectly cause a minor expansion of jobs and a commensurate increment of additional demand for retail, business service and personal service establishments throughout the "community", including both local retail, business service and personal service establishments within the Town and Village of Goshen [including within the adjacent Hamlet Mixed-Use (HM) District [or Commercial-Office (CO) District should the Zoning Law Amendment introduced in July 2007 be adopted] and the Village of Chester and "big box" establishments and other regional and national retailers located within nearby communities, such as Middletown, Wallkill and Newburgh.

It is not anticipated, however, that the development of the Lone Oak TND will directly induce significant growth either in the vicinity of the Project Site or elsewhere throughout the Town of Goshen that would not otherwise have occurred. Further, the Proposed Action does not require the Town to make any precedent-making policy or legislative decisions regarding permissible land use or authorized density. As discussed earlier in SEIS Section 4, Subsection 4.6, "Land Use, Zoning and Public Policy", the Lone Oak TND represents a preferred development form that may be authorized by the Town Planning Board within the Hamlet Residential (HR) Land Use District pursuant to the terms of the recently amended Town Zoning Law.

The Proposed Action does include, however, need for decisions by the Town of Goshen (which may to in part require coordination with the Village of Goshen) as to the desired approach for long-term ownership, operation and maintenance of the Lone Oak TND's central water and sanitary sewage systems, either through the Arcadia Hills Town Water and/or Sewer Districts or privately-managed public transportation corporation(s). In addition, the Town of Goshen will be required as part of the Proposed Action to make decisions concerning the ownership of certain subdivision roadways, wetland conservation parcels and recreation lands within the Lone Oak TND, all as earlier discussed in SEIS Section 6, Alternatives to the Proposed Action.

SEIS Section 9
Effects on the Use and Conservation of Energy Resources

Development of the Lone Oak Traditional Neighborhood Development will not have a significant adverse effect on either the use or conservation of energy resources.
Orange and Rockland Utilities, Inc. is prepared to provide electric and natural gas service to the Project Site to fully meet the projected residential demand of the residents of the 132 new dwelling units and facilities appurtenant to the residential use, such as street lighting, the community water system and the central sewer system pursuant to franchise, Town District and Public Service Commission requirements. Other fuel sources, if utilized for heating and cooling, are also readily available in the local marketplace.

Furthermore, the proposed development will be exclusively new construction that would be designed and constructed on an energy-efficient basis in accordance with the requirements of the ICBO New York State Codes including but not limited to the Residential Building Code and the Energy Conservation Code.

Moreover the compact layout plan of the Lone Oak TND, the inclusion of a community recreation area and other open spaces within the TND, and the provision of sidewalks, bicycle paths and other pedestrian trails throughout the TND may, in addition to encouraging recreational activities by residents of the Lone Oak TND, occasionally safe energy by nurturing the use of a muscle power mode as a substitute for what otherwise would be a fuel-powered vehicle trip.

SEIS Section 10
Summary of Modifications to the Draft EIS and Comparative Assessment of Proposed Actions

The "changes in circumstance" which caused presentation of the Lone Oak Traditional Neighborhood Development described in this Supplemental EIS have in summary resulted in the following highlighted modifications to the Proposed Action and evaluation of environmental factors set forth in the Draft EIS:

- Substitution of the 132-Unit Lone Oak Traditional Neighborhood Development (TND) for the 162-Lot Lone Oak Estates Subdivision as the "Proposed Project".

- Modification of the Description of the Project Site as set forth in Draft EIS Section 2, Subsection 2.1, Project Site Location & Ownership, to reduce the Project Site from its former 226.7 acres, being the combination of TMP 11-1-49.2, TMP 11-1-58 and various lots and rights-of-way within Sections A and B of the Arcadia Hills Subdivision, to its present 103.42 acres, being in its entirety TMP 11-1-49.2.

- Presentation at SEIS Section 3, Subsection 3.2.3, of a description of off-site central water and sanitary sewage improvements proposed within TMP 11-1-58 including depiction of the location and acreage of easement areas proposed for purposes of installation and maintenance of the improvements and wellhead water supply protection in accordance with NYSDEC standards.

- Substitution of the Description of the Traditional Neighborhood Development found within Section 3, Subsections 3.2 and 3.3 of this Supplemental EIS for Draft EIS Section 2, Subsection 2.2. Subdivision Design and Layout, and Subsection 2.3, Residential Structures and Lot Development.

- Acknowledgment that Draft EIS Section 2, Subsection 2.6, Reviews, Permits, Approvals and Compliance Determinations, has been modified through presentation of Supplemental EIS Section 3, Subsection 3.6 to include among other modifications the following:

    - Filing of a homeowners association agreement or similar documents with the NYS Attorney General's Office pursuant to Section 385-e of the General Business Law in the matter of the ownership, management and maintenance responsibility for various common lands and improvements, e.g. the picnic grove and other open spaces, including perhaps the community recreation area, and the town home parcels, within the TND.

    - Execution of an Affordable Housing Agreement by the Project Sponsor and the Town of Goshen.

- Presentation at SEIS Appendix B of a revised Engineer's Report: Water Infrastructure Feasibility Study (April 2008), including Proposed Water System

Infrastructure Layout Plan, in consideration of the TND Site Plan, the modifications in minimum fire flow requirements, and the inclusion of the entirety of the TND within the Arcadia Hills Town Water District.

- Presentation at SEIS Appendix C of a revised Engineer's Report: Sewer Infrastructure Feasibility Study (April 2008), including Proposed Sewer System Infrastructure Layout Plan, in consideration of the TND Site Plan, the Project Sponsor's willingness to construct an on-site wastewater treatment plan while continuing preference that an on-site STP not be constructed, and the inclusion of the entirety of the TND within the Arcadia Hills Town Sewer District.

- Discussion within the Engineer's Report: Sewer Infrastructure Feasibility Study of a specific program for providing improvements to address infiltration & inflow and pumping station deficiencies within Arcadia Hills Town Sewer District facilities as an integral part of the plan for conveyance of Lone Oak TND sanitary sewage flow to the Village of Goshen STP.

- Presentation at SEIS Appendix D of an Engineer's Report: Stormwater Management Analysis (April 2008) in consideration of the TND Site Plan and to address modifications in NYSDEC Stormwater Regulations promulgated pursuant to EPA Phase 2 Regulations.

- Substitution of the Groundwater Analysis presented in Supplemental EIS Section 4.2 for the discussion of Anticipated Impacts and Mitigation Measures found within Draft EIS Subsections 3.2.2 and 3.2.3, respectively.

- Acknowledgment that approximately 5.34 acres of the total wetland area of 70.56 acres discussed in the Draft EIS and subject of the Jurisdictional Determination Letter (JD) issued by the ACOE on July 5, 2000 lies outside the 212.5 acres presently owned by Fini Bros. and that all but 12.66 acres of the remaining 65.22 acres lie outside the present 103.42-acre TND Project Site.

- Presentation at SEIS Appendix E of a complementary Endangered and Threatened Species Report (November 16, 2007).

- Presentation at SEIS Appendix F of a revised Traffic Impact Study (April 8, 2008) to address the 132-Unit TND Site Plan and related substitution of the updated Traffic Impact Study as discussed in Supplemental EIS Section 4, Part B, Subsection 4.5, for the Traffic Impact Study discussed in Draft EIS Section 3, Man-Made Resources, Subsection 3.5, and presented at DEIS Appendix H.

  Related acknowledgment that the 132-Unit TND Site Plan does not include the construction of a through roadway linking between Harriman Drive on the west and Arcadia Road on the east; principal access to the TND is provided from Arcadia Road and via a secondary interconnection at Maplewood Lane with the existing street network within the Arcadia Hills Subdivision.

- Substitution of the Master Plan, Zoning and Land Use discussion presented in the Supplemental EIS in Section 2, Subsection 2.1, Town Board's Amendment of

Zoning Law, and Section 4, Part B, Subsection 4.6, for the discussion at Section 3, Subsection 3.6, Land Use and Zoning, of the Draft EIS.

- Substitution of demographic projections based on Residential Demographic Multipliers, Estimates of Occupants of New Housing (2006) for demographic projections based on The New Practitioner's Guide to Fiscal Impact Analysis (1985) which have however been retained as alternate multipliers to in effect provide for "sensitivity analysis" in consideration of the total projected residential population and number of public school pupils within the TND and related fiscal impacts on the Town of Goshen and the Chester Union Free School District.

- In consideration of the above revised projections and other updating, substitution of updated information on Community Facilities and Services, including consideration of existing setting, impacts and mitigation measures as set forth in Supplemental EIS Section 4, Part B, Subsection 4.7, for related discussion within Section 3, Subsection 3.7, of the Draft EIS.

- Acknowledgment that among the Alternatives presented in Draft EIS Section 5, Subsection 5.7, Alternative Disposition of Existing Lots of Record within Arcadia Hills Subdivision; Subsection 5.8, Alternative to Address Newly-Discovered Information in the matter of the Orange & Rockland right-of-way; and Subsection 5.9, Reduced Lot Alternative to Address Comments on the Preliminary Draft EIS are no longer applicable due to the "changes in circumstance".

- Presentation within SEIS Section 6 of several additional Alternatives, including at Subsection 6.6, Alternative Ownership of TND Recreation Lands, Subsection 6.7, Alternatove Ownership and Maintenance Responsibility for Certain TND Roadways, Subsection 6.8, Alternative Sites for Water Storage Facilities, Subsection 6.9, Alternative Sewage Treatment Facilities, and Subsection 6.10, Alternate Water System Plan / Connection with Existing Arcadia Hills Water System.

- Acknowledgement that the quantitative measures stated within Draft EIS Section 4.0, Adverse Environmental Impacts That Cannot Be Avoided If Proposed Action Is Implemented; Section 6.0, Irreversible and Irretrievable Commitments of Resources; and Section 7.0. Growth-Inducing Aspects have been modified to reflect the parallel quantitative measures set forth within the Supplemental EIS, many of which are summarized within below **SEIS Table No. 6, Comparative Impacts / 162-Lot Conventional Subdivision and Lone Oak 132-Unit TND**.

SEIS Table No. 6

Comparative Impacts
162-Lot Conventional Subdivision
and
Lone Oak 132-Unit TND

Factor Examined	*162-Lot Conventional Subdivision*	*132-Unit TND*
Project Site		
- Total Land Area (acres)	226.7	103.4
- Developed Area upon Completion of Development		
- Acres	117.0	45.2
- Percentage of Total Land Area	51.6%	43.7%
- Open Space Area upon Completion of Development		
- Acres	109.7	58.2
- Percentage of Total Land Area	48.4%	56.3%
- Impervious Area (acres)	18.7	19.8
Wetlands		
- On-Site Delineated Wetlands (acres)	70.6	12.66
- Wetlands on Adjacent Fini Lands (acres)	NA	52.56
- Wetlands Encroachment (acres)	2.4	0.40
- Wetlands Preserved (acres)	68.2	64.82

Factor Examined	*162-Lot Conventional Subdivision*	*132-Unit TND*
Dwelling Units		
- Single-family detached	162	88
- Single-family attached (duplex)	0	16
- Townhomes	0	28
- Owner-occupied units	162	132
- Rental units	0	0
- Market rate units	162	119
- Affordable units	0	13
Lot Area / Density		
- Density (DU/acre)	0.71	1.27
- Mean SFD Lot Area (s.f.)	27,000	13,200
Demographics		
- Total Residents	653 *	434
- Persons per Dwelling Unit	4.03 *	3.29
- School-Age Children	215 *	133 99
- Public School Pupils	184 **	121 90

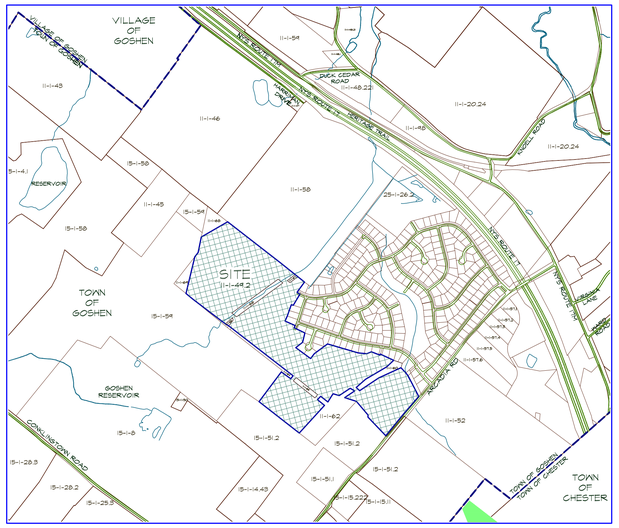
Factor Examined	*162-Lot Conventional Subdivision*	*132-Unit TND*
Infrastructure		
- Traffic (Vehicle Trips)		
Weekday AM Peak Hour	123	101
Weekday PM Peak Hour	165	138
- Water Supply Demand (GPD)	60,750	48,020
- Sanitary Sewage Load (GPD)	76,950	58,250
- Monthly Solid Waste (tons)	34.3	22.8
Community Fiscal Impact (Real Property Tax)		
- Town of Goshen	+$ 25,267. *	+$ 82,004.
- Goshen Central SD ***	- $300,364. *	0.
- Chester Union Free SD ***	- $356,301. *	+$255,594.

Notes:

* *Data presented in DEIS has been re-visited and adjusted to provide an "apples-to-apples" comparison upon employ of updated Residential Demographic Multipliers set forth by Rutgers University Center for Urban Policy Research, June 2006.*

** *Data presented in DEIS has also been re-visited to employ 91% public school "capture rate" set forth by Goshen Central School District in its January 2006 Enrollment Projection / Demographic Study.*

*** *Based solely on local share of per pupil proportional cost defrayed through the real property tax levy.*



LOCATION MAP

SCALE: 1 in.= 1000 ft.

PARCEL, OWNER, SUBDIVIDER DATA

1. RECORD OWNER:	FINI BROTHERS 33 FINI DRIVE MIDDLETOWN, NEW YORK 10940
2. SUBDIVIDER:	FINI BROTHERS 33 FINI DRIVE MIDDLETOWN, NEW YORK 10940
3. TAX MAP REFERENCE:	SECTION 11, BLOCK 1, LOT 49.2
4. DEED REFERENCE:	LIBER 2521 OF DEEDS, PAGE 105
5. PARENT PARCEL AREA:	103.42 ACRES (11-1-49.2)
6. EXISTING ZONING:	HR - HAMLET RESIDENTIAL

7. HR - HAMLET RESIDENTIAL

8. ZONING REQUIREMENTS
   * PUBLIC SEWER AND WATER SERVICE
   * MINIMUM LOT SIZE - N/A - 20% OF THE REQUIRED OPEN SPACE WILL BE ACCESSIBLE TO THE GENERAL PUBLIC
   * 50% OF THE TOTAL AREA ZONED HR SHALL BE PROTECTED OPEN SPACE
   * TWO FAMILY DWELLING PERMITTED BY RIGHT ON CONFORMING LOTS
   * MAX. FOOTPRINT OF A NON-RESIDENTIAL STRUCTURE = 5000 SF - FOOTPRINT LIMITATION DOES NOT APPLY TO STRUCTURES DESIGNED FOR INDOOR RECREATION OR AS COMMUNITY CENTER.
   * MAX. AGGRESGATE RESIDENTIAL DENSITY = 3 UNITS/ACRE
   * SHALL INCLUDE 10% AFFORDABLE HOUSING

LEGEND

SYMBOL	TYPE OF UNIT	NO. OF UNITS
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- SIDE LOADED	65
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- REAR LOADED	23
	DUPLEX RESIDENCE SINGLE FAMILY HOMES W/GARAGE	16
	ATTACHED RESIDENCE TOWNHOMES W/GARAGE	28
	TOTAL SITE UNITS	132

GRAPHIC SCALE

200 0 100 200 400 800

(In Feet)
1 in. = 200 ft.

Date	Description
04/15/08	Date of Origin

Revisions

ESPOSITO & ASSOCIATES
262 GREENWICH AVENUE
GOSHEN NY, 10924
845.294.0558 Fax 845.294.0580

STEVEN T. ESPOSITO
Landscape Architect
License No. 001169
Signature Date

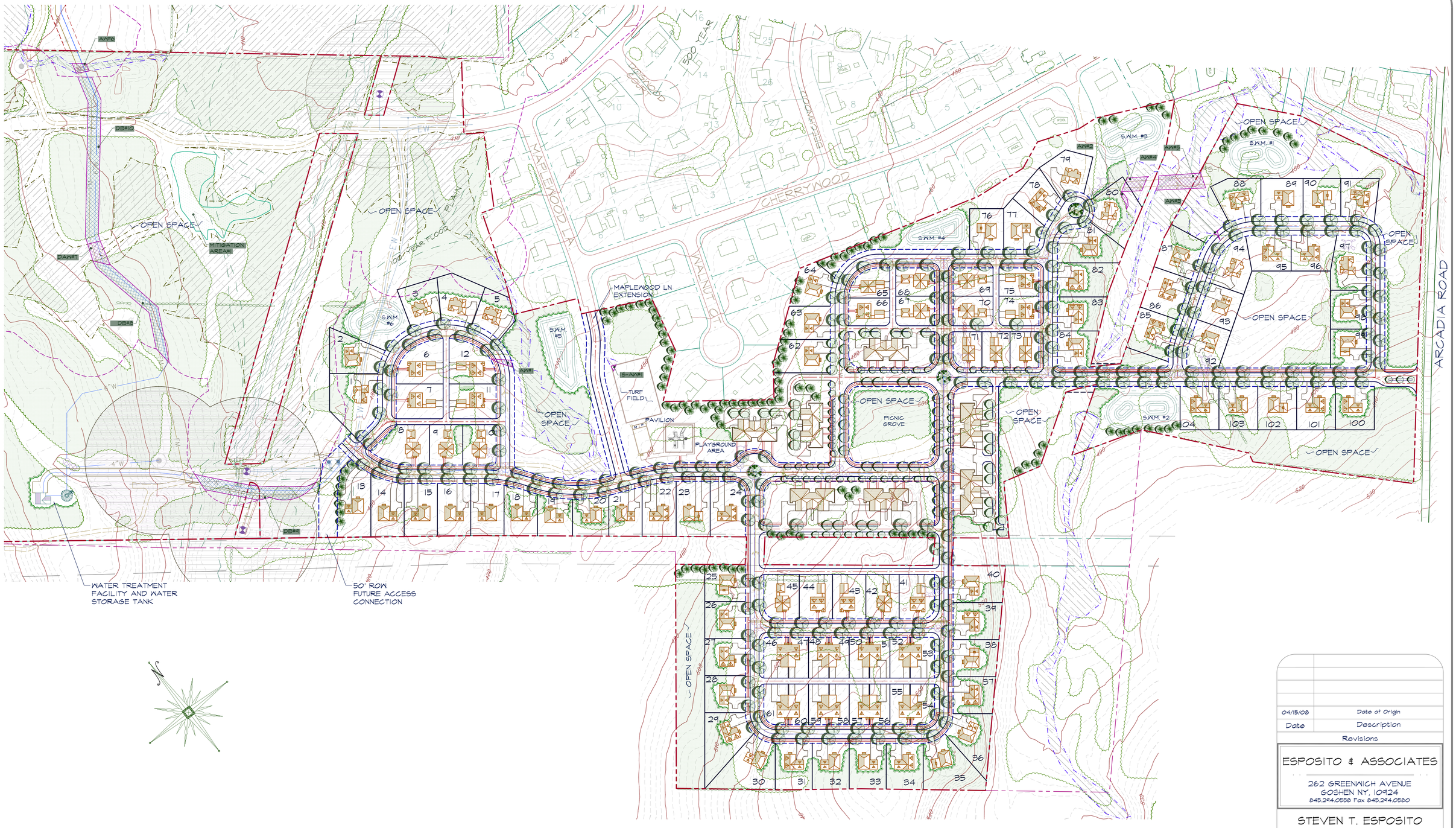
LONE OAK
TRADITIONAL NEIGHBORHOOD DEVELOPMENT
TOWN OF GOSHEN

OVERALL PLAN

Drawing Title:

Unauthorized alteration or addition to a plan bearing a Licensed Land Surveyor's or Professional Engineer's seal is a violation of section 7209, subdivision 2 of the NY State Educational Law.

Scale:	Drawing No.:	Project No.:
1"=200'	1 of 1	20403.01
CAD Reference: .dwg	O.C.H.D. Sheet No.: of	D.E.C. Sheet No.: of



LEGEND

SYMBOL	TYPE OF UNIT	NO. OF UNITS
	DETACHED RESIDENCE SINGLE FAMILY HOMES W/GARAGE- SIDE LOADED	65
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	TOTAL SITE UNITS	132

GRAPHIC SCALE

100 0 50 100 200 400

(In Feet)
1 in. = 100 ft.

Date	Description
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Scale:	Drawing No.:	Project No.:
1"=100'	1 of 1	20409.01
CAD Reference: dwg	O.C.H.D. Sheet No.: of	D.E.C. Sheet No.: of

SEIS EXHIBITS

The above-cited potential adverse effects on the environment, as previously set forth within the Positive Declaration, include the following:

1. Effects on land, including soils and wildlife resources, caused by clearing, grading and development of approximately 59.0 acres of the combined 226.7-acre parcel.

2. Effects of the proposed subdivision layout, including roadway and utility improvements and lot configuration, caused by the presence of areas of moderate topography, wet areas and an Orange and Rockland Utilities corridor within the project site.

3. Effects of the conversion of lands within a Certified Agricultural District to residential use, including consideration of effects on nearby farms and downstream farm operations.

4. Effects on surface water resources caused by either of the following:

   - Changes in the quantity or quality of storm water runoff due to the development of the project site, including the creation of approximately 16.0 acres of roads, buildings and other impervious surfaces, with particular concern as cited by NYSDEC regarding the presence of NYSDEC Freshwater Wetland GO-41 and a FEMA-delineated flood plain within portions of the project site.

   - Discharge of treated sewage effluent from the proposed sewage treatment plant to the Otterkill, a classified "Class C" intermittent stream.

5. Effects on traffic, including both of the following:

   - A projected 172 site-generated vehicle trips at PM peak hour on the local roadway network.

   - Concern for suitable emergency access.

6. Effects on groundwater resources, including a taking of approximately 89,440 gpd by a proposed central water system to accommodate the water supply demands of 172 dwellings.

7. Effects on community facilities and services, including, but not limited to, the impact on schools caused by the expected-to-reside school-age children and increased demand for police, fire, recreation and other services caused by additional new residential development.

8. Effects on cultural (archaeological and historic) resources as cited by NYSOPRHP.

SEIS Exhibit No. 1
Final Scoping Document

Fini Bros. LONE OAK ESTATES SUBDIVISION / ARCADIA HILLS RESUBDIVISION
Draft EIS Scoping Document
pursuant to Title 6 Part 617.8 NYCRR
Revised April 12, 1999

Introduction

This Scoping Document has been prepared by the project sponsor to define for the Planning Board in its role as SEQRA lead agency, the other involved agencies and the public the environmental issues that will be addressed by the project sponsor during preparation of a Draft Environmental Impact Statement (Draft EIS) regarding the proposed "Lone Oak Estates Subdivision and Arcadia Hills Resubdivision" southeast of NYS Route 17 between the end of Harriman Drive and the Arcadia Hills Subdivision in the Town of Goshen, Orange County, New York.

The proposed action, which has been classified as a Type I Action and for which a Positive Declaration was issued by the lead agency on November 5, 1998, is described as follows in the Full Environmental Assessment Form Part 1 prepared by PLANNERS EAST Incorporated and submitted on behalf of the project sponsor, Fini Bros., on September 16, 1998:

> "Subdivision Plat and related permits, approvals and compliance determinations to authorize creation of 172 residential building lots, installation of associated infrastructure, and construction of 172 single-family dwellings through phased development of the Lone Oak Estates Subdivision (154 building lots and 6 utility parcels platted from the combined 217.4 acres of TMP 11--1-49.2 and 11-1-58) and adjoining Arcadia Hills Resubdivision (18 building lots platted through reconfiguration of combined 9.33 acres of TMP 27-8-10 through 16, 27-9-1 through 14, and 27-10-1 through 3). All building lots will be served by proposed central sewer and water systems and conform as applicable to either SR-2.5 or AR-1 Zoning District requirements."

The scope of issues takes into account both the potential adverse effects on the environment identified within the Positive Declaration and initial comments on the proposed project by the Town of Goshen Environmental Review Board, the NYS Department of Environmental Conservation, the NYS Office of Parks, Recreation and Historic Preservation, NYSDOT, and other involved or interested agencies and persons.

9. Other construction period impacts, including short-term effects on noise and air quality.

Draft EIS Scope and Content

I. Draft EIS Cover Sheet

II. Draft EIS Table of Contents and Summary

III. Description of the Proposed Action

Within the "Description of the Proposed Action" and elsewhere throughout the Draft EIS, the project sponsor will incorporate required information for specific demonstration of compliance with all Subdivision Plat Approval criteria set forth by the Town of Goshen Land Subdivision Regulations with respect to "general requirements", "design standards" and "required improvements", including consistency with the pertinent area and bulk regulations set forth within the Town's Zoning Code for residential lots and related single-family residential development in the SR-2.5 and AR-1 Districts as applicable.

The minimum level of information relied upon throughout the Draft EIS to demonstrate the viability of the overall subdivision layout and associated infrastructure proposals, establish the "buildability" of each of the individual lots, and permit reasonable assessment of the environmental effects of the proposed action shall be no less than consistent with the submission requirements for an Application for Major Subdivision Preliminary Plat Approval as set forth in the above-cited Land Subdivision Regulations.

A. <u>Location of the Project Site.</u>

1. Depiction of the regional and local context of the project site.

2. Definition of the specific geographic boundaries of the project site and explicit identification of any easements, rights-of-way, restrictions or other

legal devices affecting its development potential, including consideration of rights held by either Orange and Rockland Utilities or the Goshen Water District and the location of various special district boundaries.

3. Discussion of prior use of the project site and description of the present use of the project site.

4. Description of the relationship of the project site to surrounding properties. Both developed and undeveloped, including discussion of both existing land use and zoning and current development proposals, if any.

5. Description of the infrastructure serving the project site and/or its immediate environs, including consideration of existing water supply wells, access and roadways, municipal and franchise utilities, parks, schools and other facilities.

6. Description of the visibility of the project site from public properties and roadways, including Route 17.

7. Relationship of the project site to wetlands, stream courses, historic properties, if any, or any other recognized or protected natural or man-made features.

B. Proposed Subdivision Design and Layout.

1. Discussion of the intended single-family residential use and description of intended conventional subdivision layout.

2. Description of proposed access to Harriman Drive and Arcadia Road and internal circulation within the proposed subdivision.

3. Description of proposed water supply and sanitary sewage facilities, including intended physical and legal arrangements and their relationship, if any, to Town Code Section 79-18.

4. Description of intended storm water management facilities including acknowledgment of requirement of "zero net increase".

5. Description of other subdivision-wide amenities including lighting, signage and landscaping (including consideration of both the retention of existing vegetation and the introduction of new plantings) programs, and any other similar site improvements.

6. Related analysis of the effects of the development on the project site and its immediate environs, including consideration of the following:

   - Projected amount and location of impervious surface area (including subdivision roadways, utilities, dwellings and related accessory structures, driveways and parking areas and other pavements).

   - Probable amount, location and duration of land disturbance.

   - Probable extent of loss of existing vegetative cover and disruption of wildlife habitat.

   - Probable amount and location of land to be maintained as private open space within individual lots, a matter particularly significant in regard to wetland, flood plain and similar issues.

   - Visibility of the proposed residential subdivision and probable levels of lighting, noise and similar localized factors associated with either the dwellings or related infrastructure.

C. Proposed Residential Structures and Lot Development.

1. Architectural type, gross and habitable floor area, number of bedrooms, and projected sales price of typical single-family dwelling(s).

2. Typical layout of residential lot(s), including consideration of dwelling, accessory structures, related driveway and parking area and associated landscaping.

D. Project Purpose, Public Need and Benefits.

1. Background and history of the intended project, including both a summary of prior "applications" and a statement of the objectives of the project sponsor.

2. Public need for the intended project, including consideration of consistency with adopted policies and/or plans as set forth within adopted community land use and development plans.

3. Social and/or economic benefits realized and/or adverse effects anticipated due to the proposed action.

E. Construction and Operation.

1. Construction.

- Total construction period anticipated including discussion of phasing.

- Type of construction activities, including consideration as to whether any blasting will be required, and anticipated schedule of construction for both subdivision improvements (site preparation, grading, removals if any, roadways, water system, storm water management, sanitary sewage system and franchise utilities) and subsequent single-family dwelling construction including consideration of "build-out".

- Effects on construction traffic on adjacent roadways including consideration of proposed location of construction entrance(s).

2. Operation.

- Construction period requirements including performance guarantees and other matters.

- Provision for long-term ownership, operation and maintenance of all required subdivision improvements and related lands, including water supply and sanitary sewage facilities, whether proposed for dedication or held privately.

- Restrictions, if any, to be imposed on the use and development of individual single-family residential lots.

F. Reviews, Approvals and Other Compliance Determinations.

The "Matters to be Decided" that will be addressed in the Draft EIS include, but are not necessarily limited to, the following:

1. Town of Goshen Planning Board

- Completion of SEQRA process as designated "lead agency" for coordinated environmental quality review.

- Subdivision Plat Approval pursuant to Town of Goshen Land Subdivision Regulations.

- Compliance with Town Law Section 283 pertaining to projects within Certified Agricultural Districts.

2. Town Board of the Town of Goshen

   - Sewer District Formation or Authorization for Transportation Corporation.

   - Water District Formation of Authorization for Transportation Corporation.

   - Acceptance of Dedication of Subdivision Roadways and Associated Improvements.

3. Town Highway Superintendent

   - Highway Access and Driveway Permits.

4. Town of Goshen FEMA Officer

   - Determination of Compliance with Flood Management Program.

5. Orange County Health Department

   - Authorization for Water Line Extension.

6. Orange County Planning Department

   - Review upon referral under General Municipal Law Section 239.

7. NYS Department of Transportation

   - Utility Work Permit.

8. NYS Department of Environmental Conservation

   - State Pollutant Discharge Elimination System (SPDES) Permit for Sewage and Stormwater under Article 17 ECL.

   - Sewer Line Approval.

   - Water Supply Approval under Article 15, Title 15 ECL.

   - Freshwater Wetlands Permit under Article 24 ECL.

9. NYS Department of Agriculture and Markets

- Review as pertains to special district formation within Certified Agricultural District.

10. NYS Office of Parks, Recreation and Historic Preservation

- Review under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

11. U.S. Army Corps of Engineers (ACOE)

- Wet Areas Encroachment Permit.

12. Federal Emergency Management Agency (FEMA)

- LOMA Determination.

IV. Existing Environmental Setting, Anticipated Impacts and Related Mitigation Measures.

A. Natural Resources.

1. Description of Existing Conditions regarding each of the following components:

- Geology, Soils and Topography, with on-site soils investigations to be conducted to complement USDA SCS information and identify areas where bedrock may be encountered.

- Water Resources, including consideration of the following:

  a. Groundwater and associated well fields.
  b. The Otterkill, a classified "Class C" intermittent stream, and other surface waters.
  c. FEMA-delineated flood plain areas.
  d. NYSDEC designated wetland GO-41 and other wet areas, including confirmation of wetland and/or wet areas delineation by NYSDEC and ACOE.

- Terrestrial ecology, including consideration of vegetation and wildlife, with project site inventory to be conducted by a recognized terrestrial ecologist/scientist.

- Agricultural Resources, to the extent applicable.

2. Qualitative Description of Future Conditions, without the Proposed Action, including consideration of other current development proposals, if any.

3. Qualitative and Quantitative Description of the Anticipated Impacts of the Proposed Action and Mitigation Measures within either of the following categories:

   - Inherent in the Project Development Plans and the intended residential occupancy and maintenance of the project site, including consideration of the use and maintenance both of individual lots by their owners and infrastructure elements such as water supply, sanitary sewage and roadways by the responsible private or public entity.

   - Otherwise prerequisite to necessary permits, approvals and/or compliance determinations, including but not limited to the following:

     a. Documentation of prior "72-Hour Drawdown Tests" which were conducted during a relatively low groundwater period in both conformance with accepted methodology and compliance with applicable Town notification procedures.
     b. Engineer's Report setting forth full technical data for the proposed sewage treatment plant, including both schematic physical plan for the STP, analysis of intended discharge to the Otterkill, and an associated operations/maintenance plan.
     c. Grading Plan.
     d. Soil and Erosion Control Plan.
     e. Stormwater Management Plan.
     f. Urban Stormwater Pollution Prevention Plan, including consideration of "first flush" treatment.
     g. Wetlands Mitigation Plan consistent with NYSDEC's "Guidelines on Compensatory Mitigation".

4. Identification of Additional Mitigation Measures that should be considered if otherwise inadequately addressed significant environmental impacts with respect to Natural Resources are identified.

B. Man-Made Resources / Transportation.

1. Description of Existing Conditions, including consideration of the capacity/condition of facilities and traffic flow/vehicle mix during AM and PM peak hours at the following eleven (11) intersections, at which locations manual traffic counts will be conducted to the extent required to either complement or corroborate data from NYSDOT, Orange County DPW or other sources:

   - Arcadia Road and Route 17M
   - Cherrywood Drive and Arcadia Road
   - Wedgewood Drive East and Arcadia Road
   - Arcadia Road and Conklingtown Road
   - Harriman Drive and South Street
   - Route 17M and South Street
   - Route 17M and Route 94
   - Route 17M and Greenwich Avenue
   - South Street and South Church Street
   - Route 17 Exit 125 at Harriman Drive
   - Route 17 Exit 125 at Route 17M

   In addition, traffic movements at the following four (4) site driveways along Harriman Drive will be documented:

   - Medical Building 1
   - Arden Hill Hospital
   - Arden Hill Life Care Center
   - Glen Arden Life Care Retirement Community

   Accident report data will also be compiled for the study area.

2. Description of Future Conditions at the above-cited locations, without the Proposed Action, at the 2004 Design Year including consideration of the following:

   - NYSDOT or other planned improvements, if any, within the project area.

   - A normal growth factor acceptable to the Town and NYSDOT to account for any other development that may occur through the 2004 Design Year and contribute additional traffic to the intersections analyzed.

- Projected traffic generated by the "Other Developments", if any substantial projects are pending within the application approval process, that may affect the intersections analyzed.

  Based upon current applications pending before either the Town of Goshen or the Town of Chester Planning Board, the only "Other Development" to be considered is "The Greens at Chester" with the evaluation provided in the Draft EIS to account for both the number of units anticipated to be developed at "The Greens" through the 2004 Design Year and the total build-out of "The Greens".

3. Description of Anticipated Impacts of the Proposed Action for Design Year 2004 at the above-cited intersections, with Trip Generation based on ITE data and associated directional assignment occurring on the basis of existing traffic patterns observed of adjacent and other nearby residential development.

   The above work will include the consideration of the proposed development under two access scenarios, with and without a through road connection between Harriman Drive and Arcadia Road.

   In undertaking this analysis special consideration will also be given to the following factors in addition to projection of Level of Service:

   - Adequacy of sight distance.

   - Examination and analysis of accident report data.

4. Identification of Mitigation Measures.

C. <u>Man-Made Resources / Other (Non-Transportation).</u>

1. Description of Existing Conditions regarding each of the following components:

   - Land Use and Zoning, including consideration of adopted Town and County master plans and land use policies.

   - Community Facilities and Services based on personal communications with service providers and review of pertinent literature, including prior studies for expansion and/or improvement, regarding:

     a. Police Protection

b. Fire Protection
c. Water Supply
d. Sanitary Sewage
e. Emergency Medical Services
f. Schools and Libraries
g. Parks and Recreation Facilities
h. Solid Waste Disposal
i. General Governmental Services
j. Franchise Utilities

- Cultural Resources, including:

  a. Visual Resources, including description of the physical character of project site and adjacent lands and the effects of prior development on these areas.

  b. Historic and Archaeological Resources, including description of historic areas and structures, if any, and identification and examination of sites with potential significant archaeological value, including conduct of Phase 1A (Literature Search) and Phase 1B (Field Report) Archaeological Study as recommended by NYSOPRHP.

  c. Noise and odors, including identification of existing noise and odor levels and identification of major sources of noise and odors.

- Air Quality, including consideration of both stationary and mobile sources, including traffic/auto emissions.

2. Qualitative Description of Future Conditions, without the Proposed Action, including consideration of "Other Developments" subject of pending applications before the Planning Board of jurisdiction to the extent these developments are anticipated to be "built-out" by the 2004 Design Year.

3. Qualitative and Quantitative Description of the Anticipated Impacts of the Proposed Action and Mitigation Measures within one or more of the following categories:

   - Inherent in the Project Development Plans, including where pertinent particular consideration of the effects of the proposed sewage treatment plant and/or water supply facilities.

   - Otherwise prerequisite to necessary permits, approvals and/or compliance determinations.

- Addressed by the Community Fiscal Impact Analysis conducted for the proposed development as an integral part of this Draft EIS.

4. Identification of Additional Mitigation Measures that should be considered if otherwise inadequately addressed significant environment impacts with respect to the above-listed Man-Made Resources are identified.

V. Adverse Environmental Effects That Cannot Be Avoided If The Project Is Implemented.

Identification of those adverse environmental effects that can be expected to occur even upon incorporation of the mitigation measures.

VI. Alternatives.

A. The "No Action" Alternative as required under Title 6 Part 617.9.b.5 NYCRR.

B. Alternative access, either for routine traffic or solely for emergency access, as cited earlier in Section III (A) of this Scoping Document, and further considering other linkages to existing subdivision roadways as recommended by the Town Highway Superintendent.

C. Other modifications in either the Design, Scale and/or Configuration of the Lone Oak Estates Subdivision and Arcadia Hills Resubdivision, but only to the extent such may be required to be considered as a mitigation measure to address any adverse environmental effect(s) that may be identified during preparation of the Draft EIS.

VI. Irreversible and Irretrievable Commitment of Resources.

Identification of those natural and man-made resources that will be consumed, converted or otherwise made unavailable for future use.

VIII. Growth-Inducing Aspects.

Description of potential growth-inducing aspects the project may have.

VII. Effects on the Use and Conservation of Energy Resources.

VIII. Appendices.

A. List of all underlying studies and reports relied upon in preparing the Draft EIS.

B. List of all Federal, State, Regional or Local agencies and organizations consulted in preparing the Draft EIS.

C. Technical exhibits.

D. Relevant correspondence with involved agencies and persons.

E. Record of meetings and communications with providers of community services.

F. List of firms and persons responsible for both overall preparation of the Draft EIS and the underlying plans and other exhibits relied upon.

- Submitted on behalf of the project sponsor on November 5, 1998, Arthur F. Brod Jr., AICP, President, PLANNERS EAST Incorporated, and distributed with Positive Declaration by PLANNERS EAST Incorporated on behalf of the Town of Goshen Planning Board on November 6, 1998.

- Revised by PLANNERS EAST on January 13, February 3 and April 12, 1999, as directed by the Town of Goshen Planning Board following the lead agency's scoping session on December 3 and December 17, 1998, the related discussion of January 21, 1999, and in consideration of the Planning Board's letter of March 25, 1999.

SEIS Exhibit No. 2
Order Establishing Arcadia Hills Town Sewer District

At a meeting of the Town Board of the Town of Goshen, County of Orange, State of New York, held at the Town Hall in the Town of Goshen on the 14th day of March, 1968

----------X

In the Matter of the

Creation of a Sewer District in the ARCADIA HILLS Area in the Town of Goshen, County of Orange, State of New York

ORDER ESTABLISHING ARCADIA HILLS SEWER DISTRICT

----------X

A petition in this matter for the creation of the ARCADIA HILLS SEWER DISTRICT in the Town of Goshen, County of Orange, State of New York, having been duly presented to the TOWN BOARD together with the necessary map, plan and report attached thereto, and an order having been duly adopted by the Town Board on the 23rd day of February, 1968, for the hearing of all persons interested in the matter on the 14th day of March, 1968 at 7:30 o'clock P. M. at the Town Hall in said Town and the meeting by the said Board having been duly held at such time and place and it having been duly resolved and determined following such hearing that the petition therein was signed and acknowledged or approved as required by law and otherwise sufficient, that all the property and property owners within the proposed district were benefitted thereby that all property and property owners benefitted were included within the limits of the proposed district, and that it was in the public interest to grant in whole the relief sought, and it having been there and then further duly resolved that the creation of the said district, as proposed, be approved; and the consent of the State Department of Audit and Control for the creation of the

WEINER AND LOEB
ATTORNEYS AT LAW
NEWBURGH, N.Y.

said district being unnecessary in the circumstances because the proposed district is to be accomplished, including the design, construction and installation of all improvements, including but not limited to the sewage disposal plant at no cost to the Town of Goshen and that all improvements, once constructed and approved by the New York State Department of Health and the Town Engineer, are to be turned over to the Town of Goshen at no cost to the said Town, and the Town of Goshen having entered into an agreement with ARCADIA HILLS COMPANY, INC. for the construction of the said sewage disposal system, it is hereby

ORDERED that the ARCADIA HILLS SEWER DISTRICT be established in the said Town of Goshen, County of Orange, State of New York, and to be described as follows:

SEE ATTACHED SCHEDULE A

TOWN BOARD, TOWN OF GOSHEN

David A. Pardy

David A. Pardy, Supervisor

Harold E. Roegner

Harold E. Roegner, Justice Peace

Horace C. Sawyer

Horace C. Sawyer, Justice Peace

Joseph R. Donovan

Joseph R. Donovan, Councilman

Raymond Myruski

Raymond Myruski, Councilman

WEINER AND LOEB
ATTORNEYS AT LAW
NEWBURGH, N.Y.

EUSTANCE AND HOROWITZ
CIVIL AND SANITARY ENGINEERS AND LAND SURVEYORS
P. O. BOX [illegible] - CHESTERVILLE, NEW YORK 10910
TELEPHONE: MIDDLETOWN (914) [illegible]

ARTHUR W. EUSTANCE, P.E. & L.S.
AARON HOROWITZ, P.E. & L.S.
RODNEY D. GIBBS, L.S.

GERALD F. PEARCE, P.E.
WILLIS E. TUTTLE, L.S.

AARON HOROWITZ
64 WESTWOOD AVENUE
ELLENVILLE, NEW YORK
TEL: ELLENVILLE 647-8480

February 22, 1968

SCHEDULE A

DESCRIPTION
ARCADIA HILLS SEWER DISTRICT
TOWN OF GOSHEN

All that certain lot, piece or parcel of land situate in the Town of Goshen, County of Orange, State of New York, and being more accurately bounded and described as follows:

Beginning at a monument marking the intersection of the northwesterly line of Arcadia Road with the westerly line of New York State Route 17 Quickway, said monumnet marking the southeast corner of the herein described parcel; thence along the right of way line of Arcadia Road following a fence on the next twelve courses and distances, South 51°-25'-20" West 223.19' to a concrete highway monument; thence South 63°-41'-45" West 81.51' to a monument; thence South 52°-20'-30" West 100.21' to a monument; thence South 38°-08'-35" West 101.74' to a monument; thence South 50°-01' West 127.93' to a fence post; thence South 54°-00'-20" West 352.10' to a tree; thence South 56°-44'-40" West 109.95' to a fence post; thence South 51°-13'- West 147.85' to a fence post; thence South 47°-59'-40" West 221.08' to a point, said point being the northeasterly corner of parcel #2 of the original deed; thence from said point and continuing along the northwesterly line of Arcadia Road on the next three courses; South 50°-11'-50" West 531.12' to an angle point; thence still along said road and crossing the end of a driveway leading to the house on the herein described property, South 52°-38'-10" West 581.10' to a point; thence still along said road, South 51°-12'-30" West 671.87' to a point in a wall, said point being in the line of lands now or formerly of Arcadia Farms; thence along the line of lands of Arcadia Farms, and along the wall marking a portion of the southwesterly line of the herein described parcel, on the next three courses and distances; North 32°-51'-30" West 443.32' to an angle point at a stone wall conner; thence along a portion of a stone wall, North 24°-16' East 26.41' to a point; thence following in part a wire fence North 28°-24'-50" West 297.28' to a fence corner; thence, still along the line of lands of Arcadia

RUSTANCE AND HOROWITZ
CIVIL AND SANITARY ENGINEERS AND LAND SURVEYORS
P. O. BOX 178 - CIRCLEVILLE, NEW YORK 10919
TELEPHONE: MIDDLETOWN (914) FO 1-8741

Farms and along a fence and crossing under two power lines, South 54°-42'-10" West a distance of 293.77' to the first power line, and a distance of 370.80' to the second power line for a total distance of 402.20' to an angle point; thence still along a fence, South 53°-18'-20" West 154.90' to an angle point; thence still along a fence South 54°-49' West 203.99 ' to an angle point; thence still along a fence South 54°-30'-10" West 222.12' to a fence and wall corner; thence still along the line of Arcadia Farms and along a fence through a wood lot on the next three courses; North 39°-45'-50" West 670.67' to an angle point; thence North 41°-22' West 212.06' to an angle point; thence North 39°-45'-10" West 287.98' to a fence corner; thence along the line of lands now or formerly of Rollin W. White Estate and along another fence through a wood lot, North 49°-14'-40" East 639.52' to a fence and wall corner, said last line passing under one of the power lines on the herein described parcel; thence along a wall, and along the line of lands now or formerly of Rollin W. White Estate and running between the two power lines on the next several courses; North 40°-35'-00" West 532.56' to an angle point; thence North 39°-41'-10" West 682.62' to an angle point; thence North 40°-34'-50" West 160.75' to an angle point; thence North 39°-09'- West 427.05' to an angle point; thence North 40°-28'-10" West 136.97' to an angle point; thence on a line following the fence which passes under the other power line, North 38°-47'-40" West 323.80' to a corner of the herein described property; thence along the northwesterly line of the herein described parcel on the next several courses; along a fence and wall, North 50°-21'-40" East 536.52' to an angle point; thence North 45°-28' East 122.34' to an angle point; thence North 21°-07'-40" East 54.46' to an angle point; thence North 24°-05'-50" East 173.94' to an angle point; thence North 21°-32'-10" East 424.64' to an angle point; thence North 25°-41'-20" East 104.78' to the most northerly corner of the herein described parcel; thence along a fence and wall marking the northeast line of the herein described parcel, on the next several course; South 40°-06'-40" East 369.48' to an angle point; thence South 39°-39'-15" East 1565.14' to an angle point; said point being the end of the wall; thence South 33°-13'-20" East 53.90' to a fence post; thence South 42°-16'-30" East 165.86' to a corner fence post; thence following a fence on a line southeasterly of and running parallel to a small ditch, North 49°-01'-30" East 658.77' to a pipe in a fence corner; said line being the northwesterly line of that parcel describe in Liber 1593, Page 739; thence North 39°-57'-10" West 23.21' to the middle

EUSTANCE AND HOROWITZ
CIVIL AND SANITARY ENGINEERS AND LAND SURVEYORS
P. O. BOX 175 · CIRCLEVILLE, NEW YORK 10919
TELEPHONE: MIDDLETOWN (914) FO 1-2741

of a ditch, said point being in the southerly line of lands now or formerly of Laural Stock Farm; thence along the southerly line of lands now or formerly of Laural Stock Farm, and following the centerline of a ditch, North 49°-20'-45" East 1805.17' to a point, said point being at a fence and wall intersection, said point being in the westerly line of other lands of Nicholas A Kolk; thence along said lands of Kolk, following a fence on the next two courses and distances; South 39°-36'-15" East 385.0' to a fence post; thence South 38°-46'-05" East 724.31' to a pipe; thence still along lands of Kolk, North 53°-04'-40" East 44.63' to a concrete highway monument, said monument being in the westerly line of Route 17 Quickway; thence along the westerly line of New York State Route 17 Quickway on the next five courses and distances; South 31°-32'-30" East 328.53' to a monument; thence South 29°-07'-40" East 373.53' to a monument; thence South 25°-18'-30" East 570.91' to a monument; thence South 9°-15'-10" East 87.70' to a monument; thence South 18°-12'-20" East 182.53' to the point of beginning.

Containing 286.65± acres

SEIS Exhibit No. 3
Order Establishing Arcadia Hills Town Water District

At a Meeting of the Town Board of the Town of Goshen held at the Town Hall in the Town of Goshen, Orange County, State of New York, on the 12th day of November, 1973 at 8 p.m.

----------x

In the Matter of the Establishment of Arcadia Hill Water District in the Town of Goshen, County of Orange, State of New York.

ORDER ESTABLISHING DISTRICT

----------x

A map, plan and report on this matter having been duly filed with the Town Clerk of the Town of Goshen and an Order having been duly adopted by the Town Board on the day of , 1973, for the hearing of all persons interested in the matter on the 12th day of November, 1973 at 7:30 p.m. at the Town Hall and a hearing by the said Board having been duly held at such time and place and it having been duly resolved and determined following such hearing that all the property and property owners within the proposed district were benefited thereby, that all property and property owners benefited were included within the limits of the proposed district and that it was in the public interest to grant in whole the relief sought and that the establishment of such district be financed at no cost to the Town it is hereby

ORDERED, that a water district be established in the said Town of Goshen, Orange County, New York, to be designated as the Arcadia Hills Water District of the Town of Goshen and to be of

the following description and boundaries to wit:

(SCHEDULE A ATTACHED)

Dated: Nov 12th, 1973

Members of the Town Board of the Town of Goshen, Orange County, New York.

STATE OF NEW YORK)
COUNTY OF ORANGE : SS:
TOWN OF GOSHEN)

I, MARGARET COLLIGAN, of the Town of Goshen, Orange County, New York, do hereby certify that I have compared the preceding Order with the original theron filed in my office at Goshen, New York. Orange County, and that the same is a true and correct copy of said original and the whole thereof.

I furthur certify that all members of the Town Board had due notice of the meeting at which said resolution was accepted.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Town this 12th day of November 1973.

Town Clerk, Town Of Goshen
Orange County, New York

SCHEDULE A

DESCRIPTION
ARCADIA HILLS DISTRICT
TOWN OF GOSHEN

ALL that certain lot, piece or parcel of land situate in the Town of Goshen, County of Orange, State of New York, and being more accurately bounded and described as follows:

BEGINNING at a monument marking the intersection of the northwesterly line of Arcadia Road with the westerly line of New York State Route 17 Quickway, said monument marking the southeast corner of the herein described parcel; thence along the right of way line of Arcadia Road following a fence on the next twelve courses and distances, South 51° - 25' - 20" West 223.19' to a concrete highway monument; thence South 63° - 41' - 45" West 81.51' to a monument; thence South 52° - 20' - 30" West 100.21' to a monument; thence South 38° - 00' - 35" West 101.74' to a monument; thence South 50° - 01' West 127.93' to a fence post; thence South 54° - 00' - 20" West 352.10' to a tree; thence South 56° - 44' - 40" West 109.95' to a fence post; thence South 51° - 13' - West 147.85' to a fence post; thence South 47° - 59' -40" West 221.08' to a point, said point being the northeasterly corner of parcel #2 of the original deed; thence from said point and continuing along the northwesterly line of Arcadia Road on the next three courses; South 50° - 11' - 50" West 531.12' to an angle point; thence still along said road and crossing the end of a driveway leading to the house on the herein described property, South 52°-38' - 10" West 581.10' to a point; thence still along said road, South 51° - 12' - 30" West 671.87' to a point in a wall, said point being in the line of lands now or formerly of Arcadia Farms; thence along the line of lands of Arcadia Farms, and along the wall marking a portion of the southwesterly line of the herein described parcel, on the next three courses and distances; North 32° - 51' - 30" West 443.32' to an angle point at a stone wall corner; thence along a portion of a stone wall, North 24° -16' East 26.41' to a point; thence following in part a wire fence North 28° - 24' - 50" West 297.28' to a fence corner; thence, still along the line of lands of Arcadia Farms and along a fence and crossing under two power lines, South 54° - 42' - 10" West a distance of 293.77' to the first power line, and a distance of 370.80' to the second power line for a total distance of 402.20' to an angle point; thence still along a fence, South 53° - 18' - 20" West 154.90' to an angle point; thence still along a fence South 54° - 49' West 203.99' to an angle point; thence still along a fence South 54° - 30' - 10" West 222.12' to a fence and wall corner; thence still along the line of Arcadia Farms and along a fence through a wood lot on the next three courses; North 39° - 45' - 50" West 670.67' to an angle point; thence North 41°-22' West 212.06' to an angle point; thence North 39 - 45' - 10" West 287.98' to a fence corner; thence along the line of lands now or formerly of Rollin W. White Estate and along another fence through a wood lot, North 49° - 14' - 40" East 639.52' to a fence and wall corner, said last line passing under one of the power

lines on the herein described parcel; thence along a wall, and along the line of lands now or formerly of Rollin W. White Estate and running between the two power lines on the next several courses; North 40° - 35' - 00" West 532.56' to an angle point; thence North 39° - 41' - 10" West 682.62' to an angle point; thence North 40° - 34' - 50" West 160.75' to an angle point; thence North 39° - 09' - West 427.05' to an angle point; thence North 40° - 28'- 10" West 136.97' to an angle point; thence on a line following the fence which passes under the other power line, North 38° - 47' -40" West 323.80' to a corner of the herein described property; thence along the northwesterly line of the herein described parcel on the next several courses; along a fence and wall, North 50° - 21' - 40" East 536.52' to an angle point; thence North 45° - 28' East 122.34' to an angle point; thence North 21° - 07' - 40" East 54.46' to an angle point; thence North 24° - 05' -50" East 173.94' to an angle point; thence North 21° - 32' - 10" East 424.64' to an angle point; thence North 25° - 41' - 20" East 104.78' to the most northerly corner of the herein described parcel; thence along a fence and wall marking the northeast line of the herein described parcel, on the next several courses:South 40° - 06' - 40" East 369.48' to an angle point; thence South 39° - 39' - 15" East 1565.14' to an angle point; said point being the end of the wall; thence South 33° - 13' - 20" East 53.90' to a fence post; thence South 42° - 16' - 30" East 165.86' to a corner fence post; thence following a fence on a line southeasterly of and running parallel to a small ditch, North 49° - 01' - 30" East 658.77' to a pipe in a fence corner; said line being the northwesterly line of that parcel described in Liber 1593, Page 739; thence North 39° - 57' -10" West 23.21' to the middle of a ditch, said point being in the southerly line of lands now or formerly of Laural Stock Farm; thence along the southerly line of lands now or formerly of Laural Stock Farm, and following the centerline of a ditch, North 49° - 20' - 45" East 1805.17' to a point, said point being at a fence and wall intersection, said point being in the westerly line of other lands of Nicholas A. Kolk; thence along said lands of Kolk, following a fence on the next two courses and distances; South 39° - 36' - 15" East 385.0' to a fence post; thence South 38' - 46' - 05" East 724.31' to a pipe; thence still along lands of Kolk, North 53° - 04' - 40" East 44.63' to a concrete highway monument, said monument being in the westerly line of Route 17 Quickway; thence along the westerly line of New York State Route 17 Quickway on the next five courses and distances; South 31° - 32' - 30" East 328.53' to a monument; thence South 29° - 07' - 40" East 373.53' to a monument; thence South 25° - 18' - 30" East 570.91' to a monument; thence South 9° - 15' - 10" East 87.70' to a monument; thence South 18° - 12'- 20" East 182.53' to the point of beginning.

Containing 286.65± acres.

SEIS Exhibit No. 4
December 6, 2004, Letter
Project Engineer to Village of Goshen, Re: Village Utilities

T.M. DEPUY ENGINEERING AND LAND SURVEYING, P.C.

2656 ROUTE 302
MIDDLETOWN, NEW YORK 10941

Tele # (845) 361-5421
Fax # (845) 361-5229

December 6, 2004

Scott Wohl, Mayor
Village of Goshen
276 Main Street
Goshen, New York 10924

Re: Lone Oak Estates
Town of Goshen
Sewer Service
Job #89008

Dear Mayor Wohl & Village Trustees:

This correspondence is to act as a proposal on behalf of Fini Bros. for the purchase of sewer capacity from the Village of Goshen's Sewer System for servicing the proposed Lone Oak Subdivision located in the Town of Goshen on Harriman Drive. First we would like to thank you and Commissioner Susan Fast for your time at the several workshops that we have attended concerning this matter.

In summary the Lone Oak project is presently being reviewed by the Town of Goshen Planning Board and is contained within their new Hamlet Zoning District. The project is proposed in two phases.

Phase I contains 170 units which will be a mixture of four bedroom, single family and three bedroom townhouse type units. As was presented in our sewer breakdown, the projected flow of this phase is 77,000 GPD (however for negotiating purposes we are proposing an 82,000 GPD assignment in order to allow a slight unit modification during the overall development of this phase).

Phase II's preliminary layout indicates a unit count of 129 which contains a mix of four bedroom single family and three bedroom townhouse units. With the projected flows of this phase being 58,725 GPD (however for negotiating purposes we are proposing a 62,000 GPD assignment in order to allow a slight unit modification during the overall development in this phase).

As was discussed with you in our recent workshop of November 30, 2004 we do have the ability to service the overall project with an on site wastewater treatment facility which would be eliminated if sewer service could be obtained from the Village of Goshen. This would be a benefit to the project, along with the adjacent environs of the Arcadia Hills Subdivision, and would be appreciated by the owners of the properties adjoining the Otterkill Creek which is the ultimate discharge point of the project onsite wastewater treatment facility.

Elimination of the wastewater treatment facility will be augmented by sewer replacement work within the Arcadia Hills Subdivision and a joint pump station equipped with chemical addition. The developer will save an overall capital cost of $1,777,000.00. This was verified by the Village Engineer, Bipin Gandhi, and was the baseline point for the proposed purchase price for sewer capacity. The following proposals are rendered:

PHASE I

Proposal I-A:

- $1,000,000.00 payment due at filing of subdivision map Phase I.
- $4,570.00/per unit due at building permit issuance (170x$4,570.00 = $776,900.00)

Proposal I-B:

- $1,000,000.00 payment due at filing of subdivision map Phase I.
- $125,000.00/per year for 5 years ($626,000.00).

Proposal I-C

- $1,350,000.00 payment due at filing of subdivision map Phase I (total up front payment).

As was discussed the Phase II expansion of the treatment plant was projected to be a 50% increase of the initial capital cost or $885,000.00. The following Phase II proposals are rendered.

PHASE II

Proposal II-A:

- $500,000.00 payment due at filing of subdivision map Phase II.
- $3,000.00/per unit due at building permit issuance (129x$3,000.00 = $387,000.00)

Proposal II-B:

- $752,000.00 payment due at filing of subdivision map Phase II (total up front payment).

Proposal I&II-C

- 2,500,000.00 payment due at filing of subdivision map Phase I with the commitment to provide the project municipal water at a negotiated price (total up front payment for both phases).

All the proposals have the following conditions:

- The relaying of a portion of the Arcadia Hill trunkline sewer to reduce the I/I.
- Joint pump station with Arcadia Hill to include odor and corrosion control chemical addition.
- All or portion of the contract agreement is assignable.
- Some additional flow has been included in each of the phases to allow bedroom count flexibility.
- Delayed payment schedules may be adjusted for inflation based on an agreed index.
- The anticipated build out for Phase I is six years.
- A sunset shall be established on Phase II commitment at ten years from filing of the Phase I maps.

If you have any questions, please do not hesitate to call.

Very truly yours,

THOMAS M. DEPUY, PE/LS

TMD/sld

SEIS Exhibit No. 5A
January 22, 2008 Letter
Project Land Planner to Village of Goshen, Re: Sewer Service

Esposito & Associates

Landscape Architecture

Site Planning

Golf Course Design

January 22, 2008

Mayor Robert Weinberger
Village of Goshen
276 Main Street
Goshen, NY 10924

RE: Lone Oak Estates Sewer Service
Tax Map 11-1-49.2 & 58

Dear Mayor Weinberger:

By this letter, the owners of Lone Oak are requesting an opportunity to discuss with the Village Board the potential of purchasing sewer service from the Village of Goshen for the referenced project. Lone Oak is a residential development located on Harriman Heights Drive and Arcadia Road adjacent to Arcadia Hills. The project is in the process of preparing a Supplemental Environmental Impact Statement and Preliminary Subdivision Review by the Town of Goshen Planning Board.

In preparation of the SDEIS two alternatives are being evaluated for sewer treatment. One alternative would be to receive sewer service from the Village of Goshen. The other alternative would be to construct an onsite treatment plant. Both alternatives are being evaluated by the Planning Board.

Lone Oak has been before the Planning Board for many years, and was in the review process prior to the adoption of the current zoning code. During that time, a Draft SPDES Permit was issued by the NYSDEC for an onsite treatment plant and preliminary plans for an on- site treatment plant were prepared.

In 2004/2005, the owner of Lone Oak opened negotiations with the Village Board for the purchasing of sewer capacity from the Village of Goshen. Several written proposals were submitted to the Village of Goshen outlining potential payment alternatives to the Village for exchange of sewer services. The proposals included direct capitol contributions and improvements to existing failing infrastructure that would provide benefits to the existing

262 Greenwich Avenue, Suite B, Goshen, New York 10924 845.294.0558 Fax 845.294.0580
E-mail espositoassoc@hvc.rr.com

residents residing in Arcadia Sewer District as well as significantly reducing groundwater infiltration into the Village of Goshen Sewer Collection System.

Therefore, with this letter, we are requesting the next available spot on the Village of Goshen Village Board agenda to resume discussions on purchasing sewer service from the Village. For your convenience, I have attached a Location Plan illustrating the Lone Oak Site in relationship to the Village and Arcadia Hills Sewer District.

Thank you for your attention to this matter. Should you have any questions, please do not hesitate to call our office.

Very truly yours,
ESPOSITO & ASSOCIATES

Steven T. Esposito, RLA

STE/dk
Enclosure

cc: Albrt Fini
Mr. Ralph Huddleston, Jr., Chairman
David Donovan, Esq.
James Sweeney, Esq.
Tom Depuy, PE
Art Brod, AICP

SEIS Exhibit No. 5B
January 24, 2008 Letter
Village Attorney to Project Land Planner, Re: Sewer Service

Dickover, Donnelly, Donovan & Biagi, LLP

Attorneys and Counselors at Law

James B. Biagi
David A. Donovan
Michael H. Donnelly
Robert J. Dickover

Successor Law Firm To:
Alexander Appelbaum, P.C., Florida, N.Y. (1915-1984)
Ludmerer & Yurno, Esqs., Warwick, N.Y.

28 Bruen Place
P.O. Box 610
Goshen, NY 10924
Phone (845) 294-9447
mail@ddblaw.com
Fax (845) 294-6553
(Not for Service of Process)

January 24, 2008

Steven T. Esposito
Esposito & Associates
262 Greenwich Avenue, Suite B
Goshen, NY 10924

RE: Lone Oak Estates Sewer Service

Dear Mr. Esposito:

Mayor Weinberger has asked that I respond to your letter of January 22, 2008.

I have been advised to inform you that the Village is not interested in entertaining any applications for users beyond the Village territorial limits at this time. In the event that there is any change in this position, you will be duly notified.

Very truly yours,

David A. Donovan

DAD/lrm
Cc: Hon. Robert Weinberger, Village Mayor
Village of Goshen Trustees
Meg Strobl, Village Clerk

SEIS Exhibit No. 6A
Project Hydrogeologist
March 25, 2008, Response Letter to Comments
by Riddick Associates, P.C., and Hickory Creek Consulting, LLC.

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER AND
ENVIRONMENTAL ENGINEERING SERVICES

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SHELTON, CT 06484
(203) 929-8555
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March 25, 2008

Mr. Steven T. Esposito
Esposito & Associates
262 Greenwich Avenue, Suite B
Goshen, NY 10924

RE: Lone Oak Estates
(T) Goshen, New York

Dear Mr. Esposito:

As requested, Leggette, Brashears & Graham, Inc. (LBG) provides the following responses to review comments of the DEIS for the above-referenced property by the Town of Goshen's review consultants. The responses are as follows.

Biddick Associates, P.C. Memorandum – Date December 24, 2007

Page 6 - Comment

Technical Exhibits – unclear if well report is final.

The LBG reports have been submitted in final draft form.

Page 7 – Comment #14

The requirement to discuss water supply meeting the maximum daily demand per Recommended Standards for Water Works, 2003 (10 State Standards) has been discussed including the lack of capacity. The applicant has not "scaled back" the additional supply is required for 13 units in phase I and for all of phase II. It is unclear if this satisfies your requirement to "scale back" the development to what they can actually support.

Response to Comment #14

The proposed mixed residential build-out of the project has been reduced to 132 residential units and associated community facilities. The water demand estimate and associated build-out is presented on table 1. The water demands were reviewed with Ed Simms of the Orange County Department of Health for concurrence. The total water demand is estimated to be 48,260 gpd (gallons per day) or about 33.5 gpm (gallons per minute).

The NYSDOH guidelines require development of twice the average water demand (67.0 gpm) of the project, with the best well out of service.

The pumping test event conducted in December 1997 indicates that, under simultaneous pumping conditions, Wells 1, 2 and 3 can be pumped simultaneously at 15, 65 and 53 gpm, respectively; and combined at a rate of 133 gpm or about 191,500 gpd. If the best well (Well 2) is not included, the combined yield of 1 and 3 is 68 gpm. The test event demonstrates adequate water to meet twice the average water demand (67.0 gpm) of the project, with the best well out of service, as required by the regulatories.

Comment #15

The requirement for a comprehensive ground water model to simulate the ability to sustain the required groundwater allotment without impacting offsite locations has not been provided. There has been no change to the groundwater consultant's report since 1998. An additional report by the project engineer in July 2006 is still based on the groundwater hydro geologists report from 1998.

Response to Comment #15

The use of analytical methods (including models) to estimate the long-term yield and anticipated interference of the wells completed in bedrock, as proposed, in this instance is not technically appropriate. Ground-water flow in bedrock aquifers is strongly influenced by fractures in the rock formation. Consequently, the conventional well-flow equations, developed for isotropic homogeneous aquifers of infinite areal extent, do not adequately describe the flow in fracture rock, except in rare instances where the fracture density is great enough that the system acts as a porous-media aquifer. This expectation is not the case in the Goshen area.

Another complicating factor when attempting to use analytical methods to estimate the long-term yield of bedrock wells is that the extent of the fracture pattern is typically unknown. This may lead to instances in which attempts are made to simulate drawdown effects for a network of monitor wells tapping fractures that are not interconnected. In this instance, if artificial methods were used to estimate long-term well yield, the results would be grossly inaccurate. Added to this complexity is the fact that the theory of fluid flow in fractured rock is not as established as that in porous media. Because of this, contradictory results sometimes occur when evaluating well interference, even if the fracture pattern is reasonably understood (Kruseman and Ridder, "Analysis and Evaluation of Pumping Test Data", International Institute for Land Reclamation and Improvement, The Netherlands, 1990).

Even if the wells proposed for testing were located in a sand and gravel aquifer (i.e., essentially homogeneous isotropic aquifers of infinite areal extent) rather than a bedrock aquifer, the methodology proposed would be inappropriate to estimate long-term well yield and potential well interference. The analytical equations utilized to estimate aquifer parameters do not account for impacts due to aquifer boundaries, leakage to and from surface water bodies, variations in aquifer thickness, or the de-watering of significant shallow fractures. All of these unaccounted for parameters help determine the amount of replenishment available to a well, the estimated saturated thickness of the aquifer and the drawdown in a well over time; all critical components when attempting to estimate the long-term well yield. Therefore, even under the best conditions, the use of the aquifer parameters (generated from the analytical equations) can produce results that are not technically defensible.

Alternative Method to Estimate Long-Term Yield

Based on the discussion above it is apparent that the use of an analytical model to estimate the long-term yield in production wells is inappropriate under even the best conditions and technically indefensible when the methodology is applied to bedrock wells. Therefore, a more defensible methodology is needed.

Our review of the literature shows that the most technically defensible approach to evaluating long-term yield of bedrock wells is to use the data generated from pumping test directly. Using this method, the estimated long-term well yield is made from semi-logarithmic plots of the water-level data from a pumping test. A best-fit line is projected through the water-

level data at the end of the test out to 180-days. For the purpose of this discussion, the long-term well yield is defined as the rate at which the well can be pumped continuously for a specified time frame (180-days in this case) so that the water level is not lowered beneath saturated thickness (depth of the well) of the well; and assumes no recharge during the timeframe (i.e., precipitation). When the water level in the well reaches this point, the yield might decrease significantly.

A 180-day water-level drawdown projection has been completed for the three onsite production wells (Wells, 1, 2 and 3) as well as the Corey Residence domestic well which experienced water-level drawdown interference effects as a result of pumping of the onsite production wells during the 72-hour pumping test completed in December 1997. The water-level projections were completed for the pumping wells to validate the yields documented during the testing event.

Attached in Appendix I are graphs for Wells 1, 2 and 3 showing a semi-logarithmic plot of water-level data from the wells during the pumping test period. A best-fit line was projected through the pumping water-level data during the last twelve hours of the testing period and continued out for 180 days.

The plot for Well 1 indicates that the pumping water level at the end of 180 days would be approximately 170 feet. The total depth of Well 1 is reported as 500 feet in the well completion report. Assuming a permanent pump setting of 475 feet in the well, a total of 305 feet of drawdown would remain in the well after 180 days of pumping. The data validates a safe yield of 15 gpm (gallons per minute) for Well 1.

The plot for Well 2 indicates that the pumping water level at the end of 180 days would be approximately 185 feet. The total depth of Well 2 is reported as 300 feet in the well completion report. Assuming a permanent pump setting of 275 feet in the well, a total of 90 feet of drawdown would remain in the well after 180 days pf pumping. The data validates a safe yield of 65 gpm for Well 2.

The plot for Well 3 indicates that the pumping water level at the end of 180 days would be approximately 143 feet. The total depth of Well 3 is reported as 600 feet in the well completion report. Assuming a permanent pump setting of 575 feet in the well, a total of 432 feet of drawdown would remain in the well after 180 days of pumping. The data validates a safe yield of 53 gpm for Well 3.

Discussion of Well Interference

The most effective way to determine the influence pumping may have on nearby water supply systems (and/or homeowner wells) is to monitor a select number of these locations during the proposed simultaneous pumping. Potential interference would be estimated at each well monitored during the test by extrapolation of the measured drawdown trend. The extrapolated drawdown is the maximum expected interference resulting from continuous pumping at the Lone Oak property for 180 days.

In addition, the combined withdrawal rate from the three production wells during the December 1997 test event at almost four times the average water demand of the project, will maximize any potential impact to nearby homeowner wells (monitored during testing) making analysis straightforward and technically defensible.

During the test event, only 2 of the 13 offsite wells indicated water-level interference effects from the simultaneous pumping of Wells 1, 2 and 3 in December 1997.

Two offsite monitoring wells indicate a maximum water-level interference drawdown of about 40.6 feet and 43.0 feet in the Corey and FASA wells, respectively. The hydrographs of these wells show an immediate decline resulting from pumping wells on the Lone Oak Estates parcel. The hydrographs indicate the water-level decline observed on these two wells coincides closely with the startup of Well 1, the closest of the three pumping wells and water-level recovery during the short period the pump in Well 1 was shut off about 24 hours into the test.

The water-level interference observed during December 1997 pumping test on Wells 1, 2 and 3 at four times the average water demand of the project, did not impair the normal performance of the Corey Well (domestic supply well). The FASA well is an unequipped test well drilled by the developer of Lone Oak Estates project under the supervision of LBG on property owned by the Corey's. The test well (FASA well) was drilled to possibly develop an additional water-supply source offsite for the proposed Lone Oak Estates project. Although the FASA well yielded about 30 gpm at completion of drilling, the distance of the well from the Lone Oak Estates site and moderately-low yield do not make it cost-effective to develop this well at the present time but, nevertheless, this well represents an additional future supply source if ever needed. The depth of the Corey wells was not provided by the owner, however, the hydrograph indicate minimal fluctuations of the water level from their water usage. The reported drawdown did not impair the normal performance of this domestic supply.

The remaining offsite wells (Wells 8A, 21 , 22, 51, 52, 53, Arden Hill, Berger, Kolk Spring and Kolk) show no discernible drawdown interference effects from the pumping test of the Lone Oak Estates wells. In addition, Mr. Jerry Gutikaiss, Town of Goshen Water Operator, reported to LBG personnel that, at the end of the test, none of the Arcadia Hills wells had any loss in yield capacity over the 72-hour pumping test.

Attached in Appendix II is the graph for Corey Residence domestic well showing a semi-logarithmic plot of water-level data from the well during the pumping test period. Because fewer water-level measurements were collected than compared to the pumping wells, a best-fit line was projected through the pumping water-level data during the last 24 hours of the testing period and continued out for 180 days. The water-level projection represents simultaneous (continuous) pumping of production Wells 1, 2 and 3 on the study property at pumping rates of about four times the average water demand of the project, with zero recharge to the aquifer during this period (i.e. no precipitation) and continued use of the residential well for domestic purposes by the homeowner during the same period. The expected water-level interference under normal pumping conditions of the wells and from required yields ¾ less than pumped to meet the actual water demands of the project will result in significantly less interference than observed during the December 1997 test event and as projected out 180 days.

The plot (Appendix I) for the Corey Well indicates the pumping water level at the end of 180 days would be approximately 130 feet. The total depth of the residential well is unknown at this time; therefore the remaining drawdown available in the well cannot be calculated.

It is proposed that the operators of the Lone Oak Estates water-supply implement a suitable monitoring program to collect water-level information during the early stages of operation of the well field. The program would include, but not necessarily be limited to, monitoring of pumpage and measurements of pumping and non-pumping water level in production wells, in selected offsite domestic wells and in existing public supply wells for Arcadia Hills. These data would be collected to further evaluate the long-term yield of the well supply developed for Lone Oak Estates and possible offsite impacts, if any. LBG has drafted a Compliant Response and Remediation Plan which is located in Appendix V of the October 1999 report (copy attached as Appendix II).

Hickory Creek Consulting, LLC

Comment #5 -- Water Resources

a. *Hydrogeologic description of the watershed and connections between groundwater and surface waters, as well as an assessment of impacts on this hydrologic system have not been provided.*

b. *Groundwater impacts. The SEIS does not explore the impacts on groundwater recharge and discharge, groundwater quality and depletion.*

c. *cumulative impacts. the SEIS does not describe cumulative impacts of adjacent development on the watershed, water quality and water supply (including downstream receiving waters).*

d. *Wells. Arcadia Hills has experienced deficiencies in water supply. The SEIS states that a portion of the proposed Lone Oak development does not have a water supply. The impacts on groundwater/aquifer recharge and potential depletion – including the cumulative impacts from adjacent development, and effects on the larger watershed – have not been addressed.*

Response to Comment #5

Ground-Water Flow Model

LBG has reviewed the conceptual ground-water flow within the watershed to the study region. The watershed (also called recharge area) is the area directly contributing ground water and surface water to all supply sources. The significant water supply sources in the watershed include the existing wells for Arcadia Hill Subdivision and the proposed Lone Oak Estate wells; no other development is presently proposed in the watershed. The watershed boundary has been delineated to include all land that contributes surface-water runoff and ground-water flow to the aquifer, up to a distance determined by the basin drainage divide (figure 1). The direct watershed to the existing Arcadia Hills well field and proposed Lone Oak Estates well field was delineated.

The ground-water recharge to the bedrock aquifer is a renewable resource that is continuously replenished by precipitation on the watershed. Bedrock aquifers are recharged from precipitation which falls directly on bedrock outcrops exposed at land surface and

precipitation that infiltrates the soil and overburden material to eventually recharge the bedrock fracture systems. In the study watershed, significant recharge occurs from precipitation on surrounding hills and from the large wetland area overlying the bedrock aquifer in the study watershed. In addition, the sediment materials underlying the wetland and Otter Kill, which flows through the wetland are somewhat permeable and permit recharge into the ground-water system. The Otter Kill in the study watershed is an intermittent stream and is not considered a key recharge source.

Ground-water flow typically mimic surface-water flows, from topographic highs to topographic lows. This is confirmed by the water-level data for the Lone Oaks Estates wells which indicate flowing artesian water levels of wells (Well 3 and MW-3) located in topographic highs on hillsides on the site and deeper water levels of about 20 to 30 feet below top of casing wells (Wells 1 and 2) located in topographic lows in the valley bottom within the watershed. Ground-water flow in the bedrock aquifer is in fractures, crevices, joints, faults and bedding planes in the otherwise dense fabric of the bedrock formations.

Ground water occurs in the bedrock in two states, unconfined or artesian/semi-artesian conditions. The bedrock aquifers in the study area are considered confined or semi-confined. A majority of the bedrock aquifers in the study watershed are overlain by confining layers of till or low permeability material, as reported during the drilling of test wells. In addition, flowing artesian conditions observed in a number of wells in the study watershed confirm the aquifer is confined or semi-confined. This setting would indicate no direct hydraulic connection between the surface water and wetland features due to the confining layer.

The significant sink or ground-water discharge feature in the watershed is the large wetland which is bisected by the Otter Kill and discharges water out of the watershed to the Otter Kill northeast of Route 17 (figure 1). Considering this discharge features the watershed is not delineated northeast of Route 17.

Local discharge estimates from the study parcel from Otter Kill, wetland features and underflow from the site would be difficult to estimate.

Ground-Water Availability

The average annual precipitation for Orange County is about 43 inches per year (LBG, 1995). A large portion of the annual precipitation is returned to the atmosphere by evaporation, transpired by vegetation and returned to streams and lakes as surface runoff. Only a small portion of the total precipitation infiltrates the soil to eventually reach and recharge the ground-water system in the bedrock. Recharge rates determined from long-duration studies in New York have been used to estimate the available the available recharge to the proposed development. The study parcel is underlain by sedimentary bedrock units (Martinsburg Formation). A ground-water study of the Beacon-Fishkill area (Snavely, 1980) indicates that the average recharge rate for glacial-till covered sedimentary bedrock is approximately 8 inches during average years. A more recent USGS study of northern Westchester County indicates that the average recharge rate to till-covered metamorphic bedrock is 8.45 inches annually (Wolcott & Snow, 1995). The average one-year-in-30 drought for Orange County indicates average precipitation of 29.5 inches (OCWA/LBG, 2003). The average drought precipitation is approximately 69 percent of the average annual precipitation in Orange County.

For this evaluation, LBG used the more conservative USGS annual recharge estimate of 8 inches per year (400,000 gpd per square mile) during average precipitation conditions. The 765-acre watershed is estimated to have an average annual recharge of about 478,000 gpd; and under drought conditions about 329,000 gpd.

The water budget analysis indicates adequate recharge under both normal and drought conditions to support the total estimated water demands of both the existing Arcadia Hills wells and proposed Lone Oak Estate wells estimated to be about 117,620 gpd (table 2).

Comment #10

Impervious surface impacts – 32.92 acres of impervious surface will replace soil and vegetation functions within the watershed – including groundwater replenishment and erosion control. The watershed impacts of replacing soil and vegetation with these surfaces are not addressed.

Response to Comment #10

Following the completion of construction, the acreage available for ground-water infiltration will be reduced by the addition of impervious surfaces such as roads and parking lot areas on the site which total about 10.4 acres. The area from rooftops are not included as impervious surfaces considering precipitation which falls on rooftops will runoff or be diverted into gutters and be available for recharge from sheet flow immediately adjacent to the respective building structures. Consequently, construction of the homes will have no significant impact on recharge conditions on the study parcel. Precipitation run-off from the majority of the roads and parking lots (10.4 acres) will be diverted through a storm-water collection system to onsite storm-water detention structures.

The majority of the run-off collected in the storm-water detention structures is retained on the site, with the exception of during storms of a magnitude greater than a one-year flood events when overflow from the proposed detention structure and onsite wetland features will be offsite, as would naturally occur even under pre-development conditions. The water collected in the proposed detention structures allows infiltration (recharge) through the underlying soil into the onsite ground-water system. Any discharge from the stormwater detention structures would continue to be available for recharge in the wetland feature located onsite and within the watershed. Since the runoff water is captured, as described above, and the increase in holding time of the run-off water in a detention structure's setting, the amount of water which will infiltrate into the onsite ground-water system may likely be slightly more than what would occur under no-build conditions. During periods of no precipitation, water from the detention structures will continue to infiltrate through the soil, replenishing the ground water beneath the site. As noted above, any discharge of water from the detention structure would continue to be available for recharge in wetland features located onsite and within the watershed and remain available in the site's water budget.

Further considering the proposed 10.4 acres of impervious structures proposed from the Lone Oak Estates project is about 1.4 percent of the overall 765-acre watershed. Any impacts that would result from the overall small portion of impervious structure to the watershed are not expected to be significant.

Potential Water-Quality Impacts

Within the proposed development, the addition of roads and automobile traffic will contribute some hydrocarbons, metallic ions and road salts to the hydraulic system. The majority of this potential impact will be alleviated by good engineering design of catch basins, drainage controls and runoff/infiltration detention structures. The water-quality treatment plan for this proposed project includes significant "control" devices which provide water-quality treatment. These features include detention structures and additional treatment provided by dry swales and grass swales. The proposed stormwater treatment plan is designed in accordance with New York State Department of Environmental Conservation (NYSDEC) design standards. The stormwater treatment plan will remove all related pollutants to acceptable levels and have minimal impact on regional surface-water and ground-water quality, including the ground-water quality.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

Thomas P. Cusack, CPG
Principal

TPC:cmm
Enclosures
H:\FALLON\2008\response ltr.doc

TABLES

TABLE 1

PROPOSED LONE OAKS ESTATE
GOSHEN, NEW YORK

Estimated Water Demands
New York State Department of Health Guidelines

Number/Size of Unit	Gallons per Day per Unit	Total Average Daily Demand (gpd)
69 / 4-bedroom single units	400	27,600
23 / 3-bedroom single units	320	7,360
24 / 3-bedroom townhomes	320	7,680
16 / 3-bedroom duplex residential units	320	5,120
Community Facilities	--	500
TOTAL		48,020

gpd gallons per day

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TABLE 2

LONE OAK ESTATES SUBDIVISION
TOWN OF GOSHEN, NEW YORK

Estimate Water Budget

Subdivision	Water Demand Estimate (gpd)	Direct Recharge Normal Precipitation (gpd)	Direct Recharge One-Year-In-30 Drought (gpd)
Lone Oak Estates	48,020		
Arcadia Hill Subdivision	69,600	478,000	329,000
Lone Oak/Arcadia Combined	117,620		

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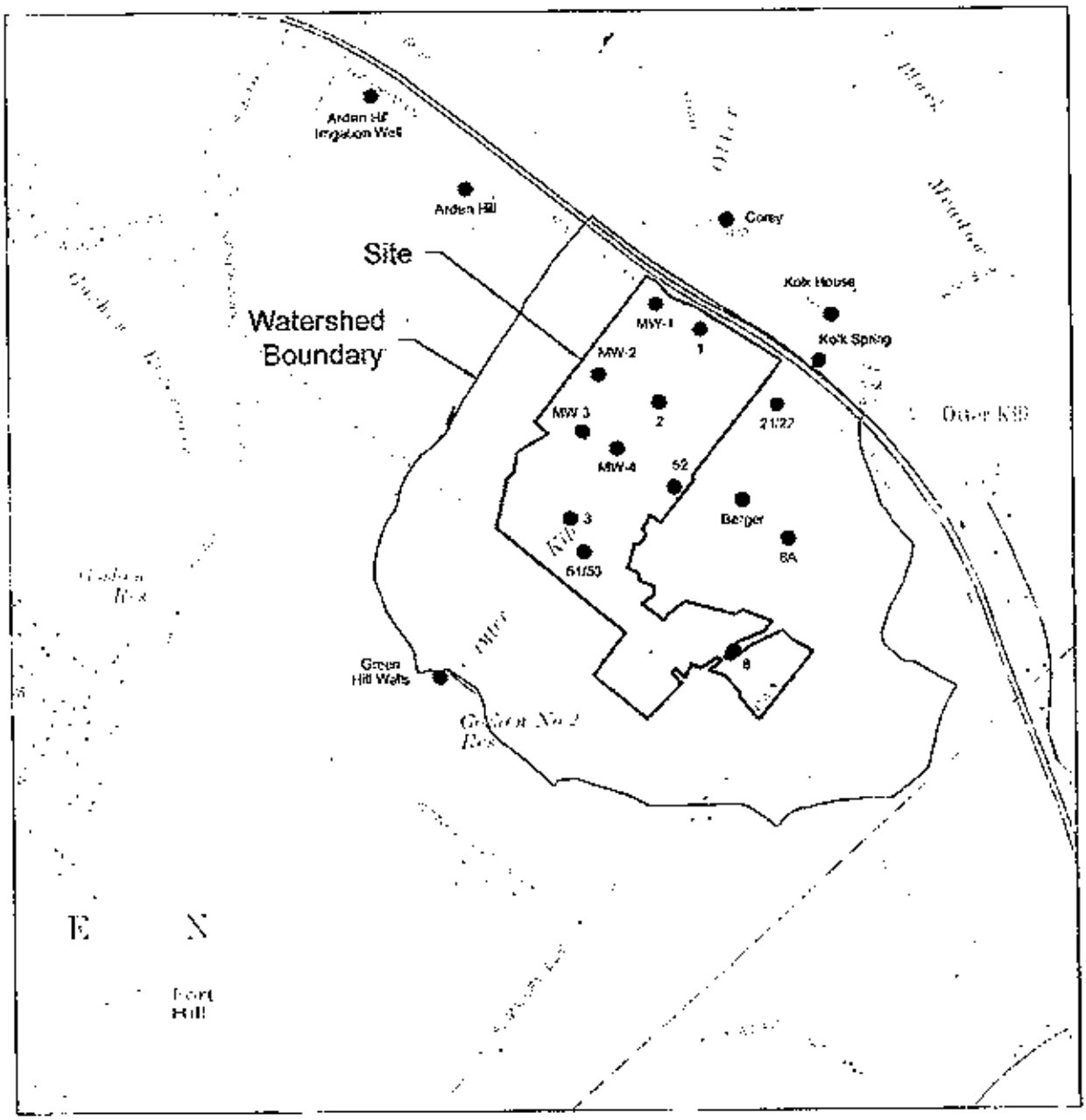
FIGURE



SOURCE: USGS TOPOGRAPHIC QUADRANGLES WARWICK, NEW YORK (PHOTOINSPECTED 1976) AND GOSHEN, NEW YORK (1957)

LEGEND

● WELL LOCATION AND IDENTIFICATION

QUADRANGLE LOCATION

0 2000

SCALE IN FEET

LONE OAK ESTATES

GOSHEN, NEW YORK

WATERSHED DELINEATION

DATE	REVISED

PREPARED BY: LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water and Environmental Engineering Services
4 Research Drive
Suite 301
Shelton, Connecticut 06484
(203) 929-8555

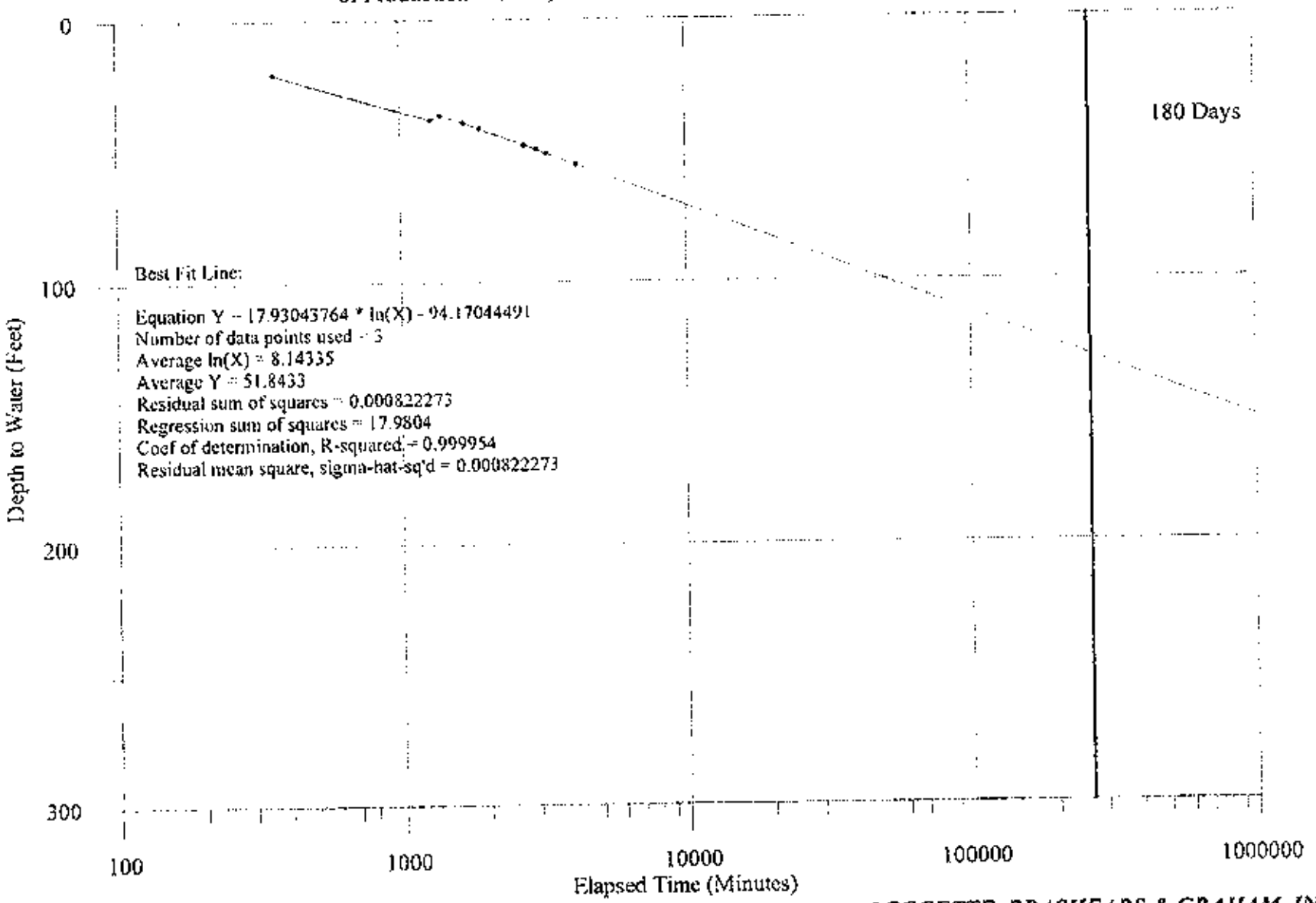
DRAWN:	RAC	CHECKED:	TPC	DATE:	02/08/08	FIGURE:	1

C:\DWGS\FALCONER\2008\FIG1.dwg, Layout1, 2/8/2008 2:54:32 PM, Drafting.pc3

APPENDIX I

LONE OAK ESTATES
TOWN OF GOSHEN

180-Day Projected Water-Level Drawdown Graph for Corey Residence Well for Simultaneous Pumping Test of Production Wells 1, 2, and 3 from December 2 to December 5, 1997



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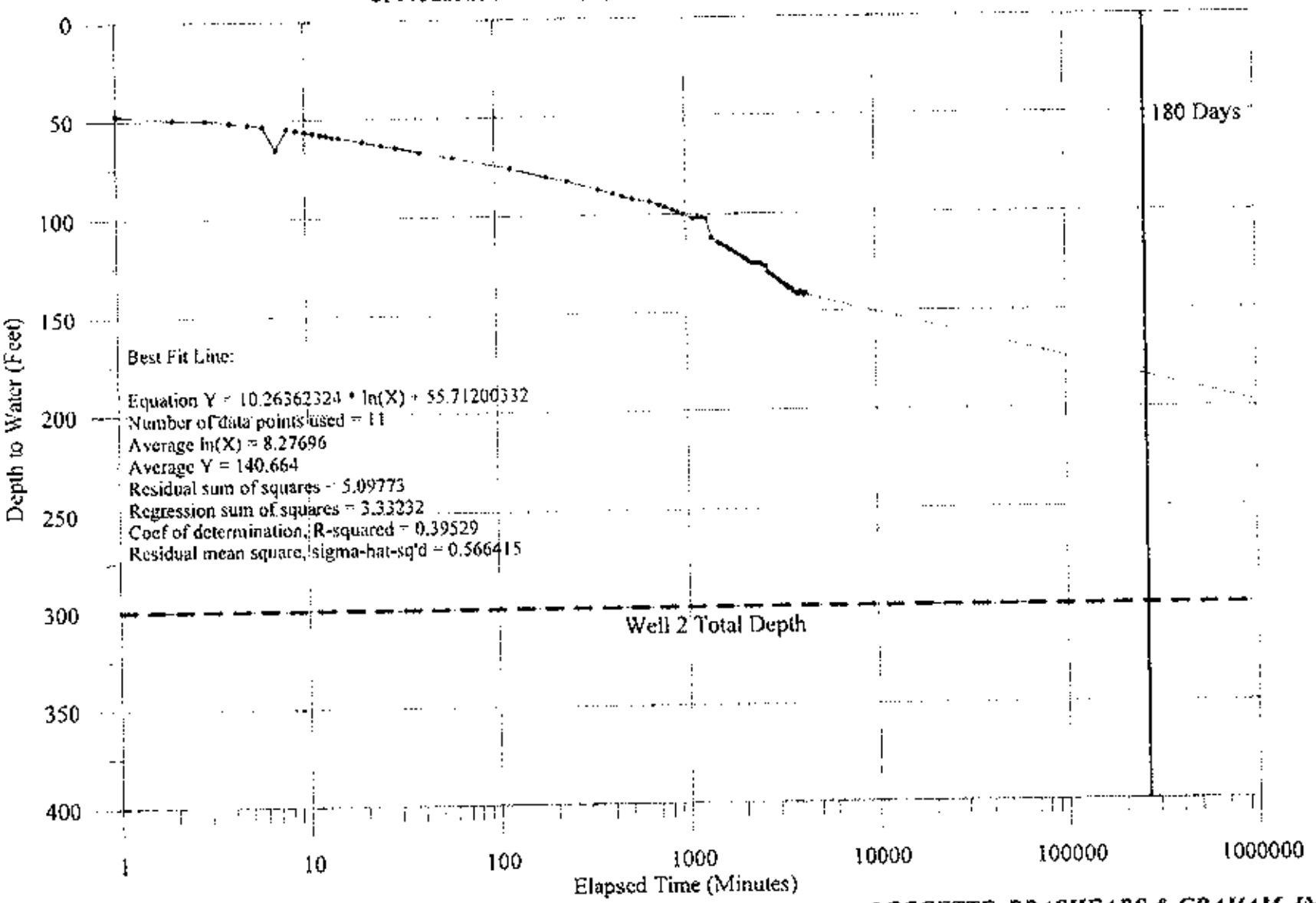
LEGGETTE, BRASHEARS & GRAHAM, INC.

LONE OAK ESTATES
TOWN OF GOSHEN

180-Day Projected Water-Level Drawdown Graph for Well 2 for Simultaneous Pumping Test of Production Wells 1, 2, and 3 from December 2 to December 5, 1997

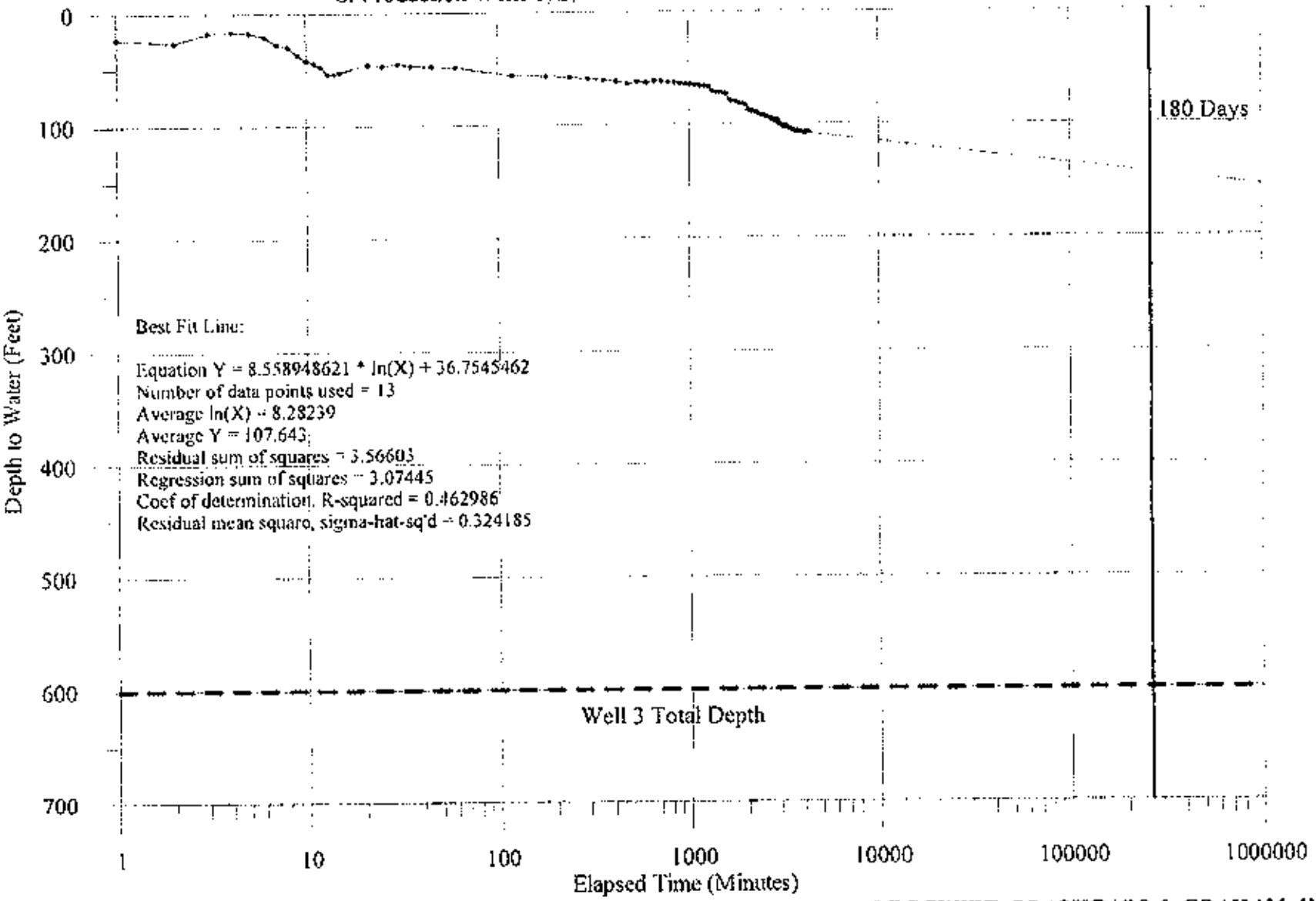


U:\Textemp\Lone Oak\1997\Well 2 180-Day.grf

LEGGETTE, BRASHEARS & GRAHAM, INC.

LONE OAK ESTATES
TOWN OF GOSHEN

180-Day Projected Water-Level Drawdown Graph for Well 3 for Simultaneous Pumping Test of Production Wells 1, 2, and 3 from December 2 to December 5, 1997

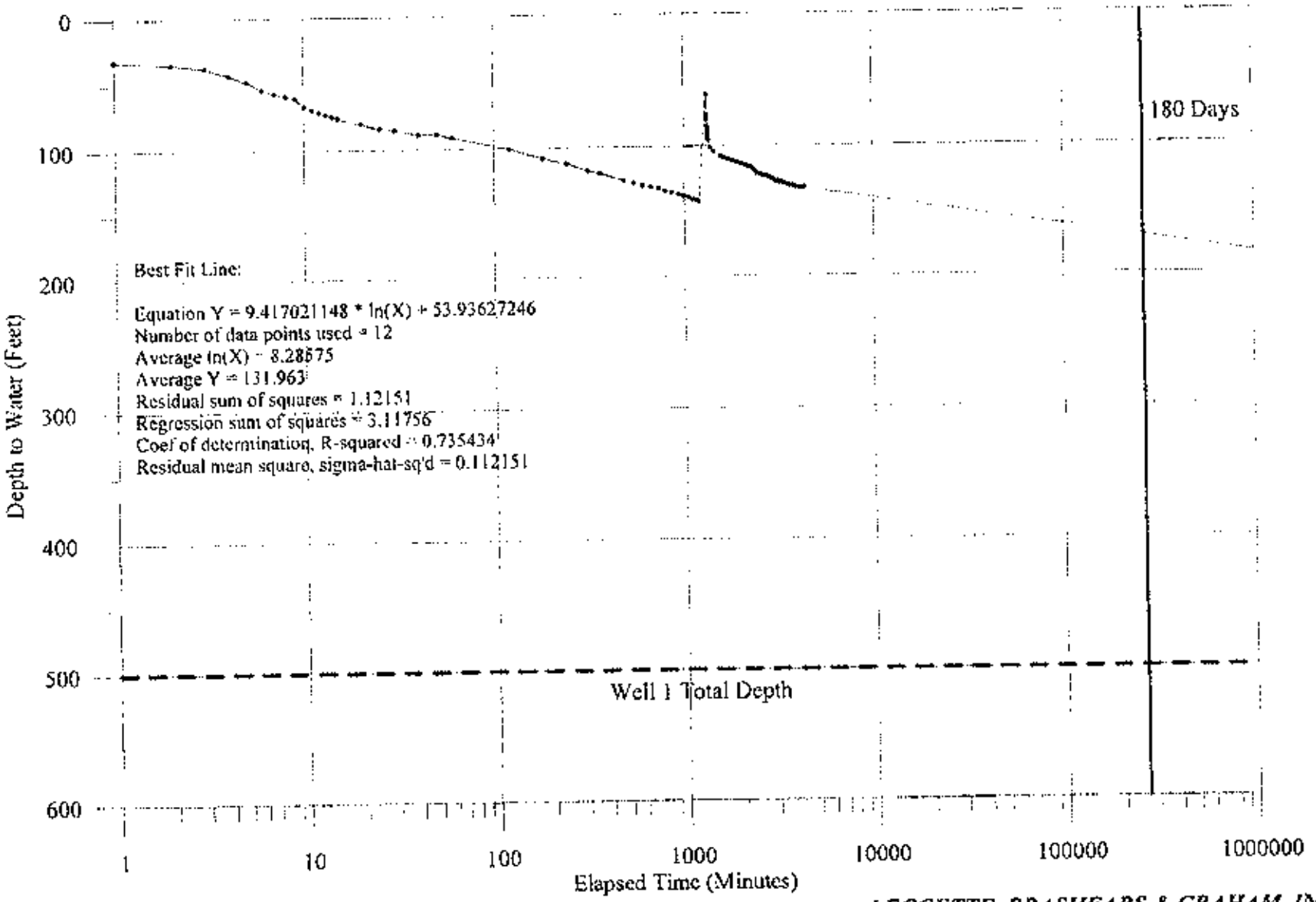


C:\Texttemp\Lone Oak\1997\Well 3 180-Day.grf

LEGGETTE, BRASHEARS & GRAHAM, INC.

LONE OAK ESTATES
TOWN OF GOSHEN

180-Day Projected Water-Level Drawdown Graph for Well 1 for Simultaneous Pumping Test of Production Wells 1, 2, and 3 from December 2 to December 5, 1997



I:\Texcomp\Lone Oak\1997\Well 1 180-Day.grf

LEGGETTE, BRASHEARS & GRAHAM, INC.

APPENDIX II

DRAFT COMPLAINT RESPONSE
AND REMEDIATION PLAN
LONE OAK ESTATES
GOSHEN, NEW YORK

The developer, FASA Construction (FASA) will respond promptly to any complaints from offsite well owners within 2,000 feet of the proposed Lone Oak Estate supply wells that allege damage caused by the operations of the well-supply source presently in service. Depending on the nature of the complaint, the complaint will be directed to either LBG or the water operator of the system, or both, for investigation and remediation, if required. The operating premise of the response to offsite well problems is that damage to a distant offsite well, whether related to the ability of the well to produce its normal supply or water-quality degradation, can only result if significant drawdown of the static water level in the subject well occurred as a result of pumpage by onsite (Lone Oak Estate) well-supply source. The network of offsite monitored wells will provide a rational basis for such determinations, together with data obtained during investigation of the complaintant's well.

If any complaint is found to be valid, i.e., a well problem caused by drawdown resulting from pumpage by the onsite well-supply source, the problem will be remediated at the cost of FASA. If the problem is unrelated to the operations of onsite well supply, and was apparently caused by normal wear and tear or naturally-occurring conditions, the well owner will be referred to a competent well or pump contractors for remediation at his cost. A written report regarding each such compliant will be provided to the Town of Goshen and to the complainant within seven days of the completion of any complaint investigation.

For any well problem that is found to have been caused by drawdown resulting from pumpage by the onsite well sources, a remedy or remedies would be offered to the well owner, to be paid by FASA. Such remedies might include lowering a well pump, replacing a well pump, deepening a well, redeveloping a well, drilling a new well or connecting the residence to the onsite public water-supply system from Lone Oak Estates. In any such remediation, the costs to FASA would include restoration of disturbed land or plantings. FASA would select the most efficacious remediation that is economically warranted. If connection to the onsite public water-supply system is selected, the well owner would be given one year of free water service and would thereafter pay for metered water use.

SEIS Exhibit No. 6B
Project Hydrogeologist
October 10, 2008, Response Letter to Comment
by Hickory Creek Consulting, LLC.

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER AND
ENVIRONMENTAL ENGINEERING SERVICES

4 RESEARCH DRIVE, SUITE 301
SHELTON, CT 06484
(203) 929-8555
FAX (203) 926-9140
www.lbgwsh.com

October 10, 2008

Mr. Steven T. Esposito
Esposito & Associates
262 Greenwich Avenue, Suite B
Goshen, NY 10924

RE: Lone Oak Estates
(T) Goshen, New York

Dear Mr. Esposito:

As requested, Leggette, Brashears & Graham, Inc. (LBG) provides the following responses to comments of the DEIS for the above-referenced property by the Town of Goshen's review consultants following a meeting on August 7, 2008.

Comment #5

In the LBG response letter contained in the SDEIS to Hickory Creek states that roofs were not impervious surfaces. In our calculations all impervious surfaces, roads, sidewalk, parking and building were included. LBG needs to explain why roofs were not included as impervious.

Response to Comment

Following the completion of construction, the acreage available for ground-water infiltration will be reduced by the addition of impervious surfaces such as roads and parking lot areas on the site which totals about 14.71 acres. Precipitation run-off from the majority of the roads, parking lots and to some extent from sidewalks and driveways will be diverted through a storm-water collection system to onsite storm-water detention structures.

The area from rooftops (5.13 acres) for this project is included as impervious surfaces considering precipitation which falls on rooftops will be diverted to the stormwater collection system.

The majority of the run-off collected in the storm-water detention structures is retained on the site, with the exception of during storms of a magnitude greater than a one-year flood events when overflow from the proposed detention structure and onsite wetland features will be

offsite, as would naturally occur even under pre-development conditions. The water collected in the proposed detention structures allows infiltration (recharge) through the underlying soil into the onsite ground-water system. Any discharge from the stormwater detention structures would continue to be available for recharge in the wetland feature located onsite and within the watershed. Since the runoff water is captured, as described above, and the increase in holding time of the run-off water in a detention structure's setting, the amount of water which will infiltrate into the onsite ground-water system may likely be slightly more than what would occur under no-build conditions. During periods of no precipitation, water from the detention structures will continue to infiltrate through the soil, replenishing the ground water beneath the site.

Further considering the proposed total of 19.84 acres of impervious structures proposed from the Lone Oak Estates project, this is only about 2.6 percent of the overall 765-acre watershed. Any impacts that would result from the overall small portion of impervious structure under either scenario to the watershed are not expected to be significant. As noted above, any discharge of water from the detention structure would continue to be available for recharge in wetland features located onsite and within the watershed and remain available in the site's water budget.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

Thomas P. Cusack, CPG
Principal

TPC:cmm
cc: Art Brod
I:\FALLON\2008\response to comments.doc

SEIS Exhibit No. 6C
Project Hydrogeologist
December 22, 2008, Response Letter to Comment
By Burke, Miele & Golden, LLP

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER AND
ENVIRONMENTAL ENGINEERING SERVICES

4 RESEARCH DRIVE, SUITE 301
SHELTON, CT 06484
(203) 929-8555
FAX (203) 926-9140
www.lbgwgh.com

December 23, 2008

Mr. Steve Esposito
262 Greenwich Avenue
Suite B
Goshen, NY 10924

RE: Lone Oak DEIS Completion

Dear Mr. Esposito:

The following responds to a comment included in a letter from Burke, Miele & Golden, LLP dated December 15, 2008. The comment and response are as follows.

Comment

The following comment from Hickory Creek Consulting LLC's a memorandum dated July 31, 2008, was required to be addressed: "The DEIS states that there is no 'hydraulic' connection between wetlands and surface water features, and also discusses wetlands receiving adequate water seeping from the bottom of detention structures. The DEIS should reconcile these statements." In response to this comment, the DEIS was revised to state "there is no direct hydraulic connection between the wetlands and the surface water features of the Project Site and the proposed TND." This is a conclusory statement that cannot be considered responsive. For the revised DEIS to be considered complete, this statement should be supported by facts; if those facts are addressed elsewhere in the document, the sections could be referenced here.

Response

The original comment addressed by the applicant's project team was misunderstood and consequently resulted in an incorrect response. It was recently determined the LBG letter dated March 25, 2008 is the source of the original comment form Hickory Creek Consulting, LLC and the comment was picked up as a result of a wording error. The following is the correct wording for the paragraph:

Page 8, 3rd paragraph (LBG letter dated March 25, 2008)

> Ground water occurs in the bedrock in two states, unconfined or artesian/semi-artesian conditions. The bedrock aquifers in the study area are considered confined and semi-confined. A majority of the bedrock aquifers in the study watershed are overlain by confining layers of till or low permeability material, as reported during the drilling of test

wells. In addition, flowing artesian conditions observed in a number of wells in the study watershed confirm the aquifer is confined or semi-confined. This setting would indicate no direct hydraulic connection between the surface water and bedrock aquifer.

The last sentence of the paragraph previously stated "The setting would indicate no direct hydraulic connection between the surface water and wetland features due to the confining layer".

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

Thomas P. Cusack, CPG
Principal

TPC:cmm
cc: Art Brod
H:\Lone Oaks\comment to response letter.doc

SEIS Exhibit No. 7A
October 16, 2007, NCES Correspondence
ACOE and NYSDEC Wetland Re-Certification

North Country Ecological Services, Inc.

October 17, 2007

Mr. Doug Gaugler
Wetland Biologist
NYS DEC Region 3
21 South Putt Corners Road
New Paltz, N.Y.

Re: DEC Article 24 Wetland Validation Extension
Lands of Fini Brothers – Lone Oak Estates
Town of Goshen, Orange County, New York

Dear Mr. Gaugler:

At the request of Mr. Art Brod (Planners East, Inc.), Mr. Tom DePuy, P.E., L.S. (DePuy Engineering and Surveying) and Mr. Al Fini (Fini Brothers), North Country Ecological Services, Inc (NCES) visited the above-referenced project site on October 4, 2007 and reviewed the boundaries of the wetlands that are found on the property. The wetlands were originally delineated and confirmed by Mr. Lance Kolts on January 19, 1999. Subsequently, a wetland delineation map, entitled "Wetland Delineation Plan – Lone Oak Estates" dated January 6, 1998, was produced and a DEC Wetland Validation Block was affixed to it and signed by Mr. Kolts. A copy of the official wetland map is attached for your reference.

The recent review of the wetland boundaries was warranted as a direct result of the expiration of the DEC Validation. The purpose of the review was to determine if the wetland boundaries had changed since the original delineation and issuance of signed validation block. Based upon our review, it was determined that the wetlands have not changed and that the delineated boundaries, as depicted on the delineation map still remains an accurate depiction of their location and configuration on the site. Additionally, land use and characteristics of the site have also remained un-changed and the site is in the same ecological condition as it was in 2000. As a result, it was determined by NCES that no modifications to the wetland delineation map are warranted and the DEC validation can be extended for an additional five years.

In light of this information, NCES has been directed by our clients to request (from your office) an updated Validation Block, thus re-validating the boundaries of the wetlands found on the site. The updated Validation Block is required by the Town of Goshen Planning Board to be affixed to the wetland maps in order to finalize the Environmental Impact Statement (EIS) and to obtain site development plan approval. As a result, we respectfully request that you re-issue a new Validation Block for this property.

132 West Main Street, Johnstown, New York 12095
Phone (518) 762 - 4381, Fax (518) 762 - 4383
Northcountryeco@gmail.com

If you have any questions or require additional information/clarification to process this request and issue an updated Validation Block, please do not hesitate to contact us at any time. Thank You.

Sincerely,

North Country Ecological Services, Inc.

Thomas M. Ward

Thomas M. Ward
Vice president/Ecologist

Encl.

cc: Mr. Art Brod, Planners East, Inc.
Mr. Tom DePuy, P.E., L.S., T.M. DePuy Engineering and Surveying
Mr. Al Fini, Fini Brothers

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North Country Ecological Services, Inc.

October 17, 2007

Mr. Brian Orzel
U.S. Army Corps of Engineers
Jacob K. Javitz Federal Building
26 Federal Plaza
New York, N.Y. 10278

Re: ACOE Application # 1999-02880
Lands of Fini Brothers – Lone Oak Estates
Town of Goshen, Orange County, New York

Dear Mr. Orzel:

At the request of Mr. Art Brod (Planners East, Inc.), Mr. Tom DePuy, P.E., L.S. (DePuy Engineering and Surveying) and Mr. Al Fini (Fini Brothers), North Country Ecological Services, Inc (NCES) visited the above-referenced project site on October 4, 2007 and reviewed the boundaries of the wetlands that are found on the property. The wetlands were originally delineated by NCES and were confirmed by you on September 1, 1999. Subsequently, a Jurisdictional Determination letter (JD) was issued by your office on July 5, 2000, which validated the boundaries of the wetlands for a period of five years. A copy of the JD letter is attached for your reference.

The recent review of the wetland boundaries was warranted as a direct result of the expiration of the JD letter. The purpose of the review was to determine if the wetland boundaries had changed since the original delineation and issuance of the JD letter. Based upon our review, it was determined that the wetlands have not changed and that the delineated boundaries, as depicted on the delineation map entitled "Wetland Delineation Plan – Lone Oak Estates" dated January 6, 1998, still remains an accurate depiction of their location and configuration on the site. Additionally, land use and characteristics of the site have also remained un-changed and the site is in the same ecological condition as it was in 2000. As a result, it was determined by NCES that no modifications to the wetland delineation map is warranted and the JD can be extended for an additional five years.

In light of this information, NCES has been directed by our clients to request from your office an updated JD letter, thus re-validating the boundaries of the wetlands found on the site. The updated JD letter is required by the Town of Goshen Planning Board in order to finalize the Environmental Impact Statement (EIS) and to obtain site development plan approval. As a result, we respectfully request that you re-issue a new JD letter for this property.

132 West Main Street, Johnstown, New York 12095
Phone (518) 762 - 4381, Fax (518) 762 - 4383
Northcountryeco@gmail.com

If you have any questions or require additional information/clarification to process this request and issue an updated JD letter, please do not hesitate to contact us at any time. Thank You.

Sincerely,

North Country Ecological Services, Inc.

Thomas M. Ward

Thomas M. Ward
Vice president/Ecologist

Encl.

cc: Mr. Art Brod, Planners East, Inc.
Mr. Tom DePuy, P.E., L.S., T.M. DePuy Engineering and Surveying
Mr. Al Fini, Fini Brothers

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

JUL 05 2000

REPLY TO
ATTENTION OF:
Regulatory Branch

SUBJECT: Permit Application Number 1999-02880-YS
by Fini Brothers

Stephen George
North Country Ecological Services
173 Willie Road
Gloversville, New York 12078-6621

Dear Mr. George:

On March 1, 1999, the New York District Corps of Engineers received a request for a Department of the Army jurisdictional determination for the above referenced project. This request was made by North Country Ecological Services, as consultant for Fini Brothers. The site consists of approximately 226.5 acres, in the Hudson River basin, located on Arcadia Road in the Town of Goshen, Orange County, New York. The proposed project would involve the construction of a residential subdivision.

In the letter received on March 1, 1999, your office submitted a proposed delineation of the extent of waters of the United States within the subject property. The subject property consists of the following tax map references within the Town of Goshen: Section 11, Block 1, Lots 49.2 and 58; Section 27, Block 6, Lots 10 through 16; Section 27, Block 9, Lots 1 through 14; and Section 27, Block 10, Lots 1 and 2. A site inspection was conducted by a representative of this office on September 1, 1999, in which it was agreed that changes would be made to the delineation and that the modified delineation would be submitted to this office. On March 6, 2000, this office received the modified delineation.

Based on the material submitted and the observations of the representative of this office during the site visit, this site has been determined to contain jurisdictional waters of the United States based on: the presence of wetlands determined by the occurrence of hydrophytic vegetation, hydric soils and wetland hydrology according to criteria established in the 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1; and the presence of defined water bodies (e.g. stream channels, lakes, ponds, rivers, etc) which are part of a tributary system.

Based on the above, it has also been determined that the drawing entitled "Wetland Delineation Plan Lone Oak Estates Tax Map Parcels - Section 11 Block 1 Lot 58 - Section 11 Block 1 Lot 49.2 - Section 27 Block 8 Lots 10-16 - Section 27 Block 9 Lots 1-14 - Section 27 Block 10 Lots 1-2 Lands of Fini Bros. Situate in Town of Goshen Orange County, New York", prepared by T.M. DePuy Engineering and Land Surveying, P.C., dated January 6, 1998, and last revised September 16, 1999, appears to be an accurate depiction of the extent of the waters of the United States on the subject site. This drawing indicates that there are ten (10) principal wetland areas on the project site.

The first wetland (Shown on the above referenced map as NYSDEC Wetlands "N-1", "N-2" and "N-V") is located in the northeastern corner of the property and is approximately 53.522 acres within the subject property. The second wetland (ACE Wetlands "B") is located approximately 850 feet south of the first wetland, and is approximately 0.011 acres. The third wetland (ACE Wetlands "C" and NYSDEC Wetlands "S") is located approximately 200 feet west of Wetland B and just south of the first wetland, and is approximately 1.987 acres within the subject property. The fourth wetland (ACE Wetlands "D") is located just northwest of the first wetland, and is approximately 5.107 acres. The fifth wetland (ACE Wetlands "E") is located in the northern-most corner of the site, and is approximately 0.267 acres.

The sixth wetland (NYSDEC Wetlands "X") is located just southwest of Wetland D and is approximately 0.305 acres. The seventh wetland (NYSDEC Wetlands "Y-XY") is located between Wetland C and Wetland X, and is approximately 8.294 acres within the subject property. The eighth wetland (ACE Wetlands "F") is located within a parcel of land separated from the rest of the property, just east of the first wetland, and is approximately 0.344 acres. The ninth wetland (ACE Wetlands "H") is located in the eastern-most corner of the property, and is approximately 0.714 acres within the subject property. The tenth wetland (ACE Wetlands "I") is located approximately 500 feet southwest of Wetland H, and is approximately 0.010 acres within the subject property. These wetlands are considered to be above the headwaters. This determination regarding the delineation shall be considered valid for a period of five years from the date of this letter. Enclosed is a Notification of Administrative Appeal Options which provides information on your acceptance of this approved jurisdictional determination.

It should be noted that three separate wetland areas, with a total of approximately 0.323 acres, have been previously filled and are each labeled as an "Area of Wetland Encroachment" in the above referenced drawing. These previously filled areas must be considered as impacts to waters of the United States cumulatively with any impacts proposed in the future.

It is strongly recommended that the development of the site be carried out in such a manner as to avoid as much as possible the discharge of dredged or fill material into the delineated waters of the United States. If the activities proposed for the site involve such discharges, authorization from this office may be necessary prior to the initiation of the proposed work. The extent of such discharge of fill will determine the level of authorization that would be required.

If any questions should arise concerning this matter, please contact Brian A. Orzel, of my staff, at (212) 264-0183.

Sincerely,

for George Nieves
Chief, Western Permits Section

Enclosure

cf: NYSDEC - Region 3
Town of Goshen

SEIS Exhibit No. 7B
November 10, 2008, NCES Correspondence
ACOE Wetland Re-Certification

North Country Ecological Services, Inc.

November 10, 2008

Mr. Brian Orzel
U.S. Army Corps of Engineers
26 Federal Plaza
New York, New York 10278

Re: USACE Application # 1999 – 02880 – YS
Lone Oak Estates
Town of Goshen, Orange County, New York

Dear Mr. Orzel:

Pursuant to our recent conversations, enclosed please find a copy of the information that was previously forwarded to your office on October 17, 2007. The enclosed information was previously submitted to you in order to allow you to extend the Jurisdictional Determination (JD) of the federally regulated wetlands that were originally validated by you on September 1, 1999 and as outlined in the original JD letter that was issued by your office on July 5, 2000. This information has been re-submitted given that you indicated that you never received the first package of information forwarded in October of 2007.

In addition, being that the regulations have since changed and consultants are required to provide supplemental information with all new JD requests, I have also enclosed a supplemental information sheet that outlines all of the "Post-Rapanos" information that is now required. With the submission of this information, and given that we had previously requested an updated JD over a year ago, we respectfully request that you process the re-issuance of a new JD for the project at your earliest possible convenience. We will make ourselves readily available to meet with you at any time, should you determine that a site visit be necessary.

If you have any questions, please do not hesitate to contact us at any time. Thank you for your prompt attention to this request.

Sincerely,

North Country Ecological Services, Inc.

Thomas M. Ward

Thomas M. Ward
Vice President/Ecologist

Encls.

C:\North Country\Projects\98195 - Lone Oak Estates\Updated JD Request.doc

132 West Main Street, Johnstown, New York 12095
Phone (518) 762 - 4381, Fax (518) 762 - 4383
Northcountryeco@gmail.com

Supplemental Information for Jurisdictional Determination
Lone Oak Estates

ACOE Application #:	1999 – 02880 - YS
Project Name:	Lone oak Estates
Current Property Owner:	Fini Borthers, Inc. C/O Mr. Albert Fini P.O. Box 998 Goshen, New York 10924
Project Applicant:	Fini Brothers, Inc.
Environmental Consultants Wetland Delineators:	Mr. Stephen George and Mr. Thomas Ward North Country Ecological Services, Inc. 132 West Main Street Johnstown, New York 12095 (518) 762-4381
Total Property Acreage:	227.4 ± acres Parcel 1 (Tax ID: 11-1-58) = 114.4 ± acres Parcel 2 (Tax ID:11-1-49.2) = 106.0 ± acres
Site Coordinates:	41° 18' 33.0" N Latitude and 74° 22' 50.0" W Longitude.
Historic Land Use:	Agriculture. This property was part of a large farmstead and remnant barbed wire fencing and stonewalls are found throughout the property. All other portions of the site, not historically farmed existed as abandoned, undeveloped forested land.
Current Land Use:	Abandoned Agricultural Land. With the exception of one alfalfa field, the entire property remains fallow. It consists of undeveloped forested uplands, fallow early successional fields and Palustrine wetlands comprised of forested, scrub-shrub and emergent cover types. An electrical substation is located in the southwest corner of the Site.
Average Annual Rainfall:	47.0 Inches
Average Annual Snowfall:	28.0 Inches
Watershed Area:	1,231.79 ± Acres

Site Location Map:	See Figure 1 - The property is located at the terminus of Harriman Drive in Town of Goshen, Orange County, New York (the "Site") The centralized Site coordinates are 41° 18' 33.0" N latitude and 74° 22' 50.0" W longitude. Elevations on the Site range from 540± feet above mean sea level (msl), found on top of a ridge that is located in the southwestern corner of the property, to 401± feet above msl, found in a portion of the emergent wetland complex located in the northeast corner of the Site, resulting in an elevation difference of 139± feet.
DEC Wetlands Map:	See Figure 2 – A total of 79.105 ± acres of DEC wetland exist on the site. The DEC Wetlands were confirmed by Mr. Lance Kolts on January 19, 1999.
Soil Survey Map:	See Figure 3 - According to the Soil Survey, there are six (6) soil series on the Site. The soils are: Alden extremely stony soils (AC); Bath-Nassau shaly silt loams, with 3 to 15 percent slopes (BnB & BnC); Erie gravelly silt loam, with 0 to 8 percent slopes (ErA & ErB); Madalin silt loam (Ma); Mardin Gravelly silt loam, with 3 to 25 percent slopes (MdB, MdC & MdD); and Mardin soils, steep (MNE). None of these soil series are categorized as being comprised of limestone or calcareous soil complexes, which are typically associated with rare and/or sensitive species of flora and fauna.
Total Wetlands:	86.58 ± acres

Jurisdictional Wetlands:

Acreage	Centralized Coordinates
Area A = 69.72 ± acres	(41° 22' 42.0" N 74° 18' 16.1"W)
Area B = 8.357 ± acres	(41° 22' 21.9" N 74° 18' 43.1"W)
Area C = 0.917 ± acres	(41° 22' 22.1" N 74° 18' 27.1"W)
Area D = 5.107 ± acres	(41° 22' 42.3" N 74° 18' 40.0"W)
Area E = 0.267 ± acres	(41° 22' 56.7" N 74° 18' 26.9"W)
Area F = 0.221 ± acres	(41° 22' 25.5" N 74° 18' 10.24"W)
Area G = 0.179 ± acres	(41° 22' 11.3" N 74° 18' 20.3"W)
Area H = 0.755 ± acres	(41° 22' 9.4" N 74° 18' 20.5"W)
Area I = 0.035 ± acres	(41° 22' 8.0" N 74° 18' 23.6"W)
Area J = 0.436 ± acres	(41° 22' 35.3" N 74° 18' 41.3"W)
Area S = 1.070 ± acres	(41° 22' 23.1" N 74° 18' 21.3"W)

Total Jurisdictional Wetland = 86.58 ± acres

Non-Jurisdictional Wetlands:	None
Total Streams:	8,950± linear feet
Traditional Navigable Waterways:	0± linear feet
Perennial Relatively Permanent Waterways:	(Otter Kill) P-RPW A = 3,800± linear feet P-RPW B = 3,300± linear feet
Seasonal Relatively Permanent Waterways:	S-RPW A = 1,850± linear feet
Non-Relatively Permanent Waterways:	None
Stream Coordinates:	

Perennial RPW's

P-RPW A:	Start	41° 22' 8.0" N latitude 74° 18' 56.3" W Longitude
	End	41° 25' 51.2" N Latitude 74° 11' 39.4" W Longitude
P-RPW B:	Start	41° 22' 6.3" N latitude 74° 18' 24.8" W Longitude
	End	41° 22' 42.0" N Latitude 74° 18' 16.1" W Longitude

Seasonal RPW's

S-RPW A:	Start	41° 22' 42.3" N latitude 74° 18' 40.0" W Longitude
	End	41° 22' 27.8" N Latitude 74° 18' 35.3" W Longitude

Stream Characteristics:

RPW A (the Otter Kill) is a perennial stream that flows northeast, through the center of the Site. The Otter Kill flows through a culvert located under Route 17 and off site, where it connects with the Moodna Kill. The Moodna Kill is a fourth-order perennial tributary of the Hudson River. The Hudson River is classified as a Traditional Navigable Waterway (TNW). The Otter Kill originates at Goshen Reservoir 2 and only a small section of it is found within the property boundaries. The on-site portion of the stream is approximately 10-15 feet wide and during normal flows is approximately 1-2 feet deep. During spring thaw and immediately after heavy precipitation events, the stream runs a bank-full capacity and may reach depths of 4-5 feet. This stream possesses a sand/gravel substrate and appears to flow year round. Portions of this stream have been manipulated during times when the property was actively farmed. An existing road and culvert crosses the stream in the southernmost portion of the Site.

RPW B is an un-named perennial tributary of RPW A (The Otter Kill). This stream originates at a groundwater discharge and flows north through a natural drainage corridor, and directly into the Otter Kill. Portions of this stream also appear to have been manipulated during the times when the property was actively farmed. This stream is approximately 5-10 feet wide and average 1-1.5 feet deep. This stream possesses sand/gravel and silt substrates.

Seasonal RPW A is an un-named intermittent tributary of Perennial RPW A. This stream is located within natural drainage corridor found in the western portion of the site and it flows southeast and directly into Perennial RPW A. This stream has also been manipulated as a result of previous farming activities undertaken at the site. The stream was identified by the formation of bed and banks and it possess gravel and silt substrates. Flowing water has been observed within the stream during most of the previous site visits, however, it has also been observed with no flowing water during summer months. It is believed that the stream flows more than 20 times during a given year and flows continuously for durations longer that three consecutive months. The stream channel is approximately 1-3 feet wide and averages 1.0 feet deep.

Wetland Connectivity with RPW's and TNW's:

Each of the Wetland Areas identified on the Site physically abut a perennial and/or seasonal RPW that flows into a TNW. All of the wetlands on the Site, with the exception of Wetland Area E, are hydrologically connected with the aforementioned RPW's described above, which are constituted as tributary systems of the Otter Kill. Wetland Area E, which is located within the northwest corner of the site and is connected with off-site wetlands that are located along Harriman Drive, which drain into an off-site perennial RPW that flows directly into The Otter Kill. All of the wetlands identified on the site are located within 1 aerial and 1 straight mile of a perennial RPW and within 20 miles of a TNW.

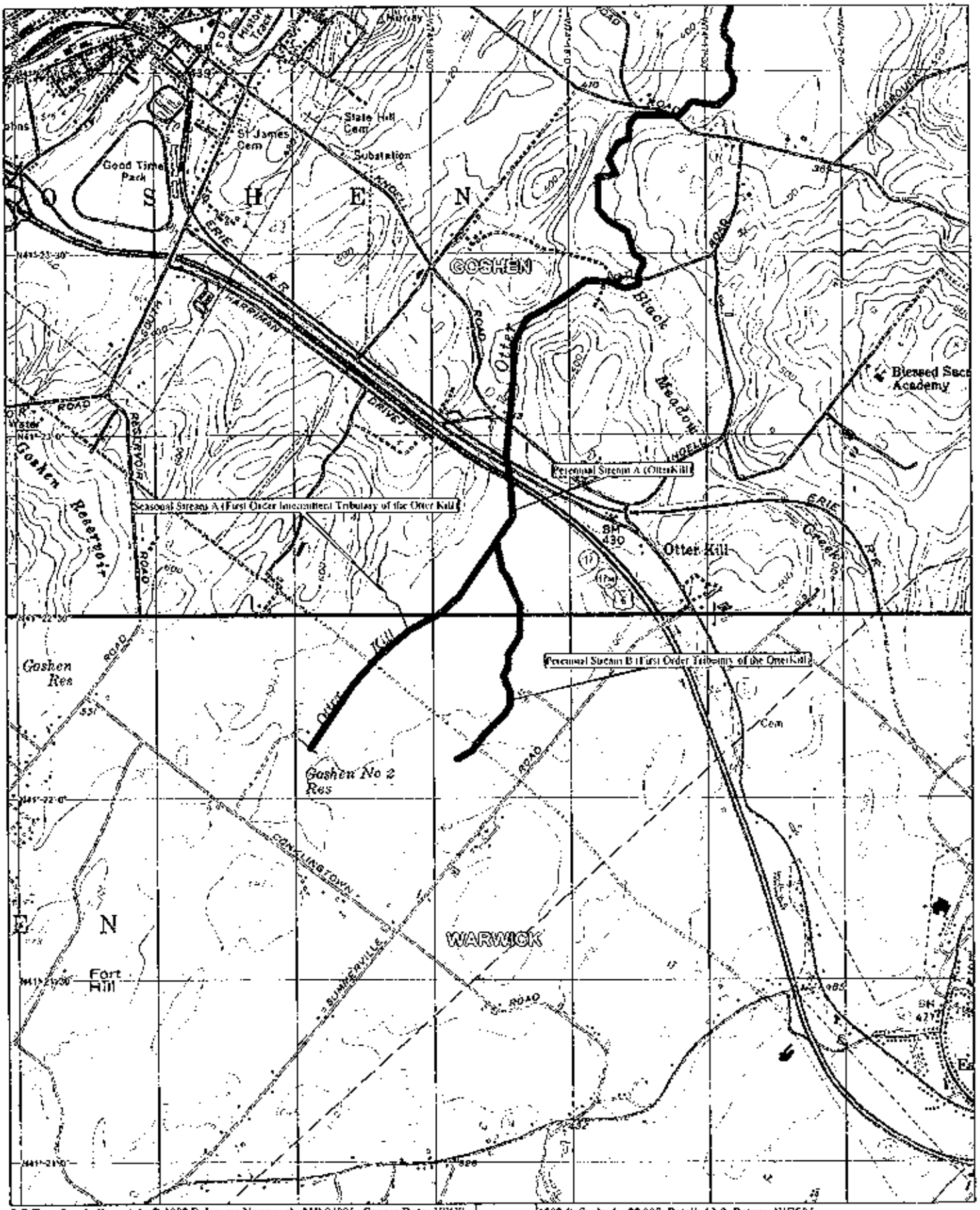
Potential Pollutants:

During the site investigations, NCES did not identify any contaminants or visible point sources of pollution. Potential contamination from historic agricultural usage of the property may exist, however, none are known at this time. Additionally, potential road salt pollution from NYS Route 17 and potential fertilizer infiltration from adjacent residential developments may also be found on the property.

According to the project engineers, several water test wells will be installed on the property and monitored/tested for quality and quantity. The water collected will be subject to testing that is associated with drinking water standards imposed by New York State. If during the project any water or earth material is suspected of containing pollutants, it will be tested by a certified laboratory and handled in accordance with local, State, and federal regulations.

Habitat For Species:

During the site assessments, NCES documented a variety of wildlife species on the Site. These species included white-tailed deer, wild turkey, ruffed grouse, woodcock, mink, raccoon, coyote, fox, garter snake, wood frog, green frog, spring peepers and various woodland and early successional field associated songbirds. All of these species are commonly associated with abandoned agricultural development and none of them are considered rare by the DEC or the USFWS. As a result of the investigation, other than potential roosting habitat for the Indiana Bat, NCES did not identify any potential habitats that are conducive to the existence of other endangered, threatened and/or rare species of flora or fauna. The potential roosting habitat will be documented, quantified and described within a subsequent permit application, if determined to be required.



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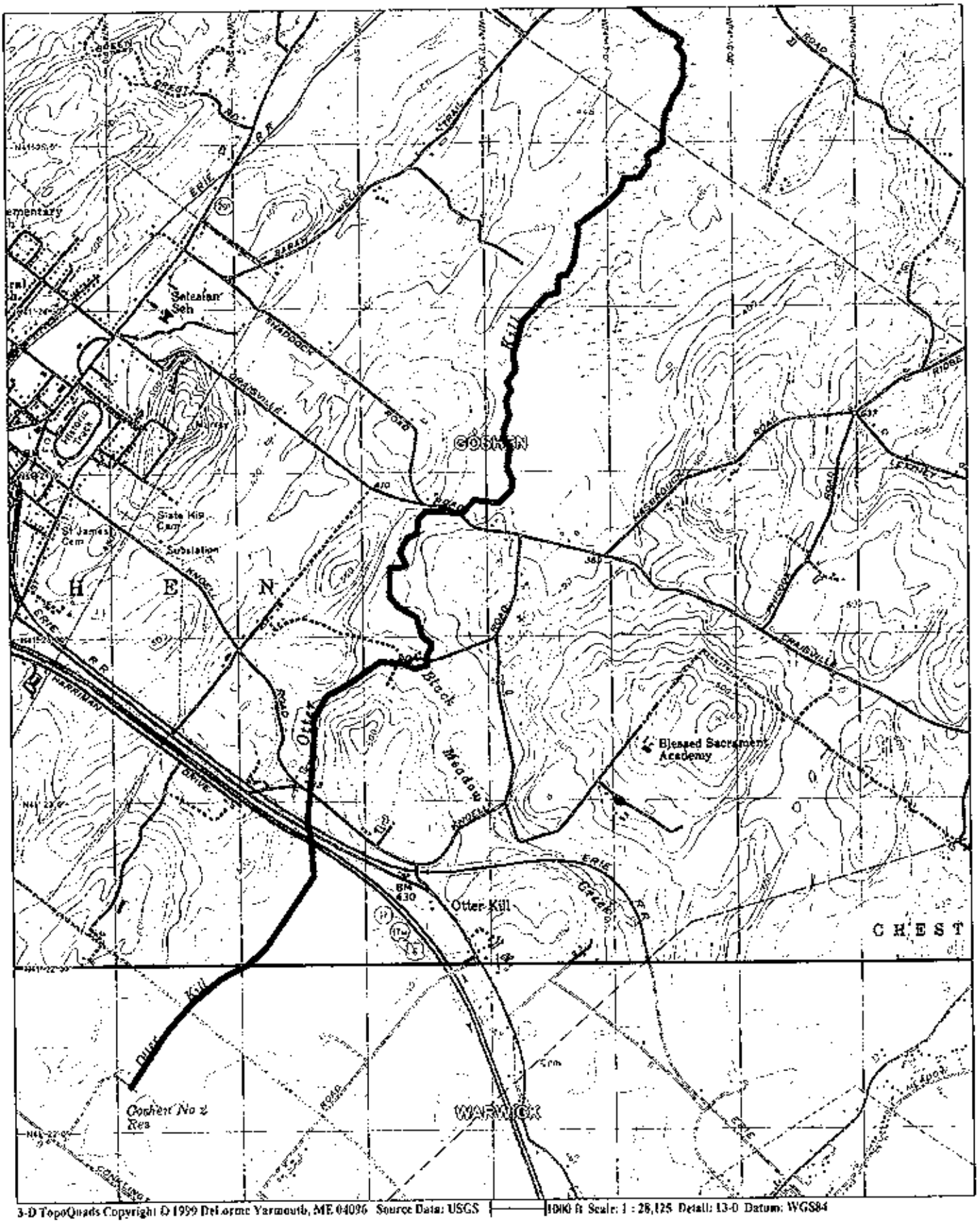

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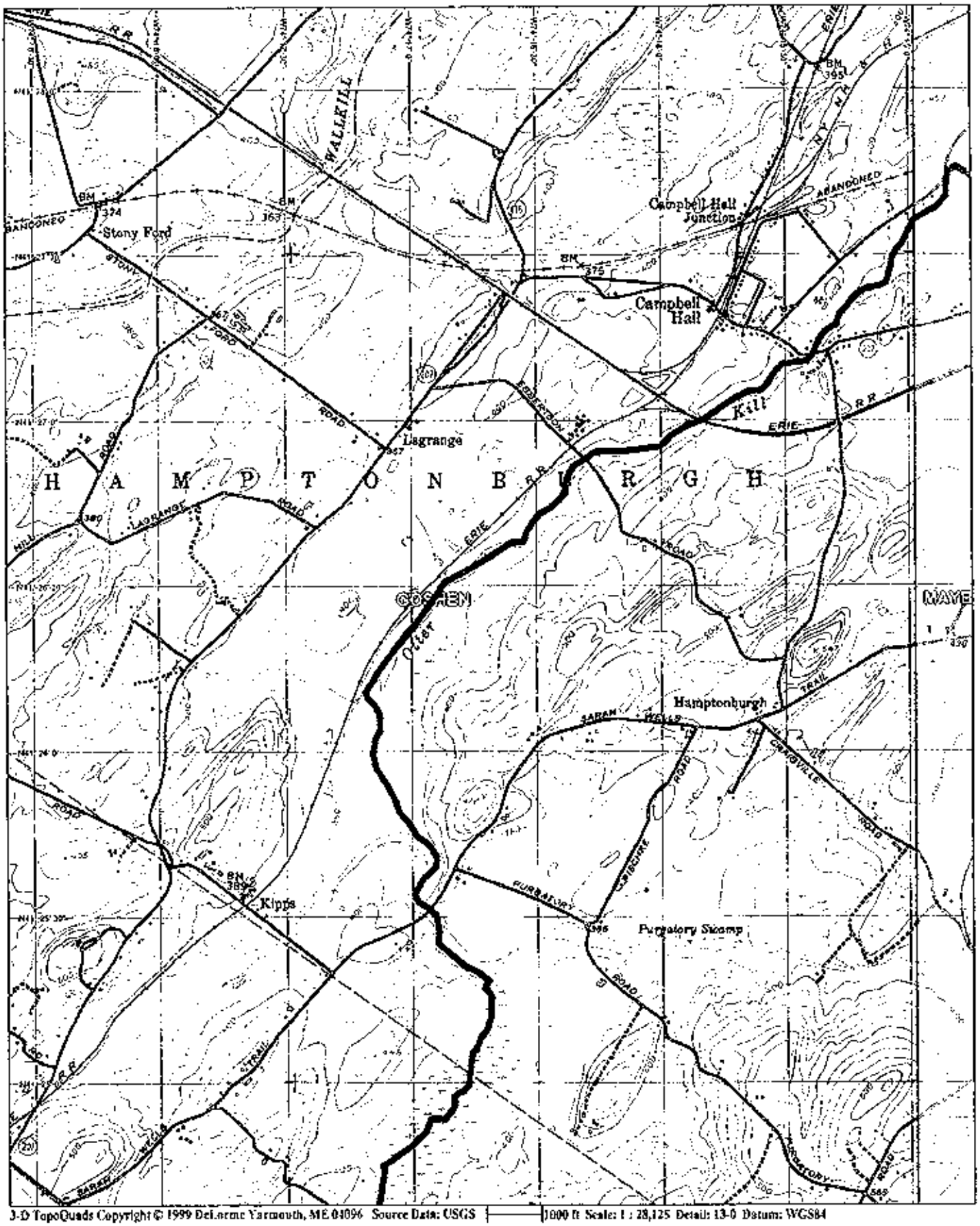

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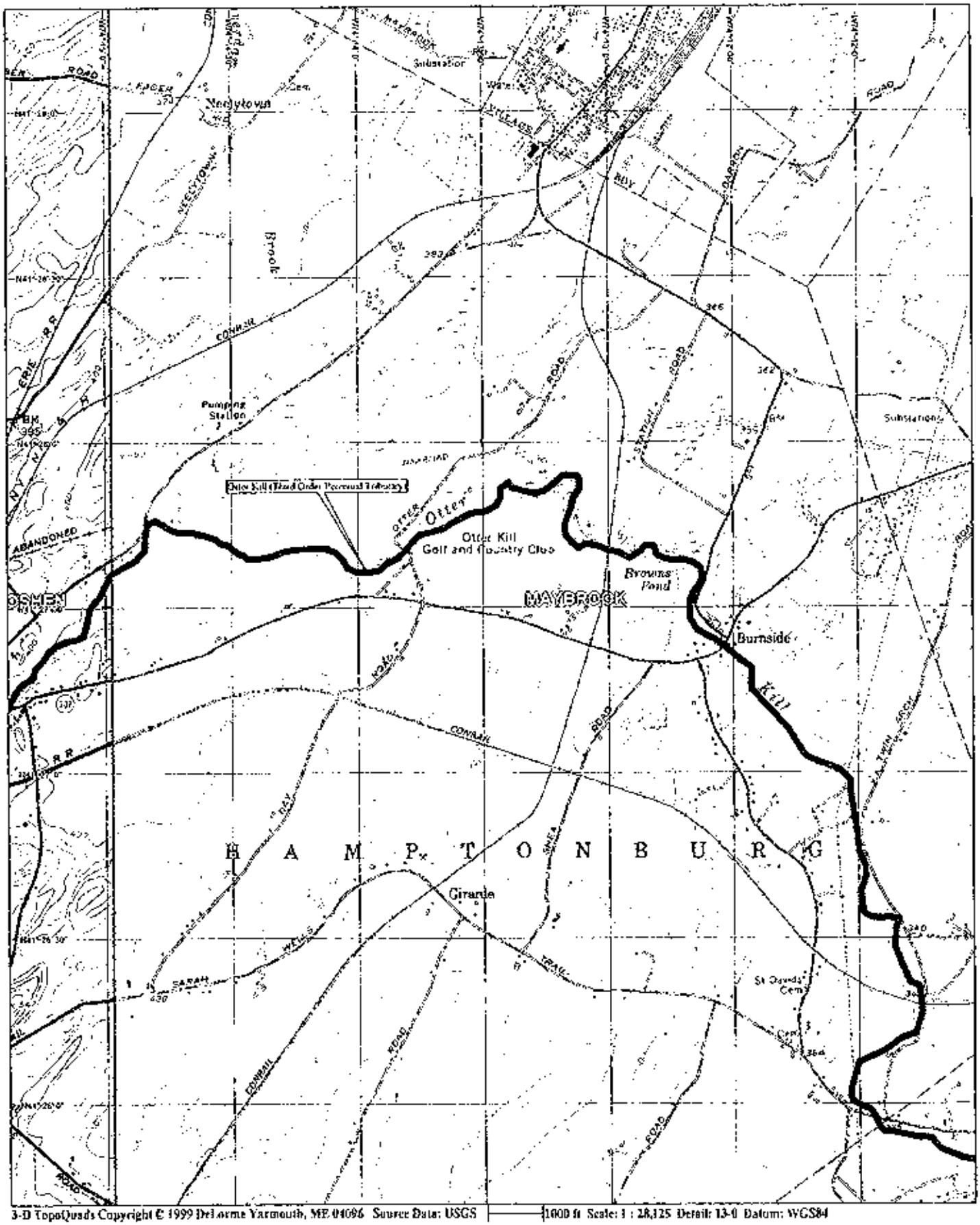

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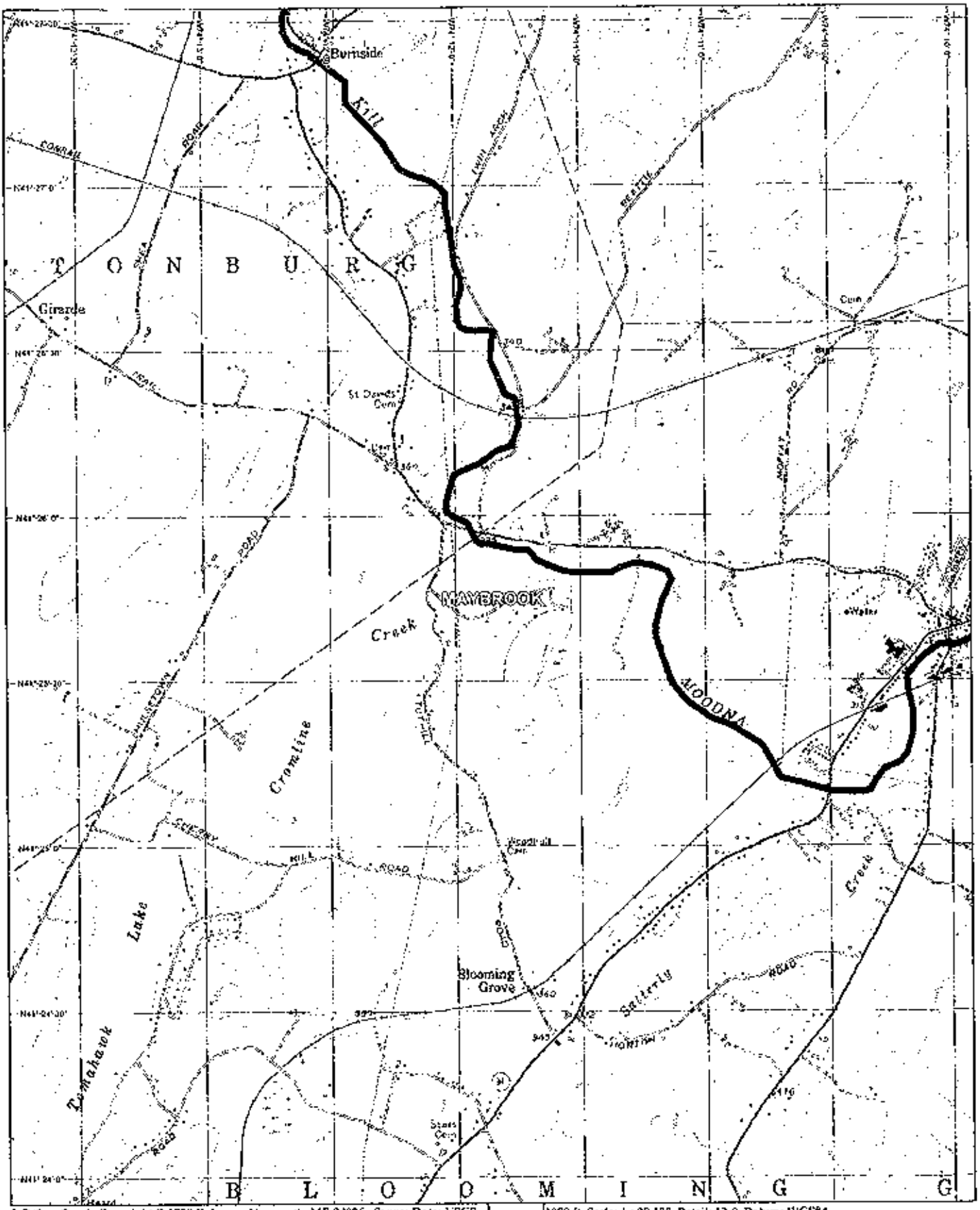

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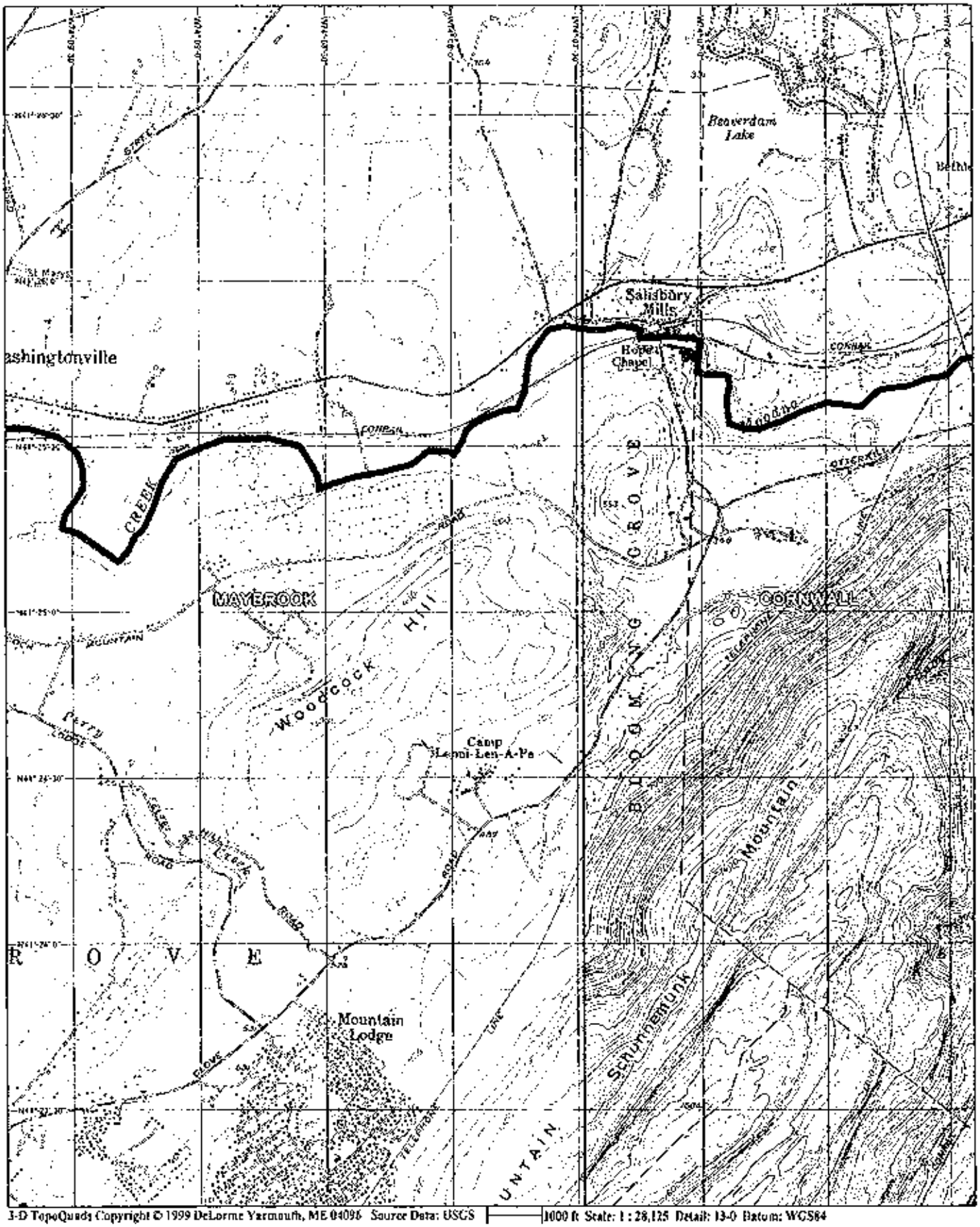

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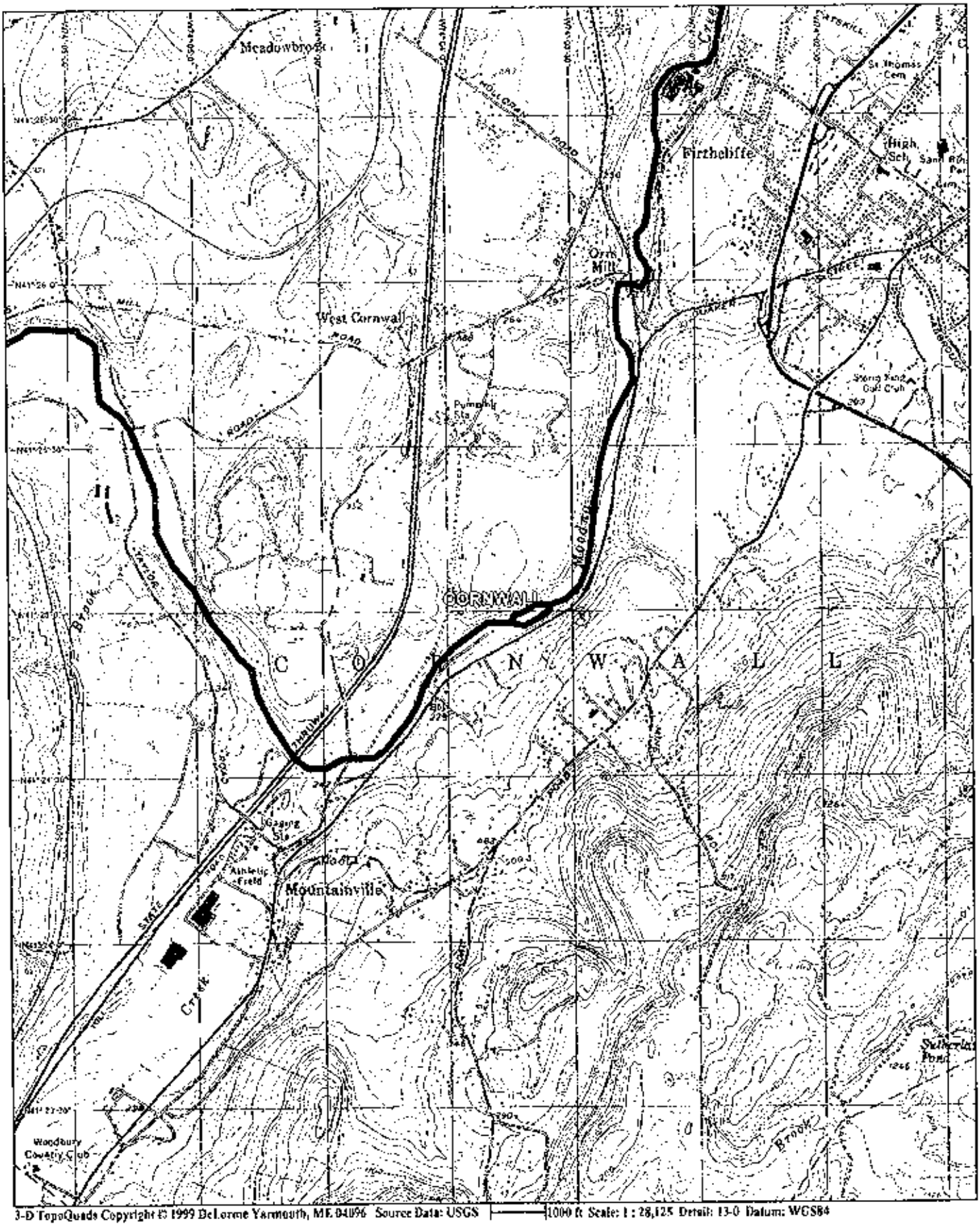

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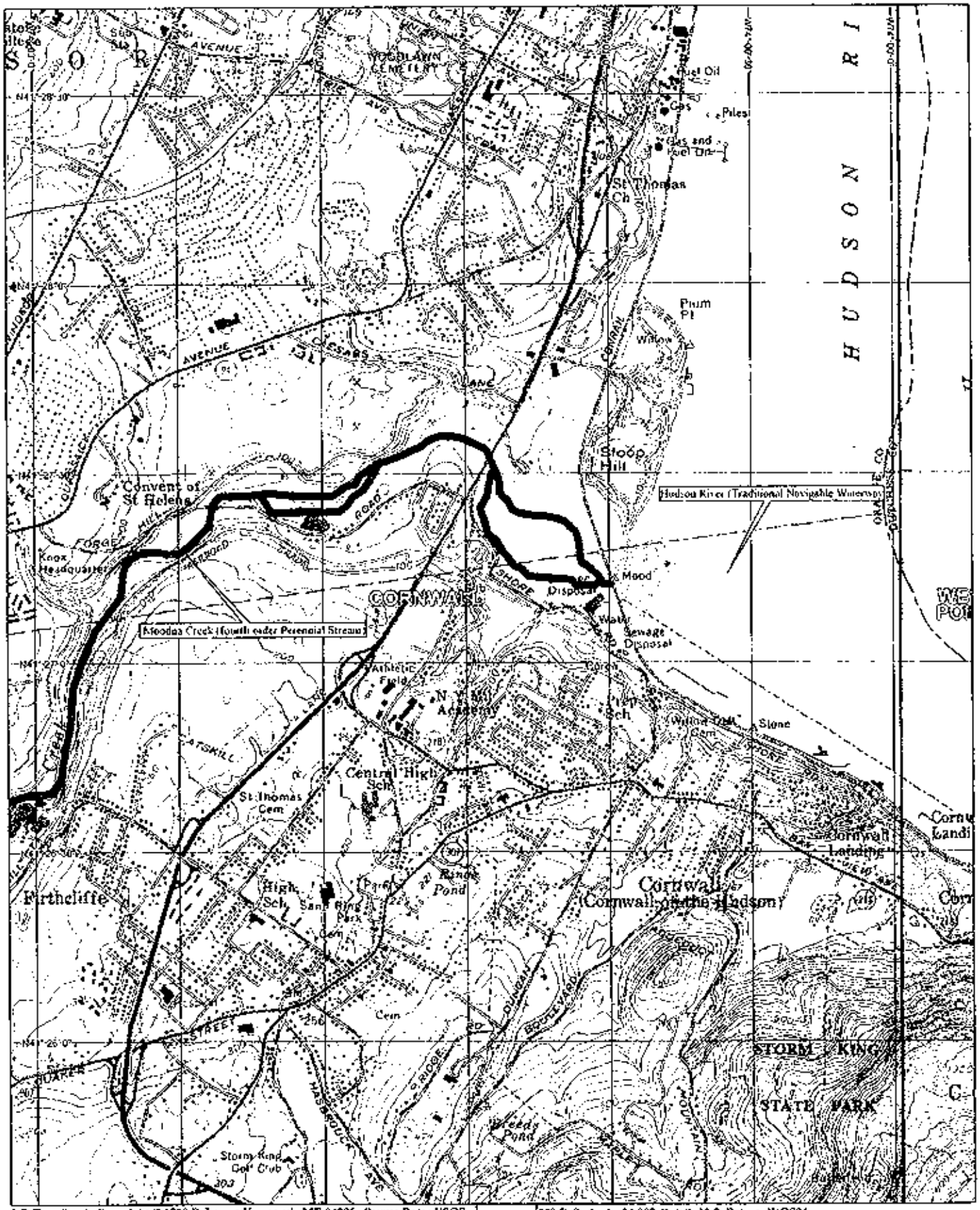

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SEIS Exhibit No. 8
Project Ecologist
Excerpts from Response Letter to Comments by Hickory Creek Consulting

January 22, 2008

Mr. Steven Esposito, RLA
Esposito and Associates
262 Greenwich Avenue – Suite B
Goshen, New York 10924

Re: Response to Comments Issued by Hickory Creek Consulting, LLC
Lone Oak Estates Residential Subdivision
Town of Goshen, Orange County, New York

Dear Mr. Esposito:

On January 7, 2008 North Country Ecological Services, Inc. (NCES) received a copy of the response letter issued to the Town of Goshen Planning Board by Ms. Karen Schneller-McDonald of Hickory Creek Consulting, LLC (HCC). The HCC letter listed comments regarding their review of the Supplemental Environmental Impact Statement (SEIS) submitted by Esposito and Associates and the Endangered/Threatened Species Report that was submitted by NCES. Based upon our review of HCC's comments, NCES offers the following information (each individual comment addressed corresponds to the item number and alphabetical designation offered in HCC's comment letter):

1 – ACOE Wetland Issues - -

a) Is there an updated Jurisdictional Determination (JD) Letter?

NCES has submitted a request for an updated JD letter from the ACOE. The previous JD expired on July 5, 2005. The request for the updated JD was sent on October 17, 2007. As a result, NCES was directed by the ACOE to re-review the property pursuant to the "Post-Rapanos" jurisdictional determination methods and provide updated information to the New York District office. NCES has conducted the additional site investigations and has completed a "Post-Rapanos" review. As a result of the review, it was determined that no modifications to the wetland boundaries are required and that all of the wetlands are regulated by the ACOE.

b) The total area of wetland fill should include the 0.323 acres of previously filled wetland that is noted in the letter from the ACOE, dated July 5, 2000.

As in all ACOE permits, all wetland impacts must be viewed cumulatively for the entire project. This cumulative impact assessment must account for all previous and proposed wetland impacts. As a result, the previous 0.323 acres of impact has been included in the wetland impact assessment and has also been included as part of the draft wetland permit applications to the ACOE/DEC.

c) *The SEIS refers to non-jurisdictional isolated wetlands and the Endangered Species Report states that all wetlands are jurisdictional. An Individual Permit may be required for the project.*

The project was previously reviewed by Mr. Brian Orzel of the ACOE and a JD letter was issued for the project on July 5, 2000. The JD letter indicates that all of the wetlands on the site are regulated pursuant to Section 404 of the Clean Water Act. The JD letter was issued prior to the SWANCC/Migratory Bird Rule decision and no formal site visits with the ACOE have since been conducted to attempt to classify any of the wetlands as being "isolated". All of the wetlands identified during the site reviews possess hydrological connections with off-site wetlands/Waters of the United States that are part of a tributary system of a navigable waterway. Pending the overall cumulative amount of direct wetland impact proposed by the development, an Individual Permit may be required for the project. An Individual Permit will be required if the cumulative wetland impact exceeds 0.50 acres, the cumulative stream impacts exceed 200 linear feet and/or stormwater management facilities result in direct impacts to wetlands.

2 -- Stormwater Pollution Prevention Plan (SWPPP)

a) *A completed SWPPP is necessary for the accurate assessment of potential impacts on wetlands and other resources, and the subsequent development of effective mitigation.*

A SWPPP and detailed drawings will be required by the DEC to issue the 401 Water Quality Certification and the Article 24 Freshwater Wetlands Permits (if required). A 401 WQC is also required to be obtained in order to get the wetland permit from the ACOE. A SWPPP will be prepared for the entire project, once the final site plan is approved.

3 -- Land

a) *The entire area of disturbance is not described in the SEIS; this includes all areas where existing vegetation will be removed or replaced, areas traversed by heavy equipment, soil stock piles, and stormwater management facilities.*

The entire area of disturbance should be quantified and accurately represented. This information will be required for the ACOE/DEC permits that will be submitted for the project. The entire area of disturbance should be identified as the "Project Limits" on all site plans. The Project Limits shall be defined as the limits of clearing and grading associated with the entire project.

Items 4 and 5 – a through d, include comments based upon engineering issues associated with water resources including hydro-geologic descriptions, impacts to groundwater

discharge and recharge, well construction/depletion, and effects upon the entire watershed as a whole based upon the construction of the subdivision .....

8 – Impacts on Wetlands

a) *Since wetland impacts can be either direct or indirect, both types should be described and addressed in the SEIS. Direct impacts have been addressed, but indirect impacts have not and the SEIS erroneously concludes that there will be no significant impacts on wetlands. All on-site and off-site wetlands that are contiguous will be affected by the project unless all impacts are accurately described and mitigated for.*

Both direct and indirect impacts occurring to wetland areas must be quantified and described within the wetland permit applications to be forwarded to the DEC and ACOE .....

9 – Wetland Mitigation

a) *Wetland Mitigation as proposed in the SEIS will have no effect in reducing the adverse effects of indirect impacts.*

Opinion noted.

10 – Impervious Surface Impact

a) *A total of 32.92 acres of impervious surface will replace soil and vegetation functions within the watershed, including groundwater replenishment and erosion control. The watershed impacts of replacing soil and vegetation with these surfaces are not addressed.*

In order to comply with DEC Phase II stormwater management standards, the project must be designed in a manner that will not increase or reduce the amount and/or quality of water entering down gradient systems. Additional mitigation may be required to replace all functions and values of the soils/vegetation/hydrology lost by the proposed development.

Note: Reduction in impervious surfaces to 19.8 acres has occurred in instance of 132-Unit TND.

11 - Habitat, Plants and Animals

a) *There is confusion as to whether or not the Endangered and Threatened Species Report (and SEIS) is intended to cover only federal and state-listed threatened and endangered species, or whether it is to include rare species as well.*

As is indicated in the introduction and conclusion sections of the Endangered and Threatened Species Report, the site investigation was completed to determine if any of the species identified by the USFWS/DEC, or any other species or supportive habitats not referenced by the USFWS/DEC, is present on the property. Therefore, the site investigation included listed and un-listed rare and or ecologically sensitive/significant species of flora, fauna and vegetative community types.

b) *The Endangered Species report states that one reason rare species are unlikely to be present on the site is the lack of calcareous soils. However, several of the soil types on this site are calcareous in reaction.*

The Endangered and Threatened Species Report does not conclude that a lack of calcareous soils is a reason for the unlikely occurrence of rare species. The report simply indicates that soils that are categorized as being comprised of limestone or calcareous soil complexes are typically associated with rare and/or sensitive species of flora and fauna. According to the USDA Soil Survey of Orange County, New York, of the six soil series identified on the site, only one (Madalin) is listed as being "moderately alkaline, calcareous." This soil type is limited to the large DEC wetland complex that is located within the northeast corner of the site. No development is proposed within this portion of the wetland and a limited amount of impact is proposed within the 100 foot adjacent area.

c) *The field determinations (on October 4, 2007) of the presence or absence of rare species were not conducted during the specific seasons as required for accurate results. Therefore, the results are not complete.*

The site review completed by NCES was limited to October 4, 2007. Unfortunately, time and budget constraints do not allow for a comprehensive species analysis to be undertaken to be able to conduct species-specific presence/absence studies throughout an entire year. The Endangered and Threatened Species Report conclusions were compiled based upon the habitats identified during the site review in October and the previous delineation visits and the existing conditions observed within and immediately adjacent to the proposed development areas. Based upon the habitats identified and the extremely disturbed nature of the site, it was concluded that it is highly unlikely that endangered, threatened and/or rare ecologically sensitive species of flora and fauna would exist. However, the Endangered and Threatened Species Report does not dismiss the fact that rare plant species may be found within central portions of the DEC wetland complex that are located in the northeastern corner of the property. This area has not been significantly disturbed by previous agricultural and/or development activities, however, the vegetative communities have been significantly degraded by invasive wetland plants (Purple Loosestrife and Reed Canary Grass), which have created dense stands that out compete other indigenous vegetation. This area is not located within the project's proposed development area.

d) *The NYS Natural Heritage Letter does not provide documentation for the absence of protected species.*

The letter obtained from the DEC Natural Heritage office indicates that the Natural Heritage database does not possess any "records of known occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats on, or within the immediate vicinity of the site." As a result, the DEC did not provide any information regarding the presence of rare or listed species. The DEC correspondence does indicate that the lack of recorded occurrences does not preclude the site from being reviewed for un-known populations of rare or state listed species. As a result, NCES reviewed the site for rare and/or state listed endangered, threatened and/or special concern species.

e) The SEIS and Endangered Species Report do not address threatened and endangered plants. More than 80 species of NYS threatened and endangered plants may be found in Orange County; a significant percentage of these are wetland dependant species.

The Endangered and Threatened Species Report covers both flora and fauna species. However, the Endangered and Threatened Species report specifically highlights those species that are known to occur based upon DEC and USFWS records. NCES cross-referenced the observed species lists with the DEC's *2007 Rare Plant Species List* and did not identify any plant species that has been listed as endangered, threatened, or rare by the New York Natural Heritage program. As previously mentioned, the proposed development areas have been significantly disturbed by the previous attempts to develop the property and herbivory by White-tailed Deer and as a result, the likelihood of them supporting rare plant species is minimal at best.

f) Rare or protected plants that are associated with wetlands may be affected by indirect impacts to those wetlands.

The majority of the wetlands found immediately adjacent to the proposed development have been significantly impacted by previous farming and failed development activities and are dominated with species of vegetation that are typical of disturbed areas, such as reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*) and late goldenrod (*Solidago gigantea*). These plant species are all tall, invasive herbaceous species that typically out-compete other, less common species. As a result, it was concluded that it is highly unlikely that rare or sensitive species of flora would be adversely impacted by the proposed development.

Those plant species that occur within the central most portions of the wetland complex located within the northeastern corner of the site are comprised of less invasive species, as the area has not been disturbed by prior agricultural activities undertaken at the site. Therefore, slightly higher species diversity is noted in this location. However, these wetlands are dominated by Purple Loosestrife, Common Reed and Reed Canary Grass. No development is proposed in these areas. Given the size of the vegetated buffer (wetlands and uplands) surrounding this undisturbed area,

it is assumed that it is highly unlikely that significant adverse effects will result from indirect impacts associated with the development of the project area.

g) *The SEIS incorrectly assumes that rare species will not be associated with abandoned fields or other previously disturbed agricultural lands and provides no further information. Several rare species prefer such habitat.*

The majority of the proposed development area is comprised of forested upland. An active agricultural field (composed of alfalfa) and early successional fields are also located within the development area ..... Portions of the early successional fields identified are utilized for various recreational purposes including ATV and 4x4 off-road driving. Some of the early successional fields are also routinely mowed by the Utility Company that maintains the access road, adjacent areas and overhead utility corridor that is located in the southwestern corner of the site. As a result of the continued disturbances to these areas, it has been concluded that it is highly unlikely that rare species would currently exist within them.

h) Impacts including habitat fragmentation and loss or disruption of wildlife habitat connections are not addressed.

Note: See "j" and "k" below.

i) As a significant habitat type, vernal pools are not mentioned in the Endangered Species Report. Are any vernal pools present on the site?

Based upon the delineation map, there are no "isolated" wetlands or vernal pools on the Site. No vernal pools were identified by NCES during the wetland delineation or subsequent site visits. All of the wetlands identified within the proposed development areas are surface water depressional and/or surface water sloping wetlands. All of the wetlands are also completely vegetated. None of the wetlands found within the proposed development area exhibited any characteristics of vernal pools.

j) The value of designated open space on the site to wildlife and habitats has not been addressed. Are the most sensitive/important habitats on-site included within the open space areas?

The most ecologically sensitive habitat located on the site is the Palustrine wetlands located in the northeast corner of the site ..... No portion of the "sensitive/important" wetland habitat found in the northeast corner of the site will be directly or indirectly impacted and the majority of all other wetlands have been avoided.

The forested uplands and early successional fields found on the property are composed of vegetative species that are typical of agriculturally disturbed land and are common in the geographic area. Given the species composition and age class observed, these areas are also monotypic. They do not provide habitat to a wide

variety of common or rare/sensitive wildlife species. Therefore, they have not been designated as ecologically sensitive and protection of these areas is not warranted.

All of the remaining, undeveloped wetlands and some forested upland habitats will be preserved as open space. The areas of open space that will consist of the forested uplands are primarily contained along the western property boundary. These areas will remain contiguous with other undeveloped forested uplands found on the adjacent property. The ecologically sensitive habitat will be preserved.

k) *While the SEIS does list several habitats and both pre-and post condition acreages, resultant impacts (and mitigation) on the species that are found in those habitats are not described.*

The predominant impact associated with the development of the property is the displacement of terrestrial fauna species that utilize the forested uplands and early successional fields. These habitats support a narrow range of very common fauna species, and therefore the overall direct impact of the project is minimal .... acres of land containing a terrestrial and aquatic habitats will be preserved.

12 – Recreational facilities

a) *Impacts of the recreational facilities planned for upland open space (Ball fields, skating pond, hiking trails) on wetlands, water quality and habitats have not been described in the SEIS.*

The cumulative impacts of these addendant features of the subdivision will have to be quantified for the DEC and ACOE permit applications. Based upon the review of the proposed site plans, no direct wetland impacts are to occur from the establishment of these recreational facilities. However, potential indirect impacts such as, irrigation/drainage for the athletic fields, chemical/fertilizer infiltration from the athletic fields, impoundment of water for the skating pond and/or future maintenance impacts associated with the hiking trails need to be addressed.

13 – Sewage Treatment

Item 13 includes comments based upon engineering issues associated with sanitary sewer and water resources including, impacts to existing shared facilities associated with adjacent residential developments, proposed sewer facility construction, and effects upon the entire watershed as a whole based upon the establishment of the utilizes. These comments shall be addressed in a separate response to be prepared by licensed engineers.

14 – Unavoidable Impacts

a) *The listing of unavoidable adverse impacts in the SEIS contains numerous impacts that are in fact avoidable or may otherwise be mitigated. Such options are not described.*

Additional/Related information, which should be provided by the SEIS

1 – *Recently released information regarding species of conservation concern to be obtained from the Southern Wallkill Biodiversity Plan (SWBP) and the New York State Comprehensive Wildlife Strategy Plan (NYS CWSP).*

NCES has reviewed the species lists contained within each of the two aforementioned documents regarding rare/sensitive species. Based upon our review of the SWBP, the project site is located within a significant biodiversity area (Otter Creek). Additionally, only two species identified by the SWBP as "Development Sensitive" coincide with what was observed by NCES. These species include wood frog (*Rana sylvatica*) and field sparrow (*Spizella pusilla*). While these species are "sensitive" to development, populations are in stable conditions that the proposed development will not have any significant effect. Based upon the review of the NYS CWSP, it has been determined that only one species is recognized by the NYSDEC as a species of greatest conservation need. This species is the ruffed grouse (*Bonasa umbellus*). The wood frog, field sparrow and ruffed grouse are all very common species throughout New York State. Additionally, the ruffed grouse is categorized as an upland game bird and can be hunted during appropriate seasons.

Due to the time of year when the review was conducted, species of flora and fauna that may be abundant or readily observed during the spring or summer could not be observed and identified for this report. During the autumn, most resident songbirds have already migrated and reptiles, amphibians and some mammals have become dormant and/or nocturnal. As a result, there may be other species that could be found on the site that may coincide with the species lists that are provided by the SWBP and NYS CWSP.

4 – *Several birds of concern including NYS listed Special Concern Species are known to be found in habitats similar to those found onsite, and have been documented in neighboring towns. A breeding bird survey should be conducted.*

NCES consulted the DEC *New York State Breeding Bird Atlas* for known information relative to populations of breeding birds on or within the immediate vicinity of the Site. The Breeding Bird Atlas segregates each individual County into designated blocks and provides information relative to the bird species found within the block. The bird species that have been identified as existing within the block are then separated into three categories to record breeding behavior. These categories are Possible (PO), Probable (PR) and Confirmed (CO).

The project site is located within Block 5558C, in the Town of Goshen, Orange County, New York. According to the Breeding Bird Atlas, there are a total of 75 bird species that exhibit breeding characteristics in the Block. Of these species, 9 are categorized as Possible, 38 are categorized as Probable and 28 species are Confirmed breeding species. When cross-referenced with the NYS Natural Heritage *2007 Rare Animal Status List* (both active and watch lists), only 3 species are found on both lists. These species

include Great Blue Heron (*Ardea herodias*), Coopers Hawk (*Accipiter cooperii*) and Cerulean Warbler (*Dendroica cerulea*). According to the Breeding Bird Atlas, these species were observed within breeding habitat however, breeding was not documented.

No Great Blue Heron nests or rookeries were found on the site during the site review. Herons typically nest in tall trees and are communal nesters. Potential breeding and foraging habitat is present on the site; however, it is limited to the central portions of the DEC wetland complex found in the northeast corner of the property since the majority of the wetland is emergent. This area will not be directly impacted by the development.

No Coopers Hawk or other bird-of-prey nests were identified during the site review. Coopers Hawks typically nest in upland forests in upright crotches (near the trunk) of large, live trees. During the review, only songbird nests and leaf nests (squirrels) were observed.

The Cerulean Warbler nests in the canopy of large deciduous trees located in wooded swamps, stream bottoms and/or along lake/river shores. The majority of the forested areas found within and immediately adjacent to the wetland areas will be preserved and not directly impacted by the development. Therefore, potential breeding and nesting habitat will remain that could be used by potential populations of Cerulean Warblers.

As a result of this information, it has been determined that a breeding bird survey is not warranted.

5 – *Because of the extensive wetlands on-site, a reptile and amphibian survey should be conducted during the appropriate seasons.*

NCES reviewed the information contained within the DEC *Amphibian and Reptile Atlas* (Herp Atlas) regarding information on known occurrences of amphibian and reptile species within Orange County, New York. When cross-referenced with the NYS Natural Heritage *2007 Rare Animal Status List* (both active and watch lists), only 8 species of amphibians/reptiles are found on both lists. These species include, Northern Cricket Frog (*Acris crepitans*), Southern Leopard Frog (*Rana sphenocephala*), Longtail Salamander (*Eurycea longicauda*), Timber Rattlesnake (*Crotalus horridus*), Northern Copperhead (*Agkistrodon contortrix*), Spotted Turtle (*Clemmys guttata*), Wood Turtle (*Glyptemys insculpta*) and the Eastern Box Turtle (*Terrapene carolina*).

The only potential habitat suitable for the listed amphibian species would be within the central most portion of the DEC wetland complex and immediately adjacent to the Otter Kill. These areas possess an adequate water source that is required for amphibian breeding. In addition, this is the only area that would provide habitats that could be utilized by Spotted and/or Wood Turtles. All of the other wetlands found on the site do not possess any permanent water sources and are subject to drought-like conditions, pending amounts of precipitation received during summer months. None of the potential habitat is to be directly impacted by the project.

The property does not possess preferred habitat for Timber Rattlesnakes and/or Northern Copperheads. Timber Rattlesnakes are generally located in deciduous upland forests, in rugged terrain, and most are associated with rock outcrops, steep ledges and talus slopes. Typically, Northern Copperheads use rock outcrops or rocky areas with talus slopes for cover, feeding and for over-wintering. Over-wintering and basking areas are usually located where the snakes can receive maximum sunlight exposure. No talus slopes or rock outcrops were identified that could be utilized by Timber Rattlesnakes or Copperheads as basking sites. No caves, or large fissures/crevasses were identified during the site review that could be utilized as a potential hibernaculum.

Eastern Box Turtles occupy a range of habitats but are mainly terrestrial in nature. They are typically associated with semi-moist deciduous forested uplands that contain a dense understory. They can also be found in wooded swamps and grassy fields. As a result, it has been determined that the property does possess habitats that are conducive to the existence of Box Turtles. However, no box turtles were identified during the review.

In light of this information, it has been determined that an amphibian and reptile survey in not required.

This information has been provided to assist in the compilation of a formal response to be prepared by Esposito and Associates and submitted to the Town of Goshen Planning Board. If you have any questions, or require additional information/clarification of the material contained within this correspondence, please do not hesitate to contact us at any time. Thank You.

Sincerely,

North Country Ecological Services, Inc.

Thomas M. Ward
Vice President/Ecologist

cc: Mr. Art Brod, Planners East, Inc.
Mr. Tom DePuy, P.E., L.S., T.M. DePuy Engineering and Surveying, PC

SEIS Exhibit No. 9A
June 12, 2008 Letter
EIS Preparer to Town Code Enforcement Officer
Re: Interpretation of SR Overlay District Boundary

PLANNERS EAST Incorporated
222 Mountain Road
Greenwich, New York 12834
Plan East @aol.com
Arthur F. Brod Jr., AICP, President

June 12, 2008

Mr. Neal Halloran
Town of Goshen
Town Hall
41 Webster Avenue / P.O. Box 217
Goshen, New York 10924

Re: Lone Oak TND / Applicability of Scenic Road Corridor (SR) Overlay District

Dear Mr. Halloran:

During preparation of the Supplemental EIS required by the Planning Board for the Lone Oak TND proposed by Fini Bros. I have encountered what I believe to be a discrepancy between the depiction of the Scenic Road Corridor (SR) Overlay District on the "Town of Goshen Zoning Map, Overlay Districts", and the description of the location of the SR Overlay District set forth at Zoning Law Section 97-29(B).

The former includes the Arcadia Road frontage of the TND Project Site, being within TMP 11-1-49.2 and the Hamlet Residential (HR) District as set forth on "Town of Goshen Zoning Map, Land Use Districts", to a depth of 500 feet within the SR Overlay District. The latter states as follows with respect to the boundaries of the SR Overlay District:

> "B. Boundaries. The Scenic Road Corridor includes all land in the RU District shown on the Overlay District Map as part of the SR District, lying within 800 feet of the right-of-way on NY State Routes 17M and 17A or within 500 feet of any other roads shown on the Overlay District Map."

Am I not correct in interpreting the language of above-cited Section 97-29(B) to exclude the frontage of the TND Project Site from the SR Overlay District in that the underlying land use district is HR and not RU and, on this basis, being of the opinion that the SR Overlay District is inaccurately depicted on the "Town of Goshen Zoning Map, Overlay Districts" in its inclusion of the frontage of TMP 11-1-49.2 within the SR Overlay District?

Thank you for your consideration of, and anticipated response to, this inquiry.

Sincerely,

Arthur F. Brod Jr., AICP

Copies: Fini Bros. (Attn: Albert Fini) and Esposito & Associates (Attn: Steven Esposito)

SEIS Exhibit No. 9B
July 2, 2008 Letter
Town Code Enforcement Officer to EIS Preparer
Re: Determination of SR Overlay District Boundary

TOWN OF GOSHEN
OFFICE OF THE
BUILDING AND ZONING INSPECTOR
TOWN HALL
P.O. Box 217
GOSHEN, NEW YORK 10924
TELEPHONE: 845 294-6430x 226

July 2, 2008
Mr. Arthur F. Brod Jr.
222 Mountain Road
Greenwich, New York 12834

In re: Lone Oak TND/Scenic Road Corridor Overlay District

Dear Mr. Brod:

§97-29(B) does exclude that part of S.B.L. 11-1-49.2 that would be within 500 feet of Arcadia Road, as it is currently zoned and proposed to be used. So as this project as currently proposed in the SEIS, would not be impacted by this section of the code.

However, I have not taken the time to review whether that exclusion would carry through, if this or similar parcels were to revert to the RU zoning, due to the lack of sewer and water required for the HR zoning to be applicable. In as much as this application is not considering that usage, I am withhold that interpretation for a future time if needed.

Respectfully submitted,

Neal Halloran
Building and Zoning Inspector

SEIS Exhibit No. 10
Zoning Law Section 97-24, Affordable Housing

§ 97-24. Affordable housing. [Amended 7-28-2005 by L.L. No. 9-2005]

In any open space or TND development in which affordable housing is provided, it shall comply with the following requirements.

A. Purpose. The Town Board of Goshen hereby recognizes that there is a lack of opportunity for individuals, couples and small families with moderate incomes to find housing that is affordable in the Town of Goshen. The Town Board further recognizes that there is a need to encourage the construction of housing units for rental or sale that will be affordable to households earning between 60% and 150% of the Orange County (Town of Goshen) median income and to ensure that these units remain affordable in perpetuity for the benefit of current and future residents of Goshen.

B. Definition of affordable housing units. As used throughout this section, the term "affordable housing unit" refers to a single- or multifamily housing unit that is owned or rented by an eligible household and priced so as to be affordable to the people who live and work in the Town and Village of Goshen who cannot otherwise afford market-rate housing.

C. Development standards.

(1) Physical integration. All affordable housing units must be physically integrated into the design of the development and constructed with the same quality building materials as the market-rate units. The exterior finishes for affordable housing units shall be indistinguishable from all other units. The developer may, however, substitute different appliances and interior hardware or other interior finishes where such substitutions would not adversely impact the livability of the unit. The affordable housing units shall be integrated with the market-rate units in such a manner that no more than two affordable housing units abut one another.

(2) Minimum floor area. The gross floor area per affordable housing unit shall be no less than 80% of comparable market-rate units in the development or meet the following minimum gross floor area standards, at the discretion of the Planning Board:

Unit Type	Minimum Floor Area (square feet)
1-bedroom	700
2-bedroom	900
3-bedroom	1,100
4-bedroom or more	1,500

(3) Dwelling unit size and distribution. Affordable housing units shall be located throughout the development and be distributed among one-, two-, three- or four bedroom units, in multifamily, single-family attached and single-family detached dwellings, in the same proportion as all other units in the development. However, if the total number of single-family detached dwelling units in the entire development equals or exceeds 50% of the total number of proposed dwelling units in the development, then the Planning Board may, upon request, reduce the required percentage of single-family detached affordable housing units to 20% of the total number of affordable dwelling units. The remaining affordable units shall be built as multifamily and/or single-family attached units and the number of bedrooms shall be in proportion to all other units in the development.

(4) Phasing.

(a) For any project that will be built in phases (or stages), the following schedule shall apply for all affordable housing units:

Percentage of Market-Rate Units	Percentage of Affordable Units

Receiving Certificates of Occupancy	Receiving Certificates of Occupancy
Up to 25%	0 (none required)
25% + 1 unit	At least 10%
50%	At least 50%
75%	At least 75%
100%	100%

(b) Certificates of occupancy shall be issued for market-rate units when the required percentage of affordable housing units for the respective phase (stage) has been completed.

(5) Waiver of permit and other fees. The Planning Board, at its discretion, may waive any site plan, subdivision and other fees directly related to the affordable housing units in an effort to assist the applicant/developer in reducing development costs. Similarly, when a recreation fee is calculated in lieu of an approved reservation of recreation lands, the Planning Board may calculate such fee based on the total number of dwelling units exclusive of those which are affordable units.

D. Determining applicant eligibility:

(1) Income limits. To be eligible to purchase or rent an affordable housing unit, the household's aggregate annual income shall not exceed an established percentage of the Orange County median family income for a family of a particular size as determined by the US Department of HUD, and/or the Town Board.

(2) Other assets:

(a) Any family with net assets exceeding 50% of the cost of a two-bedroom affordable housing unit is deemed ineligible to own or rent an affordable housing unit.

(b) Any non-income-producing assets may be assigned an income-producing value and included as income by the reviewing agency when determining eligibility.

(c) The net worth of an applicant (individual or family) may not exceed 25% of the purchase price of an appropriate affordable unit.

(3) Certification of income. Families must declare to the best of their knowledge that their income will not exceed 1.5 times the limits as set by the Town Board for three years from the date of application.

E. Selection priorities. Once an applicant is determined to be eligible to participate in the affordable housing program based on income limits as set forth above or as amended by resolution of the Town Board from time to time, priority preference will be given to applicants on the basis of the following factors. An "applicant" shall be defined to include any and all family members who have reached the age of majority and who will occupy the affordable housing unit as their primary residence. Applicants seeking priority preference based on voluntary service or employment must provide a certification letter from an authorized person within such organization attesting to the applicant's length of volunteer service or employment.

(1) Volunteer Fire Department or Ambulance Corps members with a minimum of 24 months' consecutive active service: (three points) maximum six points per family.

(2) Paid emergency service personnel, including police, fire and emergency medical services, with a minimum of 24 months' employment: (two points) maximum four points per family.

(3) Village and Town of Goshen full-time municipal employees, minimum of 12 months' employment: (two points) maximum four points per family.

(4) School district employees for any schools that provide educational services to students who live in Goshen, minimum of 12 months' employment: (two points) maximum four points per family.

(5) Veteran of US Armed Services, honorably discharged: (two points) maximum four points per family.

(6) Health care workers, including skilled professions such as nurses and medical technicians, as well as orderlies working at a facility that regularly serves patients from Goshen, with a minimum of 12 months' employment: (one point) maximum two points per family.

(7) Elderly (65 years of age or older) or disabled residents of the Town: (one point).

(8) Persons employed in the Town or Village of Goshen: (one point) maximum two points per family.

(9) Town residents who reside in the Town or their immediate relatives (children or parents): (one point) maximum two points per family.

(10) Former residents who resided in the Town: one point per family; two points per family. Editor's Note: So in original; wording reflects L.L. No. 9-2005 as enacted.

(11) Other residents of Orange County: (one point) maximum one point per family.

F. Occupancy requirements.

(1) Standards. To prevent underutilization of affordable housing units, at the time of purchase or rent, the following schedule of minimum occupancy shall apply:

Number of Bedrooms	Minimum Number of Persons
1	1
2	2
3	3
4	4

(2) Residency. All affordable housing units shall be the primary residence of the owners or renters. Owners may not rent their unit to others and renters may not sublet their unit. These restrictions shall not apply to the developer of the affordable units. Partial rentals, such as renting out a bedroom, and seasonal rentals are also prohibited.

G. Initial sale and resale of affordable housing units.

(1) Financial counseling. The Town Board will periodically provide financial counseling workshops which shall be open to all eligible applicants interested in purchasing an affordable housing unit. Attendance at a counseling workshop shall be a prerequisite to purchasing an affordable housing unit.

(2) Calculation of initial sales price. Maximum sale price shall be set by resolution of the Town Board and amended from time to time after review of relevant information that may be provided by federal and state affordable housing departments, as well as developers. The initial sales price of a unit shall be calculated such that the annual cost of the sum of principal, interest, taxes and insurance (PITI) and common charges, as applicable, shall not exceed 30% of the maximum family income allowed for such unit.

(3) Resale of affordable housing units:

(a) Affordable housing units shall only be resold to eligible moderate income

households of substantially similar size.

(b) The owner of an affordable housing unit shall notify the Town Board, or an appropriate department as may be designated by the Board, of their intent to sell prior to contact with any realtor or purchaser.

(c) The maximum base resale price shall be set by resolution of the Town Board and amended from time to time. The maximum base purchase price shall be calculated to include the purchase price of the affordable housing unit, adjusted for the increase in the consumer price index during the period of ownership. At no time shall the total resale price exceed the base purchase price, as set forth above, plus the cost of permanent fixed improvements and reasonable and necessary resale expenses.

(d) The subdivision map, original deed and any subsequent deeds or instruments used to transfer title to an affordable housing unit shall include a provision indicating that the housing unit is an affordable housing unit subject to restrictions on occupancy and resale. Evidence of the inclusion of such restrictions on, at a minimum, on the filed subdivision map shall be made prior to issuing a certificate of occupancy for any unit in the subdivision. The following paragraph or such language and/or additional restrictions as the Town Board may deem appropriate must be included in all deeds and other transfer instruments:

"This dwelling has been constructed for use by moderate income families pursuant to a special affordable housing program established under the Goshen Town Code and must be the principal dwelling of the homeowner. All future sales, resale or rental of this dwelling must be to a person who is determined to be eligible pursuant to the income limitations set forth by the Goshen Town Board and at a price determined in accordance with the Town's affordable housing program." If any affordable housing unit is sold for an amount in excess of the maximum amount as set by the Town Board or the provisions of the Town's Zoning Code (Chapter 97), the Town retains the right to recapture the excess payment or unit as it deems appropriate.

H. Initial lease and renewals of affordable housing rental units.

(1) Calculating permissible rent. Maximum monthly rent, including utilities (heat, hot water and electric), shall be set by resolution of the Town Board and amended from time to time after review of relevant information that may be provided by federal and state affordable housing departments, as well as developers. Rent for an affordable housing unit shall include an estimated cost for utilities and shall not exceed 30% of the maximum family income allowed for such unit.

(2) Lease terms and renewal. Applicants for affordable housing rental units shall, if eligible and selected for occupancy, sign leases for a term of not more than two years. As long as the resident remains eligible and has complied with the terms of the lease, said resident shall be offered a renewal every two-years. If at any time during the term of the lease, a resident's annual gross income should exceed the maximum income limit as set by the Town Board, said resident must notify the Town Board and owner of the rental unit in writing within 30 days. Such resident may complete his/her current lease term and shall be offered a market-rate rental unit in the development, if available. In the event such market-rate unit is not available, or in case of hardship, the tenant may apply to the Town Board for such relief as may be available.

(3) Town Board review. All lease terms shall be reviewed and approved periodically by the Town Board, or an appropriate department as designated by the Board.

I. Maintenance, upkeep and repairs.

(1) All affordable housing units shall be maintained in a satisfactory manner as prescribed by the Town Board, or by an appropriate department as may be designated by the Board. Neither owners nor renters of affordable housing units shall make any improvements, which shall require a building permit, without prior written permission from the Town Board or an appropriate department as may be designated by the Board. Under no circumstances shall the Town Board or any agency or department approve any addition in size to the structure. The original square footage of the unit shall be maintained throughout the unit's existence.

(2) All affordable housing units shall be maintained at the original builder's specification level. At the time of resale, the Town Board may determine that the unit has not been properly maintained and shall be authorized to impose such assessments as necessary to reasonably return the unit to its original condition. Said assessment shall be deducted from that portion of the selling price reverting to the seller of the unit.

J. Tax assessment. The Town Assessor shall consider the limited resale value of affordable housing units when determining the appropriate assessment on such units.

K. Administration. A Housing Review Board is hereby established, which is responsible for the administration of the affordable housing program. The following list identifies the responsibilities and duties of a Housing Review Board:

(1) Accept and review applications;

(2) Maintain eligibility priority list, annually certify and recertify applicants.

(3) Establish lottery procedures for selecting applicants that have equal priority;

(4) Assist Town Board/Planning Board in determining and reviewing applications to build affordable units;

(5) Recommend annual maximum income limits; rental prices; resale values.

(6) Review certification from owners and lessors of rental units certifying that units are occupied by eligible families.

(7) Maintain list of all affordable units in the Town;

(8) Review all deed restrictions for affordable units;

(9) Review all lease terms for affordable units; and

(10) Promulgating rules and regulations as necessary.

L. Appeals. Any person aggrieved by a decision of the Housing Review Board may appeal such decision to the Town Board.