

Stone Mountain Business Park

Winchester, NH

Feasibility Study

September 29, 2015



September 29, 2015

1520031

Selectboard
Town of Winchester
1 Richmond Road
Winchester, NH 03470

Re: Stone Mountain Business Park Feasibility Study

Dear Selectboard:

Holden Engineering & Surveying, Inc. (*HOLDEN*) appreciates the opportunity to submit this 9/29/2015 feasibility report for the Stone Mountain Business Park in Winchester, NH. This report highlights the advantages for developing this site, discusses potential requirements for offsite infrastructure improvements, and provides construction cost estimates.

This property is strategically located to provide an ample employee base, proximity to I-91 and major airports, and access to markets in regional high-density population areas. Tax advantages for businesses in Winchester will also be a plus. Our overall positive assessment of this location is reinforced by the many manufacturers that have already chosen to operate in and near Winchester.

The property is zoned as industrial and can support more than 500,000 square feet of environmentally friendly manufacturing / office space. This report presents two different development concepts for multiple building footprints of different sizes that will attract diverse businesses.

The site is well drained and the easterly end of the property contains plenty of fill material that can be excavated for use as fill on other parts of the site. High-speed Internet, 3 phase power, and municipal gravity sewer connections are also available at this property location. Depending on the types of manufacturers on the site, the Winchester Wastewater treatment plant capacity may need to be increased. Municipal water is available for the site and will likely require an onsite water storage tank or offsite water main capacity improvements. Potentially, the first business(es) on the property may not require a tank or water main improvements if the buildings are less than 10,000 square feet or have fire proof partitions to created spaces less than 10,000 square feet that do not require fire sprinklers.

This report also provides discussion for projected traffic volume due to different development scenarios for the property. Preliminary analysis of traffic flow indicates that offsite municipal roadway improvements may be required and can potentially be done in phases as the property is developed.

Overall, this strategically located property looks like a good candidate for development at a reasonable cost to prospective businesses seeking a desirable location.

If you have any questions regarding this study, please contact me at (603) 472-2078.

Sincerely,



Peter Holden
Holden Engineering & Surveying, Inc.

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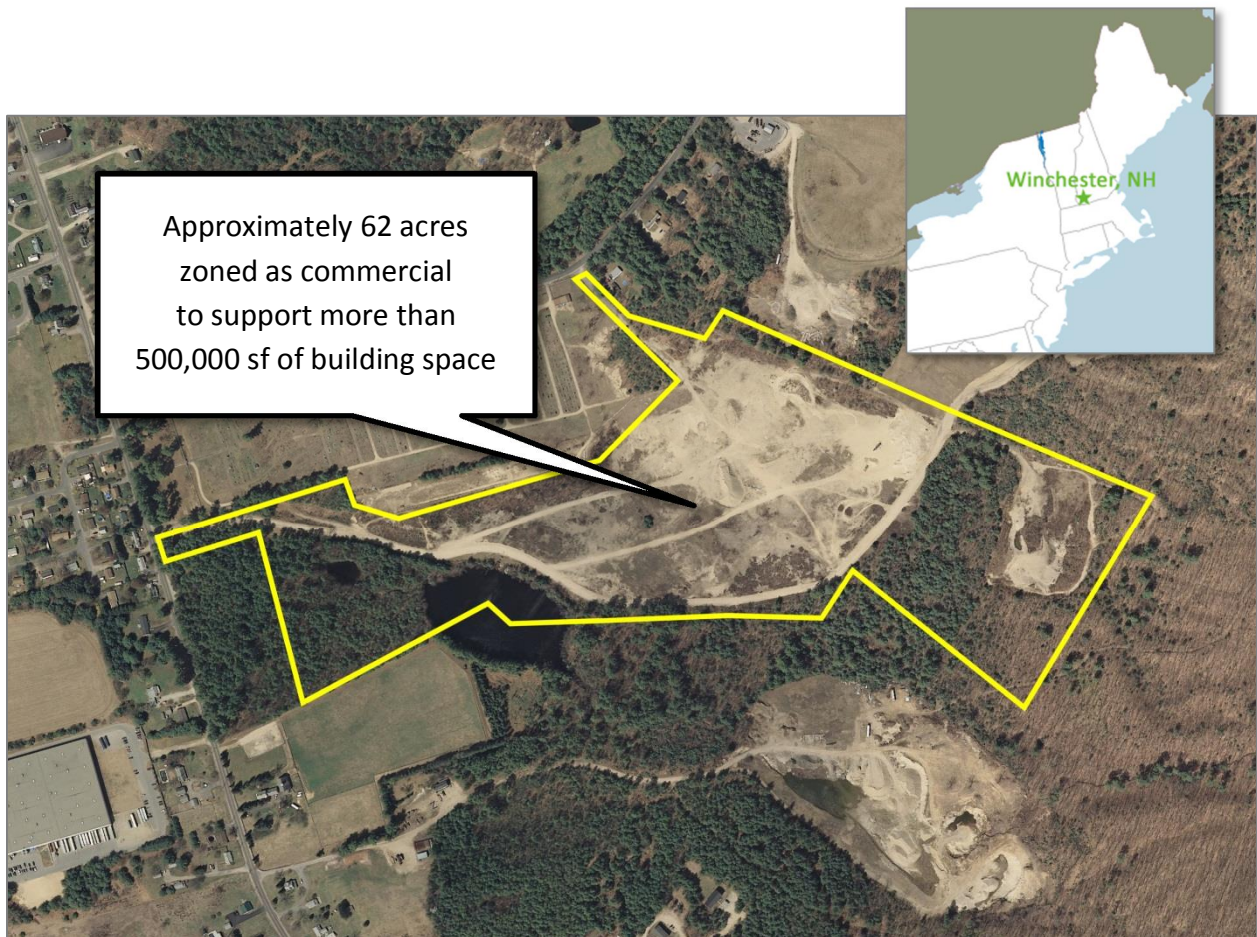
Winchester, NH – Stone Mountain Business Park

Property Development Prospectus

Overview

The Town of Winchester, NH is seeking environmentally friendly businesses and manufacturers who are interested in building new facilities at a strategic location in the greater New England area. The property is zoned as commercial and can support more than 500,000 square feet of manufacturing / office space with suitable access to multiple airports and major cities in the Northeast. Available for immediate development, this strategic location is poised to accommodate corporate headquarters offices and/or manufacturing facilities for regional, national, and international distribution of products.

For a listing of permitted uses within a Winchester commercial zone, refer to Article XXII – Table of Permitted Uses included in the *Town of Winchester, NH - Zoning Ordinance*.



Proven Strategic Location

Local Manufacturers Already in the Area

Stone Mountain Business Park is located in southwestern New Hampshire in the Town of Winchester. Proven to be a strategic location, this area of New England already supports many manufacturing industries and offices. The table below provides a partial list of these business offices and/or manufacturing facilities within 30 miles of this Winchester location.

Company	Manufacturer of:	Distribution
BETE Fog Nozzle, Inc.	Nozzles	International
Bradford Machine Co.	Aerospace and medical components	National
Clear Solutions Displays	Display items used in retail	National
FiberMark North America, Inc	Fiber based specialty materials	International
Filtirne Manufacturing Co.	Product for liquid chilling, liquid dispensing, and water filtration	National
FulFlex, Inc.	Elastics	International
G.S. Precision, Inc.	Aerospace and aircraft components	National
Miltronics Manufacturing Services, Inc.	Electronic components for military use	International
New Hampshire Ball Bearings, Inc.	Specialty ball bearings	International
The Keeney Manufacturing Company	Plumbing products	National
Rugg Manufacturing Co. Inc.	Snow, yard, and gardening tools	National
Samson Manufacturing Corp.	Firearm parts and accessories	International
The Small Corporation	Museum display units	Northeast
Turmoil Machine Co.	Machine tool cooling devices	National

Population Draw for Employees

As evidenced by other manufactures nearby, the greater Winchester, NH area represents a sizable population draw for recruiting employees.

Commuting Radius to Winchester, NH (miles)	Approximate Population*
15	94,000
25	226,000
50	1,900,000

* Estimates from www.freemaptools.com

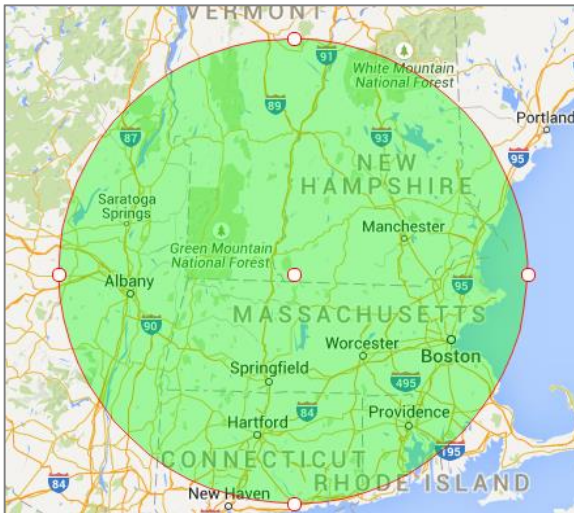
Proximity to High-density Population Markets

Winchester, NH is within a short distance to more than 10 million people and within 400 miles of more than 50 million people, representing a significant sales base for many market types.

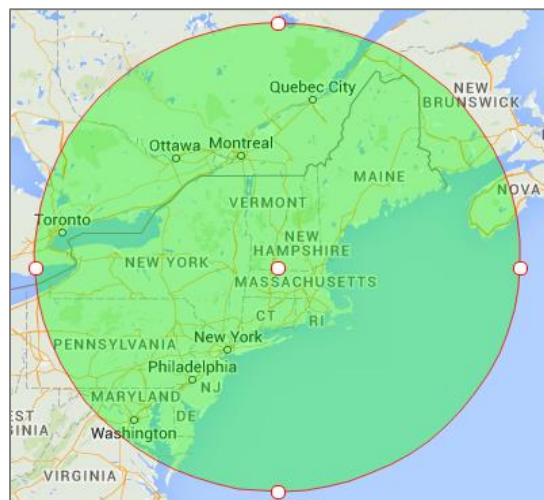
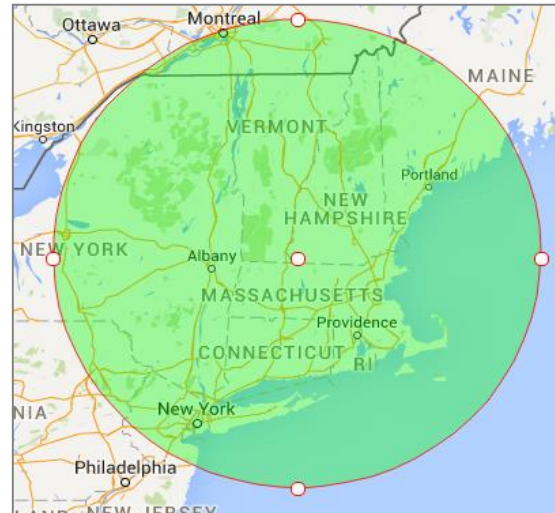
Population Area	Radius from Winchester, NH (miles)	Approximate Population*
Local	100	11,600,000
Region	200	38,000,000
Northeast	400	70,000,000

* Estimates from www.freemaptools.com

Local



Region



Access to Cities, Airports, and Recreation Areas

Winchester, NH is a family-friendly town centrally located between Albany, NY to the west, Boston, MA, Manchester, NH, & Portsmouth, NH to the east, and Springfield, MA & Hartford, CT to the south. Conveniently located near state parks, Green Mountain National Forest, and major ski resort areas, Winchester will be an attractive draw for recruiting and keeping an employee base for professional businesses and manufacturers.

Travel Time from Stone Mountain Business Park in Winchester, NH

Traveling To:	Distance (miles)	Time (hrs:min)
ROADS		
I-91 North & South	13	0:18
I-90 East & West	53	0:55
I-89 North & South	57	1:10
I-84 East & West	85	1:25
CITIES		
Brattleboro, VT	15	0:20
Springfield, MA	60	1:00
Concord, NH	65	1:20
Hartford, CT	85	1:25
Manchester, NH	80	1:30
Boston, MA	95	2:00
Portsmouth, NH	120	2:10
Providence, RI	115	2:10
Albany, NY	95	2:15
Burlington, VT	165	2:45
Portland, ME	170	2:55
New York City	200	3:50
Philadelphia, PA	305	5:30
Washington, DC	425	7:35

Traveling To:	Distance (miles)	Time (hrs:min)
AIRPORTS		
Keene Dillant Hopkins Airport	15	0:25
Worcester, MA Regional Airport	52	1:15
Manchester-Boston Regional Airport	80	1:30
Bradley International Airport . Hartford, CT	75	1:30
Logan Airport . Boston, MA	95	2:00
T.F. Green Airport . Warwick, RI	115	2:10
Burlington VT International Airport	165	2:45
AMTRAK		
Brattleboro, VT	15	0:20
RECREATION		
Pisgah State Park	5	0:12
Bear Mountain State Forest	12	0:22
Wantastiquet Mountain Natural Area	15	0:30
Fort Drummer State Park	15	0:30
Six Flags New England	60	1:15
Mount Snow Ski Area	60	1:20
Stratton Mountain Grand Summit Resort	50	1:20

About the Property

This development property is a former sand and gravel pit site that is conveniently accessible from Forest Lake Road and Richmond Road (Route 119) in Winchester, NH. The site is comprised of the combined area of multiple parcels in Winchester, NH. Specifically, these parcels are recorded in the Town of Winchester, NH – Cheshire County Tax Map 6 as parcels 15, 16, 17, and 20.

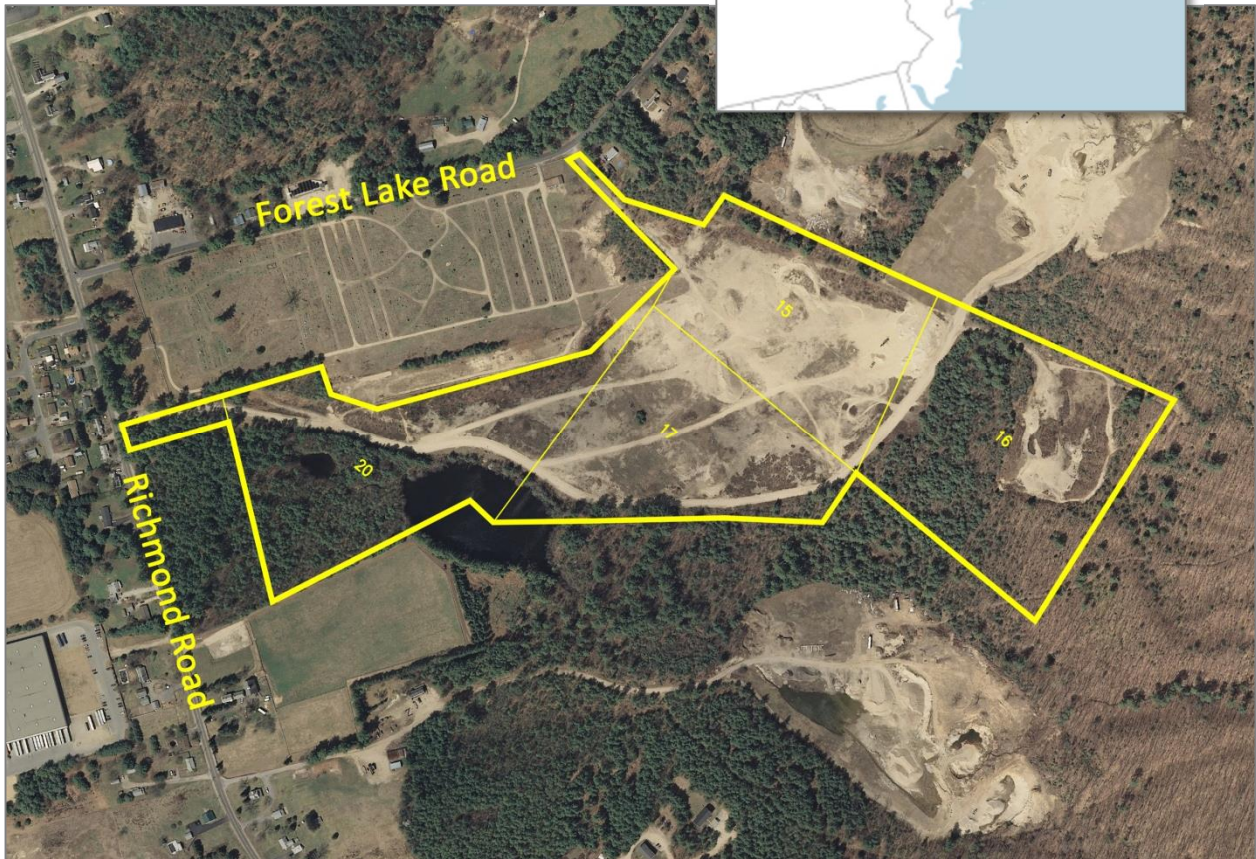
#15 = 15.23 Acres

#16 = 17.69 Acres

#17 = 11.53 Acres

#20 = 17 Acres

The total area is approximately 62 Acres. and is located in a Commercial Zone.



Tax Advantages

Since this property is located in Winchester, NH, there are no Town, County, or State sales taxes. Additionally, NH residents working at this site will pay no state income taxes. These zero tax rates help to attract and keep employees who will work in these facilities.

Business Park Concepts

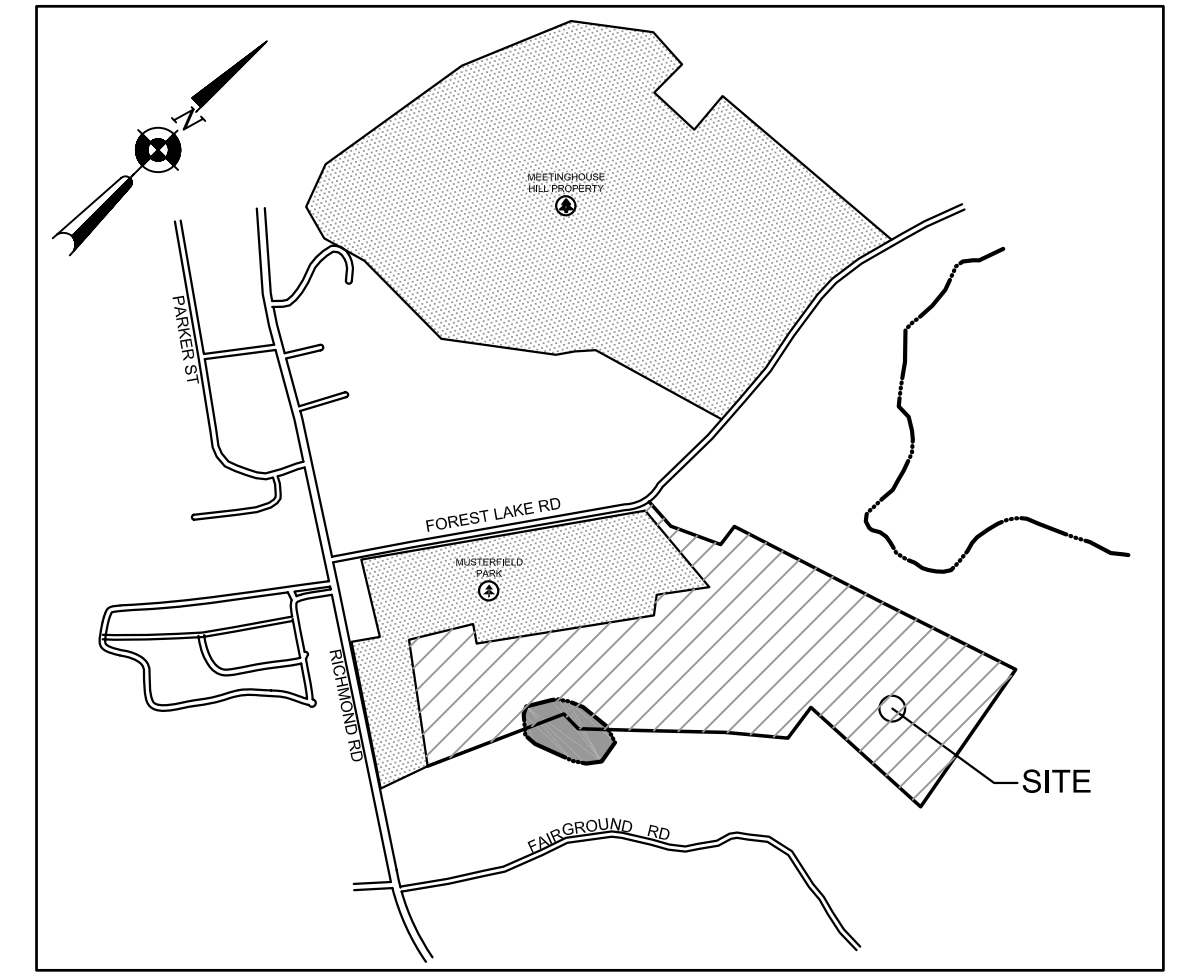
Holden Engineering & Surveying, Inc. has prepared two development concepts for this site to demonstrate some examples of building footprints that can be effectively placed within the site with full access to all required utilities. The Town of Winchester also welcomes the opportunity to discuss other concepts or features that may also be desirable to developers or businesses interested in the property.

Concept A	Concept B
Building Footprint (square feet)	Building Footprint (square feet)
40,000 sf	40,000 sf
40,000 sf	200,000 sf
50,000 sf	50,000 sf
50,000 sf	75,000 sf
50,000 sf	<u>150,000 sf</u>
75,000 sf	
<u>150,000 sf</u>	
455,000 sf	515,000 sf

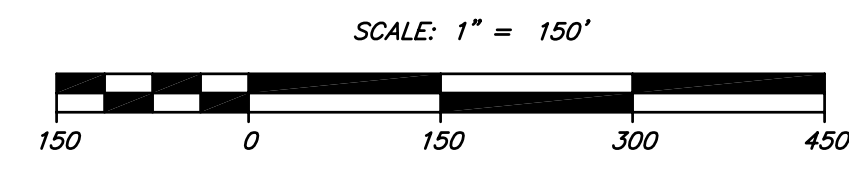
Taxes in Winchester, NH	Rate
SALES TAX	
Town	0%
County	0%
State	0%
Total Sales Tax	0%
INCOME TAX	
State . Employee	0%
State . Business	8.5% (Flat Rate)
PROPERTY TAX	
Town + State	\$30.58 (per \$1,000)
Equalization Rate	105.9%

Entrance Roads to the Site

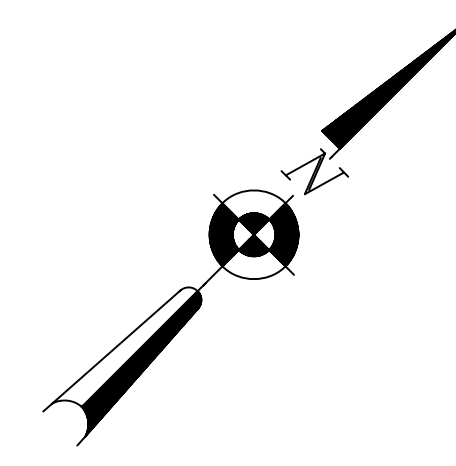
The main entrance into the site will be from Richmond Road. A second entrance will provide emergency access from Forest Lake Road. This secondary entrance can be gated to eliminate traffic to/from the site onto Forest Lake Road, except in the case of an emergency.



VICINITY



SCALE: 1" = 150'



- Existing SMH Rim 475.3
Inv. In 460.49
Inv. In 460.38
- Existing Water Shut-Off
- Existing Catch Basin
- Existing SMH (Paved Over)
- Existing Catch Basin
- (3) Existing WSO's
- Existing WSO
- Existing U-Pole w/Light
- Existing SMH Rim 476.1
Inv. In (S) 462.41
Inv. In (W) 462.59
Inv. Out 462.32
- Existing Hydrant
- Existing Fence (Typ.)
- Existing Dense Trees (Obscured Area)
- Existing Gravel Drive
- Existing Gravel Parking Area
- Existing SMH Rim 475.4
Inv. In 463.76
Inv. Out 463.70
- Existing Water Meter
- Existing Dense Trees (Obscured Area)
- Existing SMH Rim 474.5
Inv. In 464.89
Inv. Out 464.85
- Existing Street Light (Typ.)
- Existing Edge Of Obscured Area

FOREST LAKE ROAD

RICHMOND ROAD

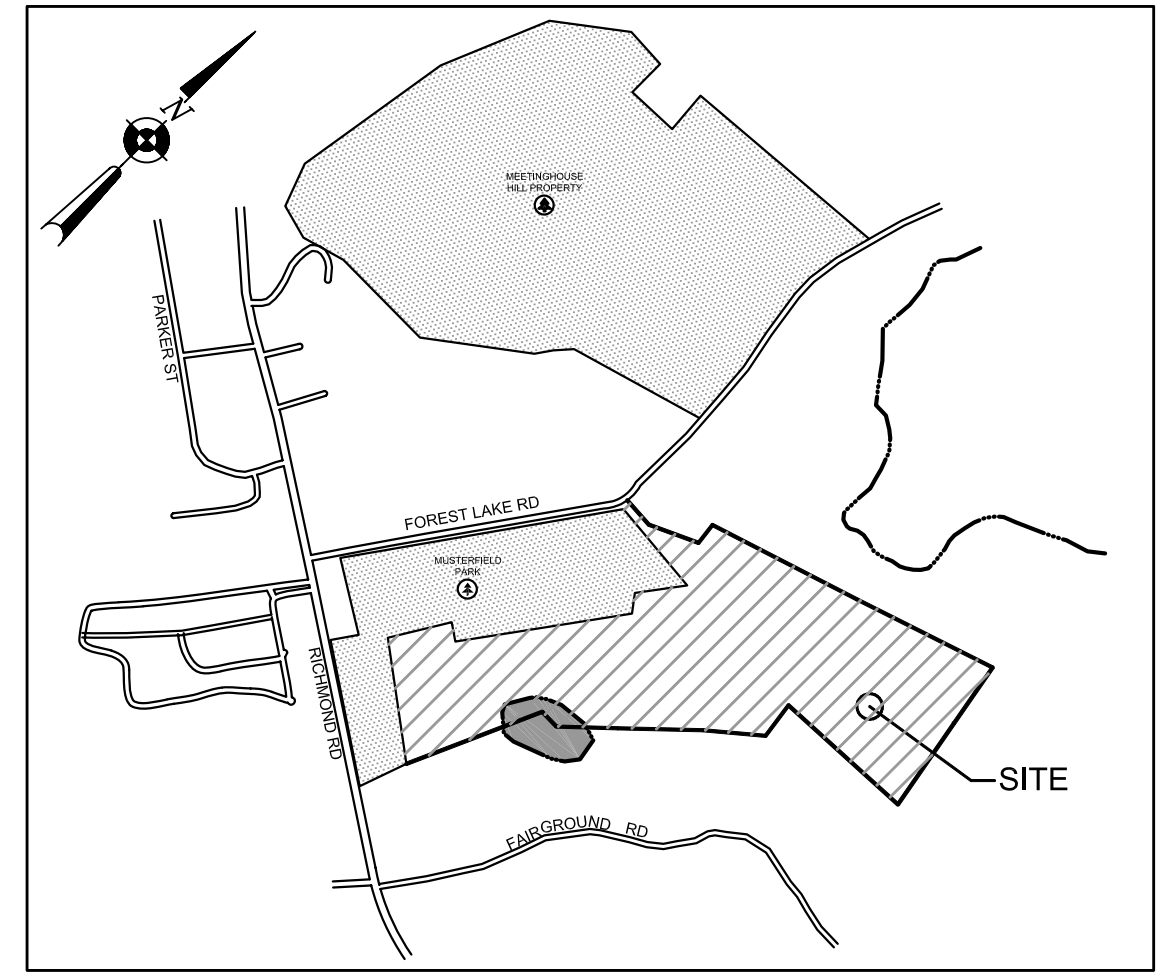
TOWN OF WINCHESTER, NEW HAMPSHIRE
 PRELIMINARY SITE PLAN – CONCEPT "A"
 FOREST LAKE ROAD – WINCHESTER, NH

56 Old Sacoak Road – Unit #4
 PO Box 480 Concord, NH 03302
 (603) 225-6449
 9 Constitution Drive
 Bedford, NH 03110
 (603) 472-2078

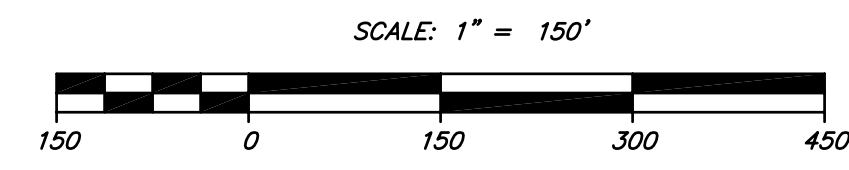
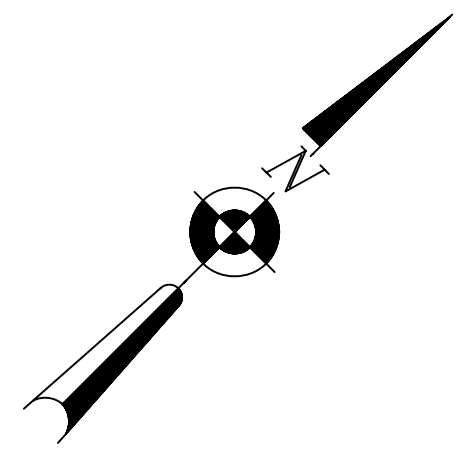
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 Sheet No. 1 of 3

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VICINITY



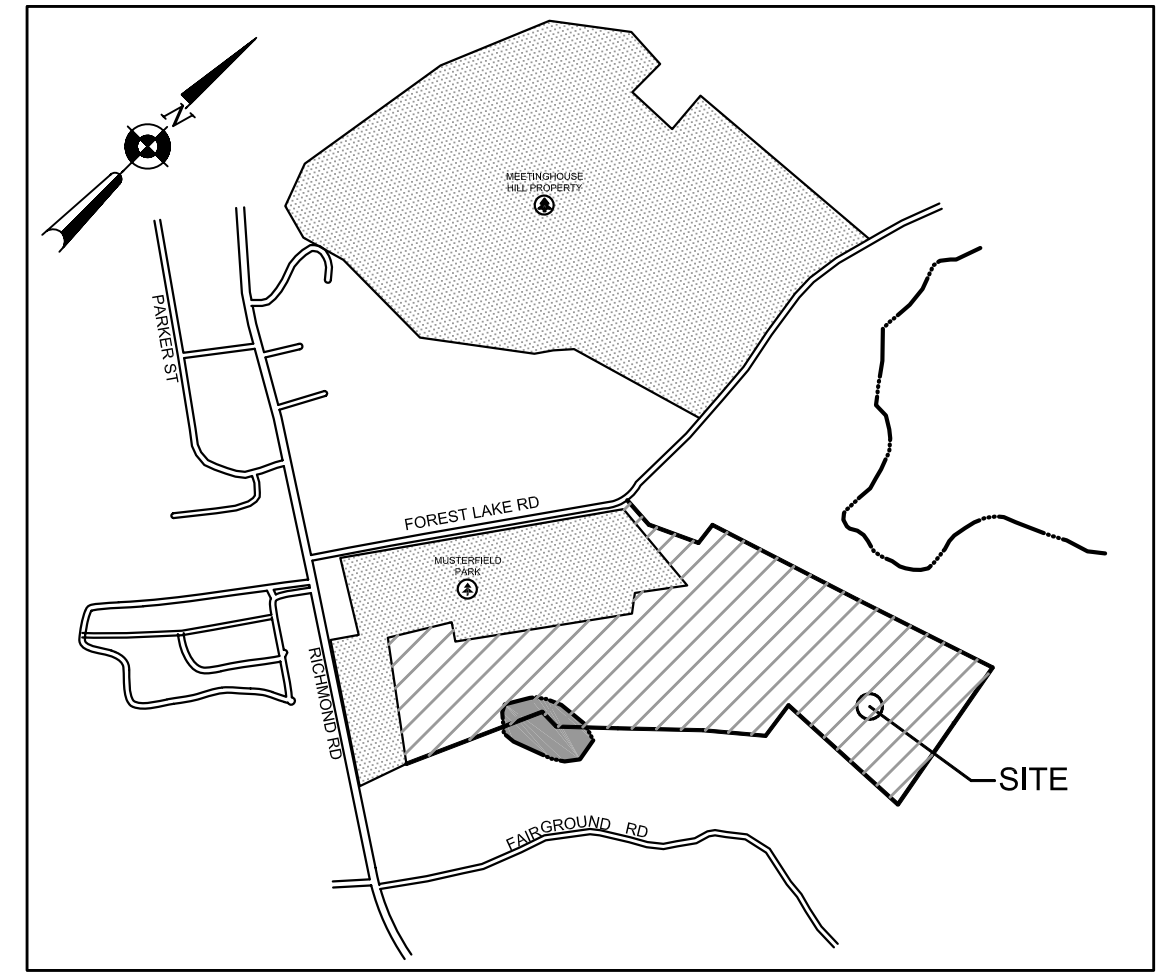
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HOLDEN ENGINEERING & SURVEYING, inc.

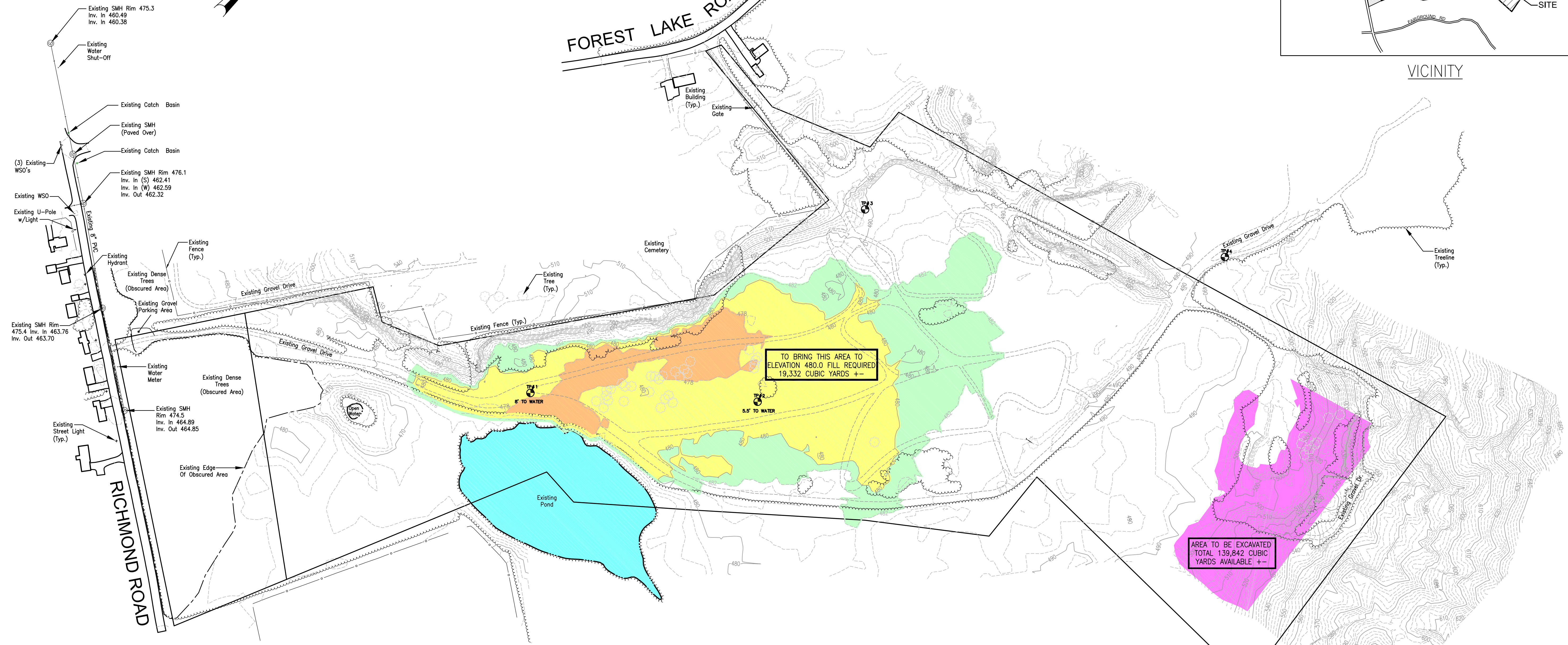
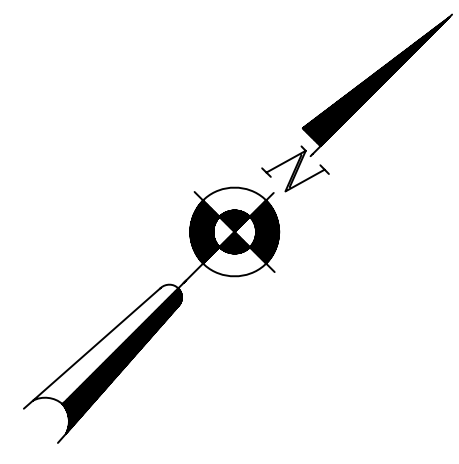
56 Old Sacoak Road - Unit #4
 PO Box 480 Concord, N.H. 03302
 (603) 225-6449
 9 Constitution Drive
 Bedford, N.H. 03110
 (603) 472-2078

TOWN OF WINCHESTER, NEW HAMPSHIRE
 PRELIMINARY SITE PLAN - CONCEPT "B"
 FOREST LAKE ROAD - WINCHESTER, NH

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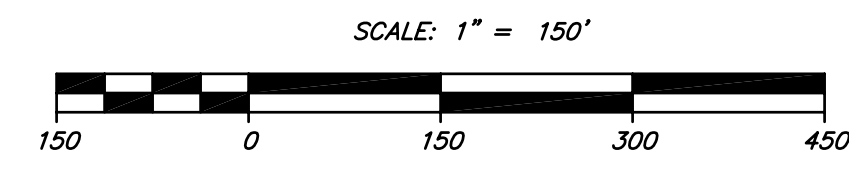
VICINITY



TO BRING THIS AREA TO ELEVATION 480.0 FILL REQUIRED 19,332 CUBIC YARDS +/-

AREA TO BE EXCAVATED TOTAL 139,842 CUBIC YARDS AVAILABLE +/-

- AREA REQUIRING 2' OF FILL
- AREA REQUIRING 4' OF FILL
- AREA TO BE EXCAVATED



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HOLDEN ENGINEERING & SURVEYING, inc.

56 Old Sacoak Road - Unit #4
PO Box 480 Concord, N.H. 03302
(603) 225-6449
9 Constitution Drive
Bedford, N.H. 03110
(603) 472-2078

TOWN OF WINCHESTER, NEW HAMPSHIRE
PRELIMINARY SITE PLAN - PROPOSED CUT & FILL
FOREST LAKE ROAD - WINCHESTER, NH

DATE:	REVISION DESCRIPTION	DATE:	DR. CHK. BY BY	BOOK	PAGE	Date:
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						Scale: 1" = 150'
						Drawn By: DS/REL
						Checked By: DJ
						Job No: 1520031
						Sheet No. 3 of 3

Utilities

Electric (3 Phase Power)

The site can be connected to 3 Phase Power that is available along Richmond Road. A connection extension of about 6,000 feet will be required to bring this power from Richmond Road to all of the buildings on the site. The cost of the extension is approximately \$50 per foot and will not be paid for by the power company.

High-Speed Internet

High-speed 150/20 Mbps (speed geared for businesses) Internet is currently available through Comcast along Richmond Road. Internet connection costs for the site should be negligible because the Internet cable can be installed on the same power poles that will be required for 3 phase power.

Drainage

Stormwater runoff will be detained onsite in order to treat the stormwater and allow infiltration back into the groundwater. There is an existing pond on the site, but untreated runoff cannot be discharged into existing ponds, so this pond will not be used for stormwater detention. The center of the site will be raised to maintain a minimum of 4 feet above high water table to allow for more economic stormwater treatment and disposal.

Municipal Sewer and Water

The site is serviced by municipal sewer and water. We contacted Rick Meleski the Winchester Water and Wastewater Treatment Facility Superintendent to collect information on the condition of the existing sewer and water.

Sewer

The site is serviced by an 8 inch diameter municipal sewer line in Richmond Road. Elevations of the existing municipal sewer in Richmond Road were collected and compared to the elevations of the ground at the site. A new gravity sewer line constructed into the proposed industrial park could service the entire park without the need for a pump station.

The Superintendent indicated that the maximum gravity flow in that line appeared to fill the pipe about one third full. The existing eight inch line has a considerable amount of capacity for additional flow. In industrial settings, wastewater generation is generally constant throughout the day which would allow even sewage flows from a large number of employees to be spread out over an entire shift which would make the average daily flow relatively small compared to some other users.

The Superintendent’s September 10, 2015 letter (see Appendix A) indicates that there are two pump stations, the Pump Road pump station and the Bilo pump station, which periodically pump into the 8-inch gravity sewer main on Richmond Road. The letter also indicates that once the actual sewer loadings can be estimated from perspective manufacturer(s) for the business park, more precise calculations will need to be performed in order to determine the available capacity of the 8-inch gravity sewer main.

Per the superintendent, the wastewater treatment plant capacity and average daily inflows to the wastewater plant are shown in the table below in MGD (million gallons per day). The projected wastewater loadings from the developed site will depend on the types of businesses and/or manufacturers. As a preliminary rough estimate for a fully developed with 500,000 sq.ft. of industrial facilities that average about 1 worker per 250 sq.ft., the site could have 2,000 workers. Industrial sites with an estimated loading of 20 GPD/person would result in 40,000 GPD (0.04 MGD) for 2,000 workers.

In 2014, the average flow was 0.1732 MGD. If the projected loading of 0.04 MGD from the fully developed site was added to the system, the average rate would be 0.2132, which is less than the 80% design flow. However, the monthly flow for the Town varies, and in 2014, the month of April exceeded the 80% design flow rate. If 0.04 MGD were added to the system in 2014, the total flow would have also exceeded the 80% design flow rate in the months of January, May, July, and December.

Winchester Wastewater Plant	
Design Flow	0.2840 MGD
80% Design Flow	0.2272 MGD
2014 Monthly Average Inflow	
Month	Avg. MGD
January.....	0.2074
February.....	0.1393
March.....	0.1738
April	0.2455
May.....	0.1947
June	0.1601
July.....	0.2219
August.....	0.1594
September	0.1210
October	0.1291
November	0.1271
December.....	0.1993
2014 Average	0.1732

The estimate of 0.04 MGD does not include potential sewer loading from manufacturing processes, which could possibly increase the loadings further. Depending on the type of businesses that are developed on this property, the Town may need to consider expanding the capacity of the wastewater treatment plant. More precise calculations can be made once prospective manufacturers are identified.

Water

The site is serviced by a six inch diameter water line in Richmond Road. The Water Superintendent provided us with copies of fire flow tests that were conducted on hydrants at various locations throughout the town. One of the hydrant tests was conducted adjacent to the proposed industrial park site. The result of the test indicated that there would probably be sufficient water for use by employees but the flows would not provide sufficient water for any significant process water needs and it would not be sufficient water available to support a sprinkler system in a building.

It is our understanding that there is a 10 inch water line in the vicinity of the town hall. We have included in the cost portion of this study the cost for extending a 10 inch water line up Richmond Road to the proposed industrial park site. Further study and design would be needed before this solution to the water deficiency could be pursued. An alternative to replacing the existing 6 inch water line would be to construct a water storage tank at the site which could be filled on a continuous basis from the existing six inch water line on Richmond Road.

The water storage tank would need to be sized to provide sufficient volume and pressure for use by employees, process water and fire flows. Fire flows would be calculated based upon the size and type of building that would be constructed. It would not be unreasonable to anticipate constructing a 500,000 gallon tank to provide water to the industrial park. The cost per size of a water storage tank is generally thought to be approximately one dollar per gallon.

The water storage tank could be constructed on the north end of the property, which is high enough to provide sufficient gravity pressure to the buildings within the industrial park. Or alternatively, the water storage tank could be located elsewhere with a booster pump that would provide adequate pressure to the buildings within the industrial park.

If the first building (s) can be partitioned into fire rated sections less than 10,000 sq. ft. each (and does not need a fire sprinkler system) then it may be possible to construct some of the lots without a water tank. The number of the businesses (with no sprinkler systems) that can be supported without a water tank or 10 inch line extension is driven by the water usage due to the total number of employees and the manufacturing process requirements for water.

Site Grading Considerations

Groundwater Table Investigation

Test pits were dug to investigate the season high water table elevation to see if the site would need to be raised to keep stormwater detention ponds at least 4 feet above high groundwater. The test pit logs are included below and on the next three pages.

Test Pit Logs

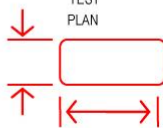
HOLDEN Engineering & Surveying, Inc.

P. O. Box 480
19 Triangle Park Drive
Concord, N.H. 03302-0249
603-225-6449

9 Constitution Drive
Bedford, N.H. 03102
603-472-2078

TEST PIT & PERCOLATION DATA

PROJECT NAME Town of Winchester JOB NO. 1520031 TESTPITNO: 1
PROJECT LOCATION Forrest Lake Rd, Winchester, NH DATE 5/27/2015
EVALUATOR Tom Dugas FIELD SHEET 1 OF 4
EXCAVATION EQUIPMENT Make John Deere Model 160 Reach 15'

HORIZON	DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK NO.				
A	0-4"	2.5y/5/6, Fine Loamy Sand, Weak Granular, Friable, Roots Common	E	2% Gravel					
B	4"-11"	10y/5/8, Loamy Sand, Granular, Friable, Roots Few	E	2% Gravel					
C	11"-39"	2.5y/5/4, Sandy, Granular, Friable, Roots Few	E	2% Gravel					
C	39"-48"	2.5y/6/3, Sand, Granular, Very Friable, Roots None	E	2% Gravel					
C	48"-120"	5y/5/6, Sand, Granular, Very Friable, Roots None	E	2% Gravel					
REMARKS:									
SH ₂ O @ <u>x</u> LEDGE ENC. @ <u>none</u> OTHER IMP. MAT. <u>none</u> GROUND H ₂ O ENC. @ <u>96"</u> DATE OF PERC TEST <u>5/27/2015</u> DEPTH OF PERC TEST <u>11"</u> PERC RATE <u>10 min/inch</u>		LEGEND: BOULDER COUNT SIZE RANGE LETTER CLASSIFICATION DESIGNATION 6"-18" A 18"-38" B 38" AND LARGER C		BOULDER QTY. CLASS TRACE (TR) 0-10% FEW (F) 10-20% COMMON (C) 20-35% MANY (M) more than 35%		TEST PLAN 		EXCAVATION EFFORT E.....EASY M.....MODERATE D.....DIFFICULT	

TEST PIT & PERCOLATION DATA

PROJECT NAME Town of Winchester JOB NO. 1520031 TESTPITNO: 2
 PROJECT LOCATION Forrest Lake Rd, Winchester, NH DATE 5/27/2015
 EVALUATOR Tom Dugas FIELD SHEET 2 OF 4
 EXCAVATION EQUIPMENT Make John Deere Model 160 Reach 15'

HORIZON	DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK NO.
A	0-2"	2.5y/7/3, Fine Loamy Sand, Weak Granular, Friable, Roots Common	E	3% Gravel	
B	2"-13"	2.5y/7/4, Sand, Granular, Friable, Roots Few	E	3% Gravel	
C	13"-22"	7.5y/5/6, Sandy, Granular, Friable, Roots Few	E	3% Gravel	
C	22"-33"	2.5y/6/4, Sand, Granular, Friable, Roots None	E	3% Gravel	
C	33"-96"	2.5y/6/3, Coarse Sand, Granular, Very Friable, Roots None	E	3% Gravel	

REMARKS:

SH ₂ O @ <u>x</u> LEDGE ENC. @ <u>none</u> OTHER IMP. MAT. <u>none</u> GROUND H ₂ O ENC. @ <u>66"</u> DATE OF PERC TEST <u>5/27/2015</u> DEPTH OF PERC TEST <u>22"</u> PERC RATE <u>10 min/inch</u>	LEGEND: BOULDER COUNT SIZE RANGE LETTER CLASSIFICATION DESIGNATION 6"-18" A 18"-38" B 38" AND LARGER C	BOULDER QTY. CLASS TRACE (TR) 0-10% FEW (F) 10-20% COMMON (C) 20-35% MANY (M) more than 35%	TEST PLAN 	EXCAVATION EFFORT E.....EASY M.....MODERATE D.....DIFFICULT
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TEST PIT & PERCOLATION DATA

PROJECT NAME Town of Winchester JOB NO. 1520031 TESTPITNO: 3
 PROJECT LOCATION Forrest Lake Rd, Winchester, NH DATE 5/27/2015
 EVALUATOR Tom Dugas FIELD SHEET 3 OF 4
 EXCAVATION EQUIPMENT Make John Deere Model 160 Reach 15'

HORIZON	DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK NO.
A	0-2"	10yr/6/4, Fine Loamy Sand, Weak Granular, Friable, Roots Common	E	5% Gravel	
B	2"-13"	2.5y/5/6, Sand, Granular, Friable, Roots Few	E	5% Gravel	
C	13"-28"	10y/4/6, Sandy, Granular, Very Friable, Roots Few	E	5% Gravel	
C	28"-36"	2.5y/6/3, Coarse Sand, Granular, Friable, Roots None	E	5% Gravel	
C	33"-156"	2.5y/6/4, Coarse Sand, Granular, Friable, Roots None	E	5% Gravel	

REMARKS:

SH ₂ O @ <u>x</u> LEDGE ENC. @ <u>none</u> OTHER IMP. MAT. <u>none</u> GROUND H ₂ O ENC. @ <u>none</u> DATE OF PERC TEST <u>5/27/2015</u> DEPTH OF PERC TEST <u>28"</u> PERC RATE <u>5 min/inch</u>	LEGEND: BOULDER COUNT SIZE RANGE LETTER CLASSIFICATION DESIGNATION 6"-18" A 18"-38" B 38" AND LARGER C	BOULDER QTY. CLASS TRACE (TR) 0-10% FEW (F) 10-20% COMMON (C) 20-35% MANY (M) more than 35%	TEST PLAN 	EXCAVATION EFFORT E.....EASY M.....MODERATE D.....DIFFICULT
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TEST PIT & PERCOLATION DATA

PROJECT NAME Town of Winchester JOB NO. 1520031 TESTPITNO: 4
 PROJECT LOCATION Forrest Lake Rd, Winchester, NH DATE 5/27/2015
 EVALUATOR Tom Dugas FIELD SHEET 4 OF 4
 EXCAVATION EQUIPMENT Make John Deere Model 160 Reach 15'

HORIZON	DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK NO.
A	0-2"	10yr/2/2, Fine Loamy Sand, Weak Granular, Friable, Roots Common	E	2% Gravel	
B	2"-8"	10y/4/6, Sand, Granular, Friable, Roots Few	E	2% Gravel	
C	8"-12"	2.5y/6/6, Sandy, Granular, Very Friable, Roots Few	E	2% Gravel	
C	12"-24"	2.5y/6/3, Sand, Granular, Very Friable, Roots None	E	2% Gravel	
C	24"-36"	2.5y/6/4, Coarse Sand, Granular, Very Friable, Roots None	E	2% Gravel	
C	36"-132"	10y/6/2, Coarse Sand, Granular, Very Friable, Roots None	E	2% Gravel	

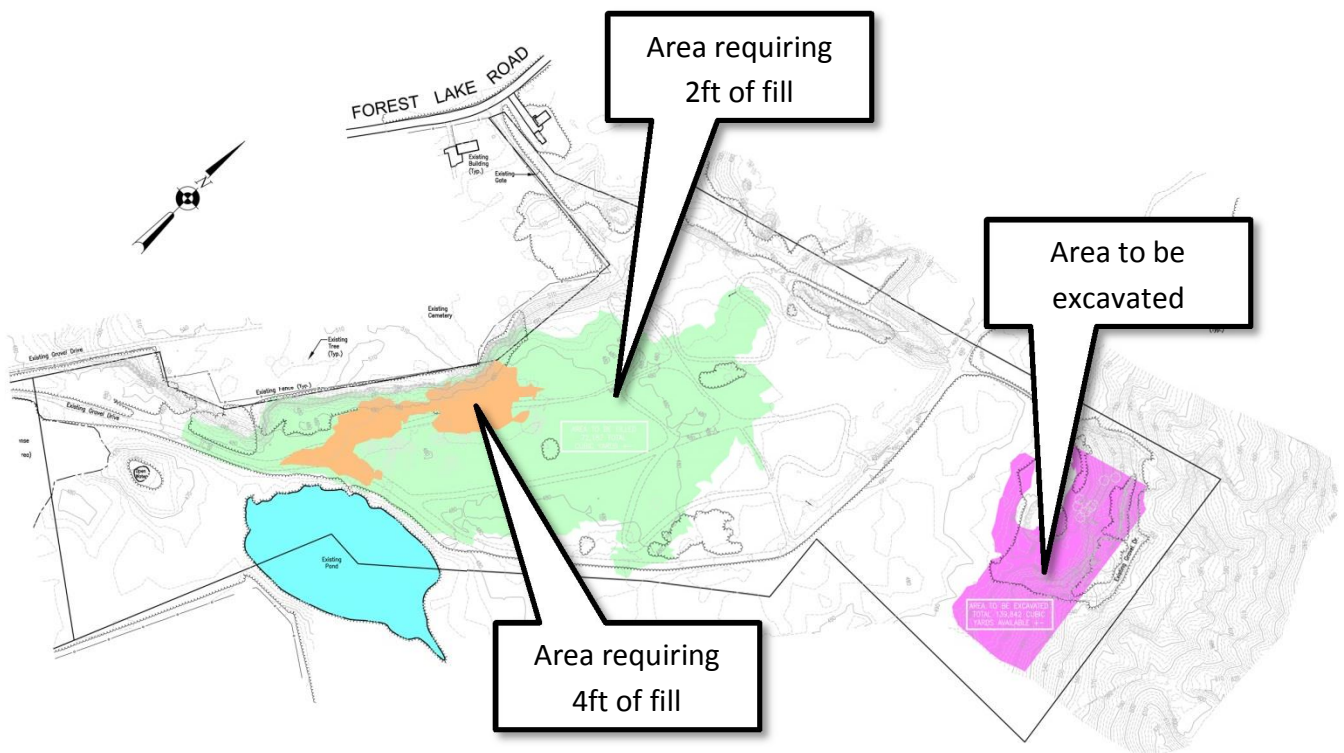
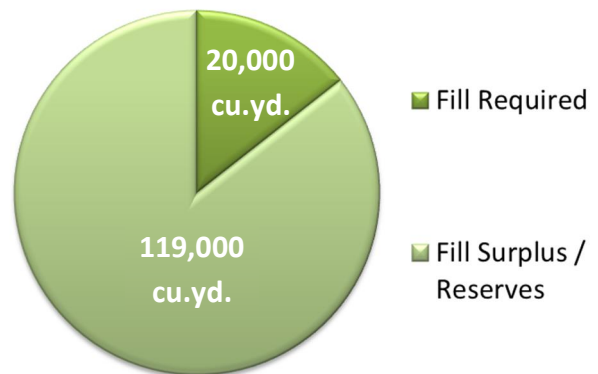
REMARKS:

SH ₂ O @ <u>x</u> LEDGE ENC. @ <u>none</u> OTHER IMP. MAT. <u>none</u> GROUND H ₂ O ENC. @ <u>none</u> DATE OF PERC TEST <u>5/27/2015</u> DEPTH OF PERC TEST <u>24"</u> PERC RATE <u>5 min/inch</u>	LEGEND: BOULDER COUNT SIZE RANGE LETTER CLASSIFICATION DESIGNATION 6"-18" A 18"-38" B 38" AND LARGER C	BOULDER QTY. CLASS TRACE (TR) 0-10% FEW (F) 10-20% COMMON (C) 20-35% MANY (M) more than 35%	TEST PLAN 	EXCAVATION EFFORT E.....EASY M.....MODERATE D.....DIFFICULT
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Site Grading Costs

This development property consists primarily of former sand and gravel pit sites with access to Lake Forest Road and Route 119 (Richmond Road) in Winchester, NH. More than 34 acres of the property is completely cleared of trees, which makes it easy to visually investigate the site while also significantly reducing the costs of clearing trees for construction.

The easterly end of the property can provide an abundant resource of more than 139,000 cu.yd. of fill for use in the remainder of the site. The test pits logs indicate that to allow for detention storage 4 feet above high water table, the center of the site will need to be raised slightly, requiring 20,000 cu.yd of fill. This fill will allow for more economic stormwater treatment and disposal. With abundance of fill in the easterly end of property, there will still be about 119,000 cu.yd. remaining in reserves.



Impacts on the Aquifer

This site is located within the Aquifer Protection District, and per the *Town of Winchester, NH - Zoning Ordinance*, prohibited uses within this Aquifer Protection District include:

- a. Disposal of solid waste other than brush or stumps.
- b. Outside, unenclosed storage of road salt.
- c. Automotive service and repair shops and car washes, unless they are operated in accordance with New Hampshire State Statutes, rules and regulations governing such uses.
- d. Junk and salvage yards.
- e. Subsurface storage of petroleum and other hazardous materials.
- f. Dumping of snow containing de-icing chemicals brought from outside the Aquifer Protection District.
- g. All on site handling, disposal of liquid or leachable non-human wastes, storage, processing or recycling of hazardous, toxic materials or wastes.
- h. Land uses that will render between 15% and 25% of the parcel covered with pavement, roofing or other material impervious to surface water will require a special exception.
- i. Industrial uses which discharge contact, type process waters or other wastes on site.
- j. On site disposal, bulk storage, processing or recycling of toxic or hazardous materials or wastes.
- k. Dry cleaning establishment.
- l. Bulk fuel storage yards.

For this site, sewer should not impact the aquifer since the business park will be connected to the municipal sewer system (IE, will not be septic). Since the site will be raised to maintain a minimum depth of 4 feet above groundwater, stormwater runoff can be treated through infiltration. Additionally, building usage can be monitored to ensure that businesses are not discharging greywater or waste water directly onto the site (IE, discharge only through the sewer system).

Adjacent Property

On the northern side of this site, an adjacent property could be potentially incorporated as part of the available footprint for the business park. The Town should do a separate study for that property to fully scope the level of effort and viability of developing it. This adjacent property's former use for gravel extraction and its overall grade elevation will make it viable for site grading and tying into the underground sewer system of the main site in this study. Development of this adjacent site should not require larger water/sewer pipes than will be required for maximum occupancy for the site in this report.

Offsite Municipal Roadway Considerations

Local Roadways and Developments

Richmond Road is posted at 30 MPH. From its intersection with Main Street to the project site is a paved two-lane roadway, approximately 22-24 feet in width, with no 1'-2' gravel shoulders. On the south side, there is a sidewalk, with a varying width grass strip to separate it from the traveled way. The sidewalk begins near Post Office, and then extends easterly to the intersection with Bilo Avenue, where it leaves Richmond Road and extends into a residential development. The residential development is located across from Evergreen Cemetery, and is served by Bilo Avenue, Toofs Drive, and Lovely Lane.

To the west along Richmond Road, is Parker Street, which serves as a throughway for the Winchester School. Within the school boundary, Parker Street is one-way travel in generally a south east direction. Parker Street becomes two-way from its intersection with Adams Court to Richmond Road, and also at a point approximately 400 feet southeast of the Swan Street/Parker Street intersection. Feeding Parker Street are Adams Court (commercial development); Swan Street and Union Street (residential development); all of which intersect with Richmond Road, and are two-way traffic.

Other Existing Development

The predominant Industrial Facility in the immediate area of the site is Plumb Pak Corporation, a plumbing supply store located at 75 Plum Pak Drive off Richmond Road.

Traffic - Existing

Existing Volumes – (ATR Counts - Historical Data)

NH Rte. 119 (Richmond Road)

Traffic Counter ID 82487075

Year AADT = 2012

AAADT = 3618

NH Rte. 10 (Main Street)

Traffic Counter ID 82487055

Year AADT = 2012

AAADT = 7425

Traffic - Proposed

The Institute of Transportation (ITE) is the resource used by engineers in estimating the number of 'Trip Ends' (total number of vehicles entering and leaving the site) that could be expected in a specific block of time. The independent variable used in this study was the Average Vehicle Trip Ends vs: 1,000 Square of Gross Floor Area. The Land Use is 'Industrial Park'.

At full buildout, **Concept 'A'** (455,000 square feet) could be expected to generate the following:

- Weekday (24 hour period) = 3,004 Trip Ends (50% enter = 1502, 50% exit = 1502)
- Weekday (Peak Hour of Adjacent Street between 7 and 9 AM = 331 Trip Ends (82% enter = 271, 18% exit = 60)
- Weekday (Peak Hour of Adjacent Street between 4 and 6 PM = 392 Trip Ends (21% enter = 82, 79% exit = 310)

At full buildout, **Concept 'B'** (515,000 square feet) could be expected to generate the following:

- Weekday (24 hour period) = 3,302 Trip Ends (50% enter = 1,651, 50% exit = 1,651)
- Weekday (Peak Hour of Adjacent Street between 7 and 9 AM = 364 Trip Ends (82% enter = 298, 18% exit = 66)
- Weekday (Peak Hour of Adjacent Street between 4 and 6 PM = 439 Trip Ends (21% enter = 92, 79% exit = 347)

Possible Roadway Improvements

The development of the buildings would likely be phased, and so the traffic impact on the local street network will be directly related to the level of development (percent completion) of the total building area of the park. The extent of the proposed development will dictate needed improvements to the local roadway system. Possible Improvements to the local streets could include the following:

- a. Richmond Road (at its intersection with Main Street – NH Rte. 10) – evaluate the intersection for capacity, turning movements/lane assignments, and traffic signal performance. Expand and/or add lanes, upgrade the signals.
- b. Richmond Road (Main Street to the Primary Site Driveway) – Assess the need to add formal paved shoulders to accommodate a higher level of truck traffic, evaluate safety offset to the sidewalk and relocate the sidewalk if needed.
- c. Richmond Road (at Swan and Union Streets) – add bypass shoulders on the north side for vehicles to get by turning school busses making lefts into these streets.
- d. Richmond Road (at the primary site driveway) - construction of an exclusive left turn lane for east-bound traffic on Richmond Road turning left into the primary site driveway. Construction of a widened shoulder for west bound traffic for right turning traffic in to the primary site driveway.

Summary of Site Development Costs

ON SITE DEVELOPMENT COSTS					
Item No.	Description	Unit	Cost	# Units	Price
203.15	COMMON EXCAVATION	CY	\$ 10.18	19,332	\$ 196,800
301.15	SUBBASE OF GRAVEL	CY	\$ 19.21	8,588	\$ 164,975
301.25	SUBBASE OF CRUSHED GRAVEL - COARSE GRADED	CY	\$ 31.87	4,294	\$ 136,850
406.25	BITUMINOUS CONCRETE PAVEMENT	TON	\$ 127.19	2,755	\$ 350,408
406.27	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT	TON	\$ 138.00	1,653	\$ 228,114
604.1	CONCRETE CATCH BASIN WITH CAST IRON GRATE	EACH	\$ 2,678.00	21	\$ 56,238
604.22	SANITARY SEWER MANHOLE	EACH	\$ 2,679.77	16	\$ 42,876
604.56	CAST IRON COVER WITH FRAME - SEWER	EACH	\$ 1,007.51	16	\$ 16,120
646.31	CROSSWALK MARKING	LF	\$ 4.07	218	\$ 887
646.4	DURABLE 4 INCH WHITE LINE	LF	\$ 1.31	40	\$ 52
651.15	SEED	LB	\$ 8.23	66	\$ 543
651.35	TOPSOIL	CY	\$ 29.26	2,321	\$ 67,912
	DETENTION POND	POND	\$ 10,000.00	6	\$ 60,000
	HDCP 18" DRAINAGE PIPE	FT	\$ 11.80	2,246	\$ 26,503
	SEWER PIPE 8" PVC	LF	\$ 13.00	3,937	\$ 51,181
	WATERLINE 10" DUCTILE PIPE	LF	\$ 48.52	5,327	\$ 258,466
	3 PHASE POWER EXTENSION	LF	\$50.00	6,200	\$ 310,000
TOTAL ONSITE					\$ 1,967,927
WATER OPTION #1 - ONSITE WATER STORAGE TANK					
Description	Unit	Cost	# Units	Price	
Water Storage Tank	GAL	\$ 1.00	500,000	\$ 500,000	
8" Ductile Iron Pipe	LF	\$ 33.47	4,318	\$ 144,523	
10" Ductile Iron Pipe	LF	\$ 48.52	724	\$ 35,128	
WATER OPTION #1 TOTAL					\$ 679,652
WATER OPTION #2 - OFFSITE WATER MAIN IMPROVEMENTS					
Description	Unit	Cost	# Units	Price	
Replace 6" main with 10" ductile iron pipe	LF	\$ 48.52	4,008	\$ 194,468	
Even after improvements, the flow will likely still not be sufficient to supply an industrial sprinkler system.					
WATER OPTION #1 TOTAL					\$ 194,468
POSSIBLE OFFSITE ROADWAY DEVELOPMENT COSTS					
Item No.	Description	Unit	Cost	# Units	Price
a.	Richmond Road at Main St. Intersection Expand and/or add lanes, upgrade signals	-	\$ 600,000	-	\$ 600,000
b.	Richmond Road (from Main St. to site driveway) Addition of paved shoulders, sidewalk relocation	-	\$ 600,000	-	\$ 600,000
c.	Richmond Road (at Swan and Union Streets) Add bypass shoulders on north side	-	\$ 200,000	-	\$ 200,000
d.	Richmond Road (at the primary site driveway) Construct left turn lane and widened shoulder for right turns	-	\$ 350,000	-	\$ 350,000
TOTAL OFFSITE					\$ 1,750,000

Summary of Site Development Costs for First Lot ONLY

ON SITE DEVELOPMENT COSTS					
Item No.	Description	Unit	Cost	# Units	Price
203.15	COMMON EXCAVATION	CY	\$ 10.18	1,000	\$ 10,180
301.15	SUBBASE OF GRAVEL	CY	\$ 19.21	1,000	\$ 19,210
301.25	SUBBASE OF CRUSHED GRAVEL - COARSE GRADED	CY	\$ 31.87	1,000	\$ 31,870
406.25	BITUMINOUS CONCRETE PAVEMENT	TON	\$ 127.19	600	\$ 76,314
406.27	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT	TON	\$ 138.00	450	\$ 62,100
604.1	CONCRETE CATCH BASIN WITH CAST IRON GRATE	EACH	\$ 2,678.00	7	\$ 18,746
604.22	SANITARY SEWER MANHOLE	EACH	\$ 2,679.77	4	\$ 10,719
604.56	CAST IRON COVER WITH FRAME - SEWER	EACH	\$ 1,007.51	4	\$ 4,030
646.31	CROSSWALK MARKING	LF	\$ 4.07	75	\$ 305
646.4	DURABLE 4 INCH WHITE LINE	LF	\$ 1.31	10	\$ 13
651.15	SEED	LB	\$ 8.23	15	\$ 123
651.35	TOPSOIL	CY	\$ 29.26	150	\$ 4,389
	DETENTION POND	POND	\$ 10,000.00	1	\$ 10,000
	HDCP 18" DRAINAGE PIPE	FT	\$ 11.80	1,200	\$ 14,160
	SEWER PIPE 8" PVC	LF	\$ 13.00	900	\$ 11,700
	WATERLINE 10" DUCTILE PIPE	LF	\$ 48.52	1,000	\$ 48,520
	3 PHASE POWER EXTENSION	LF	\$50.00	1,000	\$ 50,000
TOTAL ONSITE					\$ 372,380
WATER OPTION #1 - ONSITE WATER STORAGE TANK					
Description	Unit	Cost	# Units	Price	
Water Storage Tank	GAL	\$ 1.00	500,000	\$ 500,000	
8" Ductile Iron Pipe	LF	\$ 33.47	4,318	\$ 144,523	
10" Ductile Iron Pipe	LF	\$ 48.52	2,782	\$ 134,983	
WATER OPTION TOTAL					\$ 779,506

Overall site work will still be required to develop the first lot, including general site grading, sewer, water, and drainage. These costs are included in the table above. A water tank will also need to be installed if the business requires a fire sprinkler system. If the building can be partitioned in fire rated sections less than 10,000 sq. ft. each (and does not need a fire sprinkler system) then it may be possible to construct the first lot without a water tank.

Source of Cost Estimate Data

Estimates for the site development costs were established using a combination of the current NH Department of Transportation Weighted Unit Prices (11/7/2014) and from **HOLDEN** experience on site projects within the past few years.

Project Funding through Lot Sales

The proposed concept site plans include space for between 450,000 and 550,000 square feet of buildings on the property. Through developer incentives, the Town of Winchester can potentially develop the property incrementally using a strategic approach to minimize initial cash flow outlays. Additionally, the Town can apply for economic development grants that can potentially assist in the financing of Town infrastructure improvements required to support the property at full occupancy.

Using Lot Sales to Cover the Required On-site and Infrastructure Improvements

Estimates can be developed to set the price per lot required to cover the required improvements for servicing manufacturers on this site. Three scenarios are presented below to demonstrate how lot sales can cover the initial on-site development costs and longer term off-site infrastructure improvements for full occupancy of the property.

Scenario #1 – Developing the First Lot(s) to Attract More Buyers

The goal of this scenario is to minimize costs for the Town while establishing the main access roads and minimum utility infrastructure into the site in order to develop the first lot, which in turn will increase the visibility of available lots for other potential manufacturers. To build a facility on the first lot, the cost of the on-site development is \$372,380, if the business does not require a fire sprinkler system (IE, does not require a water storage tank). If the Town can find a buyer for 20,000 square feet of space, partitioned in fire rated sections less than 10,000 sq. ft. each, then the price per square foot for the lot would be \$18.60 per square foot. Or alternatively, if the Town can attract 2 or 3 developments totaling about 25,000 square feet (not requiring fire sprinkler systems), the price per lot would be about \$15 per square foot.

Scenario #2 – Developing 200,000 Square Feet with Water Tank

One scenario is to assume that 200,000 square feet of industrial buildings are constructed within a reasonable amount of time. The cost for the on-site improvements are \$1,907,927.00, the cost for the water storage tank is \$679,652.00 and the cost for the improvements at the entrance to the industrial park is \$350,000.00 for a total of \$2,997,579.00. Divide that amount by 200,000 square feet of buildings constructed within the park results in a per square-foot cost of \$14.98. Assume that a developer buys a lot to build a 20,000 square-foot building. At the square-foot cost of \$14.98 for on site improvements the building lot would cost \$299,600, a fairly reasonable amount to pay for an industrial building lot. If the building were 100,000 square feet the cost would be \$1,498,000 which also seems like a fairly reasonable cost to pay for an industrial building lot of that size.

Scenario #2 – Developing Maximum Occupancy (450,000+ Square Feet)

Offsite road improvement costs could almost double the square foot cost for a lot, if only 200,000 square feet of building space is developed. However, all offsite road improvements are required for the maximum occupancy of the park, which would result in more square footage for spreading the improvement costs, thereby lowering the cost of improvement back to approximately \$15 per square foot.

Project Financing

To capture potential buyers of lots, the town will need to be prepared to move forward quickly with the construction of the road and other improvements to access the lots. The town would need to have in place a subdivision plan, the utility improvement plan, the road construction plan and approvals from the appropriate town boards and state departments.

The town will also need to have in place a source of funding for the construction of these improvements. Most buyers of lots will want to simply purchase a lot on a completed road. Most buyers would be willing to construct their building simultaneously with the town constructing the road improvements. It is possible that a buyer of a large lot for a large building would be willing to work with the town to construct a portion of the roadway and other improvements in lieu of paying for a lot. The possible advantage to this scenario is that town would not secure funding for the construction of the road.

Tax Revenues / Tax Increment Financing

A special assessment district can potentially be created for which during a specified period of time, taxes are allocated specifically for on-site and/or off-site improvements to encourage businesses to build on this property. This approach enables the Town to use loans to fund improvements with a shorter term loan that is paid off directly with taxes from the property. A conservative approach would be to first secure buyer(s) and construct the on-site/off-site improvements in conjunction with the construction of the buildings. This would ensure known special assessment district tax revenues before taking out any loans for improvements.

Grants

Another source of funding is grants. The Town should apply now and be persistent as often his process is competitive and sometimes takes several months and in some cases years before being awarded the grant.

Grants and Loans for Infrastructure Improvements

In addition to coordinating the first lot sales with on-site development costs, the Town can potentially leverage low interest loans and grants for infrastructure improvements. Discussed below, are several potential opportunities for loans and grants to provide funding options for infrastructure improvements that benefit Winchester’s economic development.

Community Development Finance Authority Economic Development Block Grant		
<p>Applications for this grant are accepted on a first come, first served basis. Every \$1 dollar of grant money must be matched. Options for matching funds include debt, equity, and land donations to a Regional Development Corporation or Economic Development Entity. The maximum amount awarded to a municipality is \$500,000 per year. These funds may be used to upgrade publically owned infrastructure, but must show how these improvements will tie to the growth and job creation of a for-profit business.</p>		
Grant Type	Application Deadline	Contact
State	Applications are reviewed on the first Thursday of every month. From that point, grants take between 60 to 90 days to be awarded.	Kathrine Easterly Martey Director of Economic Development 14 Dixon Ave Concord, NH 03301 603-226-2170

New Hampshire Department of Environmental Services State Aid Grant		
<p>This grant requires the municipality to pay all costs associated with a project and then the state will reimburse that town upon completion of the project. The reimbursement amount is 20% of project costs. When considering this option, municipalities should consider that reimbursement is dependent on available funds allocated to this grant. Eligible projects include altering, improving, and adding to sewage treatment plants, pumping stations, and sewer systems.</p>		
Grant Type	Application Deadline	Contact
State	Once a project is complete, then the municipality submits the application for reimbursement.	Beth Malcolm 29 Hazen Drive Concord, NH 03302 603-271-2978

**New Hampshire Department of Environmental Services
Drinking Water Revolving Loan Fund**

These low interest loans have no amount limit for municipalities. Loan periods can range from 6 to 20 years. Projects revolve around constructing or upgrading water systems to be in compliance and protect public health.

Loan Type	Application Deadline	Contact
State	Pre-application May 15, application July 15. Awards follow 6 to 8 weeks later.	Richard Skarnika 29 Hazen Drive Concord, NH 03302 603-271-2948

**New Hampshire Department of Environmental Services
Wastewater Revolving Loan Fund**

These low interest loans have no amount limit for municipalities. Acceptable projects include upgrading sewer treatment plants, pumping stations, and sewer systems. Projects that require funds for both drinking water and wastewater may combine both into a single loan framed to serve both needs.

Loan Type	Application Deadline	Contact
State	June 30 th . Awards follow 6 to 8 weeks later.	Daniel Fenno 29 Hazen Drive Concord, NH 03302 603-271-3448

**U.S. Economic Development Administration
Investments for Public Works and Economic Development Project Grants**

These grants typically contribute 50 percent of the cost of a project up to \$1,000,000 and in some cases, based on needs of the community will contribute an additional amount of up to 30 percent. Projects funded by these grants include upgrades to water and sewer systems, industrial access roads, and business parks. This grant needs to be tied to a business that requires these improvements to allow for job creation. These project grants are challenging to get as there is a great deal of competition. New Hampshire potentials applying for these grants are competing with other districts within the state as well as 15 other states.

Grant Type	Application Deadline	Contact
Federal	For FY 2015 application dates were March 12 and June 12. FY 2016 dates have not been published yet.	Alan Bringham 34 Timberhill Road Windham, ME 04062 215-316-2965

**United States Department of Agriculture
Rural Business Development Grants**

These competitive grants are available to towns with populations less than 50,000 people. There is no cost sharing aspect nor is there a maximum grant amount, however most grants range from \$10,000 to \$500,000 with smaller grants receiving higher priority. The funds may be used towards street and road improvements, parking, utilities, and long-term business strategic planning. Projects funded by this grant must be used to benefit small and emerging not-for-profit businesses.

Grant Type	Application Deadline	Contact
Federal	None.	Susan Poland Business Programs Specialist State street suite 324 PO Box 249 Montpelier, VT 05601 802-828-6002

Additional Grant Resources

The New Hampshire Division of Economic Development

Contact:

Carmen Lorentz-Division of Economic Development Director
172 Pembroke Road
Concord, NH 03301
603-271-2341

As some of the preceding grants require a relationship with a business, this contact can be a valuable partner in understanding what is available to attract a new business or one from out of state. To attract prospective businesses, this organization offers business assistance programs, job training grants, and financial incentives. A presentation to go over the offerings of the New Hampshire Division of Economic Development is also available upon request.

www.grants.gov

This web site can give the user immediate access to currently available grants, filtered by different categories. This tool can provide another resource tool for finding the latest grants potentially available to the Town of Winchester.

The screenshot shows the search results page on www.grants.gov. The browser address bar displays 'www.grants.gov/web/grants/search-grants.html'. The page includes a search bar, filters for opportunity status, funding instrument type, eligibility, and category, and a table of search results.

Funding Opportunity Number	Opportunity Title	Agency	Posted Date	Close Date
USDA-RD-HCFP-RCDI-2015	Rural Community Development Initiative	Utilities Programs	05/26/2015	08/13/2015
RFA-FD-15-001	Clinical Studies of Safety and Effectiveness of Orphan Products Research Project Grant (R01)	Food & Drug Administration	12/09/2014	10/18/2018
PAR-14-237	FDA Scientific Conference Grant Program (R13/U13)	Food & Drug Administration	06/10/2014	06/16/2017
PAR-13-232	Advancing Medical Device Postmarket Surveillance Infrastructure and Epidemiologic Methodologies through Multi-stakeholder Partnership (U01)	Food & Drug Administration	05/22/2013	04/30/2017

Conclusions

1. Location is strategic
 - a. Ample employee base
 - b. Proximity to I-91 and major airports
 - c. Access to regional high-density population areas
2. Flexible space for developing custom building footprints
3. Taxes are reasonable
4. Well drained site
5. Site can be developed without adverse effects to aquifer
6. Onsite fill material available for site development
7. Possible municipal roadway improvements may be needed to accommodate larger traffic volumes
8. Major traffic issues only near full build out
9. 3 Phase power is available
10. High-speed Internet is available
11. Gravity sewer is available (no sewer pump station required), but wastewater treatment plant capacity may need to be increased depending on the types of manufacturers
12. Municipal water is available for site and is adequate for smaller facilities but will likely require an onsite water storage tank or off-site water main capacity improvements to accommodate large buildings requiring fire sprinkler systems

Appendix A – Letter from Winchester Sewer & Water Department

**Town of Winchester
Sewer Department
Water Department
1 Richmond Road
Winchester, NH 03470**

Town of Winchester
Town Hall
1 Richmond Road
Winchester, NH 03470
Facility Phone: (603) 239-4132
Facility Fax: (603) 239-6346

Board of Selectmen
Roberta Faser-Chairmen
1 Richmond Road
Winchester, N.H. 03470

September 10, 2015

Re: Stone Mountain Business Park

Dear Roberta:

I have reviewed the feasibility study performed by Holden Engineering concerning the town of Winchester's Water and Sewer availability to this site and future upgrades on site and off. The report data is found to be accurate, but I would like to make a few comments to the Board of Selectmen concerning water and sewer infrastructure near this site.

The Town of Winchester already has received recommendations from Tata and Howard for water upgrades to the water main on Richmond road and a new water storage tank. The feasibility report closely resembles the report the town received from T&H in 2012. Our recommendations suggest the water main on Richmond Road should be up graded to a 12 inch water main from just above the School exit (where the 10 inch water main stops) on Richmond Road to the Pump Road entrance. The town has Well #3 located on pump road and is restricted by the 6 inch water main on Richmond road as is Plumb pack and their fire protection abilities. I find the Stone Mountain Business Park a sound site for a water storage tank and am confident this would also improve Plump Packs fire protection and the town's water distribution system on Richmond road.

The 8 inch gravity sewer on Richmond road has two pump stations pumping into it, Pump road pump station and Bilo Pump station. The report stated there was one. The report states depending on potential sewer loading from manufacturing process more precise calculations need to be determined for actual impact on the wastewater treatment facility. My belief is DES would require more precise calculations to determine the available capacity of the existing 8 inch gravity sewer main on Richmond Road before considering a permit for a sewer main extension for the Stone mountain Business Park, the impact on the wastewater treatment facility can be preformed when considering potential manufacturing process for the Stone mountain Business Park once they have been identified.

Sincerely

Richard Meleski

HOLDEN

Engineering & Surveying, Inc.

P.O. Box 480

Concord, NH 03302

(603) 472-2078

hes@holdenengineering.com